City Council Meeting Agenda

Our Vision: A well-planned lakeside community of quality neighborhoods, distinctive amenities, diverse employment, and cultural charm. Rowlett: THE place to live, work and play.

Tuesday, April 21, 2026 **7:00 PM** **Municipal Building – 4000 Main**

Pursuant to Texas Government Code Section 551.127, on a regular, non-emergency basis, members may attend and participate in the meeting remotely by video conference. Should that occur, a quorum of the members, including the presiding officer, will be physically present at the location noted above on this Agenda.

As authorized by Section 551.071 of the Texas Government Code, this meeting may be convened into closed Executive Session for the purpose of seeking confidential legal advice from the City Attorney on any agenda item herein.

The City of Rowlett reserves the right to reconvene, recess or realign the Regular Session or called Executive Session or order of business at any time prior to adjournment.

Process for Public Input: If you are not able to attend in person, you may complete the Public Input Form on the City's website by 3:30 p.m. the day of the meeting. All forms will be forwarded to the City Council prior to the start of the meeting.

For in-person comments, request to speak forms/instructions are available inside the door of the City Council Chambers.

Invocation

Pledges of Allegiance

1. Call to Order

2. Presentations

2.A. Presentation of a proclamation recognizing April 22, 2026, as Administrative Professionals Day.

2.B. Presentation of a proclamation recognizing March through May 2026 as North Texas Community Cleanup Challenge Months.

2.C. Presentation of a proclamation recognizing the month of April as National Safe Digging Month.

2.D. Update from the City Council and Management: Financial Position, Major Projects, Operational Issues, Upcoming Dates of Interest and Items of Community Interest.

3. Citizens' Input

At this time, comments will be taken from the audience on any topic. No action can be taken by the Council during Citizens' Input.

4. Consent Agenda

The following may be acted upon in one motion. A City Councilmember or a citizen may request items be removed from the Consent Agenda for individual consideration.

4.A. Consider action approving the minutes.

Consider action to approve minutes from the following City Council meeting(s): April 6, 2026, City Council Work Session, and April 7, 2026, City Council Meeting.

4.B. Consider action awarding the FY2026 Cultural Arts Grants and Gary Alexander Arts in Education Grants.

Consider action to adopt a resolution awarding the FY2026 Cultural Arts Grants and Gary Alexander Arts in Education Grants based on a recommendation from the Arts and Humanities Commission.

4.C. Consider action declaring twenty (20) used bicycles as surplus property.

Consider action to adopt a resolution declaring twenty (20) used bicycles as surplus property to be donated to GISD.

4.D. Consider action declaring three (3) used police bicycles as surplus property.

Consider action to adopt a resolution declaring three (3) used police bicycles as surplus property so they can be donated to the City of Sachse (Sachse Police Department).

4.E. Consider action awarding a contract for SH 66 East Sewer Rehabilitation Project Phase 2.

Consider action to adopt a resolution authorizing the award of a contract for Bid No. 2026-32-B, SH 66 East Sewer Rehabilitation Project Phase 2 (advertised as SH 66 East Sewer Rehabilitation Project 2): 18"/15" Sanitary Sewer Line Rehabilitation, to Muniz Construction, Inc., for an amount not to exceed $4,452,624 ($4,047,840 plus a ten percent (10%) contingency of $404,784); authorizing the Mayor or his designee to execute the contract and all necessary and related documents; and providing an effective date.

5. Individual Consideration

5.A. Consider the adoption of a resolution accepting and approving a preliminary service and assessment plan and preliminary assessment rolls for The Trails at Cottonwood Creek Public Improvement District, calling a public hearing on the levy of special assessments against property in Neighborhood Improvement Areas #2-3, approving a Second Amendment to Development Agreement and approving all other matters related thereto.

Members of the City Council may request topics to be placed on an agenda for a subsequent meeting. Any deliberation or decision shall be limited to a proposal to place topic on the agenda for a subsequent meeting.

6. Adjournment

Deborah Sorensen

Deborah Sorensen, TRMC, MMC, City Secretary

I certify that the above notice of meeting was posted on the bulletin boards located inside and outside the doors of the Municipal Center, 4000 Main Street, Rowlett, Texas, as well as on the City's website on April 15, 2026, by 5:30 p.m.

City of Rowlett City Council meetings are available to all persons regardless of disability. If you require special assistance, contact the City Secretary at 972-412-6109 or write 4000 Main St., Rowlett, Texas, 75088, at least 48 hours in advance of meeting.

City of Rowlett
City Council Agenda Item

Meeting Date: 4/21/2026 **Agenda Item:** 2.A.

Title
Presentation of a proclamation recognizing April 22, 2026, as Administrative Professionals Day.

Staff Representative
Jeff Winget, Mayor

Executive Summary
The City has prioritized promoting operational excellence by developing a high-performing organization that delivers exemplary service through a well-trained and responsive workforce. Recognizing administrative professionals for their contribution to improving organizational capacity and effectiveness helps achieve that goal. The purpose of this item is to present aa proclamation recognizing Administrative Professionals Day.

Strategic Priority and Goal(s)

Strategic Priority	Strategic Goal
GOVERN TRANSPARENTLY & INCLUSIVELY	1.6 Actively educate, engage, and communicate with the community through a variety of channels.

Background Information
Since 1952, the International Association of Administrative Professionals (IAAP) has honored office workers by sponsoring Administrative Professionals Day. Today, it is one of the largest workplace observances outside of employee birthdays and major holidays. In the year 2000, IAAP announced a name change for Professional Secretaries Week and Professional Secretaries Day. The names were changed to Administrative Professionals Week and Administrative Professionals Day to keep pace with changing job titles and expanding responsibilities of today’s administrative workforce.

Discussion
Each year, administrative professionals are recognized for their skills and loyalty, attributes almost every office depends upon. Administrative Professionals Day celebrates and sheds light on administrative professionals' devoted and valued work. Over the years, Administrative Professionals Day has become one of the largest workplace observances. The event is celebrated worldwide, bringing together millions of people for community events, educational seminars and individual corporate activities

recognizing support staff. There are more than 18 million administrative and office support professionals working in the United States and millions more work in offices all over the world.

Financial/Budget Implications
N/A

Recommended Action
N/A

Attachments
1. Proclamation - Administrative Professionals Day

Rowlett
TEXAS

Proclamation

Whereas, Administrative Professionals Day began in 1952 to recognize the important workplace role of administrative professionals who make offices work; and

Whereas, over the six decades since the start of Administrative Professionals Day, the job has changed dramatically thanks to new technology, techniques, shifts in the economy, and culture itself; and

Whereas, there are more than 18 million people working in various administrative support roles in the United States today and millions more work in offices all over the world; and

Whereas, admins have remained the steady center of efficiency through it all, helping ensure that jobs get done right, on time and under budget, ensuring the successes of their supervisors; and

Whereas, Administrative Professional Day, observed annually on the last Wednesday of April, provides an opportunity to recognize the significant contributions of these professionals and show appreciation for their hard work, dedication, and commitment; and

Whereas, the City of Rowlett recognizes the importance of promoting a positive and supportive work environment, where the contributions of administrative professionals are celebrated and valued.

NOW, THEREFORE, I, Jeff Winget, Mayor, of the City of Rowlett and on behalf of the City Council, do hereby proclaim **Wednesday, April 22, 2026,** as **Administrative Professional Day** in the City of Rowlett, Texas, and encourage all citizens and employers to recognize the positive contribution and valuable work completed each day by these exceptional employees.

In official recognition thereof, I hereby affix my signature this 21st day of April 2025.

Jeff Winget, Mayor, City of Rowlett

City of Rowlett
City Council Agenda Item

Meeting Date: 4/21/2026 **Agenda Item:** 2.B.

Title
Presentation of a proclamation recognizing March through May 2026 as North Texas Community Cleanup Challenge Months.

Staff Representative
Jeff Winget, Mayor

Executive Summary
The North Texas Community Cleanup Challenge encourages residents, businesses, community groups and service organizations in the North Central Texas region to participate in fighting the problem of litter through participation in a regional cleanup challenge to be held during the months of March through May.

Strategic Priority and Goal(s)

Strategic Priority	Strategic Goal
GOVERN TRANSPARENTLY & INCLUSIVELY	1.6 Actively educate, engage, and communicate with the community through a variety of channels.

Background Information
The Greatest American Cleanup is here!

It's time for the Greatest American Cleanup/Texas Trash-Off and FIFA World Cup Mayor's Challenge! Grab your friends and spend a couple of hours in the fresh air on Saturday, May 16th, (9am to 11 am) to give our beautiful City and lakeshore a good spring cleaning!

Discussion



Financial/Budget Implications
N/A

Recommended Action

N/A

Attachments

1. Proclamation - North Texas Community Clean Up Challenge Months 2026

Rowlett
TEXAS

Proclamation

WHEREAS, the EPA has identified that approximately 80% of litter found in the marine environment as originating from land-based sources, and

WHEREAS, litter is a problem affecting the beauty and health of communities throughout the state of Texas, impacting our environment by polluting our land and waterbodies, and

WHEREAS, the streams, rivers, and lakes in North Central Texas are used for recreation and as our drinking water sources, and

WHEREAS, trash and litter that finds its way into waterways poses a threat to wildlife, the health of local waterbodies, our community, residents, and visitors, and

WHEREAS, the cleanup of litter and illegal dumping is a costly expense to local governments as a 2016 study of nine Texas communities representing approximately 25 percent of the state population revealed a price tag of approximately $50 million spent annually in these communities to address litter and illegal dumping, and

WHEREAS, the North Texas Community Cleanup Challenge encourages residents, businesses, community groups and service organizations in the North Central Texas region to participate in fighting the problem of litter through participation in a regional cleanup challenge to be held during the months of March through May, and

WHEREAS, Rowlett declares its support of the North Texas Community Cleanup Challenge regional initiatives and will encourage its residents, businesses, community groups, and service organizations to participate and will promote the North Texas Community Cleanup Challenge campaign to improve participation in litter cleanup activities, which directly keeps our local communities and drinking water sources clean and healthy.

NOW, THEREFORE, I, Jeff Winget, Mayor of the City of Rowlett, and on behalf of the City Council, do hereby proclaim **March through May 2026** as

North Texas Community Cleanup Challenge Months

in the City of Rowlett, Texas and encourage all residents, businesses, community groups, and service organizations to participate by engaging in litter cleanup events and activities during these months.

In official recognition thereof, I hereby affix my signature this 21st day of April 2026.

Jeff Winget, Mayor, City of Rowlett

City of Rowlett
City Council Agenda Item

Meeting Date: 4/21/2026 **Agenda Item:** 2.C.

Title
Presentation of a proclamation recognizing the month of April as National Safe Digging Month.

Staff Representative
Jeff Winget, Mayor

Executive Summary
The attached proclamation recognizes April 2026 as **National Safe Digging Month** in the City of Rowlett. This annual observance promotes public awareness of safe digging practices and encourages residents, contractors, and businesses to call 811 prior to any excavation activity to prevent damage to underground utilities.

Strategic Priority and Goal(s)

Background Information

National Safe Digging Month is observed each April to emphasize the importance of contacting 811 before beginning any digging project. Calling 811 connects individuals to a local notification center, which alerts utility providers to mark the approximate locations of underground lines.

Failure to call 811 before digging can result in damage to critical infrastructure, including gas, electric, water, and telecommunications lines. Such incidents may lead to service disruptions, costly repairs, environmental damage, and serious injury.

Residents are also encouraged to plan ahead, confirm that utility lines have been marked, and avoid digging near marked areas.

Discussion
N/A

Financial/Budget Implications
N/A

Recommended Action
N/A

Attachments

1. National Safe Digging Month 2026

Rowlett
TEXAS

Proclamation

WHEREAS, National Safe Digging Month is observed in April to remind homeowners, contractors, and any professional excavator to keep communities safe by calling 811 before any digging project. Digging without knowing the approximate location of underground utilities can result in disruptions to critical services, serious injuries, and costly repairs to underground utility lines. It is simple and easy to make a free request online or over the phone before digging to help communities maintain essential utility services, promote safety, and reduce the likelihood of accidentally digging into buried utility lines; and

WHEREAS, the 'Call 811' service is free, safe, and required by law; and

WHEREAS, as part of National Safe Digging Month, Atmos Energy asks everyone to become a safety ambassador by taking the Atmos Energy Call 811 Pledge at atmosenergy.com/call811pledge; and

WHEREAS, homeowners are further encouraged to take a few precautionary measures when planning any digging project this spring. If work is scheduled for an upcoming weekend, make a free 811 request on Monday or Tuesday – providing ample time for the approximate location of lines to be marked; Confirm that all lines have been marked; Consider moving the location of your project if it is near utility line markings; If a contractor has been hired, confirm that the contractor has contacted 811. Don't allow work to begin if the lines are not marked; Please visit 811beforeyoudig.com for complete information; and

WHEREAS, with an increasing number of public infrastructure projects and expanding economic development, pipeline damage resulting from excavation remains the most common cause of outside natural gas leaks; and

WHEREAS, everyone who contacts 811 a few days before digging is connected to a local notification center that will take the caller's information and communicate it to local utility companies. Professional locators will then visit the dig site to mark the approximate location of underground utility lines with spray paint, flags, or both; and

WHEREAS, all parties agree that safe digging is a shared responsibility – Call 811 before you dig.

NOW, THEREFORE, I, Jeff Winget, Mayor of the City of Rowlett, and on behalf of the City Council, do hereby proclaim the month of **April** as **National Safe Digging Month** in the City of Rowlett, Texas and encourage all citizens to call 811 before you dig.

In official recognition thereof, I hereby affix my signature this 21st day of April 2026.

Jeff Winget, Mayor, City of Rowlett

City of Rowlett
City Council Agenda Item

Meeting Date: 4/21/2026 **Agenda Item:** 4.A.

Title
Consider action approving the minutes.

Consider action to approve minutes from the following City Council meeting(s): April 6, 2026, City Council Work Session, and April 7, 2026, City Council Meeting.

Staff Representative
Deborah Sorensen, City Secretary

Executive Summary
Section 551.021 of the Government Code provides as follows:

(a) A governmental body shall prepare and keep minutes or make a tape recording of each open meeting of the body.

(b) The minutes must:
(1) state the subject of each deliberation; and
(2) indicate each vote, order, decisions or other action taken.

Strategic Priority and Goal(s)

Strategic Priority	Strategic Goal
GOVERN TRANSPARENTLY & INCLUSIVELY	1.8 Provide accurate and timely information to policy-makers and the public.

Background Information
N/A

Discussion
In compliance with State Law and to provide access to citizens of the business conducted by the City, minutes are generated for each public meeting of the City Council. Once approved, these minutes are then published to the website, the City's electronic document storage system and kept on permanent file in the Office of the City Secretary.

Financial/Budget Implications
N/A

Recommended Action

Move to approve minutes from the following City Council meeting(s): April 6, 2026, City Council Work Session, and April 7, 2026, City Council Meeting.

Attachments

1. 04.06.26 City Council WS Minutes
2. 04.07.26 City Council Meeting Minutes

CITY COUNCIL
WORK SESSION MINUTES

Our Vision: A well-planned lakeside community of quality neighborhoods, distinctive amenities, diverse employment, and cultural charm. Rowlett: THE place to live, work and play.

Monday, April 6, 2026 **6:00 P.M.** **Municipal Building – 4000 Main**

Present: Mayor Jeff Winget, Mayor Pro Tem Michael Schupp, Deputy Mayor Pro Tem Britton, Councilmember Jonathan Reaves, Councilmember Marvin Gibbs, Councilmember Elise Bowers, and Councilmember John Bowers III

1. CALL TO ORDER

Mayor Winget called the meeting to order at 6:00 p.m.

2. CITIZENS INPUT

1. Mark Taschek, Rowlett – Gave timeline of proposed changes to the City's lighting ordinance. Six to nine months later, no movement has been made. There are several safety railings missing along the Cobblestone bridge on Heritage Parkway. The sidewalks have a six-to eight-inch drop-off.
2. Dave Holl, Rowlett – Was told that the City would improve Paddle Point Park. To date, nothing has happened. Now the City has capital projects that are out of control and incomplete projects. This is an internal control failure. North Central Texas Council of Government (NCTCOG) has offered a parks evaluation system, which involves residents, staff, and the Parks Advisory Board. They will make recommendations to City Council for the Parks Capital Budget. This is a better system than what we have today. The presentation of the list of incomplete Capital Projects is the best that he has seen in two decades.

3. WORK SESSION

3A. Update regarding the Rowlett Community Centre Facility Condition Assessment Report.

Ryan Mullins, Director of Parks & Recreation, presented this item. The Rowlett Community Centre (RCC) opened in 1996 with 33,880 sq. ft. It expanded in 2005 by adding 16,120 sq. ft., making it a total of 50,000 sq. ft. There have been over 86,000 annual pass swipes and 150,000 annual visits. The issues and concerns of the Rowlett Community Centre are foundation, basketball courts flooring, water penetration of the building, HVAC insufficiency, walls, lighting systems, doors, PA system, AV system, security cameras, and alarm system. Overall, the Facility Condition Index (FCI) of the building is good at 95%. The overall Building Condition Index (BCI) is fair at 38% and the original building is poor at 33%. The total deferred maintenance is $345,413. This consists of $138,274 for HVAC Controls (to have central control), $69,650 for roof, $46,737 for Site Development, $18,885 for exterior walls, $13,827 for flooring construction, $6,568 for pedestrian paving, and $2,212 for electrical wiring. The 10-Year needs forecast 2025-2034 is $5,043,820 for maintenance, repairs, and replacement over the next 10 years of operation. This consists of $837,194 for preventative maintenance ($73,029 per year, with 3% inflation per year), $3,864,213

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for replacement of components that are forecasted to reach the end of their useful service life, and $345,413 for current deferred maintenance items.

The RCC needs beyond the Facility Condition Assessment report are hardwood flooring, basketball backboards, scoreboard/gym pads, drinking fountains, restrooms/lockers, PA System, security cameras, audio/visual upgrades, doors, weight room equipment, generator, and dedicated cardio space. Public Works provided a report in February 2026 regarding the retaining wall. Top cap failed to keep out water. Bricked ties corroded causing outside veneer to fail and fall off. No “as-builts” exist, unknown composition of the wall. Remedial pier and pilaster must be placed at the end of outer wall section to prevent additional lateral rotation of wall. This was based on the July 2023 engineering report. The available funding consists of $1,250,000 from the 2024 Bond Funding for RCC and $335,400 from the 2025 Certificate of Obligation, totaling $1,585,400.

Deputy Mayor Pro Tem Britton asked about the shortfall. Mr. Mullins stated the next 10 years, it is $5,043,820 and the current year is $1,585,400. Mayor Pro Tem Schupp asked if the wall that the façade fell off the wall, is it functional or is that going to be a complete rebuilt? The engineering report stated that a remedial pier would need to be installed, is almost 3 years ago. It probably needs another look at. They are still trying to save the wall. Councilmember Gibbs asked if the façade had been removed. Mr. Mullins confirmed that it had been due to it falling off the wall onto the ground. Councilmember Gibbs asked if the left side was in danger. The left side is gone. Councilmember Reaves asked of the 150,000 visits to RCC last year what was the revenue. The total revenue for the RCC is in the $510,000 range, that includes programming and everything else. Councilmember Reaves asked about the number of Rowlett residents versus non-Rowlett residents that use the facility. Mr. Mullins stated that the membership is tracked but he did not have the number right now but would get back with the number. When you are a member of the facility, you are listed as a resident or non-resident and there’s a different price. Councilmember Gibbs stated he would like to see the difference between residents and non-residents at the RCC. Councilmember E. Bowers asked if the RCC was still self-funded 70% with 30% of the General Fund going in. Mr. Bauer stated that he has not been part of those conversations about what the revenue and cost recovery targets are. There is certainly a number of different areas, for example, Wet Zone and others are where gaining that kind of policy direction from the Council would be important. Councilmember Gibbs confirmed that the $510,000 estimate of revenues includes rentals as well. Mr. Mullins stated that the rental facility is very popular. Mr. Bauer stated that with the $1.5 million that we have available of funding, he would like Council to give a priority list about how the money will be spent.

Councilmember Gibbs confirmed that the city has a facilities and maintenance division and asked if it is underfunded. Mr. Bauer stated that it is worth looking at. A lot of focus has been on day-to-day janitorial rather than deep maintenance. Councilmember Gibbs stated that the quick overview makes him think that we neglected a lot of stuff. It could have been stopped by showing a little maintenance. We need to make sure that we keep our facilities looking well so that we can expand the life of our facilities. We need to look at our facilities and maintenance and ensure that we have proper funding and the right amount of people. Mayor Winget asked if there has been an assessment of the facility done in the past. Mr. Bauer stated he did not know. Mayor Winget stated that’s the why behind what’s happening. There are no assessments being done on the capital assets that we have. We need to inspect and go through an assessment process and know on a 10-year cycle what sort of capital needs we have and what sort of maintenance needs we have. We can budget for that; this comes at the perfect time with budget coming up. For instance, we now know that for the RCC we need to budget $79,029 per year, in operational maintenance needs.

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We need to look at a capital replacement cycle of $3.8 million over the next 10 years and how we fund it. Mr. Bauer stated we can put that together. If you set this cost recovery plan, that can also lead to this sort of shortfall over time. If you want to recover 70% of your revenue, but don't want to charge seniors, sometimes that math doesn't work. You end up cutting your maintenance in order to make that math work. If you look at what your recovery policy is, you have to understand whether you are willing to charge the rates to meet that policy. Mayor Winget added this is a different conversation. This issue we have is our community center, which is one of our most used assets, is failing at the seams and is over capacity many times. It is over utilized and there's too many people in the building at any given time. The factor of the fact is that we have a big community and a small space. Deputy Mayor Pro Tem Britton added we should have recurring assessments of our facilities.

Mayor Pro Tem Schupp stated that this has been systematic for a long time. He went through the list of Wet Zone, Kids Kingdom, the Nature Trail, and the RCC. They were all neglected and we have spent 3 years trying to patch things back together. Councilmember Reaves agreed, if we have an assessment that's regular, then you know how much to budget. It is also easier to defend a rate change to a user. Councilmember E. Bowers feels that it is important to somehow establish these schedules. We need to have our comprehensive plan, a major thoroughfare plan, there are strategic things that need to happen on a regular recurring basis. Somehow the City Manager's Office maybe can create a master calendar that states exactly these things, so we know if it's coming up. Mayor Winget stated that with the capital infrastructure projects, we have those scheduled out over the next ten years. Repairs that need to be made, underground infrastructure that needs to be replaced. The city should have the same asset management, with every department consistent. There is a desire from City Council to have some type of asset management cyclical inspections of our facilities. The total funding of the RCC, $1,585,000, the critical items need to be brought to City Council quickly for approval. The retaining wall is a question mark since we do not have an updated engineering report. That needs to be done. We have the funds in place to solve the critical and potentially critical, including the duct work. There needs to be a prioritized list of what the department feels is the most valuable, i.e. we use this a lot, or this will bring us more revenue. Councilmember E. Bowers asked about the wood flooring. She feels that it is critical. Mr. Bauer asked for feedback regarding the generator item. Mayor Winget's opinion is that the city has a portable trailer mounted generator that can be connected. Mr. Bauer stated there is, but we must bring in an electrician each time to do specialized wiring, to prevent shorting out a number of systems which have happened before. When it is wired in, it only covers critical areas. Councilmember Reaved asked about when the RCC was turned into the warming center and how many people actually used the warming center this past January. There was only one person. There was a consensus that the generator is low on the priority list. Staff will bring back a priority list to be approved by City Council.

3B. Update regarding the Capital Improvement Program (CIP) Projects and Possible Funding Alternatives.

Munal Mauladad, Interim Assistant City Manager, and Gary Enna, Interim Director of Public Works, presented this item. The CIP consists of 66 streets, water, wastewater, parks, and special projects collectively. There are 6 active projects, 9 projects have been identified as priority, which face a funding shortfall and are currently in design/bid ready/construction ready. 51 CIP project synopsis is reflected in Attachment A of the council packet.

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The prioritized projects of streets are Miller Road, Country Aire Estates Phase 2, Toler Business Park Phases 1 & 2, Right Turn Lanes 4 & 5 at Hwy 66 & Rowlett Road (South Bound) and Hwy 66 & Kenwood (West Bound), Chiesa Road (South), and Merritt Road Interconnector Phase 2. The Wastewater prioritized projects are Toler Bay 1 Lift Station, Hwy 66 East Sanitary Sewer Phase 2, and Hwy 66 West Force main. The CIP funding sources consist of General Obligation Bonds (GO Bonds), Revenue Bonds and Utility Funds, and Impact Fees.

Miller Road is an emergency project that is currently unfunded. It consists of reconstruction of 4,000 linear feet, 2-lane asphalt road to concrete. The Survey and Geotech was completed in March. The design completion is Quarter 2 of 2026 (Mid-April), start of construction is Quarter 2 of 2026, target completion Quarter 3 of 2026 (mid-August), with project costs of $2,775,480 and a funding shortfall of $2,775,480. Country Aire Estates Phase 2 consists of 2,090 linear feet of street reconstruction. The design was completed in Quarter 3 of 2025. The utilities work completed Quarter 4 of 2025. The ROW acquisition was completed in Quarter 1 of 2026. The construction is to start Quarter 2 of 2026. Target completion is Quarter 2 of 2027. The project cost is $4,026,684, with available funding $2,520,000, leaving a shortfall of $1,506,684, which could come from Streets funding of $354,684 and Water and Sewer funding of $1,152,000. The Toler Business Park, Phase 1 consists of 1,500 linear feet of street reconstruction. 100% of design plans were completed in Quarter 3 of 2023. Utilities work completed, with ROW acquisition completed in Quarter 1 of 2026. Construction to start Quarter 2 of 2026, The target completion date of Quarter 4 of 2027. The project cost $3,846,755, with available funding of $3,048,147, leaving a shortfall of $795,608. Toler Business Park, Phase 2 consists of 1,280 linear feet of street reconstruction. 100% design plans were completed Quarter 3 of 2023. Utilities work completed, with ROW acquisition completed in Quarter 1 of 2026. Construction is scheduled to start in Quarter 2 of 2026, with the target completion date of Quarter 4 of 2027. The project cost is $3,620,000, with available funding of $2,530,000, leaving a shortfall of $1,090,000, which could come from Streets funding of $320,000 and Water and Sewer funding of $770,000. The Right Turn Lanes 4 & 5 on Hwy 66's design plans were completed in Quarter 2 of 2022. The ROW acquisition was completed in Quarter 3 of 2023, and utilities relocation was completed in Quarter 3 of 2024. Revisions per Federal requirements were made in Quarter 3 of 2024. The design completion is scheduled for Quarter 4 of 2026. Construction start is scheduled for Quarter 1 of 2027 with completion in Quarter 4 of 2028. The project cost is $2,014,199, with available funding of $614,199, leaving a shortfall of $1,400,000. The Chiesa Road Reconstruction – South consists of road widening from 2 lanes asphalt to 4 lanes divided concrete road from Miller to Dalrock. The final alignment was added in Quarter 2 of 2022. The ROW acquisition to be completed in Quarter 3 of 2026. Bid solicitation will take place in Quarter 1 of 2027, with construction to start in Quarter 1 of 2027 and completed in Quarter 4 of 2028. The project cost is $26,755,025, with available funding of $15,291,160, leaving a shortfall of $11,463,865, which could come from Streets funding of $7,563,865 and Water and Sewer funding of $3,900,000. Merritt Road Interconnector, Phase 2 consists of 4 lanes divided from PGBT to Liberty Grove/Chiesa. 90% of design plans in Quarter 2 of 2026. TxDOT preliminary bridge layout review scheduled for Quarter 2 of 2026. ROW acquisition is scheduled for Quarter 3 of 2026, with Environmental clearance scheduled for Quarter 4 of 2026. Construction to start in Quarter 3 of 2028, with a target completion in Quarter 2 of 2030. The project cost is $29,412,958, with available funding of $22,789,000, leaving a shortfall of $6,623,958, which could come from Streets funding of $6,373,958 and Water and Sewer funding of $250,000.

The replacement of Toler Bay 1 Lift Station has completed the design plans in Quarter 3 of 2024. Easement acquisition is scheduled for Quarter 2 of 2026. Construction is to start in Quarter 4 of 2026, with the target completion in Quarter 1 of 2027. The project cost is $959,454, with available

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funding of $600,000, leaving a shortfall of $359,454. Hwy 66 East Sanitary Sewer Rehabilitation Phase 2 consists of 10,150 linear feet sanitary sewer pipe replacement. This is west of Chiesa Road to Dalrock Road. Utilities relocation was completed in Quarter 2 of 2024, and ROW acquisition was completed in Quarter 3 of 2024. Construction is to start in Quarter 4 of 2026, with the target completion in Quarter 4 of 2027. The project cost is $4,713,000, with available funding of $4,110,073, leaving a shortfall of $602,927. The Hwy 66 West Force Main consists of replacing 5,775 linear feet force main. The design commenced Quarter 1 of 2021. Re-evaluation of pipe size and shift toward point repairs due to ROW impacts took place May to October 2024. Selected Cured-In-Place Pipe (CIPP) design option November 2025. CIPP design commencement in Quarter 2 of 2026. Design completion is in Quarter 3 of 2026. Construction to start in Quarter 4 of 2026, with target completion in Quarter 4 of 2027. The project cost is $9,626,744, with available funding of $6,171,767, leaving a shortfall of $3,454,977.

Mayor Winget recessed the meeting at 7:23 pm due to technical difficulties.

Mayor Winget reconvened the meeting at 7:50 pm.

The most recent update to the wastewater masterplan was in 2016. The most recent conditions assessment was in 2023, updating 2 watershed basins. The Masterplan Update is to commence in Quarter 2 of 2026. A wastewater system conditions assessment is to take place in Quarter 2 of 2026. The Masterplan and Assessment completion is scheduled for Quarter 2 of 2027. Escalating wastewater treatment costs driven by a 55% increasing billed flow since FY2022 causing unsustainable expenditures. Flow meters were installed by the City of Garland in 2023 with redundant flow analysis. Readings indicated increase in wastewater volumes. The last flow monitoring study occurred in 2019. The sanitary sewer evaluation study of two basins occurred from 2021 to 2023. The Wastewater Masterplan will include wastewater system conditions assessment in Quarter 2 of 2026. Public Works is launching an I&I team to address the I&I through manhole and lift station repair and ensuring the collection system is properly sized. The traffic signal controls cabinet replacement was funded as part of GO Bond 2024. It consists of the replacement of 25 traffic signal cabinets; of which 9 have been replaced. The construction started in Quarter 3 of 2025, and target completion is Quarter 3 of 2026.

Staff are requesting to move forward with what was presented. Councilmember Reaves confirmed that the available funding is from bonds already issued. He is concerned about what downstream effect this will have on future projects. Mr. Bauer confirmed that it will affect future projects already approved. May have to go back to voters for future funding. Councilmember E. Bowers stated she remembered that we did not issue revenue bonds one year. She confirmed that we issue $7 million in Revenue Bonds each year. Mayor Winget asked if this will be on April 17, 2026, Council agenda. Mr. Bauer stated that it is not required to be on the agenda. If there are any issues, let him know now. Councilmember E. Bowers asked about Parks CIP. Staff will bring back the Parks CIP to City Council. Mayor Winget commended Ms. Mauladad for the presentation. This is one of the most comprehensive CIP presentations he has seen. This had more detail than they have seen in a long time about how a project got to be released and which project is sitting still because of lack of funding. It's great for the public to see this information. From 2021 to 2026 it is 5 years and in those 5 years we have had double-digit inflation for 2 or 3 of those years and that's why we are in the position that we are in today with this project because it was not activated in a timely fashion. He doesn't have any concerns about what has been presented moving forward. There was a consensus to move forward with what was presented.

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3C. Presentation regarding an upcoming PID bonds issuance for the Trails at Cottonwood Creek Project.

Michael Kuhn, Treasurer & Debt Manager, presented this item. He gave a brief history of the Trails at Cottonwood Creek PID. The levy PID Assessments consists of $12,482,000 total on the property. The tax PID equivalent rate based on projected completed home value and buildout value is $0.2975. The issuance of PID Revenue Bonds is on a phase-by-phase basis. The Master Bond in the amount of $5,065,000 was issued in May 2021, along with the Improvement Area 1 in the amount of $2,543,000. The PID Revenue Bonds for Improvement Area 2, in the amount of $3,414,999, and Improvement Area 3, in the amount of $1,460,000 are scheduled for May 2026. The total bond issuance for all PID Bonds is $12,482,000. On April 21, 2026, City Council will adopt a resolution calling for a public hearing for the Service and Assessment Plan (SAP), levy and assessment roll. On May 5, 2026, City Council will conduct a public hearing for the SAP, levy, and assessment roll. City Council will also approve Neighborhood Improvement Area #2 and #3 Assessment ordinances and adopt the Bond Ordinance (Neighborhood Improvement Area #2 and #3). March 18, 2025, there was an amendment to the Development Agreement to increase the bond capacity to $20,000,000 and increased the contribution for the new fire station to $2,100,000 or have the option to build the fire station themselves.

Mayor Winget asked when Improvement Area #4 would go to bond. Mr. Kuhn did not have that information. He will touch base with the developer to find out. It was pointed out that the developer only has a little over $7 million left in the bond capacity after the issuance of this bond. The developer is asking for the bond to be extended to 30 years, which will trigger an amendment to the Development Agreement. Councilmember Gibbs asked about the streets. Mr. Kuhn stated that the streets will be public once they are accepted by the City. Councilmember Reaves confirmed that the developer has less than $8 million left eligible in bonding capacity. Councilmember Gibbs asked about amenities and trails. Mr. Kuhn stated that they will all be public, however, there was an amendment to the Development Agreement for the HOA to maintain all common areas.

3D. Presentation regarding the purchase of water meter repair and replacement services from Aqua Metric Sales Company.

Kristoff Bauer, Interim City Manager, presented this item. The replacement of water meters was implemented in 2016, with a $2.4 million investment. There are over 22,000 active accounts monitored daily. There are three base stations, two on the water towers and one on a communication tower in Community Park. Mr. Bauer reviewed the anatomy of a smart meter. There are two types of network errors, non-read and zero-read. Following the 2023 discovery of failed smart meters, the City negotiated directly with the manufacturer (Sensus). Sensus agreed to replace meters containing the specific mailing magnet component to mitigate further risks. 4,515 units were replaced at $0 costs to the City. The project successfully wrapped in July 2025. The specific “rubberized magnet” vulnerability was successfully removed from the active inventory. A January 2026 evaluation by Aqua Metric confirmed the primary magnet issue was solved, but identified remaining, unrelated points of failure suppressing revenue across the 22,000+ network. The failures are wear and tear, component attrition, and installation errors. The request is to authorize $735,188.70 contract with Aqua Metric to repair, replace, and properly install up to 2,500 remaining meters suffering from secondary attrition and installation errors. Aqua Metric will physically verify both the meter mechanics and the MXU radio communication at every single site. This utilizes external installation team from Aqua Metric Sales Company, the authorized Sensus distributor for North Texas, ensuring expert handling. This will expedite total network restoration

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while freeing City Public Works staff to focus on standard maintenance and the aging meter replacement program. The estimated project duration is 3 to 4 months, with a field staffing plan of 3 to 4 technicians. Sensus will repair or replace non-performing Electronic Register and units with hourly reads for the first 10 years from the date of Sensus shipment, with a prorated replacement price thereafter.

Mayor Winget asked how new this model is. Mr. Bauer stated that it has been around for about a decade and it comes with a 20-year warranty. Mr. Bauer added that City Council should move from 12-year replacement to a 10-year replacement. Councilmember J. Bowers III asked if the city has lost revenue due to these errors. It was confirmed that it was a lot of revenue lost. There was consensus to move to a 10-year replacement cycle.

3E. Update regarding the Rowlett Citizen Survey.

Kristoff Bauer, Interim City Manager, presented this item. The contents of key questions were reviewed. They included Park Improvements, Downtown, Housing Types, and three areas of emphasis. It was decided to narrow “improve lake access” and remove “new public lake access”. Will ask what about the lake do you like i.e. boating trails, kayaking, and fishing. Remove “ develop indoor aquatic facilities” and “new outdoor roller hockey rink”. Add “ Add amenities to undeveloped parks in the city”. In the Regarding Downtown section, use promote instead of incentives for additional mixed-use redevelopment question. For Section 27, change to Pick 2, and add “protect structures of local historical significance”. In Section 31, remove item 6 “invest in the restoration and maintenance of the Coyle House”. Add “invest in economic development programs to attract desired businesses”.

4. DISCUSS CONSENT AGENDA ITEMS FOR APRIL 7, 2026, CITY COUNCIL MEETING

No items were removed from the consent agenda.

5. ADJOURNMENT

Mayor Winget adjourned the meeting at 9:24 pm.

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CITY COUNCIL MEETING MINUTES

Our Vision: A well-planned lakeside community of quality neighborhoods, distinctive amenities, diverse employment, and cultural charm. Rowlett: THE place to live, work and play.

Tuesday, April 7, 2026 **7:00 P.M.** **Municipal Building – 4000 Main**

Present: Mayor Jeff Winget, Mayor Pro Tem Michael Schupp, Deputy Mayor Pro Tem Mike Britton, Councilmember Jonathan Reaves, Councilmember Marvin Gibbs, Councilmember Elise Bowers, and Councilmember John Bowers III

INVOCATION

The invocation was led by Deputy Mayor Pro Tem Britton.

PLEDGES OF ALLEGIANCE

The Pledges of Allegiance were led by the City Council.

1. CALL TO ORDER

Mayor Winget called the meeting to order at 7:03 p.m.

2. PRESENTATIONS

2A. Proclamation recognizing National Public Safety Telecommunicators Week as April 12-18, 2026.

Mayor Winget presented the Proclamation recognizing National Public Safety Telecommunicators Week as April 12-18, 2026.

2B. Proclamation recognizing National Library Week as April 19-25, 2026.

Councilmember E. Bowers presented the Proclamation recognizing National Library Week as April 19-25, 2026.

2C. Proclamation recognizing the month of April as National Child Abuse Prevention Month

Deputy Mayor Pro Tem Britton presented the Proclamation recognizing the month of April as National Child Abuse Prevention Month

2D. Update from the City Council and Management: Financial Position, Major Projects, Operational Issues, Upcoming Dates of Interest and Items of Community Interest.

Councilmember J. Bowers III provided the following announcements:

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CITY SECRETARY'S OFFICE - A General Election will be held on Saturday, May 2, 2026, to elect City Council Places 1, 3, and 5. Early voting begins on Monday, April 20th. There is no voting on Tuesday, April 21st due to San Jacinto Day. Early voting will resume on Wednesday, April 22nd and run through Tuesday, April 28th. Dallas County residents can vote at the Rowlett Community Centre (5300 Main Street) and Rockwall County residents can vote at the Rowlett Utility Customer Service Center (6602 Dalrock Road). For more information go to www.rowlett.com

COMMUNITY ENGAGEMENT - **Upcoming Community Events:** For our April events, we invite everyone to join us on Friday, April 10 at 11:30 a.m. for the official ribbon cutting of the new Police and Fire Station 5. This milestone celebrates a major investment in our city's public safety infrastructure and strengthens our community's emergency response capabilities. Come tour the new station and see the public safety equipment up close. This is a great opportunity to meet your first responders. The address is 1301 Easy St. Rowlett, TX 75088. We are officially ready to open the doors, and we want YOU to help us cut the ribbon! Free hot dogs and refreshments will be served.

On Saturday, April 25 from 9 a.m. to noon, we'll host this year's Earth Day Celebration, "Our Power, Our Planet," in Downtown Rowlett. In partnership with Keep Rowlett Beautiful, the event will take the form of a farmer's market with eco-friendly vendors, creative reuse stations, and a variety of sustainable local initiatives. Residents are encouraged to bring reusable bags for a chance to win raffle prizes, and we hope everyone will stop by our local organizational booths to learn about meaningful ways to volunteer throughout the community.

Community Announcement: Schrade Bluebonnet Park Garden Workday

Keep Rowlett Beautiful invites the community to participate in the upcoming Schrade Bluebonnet Park Garden Workday on Saturday, April 11, from 9:00 AM to 12:00 PM. This hands-on event offers residents a meaningful opportunity to support Rowlett's commitment as a Bee City USA affiliate by enhancing local pollinator habitats. This initiative not only fosters environmental stewardship but also strengthens community ties as volunteers work together to keep our city clean and green.

Participants are encouraged to bring small gardening tools if available; however, all necessary guidance and support will be provided on-site. For more information on this event or to sign up as a volunteer, please visit keeprowlettbeautiful.org

2026 Greatest American Clean-up & Texas Trash-off

The City of Rowlett, in partnership with Keep Rowlett Beautiful (KRB), is proud to announce the Greatest American Clean-up & Texas Trash-off on Saturday, April 18, 2026, from 9:00 AM to 11:00 PM. This signature event is part of the nation's largest community improvement program and serves as a vital initiative to remove litter from our local roadways, parks, and the Lake Ray Hubbard shoreline.

This year's event also features the FIFA World Cup Mayor's Challenge, encouraging residents to join forces for a high-impact "spring cleaning" of our city. Volunteers of all ages are invited to participate in this collective effort to protect our local wildlife habitats and enhance Rowlett's natural beauty. If you need more information regarding this event, please visit keeprowlettbeautiful.org

LIBRARY - Get more from your library with easy-to-use resources like Learning Express. Build core academic skills, prepare for college, earn occupational certifications, and more. Access Learning Express with your library card at Rowlett.com/Catalog.

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Add hands-on enrichment to your child's education with Rowlett Library's after-school programs. *Elementals* sparks curiosity for ages 5–8 on Wednesdays at 4 PM, while *STEAM Squad* challenges ages 9–13 on Thursdays at 6 PM.

FIRE – Remember to replace your smoke detector batteries every six months. An easy way to remember this is to make this coincide with changing clocks for Daylight Saving Time. This will help prevent 71% of alarm failures. A high-pitched "chirp" indicates a low battery. Replace the entire unit every 10 years.

PARKS & RECREATION - Summer Camp and Swim Lesson registrations have begun! You can register by going to www.rowlett.com or give us a call at 972-412-6170.

Rowlett Seniors are heading to Grapevine. Join us for a scenic outing on the DART Train and TexRail as we travel together for a day of shopping, exploring, and enjoying a delicious lunch. It's the perfect chance to get out, stay active, and make great memories with friends! This trip is free to sign up, but participants are responsible for purchasing their own train tickets and lunch. Be sure to bring comfortable walking shoes—there will be plenty of walking as we explore! For more information or to register, stop by the Rowlett Community Centre, call 972-412-6170, or visit rowlett.com/seniors.

Don't miss this exciting day on the rails—let's ride!

Councilmember Reaves introduced the Featured Pet, Katy, a sweet girl that is playful and hasn't met a toy she doesn't like. It is never too late to fall in love again. Katy is 2 to 3 years old, is a gorgeous husky mix that has spent over a year waiting patiently for someone to choose her. She adores people and has a wonderful medium energy level – perfect for walks or cozy evenings on the couch. If you are searching for a true companion, Katy is waiting for you. Remember Hopper, the sweet 2-year-old that spent most of his life in the shelter and was featured at several City Council meetings? Hopper has finally left the building! He's currently in a foster-to-adopt with one of our very own City of Rowlett Park employees. To adopt Katy, or one of her companions, come by the Animal Shelter at 4402 Industrial Street from 10 am to 5 pm, Tuesday through Saturday.

Mayor Winget announced that the Democratic Party will hold a candidate forum at First Christian Church on Saturday, April 11, 2026, 4 pm to 5:30 pm. The Rowlett Chamber of Commerce will hold a candidate forum at the Rowlett Community Centre on Monday, April 13, 2026, 6 pm to 8 pm.

3. CITIZENS INPUT

1. Michelle Wallace, Rowlett – She has great hope for the future of our city. She is coming forward after hearing the recording of Michael Schupp. Michael Schupp slandered her family, and it cost her a great deal. Her bigger concerns are the inflammatory derogatory statements made against citizens coming to share input. She believes his words and actions rise to the level of gross misconduct. Mr. Schupp's continued pattern of behavior needs to be addressed.
2. Brooke Allen, Rowlett – She is still concerning about Herfurth Park and Pecan Grove Park. Feels the vision has been set aside. She is concerned about the animal shelter being built in Herfurth Park.
3. Shelby Coleman, Rowlett – Spoke regarding the ethics complaint on tonight's agenda. The role and value of citizen input when citizens feel heard and respected and included, the tone of these meetings change. You don't get frustration or tension, you get dialogue. This is meant to be a dialogue between leadership and the community. She believes we are already beginning

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to see positive cultural shifts and wanted to say she is genuinely proud of the people making it happen.

4. Alex Ninan, Rowlett – He is here with his neighbors and is being the voice for them. He requested a review of safety measures on Scenic Drive north of Hwy 66 all the way to the Terra Lago Apartments. In the last eight months, they have seen a lot of traffic parking on the street which is causing a lot of safety issues. He passed around photos and a request for safety review. At the intersection of Chimney Wood and Scenic, cars are parked on the road, and it prevents us from seeing the approaching traffic. They are having a hard time turning into the neighborhood and turning into apartments. Cars are parked right at the intersection preventing drivers from seeing the traffic. School buses and garbage trucks are having the same issues. This was supposed to be parking for citizens to access the greenway at the back. The apartments stopped allowing parking in their parking lot. They are requesting a review of the site line obstructions near the intersections and exits, assessing whether parking restrictions are needed at key turning points, consider signage markings and striping changes and review the Terra Lago Apartments parking occupancy policies. This is a preventable safety issue, and they want to take proactive action before something happens.
5. Monica Kizziar, Rockwall – She is very involved with the animal shelter and the dog park at Herfurth Park. She expressed concern about the animal shelter being built at Herfurth Park near the public dog park. Animal Shelters are not just holding facilities; they are also medical and recovery environments. They house animals that are often stressed, immune compromised, unvaccinated, or recovering from illness. Public dog parks are uncontrolled environments. These spaces are widely recognized as high-risk areas for the spread of contagious illness such as kennel cough, canine influenza, parasites, and parvo, which can live in the soil for extended periods of time. This is not opposition to the shelter; she fully supports investing in animal services and providing better resources for our community. Choose a location that supports both the success of the shelter and the continued enjoyment of the dog park.
6. Mark Taschek, Rowlett – He spoke about exterior lighting ordinance rewrite. He reviewed a timeline of meetings regarding the ordinance rewrite. This item is over 6 months past due. Now that there will be a new council, it will have to start all over again. Mr. Schupp and Elise Bowers have gone against everything he has ever tried to complete in the city. He spoke against Mr. Schupp.
7. Michele Stoudt-Wright, Rowlett – This is an incredible opportunity to take the City and departments to the next level and it has all started by an increase in communication with departments and different organizations, Keep Rowlett Beautiful as an example. She recently took a walk in the new Nature Trail, looking at the Sensory Garden and just experiencing everything there. She is in favor of remaining the Nature Trail to the Lonnie Cornwell Memorial Nature Trail. She hopes that City Council will support renaming it. Lonnie Cornwell was the President of Keep Rowlett Beautiful when she came on board. She learned a lot from him.
8. Dan Houpt, Rowlett – Spoke in opposition to Caliber Collision. We keep losing trees. There will be total cars leaking anti-freeze, cracked batteries and fluids that will go into the creek that will run into Lake Ray Hubbard. He read a list of auto body shops in Rowlett. We don't need another body shop. Maybe being in the Northshore would be a better location. The sewer smell was horrendous this morning at 7:30 at Liberty Grove and Princeton.
9. Debbie Bobbitt, Rowlett – She spoke in support of renaming of the Nature Trail. This idea was created by Pam Bell and herself. They went in front of the Parks Board to rename a park after Lonnie Cornwell. This is a much better fit for his name. He was a great leader. He had a passion

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for Rowlett and loved it here. He is no longer with us, but she invited his sons to attend tonight. This was the passion in his life. This is wonderful and thanked City Council for considering this.

10. Patrick Bandle, Rowlett – Thanked City Council for what they have done and continue to do for the city. The screening wall is still ugly. He requested transparency on what is happening and is curious about what if any progress has been made and when they would expect to see physical work being done. Please keep the citizens informed.
11. Charles Wright, Rowlett – He lives at Lakewood Pointe and he has Parkinson. There are days he is wheelchaired bound. The sidewalks are in horrible shape and some of the ramps are non-existent. When he travels, there are a lot of side streets with traffic lights that stay red too long. Traffic is getting worse. He took pictures of the condition of the sidewalks and they need help.
12. Emily Stupnik, Sachse – She is the President and CEO of the Rowlett Chamber of Commerce. Right now, the Chamber represents 290 members and that number reflects a growing engaged business community that believes in collaboration, connection, and investing in the future of Rowlett. In the first quarter, they welcomed 22 new members. They have a Make a Connection meeting each Thursday morning and consistently have between 55 to 65 attendees each month. They sold all 176 seats and secured every available sponsorship for their Annual Gala. She invited everyone to the City Council Candidate Forum the Chamber is hosting on Monday, April 13th from 6 pm to 8 pm as the Rowlett Community Centre. She requested the City to livestream the event as they have done in the past.
13. Kathy Kirk, Rowlett – Stated she was here to address three connected issues, ethics, financial transparency, and inconsistent enforcement, along with concerns raised directly into tonight's meeting packet. She stated the conduct of Councilmembers should uphold the standards of the office. The record of Mayor Pro Tem Schupp shows repeated incidents of conduct that fall below what the public should expect. These standards should be professionalism and accountability. Not whether someone or something reaches a vague threshold of gross misconduct. Residents are now being asked to pay for a second round of water meter replacements. Defective meters were replaced at no cost by the vendor, and that created a clear inconsistency. Either vendor responsibility is not enforced, or the program is not properly completed. The costs are shifting to the residents and require documentation no explanation after the fact. There is inconsistent enforcement of ordinances and permits. There is a pattern of some residents are held to strict compliance while others are allowed exceptions retroactive approvals or no enforcement at all. That undermines the entire purpose of having ordinances. Items moving forward without clearly documented compliance with ordinance conditions or prior approvals. Lack of supporting documentation where you would expect to see inspections, sign-off, or validation of compliance or clear staff analysis. Situations where staff conclusions are presented but the underlying documentation that supports those conclusions are not included. When documentation is incomplete, the Council cannot make informed decisions. This issue is not isolated, it is systemic. Ethic concerns, unexplained financial decisions and inconsistent enforcement all point to the same problem, a lack of discipline, process, and accountability. Require that all agenda items include complete supporting documentation.

4. CONSENT AGENDA

4A. Consider action approving the minutes.

Consider action to approve minutes from the following City Council meeting(s): March 11, 2026, City Council Special Meeting, March 16, 2026, City Council Work Session, and March 17, 2026, City Council Meeting.

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This item was approved on the Consent Agenda.

4B. Consider action to approve the purchase of meter repair and replacement services from Aqua Metric Sales Company.

Consider action to adopt a resolution authorizing the purchase of meter repair and replacement services from Aqua Metric Sales Company, the authorized distributor for Sensus USA Inc. products in North Texas, for an amount not to exceed $735,188.70; authorizing the Interim City Manager or his designee to negotiate and execute all necessary documents to effectuate said purchase; and providing an effective date.

This item was approved on the Consent Agenda as RES-26-04-17R

4C. Consider action approving the purchase of two (2) Pumper Trucks for the Fire Department.

Consider action to adopt a resolution authorizing the purchase of two (2) Spartan 180 Fire Engines (Pumper Trucks) for the Fire Department from Metro Fire Apparatus Specialists, Inc., the authorized Spartan dealer for Texas, through a Sourcewell cooperative purchasing contract, for a total price not to exceed $2,294,052; authorizing the Interim City Manager or his designee to execute all necessary documents to effectuate said purchase; and providing an effective date.

This item was approved on the Consent Agenda as RES-26-04-18R.

4D. Consider action to approve the purchase of four (4) Mack MD6 dump trucks for the Public Works Department.

Consider action to adopt a resolution authorizing the purchase of four (4) Mack MD6 dump trucks for the Public Works Department, from Bruckner Truck Sales, Inc., through an HGAC cooperative purchasing contract, for a total price not to exceed $531,496.00; authorizing the Interim City Manager or his designee to execute all necessary documents to effectuate said purchase; and providing an effective date.

This item was approved on the Consent Agenda as RES-26-04-19R.

4E. Consider action to approve the purchase of eight (8) Chevrolet Equinox for the Police Department.

Consider action to adopt a resolution authorizing the purchase of eight (8) Chevrolet Equinox sport utility vehicles for the Police Department, from Lake Country Chevrolet, through a TIPS cooperative purchasing contract, for a total price not to exceed $262,267.92; authorizing the Interim City Manager or his designee to execute all necessary documents to effectuate said purchase; and providing an effective date.

This item was approved on the Consent Agenda as RES-26-04-20R.

4F. Consider action to approve the purchase of two (2) Chevrolet Silverado 2500 for the Public Works Department.

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Consider action to adopt a resolution authorizing the purchase of two (2) Chevrolet Silverado 2500 service body trucks for the Public Works Department, from Lake Country Chevrolet, through a TIPS cooperative purchasing contract, for a total price not to exceed $121,230.84; authorizing the Interim City Manager or his designee to execute all necessary documents to effectuate said purchase; and providing an effective date.

This item was approved on the Consent Agenda as RES-26-04-21R.

4G. Consider action to approve and ratify an emergency construction equipment rental agreement for bypass pumps.

Consider action to adopt a resolution approving and ratifying an emergency construction equipment rental agreement with Bartholow Rental Inc., for the Liberty Grove Sewer Line Replacement (Emergency Purchase) for bypass pumps, in the amount not to exceed $133,720.00; authorizing and ratifying the execution thereof by the City Manager and/or the Interim City Manager; and providing an effective date.

This item was approved on the Consent Agenda as RES-26-04-22R.

4H. Consider action to approve and ratify an emergency construction agreement for an odor dosing system.

Consider action to adopt a resolution approving and ratifying an emergency contract for services with Pencco Inc. for the Liberty Grove Sewer Line Replacement (Emergency Purchase) odor corrosion and control system services, at the contracted rates, for an initial period through January 31, 2027, with up to four (4) additional one-year renewal periods; authorizing and ratifying the execution of an agreement therefor by the City Manager and/or the Interim City Manager; and providing an effective date.

This item was approved on the Consent Agenda as RES-26-04-23R.

4I. Consider action to approve and ratify an emergency purchase of chemical for odor control.

Consider action to adopt a resolution approving and ratifying an emergency purchase of SULFeND from Well Squared for the Liberty Grove Sewer Line Replacement (Emergency Purchase) for odor control, in the amount not to exceed $162,428.50; authorizing and ratifying the City Manager's and/or the Interim City Manager's purchase of odor controlling chemicals; and providing an effective date.

This item was approved on the Consent Agenda as RES-26-04-24R.

4J. Consider action to approve and ratify an emergency purchase for an odor control system.

Consider action to adopt a resolution approving and ratifying an emergency purchase from Well Squared, LLC of an odor control system for the Liberty Grove Sewer Line Replacement, in the amount not to exceed $566,872.34; authorizing and ratifying the City Manager's and/or the Interim City Manager's purchase thereof; and providing an effective date.

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This item was approved on the Consent Agenda as RES-26-04-25R.

4K. Consider action to approve and ratify an emergency purchase of concrete.

Consider action to adopt a resolution approving and ratifying an emergency purchase of concrete from Bodin Concrete, L.P. for the Liberty Grove Sewer Line Replacement Project for compensation not to exceed $189,004.50; authorizing and ratifying the purchase thereof by the City Manager and/or the Interim City Manager; and providing an effective date.

This item was approved on the Consent Agenda as RES-26-04-26R.

A motion was made by Deputy Mayor Pro Tem Britton, seconded by Councilmember Gibbs, to approve all the preceding items marked as having been approved on the Consent Agenda. Motion passed 7-0.

5. INDIVIDUAL CONSIDERATION

5A. Conduct a public hearing regarding a request to amend the zoning for an approximately 1.47 acre tract located within an approximately 7.73 acre parcel in the Reason Crist Survey, Abstract No. 225, and the U. Mattusen Survey, Abstract No. 1017, Dallas County, Texas, and being more commonly known as 2801 Main Street and 2700 Lakeview Parkway, from Planned Development District with base zoning of General Commercial/Retail (PD-C-2) to Planned Development District with base zoning of modified General Commercial/Retail to allow an outdoor storage use and to amend the development regulations for the planned development district relating to screening, building orientation, setbacks, and landscaping requirements.

Lilyana, Planner II, presented this item. This public hearing opened on March 17, 2026, and remained open until this meeting. This is to amend an existing Planned Development (PD) district and associated development conditions to allow the construction of a heavy vehicle service repair shop with outdoor storage. At the March 17, 2026, City Council meeting, the City Council advised the applicant to consider removing the four parallel parking spaces in the outdoor storage area adjacent to the Caliber Collision building. The change would increase the building setback beyond the proposed 10 feet toward the 50 feet required by the PD. In response, the applicant is now proposing to keep the building in place and instead shift the sidewalk to the ROW and include the required 9 ROW trees within the proposed 10-foot ROW landscape buffer. This eliminates the need to relocate the ROW trees to the compatibility buffer and increases separation between Main Street and the building. At the meeting, the applicant also requested a revision to the originally proposed period for awaiting vehicle repairs within the outdoor storage area from a minimum of 1 day and a maximum of 7 days to period not to exceed 30 days. This item was presented to the Planning & Zoning Commission for consideration on March 10, 2026. They voted 7-0 to recommend approval, with the condition that the request to reduce the minimum separation between parking areas and buildings from ten (10) feet to five (5) feet be denied.

The applicant gave a presentation regarding their request. They clarified the proposed use of passenger vehicles only, i.e. cars, SUVs, pick-up truck, vans, not commercial buses, semi-trucks, or heavy equipment. All repair work is done indoors. No work is done in the outdoor storage area. Outdoor storage is for vehicle storage only. The storage area is hidden behind the building and

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screened from Main Street. On-site storage will have impermeable paved surface throughout. It will have drip pans deployed under any damaged vehicles and Caliber Spill Prevention Plan will be in effect with regular inspections. All fluid work is conducted inside the building. They follow EPA-complaint waste disposal procedures. They are licensed hazardous material handing and have spill prevention and response plans. All work is done inside the building. Liquids from servicing is routed through sand/oil separator. They are connected to municipal sanitary sewer system with no runoff to creek or lake. Consequences of shifting access point north to achieve 10' sidewalk buffer would require temporary construction easement on adjacent property, require complete removal of northwest landscape buffer, eliminate seven (7) proposed trees needed to meet minimum landscape requirements, and insufficient spaces elsewhere on-site to replant the trees. Wheel stops are already proposed on the site plan adjacent to the 5' sidewalk at the front of the building. The applicant respectfully requested the City Council approve the PD Amendment.

Mayor Pro Tem Schupp asked if the site has a containment dike or perimeter dike. The applicant stated that they have curbing around the property with a catch basin. Nothing will be run off. He asked about the elevation of view from Main Street. The elevation shown is an accurate representation of the proposed privacy fencing. The only thing not updated is all of the right-of-way buffer trees. There will be more trees than what is in the picture. Mayor Pro Tem Schupp asked what kind of volume will be collected in the catch basins. The applicant stated that everything will be internal to the building and separated. The plumbing engineer will have to provide calculations for all for review so they can prove that the system is sized appropriately. Mayor Pro Tem Schupp is concerned there is a serious potential water quality hazard with rain events. Are we capturing stormwater rain events that are coming off that we know have been containing hydrocarbons or do they go directly into the storm sewer. The possibility of a quantity, or how much potential hazardous fluid that could be generated out on the parking lot is a very rare occurrence. They are not doing a lot of mechanical repairs; they do suspension repairs. The thing they would deal with most is anti-freeze, when cars get into front end collisions and you have to replace the coolant system, which is captured and is recycled and taken off-site through a hazardous waste company. When vehicles are stored outside, they are generally stored so that they can still be driven. They are not left in an open state that fluids would drain because that makes them immobile and could cause more damage or the need for further repairs. If there are fluid spills, then it would be cleaned up with absorbent oil and things like that nature and disposed of properly. Mayor Pro Tem Schupp asked about TCEQ and if they were within the guidelines. They have a TCEQ permit and also follow EPA guidelines. They also have a compliance company.

Mayor Winget resumed the public hearing from March 17, 2026, City Council meeting at 8:41 pm.

1. Mark Taschek, Rowlett - He doesn't have a problem with Caliber Collision coming to Rowlett but doesn't want it on Lakeview Parkway. They are going to have fluid run-off from vehicles. If this is the only place that they can go, then he suggested that they be inspected once a month and fined heavily if any violations occur.

Mayor Winget closed the meeting at 8:43 pm.

5B. Consider action to adopt an ordinance regarding a request to amend the zoning for an approximately 1.47 acre tract located within an approximately 7.73 acre parcel in the Reason Crist Survey, Abstract No. 225, and the U. Mattusen Survey, Abstract No. 1017, Dallas County, Texas,

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and being more commonly known as 2801 Main Street and 2700 Lakeview Parkway, from Planned Development District with base zoning of General Commercial/Retail (PD-C-2) to Planned Development District with base zoning of modified General Commercial/Retail to allow an outdoor storage use and to amend the development regulations for the planned development district relating to screening, building orientation, setbacks, and landscaping requirements.

A motion was made by Councilmember E. Bowers, seconded by Councilmember J. Bowers III, to accept the ordinance request to amend the zoning for this property as presented. Mayor Winget confirmed with Victoria Thomas, City Attorney, that the landscaping is already reflected in the ordinance, it does not reflect the 10-foot sidewalk requirement that Planning & Zoning Commission requested. It approves the 5-foot request sidewalk requirement, and the 30 days is in the ordinance. Motion passed 5-2, with Councilmember Reaves and Councilmember Gibbs voting against.

This item was approved as ORD-26-04-07.

5C. Consider action to adopt a resolution authorizing the Interim City Manager to execute and submit the Combined Subdivision Participation and Release Form for the "Six Remnant Defendants' Opioid Settlement Agreement."

Victoria Thoms, City Attorney, presented this item. A new national opioid settlement has been reached by the National Opioids Settlements Claims Administrator, Rubris with six regional distributor/dispenser defendants: Associated Pharmacies, Inc. (and American Associated Pharmacies); J M Smith Corporation, Louisiana Wholesale Drug Company, Inc.; Morris and Dickson Co.; North Carolina Mutual Wholesale Drug Company, Inc.; and United Natural Foods, Inc. (including its subsidiaries SuperValu and Advantage Logistics) (Six Remnant Defendants). There is one settlement agreement covering the combined settlement with the Six Remnant Defendants. If effectuated, the proposed Remnant Defendants Settlement will result in the Six Remnant Defendants paying a combined $97,625,000.00 in cash for purposes of abating the opioid epidemic. The City of Rowlett's participation in the settlement will result in a one-time settlement payment of approximately $4,840.71, based on the current allocation formula. The settlement proceeds must be used for uses set forth in Attachment 1 to the staff report. This settlement does not go through the Attorney General's office like the other opioid settlements. Council will be voting on whether or not to participate in this settlement.

A motion was made by Councilmember Gibbs, seconded by Councilmember Reaves, to adopt a resolution authorizing the Interim City Manager to execute and submit the Combined Subdivision Participation and Release Form for the "Six Remnant Defendants' Opioid Settlement Agreement." Motion passed 7-0.

This item was approved as RES-26-04-27R

5D. Consider action to adopt a resolution authoring the renaming of the Rowlett Nature Trail to the Lonnie Cornwell Memorial Nature Trail; authorizing the Interim City Manager or his designee to execute all necessary documents necessary to purchase signage and providing an effective date.

Ryan Mullins, Director of Parks & Recreation, presented this item. City Council previously passed Resolution 04-15-03D assigning the Parks & Recreation Advisory Board to review and recommend

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facility naming requests to the City Council. In September 2025, the Parks and Recreation advisory board received a request to name a park after Lonnie Cornwell. During the March 11, 2026, meeting, the board naming subcommittee recommended renaming the Rowlett Nature Trail to the "Lonnie Cornwell Memorial Nature Trail". The board unanimously voted to approve and recommend the name to the City Council. Lonnie Cornwell moved to Rowlett in 1988 and was a 34-year resident. He had passion for horticulture and serving his community. He served on the Parks & Recreation Advisory Board for 14 years. He helped to organize 350 volunteers to build Kenwood Heights Park. He encouraged the Tree Canopy Study and helped develop landscape ordinance. He also helped to organize volunteers to replant 260 trees in neighborhoods after 2015 tornado. He served on Keep Rowlett Beautiful Board of Directors for 10 years, and as President for 8 years.

A motion was made by Deputy Mayor Pro Tem Britton, seconded by Councilmember J. Bowers III, to adopt a resolution authorizing the renaming of the Rowlett Nature Trail to the Lonnie Cornwell Memorial Nature Trail. Motion passed 7-0.

This item was approved as RES-26-04-28R.

6. EXECUTIVE SESSION

6A. The City Council shall convene into closed, executive session pursuant to Texas Government Code, §551.071 (Consultation with City Attorney) to receive legal advice regarding the Sapphire Bay Development Agreement and other matters related to the Sapphire Bay development project.

6B. The City Council will convene into closed, executive session pursuant to Texas Government Code, §551.071 (Consultation with City Attorney) to receive legal advice regarding procedural matters relating to an ethics complaint filed March 31, 2026, against Mayor Pro Tem Michael Schupp.

6C. The City Council shall convene into closed, executive session pursuant to Texas Government Code, §551.074 (Personnel Matters) to deliberate the appointment, employment, evaluation, reassignment, duties, discipline, or dismissal of a public officer or employee, to wit: City Secretary.

Mayor Winget adjourned into Executive Session at 9:00 pm.

7. RECONVENE INTO OPEN SESSION AND TAKE ANY NECESSARY OR APPROPRIATE ACTION ON CLOSED/EXECUTIVE SESSION MATTERS.

Mayor Winget reconvened the meeting at 10:25 pm.

6A. No action was taken.

6C. A motion was made by Councilmember Gibbs, seconded by Councilmember J. Bowers III, to direct the City Attorney to prepare an amendment to the City Secretary's Employment Agreement to increase her salary to $142,500 per year, effective immediately, and to authorize the Mayor to sign the amendments. Mayor Winget stated that they appreciate the work Debbie is doing, they are proud of the regional and statewide representation, and grateful she is our City Secretary. Motion passed 7-0.

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Mayor Pro Tem Schupp stepped down from the dais.

8. New Business

8A Deliberate and take action on the March 31, 2026, ethics complaint against Mayor Pro Tem Michael Schupp.

Mayor Pro Tem Schupp read a statement. It is hard to defend yourself when you have done nothing wrong. The only thing he is guilty of is exercising his right of free speech in a public forum. He has the same right to boast his opinions as anyone else. As a member of Council he would argue that he has an obligation to do so. He does not forfeit his first amendment rights because his is a member of City Council. One of the most destructive forces in our society right now is the weaponization of social media and other tools like this ethics complaint. They destroy the reputation of innocent people. The tools that they use are public shaming, cancelling and silencing opposing views. This is not only malicious, it is morally wrong. Bringing an ethics complaint against a public officer is a serious action reserved for serious breaches of behavior and illegal activities like taking kickbacks, and using this position as a means to facilitate personal gain. He has done none of this. It is not and should not be used to attack people who simply disagree with the narratives and ideas put forth in a public forum. In this case the goal is just to shame, silence, and cancel him as a public official for voicing opposing opinions. The truly insidious part of all of this is the damage to his reputation is already done. No one will remember if he is found innocent or guilty, they will only remember that an ethics complaint was filed against him. What is also frightening is the casualness that people are willing to file complaints. The complaint itself is the weapon more than the outcome. It is easy for Ms. Kirk to file a complaint against him because there are no negative repercussions for her. Actions like this have a chilling effect on the average citizen. Numerous people have told him that they have seen and heard the negative things said about him. They would like to publicly defend him, but they are afraid by doing so, they themselves will become the target of the mob mentality. He has an acquaintance that he has served on a board with, he is smart and thoughtful individual that would be an outstanding member of City Council. Over the last couple of years, he has expressed an interest in possible running for an election in the future. Last week he was pulled aside and told that after watching the nastiness that has been directed toward him and other leadership of this City, he would never consider running for Council. The toxic environment that has been responsible for his change of heart is wrong. The fact that qualified people are declining to help lead this city because of fear of personal attacks hurts everyone. Finally, he has done nothing wrong, and he trusts that he will not be punished because he has shared personal views from the dais.

Mayor Winget stated that at this time, we have received legal advice about the process for considering this item. We have heard from Mr. Schupp and have received a complaint from Ms. Kirk. There are three violations that have been lodged in the complaint that all refer to slightly different things, as well as some follow-up information that Ms. Kirk shared with all of us through email. This is a challenging thing to consider because of the nature of it. He wants to mention, which he thinks is important, that Councilmember Schupp's remarks which were made during the meeting constitute his official capacity. So, the remarks that were made after the proverbial gavel were banged and the meeting begins were made during the consideration of a duly noticed agenda item. The comments that were recorded on a hot mic and that were shared through the live stream were not done in his official capacity. He asked Victoria Thomas, City Attorney, to weigh in on that because he does believe that it is an important distinction between when we are talking about the

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ethics complaint. Ms. Thomas stated that is correct. When you are at the dais, the comments you make are in your official capacity, you have your Councilmember hat on. Before that gavel is banged or after that gavel is banged to adjourned, then you are a member of the public. When you speak or give an opinion, you are giving it in your personal or individual capacity. There will be times when you are away from this dais, that you are in your official capacity, but that will be known by the circumstances, for instance at a city event where you are sitting on a platform speaking on behalf of the city. Obviously, you are speaking in your official capacity as a Councilmember.

The ethics policy is a policy which was adopted by the City Council, drafted and adopted by this City Council. Its purpose is to govern how we, as well as those boards and commissions to volunteer with the City, act effectively. He thinks that we all have a desire for those boards and commissions, as well as our self, to maintain a level of decorum at the dais. It can be frustrating when we are picked up on a hot mic, it can be frustrating when certain things might be lobbied against us because at the end of the day, we're human as well. That does make it challenging to maintain restraint. He has fallen victim to that sitting in the Mayor's chair. It is incredibly difficult. In his opinion, there is a difference between the freedom of speech and the expectations that this policy puts in place and so when we talk about freedom of speech, he doesn't believe that anyone at the dais would be a fan of saying that you can't have an opinion or you can't speak your mind about a particular matter. What the policy attempts to put in place, in his opinion, are guidelines around how those matters are addressed and what is said. He thinks that is where this becomes incredibly challenging. Because in the context of what Mr. Schupp said at the meeting, on the face of it, he didn't address any one individual. While some of his comments may have been a bit crass, he doesn't know that they crossed the line of that the ethics complaint says. However, if you look at what was said before the meeting, some of that certainly would, because it was far more crass than what was said during the meeting. Therein lies the challenge, because as Victoria said, in one of those capacities, he was in his official capacity and in one he was not. He is extremely torn and would love to hear from other Councilmembers on their opinion.

Councilmember E. Bowers stated she prepared a statement. Public participation is the foundation of local government. It is not a courtesy we extend when it is convenient, and it is not dependent on whether we agree with what is being said. It is the entire point of why we are here. On February 3rd, statements were made from this dais in the official capacity, characterizing members of our community in ways that question their motives and legitimacy for participating in this process. Earlier that same evening, I said I was glad people came and that their voices mattered. That is what, to me, community looks like. Those are not two versions of the same value; they are fundamentally different standards and this matters to her. Not just for the people who were in the room that night, but for everyone watching now and everyone who may consider participating in the future. The question before us is not about intent, it is about conduct. Our ethics code is clear on that distinction. Conduct is what defines the standard and, in this case, the conduct is documented in public record. It does not matter whether those residents were right or wrong. It does not matter whether they had every fact, it does not matter how long the issue was under discussion. None of that changes the responsibility we have from this seat. Every person who comes before this council deserves to be treated with respect. Without having their motives questioned, without being labeled or dismissed. Because when that line is crossed, it doesn't just affect one meeting or one issue. It signals to everyone watching in this room and beyond, whether their voice is respected here. This item is about more than a single complaint. It is about the standard we are setting in real time, for this Council and for Councils who come after us.

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Councilmember J. Bowers III stated that he agrees with the Mayor's statement about being torn because of the legal advice that was received about meeting before a proverbial gavel was hit and mainly in our public appearance as ourselves as individuals. He will say that he thinks the thing he is battling with is just the repetitive nature. Councilmember Schupp mentioned the easiness of just putting a complaint up. But he does feel that we are dealing with somewhat of a pattern here. That is where he is being torn comes from because we have dealt with this before. Councilmember Bowers tried to put a motion together after the Herfurth Park meeting. This is the third time that we are now sitting here talking about it. That is where the torn nature comes from on the environment.

Deputy Mayor Pro Tem Britton made a brief statement. He thinks that he said this before in his previous statement, he doesn't have to agree with Mr. Schupp's comments. He is not saying what he said was right or what he said was wrong. He has a right to say what he wants to say. He doesn't find any of this that rises to the level of an ethical violation, in his opinion. He thinks that he said to Mr. Schupp before, he may not have phased it the same way, he may not have agreed with this language, but he has a right to say it. It does not, in his opinion, violate our code. Mayor Winget stated that he does want to respond to that or at least maybe ask a probing question. He thinks that there is an important distinction here between a right, we absolutely have the right to say whatever we want to say. That doesn't mean that we cannot be called into question for saying it under the ethics policy because this Council, well the Council before us approved an ethics policy that set a standard for how they expect all of us, boards and commissions, as well as members of the Council to act. And whether we have that right or not, the standard is there that we should act in accordance with. Deputy Mayor Pro Tem Britton stated he should have added, based on the legal advice that we have, he did not violate our code of ethics, by what he said.

Councilmember E. Bowers stated that she does not feel that this is a legal question. This is a moral and ethical question. Do you believe that Councilmember Schupp's comments encouraged public input or that they stifled public input. Deputy Mayor Pro Tem Britton stated he doesn't feel that it did either, to be honest. He thinks Councilmember Schupp made his comments as he felt was his right. Whether it is in his official capacity. He thinks Councilmember Schupp's comments generated more input to be honest. Councilmember E. Bowers stated she believes this is not a legal question for her, it is a question of standards and what we are willing to accept. She does believe that it stifled public input because she doesn't think there are people out there that will come up to the dais. That is one of the hardest things they have ever done. They don't want to talk in front of people, they don't want to talk in front of a camera, but they have a passion about something that they believe is important. She thinks his comment; somebody may listen to that and think I'm not going to do that and could get made fun of or I could be disparaged. Deputy Mayor Pro Tem Britton stated we are practicing the same thing where we are voicing our opinions. You don't agree with me, and I don't agree with you, that it stifled further input.

Councilmember Reaves stated that he agrees with Councilmember Britton on this, he doesn't think Councilmember Schupp violated any ethical standards. Did it frustrate some folks, obviously. He thinks that it is a Councilmember's duty to let their opinions be known, we are elected to voice our opinions. Sometimes they are popular and sometimes not. In my opinion, there was no single-out person or group of people that were specific as far as any type of disparagement. His opinion comments were his opinion based upon public feedback that we had been receiving, and we have a very passionate citizenry, which is great. We have passionate people that are involved and have very passionate viewpoints. He would say Councilmember Schupp is a passionate guy and regardless that is a great thing to have in the city. People are expressing their viewpoints and that

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is an important part of how the democracy works as the public comments said earlier. He doesn't feel that shut down, it actually caused more public input. Where the challenge for him is that we need to be very careful to make sure that what is considered an ethical complaint is more so than just I don't like what was said or how it was said.

Mayor Winget stated that on that note, he does think that it is important that the content of the ethical complaint is shared. It is more than just not liking what was said. That is an important distinction. He read the violation of Section 15, which states that no officer of the City shall fail to maintain professionalism and common courtesy when commenting on city matters. The reason given in the complaint is that Section 15 requires professionalism and common courtesy when commenting on city matters. Labeling residents input as misinformed meaningless or procedurally invalid undermines respectful civic discourse and exceeds permissible disagreement on policy merits. He thinks that line of thinking is more than just disagreement with what was said. He certainly felt a little bit stabbed when the remark was made about the condition of Herfurth Park. Mainly because he felt that was our fault. If Herfurth Park is in the condition, it is in is because we put it in that condition. And yet you are right, as a Councilmember that is his opinion to make. There are certainly opinions that we all have about different parts of the city of different parks or different members of city staff or anything else that we may or may not choose to share. That doesn't mean that we shouldn't share them or can't share them, it means we have to use good discretion, and I think that is where the issue is. He is very much on the fence and truly doesn't know the right answer. There have been many elected officials caught on a hot mic moment, but he is also somewhat of the opinion that you are never off the clock. He said that when he ran for his seat. You are always the mayor, you are always a councilmember, whether you are at the grocery store, sitting in traffic, or sitting at the dais, you're always in this capacity. He does his best not to speed in the city because he is the mayor, he does his best to respect people at Target because he is the mayor, and he doesn't leave his shopping cart in the parking lot. He puts it away in the cart corral. He puts things back when he doesn't want them at the grocery store, just because he feels like that is the right thing to do. Again, he feels torn. We are all created differently, we are all built differently with different ways of responding to circumstances and situations. It is incredibly unfortunate that in the tenor of what we are experiencing as a council on both January 20th and February 3rd, that all of this happened because I think we were in an environment where things had gotten extremely fragile. That resulted in some of us having some very strong opinions about things. Opinions over shared behind closed doors and opinions that were shared here on this dais. Even by our former City Manager.

Councilmember Reaves stated that you mentioned just the elevated circumstances, but you know that he is so aware of his own shortcomings. You mentioned putting up the grocery cart, that is a pet peeve of his by the way, when people don't put that away. Because there is a place to put it like 15 feet away from your car, don't just leave it in the parking lot. Anway, he thinks most people have a good heart and a good nature and he tries to do his best. He is so aware of his own shortcomings as a person and as a human, as a dad, as a man, as whatever. So, the way he always looks at this is having a really hard time personally, how wrong they are, when he is not perfect. If he has ever offended anybody in life, he would want them to give him an opportunity to apologize to them because he knows he is not perfect. So, when we are in the public sphere, it puts an extra spotlight on things. But he just has a forgiving nature, and he really can't go along with saying that this is an ethics violation. Again, that is not to say anything against the person that filed this. He understands their reasoning, and not saying necessarily that they are wrong, he thinks for him, it doesn't meet the violation to cross the finish line to say, yes this is a breach of ethics.

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Mayor Winget asked Councilmember Reaves a question, because he heard two lines of thought. One is I am of the opinion that if someone is remorseful about what they said/did, we should have grace and forgive them. The other is you don't think this rises to the level of an ethics violation. Councilmember Reaves stated that which do you really consider this to be. In this role it is very hard when someone comes at you. This is not an indictment of the complaint itself or anything else. He doesn't want to be misconstrued here. Part of the challenge in this rule is that you can say something and mean one thing, and it gets taken another, or people take it out of context. So, there is an extra spiral here, he realizes that. He guessed his thought is he would hope that someone would he him an opportunity to say that was really wrong or that bothered me or give me a chance to apologize to them personally and make it right before it was a public event. If that makes sense. That is what his line of thinking was about. Councilmember J. Bowers III had a follow-up question, just for discourse. Because of the spotlight and the public, would we be open to a public apology? Just because we are in the public. Doing something public and then apologizing in private doesn't have the same impact because you were like hey, I did this and I'm privately saying I'm sorry, but we are open to a public apology? Councilmember Reaves stated he will only speak for himself, but if he ever offended someone, he would want to apologize. If he did it in a public setting, he would feel compelled to do it publicly. That is just his own personal heart on the matter. He thinks that as a part of the tenor of just kind of the world that we are in right now, there should be more forgiveness in general. He thinks that one of the most powerful forces in the world is forgiveness. Just in society generally, he is not talking on this particular case. The world would be a better place if people had a little room for forgiveness.

Councilmember Gibbs stated that in his world, he functions better in black and white reality because gray areas are really tough and it makes us all struggle. When listening to legal advice today, he was like wow, ok. What if I felt like I was wrong or justified if what was sanctioned on me or not, if I did something. That makes it really hard for us. He did not condone what was said and when he said dump that day, he about fell out of his chair because it makes it harder on all of us. Because now we have to listen to more stuff. He didn't like it one bit, and he doesn't want to trample on his constitutional right or his first amendment, so do we all lose that? Was he in his official capacity? Was he not in his official capacity? If he was sitting before a judge and jury, what would they do. Councilmember E. Bowers stated that is not a legal process, this is a question of standards and her standards are clear. He said the opposite of what she said and she feels that she is right. She feels like welcoming public discourse is important. Whether they are well informed or misinformed. She has listened to a lot of public input that she vehemently disagreed with. She never publicly spoke or even privately, or maybe she did, she doesn't always monitor her mouth appropriately. But no, this isn't really about Councilmember Schupp. This is a question to me about how we as a Council, what standards are we going to uphold for civil discourse on this dais. She is so shocked, she has never been so shocked in her life. She was saying here, come eat in downtown Rowlett, have a date night and come to Council and let us know what you think. Councilmember Schupp said exactly the opposite. On this she thinks she is right. It is not a legal question, it is an ethical, moral question about how we want future councils to conduct themselves. She firmly believes that what he said, what he wrote out, he wrote it out, he read it, he knew what he was saying and to me, Section 15 says it requires professionalism and common courtesy, and she doesn't believe that he had common courtesy. So that is her feeling. Councilmember Gibb stated that in his reasoning he is looking at an ethics violation, and what makes an ethics violation and what doesn't. Councilmember Gibbs added that Councilmember Reaves had said that because we need to clearly define that, and it is really a gray area here on some of the stuff that was happening. You can tell that I am struggling because it is not black and white for me right now. For the things that

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were said, because of the legal advice we received. So, things that happened on the hot mic, he doesn't condone one bit. Things he said during his public input, there was some poor choice of words. That brought a lot of stuff on us, because the City, we, were the ones that put that park in that shape. It wasn't any other thing, so he was wishing that Councilmember Schupp hadn't said that, but for the ethics violation, He is struggling because he is in the black and white world. The information that he was given has not got him there and he wish that it could because he would like to understand it better.

Mayor Winget asked if there were any other remarks. He will entertain a motion if there is one to be made. He clarified that the ethics policy in Section 2-466(d) says should this Council sustain the allegations in a complaint, it may, by a majority vote of those present at a meeting, call for such purpose to take one of the following actions; Number 1 – issue a statement finding the complaint to be without merit, brought forth for the purpose of harassment or brought in bad faith; Number 2 – issue a letter of admonition or reprimand; Number 3 – we can't do that because it is removing from office; and Number 4 – issue a censure if the Council finds that serious repeated violations have been committed intentionally by member of the Council.

A motion was made by Councilmember Reaves, seconded by Deputy Mayor Pro Tem Britton, to issue a statement of finding that the complaint to be without merit. Motion passed 4-2, with Councilmember E. Bowers and Councilmember J. Bowers III voting against.

MEMBERS OF THE CITY COUNCIL MAY REQUEST TOPICS TO BE PLACED ON AN AGENDA FOR A SUBSEQUENT MEETING. ANY DELIBERATION OR DECISION SHALL BE LIMITED TO A PROPOSAL TO PLACE TOPIC ON THE AGENDA FOR A SUBSEQUENT MEETING.

Councilmember E. Bowers requested to add to the next agenda a closed session for advice from the City Attorney regarding issues raised by Ordinance 10-25 Amending the Nonconformity Section of the Zoning Code which was passed on March 4, 2025, and any subsequent action of Council related thereto. Councilmember J. Bowers III seconded.

Councilmember J. Bowers III requested to have Scenic Drive parking situation on a future agenda. Councilmember Gibbs seconded the motion.

9. ADJOURNMENT

Mayor Winget adjourned the meeting at 11:02 pm.

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City of Rowlett
City Council Agenda Item

Meeting Date: 4/21/2026 **Agenda Item:** 4.B.

Title
Consider action awarding the FY2026 Cultural Arts Grants and Gary Alexander Arts in Education Grants.

Consider action to adopt a resolution awarding the FY2026 Cultural Arts Grants and Gary Alexander Arts in Education Grants based on a recommendation from the Arts and Humanities Commission.

Staff Representative
Laura Tschoerner, Library Director

Executive Summary
Each year the Arts and Humanities Commission awards grants to local cultural arts groups in addition to public and private schools in the City of Rowlett. The Commission is seeking approval on a recommendation to award $5,000 for the Gary Alexander Arts in Education Grant and $3,000 for the Cultural Arts Grant.

Strategic Priority and Goal(s)

Strategic Priority	Strategic Goal
ENHANCE QUALITY OF LIFE	4.4 Create spaces, activities, and events for the arts, cultural enrichment, and community celebrations.

Background Information
The Arts & Humanities Commission is charged with encouraging the development of, appreciation for and participation in the arts and humanities in the City of Rowlett. The commission also advises and makes recommendations to the City Council on the award of City grants related to the arts.

Discussion
The Commission received 8 requests from local non-profit organizations for the Cultural Arts Grant.

Applicant	Amount Requested	Reason

A Heart for Patriots – Quilts of Valor Foundation	$ 500	Supplies to sew Quilts of Valor for comfort and healing to those touched by war
Artist 'Round Texas	$ 850	4 Visual Arts Programs at the Rowlett Community Centre
Briana Brown	$2,000	Startup to register a sole proprietorship art business
Kids Who Rock	$3,000	Offer 3 scholarships for classes
Neslie Fudge	$ 930	Display 50 photos for 12 months throughout the City of Rowlett
Rockwall Summer Musicals	$1,000	Support mainstage production and theater educational programs
Rowlett Quilters Guild	$2,000	Funds to rent space for a quilting demonstration, hardware, and publicity
Rowlett Summer Musicals	$2,000	Production expenses for set construction such as costumes and projections.

The Commission is recommending the $3,000.00 allocated to the Cultural Arts grant be awarded as follows:

Applicant	**Amount Recommended**
A Heart for Patriots – Quilts of Valor Foundation	$ 150
Artists 'Round Texas	$ 150
Rowlett Quilters Guild	$ 700
Rowlett Summer Musicals	$2,000

The Commission received 4 requests from local schools for the Gary Alexander Arts in Education Grant.

Applicant	**Amount Requested**	**Reason**
Rowlett High School, Art Department	$2,188	Purchase of color printer and extra ink for student artwork
Rowlett High School, Theatre Department	$5,000	Provide financial support to present a production of *Come from Away*
Stephens Elementary, Music Department	$3,514	Microphone equipment, recorders, and hand chimes for the elementary music program
Stephens Elementary, Art Department	$1,358	20 Li'l Davinci Art Cabinets to create a professional grade exhibition space

The Commission is recommending the $5,000.00 allocated to the Gary Alexander Arts In Education grant be awarded as follows:

Applicant	**Amount Recommended**
Rowlett High School, Art Department	$1,142
Rowlett High School, Theatre Department	$ 500
Stephens Elementary, Music Department	$2,000
Stephens Elementary, Art Department	$1,358

Financial/Budget Implications

Budget Account Number and/or Project Code	Account or Project Title	FY2026 Budget	Available Funding	Utilized Amount	Remaining Balance
1015530-6696	Boards & Commissions	$27,436	$23,440	$8,000	$15,440
Total		**$27,436**	**$23,440**	**$8,000**	**$15,440**

Recommended Action

Consider action to adopt a resolution awarding the FY 2026 Cultural Arts Grants and the Gary Alexander Arts in Education Grants based upon the recommendations of the Arts and Humanities Commission.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ROWLETT, TEXAS AWARDING FY2026 CULTURAL ART GRANTS AND GARY ALEXANDER ARTS IN EDUCATION GRANTS; AUTHORIZING THE INTERIM CITY MANAGER OR HIS DESIGNEE TO NEGOTIATE AND EXECUTE FUNDING AGREEMENTS WITH THE GRANT RECIPIENTS; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, in accordance with its duties, each year the Arts and Humanities Commission recommends to the City Council awards of grants to cultural arts groups in addition to public and private schools in the City of Rowlett; and

WHEREAS, the Arts and Humanities Commission has made its recommendations for the Cultural Art Grants and the Gary Alexander Arts in Education Grants for FY2026; and

WHEREAS, the City Council finds it to be in the best interests of the citizens of the City of Rowlett and to serve the general welfare to approve those recommendations;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ROWLETT, TEXAS THAT:

SECTION 1: The below-named organizations are hereby named as the recipients of the FY2026 Cultural Art Grants and Gary Alexander Arts in Education Grants and the Interim City Manager or his designee is hereby authorized to negotiate and sign funding agreements on behalf of the City of Rowlett with the following organizations for Fiscal Year 2026 in the following amounts:

Cultural Art Grants:

Grant Recipient	Grant

	Amount
A Heart for Patriots – Quilts of Valor Foundation	$ 150
Artists 'Round Texas	$ 150
Rowlett Quilters Guild	$ 700
Rowlett Summer Musicals	$2,000

Gary Alexander Arts in Education Grants:

Grant Recipient	Grant Amount
Rowlett High School, Art Department	$1,142
Rowlett High School, Theatre Department	$ 500
Stephens Elementary, Music Department	$2,000
Stephens Elementary, Art Department	$1,358

Section 2. This resolution shall take effect immediately upon is passage.

Attachments
None

City of Rowlett
City Council Agenda Item

Meeting Date: 4/21/2026 **Agenda Item:** 4.C.

Title
Consider action declaring twenty (20) used bicycles as surplus property.

Consider action to adopt a resolution declaring twenty (20) used bicycles as surplus property to be donated to GISD.

Staff Representative
Mike Denning, Police Chief

Executive Summary
The City currently has twenty used children's bicycles in storage. The purpose of this item is to declare them as "surplus" so they can be donated to the Garland ISD.

Strategic Priority and Goal(s)

Strategic Priority	Strategic Goal
Govern Transparently & Inclusivity	1.3 Effectively leverage community, civic, faith-based, and other strategic partnerships.

Background Information
There are currently 20 used children's bikes in storage. GISD has expressed interest in refurbishing them for children. The bicycles do not hold any useful value for the police department.

Discussion
By designating the bikes as surplus, they can be donated to GISD, refurbished, and distributed to children.

Financial/Budget Implications
N/A

Recommended Action
Adopt the resolution.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ROWLETT, TEXAS, DECLARING CERTAIN CITY PROPERTY AS SURPLUS PROPERTY AND AUTHORIZING THE INTERIM CITY MANAGER TO TRANSFER OWNERSHIP OF SUCH PROPERTY TO THE GARLAND INDEPENDENT SCHOOL DISTRICT IN ACCORDANCE WITH THE TERMS OF A DONATION AND RELEASE AGREEMENT; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City Council recognizes that in the normal course of providing municipal services, the various City Departments will exhaust the useful life of its capital equipment and other property that does not meet the capital equipment threshold, to the point where it is no longer cost effective to maintain and operate, or acquire other materials that are not usable for City operations; and

WHEREAS, City Administration, in conjunction with the Chief of Police, has determined the personal property described in **Exhibit A**, attached hereto and incorporated herein by reference, is not currently needed by the City and specifically by the Rowlett Police Department, that the City has no foreseeable need or use for such property, and that said property should be declared surplus and sold or conveyed to others in accordance with law; and

WHEREAS, the City Council declares the property described in **Exhibit A** as surplus property, the sale or other disposition of which is in the best interest of the City;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ROWLETT, TEXAS, THAT:

SECTION 1. The City Council declares the property identified in **Exhibit A**, hereto, surplus for City purposes and authorizes the Interim City Manager or his designee to dispose of the property by transferring ownership of the property to Garland Independent School District ("GISD") pursuant to the terms of a Donation and Release Agreement in substantially the form of that attached hereto and incorporated herein by this reference as **Exhibit B** or, in the event GISD does not accept such transfer, then by any means at his discretion and according to applicable state law and City policies.

SECTION 2. The Interim City Manager is hereby authorized to execute the Donation and Release Agreement, in substantially the form of that attached hereto as Exhibit B as well as any other necessary, related documents to effectuate transfer and/or disposal of the surplus property.

SECTION 3. This Resolution shall take effect immediately upon passage.

Attachments

1. Exhibit A - List of Donated Assets
2. Exhibit B - Donation & Release Agreement

Exhibit A to Resolution

DONATED ASSETS





Description of Donated Property

The following used bicycles and related equipment previously assigned to the Rowlett Police Department are being donated to the GISD:

59319397	Silver	Malibu
S2153WM	Pink	Schwinn
Snhtc17a20104	Silver	Huffy
Snh1z14j8923	Red	Huffy
Snhic17j0748	Purple	Huffy
DWCG030363	Silver	Next
Hs130303117	Pink	Trouble maker
Snhbc1l60047	Pink	Huffy
Snnls16k10131	Red	Paw patrol

Db03fo0330	Pick	Princess
Dau16h006982	Red	Diamond back
Djjgo69922	Blue	Hot wheels
Dwidc02604	Black	Surge
Snhbc14m13693	Pink	Huffy
Lwkl050385	Pink	Next
Wma151605-02	White	Next
G1707027210	Black	Kent
G1207099284	Silver	Thruster
Snhbz11m04020	Blue	Huffy
G12101311950	White	Kent
Snfad16dno810	Yellow	Mongoose



Different view of the same bikes

All items are used and transferred in their current condition.

DONATION AND RELEASE AGREEMENT

This Donation and Release Agreement ("Agreement") is entered into between the City of Rowlett, Texas, by and through the Rowlett Police Department (City of Rowlett is hereby referred to as "RPD"), and the Garland Independent School District, Garland, Texas, by and through the GISD – Jack Murphy ("GISD").

1. Transfer of Property

RPD agrees to donate to GISD certain used bicycles and related equipment previously donated to the Rowlett Police Department, as described in the attached Exhibit A ("Donated Property").

GISD acknowledges receipt of the Donated Property in its present condition.

2. Condition of Property

The Donated Property is transferred "AS IS, WHERE IS," without warranty of any kind, express or implied. RPD makes no representations regarding the condition, safety, merchantability, fitness for a particular purpose, or suitability of the Donated Property.

GISD acknowledges that the Donated Property is used equipment which may have defects and which may not be safely operable and accepts full responsibility for inspection, maintenance, repair, and safe use and/or disposal.

3. Assumption of Risk

GISD assumes all risks associated with possession, maintenance, operation, and use or disposal of the Donated Property from the date of transfer forward.

4. Release of Claims

GISD releases and discharges RPD including all of it current, former and future officers, officials, employees, and agents from any claims, damages, or causes of action arising from or related to GISD possession, use, or disposal of the Donated Property after the date of transfer.

5. Indemnification

To the extent permitted by Texas law and subject to applicable governmental immunity protections, GISD agrees to hold RPD harmless for and to be solely and completely responsible for its own acts and omissions and those of its employees, and citizens with regard to any bike donated

hereunder and for any claims of any nature arising from or in relation to the subject matter of this Agreement and/or the Donated Property or any portion thereof.

Nothing in this Agreement shall be construed as a waiver of any governmental immunity or defense available under Texas law by either party.

6. Effective Date

This Agreement becomes effective upon the date of last signature.

CITY OF ROWLETT, TEXAS

By: _____ Name:

Title: Date:

Garland ISD – Jack Murphy

By: _____ Name:

Title: Date:

DONATED ASSETS





Description of Donated Property

The following used bicycles and related equipment previously assigned to the Rowlett Police Department are being donated to the GISD:

59319397	Silver	Malibu
S2153WM	Pink	Schwinn
Snhtc17a20104	Silver	Huffy
Snh1z14j8923	Red	Huffy
Snhic17j0748	Purple	Huffy
DWCG030363	Silver	Next
Hs130303117	Pink	Trouble maker
Snhbc1l60047	Pink	Huffy
Snnls16k10131	Red	Paw patrol

Db03fo0330	Pick	Princess
Dau16h006982	Red	Diamond back
Djjgo69922	Blue	Hot wheels
Dwidc02604	Black	Surge
Snhbc14m13693	Pink	Huffy
Lwkl050385	Pink	Next
Wma151605-02	White	Next
G1707027210	Black	Kent
G1207099284	Silver	Thruster
Snhbz11m04020	Blue	Huffy
G12101311950	White	Kent
Snfad16dno810	Yellow	Mongoose



Different view of same bikes

All items are used and transferred in their current condition.

City of Rowlett
City Council Agenda Item

Meeting Date: 4/21/2026 **Agenda Item:** 4.D.

Title
Consider action declaring three (3) used police bicycles as surplus property.

Consider action to adopt a resolution declaring three (3) used police bicycles as surplus property so they can be donated to the City of Sachse (Sachse Police Department).

Staff Representative
Mike Denning, Police Chief

Executive Summary
The City currently has three police bicycles that are no longer in use. The purpose of this item is to declare them "surplus" so they can be donated to Sachse PD.

Strategic Priority and Goal(s)

Strategic Priority	Strategic Goal
Govern Transparently & Inclusivity	1.3 Effectively leverage community, civic, faith-based, and other strategic partnerships.

Background Information
There are currently three used Rowlett PD police bicycles no longer in use. Sachse Police Department has expressed interest in using them for their officers. The bicycles do not hold any useful value for the Rowlett Police Department.

Discussion
By designating the bicycles as surplus, they can be donated to Sachse PD, refurbished, and deployed by their department to serve their community.

Financial/Budget Implications
N/A

Recommended Action
Adopt the Resolution.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ROWLETT, TEXAS, DECLARING CERTAIN CITY PROPERTY AS SURPLUS PROPERTY AND AUTHORIZING THE INTERIM CITY MANAGER TO TRANSFER OWNERSHIP OF SUCH PROPERTY TO THE CITY OF SACHSE (FOR THE SACHSE POLICE DEPARTMENT) IN ACCORDANCE WITH THE TERMS OF A DONATION AND RELEASE AGREEMENT; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City Council recognizes that in the normal course of providing municipal services, the various City Departments will exhaust the useful life of its capital equipment and other property that does not meet the capital equipment threshold, to the point where it is no longer cost effective to maintain and operate, or acquire other materials that are not usable for City operations; and

WHEREAS, City Administration, in conjunction with the Chief of Police, has determined the personal property described in **Exhibit A**, attached hereto and incorporated herein by reference, is not currently needed by the City and specifically by the Rowlett Police Department, that the City has no foreseeable need or use for such property, and that said property should be declared surplus and sold or conveyed to others in accordance with law; and

WHEREAS, the City Council declares the property described in **Exhibit A** as surplus property, the sale or other disposition of which is in the best interest of the City;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ROWLETT, TEXAS, THAT:

SECTION 1. The City Council declares the property identified in **Exhibit A**, hereto, surplus for City purposes and authorizes the Interim City Manager or his designee to dispose of the property by transferring ownership of the property to City of Sachse (for the Sachse Police Department)pursuant to the terms of a Donation and Release Agreement in substantially the form of that attached hereto and incorporated herein by this reference as Exhibit B or, in the event the City of Sachse does not accept such transfer, then by any means at his discretion and according to applicable state law and City policies.

SECTION 2. The Interim City Manager is hereby authorized to execute the Donation and Release Agreement, in substantially the form of that attached hereto as **Exhibit B** as well as any other necessary, related documents to effectuate transfer and/or disposal of the surplus property.

SECTION 3. This Resolution shall take effect immediately upon passage.

Attachments

1. Exhibit A - List of Donated Assets
2. Exhibit B - Donation & Release Agreement

Exhibit A to Resolution

Description of Donated Property - The following used bicycles and related equipment previously utilized by the Rowlett Police Department Bike Unit are being donated to the City of Sachse:

1. One (1) – 16-inch Black Trek Police Mountain Bike with duty bag
2. One (1) – 17.5-inch Black Trek Police Mountain Bike with duty bag
3. One (1) – 18-inch Black Trek Police Mountain Bike with duty bag.

All items are used and transferred in their current condition.

3 Trek Mountain Bikes





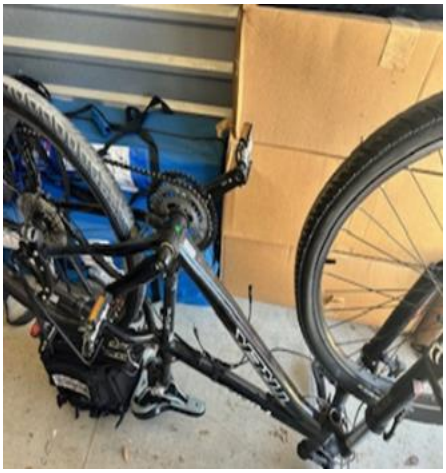
Trek 16





Trek 18





Trek 17.5

DONATION AND RELEASE AGREEMENT

This Donation and Release Agreement ("Agreement") is entered into by and between the City of Rowlett and the City of Sachse for the donation of bicycles previously used by the Rowlett Police Department to the City of Sachse.

1. Transfer of Property

The City of Rowlett agrees to donate to the City of Sachse certain used bicycles and related equipment previously utilized by the Rowlett Police Department Bike Unit, as described in the attached Exhibit A ("Donated Property").

The City of Sachse agrees to accept the Donated Property in its present condition, which may include defects and which may not be safely operable and accepts full responsibility for inspection, maintenance, repair, and safe use and disposal of the Donated Property.

2. Condition of Property

The Donated Property is transferred "AS IS, WHERE IS," without warranty of any kind, express or implied. The City of Rowlett makes no representations regarding the condition, safety, merchantability, fitness for a particular purpose, or suitability of the Donated Property.

The City of Sachse acknowledges that the Donated Property is used equipment and accepts full responsibility for inspection, maintenance, repair, safe use, and disposal of the Donated Property.

3. Assumption of Risk

The City of Sachse assumes all risks associated with possession, maintenance, operation, use, and disposal of the Donated Property from the date of transfer forward.

4. Release of Claims

The City of Sachse releases and discharges the City of Rowlett, and its current, former, and future officers, officials, employees, and agents from any claims, damages, or causes of action arising from or related to the Donated Property after the date of transfer.

5. Indemnification

To the extent permitted by Texas law and subject to applicable governmental immunity protections, the City of Sachse agrees to indemnify and hold harmless the City of Rowlett, including its current, former, and future officers, officials, employees, and agents from any claims, damages, or causes of action arising from or related to the Donated Property which arise after the date of transfer. The City of Sachse further agrees to be responsible for its

own acts and omissions and those of its officers, employees, and agents in connection with the Donated Property.

Nothing in this Agreement shall be construed as a waiver of any governmental immunity or defense available under Texas law by either party.

6. Effective Date

This Agreement becomes effective upon the date of last signature.

CITY OF ROWLETT, TEXAS
By: _____
Name:
Title:
Date:

CITY OF SACHSE, TEXAS
By: _____
Name:
Title:
Date:

EXHIBIT A

Description of Donated Property

The following used bicycles and related equipment previously utilized by the Rowlett Police Department Bike Unit are being donated to the City of Sachse:

1. One (1) – 16-inch Black Trek Police Mountain Bike with duty bag
2. One (1) – 17.5-inch Black Trek Police Mountain Bike with duty bag
3. One (1) – 18-inch Black Trek Police Mountain Bike with duty bag

All items are used and transferred in their current condition.

City of Rowlett
City Council Agenda Item

Meeting Date: 4/21/2026 **Agenda Item:** 4.E.

Title
Consider action awarding a contract for SH 66 East Sewer Rehabilitation Project Phase 2.

Consider action to adopt a resolution authorizing the award of a contract for Bid No. 2026-32-B SH 66 East Sewer Rehabilitation Project Phase 2 (advertised as SH 66 East Sewer Rehabilitation Project 2): 18"/15" Sanitary Sewer Line Rehabilitation, to Muniz Construction, Inc., for an amount not to exceed $4,452,624 ($4,047,840 plus a ten percent (10%) contingency of $404,784); authorizing the Mayor or his designee to execute the contract and all necessary and related documents; and providing an effective date.

Staff Representative
Deepa Modi, Asst. Director of PW/City Engineer

Executive Summary
As part of the City Council's strategic priority to invest in transportation and infrastructure, the City has established a goal of maintaining a high-quality and reliable water distribution and wastewater system. To support continued growth and ensure adequate system capacity, investment in critical wastewater infrastructure improvements is necessary. The purpose of this item is to award a construction contract to Muniz Construction, Inc. for the S.H. 66 East Sewer Rehabilitation Project Phase-2, which includes the rehabilitation of existing 18-inch and 15-inch sanitary sewer lines. This project will enhance system performance, extend the service life of existing infrastructure, and support the City's long-term infrastructure goals.

Strategic Priority and Goal(s)

Strategic Priority	Strategic Goal
Invest in Transportation & Infrastructure	6.1 Systematically manage the Capital Improvement Program. 6.2 Upgrade residential streets, alleys, drainage ways, and utility systems. 6.8 Provide a high-quality wastewater collection system.

Background Information
On February 2, 2021, Council approved a task authorization with Neel-Schaffer, Inc., for the engineering design of the S.H. 66 East Sewer Rehabilitation Project Phase-2:

15"/18" Sanitary Sewer Line Rehabilitation. Neel-Schaffer, Inc. prepared an Engineer's Opinion of Probable Cost (EOPC) based on industry experience, and the City evaluated this estimate against recent bid histories. The EOPC for the project is $3,762,160.

Seven bids were received. The apparent low bidder was La Banda LLC, with a bid amount of $3,070,865.00, which is $691,295.00 below the engineer's estimate. La Banda LLC is registered to do business in Texas and is not listed on the Texas debarred vendor list or the federal exclusion list. However, on February 27, 2026, the City received a formal written request from La Banda LLC to withdraw its bid due to a mathematical error in their bid estimate for the project. The contractor requested the removal of its submission and confirmation of receipt. Based on this request, La Banda LLC is no longer under consideration.

The second lowest bidder is Muniz Construction, Inc. with a bid amount of $4,047,840, which is $285,680 higher than the Engineer's Opinion of Probable Cost.

Discussion

To procure construction services for the S.H. 66 East Sewer Rehabilitation Project Phase-2, the City conducted a competitive, publicly advertised bidding process in accordance with state and local procurement requirements. The project received significant interest from the contracting community, and City staff, in coordination with the design engineer, performed a comprehensive evaluation of all bids to determine the lowest and most responsive and responsible bidder.

A 'Notice to Bidders' was published in the Dallas Morning News and on the City's website on February 6, 2026, and February 13, 2026. A non-mandatory pre-bid meeting was held virtually via MS Teams on February 17, 2026, at 10:00 AM. Sealed bids were received in the purchasing office until 2:00 PM on February 25, 2026, and were publicly opened and read aloud online, in accordance with the Texas Local Government Code.

Seven firms submitted itemized bids for the S.H. 66 East Sewer Rehabilitation Project Phase-2: 15"/18" Sanitary Sewer Line Rehabilitation. The scope of work includes approximately 7,123 linear feet of 15- to 18-inch sanitary sewer pipe along SH 66, extending from approximately 950 feet west of Chiesa Road to Dalrock Road, and continuing north along Dalrock Road for approximately 1,469 linear feet, as shown in Figure 1.

The seven bids ranged from $3,070,865 to $9,260,342, as shown in Attachment A.

After evaluating the bid submitted by Muniz Construction, Inc., City staff reached the following conclusions:

- The bid amount of $ 4,047,840 complies with all project requirements and specifications.

The firm's financial statements demonstrate financial stability and adequate capacity to complete the project.
Neel-Schaffer, Inc., the project's design engineer, reviewed all bids and recommended awarding the contract to Muniz Construction, Inc. The engineer's recommendation is included as Attachment B.

The project schedule requires substantial completion within 270 calendar days from the issuance of the Notice to Proceed, with final completion within 30 calendar days thereafter.

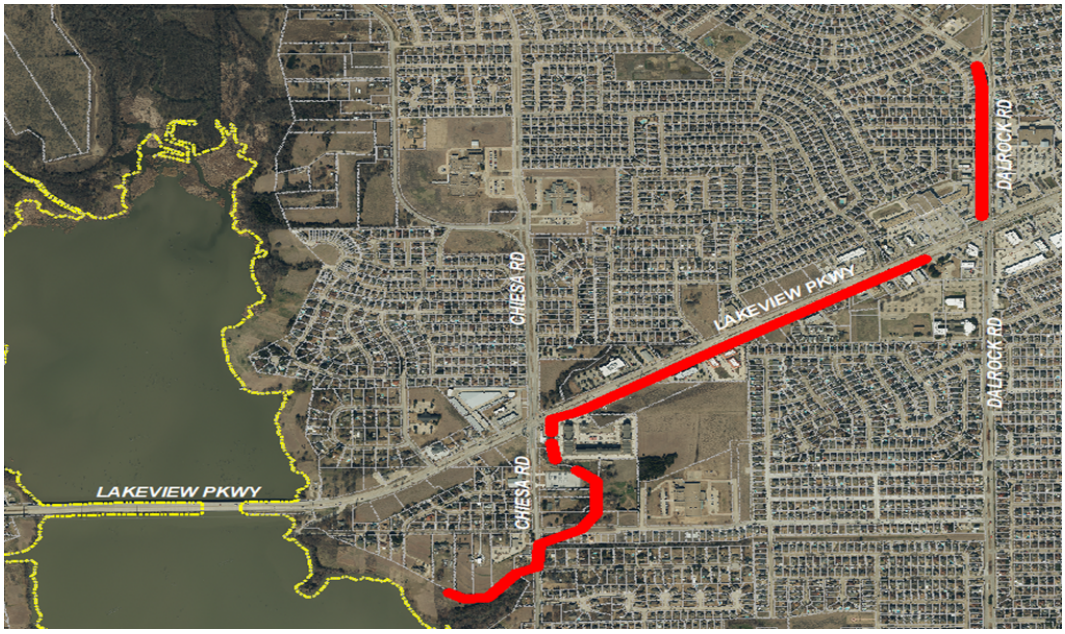


Figure 1 – S.H. 66 East Sewer Rehabilitation Project 2: 15"/18" Sanitary Sewer Line Rehabilitation

Financial/Budget Implications

Budget Account Number and/or Project Code	Account or Project Title	Available Budget	Proposed Amount	Remaining Balance
SS1134	S.H. 66 East Sewer Rehabilitation Phase 2: 15"/18" Sanitary Sewer Line	$4,708,347.12	$4,452,624	$255,723.12

	Rehabilitation			
	Total	**$4,708,347.12**	**$4,452,624**	**$255,723.12**

The contract award for Bid No. 2026-32-B, S.H. 66 East Sewer Rehabilitation Project Phase-2: 18"/15" Sanitary Sewer Line Rehabilitation, to Muniz Construction, Inc., is in an amount not to exceed $4,452,624 ($4,047,840 plus a ten percent (10%) contingency of $404,784).

Recommended Action
Move to adopt a resolution authorizing the award of a contract for Bid No. 2026-32-B, S.H. 66 East Sewer Rehabilitation Project Phase-2: 18"/15" Sanitary Sewer Line Rehabilitation, to Muniz Construction, Inc, in an amount not to exceed $4,452,624, ($4,047,840 plus a ten percent (10%) contingency of $404,784); authorize the Mayor or his designee to execute the contract and all necessary and related documents; and provide an effective date.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ROWLETT, TEXAS AWARDING A CONTRACT TO MUNIZ CONSTRUCTION, INC. FOR CONTRACT NO. 2026-32-B, S.H. 66 EAST SEWER REHABILITATION PROJECT PHASE-2: 18"/15" SANITARY SEWER LINE REHABILITATION, FOR A TOTAL CONTRACT PRICE NOT TO EXCEED $4,452,624 ($4,047,840 PLUS A TEN PERCENT CONTINGENCY OF $404,784); AUTHORIZING THE MAYOR OR HIS DESIGNEE TO EXECUTE THE CONTRACT AND ALL NECESSARY AND RELATED DOCUMENTS; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the city sought bids for Contract No. 2026-32-B, S.H. 66 East Sewer Rehabilitation Project Phase-2: 18"/15" Sanitary Sewer Line Rehabilitation (the "Project"); and

WHEREAS, seven responses were received and it was determined by City staff that the lowest responsible and responsive bidder was Muniz Construction, Inc. with a base bid of $4,047,840; and

WHEREAS, Neel-Schaffer, Inc., the Project's design engineer, reviewed all bids and recommended awarding the contract to Muniz Construction, Inc; and

WHEREAS, the City Council has further determined that the award of the contract for the Project to Muniz Construction, Inc. in the total contract amount not to exceed $4,452,624, representing the base bid of $4,047,840 and a ten percent contingency of $404,784, is in the best interest and serves the general welfare of the citizens of Rowlett;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ROWLETT, TEXAS THAT:

SECTION 1. The City Council hereby awards Muniz Construction, Inc. the contract under RFP 2026-32-B, S.H. 66 East Sewer Rehabilitation Project Phase 2: 18"/15" Sanitary Sewer Line Rehabilitation (the "Project") for a total contract price not to exceed $4,452,624, which includes a base bid of $4,047,840 and a ten percent contingency of $404,784.

SECTION 2. The Interim City Manager or his designee is hereby authorized to negotiate any remaining terms of the contract awarded by this resolution and the Mayor is hereby authorized to execute the same on behalf of the City.

SECTION 3. This resolution shall take effect immediately from and after its passage.

Attachments

1. Attachment A Bid Tabulation Summary
2. Attachment B – Engineer's Recommendation Letter to Award the Bid
3. Exhibit A Construction Contract

Attachment A

CITY OF ROWLETT
BID TABULATION SUMMARY

Solicitation No.	Bid No. 2026-32-B
Solicitation Title	S.H. 66 East Sewer Rehabilitation Project 2: 18"/15" Sanitary Sewer Line Rehabilitation Project
Solicitation Due Date:	2/25/2026 at 2:00pm

Responding Contractor	Total Base Bid
La Banda LLC	$3,070,865.00
Muniz Construction, Inc.	$4,047,840.00
BRCT LLC dba Blackrock Construction	$4,707,997.00
A&M Construction and Utilities, Inc.	$4,946,405.00
SYB Construction Company, Inc.	$5,293,606.20
Canary Construction, Inc.	$5,518,850.00
Western Municipal Construction of Texas	$9,260,342.00

All responses submitted for the designated project are reflected on this tabulation sheet. However, the listing of a response on this tabulation sheet shall not be construed as a comment on the responsiveness or as any indication that the City of Rowlett accepts such submission as being responsive. The City of Rowlett will make a determination as to the responsiveness of the vendor submission based upon compliance with all applicable laws, purchasing guidelines and project documents, including but not limited to the project specifications and contract documents. Upon award of the contract, in accordance with the law, all responses received will be available for inspection at that time.

Certified by: January Calhoun, CPPO, CPPB, Purchasing Manager

Date: February 25, 2026

NEEL-SCHAFFER

April 13, 2026

Ms. Beena Jacob
CIP Manager
City of Rowlett
5702 Rowlett Road
Rowlett, Texas 75089

Reference: S.H. 66 East Sewer Rehabilitation Project 2 – 18”/15” Sanitary Sewer Line Rehabilitation, City Bid #2026-32 Contractor Reference Check

Dear Beena:

Sealed bids were received by the City of Rowlett on February 25, 2026, for the above project. The bid results have been discussed previously.

La Banda, LLC was the apparent low bidder, but they later requested to withdraw their bid. Therefore after checking their references, we contacted the references provided by the second lowest bidder (Muniz Construction, Inc.) and offer the following summary of the discussions.

We spoke with representatives of the Cities of Dallas, Plano and Richardson. Messages left with the City of Farmers Branch have not been returned. In general, Muniz Construction Inc.’s responsiveness, work quality and timeliness have all been satisfactory. All references contacted spoke well of Muniz Construction, Inc. and stated they would use them again.

Based on the information received from the bidder in response to the City’s bid no. 2026-32, S.H. 66 East Sewer Rehabilitation Project 2 – 18”/15” Sanitary Sewer Line Rehabilitation, Muniz Construction, Inc. is the lowest, responsive, and responsible bidder and we recommend award of the construction contract in the amount of $4,047,840 for Muniz Construction, Inc.

Sincerely,

NEEL-SCHAFFER, INC.

James P. Amick, P.E.

James P. Amick, P.E.
Engineer Manager

CC: January Calhoun

P: 817.870.2422 | F: 817.870.2489
515 Houston Street, Suite 651
Fort Worth, TX 76102
www.neel-schaffer.com

engineers | planners | surveyors | environmental scientists | landscape architects

CONTRACT DOCUMENTS AND SPECIFICATIONS FOR

S.H. 66 EAST SEWER REHABILITATION PROJECT 2:

BID NO. 2026-32-B

Rowlett
TEXAS

CIP No. SS1134

Prepared by:

NEEL-SCHAFFER
Solutions you can build upon

Texas Reg. No. F-2697

James P. Amick 2/3/26
STATE OF TEXAS
JAMES P. AMICK
65295
LICENSED
PROFESSIONAL ENGINEER

Neel-Schaffer, Inc.
515 Houston Street, Suite 651
Fort Worth, TX 76102
(817) 870-2422

NSI PROJECT NO. 16229

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I. Geotechnical Report (Note: The geotechnical report is provided for informational purposes only and does not establish design or construction standards for this project.)

II. Section 404 Permit

III. Drawings (Bound Separately)

SECTION 1 ADVERTISEMENT

Legal Advertisement

City of Rowlett
Notice to Bidders

The City of Rowlett is accepting sealed bids for **BID NO. 2026-32-B S.H. 66 EAST SEWER REHABILITATION PROJECT 2: 18"/15" SANITARY SEWER LINE REHABILITATION**. Bids will be accepted online through bidnetdirect.com or delivered in hard copy to the Purchasing Office, c/o the City of Rowlett Action Center, 4000 Main St., Rowlett, TX 75088, or mailed to PO Box 99, Rowlett, TX 75030-0099, before **2:00pm (CT) on February 25, 2026**. Bids will be publicly opened online and read in compliance with statutory requirements at 2:30pm on the day bids are due via a Microsoft Teams meeting as follows:

Meeting ID: 284 301 930 096 73
Passcode: mZ74aY9f
Link: https://teams.microsoft.com/l/meetup-join/19%3ameeting_YTMxZTI0MjUtMGFmNC00MDNhLTg2NTAtZTNmNDgwNDgxYWUy%40thread.v2/0?context=%7b%22Tid%22%3a%2285803b12-c237-45fd-bc07-0d2e834e5e62%22%2c%22Oid%22%3a%227d17b5ea-5a46-4540-84b7-f45b211dff03%22%7d

A non-mandatory pre-bid meeting will be held online on February 17, 2026, at 10:00am (CT) as follows:

Meeting ID: 219 150 544 702 40
Passcode: 3kY3Sz65
Link: https://teams.microsoft.com/l/meetup-join/19%3ameeting_OTVlNDI3ZGQtMTlkYy00MTkxLWIxN2EtZGRjMzViNDc5ODNh%40thread.v2/0?context=%7b%22Tid%22%3a%2285803b12-c237-45fd-bc07-0d2e834e5e62%22%2c%22Oid%22%3a%227d17b5ea-5a46-4540-84b7-f45b211dff03%22%7d

Bid documents are available for download at https://www.bidnetdirect.com/texas/cityofrowlett. For questions regarding this project, please email jcalhoun@rowlett.com.

Publish dates: 2/6/2026 and 2/13/2026
Bid Number 2026-32-B

SECTION 2 NOTICE TO BIDDERS

NOTICE TO BIDDERS

The City of Rowlett ("City") is accepting competitive sealed bids for **BID NO. 2026-32-B S.H. 66 EAST SEWER REHABILITATION PROJECT 2: 18"/15" SANITARY SEWER LINE REHABILITATION.** Bids will be accepted online through bidnetdirect.com or delivered in hard to the Purchasing Office, c/o the City of Rowlett Action Center, 4000 Main St., Rowlett, TX 75088, or mailed to PO Box 99, Rowlett, TX 75030-0099 until **2:00pm (CT) on Wednesday, February 25, 2026.** Any bids received after this time will not be accepted and will be returned unopened. **Bids will be publicly opened and read in compliance with statutory requirements at 2:30pm on the day bids are due.** To participate in the public bid opening, please use the following:

Meeting ID:	284 301 930 096 73
Passcode:	mZ74aY9f
Link:	https://teams.microsoft.com/l/meetup-join/19%3ameeting_YTMxZTI0MjUtMGFmNC00MDNhLTg2NTAtZTNmNDgwNDgxYWUy%40thread.v2/0?context=%7b%22Tid%22%3a%2285803b12-c237-45fd-bc07-0d2e834e5e62%22%2c%22Oid%22%3a%227d17b5ea-5a46-4540-84b7-f45b211dff03%22%7d

The Project consists of furnishing all labor, equipment and materials (except as otherwise specified), and performing all work necessary for the construction of 5,000' of 18" Open Cut Sewer, 1,500' of 15" Open Cut Sewer and 600' of 36" Steel Casing by other than Open Cut.

The successful bidder will begin construction within 10 calendar days after the issuance of the Notice to Proceed. Substantial completion of the work will be achieved within 270 calendar days of the date indicated on the Notice to Proceed and final completion will be achieved within 30 calendar days after substantial completion.

Each bid submitted shall be accompanied by a cashier's check in the amount of 5% of the maximum amount bid, payable without recourse to the City of Rowlett, or a Bid Bond in the same amount from a reliable surety company as a guarantee that, if awarded the contract, the successful Contractor will execute a Construction Agreement with the City, including all required bonds and other documents.

The successful Contractor shall furnish a Performance Bond in the amount of 115% of the contract amount, and a Payment Bond in the amount of 100% of the contract amount, as well as evidence of all required insurance coverage within ten (10) calendar days of notice of award. The successful Contractor shall also furnish a Maintenance Bond in the amount of 100% of the contract amount covering defects of material and workmanship for two calendar years following the City's approval and acceptance of the construction. An approved surety company, licensed in the State of Texas, shall issue all bonds in accordance with Texas law.

Copies of Plans, Specifications, and Contract Documents may be downloaded free of charge from Current Bidding Opportunities by completing the no-cost vendor registration at the following link: https://www.bidnetdirect.com/texas/cityofrowlett.

Questions and requests for clarifications in regards to this bid should be submitted in writing through bidnetdirect.com or via email directly to January Calhoun, Purchasing Manager, at

jcalhoun@rowlett.com. The deadline for receipt of questions and requests for clarifications is **12:00pm on Wednesday, February 18, 2026.** After that day and time, no further questions or requests for clarifications will be accepted or answered by the Engineer or City.

SECTION 3 INSTRUCTIONS TO BIDDERS

INSTRUCTIONS TO BIDDERS

1. Instructions: These instructions apply to all bids and become a part of the terms and conditions of any bid submitted unless bidder takes exception in writing when submitting bid.

2. Submittal Deadline: The City of Rowlett (City) is accepting bids until **2:00pm on Wednesday, February 25, 2026.**

3. Submittal Location: Bids will be accepted online through bidnetdirect.com or delivered in hard copy to the Purchasing Office, c/o the City of Rowlett Action Center, 4000 Main St., Rowlett, TX 75088, or mailed to PO Box 99, Rowlett, TX 75030-0099.

4. If submitting a hard copy bid, Bidder shall submit one (1) original and one (1) electronic copy of their bid on a thumb drive in a **sealed envelope clearly marked with their name and BID NO. 2026-32-B S.H. 66 EAST SEWER REHABILITATION PROJECT 2: 18"/15" SANITARY SEWER LINE REHABILITATION**. Bidder shall complete all requested information and submit all required documents.

5. The City may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may, at its sole option and within its sole discretion, waive any informalities or reject any and all bids. Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. No bidder may withdraw a bid within 90 days after actual date of the opening thereof.

6. Bid Opening: **The bid opening will be conducted online on Wednesday, February 25, 2026 @ 2:30pm.** To participate in the bid opening, please use the following:

   Meeting ID: 284 301 930 096 73
   Passcode: mZ74aY9f
   Link: https://teams.microsoft.com/l/meetup-join/19%3ameeting_YTMxZTI0MjUtMGFmNC00MDNhLTg2NTAtZTNmNDgwNDgxYWUy%40thread.v2/0?context=%7b%22Tid%22%3a%2285803b12-c237-45fd-bc07-0d2e834e5e62%22%2c%22Oid%22%3a%227d17b5ea-5a46-4540-84b7-f45b211dff03%22%7d

7. Bid Documents: Copies of Plans, Specifications, and Contract Documents may be downloaded from Current Bidding Opportunities by completing the no-cost vendor registration at the following link: https://www.bidnetdirect.com/texas/cityofrowlett.

8. Questions and Requests for Clarification: Questions and requests for clarifications in regards to this bid should be submitted in writing through bidnetdirect.com or via email directly to January Calhoun, Purchasing Manager at jcalhoun@rowlett.com. The deadline for receipt of questions and requests for clarifications is **12:00pm on Wednesday, February 18, 2026**. After that day and time, no further questions or requests for clarifications will be accepted or answered by the Engineer or City.

9. Addenda: If it becomes necessary to provide additional information to potential Bidders, the City of Rowlett Purchasing Office will issue an addendum containing the necessary information.

10. Pre-Bid Meeting: A pre-bid meeting will be held for this project **online** at **10:00am, Tuesday, February 17, 2026.** Attendance is optional. To participate in the pre-bid meeting, please use the following:

Meeting ID: 219 150 544 702 40
Passcode: 3kY3Sz65
Link: https://teams.microsoft.com/l/meetup-join/19%3ameeting_OTVlNDI3ZGQtMTlkYy00MTkxLWIxN2EtZGRjMzViNDc5ODNh%40thread.v2/0?context=%7b%22Tid%22%3a%2285803b12-c237-45fd-bc07-0d2e834e5e62%22%2c%22Oid%22%3a%227d17b5ea-5a46-4540-84b7-f45b211dff03%22%7d

SECTION 4 STANDARD TERMS AND CONDITIONS FOR PROCUREMENTS

1. **APPLICABILITY**: These standard terms and conditions apply to all goods or services procured by the City of Rowlett, Texas ("City"), unless otherwise stated in the specifications. The instructions contained herein shall be incorporated into the request for bids/proposals or other procurement opportunity advertisement as well as any subsequent purchase order(s) issued for goods or services and shall be included as part of the specifications issued herewith.

2. **NOTIFICATION**: The City advertises formal procurement opportunities through www.rowletttx.gov, bidnet direct by SOVRA, and *The Dallas Morning News*. The City shall not be responsible for information distributed by sources other than those listed.

3. **ADDENDA**: Any revisions to the information contained herein or in the request for bids/proposals will be issued in the form of one or more addenda. The sole issuing authority shall be vested in the City of Rowlett Purchasing Office. If addenda containing material changes to the specifications or pricing form are issued, the vendor shall acknowledge receipt of such addenda in the designated section in the Bid/Proposal document. It is the responsibility of the bidder/proposer to obtain and acknowledge any and all addenda. Failure to acknowledge receipt of any addenda may be cause to deem such submission non-responsive.

4. **SILENCE OF SPECIFICATION**: The apparent silence of the provided specifications as to any detail or the apparent omission from these specifications of a detailed description concerning any point, shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of the specifications shall be made on the basis of this statement.

5. **MINOR DEFECT:** The City reserves the right to waive any minor defect, irregularity, or informality in any bid/proposal. Minor defects, irregularities or informalities will not affect the end product/performance intended by the specifications. The City also reserves the right to reject any or all bids/proposals with or without cause prior to award.

6. **ELECTRONIC SUBMISSIONS:** The City utilizes bidnet direct by SOVRA to advertise and receive bids and proposals electronically over the Internet. Electronic submissions through bidnet direct by SOVRA shall be electronically signed and dated by a duly designated representative or agent of the company submitting the bid/proposal and submitted prior to the stated deadline date and time. Vendors should clearly and concisely provide all requested information as stated in the bid/proposal document. Failure to provide the requested information may be reason to deem such submission non-responsive.

7. **PAPER SUBMISSIONS**: Paper submissions shall be submitted on the forms provided by the City and must be signed and dated by a duly designated representative or agent of the company submitting the bid/proposal. Vendors shall clearly and concisely provide all requested information as stated in the bid/proposal document. Failure to provide the requested information may be reason to deem such submission non-responsive.

8. **PRESENTATION OF BIDS/PROPOSALS**: Paper submissions shall be presented to City Action Center, 4000 Main Street, Rowlett, Texas 75088, prior to the stated deadline date and time. Paper submissions shall be presented in a sealed envelope with vendor's name and the bid/proposal number clearly identified on the outside of the envelope.

9. **LATE SUBMISSIONS**: The date/time stamp located in the City Action Center serves as the official time clock. Submissions received after the stated deadline date and time shall be refused and returned unopened. The City is not responsible for issues encountered with methods of delivery.

10. **PRICING**: Prices offered shall be submitted for units of quantity as specified in the bid/proposal document, extended and totaled. In the case of a discrepancy in the extended price, the unit price shall govern and control. Any alteration, strike-through or erasure of a unit price or extended price made prior to bid/proposal opening shall be initialed by the signer of the bid/proposal, guaranteeing authenticity.

Prices offered **cannot** be altered or amended after the submission deadline. Bids may not be changed for the purpose of correcting an error in bid price after bid opening.

11. **PROPRIETARY INFORMATION**: All material submitted to the City is subject to public disclosure upon receipt, pursuant to the Texas Open Records Act. If vendor does not desire proprietary information in the bid to be disclosed, each page must be identified and marked proprietary at the time of submittal. The City will, to the extent allowed by law, endeavor to protect such information from disclosure. The final decision as to what information must be disclosed, however, lies with the Texas Attorney General. Failure to identify proprietary information will result in all unmarked sections being deemed non-proprietary upon public request.

12. **TAXES:** The City is exempt from paying federal excise and transportation taxes and Texas State or local sales and use taxes. Tax shall not be included in prices offered. A Tax-Exempt Form will be provided by the City upon request. A request for a Tax-Exempt Form can be submitted in writing to purchasing@rowlett.com or by contacting the Purchasing Office at 972.412.6189.

13. **WITHDRAWAL OF OFFER**: Vendor agrees that an offer may not be withdrawn or cancelled for a period of ninety (90) days following the date and time designated for the receipt of the bid/proposal without written approval of the Purchasing Manager.

14. **F.O.B./DAMAGE**: Prices offered shall be F.O.B. Final Destination, Rowlett, Texas, and shall be all inclusive of shipping, handling and packaging costs. The City accepts and assumes no liability for goods delivered in damaged or unacceptable condition. The successful vendor shall be responsible for handling all claims with carriers, and in case of damaged or unacceptable goods, shall ship replacement goods immediately upon notification by the City.

15. **PREPARATION COST**: All costs associated with the preparation of an offer, bid, or proposal shall be borne by the vendor. The City will not be liable for any costs associated with the preparation, transmittal, or presentation of submissions, or with any materials submitted in response to the request for bid/proposal.

16. **TESTING**: At the City's discretion, testing may be required prior to award of the bid/proposal or prior to delivery of goods or services. Testing shall be performed without expense to the City.

17. **SAMPLES**: At the City's discretion, samples may be required prior to award of the bid/proposal or prior to delivery of goods or services. Samples shall be provided at no cost to the City. Samples should not be enclosed with submission unless specifically requested.

18. **QUALITY**: Any catalog, brand names, or manufacturer's reference in the bid/proposal packet is merely descriptive and **not** restrictive and is intended to indicate the type and minimum quality level desired for comparison purposes, unless otherwise stated herein to the contrary. All products and/or optional equipment offered shall be new and of current manufacture. No items of a demonstrator, leased, reconditioned, rebuilt, repossessed or used nature shall be considered, unless otherwise specifically stated herein.

19. **BID/PROPOSAL OPENINGS**: All bids/proposals will be read aloud at the City's scheduled opening for the designated bid/proposal. However, the reading of an offer shall not be construed as a comment on the responsiveness of such offer, or as any indication that the City accepts such offer as responsive. Neither shall such reading be construed as a comment on the responsibility of the bidder/proposer.

The City will make a determination regarding the responsiveness of offers submitted based upon compliance with all applicable laws and the City's purchasing guidelines and project documents including, but not necessarily limited to, the bid/proposal specifications and contract documents. The City will notify the successful vendor upon award of the contract; and, according to State law all offers received will be available for inspection after award.

For processes other than low bid or best value bid, only the names of vendors will be read aloud at the scheduled opening. Pricing information will not be released until after award of the contract.

20. **SUMMARY SHEET**: Bid/Proposal summary results are typically published within two (2) business days after the scheduled opening. Interested parties desiring a copy of a bid/proposal summary sheet may request the same by submitting a written request to purchasing@rowlett.com. **RESULTS WILL NOT BE RELAYED OVER THE TELEPHONE.**

21. **GRATUITIES**: Gratuities in the form of entertainment, gifts, or otherwise offered or given by the vendor, or any agent or representative of the vendor, to any officer or employee of the City with a view toward securing a contract or securing favorable treatment with respect to the awarding or amending or the making or any determinations with respect to the performing of such a contract, are not permissible. In the event this contract is cancelled by City pursuant to this provision, City shall be entitled, in addition to any other rights and remedies, to recover or withhold the amount of the cost incurred by vendor in providing such gratuities.

22. **ANTI-COLLUSION**: In submitting an offer, vendor certifies that they have not participated in, nor have they been party to any collusion, price fixing or any other illegal or unethical agreements with any company, firm or person concerning the pricing offered.

23. **NO PROHIBITED INTEREST**: Vendor acknowledges awareness of the laws, City Charter, and City Code of Ethics regarding conflicts of interest. No officer, employee or agent of the City shall participate in the negotiation, selection, discussion, award or administration of a contract or procurement supported by public funds if: 1) that individual has a substantial interest in a person or entity, as defined by Section 2-463 of the City's Code of Ordinances and/or Chapter 171 of the Texas Local Government Code, that is the subject of the contract or procurement; or 2) a conflict of interest, either real or apparent, would be involved, as defined therein.

24. **CONFLICT OF INTEREST**: In accordance with Chapter 176, Local Government Code, a person who is a vendor and has a business relationship, as those terms are defined by Section 176.001(1-a), with the City and meets requirements under Section 176.006(a) is required to file a Conflict of Interest Questionnaire with the City Secretary not later than the 7th business day after the date the person becomes aware of facts that require the statement to be filed. See Section 176.006, Local Government Code. A person commits an offense if the person knowingly violates Section 176.006, Local Government Code. An offense under this section is a Class C misdemeanor.

A complete copy of Chapter 176 of the Local Government Code may be found at https://statutes.capitol.texas.gov/Docs/LG/htm/LG.176.htm.

25. **NON-RESIDENT BIDDERS**: Texas Government Code, Chapter 2252: Non-Resident Bidders. Texas law prohibits city and governmental units from awarding contracts to a non-resident bidder/proposer unless the amount of such bid is lower than the lowest bid by a Texas resident by the amount a Texas resident would be required to underbid the non-resident bidder/proposer on a bid/proposal for goods and services in the non-resident bidder's state.

26. **DELINQUENT TAXES**: Any person, firm, or corporation that is in arrears to the City for delinquent taxes or otherwise, will not be recommended for award of any bid/proposal until the arrearage has been cleared in writing. If a contractor or vendor becomes delinquent while a contract is in force, payment for goods or services provided to the City under said contract or purchase order may be withheld until the arrearage has been cleared in writing.

27. **MINIMUM STANDARDS FOR RESPONSIBILITY**: A prospective vendor must affirmatively demonstrate responsibility. The City of Rowlett may request representation and other information sufficient to determine vendor's ability to meet the minimum standards including but not limited to:

A. Have adequate financial resources, or the ability to obtain such resources as required
B. Ability to comply with the required or proposed delivery schedule
C. Have a satisfactory record of performance
D. Have a satisfactory record of integrity and ethics
E. Be otherwise qualified and eligible to receive an award

28. **AWARD OF CONTRACT**: The City reserves the right to award single or multiple contracts for the goods or services as stated herein, or to reject any and all bids. Furthermore, the City reserves the right to take administration costs into consideration when awarding to multiple vendors.

The City may award bids/proposals to the lowest responsive responsible vendor(s), or to the vendor(s) who provides goods or services at the best value to the City. If using the best value method, the selection criteria will be clearly identified in the bid/proposal document. The best value method may take into consideration, in whole or in part, by way of illustration and not limitation, the following criteria:

A. The purchase price
B. The reputation of the vendor and of the vendor's goods or services
C. The quality of the vendor's goods or services
D. The extent to which the goods or services meet the City's needs
E. The vendor's past relationship with the City
F. The total long-term cost to the City to acquire the vendor's goods or services
G. Any relevant criteria specifically listed herein

29. **ACCEPTANCE:** Vendor agrees that acceptance of any or all items by the City within a reasonable period of time, not to exceed one hundred twenty (120) days following the date and time designated for the receipt of the bid/proposal, shall be binding upon vendor. Vendor shall thereafter execute all documents necessary to enter into a contract in a form acceptable to and properly executed by the City to provide such goods and services.

30. **FUNDING**: The City is a home-rule municipal corporation operated and funded on a fiscal year basis from October 1 to September 30. Accordingly, the City reserves the right to terminate at any time, without liability to the City, any contract for which funding is not available in a subsequent fiscal year.

31. **ASSIGNMENT**: The successful vendor shall not sell, assign, transfer or convey any contract, in whole or in part, to any other person or party without the prior written consent of the City obtained through the City's Purchasing Office.

32. **DELIVERY PROMISE – PENALTIES**: Where indicated, vendors must provide the number of calendar days required to deliver goods or services to the City after receipt of order (ARO). **Do not quote shipping dates**. When a delivery delay can be foreseen, the vendor shall provide advance notice to the Purchasing Manager, who shall have the right to extend the delivery date if the reasons for delay are acceptable. Default in promised delivery, without acceptable reason(s), or failure to meet specifications as contained herein or in the contract documents, authorizes the Purchasing Office to purchase goods or services from an alternate source. The defaulting vendor may be subject to re-procurement costs.

33. **DELIVERY TIMES**: Unless otherwise specified herein, deliveries will only be accepted during normal working hours at the designated City location(s).

34. **INSPECTION**: Upon receipt of goods or services, the same will be inspected for compliance with the specifications contained herein or in the contract documents. If the goods or services do not pass inspection, the vendor will be required to remedy the situation at the vendor's sole expense. The vendor will be required to retrieve the rejected goods at the delivery point and provide the necessary repairs of or replacement and return of the goods in new condition to the original point of delivery; or re-perform services in accordance with the terms and conditions of the contract and to the City's satisfaction.

35. **INVOICES**: Invoices shall be submitted to the attention of the ordering department, P.O. Box 99, Rowlett, Texas 75088, or electronically to the appropriate department representative.

36. **PAYMENT TERMS**: Payment terms are net 30 days, unless otherwise specified by the City in the bid/proposal document.

37. **AUDIT**: The City shall have access to, and the right to examine, monitor and audit all vendor's records, documents, conditions and activities related to contracts awarded by the City. It shall be the responsibility of the vendor to maintain records associated with this procurement for a period of three (3) years after completion of the contract, or in the event of litigation, a claim or audit, the records shall be retained until the resolution of such litigation, claim or audit.

38. **INSURANCE**: The City requires vendor(s) to carry the minimum insurance as required by the greater of the requirements contained in state laws or the insurance requirements contained in the contract documents.

39. **INDEMNITY**: **The bidder shall defend, indemnify and hold the City, its current, former and future officers, agents and employees harmless from any and all costs, expenses, suits, demands, claims, liabilities, liens, encumbrances or damages, including attorneys' fees and costs of suit, of any character, name and description, incurred or resulting from any injuries or damages received or sustained by any person, persons or property on account of any intentional wrongful conduct or negligent act, omission, or fault of the successful bidder, or of any agent, employee, subcontractor or supplier for which the successful bidder is responsible in the execution of, or performance under, any contract which may result from bid award and the bidder so agrees upon the submission of the bid. The bidder shall deliver, if so requested by the City, a written release of all liens or other proper evidence of same, to the satisfaction of the City prior to the issuance of final payment by the City.**

40. **INDEMNITY; PATENT RIGHTS**: **The bidder/proposer agrees to indemnify and hold harmless the City from any claim involving patent right infringement or copyright infringement on goods or services supplied to the City pursuant to the contract documents.**

41. **PROTESTS**: All protests regarding the solicitation process must be submitted in written form to the Purchasing Manager within five (5) working days following the opening of bids/proposals. This includes all protests relating to legal advertisements, deadlines, bid/proposal openings, and all other related procedures under the Local Government Code, as well as any protests relating to alleged improprieties or ambiguities in the specifications contained herein or in the contract documents.

Post-award protests must be submitted in written form to the Purchasing Manager within five (5) working days after award.

The protest must include, at a minimum, the name of the protester, bid/proposal number or description of goods or services, and a statement of the grounds for the protest. The Purchasing Manager, having authority to make the final determination, will respond within ten (10) working days to each substantive issue raised in the protest. Allowances for reconsiderations shall be made only if data becomes available that was not previously known, or if there has been an error of law or regulation.

42. **TERMINATION FOR DEFAULT**: The City reserves the right to enforce the performance of the contract in any manner prescribed by law and deemed to be in the best interest of the City in the event of breach or default of the contract. The City reserves the right to terminate the contract immediately in the event the contracted vendor fails to meet delivery schedules or otherwise perform in accordance with the specifications contained herein or in the contract documents. Breach of contract or default authorizes the City to award the contract to another vendor, or purchase from an alternate source, and charge the full increase in cost plus any additional administrative costs incurred by the City to the defaulting contracted vendor.

43. **REMEDIES**: The successful vendor and the City agree that each party may have rights, duties, and remedies available as stated in the Uniform Commercial Code and any other available remedy, whether in law or equity.

44. **VENUE**: The validity of the contract and of any of its terms or provisions, as well as the rights and duties thereunder or under the contract documents, shall be governed by and construed in accordance with the laws of the State of Texas. Exclusive venue for any legal action shall lie in the state courts of Dallas County, Texas.

45. **ENERGY BOYCOTT:** In accordance with Chapter 2274, Texas Government Code (Acts 2021, 87th Leg., S.B. 13), the City may not enter into a contract with a company, excluding a sole proprietorship, with 10 or more full-time employees for goods or services valued at $100,000 or more unless the contract contains a written verification from the company that the company: (1) does not boycott energy companies; and (2) will not boycott energy companies during the term of the contract. The signatory executing the Contract on behalf of Seller verifies Seller does not boycott energy companies and will not boycott energy companies during the term of the Contract. The foregoing verification is made solely to comply with Section 2274.002, Texas Government Code, and does not apply if the City determines the requirements of Subsection 2274.002(b) are inconsistent with the City's constitutional or statutory duties related to the issuance, incurrence or management of debt obligations or the deposit, custody, management, borrowing or investment of funds.

46. **FIREARMS:** In accordance with Chapter 2274, Texas Government Code (Acts 2021, 87th Leg., S.B. 19) the City may not enter into a contract with a company, excluding a sole proprietorship, with 10 or more full-time employees for goods or services valued at $100,000 or more unless the contract contains a written verification from the company that the company: (1) does not have a practice, policy, guidance, or directive

that discriminates against a firearm entity or firearm trade association; and (2) will not discriminate during the term of the contract against a firearm entity or firearm trade association. The signatory executing the Contract on behalf of Seller verifies Seller does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and will not discriminate during the term of the contract against a firearm entity or firearm trade association. The foregoing verification is made solely to comply with Section 2274.002, Texas Government Code, and does not apply if the City contracts with a sole-source provider or if the City does not receive any bids, if applicable, from a company that is able to provide the required verification.

47. **CRITICAL INFRASTRUCTURE:** In accordance with Chapter 2274, Texas Government Code, the City may not enter into a contract or agreement with a company, excluding a sole proprietorship, with 10 or more full-time employees for goods or services valued at $100,000 or more (1) if the company would be granted direct or remote access to or control of critical infrastructure in Texas, excluding access specifically allowed by the City for product warranty and support purposes and (2) if the City knows the company is (A) owned by or the a majority of stock or other ownership interest of the company is held or controlled by (i) individuals who are citizens of China, Iran, North Korea, Russia, or a designated country or (ii) a company or other entity, including a governmental entity, that is owned or controlled by citizens of or is directly controlled by the government of such countries, or (B) headquartered in such countries. The signatory executing the Contract on behalf of Seller represents that neither Seller nor any of its parent companies, wholly owned subsidiaries, majority-owned subsidiaries, and other affiliates is a company of which the City may not contract pursuant to Section 2274.0102, Texas Government Code. The foregoing verification is made solely to comply with Section 2274.0102, Texas Government Code.

48. **ANTI-BOYCOTT ISRAEL VERIFICATION:** In accordance with Chapter 2271, Texas Government Code, the City may not enter into a contract with a company, excluding a sole proprietorship, with 10 or more full-time employees for goods or services valued at $100,000 or more unless the contract contains a written verification from the company that it: (1) does not boycott Israel; and (2) will not boycott Israel during the term of the contract. The signatory executing the Contract on behalf of Seller verifies that Seller and its parent company, wholly-owned subsidiaries, majority-owned subsidiaries, and other affiliates, if any, do not boycott Israel and, to the extent the Contract is a contract for goods or services, will not boycott Israel during the term of the Contract. As used in the foregoing verification, "boycott Israel" means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations specifically with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purposes. The signatory understands "affiliate" to mean an entity that controls, is controlled by, or is under common control with the signatory and exists to make a profit. This section does not apply to a Vendor which is a sole proprietorship and/or which has less than 10 full-time employees. This section does not apply to a contract valued at less than $100,000.

49. **IRAN, SUDAN, AND FOREIGN TERRORIST ORGANIZATIONS:** The signatory executing the Contract on behalf of Seller represents that neither Seller nor any of its parent company, wholly-owned subsidiaries, majority-owned subsidiaries, and other affiliates is a company identified on a list prepared and maintained by the Texas Comptroller of Public Accounts under Section 2252.153 or Section 2270.0201, Texas Government Code, and posted on any of the following pages of such officer's internet website:

https://comptroller.texas.gov/purchasing/docs/sudan-list.pdf,
https://comptroller.texas.gov/purchasing/docs/iran-list.pdf, or
https://comptroller.texas.gov/purchasing/docs/fto-list.pdf.

The foregoing representation is made solely to comply with Section 2252.152, Texas Government Code, and to the extent such Section does not contravene applicable Federal law and excludes the entity and

each of its parent company, wholly-owned subsidiaries, majority-owned subsidiaries, and other affiliates, if any, that the United States government has affirmatively declared to be excluded from its federal sanctions regime relating to Sudan or Iran or any federal sanctions regime relating to a foreign terrorist organization. The signatory understands "affiliate" to mean any entity that controls, is controlled by, or is under common control with the signatory and exists to make a profit.

SECTION 5 ADDITIONAL CONDITIONS FOR PUBLIC WORKS CONSTRUCTION CONTRACTS

ADDITIONAL CONDITIONS FOR PUBLIC WORKS CONSTRUCTION CONTRACTS

1. **APPLICATION:** The following additional conditions apply to projects for which a Public Works Construction Contract will be executed.

2. **QUALIFICATIONS OF BIDDER:** The City may make such investigations as it deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the City all such information and data for this purpose as the City may request. The City reserves the right to reject any bid if the evidence submitted by, or investigation of, such bidder fails to satisfy the City that such bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated herein. The following list is not exclusive:

   Five (5) Prior Projects: Bidder participants, whether general contractor, prime contractor, joint venture contractor or subcontractor, shall provide documented evidence of having completed at least five (5) projects for the installation and construction of facilities similar in nature to the project being bid and having 10 years experience. Bidder shall be required to submit references of previous projects to enable the City to verify references. This experience documentation shall be submitted prior to, and as a special requirement for, being considered for award of the contract for the subject project. Any bid may be rejected if the City determines that the Bidder has not provided documented evidence of having successfully and timely completed at least five (5) projects that are similar in nature, scope, and size as that contemplated herein. The city may make inquiry with the owners of any other projects. Conditional bids will not be accepted. This information should include at a minimum:

   Names and addresses of similar projects
   Owner's Name
   Owner's representative including telephone number and email address
   Architect or Engineer Name
   Architect or Engineer representative including telephone number and email address

   Financial Statements: A bid may be rejected if the City determines that the bidder lacks sufficient financial resources or soundness to commence, operate and complete the Project. Bidders shall, in addition to other documents required herein, provide recent financial statements covering the two immediately preceding calendar years. Financial statements should be marked or stamped "CONFIDENTIAL" by the Bidder and, to the fullest extent allowed by law, will be kept and maintained as confidential by the City. Financial statements must demonstrate sufficient assets, resources, and income, based on the nature, scope and size of the Project, to demonstrate to the City's sole satisfaction, that the Bidder has the financial capacity to fully perform the Project. The City's review and evaluation of the financial soundness of the Bidder is solely and exclusively within the City's sole discretion.

   Subcontractors: At least 51% of the work must be completed by the primary contractor and the City reserves the right to approve all sub-contractors. Sub-contractor information must be submitted with the bid for evaluation.

3. **BID SECURITY:** Each bid must be accompanied by a certified check of the bidder, or a bid bond, duly executed by the bidder as principal and having as surety thereon a surety company approved by the city, in the amount of 5% of the bid. Such checks will be returned thirty days after the award of the contract, or, if no award has been made within 90 days after the date of the opening of bids, upon demand of the bidder at any time thereafter, so long as he has not been notified of the acceptance of his bid.

The successful bidder, upon his failure or refusal to execute and deliver the contract and bonds required within 10 days after he has received notice of the acceptance of his bid, shall forfeit to the City the security deposited with his bid.

4. **TIME OF COMPLETION AND LIQUIDATED DAMAGES:** Bidders must agree to commence work on or before a date to be specified in a written "Notice to Proceed" of the City and to fully complete the project within the specified time as stated in the proposal.

   TIME IS OF THE ESSENCE IN THE PERFORMANCE OF THIS PROJECT. THE CITY EMPLOYS A ZERO-TOLERANCE POLICY FOR TIME OF COMPLETION. FAILURE TO MEET THE CONTRACTUAL DEADLINE, OR A DELAY IN MEETING PROJECT SCHEDULES, MAY BE DEEMED A DEFAULT.

   Liquidated damages may be imposed per Section 3.4.1 of the Public Works Construction Contract due to work delay.

5. **SECURITY FOR FAITHFUL PERFORMANCE:** Simultaneously with his delivery of the executed contract, the Contractor shall furnish Performance Bond in the amount of one hundred fifteen percent (115%) and Payment Bond in the amount of one hundred percent (100%) of the total contract price as security for faithful performance of this contract and for the payment of all persons performing labor on the project under this contract and furnishing materials in connection with this contract, as specified in the Special Conditions included herein. The surety on such bond or bonds shall be a duly authorized surety company satisfactory to the City.

6. **LIQUIDATED DAMAGES FOR FAILURE TO ENTER INTO CONTRACT:** The successful bidder, upon his failure or refusal to execute and deliver the contract and bonds required within 10 days after he has received notice of the acceptance of his bid, shall forfeit to the City, as liquidated damages for such failure or refusal, the security deposited with his bid. This liquidated damage amount is not a penalty but is, instead, a reasonable forecast of actual damages that the City may sustain were the bidder to default.

7. **MAINTENANCE BOND:** A Maintenance Bond for two years from the formal date of final acceptance in the amount of 100% of the final contract price to cover defective workmanship of materials is required for all projects as discussed in the Special Conditions.

8. **POWER OF ATTORNEY:** Attorneys-in-fact who sign bid bonds or contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

9. **CONDITIONS OF WORK:** Each bidder must inform himself fully of the conditions relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful bidder of his obligation to furnish all material and labor necessary to carry out the provisions of his contract. Insofar as possible, the Contractor, in carrying out his work, must employ such methods or means as will not cause any interruption of or interference with the work of any other contractor and will be responsible for coordination with utilities on site.

10. **ADDENDA AND INTERPRETATIONS:** Bidders are responsible for a thorough review of the contract documents, plans and specifications. Bidders shall assume all risk of any ambiguities. Thus, it is imperative that bidders be familiar with the contract documents as well as the job site. If there is any ambiguity in the plans and specifications that give rise to two or more different interpretations of the work called for, the bidder will be assumed to have bid the most expensive alternative.

    No interpretation of the meaning of plans, specifications, or other pre-bid documents will be made to any bidder orally. Every inquiry or request for such interpretation should be in writing addressed to the Purchasing Office at purchasing@rowlett.com and any architectural or engineering firm included in any special instructions. To be given consideration requests must be received at least three days prior to the date fixed

for the opening of bids. All such interpretations and any supplemental instructions will be in the form of written addenda to the specifications which, if issued, will be posted through the eProcurement at https://www.bidnetdirect.com. Bidders are expected to check the eProcurement system for all addenda not later than two days prior to the date fixed for opening of bids. Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the contract documents.

11. **NOTICE OF SPECIAL CONDITIONS:** Attention is particularly called to those parts of the contract documents and specifications which deal with the following:

a. Inspection and testing of materials
b. Insurance requirements
c. Prevailing Wage rates
d. Stated allowances
e. 100% maintenance bond (Construction projects exceeding $50,000)
f. 100% payment bond (Construction projects exceeding $50,000)
g. 115% performance bond (Construction projects exceeding $100,000)

12. **LAWS AND REGULATIONS:** The bidder's attention is directed to the fact that all applicable State laws, municipal ordinances, and rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.

13. **OBLIGATION OF BIDDERS:** At the time of the opening of bids each bidder will be presumed to have inspected the site and to have read and to be thoroughly familiar with the plans and contract documents (including all addenda). The failure or omission of any bidder to examine any form, instrument or document shall in no way relieve the bidder from any obligation in respect to his bid.

14. **WORK ORDER CHANGES:** It is understood that the quantities of work to be done at unit prices are approximate only and are intended principally to serve as a guide in evaluating bids. Any change order will be approved by the City prior to work being started on said change.

It is further agreed that the quantities of work to be done at unit prices and materials to be furnished may be increased or diminished as may be considered necessary, in the opinion of the Engineer, to complete the work fully as planned and contemplated and that all quantities of work, whether increased or decreased, are to be performed at the unit prices set forth except as provided for in the specifications. The City reserves the right to increase or decrease the amount of work to be done by any amount not to exceed twenty-five percent (25%) of the original contract amount except as noted in the Measurement and Payment Section. In the event the increase pertains to items not originally bid, the Contractor shall submit a bid in writing to the Engineer for approval.

It is further agreed that lump sum prices may be increased to cover additional work ordered by the Engineer but not shown on the plans or required by the specifications, in accordance with the provisions of the general conditions; similarly, they may be decreased to cover deletion of work so ordered.

The City reserves the right to reject the Contractor's bid on such extra work and secure such work to be done other than by said Contractor.

The time for performance set forth in the contract documents contemplates normal bad weather days and typical construction delays. Extensions in the time for performance may be given or allowed for if and only if the extension is approved by the City and the approval is evidenced by a written and signed Change Order.

15. **MINIMUM WAGE RATES:** Each bidder, contractor or subcontractor shall comply with the Texas Minimum Wage Act, Texas Labor Code regarding prevailing minimum wages.

16. **RETAINAGE:** Retainage will be withheld on this project according to Section 5.2.5 of the Public Works Construction contract.

17. **DIGITAL DATA SUBMISSION:** Any contract that requires a mapping submission must meet the standards stated per document "Digital Data Submissions Standards" provided on page 22.

18. **SALES TAX LAW:** Legislation has removed the sales tax exemption previously provided by Section 151.311 of the Tax Code covering tangible personal property purchased by a contractor for use in the performance of a contract for the improvement of City-owned realty.

    It is still possible, however, for a contractor to make tax-free purchases of tangible personal property which will be incorporated into and become a part of a City construction project through the use of a "separated contract" with the City. A "separated contract" is one which separates charges for materials from charges for labor. Under such a contract, the Contractor becomes a "seller" of those materials which are incorporated into the project, such as bricks, lumber, concrete, paint, etc. The Contractor issues a resale certificate in lieu of paying the sales tax at the time such items are purchased. The Contractor then receives an exemption certificate from the City for those materials. (This procedure may not be used, however, for materials which do not become a part of the finished product. For example, equipment rentals, form materials, etc. are not considered as becoming "incorporated" into the project.)

    Utilization of this "separated contract" approach eliminates the need for bidders to figure in sales tax for materials which are to be incorporated into the project. The bidder should therefore be certain, when completing the bid form, to separate the bid as provided on the bid form. The successful bidder, prior to award of a construction contract, shall furnish a complete bid form separating by each item taxable and non-taxable amounts of the amount bid.

19. **PREFERENCE FOR RECYCLED PRODUCT:** Per Texas Administrative Code, Title 30 Environmental Quality, Part 1 Texas Commission on Environmental Quality, Chapter 328, Subchapter k., Rule 328.203, the City of Rowlett is required to give preference in purchasing to products made of recycled materials if the products meet applicable specifications as to quantity and quality and the average price of the product is not more than 10% greater than the price of comparable nonrecycled products. Preferences will be applied in accordance with state procurement statutes and rules.

    The City relies on vendors to correctly represent the products offered in response to a solicitation and will not be responsible for incorrect information provided by an offeror/vendor. Categories of recycled products and recommended percentages of post-consumer materials and total recovered materials content can be found in the Environmental Protection Agency's Comprehensive Procurement Guidelines at Comprehensive Procurement Guideline (CPG) Program | US EPA.

20. **WORKING DAYS AND HOURS:** The contractor must commence work within ten (10) days of the notice to proceed or work order date. Working days will be charged Monday through Friday, excluding national holidays, regardless of weather conditions or material availability. No work is allowed on Sundays or official City holidays. The Contractor has the option of working on Saturdays at the City's discretion. Prior written authorization from the City is required.

    Requests for after-hours engineering inspections must be submitted in writing at least 48 hours in advance, with cancellations communicated by 4:00 P.M. the day before to avoid a two-hour minimum fee; same-day cancellations, except for weather-related issues, will incur the same charge. The after-hours inspection fee is $75 per hour, with a minimum of two hours, and project acceptance is contingent upon the full payment of

all inspection fees. Any work done without proper inspection is subject to removal and replacement as directed by the City.

Digital Data Submission Standards

The City of Rowlett has adopted geographic information system (GIS) technologies to store, manage, and maintain spatially related (geographic) data. The land development, civil engineering, and surveying communities have also embraced digital technologies in their respective professional communities. Because development plans are now created using computer aided design and drafting (CAD), it is the goal of City of Rowlett to leverage such advanced techniques to expedite the design and plan review processes within the city. For such an effort to succeed, standards must be implemented to allow CAD data to be integrated into the City's GIS while preserving the referential and positional accuracy of the original measurements. These standards will enhance file transfer abilities between the City of Rowlett, developers, and engineers as well as between departments of the City of Rowlett. The process will also improve efficiency in the form of data input time, cost, manpower, and services at the City of Rowlett.

Each submission must contain:

- One digital CAD file of the plan .dwg or .dxf or ESRI .shp file.
- One digital PDF of the plan.

Digital File Format:

- Autodesk Autocad .dwg format version 2000 – 2013 or a .dxf format.
- ESRI .shp format must also include associated .dbf, .shx files.
- No polylines or annotation shall be stored in blocks. Explode all blocks that do exist. (Block references migrate to GIS as a single point at the block's insertion point).
- No annotation shall be included in any feature layer and no feature shall be included in any annotation layer. Annotation for each layer shall be placed in annotation layers.
- Drawing features shall include layer names. Systems using numbered levels, such as Microstation, must include a conversion table in the .dxf file creation process that can be used to specify named layers.
- Closure is critical in converting CAD elements to GIS features. If appropriate (ie. parcel boundaries, subdivision boundary, buildings), all polygonal features shall be 'snapped' closed.

Spatial Reference Information:

Digital data provided to or produced for the city must be georeferenced. Please tie all surveys to the State Plane coordinate system. The standard coordinate system for City:

Projected coordinate system name:	NAD1983 State Plane Texas North Central FIPS 4202
Geographic coordinate system name:	GCS North American 1983
Map Projection Name:	Lambert Conformal Conic
Planar Distance Units:	Survey Feet

Delivery:

Send an email with the CAD drawings along with the title of the drawing, type of drawing (e.g., As-built, Final Plat, etc). For any questions, please email gis@rowlett.com

SECTION 6 BID FORMS

BID FORM

BID NO. 2026-32-B

S.H. 66 EAST SEWER REHABILITATION PROJECT 2 - 18"/15" SANITARY SEWER REHABILITATION

Item No.	Estimated Quantity	Units	Description	Unit Cost	Total Amount
1	1	LS	Mobilization (Limited to a Maximum of 5% of total bid)	$ 50,000.00	$ 50,000.00
2	70	CY	Plug, Pressure Grout and Abandon Existing Sewer Lines, All Sizes, Types and Depths	$ 400.00	$ 28,000.00
3	6800	LF	Trench Safety (Sanitary Sewer)	$ 2.00	$ 13,600.00
4	50	LF	Trench Safety (Water Line)	$ 5.00	$ 250.00
5	1	LS	Allowance for Irrigation Lines, Heads and Valves Repair/Restoration (Requires Prior Approval of City Inspector and Invoices for Irrigation Repair/Restoration)	$ 32,000.00	$ 32,000.00
6	7	EA	Remove and Reset Signs, All Types & Sizes	$ 500.00	$ 3,500.00
7	6	EA	Remove and Salvage to Property Owner Monument Signs, All Types & Sizes	$ 800.00	$ 4,800.00
8	8	EA	Remove and Salvage to Property Owner Light Poles, All Types & Sizes	$ 3,500.00	$ 28,000.00
9	6	EA	Remove and Reset Bollards, All Types & Sizes	$ 500.00	$ 3,000.00
10	1	EA	Remove and Salvage to Property Owner Flagpole	$ 1,500.00	$ 1,500.00
11	500	LF	Removal of Existing Fences and Installation of New Fences to Match Existing (i.e., in kind), All Types & Sizes	$ 150.00	$ 75,000.00
12	200	LF	Removal of Existing Wrought Iron Fence, Salvage and Re-Installation of Fence, All Types & Sizes	$ 160.00	$ 32,000.00
13	1	LS	Erosion Control including: SWPPP, Silt Fence, Inlet Protection	$ 15,000.00	$ 15,000.00
14	1	LS	General Site Preparation (includes; but not limited to; tree removal, concrete removal not paid under another bid item, plugs, adjusting all conflicting objects not paid elsewhere, adjustment of utilities, adjustment of valves, adjustment of meter boxes, protection of trees, removal/protection of shrubbery/plants, removal/protection of sod, removal/protection of other vegetation, and all other incidentials to the project, etc.)	$ 20,000.00	$ 20,000.00
15	23	EA	Removal of Existing Manhole, All Types, Sizes and Depths	$ 700.00	$ 16,100.00
16	3940	LF	Remove Existing Sewer, All Sizes, Types and Depths (Excluding Service Lines)	$ 2.00	$ 7,880.00
17	1	LS	Replacement of Shrubbery, Plants and Other Vegetation	$ 20,000.00	$ 20,000.00
18	26700	SY	Seeding Turf-grass to Match Existing (i.e., in kind) to a minimum coverage of 80%	$ 18.00	$ 480,600.00
19	200	SY	Sawcuts, Removal, Disposal and Replacement of Minimum 4" Thick Reinforced Concrete Sidewalk	$ 90.00	$ 18,000.00

20	4240	SY	Removal, Disposal and Replacement of Reinforced Concrete/Asphalt Pavement and Drive (including all curb and full depth saw cutting)	$ 120.00	$ 508,800.00
21	25	EA	5' Diameter Manhole (To 6' Depth)	$ 16,000.00	$ 400,000.00
22	12	EA	5' Diameter Drop Manhole (To 6' Depth)	$ 18,000.00	$ 216,000.00
23	10	EA	Replace Manhole Cone, Frame and Cover; as Directed by City	$ 4,500.00	$ 45,000.00
24	10	EA	4" Service Connections w/Cleanouts, all Lengths	$ 2,300.00	$ 23,000.00
25	10	EA	6" Service Connections w/Cleanouts, all Lengths	$ 3,500.00	$ 35,000.00
26	8	EA	Connect to Existing Manhole (All Sizes, Types and Depths; Includes Plugging and Repairing)	$ 1,000.00	$ 8,000.00
27	1	TON	Ductile Iron Fittings w/Restraints	$ 4,000.00	$ 4,000.00
28	590	LF	18" ASTM F679 PS115 PVC Sewer Line with 1/2" Thick 36" Steel Casing By Other Than Open Cut	$ 1,100.00	$ 649,000.00
29	50	LF	15" ASTM D3034 SDR26 PVC Sewer Line with 1/2" Thick 36" Steel Casing Casing By Other Than Open Cut	$ 1,000.00	$ 50,000.00
30	230	LF	Cement Stabilized Sand Encasement (All Pipe Types, All Sizes, All Depths)	$ 250.00	$ 57,500.00
31	90	LF	Concrete Encasement (All Pipe Types, All Sizes, All Depths)	$ 300.00	$ 27,000.00
32	50	LF	8" C-900 PVC Water Line	$ 200.00	$ 10,000.00
33	4980	LF	18" ASTM F679 PS115 PVC Sewer Line By Open Cut (All Depths)	$ 112.00	$ 557,760.00
34	1560	LF	15" ASTM D3034 SDR26 PVC Sewer Line By Open Cut (All Depths)	$ 110.00	$ 171,600.00
35	20	LF	10" ASTM D3034 SDR26 PVC Sewer Line By Open Cut (All Depths)	$ 200.00	$ 4,000.00
36	70	LF	8" ASTM D3034 SDR26 PVC Sewer Line By Open Cut (All Depths)	$ 190.00	$ 13,300.00
37	2	EA	18" Aerial Crossing Complete-In-Place (Includes collars, pipe, coatings, welding, piers, encasement, excavation, backfill, etc.; per City Standard)	$ 80,000.00	$ 160,000.00
38	4	EA	Rehabilitate Manhole (includes cleaning, repairs and coating, etc.)	$ 6,000.00	$ 24,000.00
39	1	EA	Remove & Replace Inlet and Adjacent Storm Drain Pipe near Sta 45+50	$ 7,000.00	$ 7,000.00
40	1	LS	Traffic Control including ALL Barriers and Warning and/or Detour Signs	$ 12,000.00	$ 12,000.00
41	3	EA	Cofferdam and Dewatering for Aerial Crossing or Concrete Encasement Crossing	$ 30,000.00	$ 90,000.00
42	20	SY	Removal, Disposal and Replacement of Minimum 5" Thick Reinforced Concrete Flumes (including curbs if applicable) To Match Existing Near Sta 64+60	$ 150.00	$ 3,000.00
43	380	LF	6" White Skip Stripes (paid for paint only, not gaps) - Hot Applied Thermoplastic (90 mils)	$ 20.00	$ 7,600.00
44	290	LF	8" Solid White Stripes - Hot Applied Thermoplastic (90 mils)	$ 20.00	$ 5,800.00
45	30	EA	Reflective Buttons Type I-C	$ 50.00	$ 1,500.00

46	1	EA	Remove & Salvage Brick Wall to Property Owner near Sta 69+70	$ 12,000.00	$ 12,000.00
47	1	EA	Water Line Lowering	$ 12,000.00	$ 12,000.00
48	230	VF	5' Diameter Manhole (Extra Depth >6')	$ 125.00	$ 28,750.00
49	150	VF	5' Diameter Drop Manhole (Extra Depth >6')	$ 150.00	$ 22,500.00
50	5	EA	Sawcuts, Removal, Disposal and Replacement of Minimum 4" Thick Reinforced Concrete ADA Ramps (including Domes and Panels)	$ 4,500.00	$ 22,500.00
51	1	EA	Remove and Salvage to City Weather Siren	$ 10,000.00	$ 10,000.00
Total Bid:					**$ 4,047,840.00**

BID CERTIFICATION FORM
BID NO. 2026-32-B

The undersigned bidder having thoroughly examined the contract documents, including plans, specifications, the site of the project and understanding the amount of work to be done and the prevailing conditions, hereby proposes to do all the work, furnish all labor, equipment, and material, except as specified to be furnished by the City, which is necessary to fully complete all of the work as provided in the plans and contract documents and subject to the inspection and approval of the City of Rowlett, Texas, and binds himself upon acceptance and award of this bid to execute a contract and furnish all required insurance, sureties and bonds, as may be required by the contract documents for the performing and completing of said work. Contractor proposes to do the work within the time stated at the bid prices submitted on the Bid Form and agrees to abide by the terms and statutory requirements governing the solicitation process.

A. FIRM INFORMATION

Legal Name of Vendor: Muniz Construction, Inc.

Tax ID Number: 20-5492349 Telephone No: (972) 557-1385

State of Formation: Texas Year of Formation: 2006

Address: 1835 Garden Springs Drive

Dallas, Texas 75253

Contact Name and Title: J Ramon Muniz - President

Contact Email Address: munizconstruction@live.com

B. ADDENDA

All addenda shall be issued in written form by the Purchasing Office. The City is not bound by any oral representations, clarifications, or changes made in connection to the bid by the City's employees, agents or consultants unless in the form of a properly issued Addendum.

Recognizing this responsibility, the bidder hereby acknowledges receipt of the following Addenda:

Addendum _____ Initial _____ Addendum _____ Initial _____

Addendum_____ Initial _____ Addendum _____ Initial _____

Addendum_____ Initial _____ Addendum _____ Initial _____

The failure of the bidder to contact the Owner to determine the issuance of any Addenda, or to acknowledge receipt of any and all of the Addenda issued in connection with this project, shall entitle the City, at its sole discretion, to (i) reject the bid as being non-responsive, or (ii) to accept the bid, in which event the bidder agrees to be bound by all of the terms and conditions of each unacknowledged Addendum.

C. CERTIFICATION

Within ten (10) days after acceptance of this Proposal, the undersigned will execute the formal contract and will deliver an approved Surety Bond and such other bonds as required by the Contract Documents, for the faithful performance of the Contract. The attached bid security in the amount of 5% is to become the property

of the Owner in the event the contract and bond or bonds are not executed and delivered within the time above set forth, as liquidated damages for the delay and additional work caused thereby.

The undersigned assures that its employees and applicants for employment and those of any labor organization, subcontractors, or employment agency in either furnishing or referring employee applicants to the undersigned are not discriminated against.

The bidder agrees to begin construction within 10 calendar days after the issuance of the Notice to Proceed with Construction (Work Order). **Substantial completion of the work will be achieved within 270 calendar days of the date indicated on the Notice to Proceed and final completion will be achieved within 30 calendar days after substantial completion.**

I certify that I have the legal authority to bind the bidder listed above, and I further certify that there are no objections to any of the terms and conditions listed in this bid document.

Signature of Authorized Representative: 

Printed Name and Title of Authorized Representative: J Ramon Muniz - President

Date of Certification: 2/25/2025

SUBCONTRACTOR FORM

List of Major Subcontractors

The Bidder expressly agrees that:

1. If awarded a Contract as a result of this Bid, the major subcontractors used in the prosecution of the work will be those listed below, and

2. The following list includes all subcontractors who will perform work on this contract.

3. The Bidder represents that the subcontractors listed below are financially responsible and are qualified to perform the work required.

Category	Name of Subcontractor	Address	Meets Qualifications
Bore	Skaggs Road Boring, Inc.	194 Civic Civic Circle, Lewisville, TX 75029	Yes

BID BOND
BID NO. 2026-32-B

STATE OF TEXAS

COUNTY OF DALLAS

KNOW ALL MEN BY THESE PRESENTS: That we Muniz Construction, Inc. hereinafter referred to as "Principal", and FCCI Insurance Company, a corporation organized and existing under the laws of the State of Florida, with its principal office in the City of Sarasota and fully licensed to transact business in the State of Texas, as Surety (herein referred to as "Surety"), are held and firmly bound unto the **CITY OF ROWLETT**, a home-rule municipal corporation organized and existing under the laws of the State of Texas, hereinafter referred to as "Owner", in the full and just sum of Five Percent of the Greatest Amount Bid Dollars ($ 5%) (five percent (5%) of the total bid price) in lawful money of the United States, to be paid in Dallas County, Texas, upon demand of the Owner, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to submit, or has submitted to the Owner, a Bid for furnishing all labor, materials, equipment and incidentals necessary to perform, as described in these Contract Documents; and

WHEREAS, the Contractor desires to file this bond in accordance with law, in lieu of a certified bidder's check otherwise required to accompany this bid.

NOW, THEREFORE, The conditions of this obligation are such that if the Bid is accepted, the Principal shall, within ten (10) days after the date of receipt of a written notice of award of contract, execute a contract in accordance with the Bid and upon the terms, conditions and price(s) set forth therein, of form and manner required by the Owner, and execute a sufficient and satisfactory contract Performance Bond in an amount of One Hundred Fifteen Percent (115%), and a Payment Bond and Maintenance Bond, in an amount of One Hundred Percent (100%) of the total Contract price, each payable to the Owner, in form and with security satisfactory to said City of Rowlett, then this obligation to be void; otherwise to be and remain in full force and virtue in law; and the Surety shall, upon failure of the Principal to comply with any or all of the foregoing requirements within the time specified above, immediately pay to the aforesaid City of Rowlett, upon demand, the amount hereof in good and lawful money of the United States of America not as a penalty but as liquidated damages.

Surety companies executing Bonds must hold Certificates of Authority as Acceptable Sureties, must appear on the Treasury Department's most current list "A" Rating or better (Circular 570 as amended), and be authorized to transact business in the State of Texas.

PROVIDED FURTHER, that if any legal action were filed on this Bond, exclusive Venue shall lie in Dallas County, Texas.

[Signatures on the next page]

IN TESTIMONY THEREOF, The Principal and Surety have caused these presents to be duly signed and sealed this, the 25th day of February, 2026.

ATTEST:

By: _____
Signature

Carlos Ramirez
Printed Name

Project Manager
Title

1835 Garden Springs Drive
Address

Dallas, Texas 75253-2812
City, State, Zip Code

972-557-1385
Phone Number

PRINCIPAL:

Muniz Construction, Inc.
Company Name

By: _____
Signature

J Ramon Muniz
Printed Name

President
Title

1835 Garden Springs Drive
Address

Dallas, Texas 75253-2812
City, State, Zip Code

972-557-1385
Phone Number

ATTEST:

By: _____
Signature

Brisa Reyes
Printed Name

Agent
Title

5057 Keller Springs Road, Suite 200
Address

Addison, Texas 75001
City, State, Zip Code

972-201-0450
Phone Number

SURETY:

FCCI Insurance Company
By: _____
Signature

Teresa Ayala
Printed Name

Teresa Ayala - Attorney-in-Fact
Title

6300 University Parkway
Address

Sarasota, Florida 34240-8424
City, State, Zip Code

800-226-3224
Phone Number

The Resident Agent of the Surety in Dallas County, Texas, for delivery of notice and service of the process is:

NAME: Steven Lewis

STREET ADDRESS: 5057 Keller Springs Road, Suite 200

CITY, STATE, ZIP: Addison, Texas 75001

FCCI INSURANCE GROUP

GENERAL POWER OF ATTORNEY

Know all men by these presents: That the FCCI Insurance Company, a Corporation organized and existing under the laws of the State of Florida (the "Corporation") does make, constitute and appoint:

Troy Russell Key; Debra Lee Moon; Andrea Rose Crawford; Sandra Lee Roney; Colin E. Conly; John R. Ward; Thomas Douglas Moore; Emily Allison Mikeska; Allyson W. Dean; Andrew Gareth Addison; Patrick Thomas Coyle; Elizabeth Ortiz; Ana Owens; Faith Ann Hilty; Andrew Patrick Clark; Kimberly Rochelle Gonzalez; Crystal Gail Langhorn; Steven Wayne Lewis; Sheri Renee Allen; Peggy Gradel Hogan; Teresa Ayala; Kelli A. Gorham; Mark Robert Adams; Cory Kiper; Ross Rudolph Laris; Brian Paul Bordlee; Alyssa J Lopez; Howard Cowan

Each, its true and lawful Attorney-In-Fact, to make, execute, seal and deliver, for and on its behalf as surety, and as its act and deed in all bonds and undertakings provided that no bond or undertaking or contract of suretyship executed under this authority shall exceed the sum of (not to exceed $30,000,000.00): $30,000,000.00

This Power of Attorney is made and executed by authority of a Resolution adopted by the Board of Directors. That resolution also authorized any further action by the officers of the Company necessary to effect such transaction.

The signatures below and the seal of the Corporation may be affixed by facsimile, and any such facsimile signatures or facsimile seal shall be binding upon the Corporation when so affixed and in the future with regard to any bond, undertaking or contract of surety to which it is attached.

In witness whereof, the FCCI Insurance Company has caused these presents to be signed by its duly authorized officers and its corporate Seal to be hereunto affixed, this 23rd day of July, 2020.

Attest: _____
Christina D. Welch, President
FCCI Insurance Company

FCCI INSURANCE COMPANY CORPORATE SEAL 1994 FLORIDA

_____
Christopher Shoucair,
EVP, CFO, Treasurer, Secretary
FCCI Insurance Company

State of Florida
County of Sarasota

Before me this day personally appeared Christina D. Welch, who is personally known to me and who executed the foregoing document for the purposes expressed therein.

My commission expires: 2/27/2027

NOTARY PUBLIC STATE OF FLORIDA
PEGGY SNOW
Commission # HH 326535
Expires February 27, 2027

_____
Notary Public

State of Florida
County of Sarasota

Before me this day personally appeared Christopher Shoucair, who is personally known to me and who executed the foregoing document for the purposes expressed therein.

My commission expires: 2/27/2027

NOTARY PUBLIC STATE OF FLORIDA
PEGGY SNOW
Commission # HH 326535
Expires February 27, 2027

_____
Notary Public

CERTIFICATE

I, the undersigned Secretary of FCCI Insurance Company, a Florida Corporation, DO HEREBY CERTIFY that the foregoing Power of Attorney remains in full force and has not been revoked; and furthermore that the February 27, 2020 Resolution of the Board of Directors, referenced in said Power of Attorney, is now in force.

Dated this 25th day of February, 2026

_____
Christopher Shoucair, EVP, CFO, Treasurer, Secretary
FCCI Insurance Company

1-IONA-3592-NA-04, 7/2021

IMPORTANT NOTICE

To obtain information or make a complaint:

You may call FCCI Insurance Group's (FCCI)* toll-free telephone number for information or to make a complaint at 1-800-226-3224.

You may also write to FCCI Insurance Group Compliance Department e-mail at StateComplaints@fcci-group.com.

For Claims, you may write to FCCI Insurance Group Claim Department e-mail at newclaim@fcci-group.com.

You may contact the Texas Department of Insurance to obtain information on companies, coverages, rights or complaints at 1-800-252-3439.

You may write the Texas Department of Insurance:

PO Box 149104
Austin TX 78714-9104
Fax: 1-512-475- 1771
Web: http://www.tdi.state.tx.us
E-mail: ConsumerProtection@tdi.state.tx.us

PREMIUM OR CLAIM DISPUTES

Should you have a dispute concerning your premium or about a claim you should contact FCCI first. If the dispute is not resolved, you may contact the Texas Department of Insurance.

ATTACH THIS NOTICE TO YOUR BOND

This notice is for information only and does not become a part or condition of the attached documents.

*The FCCI Insurance Group includes the following insurance carriers: Brierfield Insurance Company, FCCI Advantage Insurance Company, FCCI Commercial Insurance Company, FCCI Insurance Company, Monroe Guaranty Insurance Company, and National Trust Insurance Company.

Copyright 2012 FCCI Insurance Group.

SECTION 7 INSURANCE REQUIREMENTS AND BOND FORMS

INSURANCE REQUIREMENTS
STANDARD INSURANCE REQUIREMENTS

Company shall procure and maintain for the duration of the contract, insurance coverages outlined herein which may arise from or be in connection with the performance of the work hereunder by the Company, his agents, representatives, employees or subcontractors. Any exceptions to the requirements or provisions herein shall be submitted in writing to the City's Risk Manager for consideration and approval. The decision of the City will be final. The cost of such insurance shall be borne by the Company.

1.0 GENERAL PROVISIONS

1.1 The Company shall obtain and maintain the minimum insurance coverage set forth in this section. By requiring such minimum insurance, the City of Rowlett shall not be deemed or construed to have assessed the risk that may or may not be applicable to the Company. The Company shall assess its own risks and if it deems appropriate and/or prudent, maintain higher limits and/or broader coverage. The Company is not relieved of any liability or other obligation assumed or pursuant to the Contract by reason of its failure to obtain or maintain insurance in sufficient amounts, duration, or types. The insurance requirements listed below do not replace any warranty or surety (performance, payment, or maintenance) bonds if required by preceding or subsequent sections of this contract.

1.2 Company shall cause each subcontractor employed by Company to purchase and maintain insurance of the type specified herein or cover such subcontractor under its insurance coverage.

1.3 The Company agrees that the insurance requirements specified in this section do not reduce the liability Company has assumed in any indemnification/hold harmless section of this contract.

1.4 City reserves the right to approve the security of the insurance coverage provided pursuant to this section by insurers including terms, conditions and the Certificate of Insurance. Failure of the Company to fully comply with requirements of this section during the term of this contract will be considered a material breach of contract and will be cause for immediate termination of the contract at the option of City.

1.5 Insurance coverage required by this section shall:

1.5.1 Be on a primary basis, non-contributory with any other insurance coverage and/or self-insurance carried by City.

1.5.2 Be with an insurer possessing an A-VII A. M. Best Rating or equivalent.

2.0 MINIMUM INSURANCE COVERAGE & LIMITS

2.1 Commercial General Liability. Company shall maintain commercial general liability and, if necessary, commercial umbrella or excess liability (umbrella or excess liability should be provided on follow-form policy).

2.2 Commercial general liability insurance shall be written on an ISO occurrence form CG 00 01 (or a substitute form providing equivalent coverage) and shall cover liability arising from premises, operations, independent Company's, product-completed operations, personal and advertising injury and liability assumed under an insured contract (including the tort liability of another assumed in a business contract).

2.3 City shall be included as an additional insured under the commercial general liability using ISO additional insured endorsement CG 20 10 07 04 and CG 20 37 07 04 or their equivalent, including coverage for City with respect to liability arising out of the completed operations of Company.

2.4 Limits of Insurance

Contracts between $0 and $1,000,000		
Type of Insurance	**Amount of Insurance**	**Provisions**
1. Commercial General (Public) Liability to include coverage for: a) Premises/Operations b) Products/Completed Operations c) Independent Contractors d) Personal Liability e) Contractual Liability	• $1,000,000 each occurrence • $2,000,000 general aggregate • $2,000,000 Umbrella/ Excess Liability (follow-form)	City to be listed as additional insured and provided 30-day notice of cancellation or material change in coverage City to be provided a waiver of Subrogation
2. Business Auto Liability	• $1,000,000 per occurrence • $1,000,000 aggregate or; • $1,000,000 combined single limits	City to be named as additional insured
3. Workers' Comp & Employers' Liability	• Statutory Limits • $1,000,000 each accident	City to be provided a waiver of subrogation
4. Builders Risk Policy	• 100% of construction total	If Applicable
5. Other Coverages a) Professional Liability b) E & O coverage c) Cyber Liability	• To be determined by the City's Risk Manager on a per project basis	If Applicable

Contracts between $1,000,000 and $8,000,000		
Type of Insurance	**Amount of Insurance**	**Provisions**
1. Broad Form Commercial General Liability to include coverage for: a) Premises/Operations b) Products/Completed Operations c) Independent Contractors d) Personal Liability e) Contractual Liability	• $2,000,000 each occurrence • $4,000,000 general aggregate • $4,000,000 Umbrella/ Excess Liability (follow-form)	City to be listed as additional insured and provided 30-day notice of cancellation or material change in coverage City to be provided a waiver of Subrogation
2. Business Auto Liability	• $1,000,000 per occurrence • $2,000,000 aggregate or;	City to be named as additional insured

	• $2,000,000 combined single limits	
3. Workers' Comp & Employers' Liability	• Statutory Limits • $1,000,000 each accident	City to be provided a waiver of subrogation
4. Builders Risk Policy	• 100% of construction total	If Applicable
5. Other Coverages a) Professional Liability b) E & O coverage c) Cyber Liability	• To be determined by the City's Risk Manager on a per project basis	If Applicable

2.4.1 If vendor is performing service-related work on City fleet, Garage Keeper Liability is required at a limit of not less than $1,000,000 per occurrence on a special form basis.

2.4.2 If contract has exposure for environmental hazards contact City's Risk Manager for specifications. (Including MCS-90).

2.4.3 Contracts for construction projects taking place in a high-risk flood zone area may require additional coverage requirements.

2.4.4 Insurance specifications for Contracts in excess of $8,000,000 will be determined by the City's Risk Manager.

2.5 Commercial Automobile Liability. Company shall maintain business automobile liability insurance and, if necessary, commercial umbrella liability insurance with a limit of not less than $1,000,000 per occurrence.

2.6 Such automobile liability insurance shall cover liability arising out of any auto (including owned, hired, and non-owned automobiles).

2.7 Commercial automobile coverage shall be written on ISO form CA 00 01, CA 00 05, CA 00 12, CA 00 20, or a substitute form providing equivalent liability coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage equivalent to the amount provided in ISO form CA 00 01.

2.8 Company waives all rights against City and its agents, officers, directors and employees for recovery by the commercial automobile liability or commercial umbrella liability insurance obtained by Company pursuant to this section or under any applicable automobile physical damage coverage.

2.9 Workers' Compensation & Employer's Liability. Company shall maintain workers' compensation insurance with a limit of no less than $1,000,000 each incident. The employers' liability limit and, if necessary, commercial umbrella coverage, shall not be less than $1,000,000 each accident for bodily injury by accident or $1,000,000 each employee for bodily injury by disease.

2.10 Company waives all rights against City and its agents, officers, directors and employees for recovery of damages under Company's workers' compensation and employers' liability in connection with scope of contract and completed operations.

3.0 EVIDENCE OF INSURANCE

3.1 Prior to commencement of work, and thereafter upon renewal or replacement of coverage required by this section, Company shall furnish City a certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with this section. Company shall furnish copies of all endorsements as required by each section.

3.2 Failure of City to demand such certificate(s) or other evidence of full compliance with these insurance requirements or failure of City to identify a deficiency from evidence that is provided shall not be construed as a waiver of Company's obligation to maintain such insurance.

3.3 City shall have the right, but not the obligation, of prohibiting Company or any subcontractor from entering the project site until such certificates or other evidence that insurance has been placed in complete compliance with these requirements is received and approved by the City.

3.4 Failure to maintain required insurance may result in termination of this contract at sole option of the City.

3.5 **All Certificates of Insurance need to reference job or contract number in comments section.**

3.6 **Certificate Holder shall be listed as follows: City of Rowlett, 4000 Main St., Rowlett, TX 75088**

WORKERS' COMPENSATION INSURANCE COVERAGE

WC.1 **DEFINITIONS**

Certificate of coverage ("certificate"): A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a coverage agreement (TWCC- 81, TWCC-82, TWCC-83, or TWCC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.

Duration of the project: Includes the time from the beginning of the work on the project until the contractor's/persons work on the project has been completed and accepted by the governmental entity.

Persons providing services on the project ("subcontractor" in 1.03): Includes all persons or entities performing all or part of the services the contractor has undertaken to perform on the project, regardless of whether that person contracted directly with the contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractors, leasing companies, motor carriers, CITY-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries and delivery of portable toilets.

WC.2 The contractor shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the contractor providing services on the project, for the duration of the project.

WC.3 The contractor must provide a certificate of coverage to governmental entity prior to being awarded the contract.

WC.4 If the coverage period shown on the contractor's current certificate of coverage ends during the duration of the project, the contractor must, prior to the end of the coverage period, file a new certificate of coverage with the governmental entity showing that coverage has been extended.

WC.5 The contractor shall obtain from each person providing services on a project, and provide to the governmental entity:

(1) a certificate of coverage, prior to that person beginning work on the

project, so the governmental entity will have on file certificates of coverage showing coverage for all persons providing services on the project, and,

(2) no later than seven (7) days after receipt by the contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.

WC.6 The contractor shall retain all required certificates of coverage for the duration of the project and for one year thereafter.

WC.7 The contractor shall notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the contractor knows or should have known, or any change that materially affects the provision of coverage of any person providing services on the project.

WC.8 The contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Workers' Compensation Commission, information all persons providing services on the project that they are required to be offered, and stating how a person may verify coverage and report lack of coverage.

WC.9 The contractor shall contractually require each person with whom it contracts to provide services on a project, to:

(1) provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all of its employees providing services on the project, for the duration of the project;

(2) provide the contractor, prior to that person beginning work on the project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project;

(3) provide the contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project;

(4) obtain from each other person with whom it contracts, and provide to the contractor:

(a) a certificate of coverage, prior to the other person beginning work on the project; and,

(b) a new certificate of coverage showing extension of

coverage, prior tot he end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the project;

(5) retain all required certificates of coverage on file for the duration of the project and for one (1) year thereafter;

(6) notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the person knows or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and,

(7) contractually require each person with whom it contracts, to perform as required by paragraphs (1)-(7), with the certificates of coverage to be provided to the person for whom they are providing services.

WC.10 By signing this contract or providing or causing to be provided a certificate of coverage, the contractor is representing to the governmental entity that all employees of the contractor who will provide services on the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self- insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

WC.11 The contractor's failure to comply with any of these provision is a breach of contract by the contractor which entities the governmental entity to declare the contract void if the contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the governmental entity.

WC.12 The contractor shall indemnify the governmental entity and hold it harmless for any amounts sought against the governmental entity by any employee or independent sub- contractor. The contractor further agrees to assist City in the defense of any attempts to assert a worker's compensation subrogation lien by any medical insurer, including, but not limited to, the release and disclosure of all files and documents that would be relevant or pertinent to the City's defense.

PERFORMANCE BOND

STATE OF TEXAS

COUNTY OF DALLAS

KNOW ALL MEN BY THESE PRESENTS: That _____ whose address is _____, hereinafter referred to as "Principal", and _____, a corporation organized and existing under the laws of the State of _____, and fully licensed to transact business in the State of Texas, as Surety (herein referred to as "Surety"), are held and firmly bound unto the **CITY OF ROWLETT**, a home-rule municipal corporation organized and existing under the laws of the State of Texas, hereinafter referred to as "Owner", in the penal sum of _____ Dollars ($_____) (one hundred percent (115%) of the total bid price) in lawful money of the United States, to be paid in Dallas County, Texas, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents. The penal sum of this Bond shall automatically be increased by the amount of any Change Order or Supplemental Agreement, which increases the Contract price, but in no event shall a Change Order or Supplemental Agreement, which reduces the Contract price, decrease the penal sum of this Bond.

THE OBLIGATION TO PAY SAME is conditioned as follows: Whereas, the Principal entered into a certain Contract with the City of Rowlett, the Owner, dated on or about the _____ day of _____, A.D. 20____, a copy of which is attached hereto and made a part hereof, to furnish all materials, equipment, labor, supervision, and other accessories necessary for the construction of:

BID NO. 2026-32-B

S.H. 66 EAST SEWER REHABILITATION PROJECT 2: 18"/15" SANITARY SEWER LINE REHABILITATION

in the City of Rowlett, Texas, as more particularly described and designated in the above-referenced contract such contract being incorporated herein and made a part hereof as fully and to the same extent as if written herein word for word.

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform and fulfill all of the undertakings, covenants, terms, conditions and agreements of said Contract in accordance with the Plans, Specifications and Contract Documents during the original term thereof and any extension thereof which may be granted by the Owner, with or without notice to the Surety, and during the life of any guaranty or warranty required under this Contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of any and all duly authorized modifications of said Contract that may hereafter be made, notice of which modifications to the Surety being hereby waived; and, if the Principal shall repair and/or replace all defects due to faulty materials and workmanship that appear within a period of one (1) year from the date of final completion and final acceptance of the Work by Owner; and, if the Principal shall fully indemnify and save harmless the Beneficiary from and against all costs and damages which Owner may suffer by reason of failure to so perform herein and shall fully reimburse and repay Owner all outlay and expense which the Owner may incur in making good any default or deficiency, then this obligation shall be void; otherwise, it shall remain in full force and effect.

PROVIDED FURTHER, that if any legal action were filed on this Bond, exclusive Venue shall lie in Dallas County, Texas.

AND PROVIDED FURTHER, that the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the Work to be performed thereunder or the Plans, Specifications and Drawings, etc., accompanying the same shall in anywise affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract, or to the Work or to the Specifications.

This Bond is given pursuant to the provisions of Chapter 2253 of the Texas Government Code, and any other applicable statutes of the State of Texas.

The undersigned and designated agent is hereby designated by the Surety herein as the Resident Agent in Dallas County to whom any requisite notices may be delivered and on whom service of process may be had in matters arising out of such suretyship, as provided by Article 7.19-1 of the Insurance Code, Vernon's Annotated Civil Statutes of the State of Texas.

IN WITNESS WHEREOF, this instrument is executed and shall be deemed an original, this, the _____ day of _____, 20____.

ATTEST:	**PRINCIPAL**:
	_____
	Company Name
By: _____	By: _____
Signature	Signature
_____	_____
Printed Name	Printed Name
_____	_____
Title	Title
_____	_____
Address	Address
_____	_____
City, State, Zip Code	City, State, Zip Code
_____	_____
Phone Number	Phone Number

[*Signatures continued on following page*]

ATTEST:

By: _____
Signature

_____
Printed Name

_____
Title

_____
Address

_____
City, State, Zip Code

_____
Phone Number

SURETY:

By: _____
Signature

_____
Printed Name

_____
Title

_____
Address

_____
City, State, Zip Code

_____
Phone Number

The Resident Agent of the Surety in Dallas County, Texas, for delivery of notice and service of the process is:

NAME: _____

STREET ADDRESS: _____

CITY, STATE, ZIP: _____

NOTE: Date on **Page 1** of Performance Bond must be **same date as Contract**. Date on **Page 2** of Performance Bond must be **after date of Contract**. If Resident Agent is not a corporation, give a person's name.

PAYMENT BOND

STATE OF TEXAS

COUNTY OF DALLAS

KNOW ALL MEN BY THESE PRESENTS: That _____ whose address is _____, hereinafter referred to as "Principal", and_____, a corporation organized and existing under the laws of the State of _____, and fully licensed to transact business in the State of Texas, as Surety (herein referred to as "Surety"), are held and firmly bound unto the **CITY OF ROWLETT**, a home-rule municipal corporation organized and existing under the laws of the State of Texas, hereinafter referred to as "Owner", and unto all persons, firms, and corporations who may furnish materials for, or perform labor upon the building or improvements hereinafter referred to in the penal sum of _____ _____DOLLARS ($_____) (one hundred percent (100%) of the total bid price) in lawful money of the United States, to be paid in Dallas County, Texas, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents. The penal sum of this Bond shall automatically be increased by the amount of any Change Order or Supplemental Agreement, which increases the Contract price, but in no event shall a Change Order or Supplemental Agreement, which reduces the Contract price, decrease the penal sum of this Bond.

THE OBLIGATION TO PAY SAME is conditioned as follows: Whereas, the Principal entered into a certain Contract with the City of Rowlett, the Owner, dated on or about the _____ day of _____, A.D. 20___, a copy of which is attached hereto and made a part hereof, to furnish all materials, equipment, labor, supervision, and other accessories necessary for the construction of:

BID NO. 2026-32-B

S.H. 66 EAST SEWER REHABILITATION PROJECT 2: 18"/15" SANITARY SEWER LINE REHABILITATION

in the City of Rowlett, Texas, as more particularly described and designated in the above-referenced contract such contract being incorporated herein and made a part hereof as fully and to the same extent as if written herein word for word.

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties and make prompt payment to all persons, firms, subcontractors, corporations and claimants supplying labor and/or material in the prosecution of the Work provided for in the above-referenced Contract and any and all duly authorized modifications of said Contract that may hereafter be made, notice of which modification to the Surety is hereby expressly waived, then this obligation shall be void; otherwise it shall remain in full force and effect.

PROVIDED FURTHER, that if any legal action were filed on this Bond, exclusive Venue shall lie in Dallas County, Texas.

AND PROVIDED FURTHER, that the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the Work to be performed thereunder or the Plans, Specifications and Drawings, etc., accompanying the same shall in anywise affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract, or to the Work to be performed thereunder.

This Bond is given pursuant to the provisions of Chapter 2253 of the Texas Government Code, and any other applicable statutes of the State of Texas.

The undersigned and designated agent is hereby designated by the Surety herein as the Resident Agent in Dallas County to whom any requisite notices may be delivered and on whom service of process may be had in matters arising out of such suretyship, as provided by Article 7.19-1 of the Insurance Code, Vernon's Annotated Civil Statutes of the State of Texas.

IN WITNESS WHEREOF, this instrument is executed and shall be deemed an original, this, the _____ day of _____, 20____.

ATTEST:

By: _____
Signature

_____
Printed Name

_____
Title

_____
Address

_____
City, State, Zip Code

_____
Phone Number

PRINCIPAL:

_____
Company Name

By: _____
Signature

_____
Printed Name

_____
Title

_____
Address

_____
City, State, Zip Code

_____
Phone Number

[*Signatures continued on following page*]

ATTEST:

By: _____
Signature

_____
Printed Name

_____
Title

_____
Address

_____
City, State, Zip Code

_____
Phone Number

SURETY:

By: _____
Signature

_____
Printed Name

_____
Title

_____
Address

_____
City, State, Zip Code

_____
Phone Number

The Resident Agent of the Surety in Dallas County, Texas, for delivery of notice and service of the process is:

NAME: _____

STREET ADDRESS: _____

CITY, STATE, ZIP: _____

NOTE: Date on **Page 1** of Payment Bond must be **same date as Contract**. Date on **Page 2** of Payment Bond must be **after date of Contract**. If Resident Agent is not a corporation, give a person's name.

MAINTENANCE BOND

STATE OF TEXAS

COUNTY OF DALLAS

KNOW ALL MEN BY THESE PRESENTS: That _____ whose address is _____, hereinafter called "Principal:, and _____, a corporation organized and existing under the laws of the State of _____, and fully licensed to transact business in the State of Texas, as Surety (herein referred to as "Surety"), are held and firmly bound unto the **CITY OF ROWLETT**, a home-rule municipal corporation organized and existing under the laws of the State of Texas, hereinafter called "Owner", and unto all persons, firms, and corporations who may furnish materials for, or perform labor upon the building or improvements hereinafter referred to in the penal sum of _____ _____ DOLLARS ($_____) (one hundred percent (100%) of the total bid price) in lawful money of the United States, to be paid in Dallas County, Texas, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents. The penal sum of this Bond shall automatically be increased by the amount of any Change Order or Supplemental Agreement, which increases the Contract price, but in no event shall a Change Order or Supplemental Agreement, which reduces the Contract price, decrease the penal sum of this Bond.

WHEREAS, the Principal entered into a certain Contract with the City of Rowlett, the Owner, dated on or about the _____ day of _____, A.D. 20___, a copy of which is attached hereto and made a part hereof, to furnish all permits, licenses, bonds, insurance, products, materials, equipment, labor, supervision, and other accessories necessary for the construction of:

BID NO. 2026-32-B

S.H. 66 EAST SEWER REHABILITATION PROJECT 2: 18"/15" SANITARY SEWER LINE REHABILITATION

in the City of Rowlett, Texas, as more particularly described and designated in the above-referenced contract such contract being incorporated herein and made a part hereof as fully and to the same extent as if written herein word for word.

WHEREAS, in said Contract, the Principal binds itself to use first class materials and workmanship and of such kind and quality that for a period of two (2) years from the completion and final acceptance of the improvements by Owner the said improvements shall require no repairs, the necessity for which shall be occasioned by defects in workmanship or materials and during the period of two (2) years following the date of final acceptance of the Work by Owner, Principal binds itself to repair or reconstruct said improvements in whole or in part at any time within said period of time from the date of such notice as the City Manager or his designee shall determine to be necessary for the preservation of the public health, safety or welfare. If Principal does not repair or reconstruct the improvements within the time period designated, Owner shall be entitled to have said repairs made and charge Principal and/or Surety the cost of same under the terms of this Maintenance Bond.

NOW, THEREFORE, if Principal will maintain and keep in good repair the Work herein contracted to be done and performed for a period of two (2) years from the date of final acceptance and do and perform all necessary work and repair any defective condition (it being understood that the purpose of this section is to cover all defective conditions arising by reason of defective materials, work or labor performed by Principal) then this obligation shall be void;

otherwise it shall remain in full force and effect and Owner shall have and recover from Principal and its Surety damages in the premises as provided in the Plans and Specifications and Contract.

PROVIDED, however, that Principal hereby holds harmless and indemnifies Owner from and against any claim or liability for personal injury or property damage caused by and occurring during the performance of said maintenance and repair operation.

PROVIDED FURTHER, that if any legal action were filed on this Bond, exclusive Venue shall lie in Dallas County, Texas.

AND PROVIDED FURTHER, that the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the Work to be performed thereunder or the Plans, Specifications and Drawings, etc., accompanying the same shall in anywise affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract, or to the Work to be performed thereunder.

This Bond is given pursuant to the provisions of Chapter 2253 of the Texas Government Code, and any other applicable statutes of the State of Texas.

The undersigned and designated agent is hereby designated by the Surety herein as the Resident Agent in Dallas County to whom any requisite notices may be delivered and on whom service of process may be had in matters arising out of such suretyship, as provided by Article 7.19-1 of the Insurance Code, Vernon's Annotated Civil Statutes of the State of Texas.

IN WITNESS WHEREOF, this instrument is executed and shall be deemed an original, this, the _____ day of _____, 20____.

ATTEST:	**PRINCIPAL:**
	_____
	Company Name
By: _____	By: _____
Signature	Signature
_____	_____
Printed Name	Printed Name
_____	_____
Title	Title
_____	_____
Address	Address
_____	_____
City, State, Zip Code	City, State, Zip Code
_____	_____
Phone Number	Phone Number

[*Signatures continued on following page*]

ATTEST:

By: _____
Signature

_____
Printed Name

_____
Title

_____
Address

_____
City, State, Zip Code

_____
Phone Number

SURETY:

By: _____
Signature

_____
Printed Name

_____
Title

_____
Address

_____
City, State, Zip Code

_____
Phone Number

The Resident Agent of the Surety in Dallas County, Texas, for delivery of notice and service of the process is:

NAME: _____

STREET ADDRESS: _____

CITY, STATE, ZIP: _____

SECTION 8 PREVAILING WAGE RATES

Pertinent Information Regarding Wage Rate Determinations and Monitoring

1. The Prevailing Wage Rate Determination is defined as (1) the Prevailing Wage Rate Determination Information sheet (document number WR1001), (2) the Prevailing Wage Rate Determination for Building Construction Trades, and (3) the Department of Labor (DOL) Heavy Highway Determination. The DOL Heavy Highway rates are to be paid to workers engaged in site work determined to be five (5) feet beyond the building, extending to the property boundary.

2. The General Contractor shall post the applicable Prevailing Wage Rate Determination in a prominent, easily accessible place at the work site. It shall be the responsibility of the City to ensure compliance.

3. The City shall ensure that not less than the posted, specified rates are paid to all classifications of workmen, mechanics and laborers employed by the General Contractor and/or Subcontractors, in the execution of their contract with the City. Contractors and Subcontractors will be monitored to ensure they are paying prevailing wage rates.

   A contractor or subcontractor who violates this section shall pay to the City on whose behalf the contract is made, $60 for each worker employed for each calendar day or part of the day that the worker is paid less than the wage rates stipulated in the contract.

   The City shall use any money collected under this section to offset the costs incurred in the administration of this task.

4. The City shall take cognizance of wage rate disputes and/or complaints of all violations of the provisions of Chapter 2258 Texas Government Code Title 10. Labor interviews will be conducted as required by the Davis-Bacon Act.

5. The City is not requiring that fringe benefits be paid on the project.

6. The rates specified in the bid documents are journeyman rates. The apprentice rate is commensurate with the experience and skill of the worker, but at a rate not less than 60% of the journeyman's wage. At no time shall a journeyman supervise more than one (1) apprentice.

   Note: The terms journeyman and apprentice apply to both union and independent workers, and are not intended to imply that these positions are union workers only.

Prevailing Wage Rate Determination Information

The following information is taken from Chapter 2258 Texas Government Code Title 10:

2258.021 Duty of Governmental Entity to Pay Prevailing Wage Rates

(a) The state or any political subdivision of the state shall pay a worker employed by it or on behalf of it;
(1) not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the work is performed; and
(2) not less than the general prevailing rate if per diem wages for legal holiday and overtime work.

(b) Subsection (a) does not apply to maintenance work.

(c) A worker is employed on a public work for the purposes of this section if the worker is employed by a contractor or subcontractor in the execution of a contract for the public work with the state, a political subdivision of the state, or any officer or public body of the state or a political subdivision of the state.

2258.023 Prevailing Wage Rates to be Paid by Contractor and Subcontractor; Penalty

(a) The contractor who is awarded a contract by a public body or a subcontractor of the contractor shall pay not less than the rates determined under Section 2258.22 to a worker employed by it in the execution of the contract.

(b) A contractor or subcontractor who violates this section shall pay to the state or a political subdivision of the state (City) on whose behalf the contract is made, $60 for each worker employed for each calendar day or part of the day that the worker is paid less than the wage rates stipulated in the contract. A public body awarding a contract shall specify this penalty in the contract.

(c) A contractor or subcontractor does not violate this section if a public body awarding a contract does not determine the prevailing wage rates and specify the rates in the contract as provided by Section 2258.022.

(d) The public body shall use any money collected under this section to offset the costs incurred in the administration of this chapter.

(e) A municipality is entitled to collect a penalty under this section only if the municipality has a population of more than 10,000.

2258.051 Duty of Public Body to Hear Complaints and Withhold Payment

A public body awarding a contract, and an agent or officer of the public body, shall;

(1) take cognizance of complaints of all violations of this chapter committed in the execution of the contract; and

(2) withhold money forfeited or required to be withheld under this chapter from the payments to the contractor under the contract, except that the public body may not withhold money from other than the final payment without determination by the public body that there is good cause to believe that the contractor has violated this chapter.

Worker Classification Definition Sheet

Asbestos Worker: Worker who removes and disposes of asbestos materials.

Carpenter: Worker who builds wood structures, or structures of any material which has replace wood. Includes rough and finish carpentry, hardware and trim.

Carpet Layer/Floor Installer: Worker who installs carpet and/or floor coverings - vinyl tile.

Concrete Finisher: Worker who floats, trowels, and finishes concrete.

Data Communication-Telecom Installer: Worker who installs data/telephone and television cable and associated equipment and accessories.

Drywall Installer/Ceiling Installer: Worker who installs metal framed walls and ceilings, drywall coverings, ceiling grids and ceilings.

Electrician: Skilled craftsman who installs or repairs electrical wiring and devices. Includes fire alarm systems, and HVAC electrical controls.

Elevator Mechanic: Craftsman skilled in the installation and maintenance of elevators.

Fire Proofing Installer : Worker who sprays or applies fire proofing materials.

Glazier: Worker who installs glass, glazing and glass framing.

Heavy Equipment Operator: Includes but not limited to all cat tractors, all derrick-powered, all power operated cranes, back hoe, back filler, power operated shovel, winch truck, all trenching machines.

Insulator: Worker who applies, sprays, or install insulation.

Iron Worker: Skilled craftsman who erects structural steel framing and installs structural concrete rebar.

Laborer/Helper: Worker qualified for only unskilled or semi-skilled work. Lifting, carrying materials and tools, hauling, digging, clean-up.

Lather/Plasterer: Worker who installs metal framing and lath. Worker who applies plaster to lathing and installs associated accessories.

Light Equipment Operator: Includes but not limited to air compressors, truck crane driver, flex plane, building elevator, form grader, concrete mixer (less than 14 cf), conveyer.

Mason: Craftsman who works with masonry products, stone, brick, block, or any material substituting for those materials and accessories.

Metal Building Assembler: Worker who assembles pre-made metal buildings.

Millwright: Mechanic specializing in the installation of heavy machinery, conveyance, wrenches, dock levelers, hydraulic lifts and align pumps.

Painter/Wall Covering Installer : Worker who prepares wall surfaces and applies paint and/or wall

coverings, tape and bedding.

Pipefitter: Trained worker who installs piping systems, chilled water piping and hot water (boiler) piping, pneumatic tubing controls, chillers, boilers, and associated mechanical equipment.

Plumber: Skilled craftsman who installs domestic hot and cold water piping, waste piping, storm system piping, water closets, sinks, urinals and related work.

Roofer: Worker who installs roofing materials, Bitumen (asphalt and cold tar), felts, flashings, all types roofing membranes and associated products.

Sheet Metal Worker: Worker who installs sheet metal products. Roof metal, flashings, and curbs, ductwork, mechanical equipment, and associated metals.

Sprinkler Fitter: Worker who installs fore sprinkler systems and fire protection equipment.

Terrazzo Worker: Craftsman who places and finishes Terrazzo.

Tile Setter: Worker who prepares wall and/or floor surfaces and applies ceramic tiles to these surfaces.

Waterproofer/Caulker: Worker who applies water proofing material to buildings. Products include sealant, caulk, sheet membrane, liquid membranes, sprayed, rolled, or brushed on.

CURRENT PREVAILING WAGE RATES

"General Decision Number: TX20250025 01/03/2025

Superseded General Decision Number: TX20240025

State: Texas

Construction Type: Highway

Counties: Archer, Callahan, Clay, Collin, Dallas, Delta, Denton, Ellis, Grayson, Hunt, Johnson, Jones, Kaufman, Parker, Rockwall, Tarrant and Wise Counties in Texas.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at

http://www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2025

SUTX2011-007 08/03/2011

	Rates	Fringes
CONCRETE FINISHER (Paving and Structures)	$ 14.12 **	
ELECTRICIAN	$ 19.80	
FORM BUILDER/FORM SETTER		
Paving & Curb	$ 13.16 **	
Structures	$ 13.84 **	
LABORER		
Asphalt Raker	$ 12.69 **	
Flagger	$ 10.06 **	
Laborer, Common	$ 10.72 **	
Laborer, Utility	$ 12.32 **	
Pipelayer	$ 13.24 **	
Work Zone Barricade Servicer	$ 11.68 **	
POWER EQUIPMENT OPERATOR:		
Asphalt Distributor	$ 15.32 **	
Asphalt Paving Machine	$ 13.99 **	
Broom or Sweeper	$ 11.74 **	
Concrete Pavement Finishing Machine	$ 16.05 **	
Concrete Saw	$ 14.48 **	
Crane Operator, Lattice Boom 80 Tons or Less	$ 17.27 **	
Crane Operator, Lattice Boom over 80 Tons	$ 20.52	
Crane, Hydraulic 80 Tons or Less	$ 18.12	
Crawler Tractor	$ 14.07 **	
Excavator, 50,000 pounds or less	$ 17.19 **	
Excavator, over 50,000 pounds	$ 16.99 **	
Foundation Drill , Truck Mounted	$ 21.07	
Foundation Drill, Crawler Mounted	$ 17.99	
Front End Loader 3 CY or Less	$ 13.69 **	
Front End Loader, over 3 CY.	$ 14.72 **	
Loader/Backhoe	$ 15.18 **	
Mechanic	$ 17.68 **	
Milling Machine	$ 14.32 **	
Motor Grader, Fine Grade	$ 17.19 **	
Motor Grader, Rough	$ 16.02 **	
Pavement Marking Machine	$ 13.63 **	
Reclaimer/Pulverizer	$ 11.01 **	
Roller, Asphalt	$ 13.08 **	
Roller, Other	$ 11.51 **	
Scraper	$ 12.96 **	
Small Slipform Machine	$ 15.96 **	
Spreader Box	$ 14.73 **	

Servicer. ..... $ 14.58 **

Steel Worker (Reinforcing). ..... $ 16.18 **

TRUCK DRIVER
Lowboy-Float. ..... $ 16.24 **
Off Road Hauler. ..... $ 12.25 **
Single Axle. ..... $ 12.31 **
Single or Tandem Axle Dump Truck. ..... $ 12.62 **
Tandem Axle Tractor with Semi Trailer. ..... $ 12.86 **
Transit-Mix. ..... $ 14.14 **

WELDER. ..... $ 14.84 **

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 ($17.75) or 13658 ($13.30). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey

rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were

adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION"

SECTION 9 EQUAL OPPORTUNITY EMPLOYMENT PROVISIONS

SECTION EEO

EQUAL EMPLOYMENT OPPORTUNITY

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EEO.5	DISSEMINATION
EEO.6	RECRUITMENT
EEO.7	INVENTORY
EEO.8	MONITORING
EEO.9	FACILITIES
EEO.10	RECORDS
EEO.11	ADHERENCE

SECTION EEO

EQUAL EMPLOYMENT OPPORTUNITY

EEO.1 **DESCRIPTION**

The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The Contractor shall implement affirmative action steps at least as extensive as described herein.

EEO.2 **WORKING ENVIRONMENT**

Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two (2) or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

EEO.3 **ON-THE-JOB TRAINING**

Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs.

EEO.4 **REVIEW**

Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

EEO.5 **DISSEMINATION**

Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

EEO.6 **RECRUITMENT**

Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one (1) month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

EEO.7 **INVENTORY**

Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

EEO.8 **MONITORING**

Ensure that seniority practices, job classifications, work assignments, and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

EEO.9 **FACILITIES**

Ensure that all facilities and company activities are non-segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

EEO.10 **RECORDS**

Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

EEO.11 **ADHERENCE**

Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

SECTION 10 CONSTRUCTION CONTRACT

CITY OF ROWLETT, TEXAS

CONSTRUCTION CONTRACT

FOR

BID NO. 2026-32-B

S.H. 66 EAST SEWER REHABILITATION PROJECT 2: 18"/15" SANITARY SEWER LINE REHABILITATION

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City of Rowlett, Texas

This Contract is made by and between the City of Rowlett, Texas, a home-rule municipality (hereinafter referred to as the "City") and **Muniz Construction**, Inc., a Texas Corporation, (hereinafter referred to as the "Contractor") for construction of **S.H. 66 EAST SEWER REHABILITATION PROJECT 2: 18"/15" SANITARY SEWER LINE REHABILITATION**, (hereinafter referred to as the "Project"). The City and the Contractor hereby agreeing as follows:

ARTICLE I

THE CONTRACT AND THE CONTRACT DOCUMENTS

1.1 THE CONTRACT

1.1.1 The Contract between the City and the Contractor, of which this Contract is a part, consists of the Contract Documents. It shall be effective on the date this Agreement is executed by the last party to execute it.

1.2. THE CONTRACT DOCUMENTS

1.2.1 The Contract Documents consist of this Contract, the Invitation to Bid/ Request for Proposal, the Specifications, Plans and Drawings, all Change Orders and Field Orders issued hereafter, any other amendments hereto executed by the parties hereafter, together with the following (if any):

_____

In the event of a conflict in terms among any of the Contract Documents, the provisions of this Contract will prevail. In order of priority in resolving conflicts outside of this Contract, the City's Invitation to Bid/ Request for Proposal, the Contractor's Bid or Best and Final Offer and the Specifications and Drawings shall, in that order, prevail. Irreconcilable conflicts that cannot be resolved by field order shall be resolved by written Change Orders. Documents not enumerated in this Paragraph 1.2.1 are not Contract Documents and do not form part of this Contract.

1.3 ENTIRE AGREEMENT

1.3.1 This Contract, together with the Contractor's performance and payment bonds for the Project, all General Conditions, Special Conditions, Plans and Specifications, and Addenda attached thereto, constitute the entire and exclusive agreement between the City and the Contractor regarding the Project. Specifically, but without limitation, this Contract supersedes any bid documents and all prior written or oral communications, representations and negotiations, if any, between the City and Contractor not expressly made a part hereof.

1.4 NO PRIVITY WITH OTHERS

1.4.1 Nothing contained in this Contract shall create, or be interpreted to create privity or any other contractual agreement between the City and any person or entity other than the Contractor.

1.5 INTENT AND INTERPRETATION

1.5.1 The intent of this Contract is to require complete, correct and timely execution of the Work. Any Work that may be required, implied or inferred by the Contract Documents, or any one or more of them, as necessary to produce the intended result shall be provided by the Contractor for the Contract Price.

1.5.2 This Contract is intended to be an integral whole and shall be interpreted as internally consistent. What is required by any one Contract Document shall be considered as required by the Contract.

1.5.3 When a word, term or phrase is used in this Contract, it shall be interpreted or construed, first, as defined herein; second, if not defined, per its generally accepted meaning in the construction industry; and third, if there is no generally accepted meaning in the construction industry, per its common and customary usage.

1.5.4 The words "include", "includes", or "including", as used in this Contract, shall be deemed to be followed by the phrase, "without limitation".

1.5.5 The specification herein of any act, failure, refusal, omission, event, occurrence or condition as constituting a material breach of this Contract shall not imply that any other, non-specified act, failure, refusal, omission, event, occurrence or condition shall be deemed not to constitute a material breach of this Contract.

1.5.6 Words or terms used as nouns in this Contract shall be inclusive of their singular and plural forms, unless the context of their usage clearly requires a contrary meaning.

1.5.7 The Contractor shall have a continuing duty to read, carefully study and compare each of the Contract Documents, the Shop Drawings, the Product Data, and any Plans and Specifications, and shall give written notice to the City of any inconsistency, ambiguity, error or omission which the Contractor may discover with respect to these documents before proceeding with the affected Work. The issuance, or the express or implied approval by the City or the Engineer of the Contract Documents, Shop Drawings or Product Data shall not relieve the Contractor of the continuing duties imposed hereby, nor shall any such approval be evidence of the Contractor's compliance with this Contract. The City has requested the Engineer to only prepare documents for the Project, including the Drawings and Specifications for the Project, which are accurate, adequate, consistent, coordinated and sufficient for construction. HOWEVER, THE CITY MAKES NO REPRESENTATION OR WARRANTY OF ANY NATURE WHATSOEVER TO THE CONTRACTOR CONCERNING SUCH DOCUMENTS. By the execution hereof, the Contractor acknowledges and represents that it has received, reviewed and carefully examined such documents, has found them to be complete, accurate, adequate, consistent, coordinated and sufficient for construction, and that the Contractor has not, does not, and will not rely upon any representation or warranties by the City concerning such documents as no such representation or warranties have been or are hereby made. Further, the Contractor represents and warrants that it has had a sufficient opportunity to inspect the Project site and assumes all responsibility for inadequacies or ambiguities in the plans, drawings or specifications as well as for latent conditions of the site where the work is to be performed, subject to the terms and conditions of Subparagraph 8.3.3.

1.5.8 As between numbers and scaled measurements on the Drawings and in the Design, the numbers shall govern, as between larger scale and smaller scale drawings, the larger scale shall govern.

1.5.9 Neither the organization of any of the Contract Documents into divisions, sections, paragraphs, articles, (or other categories), nor the organization or arrangement of the Design, shall control the Contractor in dividing the Work or in establishing the extent or scope of the Work to be performed by Subcontractors.

1.6 OWNERSHIP OF CONTRACT DOCUMENTS

1.6.1 The Contract Documents, and each of them, shall remain the property of the City. The Contractor shall have the right to keep one record set of the Contract Documents upon completion of the Project; provided, however, that in no event shall Contractor use, or permit to be used, any or all such Contract Documents on other projects without the City's prior written authorization.

ARTICLE II

THE WORK

2.1 THE WORK

2.1.1 The Contractor shall perform all the Work required, implied or reasonably inferable from, this Contract.

2.2 WORK

2.2.1 The term "Work" shall mean whatever is done by or required of the Contractor to perform and complete its duties under this Contract, including the following: construction of the whole or a designated part of the Project; furnishing of any required surety bonds and insurance, and the provision or furnishing of labor, supervision, services, materials, supplies, equipment, fixtures, appliances, facilities, tools, transportation, storage, power, permits and licenses required of the Contractor, fuel, heat, light, cooling and all other utilities as required by this Contract. The Work to be performed by the Contractor is generally described as:

The work consists of 5,000’ of 18” Open Cut Sewer, 1,500’ 15” Open Cut Sewer and 600’ of 36” Steel Casing by other than Open Cut.

A detailed scope of work to be performed, including bid specifications, scope of work, and Contractor’s bid response, is attached hereto and incorporated herein by this reference as Exhibit A.

2.2.2 The Contractor shall be responsible for paying for and procuring all materials and labor and furnishing all services necessary or appropriate for the full performance of the Work and the for the full completion of the Project. All materials shall be new and materials and workmanship shall be of good quality. Upon request, the Contractor shall furnish satisfactory proof of the type, kind, and quality of materials.

ARTICLE III

CONTRACT TIME

3.1 TIME AND LIQUIDATED DAMAGES

3.1.1 The Contractor shall commence the Work within **10** days of receipt of a written Notice to Proceed and shall achieve Substantial Completion of the Work no later than **60** calendar days from the date specified in the Notice to Proceed. The parties acknowledge that time is of the essence in the performance of the terms of this Contract. The term "calendar days" shall mean all days of the week or month, no days being excepted. It is contemplated by the parties that the progress of the Work may be delayed by certain conditions beyond the control of the parties; these delays have been contemplated by the parties and considered in the time allotted for performance specified herein and includes, but is not limited to delays occasioned on account of adverse weather, temporary unavailability of materials, shipment delays, and the presence and potential interference of other contractors who may be performing work at the Project site unrelated to this Contract.

The number of calendar days from the date on which the Work is permitted to proceed, through the date set forth for Substantial Completion, shall constitute the "Contract Time".

3.1.2 The Contractor shall pay the City the sum of **$500** per day for each and every calendar day of unexcused delay in achieving Substantial Completion beyond the date set forth herein for Substantial Completion of the Work. Any sums due and payable hereunder by the Contractor shall be payable, not as a penalty, but as liquidated damages representing an estimate of delay damages likely to be sustained by the City, estimated at or before the time of executing this Contract, and represent City's sole remedy for delay damages in the event of unexcused delay. When the City reasonably believes that Substantial Completion will be inexcusably delayed, the City shall be entitled, but not required, to withhold from any amounts otherwise due the Contractor an amount then believed by the City to be adequate to recover liquidated damages applicable to such delays. If and when the Contractor overcomes the delay in achieving Substantial Completion, or any part thereof, for which the City has withheld payment, the City shall promptly release to the Contractor those funds withheld, but no longer applicable, as liquidated damages.

3.1.3 No claim shall be made by the Contractor to the City, and no damages, costs or extra compensation shall be allowed or paid by the City to the Contractor for any delay or hindrance from any cause in the progress or completion of the Work or this Contract. The Contractor's sole remedy in the event of any delay or hindrance shall be to request time extensions by written change orders as provided for hereinafter. Should the Contractor be delayed by an act of the City, or should the City order a stoppage of the Work for sufficient cause, an extension of time and extended General Conditions shall be granted by the City by written authorization upon written application, which time extension and extended General Conditions shall not be unreasonably denied, to compensate for the delay.

3.1.4 The City shall have the authority to suspend the Work wholly or in part for such period or periods of time as it may deem appropriate due to unsuitable conditions considered unfavorable for the proper prosecution of the work.

3.1.5 Work or for the failure of the Contractor to carry out instructions from the City or City's representative. During any period in which the Work is stopped or during which any of the Work is not actively in progress for any reason, Contractor shall properly protect the site and the Work from damage, loss or harm.

3.2 SUBSTANTIAL COMPLETION

3.2.1 "Substantial Completion" shall mean that stage in the progression of the Work when the Work is sufficiently complete in accordance with this Contract that the City can enjoy beneficial use or occupancy of the Work and can utilize the Work for its intended purpose, even though minor miscellaneous work and/or adjustment may be required.

3.3 TIME IS OF THE ESSENCE

3.3.1 TIME IS OF THE ESSENCE IN THE PERFORMANCE OF THE WORK AND THE COMPLETION OF THE PROJECT ON OR BEFORE THE SCHEDULED COMPLETION DATE. THE SCHEDULED COMPLETION DATE IS A DEADLINE. THE CITY EMPLOYS A ZERO-TOLERANCE POLICY REGARDING THE TIME FOR COMPLETION. The time for completion is an essential and material term of this Contract and the Contractor's failure to achieve substantial completion on the date stated herein, to comply with work schedules, or achieve milestones in approved construction schedules, shall be a material breach and default of this Contract.

3.3.2 The City shall have the authority to suspend the Work wholly or in part for such period or periods of time as it may deem appropriate due to unsuitable

conditions considered unfavorable for the proper prosecution of the Work or for the failure of the Contractor to carry out instructions from the City or City's representative. During any period in which the Work is stopped or during which any of the Work is not actively in progress for any reason, Contractor shall properly protect the site and the Work from damage, loss or harm. The Contractor shall not be compensated for periods of delay caused by a suspension of the work by the City. If work is suspended due to unsuitable conditions through no fault of the Contractor, an extension of time shall be granted by the City by Change Order upon written application, which extension shall not be unreasonably denied, to compensate for the delay.

3.3.3 The Contractor shall not have or assert any claim against the City for damages or back-charges of any kind for any reason, including but not limited to claims for Extra Work, damages, economic loss, additional costs, unknown latent site conditions, and refusals by the City to grant extensions of time, unless supported and authorized by a written Change Order or separate agreement signed by all parties. The Contractor, in entering into this Contract, hereby waives, releases, quitclaims, discharges and holds harmless the City from and against any and all claims, damages, liabilities and losses, save and except those arising under Paragraph 12.1 of this Contract.

ARTICLE IV

CONTRACT PRICE

4.1 THE CONTRACT PRICE

4.1.1 The City shall pay, and the Contractor shall accept, as full and complete payment for all the Work required herein, an amount in current funds equal to the sum of the established unit price for each separately identified item of unit price work times the quantity of that item set forth in the paragraph 4.1.1. Estimated quantities are not guaranteed and determinations of actual quantities and classifications are to be made by the Contractor and the City. The Contract Price is to be paid based upon actual quantities. If actual quantities exceed estimate, Owner may supplement Contract Price with additional moneys to complete original scope of Work. Work will entitle Contractor to change order for that work. City reserves the right to remove Work from Contractor's scope in the event the cost of the Work will exceed the Contract Price.

SEE SECTION 6, BID FORM

ARTICLE V

PAYMENT OF THE CONTRACT PRICE

5.1 SCHEDULE OF VALUES

5.1.1 Within ten (10) calendar days of the effective date hereof, the Contractor shall submit to the City and to the Engineer a Schedule of Values allocating the Contract Price to the various portions of the Work. The Contractor's Schedule of Values shall be prepared in such form, with such detail, and supported by such data as the Engineer or the City may require to substantiate its accuracy. The Contractor shall not imbalance its Schedule of Values nor artificially inflate any element thereof. The violation of this provision by the Contractor shall constitute a material breach of this Contract. The Schedule of Values shall be used only as a basis for the Contractor's Applications for Payment and shall only constitute such basis after it has been acknowledged and accepted in writing by the Engineer and the City.

5.2 PAYMENT PROCEDURE

5.2.1 The City shall pay the Contract Price to the Contractor as provided below.

5.2.2 ***PROGRESS PAYMENTS*** - Based upon the Contractor's Applications for Payment submitted to the Engineer and upon Certificates for Payment subsequently issued to the City by the Engineer, the City shall make progress payments to the Contractor on account of the Contract Price.

5.2.3 APPLICATION FOR PAYMENT - On or before the 25th day of each month after commencement of the Work, the Contractor shall submit an Application for Payment for the period ending the 15th day of the month to the Engineer in such form and manner, and with such supporting data and content, as the City or the Engineer may require. The Contractor may request payment for that portion of the Contract Price properly allocable to Contract requirements properly provided and to labor, materials and equipment properly incorporated in the Work, less retainage and less the total amount of previous payments received from the City. Such Application for Payment shall be signed by the Contractor and shall constitute the Contractor's representation that the Work has progressed to the level for which payment is requested in accordance with the Schedule of Values, that the Work has been properly installed or performed in full compliance with this Contract, and that the Contractor knows of no reason why payment should not be made as requested. Thereafter, the Engineer will review the Application for Payment and may also review the

Work at the Project site or elsewhere to determine whether the quantity and quality of the Work is as represented in the Application for Payment and is as required by this Contract. The Engineer shall determine and certify to the City the amount properly owing to the Contractor. The City shall make partial payments on account of the Contract Price to the Contractor within thirty (30) days following the Engineer's receipt and approval of each Application for Payment. The amount of each partial payment shall be the amount certified for payment by the Engineer less such amounts, if any, otherwise owing by the Contractor to the City or which the City shall have the right to withhold as authorized by this Contract. The Engineer's certification of the Contractor's Application for Payment shall not preclude the City from the exercise of any of its rights as set forth in Paragraph 5.3 hereinbelow.

5.2.4 STATEMENT OF DELAY - Each Application for Payment shall include a Statement of Delay showing the number of days lost due to inclement weather, conflicts with other City contractors, utilities, or design specifications, or other proper reasons. The failure to submit the Statement of Delay shall be a waiver of any claim for additional days or extensions of the scheduled completion date.

5.2.5 RETAINAGE – If the Contract Price set forth in Subparagraph 4.1.1 is between $50,000 and $1,000,000, the City shall withhold retainage of ten (10) percent; if between 1,000,001 and $2,000,000, the City shall withhold retainage of seven and one-half (7½) percent; if over $2,000,000, the City shall withhold retainage of five (5) percent. If a different percentage is set forth in the Invitation to Bid/Request for Proposal, then that percentage shall apply. Retainage shall be withheld from each progress payment to secure performance of the Contract. The City shall deposit in an interest-bearing account that portion of any retainage withheld that exceeds five (5) percent of the progress payment. Interest earned on retainages in excess of five (5) percent of progress payments shall be paid to the Contractor with the final payment.

5.2.6 Statement of Delay - Each Application for Payment shall include a Statement of Delay showing the number of days lost due to inclement weather, conflicts with other City contractors, utilities, or design specifications, or other proper reasons. The failure to submit the Statement of Delay shall be a waiver of any claim for additional days or extensions of the scheduled completion date.

5.2.7 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the City no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment, all Work for which payments have been received from the City shall be free and clear of liens, claims, security interest or other encumbrances in favor of the Contractor or any other person or entity whatsoever.

5.2.8 The Contractor shall promptly pay each Subcontractor out of the amount paid to the Contractor on account of such Subcontractor's Work, the amount to which such Subcontractor is entitled. In the event the City becomes informed that the Contractor has not paid a Subcontractor as herein provided, the City shall provide written notice to the Contractor. If the Contractor fails to cure such payment issues within ten (10) days of receipt of City's notice, the City shall have the right, but not the duty, to issue future checks in payment to the Contractor of amounts otherwise due hereunder naming the Contractor and such Subcontractor as joint payees. Such joint check procedure, if employed by the City, shall create no rights in favor of any person or entity beyond the right of the named payees to payment of the check and shall not be deemed to commit the City to repeat the procedure in the future.

5.2.9 No progress payment, nor any use or occupancy of the Project by the City, shall be interpreted to constitute an acceptance of any Work not in strict accordance with this Contract.

5.3 WITHHELD PAYMENT

5.3.1 The City may decline to make payment, may withhold funds, and, if necessary, may demand the return of some or all of the amounts previously paid to the Contractor, to protect the City from loss because of:

(a) defective Work not remedied by the Contractor nor, in the opinion of the City, likely to be remedied by the Contractor;

(b) claims of third parties against the City or the City's property;

(c) failure by the Contractor to pay Subcontractors or others in a prompt and proper fashion, subject to Contractor's right to cure;

(d) evidence that the balance of the Work cannot be completed in accordance with the Contract for the unpaid balance of the Contract Price;

(e) evidence that the Work will not be

completed in the time required for substantial or final completion;

(f) persistent failure to carry out the Work in accordance with the Contract;

(g) damage to the City or a third party to whom the City is, or may be, liable.

In the event that the City makes written demand upon the Contractor for amounts previously paid by the City as contemplated in this Subparagraph 5.3.1, the Contractor shall promptly comply with such demand. The City shall have no duty to third parties to withhold payment to the Contractor and shall incur no liability for a failure to withhold funds.

5.4 UNEXCUSED FAILURE TO PAY

5.4.1 If within fifteen (15) days after the date established herein for payment to the Contractor by the City, the City, without cause or basis hereunder, fails to pay the Contractor any amount then due and payable to the Contractor, then the Contractor may after ten (10) additional days' written notice to the City and the Engineer, and without prejudice to any other available rights or remedies it may have, stop the Work until payment of those amounts due from the City have been received. Late payments shall not accrue interest or other late charges.

5.5 SUBSTANTIAL COMPLETION

5.5.1 When the Contractor believes that the Work is substantially complete, the Contractor shall submit to the Engineer a list of items to be completed or corrected. When the Engineer on the basis of an inspection determines that the Work is in fact substantially complete, it will prepare a Certificate of Substantial Completion which shall establish the date of Substantial Completion, shall state the responsibilities of the City and the Contractor for Project security, maintenance, heat, utilities, damage to the Work, and insurance, and shall fix the time within which the Contractor shall complete the items listed therein. Guarantees required by the Contract shall commence on the date of Substantial Completion of the Work. The Certificate of Substantial Completion shall be submitted to the City and the Contractor for their written acceptance of the responsibilities assigned to them in such certificate.

Upon Substantial Completion of the Work, and execution by both the City and the Contractor of the Certificate of Substantial Completion, the City shall pay the Contractor an amount sufficient to increase total payments to the Contractor to one hundred percent (100%) of the Contract Price less three hundred percent (300%) of the reasonable cost as determined by the City and the Engineer for completing all incomplete Work, correcting and bringing into conformance all defective and nonconforming Work, and handling all unsettled claims.

5.6 COMPLETION AND FINAL PAYMENT

5.6.1 When all of the Work is finally complete and the Contractor is ready for a final inspection, it shall notify the City and the Engineer thereof in writing. Thereupon, the Engineer will make final inspection of the Work and, if the Work is complete in full accordance with this Contract and this Contract has been fully performed, the Engineer will promptly issue a final Certificate for Payment certifying to the City that the Project is complete and the Contractor is entitled to the remainder of the unpaid Contract Price, less any amount withheld pursuant to this Contract. If the Engineer is unable to issue its final Certificate for Payment and is required to repeat its final inspection of the Work, the Contractor shall bear the cost of such repeat final inspection(s) which cost may be deducted by the City from the Contractor's final payment.

5.6.1.1 If the Contractor fails to achieve final completion within thirty (30) days of Substantial Completion, the Contractor shall pay the City the sum set forth hereinabove as liquidated damages per day for each and every calendar day of unexcused delay in achieving final completion beyond the date set forth herein for final completion of the Work. Any sums due and payable hereunder by the Contractor shall be payable, not as a penalty, but as liquidated damages representing an estimate of delay damages likely to be sustained by the City, estimated at or before the time of executing this Contract. When the City reasonably believes that final completion will be inexcusably delayed, the City shall be entitled, but not required, to withhold from any amounts otherwise due the Contractor an amount then believed by the City to be adequate to recover liquidated damages applicable to such delays. If and when the Contractor overcomes the delay in achieving final completion, or any part thereof, for which the City has withheld payment, the City shall promptly release to the Contractor those funds withheld, but no longer applicable, as liquidated damages.

5.6.2 The Contractor shall not be entitled to final payment unless and until it submits to the Engineer its affidavit that all payrolls, invoices for materials and equipment, and other liabilities connected with the Work for which the City, or the City's property might be responsible, have been fully paid or otherwise satisfied; releases and waivers of lien from all

Subcontractors of the Contractor and of any and all other parties required by the Engineer or the City; consent of Surety, if any, to final payment. If any third party fails or refuses to provide a release of claim or waiver of lien as required by the City, the Contractor shall furnish a bond satisfactory to the City to discharge any such lien or indemnify the City from liability.

5.6.3 The City shall make final payment of all sums due the Contractor within thirty (30) days of the Engineer's execution of a final Certificate for Payment.

5.6.4 Acceptance of final payment shall constitute a waiver of all claims against the City by the Contractor except for those claims previously made in writing against the City by the Contractor, pending at the time of final payment, and identified in writing by the Contractor as unsettled at the time of its request for final payment.

5.6.5 Under no circumstance shall Contractor be entitled to receive interest on any payments or monies due Contractor by the City, whether the amount on which the interest may accrue is timely, late, wrongfully withheld, or an assessment of damages of any kind.

ARTICLE VI

THE CITY

6.1 INFORMATION, SERVICES AND THINGS REQUIRED FROM CITY

6.1.1 The City shall furnish to the Contractor, at the time of executing this Contract, all written and tangible material in its possession concerning conditions below ground at the site of the Project.

Such written and tangible material is furnished to the Contractor only in order to make complete disclosure of such material and for no other purpose. By furnishing such material, the City does not represent, warrant, or guarantee its accuracy either in whole, in part, implicitly or explicitly, or at all, and shall have no liability therefor. The City shall also furnish surveys, legal limitations and utility locations (if known), and a legal description of the Project site.

6.1.2 Excluding permits and fees normally the responsibility of the Contractor, the City shall obtain all approvals, easements, and the like required for construction and shall pay for necessary assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

6.1.3 The City shall furnish the Contractor, free of charge, one copy of the Contract Documents for execution of the Work.

6.2 RIGHT TO STOP WORK

6.2.1 If the Contractor persistently fails or refuses to perform the Work in accordance with this Contract, or if the best interests of the public health, safety or welfare so require, the City may order the Contractor to stop the Work, or any described portion thereof, until the cause for stoppage has been corrected, no longer exists, or the City orders that Work be resumed. In such event, the Contractor shall immediately obey such order.

6.3 CITY'S RIGHT TO PERFORM WORK

6.3.1 If the Contractor's Work is stopped by the City under Paragraph 6.2, and the Contractor fails within seven (7) days of such stoppage to provide adequate assurance to the City that the cause of such stoppage will be eliminated or corrected, then the City may, without prejudice to any other rights or remedies the City may have against the Contractor, proceed to carry out the subject Work. In such a situation, an appropriate Change Order shall be issued deducting from the Contract Price the cost of correcting the subject deficiencies, plus compensation for the Engineer's additional services and expenses necessitated thereby, if any. If the unpaid portion of the Contract Price is insufficient to cover the amount due the City, the Contractor shall pay the difference to the City.

ARTICLE VII

THE CONTRACTOR

7.1 The Contractor is again reminded of its continuing duty set forth in Subparagraph 1.5.7. The Contractor shall perform no part of the Work at any time without adequate Contract Documents or, as appropriate, approved Shop Drawings, Product Data or Samples for such portion of the Work. If the Contractor performs any of the Work knowing it involves a recognized error, inconsistency or omission in the Contract Documents without such notice to the Engineer, the Contractor shall bear responsibility for such performance and shall bear the cost of correction.

7.2 MUST FOLLOW CONTRACT

7.2.1 The Contractor shall perform the Work strictly in accordance with this Contract.

7.3 PROSECUTION OF WORK

7.3.1 The Contractor shall supervise and direct the Work using the Contractor's best skill, effort and attention. The Contractor shall be responsible to the City for any and all acts or omissions of the Contractor, its employees and others engaged in the Work on behalf of the Contractor.

7.3.2 The Contractor shall give adequate attention to the faithful prosecution of the Work and the timely completion of this Contract, with authority to determine the manner and means of performing such Work, so long as such methods insure timely completion and proper performance.

7.3.3 The Contractor shall exercise all appropriate means and measures to insure a safe and secure jobsite in order to avoid and prevent injury, damage or loss to persons or property.

7.3.4 The City will not interfere with the Contractor's manner and means of performing the Work. However, the City's insistence on strict compliance with the Contract shall not be regarded as an interference with the Contractor's manner and means. In the event that any part of the Work is not in strict compliance with the Contract, the Contractor is and shall be estopped from claiming any interference by the City or Engineer with the Contractor's manner and means of performing that part of the Work.

7.4 WARRANTY

7.4.1 The Contractor warrants to the City that all labor furnished to progress the Work under this Contract will be competent to perform the tasks undertaken, that the product of such labor will yield only first-class results, that materials and equipment furnished will be of good quality and new unless otherwise permitted by this Contract, and that the Work will be of good quality, free from faults and defects and in strict conformance with this Contract. All Work not conforming to these requirements may be considered defective. The Contractor warrants and guaranties that it shall complete the work and achieve substantial completion by the scheduled completion date, as may be extended by Contract, strictly in accordance with this contract. Defective work or materials shall be fixed, repaired or replaced free of charge or cost to the City. **7.8**

7.5 PERMITS; FEES; LICENSES

7.5.1 The Contractor shall obtain and pay for all permits, fees and licenses necessary and ordinary for the Work. The Contractor shall comply with all lawful requirements applicable to the Work and shall give and maintain any and all notices required by applicable law pertaining to the Work.

7.6 SUPERVISION

7.6.1 The Contractor shall employ and maintain at the Project site only competent supervisory personnel. Absent written instruction from the Contractor to the contrary, the superintendent shall be deemed the Contractor's authorized representative at the site and shall be authorized to receive and accept any and all communications from the City or the Engineer.

7.6.2 Key supervisory personnel assigned by the Contractor to this Project are as follows:

NAME	FUNCTION
_____	_____
_____	_____
_____	_____

So long as the individuals named above remain actively employed or retained by the Contractor, they shall perform the functions indicated next to their names unless the City agrees to the contrary in writing. In the event one or more individuals not listed above subsequently assume one or more of those functions listed above, the Contractor shall be bound by the provisions of this Subparagraph 7.6.2 as though such individuals had been listed above.

7.7 WORK SCHEDULE

7.7.1 The Contractor, within fifteen (15) days of commencing the Work, shall submit to the City and the Engineer for their information, the Contractor's schedule for completing the Work. The Contractor's schedule shall be revised no less frequently than monthly (unless the parties otherwise agree in writing) and shall be revised to reflect conditions encountered from time to time and shall be related to the entire Project. Each such revision shall be furnished to the City and the Engineer. Failure by the Contractor to strictly comply with the provisions of this Section 7.7 shall constitute a material breach of this Contract.

7.8 ON-SITE DRAWINGS

7.8.1 The Contractor shall continuously maintain at the site, for the benefit of the City and the Engineer, one record copy of this Contract marked to record on a current basis changes, selections and modifications made during construction. Additionally, the Contractor shall maintain at the site for the City and Engineer the approved Shop Drawings, Product Data, Samples and other similar required submittals. Upon

final completion of the Work, all of these record documents shall be delivered to the City.

7.9 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

7.9.1 Shop Drawings, Product Data, Samples and other submittals from the Contractor do not constitute Contract Documents. Their purpose is merely to demonstrate the manner in which the Contractor intends to implement the Work in conformance with information received from the Contract Documents.

7.9.2 The Contractor shall not perform any portion of the Work requiring submittal and review of Shop Drawings, Product Data or Samples unless and until such submittal shall have been approved by the Engineer. Approval by the Engineer, however, shall not be evidence that Work installed pursuant thereto conforms with the requirements of this Contract.

7.10 CLEANING THE SITE AND THE PROJECT

7.10.1 The Contractor shall keep the site reasonably clean during performance of the Work. Upon final completion of the Work, the Contractor shall clean the site and the Project and remove all waste, rubbish, temporary structures, and other materials together with all of the Contractor's property therefrom. Contractor shall dispose of all refuse at a Texas Natural Resource Conservation Commission approved landfill. The Contractor shall further restore all property damaged during the prosecution of the Work and shall leave the site in a clean and presentable condition. No additional payment shall be made by the City for this work, the compensation having been considered and included in the contract price.

7.11 ACCESS TO WORK AND INSPECTIONS

7.11.1 The City and the Engineer shall have access to the Work at all times from commencement of the Work through final completion. The Contractor shall take whatever steps necessary to provide access when requested. When reasonably requested by the City or the Engineer, the Contractor shall perform or cause to be performed such testing as may be necessary or appropriate to insure suitability of the jobsite or the Work's compliance with the Contract requirements.

7.12 INDEMNITY AND DISCLAIMER

7.12.1 CITY SHALL NOT BE LIABLE OR RESPONSIBLE FOR, AND SHALL BE INDEMNIFIED, HELD HARMLESS AND RELEASED BY CON-TRACTOR FROM AND AGAINST ANY AND ALL SUITS, ACTIONS, LOSSES, DAMAGES, CLAIMS, OR LIABILITY OF ANY CHARACTER, TYPE, OR DESC-RIPTION, INCLUDING ALL EXPENSES OF LITIGATION, COURT COSTS, AND ATTORNEY'S FEES, FOR INJURY OR DEATH TO ANY PERSON, OR INJURY OR LOSS TO ANY PROPERTY, RECEIVED OR SUSTAINED BY ANY PERSON OR PERSONS, INCLUDING THE CONTRACTOR, OR PROPERTY, ARISING OUT OF, OR OCCASIONED BY, DIRECTLY OR INDIRECTLY, THE PERFORMANCE OF CONTRACTOR UNDER THIS CONTRACT, INCLUDING CLAIMS AND DAMAGES ARISING IN WHOLE OR IN PART FROM THE NEGLIGENCE OF CITY, WITHOUT, HOWEVER, WAIVING ANY GOVERN-MENTAL IMMUNITY AVAILABLE TO THE CITY UNDER TEXAS LAW AND WITHOUT WAIVING ANY DEFENSES OF THE PARTIES UNDER TEXAS LAW. THE PROVISIONS OF THIS INDEMNI-FICATION ARE SOLELY FOR THE BENEFIT OF THE PARTIES HERETO AND NOT INTENDED TO CREATE OR GRANT ANY RIGHTS, CONTRACTUAL OR OTHERWISE, TO ANY OTHER PERSON OR ENTITY. IT IS THE EXPRESSED INTENT OF THE PARTIES TO THIS CONTRACT THAT THE INDEMNITY PROVIDED FOR IN THIS CONTRACT IS AN INDEMNITY EXTENDED BY CONTRACTOR TO INDEMNIFY AND PROTECT CITY FROM THE CONSEQUENCES OF THE CONTRACTOR'S AND THE CITY'S NEGLIGENCE, WHETHER SUCH NEGLIGENCE IS THE SOLE OR PARTIAL CAUSE OF ANY SUCH INJURY, DEATH, OR DAMAGE.

7.12.2 The Contractor will secure and maintain Contractual Liability insurance to cover this indemnification agreement that will be primary and non-contributory as to any insurance maintained by the City for its own benefit, including self-insurance. In addition, Contractor shall obtain and file with City a Certificate of Insurance and copies of policy

endorsements evidencing the required coverage.

7.12.3 In claims against any person or entity indemnified under this Paragraph 7.12 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under this Paragraph 7.12 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

7.13 NONDISCRIMINATION

7.13.1 The Contractor shall not discriminate in any way against any person, employee or job applicant on the basis of race, color, creed, national origin, religion, age, sex, or disability where reasonable accommodations can be effected to enable the person to perform the essential functions of the job. The Contractor shall further ensure that the foregoing nondiscrimination requirement shall be made a part and requirement of each subcontract on this Project.

7.14 PREVAILING WAGE RATES

7.14.1 The Contractor shall comply in all respects with all requirements imposed by any laws, ordinances or resolutions applicable to the Project with regard to the minimum prevailing wage rates for all classes of employees, laborers, subcontractors, mechanics, workmen and persons furnishing labor and services to the Project. The City has adopted a Prevailing Wage Rate Schedule, available to the Contractor by request, which specifies the classes and wage rates to be paid to all persons. The Contractor shall pay not less than the minimum wage rates established thereby for each class, craft or type of labor, workman, or mechanic employed in the execution of this Contract. The failure of the Contractor to comply with this requirement shall result in the forfeiture to the City of a sum of not less than Sixty Dollars ($60.00) for each person per day, or portion thereof, that such person is paid less than the prevailing rate. Upon request by the City, Contractor shall make available for inspection and copying its books and records, including but not limited to its payroll records, account information and other documents as may be required by the City to ensure compliance with this provision.

7.15 JOB SITE SAFETY PRECAUTIONS

7.15.1 The Contractor shall at all times exercise reasonable precautions for the safety of its employees, laborers, subcontractors, mechanics, workmen and others on and near the jobsite and shall comply with all laws, ordinances, regulations, and standards of federal, state and local safety laws and regulations. The Contractor shall provide such machinery guards, safe walkways, ladders, bridges, and other safety devices as may be necessary or appropriate to ensure a safe and secure jobsite and shall require its subcontractors to comply with this requirement. The Contractor shall immediately comply with any and all safety requirements imposed by the Engineer during the progress of the Work.

7.16 WARNING DEVICES AND BARRICADES

7.16.1 The Contractor shall furnish and maintain such warning devices, barricades, lights, signs, pavement markings, and other devices as may be necessary or appropriate or required by federal, state and/or local guidelines to protect persons or property in, near or adjacent to the jobsite. No separate compensation shall be paid to the Contractor for such measures. Where the Work is being conducted in, upon or near streets, alleys, sidewalks, or other rights-of-way, the Contractor shall ensure the placement, maintenance and operation of any and all such warning devices as may be required by the City and shall do so until no longer required by the City. Such devices shall be in compliance with and conform to the manual and specifications for the uniform system of traffic control devices adopted by the Texas Department of Transportation.

7.17 PROTECTION OF UTILITIES AND OTHER CONTRACTORS

7.17.1 The Contractor shall use best efforts to leave undisturbed and uninterrupted all utilities and utility services provided to the jobsite, or which presently exists at, above or beneath the location where the Work is to be performed. In the event that any utility or utility service is disturbed or damaged during the progress of the Work, the Contractor shall forthwith repair, remedy or restore the utility at Contractor's sole expense.

7.17.2 The Contractor understands and acknowledges that other contractors of the City or of other entities may be present at the jobsite performing other work unrelated to the Project. The Contractor shall use best efforts to work around other contractors without impeding the work of others while still adhering to the completion date established herein. In the event that the Contractor's work is or may be delayed by any other person, the Contractor shall immediately give notice thereof to the City and the Engineer and shall request a written Change Order in accordance with the procedures set forth by this Contract. The Contractor's failure to provide such notice and to request such Change Order shall

constitute a waiver of any and all claims associated therewith.

ARTICLE VIII

CONTRACT ADMINISTRATION

8.1 THE ENGINEER

8.1.1 When used in this Contract the term "Engineer" does not necessarily denote a duly licensed, trained or certified engineer; as used herein, the term shall be used interchangeably and shall mean a designated Engineer, Architect, or Contract Administrator (who may not be an architect or engineer) for the City, said person to be designated or redesignated by the City prior to or at any time during the Work hereunder. The Engineer may be an employee of the City or may be retained by the City as an independent contractor but, in either event, the Engineer's duties and authority shall be as set forth hereinafter. The Contractor understands and agrees that it shall abide by the decisions and instructions of the Engineer notwithstanding the contractual relationship between the City and Engineer. All the City's instructions to the Contractor shall be through the Engineer.

In the event the City should find it necessary or convenient to replace the Engineer, the City shall retain a replacement Engineer, and the status of the replacement Engineer shall be that of the former Engineer.

8.2 ENGINEER'S ADMINISTRATION

8.2.1 The Engineer, unless otherwise directed by the City in writing, will perform those duties and discharge those responsibilities allocated to the Engineer as set forth in this Contract. The Engineer shall be the City's representative from the effective date of this Contract until final payment has been made.

8.2.2 The City and the Contractor shall communicate with each other directly through designated representatives and/or project managers, and shall, where appropriate, provide copies of communications to the Engineer.

8.2.3 The Engineer shall be the initial interpreter of the requirements of the drawings and specifications and the judge of the performance thereunder by the Contractor. The Engineer shall render written or graphic interpretations necessary for the proper execution or progress of the Work with reasonable promptness on request of the Contractor.

8.2.4 The Engineer will review the Contractor's Applications for Payment and will certify to the City for payment to the Contractor, those amounts then due the Contractor as provided in this Contract.

8.2.5 The Engineer shall have authority to reject Work which is defective or does not conform to the requirements of this Contract. If the Engineer deems it necessary or advisable, the Engineer shall have authority to require additional inspection or testing of the Work for compliance with Contract requirements.

8.2.6 The Engineer will review and approve, or take other appropriate action as necessary, concerning the Contractor's submittals including Shop Drawings, Product Data and Samples. Such review, approval or other action shall be for the sole purpose of determining conformance with the design concept and information given through the Contract Documents.

8.2.7 The Engineer will review Change Orders that shall be prepared by the Contractor and may authorize minor changes in the Work by Field Order as provided elsewhere herein.

8.2.8 The Engineer shall, upon written request from the Contractor, conduct inspections to determine the date of Substantial Completion and the date of final completion, will receive and forward to the City for the City's review and records, written warranties and related documents required by this Contract and will issue a final Certificate for Payment upon compliance with the requirements of this Contract.

8.2.9 The Engineer's decisions in matters relating to aesthetic effect shall be final if consistent with the intent of this Contract.

8.3 CLAIMS BY THE CONTRACTOR

8.3.1 The Engineer shall determine all claims and matters in dispute between the Contractor and City with regard to the execution, progress, or sufficiency of the Work or the interpretation of the Contract Documents, including but not limited to the plans and specifications. Any dispute shall be submitted in writing to the Engineer within seven (7) days of the event or occurrence or the first appearance of the condition giving rise to the claim or dispute who shall render a written decision within a reasonable time thereafter. The Engineer's decisions shall be final and binding on the parties. In the event that either party objects to the Engineer's determination as to any submitted dispute, that party shall submit a written objection to the Engineer and the opposing party within ten (10) days of receipt of the Engineer's written determination in order to preserve the objection. Failure to so object shall constitute a waiver of the objection for all purposes.

8.3.2 Pending final resolution of any claim of the Contractor, the Contractor shall diligently proceed with

performance of this Contract and the City shall continue to make payments to the Contractor in accordance with this Contract.

8.3.3 ***CLAIMS FOR CONCEALED, LATENT OR UNKNOWN CONDITIONS*** **-** The Contractor expressly represents that it has been provided with an adequate opportunity to inspect the Project site and thoroughly review the Contract Documents and plans and specifications prior to submission of its bid and the City's acceptance of the bid. Subject to the conditions hereof, Contractor assumes full responsibility and risk for any concealed, latent or unknown condition which may affect the Work. No claims for extra work or additional compensation shall be made by Contractor in connection with concealed, latent or unknown conditions except as expressly provided herein. Should concealed, latent or unknown conditions encountered in the performance of the Work (a) below the surface of the ground or (b) in an existing structure be at variance with the conditions indicated by this Contract, or should unknown conditions of an unusual nature differing materially from those ordinarily encountered in the area and generally recognized as inherent in Work of the character provided for in this Contract, be encountered, the Contract Price shall be equitably adjusted by Change Order upon the written notice and claim by either party made within seven (7) days after the first observance of the condition. As a condition precedent to the City having any liability to the Contractor for concealed or unknown conditions, the Contractor must give the City and the Engineer written notice of, and an opportunity to observe, the condition prior to disturbing it. The failure by the Contractor to make the written notice and claim as provided in this Subparagraph shall constitute a waiver by the Contractor of any claim arising out of or relating to such concealed, latent or unknown condition and the Contractor thereby assumes all risks and additional costs associated therewith.

8.3.4 ***CLAIMS FOR ADDITIONAL COSTS*** **-** If the Contractor wishes to make a claim for an increase in the Contract Price, as a condition precedent to any liability of the City therefor, the Contractor shall give the Engineer written notice of such claim within seven (7) days after the occurrence of the event, or the first appearance of the condition, giving rise to such claim. Such notice shall be given by the Contractor before proceeding to execute any additional or changed Work. The failure by the Contractor to give such notice and to give such notice prior to executing the Work shall constitute a waiver of any claim for additional compensation.

8.3.4.1 In connection with any claim by the Contractor against the City for compensation in excess of the Contract Price, any liability of the City for the Contractor's costs shall be strictly limited to direct costs incurred by the Contractor and shall in no event include indirect costs or consequential damages of the Contractor. The City shall not be liable to the Contractor for claims of third parties, including Subcontractors. The City shall not be liable to the Contractor for any claims based upon delay to the Contractor for any reason whatsoever including any act or neglect on the part of the City.

8.3.5 ***CLAIMS FOR ADDITIONAL TIME*** **-** If the Contractor is delayed in progressing any task which at the time of the delay is then critical or which during the delay becomes critical, as the sole result of any act or neglect to act by the City or someone acting in the City's behalf, or by changes ordered in the Work, unusual delay in transportation, supply chain disruptions, unusually adverse weather conditions not reasonably anticipated, fire, pandemic or any causes beyond the Contractor's control, then the date for achieving Substantial Completion of the Work shall be extended upon the written notice and claim of the Contractor to the City and the Engineer, for such reasonable time and extended General Conditions as the Engineer may determine. Any notice and claim for an extension of time by the Contractor shall be made not more than seven (7) days after the occurrence of the event or the first appearance of the condition giving rise to the claim and shall set forth in detail the Contractor's basis for requiring additional time in which to complete the Project. In the event the delay to the Contractor is a continuing one, only one notice and claim for additional time shall be necessary. If the Contractor fails to make such claim as required in this Subparagraph, any claim for an extension of time shall be waived.

8.3.6 ***CLAIMS FOR EXTRA WORK*** **-** The Contractor shall not claim, request or demand any sum from the City for Extra Work or for additional costs, and hereby waives all such claims, requests and demands and any right to assert same, unless the conditions of this subparagraph are strictly complied with. "Extra Work" is defined herein to mean any labor, service, materials, equipment, supplies or charges that are directly or indirectly related to the Work, the Project or the Project site, that is not necessarily or fairly required or implied by the Contract Documents.

8.3.7 The parties acknowledge and agree that there shall be no payment made by the City to the Contractor without a written agreement (either a separate contract or a written Change Order) signed by the parties. Should the Contractor perform Extra Work or be requested to perform Extra Work by the Engineer or City, it shall be the Contractor's obligation and duty to first apply for and obtain a written Change Order, approved by the Engineer and executed by the City.

The Contractor's failure to obtain a written, signed Change Order prior to commencement of Extra Work shall constitute a complete and final waiver of any right for compensation for the Extra Work. If the parties are unable to agree to the terms of a Change Order for any Extra Work, the Contractor may reserve its rights to additional time and compensation by filing a claim under section 8.3.

8.4 FIELD ORDERS

8.4.1 The Engineer shall have authority to order minor changes in the Work not involving a change in the Contract Price or in Contract Time and not inconsistent with the intent of the Contract. Such changes shall be effected by Field Order and shall be binding upon the Contractor. The Contractor shall carry out such Field Orders promptly.

8.5 MEDIATION

8.5.1 In the event that a dispute arises under the terms of this Contract, following an adverse determination by the Engineer and proper preservation of the issue as required herein, the parties agree to submit to mediation. In such event, the parties shall agree to a designated person to serve as mediator and each party shall be responsible for payment of one-half of the total mediation fees. The parties shall submit the dispute to mediation as soon as practical and in no event later than one (1) year after the Engineer's written decision on the matter. At least one designated representative of each party must attend and participate in good faith in an effort to resolve the matters in dispute. Mediation shall not be the exclusive remedy available to the Parties.

8.5.2 In no event shall the foregoing provision justify or authorize any delay in the progress of the Work; the parties shall abide by the decision of the Engineer in accomplishing the timely completion of the Project.

ARTICLE IX

SUBCONTRACTORS

9.1 DEFINITION

9.1.1 A Subcontractor is an entity which has a direct contract with the Contractor to perform a portion of the Work. No Subcontractor shall be in privity with the City.

9.2 AWARD OF SUBCONTRACTS

9.2.1 Upon execution of the Contract, the Contractor shall furnish the City, in writing, the names of persons or entities proposed by the Contractor to act as a Subcontractor on the Project. The City shall promptly reply to the Contractor, in writing, stating any objections the City may have to such proposed Subcontractor. The Contractor shall not enter a subcontract with a proposed Subcontractor with reference to whom the City has made timely objection. The Contractor shall not be required to subcontract with any party to whom the Contractor has objection.

9.2.2 All subcontracts shall afford the Contractor rights against the Subcontractor which correspond to those rights afforded to the City against the Contractor herein, including those rights afforded to the City by Subparagraph 12.2.1 below. All subcontracts shall incorporate by reference the provisions hereof and shall provide that no claims, causes or demands shall be made by any Subcontractor against the City.

9.2.3 The Contractor shall indemnify, defend and hold harmless the City from and against any and all claims, demands, causes of action, damage, and liability asserted or made against the City by or on behalf of any Subcontractor or persons working through a Subcontractor.

ARTICLE X

CHANGES IN THE WORK

10.1 CHANGES PERMITTED

10.1.1 Changes in the Work within the general scope of this Contract, consisting of additions, deletions, revisions, or any combination thereof, may be ordered without invalidating this Contract, by Change Order or by Field Order.

10.1.2 Changes in the Work shall be performed under applicable provisions of this Contract and the Contractor shall proceed promptly with such changes.

10.2 CHANGE ORDER DEFINED

10.2.1 Change Order shall mean a written order to the Contractor executed by the City and the Engineer, issued after execution of this Contract, authorizing and directing a change in the Work or an adjustment in the Contract Price or the Contract Time, or any combination thereof. The Contract Price and the Contract Time may be changed only by written Change Order.

10.3 CHANGES IN THE CONTRACT PRICE

10.3.1 Any change in the Contract Price resulting from a Change Order shall be determined as follows:

(a) by mutual agreement between the City and the Contractor as evidenced by (1) the change in the Contract Price being set forth in the Change Order, (2) such change in the Contract Price, together with any conditions or requirements related thereto, being initialed by both parties and (3) the Contractor's execution of the Change Order, or (b) if no mutual agreement occurs between the City and the Contractor, then, as provided in Subparagraph 10.3.2 below.

10.3.2 If no mutual agreement occurs between the City and the Contractor as contemplated in Subparagraph 10.3.1 above, the change in the Contract Price, if any, shall then be determined by the Engineer on the basis of the reasonable expenditures or savings of those performing, deleting or revising the Work attributable to the change, including, in the case of an increase or decrease in the Contract Price, a reasonable allowance for direct job site overhead and profit. In such case, the Contractor shall present, in such form and with such content as the City or the Engineer requires, an itemized accounting of such expenditures or savings, plus appropriate supporting data for inclusion in a Change Order. Reasonable expenditures or savings shall be limited to the following: reasonable costs of materials, supplies, or equipment including delivery costs, reasonable costs of labor, including social security, old age and unemployment insurance, fringe benefits required by agreement or custom, and workers' compensation insurance, reasonable rental costs of machinery and equipment exclusive of hand tools whether rented from the Contractor or others, reasonable costs of premiums for all bonds and insurance, permit fees, and sales, use or other taxes related to the Work, and reasonable cost of direct supervision and jobsite field office overhead directly attributable to the change. In no event, shall any expenditure or savings associated with the Contractor's home office or other non-jobsite overhead expense be included in any change in the Contract Price. Pending final determination of reasonable expenditures or savings to the City, payments on account shall be made to the Contractor on the Engineer's Certificate for Payment.

10.3.3 If unit prices are provided in the Contract, and if the quantities contemplated are so changed in a proposed Change Order that application of such unit prices to the quantities of Work proposed will cause substantial inequity to the City or to the Contractor, the applicable unit prices shall be equitably adjusted.

10.4 MINOR CHANGES

10.4.1 The Engineer shall have authority to order minor changes in the Work not involving a change in the Contract Price or an extension of the Contract Time and not inconsistent with the intent of this Contract. Such minor changes shall be made by written Field Order, and shall be binding upon the City and the Contractor. The Contractor shall promptly carry out such written Field Orders.

10.5 EFFECT OF EXECUTED CHANGE ORDER

10.5.1 The execution of a Change Order by the Contractor shall constitute conclusive evidence of the Contractor's agreement to the ordered changes in the Work, this Contract as thus amended, the Contract Price and the Contract Time. The Contractor, by executing the Change Order, waives and forever releases any claim against the City for additional time or compensation for matters relating to or arising out of or resulting from the Work included within or affected by the executed Change Order.

10.6 NOTICE TO SURETY; CONSENT

10.6.1 The Contractor shall notify and obtain the consent and approval of the Contractor's surety with reference to all Change Orders if such notice, consent or approval are required by the Contractor's surety or by law. The Contractor's execution of the Change Order shall constitute the Contractor's warranty to the City that the surety has been notified of and consents to, such Change Order and the surety shall be conclusively deemed to have been notified of such Change Order and to have expressly consented thereto.

ARTICLE XI

UNCOVERING AND CORRECTING WORK

11.1 UNCOVERING WORK

11.1.1 If any of the Work is covered contrary to the Engineer's request or to any provisions of this Contract, it shall, if required by the Engineer or the City, be uncovered for the Engineer's inspection and shall be properly replaced at the Contractor's expense without change in the Contract Time.

11.1.2 If any of the Work is covered in a manner not inconsistent with Subparagraph 11.1.1 above, it shall, if required by the Engineer or City, be uncovered for the Engineer's inspection. If such Work conforms strictly with this Contract, costs of uncovering and proper replacement shall by Change Order be charged to the City. If such Work does not strictly conform with this Contract, the Contractor shall pay the costs of uncovering and proper replacement.

11.2 CORRECTING WORK

11.2.1 The Contractor shall immediately proceed to correct

Work rejected by the Engineer as defective or failing to conform to this Contract. The Contractor shall pay all costs and expenses associated with correcting such rejected Work, including any additional testing and inspections, and reimbursement to the City for the Engineer's services and expenses made necessary thereby.

11.2.2 If within one (1) year after Substantial Completion of the Work any of the Work is found to be defective or not in accordance with this Contract, the Contractor shall correct it promptly upon receipt of written notice from the City. This obligation shall survive final payment by the City and termination of this Contract. With respect to Work first performed and completed after Substantial Completion, this one-year obligation to specifically correct defective and nonconforming Work shall be extended by the period of time which elapses between Substantial Completion and completion of the subject Work.

11.2.3 Nothing contained in this Paragraph 11.2 shall establish any period of limitation with respect to other obligations which the Contractor has under this Contract or any obligations pursuant to the maintenance bond. Establishment of the one-year time period in Subparagraph 11.2.2 relates only to the duty of the Contractor to specifically correct the Work.

11.3 CITY MAY ACCEPT DEFECTIVE OR NONCONFORMING WORK

11.3.1 If the City chooses to accept defective or nonconforming Work, the City may do so. In such event, the Contract Price shall be reduced by the greater of (a) the reasonable cost of removing and correcting the defective or nonconforming Work, and (b) the difference between the fair market value of the Project as constructed and the fair market value of the Project had it not been constructed in such a manner as to include defective or nonconforming Work. If the remaining portion of the unpaid Contract Price, if any, is insufficient to compensate the City for its acceptance of defective or nonconforming Work, the Contractor shall, upon written demand from the City, pay the City such remaining compensation for accepting defective or nonconforming Work.

ARTICLE XII

CONTRACT TERMINATION

12.1 TERMINATION BY THE CONTRACTOR

12.1.1 If the Work is stopped for a period of ninety (90) days by an order of any court or other public authority, or as a result of an act of the Government, through no fault of the Contractor or any person or entity working directly or indirectly for the Contractor, the Contractor may, upon ten (10) days' written notice to the City and the Engineer, terminate performance under this Contract and recover from the City payment for the actual reasonable expenditures of the Contractor (as limited in Subparagraph 10.3.2 above) for all Work executed and for materials, equipment, tools, construction equipment and machinery actually purchased or rented solely for the Work, less any salvage value of any such items.

12.1.2 If the City shall persistently or repeatedly fail to perform any material obligation to the Contractor for a period of fifteen (15) days after receiving written notice from the Contractor of its intent to terminate hereunder, the Contractor may terminate performance under this Contract by written notice to the Engineer and the City. In such event, the Contractor shall be entitled to recover from the City as though the City had terminated the Contractor's performance under this Contract for convenience pursuant to Subparagraph 12.2.1 hereunder.

12.2 TERMINATION BY THE CITY

12.2.1 FOR CONVENIENCE

12.2.1.1 The City may for any reason whatsoever terminate performance under this Contract by the Contractor for convenience. The City shall give written notice of such termination to the Contractor specifying when termination becomes effective.

12.2.1.2 The Contractor shall incur no further obligations in connection with the Work, other than job site clean-up and protection, and the Contractor shall stop Work when such termination becomes effective. The Contractor shall also terminate outstanding orders and subcontracts. The Contractor shall settle the liabilities and claims arising out of the termination of subcontracts and orders. The City may direct the Contractor to assign the Contractor's right, title and interest under terminated orders or subcontracts to the City or its designee.

12.2.1.3 The Contractor shall transfer title and deliver to the City such completed or partially completed Work and materials, equipment, parts, fixtures, information and Contract rights as the Contractor has.

12.2.1.4 (a) The Contractor shall submit a termination claim to the City and the Engineer specifying the amounts due because of the termination for convenience together with costs, pricing or other data required by the Engineer. If the Contractor fails to file a termination claim within one (1)

year from the effective date of termination, the City shall pay the Contractor, an amount derived in accordance with subparagraph (c) below.

(b) The City and the Contractor may agree to the compensation, if any, due to the Contractor hereunder.

(c) Absent agreement to the amount due to the Contractor, the City shall pay the Contractor the following amounts:

(i) Contract (unit) prices which shall encompass labor, materials, equipment and other services accepted under this Contract;

(ii) Reasonable costs incurred in preparing to perform and in performing the terminated portion of the Work, and in terminating the Contractor's performance, plus a fair and reasonable allowance for overhead and profit thereon (such profit shall not include anticipated profit or consequential damages), provided however, that if it appears that the Contractor would have not profited or would have sustained a loss if the entire Contract would have been completed, no profit shall be allowed or included and the amount of compensation shall be reduced to reflect the anticipated rate of loss, if any;

(iii) Reasonable costs of settling and paying claims arising out of the termination of subcontracts or orders pursuant to Subparagraph 12.2.1.2 of this Paragraph. These costs shall not include amounts paid in accordance with other provisions hereof.

The total sum to be paid the Contractor under this Subparagraph 12.2.1 shall not exceed the total Contract Price, as properly adjusted, reduced by the amount of payments otherwise made, and shall in no event include duplication of payment.

12.2.2 FOR CAUSE

12.2.2.1 If the Contractor persistently or repeatedly refuses or fails to prosecute the Work in a timely manner, abandons the jobsite and fails to resume work within five (5) days of written notice thereof by the City, fails to grant or allow access to the jobsite by the City or Engineer, fails to supply enough properly skilled workers, supervisory personnel or proper equipment or materials, fails to make prompt payment to Subcontractors or for materials or labor, persistently disregards laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, or otherwise is guilty of a violation of a material provision of this Contract, then the City may by written notice to the Contractor, without prejudice to any other right or remedy, terminate the employment of the Contractor and take possession of the site and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor and may finish the Work by whatever methods it may deem expedient. In such case, the Contractor shall not be entitled to receive any further payment until the Work is finished.

12.2.2.2 If the unpaid balance of the Contract Price does not exceed the cost of finishing the work, including compensation for the Engineer's additional services and expenses made necessary thereby, such difference shall be paid by the Contractor to the City. This obligation for payment shall survive the termination of the Contract.

12.2.2.3 In the event the employment of the Contractor is terminated by the City for cause pursuant to Subparagraph 12.2.2 and it is subsequently determined by a Court of competent jurisdiction that such termination was without cause, such termination shall thereupon be deemed a Termination for Convenience under Subparagraph 12.2.1 and the provisions of Subparagraph 12.2.1 shall apply.

12.2.2.4 Should the City allow the Contractor to continue its performance of Work notwithstanding an event of default, or should there be an imminent potential of default, the City, at its sole option and within its sole discretion, may retain a third-party construction manager to document the events of default and oversee further progress of the Work. The use of a third-party construction manager shall not prevent the City from declaring the Contractor to be in default and the City may, at its sole option and within its sole discretion, terminate this Contract at any time. Should the City retain a third-party construction manager, the costs thereof shall be withheld from any amounts due Contractor upon termination. The City’s exercise of this option shall be without prejudice to any other right or remedy available to the City by law or under this Contract.

ARTICLE XIII

INSURANCE

13.1 CONTRACTOR SHALL MAINTAIN INSURANCE

13.1.1 The Contractor at his own expense shall purchase, maintain and keep in force during the life of this contract, adequate insurance that will protect the City, the Contractor and/or any Additional Insured from claims which may arise out of or result from operations under this contract. The insurance carriers must be authorized to transact business in Texas, approved by the City, and have an A.M. Best rating of A+ or its equivalent. The insurance required shall provide adequate protections from all claims, whether such operations be by the Contractor or by any Additional Insured or by any Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone whose acts of any of them may be liable and from any special hazards, such as blasting, which may be encountered in the performance of this contract in the amounts as shown below in Paragraph 13.2.1.

13.1.2 The Contractor shall not commence work until the Contractor has obtained all the insurance required under this paragraph and such insurance has been approved by the City.

13.2 TYPES AND AMOUNTS OF CONTRACTOR'S INSURANCE

13.2.1. The Contractor shall furnish and maintain during the life of the contract adequate Worker's Compensation and Commercial General Liability (Public) Insurance in such amounts as follows:

Type of Insurance	**Amount**
Worker's Compensation	As set forth in the Worker's Compensation Act
Commercial General Liability (Public)	$1,000,000 Each Accident/Occurrence. $1,000,000 Aggregate $1,000,000 Products & Completed Operations Aggregate.
City's Protective Liability Insurance	$600,000 per occurrence $1,000,000 aggregate
Excess/Umbrella Liability	$1,000,000 per occurrence w/drop down coverage Limit of Insurance per Project or City's and Contractor's Protective Liability Insurance for the Project.
Automobile Liability	$500,000 Combined single limit per occurrence.

13.3 ADDITIONAL INSURED

13.3.1 The City shall be named as an additional insured on the Commercial General Liability (Public), City's Protective Liability, and Excess/Umbrella Liability Insurance Policies furnished by the Contractor.

13.4 WRITTEN NOTIFICATION

13.4.1 Each insurance policy shall be endorsed to contain a provision requiring that thirty (30) days prior to expiration, cancellation, non-renewal or any material change in coverage, a notice thereof shall be given by certified mail to the Division of Purchasing, City of Rowlett, 4000 Main Street, Rowlett, Texas, 75088. In the event the insurance company providing insurance is unable to contain such endorsement Contractor shall provide written notice to City of any expiration, cancellation, non-renewal or any material change in coverage.

13.5 PREMIUMS AND ASSESSMENTS

13.5.1 Companies issuing the insurance policies shall have no recourse against the City for payment of any premiums or assessments for any deductibles which are at the sole responsibility and risk of the Contractor.

13.6 CERTIFICATE OF INSURANCE

13.6.1 Proof that the insurance is in force shall be furnished to the City on City of Rowlett Standard Certificate of Insurance Forms. In the event, any insurance policy shown on the Certificate of Insurance has an expiration date that is prior to the completion and final acceptance of the Project by the City, the Contractor shall furnish the City proof of identical continued coverage no later than thirty (30) days prior to the expiration date shown on the Certificate of Insurance.

13.7 PRIMARY COVERAGE

13.7.1 The coverages provided herein shall be primary and noncontributory with any other insurance maintained by the City for its benefit, including self-insurance.

13.8 SUBROGATION

13.8.1 Companies issuing the insurance policies shall have no recourse against the City for payment of any premiums or assessments for any deductibles which are at the sole responsibility and risk of the Contractor. Insurance Companies shall have no right of subrogation against the City or the Engineer.

13.9 WORKER'S COMPENSATION INSURANCE COVERAGE

13.9.1 The Contractor shall:

(1) provide coverage for its employees providing services on a project, for the duration of the project based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements;

(2) provide a certificate of coverage showing workers' compensation coverage to the governmental entity prior to beginning work on the project;

(3) provide the governmental entity prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the contractor's current certificate of coverage ends during the duration of the project;

(4) obtain from each person providing services on a Project, and provide to the governmental entity:

(A) a certificate of coverage, prior to that person beginning work on the project, so the governmental entity will have on file certificates of coverage showing coverage for all persons providing services on the project; and

(B) no later than seven days after receipt by the contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project;

(5) retain all required certificates of coverage on file for the duration of the project and for one year thereafter;

(6) notify the governmental entity in writing by certified mail or personal delivery, within 10 days after the contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project;

(7) post a notice on each project site informing all persons providing services on the project that they are required to be covered, and stating how a person may verify current coverage and report failure to provide coverage. This notice does not satisfy other posting requirements imposed by the Act or other commission rules. This notice must be printed with a title in at least 30-point bold type and text in at least 19- point normal type and shall be in both English and Spanish and any other language common to the worker population. The text for the notices shall be the following text provided by the Texas Worker's Compensation Commission on the sample notice, without any additional words or changes:

REQUIRED WORKERS' COMPENSATION COVERAGE

"The law requires that each person working on this site or providing services related to this construction project must be covered by workers' compensation insurance. This includes persons providing, hauling, or delivering equipment or materials, or providing labor or transportation or other service related to the project, regardless of the identity of their employer or status as an employee."

"Call the Texas Workers' Compensation Commission at 512-440-3789 to receive information on the legal requirement for coverage, to verify whether your employer has provided the required coverage, or to report an employer's failure to provide coverage."

and

(8) contractually require each person with whom it contracts to provide services on a project, to:

(A) provide coverage based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements for all its employees providing services on the project, for the duration of the project;

(B) provide a certificate of coverage to the contractor prior to that person beginning work on the project;

(C) include in all contracts to provide services on the project the language in subsection (7) of this section;

(D) provide the Contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project;

(E) obtain from each other person with whom it contracts, and provide to the Contractor:

(i) a certificate of coverage, prior to the other person beginning work on the project; and

(ii) prior to the end of the coverage period, a new certificate of coverage showing extension of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the project;

(F) retain all required certificates of coverage on file for the duration of the project and for one year thereafter;

(G) notify the City in writing by certified mail or personal delivery, within 10 days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and

(H) contractually require each other person with whom it contracts, to perform as required by sub-

paragraphs (A) - (G) of this subsection, with the certificate of coverage to be provided to the person for whom they are providing services.

ARTICLE XIV MISCELLANEOUS

14.1 LAWS AND ORDINANCES

14.1.1 The Contractor shall always and in all respects, observe and comply with all federal, state and local laws, ordinances, and regulations applicable to the Project and Work. The Contractor shall further ensure that all Subcontractors observe and comply with said laws, ordinances and regulations.

14.2 GOVERNING LAW

14.2.1 The Contract shall be governed by the laws of the State of Texas. Venue for any causes of action arising under the terms or provisions of this Contract or the Work to be performed hereunder shall be in the state courts of Dallas County, Texas.

14.3 SUCCESSORS AND ASSIGNS

14.3.1 The City and Contractor bind themselves, their respective successors, assigns and legal representatives to the other party hereto and to successors, assigns and legal representatives of such other party in respect to covenants, agreements and obligations contained in this Contract. The Contractor shall not assign this Contract without written consent of the City.

14.4 SURETY BONDS

14.4.1 The Contractor shall furnish separate performance and payment bonds to the City, per the requirements set out in the bid documents and state statutes to guaranty full and faithful performance of the Contract and the full and final payment of all persons supplying labor or materials to the Project. Each bond required by the bid documents or state statute shall set forth a penal sum in an amount not less than the Contract Price. Each bond furnished by the Contractor shall incorporate by reference the terms of this Contract as fully as though they were set forth verbatim in such bonds. In the event the Contract Price is adjusted by Change Order executed by the Contractor, the penal sum of both the performance bond and the payment bond shall be deemed increased by like amount. The performance and payment bonds furnished by the Contractor shall be in form suitable to

the City and shall be executed by a surety, or sureties, reasonably suitable to the City and authorized to do
business in the State of Texas by the State Board of Insurance.

14.4.2 The Contractor, upon execution of the Contract and prior to commencement of the Work, shall furnish to the City a two-year maintenance bond in the amount of one hundred percent (100%) of the Contract Price covering the guaranty and maintenance prescribed herein, written by an approved surety authorized and duly licensed to conduct business in the State of Texas. The cost of said maintenance bond shall be included in the Contractor's unit bid prices and shall be paid by the Contractor.

14.5 SEVERABILITY

14.5.1 The provisions of this Contract are herein declared to be severable; if any term, provision or part hereof is determined to be invalid, void or unenforceable, such determination shall not affect the validity or enforceability of the remaining terms, provisions and parts, and this Contract shall be read as if the invalid, void or unenforceable portion had not been included herein.

14.6 AMENDMENTS

14.6.1 This Contract may be amended by the parties only by a written agreement duly executed by both parties. The failure of the City to object to any nonperformance or nonconforming work or to enforce any provision hereof shall in no event be regarded as or construed to be a waiver, release or modification of any term or provision in this Contract, nor shall such failure to object or enforce estop the City from insisting on strict compliance with this Contract or from recovering damages, costs or expenses arising because of such nonperformance or nonconforming work.

14.7 FORCE MAJEURE

14.7.1 As used herein, "force majeure" means an incident, situation, or act of a third party that is beyond a party's reasonable control such as an act of God, an act of the public enemy, strikes or other labor disturbances (other than strikes within such party's own labor force), hurricanes, earthquakes, fires, floods, epidemics, embargoes, war, and riots. The Contractor will not be liable or responsible for its failure to perform any obligation under this Contract because of an event of Force Majeure, provided, however, that the Contractor submits notice thereof to the City and Engineer within seven (7) days of such an event, obtains a written Change Order, signed by all parties, that allows an extension of the scheduled completion date, and identifies the specific causes and number of days in the Statement of Delay submitted with the next ensuing
Application for Payment.

14.8 NOTICES

14.8.1 All notices required by this Contract shall be presumed received when deposited in the mail properly addressed to the other party or Engineer at the address set forth herein or set forth in a written designation of change of address delivered to all parties and the Engineer.

14.9 IMMUNITIES; DEFENSES

14.9.1 Nothing in this Contract shall be deemed to waive any immunity, sovereign, governmental, official, qualified or otherwise, from liability or suit, which the City may have or assert, except as may be provided by law, all such immunities being hereby expressly retained.

14.10 NO RIGHTS IN THIRD PARTIES

14.10.1 The indemnification provisions of this Contract and the rights and remedies afforded herein are solely for the benefit of the parties to this Contract. Nothing in this Contract is intended nor shall be construed to grant, create or confer any right, benefit, interest or cause of action in any person not a party to this Contract, or to the public in general.

14.11 PROHIBITION OF BOYCOTT ISRAEL

14.11.1 PROHIBITION OF BOYCOTT ISRAEL. The Contractor verifies that it does not Boycott Israel and agrees that during the term of this Contract will not Boycott Israel as that term is defined in Texas Government Code Section 808.001, as amended. For purposes of this verification, "Boycott Israel" means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations specifically with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purposes.

14.11.2 IRAN, SUDAN, AND FOREIGN TERRORIST ORGANIZATIONS. The Contractor represents that neither it nor any of its parent company, wholly- or majority-owned subsidiaries, and other affiliates is a company identified on a list prepared and maintained by the Texas Comptroller of Public Accounts under Section 2252.153 or Section 2270.0201, Texas Government Code, and posted on any of the following pages of such officer's internet

website:

https://comptroller.texas.gov/purchasing/docs/sudan-list.pdf,

https://comptroller.texas.gov/purchasing/docs/iran-list.pdf, or

https://comptroller.texas.gov/purchasing/docs/fto-list.pdf.

The foregoing representation is made solely to comply with Section 2252.152, Texas Government Code, and to the extent such Section does not contravene applicable Federal or State law and excludes the Contractor and each of its parent company, wholly-or majority-owned subsidiaries, and other affiliates, if any, that the United States government has affirmatively declared to be excluded from its federal sanctions regime relating to Sudan or Iran or any federal sanctions regime relating to a foreign terrorist organization. The Contractor understands "affiliate" to mean any entity that controls, is controlled by, or is under common control with the Contractor and exists to make a profit.

14.11.3 PROHIBITION OF BOYCOTT ENERGY COMPANIES. Contractor verifies that it does not Boycott Energy Companies and agrees that during the term of this Contract will not Boycott Energy Companies as that term is defined in Texas Government Code Section 809.001, as amended. This section does not apply if Contractor is a sole proprietor, a non-profit entity, or a governmental entity; and only applies if: (i) Contractor has ten (10) or more fulltime employees and (ii) this Contract has a value of $100,000 or more to be paid under the terms of this Contract.

14.11.4 PROHIBITION OF DISCRIMINATION AGAINST FIREARM ENTITIES AND FIREARM TRADE ASSOCIATIONS. Contractor verifies that it does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association; and (ii) will not discriminate during the term of the contract against a firearm entity or firearm trade association. This section only applies if: (i) Contractor has ten (10) or more fulltime employees and (ii) this Contract has a value of $100,000.00 or more to be paid under the terms of this Contract. However, this prohibition does not apply: (i) if Contractor is a sole proprietor, a non-profit entity, or a governmental entity; (ii) to a contract with a sole-source provider; or (iii) to a contract for which none of the bids from a company were able to provide the required certification.

EXECUTED in single or multiple originals, this___day of__, 2026.

CITY OF ROWLETT, TEXAS

_____
Jeff Winget, Mayor

ATTEST:

_____
Deborah Sorensen, City Secretary

CONTRACTOR:

MUNIZ CONSTRUCTION INC.

_____
(Signature)

_____
(Type/Print Name and Title)

_____
(Street Address)

_____
(City/State/Zip)

CORPORATE ACKNOWLEDGMENT

THE STATE OF _____

COUNTY OF _____

BEFORE ME, the undersigned authority, a Notary Public in and for said County and State, on this day personally appeared:

_____ _____
(Print Name) *(Print Title)*

of_____, the Contractor designated herein above, known to me to be the person and officer whose name is subscribed to the foregoing instrument and acknowledged to me that the same was the act of the said Contractor, a corporation, that he was duly authorized to perform the same by appropriate resolution of the board of directors of such corporation and that he executed the same as the act and deed of such corporation for the purposes and consideration therein expressed, and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this___ day of_____, A.D., 2026.

_____
Notary Public In and For

_____County, _____

My Commission expires: _____

MAYOR'S ACKNOWLEDGMENT

THE STATE OF
TEXAS COUNTY OF
DALLAS

BEFORE ME, the undersigned authority, a Notary Public in and for said County and State, on this day personally appeared the undersigned, Mayor of the City of Rowlett, Texas, a municipal corporation, known to me to be the person and officer whose name is subscribed to the foregoing instrument and acknowledged to me that the same was the act of the said City of Rowlett, Texas, a municipal corporation, that he/she was duly authorized to perform the same by appropriate resolution of the City Council of the City of Rowlett and that he/she executed the same as the act of the said City for purpose and consideration therein expressed, and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this____day of_____, A.D., 2026.

_____
Notary Public in and for the State of Texas

My Commission expires:_____

SECTION 11 NCTCOG STANDARD AND SPECIAL CONDITIONS

NCTCOG STANDARD SPECIFICATIONS AND SPECIAL CONDITIONS

The City of Rowlett has adopted the North Central Council of Governments Standard Specifications for Public Works Construction, 5th Edition with the following revisions as shown in *italics.*

Item 103.3.1.1. Performance Bond
- This bond shall provide for the repair and/or replacement of all defects due to faulty materials and workmanship that appear within a period of *two years* from the date of completion and acceptance of the improvement by the OWNER or such lesser or greater period as may be designated in the contract documents.

Item 105.2.2. Special Warranty
- If within *two years* after final acceptance of the work by the OWNER, ...

FORM A.2. STANDARD CONSTRUCTION CONTRACT
- Omit and use the City's Standard Form of Agreement

FORM A.3. PERFORMANCE BOND
- 4th paragraph, "...the Principal shall repair and/or replace all defects due to faulty materials or workmanship that appear within a period of *two (2) years* from the date of completion and final acceptance by OWNER..."

- 6th paragraph, "Surety agrees that the bond provides for the repairs and/or replacement of all defects due to faulty materials and workmanship that appear within a period of *two (2) years* from the date of completion and acceptance of the improvements by the OWNER."

Item 204.6.4.6. Water, Maintaining, and Finishing Seeded Areas
- At minimum, the CONTRACTOR shall maintain the seeded area until each of the following conditions is achieved: vegetation is evenly distributed, without large bare areas, and covers *80%* of the seeded area.

Item 301.2.3.4.1. Dry Placing Quicklime - Omit.

Item 303.2.11. Reinforcement Bar Chairs
- Bar chairs ~~may~~ *shall* be made of metal (free from rust), ~~precast mortar or concrete blocks or plastic.~~

Item 303.2.12.1. Joint Filler Material
- omit *all references to asphalt boards*

Item 303.5.3. Placing Reinforcing Steel, Tie, and Dowel Bars
- omit *welded wire mesh*

Item 303.5.3.2. Welded Wire Mats – Omit.

Item 303.5.3.3. Assembly
- omit *dummy joints*

Item 303.5.4.2.1. Joint Filler
- The top edge shall be held approximately ½-in. below the finished surface of the pavement in order to allow the finishing operations to be continuous. ~~Where the joint filler is of a premolded asphaltic type, the top edge shall be protected, while the concrete is being placed and finished, by a metal cap of at least 10 gauge material having flanges not less than 1 ½ in.in depth. The channel cap may remain in place during the joint finishing operations to serve as a guide for tooling the edges of the joint.~~

Item 501.2. Clay Wastewater Pipe - Omit.

Item 501.11. Corrugated Metal Pipe or Pipe Arch Shapes - Omit.

Item 502.1.1.2. Fiberglass Manholes – Omit.

Item 502.1.4.1.3. Fiberglass Manholes – Omit.

Item 502.10.1. Connections to Conduit for Service (Definitions)
- Omit *"Bullheads" shall be defined as an individual service line with branches at the end to serve two or more customers.*

Item 502.10.2.1. Service Clamps
- The clamp shall consist of a contoured saddle fastened to the pipe ~~by one U-bolt for the single strap clamp for pipes less than 4-in. I.D. and~~ by two U-bolts for double strapped clamps…

Item 502.10.3.2. Services and Bullheads - Omit *and Bullheads.*

Item 502.10.3.2.2. Measurement and Payment
- ~~Bullheads or~~ water services shall be measured and paid for…

Item 503.3.3.2 Construction by Jacking
- ~~Lateral or vertical variation in the final position of the pipe …… in the direction indicated on the plans.~~ No vertical or lateral variation of slopes and grades shown in the plans will be allowed for installation of pipe.

Item 305.2.2.2. Reinforcement for Concrete Sidewalks, Driveway Approaches, and Barrier Free Ramps
- Driveway approaches and walk reinforcing, when required, shall be No. 3 bars on *18-in.* centers or No. 4 bars on 30-in. centers. ~~No. 6 gauge, 6-in. x 6-in. wire fabric conforming to Item 303.2.10 Steel Wire Reinforcement may be used only as approved by the OWNER.~~ ~~*Sidewalk reinforcing (except in driveway approach) may be No. 3 bars on 24-in. centers or No. 10 gauge, 6 in. x 6 in.*~~ *Doweling shall consist of No. 4 bars.*

SPECIAL CONDITIONS

SC.01 GENERAL
SC.02 LOCATION OF PROJECTS
SC.03 SCOPE OF WORK
SC.04 DISQUALIFICATION OF BIDDERS
SC.05 AWARD OF CONTRACT AND COMMENCEMENT OF WORK
SC.06 CONSTRUCTION SCHEDULE
SC.07 DELAYS, EXTENSIONS OF TIME
SC.08 REFERENCE SPECIFICATIONS
SC.09 TRADE NAMES AND MATERIALS
SC.10 PERMITS AND RIGHTS-OF-WAY
SC.11 CONCRETE MIX DESIGNS
SC.12 TESTING AND QUALITY CONTROL
SC.13 COORDINATIONS WITH OTHERS
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SC.15 DISPOSAL OF WASTE AND SURPLUS EXCAVATION AND CONCRETE
SC.16 INSPECTION
SC.17 LIGHTS AND POWER
SC.18 COOPERATION OF CONTRACTORS
SC.19 SEEDING
SC.20 EXCAVATION SAFETY SYSTEMS
SC.21 SPRINKLER REPAIR
SC.22 DAMAGES TO CITY PROPERTY
SC.23 HAZARDOUS MATERIAL(S) INCIDENT
SC.24 EXISTING FACILITIES
SC.25 PROJECT VIDEO
SC.26 STREET CLEANUP
SC.27 SEWER PIPE AND WATER MAIN SEPARATION
SC.28 UTILITY SUPPORT
SC.29 BACKFILL
SC.30 REMOVAL AND REPLACEMENT OF EXISTING FENCES
SC.31 INSTALLATION WOOD FENCES

SC.32 SOD
SC.33 RESTORATION
SC.34 RESTORATION OF PAVEMENT SURFACES
SC.35 EROSION CONTROL
SC.36 CONSTRUCTION COORDINATION
SC.37 REMOVAL AND REPLACEMENT OF STREET AND DRIVEWAY PAVING
SC.38 JACKING, BORING OR TUNNELING
SC.39 CONTRACT DOCUMENTS
SC.40 PVC SEWER PIPE
SC.41 SERVICE LATERALS
SC.42 PIPE PLUGGING AND SANITARY SEWERS TO BE ABANDONED
SC.43 SANITARY SEWER LINE CONNECTIONS
SC.44 STEEL ENCASEMENT PIPE
SC.45 SANITARY SEWER LINE AND MANHOLE TESTING
SC.46 WATER PIPE
SC.47 WATER VALVES
SC.48 LIGHT POLE
SC.49 TREE REMOVAL AND PROTECTION
SC.50 TYPE B STORM SEWER MANHOLE (REVISION TO SHEET SD-8)
SC.51 TYPICAL VALVE SETTING AND BOX (REVISION TO SHEET SD-12)
SC.52 SANITARY SEWER MANHOLES (REVISIONS TO SHEET SD-15)
SC.53 SANITARY SEWER DETAILS (REVISIONS TO SHEET SD-16)
SC.54 TEMPORARY SIGNS
SC.55 STREET SIGNS
SC.56 WATER METER BOXES
SC.57 UNFORESEEN ITEMS – BID ITEM AT OWNER'S DISCRETION
SC.58 PORTABLE CHANGEABLE MESSAGE SIGNS
SC.59 ACCESS TO DRIVEWAYS
SC.60 FLOWABLE BACKFILL
SC.61 SIDEWALK RETAINING WALL
SC.62 EXCAVATION
SC.63 DART INSURANCE REQUIREMENTS
SC.64 PAVING AND EARTH EMBANKMENT (EMB) TYPE-C-1 SUBGRADE
SC.65 MEASUREMENT AND PAYMENT PER LINEAR FOOT PVC PIPE

SPECIAL CONDITIONS

SC.66 CONSTRUCTION NOTES

SC.67 MOBILIZATION

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SPECIAL CONDITIONS

SC.01 GENERAL

All materials and workmanship shall conform to the City of Rowlett Standards and governed by the North Central Texas Council of Governments (NCTCOG) Standard Specifications For Public Works Construction, 5th Edition. Where indicated for specific pay items noted in the plans, all materials and workmanship shall conform to the Texas Department of Transportation Specifications for Construction and Maintenance of Highways, Streets, and Bridges, as adopted by the Texas Department of Transportation on September 1, 2024.

SC.02 LOCATION OF PROJECT

The work awarded under this contract shall include one or more of the following locations:

The project will be rehabilitation of existing 18"/15" sanitary sewer by Open Cut methods. The project begins at Project 1 near Lake Ray Hubbard and runs to and along S.H. 66 for approximately 5,610 feet. Approximate quantities for the S.H. 66 East Sewer Rehabilitation Project 2 – 18"/15" Sanitary Sewer Line Rehabilitation include 5,610' of 18"/15" Open Cut Sewer.

SC.03 SCOPE OF WORK

The work under this contract includes furnishing all labor, tools, material, and equipment, and for performing all work necessary for construction of S.H. 66 East Sewer Rehabilitation Project 2. Construction plans were prepared and provided by the City of Rowlett.

SC.04 DISQUALIFICATION OF BIDDERS

Add the following to Item 2 of the Additional Conditions for Public Works Construction Contracts first paragraph:

Within five (5) working days after bid opening, the apparent low bidder shall submit such evidence as the OWNER may require to establish the bidder's qualifications to satisfactorily perform the work included in this project. Information that shall be required shall include the following:

Add the following to Item 2 of the Additional Conditions for Public Works Construction Contracts after the last paragraph:

Should the bidder fail to produce evidence satisfactory to the OWNER on any of the foregoing points, he may be disqualified and the work awarded to the next bidder so qualifying.

SC.05 AWARD OF CONTRACT AND COMMENCEMENT OF WORK

See Instructions to Bidders

SC.06 CONSTRUCTION SCHEDULE

Prior to preconstruction meeting, the CONTRACTOR shall submit a proposed schedule for the work included herein and shall submit any major revisions to this schedule as the project progresses. This schedule shall provide for completion of the project within the time provided in the specifications.

The schedule shall include a construction-phasing plan to insure minimum interruption of traffic on streets and driveways, as detailed in SC.14 BARRICADES, WARNING SIGNS, DETOURS, AND SEQUENCING

of work. No more than one (1) Phase shall be under construction simultaneously without approval of the Engineer. The CONTRACTOR shall apply continuous work on Phase No. 1 until completed, proceed to Phase No. 2 and apply continuous work until completed, proceed to Phase No. 3 and apply continuous work until completed, etc.

SC.07 DELAYS: EXTENSION OF TIME: LIQUIDATED DAMAGES

In addition to the requirements of NCTCOG Item 108.8 Delays; Extension of Time; Liquidated Damages, the following conditions shall apply:

The term "unforeseeable cause" shall mean:

1. An act of God in the form of unusually severe weather conditions, including storms, flood, fire or similar event, that could not have been anticipated or guarded against and which materially affects the work site, including access or egress thereto;

2. A riot or war situation actually involving the site or actually preventing the CONTRACTOR from working on the site, but not including any situation involving suppliers off-site other than those essential suppliers as supplied to City; or

3. An unanticipated strike involving the forces actually working on the project or involving the employees of those essential suppliers, but no other labor stoppage.

*CONTRACTOR must set forth essential suppliers in writing within five (5) days of the Notice to Proceed.

No event shall be deemed an Unforeseeable Cause for the purposes of this Agreement unless it actually and directly necessitates a delay in the work which could not be otherwise remedied by taking reasonably prudent steps, and the CONTRACTOR could not reasonably adjust the schedule of the remaining work to deal with, make up for, or otherwise work around the delays resulting from the Unforeseeable Cause(s).

The notice shall, in writing, specify the Unforeseeable Cause(s) and the anticipated effect it will have on that CONTRACTOR'S abilities to perform its obligations along with a plan to deal with the effects of such Unforeseeable Causes and proposed amendments to all affected schedules necessarily resulting therefrom.

No adjustment shall be made to the Contract price, and the CONTRACTOR shall not be entitled to claim or receive any additional compensation as a result of or arising out of any delay resulting in the adjustment of the working time, due to any of the factors outlined within this Special Condition and/or NCTCOG Item 108.8.

SC.08 REFERENCE SPECIFICATIONS

Where reference is made in these specifications, to specifications compiled by others, such reference is made for expediency and standardization from the material supplier's point of view, and such specifications referred to are hereby made a part of these specifications.

SC.09 TRADE NAMES AND MATERIALS

No material which has been used by the CONTRACTOR for any temporary purposes whatsoever is to be incorporated in the permanent structure without written consent of the Engineer.

Where materials or equipment are specified by a trade or brand name, it is not the intention of the OWNER to discriminate against an equal product of another manufacturer, but rather to set a definite standard of quality or performance, and to establish an equal basis for the evaluation of bids. Where the words "equivalent", "proper", or "equal to" are used, they shall be understood to mean that the thing referred to shall be proper, the equivalent of, or equal to some other thing, in the opinion or judgment of the Engineer. Unless otherwise specified, all materials shall be the best of their respective kinds and shall be in all cases fully equal to approved samples. Notwithstanding that the words "or equal to" or other such expressions may be used in the specifications in connection with material, manufactured article, or process, the material, article or process specifically designated shall be used, unless a substitute shall be approved in writing by the Engineer, and the Engineer shall have the right to require the use of such specifically designated material, article or process.

SC.10 PERMITS AND RIGHTS-OF-WAY

The OWNER will provide rights-of-way for the purpose of construction without cost to the CONTRACTOR, by securing permits in areas of public dedication or by obtaining easements across privately owned property. It shall be the responsibility of the CONTRACTOR, prior to the initiation of construction on easements through private property, to inform the property owner of this intent to begin construction. Before beginning construction in areas of public dedication, the CONTRACTOR shall inform the agency having jurisdiction in the area forty-eight (48) hours prior to initiation of the work.

SC.11 CONCRETE MIX DESIGN

The CONTRACTOR shall submit proposed concrete mix design for each class of concrete to the OWNER for review and acceptance. The mix designs shall be proportioned in accordance with the requirements of A.C.I. 318-83, and include data from field experience and/or trial mixtures with the results of confirmation cylinders. The mix designs and supporting data shall be submitted and accepted at least ten (10) calendar days prior to placing concrete.

SC.12 TESTING AND QUALITY CONTROL

1. Testing of Materials

   Observation of the CONTRACTOR'S work to determine compliance with the plans and specifications will include testing of material installed on the project. Testing of work performed and materials furnished shall be done by an engineering testing laboratory approved by the OWNER. The CONTRACTOR shall use only materials in the work which meet the requirements of the specifications. The OWNER will employ the services of an APPROVED engineering testing laboratory to make certain inspections and to sample and test the materials to be used in the work. The CONTRACTOR shall furnish, at his own expense, all necessary specimens for testing of the materials and when requested, shall furnish a complete written statement of the origin, composition, and/or manufacturer of any or all materials that are to be used in the work. All materials not conforming to the requirements of the specifications will be rejected. All retesting shall be at the expense of the CONTRACTOR.

2. Quality Control

   During the construction, the OWNER will retain the engineering testing laboratory to perform services related to checking the quality of the work being performed by the CONTRACTOR to determine if the improvements are being constructed in accordance with the plans and specifications. THIS QUALITY

CONTROL SERVICE DOES NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY WITH REGARD TO CONSTRUCTING THE WORK IN ACCORDANCE WITH THE CONTRACT. If the CONTRACTOR fails to meet specified conditions by the first test, further tests to demonstrate compliance with the contract shall be made until such tests demonstrate compliance. All retesting shall be at the expense of THE CONTRACTOR. Copies of all test reports shall be submitted to the OWNER by the CONTRACTOR within two (2) weeks of test being taken or the OWNER reserves the right to withhold payment of pending pay requests until such reports are received by the OWNER.

THE CONTRACTOR SHALL GIVE THE ON-SITE REPRESENTATIVE OF THE OWNER SUFFICIENT NOTICE OF HIS INTENTION TO CONSTRUCT PORTLAND CEMENT CONCRETE PAVEMENT, STRUCTURAL CONCRETE, OR HOT MIX ASPHALTIC CONCRETE TO ASSURE THE ADEQUATE QUALITY CONTROL OF CONSTRUCTION MATERIALS AND WORKMANSHIP.

3. Testing and Quality Control Services

Testing and Quality Control Services shall include but are not limited to the following:

a. Reinforced Concrete Pavement

(1) Analysis of Aggregates
(2) Decapitation Tests
(3) Inspect Aggregate Stockpiles
(4) Prepare or Check Concrete Batch Design
(5) Slump and Air Content Tests
(6) Flexural or Compressive Strength Tests

b. Lime Treated Base or Flexible Base

(1) Lime requirements as indicated by test method ASTM C977-83a, Appendix X1
(2) Field Compaction Tests - ASTM D698-90 Method A (Perform one (1) Density Test on compacted subgrade for each 5,000 square feet of area)

c. Embankment or Pavement Subgrade

(1) Moisture - Density Curves
(2) Field Compaction Tests-Test Method ASTM D698-90 Method A

d. Hot Mix Asphaltic Concrete

(1) Prepare or Check Mix Design
(2) Provide Full Quality Control at Hot Mix Plant

(a) Hot Bin Gradation Tests
(b) Air Void
(c) Stability and Density Tests
(d) Percent Asphalt Content

(3) Make Tests from Samples of Mix (a) Extraction (b) Gradation (c) Percent Asphalt (d) Stability and Density Tests (e) Make Hot Bin Analysis Every 250 Tons

e. Structural Concrete

(1) Mix Design
(2) Batch Plant Weight and Moisture Checks
(3) Slump and Air Tests
(4) Compressive Strength Tests

SC.13 COORDINATION WITH OTHERS

In the event other contractors are doing work in the same area simultaneously with this project, the CONTRACTOR shall coordinate his proposed construction with other contractors.

SC.14 BARRICADES, WARNING SIGNS, DETOURS AND SEQUENCE OF WORK

1. Throughout the construction operations, streets and intersections will remain open to traffic by constructing the work in stages. All streets, driveways, adjacent business and alleys shall remain open to traffic as far as is practicable.

2. General Construction - The CONTRACTOR shall plan his work sequence in a manner that will cause minimum interference with traffic during construction operations. Before beginning work on this project, the CONTRACTOR shall submit, for approval by the Engineer, a plan of construction operations outlining in detail a sequence of work to be followed; setting out the method of handling traffic on streets, roads and driveways along, across and adjacent to the work. If at any time during the construction, the CONTRACTOR'S proposed plan of operation for handling traffic does not provide for safe comfortable movement, the CONTRACTOR shall immediately change his operations to correct the unsatisfactory conditions.

   Except for thoroughfares, one (1) lane in each direction shall be kept open at all times, except in areas of actual construction. There one (1) lane must be kept open and a flagman provided by the contractor to safely direct traffic through the construction area. Portable Vertical Panels meeting the requirements of TxDOT Standards shall be spaced at 50' centers to separate traffic lanes from the work.

   Ditches across the traffic lanes will be kept covered with a portable traffic-bearing surface at all times unless work in the ditch is in progress. Only one lane of traffic may be closed at a time when work is in progress in a ditch.

3. Safety - The CONTRACTOR shall provide, construct and maintain barricades and signs at locations set out in the plans and in the special conditions. In addition, he shall provide and maintain such other barricades and signs as deemed necessary by the Engineer, and provide and maintain, between sunset and sunrise, a sufficient number of lights at barricades and points of danger for the protection of vehicular and pedestrian traffic.

   All traffic control devices shall have ASTM Type III High Intensity Reflective Sheeting. Signs CW20-1D and G20-2 shall be provided where traffic is entering the work limits at either end of the project. Signs G20-2 and CW20-1 D shall be erected at all other intersecting highways and streets

where traffic is entering the project limits. Signs G20-2 shall be provided where traffic is leaving the project limits at both beginning and ending of the project and at points of intersection with all highways and streets within the project limits. The CW20-1D signs will be supplemented by Type II Barricades with two Type-A-Low Intensity Flashers per barricade. Throughout the construction sequence, adequate traffic control measures shall be provided to safely guide traffic through the project.

Barricades shall be placed in such a manner as not to interfere with the sight distance of drivers entering the street from highways or side streets.

During construction, the CONTRACTOR will be required to furnish, place, and maintain in accordance with the Texas Manual on "Uniform Traffic Control Devices for Streets and Highways", vertical panels along edge of pavements and fills that are hazardous. The vertical panels shall be supplemented with steady burning electric lamps alternated with delineator panels.

The CONTRACTOR shall keep traveled surfaces used in his hauling operation clear and free of dirt or other material.

The CONTRACTOR shall provide and maintain qualified flagmen at such points and for such periods of time as may be required to provide for the safety and convenience of public travel and CONTRACTOR'S personnel.

The CONTRACTOR shall arrange his work so that stored machinery or equipment shall not be closer than 5 feet to the traveled roadway after sunset except as authorized by the Engineer.

SC.15 DISPOSAL OF WASTE AND SURPLUS EXCAVATION AND CONCRETE

All excavated earth in excess of that required for backfilling, and all concrete removed, shall be disposed of in a satisfactory manner. The CONTRACTOR shall provide in writing the final destination of this material. This documentation shall be submitted at the time of the SWP3 submittal outlined in SC.35.

The documentation shall include permission from the property owner and verification from the floodplain manager in the jurisdiction that the disposal area is outside the FEMA 100 year flood zone.

The disposal site shall be included in the acreage of disturbance for the Construction Site Notice/Notice of Intent and the erosion control/stabilization of the disposal site shall be included in the SWP3 as outlined in SC.35.

SC.16 INSPECTION

The word "Inspection" or other forms of the word as used in the Contract Documents for this project, shall be understood as meaning the Engineer will observe the construction on behalf of the OWNER. The Engineer or his designated representative will observe and check the construction in sufficient detail to satisfy himself that the work is proceeding in general accordance with the Contract Documents, but he will not be a guarantor of the CONTRACTOR'S performance.

SC.17 LIGHTS AND POWER

The CONTRACTOR shall provide, at his own expense, temporary lighting and power facilities required for the proper execution of the work.

SC.18 COOPERATION OF CONTRACTORS

The CONTRACTOR shall have on the project at all times, as his agent, a competent Superintendent capable of reading and thoroughly understanding the plans and specifications, and thoroughly experienced in the type of work being performed. The Superintendent shall have full authority to execute orders or directions and to promptly supply such materials, equipment, tools, labor and incidentals as may be required. Such superintendent shall be furnished irrespective of the amount of work subcontracted.

The Superintendent and the CONTRACTOR shall be responsible for all work performed by the subcontractor at all times during construction.

SC.19 SEEDING

All disturbed non-paved areas shall be sodded or seeded to match existing prior to construction. Payment for seeding shall be considered as part of the pipe installation unit price. (See measurement and payment SC.46 and SC.62)

SC.20 EXCAVATION SAFETY SYSTEMS

The work performed under this section of the specifications consists of providing site specific excavation safety plans and systems consisting of shoring, sheeting, trench shield, and/or laid back slopes to meet the safety requirements of the Occupational Safety and Health Administration, as required for this project and specified herein.

(1) General

Trench safety systems shall be provided by the CONTRACTOR in accordance with the applicable subpart related to Excavation, Trenching, and Shoring of the OSHA Standards as published in Federal Register, Volume 54, No. 45959 dated October 31, 1989, and amended at August 9, 1994 at Volume 59, No. 40730. These standards describe safety and health regulations as administered by the U.S. Department of Labor Occupational Safety and Health Administration (OSHA). The standards specified by the OSHA Regulations shall be the minimum allowed on this project. It shall be the responsibility of the CONTRACTOR to provide a design and install adequate trench safety systems for all trenches excavated on this project.

The CONTRACTOR shall furnish to the OWNER for review, after award of the contract by the City Council and prior to execution of the contract by the OWNER, a Site Specific Excavation Safety System Plan for the entire project. The safety plan must be prepared and sealed by a Professional Engineer registered in the State of Texas with professional experience in soil mechanics and structural design. In addition, all safety systems utilized in this project must be designed by a Professional Engineer registered in the State of Texas. The CONTRACTOR shall be totally responsible for the safety of all persons involved in the construction of this project.

After review of the excavation safety plan, the City Engineer will forward the reviewed plan to the appropriate OWNER construction division for use in inspection. Plans for construction will not be released by the City Engineer until this plan is reviewed. Changes in the excavation safety plan after initiation of construction may not be cause for extension of time or change order, and will require the same review process. The CONTRACTOR accepts sole responsibility of compliance with all applicable safety requirements. The review is only for general conformance with OSHA safety standards. Release of the excavation safety plan by the City Engineer does not relieve CONTRACTOR from any or all construction means, methods,

techniques and procedures; and any property damage or bodily injury (including death) that arises from use of the excavations safety plan, from CONTRACTOR'S negligence in performance of contract work, or from OWNER'S failure to note exceptions to the excavation plan, shall remain the sole responsibility and liability of the CONTRACTOR.

(2) Core Borings

Any core borings and soil data furnished by the OWNER, are for the convenience of the CONTRACTOR. The CONTRACTOR shall be responsible for any additional soil or geotechnical information required. The CONTRACTOR shall be responsible for properly designed excavation safety systems to be utilized for any type of subsurface condition found on this project. The furnishing of soil information by the OWNER in no way relieves the CONTRACTOR of this obligation.

If no core borings or soil data are furnished by the OWNER, it shall be the CONTRACTOR'S responsibility to obtain whatever geotechnical information required for preparation of the excavation safety systems.

(3) Submittal Data

The following information shall be included in the CONTRACTORS safety plan:

(a) A site specific excavation safety plan prepared, sealed and signed by a Professional Engineer registered in the State of Texas. Such a plan shall cover how the CONTRACTOR intends to implement the trench safety plan in the field.

(b) A signed certification from the Excavation Safety Design Engineer declaring that his plan has been prepared in accordance with current OSHA Regulations and State of Texas Excavation Safety Laws.

(c) A signed statement from the CONTRACTOR declaring that he accepts and will follow the submitted safety plan.

(d) A signed statement from the CONTRACTOR acknowledging he is totally responsible for the safety of all persons involved in the construction of this project.

(e) A waiver claim for delay and time.

(4) Inspections

In addition to the inspections of the excavation and excavation safety systems required of the CONTRACTOR by OSHA Regulations, the OWNER may further inspect the work. The OWNER shall have the right to reject any safety systems which it finds to be inadequate, and the CONTRACTOR shall immediately improve the system to comply with this specification.

(5) Measurement and Payment

Measurement and Payment of Excavation Safety System Design and Excavation Safety System installed shall be based on a linear foot amount as provided in the Proposal and Bid Schedule for Trench Safety – Sheeting and Shoring (Including Engineering). The payment shall be full compensation for all Engineering, planning, materials, equipment, fabrications, installation, recovery and all incidental work required. All

excavation and backfill in addition to that specified elsewhere in these specifications shall be considered subsidiary to this bid item.

SC.21 SPRINKLER REPAIR

The CONTRACTOR is responsible for the repair or replacement of any sprinkler damage caused by his construction. This repair is subsidiary to the contract unless there is a specific item for sprinkler repair. A notice will be sent to the property owner stating that watering the sod installed by the contractor on their prescribed days in addition to the watering by the contractor is highly encouraged and that the watering of the sod will be the property owner's responsibility after the project is complete. The contractor shall ensure that all sprinkler systems damaged during construction are repaired and functional prior to installing the sod so the property owner can help with watering the sod.

SC.22 DAMAGES TO CITY PROPERTY

If the CONTRACTOR damages any City property, (i.e., water mains, etc.) he will be assessed applicable charges. All charges will be deducted from the CONTRACTOR'S monthly estimate per NCTCOG Standard Specifications Section 109.4.

SC.23 HAZARDOUS MATERIAL(S) INCIDENT

If any acts of the CONTRACTOR or its agents or employees cause City forces to respond to a hazardous materials incident, the CONTRACTOR will be assessed for the expenses incurred. All charges will be deducted from the CONTRACTOR'S monthly estimate per NCTCOG Standard Specifications Section 109.4.

SC.24 EXISTING FACILITIES

The CONTRACTOR is responsible for contacting all private and public utilities for determining the location of existing facilities. In addition, the CONTRACTOR shall locate vertically and horizontally prior to beginning construction all existing water and force mains and report any variance from the plans to the ENGINEER. Any conflicts with proposed utility construction routing and depth will be resolved prior to start of construction. All materials, equipment, labor and anything else necessary to locate any and all utilities will be considered subsidiary to other bid items. (No Separate Payment). The time associated with the location of any utility is considered accounted for in the contract time and no additional time will be given.

SC.25 PROJECT VIDEO

Prior to start of construction, CONTRACTOR shall videotape construction area and property adjacent to construction. The CONTRACTOR shall furnish the CITY a copy of the tape that has been transferred into DVD format. This shall be subsidiary to project.

SC.26 STREET CLEANUP

Streets within and around the construction area shall be cleaned as requested by City. The Contractor shall not use a power broom type device on streets outside the construction improvements. The Contractor shall utilize a mechanical or air generated pickup broom with water application.

SC.27 SEWER PIPE AND WATER MAIN SEPARATION

Sanitary sewers or service laterals that are laid in the vicinity of pipelines designated to carry potable water shall meet the following conditions.

1. Parallel Installation - Sewers and Water Mains

   a. Normal Conditions - Any new sanitary sewer or sewer manhole shall be located at least nine (9) feet in all directions from any existing water mains, and any new water lines shall be located at least nine (9) feet in all directions from existing sanitary sewer line or manhole, whenever possible; the distance shall be measured from the outside edge diameters of the pipes.

   b. Unusual Conditions - New Sewer Line Installation - Where the nine (9) foot separation cannot be achieved, the new sewer shall be constructed of PVC pipe meeting ASTM specifications with a minimum pressure rating of 150 psi for both the pipe and joints. The vertical separation shall be a minimum of two (2) feet between outside pipe diameters and the horizontal separation shall be a minimum of four (4) feet. The new sewer shall be located below the existing water main, where it is practical.

2. Crossings - Sewers and Water Mains. Normal Conditions - A vertical separation of at least 24 inches shall be maintained between any potable water supply and sanitary sewers. Additional requirements for utility crossing is indicated in the General Notes of the Contract Drawings.

3. If these minimum clearances cannot be maintained, the water main shall be relocated.

SC.28 UTILITY SUPPORT

All costs associated with existing utility support shall be considered subsidiary to the other bid items.

SC.29 BACKFILL

Backfill per CITY standard specifications and details.

SC.30 REMOVAL AND REPLACEMENT OF EXISTING FENCES

1. Coordinate with the private property owners and the City prior to removal of existing fences.

2. Existing fences which require removal because of construction activity shall be removed, disposed of off-site and replaced to the satisfaction of the City.

3. All wood fences being replaced shall be replaced according to SC.31.

4. Chain Link Fence shall be replaced according to NCTCOG Specifications.

5. Temporary fencing shall be placed during construction if permanent fence cannot be constructed immediately. The contractor is to provide adequate fencing at all times where an existing fence is located, especially in yards with pets. Contractor shall coordinate with homeowner. Fence placed during construction shall be subsidiary to the removal and replacing of the respectable type of fencing.

SC.31 INSTALLATION OF WOOD FENCES

1. New fence shall be dog eared. The height of the fence shall be a minimum of six feet, or as existing.

2. Fence shall be installed with preassembled panels. The material of the panels shall be of the same material as the existing or pine wood as may be approved by the City.

3. The posts and accessories shall be hot dipped galvanized steel. Posts shall be placed with 1/3 of the length in the ground. Contractor shall place pea gravel in the bottom six inches in the post hole and shall fill the remaining area with Class "B" concrete.

4. There shall be a "mow strip" placed for the entire length of fence removed and replaced. The "mow strip" shall be 6"x6" with 4" below grade and 2" above grade.

5. Contractor shall place post at each property corner.

6. Contractor shall treat the fence with a waterproofing sealer.

7. The Contractor shall submit shop drawings to the City prior to construction.

8. The costs associated with removal, hauling off, mow strip, fence replacement and any other item necessary to remove and replace existing fences shall be considered subsidiary to other bid items. (No Separate Payment)

SC.32 SOD

1. The contractor shall ensure that the sod is installed correctly, which includes providing moisture to the ground prior to installing the sod and rolling the sod properly. The contractor shall water the sod as necessary to establish. The contractor also shall ensure that the watering is accomplished without wasting the water. The contractor shall be required to keep the sod moist until 80% establishment.

2. Sod is to be installed in non-paved areas in the construction limits of the project, or any other areas previously sodded that are disturbed by the Contractor. Seeding will be placed in areas previously not sodded and disturbed by the Contractor.

3. Minimum six (6) inches of topsoil shall be placed in the street parkway (areas between right-of-way and edge of pavement) and all the other disturbed areas prior to sodding. Topsoil shall be considered included and paid for by the linear foot price bid for water pipe.

4. No separate pay shall be made for replacement of SOD disturbed or removed during construction and shall be considered included and paid for by the linear foot price bid for water pipe.

SC.33 RESTORATION

1. Restore the project site to conditions not less than that existing prior to starting construction unless otherwise required by these specifications, Permits and/or Licenses, or shown on the Plans.

   a. Coordinate surface restoration work with the affected private property owners and the Owner.

   b. Private property over which the Owner has prior rights (i.e. utility easement, sewer easement) and/or has obtained rights-of-way, agreements, licenses and/or agreements

from the property owner to allow construction shall be restored in conformance with the Contract Documents.

c. Restore Public property with strict adherence to the requirements of the public body having jurisdiction therein.

d. No restoration shall occur until testing is completed and accepted by the Owner's Representative.

e. Complete final surface restoration within three (3) weeks of the end of construction or as directed by the Owner's Representative.

2. Reference Standards. Surface restoration including pavement, driveways, sidewalks, curb and gutters, and sodding shall be in accordance with the Public Works Construction Standards-North Central Texas by North Central Texas Council of Governments (NCTCOG) current edition or as specified in the Contract Documents.

3. All disturbed areas except where sod is disturbed shall be seeded. Restore grassed area disturbed by construction with sod to match existing.

SC.34 RESTORATION OF PAVEMENT SURFACES

1. General

a. Restore (unless otherwise specified or directed by the Owner's Representative in writing) permanent type pavements, alley pavement, sidewalks, driveways, curbs, gutters, and surface structures removed or disturbed during or as a result of construction operations to a condition which is equal in appearance and quality to the condition that existed before the work began. The surface of all improvements shall match the appearance of the existing surface. The pavement sections shall be as indicated in the plans and specifications.

b. Pour concrete only after inspection by the Owner's Representative at the pouring site to verify proper forms and reinforcement. Reinforcement shall be equal in quantity and type of materials to reinforcement that existed prior to the work, or as indicated on the plans or specifications.

c. Saw-cut existing pavement, sidewalks, curbs, and gutters unless otherwise noted on the Drawings to provide a straight joint between the existing and new surface. Saw cutting shall be full depth and square or rectangular in shape.

d. Cure and protect all exposed concrete installed under this contract in accordance with the reference standard.

e. Remove entire sidewalk squares. Removal of partial squares will not be allowed.

2. Concrete Sidewalks

a. Concrete sidewalks shall be in accordance with the standard construction details by the City of Rowlett.

b. Saw-cut existing sidewalks at construction joints. Existing sidewalk squares damaged during construction activities shall be replaced.

3. Concrete Curb and Gutter

a. Curb and Gutter dimensions and cross sections shall conform with existing installations.

b. Place one half inch preformed bituminous expansion joint at junctions with existing work and at intervals not exceeding fifty (50) feet, or as directed by the Owner's Representative.

c. Saw-cut control joints at intervals not exceeding twenty (20) feet and at junctions with existing transverse cracks in the pavement, or as directed by the Owner's Representative.

4. Concrete Pavement and Driveways. Remove and replace concrete pavement and driveways for the construction.

5. Measurement and Payment

a. Pavement Surfaces

Payment for Concrete Pavement removed and replaced including sawcut, removal, disposal of existing, curb and all other items to replace as existing shall be at the SY unit price bid for the respective items. Any sidewalk, driveway, and ADA Ramp removal, or pavement removed outside of dimensioned limits on the plan sheets shall be considered subsidiary to other items. (No Separate Payment)

SC.35 EROSION CONTROL

It shall be the full responsibility of the Contractor to acquire and comply with any and all permits as may be required to avoid delay of the project. No separate payment will be made for this item and it will be considered subsidiary to the other items bid.

Prior to construction, the Contractor shall comply with Federal and State storm water management regulations. The plan shall employ measures to prevent erosion and siltation from the construction disturbance from reaching streambeds, channels, storm water structures, ponds, etc. The plan shall follow the City's "Erosion and Sediment Control Ordinance and comply with the requirements of the "Storm Water Quality Best Management Practices for Construction Activities" manual published by NCTCOG. In the event of a conflict between these requirements and Federal and State pollution control laws, rules, and regulations or other Federal, State or Local agency laws, rules, and regulations, the more restrictive shall apply. The release of the plan for construction by the City in no way relinquishes the Contractor of all responsibility and liability for the pollution control.

The cost to the contractor for the preparation of a Storm Water Pollution Prevention Plan (SW3P) shall be included in the unit price bid for Erosion Control Measures. The contractor shall be solely responsible for preparing and implementing all the various erosion control measures and shall be required to comply with all the TPDES general permit provisions and requirements. Payment for all work and materials associated with erosion control and storm water pollution prevention plan will be based in the bid item for

DEVELOPMENT AND MAINTENANCE OF SWPPP INCLUDING ALL EROSION AND SEDIMENTATION CONTROL DEVICES.

Every soil disturbing activity shall have an accompanying Erosion Control Plan (ECP), and either Construction Site Notice (CSN) for those activities disturbing more than 1 but less than 5 acres or Notice of Intent (NOI) for those activities disturbing 5 or more acres. A copy of the appropriate CSN or NOI shall be provided to the City of Rowlett prior to issuance of a grading permit. The ECP shall be provided to Rowlett's Erosion Control Officer prior to grading.

The CSN or NOI shall be posted in a location viewable to the public until construction is complete and Notice of Termination (NOT) submitted. The Storm Water Pollution Prevention Plan (SWP3) shall be readily available for review by Federal, State, or local officials.

No soil disturbing activities will occur until the following has been implemented:

SWP3 signed by both the contractor and owner
Owner submits NOI/CSN to the State
Contractor submits NOI/CSN to the State
SWP3, ECP, and associated Best Management Practices (BMP) being fully implemented and inspected by Rowlett's Erosion Control Officer
NOI/CSN (as appropriate) posted on site and viewable to the public

When the above items have been approved, the City of Rowlett's Erosion Control Officer will issue the second Notice to Proceed.

The contractor shall comply with the City of Rowlett's Storm Water Ordinance, the current NCTCOG Best Management Practices Manual, the TPDES General Construction Permit TXR150000 and any other State and/or Local regulations.

The site shall be reviewed by the operator or his representative weekly, and after any major storm. Adjustments/repairs to the erosion control measures will then be made as needed and inspected and approved by the City.

Final acceptance of a site shall be contingent upon vegetation being established per the TPDES General Construction Permit, and proper NOT submitted to the State. A copy of the NOT shall be provided to the City of Rowlett. Until such final acceptance of the erosion control has been determined, the City of Rowlett shall withhold half of the retainage as described in the Progress Payments and Retainage section of this document.

SC.36 CONSTRUCTION COORDINATION

The Contractor shall coordinate construction activities with the City of Rowlett or its designated representative(s).

Contractor shall inform residences and businesses 48 hours prior to any interruption of sewer and water service or construction in a driveway. Contractor shall schedule the construction activities to minimize any inconvenience to the residents and businesses. Interruptions to existing services may be required to be done during off times and shall be coordinated with the affected agencies.

Contractor shall inform residences and businesses one week prior to any lane or street closures. Contractor shall schedule the street closures to minimize any inconvenience to the residents and businesses.

SC.37 REMOVAL AND REPLACEMENT OF STREET AND DRIVEWAY PAVING

1. Removal and replacement of street and driveway paving shall be in accordance with the plans, Public Works Construction Standards-North Central Texas by North Central Texas Council of Governments (NCTCOG), standard construction details by City of Rowlett, and Special Conditions specified herein.

2. Remove existing street and driveway pavement and curbs as shown on the drawings. Saw cut existing pavement and curb where portion of existing pavement and curb is to remain. Saw cut shall be for the full depth of pavement and curb. Dispose of the removed concrete off site.

3. Existing asphalt pavement shall be removed separately from the base material, stored and disposed of in accordance with the current federal regulations.

4. Prepare subgrade for street and driveway pavement by excavating and filling the area as required, to bring the grade to the elevations as shown on the drawings.

5. 6" thick subgrade under the pavement shall be lime stabilized with at least 34.2 lbs. per sq. yd. cement and 28.5 lbs. per sq. yd. hydrated lime (or with an amount shown to be adequate by a lime-series test) compacted to at least ninety-eight percent (98%) of the maximum dry density as determined by ASTM D698; or as otherwise specified in the construction plans and specifications. Moisture content shall be within minus 2 to plus 3 percent of optimum moisture content.

6. Subgrade shall be maintained in a smooth, compacted condition in conformity with the required section and established grade, until the pavement is placed.

7. Place reinforcement as shown in the Standard or Special Construction Details.

8. Pour concrete only after inspection by the Owner's Representative at the pouring site to verify proper forms and reinforcement.

9. Cure and protect all exposed concrete installed under this contract in accordance with the reference standard.

10. Removal of street paving will be measured and paid at the contract unit price per square yard of pavement removed, not to exceed the dimensions indicated on the plans for removal. Removal of curb, street and driveway paving includes removal and disposal of concrete off site. Saw cut of pavement and curb will be subsidiary to pavement removal and replacement. The lime treatment of subgrade or cement treatment of subgrade, lime, and cement will be measured and paid by square yard of pavement removed. The contract unit price includes compensation for furnishing of all labor, materials, tools, equipment, and incidentals necessary to complete the work, preparation of right-of-way, excavation, borrow, fill, compaction, disposal of excess material, paving, joints, topsoil, and seeding complete in place. The removal and construction of curb will be considered included in the unit price per square yard of pavement removed and replaced.

SC.38 JACKING, BORING OR TUNNELING

SPECIAL CONDITIONS

The following sentence is deleted from the Public Works Construction Standards-North Central Texas, North Central Texas Council of Governments, Item 503.3.3.2 – Construction by Jacking.

"Lateral or vertical variation in the final position of the pipe ..... in the direction indicated on the plans".

Add the following sentence in place of the above deleted sentence.

"No vertical or lateral variation of slopes and grades shown in the plans will be allowed for installation of pipe."

SC.39 CONTRACT DOCUMENTS

Refer to the General Notes for priority of Contract Documents. For conflicting information, the more stringent shall apply.

SC.40 PVC SEWER PIPE

All PVC sewer pipe shall be manufactured in accordance with the latest versions of ASTM 3034 or ASTM D2241 or as specified in the drawings. Resin types shall be 12454B or 12454C.

SC.41 SERVICE LATERALS

1. Contractor shall be responsible for locating service connections prior to construction.

2. Contractor shall verify by testing all service connections to determine if they are active or inactive. Only active services shall be connected to the new sanitary sewer system. Inactive services shall be plugged with grout. The Contractor shall be responsible for any liability associated with the accidental plugging of active services. All active laterals shall be removed from the existing sewer line to the private property line. Replace existing laterals with new laterals of same size from the new sewer main to the ROW line. In no case shall the size of service lateral be smaller than 4 inches in diameter.

3. Install wyes at an angle of no more than forty-five degrees (45°) or less with springline.

4. Install service laterals with a straight alignment and at a uniform grade not less than one percent (1%) unless otherwise specified. Embedment and service lateral connection shall be as per Standard Details of City of Rowlett.

5. All service laterals crossing concrete pavement shall be installed by method other than open-cut (jacking, boring, or tunneling). The Contractor may, at his option, install the laterals by open cut. However, he must provide a two (2) year maintenance bond on the lateral and pavement.

6. Maintain an accurate record of location and size of all active service laterals.

7. Unless otherwise indicated on the drawings, service laterals installed by open-cut method shall be measured at the contract unit price per linear foot, complete in place. The Contract unit price shall be total compensation for furnishing of all labor, materials, tools, equipment, and incidentals necessary to complete the work, including excavation, concrete encasement, disposal of excess material, backfill, embedment, saw cut, removal and replacement of curb, sidewalks, sod, all in accordance with the plans and specifications. Furnishing and installation of Y connection shall be

included in the contract unit price of service laterals. Removal and replacement of pavement will not be measured and paid separately for installation of service laterals.

SC.42 PIPE PLUGGING AND SANITARY SEWERS TO BE ABANDONED

1. Prior to plugging of a sewer segment, the Contractor shall verify that no existing services will be affected.

2. Physically remove sanitary sewer pipe outside of the manhole for a minimum distance of one (1) foot.

3. Fill pipe for a minimum length of one (1) foot with non-shrink grout.

4. Sawcut, removal and replacement of concrete paving for plugging of existing sanitary sewer line shall be considered subsidiary to other bid items.

5. The pipe plugging and sanitary sewers to be abandoned shall be considered subsidiary to the other bid items.

6. Bypass Pumping

   a. Perform bypass pumping for flow control. No bypassed wastewater shall be discharged into a natural or manmade drainage structure.

   b. There shall not be a separate pay item for bypass pumping.

SC.43 SANITARY SEWER LINE CONNECTION

1. Make existing and/or new sewer line connections to existing and/or new manholes as indicated on the drawings.

2. Perform by-pass pumping for flow control when connecting to existing sewer line or manhole.

3. There shall not be a separate pay item for connection of new sewer line to existing or new manholes and connection to existing sewer line. New sewer line connections to existing or new manholes and to the existing sewer lines shall be considered subsidiary to other bid items.

SC.44 STEEL ENCASEMENT PIPE

1. Steel encasement pipe shall conform to AWWA C-200. The pipe shall be fabricated in accordance with ASTM A-570 from steel plates having a minimum yield strength of 36,000 psi. Encasement pipe shall have a minimum of 1/2" wall thickness.

2. Steel encasement pipe shall be painted inside and outside with two coats of KOPPERS CO. Bitumastic Super Service black or equal coating manufactured by TNEMAC Company, Inc., prior to delivery to the job site. Minimum thickness of coating inside and outside shall be 12 mils dry film thickness per each coat.

3. Encasement pipe shall be field welded in accordance with AWWA C-206 and AWS D7.0. The welded joints shall be wire brushed and painted with KOPPER's Inertol Quick-Drying primer 626 or equal primer manufactured by TNEMAC Company, Inc.

SC.45 SANITARY SEWER LINE AND MANHOLE TESTING

Each completed sanitary sewer line section shall be tested, prior to the final acceptance of completed section. The following tests shall be performed in accordance with the Texas Commission on Environmental Quality Chapter 217, and published in Texas Register (Volume 25, Number 42, November, 2003).

1. Low pressure air test for all Sanitary Sewer Line included in this Contract.

2. Deflection testing (Mandrel Test) after the final backfill has been in place at least 30 days.

   a. The mandrel shall have an outside diameter (O.D.) equal to 95% of the inside diameter (I.D.) of the pipe. The inside diameter of the pipe, for the purpose of determining the outside diameter of the mandrel, shall be the average outside diameter minus two minimum wall thicknesses for O.D. controlled pipe and the average inside diameter for I.D. controlled pipe, all dimensions shall be per appropriate standard. Statistical or other "tolerance packages" shall not be considered in mandrel sizing.

   b. The mandrel shall be constructed of a metal or a rigid plastic material that can withstand 200 psi without being deformed. The mandrel shall have nine or more "runners" or "legs" as long as the total number of legs is an odd number. The barrel section of the mandrel shall have a length of at least 75% of the inside diameter of the pipe. A proving ring shall be provided and used for each size mandrel in use.

   c. Adjustable or flexible mandrels are prohibited. A television inspection is not a substitute for the deflection test. A deflectometer may be approved for use on a case-by-case basis. Mandrels with removable legs or runners may be accepted on a case-by-case basis.

3. Acceptance Testing: After the completion of the manhole, the manholes shall be visually inspected by the Engineer and the Owner before final acceptance. In addition, the Contractor shall perform low pressure vacuum air testing on each manhole. Each manhole shall be tested separately and independently of the sanitary sewer lines. All sanitary sewer lines coming into the manhole shall be sealed with an internal pipe plug. The method of testing shall be by means of creating an air vacuum within the manhole, whereby, a 10" Hg. (mercury) vacuum will be developed. The air vacuum shall then be monitored once it has reached 10" Hg. for a test period of one minute. The allowance drop in air vacuum shall be no greater than 1" Hg. during the one-minute test period.

   The air vacuum testing procedures for the manholes shall be according to the recommendations of Cheme Industries, Inc., (Air-Loc Vacuum Manhole Tester), or such other manufacturers/suppliers that would have acceptable equipment designed specifically for air vacuum testing of manholes.

   The Contractor shall provide the Owner with certified documentation that the test procedures were conducted as recommended by the equipment manufacturers and the test results were actual numbers recorded in the field. The Contractor shall record and certify to the following information:

   a. Date and time of testing

b. Name of contractor's representative performing the tests
c. Equipment used and calibration procedures
d. Manhole location(s)
e. Air-vacuum maximum (Hg.)
f. Test period
g. Drop of air vacuum within the test period
h. Other observers at the testing site

SC.46 WATER PIPE

All 6-inch, 8-inch and 12-inch water mains to be AWWA C900 PVC pipe. All 16-inch and larger water mains shall be AWWA C905 PVC. All water line fittings to be ductile iron. All valves shall be AWWA approved resilient wedge gate valves. The pipe plugging, water line to be abandoned, and connection to existing water lines shall be considered subsidiary to the other bid items.

SC.47 WATER VALVES

Install 2' x 2' x 4" thick, concrete block around all water valves outside of concrete pavement.

Valve extensions shall be provided on all valves with operating nuts greater than 5' below finished ground or paving grade.

SC.48 LIGHT POLE

NOT USED

SC.49 TREE REMOVAL AND PROTECTION

1. All trees, bushes and other landscaping plants located within the Right-of-Way (ROW) shall be removed. Construction limits extend up to 4' beyond the ROW where grading is required to maintain slopes flatter than 3:1, unless otherwise noted. Trees that are located within 4' beyond the ROW may be removed if located in the construction limits. Removal of all trees located within the construction limits and any other trees shown on the removal plan shall be paid under Preparation of ROW bid item.
2. Trees 4" to 30" in diameter to be removed outside the construction limits and not shown on the removal plan shall be paid under the Tree Removal bid item.
3. All trees greater than 4" in diameter were not surveyed and are not shown in the drawings. Trees smaller than 4" in diameter (at the time of the survey) are not shown in the drawings but are to be removed if located within the construction limits. Tree removal is subsidiary to General Site Preparation.
4. Contractor shall protect trees adjacent to construction limits that are to remain. Any trees that are flagged by the City shall remain.

SC.50 TYPE B STORM SEWER MANHOLE (REVISION TO SHEET SD-8)

Access riser height may only extend a maximum height of 23" from the inside of the manhole to the top of the cover.

SC.51 TYPICAL VALVE SETTING AND BOX (REVISION TO SHEET SD-12)

NOT USED

SC.52 SANITARY SEWER MANHOLES (REVISIONS TO SHEET SD-15)

1. Note 10 revised to state 125 MIL thickness.

SC.53 SANITARY SEWER DETAILS (REVISIONS TO SHEET SD-16)

1. On the Typical Service Connection Detail, cleanout shall be a tee-wye.

SC.54 TEMPORARY SIGNS

Contractor shall provide temporary street name and regulatory signs if needed before the permanent signs are installed. The cost for temporary signs is subsidiary to the other bid items.

SC.55 STREET SIGNS

Regulatory street signs, street name signs and sign poles will be paid as separate bid items. Installation of signs shall be subsidiary to the sign pole bid item.

SC.56 WATER METER BOXES – NOT USED

Contractor shall provide and install new water meter boxes for each water meter, per City standards. The City uses the ROTEC from DFW Plastic, Part DFW 37C for body, DFWC-KSBSM for lid.

SC.57 WRAPPED IRON FITTINGS – BID ITEM AT OWNER'S DISCRETION

1. This bid item will be used if necessary at the OWNER'S DISCRETION. All fittings shown in this project are considered subsidiary to the unit price per linear foot bid for PVC Water Pipe. Necessary fittings that must be added to the pipeline due to the CONTRACTOR'S failure to locate existing utilities prior to beginning construction that cause fittings to be used to re-align the water pipe will be at the CONTRACTOR'S expense. Only fittings that become necessary because of conflicting utilities that are located and reported to the ENGINEER prior to construction that cause the water pipe to be re-aligned will be paid for with this bid item.

SC.58 PORTABLE CHANGEABLE MESSAGE SIGNS – NOT USED

This bid item is for four electronic portable changeable message signs to be placed on the project site for notification purposes. The messages and sign locations shall be as directed by the City. The message signs shall be on site for the duration of the project, or as determined by OWNER to no longer be necessary.

SC.59 ACCESS TO DRIVEWAYS

The contractor shall maintain access to driveways throughout construction. If needed, temporary access drives shall be constructed and maintained. Contractor shall maintain trash service, and mail service by constructing temporary mailboxes. These services are subsidiary to other items in the contract.

SC.60 FLOWABLE BACKFILL

This bid item is an additive alternate for this project. If used, this bid item shall follow NCTCOG Standard Specifications 504.2.3.4 and Standard Detail 3070A. Payment for this item will be per linear foot of pipe, regardless of the size of pipe backfilled or width of trench. Flowable backfill shall be placed in trenches at the City's discretion.

SC.61 SIDEWALK RETAINING WALL

This bid item shall follow NCTCOG Standard Detail 2180, with the sidewalk width constructed per the width in the plans. The quantity of sidewalk retaining wall is cubic yards of concrete in both the retaining wall section only. The sidewalk quantity is separate.

SC.62 EXCAVATION

A. General

1. Excavation work shall be accomplished under the supervision of a person experienced with the materials and procedures which will provide protection to existing improvements, including utilities and the proposed pipeline.

2. The alignment, depth, and pipe subgrades of all sewer trenches may be determined by overhead grade lines parallel to the sewer invert, or by the use of a laser.

3. In the event hazardous wastes as defined by the Resource Conservation and Recovery Act of 1976 (PL94-580) are encountered work shall be halted and the Owner shall be notified. Work shall be resumed only after the Owner notifies the Contractor.

4. If the specified maximum trench widths are exceeded, either through accident or otherwise, and if the Engineer determines that the design loadings of the pipe will be exceeded, the Contractor will be required to support the pipe with an improved trench bottom. The expense of such remedial measures shall be entirely the Contractor's own. All trenching operations shall be confined to the width of permanent rights-of-way, permanent easements, and any temporary construction easements. All excavation shall be in strict compliance with the Excavation Safety Systems Special Condition (SC.20) of this document.

5. Definitions

a. Unclassified Excavation

Excavation under this item shall include all earth, shale, gravel, loose rock, solid rock, debris, junk and/or other material excavated or otherwise removed in the preparation of the trench; all work in connection with the excavation, removal and subsequent handling and disposal of such material, regardless of its type, character, or condition; subgrade preparation, all sheeting, piling, shoring, bracing, and dewatering of trenches; protection of adjacent property; backfilling; sand cushion; grade base stabilization; all specified backfill consolidation; and other work necessary or required including the removal of all material from the trench area. Included in excavation is the removal and replacement of all existing paved surfaces including but not limited to sidewalks, concrete streets, concrete curb and gutter, and bituminous pavement. If a bid item is included for the removal and replacement of sidewalks and/or paved surfaces, then payment for removal and replacement of the items will be at the contract unit cost, but not including any disturbed paved surfaces outside of the limits of removal shown on the plan sheets. Any additional removal will be considered subsidiary to other bid items (no additional payment will be made).

B. Execution

1. Open Cut Method (Trenching)

a. General

Open cut (trench) pipeline excavations except as otherwise specified or approved by the Engineer. Minimize inconvenience and disturbance to the general public.

Sort and stockpile the excavated material so the proper material is available for backfill.

b. Trench Depths

Excavate trenches to depths required for proper pipe embedment. Overdepth excavation may be required when the subgrade is unstable. Backfill overdepth excavations with granular pipe embedment material, unless otherwise directed by the Engineer.

c. Trench Walls

Undercutting of trench walls is not permitted.

d. Trench Widths

1) The bottom width of the trench at and below the top of the pipe and inside the sheeting and bracing, if used, shall not exceed the trench widths indicated on the Drawings.

2) If the allowable maximum widths are exceeded at manholes, bore pits, tees, and in unstable earth material, provide bedding adequate to develop the required lateral support for the pipe and/or provide a sufficient strength class of pipe to accommodate the loading conditions as approved by the Engineer.

e. Trench Safety

Trench safety shall be in accordance with SC.20.

f. De-Watering

1) Should groundwater be encountered, Contractor shall be responsible for utilizing a dewatering system(s) to remove water from the excavations. Contractor shall install and operate dewatering system(s) to achieve the following:

a) Keep excavations free from water.

b) Prevent displacement of surrounding soils.

c) Prevent water from crossing road or driveways during icing conditions or other potentially hazardous conditions.

2) Form dams, flumes or other works necessary to keep the trenches clear of water while the sewers and their foundations, and other foundation works, are being constructed. Remove water from such excavation in a manner that does not damage property.

g. Blasting Areas

1) Blasting of any kind for rock excavation or any other purpose will not be allowed.

C. Measurement and Payment

Only items listed below will be measured for payment. All other costs shall be included in the unit or lump sum prices for the item affected thereby.

1. Trench safety system shall be paid for in accordance with SC.20.

2. Payment for unclassified excavation shall not be paid for separately, but is considered included in the bid items for pipe installation. No additional payment will be made for: sand cushion; backfilling; compaction of backfill; crushed stone used for backfill under existing and/or proposed roadways, roadway fills, streets, alleys, driveways, sidewalks, parking lots or as shown on the Drawings; removing and replacing top soils and obstruction, tunneling of trees, storm sewers or other obstructions; blasting; bracing and shoring; dewatering; pumping and draining; grade base stabilization; removal of excess excavated material; or restoration of the site, including grass sodding and/or seeding. Pavement removal and replacement will only be paid for to the limits shown on the plans per square yard. Any additional pavement, including streets, sidewalks, ADA rams, etc., removed and/or damaged will be replaced as existing at the CONTRACTOR's expense. It is mutually understood that subterranean water, quicksand, or other unstable earth may be encountered and the Contractor has taken such into consideration in making this bid. Where such is encountered, Contractor will be required to excavate to sufficient depth to permit backfilling with crushed stone in order to provide a stable base for the pipe. Extra payment will not be made because of such additional excavation or because it is necessary. Separate payment will not be made for service lateral construction or pits required for trenchless construction methods and is considered subsidiary to the respective bid items.

SC.63 DART INSURANCE REQUIREMENTS

NOT USED.

SC.64 PAVING AND EARTH EMBANKMENT (EMB) TYPE C-1 SUBGRADE – NOT USED

SC.65 MEASUREMENT AND PAYMENT PER LINEAR FOOT PVC PIPE

A. Water pipe of the respective type, size, and/or strength including specified pipe embedment, and testing will be paid for at the Contract Unit Price per linear foot of pipeline actually installed, measured along the centerline of the pipeline from center of fitting to center of fitting, except when connecting to existing fittings or valves and then measured to the connection point. This item includes costs for location of existing services, excavation, existing pipe removal and disposal (if any), furnishing and placing pipe embedment materials, tees, furnishings and placing pipe, fittings and joint material, making connections to pipe of dissimilar materials, joint restraints, concrete blocking, embedment, backfill, testing, and any resulting restoration and repairs and incidental and appurtenant work required to complete the item. Restoration in paved areas will be paid for in accordance with the Bid Schedule for the various applicable items affected by the water construction within the specified limits. Pipe in steel encasement will be measured by the length of encasement pipe installed By Other Than Open Cut, or by Open Cut, and will include all fittings, joint restraints, spacers, and any other item necessary for installing the pipe within the encasement pipe.

B. The unit price for pipe placed by open cut is broken down as three separate pay items as follows:

   a. 60 Percent of the unit price bid per linear foot shall be paid upon pipe installation and backfill.

   b. 30 Percent of the unit price bid per linear foot shall be paid upon acceptable restoration of the disturbed linear footage. The OWNER may adjust this payment amount based on circumstances to allow a partial payment of the 30 percent prior to completed restoration.

   c. 10 Percent of the unit price bid per linear foot shall be paid upon successful pipeline testing.

C. Each of the above percentages are considered as the structure of the bid item and not retainage. The applicable retainage amount will only be retained on the percent portion paid, not the entire linear footage price. Once the applicable percentages of pipe unit costs are paid, the retainage on that portion will be withheld at that time.

SC.66 CONSTRUCTION NOTES

A. Traffic control plan to be provided to the CITY at the pre-construction conference.

B. Message boards to be posted seven (7) days in advance for any lane closures.

C. Any item of work called for by the plans and/or specifications and not included as a bid item is to be considered subsidiary to construction and shall be considered paid for by other bid items.

D. All existing utilities that cross the proposed sanitary sewer or storm sewer that must be removed and replaced, or relocated, shall be considered subsidiary to other bid items. Any utility that is relocated or replaced, must be replaced with new material of the same type and quality of the existing utility. This includes all sanitary sewer or storm sewer crossings regardless of size. All utilities that are specified to be supported shall be braced, supported, and backfilled according to the detail on sheets and shall be considered subsidiary to other bid items.

E. Fence removal and replacement to facilitate construction is subsidiary to other bid items, replacement fence must be new and of the same or better material as the existing fence. All fencing shall have a mow strip installed.

F. Contractor shall provide temporary fencing as necessary to protect property as may be required by owner. (No Separate Pay)

G. All excavation is considered unclassified and shall be according to the plans and specifications. The contractor is responsible for determining methods of excavation based on his field observation and investigation. All payment is considered included in the bid items for pipe installation (See SC.62).

H. As stated in (SC.62), all excavations are considered unclassified and there will be no separate payment for excavation regardless of type of material, nor will separate payment be made for pipe embedment and backfill whether in CITY streets or STATE ROW and not within streets, but shall be considered subsidiary to other bid items. This includes crushed rock, aggregate, filter fabric or any other item necessary to properly embed, backfill, and stabilize all trenches and excavations.

I. Payment for pavement removal and replacement, with pavement subgrade and base will be at the unit price bid and quantities based on the limits shown on the plans. Any pavement, subgrade and base removed, and/or damaged, outside the limits shown on the plans will be replaced at the contractor's sole expense.

J. Any sidewalks or ADA ramps damaged and/or removed by the contractor shall be replaced to existing type, thicknesses and limits per city, and/or TxDOT standards. All costs are considered subsidiary to other bid items. (No Separate Pay)

K. The cost to stripe and mark all replaced pavement as existing shall be considered included in the pavement bid items. (No Separate Pay)

SC.67 MOBILIZATION

Mobilization shall include providing for all the required equipment, permits and labor necessary to move all machinery and personnel required onto the job site. Also, included under this item is the cost of all insurance and bonding requirements. This item shall not exceed five percent (5%) of the total bid. Twenty-five percent (25%) of this bid item will be paid after the work has begun on the first payment request. After successfully completing fifty percent (50%) of the work, an additional fifty percent (50%) will be paid if the project is on schedule. The final twenty-five percent (25%) will not be released until **WORK** is eighty-five percent (85%) complete, to allow for demobilization.

SECTION 12 SPECIAL NOTICE TO CONTRACTORS-UTILITY COORDINATION

SPECIAL NOTICE TO CONTRACTORS

Utility Coordination

1. Several franchise utility lines, including gas, telephone, electric, and cable, are located within the construction work area.

2. The Contractor shall contact Texas811 at least 48 hours prior to starting construction.

3. Where franchise utility relocations are required, the City has notified the affected companies that these relocations will need to be completed prior to construction as noted on the plans.

4. The Contractor's construction schedule shall include any franchise utility field assistance, including but not limited to temporary shoring of power poles. At least one week's advance notice of the required field assistance shall be provided directly to the local franchise utility contact.

5. The Contractor shall coordinate with the City's water utility department through the City inspector for assistance in locating existing water and sanitary sewer services. Exploratory digging that may be required after all other methods to locate services have been utilized shall be kept to a minimum.

6. All utility coordination activities described herein or otherwise required for this project shall be considered subsidiary to other items of work. (No separate pay item).

SECTION 13 MEASUREMENT AND PAYMENT

MEASUREMENT AND PAYMENT

1. **SCOPE AND CONTRACT PRICE:** This section provides clarification of the measurement and payment for some work items in this Contract.

The total Contract Price shall cover all Work required by the Contract Documents. All costs in connection with the proper and successful completion of the Work, including furnishing all materials, equipment, supplies, and appurtenances; providing all construction plant, equipment, and tools; and performing all necessary labor and supervision to fully complete the Work, shall be included in the unit and lump sum prices bid. All Work not specifically set forth as a pay item in the Proposal and Bid Form shall be considered a subsidiary obligation of Contractor and all costs in connection therewith shall be included in the prices bid.

2. **ESTIMATED QUANTITIES:** All estimated quantities stipulated in the Proposal and Bid Form or other Contract Documents are approximate and are to be used only (a) as a basis for estimating the probable cost of the Work and (b) for the purpose of comparing the bids submitted for the Work. The actual amounts of work done and materials furnished under unit price items may differ from the estimated quantities. The basis of payment for work and materials will be the actual amount of work done and materials furnished. Contractor agrees that it will make no claim for damages, anticipated profits, or otherwise on account of any difference between the amounts of work actually performed and materials actually furnished and the estimated amounts.

3. **SUBSIDIARY PAY ITEMS:** The following items shall be considered subsidiary to the pay items provided for the work under this contract. Other subsidiary items are described herein.

- Location of existing utilities.
- Video taping of project site prior to construction.
- Contractor negotiations with property owners for temporary staging areas.
- Construction staking.
- Backfill of utility trenches.
- All fees.
- Repair of damaged fences, walls, irrigation systems, landscaping, and other improvements.
- Final cleanup.

4. **SODDING AND TOPSOIL:**

4.01 **Sodding:** The Contractor shall walk the project with the City inspector prior to construction and mark on a construction plan set the limits of all established grass areas that will be disturbed by construction. These areas of existing established grass shall be resodded with grass matching that being replaced.

4.02 **Watering and Fertilizer for Sodding:** In the event the area is not adjacent to an existing irrigation system, the Contractor will be required to provide a temporary watering system (water truck application) to provide consistent moisture of the newly planted sod until the City has accepted the grass. The Contractor shall submit a written description of proposed watering method to the City prior to sodding.

No separate measurement or payment shall be made for watering or fertilizer materials and application. This item shall be considered subsidiary to sodding.

4.03 **Topsoil:** The Contractor shall strip a 6" depth of topsoil where disturbed by construction and stockpile in locations to be approved in advance by the City inspector. A minimum 6" layer of topsoil shall be spread under sodding. All work related to striping, stockpiling and spreading topsoil shall be subsidiary to the pay items for sodding.

5. **REMOVAL OF EXISTING FENCES OR WALLS:** No existing fences or walls shall be damaged or removed with the construction of this project except as noted on the plans. Any fences damaged by the Contractor shall be replaced to original or better condition at the Contractor's expense.

6. **VIDEO TAPE:** The Contractor shall be required to video the project prior to beginning construction. A copy of the video shall be furnished to the City prior to beginning construction. No separate bid item.

7. **TEMPORARY FENCE:** When directed by City inspection staff, the Contractor shall install temporary fence to protect trees or secure private property during. The exact location of temporary fences shall be flagged in the field by the contractor and approved by the City inspector prior to installation. Payment shall be based on the unit price bid for temporary fence which shall also include removal of the fence upon completion of construction.

8. **PROJECT SIGNS:** Project signs shall be paid for separately at the unit prices bid. Such payment shall be full compensation for sign fabrication, installation at the locations designated by the City, and any name changes to sign requested by the City during construction.

9. **TRENCH SAFETY PROGRAM:** The Contractor's trench safety program shall be submitted to the City prior to the start of construction. The preparation of the trench safety program and the installation, maintenance, inspection, and removal of trench protection systems shall be measured and payment made by the unit price bid. Payment shall constitute full compensation for all labor, equipment, and materials necessary to complete this item of the work.

10. **EROSION CONTROL:** All Erosion Control measures fees, including but not limited to those shown on the Erosion Control Plans and described in the Contract Documents shall be paid on a unit price basis under the pay items provided.

11. **CONSTRUCTION SEQUENCE & TRAFFIC CONTROL:** Prior to construction, the Contractor shall submit a detailed Construction Sequence and Traffic Control Plan consistent with the construction plans and contract documents for review and approval by the City. Specific attention is drawn to related notes in the Construction Plan, the Supplemental General Provisions, and the Texas Manual of Uniform Traffic Control Devices (including amendments) for additional traffic control requirements.

12. **PRESERVATION AND PROTECTION OF PLANT MATERIAL:** It is the City's intention that all native plant material at this project site, not specifically indicated on the plans for removal, be protected and preserved. The contractor shall take all necessary precautions to avoid damage or removal of trees, shrubs and other plant materials that are to remain following construction. Specimen trees and other plants within and closely adjacent to construction sites shall be adequately protected by the Contractor. Additional protective measures to the tree protection shown on the plans may be installed by the Contractor, at his option, to preclude damage by his workmen and equipment.

    The contractor shall not store, stack or place equipment, material, chemicals or supplies within twenty-five (25) feet from edge of canopy of any plant materials that are to remain unless prior approval is obtained from the City Inspector.

    Plant protection requirements cited above include authorized pruning and cutting of limbs and major roots. The Contractor is cautioned not to cut, prune or otherwise remove plant parts without prior approval and guidance by the City inspector or a Park's Department representative.
    As directed by the Engineer, the Contractor may make alignment revisions around trees when possible to minimize damage to tree roots.

No separate measurement or payment will be made for preservation and protection of plant materials. This item shall be considered subsidiary to the other various items bid for the project.

13. **CLEAN-UP:** No separate payment shall be made in connection with clean-up and restoration, as specified or required. All costs in connection with clean-up and restoration shall be included in the cost of other pay items. All disturbed areas shall be regraded to their original condition or better and shall be regraded so as to prevent water from ponding.

SECTION 14 SUPPLEMENTAL PROVISIONS

CITY OF ROWLETT

SUPPLEMENTAL GENERAL PROVISIONS

1. PUBLIC SAFETY AND CONVENIENCE

The safety of the public and the convenience of traffic shall be regarded as of prime importance. The CONTRACTOR shall at all times exercise reasonable precautions for the safety of employees and others on or near the work and shall comply with all applicable provisions of Federal, State and Municipal safety laws and building and construction codes. The safety precautions actually taken and their adequacy shall be the sole responsibility of the CONTRACTOR, acting at his discretion as an independent contractor.

The CONTRACTOR shall plan and execute his operations in a manner that will cause the minimum interference with traffic. The CONTRACTOR shall secure the CITY'S approval for the proposed plan of operation and sequence of work prior to beginning construction. If at any time during construction, the approved plan does not accomplish the intended purpose due to weather or other conditions affecting the safe handling of traffic, the CONTRACTOR shall immediately make necessary changes therein to correct the unsatisfactory conditions.

THE CONTRACTOR SHALL PREPARE A TRAFFIC CONTROL PLAN FOR ANY PROPOSED CONSTRUCTION THAT IMPACTS ANY STREET OR ALLEY AND SUBMIT IT TO THE CITY WITH THE CONSTRUCTION SCHEDULE. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN CITY APPROVAL FOR THE TRAFFIC CONTROL PLAN.

When the work is carried on, in or adjacent to any street, alley or public place, the CONTRACTOR shall, at his own cost and expense, furnish and erect such barricades, fences, lights and danger signals; shall provide such flagmen and watchmen; and shall take such other precautionary measures for the protection of persons or property and of the work as are necessary. All barricades, signs, lights, etc., shall be placed, maintained and operated in accordance with the Texas Manual on Uniform Traffic Control Devices. From sunset to sunrise, the CONTRACTOR shall furnish and maintain adequate warning lights. A sufficient number of barricades shall be erected to keep vehicles from being driven onto or into any work that might be a hazard to the public.

The CONTRACTOR will be held responsible for all damage to the work due to failure of barricades, signs, lights and watchmen to protect it, and when damage is incurred, the damaged portion shall be immediately removed and replaced by the CONTRACTOR at his own cost and expense. The CONTRACTOR'S responsibility for the maintenance of barricades, signs, and lights and for providing watchmen shall not cease until the project has been accepted by the OWNER.

WHERE THE CITY APPROVED TRAFFIC CONTROL PLAN INCLUDES THE CLOSURE OF ANY STREET OR ALLEY DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, THE CONTRACTOR SHALL KEEP THE FIRE DEPARTMENT INFORMED AT

ALL TIMES OF THE LIMITS OF SUCH CLOSURES AND SUCH STREET OR ALLEY REOPENINGS. BEFORE CLOSING ANY STREET OR ALLEY, THE CONTRACTOR SHALL NOTIFY CITY, FIRE/POLICE, ROWLETT ISD, US POSTAL SERVICE, AND SANITATION CONTRACTOR.

The CONTRACTOR shall provide and maintain flagmen at such points and for such periods of time as may be required to provide for the safety and convenience of public travel and the CONTRACTOR'S personnel and as directed by the ENGINEER. Flagmen shall be English speaking, courteous, well-informed, physically and mentally able to effectually perform their duties, and shall be neatly attired and groomed at all times when on duty.

It shall be the entire responsibility of the CONTRACTOR to provide for ingress and egress to private property, all as specified herein or as directed by the CITY. Unless more restrictive conditions are specified on the plans, at no time during the period of construction will driveways with street access be left impassable for more than a 24-hour period. The CONTRACTOR shall be required to knock down base material, to fill subgrade, and otherwise adjust driveways so as to maintain ingress and egress for all businesses and residents.

Except as otherwise provided above or elsewhere in the contract, these provisions for providing access, detouring traffic, flagmen, etc., will not be paid for directly but shall be considered as incidental to the overall project.

2. RIGHT OF ENTRY

The OWNER reserves the right to enter the property or location on which the work herein contracted for is to be performed, constructed, or installed, by such agent or agents as it may elect, for the purpose of inspecting the work, or for the purpose of performing or constructing such collateral work as said OWNER may desire.

3. SUBSURFACE INFORMATION, EXISTING UTILITIES

Subsurface information, including the existence and location of underground utilities, borings and other data shown is for the general information of the bidders, and is not guaranteed. The OWNER will make every effort to have underground utilities and services lowered below subgrade ahead of street excavation. Street structures shall be adjusted by the CONTRACTOR. The CONTRACTOR shall notify all public utilities and request field location and verification of all utilities and lines prior to excavation. Excavation in the vicinity of existing structures and utilities shall be carefully done by hand. The CONTRACTOR shall be liable for maintenance and protection of existing utilities and street structures and for repair of any damage thereto.

In case it is necessary to change or move the property of any owner or of a public utility, such property shall not be moved or interfered with until so ordered by the CITY. The right is reserved to all public utilities to enter upon the limits of the contract for the purpose of making such changes or repairs of their property as may be necessary for performance under this contract. The OWNER reserves the right to enter upon the limits of the contract for the purpose

of repairing or relaying sewer and water lines and appurtenances, repairing structures, etc., and for making other repairs, changes or extensions to any property of the OWNER.

Service lines from utility mains which interfere with machine trenching methods shall be "jumped" and the resulting "plug" excavated by hand methods; or at the option and expense of the CONTRACTOR, these services may be cut to allow machine excavation and then immediately restored to service. Services that are cut and replaced must be approved by the Inspector before they are covered with backfill. Where existing sewers are to be temporarily taken up or removed, the CONTRACTOR shall, at his own cost and expense, provide and maintain temporary outlets and connections for all private or public drains and sewers. The CONTRACTOR shall take care of all sewage and drainage which will be received from these drains and sewers, and shall provide and maintain at his own expense adequate pumping facilities, troughs, pipes, channels, temporary outlets, diversions, or other structures until the permanent connections and lines are completed and in service. The CONTRACTOR shall satisfactorily dispose of any water, drainage, sewer, nuisance or unsanitary conditions.

Where existing sewer or drains are damaged or broken by the CONTRACTOR, the CONTRACTOR shall repair the broken line immediately with approved sewer pipe and shall disinfect any contaminated ditch or surrounding ground with disinfecting agent. No new material shall be installed until all contaminated ground, ditch and/or material have been properly disinfected. No pay will be allowed for this disinfection.

All utility poles, guy wires and meters that interfere with the construction of this project will be removed by others without cost to the CONTRACTOR.

The removal and/or replacement of signs, fences, trees, and other minor items shall be the responsibility of the CONTRACTOR and will not be measured for payment, but shall be considered as subsidiary items to the work.

4. WATER FOR CONSTRUCTION

Water for mixing and curing concrete and mortar shall be obtained from the City of Rowlett Water Department at regular established rates or from any other suitable source approved by the CITY. On water and sewer line contracts, water required for mixing, etc., may be obtained from the City of Rowlett Water Department at regular established rates. The City of Rowlett shall furnish only water used for testing or flushing of water lines. On other types of construction, the CONTRACTOR shall pay for City water at regular established rates. The CONTRACTOR shall make all necessary arrangements with the City Water Department for taps, metering, etc.

5. SALVAGED MATERIALS

Any usable materials which are salvaged, recovered, or discovered during the progress of the work, and which are not intended or designated for reuse in the work, shall be placed in storage at the City yard or at such other place within the City of Rowlett as is designated.

6. PROTECTION OF ADJOINING PROPERTY

The said CONTRACTOR shall take proper means to protect the adjacent or adjoining property or properties, in any way encountered or which might be injured or seriously affected by any process of construction to be undertaken under this agreement; for any damage or injury by reason of said progress of construction; and he shall be liable for any and all claims for such damage on account of his failure to fully protect all adjoining property.

The CONTRACTOR agrees that he will indemnify and save the OWNER harmless from all claims growing out of the lawful demands for claims for said damage.

When so desired by the OWNER, the CONTRACTOR shall furnish satisfactory evidence that all obligations of the nature hereinabove designated have been paid, discharged or waived. If the CONTRACTOR fails to do so, then the OWNER may, at the option of the CONTRACTOR, either pay unpaid bills of which the OWNER has written notice, or direct or withhold from the CONTRACTOR'S unpaid compensation a sum of money deemed reasonably sufficient to liquidate any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged, whereupon payments to the CONTRACTOR shall be resumed in full in accordance with the terms of this contract, but in no event shall the provisions of this sentence by construed to impose any obligation upon the OWNER, to either the CONTRACTOR or his Surety.

7. CONTROL OF MATERIAL

The source of supply of materials shall be approved by the CITY. Representative samples of the materials proposed to be used, in quantities required, will be submitted for examination and testing in accordance with the methods prescribed by the applicable specifications, and by the agency designated by the ENGINEER. Only materials conforming to the requirements of these specifications and approved by the ENGINEER shall be used in the work. The materials proposed to be used may be inspected or tested at any time during their preparation or use. If the sources of supply which have been approved do not furnish a uniform product or if the product from any source proves unacceptable at any time, the CONTRACTOR shall furnish approved material from other approved sources. No material, which after approval has in any way become unfit for use shall be used in the work.

8. NCTCOG GENERAL PROVISIONS

References in the Specifications and Contract Documents to NCTCOG items refers to the Standard Specifications for Public Works Construction North Central Texas as prepared by the North Central Texas Council of Governments dated 1983, including all amendments. The City of Rowlett's Contract Provisions shall govern whenever there is a conflict between them and NCTCOG; however, whenever the City's Contract Provisions are silent with regard to an item, NCTCOG shall govern.

9. CONTRACTOR'S BUILDINGS

The building structures for housing laborers, or the erection of tents or other forms of protection, will be permitted only at such places as the PROJECT MANAGER shall direct, and the sanitary conditions of the grounds in or about such structures shall at all times be maintained in a manner satisfactory to the PROJECT MANAGER, in accordance with state and local laws.

10. SANITATION

Necessary sanitary conveniences for the use of laborers on the work, properly secured from public observation, shall be constructed and maintained by the CONTRACTOR in such manner and at such points as shall be approved by the PROJECT MANAGER, and their use shall be strictly enforced.

11. LINES AND GRADES

All lines and grades shall be furnished by the CONTRACTOR or his representative. The CONTRACTOR shall be responsible for furnishing all necessary equipment and survey personnel to establish all elevations and alignment necessary for construction. The Contractor shall string line the paving edges and must receive approval from the City Engineer or his representative before the placement of concrete pavement. If the line and grade are not approved, the Contractor will reset a new line and grade at no additional cost. Special care should be taken to insure no water is trapped in backyards and that no ponding or standing water exists in the finished street.

CITY OF ROWLETT

SUPPLEMENTAL SPECIAL PROVISIONS

SP.01 The OWNER and not the ENGINEER shall inspect all work.

SP.02 Modify Item 5.2.3 of Article V of the Agreement to establish that the Contractor and the City's representative meet prior to the last day of the month to review work quantities completed for the period. The Contractor shall then provide the City's representative with a copy of the agreed quantities prior to the second day of the subsequent month.

SP.03 The Contractor shall retain full responsibility for determining exact locations of all existing utilities before commencing work and preserving any and all utilities against damage during construction.

SP.04 The Contractor shall notify the Department of Public Works of the City of Rowlett 48 hours prior to any construction.

SP.05 Mail boxes and mail services shall be maintained throughout the project. Payment for removal and temporary relocation of any mail boxes other than those indicated on the plans shall be subsidiary to other items of work. The contractor shall submit to the City for approval, a plan to temporarily relocate mail boxes, acceptable to the U.S. Postal Service, while the segment of roadway with mail boxes is under construction and is not readily accessible for mail delivery.

SP.06 Existing concrete pavement, concrete pavement overlaid with asphalt, curb, asphalt pavement or concrete curb and gutter to be removed shall be saw cut full depth along neat lines where portions are to be left in place.

SP.07 The testing of material shall be performed by the City's testing laboratory and shall be paid for by the City. Any retake or retesting due to failure shall be paid by the Contractor. The scheduling of the testing shall be coordinated by the Contractor. Any fees for late cancelation of the testing of material shall be paid for by the Contractor.

SP.08 References in the Technical Specifications and construction plans to NCTCOG items refers to the Standard Specifications for Public Works Construction North Central Texas as prepared by the North Central Texas Council of Governments dated 2004, including the latest amendments.

SP.09 All items of work deemed necessary to complete the project by the City or the Engineer, not covered by a specific pay item, shall be included in the lump sum cost of "General Site Preparation". This item shall be billed monthly based on the percentage of contract value completed to date.

SP.10 In the NCTCOG Technical Specifications 508.3.4.1. **Poured Concrete Pipe Collar** Delete the last sentence in this paragraph "No extra Payments shall be made for the installation of concrete pipe collars as shown on the plan-profile sheet". Insert "Measurement for payment shall be on a per each basis, complete-in-place, all sizes."

SECTION 15 TECHNICAL SPECIFICATIONS

CITY OF ROWLETT

TECHNICAL SPECIFICATIONS

1. GENERAL SPECIFICATIONS

City of Rowlett Construction Standards, the North Central Texas Council of Government Public Works Construction Standards (Latest Edition) and the Texas Department of Transportation Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges (2024 Edition), and amendments.

APPENDIX

I. Geotechnical Report

II. Section 404 Permit

III. Drawings (Bound Separately)

I. Geotechnical Report

(Note: The geotechnical report is provided for informational purposes only and does not establish design or construction standards for this project.)

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Geotechnical
Construction Materials
Environmental
TBPE Firm No. 813

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June 17, 2021

Neel-Schaffer, Inc.
515 Houston Street, Suite 751
Fort Worth, Texas 76102

Attention: Mr. Jim Amick, P.E.

Re: Geotechnical Exploration
SH 66 East Sewer Rehabilitation
Off SH 66
Rowlett, Texas
ALPHA Report No. G210720

Attached are the findings of the geotechnical exploration performed for the project referenced above. This study was authorized by Jim Amick on March 8, 2021 and performed in accordance with ALPHA Proposal No. 82357-Rev2 dated March 2, 2021. The purpose of this geotechnical study is to provide profile soil boring information. No laboratory testing, engineering analysis, interpretation, or engineering recommendations were required from ALPHA for this project. ALPHA is not responsible for the use of the boring information by others.

ALPHA performed nine (9) borings (Borings 1 through 4, 6 and 8 through 11) to depths of 15 to 30 ft across the site between March 30 and May 29, 2021. The borings were drilled using a continuous flight auger and Shelby tube samples were obtained continuously up to 10 ft and at 5 ft interval thereafter to the depth of termination. The borings were backfilled shortly after the completion. Borings 2 and 5 were not drilled because the boring locations could not be accessed, and viable offset locations were not available.

Findings from the field exploration and sample observations are detailed in the attached Log of Borings. Site plans illustrating the general outline of the sewer line and the boring locations is provided as Figure 1 and Figure 2, the Boring Location Plans, enclosed with this letter.

Subsurface conditions encountered at the borings generally consisted of Clay (CH) and Sandy Clay (CL) materials extending to the boring termination depth below the existing ground surface. The upper 2 to 5 ft of material at Borings 4, 6, and 11 consisted of clay fill materials. Brick fragments were encountered within the fill at Boring 4. At Borings 8 and 9, about 10 inches of concrete pavement over aggregate base (to a depth of 2 ft) was encountered at the surface. Fill was not encountered at the remaining borings.

Groundwater was encountered at borings B-2, B-4, B-6, B-8, B-9, and B-10 at the depth of about 3 ft to 16 ft below the existing ground surface. Groundwater was not encountered in remaining borings.

Further details concerning subsurface materials and conditions encountered can be obtained from the Log of Boring sheets enclosed with this report.

ALPHA appreciates the opportunity to be of service on this project. Please contact our office if we can be of further assistance.

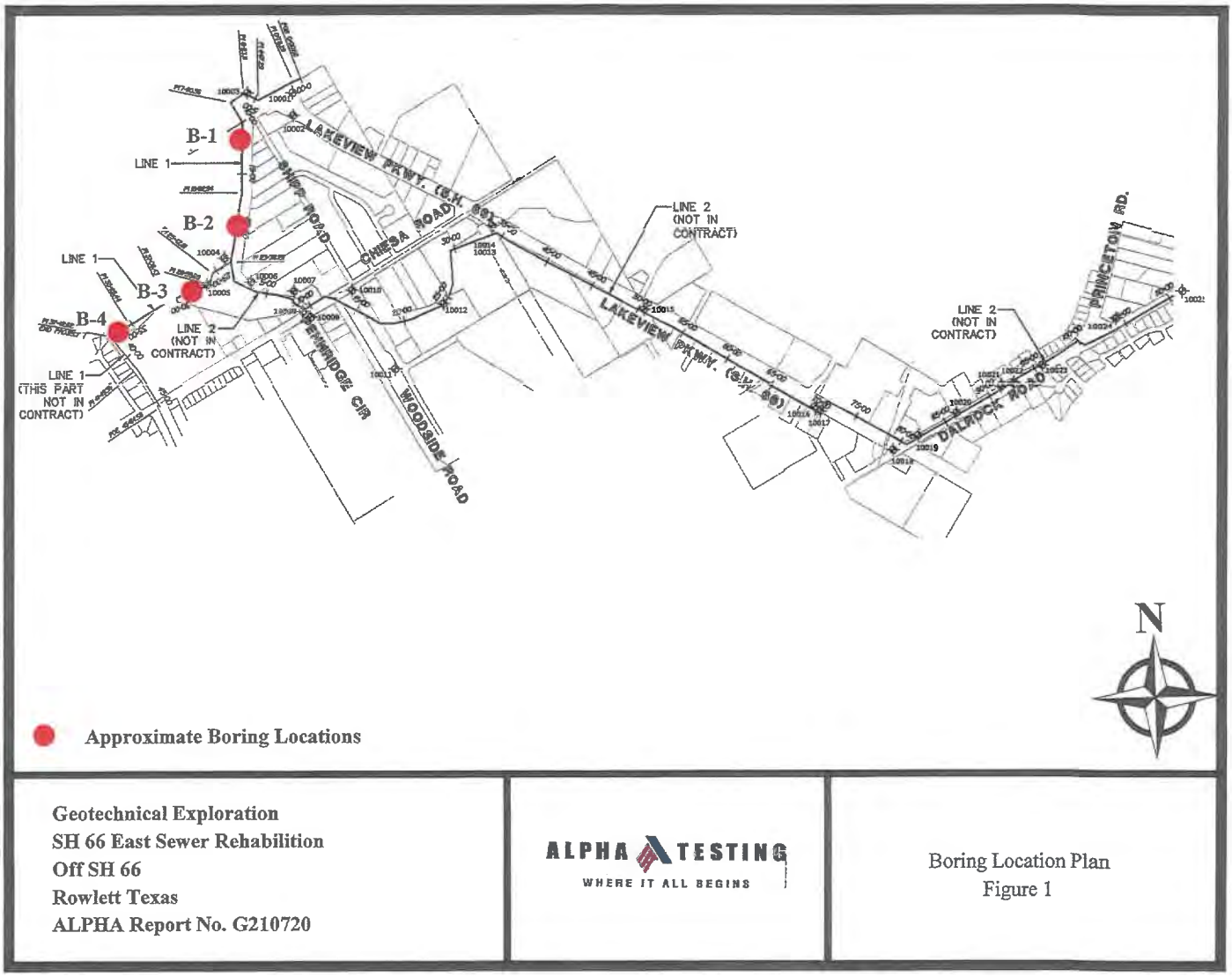
Sincerely,

ALPHA TESTING, INC.

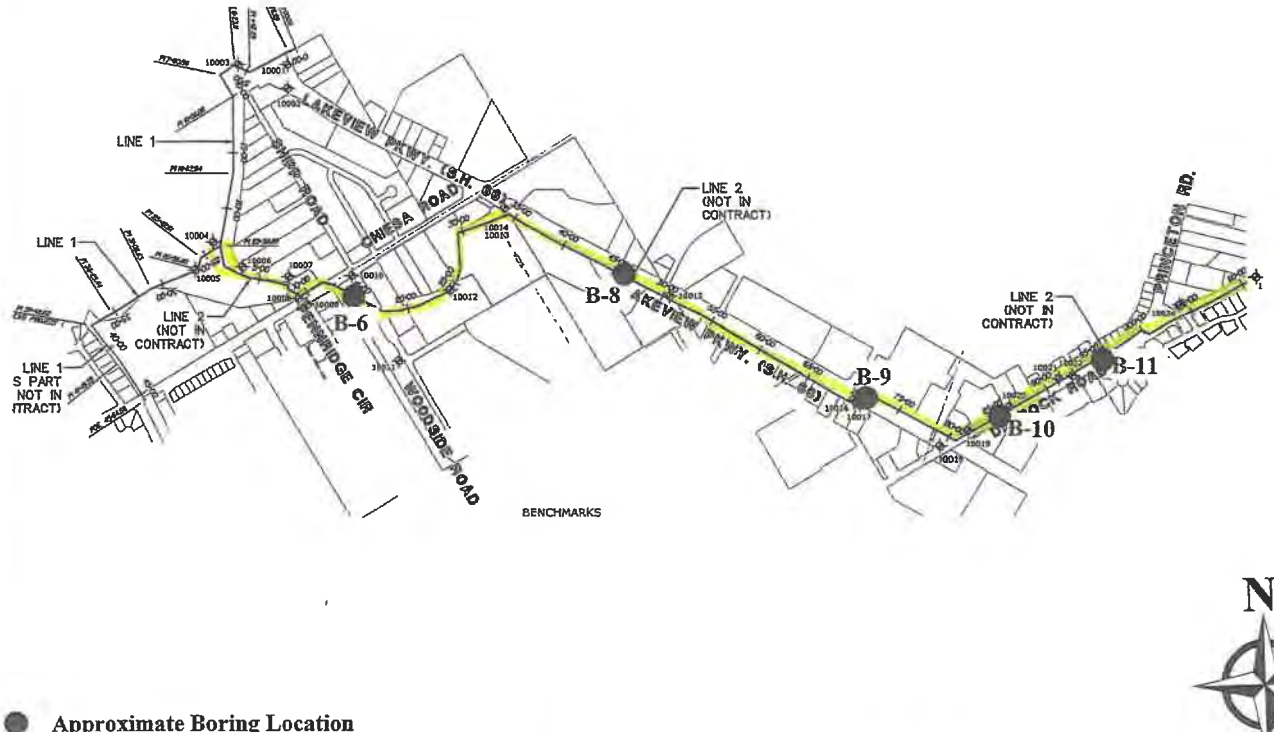
Theodore A. (Tony) Janish, P.E.
Principal

Enclosures: Boring Location Plans – Figures 1 and 2
Boring Logs (1 through 4, 6, 8 through 11)
Key to Soil Classification and Symbols

Copy: (1-PDF) Client



Geotechnical Exploration **SH 66 East Sewer Rehabilition** **Off SH 66** **Rowlett Texas** **ALPHA Report No. G210720**	ALPHA TESTING WHERE IT ALL BEGINS	Boring Location Plan Figure 1



Geotechnical Exploration
SH 66 East Sewer Rehabilitaion
Off SH 66
Rowlett, Texas
ALPHA Report No. G210720

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Boring Location Plan
Figure 2

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BORING NO.: 1 Sheet 1 of 1

PROJECT NO.: G210720

Client: Neel-Schaffer, Inc
Project: SH 66 East Sewer Rehabilitation
Start Date: 3/30/2021 **End Date:** 3/30/2021
Drilling Method: CONTINUOUS FLIGHT AUGER

Location: Rowlett, TX
Surface Elevation:
West:
North:
Hammer Drop (lbs / in):

GROUND WATER OBSERVATIONS
▽ On Rods (ft): NONE
▼ After Drilling (ft): DRY
▼ After ___ Hours (ft):

Depth, feet	Graphic Log	MATERIAL DESCRIPTION	Sample Type	Recovery % RQD	TX Cone or Std. Pen. (blows/ft, in)	Pocket Penetrometer (tsf)	Unconfined Comp. Strength (tsf)	% Passing No. 200 Sieve	Unit Dry Weight (pcf)	Water Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Swell, %
		Dark Brown CLAY with roots				2.5 2.5								
		4.0												
5		Light Brown and Gray CLAY with gravel				3.0 3.0 3.0								
10		11.0												
		Tan and Gray SANDY CLAY				2.5								
15														
20		20.0				1.0								
		TEST BORING TERMINATED AT 20 FT												
25														
30														

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BORING NO.: 2 Sheet 1 of 1
PROJECT NO.: G210720

Client: Neel-Schaffer, Inc
Project: SH 66 East Sewer Rehabilitation
Start Date: 3/30/2021 **End Date:** 3/30/2021
Drilling Method: CONTINUOUS FLIGHT AUGER

Location: Rowlett, TX
Surface Elevation:
West:
North:
Hammer Drop (lbs / in):

GROUND WATER OBSERVATIONS
▽ On Rods (ft): 12
▼ After Drilling (ft): 12
▽ After ___ Hours (ft):

Depth, feet	Graphic Log	MATERIAL DESCRIPTION	Sample Type	Recovery % RQD	TX Cone or Std. Pen. (blows/ft, in)	Pocket Penetrometer (tsf)	Unconfined Comp. Strength (tsf)	% Passing No. 200 Sieve	Unit Dry Weight (pcf)	Water Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Swell, %
		Dark Brown CLAY with roots				2.0								
		2.0												
		Light Brown and Gray CLAY with gravel				3.0								
5						3.0								
						2.5								
10						3.0								
		▼ 12.0												
		Tan and Gray SANDY CLAY				3.0								
15														
20		20.0				2.0								
		TEST BORING TERMINATED AT 20 FT												
25														
30														

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BORING NO.: 3 Sheet 1 of 1
PROJECT NO.: G210720

Client: Neel-Schaffer, Inc
Project: SH 66 East Sewer Rehabilitation
Start Date: 3/30/2021 **End Date:** 3/30/2021
Drilling Method: CONTINUOUS FLIGHT AUGER

Location: Rowlett, TX
Surface Elevation:
West:
North:
Hammer Drop (lbs / in):

GROUND WATER OBSERVATIONS
▽ On Rods (ft): NONE
▼ After Drilling (ft): DRY
▼ After ____ Hours (ft):

Depth, feet	Graphic Log	MATERIAL DESCRIPTION	Sample Type	Recovery % RQD	TX Cone or Std. Pen. (blows/ft, in)	Pocket Penetrometer (tsf)	Unconfined Comp. Strength (tsf)	% Passing No. 200 Sieve	Unit Dry Weight (pcf)	Water Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Swell, %
0		Dark Brown CLAY with roots				1.5								
						2.0								
5						2.5								
		-brown at 6'				2.0								
		8.0												
		Light Brown and Gray CLAY with calcareous nodules				2.0								
10														
15		15.0				3.5								
		TEST BORING TERMINATED AT 15 FT												
20														
25														
30														

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BORING NO.: 4 Sheet 1 of 1

PROJECT NO.: G210720

Client: Neel-Schaffer, Inc
Project: SH 66 East Sewer Rehabilitation
Start Date: 3/30/2021 **End Date:** 3/30/2021
Drilling Method: CONTINUOUS FLIGHT AUGER

Location: Rowlett, TX
Surface Elevation:
West:
North:
Hammer Drop (lbs / in):

GROUND WATER OBSERVATIONS
▽ On Rods (ft): 6
▼ After Drilling (ft): DRY
▽ After ___ Hours (ft):

Depth, feet	Graphic Log	MATERIAL DESCRIPTION	Sample Type	Recovery % RQD	TX Cone or Std. Pen. (blows/ft, in)	Pocket Penetrometer (tsf)	Unconfined Comp. Strength (tsf)	% Passing No. 200 Sieve	Unit Dry Weight (pcf)	Water Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Swell, %
5		Brown and Gray CLAY with brick fragments - FILL				2.0 2.0								
		5.0												
		▽ Tan and Gray CLAY with calcareous nodules				2.0								
10		-brown at 8'				2.0								
		11.0												
		Light Brown and Gray CLAY												
15						2.0								
		15.0												
		TEST BORING TERMINATED AT 15 FT												
20														
25														
30														

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BORING NO.: 6 Sheet 1 of 1

PROJECT NO.: G210720

Client: Neel-Schaffer, Inc
Project: SH 66 East Sewer Rehabilitation
Start Date: 5/26/2021 **End Date:** 5/26/2021
Drilling Method: CONTINUOUS FLIGHT AUGER

Location: Rowlett, TX
Surface Elevation:
West:
North:
Hammer Drop (lbs / in):

GROUND WATER OBSERVATIONS
▽ On Rods (ft): 12
▼ After Drilling (ft): 6
▽ After ___ Hours (ft):

Depth, feet	Graphic Log	MATERIAL DESCRIPTION	Sample Type	Recovery % RQD	TX Cone or Std. Pen. (blows/ft, in)	Pocket Penetrometer (tsf)	Unconfined Comp. Strength (tsf)	% Passing No. 200 Sieve	Unit Dry Weight (pcf)	Water Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Swell, %
		Brown and Tan CLAY - FILL				2.5								
		2.0												
		Dark Brown CLAY				2.75								
5		▼				2.25								
						1.75								
		8.0												
		Tan and Gray CLAY				1.0								
10		▽												
		13.0												
		Tan and Gray CLAY				1.0								
15														
						1.0								
20														
						1.5								
25														
						1.5								
30		30.0												
		TEST BORING TERMINATED AT 30 FT												

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BORING NO.: 8 Sheet 1 of 1

PROJECT NO.: G210720

Client: Neel-Schaffer, Inc
Project: SH 66 East Sewer Rehabilitation
Start Date: 5/26/2021 **End Date:** 5/26/2021
Drilling Method: CONTINUOUS FLIGHT AUGER

Location: Rowlett, TX
Surface Elevation:
West:
North:
Hammer Drop (lbs / in):

GROUND WATER OBSERVATIONS
▽ On Rods (ft): 3
▼ After Drilling (ft): 16
▽ After ___ Hours (ft):

Depth, feet	Graphic Log	MATERIAL DESCRIPTION	Sample Type	Recovery % RQD	TX Cone or Std. Pen. (blows/ft, in)	Pocket Penetrometer (tsf)	Unconfined Comp. Strength (tsf)	% Passing No. 200 Sieve	Unit Dry Weight (pcf)	Water Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Swell, %
		10" CONCRETE 0.8												
		Aggregate Base - FILL 2.0												
		▽ Tan and Gray CLAY				2.5								
5						3.0								
						3.0								
10						2.5								
		13.0												
		Tan and Gray CLAY				1.5								
15		▼												
20						0.5								
25		25.0				4.0								
		TEST BORING TERMINATED AT 25 FT												
30														

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PROJECT NO.: G210720

Client: Neel-Schaffer, Inc
Project: SH 66 East Sewer Rehabilitation
Start Date: 5/26/2021 **End Date:** 5/26/2021
Drilling Method: CONTINUOUS FLIGHT AUGER

Location: Rowlett, TX
Surface Elevation:
West:
North:
Hammer Drop (lbs / in):

GROUND WATER OBSERVATIONS
▽ On Rods (ft): 12
▼ After Drilling (ft): 12
▽ After ___ Hours (ft):

Depth, feet	Graphic Log	MATERIAL DESCRIPTION	Sample Type	Recovery % RQD	TX Cone or Std. Pen. (blows/ft, in)	Pocket Penetrometer (tsf)	Unconfined Comp. Strength (tsf)	% Passing No. 200 Sieve	Unit Dry Weight (pcf)	Water Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Swell, %
		10" CONCRETE 0.8												
		Aggregate Base - FILL 2.0												
		Tan and Gray CLAY				4.5								
5						2.5								
						1.5								
10						2.0								
		▼												
15						2.25								
20						1.5								
25		25.0				1.5								
		TEST BORING TERMINATED AT 25 FT												
30														

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BORING NO.: 10 Sheet 1 of 1

PROJECT NO.: G210720

Client: Neel-Schaffer, Inc
Project: SH 66 East Sewer Rehabilitation
Start Date: 5/26/2021 **End Date:** 5/26/2021
Drilling Method: CONTINUOUS FLIGHT AUGER

Location: Rowlett, TX
Surface Elevation:
West:
North:
Hammer Drop (lbs / in):

GROUND WATER OBSERVATIONS
▽ On Rods (ft): 13
▼ After Drilling (ft): DRY
▽ After ____ Hours (ft):

Depth, feet	Graphic Log	MATERIAL DESCRIPTION	Sample Type	Recovery % RQD	TX Cone or Std. Pen. (blows/ft, in)	Pocket Penetrometer (tsf)	Unconfined Comp. Strength (tsf)	% Passing No. 200 Sieve	Unit Dry Weight (pcf)	Water Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Swell, %
5		Dark Brown CLAY				1.5 2.25 2.0								
		6.0												
10		Tan and Gray CLAY with calcareous deposits				2.5 2.25								
	▽													
15						2.0								
20						2.0								
		20.0												
		TEST BORING TERMINATED AT 20 FT												
25														
30														

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PROJECT NO.: G210720

Client: Neel-Schaffer, Inc
Project: SH 66 East Sewer Rehabilitation
Start Date: 5/26/2021 **End Date:** 5/26/2021
Drilling Method: CONTINUOUS FLIGHT AUGER

Location: Rowlett, TX
Surface Elevation:
West:
North:
Hammer Drop (lbs / in):

GROUND WATER OBSERVATIONS
▽ On Rods (ft): NONE
▼ After Drilling (ft): DRY
▼ After ___ Hours (ft):

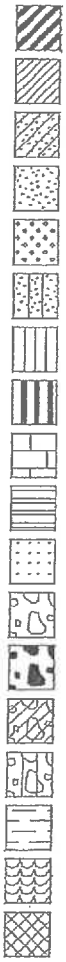
Depth, feet	Graphic Log	MATERIAL DESCRIPTION	Sample Type	Recovery % RQD	TX Cone or Std. Pen. (blows/ft, in)	Pocket Penetrometer (tsf)	Unconfined Comp. Strength (tsf)	% Passing No. 200 Sieve	Unit Dry Weight (pcf)	Water Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Swell, %
		Brown CLAY - FILL				2.25								
		2.0												
		Dark Brown CLAY				1.5								
5						1.5								
						2.25								
						2.75								
10														
		12.0												
		Tan and Gray CLAY				2.5								
15		15.0												
		TEST BORING TERMINATED AT 15 FT												
20														
25														
30														

ALPHA TESTING

WHERE IT ALL BEGINS

KEY TO SOIL SYMBOLS AND CLASSIFICATIONS

SOIL & ROCK SYMBOLS



(CH), High Plasticity CLAY

(CL), Low Plasticity CLAY

(SC), CLAYEY SAND

(SP), Poorly Graded SAND

(SW), Well Graded SAND

(SM), SILTY SAND

(ML), SILT

(MH), Elastic SILT

LIMESTONE

SHALE / MARL

SANDSTONE

(GP), Poorly Graded GRAVEL

(GW), Well Graded GRAVEL

(GC), CLAYEY GRAVEL

(GM), SILTY GRAVEL

(OL), ORGANIC SILT

(OH), ORGANIC CLAY

FILL

SAMPLING SYMBOLS



SHELBY TUBE (3" OD except where noted otherwise)

SPLIT SPOON (2" OD except where noted otherwise)

AUGER SAMPLE

TEXAS CONE PENETRATION

ROCK CORE (2" ID except where noted otherwise)

RELATIVE DENSITY OF COHESIONLESS SOILS (blows/ft)

VERY LOOSE	0 TO 4
LOOSE	5 TO 10
MEDIUM	11 TO 30
DENSE	31 TO 50
VERY DENSE	OVER 50

SHEAR STRENGTH OF COHESIVE SOILS (tsf)

VERY SOFT	LESS THAN 0.25
SOFT	0.25 TO 0.50
FIRM	0.50 TO 1.00
STIFF	1.00 TO 2.00
VERY STIFF	2.00 TO 4.00
HARD	OVER 4.00

RELATIVE DEGREE OF PLASTICITY (PI)

LOW	4 TO 15
MEDIUM	16 TO 25
HIGH	26 TO 35
VERY HIGH	OVER 35

RELATIVE PROPORTIONS (%)

TRACE	1 TO 10
LITTLE	11 TO 20
SOME	21 TO 35
AND	36 TO 50

PARTICLE SIZE IDENTIFICATION (DIAMETER)

BOULDERS	8.0" OR LARGER
COBBLES	3.0" TO 8.0"
COARSE GRAVEL	0.75" TO 3.0"
FINE GRAVEL	5.0 mm TO 3.0"
COURSE SAND	2.0 mm TO 5.0 mm
MEDIUM SAND	0.4 mm TO 5.0 mm
FINE SAND	0.07 mm TO 0.4 mm
SILT	0.002 mm TO 0.07 mm
CLAY	LESS THAN 0.002 mm

II. Section 404 Permit

integrated environmental solutions

21 July 2021

Mr. Jim Amick
Neel-Schaffer, Inc.
2501 Avenue J, Suite 120
Arlington, Texas 76006

Re: SH 66 East Sewer Rehabilitation Project - Waters of the United States Delineation and Section 404 Permit Assessment; Approximately 13,910 linear feet located along Texas State Highway 66 and Dalrock Road in Rowlett, Dallas County, Texas

Dear Mr. Amick,

Integrated Environmental Solutions, LLC. (IES) performed a site survey to identify any aquatic features that meet a definition of a water of the United States on an approximately 13,910-linear foot corridor located along Texas State Highway (SH) 66 and Dalrock Road in Rowlett, Dallas County, Texas (**Attachment A, Figure 1**). This report will ultimately assess and delineate potentially jurisdictional aquatic features to ensure compliance with Sections 401 and 404 of the Clean Water Act (CWA).

INTRODUCTION

Waters of the United States are protected under guidelines outlined in Sections 401 and 404 of the CWA, in Executive Order (EO) 11990 (Protection of Wetlands), and by the review process of the Texas Commission on Environmental Quality (TCEQ). Agencies that regulate impacts to the nation's water resources within Texas include the U.S. Army Corps of Engineers (USACE), the U.S. Environmental Protection Agency (USEPA), the U.S. Fish and Wildlife Service (USFWS), and the TCEQ. The USACE has the primary regulatory authority for enforcing Section 404 requirements for waters of the United States.

Navigable Waters Protection Rule (Effective 22 June 2020)

On 22 June 2020, the Navigable Waters Protection Rule (NWPR) became effective. The final regulations were published on 21 April 2020 with a 60-day waiting period before becoming a final rule. The streamlined regulations have redefined waters of the United States as the following at 33 Code of Federal Regulations (CFR) 328.3 (a) as:

1. *The territorial seas, and waters which are currently used or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide;*
2. *Tributaries;*
3. *Lakes and ponds, and impoundments of jurisdictional waters; and*
4. *Adjacent wetlands.*

Integrated Environmental Solutions, LLC. | 610 Elm Street, Suite 300
McKinney, Texas 75069 | www.intenvsol.com

Telephone: 972.562.7672

The following features are excluded from jurisdiction at 33 CFR 328.3 (b) as:

1. *Lake/pond/impoundment or wetland that does not contribute surface water flow directly or indirectly to an (a)(1) water and is not inundated by flooding from an (a)(1)-(a)(3) water in a typical year, surface water channel that does not contribute surface water flow directly or indirectly to an (a)(1) water in a typical year, or Water or water feature that is not identified in (a)(1)-(a)(4) and does not meet the other (b)(1) sub-categories;*
2. *Groundwater, including groundwater drained through subsurface drainage systems;*
3. *Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool;*
4. *Diffuse stormwater run-off over upland or directional sheet flow over upland;*
5. *Ditch that is not an (a)(1) or (a)(2) water;*
6. *Prior converted cropland;*
7. *Artificially irrigated area, including fields flooded for agricultural production, that would revert to upland should application of irrigation water to that area cease;*
8. *Artificial lake/pond constructed or excavated in upland or a non-jurisdictional water, so long as the artificial lake or pond is not an impoundment of a jurisdictional water;*
9. *Water-filled depression constructed/excavated in upland/non-jurisdictional water incidental to mining/construction or pit excavated in upland/non-jurisdictional water to obtain fill/sand/gravel;*
10. *Stormwater control feature constructed or excavated in upland or in a non-jurisdictional water to convey, treat, infiltrate, or store stormwater runoff;*
11. *Groundwater recharge, water reuse, or a wastewater recycling structure constructed or excavated in upland or in a non-jurisdictional water; and*
12. *Waste treatment system.*

Further definitions located at 33 CFR 328.3 (c) include:

(1) *Adjacent wetlands*. The term adjacent wetland means wetlands that:

i. Abut, meaning to touch at least one point or side of, a water identified in paragraph (a)(1), (2), or (3) of this section;

ii. Are inundated by flooding from a water identified in paragraph (a)(1), (2), or (3) of this section in a typical year;

iii. Are physically separated from a water identified in paragraph (a)(1), (2), or (3) of this section only by an artificial dike, barrier, or similar artificial structure so long as that structure allows for a direct hydrologic surface connection between the wetlands and the water identified in paragraph (a)(1), (2), or (3) of the section in atypical year, such as through a culvert, flood or tide gate, pump, or similar artificial feature. An adjacent wetland is jurisdictional in its entirety when a road or similar artificial structure divides the wetland, as long as the structure allows for direct hydrologic connection through or over that structure in a typical year.

(6) *Lakes and ponds, and impoundments of jurisdictional waters*. The term lakes and ponds, and impoundments of jurisdictional waters means standing bodies of open water that contribute surface water flow to a water identified in paragraph (a)(1) of this section in a typical year either directly or through one or more waters identified in paragraph (a)(2), (3), or (4) of this section. A lake, pond, or impoundment of a jurisdictional water does not lose its jurisdictional status if it contributes surface water flow to a downstream jurisdictional water in a typical year through a channelized nonjurisdictional surface water feature, through a culvert, dike, spillway, or similar artificial feature, or through a debris pile, boulder field, or similar natural feature. A lake or pond, or impoundment of a

jurisdictional water is also jurisdictional if it is inundated by flooding from a water identified in paragraph (a)(1), (2), or (3) of this section in a typical year.

(12) *Tributary*. The term tributary means a river, stream, or similar naturally occurring surface water channel that contributes surface water flow to a water identified in paragraph (a)(1) of this section in a typical year either directly or through one or more waters identified in paragraph (a)(2), (3), or (4) of this section. A tributary must be perennial or intermittent in a typical year. The alteration or relocation of a tributary does not modify its jurisdictional status as long as it continues to satisfy the flow conditions of this definition. A tributary does not lose its jurisdictional status if it contributes surface water flow to a downstream jurisdictional water in a typical year through a channelized nonjurisdictional surface water feature, through a subterranean river, through a culvert, dam, tunnel, or similar artificial feature, or through a debris pile, boulder field, or similar natural feature. The term tributary includes a ditch that either relocates a tributary, is constructed in a tributary, or is constructed in an adjacent wetland as long as the ditch satisfies the flow conditions of this definition.

METHODOLOGY

Prior to conducting fieldwork, the U.S. Geological Survey (USGS) topographic map (**Attachment A, Figures 2A** and **2B**), the *Soil Survey of Dallas County, Texas,* and the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) digital soil databases for Dallas County (**Attachment A, Figure 3**), the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) (**Attachment A, Figure 4**), and recent and historic aerial photographs of the proposed survey area were studied to identify possible aquatic features that could meet the definition of waters of the United States and areas prone to wetland development. Mrs. Jayce Durham and Ms. Karisa Fenton of IES conducted the delineation in the field in accordance with the USACE procedures on 19 March 2021.

Wetland determinations and delineations were performed on location using the methodology outlined in the 1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineer Wetland Delineation Manual: Great Plains Region (Version 2.0). The presence of a wetland is determined by the positive indication of three criteria (i.e., hydrophytic vegetation, hydrology, and hydric soils). Potential jurisdictional boundaries for other water features (i.e., non-wetland) were delineated in the field at the ordinary high-water mark (OHWM). The 33 CFR 328.3 (c)(7) defines OHWM as the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Water feature boundaries were recorded on a Trimble GeoExplorer XT Global Positioning System (GPS) unit capable of sub-meter accuracy. Photographs were also taken at representative points within the survey area (**Attachment B**). Historic aerial photographs, from Environmental Data Resources, Inc. (EDR), were used in the jurisdictional determination of some aquatic features, are included in **Attachment C.**

RESULTS

Background Review

Topographic Setting

The USGS topographic map (Rowlett 7.5' Quadrangle 1995, revised 2002) illustrates one blue line feature and a portion of Lake Ray Hubbard within the survey area. The blue line feature appears to meander in and out of the southern portion, oriented north-to-south. A portion of Lake Ray Hubbard appears to extend into the westmost portion. One pond appears to abut the southeast boundary, with surface flow oriented to the west (*see* **Attachment A, Figure 2A**). The 2019 version of the Rowlett 7.5' Quadrangle map illustrates the blue line features and lake with similar alignment; however, one blue line feature appears in the southern portion, oriented east-to-west (*see* **Attachment A, Figure 2B**). The overall topography of the site was illustrated with slopes oriented northeast-to-southwest. The maximum elevation of the property was approximately 480 feet above mean sea level (amsl) and a minimum elevation of approximately 440 feet amsl.

Soils

The Soil Survey of Dallas County, Texas identified six soil map units within the survey area: Altoga silty clay, 5 to 12 percent slopes, eroded; Ferris-Heiden complex, 5 to 12 percent slopes; Heiden clay, 2 to 5 percent slopes, eroded; Houston Black clay, 0 to 1 percent slopes; Houston Black clay, 1 to 3 percent slopes; and Houston Black-Urban land complex, 0 to 4 percent slopes. None of these soil map units were listed as a hydric soil on the Hydric Soils of Texas list prepared by the National Technical Committee for Hydric Soils (accessed 15 March 2021, Dallas County, Texas) (*see* **Attachment A, Figure 3**). Hydric soils are described as those soils that are sufficiently wet in the upper part to develop anaerobic conditions during the growing season.

FEMA FIRM

The FEMA FIRM (Dallas County; Map Panel 48113C0245K; effective 07 July 2014) shows the majority of the survey area to be within Zone X (Areas determined to be outside the 0.2 percent annual chance floodplain). Sporadic portions along drainages and lakes in the southern portion are in Zone A (Special Flood Hazard Areas subject to inundation by the 1 percent annual chance flood; No base flood elevations determined), Zone AE (Special Flood Hazard Areas subject to inundation by the 1 percent annual chance flood; Base flood elevations determined) and Zone AE (Floodway areas in Zone AE) (*see* **Attachment A, Figure 4**).

Historic Aerial Photographs

Historic aerial photographs from an aerial photograph decade package from EDR were also reviewed to understand the sequence of events that have occurred in the survey area (*see* **Attachment C**). The following paragraphs provide a description of the aerial photographs based on site conditions:

1942 – The survey corridor is characterized as an active agricultural property between multiple roadways, including pasturelands, plowed fields, terraced fields, homesteads and drainages. One drainage meanders in and out of the southern portion, oriented northeast-to-southwest. Plowed fields are found within the majority of the survey corridor, with terraced fields in the south. SH 66 runs through the southwestern portion and along the northeastern boundary. Princeton Road and an unnamed road are located within the northern portion of the survey corridor. A commercial complex is located in the north and a residential complex is located in the center of the property. Surrounding properties are comprised of plowed fields, pastureland, terraced fields, and scattered homesteads. A forested corridor is located to the west as well as along drainages, and a roadway is located to the south. Chisea Road runs through the survey area, oriented north-to-south.

1950 – Additional commercial complexes and residential complexes have been constructed within and surrounding the survey corridor. A pond has been excavated east of the southern portion. An additional pond has been excavated northwest of the southern portion. A third pond has been excavated within the southern region. Dalrock Road has been constructed to the southeast.

1956 – Residential and commercial complexes continue to increase within and outside of the survey corridor. Dalrock Road has been extended further north, along the northern portion. A pond has been excavated to the northeast.

1968 – The forested corridors outside the western boundary and along drainages continue to increase with canopy cover. Land clearing has been implemented within and outside of the northwestern portion and within the south, appearing to be the beginning of bridge construction. The pond to the northwest has been excavated and is now larger. Residential housing surrounding the survey corridor continues to increase.

1972 – A lake has been excavated to the west, appearing to impound previous drainages. The pond northwest of the southern portion has been subsumed by the lake excavation. A bridge is located within and outside of the southwestern portion. A residential complex has been constructed northeast of the southern portion. Residential housing continues to increase outside of the survey corridor.

1979-1981 – Terraced fields continue to be maintained within the southern portion. A roadway has been constructed within the southern portion, appearing to go to a residential complex. SH 66 has been improved. The pond in the south no longer appears.

1989 – Several residential and commercial complexes have been constructed within and surrounding the survey corridor. Few portions of plowed fields remain. The majority of the survey corridor has been manipulated and is now an urban matrix.

1995 – Residential and commercial complexes continue to expand. A pond has been excavated north of the southern portion. Terraces are still visible within the southern region. The lake appears to expand further into the survey area within the southern portion of the corridor. Forested corridors along the drainage continues to grow.

2004 – Roadways have been expanded and improved.

2008-2016 – The pond, north of the southern portion, is no longer depicted. Residential and commercial complexes continue to increase within and outside of the survey corridor. Forested corridors along the drainage continues to increase.

Weather History

The weather history for Wunderground.com The Peninsula weather station (KTXROWLE55) recorded 1.13 inches of rainfall in the 7-day period prior to and during the evaluation, and a total of 3.19 inches during the 30-day period prior to the site visit. The Antecedent Precipitation Tool (APT) indicated that the conditions on-site at the time of the evaluation were considered hydrologically "normal" based on the 30-year climactic average (32.913015°N, -96.526179°W).

Field Investigation

The survey area consisted of an urban matrix including roadways, commercial complexes with associated buildings, residential housing, and drainages. Two vegetation communities were identified within the survey area: **frequently maintained urban matrix** and **forested corridor**. The **frequently maintained urban matrix** vegetation community was located along the majority of the survey corridor, along ditches, and within residential and commercial properties. The frequently maintained urban matrix was comprised of mowed perennial ryegrass (*Lolium perenne*) and Bermudagrass (*Cynodon dactylon*), with a sporadic overstory of Callery pear (*Pyrus calleryana*), Shumard's oak (*Quercus shumardii*), and sweetgum (*Liquidambar styraciflua*). The **forested corridor** was located along drainageways and surrounding Lake Ray Hubbard. The forested corridor was comprised of an overstory of honey locust (*Gleditsia triacanthos*), cedar elm (*Ulmus crassifolia*), eastern redcedar (*Juniperus virginiana*), pecan (*Carya illinoinesis*), and green ash (*Fraxinus pensylvanica*). The understory was comprised of Bermudagrass, perennial ryegrass, Johnsongrass (*Sorghum halepense*), bee balm (*Monarda citriodora*), King Ranch bluestem (*Bothriochloa ischaemum*), annual ragweed (*Ambrosia artemisiifolia*), Canada goldenrod (*Solidago canadensis*), Chinese privet (*Ligustrum sinense*), Japanese honeysuckle (*Lonicera japonica*), and Japanese privet (*Ligustrum japonicum*).

Water from the survey area flows west into an unnamed tributary. The unnamed tributary flows into Lake Ray Hubbard, which flows into the East Fork Trinity River, and ultimately into the Trinity River, a Navigable Water of the United States. **Table 1** and the following paragraphs detail the aquatic features identified within the survey area at the time of evaluation (**Attachment A, Figure 5** and **5A**).

Table 1. Aquatic Features Identified Within the Survey Area

Water Identification	Hydrology Characteristics	Area (Acre)	Length (Linear Feet)	Navigable Waters Protection Rule Classification	33 CFR 328.3 Definition[1]
Tributary 1	Intermittent	0.44	669	Tributary	(a)(2)
Lake Ray Hubbard	Permanently Inundated	0.31	---	Impoundment	(a)(3)
Pond 1	Permanently Inundated	0.33	---	Artificial Pond	(b)(8)
Stormwater Basin 1	Seasonally Inundated	0.09	---	Stormwater Control Feature	(b)(10)
Ditch 1	Ephemeral	0.01	219	Ditch	(b)(5)
EF 1	Ephemeral	0.01	104	Ephemeral Feature	(b)(3)
EF 2	Ephemeral	0.01*	45	Ephemeral Feature	(b)(3)

[1](a)(1-4) definitions are regulated under Section 404 of the CWA, while (b)(1-12) are excluded from regulation
**Actual acreage less than 0.01 acre*

Aquatic Features that Meet a Definition of Jurisdictional Waters

Tributaries – (a)(2)

Tributary 1 was comprised of multiple segments within the southern portion of the survey corridor. Three segments throughout the south, enter the survey corridor briefly before exiting. The tributary's limits were identified and delineated by OHWM characteristics that included the destruction of terrestrial vegetation, the presence of litter and debris, sediment sorting, and a bed and bank. The channel's substrate was composed of silt/clay and gravel/cobble. Tributary 1's OHWM widths ranged from 4 to 20 feet and was incised into the landscape 2 to 15 feet. The majority of the channel held ponded water, with a small segment flowing, due to water flowing from a pipe into the tributary. Given the channel size, substrate, location in the watershed, and presence of seasonal hydrology, it is IES' professional opinion that Tributary 1 would be intermittent. As an intermittent aquatic feature, Tributary 1 would meet a definition of a tributary at 33 CFR 328.3 (a)(2) and would be subject to regulation under Section 404 of the CWA.

Impoundment – *(a)(3)*

Lake Ray Hubbard was identified as an impoundment with a small portion of its bank extending into the survey corridor within the western portion. The lake was constructed by excavating a depression and placing an earthen berm along the downslope edge of the depression in such a manner to capture flows from upslope and overland sheet flow. The lake's limits were identified by characteristics such as a natural line impressed in the bank, a wrack line, and a water line. A review of recent and historic aerial photographs indicated that Lake Ray Hubbard is permanently inundated and was constructed in 1968. As this lake is an impoundment of jurisdictional waters, Lake Ray Hubbard would be subject to regulation under Section 404 of the CWA at 33 CFR 328.3 (a)(3).

Aquatic Features that Meet a Definition of Non-Jurisdictional Waters

Ephemeral Features – (b)(3)

EF 1 and **2** were identified within the southern portion. EF 1 was identified with inconsistent channel scours, with ephemeral tributary characteristics. EF 2 was identified as an erosion feature. EF 1 was dry at the time of evaluation, with sporadic portions of pooled water. EF 2 was dry at the time of evaluation. Both ephemeral features lacked indicators suggesting seasonal hydrology. As such, EFs 1 and 2 would be excluded from jurisdiction at 33 CFR 328.3 (b)(3) and would not be subject to regulation under Section 404 of the CWA.

Ditches (b)(5)

Ditch 1 was identified as an artificially excavated trapezoidal channel to convey stormwater from nearby roads or developments to a downslope drainage. A review of aerial photography illustrated Ditch 1 was constructed before 1942 as part of a roadway. Ditch 1 was dry at the time of the evaluation. As this aquatic feature was an artificially

excavated roadside ditch that does not replace a jurisdictional aquatic feature, Ditch 1 would be excluded from jurisdiction at 33 CFR 328.3 (b)(5) and would not be subject to regulation under Section 404 of the CWA.

Artificial Ponds – (b)(8)

Pond 1 was an isolated, artificial pond identified within the central portion, downslope of an apartment complex. The pond was formed by excavating a depression into the landscape and placing an earthen embankment in such a manner to capture direct rainfall and sheet flow. The pond's limits were identified by characteristics such as a natural line impressed in the bank and a water line. A review of recent and historic aerial photographs indicated that Pond 1 is permanently inundated and was constructed in 2018. No OHWM was observed entering or exiting the limits of the pond at the time of evaluation. As Pond 1 was artificially constructed in an upland area with no connection to a jurisdictional aquatic feature, it would be excluded from jurisdiction at 33 CFR 328.3 (b)(8) and would not be subject to regulation under Section 404 of the CWA.

Stormwater Control Feature – (b)(10)

Stormwater Basin 1 was a stormwater control feature identified as a detention basin constructed downslope of commercial properties, south of SH 66 near the south-central portion. The basin was constructed by placing an earthen berm across the natural hillslope gradient to capture stormwater and sheet flow from the upslope commercial properties. Three culverts were installed, one within each corner of the basin to convey excess flow. As this basin was created for the purpose stormwater control, this feature would be excluded from jurisdiction at 33 CFR 328.3 (b)(10) and would not be subject to regulation under Section 404 of the CWA.

REGULATED ACTIVITIES AND SECTION 404 PERMIT ASSESSMENT

Activities that result in the discharge of dredge or fill material into waters of the United States are regulated under Section 404 of the CWA. The USACE has established the Nationwide Permit (NWP) program to efficiently authorize common activities that do not significantly impact waters of the United States. The USACE has the responsibility to authorize permitting under a NWP or to require an Individual Permit (IP). Ideally, the USACE encourages potential Permittees to avoid and minimize impacts to waters of the United States. Typically, if discharges result in the loss of less than 0.50 acre of waters of the United States, then the project could be authorized by a NWP with the potential for a pre-construction notification (PCN) to the USACE per General Condition 32.

All of the NWPs were issued on 19 March 2017 and will expire on 18 March 2022; however, NWP 58 was issued for *Utility Line Activities for Water and Other Substances* on 15 March 2021. NWP 58 is specific to, "Activities required for the construction, maintenance, repair, and removal of utility lines for water and other substances, excluding oil, natural gas, products derived from oil or natural gas, and electricity. Examples of activities authorized by this NWP include utility lines that convey water, sewage, stormwater, wastewater, brine, irrigation water, and industrial products that are not petrochemicals." The following are NWP 58 specific conditions that may apply to the proposed project:

- There is no change to pre-construction contours;
- Trench excavation may be temporarily sidecast into waters of the United States for no more than three months;
- Sidecast material must not be placed in such a manner that it could be dispersed by currents or other forces;
- The trench cannot be constructed or backfilled in such a manner as to drain waters of the United States;
- Exposed slopes and stream banks must be stabilized immediately upon completion of construction in water body;
- Measures must be taken to maintain normal downstream flows and minimize flooding to maximum extent practicable when there is temporary work in waters of the United States;
- Temporary fills must consist of materials and placed in a manner that will not be eroded by expected high flows;
- Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations; and
- Areas affected by temporary fills must be revegetated as appropriate.

Under NWP 58, the permittee must submit a PCN to the district engineer prior to commencing the activity if any of the following criteria are met: (1) a Section 10 permit is required; and/or (2) discharges that result in the loss of greater than 1/10-acre of waters of the United States. If, after a professional delineation and a USACE jurisdictional determination are performed, the total loss to waters of the United States is greater than 0.50 acre, an IP would likely be required.

The proposed project will open trench the two waters of the United States along this project. Neither of these water bodies are navigable waters and therefore no Section 10 permit is required. The trenching and workspace will result in six impact areas in waters of the United States (**Attachment A, Figure 6**). However, these impact areas do not meet the definition of a loss of water of the United States as there is not a change in the aquatic resource to dry land, increase in the bottom elevation of the waterbody, or change of use (tributary and lake will still be a tributary and a lake). This project will not result in a loss of a water of the United States. Therefore, this project will not be required to submit a PCN in accordance with General Condition 32.

NWP 58 General Conditions are in **Attachment D**, but the following are select General Conditions that directly pertain to this project:

- GC2: Aquatic Life Movement – any temporary culverts installed in the waterbodies to allow construction access should be placed in a manner to maintain low flow conditions.
- GC6: Suitable Material – temporary fills for any temporary access roads must be clean earthen or rock material that does not contain any pollutants.
- GC9: Management of Water Flows – the proposed pipeline crossing may not alter the pre-construction course, condition, capacity, and location. The temporary access crossing should handle normal and expected high flows. Any temporary culverts shall be installed to pass the flows and not create an impoundment.
- GC12: Soil Erosion and Sediment Controls – Appropriate best management practices (BMPs) shall be installed (i.e., silt fence/wattles) around the disturbed areas and along the tributary and lake to minimize any sediment into the waterbodies or off the site. The disturbed areas shall be re-seeded immediately after construction.
- GC13: Removal of Temporary Fills – Any temporary culverts shall be removed upon completion of the pipeline.
- GC14: Proper Maintenance – Any temporary road crossings shall be properly maintained to ensure passage of normal and expected high flows.
- GC 21: Discovery of Previously Unknown Remains and Artifacts – If any cultural resource artifacts are unearthed within the vicinity of a water of the United States, stop work in the area and coordinate with the project engineer.

On 18 December 2020 the TCEQ conditionally certified that the activities authorized under NWP 58, and others, should not result in a violation of established Texas Water Quality Standards as required by Section 401 of the CWA and pursuant to Title 30 Texas Administrative Code, Chapter 279 provided that specific conditions are followed (**Attachment E**). **Attachment E** provides a list of BMPs for erosion control, sediment control, and post construction total suspended solids (TSS) control. The project must implement at least one of the BMPs from erosion control and sediment control categories to comply with Section 401 of the CWA and applicable state laws.

CONCLUSIONS

To summarize the delineation, a tributary, an impoundment, a pond, a stormwater control feature, a ditch, and two ephemeral features were identified and delineated within the survey area. A summary of these features' characteristics and a summary of the jurisdictional assessment is presented in **Table 1** under the NWPR. Under the ***NWPR***, two of the identified aquatic features would meet a definition of a water of the United States, as of the date of this report. **Tributary 1** would be considered a tributary as it has seasonal flow, and **Lake Ray Hubbard** would be considered an impoundment of jurisdictional water. The remaining water features would not be subject to regulation as the date this report is published.

The proposed project is to construct a sanitary sewer line within the project corridor. The project corridor is not in the vicinity of a navigable water (i.e., Section 10 water) and the project will not result in a loss of a water of the

United States. Therefore, it is IES' professional opinion that the project complies with NWP 58 without a PCN to the USACE. There are several construction and BMP considerations outlined in this report that must be implemented to ensure compliance with NWP 58.

This delineation is based on professional experience in the approved methodology and from experience with the USACE Fort Worth District regulators; however, this delineation does not constitute a jurisdictional determination of waters of the United States. This delineation has been based on the professional experience of IES staff and our interpretation of USACE regulations at 33 CFR 328.3, IES' interpretation of the NWPR, current judicial reviews, and the Regulatory Guidance Letter (RGL) 08-02. While IES believes our delineation to be accurate, final authority to interpret the regulations lies solely with the USACE and USEPA. The USACE Headquarters in association with the USEPA often issue guidance that changes the interpretation of published regulations. USACE/USEPA guidance issued after the date of this report has the potential to invalidate the report conclusions and/or recommendations, which may create the need to reevaluate the report conclusions. IES has no regulatory authority, as such, proceeding based solely upon this report does not protect the Client from potential sanction or fines from the USACE/USEPA. The Client acknowledges that they have the opportunity to submit this report to the USACE for a preliminary jurisdictional determination for concurrence prior to proceeding with any work within aquatic features located on the survey area. If the Client elects not to do so, then the Client proceeds at their sole risk.

IES appreciates the opportunity to work with you and Neel-Schaffer, Inc. on this project, and we hope we may be of assistance to you in the future. If you have any comments, questions, or concerns, please do not hesitate to contact us. We can be reached at 972-562-7672 or by email at skipp@intenvsol.com or rreinecke@intenvsol.com.

Sincerely,

Integrated Environmental Solutions, LLC.

Mr. Shae Kipp
Ecologist

Attachments

File ref: 04.073.016

ATTACHMENT A
Figures



Figure 1.
General Location Map

SH 66 East Sewer Line
City of Rowlett
Dallas County, Texas

1 in = 1,500 feet

Feet
0 1,500

N
W E
S

File Ref. 04.073.016
Date: 4/29/2021

Survey Area



Area of Detail Scale: 1 inch equals 10 miles

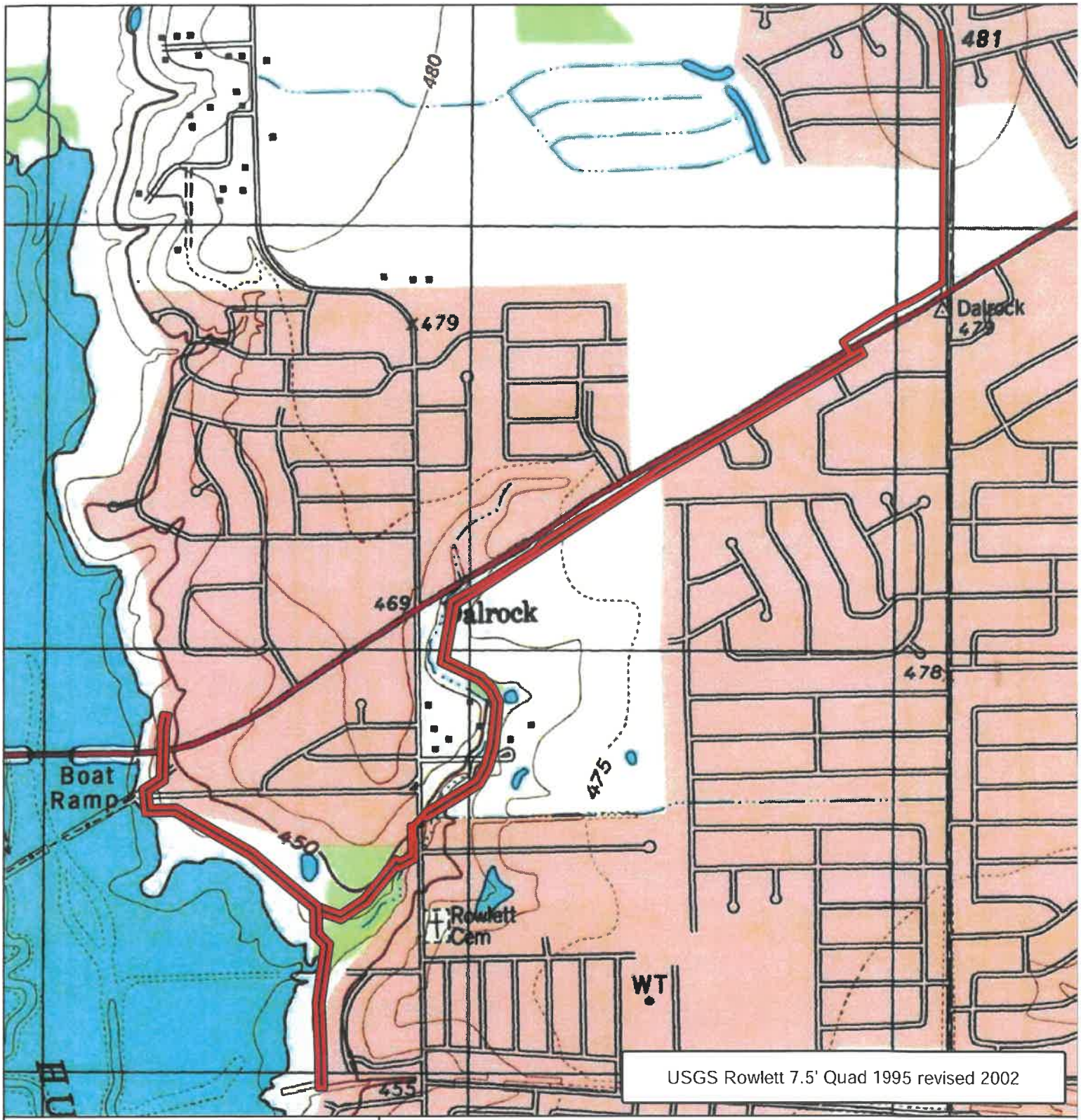


Figure 2A.
Topographic Setting

SH 66 East Sewer Line
City of Rowlett
Dallas County, Texas

1 in = 1,000 feet

Feet
0 1,000

N
W E
S

File Ref. 04.073.016
Date: 4/29/2021

Survey Area

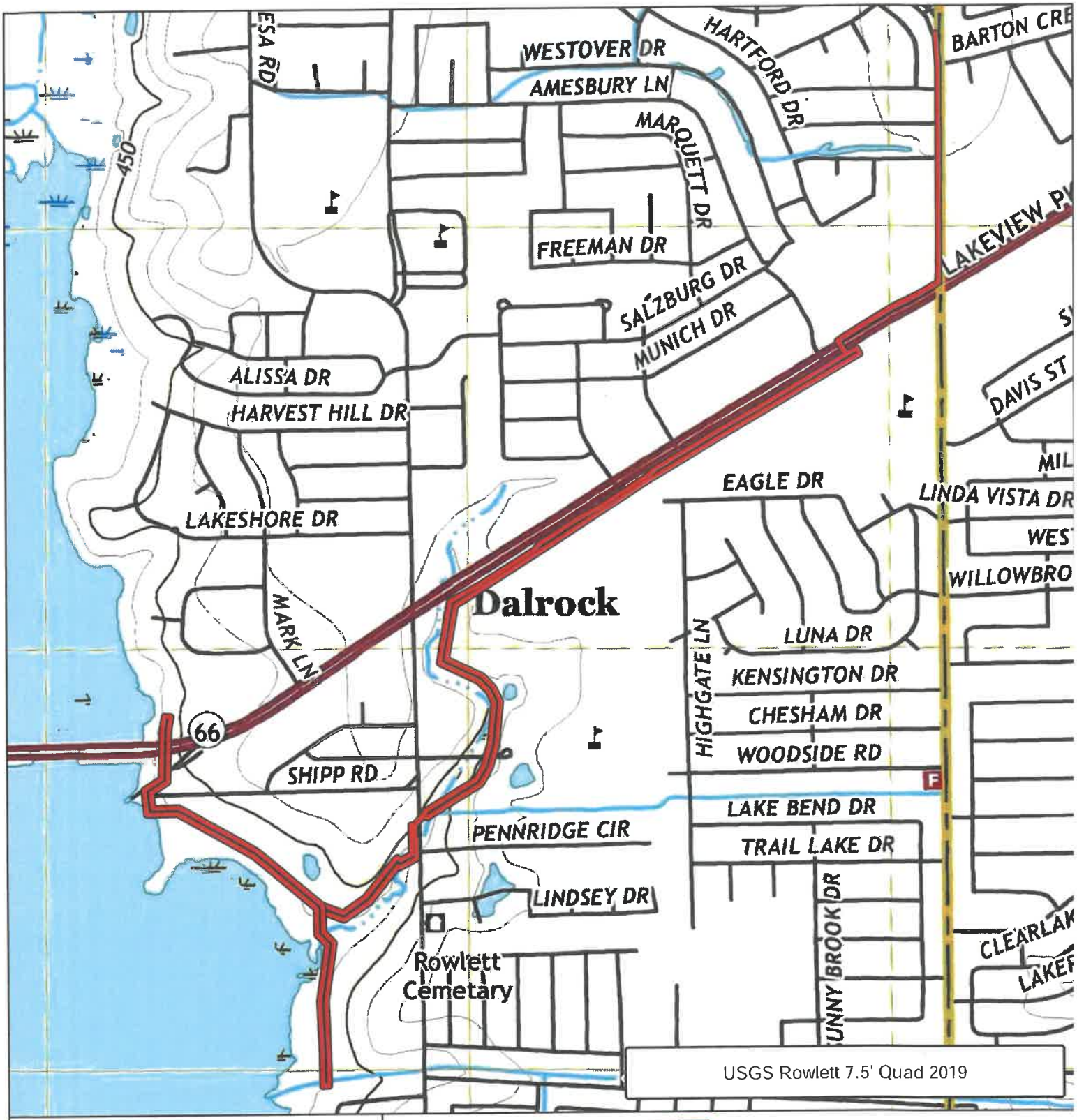


Figure 2B.
Topographic Setting

SH 66 East Sewer Line
City of Rowlett
Dallas County, Texas

1 in = 1,000 feet

Feet
0 1,000

N
W E
S

File Ref. 04.073.016
Date: 4/29/2021

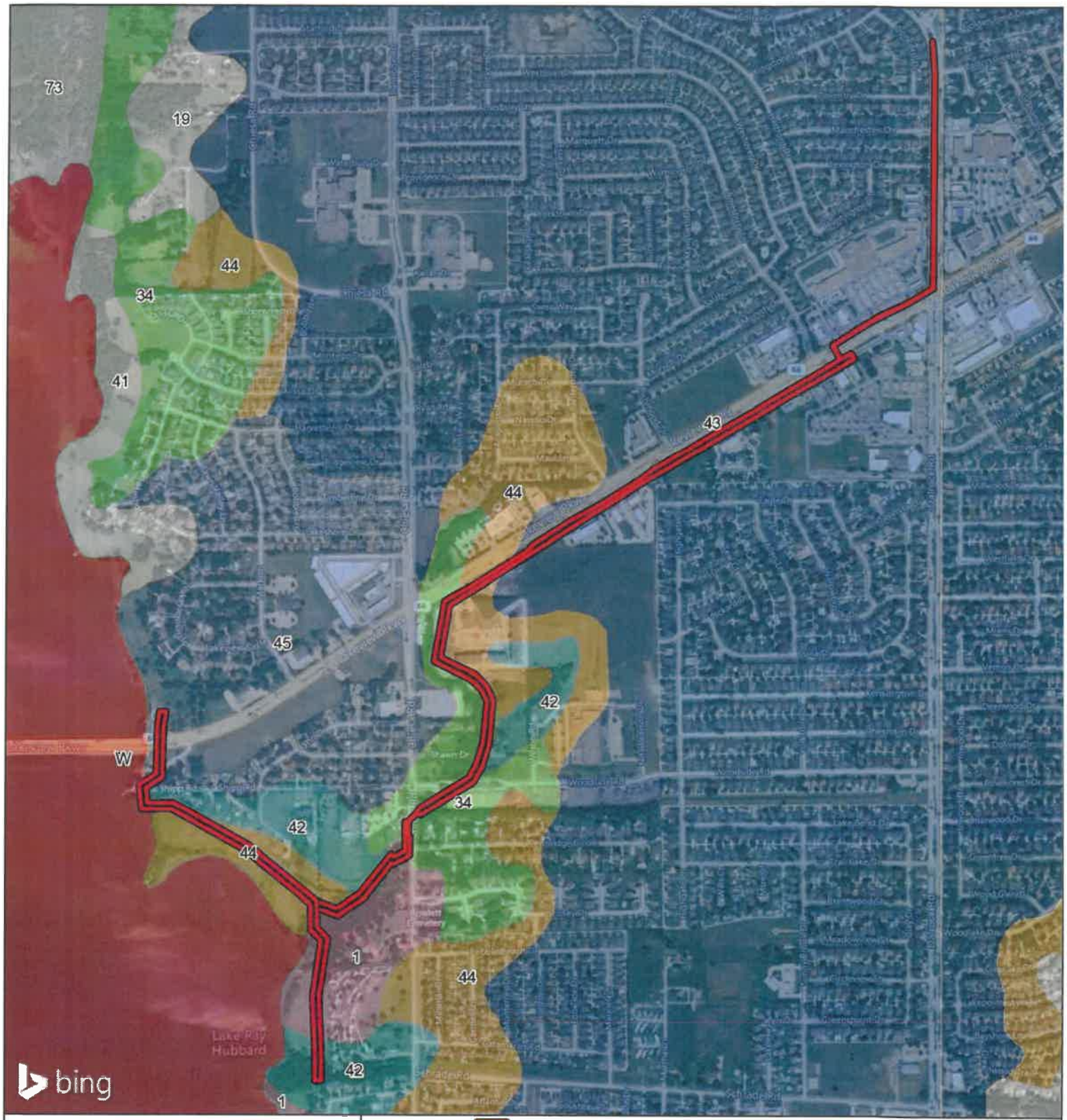


Figure 3.
Soils Map

SH 66 East Sewer Line
City of Rowlett
Dallas County, Texas

1 in = 1,000 feet

Feet
0 1,000

N
W E
S

File Ref. 04.073.016
Date: 4/29/2021

Survey Area
Soil map units outside of survey area

Soil Map Units

- 1 - Altoga silty clay, 5 to 12 percent slopes, eroded
- 34 - Ferris-Heiden complex, 5 to 12 percent slopes
- 42 - Heiden clay, 2 to 5 percent slopes, eroded
- 43 - Houston Black clay, 0 to 1 percent slopes
- 44 - Houston Black clay, 1 to 3 percent slopes
- 45 - Houston Black-Urban land complex, 0 to 4 percent slopes
- W - Water

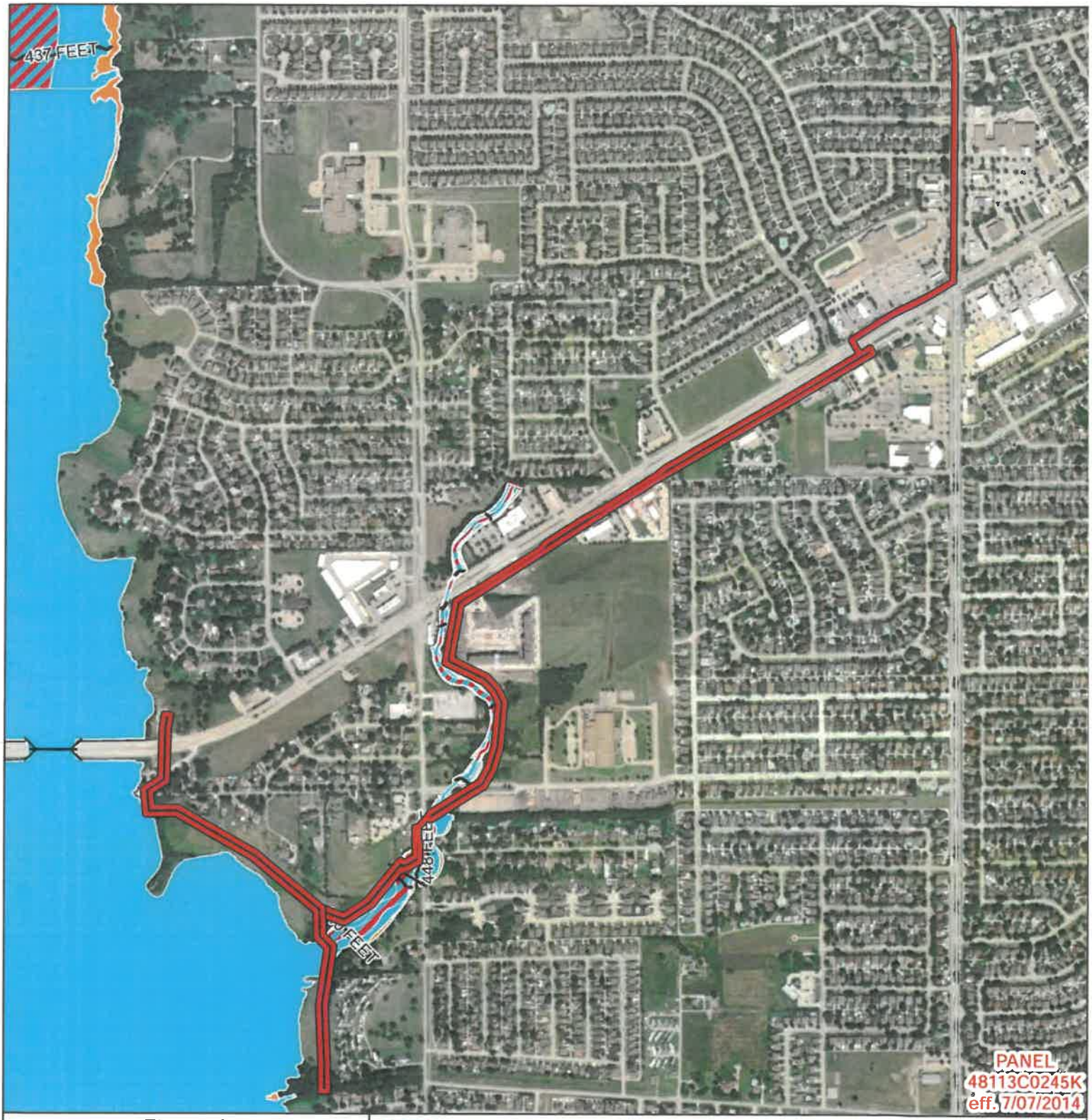


Figure 4.
Federal Emergency Management Agency
Flood Insurance Rate Map

SH 66 East Sewer Line
City of Rowlett
Dallas County, Texas

1 in = 1,000 feet

Feet
0 1,000

File Ref. 04.073.016
Date: 4/29/2021

N
W E
S

Survey Area

FEMA FIRM Zone Descriptions

Zone X - Areas determined to be outside the 0.2% annual chance floodplain

Zone X - Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood

Zone A - Special Flood Hazard Areas subject to inundation by the 1% annual chance flood; No base flood elevations determined

Zone AE - Special Flood Hazard Areas subject to inundation by the 1% annual chance flood; Base flood elevations determined

Zone AE - Floodway areas in Zone AE



Figure 5.
Aquatic Features Overview within the Survey Area

SH 66 East Sewer Line
City of Rowlett
Dallas County, Texas



Figure 5A.
Aquatic Features Identified within the Survey Area

SH 66 East Sewer Line
City of Rowlett
Dallas County, Texas

1 in = 510 feet

Feet
0 510

N
W E
S

File Ref. 04.073.016
Date: 4/29/2021

Survey Corridor

Aquatic Features That Meet a Definition of a Water of the United States

- Tributary (a)(2)
- Impoundment (a)(3)
- Tributary Mapped Based on Aerial Imagery

Excluded Water Features

- Ephemeral Feature (b)(3)
- Ditch (b)(5)
- Artificial Pond (b)(8)
- Stormwater Control Feature (b)(10)



Area of Detail Scale: 1 inch equals 1.5 miles

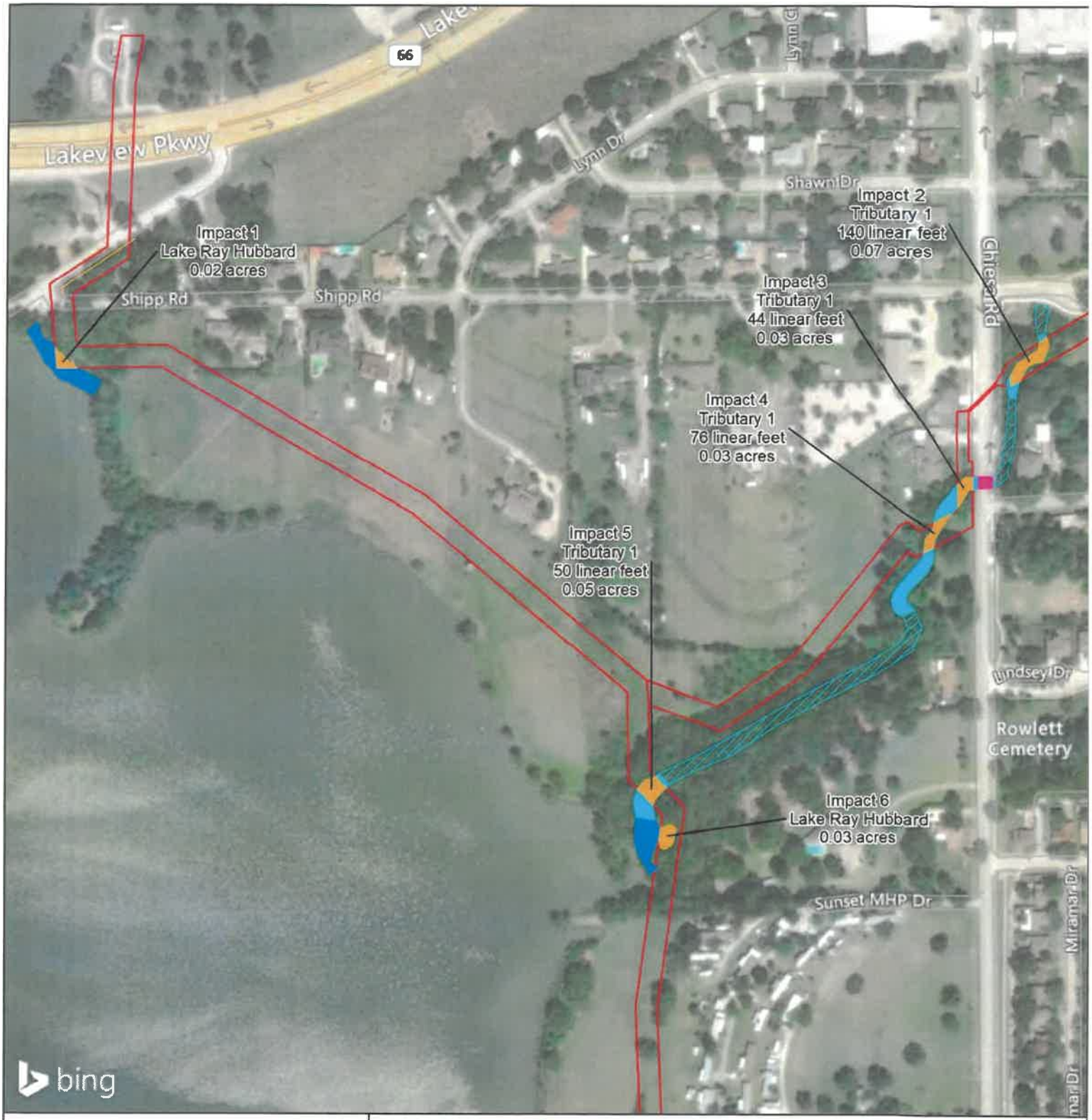


Figure 6.
Impacts

SH 66 East Sewer Line
City of Rowlett
Dallas County, Texas

1 in = 300 feet

Feet
0 300

N
W E
S

File Ref. 04.073.016
Date: 7/20/2021

Survey Corridor
Impacts

Aquatic Features That Meet a Definition of a Water of the United States

- Tributary (a)(2)
- Impoundment (a)(3)
- Tributary Mapped Based on Aerial

Excluded Water Features

- Ephemeral Feature (b)(3)
- Ditch (b)(5)
- Artificial Pond (b)(8)
- Stormwater Control Feature (b)(10)



ATTACHMENT B
Site Photographs



Photograph Location Map
Sheet 1 of 2

SH 66 East Sewer Line
City of Rowlett
Dallas County, Texas

1 in = 510 feet

Feet
0 510

N
W E
S

File Ref. 04.073.016
Date: 4/29/2021

Survey Corridor

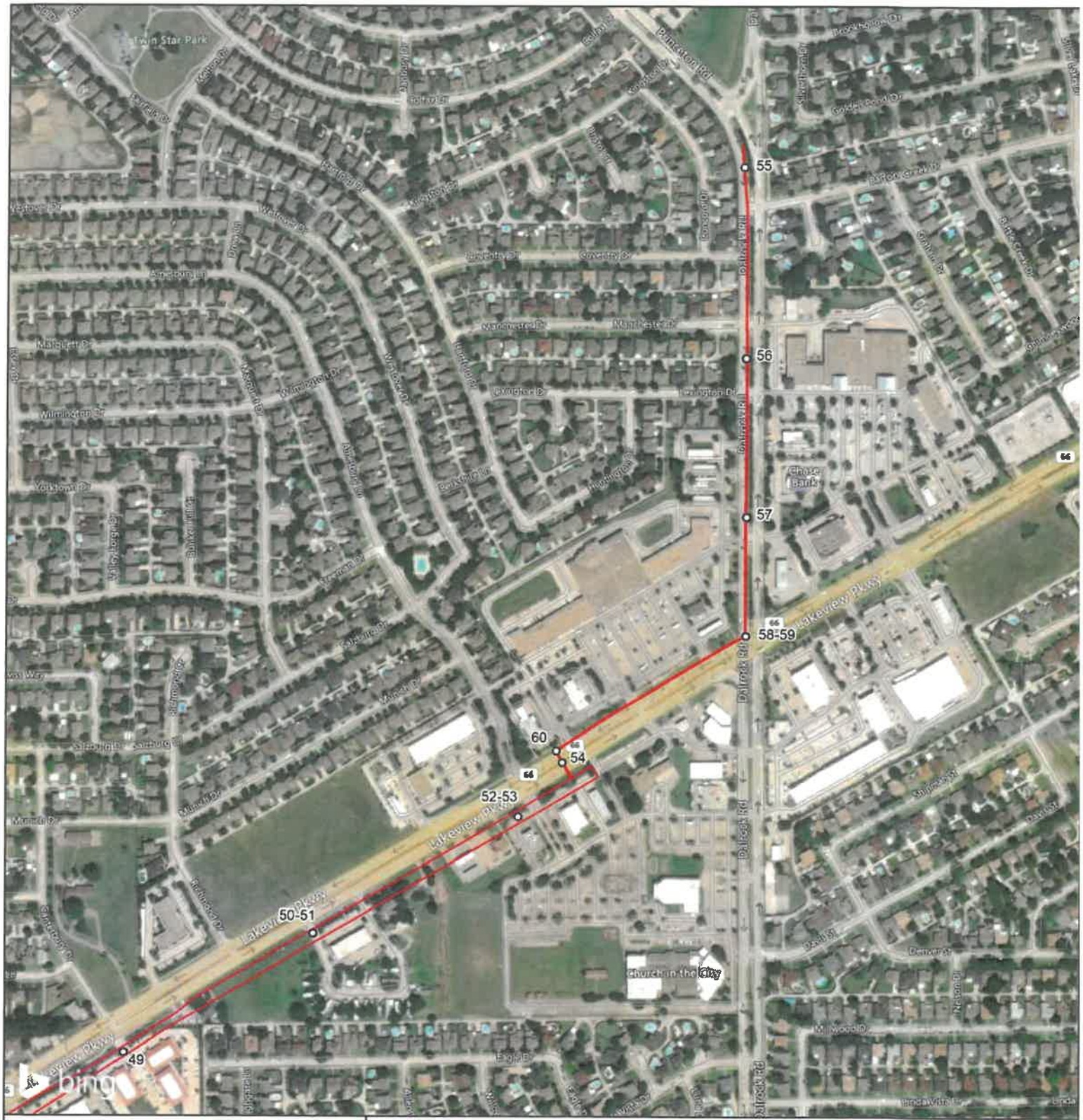
Photograph Location

Aquatic Features That Meet a Definition of a Water of the United States

- Tributary (a)(2)
- Impoundment (a)(3)
- Tributary Mapped Based on Aerial Imagery

Excluded Water Features

- Ephemeral Feature (b)(3)
- Ditch (b)(5)
- Artificial Pond (b)(8)
- Stormwater Control Feature (b)(10)



Photograph Location Map
Sheet 2 of 2

SH 66 East Sewer Line
City of Rowlett
Dallas County, Texas

1 in = 510 feet

Feet
0 510

N
W E
S

File Ref. 04.073.016
Date: 4/29/2021

Survey Corridor
Photograph Location



Photograph 1



Photograph 2



Photograph 3



Photograph 4



Photograph 5



Photograph 6



Photograph 7



Photograph 8



Photograph 9



Photograph 10



Photograph 11



Photograph 12



Photograph 13



Photograph 14



Photograph 15



Photograph 16



Photograph 17



Photograph 18



Photograph 19



Photograph 20



Photograph 21



Photograph 22



Photograph 23



Photograph 24



Photograph 25



Photograph 26



Photograph 27



Photograph 28



Photograph 29



Photograph 30



Photograph 31



Photograph 32



Photograph 33



Photograph 34



Photograph 35



Photograph 36



Photograph 37



Photograph 38



Photograph 39



Photograph 40



Photograph 41



Photograph 42



Photograph 43



Photograph 44



Photograph 45



Photograph 46



Photograph 47



Photograph 48



Photograph 49



Photograph 50



Photograph 51



Photograph 52



Photograph 53



Photograph 54



Photograph 55



Photograph 56



Photograph 57



Photograph 58



Photograph 59



Photograph 60

ATTACHMENT C
Historic Aerial Photographs

SH 66 East Sewer Line

8626 Lakeview Pkwy

Rowlett, TX 75089

Inquiry Number: 6405249.1

March 17, 2021

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Date EDR Searched Historical Sources:

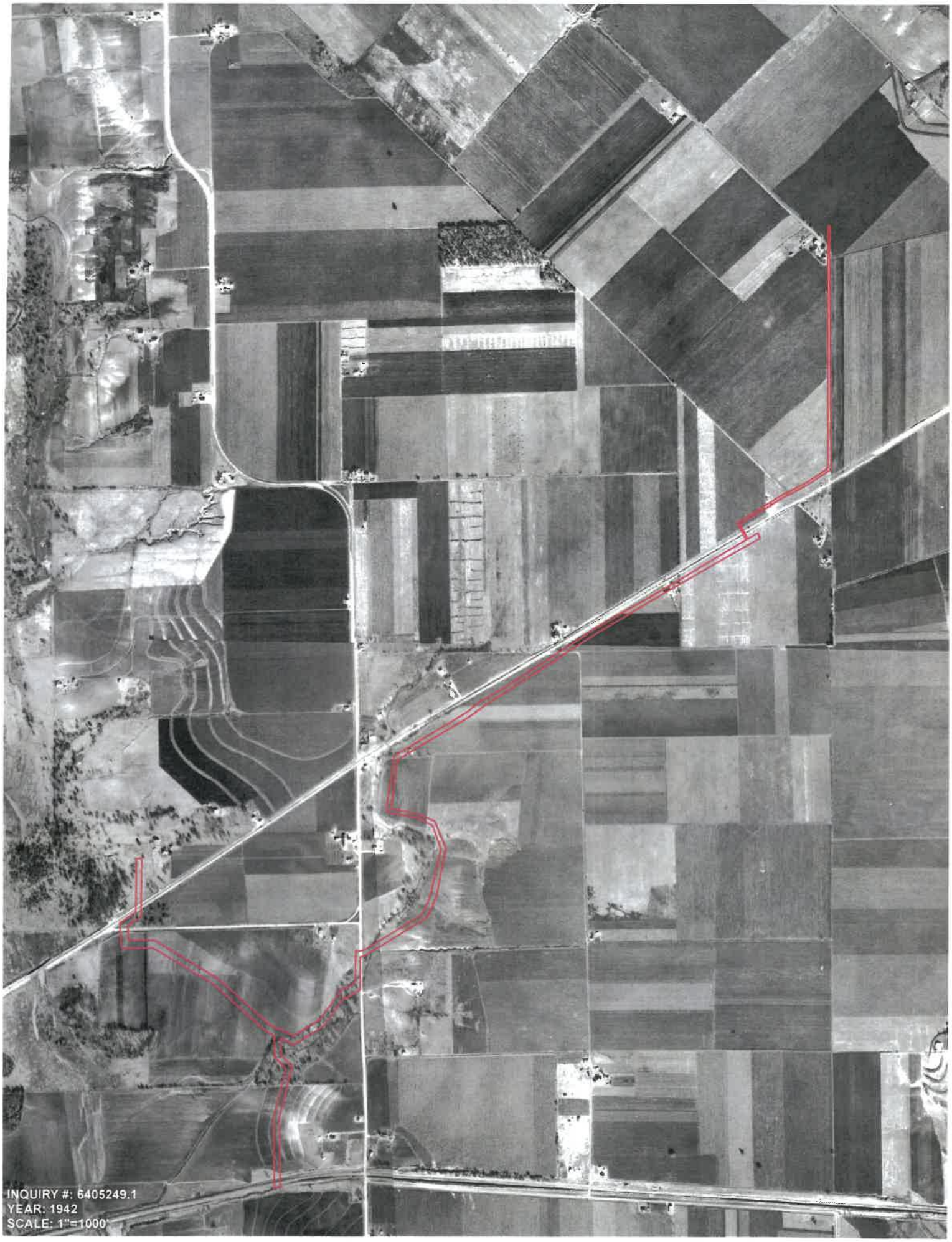
Aerial Photography March 17, 2021

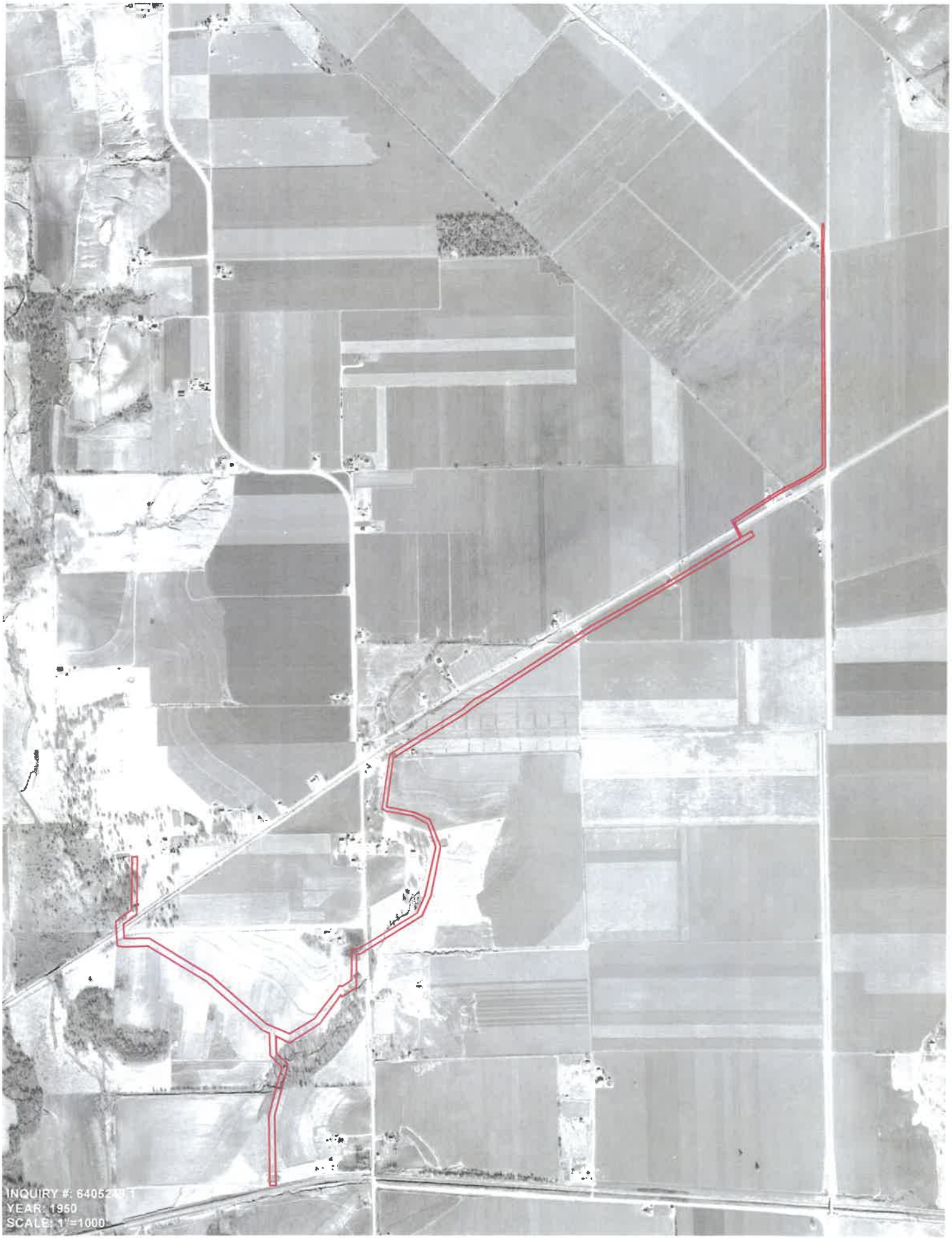
Target Property:

8626 Lakeview Pkwy

Rowlett, TX 75089

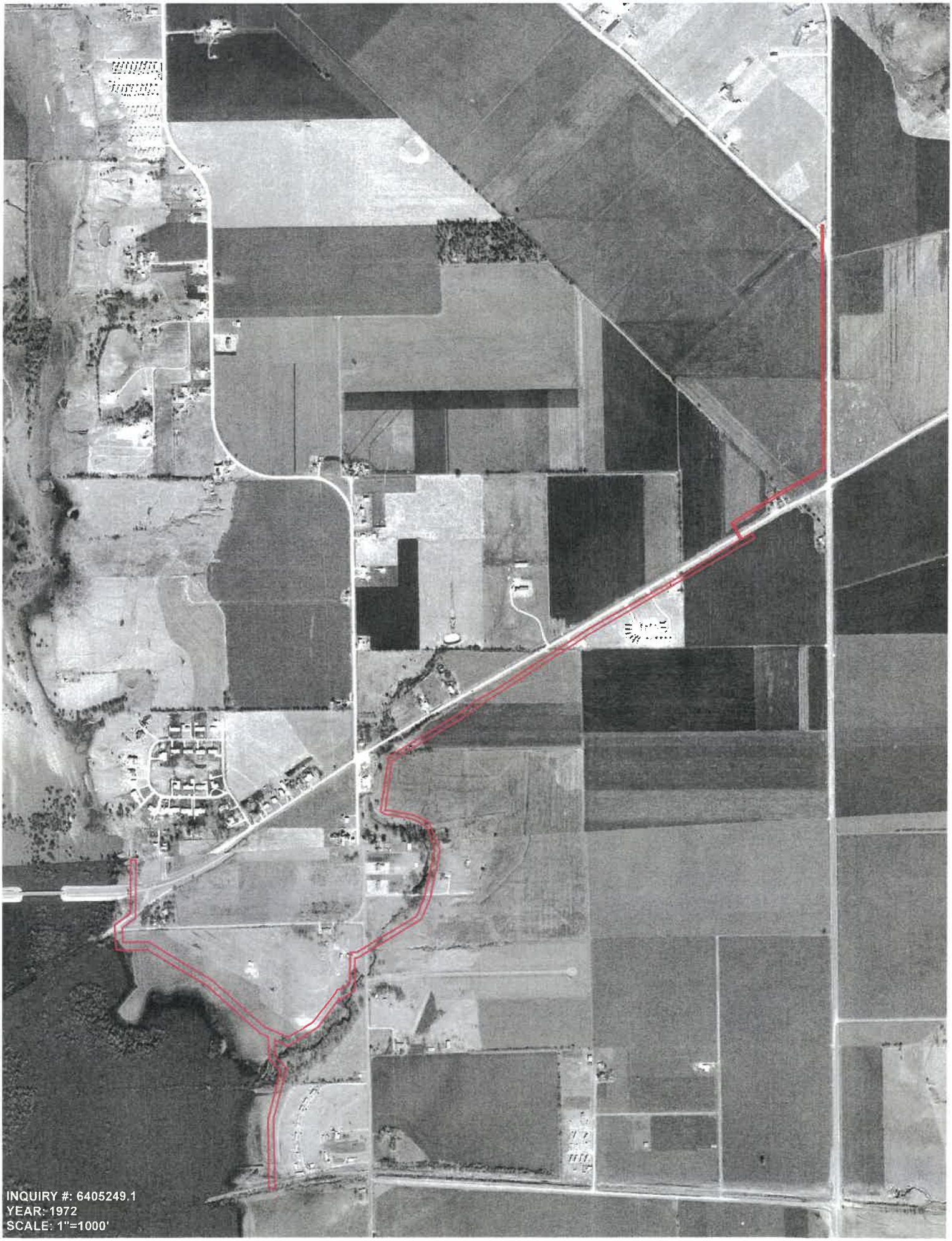
Year	*Scale*	*Details*	*Source*
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1950	Aerial Photograph. Scale: 1"=1000'	Flight Year: 1950	USDA
1956	Aerial Photograph. Scale: 1"=1000'	Flight Year: 1956	ASCS
1968	Aerial Photograph. Scale: 1"=1000'	Flight Year: 1968	USGS
1972	Aerial Photograph. Scale: 1"=1000'	Flight Year: 1972	USDA
1979	Aerial Photograph. Scale: 1"=1000'	Flight Year: 1979	USDA
1981	Aerial Photograph. Scale: 1"=1000'	Flight Year: 1981	USDA
1989	Aerial Photograph. Scale: 1"=1000'	Flight Year: 1989	USGS/NAPP
1995	Aerial Photograph. Scale: 1"=1000'	Flight Year: 1995	USGS/DOQQ
2004	Aerial Photograph. Scale: 1"=1000'	Flight Year: 2004	USDA/NAIP
2008	Aerial Photograph. Scale: 1"=1000'	Flight Year: 2008	USDA/NAIP
2012	Aerial Photograph. Scale: 1"=1000'	Flight Year: 2012	USDA/NAIP
2016	Aerial Photograph. Scale: 1"=1000'	Flight Year: 2016	USDA/NAIP


INQUIRY #: 6405249.1
YEAR: 1942
SCALE: 1"=1000'


INQUIRY #: 64052
YEAR: 1950
SCALE: 1"=1000'


INQUIRY #: 6405249.1
YEAR: 1956
SCALE: 1"=1000'


INQUIRY #: 6405249.1
YEAR: 1968
SCALE: 1"=1000'


INQUIRY #: 6405249.1
YEAR: 1972
SCALE: 1"=1000'


INQUIRY #: 6405249.1
YEAR: 1979
SCALE: 1"=1000'

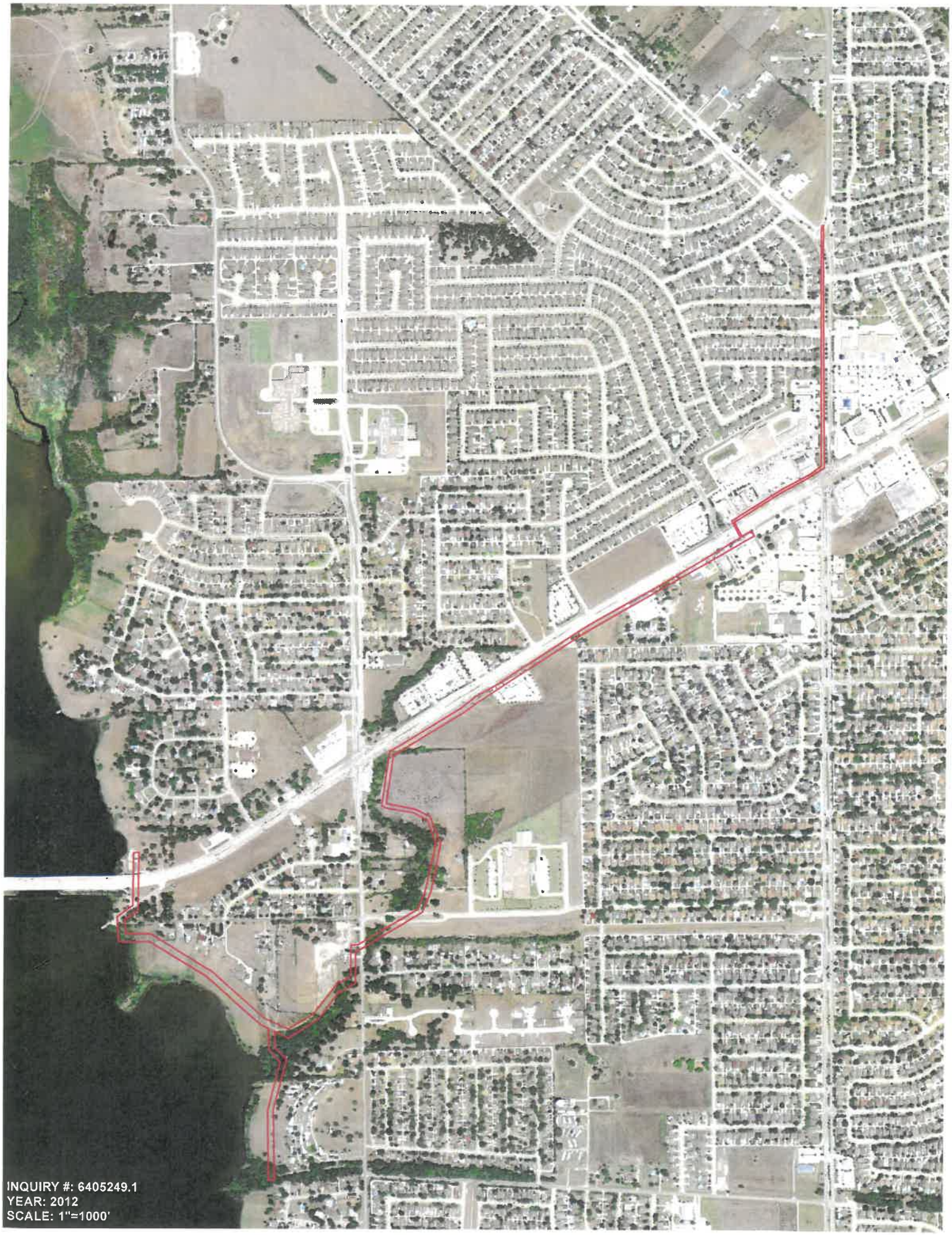

INQUIRY #: 6405249.1
YEAR: 1981
SCALE: 1"=1000'


INQUIRY #: 6405249.1
YEAR: 1989
SCALE: 1"=1000'


INQUIRY #: 6405249.1
YEAR: 1995
SCALE: 1"=1000'


INQUIRY #: 6405249.1
YEAR: 2004
SCALE: 1"=1000'


INQUIRY #: 6405249.1
YEAR: 2008
SCALE: 1"=1000'


INQUIRY #: 6405249.1
YEAR: 2012
SCALE: 1"=1000'


INQUIRY #: 6405249.1
YEAR: 2016
SCALE: 1"=1000'

ATTACHMENT D
Nationwide Permit 58

NATIONWIDE PERMIT 58
Utility Line Activities for Water and Other Substances

Effective Date: March 15, 2021
(NWP Final Notice, 86 FR 8)

58. Utility Line Activities for Water and Other Substances. Activities required for the construction, maintenance, repair, and removal of utility lines for water and other substances, excluding oil, natural gas, products derived from oil or natural gas, and electricity. Oil or natural gas pipeline activities or electric utility line and telecommunications activities may be authorized by NWPs 12 or 57, respectively. This NWP also authorizes associated utility line facilities in waters of the United States, provided the activity does not result in the loss of greater than 1/2-acre of waters of the United States for each single and complete project.

Utility lines: This NWP authorizes discharges of dredged or fill material into waters of the United States and structures or work in navigable waters for crossings of those waters associated with the construction, maintenance, or repair of utility lines for water and other substances, including outfall and intake structures. There must be no change in pre-construction contours of waters of the United States. A "utility line" is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose that is not oil, natural gas, or petrochemicals. Examples of activities authorized by this NWP include utility lines that convey water, sewage, stormwater, wastewater, brine, irrigation water, and industrial products that are not petrochemicals. The term "utility line" does not include activities that drain a water of the United States, such as drainage tile or french drains, but it does apply to pipes conveying drainage from another area.

Material resulting from trench excavation may be temporarily sidecast into waters of the United States for no more than three months, provided the material is not placed in such a manner that it is dispersed by currents or other forces. The district engineer may extend the period of temporary side casting for no more than a total of 180 days, where appropriate. In wetlands, the top 6 to 12 inches of the trench should normally be backfilled with topsoil from the trench. The trench cannot be constructed or backfilled in such a manner as to drain waters of the United States (e.g., backfilling with extensive gravel layers, creating a french drain effect). Any exposed slopes and stream banks must be stabilized immediately upon completion of the utility line crossing of each waterbody.

Utility line substations: This NWP authorizes the construction, maintenance, or expansion of substation facilities associated with a utility line in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not result in the loss of greater than 1/2-acre of waters of the United States. This NWP does not authorize discharges of dredged or fill material into non-tidal wetlands adjacent to tidal waters of the United States to construct, maintain, or expand substation facilities.

Foundations for above-ground utility lines: This NWP authorizes the construction or maintenance of foundations for above-ground utility lines in all waters of the United States, provided the foundations are the minimum size necessary.

Access roads: This NWP authorizes the construction of access roads for the construction and maintenance of utility lines, including utility line substations, in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges of dredged or fill material into non-tidal wetlands adjacent to tidal waters for access roads. Access roads must be the minimum width necessary (see Note 2, below). Access roads must be constructed so that the length of the road minimizes any adverse effects on waters of the United States and must be as near as possible to pre-construction contours and elevations (e.g., at grade corduroy roads or geotextile/gravel roads). Access roads constructed above pre-construction contours and elevations in waters of the United States must be properly bridged or culverted to maintain surface flows.

This NWP may authorize utility lines in or affecting navigable waters of the United States even if there is no associated discharge of dredged or fill material (see 33 CFR part 322). Overhead utility lines constructed over section 10 waters and utility lines that are routed in or under section 10 waters without a discharge of dredged or fill material require a section 10 permit.

This NWP authorizes, to the extent that Department of the Army authorization is required, temporary structures, fills, and work necessary for the remediation of inadvertent returns of drilling fluids to waters of the United States through sub-soil fissures or fractures that might occur during horizontal directional drilling activities conducted for the purpose of installing or replacing utility lines. These remediation activities must be done as soon as practicable, to restore the affected waterbody. District engineers may add special conditions to this NWP to require a remediation plan for addressing inadvertent returns of drilling fluids to waters of the United States during horizontal directional drilling activities conducted for the purpose of installing or replacing utility lines.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to conduct the utility line activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges of dredged or fill material, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. After construction, temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) a section 10 permit is required; or (2) the discharge will result in the loss of greater than 1/10-acre of waters of the United States. (See general condition 32.) (Authorities: Sections 10 and 404)

Note 1: Where the utility line is constructed, installed, or maintained in navigable waters of the United States (i.e., section 10 waters) within the coastal United States, the Great Lakes, and United States territories, a copy of the NWP verification will be sent by the Corps to the National Oceanic and Atmospheric

Administration (NOAA), National Ocean Service (NOS), for charting the utility line to protect navigation.

Note 2: For utility line activities crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Utility line activities must comply with 33 CFR 330.6(d).

Note 3: Access roads used for both construction and maintenance may be authorized, provided they meet the terms and conditions of this NWP. Access roads used solely for construction of the utility line must be removed upon completion of the work, in accordance with the requirements for temporary fills.

Note 4: Pipes or pipelines used to transport gaseous, liquid, liquescent, or slurry substances over navigable waters of the United States are considered to be bridges, not utility lines, and may require a permit from the U.S. Coast Guard pursuant to the General Bridge Act of 1946. However, any discharges of dredged or fill material into waters of the United States associated with such pipelines will require a section 404 permit (see NWP 15).

Note 5: This NWP authorizes utility line maintenance and repair activities that do not qualify for the Clean Water Act section 404(f) exemption for maintenance of currently serviceable fills or fill structures.

Note 6: For activities that require pre-construction notification, the PCN must include any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings that require Department of the Army authorization but do not require pre-construction notification (see paragraph (b)(4) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, "District Engineer's Decision." The district engineer may require mitigation to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23).

2021 Nationwide Permit General Conditions

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. Navigation. (a) No activity may cause more than a minimal adverse effect on

navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his or her authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and

temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

13. Removal of Temporary Structures and Fills. Temporary structures must be removed, to the maximum extent practicable, after their use has been discontinued. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers. (a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

(b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct management responsibility for that river. Permittees shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.

(c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal

land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: http://www.rivers.gov/.

17. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

18. Endangered Species. (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify designated critical habitat or critical habitat proposed for such designation. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless ESA section 7 consultation addressing the consequences of the proposed activity on listed species or critical habitat has been completed. See 50 CFR 402.02 for the definition of "effects of the action" for the purposes of ESA section 7 consultation, as well as 50 CFR 402.17, which provides further explanation under ESA section 7 regarding "activities that are reasonably certain to occur" and "consequences caused by the proposed action."

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA (see 33 CFR 330.4(f)(1)). If pre-construction notification is required for the proposed activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat or critical habitat proposed for such designation, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation), the pre-construction notification must include the name(s) of the endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or that utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. For activities where the non-Federal applicant has identified listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have "no effect" on listed species (or species proposed for listing or designated critical habitat (or critical habitat proposed

for such designation), or until ESA section 7 consultation or conference has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation or conference with the FWS or NMFS the district engineer may add species-specific permit conditions to the NWPs.

(e) Authorization of an activity by an NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal applicant should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district engineer will coordinate with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.

(g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their world wide web pages at http://www.fws.gov/ or http://www.fws.gov/ipac and http://www.nmfs.noaa.gov/pr/species/esa/ respectively.

19. Migratory Birds and Bald and Golden Eagles. The permittee is responsible for ensuring that an action authorized by an NWP complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting the appropriate local office of the U.S. Fish and Wildlife Service to determine what measures, if any, are necessary or appropriate to reduce adverse effects to migratory birds or eagles, including whether "incidental take" permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. Historic Properties. (a) No activity is authorized under any NWP which may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places until the requirements of Section 106 of the National Historic

Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)(1)). If pre-construction notification is required for the proposed NWP activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts commensurate with potential impacts, which may include background research, consultation, oral history interviews, sample field investigation, and/or field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect.

(d) Where the non-Federal applicant has identified historic properties on which the proposed NWP activity might have the potential to cause effects and has so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed. For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-Federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts. Permittees that discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by an NWP, they must immediately notify the district engineer of what they have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, 52, 57 and 58 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed by permittees in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after she or he determines that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent

practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

(d) Compensatory mitigation at a minimum one-for-one ratio will be required for all losses of stream bed that exceed 3/100-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. This compensatory mitigation requirement may be satisfied through the restoration or enhancement of riparian areas next to streams in accordance with paragraph (e) of this general condition. For losses of stream bed of 3/100-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, since streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)).

(e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. If restoring riparian areas involves planting vegetation, only native species should be planted. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWPs, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

(2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f).)

(3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

(4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)). If permittee-responsible mitigation is the proposed option, and the proposed compensatory mitigation site is located on land in which another federal agency holds an easement, the district engineer will coordinate with that federal agency to determine if proposed compensatory mitigation project is compatible with the terms of the easement.

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan needs to address only the baseline conditions at the impact site and the number of credits to be provided (see 33 CFR 332.4(c)(1)(ii)).

(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

(g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.

(h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal,

the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

24. Safety of Impoundment Structures. To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state or federal, dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality. (a) Where the certifying authority (state, authorized tribe, or EPA, as appropriate) has not previously certified compliance of an NWP with CWA section 401, a CWA section 401 water quality certification for the proposed discharge must be obtained or waived (see 33 CFR 330.4(c)). If the permittee cannot comply with all of the conditions of a water quality certification previously issued by certifying authority for the issuance of the NWP, then the permittee must obtain a water quality certification or waiver for the proposed discharge in order for the activity to be authorized by an NWP.

(b) If the NWP activity requires pre-construction notification and the certifying authority has not previously certified compliance of an NWP with CWA section 401, the proposed discharge is not authorized by an NWP until water quality certification is obtained or waived. If the certifying authority issues a water quality certification for the proposed discharge, the permittee must submit a copy of the certification to the district engineer. The discharge is not authorized by an NWP until the district engineer has notified the permittee that the water quality certification requirement has been satisfied by the issuance of a water quality certification or a waiver.

(c) The district engineer or certifying authority may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). If the permittee cannot comply with all of the conditions of a coastal zone management consistency concurrence previously issued by the state, then the permittee must obtain an individual coastal zone management consistency concurrence or presumption of concurrence in order for the

activity to be authorized by an NWP. The district engineer or a state may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its CWA section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is authorized, subject to the following restrictions:

(a) If only one of the NWPs used to authorize the single and complete project has a specified acreage limit, the acreage loss of waters of the United States cannot exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

(b) If one or more of the NWPs used to authorize the single and complete project has specified acreage limits, the acreage loss of waters of the United States authorized by those NWPs cannot exceed their respective specified acreage limits. For example, if a commercial development is constructed under NWP 39, and the single and complete project includes the filling of an upland ditch authorized by NWP 46, the maximum acreage loss of waters of the United States for the commercial development under NWP 39 cannot exceed 1/2-acre, and the total acreage loss of waters of United States due to the NWP 39 and 46 activities cannot exceed 1 acre.

29. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

"When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

_____

(Transferee)

_____

(Date)

30. Compliance Certification. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the activity and mitigation.

The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.

31. Activities Affecting Structures or Works Built by the United States. If an NWP activity also requires review by, or permission from, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a "USACE project"), the prospective permittee must submit a pre-construction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission and/or review is not authorized by an NWP until the appropriate Corps office issues the section 408 permission or completes its review to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.

32. Pre-Construction Notification. (a) *Timing*. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN

and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) *Contents of Pre-Construction Notification*: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed activity;

(3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;

(4) (i) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures.

(ii) For linear projects where one or more single and complete crossings require pre-construction notification, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters (including those single and complete crossings authorized by an NWP but do not require PCNs). This information will be used by the district engineer to evaluate the cumulative adverse environmental effects of the proposed linear project, and does not change those non-PCN NWP activities into NWP PCNs.

(iii) Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(5) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial and intermittent streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45-day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(7) For non-federal permittees, if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat (or critical habitat proposed for such designation), the PCN must include the name(s) of those endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act;

(8) For non-federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act;

(9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the "study river" (see general condition 16); and

(10) For an NWP activity that requires permission from, or review by, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from, or review by, the Corps office having jurisdiction over that USACE project.

(c) *Form of Pre-Construction Notification*: The nationwide permit pre-construction notification form (Form ENG 6082) should be used for NWP PCNs. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.

(d) *Agency Coordination*: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the activity's adverse environmental effects so that they are no more than minimal.

(2) Agency coordination is required for: (i) all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States; (ii) NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and (iii) NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes.

(3) When agency coordination is required, the district engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (FWS, state natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or e-mail that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure that the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(4) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

2021 District Engineer's Decision

1. In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If a project proponent requests authorization by a specific NWP, the district engineer should issue the NWP verification for that activity if it meets the terms and conditions of that NWP, unless he or she determines, after considering mitigation, that the proposed activity will result in more than minimal individual and cumulative adverse effects on the aquatic environment and other aspects of the public interest and exercises discretionary authority to require an individual permit for the proposed activity. For a linear project, this determination will include an evaluation of the single and complete crossings of waters of the United States that require PCNs to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings of waters of the United States authorized by an NWP. If an applicant requests a waiver of an applicable limit, as provided for in NWPs 13, 36, or 54, the district engineer will only grant the waiver upon a written determination that the NWP activity will result in only minimal individual and cumulative adverse environmental effects.

2. When making minimal adverse environmental effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. He or she will also consider the cumulative adverse environmental effects caused by activities authorized by an NWP and whether those cumulative adverse environmental effects are no more than minimal. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the NWP activity, the type of resource that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional or condition assessment method is available and practicable to use, that assessment method may be used by the district engineer to assist in the minimal adverse environmental effects determination. The district engineer may add case-specific special conditions to the NWP authorization to address site-specific environmental concerns.

3. If the proposed activity requires a PCN and will result in a loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for NWP activities with smaller impacts, or for impacts to other types of waters. The district engineer will consider any proposed compensatory mitigation or other mitigation measures the applicant has included in the proposal in determining whether the net adverse environmental effects of the proposed activity are no more than minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse environmental effects are no more than minimal, after considering mitigation, the district engineer will notify the permittee and include any activity-specific conditions in the NWP verification the district engineer deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). The district engineer must approve the final mitigation plan before the

permittee commences work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the proposed compensatory mitigation plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure that the NWP activity results in no more than minimal adverse environmental effects. If the net adverse environmental effects of the NWP activity (after consideration of the mitigation proposal) are determined by the district engineer to be no more than minimal, the district engineer will provide a timely written response to the applicant. The response will state that the NWP activity can proceed under the terms and conditions of the NWP, including any activity-specific conditions added to the NWP authorization by the district engineer.

4. If the district engineer determines that the adverse environmental effects of the proposed activity are more than minimal, then the district engineer will notify the applicant either: (a) that the activity does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (b) that the activity is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal; or (c) that the activity is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse environmental effects, the activity will be authorized within the 45-day PCN period (unless additional time is required to comply with general conditions 18, 20, and/or 31), with activity-specific conditions that state the mitigation requirements. The authorization will include the necessary conceptual or detailed mitigation plan or a requirement that the applicant submit a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal. When compensatory mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan or has determined that prior approval of a final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation.

2021 Further Information

1. District engineers have authority to determine if an activity complies with the terms and conditions of an NWP.

2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.

3. NWPs do not grant any property rights or exclusive privileges.

4. NWPs do not authorize any injury to the property or rights of others.

5. NWPs do not authorize interference with any existing or proposed Federal project (see general condition 31).

2021 Nationwide Permit Definitions

Best management practices (BMPs): Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

Compensatory mitigation: The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Direct effects: Effects that are caused by the activity and occur at the same time and place.

Discharge: The term "discharge" means any discharge of dredged or fill material into waters of the United States.

Ecological reference: A model used to plan and design an aquatic habitat and riparian area restoration, enhancement, or establishment activity under NWP 27. An ecological reference may be based on the structure, functions, and dynamics of an aquatic habitat type or a riparian area type that currently exists in the region where the proposed NWP 27 activity is located. Alternatively, an ecological reference may be based on a conceptual model for the aquatic habitat type or riparian area type to be restored, enhanced, or established as a result of the proposed NWP 27 activity. An ecological reference takes into account the range of variation of the aquatic habitat type or riparian area type in the region.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Establishment (creation): The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

High Tide Line: The line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

Historic Property: Any prehistoric or historic district, site (including archaeological site),

building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

Independent utility: A test to determine what constitutes a single and complete non-linear project in the Corps Regulatory Program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Indirect effects: Effects that are caused by the activity and are later in time or farther removed in distance, but are still reasonably foreseeable.

Loss of waters of the United States: Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. The loss of stream bed includes the acres of stream bed that are permanently adversely affected by filling or excavation because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters or wetlands for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities that do not require Department of the Army authorization, such as activities eligible for exemptions under section 404(f) of the Clean Water Act, are not considered when calculating the loss of waters of the United States.

Navigable waters: Waters subject to section 10 of the Rivers and Harbors Act of 1899. These waters are defined at 33 CFR part 329.

Non-tidal wetland: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

Open water: For purposes of the NWPs, an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within the area of flowing or standing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of "open waters" include rivers, streams, lakes, and ponds.

Ordinary High Water Mark: The term ordinary high water mark means that line on the

shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Perennial stream: A perennial stream has surface water flowing continuously year-round during a typical year.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Pre-construction notification: A request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by nationwide permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Pre-construction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-construction notification may be voluntarily submitted in cases where pre-construction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Riffle and pool complex: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a course substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

Riparian areas: Riparian areas are lands next to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems,

through which surface and subsurface hydrology connects riverine, lacustrine, estuarine, and marine waters with their adjacent wetlands, non-wetland waters, or uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality. (See general condition 23.)

Shellfish seeding: The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

Single and complete linear project: A linear project is a project constructed for the purpose of getting people, goods, or services from a point of origin to a terminal point, which often involves multiple crossings of one or more waterbodies at separate and distant locations. The term "single and complete project" is defined as that portion of the total linear project proposed or accomplished by one owner/developer or partnership or other association of owners/developers that includes all crossings of a single water of the United States (i.e., a single waterbody) at a specific location. For linear projects crossing a single or multiple waterbodies several times at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

Single and complete non-linear project: For non-linear projects, the term "single and complete project" is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete non-linear project must have independent utility (see definition of "independent utility"). Single and complete non-linear projects may not be "piecemealed" to avoid the limits in an NWP authorization.

Stormwater management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater management facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream bed: The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

Stream channelization: The manipulation of a stream's course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized jurisdictional stream remains a water of the United States.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Tidal wetland: A tidal wetland is a jurisdictional wetland that is inundated by tidal waters. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line.

Tribal lands: Any lands title to which is either: 1) held in trust by the United States for the benefit of any Indian tribe or individual; or 2) held by any Indian tribe or individual subject to restrictions by the United States against alienation.

Tribal rights: Those rights legally accruing to a tribe or tribes by virtue of inherent sovereign authority, unextinguished aboriginal title, treaty, statute, judicial decisions, executive order or agreement, and that give rise to legally enforceable remedies.

Vegetated shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: For purposes of the NWPs, a waterbody is a "water of the United States." If a wetland is adjacent to a waterbody determined to be a water of the United States, that waterbody and any adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)).

The following regional conditions apply within the Fort Worth District

1. Notification to the appropriate District Engineer in accordance with Nationwide Permit General Condition 32 - Pre-Construction Notification (PCN) is required for all activities proposed for authorization by any NWP into the below listed ecologically unique and sensitive areas located within waters of the United States. The Corps will coordinate with the resource agencies as specified in NWP General Condition 32(d)(3).
    a. Pitcher plant bogs ((*Sarracenia* spp.) and/or sundews (*Drosera* spp.) and/or Bald Cypress/Tupelo swamps ((*Taxodium distichum*) and/or water tupelo (*Nyssa aquatica*)).
    b. Karst Zones 1 and 2 located in Bexar, Travis and Williamson Counties (see https://www.fws.gov/southwest/es/AustinTexas/Maps_Data.html).
    c. Caddo Lake and associated areas that are designated as "Wetland of International Importance" under the Ramsar Convention (see http://caddolakedata.us/media/145/1996caddolakeramsar.pdf or http://caddolakedata.us/media/144/1996caddolakeramsar.jpg).
    d. Reaches of rivers (and their adjacent wetlands) that are included in the Nationwide Rivers Inventory (see https://www.nps.gov/subjects/rivers/nationwide-rivers-inventory.htm).

2. For all activities proposed for authorization under any NWP at sites approved as compensatory mitigation sites (either permittee-responsible, mitigation bank and/or in-lieu fee) under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act of 1899, the applicant shall notify the appropriate District Engineer in accordance with the Nationwide Permit General Condition 32 - PCN prior to commencing the activity.

ADDITIONAL INFORMATION

This nationwide permit is effective March 15, 2021, and expires on March 14, 2026.

Information about the U.S. Army Corps of Engineers regulatory program, including nationwide permits, may also be found at http://www.swf.usace.army.mil/Missions/Regulatory.aspx and http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits.aspx

ATTACHMENT E
TCEQ Conditional Certification of NWPs for Section 401

And

Required BMPs for Compliance

Jon Niermann, *Chairman*
Emily Lindley, *Commissioner*
Bobby Janecka, *Commissioner*
Toby Baker, *Executive Director*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

December 18, 2020

Colonel Timothy R. Vail
Galveston District
U.S. Army Corps of Engineers
P.O. Box 1229
Galveston, Texas 77553-1229

Re: 2020 USACE Nationwide Permits Reissuance

Dear Colonel Vail:

This letter is in response to your October 19, 2020, letter requesting Clean Water Act Section 401 certification of the United States Army Corps of Engineers (Corps) Nationwide Permits (NWPs). The Proposal to Reissue and Modify Nationwide Permits was published in the Federal Register (Vol. 85, No. 179, pages 57298-57395) on September 15, 2020. Regional conditions for NWPs in Texas were proposed in public notices on September 30, 2020 (Corps Galveston District) and October 1, 2020 (Corps Fort Worth District).

The Texas Commission on Environmental Quality (TCEQ) has reviewed the Proposal to Reissue and Modify Nationwide Permits and the proposed regional conditions. On behalf of the Executive Director and based on our evaluation of the information contained in these documents, the TCEQ certifies that any discharge associated with the activities authorized by NWPs 1, 2, 4, 5, 8, 9, 10, 11, 20, 23, 24, 28, 34, 35, 48, A, and B will comply with water quality requirements as required by Section 401 of the Federal Clean Water Act and pursuant to Title 30, Texas Administrative Code (TAC), Chapter 279.

The TCEQ conditionally certifies that any discharge associated with the activities authorized by NWPs 3, 6, 7, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22, 25, 27, 29, 30, 31, 32, 33, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 49, 50, 51, 52, 53, 54, C, D, and E will comply with water quality requirements as required by Section 401 of the Federal Clean Water Act and pursuant to Title 30, Texas Administrative Code, Chapter 279. Conditions for each NWP are defined in Attachment 1 and more detail on specific conditions is given below, including information explaining why the condition is necessary for compliance with water quality requirements as well as the supporting regulatory authorizations.

The TCEQ understands that a prohibition against the use of NWPs (except for NWP 3) in coastal dune swales, mangrove marshes, and Columbia Bottomlands in the Galveston District is included in the Draft 2020 Nationwide Permit (NWP) Regional Conditions for the State of Texas (Regional Conditions). A prohibition of using NWPs (except for NWP 3) in coastal dune swales, mangrove marshes, and Columbia bottomlands in the Galveston District is a condition of this TCEQ 401 certification. This condition is necessary to ensure compliance with water quality requirements because impacts to rare and ecologically significant aquatic resources such as coastal dune swales, mangrove marshes, and Columbia bottomlands would not be considered minimal but significant, and therefore would not meet the purpose of a nationwide permit to authorize activities that will result in no more than minimal adverse environmental effects. Furthermore, activities that would result in impacts to these unique resources are more appropriately authorized under an individual permit to ensure that unavoidable impacts are adequately minimized (30 TAC §279.11(c)(2)) and mitigated (30 TAC §279.11(c)(3) and 30 TAC §307.4(i)).

The TCEQ wants to clarify the application of NWP 16 in Texas. NWP 16 should be limited to the return water from upland contained dredged material disposal areas. It is important to emphasize the intent for dredged material disposal. The TCEQ understands dredged material to be associated with navigational dredging activities, not commercial mining activities. To avoid confusion, the TCEQ requests that a regional condition be added or that the Corps commits to prohibiting the use of NWP 16 for activities that would be regulated under Standard Industrial Classification (SIC) codes 1442 and 1446 (industrial and construction sand and gravel mining).

Consistent with previous NWPs certification decisions, the TCEQ is conditionally certifying NWP 16 for the return water from confined upland disposal not to exceed a 300 mg/L total suspended solids (TSS) concentration. This condition is necessary to ensure that return water discharges will comply with water quality requirements in accordance with Texas Water Code §26.003 and antidegradation policy in 30 TAC §307.5, and not result in violations of general water quality criteria in 30 TAC 307.4(b)(2)-(5). The TCEQ encourages the Corps to consider that TSS limits are promulgated as effluent limits under Title 40 of the Code of Federal Regulations, and that the TCEQ effectively imposes TSS effluent limits in thousands of wastewater discharge permits issued in Texas under Section 402 of the federal Clean Water Act.

The TCEQ recognizes the usefulness of having an instantaneous method to determine compliance with the 300 mg/L TSS limit. However, existing literature and analysis of paired samples of turbidity and TSS from the Texas Surface Water Quality Information System indicate this relationship must be a site-specific characterization of the actual sediments to be dredged. To address this approach, we have continued language in the NWP 16 conditional certification that allows flexibility to use an instantaneous method in implementing the TSS limit when a site-specific correlation curve for turbidity (nephelometric turbidity units (NTU)) versus TSS has been approved by TCEQ. The TCEQ remains interested in working with the Corps in the development of these curves and in working together to find the best methods to implement this limit.

Regional Condition 17 applies to NWP authorizations in the Area of Concern (AOC) of the San Jacinto River Waste Pits Superfund Site. The TCEQ conditionally certifies Regional Condition 17 provided that the Permit Evaluation Requirement Process (Process), effective November 1, 2009, is adhered to for all proposed and existing permits within the AOC. The Process requires that all permit applicants and existing permittees within the AOC perform sampling to ensure that any activities conducted, especially activities involving dredging or disposal of dredged materials, do not impact site investigation and remediation and that existing water quality is maintained and protected in accordance with the Texas Water Code §26.003 and TCEQ antidegradation policy in 30 TAC §307.5.

The TCEQ is conditionally certifying NWP General Condition 12 *Soil Erosion and Sediment Controls*, and General Condition 25 *Water Quality*. The conditions address three broad categories of water quality management with specific recommendations for Best Management Practices (BMPs) for each category. These BMP conditions are necessary to enhance the water quality protection of these General Conditions by requiring the use of specific BMPs to control erosion, sedimentation, and/or post-construction TSS in permitted activities and therefore prevent violation of state general water quality criteria (30 TAC §307.4) and antidegradation policy (30 TAC §307.5). Runoff from bridge decks has been exempted from the requirement for post-construction TSS controls under General Condition 25. A list of TCEQ-recommended BMPs is included as Attachment 2. Attachment 3 is provided as a quick reference table identifying the BMP categories that are required for each NWP. A detailed description of the BMPs is provided in Attachment 4.

The Corps is proposing to remove the 300 linear foot (LF) limit for NWPs 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52, in part, to simplify the quantification of aquatic resource types (i.e., streams, wetlands, etc.) by using acreage as the preferred unit of measure. Removing the stream bed loss limit would mean that stream losses associated with activities covered by these 10 NWPs would only be limited by the existing ½-acre limit on overall impacts to waters of the U.S. This could significantly affect state stream resources by allowing upwards of several thousand linear feet of stream impacts under these permits, depending on the dimensions of the streams being impacted. The TCEQ has traditionally relied on and used linear feet as the preferred unit of measure of stream impacts and stream mitigation in our Section 401 water quality certification program. Therefore, the TCEQ does not support the proposed removal of the 300 LF stream bed loss limit in these NWPs and conditionally certifies NWPs 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 with a limit of 1,500 linear feet of stream bed loss. The condition is based on the amount of stream impacts considered minimal by the TCEQ, where certification is waived for projects impacting 1,500 LF of streams or less in accordance with the Memorandum of Agreement (August 2000) between the Corps and TCEQ. Any proposed impacts greater than 1,500 linear feet of impacts in stream length will need to undergo an individual TCEQ 401 certification review, preferably in the context of a Section 404 individual permit. This condition is necessary to ensure that the discharge associated with projects permitted using these 10 NWPs will comply with water quality requirements for aquatic life uses and habitat (30 TAC 307.4(i)), antidegradation implementation procedures (30 TAC

307.5(c)(1)(B), and minimization and mitigation requirements in 30 TAC 279.11(c)(2) and (3), as well as be consistent with the NWP goal of authorizing only minimal adverse environmental impacts.

This certification decision is limited to those activities under the jurisdiction of the TCEQ. For activities related to the production and exploration of oil and gas, a Railroad Commission of Texas certification is required as provided in the Texas Water Code §26.131.

The TCEQ has reviewed the Notice of Reissuance of Nationwide Permits for consistency with the Texas Coastal Management Program (CMP) goals and policies in accordance with the CMP regulations {Title 31, Texas Administrative Code (TAC), Chapter (§)505.30} and has determined that the action is consistent with the applicable CMP goals and policies.

This certification was reviewed for consistency with the CMP's development in critical areas policy {31 TAC §501.23} and dredging and dredged material disposal and placement policy {31 TAC §501.25}. This certification complies with the CMP goals {31 TAC §501.12(1, 2, 3, 5)} applicable to these policies.

The TCEQ reserves the right to modify this certification if additional information identifies specific areas where significant impacts, including cumulative or secondary impacts, are occurring, and the use of these NWPs would be inappropriate.

No review of property rights, location of property lines, nor the distinction between public and private ownership has been made, and this certification may not be used in any way with regard to questions of ownership.

If you require further assistance, please contact Ms. Lili Murphy, Water Quality Assessment Section, Water Quality Division (MC-150), at (512) 239-4595 or by email at lili.murphy@tceq.texas.gov.

Sincerely,

David W Galindo

David W. Galindo, Deputy Director
Water Quality Division
Texas Commission on Environmental Quality

DWG/LM/

Attachments

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Attachment 1
Conditions of Section 401 Certification for Nationwide Permits, Regional Conditions, and General Conditions

General Condition 12 (Soil Erosion and Sediment Controls)
Erosion control and sediment control best management practices (BMPs) are required with the use of this general condition. Attachment 2 describes the BMPs and the Nationwide Permits (NWPs) to which they apply. If the applicant does not choose one of the BMPs listed in Attachment 2, an individual 401 certification is required.

General Condition 25 (Water Quality)
Post-construction total suspended solids (TSS) BMPs are required with the use of this general condition. Attachment 2 describes the BMPs and the NWPs to which they apply. If the applicant does not choose one of the BMP's listed in Attachment 2, an individual 401 certification is required. Bridge deck runoff is exempt from this requirement.

Regional Condition 17 condition
The Permit Evaluation Requirement Process, effective November 1, 2009, is required for all proposed and existing permits within San Jacinto River Waste Pits Superfund Site Area of Concern.

All NWPs except for NWP 3
These NWPs are not authorized for use in coastal dune swales, mangrove marshes, and Columbia bottomlands in the Galveston District, Texas.

NWP 3 (Maintenance)
Soil Erosion and Sediment Controls under General Condition 12 are required.

NWP 6 (Survey Activities)
Soil Erosion and Sediment Controls under General Condition 12 are required.

NWP 7 (Outfall Structures and Associated Intake Structures)
Soil Erosion and Sediment Controls under General Condition 12 are required.

NWP 12 (Oil or Natural Gas Pipeline Activities)
Soil Erosion and Sediment Controls under General Condition 12 are required. Post-construction TSS controls under General Condition 25 are required.

NWP 13 (Bank Stabilization)
Soil Erosion and Sediment Controls under General Condition 12 are required.

NWP 14 (Linear Transportation Projects)
Soil Erosion and Sediment Controls under General Condition 12 are required. Post-construction TSS controls under General Condition 25 are required.

NWP 15 (U.S. Coast Guard Approved Bridges)
Soil Erosion and Sediment Controls under General Condition 12 are required.

Attachment 1
Conditions of Section 401 Certification for Nationwide Permits, Regional Conditions, and General Conditions

NWP 16 (Return Water From Upland Contained Disposal Areas)
Activities that would be regulated under Standard Industrial Classification (SIC) codes 1442 and 1446 (industrial and construction sand and gravel mining) are not eligible for this NWP. Effluent from an upland contained disposal area shall not exceed a TSS concentration of 300 mg/L unless a site-specific TSS limit, or a site-specific correlation curve for turbidity (nephelometric turbidity units (NTU)) versus TSS has been approved by TCEQ.

NWP 17 (Hydropower Projects)
Soil Erosion and Sediment Controls under General Condition 12 are required. Post-construction TSS controls under General Condition 25 are required.

NWP 18 (Minor Discharges)
Soil Erosion and Sediment Controls under General Condition 12 are required. Post-construction TSS controls under General Condition 25 are required.

NWP 19 (Minor Dredging)
Soil Erosion and Sediment Controls under General Condition 12 are required.

NWP 21 (Surface Coal Mining Activities)
Soil Erosion and Sediment Controls under General Condition 12 are required. Post-construction TSS controls under General Condition 25 are required. Stream bed losses are limited to 1,500 linear feet.

NWP 22 (Removal of Vessels)
Soil Erosion and Sediment Controls under General Condition 12 are required.

NWP 25 (Structural Discharges)
Soil Erosion and Sediment Controls under General Condition 12 are required.

NWP 27 (Aquatic Habitat Restoration, Establishment, and Enhancement Activities)
Soil Erosion and Sediment Controls under General Condition 12 are required.

NWP 29 (Residential Developments)
Soil Erosion and Sediment Controls under General Condition 12 are required. Post-construction TSS controls under General Condition 25 are required. Stream bed losses are limited to 1,500 linear feet.

NWP 30 (Moist Soil Management for Wildlife)
Soil Erosion and Sediment Controls under General Condition 12 are required.

NWP 31 (Maintenance of Existing Flood Control Facilities)
Soil Erosion and Sediment Controls under General Condition 12 are required. Post-construction TSS controls under General Condition 25 are required.

Attachment 1
Conditions of Section 401 Certification for Nationwide Permits, Regional Conditions, and General Conditions

NWP 32 (Completed Enforcement Actions)
Soil Erosion and Sediment Controls under General Condition 12 are required.

NWP 33 (Temporary Construction, Access and Dewatering)
Soil Erosion and Sediment Controls under General Condition 12 are required.

NWP 36 (Boat Ramps)
Soil Erosion and Sediment Controls under General Condition 12 are required. Post-construction TSS controls under General Condition 25 are required.

NWP 37 (Emergency Watershed Protection and Rehabilitation)
Soil Erosion and Sediment Controls under General Condition 12 are required.

NWP 38 (Cleanup of Hazardous and Toxic Waste)
Soil Erosion and Sediment Controls under General Condition 12 are required.

NWP 39 (Commercial and Institutional Developments)
Soil Erosion and Sediment Controls under General Condition 12 are required. Post-construction TSS controls under General Condition 25 are required. Stream bed losses are limited to 1,500 linear feet.

NWP 40 (Agricultural Activities)
Soil Erosion and Sediment Controls under General Condition 12 are required. Post-construction TSS controls under General Condition 25 are required. Stream bed losses are limited to 1,500 linear feet.

NWP 41 (Reshaping Existing Drainage Ditches and Irrigation Ditches)
Soil Erosion and Sediment Controls under General Condition 12 are required. Post-construction TSS controls under General Condition 25 are required.

NWP 42 (Recreational Facilities)
Soil Erosion and Sediment Controls under General Condition 12 are required. Post-construction TSS controls under General Condition 25 are required. Stream bed losses are limited to 1,500 linear feet.

NWP 43 (Stormwater Management Facilities)
Soil Erosion and Sediment Controls under General Condition 12 are required. Stream bed losses are limited to 1,500 linear feet.

NWP 44 (Mining Activities)
Soil Erosion and Sediment Controls under General Condition 12 are required. Post-construction TSS controls under General Condition 25 are required. Stream bed losses are limited to 1,500 linear feet.

Attachment 1
Conditions of Section 401 Certification for Nationwide Permits, Regional Conditions, and General Conditions

NWP 45 (Repair of Uplands Damaged by Discrete Events)
Soil Erosion and Sediment Controls under General Condition 12 are required. Post-construction TSS controls under General Condition 25 are required.

NWP 46 (Discharges in Ditches)
Soil Erosion and Sediment Controls under General Condition 12 are required.

NWP 49 (Coal Remining Activities)
Soil Erosion and Sediment Controls under General Condition 12 are required. Post-construction TSS controls under General Condition 25 are required.

NWP 50 (Underground Coal Mining Activities)
Soil Erosion and Sediment Controls under General Condition 12 are required. Post-construction TSS controls under General Condition 25 are required. Stream bed losses are limited to 1,500 linear feet.

NWP 51 (Land-Based Renewal Energy Generation Facilities)
Soil Erosion and Sediment Controls under General Condition 12 are required. Post-construction TSS controls under General Condition 25 are required. Stream bed losses are limited to 1,500 linear feet.

NWP 52 (Water-Based Renewal Energy Generation Pilot Projects)
Soil Erosion and Sediment Controls under General Condition 12 are required. Post-construction TSS controls under General Condition 25 are required. Stream bed losses are limited to 1,500 linear feet.

NWP 53 (Removal of Low-Head Dams)
Soil Erosion and Sediment Controls under General Condition 12 are required.

NWP 54 (Living Shorelines)
Sediment Controls under General Condition 12 are required.

NWP C (Electric Utility Line and Telecommunications Activities)
Soil Erosion and Sediment Controls under General Condition 12 are required. Post-construction TSS controls under General Condition 25 are required.

NWP D (Utility Line Activities for Water and Other Substances)
Soil Erosion and Sediment Controls under General Condition 12 are required. Post-construction TSS controls under General Condition 25 are required.

NWP E (Water Reclamation and Reuse Facilities)
Soil Erosion and Sediment Controls under General Condition 12 are required. Post-construction TSS controls under General Condition 25 are required.

Attachment 2
401 Water Quality Certification Best Management Practices (BMPs) for Nationwide Permits

I. Erosion Control

Disturbed areas must be stabilized to prevent the introduction of sediment to adjacent wetlands or water bodies during wet weather conditions (erosion). *At least one* of the following best management practices (BMPs) must be maintained and remain in place until the area has been stabilized for NWPs 3, 6, 7, 12, 13, 14, 15, 17, 18, 19, 21, 22, 25, 27, 29, 30, 31, 32, 33, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 49, 50, 51, 52, 53, C, D, and E. If the applicant does not choose one of the BMPs listed, an individual 401 certification is required. BMPs for NWP 52 apply only to land-based impacts from attendant features.

- ◇ Temporary Vegetation
- ◇ Mulch
- ◇ Interceptor Swale
- ◇ Erosion Control Compost
- ◇ Compost Filter Socks
- ◇ Blankets/Matting
- ◇ Sod
- ◇ Diversion Dike
- ◇ Mulch Filter Socks

II. Sedimentation Control

Prior to project initiation, the project area must be isolated from adjacent wetlands and water bodies by the use of BMPs to confine sediment. Dredged material shall be placed in such a manner that prevents sediment runoff into water in the state, including wetlands. Water bodies can be isolated by the use of one or more of the required BMPs identified for sedimentation control. These BMP's must be maintained and remain in place until the dredged material is stabilized. *At least one* of the following BMPs must be maintained and remain in place until the area has been stabilized for NWPs 3, 6, 7, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22, 25, 27, 29, 30, 31, 32, 33, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 49, 50, 51, 52, 53, 54, C, D, and E. If the applicant does not choose one of the BMPs listed, an individual 401 certification is required. BMPs for NWP 52 apply only to land-based impacts from attendant features.

- ◇ Sand Bag Berm
- ◇ Silt Fence
- ◇ Triangular Filter Dike
- ◇ Stone Outlet Sediment Traps
- ◇ Erosion Control Compost
- ◇ Compost Filter Socks
- ◇ Rock Berm
- ◇ Hay Bale Dike
- ◇ Brush Berms
- ◇ Sediment Basins
- ◇ Mulch Filter Socks

Attachment 2
401 Water Quality Certification Best Management Practices (BMPs) for Nationwide Permits

III. Post-Construction TSS Control

After construction has been completed and the site is stabilized, total suspended solids (TSS) loadings shall be controlled by *at least one* of the following BMPs for NWPs 12, 14, 17, 18, 21, 29, 31, 36, 39, 40, 41, 42, 44, 45, 49, 50, 51, 52, C, D, and E. If the applicant does not choose one of the BMPs listed, an individual 401 certification is required. BMPs for NWP 52 apply only to land-based impacts from attendant features. Runoff from bridge decks has been exempted from the requirement for post construction TSS controls.

- ◇ Retention/Irrigation Systems
- ◇ Extended Detention Basin
- ◇ Vegetative Filter Strips
- ◇ Grassy Swales
- ◇ Erosion Control Compost
- ◇ Compost Filter Socks
- ◇ Constructed Wetlands
- ◇ Wet Basins
- ◇ Vegetation lined drainage ditches
- ◇ Sand Filter Systems
- ◇ Mulch Filter Socks
- ◇ Sedimentation Chambers*

* Only to be used when there is no space available for other approved BMPs.

Attachment 3
Reference to Nationwide Permits Best Management Practices Requirements

NWP	Permit Description	Erosion Control	Sediment Control	Post-Construction TSS
1	Aid to Navigation			
2	Structures in Artificial Canals			
3	Maintenance	X	X	
4	Fish and Wildlife Harvesting, Enhancement and Attraction Devices and Activities			
5	Scientific Measurement Devices			
6	Survey Activities *Trenching	X	X	
7	Outfall Structures and Associated Intake Structures	X	X	
8	Oil and Gas Structures on the Outer Continental Shelf			
9	Structures in Fleeting and Anchorage Areas			
10	Mooring Buoys			
11	Temporary Recreational Structures			
12	Oil or Natural Gas Pipeline Activities	X	X	X
13	Bank Stabilization	X	X	
14	Linear Transportation Projects	X	X	X
15	U.S. Coast Guard Approved Bridges	X	X	
16	Return Water From Upland Contained Disposal Areas			
17	Hydropower Projects	X	X	X
18	Minor Discharges	X	X	X
19	Minor Dredging	X	X	
20	Response Operations for Oil or Hazardous Substances			
21	Surface Coal Mining Activities	X	X	X
22	Removal of Vessels	X	X	

Attachment 3
Reference to Nationwide Permits Best Management Practices Requirements

NWP	Permit Description	Erosion Control	Sediment Control	Post-Construction TSS
23	Approved Categorical Exclusions			
24	Indian Tribe or State Administered Section 404 Programs			
25	Structural Discharges	X	X	
26	[Reserved]			
27	Aquatic Habitat Restoration, Establishment, and Enhancement Activities	X	X	
28	Modifications of Existing Marinas			
29	Residential Developments	X	X	X
30	Moist Soil Management for Wildlife	X	X	
31	Maintenance of Existing Flood Control Facilities	X	X	X
32	Completed Enforcement Actions	X	X	
33	Temporary Construction, Access and Dewatering	X	X	
34	Cranberry Production Activities			
35	Maintenance Dredging of Existing Basins			
36	Boat Ramps	X	X	X
37	Emergency Watershed Protection and Rehabilitation	X	X	
38	Cleanup of Hazardous and Toxic Waste	X	X	
39	Commercial and Institutional Developments	X	X	X
40	Agricultural Activities	X	X	X
41	Reshaping Existing Drainage Ditches and Irrigation Ditches	X	X	X
42	Recreational Facilities	X	X	X
43	Stormwater Management Facilities	X	X	

Attachment 3
Reference to Nationwide Permits Best Management Practices Requirements

NWP	Permit Description	Erosion Control	Sediment Control	Post-Construction TSS
44	Mining Activities	X	X	X
45	Repair of Uplands Damaged by Discrete Events	X	X	X
46	Discharges in Ditches	X	X	
47	[Reserved]			
48	Existing Commercial Shellfish Aquaculture Activities			
49	Coal Remining Activities	X	X	X
50	Underground Coal Mining Activities	X	X	X
51	Land-Based Renewable Energy Generation Facilities	X	X	X
52	Water-Based Renewable Energy Generation Pilot Projects	X	X	X
53	Removal of Low-Head Dams	X	X	
54	Living Shorelines		X	
C	Electric Utility Line and Telecommunications Activities	X	X	X
D	Utility Line Activities for Water and Other Substances	X	X	X
E	Water Reclamation and Reuse Facilities	X	X	X

Attachment 4
Description of Best Management Practices (BMPs)

EROSION CONTROL BMPs

Temporary Vegetation

Description: Vegetation can be used as a temporary or permanent stabilization technique for areas disturbed by construction. Vegetation effectively reduces erosion in swales, stockpiles, berms, mild to medium slopes, and along roadways. Other techniques such as matting, mulches, and grading may be required to assist in the establishment of vegetation.

Materials:

- The type of temporary vegetation used on a site is a function of the season and the availability of water for irrigation.
- Temporary vegetation should be selected appropriately for the area.
- County agricultural extension agents are a good source for suggestions for temporary vegetation.
- All seed should be high quality, U.S. Dept. of Agriculture certified seed.

Installation:

- Grading must be completed prior to seeding.
- Slopes should be minimized.
- Erosion control structures should be installed.
- Seedbeds should be well pulverized, loose, and uniform.
- Fertilizers should be applied at appropriate rates.
- Seeding rates should be applied as recommended by the county agricultural extension agent.
- The seed should be applied uniformly.
- Steep slopes should be covered with appropriate soil stabilization matting.

Blankets and Matting

Description: Blankets and matting material can be used as an aid to control erosion

on critical sites during the establishment period of protective vegetation. The most common uses are in channels, interceptor swales, diversion dikes, short, steep slopes, and on tidal or stream banks.

Materials:

New types of blankets and matting materials are continuously being developed. The Texas Department of Transportation (TxDOT) has defined the critical performance factors for these types of products and has established minimum performance standards which must be met for any product seeking to be approved for use within any of TxDOT's construction or maintenance activities. The products that have been approved by TxDOT are also appropriate for general construction site stabilization. TxDOT maintains a web site at https://www.txdot.gov/inside-txdot/division/maintenance/erosion-control.html which is updated as new products are evaluated.

Installation:

- Install in accordance with the manufacturer's recommendations.
- Proper anchoring of the material.
- Prepare a friable seed bed relatively free from clods and rocks and any foreign material.
- Fertilize and seed in accordance with seeding or other type of planting plan.
- Erosion stops should extend beyond the channel liner to full design cross-section of the channel.
- A uniform trench perpendicular to line of flow may be dug with a spade or a mechanical trencher.
- Erosion stops should be deep enough to penetrate solid material or below level of ruling in sandy soils.
- Erosion stop mats should be wide enough to allow turnover at bottom of trench for stapling, while maintaining the top edge flush with channel surface.

Mulch

Description: Mulching is the process of applying a material to the exposed soil surface to protect it from erosive forces and to conserve soil moisture until plants can become

established. When seeding critical sites, sites with adverse soil conditions or seeding on other than optimum seeding dates, mulch material should be applied immediately after seeding. Seeding during optimum seeding dates and with favorable soils and site conditions will not need to be mulched.

Materials:

- Mulch may be small grain straw which should be applied uniformly.
- On slopes 15 percent or greater, a binding chemical must be applied to the surface.
- Wood-fiber or paper-fiber mulch may be applied by hydroseeding.
- Mulch nettings may be used.
- Wood chips may be used where appropriate.

Installation:

Mulch anchoring should be accomplished immediately after mulch placement. This may be done by one of the following methods: peg and twine, mulch netting, mulch anchoring tool, or liquid mulch binders.

Sod

Description: Sod is appropriate for disturbed areas which require immediate vegetative covers, or where sodding is preferred to other means of grass establishment. Locations particularly suited to stabilization with sod are waterways carrying intermittent flow, areas around drop inlets or in grassed swales, and residential or commercial lawns where quick use or aesthetics are factors. Sod is composed of living plants and those plants must receive adequate care in order to provide vegetative stabilization on a disturbed area.

Materials:

- Sod should be machine cut at a uniform soil thickness.
- Pieces of sod should be cut to the supplier's standard width and length.
- Torn or uneven pads are not acceptable.
- Sections of sod should be strong enough to support their own weight and retain their size and shape when suspended from a firm grasp.

- Sod should be harvested, delivered, and installed within a period of 36 hours.

Installation:

- Areas to be sodded should be brought to final grade.
- The surface should be cleared of all trash and debris.
- Fertilize according to soil tests.
- Fertilizer should be worked into the soil.
- Sod should not be cut or laid in excessively wet or dry weather.
- Sod should not be laid on soil surfaces that are frozen.
- During periods of high temperature, the soil should be lightly irrigated.
- The first row of sod should be laid in a straight line with subsequent rows placed parallel to and butting tightly against each other.
- Lateral joints should be staggered to promote more uniform growth and strength.
- Wherever erosion may be a problem, sod should be laid with staggered joints and secured.
- Sod should be installed with the length perpendicular to the slope (on the contour).
- Sod should be rolled or tamped.
- Sod should be irrigated to a sufficient depth.
- Watering should be performed as often as necessary to maintain soil moisture.
- The first mowing should not be attempted until the sod is firmly rooted.
- Not more than one third of the grass leaf should be removed at any one cutting.



Attachment 4
Description of Best Management Practices (BMPs)

Interceptor Swale

Interceptor swales are used to shorten the length of exposed slope by intercepting runoff, prevent off-site runoff from entering the disturbed area, and prevent sediment-laden runoff from leaving a disturbed site. They may have a v-shape or be trapezoidal with a flat bottom and side slopes of 3:1 or flatter. The outflow from a swale should be directed to a stabilized outlet or sediment trapping device. The swales should remain in place until the disturbed area is permanently stabilized.

Materials:

- Stabilization should consist of a layer of crushed stone three inches thick, riprap or high velocity erosion control mats.
- Stone stabilization should be used when grades exceed 2% or velocities exceed 6 feet per second.
- Stabilization should extend across the bottom of the swale and up both sides of the channel to a minimum height of three inches above the design water surface elevation based on a 2-year, 24-hour storm.

Installation:

- An interceptor swale should be installed across exposed slopes during construction and should intercept no more than 5 acres of runoff.
- All earth removed and not needed in construction should be disposed of in an approved spoils site so that it will not interfere with the functioning of the swale or contribute to siltation in other areas of the site.
- All trees, brush, stumps, obstructions and other material should be removed and disposed of so as not to interfere with the proper functioning of the swale.
- Swales should have a maximum depth of 1.5 feet with side slopes of 3:1 or flatter.
- Swales should have positive drainage for the entire length to an outlet.
- When the slope exceeds 2 percent, or velocities exceed 6 feet per second (regardless of slope), stabilization is required. Stabilization should be crushed stone placed in a layer of at least 3 inches thick or may be high velocity erosion control matting. Check dams are also recommended to reduce velocities in the swales possibly reducing the amount of stabilization necessary.

- Minimum compaction for the swale should be 90% standard proctor density.

Diversion Dikes

A temporary diversion dike is a barrier created by the placement of an earthen embankment to reroute the flow of runoff to an erosion control device or away from an open, easily erodible area. A diversion dike intercepts runoff from small upland areas and diverts it away from exposed slopes to a stabilized outlet, such as a rock berm, sandbag berm, or stone outlet structure. These controls can be used on the perimeter of the site to prevent runoff from entering the construction area. Dikes are generally used for the duration of construction to intercept and reroute runoff from disturbed areas to prevent excessive erosion until permanent drainage features are installed and/or slopes are stabilized.

Materials:

- Stone stabilization (required for velocities in excess of 6 fps) should consist of riprap placed in a layer at least 3 inches thick and should extend a minimum height of 3 inches above the design water surface up the existing slope and the upstream face of the dike.

- Geotextile fabric should be a non-woven polypropylene fabric designed specifically for use as a soil filtration media with an approximate weight of 6 oz./yd^2, a Mullen burst rating of 140 psi, and having an equivalent opening size (EOS) greater than a #50 sieve.

Installation:

- Diversion dikes should be installed prior to and maintained for the duration of construction and should intercept no more than 10 acres of runoff.

- Dikes should have a minimum top width of 2 feet and a minimum height of compacted fill of 18 inches measured form the top of the existing ground at the upslope toe to top of the dike and have side slopes of 3:1 or flatter.

- The soil for the dike should be placed in lifts of 8 inches or less and be compacted to 95 % standard proctor density.

- The channel, which is formed by the dike, must have positive drainage for its entire l length to an outlet.

- When the slope exceeds 2 percent, or velocities exceed 6 feet per second (regardless of slope), stabilization is required. In situations where velocities do not exceed 6 feet per second, vegetation may be used to control erosion.

Attachment 4
Description of Best Management Practices (BMPs)

Erosion Control Compost

Description: Erosion control compost (ECC) can be used as an aid to control erosion on critical sites during the establishment period of protective vegetation. The most common uses are on steep slopes, swales, diversion dikes, and on tidal or stream banks.

Materials:

New types of erosion control compost are continuously being developed. The Texas Department of Transportation (TxDOT) has established minimum performance standards which must be met for any products seeking to be approved for use within any of TxDOT's construction or maintenance activities. Material used within any TxDOT construction or maintenance activities must meet material specifications in accordance with current TxDOT specifications. TxDOT maintains a website at https://www.txdot.gov/inside-txdot/division/support/recycling/speclist.html that provides information on compost specification data.

ECC used for projects not related to TxDOT should also be of quality materials by meeting performance standards and compost specification data. To ensure the quality of compost used as an ECC, products should meet all applicable state and federal regulations, including but not limited to the United States Environmental Protection Agency (USEPA) Code of Federal Regulations (CFR), Title 40, Part 503 Standards for Class A biosolids and Texas Natural Resource Conservation Commission (now named TCEQ) Health and Safety Regulations as defined in the Texas Administration Code (TAC), Chapter 332, and all other relevant requirements for compost products outlined in TAC, Chapter 332.

Testing requirements required by the TCEQ are defined in TAC Chapter 332, including Sections §332.71 Sampling and Analysis Requirements for Final Products and §332.72 Final Product Grades. Compost specification data approved by TxDOT are appropriate to use for ensuring the use of quality compost materials or for guidance.

Testing standards are dependent upon the intended use for the compost and ensures product safety, and product performance regarding the product's specific use. The appropriate compost sampling and testing protocols included in the United States Composting Council (USCC) Test Methods for the Examination of Composting and Compost (TMECC) should be conducted on compost products used for ECC to ensure that the products used will not impact public health, safety, and the environment and to promote production and marketing of quality composts that meet analytical standards. TMECC is a laboratory manual that provides protocols for the composting industry and test methods for compost analysis. TMECC provides protocols to sample, monitor, and analyze materials during all stages of the composting process. Numerous parameters that might be of concern in compost can be tested by following protocols

or test methods listed in TMECC. TMECC information can be found at https://www.compostingcouncil.org/page/tmecc.
The USCC Seal of Testing Assurance (STA) program contains information regarding compost STA certification. STA program information can be found at https://www.compostingcouncil.org/page/SealofTestingAssuranceSTA.

Installation:

- Install in accordance with current TxDOT specification.
- Use on slopes 3:1 or flatter.
- Apply a 2-inch uniform layer unless otherwise shown on the plans or as directed.
- When rolling is specified, use a light corrugated drum roller.

Mulch and Compost Filter Socks

Description: Mulch and compost filter socks (erosion control logs) are used to intercept and detain sediment laden run-off from unprotected areas. When properly used, mulch and compost filter socks can be highly effective at controlling sediment from disturbed areas. They cause runoff to pond which allows heavier solids to settle. Mulch and compost filter socks are used during the period of construction near the perimeter of a disturbed area to intercept sediment while allowing water to percolate through. The sock should remain in place until the area is permanently stabilized. Mulch and compost filter socks may be installed in construction areas and temporarily moved during the day to allow construction activity provided it is replaced and properly anchored at the end of the day. Mulch and compost filter socks may be seeded to allow for quick vegetative growth and reduction in run-off velocity.

Materials:

New types of mulch and compost filter socks are continuously being developed. The Texas Department of Transportation (TxDOT) has established minimum performance standards which must be met for any products seeking to be approved for use within any of TxDOT's construction or maintenance activities. Mulch and compost filter socks used within any TxDOT construction or maintenance activities must meet material specifications in accordance with TxDOT specification 5049. TxDOT maintains a website at https://www.txdot.gov/inside-txdot/division/support/recycling/speclist.html that provides information on compost specification data.

Mulch and compost filter socks used for projects not related to TxDOT should also be of quality materials by meeting performance standards and compost specification

data. To ensure the quality of compost used for mulch and compost filter socks, products should meet all applicable state and federal regulations, including but not limited to the United States Environmental Protection Agency (USEPA) Code of Federal Regulations (CFR), Title 40, Part 503 Standards for Class A biosolids and Texas Natural Resource Conservation Commission Health and Safety Regulations as defined in the Texas Administration Code (TAC), Chapter 332, and all other relevant requirements for compost products outlined in TAC, Chapter 332. Testing requirements required by the TCEQ are defined in TAC Chapter 332, including Sections §332.71 Sampling and Analysis Requirements for Final Products and §332.72 Final Product Grades. Compost specification data approved by TxDOT are appropriate to use for ensuring the use of quality compost materials or for guidance.

Testing standards are dependent upon the intended use for the compost and ensures product safety, and product performance regarding the product's specific use. The appropriate compost sampling and testing protocols included in the United States Composting Council (USCC) Test Methods for the Examination of Composting and Compost (TMECC) should be conducted on compost products used for mulch and compost filter socks to ensure that the products used will not impact public health, safety, and the environment and to promote production and marketing of quality composts that meet analytical standards. TMECC is a laboratory manual that provides protocols for the composting industry and test methods for compost analysis. TMECC provides protocols to sample, monitor, and analyze materials during all stages of the composting process. Numerous parameters that might be of concern in compost can be tested by following protocols or test methods listed in TMECC. TMECC information can be found at https://www.compostingcouncil.org/page/tmecc. The USCC Seal of Testing Assurance (STA) program contains information regarding compost STA certification. STA program information can be found at https://www.compostingcouncil.org/page/SealofTestingAssuranceSTA.

Installation:

- Install in accordance with TxDOT Special Specification 5049.
- Install socks (erosion control logs) near the downstream perimeter of a disturbed area to intercept sediment from sheet flow.
- Secure socks in a method adequate to prevent displacement as a result of normal rain events such that flow is not allowed under the socks.
- Inspect and maintain the socks in good condition (including staking, anchoring, etc.). Maintain the integrity of the control, including keeping the socks free of accumulated silt, debris, etc., until the disturbed area has been adequately stabilized.

Attachment 4
Description of Best Management Practices (BMPs)

SEDIMENT CONTROL BMPS

Sandbag Berm

Description: The purpose of a sandbag berm is to detain sediment carried in runoff from disturbed areas. This objective is accomplished by intercepting runoff and causing it to pool behind the sandbag berm. Sediment carried in the runoff is deposited on the upstream side of the sandbag berm due to the reduced flow velocity. Excess runoff volumes are allowed to flow over the top of the sandbag berm. Sandbag berms are used only during construction activities in streambeds when the contributing drainage area is between 5 and 10 acres and the slope is less than 15%, i.e., utility construction in channels, temporary channel crossing for construction equipment, etc. Plastic facing should be installed on the upstream side and the berm should be anchored to the streambed by drilling into the rock and driving in T-posts or rebar (#5 or #6) spaced appropriately.

Materials:

- The sandbag material should be polypropylene, polyethylene, polyamide or cotton burlap woven fabric, minimum unit weight 4 oz/yd 2, mullen burst strength exceeding 300 psi and ultraviolet stability exceeding 70 percent.
- The bag length should be 24 to 30 inches, width should be 16 to 18 inches and thickness should be 6 to 8 inches.
- Sandbags should be filled with coarse grade sand and free from deleterious material. All sand should pass through a No. 10 sieve. The filled bag should have an approximate weight of 40 pounds.
- Outlet pipe should be schedule 40 or stronger polyvinyl chloride (PVC) having a nominal internal diameter of 4 inches.

Installation:

- The berm should be a minimum height of 18 inches, measured from the top of the existing ground at the upslope toe to the top of the berm.
- The berm should be sized as shown in the plans but should have a minimum width of 48 inches measured at the bottom of the berm and 16 inches measured at the top of the berm.
- Runoff water should flow over the tops of the sandbags or through 4-inch diameter PVC pipes embedded below the top layer of bags.

- When a sandbag is filled with material, the open end of the sandbag should be stapled or tied with nylon or poly cord.
- Sandbags should be stacked in at least three rows abutting each other, and in staggered arrangement.
- The base of the berm should have at least 3 sandbags. These can be reduced to 2 and 1 bag in the second and third rows respectively.
- For each additional 6 inches of height, an additional sandbag must be added to each row width.
- A bypass pump-around system, or similar alternative, should be used on conjunction with the berm for effective dewatering of the work area.

Silt Fence

Description: A silt fence is a barrier consisting of geotextile fabric supported by metal posts to prevent soil and sediment loss from a site. When properly used, silt fences can be highly effective at controlling sediment from disturbed areas. They cause runoff to pond which allows heavier solids to settle. If not properly installed, silt fences are not likely to be effective. The purpose of a silt fence is to intercept and detain water-borne sediment from unprotected areas of a limited extent. Silt fence is used during the period of construction near the perimeter of a disturbed area to intercept sediment while allowing water to percolate through. This fence should remain in place until the disturbed area is permanently stabilized. Silt fence should not be used where there is a concentration of water in a channel or drainage way. If concentrated flow occurs after installation, corrective action must be taken such as placing a rock berm in the areas of concentrated flow. Silt fencing within the site may be temporarily moved during the day to allow construction activity provided it is replaced and properly anchored to the ground at the end of the day. Silt fences on the perimeter of the site or around drainage ways should not be moved at any time.

Materials:

- Silt fence material should be polypropylene, polyethylene or polyamide woven or nonwoven fabric. The fabric width should be 36 inches, with a minimum unit weight of 4.5 oz/yd, mullen burst strength exceeding 190 lb/in 2, ultraviolet stability exceeding 70%, and minimum apparent opening size of U.S. Sieve No. 30.
- Fence posts should be made of hot rolled steel, at least 4 feet long with Tee or Y-bar cross section, surface painted or galvanized, minimum nominal weight 1.25 lb/ft 2, and Brindell hardness exceeding 140.

- Woven wire backing to support the fabric should be galvanized 2-inch x 4-inch welded wire, 12 gauge minimum.

Installation:

- Steel posts, which support the silt fence, should be installed on a slight angle toward the anticipated runoff source. Post must be embedded a minimum of 1 foot deep and spaced not more than 8 feet on center. Where water concentrates, the maximum spacing should be 6 feet.

- Lay out fencing down-slope of disturbed area, following the contour as closely as possible. The fence should be sited so that the maximum drainage area is 3 acre/100 feet of fence.

- The toe of the silt fence should be trenched in with a spade or mechanical trencher, so that the down-slope face of the trench is flat and perpendicular to the line of flow. Where fence cannot be trenched in (e.g., pavement or rock outcrop), weight fabric flap with 3 inches of pea gravel on uphill side to prevent flow from seeping under fence.

- The trench must be a minimum of 6 inches deep and 6 inches wide to allow for the silt fence fabric to be laid in the ground and backfilled with compacted material.

- Silt fence should be securely fastened to each steel support post or to woven wire, which is in turn attached to the steel fence post. There should be a 3-foot overlap, securely fastened where ends of fabric meet.

Triangular Filter Dike

Description: The purpose of a triangular sediment filter dike is to intercept and detain water-borne sediment from unprotected areas of limited extent. The triangular sediment filter dike is used where there is no concentration of water in a channel or other drainage way above the barrier and the contributing drainage area is less than one acre. If the uphill slope above the dike exceeds 10%, the length of the slope above the dike should be less than 50 feet. If concentrated flow occurs after installation, corrective action should be taken such as placing rock berm in the areas of concentrated flow. This measure is effective on paved areas where installation of silt fence is not possible or where vehicle access must be maintained. The advantage of these controls is the ease with which they can be moved to allow vehicle traffic and then reinstalled to maintain sediment.

Attachment 4
Description of Best Management Practices (BMPs)

Materials:

- Silt fence material should be polypropylene, polyethylene or polyamide woven or nonwoven fabric. The fabric width should be 36 inches, with a minimum unit weight of 4.5 oz/yd, mullen burst strength exceeding 190 lb/in 2 , ultraviolet stability exceeding 70%, and minimum apparent opening size of U.S. Sieve No. 30.

- The dike structure should be 6 gauge 6-ing x 6-inch wire mesh folded into triangular form being eighteen (18) inches on each side.

Installation:

- The frame of the triangular sediment filter dike should be constructed of 6-inch x 6-inch, 6-gauge welded wire mesh, 18 inches per side, and wrapped with geotextile fabric the same composition as that used for silt fences.

- Filter material should lap over ends six (6) inches to cover dike to dike junction; each junction should be secured by shoat rings.

- Position dike parallel to the contours, with the end of each section closely abutting the adjacent sections.

- There are several options for fastening the filter dike to the ground. The fabric skirt may be toed-in with 6 inches of compacted material, or 12 inches of the fabric skirt should extend uphill and be secured with a minimum of 3 inches of open graded rock, or with staples or nails. If these two options are not feasible the dike structure may be trenched in 4 inches.

- Triangular sediment filter dikes should be installed across exposed slopes during construction with ends of the dike tied into existing grades to prevent failure and should intercept no more than one acre of runoff.

- When moved to allow vehicular access, the dikes should be reinstalled as soon as possible, but always at the end of the workday.

Rock Berm

Description: The purpose of a rock berm is to serve as a check dam in areas of concentrated flow, to intercept sediment-laden runoff, detain the sediment and release the water in sheet flow. The rock berm should be used when the contributing drainage area is less than 5 acres. Rock berms are used in areas where the volume of runoff is too great for a silt fence to contain. They are less effective for sediment removal than silt fences, particularly for fine particles, but are able to withstand higher flows than a

silt fence. As such, rock berms are often used in areas of channel flows (ditches, gullies, etc.). Rock berms are most effective at reducing bed load in channels and should not be substituted for other erosion and sediment control measures further up the watershed.

Materials:

- The berm structure should be secured with a woven wire sheathing having opening of one inch and a minimum wire diameter of 20 gauge galvanized and should be secured with shoat rings.

- Clean, open graded 3- to 5-inch diameter rock should be used, except in areas where high velocities or large volumes of flow are expected, where 5- to 8-inch diameter rocks may be used.

Installation:

- Lay out the woven wire sheathing perpendicular to the flow line. The sheathing should be 20-gauge woven wire mesh with 1 inch openings.

- Berm should have a top width of 2 feet minimum with side slopes being 2:1 (H:V) or flatter.

- Place the rock along the sheathing to a height not less than 18 inches.

- Wrap the wire sheathing around the rock and secure with tie wire so that the ends of the sheathing overlap at least 2 inches, and the berm retains its shape when walked upon.

- Berm should be built along the contour at zero percent grade or as near as possible.

- The ends of the berm should be tied into existing upslope grade and the berm should be buried in a trench approximately 3 to 4 inches deep to prevent failure of the control.

Hay Bale Dike

Description: The purpose of a hay or straw bale dike is to intercept and detain small amounts of sediment-laden runoff from relatively small unprotected areas. Straw bales are to be used when it is not feasible to install other, more effective measures or when the construction phase is expected to last less than 3 months. Straw bales should not be used on areas where rock or other hard surfaces prevent the full and uniform anchoring of the barrier.



Attachment 4
Description of Best Management Practices (BMPs)

Materials:

Straw: The best quality straw mulch comes from wheat, oats or barley and should be free of weed and grass seed which may not be desired vegetation for the area to be protected. Straw mulch is light and therefore must be properly anchored to the ground.

Hay: This is very similar to straw with the exception that it is made of grasses and weeds and not grain stems. This form of mulch is very inexpensive and is widely available but does introduce weed and grass seed to the area. Like straw, hay is light and must be anchored.

- Straw bales should weigh a minimum of 50 pounds and should be at least 30 inches long.
- Bales should be composed entirely of vegetable matter and be free of seeds.
- Binding should be either wire or nylon string, jute or cotton binding is unacceptable. Bales should be used for not more than two months before being replaced.

Installation:

- Bales should be embedded a minimum of 4 inches and securely anchored using 2-inch x 2-inch wood stakes or 3/8-inch diameter rebar driven through the bales into the ground a minimum of 6 inches.
- Bales are to be placed directly adjacent to one another leaving no gap between them.
- All bales should be placed on the contour.
- The first stake in each bale should be angled toward the previously laid bale to force the bales together.

Brush Berms

Organic litter and spoil material from site clearing operations is usually burned or hauled away to be dumped elsewhere. Much of this material can be used effectively on the construction site itself. The key to constructing an efficient brush berm is in the method used to obtain and place the brush. It will not be acceptable to simply take a bulldozer and push whole trees into a pile. This method does not assure continuous ground contact with the berm and will allow uncontrolled flows under the berm.

Brush berms may be used where there is little or no concentration of water in a channel or other drainage way above the berm. The size of the drainage area should be no greater than one-fourth of an acre per 100 feet of barrier length; the maximum slope length behind the barrier should not exceed 100 feet; and the maximum slope gradient behind the barrier should be less than 50 percent (2:1).

Materials:

- The brush should consist of woody brush and branches, preferably less than 2 inches in diameter.
- The filter fabric should conform to the specifications for filter fence fabric.
- The rope should be 1/4-inch polypropylene or nylon rope.
- The anchors should be 3/8-inch diameter rebar stakes that are 18-inches long.

Installation:

- Lay out the brush berm following the contour as closely as possible.
- The juniper limbs should be cut and hand placed with the vegetated part of the limb in close contact with the ground. Each subsequent branch should overlap the previous branch providing a shingle effect.
- The brush berm should be constructed in lifts with each layer extending the entire length of the berm before the next layer is started.
- A trench should be excavated 6-inches wide and 4-inches deep along the length of the barrier and immediately uphill from the barrier.
- The filter fabric should be cut into lengths sufficient to lay across the barrier from its up-slope base to just beyond its peak. The lengths of filter fabric should be draped across the width of the barrier with the uphill edge placed in the trench and the edges of adjacent pieces overlapping each other. Where joints are necessary, the fabric should be spliced together with a minimum 6-inch overlap and securely sealed.
- The trench should be backfilled, and the soil compacted over the filter fabric.
- Set stakes into the ground along the downhill edge of the brush barrier and anchor the fabric by tying rope from the fabric to the stakes. Drive the rope anchors into the ground at approximately a 45-degree angle to the ground on 6-

foot centers.

- Fasten the rope to the anchors and tighten berm securely to the ground with a minimum tension of 50 pounds.
- The height of the brush berm should be a minimum of 24 inches after the securing ropes have been tightened.

Stone Outlet Sediment Traps

A stone outlet sediment trap is an impoundment created by the placement of an earthen and stone embankment to prevent soil and sediment loss from a site. The purpose of a sediment trap is to intercept sediment-laden runoff and trap the sediment in order to protect drainage ways, properties and rights of way below the sediment trap from sedimentation. A sediment trap is usually installed at points of discharge from disturbed areas. The drainage area for a sediment trap is recommended to be less than 5 acres.

Larger areas should be treated using a sediment basin. A sediment trap differs from a sediment basin mainly in the type of discharge structure. The trap should be located to obtain the maximum storage benefit from the terrain, for ease of clean out and disposal of the trapped sediment and to minimize interference with construction activities. The volume of the trap should be at least 3600 cubic feet per acre of drainage area.

Materials:

- All aggregate should be at least 3 inches in diameter and should not exceed a volume of 0.5 cubic foot.
- The geotextile fabric specification should be woven polypropylene, polyethylene or polyamide geotextile, minimum unit weight of 4.5 oz/yd 2, mullen burst strength at least 250 lb/in 2, ultraviolet stability exceeding 70%, and equivalent opening size exceeding 40.

Installation:

- Earth Embankment: Place fill material in layers not more than 8 inches in loose depth. Before compaction, moisten or aerate each layer as necessary to provide the optimum moisture content of the material. Compact each layer to 95 percent standard proctor density. Do not place material on surfaces that are muddy or frozen. Side slopes for the embankment are to be 3:1. The minimum width of the embankment should be 3 feet.

- A gap is to be left in the embankment in the location where the natural confluence of runoff crosses the embankment line. The gap is to have a width in feet equal to 6 times the drainage area in acres.

- Geotextile Covered Rock Core: A core of filter stone having a minimum height of 1.5 feet and a minimum width at the base of 3 feet should be placed across the opening of the earth embankment and should be covered by geotextile fabric which should extend a minimum distance of 2 feet in either direction from the base of the filter stone core.

- Filter Stone Embankment: Filter stone should be placed over the geotextile and is to have a side slope which matches that of the earth embankment of 3:1 and should cover the geotextile/rock core a minimum of 6 inches when installation is complete. The crest of the outlet should be at least 1 foot below the top of the embankment.

Sediment Basins

The purpose of a sediment basin is to intercept sediment-laden runoff and trap the sediment in order to protect drainage ways, properties and rights of way below the sediment basin from sedimentation. A sediment basin is usually installed at points of discharge from disturbed areas. The drainage area for a sediment basin is recommended to be less than 100 acres.

Sediment basins are effective for capturing and slowly releasing the runoff from larger disturbed areas thereby allowing sedimentation to take place. A sediment basin can be created where a permanent pond BMP is being constructed. Guidelines for construction of the permanent BMP should be followed, but revegetation, placement of underdrain piping, and installation of sand or other filter media should not be carried out until the site construction phase is complete.

Materials:

- Riser should be corrugated metal or reinforced concrete pipe or box and should have watertight fittings or end to end connections of sections.

- An outlet pipe of corrugated metal or reinforced concrete should be attached to the riser and should have positive flow to a stabilized outlet on the downstream side of the embankment.

- An anti-vortex device and rubbish screen should be attached to the top of the riser and should be made of polyvinyl chloride or corrugated metal.

Attachment 4
Description of Best Management Practices (BMPs)

Basin Design and Construction:

- For common drainage locations that serve an area with ten or more acres disturbed at one time, a sediment basin should provide storage for a volume of runoff from a two-year, 24-hour storm from each disturbed acre drained.

- The basin length to width ratio should be at least 2:1 to improve trapping efficiency. The shape may be attained by excavation or the use of baffles. The lengths should be measured at the elevation of the riser de-watering hole.

- Place fill material in layers not more than 8 inches in loose depth. Before compaction, moisten or aerate each layer as necessary to provide the optimum moisture content of the material. Compact each layer to 95 percent standard proctor density. Do not place material on surfaces that are muddy or frozen. Side slopes for the embankment should be 3:1 (H:V).

- An emergency spillway should be installed adjacent to the embankment on undisturbed soil and should be sized to carry the full amount of flow generated by a 10-year, 3-hour storm with 1 foot of freeboard less the amount which can be carried by the principal outlet control device.

- The emergency spillway should be lined with riprap as should the swale leading from the spillway to the normal watercourse at the base of the embankment.

- The principal outlet control device should consist of a rigid vertically oriented pipe or box of corrugated metal or reinforced concrete. Attached to this structure should be a horizontal pipe, which should extend through the embankment to the toe of fill to provide a de-watering outlet for the basin.

- An anti-vortex device should be attached to the inlet portion of the principal outlet control device to serve as a rubbish screen.

- A concrete base should be used to anchor the principal outlet control device and should be sized to provide a safety factor of 1.5 (downward forces = 1.5 buoyant forces).

- The basin should include a permanent stake to indicate the sediment level in the pool and marked to indicate when the sediment occupies 50% of the basin volume (not the top of the stake).

- The top of the riser pipe should remain open and be guarded with a trash rack and anti-vortex device. The top of the riser should be 12 inches below the elevation of the emergency spillway. The riser should be sized to convey the runoff from the 2-year, 3-hour storm when the water surface is at the

emergency spillway elevation. For basins with no spillway the riser must be sized to convey the runoff from the 10-yr, 3-hour storm.

- Anti-seep collars should be included when soil conditions or length of service make piping through the backfill a possibility.

- The 48-hour drawdown time will be achieved by using a riser pipe perforated at the point measured from the bottom of the riser pipe equal to 1/2 the volume of the basin. This is the maximum sediment storage elevation. The size of the perforation may be calculated as follows:

$$Ao = \frac{As \times \sqrt{2h}}{Cd \times 980{,}000}$$

Where:
A_o = Area of the de-watering hole, ft 2
A_s = Surface area of the basin, ft 2
C_d = Coefficient of contraction, approximately 0.6
h = head of water above the hole, ft
Perforating the riser with multiple holes with a combined surface area equal to A_o is acceptable.

Erosion Control Compost

Description: Erosion control compost (ECC) can be used as an aid to control erosion on critical sites during the establishment period of protective vegetation. The most common uses are on steep slopes, swales, diversion dikes, and on tidal or stream banks.

Materials:

New types of erosion control compost are continuously being developed. The Texas Department of Transportation (TxDOT) has established minimum performance standards which must be met for any products seeking to be approved for use within any of TxDOT's construction or maintenance activities. Material used within any TxDOT construction or maintenance activities must meet material specifications in accordance with current TxDOT specifications. TxDOT maintains a website at https://www.txdot.gov/inside-txdot/division/support/recycling/speclist.html that provides information on compost specification data.

ECC used for projects not related to TxDOT should also be of quality materials by meeting performance standards and compost specification data. To ensure the quality of compost used as an ECC, products should meet all applicable state and federal regulations, including but not limited to the United States Environmental Protection

Agency (USEPA) Code of Federal Regulations (CFR), Title 40, Part 503 Standards for Class A biosolids and Texas Natural Resource Conservation Commission (now named TCEQ) Health and Safety Regulations as defined in the Texas Administration Code (TAC), Chapter 332, and all other relevant requirements for compost products outlined in TAC, Chapter 332. Testing requirements required by the TCEQ are defined in TAC Chapter 332, including Sections §332.71 Sampling and Analysis Requirements for Final Products and §332.72 Final Product Grades. Compost specification data approved by TxDOT are appropriate to use for ensuring the use of quality compost materials or for guidance.

Testing standards are dependent upon the intended use for the compost and ensures product safety, and product performance regarding the product's specific use. The appropriate compost sampling and testing protocols included in the United States Composting Council (USCC) Test Methods for the Examination of Composting and Compost (TMECC) should be conducted on compost products used for ECC to ensure that the products used will not impact public health, safety, and the environment and to promote production and marketing of quality composts that meet analytical standards. TMECC is a laboratory manual that provides protocols for the composting industry and test methods for compost analysis. TMECC provides protocols to sample, monitor, and analyze materials during all stages of the composting process. Numerous parameters that might be of concern in compost can be tested by following protocols or test methods listed in TMECC. TMECC information can be found at https://www.compostingcouncil.org/page/tmecc. The USCC Seal of Testing Assurance (STA) program contains information regarding compost STA certification. STA program information can be found at https://www.compostingcouncil.org/page/SealofTestingAssuranceSTA.

Installation:

- Install in accordance with current TxDOT specification.
- Use on slopes 3:1 or flatter.
- Apply a 2-inch uniform layer unless otherwise shown on the plans or as directed.
- When rolling is specified, use a light corrugated drum roller.

Mulch and Compost Filter Socks

Description: Mulch and compost filter socks (erosion control logs) are used to intercept and detain sediment laden run-off from unprotected areas. When properly used, mulch and compost filter socks can be highly effective at controlling sediment from disturbed areas. They cause runoff to pond which allows heavier solids to settle. Mulch and compost filter socks are used during the period of construction near the

perimeter of a disturbed area to intercept sediment while allowing water to percolate through. The sock should remain in place until the area is permanently stabilized. Mulch and compost filter socks may be installed in construction areas and temporarily moved during the day to allow construction activity provided it is replaced and properly anchored at the end of the day. Mulch and compost filter socks may be seeded to allow for quick vegetative growth and reduction in run-off velocity.

Materials:

New types of mulch and compost filter socks are continuously being developed. The Texas Department of Transportation (TxDOT) has established minimum performance standards which must be met for any products seeking to be approved for use within any of TxDOT's construction or maintenance activities. Mulch and compost filter socks used within any TxDOT construction or maintenance activities must meet material specifications in accordance with TxDOT specification 5049. TxDOT maintains a website at https://www.txdot.gov/inside-txdot/division/support/recycling/speclist.html that provides information on compost specification data.

Mulch and compost filter socks used for projects not related to TxDOT should also be of quality materials by meeting performance standards and compost specification data. To ensure the quality of compost used for mulch and compost filter socks, products should meet all applicable state and federal regulations, including but not limited to the United States Environmental Protection Agency (USEPA) Code of Federal Regulations (CFR), Title 40, Part 503 Standards for Class A biosolids and Texas Natural Resource Conservation Commission Health and Safety Regulations as defined in the Texas Administration Code (TAC), Chapter 332, and all other relevant requirements for compost products outlined in TAC, Chapter 332. Testing requirements required by the TCEQ are defined in TAC Chapter 332, including Sections §332.71 Sampling and Analysis Requirements for Final Products and §332.72 Final Product Grades. Compost specification data approved by TxDOT are appropriate to use for ensuring the use of quality compost materials or for guidance.

Testing standards are dependent upon the intended use for the compost and ensures product safety, and product performance regarding the product's specific use. The appropriate compost sampling and testing protocols included in the United States Composting Council (USCC) Test Methods for the Examination of Composting and Compost (TMECC) should be conducted on compost products used for mulch and compost filter socks to ensure that the products used will not impact public health, safety, and the environment and to promote production and marketing of quality composts that meet analytical standards. TMECC is a laboratory manual that provides protocols for the composting industry and test methods for compost analysis. TMECC provides protocols to sample, monitor, and analyze materials during all stages of the composting process. Numerous parameters that might be of concern in compost can be tested by following protocols or test methods listed in TMECC.



Attachment 4
Description of Best Management Practices (BMPs)

TMECC information can be found at https://www.compostingcouncil.org/page/tmecc. The USCC Seal of Testing Assurance (STA) program contains information regarding compost STA certification. STA program information can be found at https://www.compostingcouncil.org/page/SealofTestingAssuranceSTA.

Installation:

Install in accordance with TxDOT Special Specification 5049.

- Install socks (erosion control logs) near the downstream perimeter of a disturbed area to intercept sediment from sheet flow.
- Secure socks in a method adequate to prevent displacement as a result of normal rain events such that flow is not allowed under the socks.
- Inspect and maintain the socks in good condition (including staking, anchoring, etc.).
- Maintain the integrity of the control, including keeping the socks free of accumulated silt, debris, etc., until the disturbed area has been adequately stabilized.

Attachment 4
Description of Best Management Practices (BMPs)

POST-CONSTRUCTION TSS CONTROLS

Retention/Irrigation Systems

Description: Retention/irrigation systems refer to the capture of runoff in a holding pond, then use of the captured water for irrigation of appropriate landscape areas. Retention/irrigation systems are characterized by the capture and disposal of runoff without direct release of captured flow to receiving streams. Retention systems exhibit excellent pollutant removal but can require regular, proper maintenance. Collection of roof runoff for subsequent use (rainwater harvesting) also qualifies as a retention/irrigation practice but should be operated and sized to provide adequate volume. This technology, which emphasizes beneficial use of stormwater runoff, is particularly appropriate for arid regions because of increasing demands on water supplies for agricultural irrigation and urban water supply.

Design Considerations: Retention/irrigation practices achieve 100% removal efficiency of total suspended solids contained within the volume of water captured. Design elements of retention/irrigation systems include runoff storage facility configuration and sizing, pump and wet well system components, basin lining, basin detention time, and physical and operational components of the irrigation system. Retention/irrigation systems are appropriate for large drainage areas with low to moderate slopes. The retention capacity should be sufficient considering the average rainfall event for the area.

Maintenance Requirements: Maintenance requirements for retention/irrigation systems include routine inspections, sediment removal, mowing, debris and litter removal, erosion control, and nuisance control.

Extended Detention Basin

Description: Extended detention facilities are basins that temporarily store a portion of stormwater runoff following a storm event. Extended detention basins are normally used to remove particulate pollutants and to reduce maximum runoff rates associated with development to their pre-development levels. The water quality benefits are the removal of sediment and buoyant materials. Furthermore, nutrients, heavy metals, toxic materials, and oxygen-demanding materials associated with the particles also are removed. The control of the maximum runoff rates serves to protect drainage channels below the device from erosion and to reduce downstream flooding. Although detention facilities designed for flood control have different design requirements than those used for water quality enhancement, it is possible to achieve these two objectives in a single facility.

Design Considerations: Extended detention basins can remove approximately 75% of the total suspended solids contained within the volume of runoff captured in the basin. Design elements of extended detention basins include basin sizing, basin

configuration, basin side slopes, basin lining, inlet/outlet structures, and erosion controls. Extended detention basins are appropriate for large drainage areas with low to moderate slopes. The retention capacity should be sufficient considering the average rainfall event for the area.

Maintenance Requirements: Maintenance requirements for extended detention basins include routine inspections, mowing, debris and litter removal, erosion control, structural repairs, nuisance control, and sediment removal.

Vegetative Filter Strips

Description: Filter strips, also known as vegetated buffer strips, are vegetated sections of land similar to grassy swales except they are essentially flat with low slopes and are designed only to accept runoff as overland sheet flow. They may appear in any vegetated form from grassland to forest, and are designed to intercept upstream flow, lower flow velocity, and spread water out as sheet flow. The dense vegetative cover facilitates conventional pollutant removal through detention, filtration by vegetation, and infiltration.

Filter strips cannot treat high velocity flows, and do not provide enough storage or infiltration to effectively reduce peak discharges to predevelopment levels for design storms. This lack of quantity control favors use in rural or low-density development; however, they can provide water quality benefits even where the impervious cover is as high as 50%. The primary highway application for vegetative filter strips is along rural roadways where runoff that would otherwise discharge directly to a receiving water passes through the filter strip before entering a conveyance system. Properly designed roadway medians and shoulders make effective buffer strips. These devices also can be used on other types of development where land is available and hydraulic conditions are appropriate.

Flat slopes and low to fair permeability of natural subsoil are required for effective performance of filter strips. Although an inexpensive control measure, they are most useful in contributing watershed areas where peak runoff velocities are low as they are unable to treat the high flow velocities typically associated with high impervious cover.

Successful performance of filter strips relies heavily on maintaining shallow unconcentrated flow. To avoid flow channelization and maintain performance, a filter strip should:

- Be equipped with a level spreading device for even distribution of runoff
- Contain dense vegetation with a mix of erosion resistant, soil binding species
- Be graded to a uniform, even and relatively low slope

- Laterally traverse the contributing runoff area

Filter strips can be used upgradient from watercourses, wetlands, or other water bodies along toes and tops of slopes and at outlets of other stormwater management structures. They should be incorporated into street drainage and master drainage planning. The most important criteria for selection and use of this BMP are soils, space, and slope.

Design Considerations: Vegetative filter strips can remove approximately 85% of the total suspended solids contained within the volume of runoff captured. Design elements of vegetative filter strips include uniform, shallow overland flow across the entire filter strip area, hydraulic loading rate, inlet structures, slope, and vegetative cover. The area should be free of gullies or rills which can concentrate flow. Vegetative filter strips are appropriate for small drainage areas with moderate slopes. Other design elements include the following:

- Soils and moisture are adequate to grow relatively dense vegetative stands
- Sufficient space is available
- Slope is less than 12%
- Comparable performance to more expensive structural controls

Maintenance Requirements: Maintenance requirements for vegetative filter strips include pest management, seasonal mowing and lawn care, routine inspections, debris and litter removal, sediment removal, and grass reseeding and mulching.

Constructed Wetlands

Description: Constructed wetlands provide physical, chemical, and biological water quality treatment of stormwater runoff. Physical treatment occurs as a result of decreasing flow velocities in the wetland, and is present in the form of evaporation, sedimentation, adsorption, and/or filtration. Chemical processes include chelation, precipitation, and chemical adsorption. Biological processes include decomposition, plant uptake and removal of nutrients, plus biological transformation and degradation. Hydrology is one of the most influential factors in pollutant removal due to its effects on sedimentation, aeration, biological transformation, and adsorption onto bottom sediments.

The wetland should be designed such that a minimum amount of maintenance is required. The natural surroundings, including such things as the potential energy of a stream or flooding river, should be utilized as much as possible. The wetland should approximate a natural situation and unnatural attributes, such as rectangular shape or

rigid channel, should be avoided.

Site considerations should include the water table depth, soil/substrate, and space requirements. Because the wetland must have a source of flow, it is desirable that the water table is at or near the surface. If runoff is the only source of inflow for the wetland, the water level often fluctuates, and establishment of vegetation may be difficult. The soil or substrate of an artificial wetland should be loose loam to clay. A perennial baseflow must be present to sustain the artificial wetland. The presence of organic material is often helpful in increasing pollutant removal and retention. A greater amount of space is required for a wetland system than is required for a detention facility treating the same amount of area.

Design Considerations: Constructed wetlands can remove over 90% of the total suspended solids contained within the volume of runoff captured in the wetland. Design elements of constructed wetlands include wetland sizing, wetland configuration, sediment forebay, vegetation, outflow structure, depth of inundation during storm events, depth of micro pools, and aeration. Constructed wetlands are appropriate for large drainage areas with low to moderate slopes.

Maintenance Requirements: Maintenance requirements for constructed wetlands include mowing, routine inspections, debris and litter removal, erosion control, nuisance control, structural repairs, sediment removal, harvesting, and maintenance of water levels.

Wet Basins

Description: Wet basins are runoff control facilities that maintain a permanent wet pool and a standing crop of emergent littoral vegetation. These facilities may vary in appearance from natural ponds to enlarged, bermed (manmade) sections of drainage systems and may function as online or offline facilities, although offline configuration is preferable. Offline designs can prevent scour and other damage to the wet pond and minimize costly outflow structure elements needed to accommodate extreme runoff events.

During storm events, runoff inflows displace part or all of the existing basin volume and are retained and treated in the facility until the next storm event. The pollutant removal mechanisms are settling of solids, wetland plant uptake, and microbial degradation. When the wet basin is adequately sized, pollutant removal performance can be excellent, especially for the dissolved fraction. Wet basins also help provide erosion protection for the receiving channel by limiting peak flows during larger storm events. Wet basins are often perceived as a positive aesthetic element in a community and offer significant opportunity for creative pond configuration and landscape design. Participation of an experienced wetland designer is suggested. A significant potential drawback for wet ponds in arid climates is that the contributing watershed for these facilities is often incapable of providing an adequate water supply to

maintain the permanent pool, especially during the summer months. Makeup water (i.e., well water or municipal drinking water) is sometimes used to supplement the rainfall/runoff process, especially for wet basin facilities treating watersheds that generate insufficient runoff.

Design Considerations: Wet basins can remove over 90% of the total suspended solids contained within the volume of runoff captured in the basin. Design elements of wet basins include basin sizing, basin configuration, basin side slopes, sediment forebay, inflow and outflow structures, vegetation, depth of permanent pool, aeration, and erosion control. Wet basins are appropriate for large drainage areas with low to moderate slopes.

Maintenance Requirements: Maintenance requirements for wet basins include mowing, routine inspections, debris and litter removal, erosion control, nuisance control, structural repairs, sediment removal, and harvesting.

Grassy Swales

Descripton: Grassy swales are vegetated channels that convey stormwater and remove pollutants by filtration through grass and infiltration through soil. They require shallow slopes and soils that drain well. Pollutant removal capability is related to channel dimensions, longitudinal slope, and type of vegetation. Optimum design of these components will increase contact time of runoff through the swale and improve pollutant removal rates.

Grassy swales are primarily stormwater conveyance systems. They can provide sufficient control under light to moderate runoff conditions, but their ability to control large storms is limited. Therefore, they are most applicable in low to moderate sloped areas or along highway medians as an alternative to ditches and curb and gutter drainage. Their performance diminishes sharply in highly urbanized settings, and they are generally not effective enough to receive construction stage runoff where high sediment loads can overwhelm the system. Grassy swales can be used as a pretreatment measure for other downstream BMPs, such as extended detention basins. Enhanced grassy swales utilize check dams and wide depressions to increase runoff storage and promote greater settling of pollutants.

Grassy swales can be more aesthetically pleasing than concrete or rock-lined drainage systems and are generally less expensive to construct and maintain. Swales can slightly reduce impervious area and reduce the pollutant accumulation and delivery associated with curbs and gutters. The disadvantages of this technique include the possibility of erosion and channelization over time, and the need for more right-of-way as compared to a storm drain system. When properly constructed, inspected, and maintained, the life expectancy of a swale is estimated to be 20 years.



Attachment 4
Description of Best Management Practices (BMPs)

Design Considerations:

- Comparable performance to wet basins
- Limited to treating a few acres
- Availability of water during dry periods to maintain vegetation
- Sufficient available land area

The suitability of a swale at a site will depend on land use, size of the area serviced, soil type, slope, imperviousness of the contributing watershed, and dimensions and slope of the swale system. In general, swales can be used to serve areas of less than 10 acres, with slopes no greater than 5 %. The seasonal high water table should be at least 4 feet below the surface. Use of natural topographic lows is encouraged, and natural drainage courses should be regarded as significant local resources to be kept in use.

Maintenance Requirements:

Research in the Austin area indicates that vegetated controls are effective at removing pollutants even when dormant. Therefore, irrigation is not required to maintain growth during dry periods but may be necessary only to prevent the vegetation from dying.

Vegetation Lined Drainage Ditches

Description: Vegetation lined drainage ditches are similar to grassy swales. These drainage ditches are vegetated channels that convey storm water and remove pollutants by filtration through grass and infiltration through soil. They require soils that drain well. Pollutant removal capability is related to channel dimensions, longitudinal slope, and type of vegetation. Optimum design of these components will increase contact time of runoff through the ditch and improve pollutant removal rates. Vegetation lined drainage ditches are primarily storm water conveyance systems. They have vegetation lined in the low flow channel and may include vegetated shelves.

Vegetation in drainage ditches reduces erosion and removes pollutants by lowering water velocity over the soil surface, binding soil particles with roots, and by filtration through grass and infiltration through soil. Vegetation lined drainage ditches can be used where:

- A vegetative lining can provide sufficient stability for the channel grade by increasing maximum permissible velocity
- Slopes are generally less than 5%, with protection from sheer stress as needed through the use of BMPs, such as erosion control blankets

- Site conditions required to establish vegetation, i.e. climate, soils, topography, are present

Design Criteria: The suitability of a vegetation lined drainage ditch at a site will depend on land use, size of the area serviced, soil type, slope, imperviousness of the contributing watershed, and dimensions and slope of the ditch system. The hydraulic capacity of the drainage ditch and other elements such as erosion, siltation, and pollutant removal capability, must be taken into consideration. Use of natural topographic lows is encouraged, and natural drainage courses should be regarded as significant local resources to be kept in use. Other items to consider include the following:

- Capacity, cross-section shape, side slopes, and grade
- Select appropriate native vegetation
- Construct in stable, low areas to conform with the natural drainage system. To reduce erosion potential, design the channel to avoid sharp bends and steep grades.
- Design and build drainage ditches with appropriate scour and erosion protection. Surface water should be able to enter over the vegetated banks without erosion occurring.
- BMPs, such as erosion control blankets, may need to be installed at the time of seeding to provide stability until the vegetation is fully established. It may also be necessary to divert water from the channel until vegetation is established or to line the channel with sod.
- Vegetated ditches must not be subject to sedimentation from disturbed areas.
- Sediment traps may be needed at channel inlets to prevent entry of muddy runoff and channel sedimentation.
- Availability of water during dry periods to maintain vegetation
- Sufficient available land area

Maintenance:

During establishment, vegetation lined drainage ditches should be inspected, repaired, and vegetation reestablished if necessary. After the vegetation has become established, the ditch should be checked periodically to determine if the channel is

withstanding flow velocities without damage. Check the ditch for debris, scour, or erosion and immediately make repairs if needed. Check the channel outlet and all road crossings for bank stability and evidence of piping or scour holes and make repairs immediately. Remove all significant sediment accumulations to maintain the designed carrying capacity. Keep the vegetation in a healthy condition at all times, since it is the primary erosion protection for the channel. Vegetation lined drainage ditches should be seasonally maintained by mowing or irrigating, depending on the vegetation selected. The long-term management of ditches as stable, vegetated, "natural" drainage systems with native vegetation buffers is highly recommended due to the inherent stability offered by grasses, shrubs, trees, and other vegetation.

Research in the Austin area indicates that vegetated controls are effective at removing pollutants even when dormant. Therefore, irrigation is not required to maintain growth during dry periods but may be necessary only to prevent the vegetation from dying.

Sand Filter Systems

Description: The objective of sand filters is to remove sediment and the pollutants from the first flush of pavement and impervious area runoff. The filtration of nutrients, organics, and coliform bacteria is enhanced by a mat of bacterial slime that develops during normal operations. One of the main advantages of sand filters is their adaptability; they can be used on areas with thin soils, high evaporation rates, low-soil infiltration rates, in limited-space areas, and where groundwater is to be protected.

Since their original inception in Austin, Texas, hundreds of intermittent sand filters have been implemented to treat stormwater runoff. There have been numerous alterations or variations in the original design as engineers in other jurisdictions have improved and adapted the technology to meet their specific requirements. Major types include the Austin Sand Filter, the District of Columbia Underground Sand Filter, the Alexandria Dry Vault Sand Filter, the Delaware Sand Filter, and peat-sand filters which are adapted to provide a sorption layer and vegetative cover to various sand filter designs.

Design Considerations:

- Appropriate for space-limited areas
- Applicable in arid climates where wet basins and constructed wetlands are not appropriate
- High TSS removal efficiency

Cost Considerations:

Filtration Systems may require less land than some other BMPs, reducing the land acquisition cost; however the structure itself is one of the more expensive BMPs. In addition, maintenance cost can be substantial.

Erosion Control Compost

Description: Erosion control compost (ECC) can be used as an aid to control erosion on critical sites during the establishment period of protective vegetation. The most common uses are on steep slopes, swales, diversion dikes, and on tidal or stream banks.

Materials:

New types of erosion control compost are continuously being developed. The Texas Department of Transportation (TxDOT) has established minimum performance standards which must be met for any products seeking to be approved for use within any of TxDOT=s construction or maintenance activities. Material used within any TxDOT construction or maintenance activities must meet material specifications in accordance with current TxDOT specifications. TxDOT maintains a website at https://www.txdot.gov/inside-txdot/division/support/recycling/speclist.html that provides information on compost specification data.

ECC used for projects not related to TxDOT should also be of quality materials by meeting performance standards and compost specification data. To ensure the quality of compost used as an ECC, products should meet all applicable state and federal regulations, including but not limited to the United States Environmental Protection Agency (USEPA) Code of Federal Regulations (CFR), Title 40, Part 503 Standards for Class A biosolids and Texas Natural Resource Conservation Commission (now named TCEQ) Health and Safety Regulations as defined in the Texas Administration Code (TAC), Chapter 332, and all other relevant requirements for compost products outlined in TAC, Chapter 332. Testing requirements required by the TCEQ are defined in TAC Chapter 332, including Sections '332.71 Sampling and Analysis Requirements for Final Products and '332.72 Final Product Grades. Compost specification data approved by TxDOT are appropriate to use for ensuring the use of quality compost materials or for guidance.

Testing standards are dependent upon the intended use for the compost and ensures product safety, and product performance regarding the product=s specific use. The appropriate compost sampling and testing protocols included in the United States Composting Council (USCC) Test Methods for the Examination of Composting and Compost (TMECC) should be conducted on compost products used for ECC to ensure that the products used will not impact public health, safety, and the environment and

to promote production and marketing of quality composts that meet analytical standards. TMECC is a laboratory manual that provides protocols for the composting industry and test methods for compost analysis. TMECC provides protocols to sample, monitor, and analyze materials during all stages of the composting process. Numerous parameters that might be of concern in compost can be tested by following protocols or test methods listed in TMECC. TMECC information can be found at https://www.compostingcouncil.org/page/tmecc. The USCC Seal of Testing Assurance (STA) program contains information regarding compost STA certification. STA program information can be found at https://www.compostingcouncil.org/page/SealofTestingAssuranceSTA.

Installation:

Install in accordance with current TxDOT specification.

- Use on slopes 3:1 or flatter.
- Apply a 2-inch uniform layer unless otherwise shown on the plans or as directed.
- When rolling is specified, use a light corrugated drum roller.

Mulch and Compost Filter Socks

Description: Mulch and compost filter socks (erosion control logs) are used to intercept and detain sediment laden run-off from unprotected areas. When properly used, mulch and compost filter socks can be highly effective at controlling sediment from disturbed areas. They cause runoff to pond which allows heavier solids to settle. Mulch and compost filter socks are used during the period of construction near the perimeter of a disturbed area to intercept sediment while allowing water to percolate through. The sock should remain in place until the area is permanently stabilized. Mulch and compost filter socks may be installed in construction areas and temporarily moved during the day to allow construction activity provided it is replaced and properly anchored at the end of the day. Mulch and compost filter socks may be seeded to allow for quick vegetative growth and reduction in run-off velocity.

Materials:

New types of mulch and compost filter socks are continuously being developed. The Texas Department of Transportation (TxDOT) has established minimum performance standards which must be met for any products seeking to be approved for use within any of TxDOT=s construction or maintenance activities. Mulch and compost filter socks used within any TxDOT construction or maintenance activities must meet material specifications in accordance with TxDOT specification 5049. TxDOT maintains a website at

https://www.txdot.gov/inside-txdot/division/support/recycling/speclist.html that provides information on compost specification data.

Mulch and compost filter socks used for projects not related to TxDOT should also be of quality materials by meeting performance standards and compost specification data. To ensure the quality of compost used for mulch and compost filter socks, products should meet all applicable state and federal regulations, including but not limited to the United States Environmental Protection Agency (USEPA) Code of Federal Regulations (CFR), Title 40, Part 503 Standards for Class A biosolids and Texas Natural Resource Conservation Commission Health and Safety Regulations as defined in the Texas Administration Code (TAC), Chapter 332, and all other relevant requirements for compost products outlined in TAC, Chapter 332. Testing requirements required by the TCEQ are defined in TAC Chapter 332, including Sections '332.71 Sampling and Analysis Requirements for Final Products and '332.72 Final Product Grades. Compost specification data approved by TxDOT are appropriate to use for ensuring the use of quality compost materials or for guidance.

Testing standards are dependent upon the intended use for the compost and ensures product safety, and product performance regarding the product=s specific use. The appropriate compost sampling and testing protocols included in the United States Composting Council (USCC) Test Methods for the Examination of Composting and Compost (TMECC) should be conducted on compost products used for mulch and compost filter socks to ensure that the products used will not impact public health, safety, and the environment and to promote production and marketing of quality composts that meet analytical standards. TMECC is a laboratory manual that provides protocols for the composting industry and test methods for compost analysis. TMECC provides protocols to sample, monitor, and analyze materials during all stages of the composting process. Numerous parameters that might be of concern in compost can be tested by following protocols or test methods listed in TMECC. TMECC information can be found at https://www.compostingcouncil.org/page/tmecc. The USCC Seal of Testing Assurance (STA) program contains information regarding compost STA certification. STA program information can be found at https://www.compostingcouncil.org/page/SealofTestingAssuranceSTA.

Installation:

- Install in accordance with TxDOT Special Specification 5049.
- Install socks (erosion control logs) near the downstream perimeter of a disturbed area to intercept sediment from sheet flow.
- Secure socks in a method adequate to prevent displacement as a result of normal rain events such that flow is not allowed under the socks.

- Inspect and maintain the socks in good condition (including staking, anchoring, etc.). Maintain the integrity of the control, including keeping the socks free of accumulated silt, debris, etc., until the disturbed area has been adequately stabilized.

Sedimentation Chambers (only to be used when there is no space available for other approved BMP's)

Description: Sedimentation chambers are stormwater treatment structures that can be used when space is limited such as urban settings. These structures are often tied into stormwater drainage systems for treatment of stormwater prior to entering state waters. The water quality benefits are the removal of sediment and buoyant materials. These structures are not designed as a catch basin or detention basin and not typically used for floodwater attenuation.

Design Considerations: Average rainfall and surface area should be considered when following manufacturer's recommendations for chamber sizing and/or number of units needed to achieve effective TSS removal. If properly sized, 50-80% removal of TSS can be expected.

Maintenance Requirements: Maintenance requirements include routine inspections, sediment, debris and litter removal, erosion control and nuisance control.

CHRISTI CRADDICK, CHAIRMAN
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DANNY SORRELLS
ASSISTANT EXECUTIVE DIRECTOR
DIRECTOR, OIL AND GAS DIVISION
LESLIE SAVAGE, P.G.
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RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

December 18, 2020

Colonel Timothy R. Vail
Galveston District
U.S. Army Corps of Engineers
P.O. Box 1229
Galveston, Texas 77553-1229

Re: 2020 USACE Nationwide Permits Reissuance
NPWs 2, 3, 6, 7, 8, 12, 14, 16, 18, 19, 20, 25, 38, 43, 46, D and E

Dear Colonel Vail:

This letter is in response to your letter dated October 19, 2020, requesting Clean Water Act Section 401 certification of the United States Army Corps of Engineers (USACE) Nationwide Permits (NWPs), notification of which was published in the September 15, 2020, issue of the Federal Register (85 FR 57298). Regional conditions for NWPs in Texas were proposed in public notices on September 30, 2020 and October 1, 2020.

Texas Natural Resources Code, §91.101, and Texas Water Code, §26.131, grant the RRC jurisdiction for water quality certifications for federal permits covering activities associated with the exploration, development, and production, including pipeline transportation, of oil, gas or geothermal resources that may result in discharges to waters of the United States. No person may conduct any activity subject to RRC jurisdiction pursuant to a USACE permit if that activity may result in a discharge into to waters of the United States within the boundaries of the State of Texas, unless the RRC has first issued a certification or waiver of certification under 16 Texas Administrative Code §3.93 (Rule 93). Although the RRC is responsible for water quality certification of activities under the jurisdiction of the RRC, the Texas Commission on Environmental Quality (TCEQ) establishes the Texas Water Quality Standards. This certification is limited to those activities under the jurisdiction of the RRC. For all other activities, the TCEQ will issue the certification as provided in Texas Water Code §26.131.

This office has reviewed the following proposed NWPs: 2 (Structures in Artificial Canals), 3 (Maintenance), 6 (Survey Activities), 7 (Outfall Structures and Associated Intake Structures), 8 (Oil and Gas Structures on the Outer Continental Shelf), 12 (Utility Line Activities), 14 (Linear Transportation Projects), 16 (Return Water From Upland Contained Disposal Areas), 18 (Minor Discharges), 19 (Minor Dredging), 20 (Oil Spill Cleanup), 25 (Structural Discharges), 38 (Cleanup of Hazardous and Toxic Waste), 43 (Stormwater Management Facilities), 46

(Discharges in Ditches), D (Utility Line Activities for Water and Other Substances), and E (Water Reclamation and Reuse Facilities).

Based on our evaluation of the information contained in these documents, the RRC certifies that the activities authorized by NWPs 2, 8, 20, and E should not result in a violation of Texas Surface Water Quality Standards as required by Section 401 of the Federal Clean Water Act and pursuant to 16 Texas Administrative Code (TAC) §3.93.

The RRC conditionally certifies that the activities authorized by NWPs 3, 6, 7, 12, 14, 16, 18, 19, 25, 38, 43, 46, and D should not result in a violation of Texas Surface Water Quality Standards as required by Section 401 of the Federal Clean Water Act and pursuant to 16 TAC §3.93. Conditions for each NWP are defined in Attachment 1, in accordance with Texas Water Code, §26.003 and 30 TAC §307.5(a), which establish the antidegradation policy. The antidegradation policy and implementation procedures apply to actions regulated under state and federal authority that would increase pollution of the water in the state, including federal permits relating to the discharge of fill or dredged material under Federal Clean Water Act, §404.

Conditions for NWPs 6, 7, 12, 14, 16, 18, 19, 25, 38, 43, 46, and D: Certification of these NWPs is conditioned on inclusion of a prohibition on the use of these NWPs in coastal dune swales, mangrove marshes, and Columbia bottomlands in the Galveston District. Impacts to rare and ecologically significant coastal dune swales, mangrove marshes, and Columbia bottomlands, would not be considered minimal. Wetland water quality functions as defined in the Texas Surface Water Quality Standards (30 TAC §307) are attributes of wetlands that protect and maintain the quality of water in the state, which include stormwater storage and retention and the moderation of extreme water level fluctuations; shoreline protection against erosion through the dissipation of wave energy and water velocity, and anchoring of sediments; habitat for aquatic life; and removal, transformation, and retention of nutrients and toxic substances. No discharge can be certified if there is a practicable alternative to the proposed discharge that would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other more significant adverse environmental consequences.

Condition for NWP 12 and NWP D: Certification on NWP 12 and NWP D is conditioned on a prohibition on mechanized land clearing in forested wetlands. Wetland water quality functions as defined in the Texas Surface Water Quality Standards (30 TAC §307) are attributes of wetlands that protect and maintain the quality of water in the state, which include stormwater storage and retention and the moderation of extreme water level fluctuations; shoreline protection against erosion through the dissipation of wave energy and water velocity, and anchoring of sediments; habitat for aquatic life; and removal, transformation, and retention of nutrients and toxic substances. No discharge can be certified if there is a practicable alternative to the proposed discharge that would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other more significant adverse environmental consequences.

Condition for NWP 16: Certification of NWP 16 is conditioned on inclusion of a limit of 300 mg/L total suspended solids (TSS) concentration on the return water from upland contained dredged material disposal areas. This limit is promulgated as an effluent limit under Title 40 of

the Code of Federal Regulations. The requirement has also been included in individual 404 permits.

The RRC is conditionally certifying NWP General Condition #12 *Soil Erosion and Sediment Controls*, and General Condition #25 *Water Quality*. The conditions address three categories of water quality management with specific recommendations for Best Management Practices (BMPs) for each category intended to enhance the water quality protection. A list of recommended BMPs is included as Attachment 2. The BMPs identified in Attachment 2 are in accordance with the Texas Water Code, §26.003 and the antidegradation policy and implementation procedures in 30 TAC §307.5(a), which apply to actions regulated under state and federal authority that would increase pollution of the water in the state, including federal permits relating to the discharge of fill or dredged material under Federal Clean Water Act, §404.

Attachment 3 is provided as a reference for all NWPs. A detailed description of the BMPs is provided in Attachment 4. These BMPs should be included for the protection of waters in the state specific to each NWP as part of the regional conditions for Texas. The conditions identified in Attachment 3 and 4 are in accordance with the Texas Water Code, §26.003 and the antidegradation policy and implementation procedures in 30 TAC §307.5(a), which apply to actions regulated under state and federal authority that would increase pollution of the water in the state, including federal permits relating to the discharge of fill or dredged material under Federal Clean Water Act, §404.

USACE is proposing to remove the 300 linear foot limit for NWP 43 and quantify impacts to streams using a ½-acre limit. Removal of the 300 linear foot limit would also remove the waiver requirement for proposed impacts to streams greater than 300 linear feet. The RRC is concerned about the potential adverse impact to state aquatic resources of the proposed removal of the 300 linear foot limit on stream bed losses. Removing the stream loss limit would mean that stream losses associated with activities covered by this NWP would only be limited by the existing 1/2 - acre limit on overall impacts to waters of the U.S., which could significantly affect state stream resources by allowing upwards of several thousand linear feet of stream impacts under these permits, depending on the dimensions of the streams being impacted. The RRC conditionally certifies this NWP with a cap of 1,500 linear feet on the stream length impacted based on the amount of stream impacts considered minimal by the state. The greater than minimal loss of stream length would result in significant loss of aquatic habitat and degradation of water quality per the state's Antidegradation Policy (30 TAC §307.4(i)) for aquatic life uses and habitat, where vegetative and physical components of the aquatic environment must be maintained or mitigated to protect aquatic life uses.

Certification of General Condition 23 *Mitigation* is conditioned to require USACE to copy RRC on any written notification of a mitigation waiver so that RRC may fulfill its responsibility to ensure water of the state is appropriately protected by understanding the impact of waivers being granted in Texas.

By letter dated November 14, 2020, the Texas Parks and Wildlife Department (TPWC) provided substantive recommendations. TPWD commented that the proposal to replace the 300 linear

foot limit with a half-acre limit would greatly increase the amount of stream subject to impact without PCN and the length of stream allowed to be impacted under a NWP. TPWD recommended that Regional Condition 10 be revised to include resource agency coordination for any proposed discharges into mangrove forests or coastal dune swales.

TPWD recommended new Regional Conditions for NWP 3, 6, and 12 include PCN for activities that include general conditions for aquatic life movement, shellfish beds, adverse effects from impoundments, endangered species, designated critical resource waters and notice of fish, shellfish, and other aquatic resource mortality events as it related to the general conditions. The General Conditions cover many of these concerns.

In addition, a new regional condition should prohibit use of NWP 12 for discharges into Critical Resource Water (CRW) (GEMS, State Coastal Preserves, Sanctuaries, state Scientific areas, and Ecologically Significant Stream Segments, and Texas protected Mussel Sanctuaries; as well as state designated areas for known mussel habitat and known occurrences of state-and/or federally-listed freshwater mussels species) and their adjacent wetlands. Discharges of dredged or fill material into waters of the U.S. are not authorized by NWP 12 for any activity within, or directly affecting, Designated Critical Resource Waters, including wetlands adjacent to such waters (General Condition 22). PCN is required for NWPs 3 for any activity proposed by permittees in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after she or he determines that the impacts to the critical resource waters will be no more than minimal (General Condition 22). N addition, USACE advised by letter dated December 11, 2020, that USACE may designate, after notice and opportunity for public comment, additional waters having particular environmental or ecological significance. Although the process for designating the requested areas as CRWs was initiated, it has not been completed.

The RRC reserves the right to modify this certification should it be determined that significant cumulative or secondary impacts are occurring as a result of the activities authorized by the USACE under these NPWs.

The RRC has reviewed this proposed action for consistency with the Texas Coastal Management Plan (TCMP) goals and policies, in accordance with the regulations of the TCMP, and has found that the proposed action will have direct and significant adverse effect on any coastal natural resource area identified in the applicable policies, but has determined that the proposed action is consistent with the applicable goals and policies of the TCMP. This consistency determination is conditioned on inclusion in the NWPs of the conditions discussed above, as well as the following conditions:

Under General Condition 18 (Endangered Species), no activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. However, the General Condition does not include such a prohibition on activity that could jeopardize the continued existence of a threatened or

endangered species or a species proposed for such designation, as identified by the State of Texas. USACE should coordinated with Texas Parks and Wildlife for all discharges, work, dredging activities, or dewatering activities proposed in non-tidal waters in which state and/or federal listed freshwater mussel species are known to occur and/or are within one of the 18 listed Texas protected mussel sanctuaries.

If you require further assistance, please contact me at 512-463-7308 or by email at Leslie.savage@rrc.texas.gov.

Regards,

Leslie Savage

Leslie Savage, Chief Geologist
Oil and Gas Division
Railroad Commission of Texas

Ccs: (Via Electronic mail)
Mr. Stephen Brooks, Branch Chief, U.S. Army Corp of Engineers, Regulatory Branch, Fort Worth
Branch Chief, U.S. Army Corps of Engineers, Albuquerque District
Regulatory Branch Chief, U.S. Army Corps of Engineers, Regulatory Branch, Tulsa
Regulatory Branch Chief, U.S. Army Corps of Engineers, El Paso Regulatory Office
Ms. Leslie Koza, Texas Parks and Wildlife
Ms. Allison Buchtien, Texas General Land Office via e-mail

Attachment 1
Conditions of Section 401 Certification for Nationwide Permits and General Conditions

General Condition 12 (Soil Erosion and Sediment Controls)
Erosion control and sediment control BMPs described in Attachment 2 are required with the use of this general condition. If the applicant does not choose one of the BMPs listed in Attachment 2, an individual 401 certification is required.

General Condition 25 (Water Quality)
Post-construction total suspended solids (TSS) BMPs described in Attachment 2 are required with the use of this general condition. If the applicant does not choose one of the BMP's listed in Attachment 2, an individual 401 certification is required.

General Condition 23 (Mitigation)
The USACE will copy the RRC on all mitigation waivers sent to applicants.

NWP 43
The USACE will copy the RRC on all written approvals of waivers for impacts to ephemeral, intermittent or perennial streams.

NWPs 2, 3, 6, 7, 8, 12, 14, 16, 18, 19, 20, 25, 38, 43, and 46
These *NWPs* are not authorized for use in coastal dune swales, mangrove marshes, and Columbia bottomlands in the Galveston District, Texas.

NWP 3 (Maintenance)
Soil Erosion and Sediment Controls under General Condition 12 are required.

NWP 6 (Survey Activities)
Soil Erosion and Sediment Controls under General Condition 12 are required.

NWP 7 (Outfall Structures and Associated Intake Structures)
Soil Erosion and Sediment Controls under General Condition 12 are required.

NWP 12 (Utility Line Activities)
Soil Erosion and Sediment Controls under General Condition 12 are required. Postconstruction TSS controls under General Condition 25 are required.

NWP 14 (Linear Transportation Projects)
Soil Erosion and Sediment Controls under General Condition 12 are required. Postconstruction TSS controls under General Condition 2 5 are required.

NWP 16 (Return Water From Upland Contained Disposal Areas)
Effluent from an upland contained disposal area shall not exceed a TSS concentration of 300 mg/L unless a site-specific TSS limit, or a site specific correlation curve for turbidity (nephelometric turbidity units (NTU)) versus TSS has been approved by TCEQ.

NWP 18 (Minor Discharges)
Soil Erosion and Sediment Controls under General Condition 12 are required. Postconstruction TSS controls under General Condition 2 5 are required.

NWP 19 (Minor Dredging)
Soil Erosion: and Sediment Controls under General Condition 12 are required.

NWP 25 (Structural Discharges)
Soil Erosion and Sediment Controls under General Condition 12 are required.

NWP 38 (Cleanup of Hazardous and Toxic Waste)
Soil Erosion and Sediment Controls under General Condition 12 are required.

NWP 43 (Stormwater Management Facilities)
Soil Erosion and Sediment Controls under General Condition 12 are required.

NWP 46 (Discharges in Ditches)
Soil Erosion and Sediment Controls under General Condition 12 are required.

Attachment 2

401 Water Quality Certification Best Management Practices (BMPs) for Nationwide Permits

I. **Erosion Control**

Disturbed areas must be stabilized to prevent the introduction of sediment to adjacent wetlands or water bodies during wet weather conditions (erosion). *At least one* of the following BMPs must be maintained and remain in place until the area has been stabilized for NWPs 3, 6, 7, 12, 14, 18, 19, 25, 38, 43, and 46. If the applicant does not choose one of the BMPs listed, an individual 401 certification is required.

o Temporary Vegetation
o Mulch
o Interceptor Swale
o Erosion Control Compost
o Compost Filter Socks

II. **Sedimentation Control**

o Blankets/Matting
o Sod
o Diversion Dike
o Mulch Filter Socks

Prior to project initiation, the project area must be isolated from adjacent wetlands and water bodies by the use of BMPs to confine sediment. Dredged material shall be placed in such a manner that prevents sediment runoff into water in the state, including wetlands. Water bodies can be isolated by the use of one or more of the required BMPs identified for sedimentation control. These BMP's must be maintained and remain in place until the dredged material is stabilized. *At least one* of the following BMPs must be maintained and remain in place until the area has been stabilized for NWPs 3, 6, 7, 12, 14, 18, 19, 25, 38, 43, and 46. If the applicant does not choose one of the BMPs listed, an individual 401 certification is required.

o Sand Bag Berm
o Rock Berm
o Silt Fence
o Triangular Filter Dike
o Stone Outlet Sediment Traps
o Erosion Control Compost
o Compost Filter Socks

III. **Post-Construction TSS Control**

o Hay Bale Dike
o Brush Berms
o Sediment Basins
o Mulch Filter Socks

After construction has been completed and the site is stabilized, total suspended solids (TSS) loadings shall be controlled by *at least one* of the following BMPs for NWPs 12, 14, and 18. If the applicant does not choose one of the BMPs listed, an individual 401 certification is required.
o Retention/Irrigation Systems
o Constructed Wetlands
o Extended Detention Basin
o Wet Basins
o Vegetative Filter Strips
o Vegetation lined drainage ditches
o Grassy Swales
o Sand Filter Systems
o Erosion Control Compost
o Mulch Filter Socks
o Compost Filter Socks
o Sedimentation Chambers*
* Only to be used when there is no space available for other approved BMPs.

IV. NWP 16: Return Water from Upland Contained Disposal Areas
Effluent from an upland contained disposal area shall not exceed a TSS concentration of 300 mg/L unless a site-specific TSS limit, or a site specific correlation curve for turbidity (nephelometric turbidity units (NTU)) versus TSS has been approved by TCEQ.

V. All NWPs except NWP 3
These NWPs are not authorized for use in coastal dune swales, mangrove marshes, and Columbia bottomlands in the Galveston District, Texas.

Attachment 3
Reference to Nationwide Permits Best Management Practices Requirements

NWP	Permit Description	Erosion Control	Sediment Control	Post Construction TSS
2	Structures in Artificial Canals			
3	Maintenance	X	X	
6	Survey Activities Trenching	X	X	
7	Outfall Structures and Associated Intake Structures	X	X	
8	Oil and Gas Structures on the Outer Continental Shelf	X	X	
12	Utility Line Activities	X	X	X
14	Liner Transportation Projects	X	X	X
16	Return Water From Upland Contained Disposal Areas			
18	Minor Discharges	X	X	X
19	Minor Dredging	X	X	
20	Response Operations for Oil and Hazardous Substances			
25	Structural Discharges	X	X	
38	Cleanup o Hazardous and Toxic Waste	X	X	
43	Stormwater Management Facilities	X	X	
46	Discharges in Ditches	X	X	

Attachment 4
EROSION CONTROL BMPs

Temporary Vegetation

Description: Vegetation can be used as a temporary or permanent stabilization technique for areas disturbed by construction. Vegetation effectively reduces erosion in swales, stockpiles, berms, mild to medium slopes, and along roadways. Other techniques such as matting, mulches, and grading may be required to assist in the establishment of vegetation.

Materials:

- The type of temporary vegetation used on a site is a function of the season and the availability of water for irrigation.
- Temporary vegetation should be selected appropriately for the area.
- County agricultural extension agents are a good source for suggestions for temporary vegetation.
- All seed should be high quality, U.S. Dept. of Agriculture certified seed.

Installation:

- Grading must be completed prior to seeding.
- Slopes should be minimized.
- Erosion control structures should be installed.
- Seedbeds should be well pulverized, loose, and uniform.
- Fertilizers should be applied at appropriate rates.
- Seeding rates should be applied as recommended by the county agricultural extension agent.
- The seed should be applied uniformly.
- Steep slopes should be covered with appropriate soil stabilization matting.

Blankets and Matting

Description: Blankets and matting material can be used as an aid to control erosion on critical sites during the establishment period of protective vegetation. The most common uses are in channels, interceptor swales, diversion dikes, short, steep slopes, and on tidal or stream banks.

Materials:

The Texas Department of Transportation (TxDOT) has defined the critical performance factors for these types of products and has established minimum performance standards which must be met for any product seeking to be approved for use within any of TxDOT's construction or maintenance activities. The products that have been approved by TxDOT are also appropriate for general construction site stabilization. TxDOT maintains a web site at http://www.txdot.gov/business/doing_business/product_evaluation/erosion_control.htm, which is updated as new products are evaluated.

Installation:

- Install in accordance with the manufacturer's recommendations.
- Proper anchoring of the material.
- Prepare a friable seed bed relatively free from clods, rocks and any foreign material.
- Fertilize and seed in accordance with seeding or other type of planting plan.

• Erosion stops should extend beyond the channel liner to full design cross-section of the channel.
• A uniform trench perpendicular to line of flow may be dug with a spade or a mechanical trencher.
• Erosion stops should be deep enough to penetrate solid material or below level of ruling in sandy soils.
• Erosion stop mats should be wide enough to allow turnover at bottom of trench for stapling, while maintaining the top edge flush with channel surface.

Mulch

Description: Mulching is the process of applying a material to the exposed soil surface to protect it from erosive forces and to conserve soil moisture until plants can become established. When seeding critical sites, sites with adverse soil conditions or seeding on other than optimum seeding dates, mulch material should be applied immediately after seeding. Seeding during optimum seeding dates and with favorable soils and site conditions will not need to be mulched.

Materials:
• Mulch may be small grain straw which should be applied uniformly.
• On slopes 15 percent or greater, a binding chemical must be applied to the surface.
• Wood-fiber or paper-fiber mulch may be applied by hydroseeding.
• Mulch nettings may be used.
• Wood chips may be used where appropriate.

Installation:
Mulch anchoring should be accomplished immediately after mulch placement. This may be done by one of the following methods: peg and twine, mulch netting, mulch anchoring tool, or liquid mulch binders.

Description: Sod is appropriate for disturbed areas which require immediate vegetative covers, or where sodding is preferred to other means of grass establishment. Locations particularly suited to stabilization with sod are waterways carrying intermittent flow, areas around drop inlets or in grassed swales, and residential or commercial lawns where quick use or aesthetics are factors. Sod is composed of living plants and those plants must receive adequate care to provide vegetative stabilization on a disturbed area.

Materials:
• Sod should be machine cut at a uniform soil thickness.
• Pieces of sod should be cut to the supplier's standard width and length.
• Torn or uneven pads are not acceptable.
• Sections of sod should be strong enough to support their own weight and retain their size and shape when suspended from a firm grasp.
• Sod should be harvested, delivered, and installed within a period of 36 hours.

Installation:
• Areas to be sodded should be brought to final grade.
• The surface should be cleared of all trash and debris.

• Fertilize according to soil tests.
• Fertilizer should be worked into the soil.
• Sod should not be cut or laid in excessively wet or dry weather.
• Sod should not be laid on soil surfaces that are frozen.
• During periods of high temperature, the soil should be lightly irrigated.
• The first row of sod should be laid in a straight line with subsequent rows placed parallel to and butting tightly against each other.
• Lateral joints should be staggered to promote more uniform growth and strength.
• Wherever erosion may be a problem, sod should be laid with staggered joints and secured.
• Sod should be installed with the length perpendicular to the slope (on the contour).
• Sod should be rolled or tamped.
• Sod should be irrigated to a sufficient depth.
• Watering should be performed as often as necessary to maintain soil moisture.
• The first mowing should not be attempted until the sod is firmly rooted.
• Not more than one third of the grass leaf should be removed at any one cutting.

Interceptor Swale

Interceptor swales are used to shorten the length of exposed slope by intercepting runoff, prevent off-site runoff from entering the disturbed area, and prevent sediment-laden runoff from leaving a disturbed site. They may have a v-shape or be trapezoidal with a flat bottom and side slopes of 3:1 or flatter. The outflow from a swale should be directed to a stabilized outlet or sediment trapping device. The swales should remain in place until the disturbed area is permanently stabilized.

Materials:

• Stabilization should consist of a layer of crushed stone three inches thick, riprap or high velocity erosion control mats.
• Stone stabilization should be used when grades exceed 2% or velocities exceed 6 feet per second.
• Stabilization should extend across the bottom of the swale and up both sides of the channel to a minimum height of three inches above the design water surface elevation based on a 2-year, 24-hour storm.

Installation:

• An interceptor swale should be installed across exposed slopes during construction and should intercept no more than 5 acres of runoff.
• All earth removed and not needed in construction should be disposed of in an approved spoils site so that it will not interfere with the functioning of the swale or contribute to siltation in other areas of the site.
• All trees, brush, stumps, obstructions and other material should be removed and disposed of so as not to interfere with the proper functioning of the swale.
• Swales should have a maximum depth of 1.5 feet with side slopes of 3:1 or flatter. Swales should have positive drainage for the entire length to an outlet.
• When the slope exceeds 2 percent, or velocities exceed 6 feet per second (regardless of slope), stabilization is required. Stabilization should be crushed stone placed in a layer of at least 3 inches thick or may be high velocity erosion control matting. Check dams are also

recommended to reduce velocities in the swales possibly reducing the amount of stabilization necessary.
• Minimum compaction for the swale should be 90% standard proctor density.

Diversion Dikes

A temporary diversion dike is a barrier created by the placement of an earthen embankment to reroute the flow of runoff to an erosion control device or away from an open, easily erodible area. A diversion dike intercepts runoff from small upland areas and diverts it away from exposed slopes to a stabilized outlet, such as a rock berm, sandbag berm, or stone outlet structure. These controls can be used on the perimeter of the site to prevent runoff from entering the construction area. Dikes are generally used for the duration of construction to intercept and reroute runoff from disturbed areas to prevent excessive erosion until permanent drainage features are installed and/or slopes are stabilized.

Materials:

• Stone stabilization (required for velocities in excess of 6 fps) should consist of riprap placed in a layer at least 3 inches thick and should extend a minimum height of 3 inches above the design water surface up the existing slope and the upstream face of the dike.
• Geotextile fabric should be a non-woven polypropylene fabric designed specifically for use as a soil filtration media with an approximate weight of 6 oz./yd2, a Mullen burst rating of 140 psi, and having an equivalent opening size (EOS) greater than a #50 sieve.

Installation:

• Diversion dikes should be installed prior to, and maintained for the duration of, construction and should intercept no more than 10 acres of runoff.
• Dikes should have a minimum top width of 2 feet and a minimum height of compacted fill of 18 inches measured form the top of the existing ground at the upslope toe to top of the dike and have side slopes of 3:1 or flatter.
• The soil for the dike should be placed in lifts of 8 inches or less and be compacted to 95 % standard proctor density .
• The channel, which is formed by the dike, must have positive drainage for its entire length to an outlet.
• When the slope exceeds 2 percent, or velocities exceed 6 feet per second (regardless of slope), stabilization is required. In situations where velocities do not exceed 6 feet per second, vegetation may be used to control erosion.

Erosion Control Compost

Description: Erosion control compost (ECC) can be used as an aid to control erosion on critical sites during the establishment period of protective vegetation. The most common uses are on steep slopes, swales, diversion dikes, and on tidal or stream banks.

Materials:

ECC used for projects not related to TxDOT should also be of quality materials by meeting performance standards and compost specification data. To ensure the quality of compost used as an ECC, products should meet all applicable state and federal regulations, including but not limited to the United States Environmental Protection Agency (USEPA) Code of Federal

Regulations (CFR), Title 40, Part 503 Standards for Class A biosolids and TCEQ Health and Safety Regulations as defined in the Texas Administration Code (TAC), Chapter 332, and all other relevant requirements for compost products outlined in TAC, Chapter 332. TCEQ testing requirements are defined in TAC Chapter 332, including Sections §332.71 (Sampling and Analysis Requirements for Final Products) and §332.72 (Final Product Grades). Compost specification data approved by TxDOT are appropriate to use for ensuring the use of quality compost materials or for guidance.

Testing standards are dependent upon the intended use for the compost and ensures product safety, and product performance regarding the product's specific use. The appropriate compost sampling and testing protocols included in the United States Composting Council (USCC) Test Methods for the Examination of Composting and Compost (TMECC) should be conducted on compost products used for ECC to ensure that the products used will not impact public health, safety, and the environment and to promote production and marketing of quality composts that meet analytical standards. TMECC information can be found at http://www.tmecc.org/tmecc/index.html. The USCC Seal of Testing Assurance (STA) program contains information regarding compost STA certification. STA program information can be found at http://tmecc.org/sta/STA_program_description.html.

Installation:
- Install in accordance with current TxDOT specification.
- Use on slopes 3:1 or flatter.
- Apply a 2-inch uniform layer unless otherwise shown on the plans or as directed.
- When rolling is specified, use a light corrugated drum roller.

Mulch and Compost Filter Socks

Description: Mulch and compost filter socks (erosion control logs) are used to intercept and detain sediment laden run-off from unprotected areas. When properly used, mulch and compost filter socks can be highly effective at controlling sediment from disturbed areas. They cause runoff to pond which allows heavier solids to settle. Mulch and compost filter socks are used during the period of construction near the perimeter of a disturbed area to intercept sediment while allowing water to percolate through. The sock should remain in place until the area is permanently stabilized. Mulch and compost filter socks may be installed in construction areas and temporarily moved during the day to allow construction activity provided it is replaced and properly anchored at the end of the day. Mulch and compost filter socks may be seeded to allow for quick vegetative growth and reduction in run-off velocity.

Materials:

Mulch and compost filter socks used for projects not related to TxDOT should also be of quality materials by meeting performance standards and compost specification data. To ensure the quality of compost used for mulch and compost filter socks, products should meet all applicable state and federal regulations, including but not limited to the United States Environmental Protection Agency (USEPA) Code of Federal Regulations (CFR), Title 40, Part 503 Standards for Class A biosolids and TCEQ Health and Safety Regulations as defined in the Texas Administration Code (TAC), Chapter 332, and all other relevant requirements for compost products outlined in TAC, Chapter 332. TCEQ testing requirements are defined in TAC Chapter

332, including Sections §332.71 (Sampling and Analysis Requirements for Final Products) and §332.72 (Final Product Grades). Compost specification data approved by TxDOT are appropriate to use for ensuring the use of quality compost materials or for guidance.

Testing standards are dependent upon the intended use for the compost and ensures product safety, and product performance regarding the product's specific use. The appropriate compost sampling and testing protocols included in the United States Composting Council (USCC) Test Methods for the Examination of Composting and Compost (TMECC) should be conducted on compost products used for mulch and compost filter socks to ensure that the products used will not impact public health, safety, and the environment and to promote production and marketing of quality composts that meet analytical standards. TMECC information can be found at http://www.tmecc.org/tmecc/index.html. The USCC Seal of Testing Assurance (ST A) program contains information regarding compost ST A certification. STA program information can be found at http://tmecc.org/sta/STA_program_description.html.

Installation:
• Install in accordance with TxDOT Special Specification 5049.
• Install socks (erosion control logs) near the downstream perimeter of a disturbed area to intercept sediment from sheet flow.
• Secure socks in a method adequate to prevent displacement as a result of normal rain events such that flow is not allowed under the socks.
• Inspect and maintain the socks in good condition (including staking, anchoring, etc.). Maintain the integrity of the control, including keeping the socks free of accumulated silt, debris, etc., until the disturbed area has been adequately stabilized.

SEDIMENT CONTROL BMPS

Sand Bag Berm

Description: The purpose of a sandbag berm is to detain sediment carried in runoff from disturbed areas by intercepting runoff and causing it to pool behind the sand bag berm. Sediment carried in the runoff is deposited on the upstream side of the sand bag berm due to the reduced flow velocity. Excess runoff volumes are allowed to flow over the top of the sand bag berm. Sand bag berms are used only during construction activities in streambeds when the contributing drainage area is between 5 and 10 acres and the slope is less than 15%, i.e., pipeline construction in channels, temporary channel crossing for construction equipment, etc. Plastic facing should be installed on the upstream side and the berm should be anchored to the streambed by drilling into the rock and driving in T-posts or rebar (#5 or #6) spaced appropriately.

Materials:
• The sand bag material should be polypropylene, polyethylene, polyamide or cotton burlap woven fabric, minimum unit weight 4 oz/yd 2, mullen burst strength exceeding 300 psi and ultraviolet stability exceeding 70%.
• The bag length should be 24 to 30 inches, width should be 16 to 18 inches and thickness should be 6 to 8 inches.

• Sandbags should be filled with coarse grade sand and free from deleterious material. All sand should pass through a No. 10 sieve. The filled bag should have an approximate weight of 40 pounds.
• Outlet pipe should be schedule 40 or stronger polyvinyl chloride (PVC) having a nominal internal diameter of 4 inches.

Installation:
• The berm should be a minimum height of 18 inches, measured from the top of the existing ground at the upslope toe to the top of the berm.
• The berm should be sized as shown in the plans but should have a minimum width of 48 inches measured at the bottom of the berm and 16 inches measured at the top of the berm.
• Runoff water should flow over the tops of the sandbags or through 4-inch diameter PVC pipes embedded below the top layer of bags.
• When a sandbag is filled with material, the open end of the sandbag should be stapled or tied with nylon or poly cord.
• Sandbags should be stacked in at least three rows abutting each other, and in staggered arrangement.
• The base of the berm should have at least 3 sandbags. These can be reduced to 2 and 1 bag in the second and third_ rows respectively.
• For each additional 6 inches of height, an additional sandbag must be added to each row width.
• A bypass pump-around system, or similar alternative, should be used on conjunction with the berm for effective dewatering of the work area.

Silt Fence
Description: A silt fence is a barrier consisting of geotextile fabric supported by metal posts to prevent soil and sediment loss from a site. Silt fences can be highly effective at controlling sediment from disturbed areas by causing runoff to pond, allowing heavier solids to settle. The purpose of a silt fence is to intercept and detain water-borne sediment from unprotected areas of a limited extent. Silt fence is used during the period of construction near the perimeter of a disturbed area to intercept sediment while allowing water to percolate through. This fence should remain in place until the disturbed area is permanently stabilized. Silt fence should not be used where there is a concentration of water in a channel or drainage way. If concentrated flow occurs after installation, corrective action must be taken such as placing a rock berm in the areas of concentrated flow. Silt fencing within the site may be temporarily moved during the day to allow construction activity provided it is replaced and properly anchored to the ground at the end of the day. Silt fences on the perimeter of the site or around drainage ways should not be moved at any time.

Materials:
• Silt fence material should be polypropylene, polyethylene or polyamide woven or nonwoven fabric. The fabric width should be 36 inches, with a minimum unit weight of 4.5 oz/yd, mullen burst strength exceeding 190 lb/in 2, ultraviolet stability exceeding 70%, and minimum apparent opening size of U.S. Sieve No. 30.
• Fence posts should be made of hot rolled steel, at least 4 feet long with Tee or Y-bar cross section, surface painted or galvanized, minimum nominal weight 1.25 lb/ft 2, and Brindell hardness exceeding 140.

• Woven wire backing to support the fabric should be galvanized 2-inch x 4-inch welded wire, 12 gauge minimum.

Installation:
• Steel posts, which support the silt fence, should be installed on a slight angle toward the anticipated runoff source. Post must be embedded a minimum of 1 foot deep and spaced not more than 8 feet on center. Where water concentrates, the maximum spacing should be 6 feet.
• Lay out fencing down-slope of disturbed area, following the contour as closely as possible. The fence should be sited so that the maximum drainage area is * acre/100 feet of fence.
• The toe of the silt fence should be trenched in with a spade or mechanical trencher so that the down-slope face of the trench is flat and perpendicular to the line of flow. Where fence cannot be trenched in, weight fabric flap with 3 inches of pea gravel on uphill side to prevent flow from seeping under fence.
• The trench must be a minimum of 6 inches deep and 6 inches wide to allow for the silt fence fabric to be laid in the ground and backfilled with compacted material.
• Silt fence should be securely fastened to each steel support post or to woven wire attached to the steel fence post. There should be a 3-foot overlap, securely fastened where ends of fabric meet.

Triangular Sediment Filter Dike
Description: The purpose of a triangular sediment filter dike is to intercept and detain water-borne sediment from unprotected areas of limited extent. The triangular sediment filter dike is used where there is no concentration of water in a channel or other drainage way above the barrier and the contributing drainage area is less than one acre. If the uphill slope above the dike exceeds 10%, the length of the slope above the dike should be less than 50 feet. If concentrated flow occurs after installation, corrective action should be taken such as placing rock berm in the areas of concentrated flow. This measure is effective on paved areas where installation of silt fence is not possible or where vehicle access must be maintained. The advantage of these controls is the ease with which they can be moved to allow vehicle traffic and then reinstalled to maintain sediment.

Materials:
• Silt fence material should be polypropylene, polyethylene or polyamide woven or nonwoven fabric. The fabric width should be 36 inches, with a minimum unit weight of 4.5 oz/yd, mullen burst strength exceeding 190 lb/in 2 , ultraviolet stability exceeding 70%, and minimum apparent opening size of U.S. Sieve No. 30.
• The dike structure should be 6 gauge 6-ing x 6-inch wire mesh folded into triangular form being eighteen (18) inches on each side.

Installation:
• The frame of the triangular sediment filter dike should be constructed of 6-inch x 6-inch, 6 gauge welded wire mesh, 18 inches per side, and wrapped with geotextile fabric the same composition as that used for silt fences.
• Filter material should lap over ends 6 inches to cover dike to dike junction; each junction should be secured by shoat rings.

• Position dike parallel to the contours, with the end of each section closely abutting the adjacent sections.
• There are several options for fastening the filter dike to the ground. The fabric skirt may be toed-in with 6 inches of compacted material, or 12 inches of the fabric skirt should extend uphill and be secured with a minimum of 3 inches of open graded rock, or with staples or nails. If these two options are not feasible the dike structure may be trenched in 4 inches.
• Triangular sediment filter dikes should be installed across exposed slopes during construction with ends of the dike tied into existing grades to prevent failure and should intercept no more than one acre of runoff.
• When moved to allow vehicular access, the dikes should be reinstalled as soon as possible, but always at the end of the workday.

Rock Berm

Description: The purpose of a rock berm is to serve as a check dam in areas of concentrated flow, to intercept sediment-laden runoff, detain the sediment and release the water in sheet flow. The rock berm should be used when the contributing drainage area is less than 5 acres. Rock berms are used in areas where the volume of runoff is too great for a silt fence to contain. They are less effective for sediment removal than silt fences, particularly for fine particles, but can withstand higher flows than a silt fence. As such, rock berms are often used in areas of channel flows. Rock berms are most effective at reducing bed load in channels and should not be substituted for other erosion and sediment control measures further up the watershed.

Materials:

• The berm structure should be secured with a woven wire sheathing having maximum opening of one inch and a minimum wire diameter of 20 gauge galvanized and should be secured with shoat rings.
• Clean, open graded 3- to 5-inch diameter rock should be used, except in areas where high velocities or large volumes of flow are expected, where 5- to 8-inch diameter rocks may be used.

Installation:

• Lay out the woven wire sheathing perpendicular to the flow line. The sheathing should be 20 gauge woven wire mesh with 1 inch openings.
• Berm should have a top width of 2 feet minimum with side slopes being 2:1 (H:V) or flatter.
• Place the rock along the sheathing to a height not less than 18 inches.
• Wrap the wire sheathing around the rock and secure with tie wire so that the ends of the sheathing overlap at least 2 inches, and the berm retains its shape when walked upon.
• Berm should be built along the contour at zero percent grade or as near as possible.
• The ends of the berm should be tied into existing upslope grade and the berm should be buried in a trench approximately 3 to 4 inches deep to prevent failure of the control.

Hay Bale Dike

Description: The purpose of a hay or straw bale dike is to intercept and detain small amounts of sediment-laden runoff from relatively small unprotected areas. Straw bales are to be used when it is not feasible to install other, more effective measures or when the construction phase is expected to last less than 3 months. Straw bales should not be used on areas where rock or other hard surfaces prevent the full and uniform anchoring of the barrier.

Materials:
Straw: The best quality straw mulch comes from wheat, oats or barley and should be free of weed and grass seed which may not be desired vegetation for the area to be protected. Straw mulch is light and therefore must be properly anchored to the ground.
Hay: This is very similar to straw with the exception that it is made of grasses and weeds and not grain stems. This form of mulch is very inexpensive and is widely available but does introduce weed and grass seed to the area. Like straw, hay is light and must be anchored.
• Straw bales should weigh a minimum of 50 pounds and should be at least 30 inches long.
• Bales should be composed entirely of vegetable matter and be free of seeds.
• Binding should be either wire or nylon string, jute or cotton binding is unacceptable.
Bales should be used for not more than two months before being replaced.

Installation:
• Bales should be embedded a minimum of 4 inches and securely anchored using 2-inch x 2-inch wood stakes or 3/8-inch diameter rebar driven through the bales into the ground a minimum of 6 inches.
• Bales are to be placed directly adjacent to one another leaving no gap between them.
• All bales should be placed on the contour.
• The first stake in each bale should be angled toward the previously laid bale to force the bales together.

Brush Berms
Organic litter and spoil material from site clearing operations is usually burned or hauled away to be dumped elsewhere. Much of this material can be used effectively on the construction site. The key to constructing an efficient brush berm is in the method used to obtain and place the brush. It will not be acceptable to simply take a bulldozer and push whole trees into a pile as this does not assure continuous ground contact with the berm and will allow uncontrolled flows under the berm. Brush berms may be used where there is little or no concentration of water in a channel or other drainage way above the berm. The size of the drainage area should be no greater than one-fourth of an acre per 100 feet of barrier length; the maximum slope length behind the barrier should not exceed 100 feet; and the maximum slope gradient behind the barrier should be less than 50% (2:1).

Materials:
• The brush should consist of woody brush and branches, preferably less than 2 inches in diameter.
• The filter fabric should conform to the specifications for filter fence fabric.
• The rope should be 1/4 - inch polypropylene or nylon rope.
• The anchors should be 3/8-inch diameter rebar stakes that are 18-inches long.

Installation:
• Lay out the brush berm following the contour as closely as possible.

• The juniper limbs should be cut and hand placed with the vegetated part of the limb in close contact with the ground. Each subsequent branch should overlap the previous branch providing a shingle effect.
• The brush berm should be constructed in lifts with each layer extending the entire length of the berm before the next layer is started.
• A trench should be excavated 6-inches wide and 4-inches deep along the length of the barrier and immediately uphill from the barrier.
• The filter fabric should be cut into lengths sufficient to lay across the barrier from its up-slope base to just beyond its peak. The lengths of filter fabric should be draped across the width of the barrier with the uphill edge placed in the trench and the edges of adjacent pieces overlapping each other. Where joints are necessary, the fabric should be spliced together with a minimum 6-inch overlap and securely sealed.
• The trench should be backfilled and the soil compacted over the filter fabric.
• Set stakes into the ground along the downhill edge of the brush barrier, and anchor the fabric by tying rope from the fabric to the stakes. Drive the rope anchors into the ground at approximately a 45-degree angle to the ground on 6-foot centers.
• Fasten the rope to the anchors and tighten berm securely to the ground with a minimum tension of 50 pounds.
• The height of the brush berm should be a minimum of 24 inches after the securing ropes have been tightened.

Stone Outlet Sediment Traps

A stone outlet sediment trap is an impoundment created by the placement of an earthen and stone embankment to prevent soil and sediment loss from a site. The purpose of a sediment trap is to intercept sediment-laden runoff and trap the sediment in order to protect drainage ways, properties and rights of way below the sediment trap from sedimentation. A sediment trap is usually installed at points of discharge from disturbed areas. The drainage area for a sediment trap is recommended to be less than 5 acres.

Larger areas should be treated using a sediment basin. A sediment trap differs from a sediment basin mainly in the type of discharge structure. The trap should be located to obtain the maximum storage benefit from the terrain, for ease of clean out and disposal of the trapped sediment and to minimize interference with construction activities. The volume of the trap should be at least 3600 cubic feet per acre of drainage area.

Materials:

• All aggregate should be at least 3 inches in diameter and should not exceed a volume of 0. 5 cubic foot.
• The geotextile fabric specification should be woven polypropylene, polyethylene or polyamide geotextile, minimum unit weight of 4.5 oz/yd 2, mullen burst strength at least 2 50 lb/in 2, ultraviolet stability exceeding 70%, and equivalent opening size exceeding 40.

Installation:

• Earth Embankment: Place fill material in layers not more than 8 inches in loose depth. Before compaction, moisten or aerate each layer as necessary to provide the optimum moisture content of the material. Compact each layer to 95% standard proctor density. Do not place material on

surfaces that are muddy or frozen. Side slopes for the embankment are to be 3: 1. The minimum width of the embankment should be 3 feet.
• A gap is to be left in the embankment in the location where the natural confluence of runoff crosses the embankment line. The gap is to have a width in feet equal to 6 times the drainage area in acres.
• Geotextile Covered Rock Core: A core of filter stone having a minimum height of 1.5 feet and a minimum width at the base of 3 feet should be placed across the opening of the earth embankment and should be covered by geotextile fabric which should extend a minimum distance of 2 feet in either direction from the base of the filter stone core.
• Filter Stone Embankment: Filter stone should be placed over the geotextile and is to have a side slope which matches that of the earth embankment of 3:1 and should cover the geotextile/rock core a minimum of 6 inches when installation is complete. The crest of the outlet should be at least 1 foot below the top of the embankment.

Sediment Basins:
The purpose of a sediment basin is to intercept sediment-laden runoff and trap the sediment to protect drainage ways, properties and rights of way below the sediment basin from sedimentation. A sediment basin is usually installed at points of discharge from disturbed areas. The drainage area for a sediment basin is recommended to be less than 100 acres.

Sediment basins are effective for capturing and slowly releasing the runoff from larger disturbed areas thereby allowing sedimentation to take place. A sediment basin can be created where a permanent pond BMP is being constructed. Guidelines for construction of the permanent BMP should be followed, but revegetation, placement of underdrain piping, and installation of sand or other filter media should not be carried out until the site construction phase is complete.
Materials:
• Riser should be corrugated metal or reinforced concrete pipe or box and should have watertight fittings or end to end connections of sections.
• An outlet pipe of corrugated metal or reinforced concrete should be attached to the riser and should have positive flow to a stabilized outlet on the downstream side of the embankment.
• An anti-vortex device and rubbish screen should be attached to the top of the riser and should be made of polyvinyl chloride or corrugated metal.

Basin Design and Construction:
• For common drainage locations that serve an area with ten or more acres disturbed at one time, a sediment basin should provide storage for a volume of runoff from a two-year, 24-hour storm from each disturbed acre drained.
• The basin length to width ratio should be at least 2:1 to improve trapping efficiency. The shape may be attained by excavation or the use of baffles. The lengths should be measured at the elevation of the riser de-watering hole.
• Place fill material in layers not more than 8 inches in loose depth. Before compaction, moisten or aerate each layer as necessary to provide the optimum moisture content of the material. Compact each layer to 95% standard proctor density. Do not place material on surfaces that are muddy or frozen. Side slopes for the embankment should be 3:1 (H:V).

• An emergency spillway should be installed adjacent to the embankment on undisturbed soil and should be sized to carry the full amount of flow generated by a 10-year, 3-hour storm with 1 foot of freeboard less the amount which can be carried by the principal outlet control device.
• The emergency spillway should be lined with riprap as should the swale leading from the spillway to the normal watercourse at the base of the embankment.
• The principal outlet control device should consist of a rigid vertically oriented pipe or box of corrugated metal or reinforced concrete. Attached to this structure should be a horizontal pipe, which should extend through the embankment to the toe of fill to provide a de-watering outlet for the basin.
• An anti-vortex device should be attached to the inlet portion of the principal outlet control device to serve as a rubbish screen.
• A concrete base should be used to anchor the principal outlet control device and should be sized to provide a safety factor of 1.5 (downward forces= 1.5 buoyant forces).
• The basin should include a permanent stake to indicate the sediment level in the pool and marked to indicate when the sediment occupies 50% of the basin volume (not the top of the stake).
• The top of the riser pipe should remain open and be guarded with a trash rack and anti-vortex device. The top of the riser should be 12 inches below the elevation of the emergency spillway. The riser should be sized to convey the runoff from the 2-year, 3-hour storm when the water surface is at the emergency spillway elevation. For basins with no spillway the riser must be sized to convey the runoff from the 10-yr, 3-hour storm.
• Anti-seep collars should be included when soil conditions or length of service make piping through the backfill a possibility.
• The 48-hour drawdown time will be achieved by using a riser pipe perforated at the point measured from the bottom of the riser pipe equal to 1/2 the volume of the basin. This is the maximum sediment storage elevation. The size of the perforation may be calculated as follows:

$$Ao = \frac{As \times \sqrt{2h}}{Cd \times 980{,}000}$$

Where:
A_s = Area of the de-watering hole, ft 2
A_o = Surface area of the basin, ft 2
Cd = Coefficient of contraction, approximately 0.6
h = head of water above the hole, ft
Perforating the riser with nultiple holes in a combined surface area equal to A_o is acceptable.

Erosion Control Compost

Description: Erosion control compost (ECC) can be used as an aid to control erosion on critical sites during the establishment period of protective vegetation. The most common uses are on steep slopes, swales, diversion dikes, and on tidal or stream banks.

Materials:

ECC used for projects not related to TxDOT should be of quality materials by meeting performance standards and compost specification data. Products should meet all applicable state and federal regulations, including but not limited to the United States Environmental Protection Agency (USEPA) Code of Federal Regulations (CFR), Title 40, Part 503 Standards for Class A biosolids and TCEQ Health and Safety Regulations as defined in the Texas Administration Code (TAC), Chapter 332, and all other relevant requirements for compost products outlined in TAC, Chapter 332. TCEQ testing requirements are defined in TAC Chapter 332, including Sections §332.71 (Sampling and Analysis Requirements for Final Products) and §332.72 (Final Product Grades). Compost specification data approved by TxDOT are appropriate to use for ensuring the use of quality compost materials or for guidance.

Testing standards are dependent upon the intended use for the compost and ensures product safety, and product performance regarding the product's specific use. The appropriate compost sampling and testing protocols included in the United States Composting Council (USCC) Test Methods for the Examination of Composting and Compost (TMECC) should be conducted on compost products used for ECC to ensure that the products used will not impact public health, safety, and the environment and to promote production and marketing of quality composts that meet analytical standards. TMECC provides protocols to sample, monitor, and analyze materials during all stages of the composting process. TMECC information can be found at http://www.tmecc.org/tmecc/index.html. The USCC Seal of Testing Assurance (STA) program contains information regarding compost STA certification. STA program information can be found at http://tmecc.org/sta/STA_program_description.html.

Installation:

- Install in accordance with current TxDOT specification.
- Use on slopes 3:1 or flatter.
- Apply a 2-inch uniform layer unless otherwise shown on the plans or as directed.
- When rolling is specified, use a light corrugated drum roller.

Mulch and Compost Filter Socks

Description: Mulch and compost filter socks (erosion control logs) are used to intercept and detain sediment laden run-off from unprotected areas. When properly used, mulch and compost filter socks can be highly effective at controlling sediment from disturbed areas. They cause runoff to pond which allows heavier solids to settle. Mulch and compost filter socks are used during the period of construction near the perimeter of a disturbed area to intercept sediment while allowing water to percolate through. The sock should remain in place until the area is permanently stabilized. Mulch and compost filter socks may be installed in construction areas and temporarily moved during the day to allow construction activity provided it is replaced and properly anchored at the end nf the day. Mulch and compost filter socks may be seeded to allow for quick vegetative growth and reduction in run-off velocity.

Materials:
Mulch and compost filter socks used for projects not related to TxDOT should also be of quality materials by meeting performance standards and compost specification data. To ensure the quality of compost used for mulch and compost filter socks, products should meet all applicable state and federal regulations, including but not limited to the United States Environmental Protection Agency (USEPA) Code of Federal Regulations (CFR), Title 40, Part 503 Standards for Class A biosolids and TCEQ Health and Safety Regulations as defined in the Texas Administration Code (TAC), Chapter 332, and all other relevant requirements for compost products outlined in TAC, Chapter 332. TCEQ testing requirements are defined in TAC Chapter 332, including Sections §332.71 (Sampling and Analysis Requirements for Final Products) and §332.72 (Final Product Grades). Compost specification data approved by TxDOT are appropriate to use for ensuring the use of quality compost materials or for guidance.

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Installation:
• Install socks (erosion control logs) near the downstream perimeter of a disturbed area to intercept sediment from sheet flow.
• Secure socks in a method adequate to prevent displacement as a result of normal rain events such that flow is not allowed under the socks.
• Inspect and maintain the socks in good condition (including staking, anchoring, etc.). Maintain the integrity of the control, including keeping the socks free of accumulated silt, debris, etc., until the disturbed area has been adequately stabilized.

POST-CONSTRUCTION TSS CONTROLS

Retention/Irrigation Systems

Description: Retention/irrigation systems refer to the capture of runoff in a holding pond, then use of the captured water for irrigation of appropriate landscape areas. Retention/irrigation systems are characterized by the capture and disposal of runoff without direct release of captured flow to receiving streams. Retention systems exhibit excellent pollutant removal but require regular, proper maintenance.

Design Considerations: Retention/irrigation practices achieve 100% removal efficiency of total suspended solids contained within the volume of water captured. Design elements of

retention/irrigation systems include runoff storage facility configuration and sizing, pump and wet well system components, basin lining, basin detention time, and physical and operational components of the irrigation system. Retention/irrigation systems are appropriate for large drainage areas with low to moderate slopes. The retention capacity should be sufficient considering the average rainfall event for the area.

Maintenance Requirements: Maintenance requirements for retention/irrigation systems include routine inspections, sediment removal, mowing, debris and litter removal, erosion control, and nuisance control.

Extended Detention Basin

Description: Extended detention facilities are basins that temporarily store a portion of stormwater runoff following a storm event. Extended detention basins are normally used to remove particulate pollutants and to reduce maximum runoff rates associated with development to their pre-development levels. The water quality benefits are the removal of sediment and buoyant materials. Furthermore, nutrients, heavy metals, toxic materials, and oxygen-demanding materials associated with the particles also are removed. The control of the maximum runoff rates serves to protect drainage channels below the device from erosion and to reduce downstream flooding.

Design Considerations: Extended detention basins can remove approximately 75% of the total suspended solids contained within the volume of runoff captured in the basin. Design elements of extended detention basins include basin sizing, basin configuration, basin side slopes, basin lining, inlet/outlet structures, and erosion controls. Extended detention basins are appropriate for large drainage areas with low to moderate slopes. The retention capacity should be sufficient considering the average rainfall event for the area.

Maintenance Requirements: Maintenance requirements for extended detention basins include routine inspections, mowing, debris and litter removal, erosion control, structural repairs, nuisance control, and sediment removal.

Vegetative Filter Strips

Description: Filter strips, also known as vegetated buffer strips, are vegetated sections of land similar to grassy swales except they are essentially flat with low slopes, and are designed only to accept runoff as overland sheet flow. They may appear in any vegetated form from grassland to forest, and are designed to intercept upstream flow, lower flow velocity, and spread water out as sheet flow. The dense vegetative cover facilitates conventional pollutant removal through detention, filtration by vegetation, and infiltration. Filter strips cannot treat high velocity flows, and do not provide enough storage or infiltration to effectively reduce peak discharges to predevelopment levels for design storms. This lack of quantity control favors use in rural or low-density development; however, they can provide water quality benefits even where the impervious cover is as high as 50%.

Flat slopes and low to fair permeability of natural subsoil are required for effective performance of filter strips. Although an inexpensive control measure, they are most useful in contributing watershed areas where peak runoff velocities are low as they are unable to treat the high flow

velocities typically associated with high impervious cover. Successful performance of filter strips relies heavily on maintaining shallow unconcentrated flow. To avoid flow channelization and maintain performance, a filter strip should:
• Be equipped with a level spreading device for even distribution of runoff
• Contain dense vegetation with a mix of erosion resistant, soil binding species
• Be graded to a uniform, even and relatively low slope
• Laterally traverse the contributing runoff area

Filter strips can be used upgradient from watercourses, wetlands, or other water bodies along toes and tops of slopes and at outlets of other stormwater management structures. They should be incorporated into street drainage and master drainage planning. The most important criteria for selection and use of this BMP are soils, space, and slope.

Design Considerations: Vegetative filter strips can remove approximately 85% of the total suspended solids contained within the volume of runoff captured. Design elements of vegetative filter strips include uniform, shallow overland flow across the entire filter strip area, hydraulic loading rate, inlet structures, slope, and vegetative cover. The area should be free of gullies or rills which can concentrate flow. Vegetative filter strips are appropriate for small drainage areas with moderate slopes. Other design elements include the following:
• Soils and moisture are adequate to grow relatively dense vegetative stands
• Sufficient space is available
• Slope is less than 12%
• Comparable performance to more expensive structural controls

Maintenance Requirements: Maintenance requirements for vegetative filter strips include pest management, seasonal mowing and lawn care, routine inspections, debris and litter removal, sediment removal, and grass reseeding and mulching.

Constructed Wetlands

Description: Constructed wetlands provide physical, chemical, and biological water quality treatment of stormwater runoff. Physical treatment occurs as a result of decreasing flow velocities in the wetland, and is present in the form of evaporation, sedimentation, adsorption, and/or filtration. Chemical processes include chelation, precipitation, and chemical adsorption. Biological processes include decomposition, plant uptake and removal of nutrients, plus biological transformation and degradation. Hydrology is one of the most influential factors in pollutant removal due to its effects on sedimentation, aeration, biological transformation, and adsorption onto bottom sediments. The wetland should be designed such that a minimum amount of maintenance is required. The natural surroundings, including such things as the potential energy of a stream or flooding river, should be utilized as much as possible. The wetland should approximate a natural situation and unnatural attributes, such as rectangular shape or rigid channel, should be avoided.

Site considerations should include the water table depth, soil/substrate, and space requirements. Because the wetland must have a source of flow, it is desirable that the water table is at or near the surface. If runoff is the only source of inflow for the wetland, the water level often fluctuates and establishment of vegetation may be difficult. The soil or substrate of an artificial wetland

should be loose loam to clay. A perennial baseflow must be present to sustain the artificial wetland. The presence of organic material is often helpful in increasing pollutant removal and retention. A greater amount of space is required for a wetland system than is required for a detention facility treating the same amount of area.

Design Considerations: Constructed wetlands can remove over 90% of the total suspended solids contained within the volume of runoff captured in the wetland. Design elements of constructed wetlands include wetland sizing, wetland configuration, sediment forebay, vegetation, outflow structure, depth of inundation during storm events, depth of micropools, and aeration. Constructed wetlands are appropriate for large drainage areas with low to moderate slopes.

Maintenance Requirements: Maintenance requirements for constructed wetlands include mowing, routine inspections, debris and litter removal, erosion control, nuisance control, structural repairs, sediment removal, harvesting, and maintenance of water levels.

Wet Basins

Description: Wet basins are runoff control facilities that maintain a permanent wet pool and a standing crop of emergent littoral vegetation. These facilities may vary in appearance from natural ponds to enlarged, bermed (manmade) sections of drainage systems and may function as online or offline facilities, although offline configuration is preferable. Offline designs can prevent scour and other damage to the wet pond and minimize costly outflow structure elements needed to accommodate extreme runoff events. During storm events, runoff inflows displace part or all of the existing basin volume and are retained and treated in the facility until the next storm event. The pollutant removal mechanisms are settling of solids, wetland plant uptake, and microbial degradation. When the wet basin is adequately sized, pollutant removal performance can be excellent, especially for the dissolved fraction. Wet basins also help provide erosion protection for the receiving channel by limiting peak flows during larger storm events. Wet basins are often perceived as a positive aesthetic element in a community and off er significant opportunity for creative pond configuration and landscape design. Participation of an experienced wetland designer is suggested. A significant potential drawback for wet ponds in arid climates is that the contributing watershed for these facilities is often incapable of providing an adequate water supply to maintain the permanent pool, especially during the summer months. Makeup water (i.e., well water or municipal drinking water) is sometimes used to supplement the rainfall/runoff process, especially for wet basin facilities treating watersheds that generate insufficient runoff.

Design Considerations: Wet basins can remove over 90% of the total suspended solids contained within the volume of runoff captured in the basin. Design elements of wet basins include basin sizing, basin configuration, basin side slopes, sediment forebay, inflow and outflow structures, vegetation, depth of permanent pool, aeration, and erosion control. Wet basins are appropriate for large drainage areas with low to moderate slopes.

Maintenance Requirements: Maintenance requirements for wet basins include mowing, routine inspections, debris and litter removal, erosion control, nuisance control, structural repairs, sediment removal, and harvesting.

Grassy Swales

Grassy swales are vegetated channels that convey stormwater and remove pollutants by filtration through grass and infiltration through soil. They require shallow slopes and soils that drain well. Pollutant removal capability is related to channel dimensions, longitudinal slope, and type of vegetation. Optimum design of these components will increase contact time of runoff through the swale and improve pollutant removal rates. Grassy swales are primarily stormwater conveyance systems. They can provide sufficient control under light to moderate runoff conditions, but their ability to control large storms is limited. Therefore, they are most applicable in low to moderate sloped areas or along highway medians as an alternative to ditches and curb and gutter drainage. Their performance diminishes sharply in highly urbanized settings, and they are generally not effective enough to receive construction stage runoff where high sediment loads can overwhelm the system. Grassy swales can be used as a pretreatment measure for other downstream BMPs, such as extended detention basins. Enhanced grassy swales use check dams and wide depressions to increase runoff storage and promote greater settling of pollutants. Grassy swales can be more aesthetically pleasing than concrete or rock-lined drainage systems and are generally less expensive to construct and maintain. Swales can slightly reduce impervious area and reduce the pollutant accumulation and delivery associated with curbs and gutters. The disadvantages of this technique include the possibility of erosion and channelization over time, and the need for more right-of-way as compared to a storm drain system. When properly constructed, inspected, and maintained, the life expectancy of a swale is estimated to be 20 years.

Design Considerations:

- Comparable performance to wet basins
- Limited to treating a few acres
- Availability of water during dry periods to maintain vegetation
- Sufficient available land area

The suitability of a swale at a site will depend on land use, size of the area serviced, soil type, slope, imperviousness of the contributing watershed, and dimensions and slope of the swale system. In general, swales can be used to serve areas of less than 10 acres, with slopes no greater than 5 %. The seasonal high water table should be at least 4 feet below the surface. Use of natural topographic lows is encouraged, and natural drainage courses should be regarded as significant local resources to be kept in use.

Maintenance Requirements:

Research in the Austin area indicates that vegetated controls are effective at removing pollutants even when dormant. Therefore, irrigation is not required to maintain growth during dry periods, but may be necessary only to prevent the vegetation from dying.

Vegetation Lined Drainage Ditches

Vegetation lined drainage ditches are similar to grassy swales. These drainage ditches are vegetated channels that convey storm water and remove pollutants by filtration through grass and infiltration through soil. They require soils that drain well. Pollutant removal capability is related to channel dimensions, longitudinal slope, and type of vegetation. Optimum design of these components will increase contact time of runoff through the ditch and improve pollutant

removal rates. Vegetation lined drainage ditches are primarily storm water conveyance systems. They have vegetation lined in the low flow channel and may include vegetated shelves. Vegetation in drainage ditches reduces erosion and removes pollutants by lowering water velocity over the soil surface, binding soil particles with roots, and by filtration through grass and infiltration through soil. Vegetation lined drainage ditches can be used where:
• A vegetative lining can provide sufficient stability for the channel grade by increasing maximum permissible velocity
• Slopes are generally less than 5%, with protection from sheer stress as needed through the use of BMPs, such as erosion control blankets
• Site conditions required to establish vegetation, i.e. climate, soils, topography, are present

Design Criteria: The suitability of a vegetation lined drainage ditch at a site will depend on land use, size of the area serviced, soil type, slope, imperviousness of the contributing watershed, and dimensions and slope of the ditch system. The hydraulic capacity of the drainage ditch and other elements such as erosion, siltation, and pollutant removal capability, must be taken into consideration. Use of natural topographic lows is encouraged, and natural drainage courses should be regarded as significant local resources to be kept in use. Other items to consider include the following:
• Capacity, cross-section shape, side slopes, and grade
• Select appropriate native vegetation
• Construct in stable, low areas to conform with the natural drainage system. To reduce erosion potential, design the channel to avoid sharp bends and steep grades.
• Design and build drainage ditches with appropriate scour and erosion protection. Surface water should be able to enter over the vegetated banks without erosion occurring.
• BMPs, such as erosion control blankets, may need to be installed at the time of seeding to provide stability until the vegetation is fully established. It may also be necessary to divert water from the channel until vegetation is established or to line the channel with sod.
• Vegetated ditches must not be subject to sedimentation from disturbed areas.
• Sediment traps may be needed at channel inlets to prevent entry of muddy runoff and channel sedimentation.
• Availability of water during dry periods to maintain vegetation
• Sufficient available land area

Maintenance:
During establishment, vegetation lined drainage ditches should be inspected, repaired, and vegetation reestablished if necessary. After the vegetation has become established, the ditch should be checked periodically to determine if the channel is withstanding flow velocities without damage. Check the ditch for debris, scour, or erosion and immediately make repairs if needed. Check the channel outlet and all road crossings for bank stability and evidence of piping or scour holes and make repairs immediately. Remove all significant sediment accumulations to maintain the designed carrying capacity. Keep the vegetation in a healthy condition at all times, since it is the primary erosion protection for the channel. Vegetation lined drainage ditches should be seasonally maintained by mowing or irrigating, depending on the vegetation selected. The long-term management of ditches as stable, vegetated, "natural" drainage systems with native vegetation buffers is highly recommended due to the inherent stability offered by grasses, shrubs, trees, and other vegetation.

Sand Filter Systems

The objective of sand filters is to remove sediment and the pollutants from the first flush of pavement and impervious area runoff. The filtration of nutrients, organics, and coliform bacteria is enhanced by a mat of bacterial slime that develops during normal operations. One of the main advantages of sand filters is their adaptability; they can be used on areas with thin soils, high evaporation rates, low-soil infiltration rates, in limited-space areas, and where groundwater is to be protected. There have been numerous alterations or variations in the original design as engineers in other jurisdictions have improved and adapted the technology to meet their specific requirements. Major types include the Austin Sand Filter, the District of Columbia Underground Sand Filter, the Alexandria Dry Vault Sand Filter, the Delaware Sand Filter, and peat-sand filters which are adapted to provide a sorption layer and vegetative cover to various sand filter designs.

Design Considerations:

- Appropriate for space-limited areas
- Applicable in arid climates where wet basins and constructed wetlands are not appropriate
- High TSS removal efficiency

Cost Considerations:

Filtration Systems may require less land than some other BMPs, reducing the land acquisition cost; however the structure itself is one of the more expensive BMPs. In addition, maintenance cost can be substantial.

Erosion Control Compost

Description: Erosion control compost (ECC) can be used as an aid to control erosion on critical sites during the establishment period of protective vegetation. The most common uses are on steep slopes, swales, diversion dikes, and on tidal or stream banks.

Materials:

ECC used for projects not related to TxDOT should also be of quality materials by meeting performance standards and compost specification data. To ensure the quality of compost used as an ECC, products should meet all applicable state and federal regulations, including but not limited to the United States Environmental Protection Agency (USEPA) Code of Federal Regulations (CFR), Title 40, Part 503 Standards for Class A biosolids and TCEQ Health and Safety Regulations as defined in the Texas Administration Code (TAC), Chapter 332, and all other relevant requirements for compost products outlined in TAC, Chapter 332. TCEQ testing requirements are defined in TAC Chapter 332, including Sections §332.71 (Sampling and Analysis Requirements for Final Products) and §332.72 (Final Product Grades). Compost specification data approved by TxDOT are appropriate to use for ensuring the use of quality compost materials or for guidance.

Testing standards are dependent upon the intended use for the compost and ensures product safety, and product performance regarding the product's specific use. The appropriate compost sampling and testing protocols included in the United States Composting Council (USCC) Test Methods for the Examination of Composting and Compost (TMECC) should be conducted on compost products used for ECC to ensure that the products used will not impact public health,

safety, and the environment and to promote production and marketing of quality composts that meet analytical standards. TMECC information can be found at http://www.tmecc.org/tmecc/index.html. The USCC Seal of Testing Assurance (STA) program contains information regarding compost ST A certification. STA program information can be found at http://tmecc.org/sta/STA_program_description.html.

Installation:
- Install in accordance with current TxDOT specification.
- Use on slopes 3:1 or flatter.
- Apply a 2-inch uniform layer unless otherwise shown on the plans or as directed.
- When rolling is specified, use a light corrugated drum roller.

Mulch and Compost Filter Socks

Description: Mulch and compost filter socks (erosion control logs) are used to intercept and detain sediment laden run-off from unprotected areas. When properly used, mulch and compost filter socks can be highly effective at controlling sediment from disturbed areas. They cause runoff to pond which allows heavier solids to settle. Mulch and compost filter socks are used during the period of construction near the perimeter of a disturbed area to intercept sediment while allowing water to percolate through. The sock should remain in place until the area is permanently stabilized. Mulch and compost filter socks may be installed in construction areas and temporarily moved during the day to allow construction activity provided it is replaced and properly anchored at the end of the day. Mulch and compost filter socks may be seeded to allow for quick vegetative growth and reduction in run-off velocity.

Materials:

Mulch and compost filter socks used for projects not related to TxDOT should also be of quality materials by meeting performance standards and compost specification data. To ensure the quality of compost used for mulch and compost filter socks, products should meet all applicable state and federal regulations, including but not limited to the United States Environmental Protection Agency (USEPA) Code of Federal Regulations (CFR), Title 40, Part 503 Standards for Class A biosolids and TCEQ Health and Safety Regulations as defined in the Texas Administration Code (TAC), Chapter 332, and all other relevant requirements for compost products outlined in TAC, Chapter 332. TCEQ testing requirements are defined in TAC Chapter 332, including §332.71 (Sampling and Analysis Requirements for Final Products) and §332.72 (Final Product Grades). Compost specification data approved by TxDOT are appropriate to use for ensuring the use of quality compost materials or for guidance.

Testing standards are dependent upon the intended use for the compost and ensures product safety, and product performance regarding the product.es specific use. The appropriate compost sampling and testing protocols included in the United States Composting Council (USCC) Test Methods for the Examination of Composting and Compost (TMECC) should be conducted on compost products used for mulch and compost filter socks to ensure that the products used will not impact public health, safety, and the environment and to promote production and marketing of quality composts that meet analytical standards. TMECC information can be found at http://www.tmecc.org/tmecc/index.html. The USCC Seal of Testing Assurance (STA) program

contains information regarding compost STA certification. STA program information can be found at http://tmecc.org/sta/STA_program_description.html.

Installation:
• Install in accordance with TxDOT Special Specification 5049.
• Install socks (erosion control logs) near the downstream perimeter of a disturbed area to intercept sediment from sheet flow.
• Secure socks in a method adequate to prevent displacement as a result of normal rain events such that flow is not allowed under the socks.
• Inspect and maintain the socks in good condition (including staking, anchoring, etc.). Maintain the integrity of the control, including keeping the socks free of accumulated silt, debris, etc., until the disturbed area has been adequately stabilized.

Sedimentation Chambers (only to be used when there is no space available for other approved BMP's)
Description: Sedimentation chambers are stormwater treatment structures that can be used when space is limited such as urban settings. These structures are often tied into stormwater drainage systems for treatment of stormwater prior to entering state waters. The water quality benefits are the removal of sediment and buoyant materials. These structures are not designed as a catch basin or detention basin and not typically used for floodwater attenuation.

Design Considerations: Average rainfall and surface area should be considered when following manufacturer's recommendations for chamber sizing and/or number of units needed to achieve effective TSS removal. If properly sized, 50-80% removal of TSS can be expected.

Maintenance Requirements: Maintenance requirements include routine inspections, sediment, debris and litter removal, erosion control and nuisance control.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1201 ELM STREET, SUITE 500
DALLAS, TEXAS 75270

December 14, 2020

Joe McMahan
Chief, Regulatory Division
Galveston District, U.S. Army Corps of Engineers
2000 Fort Point Road
Galveston, TX 77550

RE: Clean Water Act Section 401 Water Quality Certification for the 2020 U.S. Army Corps of Engineers Section 404 Nationwide Permits Reissuance, on behalf of Indian tribes that have not received Treatment in a Similar Manner as a State for Section 401 in EPA Region 6.

Dear Mr. McMahan:

This water quality certification (WQC) applies to any potential point source discharges from potential projects authorized under the proposed reissuance of the following U.S. Corps of Engineers (Corps) Nationwide Permits (NWPs) into waters of the United States that occur within tribal boundaries within the State of Texas: NWP 3, 4, 5, 6, 7, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 27, 29, 30, 31, 32, 33, 34, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 54, C, D and E. The Corps is not requesting certification for 11 NWPs: 1, 2, 8, 9, 10, 11, 24, 28, 35, A, and B.

Section 401(a)(1) of the Clean Water Act (CWA) requires applicants for Federal permits and licenses that may result in discharges into waters of the United States to obtain certification that potential discharges will comply with applicable provisions of the CWA, including Sections 301, 302, 303, 306 and 307. Where no state agency or tribe has authority to give such certification, the U.S. Environmental Protection Agency (EPA) is the certifying authority. In this case, Ysleta del Sur Pueblo, Alabama-Coushatta Tribe of Texas, and Kickapoo Traditional Tribe of Texas do not have the authority to provide CWA Section 401 certification for discharges occurring within the boundaries of the aforementioned tribal lands, therefore, EPA Region 6 is making the certification decisions for discharges that may result from the potential projects authorized under the proposed Corps CWA 404 NWPs. This letter is being directed to Galveston District, which is the lead regulatory program for NWP reissuance in Texas; the Albuquerque, Fort Worth, Galveston, and Tulsa Districts are also represented. Consistent with the *EPA Policy on Consultation and Coordination with Indian Tribes*, EPA Region 6 circulated a letter dated September 18, 2020 offering to consult with tribes on the certification process and invite their participation.

Reissuance of NWPs Description

The Corps is proposing to re-issue its existing NWPs and associated general conditions and definitions, with some modifications. The Corps states that it is "proposing these modifications to simplify and clarify the NWPs, reduce burdens on the regulated public, and continue to comply with the statutory requirement that these NWPs authorize only activities with no more than minimal individual and cumulative adverse environmental effects." 85 FR 57298. For more details:

https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Nationwide-Permits/.

General Information

The general information provided in this section does not constitute a certification condition(s).

Project proponents for potential projects authorized under the NWPs are responsible for obtaining all other permits, licenses, and certifications that may be required by federal, state, or tribal authorities.

Project proponents for potential projects authorized under the NWPs should conduct all work in such a manner as to comply with all Corps Section 404 permit conditions.

Copies of the Corps permit including this certification should be kept on the job site and readily available to the public for reference.

Project proponents for potential projects authorized under the NWPs should retain this certification in their files with the applicable NWPs as documentation of EPA's certification decisions for the above-referenced proposed NWPs. This certification is specifically associated with the proposed NWPs described above and expires when those NWPs expire, five years from Corps issuance date.

During project planning, EPA highly recommends the project proponent notify the appropriate tribal environmental office of the project details and location.

Certification Determination

Grant (121.7(c)):

On behalf of Ysleta del Sur Pueblo, Alabama-Coushatta Tribe of Texas, and Kickapoo Traditional Tribe of Texas, CWA Section 401 certification, for the following proposed NWPs, is granted with no conditions. EPA Region 6 has determined that any discharge that could be authorized under the following proposed NWPs will comply with water quality requirements, as defined at 40 CFR 121.1(n).

NWP 3, 4, 5, 6, 7, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 27, 29, 30, 31, 32, 33, 34, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 54, C, D, and E

Thank you for your ongoing partnership in implementing the regulatory programs of the CWA. Should your office have any questions, please feel free to contact our staff: 1) Paul Kaspar at 214-665-7459, Kaspar.Paul@epa.gov; 2) Daniel Landeros at 214-665-8077, Landeros.Daniel@epa.gov.

Sincerely,

Charles Maguire

Charles W. Maguire
Director
Water Division

III. Drawings (Bound Separately)

City of Rowlett
City Council Agenda Item

Meeting Date: 4/21/2026 **Agenda Item:** 5.A.

Title
Consider the adoption of a resolution accepting and approving a preliminary service and assessment plan and preliminary assessment rolls for The Trails at Cottonwood Creek Public Improvement District, calling a public hearing on the levy of special assessments against property in Neighborhood Improvement Areas #2-3, approving a Second Amendment to Development Agreement and approving all other matters related thereto.

Staff Representative
Michael Kuhn, Treasurer & Debt Mgr.

Executive Summary
The Trails at Cottonwood Creek Public Improvement District (PID), situated northeast of the intersection of Vinson Road and Stonewall Road, was established by the City Council in March 2020 and a development agreement adopted in July 2020, which set out the parameters of the PID. The development agreement was further amended in March 2025.

A public improvement district is a special district created by a city under the authority of Chapter 372 of the Texas Local Government Code (the "Public Improvement District Assessment Act" or "PID Act"). The statute allows a city to levy a special assessment to pay for public infrastructure improvements against the benefited properties within the PID. A PID is authorized to reimburse and/or pay for the following public improvement costs benefiting the lots within the PID:

- Design, acquisition, construction, and improvement of road, street and drainage improvements,
- Projects similar to those listed above that are authorized by the PID Act, including offsite projects that provide a benefit to the property within the PID,
- Costs associated with developing and financing the public improvements described above, and
- Costs of establishing, administering, and operating the PID.

The PID Assessment is per residential lot and is based on the benefit received from the public improvement costs paid by the PID. The principal amount of the PID Assessment is paid in annual installments along with interest and administrative costs.

In May 2021, the City issued two series of PID bonds: Major Improvement Area Bonds

($5,065,000 par) and NIA #1 Bonds ($2,543,000 par) for the Trails at Cottonwood Creek PID to fund infrastructure costs for Phase #1 of the development.

Strategic Priority and Goal(s)

Strategic Priority	Strategic Goal
STRENGTHEN NEIGHBORHOOD LIVABILITY	3.3 Invest in enjoyable places of lasting value and distinctive character.

Background Information

In connection with the development of the approximately 227-acre tract, the following actions have taken place:

1. October 8, 2019: City Council adopted ORD-030-19 amending the Planned Development District enabling the development of a 765-lot neighborhood to be called the Trails at Cottonwood Creek. The amendments adjusted the sizes of various dwelling unit types and standards related to glare and illumination.
2. October 15, 2019: City Council approved a facilities agreement in the amount of $1,053,405 for the installation and construction of off-site wastewater infrastructure to serve the subject property with the adoption of RES-122-19.
3. March 17, 2020: City Council approved RES-032-20 creating the Trails at Cottonwood Creek Public Improvement District with a PID dissolution agreement to be held in trust by the City Attorney should a development agreement not be executed by July 7, 2020.
4. July 7, 2020: City Council approved the development agreement with the adoption of RES-082-20. The agreement set the maximum funding amount to be generated by the PID bond issuance, the maximum tax assessment rate, the improvements allowed to be constructed and financed by the PID bonds, the required disclosures of the PID assessment for potential homebuyers, and the specific enhancements constituting the special benefits conferred upon the development resulting in an increased assessed value. Among those enhancements are hike and bike trails connecting the open spaces in the development that are not included on the City's trail plans or required by the Form-Based Code, additional pedestrian corridors providing separation for pedestrians from streets in specific areas, pocket parks with one or more special amenities, a Green irrigation system to harvest rainwater and use natural features for stormwater management and landscape irrigation, and upgraded and more natural screening and landscaping along the site perimeter. Also, the development agreement set out the parameters of an EMS/Fire Station to be constructed with funds set aside by the developer.
5. April 20, 2021: Adoption of Resolution 053-21 accepting and approving a preliminary Service and Assessment Plan and assessment rolls and calling a public hearing on the levy of special assessments against property in the District.
6. May 18, 2021: Approved Resolution 065-21 approving a development agreement with Trail Creek Partners, L.P., regarding the construction of an EMS/Fire Facility and the dedication of a 1.5-acre tract of land within the development.

7. May 18, 2021: Adopted Ordinance 023-21 accepting and approving a service and assessment plan and assessment rolls for the Trails at Cottonwood Creek Public Improvement District, levying special assessments against certain property in the District.
8. May 18, 2021: Adopted Ordinance 024-21 approving the issuance and sale of “City of Rowlett, Texas, Special Assessment Revenue Bonds, Series 2021 (Trails at Cottonwood Creek Public Improvement District Major Improvement Area Project)” in the principal amount of $5,065,000.
9. May 18, 2021: Adopted Ordinance 025-21 approving the issuance and sale of “City of Rowlett, Texas, Special Assessment Revenue Bonds, Series 2021 (Trails at Cottonwood Creek Public Improvement District Neighborhood Improvement Area #1 Project)” in the principal amount of $2,543,000.
10. March 18, 2025: Adopted a resolution authorizing the City Manager to execute a first amendment to the development agreement with Trail Creek Partners, LTD.

The Texas Local Government Code requires two steps to be completed by the City Council to formalize the PID process. The first step is for the Council to adopt a resolution calling for a public hearing for the Service and Assessment Plan (SAP), levy and assessment roll. These items are being presented to Council on this agenda. As it relates to the second step, Council is required to:

1. Conduct a public hearing regarding the SAP, Levy and Assessment Rolls.
2. Approve an Ordinance Levying Assessments against property in Neighborhood Improvement Areas #2-3.
3. Approve an Ordinance authorizing the Issuance of the NIA #2-3 Special Assessment Revenue Bonds

These aforementioned items are slated for the May 5, 2026 City Council meeting.

Discussion

Municipalities are authorized, by Chapter 372 of the Texas Local Government Code, to establish public improvement districts (PIDs) to facilitate the installation and construction of on-site infrastructure and amenities to enable development. The PID is funded through the issuance of bonds. These bonds are then repaid by homeowners through an annual assessment over the life of the bonds. PIDs are accompanied with a Service and Assessment Plan (SAP). This document details all the public improvements needed, funding sources, the amount and allocation of assessment levy as well as the amount and timing of the assessment revenue debt issuance. The PID Act requires the service plan to cover a period of at least five years and defines the annual projected costs and indebtedness for the Authorized Improvements undertaken within the PID during the five-year period.

The total assessment levy and lien on the property originally projected in the Development Agreement totaled $11,000,000. In March 2025, the Development Agreement was amended to allow the total assessment levy and lien to not exceed

$20,000,000. The total assessment levy is constrained by two different metrics: i) a taxable equivalent rate of $0.324 per hundred dollars of assessed value and ii) a value-to-lien ratio of 3:1. The 2025 amendment additionally increased funding for a future fire station from $850,000 to $2,100,000 with a build option, and restructuring the parks/trails/amenity obligations so the HOA takes ownership and maintenance while reducing duplicate trails and sidewalks. A second amendment to the Development Agreement has been proposed to accomplish two objectives: i) adjust the maximum tenor allowed so that the proposed special assessment revenue bond issuance and a future issuance can utilize a 30-year final maturity and ii) update language to provide clarity around the timing of the fire station funding to phase 4 of the development.

The below list summarizes issuances that have occurred to date along with the proposed issuance for Neighborhood Improvement Area #2-3:

1. May 18, 2021 Issuances:
    1. Neighborhood Improvement Area #1 (NIA #1) Bonds = $2,543,000
    2. Master Improvement Area (MIA) Bonds = $5,065,000
2. Proposed Issuance:
    1. Neighborhood Improvement Area #2-3 Bonds = $5,505,000

The funding for Neighborhood Area #2-3 improvements is reflected in Table IV-C below:

Table IV-C: Neighborhood Improvement Areas #2-3 Bonds
Sources and Uses of Funds

Sources of Funds		
Gross Bond Amount	$	5,505,000
NIA #2 Developer Contribution (a)		15,359,016
NIA #3 Developer Contribution (a)		7,353,791
	$	**28,217,807**
Uses of Funds		
Project Fund Deposits:		
NIA #2 Authorized Improvements (b)	**$**	**18,292,866**
NIA #3 Authorized Improvements (b)		**8,619,516**
Total Authorized Improvements	**$**	**26,912,382**
Other Fund Deposits:		
Debt Service Reserve Fund (c)	$	429,300
Capitalized Interest (d)		165,150
	$	**594,450**
Cost of Issuance	**$**	**545,825**
Underwriter's Discount/Underwriter's Counsel (e)	**$**	**165,150**
	$	**28,217,807**

(a) Owners will fund all costs not covered by the PID Bonds.
(b) See Table III-C and Table III-D for details.
(c) The PID Bonds will include a debt service reserve fund calculated in accordance with the IRS rules.
(d) The PID Bonds will fund capitalized interest through September 15, 2026.
(e) The PID Bonds will have a 3% Underwriter's Discount and Underwriter's Counsel Fee.

The below tables indicate the Special Assessment, Annual Installment and Equivalent

Tax Rate Assessment for each lot size.

Neighborhood Improvement Area #2
Special Assessment Allocation (includes MIA Allocation)

Lot Size	Units	Estimated Build Out Value	Total Special Assessment	Average Annual Installment	Special Assessment Per Unit	Annual Installment Per Unit	Equivalent Tax Rate (per $100/AV)
50' Lot	7	$ 4,550,000	$ 159,335	$ 14,282.59	$ 22,762.13	$ 2,040.37	$ 0.31
40' Lot	159	$ 87,450,000	$ 3,130,119	$ 279,849.54	$ 19,686.29	$ 1,760.06	$ 0.32
TH	40	$ 18,800,000	$ 681,640	$ 60,849.60	$ 17,041.00	$ 1,521.24	$ 0.32
60' Lot	87	$ 65,250,000	$ 2,320,178	$ 207,599.40	$ 26,668.72	$ 2,386.20	$ 0.32
Total	**293**	**$ 176,050,000**	**$ 6,291,272**	**$ 562,581.13**			

Note: Estimates Based on information available as of 4/8/26. Although the actual unit counts and estimated unimproved land value may vary from the estimates shown above, the initial assessment allocation for each Lot Type will not change unless modified in a Service Plan Update approved by the City Council, subject to the terms of this SAP, the PID Act, and any other documents associated with PID Bonds. The above estimate assumes an average 6.50% interest rate and a 30-year term for the Neighborhood Improvement Area #2-3 PID Bonds and annual administrative expenses of $60,000 increasing at 2% per year.

Neighborhood Improvement Area #3
Special Assessment Allocation (includes MIA Allocation)

Lot Size	Units	Estimated Build Out Value	Total Special Assessment	Average Annual Installment	Special Assessment Per Unit	Annual Installment Per Unit	Equivalent Tax Rate (per $100/AV)
40' Lot	178	$ 97,900,000	$ 5,219,159	$ 316,783	$ 29,321.12	$ 1,779.68	$ 0.32
Total	**178**	**$ 97,900,000**	**$ 5,219,159**	**$ 316,783**			

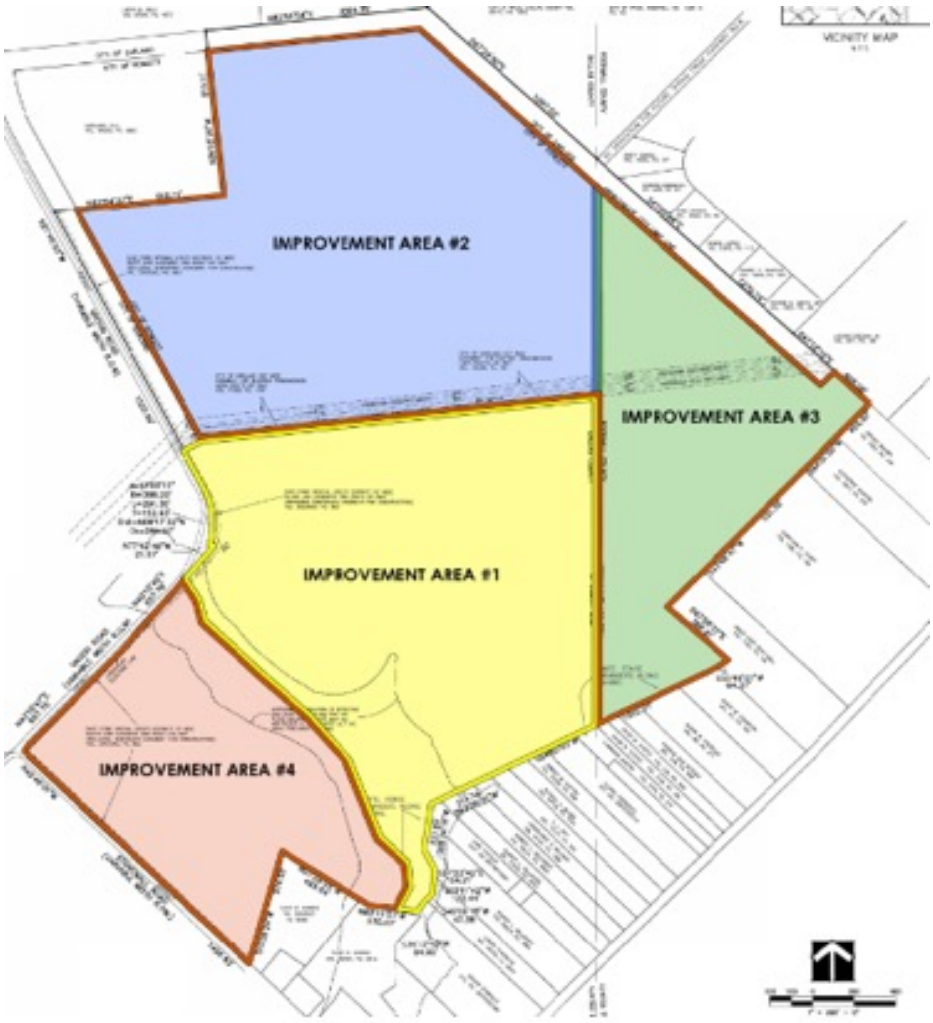
*Note identical to Neighborhood Improvement Area #2 Table.

The Ad Valorem Tax and Tax Equivalent Assessment Rate for each lot size is illustrated below.

Property Tax Rates and Assessment Levies	Tax Rate	Townhomes $470,000	40' Lots $550,000	50' Lots $650,000	60' Lots $750,000
Dallas County	$0.2155	$1,013	$1,185	$1,401	$1,616
Dallas County Hospital District (Parkland)	$0.2120	$996	$1,166	$1,378	$1,590
Dallas County Community College	$0.1066	$501	$586	$693	$799
Garland ISD	$1.1709	$5,503	$6,440	$7,611	$8,782
Subtotal	$1.7050	$8,013	$9,377	$11,082	$12,787
City of Rowlett	$0.8079	$3,797	$4,443	$5,251	$6,059
Property Tax Rate	$2.5129	$11,810	$13,821	$16,334	$18,846
The Trails at Cottonwood Creek[(1)]	$ 0.32	$1,499	$1,754	$2,073	$2,392
Total Property Tax and Tax Rate Equivalent	$2.8318	$13,309	$15,575	$18,407	$21,239

[(1)]Includes existing MI TRE. Represents average of all four Lot types.

The illustration below reflects the bond phasing plan for the development.



In summation, the purpose of this agenda item is for the Council to adopt a resolution calling for i) a public hearing for the SAP, levy, and assessment roll and ii) amend the development agreement.

Financial/Budget Implications

The Trails at Cottonwood Creek will add approximately $340 million of Taxable Assessed Value to the City (NIA #1-3) which, based on the current ad valorem tax rate, will generate an estimated $2.7 million of incremental ad valorem tax revenues upon build out.

	Lots	Average Lot Price[1]	Average Completed Home Value[1]	Buildout Value $	Buildout Value %
Townhomes	67	$55,000	$300,000	$20,100,000	5.91%
40' Lots	55	$65,000	$340,000	$18,700,000	5.50%
50' Lots	72	$75,000	$380,000	$27,360,000	8.04%
Total NIA 1	**194**			**$66,160,000**	19.45%
Townhomes	40	$92,750	$470,000	$18,800,000	5.53%
40' Lots	159	$106,000	$550,000	$87,450,000	25.71%
50' Lots	7	$132,500	$650,000	$4,550,000	1.34%
60' Lots	87	$159,000	$750,000	$65,250,000	19.18%
Total NIA 2	**293**			**$176,050,000**	51.76%
40' Lots	178	$106,000	$550,000	$97,900,000	28.78%
total NIA 3	**178**			**$97,900,000**	**28.78%**
Grand Total	**665**			**$340,110,000**	**100.00%**

(1) Per DPFG PID Analysis dated February 20, 2026

The cost of the authorized improvements as referenced in the (preliminary) SAP and any future improvements as authorized under annual service plans are to be financed from assessments levied against the property as apportioned solely to the PID property. Authorized improvements will be paid from the assessment levied against the PID and from its proceeds and therefore, the City is not responsible for any costs. Additionally, no other City funds, revenue, taxes or income of any kind shall be used to pay the costs of the authorized improvements unless approved by the City Council. Due to the nature of this type of debt, it will not have an impact on the City's bond rating or bonding capacity.

The City will manage the annual administration and reporting. Costs associated with handling this administrative role are reimbursable expenses to the City as part of the PID.

Recommended Action

Move to adopt a resolution accepting and approving a preliminary service and assessment plan and preliminary assessment rolls for The Trails at Cottonwood Creek Public Improvement District, calling a public hearing on the levy of special assessments against property in Neighborhood Improvement Areas #2-3 and approving a Second Amendment to Development Agreement.

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ROWLETT, TEXAS, APPROVING THE TRAILS AT COTTONWOOD CREEK PUBLIC IMPROVEMENT DISTRICT PRELIMINARY SERVICE AND ASSESSMENT PLAN, INCLUDING THE PROPOSED ASSESSMENT ROLLS; DIRECTING THE FILING OF SAID PROPOSED ASSESSMENT ROLLS WITH THE CITY SECRETARY; CALLING A PUBLIC HEARING TO CONSIDER AN ORDINANCE LEVYING ASSESSMENTS ON PROPERTY LOCATED WITHIN NEIGHBORHOOD IMPROVEMENT AREAS #2-3 OF SAID DISTRICT; DIRECTING THE CITY SECRETARY TO PUBLISH AND MAIL

NOTICE OF SAID PUBLIC HEARING; APPROVING A SECOND AMENDMENT TO DEVELOPMENT AGREEMENT; AND RESOLVING OTHER MATTERS INCIDENT AND RELATED THERETO; AND PROVIDING AN EFFECTIVE DATE;

WHEREAS, the Public Improvement District Assessment Act, Texas Local Government Code, Chapter 372, as amended (the "Act"), authorizes the City Council (the "Council") of the City of Rowlett, Texas (the "City"), to create public improvement districts within the corporate limits of the City; and

WHEREAS, the Council has previously created the Trails at Cottonwood Creek Public Improvement District (the "District"); and

WHEREAS, the Council and City staff have been presented with "The Trails at Cottonwood Creek Public Improvement District Preliminary Service and Assessment Plan" (the "Preliminary SAP"), which includes the proposed assessment rolls (the "Proposed Assessment Rolls") for Neighborhood Improvement Area #2 and Neighborhood Improvement Area #3 (jointly, "Neighborhood Improvement Areas #2-3") attached thereto, a copy of which is attached hereto as **Exhibit A** and incorporated herein for all purposes; and

WHEREAS, the Act requires (i) that the Proposed Assessment Rolls be filed with the City Secretary of the City (the "City Secretary") and be subject to public inspection; (ii) that a public hearing (the "Assessment Hearing") be held to consider the proposed assessments; (iii) that notice of the Assessment Hearing be mailed to property owners liable for assessment and published in a newspaper of general circulation in the City before the 10^{th} day before the date of the Assessment Hearing; and (iv) the Council to hear and pass on any objections to the proposed assessments at, or on the adjournment of, the Assessment Hearing; and

WHEREAS, the Council finds it to be in the public interest to (i) accept the Preliminary SAP and the Proposed Assessment Rolls; (ii) establish a date and time for the Assessment Hearing; and (iii) take such further action as required by the Act; and

WHEREAS, it is hereby officially found and determined that the meeting at which this Resolution was passed was open to the public and public notice of the time, place and purpose of said meeting was given, all as required by Chapter 551, Texas Government Code;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ROWLETT, TEXAS, THAT:

SECTION 1. The recitals set forth above in this Resolution are true and correct and are hereby adopted as findings of the Council and are incorporated into the body of this Resolution as if fully set forth herein.

SECTION 2. The Preliminary SAP, including the Proposed Assessment Rolls, is hereby

accepted, and the Proposed Assessment Rolls shall be filed with the City Secretary and the same shall be available for public inspection.

SECTION 3. A public hearing (the Assessment Hearing as defined above) shall be conducted during the regular meeting of the Council to be held on May 5, 2026 at 7:00 p.m., during which the Council shall, among other actions, hear and pass on any objections to the proposed assessments. Upon the adjournment of the Assessment Hearing, the Council may consider an ordinance approving the levy of assessments on certain benefited property within Neighborhood Improvement Areas #2-3.

SECTION 4. The City Secretary is hereby authorized and directed to (i) publish notice of the Assessment Hearing, in substantially the form attached hereto as **Exhibit B** and incorporated herein for all purposes (the "Notice"), in a newspaper of general circulation in the City, as required by Section 372.016(b) of the Act, and (ii) mail the Notice to owners of property liable for the assessments as set forth in the Proposed Assessment Rolls, as required by Section 372.016(c) of the Act.

SECTION 5. The Second Amendment to Development Agreement (the "Second Amendment") between the City and Trail Creek Partners, Ltd., a Texas limited partnership, is hereby authorized and approved in substantially final form attached hereto as **Exhibit C** and incorporated herein as a part hereof for all purposes, and the Mayor or Mayor Pro Tem of the City is hereby authorized and directed to execute and deliver such Second Amendment with such changes as may be required to carry out the purpose of this Resolution and approved by the Mayor or Mayor Pro Tem, such approval to be evidenced by the execution thereof.

SECTION 6. This Resolution shall become effective from and after its date of passage in accordance with law.

Attachments

1. Exhibit A - Preliminary Service and Assessment Plan v2 final
2. Exhibit B – Public Hearing Notice
3. Exhibit C – Second Amendment to Development Agreement

THE TRAILS AT COTTONWOOD CREEK PUBLIC IMPROVEMENT DISTRICT

ROWLETT, TEXAS

PRELIMINARY SERVICE AND ASSESSMENT PLAN

May 18, 2021, as Updated for Neighborhood Improvement Areas #2-3 Bonds on April 21, 2026

PREPARED BY:

MUNICAP, INC.
PUBLIC FINANCE

THE TRAILS AT COTTONWOOD CREEK PUBLIC IMPROVEMENT DISTRICT

PRELIMINARY SERVICE AND ASSESSMENT PLAN

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I. PLAN DESCRIPTION AND DEFINED TERMS

A. INTRODUCTION

On March 17, 2020, the City Council of the City of Rowlett, Texas approved Resolution No. RES-032-20, which authorized the creation of the Trails at Cottonwood Creek Public Improvement District (the "PID") to finance the Actual Costs of the Authorized Improvements for the benefit of certain property in the PID, all of which is currently located within the corporate limits of the City.

The property in the PID is proposed to be developed in multiple phases, and the PID will finance public improvements as the property is developed. Assessments will be imposed on the property benefited by the public improvements to be constructed.

Chapter 372 of the Texas Local Government Code, as amended, the "Public Improvement District Assessment Act" (the "PID Act"), governs the creation and operation of public improvement districts within the State of Texas. This Trails at Cottonwood Creek Public Improvement District Service and Assessment Plan (the "Service and Assessment Plan") has been prepared in accordance with the PID Act and specifically Sections 372.013, 372.014, 372.015 and 372.016, which address the requirements of a service and assessment plan and the assessment roll. Section 372.013 of the PID Act requires a service plan to "(i) cover a period of at least five years; (ii) define the annual indebtedness and the projected costs for improvements; and (iii) include a copy of the notice form required by Section 5.014, Property Code." The service plan is described in Section IV of this Service and Assessment Plan. The copy of the notice form required by Section 5.014 of the Texas Property Code, as amended, is attached hereto as Appendix K.

Section 372.014 of the PID Act provides that "an assessment plan must be included in the annual service plan." The assessment plan is described in Section V of this Service and Assessment Plan.

Section 372.015 of the PID Act provides that "the governing body of the municipality or county shall apportion the cost of an improvement to be assessed against property in an improvement district." The method of assessing the Actual Costs of the Authorized Improvements and apportionment of such costs to the property in the PID is included in Section V of this Service and Assessment Plan.

Section 372.016 of the PID Act provides that "after the total cost of an improvement is determined, the governing body of the municipality or county shall prepare a proposed assessment roll. The roll must state the assessment against each parcel of land in the district, as determined by the method of assessment chosen by the municipality or county under this subchapter." The Assessment Rolls for the PID are included in this Service and Assessment Plan. The Assessments as shown on the Assessment Rolls are based on the method of assessment and apportionment of costs described in Section V of this Service and Assessment Plan.

The City has issued its Special Assessment Revenue Bonds, Series 2021 (Trails at Cottonwood Creek Public Improvement District Neighborhood Improvement Area #1 Project) payable from Assessments levied on the Neighborhood Improvement Area #1 Assessed Property.

The City has issued its Special Assessment Revenue Bonds, Series 2021 (Trails at Cottonwood Creek Public Improvement District Major Improvement Area Project) payable from Assessments levied on the Major Improvement Area Assessed Property.

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B. DEFINITIONS

Capitalized terms used herein shall have the meanings ascribed to them as follows:

"Actual Cost(s)" means, with respect to an Authorized Improvement, the demonstrated, reasonable, allocable, and allowable costs of constructing such Authorized Improvement, as specified in a Certificate for Payment that has been reviewed and approved by the City. Actual Costs may include (a) the costs for the design, planning, financing, administration, management, acquisition, installation, construction and/or implementation of such Authorized Improvement, including general contractor and construction management fees, if any, (b) the costs of preparing the construction plans for such Authorized Improvement, (c) a construction management fee of 4.0% of the costs incurred for the construction of such Authorized Improvement, (d) the fees paid for obtaining permits, licenses or other governmental approvals for such Authorized Improvement, (e) the costs for external professional costs associated with such Authorized Improvement, such as engineering, geotechnical, surveying, land planning, architectural landscapers, advertising, marketing and research studies, appraisals, legal, accounting and similar professional services, and taxes (property and franchise), (f) the costs of all labor, bonds and materials, including equipment and fixtures, incurred by contractors, builders and material men in connection with the acquisition, construction or implementation of such Authorized Improvement, (g) all related permitting, zoning and public approval expenses, architectural, engineering, legal, and consulting fees, financing charges, taxes, governmental fees and charges (including inspection fees, permit fees, development fees), insurance premiums and miscellaneous expenses, and (h) all payments for Administrative Expenses.

"Additional Interest" means the 0.50% additional interest charged on Assessments pursuant to Section 372.018 of the PID Act to be used for the purposes set forth in an Indenture, pursuant to Section V.I of this Service and Assessment Plan.

"Administrative Expenses" means the costs associated with, or incident to, the administration, organization, maintenance and operation of the PID, including, but not limited to, the costs of: (i) creating and organizing the PID, including conducting hearings, preparing notices and petitions, and all costs incident thereto, including engineering fees, legal fees and consultant fees, (ii) the annual administrative, organization, maintenance, and operation costs and expenses associated with, or incident and allocable to, the administration, organization, maintenance, and operation of the PID and the Authorized Improvements, (iii) computing, levying, billing and collecting Assessments or the Annual Installments thereof, (iv) maintaining the record of installments of the Assessments and the system of registration and transfer of the Bonds, (v) issuing, paying and redeeming the Bonds, (vi) investing or depositing of monies, (vii) complying with the PID Act and other laws applicable to the Bonds, (viii) the Trustee's reasonable fees and expenses relating to the Bonds, (ix) legal counsel, engineers, accountants, financial advisors, investment bankers or other consultants and advisors, and (x) administering the construction of the Authorized Improvements. Administrative Expenses do not include payment of the actual principal of, redemption premium, if any, and interest on the Bonds or any costs of issuance associated with the Bonds. Administrative Expenses collected and not expended for actual Administrative Expenses in one year shall be carried forward and applied to reduce Administrative Expenses in subsequent years to avoid the over-collection of amounts to pay Administrative Expenses.

"Administrator" means an employee of the City or third party designee of the City who shall have the responsibilities provided for herein, and identified in an Indenture relating to PID Bonds or in any other agreement approved by the City Council. The current Administrator is MuniCap, Inc.

"Annual Installment" means, with respect to each Parcel, each annual payment of: (i) the Assessments, including any applicable interest, as shown on the Assessment Roll(s) attached hereto as Appendix F, Appendix G, Appendix H, and Appendix I, as applicable, or in an Annual Service Plan Update, and calculated as provided in Section VI of this Service and Assessment Plan, (ii) the Administrative Expenses, and (iii) the Additional Interest, if collected.

"Annual Service Plan Update" has the meaning set forth in the second paragraph of Section IV of this Service and Assessment Plan.

"Assessed Property" means any property that benefits from the Authorized Improvements within the PID on which Assessments have been imposed as shown in the Assessment Rolls, as the Assessment Roll is updated each year by the Annual Service Plan Update. Assessed Property includes all Parcels within the PID other than Non-Benefited Property.

"Assessment" means an assessment levied against, or imposed upon, a Parcel pursuant to an Assessment Ordinance and the provisions herein, as shown on any Assessment Roll, subject to reallocation or reduction according to the provisions herein and the PID Act. An Assessment for a Parcel consists of the Annual Installments to be collected in all years and amounts collected to pay Administrative Expenses and the amount collected as Additional Interest and interest on all Assessments.

"**Assessment Ordinance"** means each ordinance adopted by the City Council approving this SAP (or amendments or supplements to this SAP) and levying the Assessments.

"Assessment Revenues" mean the revenues actually received by or on behalf of the City from the collection of Assessments.

"Assessment Roll" or **"Assessment Rolls"** means collectively or separately, as applicable, the Major Improvement Area Assessment Roll, the Neighborhood Improvement Area #1 Assessment Roll, the Neighborhood Improvement Area #2 Assessment Roll, the Neighborhood Improvement Area #3 Assessment Roll, and all Future Neighborhood Improvement Area Assessment Rolls approved in an Annual Service Plan Update, as each may be updated, modified, or amended from time to time in accordance with the procedures set forth in this Service and Assessment Plan and in the PID Act.

"Authorized Improvements" mean those public improvements described in Section III.B, Section III.C, Section III.D, and Section III.E of this Service and Assessment Plan and Section 372.003 of the PID Act, acquired, constructed and installed in accordance with this Service and Assessment Plan as amended and/or updated from time to time.

"Bonds" mean any series of bonds issued by the City for the benefit of the PID to finance some or all of the costs of the Authorized Improvements, which bonds are secured, in whole or in part, by the Assessment Revenues (excluding the portion of the Assessments levied to pay administrative expenses).

"Budgeted Cost(s)" means the amounts budgeted to construct the Authorized Improvements as used in the preparation of this Service and Assessment Plan.

"Certificate for Payment" means the certificate to be provided by the Managing Developer, or its designee, to substantiate the Actual Costs of one or more Authorized Improvements, which may be in segments or sections.

"City" means the City of Rowlett, Texas.

"City Council" means the duly elected governing body of the City.

"County" means Dallas County, Texas and/or Rockwall County, Texas, as applicable.

"Delinquent Collection Costs" means interest, penalties and expenses incurred or imposed with respect to any delinquent installment of an Assessment in accordance with the PID Act and the costs related to pursuing collection of a delinquent Assessment and foreclosing the lien against the Assessed Property, including attorney's fees.

"Development Agreement" means that certain "Development Agreement" by and between the City and Warner Land Advisors, L.P. and related to the Assessed Property within the PID entered into as of July 7, 2020, as assigned to Trail Creek Partners, Ltd. pursuant to that certain "Assignment and Assumption of Development Agreement" by and between Warner Land Advisors, L.P. and the Managing Developer dated as of March 4, 2021, and any future amendments to such Development Agreement.

"Developer" means the Managing Developer, the Neighborhood Improvement Area #2 Developer, and the Neighborhood Improvement Area #3 Developer.

"Equivalent Units" mean, as to any Parcel, the number of dwelling units by Lot Type expected to be built on the Parcel multiplied by the factors calculated and shown in Appendix D attached hereto.

"Future Neighborhood Improvement Areas" means those Neighborhood Improvement Areas to be defined and developed after Neighborhood Improvement Area #1, Neighborhood Improvement Area #2, and Neighborhood Improvement Area #3, and within the boundaries of the PID (but which are not subject to development at this time).

"Future Neighborhood Improvement Area Assessed Property" means all Parcels within the Future Neighborhood Improvement Area other than Non-Benefited Property.

"Future Neighborhood Improvement Area Assessment Roll" means the Assessment Roll that will be attached to this Service and Assessment Plan in conjunction with the adoption of an Assessment Ordinance levying Assessments against Future Neighborhood Improvement Area Assessed Property.

"Future Neighborhood Improvement Area Bonds" means bonds issued to fund Future Neighborhood Improvement Area Improvements (or a portion thereof) in a Future Neighborhood Improvement Area that are secured by Assessments levied on Assessed Property within such Future Neighborhood Improvement Area. In connection with Future Neighborhood Improvement Area Bonds, Assessments related to such Future Neighborhood Improvement Area Bonds will be levied only on property located within the applicable Future Neighborhood Improvement Area to finance Future Neighborhood Improvement Area Improvements which will only benefit such Future Neighborhood Improvement Area.

"Future Neighborhood Improvement Area Improvements" means those Authorized Improvements which will confer a special benefit solely to the related Future Neighborhood Improvement Area.

"Homeowner Association" or **"HOA"** means a homeowner association or property owner association established for the benefit of property owners within the PID.

"Homeowner Association Property" or **"HOA Property"** means property within the PID owned by or irrevocably offered for dedication to, whether in fee simple or through an easement, a Homeowner Association.

"Indenture" means an indenture of trust, trust agreement, ordinance or similar document between the City and Trustee setting forth the terms and other provisions relating to a series of PID Bonds, as modified, amended, and/or supplemented from time to time.

"Lot" means (i) for any portion of the Assessed Property for which a subdivision plat has been recorded in the official public records of the applicable County, a tract of land described as a "lot" in such subdivision plat, and (ii) for any portion of the Assessed Property for which a subdivision plat has not been recorded in the official public records of the applicable County, a tract of land anticipated to be described as a "lot" in a final recorded subdivision plat.

"Lot Type" means a classification of final building Lots with similar characteristics (e.g. commercial, light industrial, multifamily residential, single family residential, or other uses), as determined by the Administrator and confirmed by the City Council. In the case of single-family residential Lots, the Lot Type shall be further defined by classifying the residential Lots based on the front footage of the Lot as marketed to a homebuilder, as determined by the Administrator and confirmed by the City Council.

"Lot Type 1" means a Lot within the PID designated as a 50' single-family residential lot by the Managing Developer.

"Lot Type 2" means a Lot within the PID designated as a 40' single-family residential lot by the Managing Developer.

"Lot Type 3" means a Lot within the PID designated as a Townhome single-family residential lot by the Managing Developer.

"Lot Type 4" means a Lot within the PID designated as a 60' single-family residential lot by the Managing Developer.

"Managing Developer" means Trail Creek Partners, Ltd., a Texas limited partnership.

"Major Improvements" means the Authorized Improvements which benefit all Assessed Property within the PID and are described in Section III.B.

"Major Improvement Area" or **"MIA"** mean the property within the PID excluding Neighborhood Improvement Area #1 which is to be developed subsequent to Neighborhood Improvement Area #1 and generally depicted in Appendix A-2 of this Service and Assessment Plan or any Annual Service Plan Update.

"Major Improvement Area Assessed Property" means, for any year, all Parcels within the Major Improvement Area other than Non-Benefited Property and listed in the Major Improvement Area Assessment Roll against which Assessments relating to the Major Improvement Area Projects are levied.

"Major Improvement Area Assessment Roll" means the document included in this SAP as Appendix F, as updated, modified or amended from time to time in accordance with the procedures set forth herein and in the PID Act.

"Major Improvement Area Bonds" means those certain City of Rowlett, Texas Assessment Revenue Bonds, Series 2021 (Trails at Cottonwood Creek Public Improvement District Major Improvement Area Project) that are secured by Assessments levied on Major Improvement Area Assessed Property.

"Major Improvement Area Projects" means the Major Improvement Area's proportionate share of the Major Improvements.

"Neighborhood Improvement Area" or **"NIA"** means one or more Parcels within the PID that are anticipated to be developed in the same general time period. The Parcels within a Neighborhood Improvement Area other than the Non-Benefited Property will be assessed in connection with the issuance of PID Bonds for the Authorized Improvements (or the portion thereof) designated in an update to the Assessment Plan that specially benefit the Assessed Property within said Neighborhood Improvement Area.

"Neighborhood Improvement Area #1" or "NIA #1" means the initial Neighborhood Improvement Area developed and generally shown in Appendix A-2, as specifically depicted and described as the sum of all Parcels shown in Appendix G.

"Neighborhood Improvement Area #1 Assessed Property" means, for any year, all Parcels within Neighborhood Improvement Area #1, other than Non-Benefited Property, listed in the Neighborhood Improvement Area #1 Assessment Roll against which Assessments relating to the Neighborhood Improvement Area #1 Projects are levied.

"Neighborhood Improvement Area #1 Assessment Roll" means the Assessment Roll covering Neighborhood Improvement Area #1 included in this SAP as Appendix G, as updated, modified or amended from time to time in accordance with the procedures set forth herein and in the PID Act.

"Neighborhood Improvement Area #1 Bonds" means those certain City of Rowlett, Texas Special Assessment Revenue Bonds, Series 2021 (Trails at Cottonwood Creek Public Improvement District Neighborhood Improvement Area #1 Project) that are secured by Assessments levied on the Neighborhood Improvement Area #1 Assessed Property.

"Neighborhood Improvement Area #1 Improvements" means those Authorized Improvements that confer a special benefit solely to Neighborhood Improvement Area #1 and are described in Section III.C.

"Neighborhood Improvement Area #1 Projects" means, collectively, the Neighborhood Improvement Area #1 Improvements and Neighborhood Improvement Area #1's proportionate share of the Major Improvements.

"Neighborhood Improvement Area #1 Maximum Assessment Per Unit" means for Neighborhood Improvement Area #1 an Assessment per unit for Improvement Area #1 Projects for each applicable Lot Type as follows:

Lot Type 1 - $14,606.11
Lot Type 2 - $13,068.62
Lot Type 3 - $11,531.14

"Neighborhood Improvement Area #2" or "NIA #2" means the Neighborhood Improvement Area to be developed and generally shown in Appendix A-3 as specifically depicted and described as the sum of all Parcels shown in Appendix H.

"Neighborhood Improvement Area #2 Assessed Property" means, for any year, all Parcels within Neighborhood Improvement Area #2 other than Non-Benefited Property and listed in the Neighborhood Improvement Area #2 Assessment Roll against which Assessments relating to the Neighborhood Improvement Area #2 Improvements are levied.

"Neighborhood Improvement Area #2 Assessment Roll" means the Assessment Roll covering Neighborhood Improvement Area #2 included in this SAP as Appendix H, as updated, modified or amended from time to time in accordance with the procedures set forth herein and in the PID Act.

"**Neighborhood Improvement Area #2 Developer**" or "**NIA #2 Developer**" means TACC Development, LLC, a Texas limited liability company.

"Neighborhood Improvement Area #2 Improvements" means those Authorized Improvements that confer a special benefit solely to Neighborhood Improvement Area #2 and are described in Section III.D.

"Neighborhood Improvement Area #2 Maximum Assessment Per Unit" means for Neighborhood Improvement Area #2 the combined Neighborhood Improvement Area #2 Assessment and Major Improvement Area Assessment per unit related to the Neighborhood Improvement Area #2 Improvements and Major Improvement Area Projects, respectively, for each applicable Lot Type as follows:

Lot Type 1 - $25,080.79
Lot Type 2 - $21,648.23
Lot Type 3 - $18,717.57
Lot Type 4 - $29,344.09

"Neighborhood Improvement Areas #2-3 Bonds" means those certain City of Rowlett, Texas Special Assessment Revenue Bonds, Series 2026 (Trails at Cottonwood Creek Public Improvement District Neighborhood Improvement Areas #2-3 Project) that are secured by Assessments levied on the Neighborhood Improvement Area #2 Assessed Property and the Neighborhood Improvement Area #3 Assessed Property.

"Neighborhood Improvement Area #3" or "NIA #3" means the Neighborhood Improvement Area to be developed and generally shown in Appendix A-3 as specifically depicted and described as the sum of all Parcels shown in Appendix I.

"Neighborhood Improvement Area #3 Assessed Property" means, for any year, all Parcels within Neighborhood Improvement Area #3 other than Non-Benefited Property and listed in the Neighborhood Improvement Area #3 Assessment Roll against which Assessments relating to the Neighborhood Improvement Area #3 Improvements are levied.

"Neighborhood Improvement Area #3 Assessment Roll" means the Assessment Roll covering Neighborhood Improvement Area #3 included in this SAP as Appendix I, as updated, modified or amended from time to time in accordance with the procedures set forth herein and in the PID Act.

"**Neighborhood Improvement Area #3 Developer**" or "**NIA #3 Developer**" means Meritage Homes of Texas, LLC, an Arizona limited liability company.

"Neighborhood Improvement Area #3 Improvements" means those Authorized Improvements that confer a special benefit solely to Neighborhood Improvement Area #3 and are described in Section III.E.

"Neighborhood Improvement Area #3 Maximum Assessment Per Unit" means for Neighborhood Improvement Area #3 the combined Neighborhood Improvement Area #3 and

Major Improvement Area Assessment per unit related to the Neighborhood Improvement Area #3 Improvements and Major Improvement Area Projects, respectively, for Lot Type 2 is $19,756.01.

"Non-Benefited Property" means Parcels within the boundaries of the PID that accrue no special benefit from the Authorized Improvements as determined by City Council, which may include Public Property. Property identified as Non-Benefited Property at the time the Assessments (i) are levied or (ii) are reallocated pursuant to the provisions hereof is not assessed. Assessed Property converted to Non-Benefited Property, if the Assessments may not be reallocated pursuant to the provisions hereof, remains subject to the Assessments and requires the Assessments to be prepaid as provided for in Section VI.F.

"Parcel" or **"Parcels"** means a property identified by either a tax map identification number assigned by the Dallas or Rockwall Central Appraisal District for real property tax purposes, by metes and bounds description, by lot and block number in a final subdivision plat recorded in the official public records of the County, or by any other means determined by the City.

"PID" has the meaning set forth in Section I.A. of this Service and Assessment Plan.

"PID Act" means Texas Local Government Code Chapter 372, Public Improvement District Assessment Act, Subchapter A, Public Improvement Districts, as amended.

"Prepayment and Delinquency Reserve" has the meaning set forth in Section V.I of this SAP.

"Prepayment Costs" mean interest and Administrative Expenses, to the extent not paid in an Annual Installment, plus any additional amounts due pursuant to the Indenture related to the PID Bonds, if any, reasonably expected to be incurred by or imposed upon the City as a result of any prepayment of an Assessment and the PID Bonds secured by such Assessment, each to the date of prepayment and to the extent each is allowable by law.

"Public Property" means property, right-of-way and easements within the boundaries of the PID that is owned by or irrevocably offered for dedication to the federal government, the State of Texas, the County, the City, a school district or any other public agency or political subdivision, whether in fee simple or through an exclusive use easement.

"Service and Assessment Plan" or **"SAP"** means this Service and Assessment Plan prepared for the PID pursuant to the PID Act, as the same may and is expected to be amended and/or updated from time to time.

"Trustee" means the fiscal agent or trustee as specified in an Indenture, including a substitute fiscal agent or trustee.

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II. PROPERTY INCLUDED IN THE PID

A. PROPERTY INCLUDED IN THE PID

The PID is currently located entirely within the City's corporate limits. A map of the property within the PID is shown on Appendix A-1 to this Service and Assessment Plan. Legal descriptions for all Parcels within the PID are included in Appendix E.

At completion, the PID is expected to consist of approximately 765 residential units, landscaping, and infrastructure necessary to provide roadways, drainage, and utilities to the PID.

The property located within the PID is currently divided into a Major Improvement Area, Neighborhood Improvement Area #1, Neighborhood Improvement Area #2, Neighborhood Improvement Area #3, and the Future Neighborhood Improvement Areas. The Major Improvement Area consists of land also located within Neighborhood Improvement Area #2, Neighborhood Improvement Area #3, and the Future Neighborhood Improvement Areas.

The property within the PID is proposed to be developed as follows:

Table II-A
Proposed Development - PID

Proposed Development	Quantity	Measurement
50 Ft Lots	79	Units
40 Ft Lots	469	Units
Townhomes	107	Units
60 Ft Lots	110	Units
Total	**765**	**Units**

B. PROPERTY LOCATED IN THE MAJOR IMPROVEMENT AREA AND NEIGHBORHOOD IMPROVEMENT AREA #1

The Major Improvement Area consists of approximately 155.10 acres and is projected to consist of 571 single family residential lots which will be specially benefitted by the Authorized Improvements described in Section III.B. Neighborhood Improvement Area #1 consists of approximately 71.4 acres and 194 single family residential lots which will be specially benefitted by the Authorized Improvements described in Section III.C.

A map of the property within the Major Improvement Area and Neighborhood Improvement Area #1 is shown in Appendix A-2. A legal description for the land located within the Major Improvement Area is included in Appendix E-1. A legal description for the land located within the Neighborhood Improvement Area #1 is included in Appendix E-2.

The property within the Major Improvement Area, which is inclusive of the land located within Neighborhood Improvement Area #2, Neighborhood Improvement Area #3, and the Future Neighborhood Improvement Areas, is proposed to be developed as follows:

The property within the Major Improvement Area is proposed to be developed as follows:

Table II-B
Proposed Development – MIA

Proposed Development	Quantity	Measurement
50 Ft Lots	7	Units
40 Ft Lots	414	Units
Townhomes	40	Units
60 Ft Lots	110	Units
Total	**571**	**Units**

The property within Neighborhood Improvement Area #1 was developed as follows:

Table II-C
Actual Development NIA #1

Proposed Development	Quantity	Measurement
50 Ft Lots	72	Units
40 Ft Lots	55	Units
Townhomes	67	Units
Total	**194**	**Units**

C. Property Located in Neighborhood Improvement Area #2

Neighborhood Improvement Area #2 consists of approximately 80.795 acres and is projected to consist of 293 single family residential lots which will be specially benefitted by the Authorized Improvements described in Section III.D.

The property within Neighborhood Improvement Area #2 is proposed to be developed as follows:

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Table II-D
Proposed Development - NIA #2

Proposed Development	Quantity	Measurement
50 Ft Lots	7	Units
40 Ft Lots	159	Units
Townhomes	40	Units
60 Ft Lots	87	Units
Total	**293**	**Units**

A map of the property within Neighborhood Improvement Area #2 is shown in Appendix A-3. A legal description for all Parcels within Neighborhood Improvement Area #2 is included in Appendix E-3.

D. Property Located in Neighborhood Improvement Area #3

Neighborhood Improvement Area #3 consists of approximately 38.481 acres and is projected to consist of 178 single family residential lots which will be specially benefitted by the Authorized Improvements described in Section III.E.

The property within Neighborhood Improvement Area #3 is proposed to be developed as follows:

Table II-E
Proposed Development - NIA #3

Proposed Development	Quantity	Measurement
40 Ft Lots	178	Units
Total	178	**Units**

A map of the property within Neighborhood Improvement Area #3 is shown in Appendix A-3. A legal description for all Parcels within Neighborhood Improvement Area #3 is included in Appendix E-4.

E. Property Included in Future Neighborhood Improvement Areas

As Future Neighborhood Improvement Areas are developed, this Service and Assessment Plan will be updated to add additional details of each new Neighborhood Improvement Area. A map of the projected property within each Future Neighborhood Improvement Area is shown in Appendix A-3. The Future Neighborhood Improvement Areas are shown for illustrative purposes only and are subject to adjustment.

The estimated number of units at the build-out of the PID is based on the land use approvals for the property, the anticipated subdivision of property in the PID, and the Developer's estimate of the highest and best use of the property within the PID.

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III. DESCRIPTION OF THE AUTHORIZED IMPROVEMENTS

A. AUTHORIZED IMPROVEMENT OVERVIEW

Section 372.003 of the PID Act defines the improvements that may be undertaken by a municipality or county through the establishment of a public improvement district, as follows:

372.003. Authorized Improvements

(a) If the governing body of a municipality or county finds that it promotes the interests of the municipality or county, the governing body may undertake an improvement project that confers a special benefit on a definable part of the municipality or county or the municipality's extraterritorial jurisdiction. A project may be undertaken in the municipality or county or the municipality's extraterritorial jurisdiction.

(b) A public improvement may include:

(i) landscaping;

(ii) erection of fountains, distinctive lighting, and signs;

(iii) acquiring, constructing, improving, widening, narrowing, closing, or rerouting of sidewalks or of streets, any other roadways, or their rights-of way;

(iv) construction or improvement of pedestrian malls;

(v) acquisition and installation of pieces of art;

(vi) acquisition, construction, or improvement of libraries;

(vii) acquisition, construction, or improvement of off-street parking facilities;

(viii) acquisition, construction, improvement, or rerouting of mass transportation facilities;

(ix) acquisition, construction, or improvement of water, wastewater, or drainage facilities or improvements;

(x) the establishment or improvement of parks;

(xi) projects similar to those listed in Subdivisions (i)-(x);

(xii) acquisition, by purchase or otherwise, of real property in connection with an authorized improvement;

(xiii) special supplemental services for improvement and promotion of the district, including services relating to advertising, promotion, health and sanitation, water and wastewater, public safety, security, business recruitment, development, recreation, and cultural enhancement;

(xiv) payment of expenses incurred in the establishment, administration, and operation of the district; and

(xv) the development, rehabilitation, or expansion of affordable housing

After analyzing the public improvement projects authorized by the PID Act, The City has determined that of the improvements authorized under the PID Act, it will undertake at this time only those Authorized Improvements more particularly described in Section III.B, Section III.C, Section III.D, and Section III.E. Any change to the list of Authorized Improvements, including any Future Neighborhood Improvement Area Improvements as described in Section III.F, will require the approval of the City Council.

B. Description of Estimated Costs of the Major Improvements

The Major Improvements benefit the entire PID. However, the Major Improvement Area does not include Neighborhood Improvement Area #1; therefore, the costs of the Major Improvements are allocated proportionally between Major Improvement Area Assessed Property and Neighborhood Improvement Area #1 Assessed Property based on the total estimated Equivalent Units calculated using the estimated buildout value within the respective boundaries. As shown in Table IV-A, the Major Improvement Area Bonds funded the Major Improvement Area Projects. The cost allocation between the Major Improvement Area and Neighborhood Improvement Area #1 is shown in more detail on Table V-A. The Major Improvement Area consists of all of the property within the PID excluding Neighborhood Improvement Area #1.

The Major Improvements are described below. Table III-A shows the Actual Costs of the Major Improvements.

The Actual Costs of Major Improvements were funded from (i) the proceeds of the Major Improvement Area Bonds, (ii) a portion of the proceeds of the Neighborhood Improvement Area #1 Bonds, and (iii) funds contributed by the Managing Developer, all as described herein.

A description of the Major Improvements follows:

Roadway Improvements

The roadway improvements portion of the Major Improvements include but are not limited to, a collector road (spine road) that provides primary access to all areas within the PID. The collector road creates two ingress and egress connections to Vinson Road through a roundabout connection. The roadway improvements were constructed according to City standards outlined in ORD-030-19 and the Development Agreement and have been dedicated to and accepted for maintenance by the City.

Sanitary Sewer Improvements

The sanitary sewer improvement portion of the Major Improvements include but are not limited to trench excavation and embedment, trench safety, PVC piping, manholes, service connections, testing, related earthwork, excavation, erosion control and all other necessary appurtenances required to provide sanitary sewer service along the spine road, to each Parcel within the PID and establishes necessary upgrades to the offsite sanitary sewer system (offsite sanitary sewer) in order to increase capacity to accommodate all lots within the PID. The sanitary sewer improvements were constructed according to City standards outlined in ORD-030-19 and the Development Agreement and have been dedicated to and accepted for maintenance by the City.

Storm Drainage Improvements

The storm drainage improvement portion of the Major Improvements consist of but are not limited to the construction including earthen channels, swales, curb and drop inlets, RCP piping and boxes, headwalls, manholes, concrete flumes, rock rip rap, detention ponds, concrete outfalls, and testing as well as all related earthwork, excavation, erosion control and all necessary appurtenances required to provide storm drainage for all lots within the PID. Storm drainage improvements were constructed according to City standards outlined in ORD-030-19 and the Development Agreement and have been dedicated to and accepted for maintenance by the City.

Other Soft and Miscellaneous Costs

Costs related but not limited to designing, constructing, and installing the Major Improvements including land planning and design, City fees, inspection fees, engineering, material testing, survey, construction management and contingency.

Table III-A
Major Improvement Costs

Authorized Improvements	Original Major Improvement Costs Funded through the PID	Cost Revision	Actual Major Improvement Costs Funded through the PID	Total Major Improvement Costs Allocated to MIA[(1)]	Total Major Improvement Area Costs Allocated to NIA #1[(2)]
Roadway Improvements	$863,383	$403,826	$1,267,209	$958,684	$308,525
Sanitary Sewer Improvements	$2,390,009	$373,181	$2,763,190	$2,090,442	$672,748
Drainage Improvements	$606,679	$62,581	$669,260	$506,317	$162,943
Other soft and miscellaneous costs	$1,096,557	($363,990)	$732,567	$554,210	$178,357
Total Authorized Improvements	**$4,956,628**	**$475,597**	**$5,432,226**	**$4,109,652**	**$1,322,573**

Note: The Major Improvement Area costs are based on the allocation percentages for NIA #1 and MIA as shown in Table V-A.
(1) See Table IV-A for the detailed sources and uses of funds to finance such costs allocated to the MIA.
(2) See Table IV-B for the detailed sources and uses of funds to finance such costs allocated to the NIA #1.

C. Description of Estimated Costs of Neighborhood Improvement Area #1 Improvements

The Neighborhood Improvement Area #1 Improvements are described below. A description of the Major Improvements allocable to Neighborhood Improvement Area #1 are described in Section III.B above. Table III-B shows the Actual Costs to construct the Neighborhood Improvement Area #1 Projects, which includes Neighborhood Improvement Area #1's allocable share of the Major Improvements and the Neighborhood Improvement Area #1 Improvements in the amount that were constructed for the direct benefit of the Neighborhood Improvement Area #1 Assessed Property.

The Actual Costs of the Neighborhood Improvement Area #1 Projects were funded from (i) the proceeds of the Neighborhood Improvement Area #1 Bonds and (ii) funds contributed by the Managing Developer, all as described herein.

A description of the Neighborhood Improvement Area #1 Improvements follows:

Roadway Improvements

The roadway improvements consist of but are not limited to the construction of perimeter road and thoroughfare improvements and alleys, including subgrade stabilization, concrete and reinforcing steel for roadways, testing, handicapped ramps, and streetlights. All related earthwork, excavation, erosion control, intersections, signage and striping, and re-vegetation of all disturbed areas within the rights-of-way are included. The roadway improvements will provide access and benefit to each Lot within the Neighborhood Improvement Area #1. The Neighborhood Improvement Area #1 roadway improvements were constructed according to City standards outlined in ORD-030-19 and the Development Agreement and have been dedicated to and accepted for maintenance by the City.

Sanitary Sewer Improvements

The sanitary sewer improvements consist of but are not limited to construction and installation of pipes, service lines, manholes, encasements and appurtenances necessary to provide sanitary sewer service to the Neighborhood Improvement Area #1. The sanitary sewer improvements were constructed according to City standards outlined in ORD-030-19 and the Development Agreement and have been dedicated to and accepted for maintenance by the City.

Storm Drainage Improvements

The storm drainage improvements consist of but are not limited to the construction including earthen channels, swales, curb and drop inlets, RCP piping and boxes, headwalls, manholes, concrete flumes, rock rip rap, detention ponds, concrete outfalls, and testing as well as all related earthwork, excavation, erosion control and all necessary appurtenances required to provide storm drainage for all Lots within Neighborhood Improvement Area #1. Storm drainage improvements were constructed according to City standards outlined in ORD-030-19 and the Development Agreement and have been dedicated to and accepted for maintenance by the City.

Park Improvements

The park improvements consist of but are not limited to earthwork, demolition, irrigation and all necessary construction needed to create and improve parkland within the Neighborhood Improvement Area #1 in accordance with the Development Agreement. The park improvements were constructed according to City standards outlined in ORD-030-19 and the Development Agreement and have been dedicated to the City and are being maintained by the Homeowners' Association.

Other Soft and Miscellaneous Costs

Costs related but not limited to designing, constructing, and installing the Neighborhood Improvement Area #1 Improvements including land planning and design, City fees, inspection fees, engineering, material testing, survey, construction management and contingency.

Table III-B
Neighborhood Improvement Area #1 Project Costs

Authorized Improvements	Original Share of Major Improvements	Cost Revision	Revised Proportional Share of Major Improvements	NIA #1 Improvement Costs	Total NIA #1 Projects
Roadway Improvements	$218,571	$89,954	$308,525	$2,912,292	$3,220,817
Sanitary Sewer Improvements	$605,047	$67,701	$672,748	$882,739	$1,555,487
Drainage Improvements	$153,585	$9,359	$162,943	$1,398,646	$1,561,589
Park Improvements	$0	$0	$0	$1,575,311	$1,575,311
Other soft and miscellaneous costs	$277,601	($99,244)	$178,357	$1,230,960	$1,409,317
Total Authorized Improvements	**$1,254,804**	**$67,769**	**$1,322,573**	**$7,999,948**	**$9,322,521**

Note: Actual Costs provided by the Managing Developer. The Major Improvement costs are based on the allocation percentages for NIA #1 as shown in Table V-A.

D. Description of Estimated Costs of Neighborhood Improvement Area #2 Improvements

The Neighborhood Improvement Area #2 Improvements are described below. Table III-C shows the Budgeted Costs to construct the Neighborhood Improvement Area #2 Improvements in the amount that are being constructed for the direct benefit of the Neighborhood Improvement Area #2 Assessed Property. The Budgeted Costs shown in Table III-C may be revised through Annual Service Plan Updates.

The Budgeted Costs of the Neighborhood Improvement Area #2 Improvements are being funded from (i) the proceeds of the Neighborhood Improvement Areas #2-3 Bonds and (ii) funds contributed by the Neighborhood Improvement Area #2 Developer, all as described herein.

A description of the Neighborhood Improvement Area #2 Improvements follows:

Roadway Improvements

The roadway improvements consist of but are not limited to the construction of perimeter road and thoroughfare improvements and alleys, including subgrade stabilization, concrete and reinforcing steel for roadways, testing, handicapped ramps, and streetlights. All related earthwork, excavation, erosion control, intersections, signage and striping, and re-vegetation of all disturbed areas within the rights-of-way are included. The street improvements will provide access and benefit to each

Lot within Neighborhood Improvement Area #2. The Neighborhood Improvement Area #2 roadway improvements will be constructed according to City standards outlined in ORD-030-19 and the Development Agreement and upon completion will be dedicated to and maintained by the City.

Water Improvements

The water improvement portion of the Neighborhood Improvement Area #2 Improvements consist of but are not limited to construction and installation of pipes, service lines, taps, fire hydrants, encasements and appurtenances necessary to provide retail water service to the Neighborhood Improvement Area #2. The water improvements will be constructed according to East Fork SUD standards and upon completion will be dedicated to and maintained by the East Fork SUD. All water improvements for NIA #2 will be funded by the Developer and will not be reimbursed through the PID.

Sanitary Sewer Improvements

The sanitary sewer improvements consist of but are not limited to construction and installation of pipes, service lines, manholes, encasements and appurtenances necessary to provide sanitary sewer service to Neighborhood Improvement Area #2. The sanitary sewer improvements will be constructed according to City standards outlined in ORD-030-19 and the Development Agreement and upon completion will be dedicated to and maintained by the City.

Storm Drainage Improvements

The storm drainage improvements consist of but are not limited to the construction including earthen channels, swales, curb and drop inlets, RCP piping and boxes, headwalls, manholes, concrete flumes, rock rip rap, detention ponds, concrete outfalls, and testing as well as all related earthwork, excavation, erosion control and all necessary appurtenances required to provide storm drainage for all Lots within Neighborhood Improvement Area #2. Storm drainage improvements will be constructed according to City standards outlined in ORD-030-19 and the Development Agreement and upon completion will be dedicated to and maintained by the City.

Landscaping Improvements

The landscaping improvements consist of but are not limited to earthwork, demolition, irrigation and all necessary construction needed to create and improve parkland within the Neighborhood Improvement Area #2 in accordance with the Development Agreement. The landscaping improvements will be constructed according to City standards outlined in ORD-030-19 and the Development Agreement and upon completion will be dedicated to the City and maintained by the Homeowners Association.

Other Soft and Miscellaneous Costs

Costs related but not limited to designing, constructing, and installing the Neighborhood Improvement Area #2 Improvements including land planning and design, City fees, inspection fees, engineering, material testing, survey, construction management and contingency.

Table III-C
Neighborhood Improvement Area #2 Budgeted Costs

Authorized Improvements	Total
Roadway Improvements	$6,619,979
Water Improvements[1]	$1,922,106
Sanitary Sewer Improvements	$1,793,767
Drainage Improvements	$2,564,395
Landscaping Improvements	$2,121,888
Other soft and miscellaneous costs	$3,270,731
Total Authorized Improvements	**$18,292,866**

Note: Budgeted Costs provided by JBI. The figures shown in Table III-C are estimates and may be revised in Annual Service Plan Updates and may be reallocated between line items so long as the total Authorized Improvements amount does not change.

[1]All water improvements for NIA #2 will be funded by the Developer and will not be reimbursed through the PID.

E. Description of Estimated Costs of Neighborhood Improvement Area #3 Improvements

The Neighborhood Improvement Area #3 Improvements are described below. Table III-D shows the Budgeted Costs to construct the Neighborhood Improvement Area #3 Improvements in the amount that are being constructed for the direct benefit of the Neighborhood Improvement Area #3 Assessed Property. The Budgeted Costs shown in Table III-D may be revised through Annual Service Plan Updates.

The Budgeted Costs of the Neighborhood Improvement Area #3 Improvements are being funded from (i) the proceeds of the Neighborhood Improvement Areas #2-3 Bonds and (ii) funds contributed by the Neighborhood Improvement Area #3 Developer, all as described herein.

A description of the Neighborhood Improvement Area #3 Improvements follows:

Roadway Improvements

The roadway improvements consist of but are not limited to the construction of perimeter road and thoroughfare improvements and alleys, including subgrade stabilization, concrete and reinforcing steel for roadways, testing, handicapped ramps, and streetlights. All related earthwork, excavation, erosion control, intersections, signage and striping, and re-vegetation of all disturbed areas within the rights-of-way are included. The street improvements will provide access and benefit to each Lot within Neighborhood Improvement Area #3. The Neighborhood Improvement Area #3

roadway improvements will be constructed according to City standards outlined in ORD-030-19 and the Development Agreement and upon completion will be dedicated to and maintained by the City.

Water Improvements

The water improvement portion of the Neighborhood Improvement Area #3 Improvements consist of but are not limited to construction and installation of pipes, service lines, taps, fire hydrants, encasements and appurtenances necessary to provide retail water service to the Neighborhood Improvement Area #3. The water improvements will be constructed according to East Fork SUD standards and upon completion will be dedicated to and maintained by the East Fork SUD. All water improvements for NIA #3 will be funded by the Developer and will not be reimbursed through the PID.

Sanitary Sewer Improvements

The sanitary sewer improvements consist of but are not limited to construction and installation of pipes, service lines, manholes, encasements and appurtenances necessary to provide sanitary sewer service to Neighborhood Improvement Area #3. The sanitary sewer improvements will be constructed according to City standards outlined in ORD-030-19 and the Development Agreement and upon completion will be dedicated to and maintained by the City.

Storm Drainage Improvements

The storm drainage improvements consist of but are not limited to the construction including earthen channels, swales, curb and drop inlets, RCP piping and boxes, headwalls, manholes, concrete flumes, rock rip rap, detention ponds, concrete outfalls, and testing as well as all related earthwork, excavation, erosion control and all necessary appurtenances required to provide storm drainage for all Lots within Neighborhood Improvement Area #3. Storm drainage improvements will be constructed according to City standards outlined in ORD-030-19 and the Development Agreement and upon completion will be dedicated to and maintained by the City.

Landscaping Improvements

The landscaping improvements consist of but are not limited to earthwork, demolition, irrigation and all necessary construction needed to create and improve parkland within the Neighborhood Improvement Area #3 in accordance with the Development Agreement. The landscaping improvements will be constructed according to City standards outlined in ORD-030-19 and the Development Agreement and upon completion will be dedicated to the City and maintained by the Homeowners Association.

Other Soft and Miscellaneous Costs

Costs related but not limited to designing, constructing, and installing the Neighborhood Improvement Area #3 Improvements including land planning and design, City fees, inspection fees, engineering, material testing, survey, construction management and contingency.

Table III-D
Neighborhood Improvement Area #3 Budgeted Costs

Authorized Improvements	Total
Roadway Improvements	$3,345,899
Water Improvements[1]	$1,057,631
Sanitary Sewer Improvements	$884,475
Drainage Improvements	$1,457,016
Landscaping Improvements	$858,350
Other soft and miscellaneous costs	$1,138,433
Total Authorized Improvements	**$8,741,803**

Note: Budgeted Costs provided by JBI. The figures shown in Table III-D are estimates and may be revised in Annual Service Plan Updates and may be reallocated between line items so long as the total Authorized Improvements amount does not change.

[1]All water improvements for NIA #3 will be funded by the Developer and will not be reimbursed through the PID.

The detailed costs of the Major Improvements, Neighborhood Improvement Area #1 Projects, Neighborhood Improvement Area #2 Improvements, and Neighborhood Improvement Area #3 Improvements are shown in Appendix B to this Service and Assessment Plan. Savings from one line item may be applied to a cost increase in another line item. Savings related to the Neighborhood Improvement Area #2 Improvements may be applied to increases in other Neighborhood Improvement Area #2 Improvements, and savings related to the Neighborhood Improvement Area #3 Improvements may be applied to increases in other Neighborhood Improvement Area #3 Improvements (i.e., the improvements for the benefit of property within the same area of the PID whose Assessed Property is the funding source of identified savings).

F. Future Neighborhood Improvement Area Improvements

As Future Neighborhood Improvement Areas are developed and either (i) Future Neighborhood Improvement Area Bonds are issued, or (ii) Future Neighborhood Improvement Area Bonds are not issued but Assessments are levied against Future Neighborhood Improvement Area Assessed Property to make payments under a reimbursement agreement, this SAP will be amended to identify the specific Future Neighborhood Improvement Area Improvements that confer a special benefit to the property inside each Future Neighborhood Improvement Area (e.g. a Table III-E will be added to show the costs for the specific Future Neighborhood Improvement Area Improvements financed within the specific Future Neighborhood Improvement Area being developed).

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IV. SERVICE PLAN

A. SOURCES AND USES OF FUNDS

The PID Act requires the service plan to cover a period of at least five years. The service plan is required to define the annual projected costs and indebtedness for the Authorized Improvements undertaken within the PID during the five-year period.

The Actual Costs for the Major Improvement Area Projects plus costs related to the issuance of the Major Improvement Area Bonds, and payment of the expenses allocable to the Major Improvement Area incurred in the establishment, administration, and operation of the PID, is $5,426,386 as shown in Table IV-A.

The Actual Costs for the Neighborhood Improvement Area #1 Projects plus costs related to the issuance of the Neighborhood Improvement Area #1 Bonds, and payment of the expenses allocable to Neighborhood Improvement Area #1 incurred in the establishment, administration, and operation of the PID, is $10,039,722 as shown in Table IV-B.

The Budgeted Costs for the Neighborhood Improvement Area #2 Improvements and the Neighborhood Improvement Area #3 Improvements plus costs related to the issuance of the Neighborhood Improvement Areas #2-3 Bonds, and payment of the expenses allocable to Neighborhood Improvement Area #2 and Neighborhood Improvement Area #3 incurred in the establishment, administration, and operation of the PID, is $28,339,877 as shown in Table IV-C.

The Service Plan shall be reviewed and updated at least annually for purposes of determining the annual budget for Administrative Expenses, updating the Actual Costs of the Authorized Improvements, and updating Assessment Roll(s). Any update to this SAP is herein referred as an "Annual Service Plan Update."

As Future Neighborhood Improvement Areas are developed and Assessments are levied against Future Neighborhood Improvement Area Assessed Property, this Service and Assessment Plan will be amended (e.g. Table IV-F will be added for Neighborhood Improvement Area #4, etc.).

Table IV-A on the following page summarizes the sources and uses of funds required to (i) construct the Major Improvement Area Projects, (ii) pay costs related to the issuance of the Major Improvement Area Bonds, and (iii) and establish the PID. The sources and uses of funds shown in Table IV-A shall be updated each year in the Annual Service Plan Update to reflect any revisions to the Actual Costs and additional Bond issues, if any.

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Table IV-A
Major Improvement Area
Sources and Uses of Funds

Sources of Funds (a)	Major Improvement Area Bonds
Par Amount	$5,065,000
Original Issue Discount	($46,442)
Other Funding Sources	$407,828
Total Sources of Funds	**$5,426,386**
Uses of Funds	
Major Improvements (b):	
Roadway Improvements	$958,684
Sanitary Sewer Improvements	$2,090,442
Storm Drainage Improvements	$506,317
Other soft and miscellaneous costs	$554,210
Subtotal Major Improvements	*$4,109,652*
Bond Issuance Costs:	
Debt Service Reserve Fund (c)	$311,650
Administrative Expenses	$105,700
Capitalized Interest (d)	$472,049
Cost of Issuance	$275,385
Underwriter's Discount/ Underwriter's Counsel (e)	$151,950
Subtotal Bond Issuance Costs	*$1,316,734*
Total Uses of Funds	**$5,426,386**

(a) Managing Developer has funded or caused to be funded all costs not covered by the Major Improvement Area Bonds.
(b) See Table III-A and Table V-A for details.
(v) The Major Improvement Area Bonds include a debt service reserve fund calculated in accordance with IRS rules.
(d) Capitalized interest funded through September 15, 2023.
(e) The Major Improvement Area Bonds have a 3.0% Underwriter's Discount (inclusive of Underwriter's Counsel Fee)

Table IV-B on the following page summarizes the sources and uses of funds required to (i) construct the Neighborhood Improvement Area #1 Projects, (ii) pay costs related to the issuance of the Neighborhood Improvement Area #1 Bonds, and (iii) establish the PID. The sources and uses of funds shown in Table IV-B shall be updated each year in the Annual Service Plan Update to reflect any revisions to the Actual Costs and additional Bond issues, if any.

Table IV-B
Neighborhood Improvement Area #1
Sources and Uses of Funds

Sources of Funds (a)	NIA #1 Bonds
Par Amount	$2,543,000
Bond Premium	$14,107
Other Funding Sources	$7,482,615
Total Sources of Funds	**$10,039,722**
Uses of Funds	
Major Improvements (b)	
Roadway Improvements	$308,525
Sanitary Sewer Improvements	$672,748
Storm Drainage Improvements	$162,943
Other soft and miscellaneous costs	$178,357
Subtotal Major Improvements	*$1,322,573*
NIA #1 Improvements (b)	
Roadway Improvements	$2,912,292
Sanitary Sewer Improvements	$882,739
Storm Drainage Improvements	$1,398,646
Park Improvements	$1,575,311
Other soft and miscellaneous costs	$1,230,960
Subtotal NIA #1 Improvements	*$7,999,948*
Bond Issuance Costs:	
Debt Service Reserve Fund (c)	$155,130
Administrative Expenses	$105,700
Capitalized Interest (d)	$215,081
Cost of Issuance	$165,000
Underwriter's Discount/ Underwriter's Counsel (e)	$76,290
Subtotal Bond Issuance Costs	*$717,201*
Total Uses of Funds	**$10,039,722**

(a) Managing Developer has funded or caused to be funded all costs not covered by the Neighborhood Improvement Area #1 Bonds.
(b) See Table III-B and Table V-A for details relating to total cost.
(c) The Neighborhood Improvement Area #1 Bonds include a debt service reserve fund calculated in accordance with IRS rules.
(d) Capitalized interest funded through September 15, 2023.
(e) The Neighborhood Improvement Area #1 Bonds have a 3.0% Underwriter's Discount (inclusive of Underwriter's Counsel Fee)

Table IV-C on the following page summarizes the sources and uses of funds required to (i) construct the Neighborhood Improvement Area #2 Improvements, and the Neighborhood Improvement Area #3 Improvements, (ii) pay costs related to the issuance of the Neighborhood Improvement Areas #2-3 Bonds, and (iii) establish the PID. The sources and uses of funds shown

in Table IV-C shall be updated each year in the Annual Service Plan Update to reflect any revisions to the Actual Costs and additional Bond issues, if any.

Table IV-C
Neighborhood Improvement Areas #2-3 Bonds
Sources and Uses of Funds

Sources of Funds (a)	**NIA #2**	**NIA #3**	**Total**
Par Amount	$4,418,000	$2,120,000	$6,538,000
NIA #2 Developer Contribution	$14,813,061	$0	$14,813,061
NIA #3 Developer Contribution	$0	$7,111,103	$7,111,103
Total Sources of Funds	**$19,231,061**	**$9,231,103**	**$28,462,164**
Uses of Funds			
NIA #2 Improvements (b)			
Roadway Improvements	$6,619,979	$0	$6,619,979
Water Improvements (f)	$1,922,106	$0	$1,922,106
Sanitary Sewer Improvements	$1,793,767	$0	$1,793,767
Drainage Improvements	$2,564,395	$0	$2,564,395
Landscaping Improvements	$2,121,888	$0	$2,121,888
Other soft and miscellaneous costs	$3,270,731	$0	$3,270,731
Subtotal NIA #2 Improvements	*$18,292,866*	*$0*	*$18,292,866*
NIA #3 Improvements (b)			
Roadway Improvements	$0	$3,345,899	$3,345,899
Water Improvements (f)	$0	$1,057,631	$1,057,631
Sanitary Sewer Improvements	$0	$884,475	$884,475
Drainage Improvements	$0	$1,457,016	$1,457,016
Landscaping Improvements	$0	$858,350	$858,350
Other soft and miscellaneous costs	$0	$1,138,433	$1,138,433
Subtotal NIA #3 Improvements	*$0*	*$8,741,803*	*$8,741,803*
Estimated Bond Issuance Costs:			
Debt Service Reserve Fund (c)	$312,990	$155,600	$468,590
Administrative Expenses and Consulting Fee	$84,000	$74,000	$158,000
Capitalized Interest (d)	$121,495	$58,300	$179,795
Cost of Issuance	$287,170	$137,800	$424,970
Underwriter's Discount/ Underwriter's Counsel (e)	$132,540	$63,600	$196,140
Subtotal Estimated Bond Issuance Costs	*$938,195*	*$489,300*	*$1,427,495*
Total Uses of Funds	**$19,231,061**	**$9,231,103**	**$28,462,164**

(a) The NIA #2 Developer and the NIA #3 Developer, as applicable, will fund or cause to be funded all costs not covered by the Neighborhood Improvement Areas #2-3 Bonds.
(b) See Table III-C and Table III-D for details relating to total cost.
(c) The Neighborhood Improvement Areas #2-3 Bonds include a debt service reserve fund calculated in accordance with IRS rules.
(d) Capitalized interest funded through September 15, 2026.
(e) The Neighborhood Improvement Areas #2-3 Bonds have a 3.0% Underwriter's Discount (inclusive of Underwriter's Counsel Fee)
(f) All water improvements for NIA #2 and NIA #3 will be funded by the Developer and will not be reimbursed through the PID.

As Future Neighborhood Improvement Areas are developed, Future Neighborhood Improvement Area Bonds may be issued to finance the Future Neighborhood Improvement Area Improvements required for each new Future Neighborhood Improvement Area. Each Future Neighborhood Improvement Area Bond may also be issued in one or more series.

B. Annual Projected Costs and Annual Projected Indebtedness

The annual projected costs and annual projected indebtedness related to the Major Improvement Area Bonds and the Neighborhood Improvement Area #1 Bonds is shown in Table IV-D. The annual projected costs and indebtedness is subject to revision and each shall be updated in an Annual Service Plan Update to reflect any changes in the costs or indebtedness expected for each year.

Table IV-D
Annual Projected Costs and Annual Projected Indebtedness – NIA #1

Year	Annual Projected Cost	Annual Projected Indebtedness	Other Funding Sources	Projected Major Improvement Area Annual Installments[1]	Projected Neighborhood Improvement Area #1 Annual Installments[1]
2025 and Prior	$15,466,108	$7,608,000	$7,858,108	$892,974	$495,028
2026	$0	$0	$0	$378,913	$209,451
2027	$0	$0	$0	$373,838	$204,657
2028	$0	$0	$0	$373,723	$204,073
2029	$0	$0	$0	$373,454	$204,469
2030	$0	$0	$0	$374,031	$204,808
Total	**$15,466,108**	**$7,608,000**	**$7,858,108**	**$2,766,932**	**$1,522,486**

1 – Projected Annual Installment amounts are net of available capitalized interest as shown in the respective Assessment Roll.

The annual projected costs shown in Table IV-D include the annual expenditures relating to (i) the Major Improvement Area Projects shown in Table III-A, (ii) the Neighborhood Improvement Area #1 Projects shown in Table III-B (including the portion of the Major Improvements allocated to Neighborhood Improvement Area #1), (iii) the costs associated with setting up the PID, and (iv) Bond issuance costs, including reserves shown in Table IV-A and Table IV-B. The difference between the total projected cost and the total projected indebtedness, if any, is the amount contributed by the Managing Developer.

The annual projected costs and annual projected indebtedness related to Neighborhood Improvement Area #2's portion of the Neighborhood Improvement Areas #2-3 Bonds is shown in Table IV-E. The annual projected costs and indebtedness is subject to revision and each shall be updated in an Annual Service Plan Update to reflect any changes in the costs or indebtedness expected for each year.

Table IV-E
Annual Projected Costs and Annual Projected Indebtedness - NIA #2

Year	Annual Projected Cost[1]	Annual Projected Indebtedness	Other Funding Sources	Projected NIA #2 Annual Installments[2]
2025	$9,615,531	$0	$9,615,531	$0
2026	$9,615,531	$4,418,000	$5,197,531	$0
2027	$0	$0	$0	$386,080
2028	$0	$0	$0	$385,900
2029	$0	$0	$0	$385,560
2030	$0	$0	$0	$385,062
2031	$0	$0	$0	$384,404
2032	$0	$0	$0	$384,588
Total	**$19,231,061**	**$4,418,000**	**$14,813,061**	**$2,311,594**

1 – All water improvements for NIA #2 will be funded by the Developer and will not be reimbursed through the PID.
2 – Projected Annual Installment amounts are net of available capitalized interest as shown in the respective Assessment Roll.

The annual projected costs shown in Table IV-E include the annual expenditures relating to (i) the Neighborhood Improvement Area #2 Improvements shown in Table III-C, (ii) the costs associated with setting up the PID, and (iii) Bond issuance costs, including reserves shown in Table IV-C. The difference between the total projected cost and the total projected indebtedness, if any, is the amount contributed by the Neighborhood Improvement Area #2 Developer.

The annual projected costs and annual projected indebtedness related to Neighborhood Improvement Area #3's portion of the Neighborhood Improvement Areas #2-3 Bonds is shown in Table IV-F. The annual projected costs and indebtedness is subject to revision and each shall be updated in an Annual Service Plan Update to reflect any changes in the costs or indebtedness expected for each year.

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Table IV-F
Annual Projected Costs and Annual Projected Indebtedness - NIA #3

Year	Annual Projected Cost[1]	Annual Projected Indebtedness	Other Funding Sources	Projected NIA #3 Annual Installments[2]
2025	$4,554,408	$0	$4,554,408	$0
2026	$4,554,408	$2,120,000	$2,434,408	$0
2027	$0	$0	$0	$207,000
2028	$0	$0	$0	$206,476
2029	$0	$0	$0	$206,908
2030	$0	$0	$0	$206,237
2031	$0	$0	$0	$205,523
2032	$0	$0	$0	$204,766
Total	**$9,108,816**	**$2,120,000**	**$6,988,816**	**$1,236,911**

1 – All water improvements for NIA #3 will be funded by the Developer and will not be reimbursed through the PID.
2 – Projected Annual Installment amounts are net of available capitalized interest as shown in the respective Assessment Roll.

The annual projected costs shown in Table IV-F include the annual expenditures relating to (i) the Neighborhood Improvement Area #3 Improvements shown in Table III-D, (ii) the costs associated with setting up the PID, and (iii) Bond issuance costs, including reserves shown in Table IV-C. The difference between the total projected cost and the total projected indebtedness, if any, is the amount contributed by the Neighborhood Improvement Area #3 Developer.

As Future Neighborhood Improvement Areas are developed, in association with issuing Future Neighborhood Improvement Area Bonds for each Future Neighborhood Improvement Area, Table IV-D will be updated to identify annual projected costs of the Authorized Improvements to be financed by each new series of Future Neighborhood Improvement Area Bonds and the projected indebtedness resulting from each additional series of Future Neighborhood Improvement Area Bonds. In the event Future Neighborhood Improvement Area Bonds are not issued but Assessments are levied against Future Neighborhood Improvement Area Assessed Property to make payments under one or more reimbursement agreements, Table IV-F will be added to identify the annual projected costs and annual projected indebtedness related to such reimbursement obligation.

C. PID ASSESSMENT NOTICE

The PID Act requires that this Service and Assessment Plan and each Annual Service Plan update include a copy of the notice form required by Section 5.014 of the Texas Property Code (the "PID Assessment Notice"). The PID Assessment Notice is attached hereto as Appendix K and may be updated in an Annual Service Plan Update.

V. ASSESSMENT PLAN

A. INTRODUCTION

The PID Act requires the City Council to apportion the costs of the Authorized Improvements on the basis of special benefits conferred upon the property because of the Authorized Improvements. The PID Act provides that the costs of the Authorized Improvements may be assessed: (i) equally per front foot or square foot; (ii) according to the value of the property as determined by the governing body, with or without regard to improvements on the property; or (iii) in any other manner that results in imposing equal shares of the cost on property similarly benefited. The PID Act further provides that the governing body may establish by ordinance or order reasonable classifications and formulas for the apportionment of the cost between the municipality and the area to be assessed and the methods of assessing the special benefits for various classes of improvements.

The proposed bond issuance program entails a series of bond financings that are intended to finance the public infrastructure required for the development. This financing will necessarily be undertaken in phases to coincide with the private investment and development of the Authorized Improvements.

The Major Improvement Area Bonds and the Neighborhood Improvement Area #1 Bonds issued in 2021 were issued to finance the Neighborhood Improvement Area #1 Improvements and the Major Improvements.

Following the issuance of the Neighborhood Improvement Areas #2-3 Bonds in 2026 to finance the Neighborhood Improvement Area #2 Improvements and Neighborhood Improvement Area #3 Improvements, subsequent Future Neighborhood Improvement Area Bonds may be issued as the Future Neighborhood Improvement Areas are gradually constructed.

The purpose of this gradual issuance of Bonds in phases is to mirror the actual private development of the Authorized Improvements. The Bonds to be issued are most prudently and efficiently utilized when directly coinciding with construction of public infrastructure needed for private development that is to occur once the infrastructure is completed; it is most effective to issue the Bonds when the infrastructure is needed, not before. Furthermore, there is no economic advantage, and several disadvantages, to issuing debt and encumbering property within the PID prior to the need for the Authorized Improvements.

Additionally, phased issuance of debt will maintain a prudent value to lien ("VtL") within the financing program. In order to maintain a prudent VtL, the initial issuance of Bonds for a specific set of Authorized Improvements may not fund the entire desired level of public infrastructure because the property value is not high enough to support the entire debt load at the VtL chosen for the development. In that case, the applicable Developer will need to fund the additional infrastructure costs as agreed to with the City. This investment by the applicable Developer for certain Authorized Improvements, if necessary, can be reimbursed by a subsequent parity lien bond financing, secured by the same assessments, once the assessed property is partially or fully

developed and the value has increased sufficiently to permit the issuance of the additional Bonds in a prudent fashion.

For purposes of this Service and Assessment Plan, the City Council has determined that the costs of the Major Improvements, Neighborhood Improvement Area #1 Improvements, Neighborhood Improvement Area #2 Improvements, and the Neighborhood Improvement Area #3 Improvements shall be allocated as follows:

1. The costs of the Neighborhood Improvement Area #1 Projects shall be allocated on the basis of Equivalent Units calculated using the average home price of each Lot Type once such property is developed, and that such method of allocation will result in the imposition of equal shares of the costs of the Neighborhood Improvement Area #1 Projects to Parcels similarly benefited.

2. The costs of the Major Improvements are proportionally allocated to the Major Improvement Area Assessed Property and the Neighborhood Improvement Area #1 Assessed Property based on the ratio of total estimated Equivalent Units calculated using the average home price of each Lot Type for the Major Improvement Area Assessed Property and the Neighborhood Improvement Area #1 Assessed Property.

3. The Major Improvement Area Projects are allocated to each Parcel within the Major Improvement Area Assessed Property based on estimated Equivalent Units calculated using the average home price of each Lot Type.

4. The costs of the Neighborhood Improvement Area #2 Improvements shall be allocated on the basis of Equivalent Units calculated using the average home price of each applicable Lot Type once such property is developed, and that such method of allocation will result in the imposition of equal shares of the costs of the Neighborhood Improvement Area #2 Improvements to Parcels similarly benefited.

5. The costs of the Neighborhood Improvement Area #3 Improvements shall be allocated on the basis of Equivalent Units calculated using the average home price of each applicable Lot Type once such property is developed, and that such method of allocation will result in the imposition of equal shares of the costs of the Neighborhood Improvement Area #3 Improvements to Parcels similarly benefited.

Tables V-A and V-B provide the original and updated allocation of costs of the Major Improvements, respectively. Tables V-C and V-D provide the original and updated allocation of costs of the Neighborhood Improvement Area #1 Projects, respectively.

At this time, it is impossible to determine with absolute certainty the amount of special benefit each Parcel within Future Neighborhood Improvement Areas will receive from the Future Neighborhood Improvement Area Improvements that will benefit each individual Neighborhood Improvement Area. Therefore, Parcels will only be assessed for the special benefits conferred upon the Parcel at this time because of the Major Improvements, Neighborhood Improvement

Area #1 Improvements, Neighborhood Improvement Area #2 Improvements, and Neighborhood Improvement Area #3 Improvements as applicable.

In connection with the issuance of Bonds and/or execution of related reimbursement agreements, this Service and Assessment Plan will be updated to reflect the special benefit each Parcel of Assessed Property within a Future Neighborhood Improvement Area receives from the Future Neighborhood Improvement Area Improvements funded with Bonds issued with respect to that Future Neighborhood Improvement Area.

This section of this Service and Assessment Plan currently (i) describes the special benefit received by each Parcel within the PID as a result of the Major Improvements, Neighborhood Improvement Area #1 Improvements, Neighborhood Improvement Area #2 Improvements, and Neighborhood Improvement Area #3 Improvements as applicable, (ii) provides the basis and justification for the determination that this special benefit exceeds the amount of the Assessments to be levied on the Neighborhood Improvement Area #1 Assessed Property, Major Improvement Area Assessed Property, Neighborhood Improvement Area #2 Assessed Property, and Neighborhood Improvement Area #3 Assessed Property for such improvements, and (iii) establishes the methodologies by which the City Council allocates and reallocates the special benefit of the Major Improvements, Neighborhood Improvement Area #1 Improvements, Neighborhood Improvement Area #2 Improvements, and Neighborhood Improvement Area #3 Improvements, as applicable, to Parcels in a manner that results in equal shares of the Actual Costs of such improvements being apportioned to Parcels similarly benefited. The determination by the City Council of the assessment methodologies set forth below is the result of the discretionary exercise by the City Council of its legislative authority and governmental powers and is conclusive and binding on all owners and future owners and developers of the Assessed Property.

B. Special Benefit

The Assessed Property must receive a direct and special benefit from the Authorized Improvements, and this benefit must be equal to or greater than the amount of the Assessments. The Authorized Improvements are provided specifically for the benefit of the Assessed Property. The Authorized Improvements (more particularly described in line-item format in Appendix B to this Service and Assessment Plan) and the costs of issuance of Bonds and payment of costs incurred in the establishment of the PID shown in Table IV-A, Table IV-B, and IV-C are authorized by the PID Act.

At the time the City Council adopted the Assessment Ordinance levying Assessments against the Major Improvement Area Assessed Property and the Neighborhood Improvement Area #1 Assessed Property, each owner of the Major Improvement Area Assessed Property and Neighborhood Improvement Area #1 Assessed Property, respectively, (i) acknowledged that the Major Improvement Area Projects and the Neighborhood Improvement Area #1 Projects, respectively, confer a special benefit on the Major Improvement Area Assessed Property and the Neighborhood Improvement Area #1 Assessed Property, respectively, and (ii) consented to the imposition of the Assessments against the Major Improvement Area Assessed Property and the Neighborhood Improvement Area #1 Assessed Property to pay for the Actual Costs associated therewith. In making such acknowledgments and consents, each of the owners was acting in its

interest in consenting to such apportionment and levying of the Assessments against the Major Improvement Area Assessed Property and the Neighborhood Improvement Area #1 Assessed Property, respectively, because the special benefit conferred upon the Major Improvement Area Assessed Property and the Neighborhood Improvement Area #1 Assessed Property, respectively, by the Major Improvement Area Projects and the Neighborhood Improvement Area #1 Projects, respectively, exceeds the amount of each respective Assessment.

At or prior to the time the City Council approved the Assessment Ordinance levying Assessments against the Neighborhood Improvement Area #2 Assessed Property and the Neighborhood Improvement Area #3 Assessed Property, each owner of the Neighborhood Improvement Area #2 Assessed Property and Neighborhood Improvement Area #3 Assessed Property, respectively, (i) acknowledged that the Neighborhood Improvement Area #2 Improvements and the Neighborhood Improvement Area #3 Improvements, respectively, confer a special benefit on the Neighborhood Improvement Area #2 Assessed Property and the Neighborhood Improvement Area #3 Assessed Property, respectively, and (ii) consented to the imposition of the Assessments against the Neighborhood Improvement Area #2 Assessed Property and the Neighborhood Improvement Area #3 Assessed Property, respectively, to pay for the Actual Costs associated therewith. In making such acknowledgments and consents, each of the owners was acting in its interest in consenting to the apportionment and levying of the Assessments against the Neighborhood Improvement Area #2 Assessed Property and the Neighborhood Improvement Area #3 Assessed Property, respectively, because the special benefit conferred upon the Neighborhood Improvement Area #2 Assessed Property and the Neighborhood Improvement Area #3 Assessed Property, respectively, by the Neighborhood Improvement Area #2 Improvements and Neighborhood Improvement Area #3 Improvements, respectively, exceeds the amount of each respective Assessment.

The Authorized Improvements provide a special benefit to the Assessed Property as a result of the close proximity of these improvements to the Assessed Property and the specific purpose of these improvements of providing infrastructure for the Assessed Property. In other words, the Assessed Property could not be used in the manner proposed without the construction of the Authorized Improvements. The Authorized Improvements are being provided specifically to meet the needs of the Assessed Property as required for the proposed use of the Assessed Property.

The Assessments are being levied to provide the Authorized Improvements that are required for the highest and best use of the Assessed Property (i.e., the use of the property that is most valuable, including any costs associated with that use). Highest and best use can be defined as "the reasonably probable and legal use of property, which is physically possible, appropriately supported, financially feasible, and that results in the highest value." (*Dictionary of Real Estate Appraisal, Third Edition*.) The Authorized Improvements are required for the proposed use of the Assessed Property to be physically possible, appropriately supported, financially feasible, and maximally productive.

The Developers have evaluated the potential use of the property and have determined that the highest and best use of the property is the use intended and the legal use for the property as described in Section II of this Service and Assessment Plan. The use of the Assessed Property as described herein will require the construction of the Authorized Improvements.

The Assessments will repay financing that is on advantageous terms, as the Bonds issued to finance the Authorized Improvements will pay interest that is exempt from federal income tax. As a result, all other terms being equal (e.g., maturity, fixed vs. variable rate, credit quality), the tax-exempt bonds will have a lower interest rate than debt that is not tax-exempt. The Bonds also have a longer term than other available financings and may either be repaid or assumed by a buyer at the buyer's option. As a result of these advantageous terms, the financing provided by the PID is the most beneficial means of financing the Authorized Improvements.

At or prior to the time the City levies an Assessment, each owner of Assessed Property will ratify, confirm, accept, agree to, and approve: (i) the determinations and findings by the City Council as to the special benefits accruing to such owner's Assessed Property described in this Service and Assessment Plan and the applicable Assessment Ordinance, (ii) this Service and Assessment Plan and the applicable Assessment Ordinance, and (iii) the levying of Assessments on the owner's Assessed Property. Use of the Assessed Property as described in this Service and Assessment Plan and as authorized by the PID Act requires that the Authorized Improvements be acquired, constructed, installed, and/or improved. Funding the Actual Costs of the Authorized Improvements through the PID has been determined by the City Council to be the most beneficial means of doing so. As a result, the Assessments result in a special benefit to the Assessed Property, and this special benefit exceeds the amount of the Assessment. This conclusion is based on and supported by the evidence, information, and testimony provided to the City Council.

In summary, the Assessments result in a special benefit to the Assessed Property for the following reasons:

1. The Authorized Improvements are being provided specifically for the use of the Assessed Property, are necessary for the proposed highest and best use of the property and provide a special benefit to the Assessed Property as a result;

2. The Developers and the applicable owner of the Assessed Property have consented to the imposition of the Assessments for the purpose of providing the Authorized Improvements and the Developers and such owners are acting in their respective interest by consenting to this imposition;

3. The highest and best use of the Assessed Property is the use of the Assessed Property that is most valuable (including any costs associated with the use of the Assessed Property);

4. Financing of the costs of the Authorized Improvements through the PID is determined to be the most beneficial means of providing funding for the Authorized Improvements; and

5. As a result, the special benefits to the Assessed Property from the Authorized Improvements will be equal to or greater than the Assessments.

C. Original Allocation of Actual Costs of Major Improvements

The Major Improvements will provide a special benefit to the Assessed Property, other than the Non-Benefited Property. The Budgeted Costs of the Major Improvements were, therefore, originally allocated to the Major Improvement Area Assessed Property and the Neighborhood Improvement Area #1 Assessed Property, based on the projected Equivalent Units calculated using the estimated buildout value, as shown in Table V-A.

Neighborhood Improvement Area #1 contains 194 residential units. As shown in Appendix D, the total Equivalent Units for Neighborhood Improvement Area #1 were originally calculated as 174.11. The Major Improvement Area was originally projected to contain 571 residential units which originally resulted in a total of 444.73 Equivalent Units as shown in Appendix D. At the time of levy of the Major Improvement Area Assessments, the total projected Equivalent Units in the PID was, therefore, calculated to be 687.74 (i.e., 174.11 + 513.63 = 687.74). As a result, 25.32 percent of the estimated costs of the Major Improvements (i.e. 174.11 ÷ 687.74 = 25.32%) were initially allocated to the Neighborhood Improvement Area #1 Assessed Property and 74.68 percent of the estimated costs of the Major Improvements (i.e., 513.63 ÷ 687.74 = 74.68%) were initially allocated to the Major Improvement Area Assessed Property. The Major Improvement Area Bonds funded the proportionate share of the estimated costs of the Major Improvements allocated to the Major Improvement Area, and Neighborhood Improvement Area #1 Bonds funded Neighborhood Improvement Area #1's proportionate share of the estimated costs of the Major Improvements.

Table V-A
Original Allocation of Major Improvement Costs

Authorized Improvement	Estimated Costs
Roadway Improvements	$863,383
Sanitary Sewer Improvements	$2,390,009
Storm Drainage Improvements	$606,679
Other Soft and Miscellaneous Costs	$1,096,557
Total Major Improvements	**$4,956,628**
NIA #1	
Projected Equivalent Units	174.11
% of total units	25.32%
Proportionate Share of Costs	$1,254,804
MIA	
Projected Equivalent Units	513.63
% of total units	74.68%
Proportionate Share of Costs	$3,701,824

D. Updated Allocation of Actual Costs of Major Improvements

The Major Improvements provide a special benefit to the Assessed Property, other than the Non-Benefited Property. The Actual Costs of the Major Improvements are, therefore, allocated to the Major Improvement Area Assessed Property and the Neighborhood Improvement Area #1 Assessed Property, based on the projected Equivalent Units calculated using the estimated buildout value, as shown in Table V-A.

Neighborhood Improvement Area #1 contains 194 residential units, Neighborhood Improvement Area #2 contains 293 residential units, Neighborhood Improvement Area #3 contains 178 residential units, and the remainder of the Major Improvement Area contains 100 residential units. As shown in Appendix D, the total Equivalent Units for Neighborhood Improvement Area #1 is calculated as 174.11, the total Equivalent Units for Neighborhood Improvement Area #2 is calculated as 285.24, the total Equivalent Units for Neighborhood Improvement Area #3 is calculated as 159.26, and the total Equivalent Units for the remainder of the Major Improvement is calculated as 96.49. The total projected Equivalent Units in the PID is, therefore, calculated to be 715.11 (i.e., 174.11 + 285.24 + 159.26 + 96.49 = 715.11). As a result, 24.35 percent of the Actual Costs of the Major Improvements (i.e. 174.11 ÷ 715.11 = 24.35%) are allocated to the Neighborhood Improvement Area #1 Assessed Property, 39.89 percent of the Actual Costs of the Major Improvements (i.e. 285.24 ÷ 715.11 = 39.89%) are allocated to the Neighborhood Improvement Area #2 Assessed Property, 22.27 percent of the Actual Costs of the Major Improvements (i.e. 159.26 ÷ 715.11 = 22.27%) are allocated to the Neighborhood Improvement Area #3 Assessed Property, and 13.49 percent of the Actual Costs of the Major Improvements (i.e., 96.49 ÷ 715.11 = 13.49%) are allocated to the remainder of the Major Improvement Area Assessed Property. The Major Improvement Area Bonds funded the proportionate share of the Actual Costs of the Major Improvements allocated to the Major Improvement Area, (which includes Neighborhood Improvement Area #2, Neighborhood Improvement Area #3 and the Future Neighborhood Improvement Areas), and Neighborhood Improvement Area #1 Bonds funded Neighborhood Improvement Area #1's proportionate share of the Actual Costs of the Major Improvements.

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Table V-B
Updated Allocation of Major Improvement Costs

Authorized Improvement	Actual Costs
Roadway Improvements	$1,267,209
Sanitary Sewer Improvements	$2,763,190
Storm Drainage Improvements	$669,260
Other Soft and Miscellaneous Costs	$732,567
Total Major Improvements	**$5,432,226**
NIA #1	
Projected Equivalent Units	174.11
% of total units	24.35%
Proportionate Share of Costs	$1,322,573
NIA #2	
Projected Equivalent Units	285.24
% of total units	39.89%
Proportionate Share of Costs	$2,166,813
NIA #3	
Projected Equivalent Units	159.26
% of total units	22.27%
Proportionate Share of Costs	$1,209,827
Remainder of MIA	
Projected Equivalent Units	96.49
% of total units	13.49%
Proportionate Share of Costs	$733,013

E. Allocation of Actual Costs of Neighborhood Improvement Area #1 Improvements

The Neighborhood Improvement Area #1 Improvements will provide a special benefit only to the Parcels, other than the Non-Benefited Property, in Neighborhood Improvement Area #1. The Actual Costs of the Neighborhood Improvement Area #1 Improvements are, therefore, allocated entirely to the Neighborhood Improvement Area #1 Assessed Property, as shown in Table V-C. In addition, the Actual Costs of the Major Improvements allocated to Neighborhood Improvement Area #1 are set forth in Table V-C. The Actual Costs detailed in Table V-C are subject to revision through the Annual Service Plan Updates but may not result in increased Assessments except as authorized under this SAP or the PID Act.

Table V-C
Cost Allocation of Neighborhood Improvement Area #1 Projects

Authorized Improvements	Total Cost[(a)]	NIA #1's share of Major Improvements		NIA #1 Improvements	
		% Allocation[(b)]	Share of Costs[(b)]	% Allocation	Share of Costs
Roadway Improvements	$2,775,600	25.32%	$218,571	100.00%	$2,557,028
Sanitary Sewer Improvements	$1,487,786	25.32%	$605,047	100.00%	$882,739
Storm Drainage Improvements	$1,552,231	25.32%	$153,585	100.00%	$1,398,646
Park Improvements	$394,600	0.00%	$0	100.00%	$394,600
Other soft and miscellaneous costs	$1,863,825	25.32%	$277,601	100.00%	$1,586,224
Total Authorized Improvements	**$8,074,041**		**$1,254,804**		**$6,819,237**

(a) See Table III-B for details.
(b) Based on allocation of the Major Improvement Area Costs as shown in Table V-A.

Table V-D shows the updated cost allocation for the Neighborhood Improvement Area #1 Projects based on the information provided in table V-B.

Table V-D
Updated Cost Allocation of Neighborhood Improvement Area #1 Projects

Authorized Improvements	Total Cost[(a)]	NIA #1's share of Major Improvements		NIA #1 Improvements	
		% Allocation[(b)]	Share of Costs[(b)]	% Allocation	Share of Costs
Roadway Improvements	$3,529,342	24.35%	$308,525	100.00%	$2,912,292
Sanitary Sewer Improvements	$2,228,236	24.35%	$672,748	100.00%	$882,739
Storm Drainage Improvements	$1,724,533	24.35%	$162,943	100.00%	$1,398,646
Park Improvements	$1,575,311	0.00%	$0	100.00%	$1,575,311
Other soft and miscellaneous costs	$1,587,673	24.35%	$178,357	100.00%	$1,230,960
Total Authorized Improvements	**$10,645,094**		**$1,322,573**		**$7,999,948**

(a) See Table III-B for details.
(b) Based on allocation of the Major Improvement Area Costs as shown in Table V-B.

F. Assessment Methodology

The City Council may assess Actual Costs against Assessed Property, whether developed or undeveloped, so long as the special benefit conferred upon the Assessed Property by the Authorized Improvements equals or exceeds the amount of the Assessments. The Actual Costs may be assessed using any methodology that results in the imposition of equal shares of the Actual Costs on Assessed Property similarly benefited.

Assessment Methodology for the Major Improvement Area

For purpose of this SAP, the City Council has determined that the Actual Costs of the Major Improvement Area Projects to be financed with the Major Improvement Area Bonds shall be allocated to the Major Improvement Area Assessed Property by spreading the entire Assessment for such improvements across the Parcels based on the estimated number of Equivalent Units anticipated to be developed on each Parcel.

Based on the Budgeted Costs provided by the Managing Developer for the Major Improvements, as set forth in Table III-A, the City Council has determined that the benefit to Major Improvement Area Assessed Property from the Major Improvement Area Projects is at least equal to the Assessments levied on the Major Improvement Area Assessed Property.

Upon subsequent divisions of any Parcel, the Assessment applicable to it will then be apportioned pro rata based on the estimated Equivalent Units of each newly created Parcel. For residential Lots, when final residential building sites are platted, Assessments will be apportioned proportionately among each Parcel based on the ratio of the estimated Equivalent Units at the time residential Lots are platted to the total estimated Equivalent Units of all Lots in the platted Parcel, as determined by the Administrator and confirmed by the City Council.

The Assessment and Annual Installments for each Parcel or Lot located within the Major Improvement Area is shown on the Major Improvement Area Assessment Roll, attached as Appendix F, and no Assessment shall be changed except as authorized by this Service and Assessment Plan or the PID Act.

Assessment Methodology for Neighborhood Improvement Area #1

For purpose of this Service and Assessment Plan, the City Council has determined that the Actual Costs of the Neighborhood Improvement Area #1 Projects shall be allocated to the Neighborhood Improvement Area #1 Assessed Property by spreading the entire Assessment across the Neighborhood Improvement Area #1 Assessed Property based on the estimated number of Equivalent Units anticipated to be developed on each Parcel within Neighborhood Improvement Area #1.

Based on the Budgeted Costs provided by the Managing Developer for the Neighborhood Improvement Area #1 Projects, as set forth in Table III-B, the City Council has determined that the benefit to Neighborhood Improvement Area #1 Assessed Property from the Neighborhood Improvement Area #1 Projects is at least equal to the Assessments levied on the Neighborhood Improvement Area #1 Assessed Property.

Upon subsequent divisions of any Parcel, the Assessment applicable to it will then be apportioned pro rata based on the estimated Equivalent Units of each newly created Parcel. For residential Lots, when final residential building sites are platted, Assessments will be apportioned proportionately among each Parcel based on the ratio of the estimated Equivalent Units at the time residential Lots are platted to the total Equivalent Units of all Lots in the platted Parcel, as determined by the Administrator and confirmed by the City Council.

The Assessment and Annual Installments for each Parcel or Lot located within Neighborhood Improvement Area #1 is shown on the Neighborhood Improvement Area #1 Assessment Roll, attached as Appendix G, and no Assessment shall be changed except as authorized by this Service and Assessment Plan or the PID Act.

Assessment Methodology for Neighborhood Improvement Area #2

For purpose of this Service and Assessment Plan, the City Council has determined that the Actual Costs of the Neighborhood Improvement Area #2 Improvements shall be allocated to the Neighborhood Improvement Area #2 Assessed Property by spreading the entire Assessment across the Parcels based on the estimated number of Equivalent Units anticipated to be developed on each Parcel within Neighborhood Improvement Area #2.

Based on the Budgeted Costs provided by the Neighborhood Improvement Area #2 Developer for the Neighborhood Improvement Area #2 Improvements, as set forth in Table III-C, the City Council has determined that the benefit to Neighborhood Improvement Area #2 Assessed Property from the Neighborhood Improvement Area #2 Improvements is at least equal to the Assessments levied on the Neighborhood Improvement Area #2 Assessed Property.

Upon subsequent divisions of any Parcel, the Assessment applicable to it will then be apportioned pro rata based on the estimated Equivalent Units of each newly created Parcel. For residential Lots, when final residential building sites are platted, Assessments will be apportioned proportionately among each Parcel based on the ratio of the estimated Equivalent Units at the time residential Lots are platted to the total Equivalent Units of all Lots in the platted Parcel, as determined by the Administrator and confirmed by the City Council.

The Assessment and Annual Installments for each Parcel or Lot located within Neighborhood Improvement Area #2 is shown on the Neighborhood Improvement Area #2 Assessment Roll, attached as Appendix H, and no Assessment shall be changed except as authorized by this Service and Assessment Plan or the PID Act.

Assessment Methodology for Neighborhood Improvement Area #3

For purpose of this Service and Assessment Plan, the City Council has determined that the Actual Costs of the Neighborhood Improvement Area #3 Improvements shall be allocated to the Neighborhood Improvement Area #3 Assessed Property by spreading the entire Assessment across the Parcels based on the estimated number of Equivalent Units anticipated to be developed on each Parcel within Neighborhood Improvement Area #3.

Based on the Budgeted Costs provided by the Neighborhood Improvement Area #3 Developer for the Neighborhood Improvement Area #3 Improvements, as set forth in Table III-D, the City Council has determined that the benefit to Neighborhood Improvement Area #3 Assessed Property from the Neighborhood Improvement Area #3 Improvements is at least equal to the Assessments levied on the Neighborhood Improvement Area #3 Assessed Property.

Upon subsequent divisions of any Parcel, the Assessment applicable to it will then be apportioned pro rata based on the estimated Equivalent Units of each newly created Parcel. For residential

Lots, when final residential building sites are platted, Assessments will be apportioned proportionately among each Parcel based on the ratio of the estimated Equivalent Units at the time residential Lots are platted to the total Equivalent Units of all Lots in the platted Parcel, as determined by the Administrator and confirmed by the City Council.

The Assessment and Annual Installments for each Parcel or Lot located within Neighborhood Improvement Area #3 is shown on the Neighborhood Improvement Area #3 Assessment Roll, attached as Appendix I, and no Assessment shall be changed except as authorized by this Service and Assessment Plan or the PID Act.

G. Assessment and Annual Installments

The Assessments for the Major Improvement Area Bonds and the Neighborhood Improvement Area #1 Bonds were levied on each Assessed Property within such Improvement Area according to the Major Improvement Area Assessment Roll and the Neighborhood Improvement Area #1 Assessment Roll, as applicable. The Assessments for the Neighborhood Improvement Areas #2-3 Bonds will be levied on each Parcel or Lot according to the Neighborhood Improvement Area #2 Assessment Roll and the Neighborhood Improvement Area #3 Assessment Roll, as applicable. The Annual Installments for the Major Improvement Area Bonds, the Neighborhood Improvement Area #1 Bonds, and the Neighborhood Improvement Areas #2-3 Bonds will be collected on the dates and in the amounts shown on the Major Improvement Area Assessment Roll, the Neighborhood Improvement Area #1 Assessment Roll, the Neighborhood Improvement Area #2 Assessment Roll, and the Neighborhood Improvement Area #3 Assessment Roll, subject to revisions made in an Annual Service Plan Update. Non-Benefitted Property will not be subject to any Assessments.

H. Administrative Expenses

The cost of administering the PID and collecting the Annual Installments shall be paid for on a pro rata basis by each Parcel or Lot based on the outstanding amount of Assessment remaining on the Parcel or Lot. The Administrative Expenses shall be collected as part of and in the same manner as the Annual Installments in the amounts shown on the Major Improvement Area Assessment Roll, the Neighborhood Improvement Area #1 Assessment Roll, the Neighborhood Improvement Area #2 Assessment Roll, and the Neighborhood Improvement Area #3 Assessment Roll, shown as Appendix F, Appendix G, Appendix H, and Appendix I respectively, which are subject to revision through Annual Service Plan Updates.

I. Additional Interest

The interest rate on Assessments securing each respective series of Bonds may exceed the interest rate on each respective series of Bonds by the Additional Interest. To the extent required by any Indenture, Additional Interest shall be collected as part of each Annual Installment and shall be deposited pursuant to the applicable Indenture.

VI. TERMS OF THE ASSESSMENTS

A. AMOUNT OF ASSESSMENTS AND ANNUAL INSTALLMENTS FOR PARCELS LOCATED WITHIN THE MAJOR IMPROVEMENT AREA

The Assessments and Annual Installments for the Major Improvement Area Assessed Property are shown on the Major Improvement Area Assessment Roll in Appendix F. The Assessments and Annual Installments shall not be changed except as authorized under the terms of this SAP and the PID Act. The Annual Installments shall be collected in an amount sufficient to (i) pay the principal and interest on the Major Improvement Area Bonds, (ii) fund the Additional Interest collected for the Major Improvement Area Bonds, and (iii) cover the Administrative Expenses of the Major Improvement Area.

B. AMOUNT OF ASSESSMENTS AND ANNUAL INSTALLMENTS FOR PARCELS LOCATED WITHIN NEIGHBORHOOD IMPROVEMENT AREA #1

The Assessments and Annual Installments for each Neighborhood Improvement Area #1 Assessed Property are shown on the Neighborhood Improvement Area #1 Assessment Roll in Appendix G. The Assessment and Annual Installments shall not be changed except as authorized under the terms of this SAP and the PID Act. The Annual Installments shall be collected in an amount sufficient to (i) pay the principal and interest on the Neighborhood Improvement Area #1 Bonds, (ii) fund the Additional Interest collected for the Neighborhood Improvement Area #1 Bonds, and (iii) cover the Administrative Expenses for Neighborhood Improvement Area #1.

C. AMOUNT OF ASSESSMENTS AND ANNUAL INSTALLMENTS FOR PARCELS LOCATED WITHIN NEIGHBORHOOD IMPROVEMENT AREA #2

The Assessments and Annual Installments for each Neighborhood Improvement Area #2 Assessed Property are shown on the Neighborhood Improvement Area #2 Assessment Roll in Appendix H. The Assessment and Annual Installments shall not be changed except as authorized under the terms of this SAP and the PID Act. The Annual Installments shall be collected in an amount sufficient to (i) pay the principal and interest on Neighborhood Improvement Area #2's portion of the Neighborhood Improvement Areas #2-3 Bonds, (ii) fund the Additional Interest collected for Neighborhood Improvement Area #2's portion of the Neighborhood Improvement Areas #2-3 Bonds, and (iii) cover the Administrative Expenses for Neighborhood Improvement Area #2's portion of the Neighborhood Improvement Areas #2-3 Bonds.

D. AMOUNT OF ASSESSMENTS AND ANNUAL INSTALLMENTS FOR PARCELS LOCATED WITHIN NEIGHBORHOOD IMPROVEMENT AREA #3

The Assessments and Annual Installments for each Neighborhood Improvement Area #3 Assessed Property are shown on the Neighborhood Improvement Area #3 Assessment Roll in Appendix I. The Assessment and Annual Installments shall not be changed except as authorized under the terms of this SAP and the PID Act. The Annual Installments shall be collected in an amount sufficient to (i) pay the principal and interest on Neighborhood Improvement Area #3's portion of

the Neighborhood Improvement Areas #2-3 Bonds, (ii) fund the Additional Interest collected for Neighborhood Improvement Area #3's portion of the Neighborhood Improvement Areas #2-3 Bonds, and (iii) cover the Administrative Expenses for Neighborhood Improvement Area #3's portion of the Neighborhood Improvement Areas #2-3 Bonds.

E. Amount of Assessments and Annual Installments for Parcels Located Within Future Neighborhood Improvement Areas

When and if Future Neighborhood Improvement Areas are developed, this SAP will be amended to determine the Assessment and Annual Installments associated with the costs of Future Neighborhood Improvement Area Improvements for each Future Neighborhood Improvement Area Assessed Property. The Assessment shall not exceed the benefit received by the Future Neighborhood Improvement Area Assessed Property.

F. Reallocation of Assessments for Parcels Located Within the Major Improvement Area and Neighborhood Improvement Area #1

1. Subdivision

Upon the subdivision of any Parcel, the Assessment for the Parcel prior to the subdivision shall be reallocated among the new subdivided Parcels according to the following formula:

$$A = B \times (C \div D)$$

Where the terms have the following meanings:

A = the Assessment for each new subdivided Parcel
B = the Assessment for the Parcel prior to subdivision
C = the estimated Equivalent Units to be built on each new subdivided Parcel
D = the sum of the estimated Equivalent Units to be built on all of the new subdivided Parcels

The calculation of the estimated number Equivalent Units to be built on a Parcel shall be performed by the Administrator based on the information available regarding the use of the Parcel, and such calculation shall be approved by the City Council in the immediately following Annual Service Plan Update. The calculation as confirmed by the City Council shall be conclusive and binding. The Equivalent Units to be built on a Parcel may be estimated by net land area and reasonable density ratios.

The sum of the Assessments for all newly subdivided Parcels shall not exceed the Assessment for the Parcel prior to subdivision. The calculation shall be made separately for each newly subdivided Parcel. The reallocation of an Assessment for a Parcel may not exceed the Assessment prior to the reallocation and to the extent the reallocation would exceed such amount, it shall be prepaid by such amount by the party requesting the subdivision of the Parcels. Any reallocation pursuant to this section shall be reflected in an Annual Service Plan Update approved by the City Council.

2. Consolidation

Upon the consolidation of two or more Parcels, the Assessment for the consolidated Parcel shall be the sum of the Assessments for the Parcels prior to consolidation. The reallocation of an Assessment for a Parcel may not exceed the Assessment prior to the reallocation and to the extent the reallocation would exceed such amount, it shall be prepaid by such amount by the party requesting the consolidation of the Parcels. Any reallocation pursuant to this section shall be reflected in an Annual Service Plan Update approved by the City Council. The reallocation as confirmed by the City Council shall be conclusive and binding.

G. Reallocation of Assessments for Parcels Located Within Future Neighborhood Improvement Areas

As Future Neighborhood Improvement Areas are developed, this SAP will be amended to determine the Assessment reallocation methodology that results in the imposition of equal shares of the Actual Costs of the Future Neighborhood Improvement Area Improvements on Future Neighborhood Improvement Area Assessed Property similarly benefited within each Future Neighborhood Improvement Area.

H. Mandatory Prepayment of Assessments

1. If a Parcel subject to Assessments is transferred to a party that is exempt from the payment of the Assessment under applicable law, or if an owner causes a Parcel subject to Assessments to become Non-Benefited Property, the owner of such Parcel shall pay to the City the full amount of the principal portion of the Assessment on such Parcel, plus all Prepayment Costs, prior to or concurrently with any such conveyance or act, and no such conveyance shall be effective until the City receives such payment.

2. If at any time the Assessment per unit on a Parcel exceeds the applicable Maximum Assessment Per Unit calculated in this Service and Assessment Plan as a result of any changes in land use, subdivision, consolidation or reallocation of the Assessment authorized by this Service and Assessment Plan and initiated by the owner of the Parcel, then such owner shall pay to the City prior to the recordation of the document subdividing the Parcel the amount calculated by the Administrator by which the Assessment per unit for the Parcel exceeds the applicable Maximum Assessment Per Unit calculated in this Service and Assessment Plan.

3. The payments required above shall be treated the same as any Assessment that is due and owing under the PID Act, any Assessment Ordinance, and this Service and Assessment Plan, including the same lien priority, penalties, procedures, and foreclosure specified by the PID Act.

I. Reduction of Assessments

If as a result of cost savings or the failure to construct an Authorized Improvement, the Actual Costs of completed Authorized Improvements are less than the Assessments, then (i) in the event

Bonds are not issued, the City Council shall reduce each Assessment on a pro-rata basis such that the sum of the resulting reduced Assessments for all Assessed Property equals the Actual Costs that were expended, or (ii) in the event that Bonds are issued, the Trustee shall apply amounts on deposit in the applicable account of the Project Fund relating to the Bonds that are not expected to be used for purposes of the Project Fund as directed in the applicable Indenture. If all of the Authorized Improvements are not completed, the City may reduce the Assessments in another method if it determines such method would better reflect the benefit received by the Parcels from the Authorized Improvements that have been completed. The Assessments shall never be reduced to an amount less than the amount required to pay all outstanding debt service requirements on all outstanding Bonds. As used in this paragraph, "Project Fund" shall have the meaning given to such term in the applicable Indenture.

The Administrator shall update (and submit to the City Council for review and approval as part of the next Annual Service Plan Update) the Assessment Roll and corresponding Annual Installments to reflect the reduced Assessments.

J. PAYMENT OF ASSESSMENTS

1. Payment in Part or Full

(a) The Assessment for any Parcel may be paid in full at any time. Payment shall include all Prepayment Costs.

(b) If an Annual Installment has been billed prior to payment in full of an Assessment, the Annual Installment shall be due and payable and shall be credited against the payment-in-full amount.

(c) Upon payment in full of the Assessment and all Prepayment Costs, the City shall deposit the payment in accordance with the applicable Indenture, if Bonds have been issued; whereupon the Assessment shall be reduced to zero, and the owner's obligation to pay the Assessment and Annual Installments thereof shall automatically terminate.

(d) At the option of the owner, the Assessment on any Parcel plus Prepayment Costs may be paid in part as determined by the Administrator. Upon the payment of such amounts for a Parcel, the Assessment for the Parcel shall be reduced, the Assessment Roll shall be updated to reflect such partial payment, and the obligation to pay the Annual Installment for such Parcel shall be reduced to the extent the partial payment is made.

2. Payment in Annual Installments

The PID Act provides that an Assessment for a Parcel may be paid in full at any time. If not paid in full, the Act authorizes the City to collect interest and collection costs on the outstanding Assessment. An Assessment for a Parcel that is not paid in full will be collected in Annual Installments each year in the amounts shown in the applicable Assessment Roll, which includes interest on the outstanding Assessment and Administrative Expenses.

The Annual Installments as listed on the Major Improvement Area Assessment Roll have been calculated using the applicable interest rate on the Major Improvement Area Bonds of 3.75% in year 2021 through 2031, 4.125% in years 2032 through 2041, and 4.25% in years 2042 through 2051 (plus 0.50% Additional Interest). The Annual Installments shown in the Neighborhood Improvement Area #1 Assessment Roll have been calculated using the applicable interest rate on the Neighborhood Improvement Area #1 Bonds of 3.125% in years 2021 through 2031, 3.75% in years 2032 through 2041, and 4.0% in years 2042 through 2051 (plus 0.50% Additional Interest). The Annual Installments shown in the Neighborhood Improvement Area #2 Assessment Roll and Neighborhood Improvement Area #3 Assessment Roll have been calculated using the applicable interest rate on the Neighborhood Improvement Areas #2-3 Bonds of 5.50% in years 2026 through 2056 (plus 0.50% Additional Interest).

The Annual Installments may not exceed the amounts shown on the Major Improvement Area Assessment Roll, the Neighborhood Improvement Area #1 Assessment Roll, the Neighborhood Improvement Area #2 Assessment Roll or the Neighborhood Improvement Area #3 Assessment Roll except pursuant to any amendment or update to this SAP and any actions required by the PID Act.

The Annual Installments shall be reduced to equal the actual costs of repaying the related series of Bonds and actual Administrative Expenses (as provided for in the definition of such term), taking into consideration any other available funds for these costs, such as interest income on account balances.

The City reserves and shall have the right and option to refund any of the Bonds in accordance with Section 372.027 of the PID Act. In the event of such refunding, the Administrator shall recalculate the Annual Installments, and if necessary, may adjust, or decrease, the amount of the Annual Installments so that total Annual Installments of Assessments will be produced in annual amounts that are required to pay the refunding bonds when due and payable as required by and established in the ordinance and/or the Indenture authorizing and securing the refunding bonds, and such refunding bonds shall constitute Bonds for purposes of this Service and Assessment Plan.

K. Collection of Annual Installments

The Administrator shall, no less frequently than annually, prepare and submit to the City for its approval, an Annual Service Plan Update to allow for the billing and collection of Annual Installments. Each Annual Service Plan Update shall include an updated Assessment Roll(s) and a calculation of the Annual Installment for each Assessed Property. Administrative Expenses shall be allocated among Assessed Properties in proportion to the amount of the Annual Installments before Administrative Expenses for the Assessed Property. Each Annual Installment shall be reduced by any credits applied under the applicable Indenture, such as capitalized interest, interest earnings on any account balances, and any other funds available to the Trustee for such purpose. Annual Installments may be collected by the City (or such entity to whom the City directs) in the same manner and at the same time as ad valorem taxes. Annual Installments shall be subject to the penalties, procedures, and foreclosure sale in case of delinquencies as set forth in the PID Act. The Assessments shall have lien priority as specified in the PID Act.

Any sale of Assessed Property for nonpayment of the delinquent Annual Installments shall be subject to the lien established for the remaining unpaid Assessment against such Assessed Property and such Assessed Property may again be sold at a judicial foreclosure sale if the purchaser thereof fails to make timely payment of the non-delinquent Annual Installments against such Assessed Property as they become due and payable.

Major Improvement Area Bonds and Neighborhood Improvement Area #1 Bonds

Each Annual Installment, including the interest on the unpaid amount of an Assessment, shall be calculated as of September 1 and updated annually. Each Annual Installment together with interest thereon shall be delinquent if not paid prior to February 1 of the following year. The initial Annual Installments relating to the Major Improvement Area Bonds and the Neighborhood Improvement Area #1 Bonds commenced with the issuance of the Major Improvement Area Bonds and the Neighborhood Improvement Area #1 Bonds.

Neighborhood Improvement Areas #2-3 Bonds

Each Annual Installment, including the interest on the unpaid amount of an Assessment, shall be calculated as of September 1 and updated annually. Each Annual Installment together with interest thereon shall be delinquent if not paid prior to February 1 of the following year. The initial Annual Installments relating to the Neighborhood Improvement Areas #2-3 Bonds will be due when billed and will be delinquent if not paid prior to February 1, 2027.

L. SURPLUS FUNDS REMAINING IN THE NEIGHBORHOOD IMPROVEMENT AREA # 2-3 BOND ACCOUNT

If proceeds from the Neighborhood Improvement Areas #2-3 Bonds remain after all of the Neighborhood Improvement Area #2 Improvements and the Neighborhood Improvement Area #3 Improvements are constructed and accepted by the City, the proceeds may be utilized in accordance with the Indenture for the Neighborhood Improvement Areas #2-3 Bonds.

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VII. THE ASSESSMENT ROLLS

A. MAJOR IMPROVEMENT AREA ASSESSMENT ROLL

The City has evaluated each Parcel in the Major Improvement Area (based on numerous factors such as the applicable zoning for developable area, the use of proposed Homeowners Association Property, the Public Property, the types of Authorized Improvements, and other development factors deemed relevant by the City) to determine the amount of Assessed Property within the Parcel.

The Major Improvement Area Assessed Property has been assessed for the special benefits conferred upon such property resulting from the proportional share of the Major Improvements. Table VII-A summarizes the $5,472,828 in special benefit received by the Major Improvement Area Assessed Property from the Major Improvement Area Projects and a portion of the costs of the PID formation, and the Major Improvement Area Bond issuance costs. The par amount of the Major Improvement Area Bonds is $5,065,000, which is less than the benefit received by the Major Improvement Area Assessed Property. Accordingly, the total Assessment to be applied to all the Major Improvement Area Assessed Property is $5,065,000 plus applicable interest, Additional Interest, and annual Administrative Expenses. The Assessment for each Major Improvement Area Assessed Property is calculated based on the allocation methodologies described in Section V.F. The Major Improvement Area Assessment Roll is attached hereto as Appendix F.

Table VII-A
Major Improvement Area
Special Benefit Summary

Special Benefit	Total Cost
Major Improvement Area Bond	$5,065,000
Other Funding Sources	$407,828
Total Authorized Improvements (a)	*$4,109,652*
PID Formation/Bond Costs of Issuance	
Debt Service Reserve Fund	$311,650
Administrative Expenses	$105,700
Capitalized Interest	$472,049
Cost of Issuance	$275,385
Underwriter's Discount/Underwriter's Counsel	$151,950
Original Issue Discount	$46,442
Subtotal PID Formation/Bond Cost of Issuance	*$1,363,176*
Total Special Benefit	**$5,065,000**
Special Benefit	
Total Special Benefit	$5,472,828
Assessment	$5,065,000
Excess Benefit	**$407,828**

(a) See Table III-A for details.

B. NEIGHBORHOOD IMPROVEMENT AREA #1 ASSESSMENT ROLL

The City has evaluated each Parcel in Neighborhood Improvement Area #1 (based on numerous factors such as the applicable zoning for developable area, the use of proposed Homeowner's Association Property, the Public Property, the types of Authorized Improvements, and other development factors deemed relevant by the City) to determine the amount of Assessed Property within the Parcel.

The Neighborhood Improvement Area #1 Assessed Property has been assessed for the special benefits conferred upon the property resulting from the Neighborhood Improvement Area #1 Projects. Table VII-B summarizes the $10,039,722 in special benefit received by the Neighborhood Improvement Area #1 Assessed Property from the Neighborhood Improvement Area #1 Projects, a portion of the costs of the PID formation, and the Neighborhood Improvement Area #1 Bond issuance costs. The par amount of the Neighborhood Improvement Area #1 Bonds is $2,543,000, which is less than the benefit received by the Neighborhood Improvement Area #1 Assessed Property. Accordingly, the total Assessment to be applied to all the Neighborhood Improvement Area #1 Assessed Property is $2,543,000 plus applicable interest, Additional Interest, and annual Administrative Expenses. The Assessment for each Neighborhood Improvement Area #1 Assessed Property is calculated based on the allocation methodologies described in Section V.F. The Neighborhood Improvement Area #1 Assessment Roll is attached hereto as Appendix G.

Table VII-B
Neighborhood Improvement Area #1
Special Benefit Summary

Special Benefit	Total Cost
Neighborhood Improvement Area #1 Bond	$2,543,000
Bond Premium	$14,107
Other Funding Sources	$6,765,414
Total Authorized Improvements (a)	*$9,322,521*
PID Formation/Bond Costs of Issuance	
Reserve Fund	$155,130
Administrative Expenses	$105,700
Capitalized Interest	$215,081
Cost of Issuance	$165,000
Underwriter's Discount/Underwriter's Counsel	$76,290
Subtotal PID Formation/Bond Cost of Issuance	*$717,201*
Total Special Benefit	**$10,039,722**
Special Benefit	
Total Special Benefit	$10,039,722
Assessment	$2,543,000
Excess Benefit	**$7,496,722**

(a) See Table III-B for details.

C. NEIGHBORHOOD IMPROVEMENT AREA #2 ASSESSMENT ROLL

The City has evaluated each Parcel in Neighborhood Improvement Area #2 (based on numerous factors such as the applicable zoning for developable area, the use of proposed Homeowner's Association Property, the Public Property, the types of Authorized Improvements, and other development factors deemed relevant by the City) to determine the amount of Assessed Property within the Parcel.

The Neighborhood Improvement Area #2 Assessed Property has been assessed for the special benefits conferred upon the property resulting from the Neighborhood Improvement Area #2 Improvements. Table VII-C summarizes the $19,231,061 in special benefit received by the Neighborhood Improvement Area #2 Assessed Property from the Neighborhood Improvement Area #2 Improvements, a portion of the costs of the PID formation, and Neighborhood Improvement Area #2's portion of the Neighborhood Improvement Areas #2-3 Bond issuance costs. The par amount of Neighborhood Improvement Area #2's portion of the Neighborhood Improvement Areas #2-3 Bonds is $4,418,000, which is less than the benefit received by the Neighborhood Improvement Area #2 Assessed Property. Accordingly, the total Assessment to be applied to all the Neighborhood Improvement Area #2 Assessed Property is $4,418,000 plus applicable interest, Additional Interest, and annual Administrative Expenses. The Assessment for each Neighborhood Improvement Area #2 Assessed Property is calculated based on the allocation methodologies described in Section V.F. The Neighborhood Improvement Area #2 Assessment Roll is attached hereto as Appendix H.

Table VII-C
Neighborhood Improvement Area #2 Special Benefit Summary

Special Benefit	**Total Cost**
Neighborhood Improvement Area #2's portion of the NIA #2-3 Bonds	$4,418,000
Other Funding Sources (b)	$13,874,866
Total Uses of Funds (a)	$18,292,866
Estimated Bond Issuance Costs	
Reserve Fund	$312,990
Capitalized Interest	$121,495
Administrative Expenses	$84,000
Underwriter's Discount/Underwriter's Counsel	$132,540
Cost of Issuance	$287,170
Subtotal Estimated Bond Issuance Costs	$938,195
Total Special Benefit	**$19,231,061**
Special Benefit	
Total Special Benefit	$19,231,061
Projected Special Assessment	$4,418,000
Excess Benefit	**$14,813,061**

(a) See Table IV-C for details.
(b) All water improvements for NIA #2 will be funded by the Developer and will not be reimbursed through the PID.

D. NEIGHBORHOOD IMPROVEMENT AREA #3 ASSESSMENT ROLL

The City has evaluated each Parcel in Neighborhood Improvement Area #3 (based on numerous factors such as the applicable zoning for developable area, the use of proposed Homeowner's Association Property, the Public Property, the types of Authorized Improvements, and other development factors deemed relevant by the City) to determine the amount of Assessed Property within the Parcel.

The Neighborhood Improvement Area #3 Assessed Property has been assessed for the special benefits conferred upon the property resulting from the Neighborhood Improvement Area #3 Improvements. Table VII-D summarizes the $9,231,103 in special benefit received by the Neighborhood Improvement Area #3 Assessed Property from the Neighborhood Improvement Area #3 Improvements, a portion of the costs of the PID formation, and Neighborhood Improvement Area #3's portion of the Neighborhood Improvement Areas #2-3 Bond issuance costs. The par amount of Neighborhood Improvement Area #3's portion of the Neighborhood Improvement Areas #2-3 Bonds is $2,120,000, which is less than the benefit received by the Neighborhood Improvement Area #3 Assessed Property. Accordingly, the total Assessment to be applied to all the Neighborhood Improvement Area #3 Assessed Property is $2,120,000 plus applicable interest, Additional Interest, and annual Administrative Expenses. The Assessment for each Neighborhood Improvement Area #3 Assessed Property is calculated based on the allocation methodologies described in Section V.F. The Neighborhood Improvement Area #3 Assessment Roll is attached hereto as Appendix I.

Table VII-D
Neighborhood Improvement Area #3 Special Benefit Summary

Special Benefit	**Total Cost**
Neighborhood Improvement Area #3's portion of the NIA #2-3 Bonds	$2,120,000
Other Funding Sources (b)	$6,621,803
Total Uses of Funds (a)	$8,741,803
Estimated Bond Issuance Costs	
Reserve Fund	$155,600
Capitalized Interest	$58,300
Administrative Expenses	$74,000
Underwriter's Discount/Underwriter's Counsel	$63,600
Cost of Issuance	$137,800
Subtotal Estimated Bond Issuance Costs	$489,300
Total Special Benefit	**$9,231,103**
Special Benefit	
Total Special Benefit	$9,231,103
Projected Special Assessment	$2,120,000
Excess Benefit	**$7,111,103**

(a) See Table IV-C for details.
(b) All water improvements for NIA #3 will be funded by the Developer and will not be reimbursed through the PID.

E. Future Neighborhood Improvement Area Assessment Roll

As Future Neighborhood Improvement Areas are developed, this SAP will be amended to determine the Assessment for each Parcel or Lot located within such Future Neighborhood Improvement Areas (e.g. an Appendix will be added for each new Future Neighborhood Improvement Area Assessment Roll).

F. Annual Assessment Roll Updates

The Administrator shall prepare, and shall submit to the City for approval, updates to the Assessment Roll and the Annual Service Plan Update to reflect changes such as (i) the identification of each Parcel (ii) the Assessment for each Assessed Property, including any adjustments authorized by this SAP and in the PID Act; (iii) the Annual Installment for the Assessed Property for the year (if the Assessment is payable in installments); (iv) a listing of the major property owners within the PID; and (v) payments of the Assessment, if any, as provided by Section VI.H of this SAP.

The Annual Service Plan Update shall reflect any reduction in the Major Improvement Area Assessments and Neighborhood Improvement Area #1 Assessments, and any revisions in the Actual Costs to be funded by the Major Improvement Area Bonds, the Neighborhood Improvement Area #1 Bonds, or the Neighborhood Improvement Areas #2-3 Bonds.

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VIII. MISCELLANEOUS PROVISIONS

A. ADMINISTRATIVE REVIEW

The City may elect to designate a third party to serve as Administrator at any time in the City's sole discretion. The City shall notify the Managing Developer in writing at least thirty (30) days in advance before appointing a third-party Administrator. The City has elected to employ a third-party Administrator, currently MuniCap, Inc. This satisfies the aforementioned notice requirement to the Managing Developer.

To the extent consistent with the PID Act, an owner of an Assessed Property claiming that a calculation error has been made in the Assessment Roll(s), including the calculation of the Annual Installment, shall send a written notice describing the error to the City not later than thirty (30) days after the date any amount which is alleged to be incorrect is due prior to seeking any other remedy. If the owner fails to give such notice, such owner shall be deemed to have accepted the calculation of the relevant Assessment Roll (including the Annual Installments) and to have waived any objection to the calculation. The Administrator shall promptly review the notice, and if necessary, meet with the Assessed Property owner, consider written and oral evidence regarding the alleged error and decide whether, in fact, such a calculation error occurred.

If the Administrator determines that a calculation error has been made and the Assessment Roll should be modified or changed in favor of the Assessed Property owner, such change or modification shall be presented to the City Council for approval to the extent permitted by the PID Act or other applicable laws. A cash refund may not be made for any amount previously paid by the Assessed Property owner (except for the final year during which the Annual Installment shall be collected or if it is determined there are sufficient funds to meet the expenses of the PID for the current year), but an adjustment may be made in the amount of the Annual Installment to be paid in the following year. The decision of the Administrator regarding a calculation error relating to an Assessment Roll may be appealed to the City Council. Any amendments made to the Assessment Roll(s) pursuant to calculation errors shall be made pursuant to the PID Act.

The decision of the Administrator shall be conclusive as long as there is a reasonable basis for such determination; if such decision is appealed to the City Council, the decision of the City Council, shall be conclusive (absent a clear showing of abuse of discretion). This procedure shall be exclusive and its exhaustion by any property owner shall be a condition precedent to any other appeal or legal action by such owner.

B. EXTINGUISHMENT OF ASSESSMENTS

Each Assessment shall be extinguished on the date the Assessment is paid in full, including unpaid Annual Installments, Prepayment Costs and Delinquent Collection Costs, if any. After the extinguishment of an Assessment and the collection of any delinquent Annual Installments and Delinquent Collection Costs, the City shall provide the owner of the affected Parcel a recordable "Notice of the PID Assessment Termination."

C. AMENDMENTS

Amendments to this Service and Assessment Plan shall be made by the City Council, or it designee, as permitted or required by the PID Act and under Texas law.

To the extent permitted by the PID Act, the City Council reserves the right to amend this Service and Assessment Plan without notice under the PID Act and without notice to property owners of Parcels:

(i) to correct mistakes and clerical errors; (ii) to clarify ambiguities; (iii) to provide procedures for the collection and enforcement of Assessments, Prepayment Costs, Collection Costs, and other charges imposed by this Service and Assessment Plan, and (iv) as may be required by the Attorney General of Texas in connection with the issuance of any series of Bonds.

D. COUNTY FILING

Within seven days of its approval by the City Council, the City shall file and record this Service and Assessment Plan in the real property records of the County. In addition, the City shall similarly file each Annual Service Plan Update approved by the City Council, with each such filing to occur within seven days of the date each respective Annual Service Plan Update is approved. All such documents shall be filed and recorded in their entirety.

E. ADMINISTRATION AND INTERPRETATION OF PROVISIONS

The City shall administer the PID through the Administrator, this Service and Assessment Plan, and all Annual Service Plan Updates consistent with the PID Act and shall make all interpretations and determinations related to the application of this Service and Assessment Plan unless stated otherwise herein or in an Indenture; such interpretations and determinations shall be conclusive. Decisions by the City Council related thereto shall be final and binding on the owners and Developers and their successors and assigns.

F. SEVERABILITY

If any provision, section, subsection, sentence, clause or phrase of this Service and Assessment Plan or the application of same to an Assessed Property or any person or set of circumstances is for any reason held to be unconstitutional, void or invalid, the validity of the remaining portions of this Service and Assessment Plan or the application to other persons or sets of circumstances shall not be affected thereby, it being the intent of the City Council in adopting this Service and Assessment Plan that no part hereof or provision or regulation contained herein shall become inoperative or fail by reason of any unconstitutionality, voidness or invalidity of any other part hereof, and all provisions of this Service and Assessment Plan are declared to be severable for that purpose.

If any provision of this Service and Assessment Plan is determined by a court to be unenforceable, the unenforceable provision shall be deleted from this Service and Assessment Plan and the

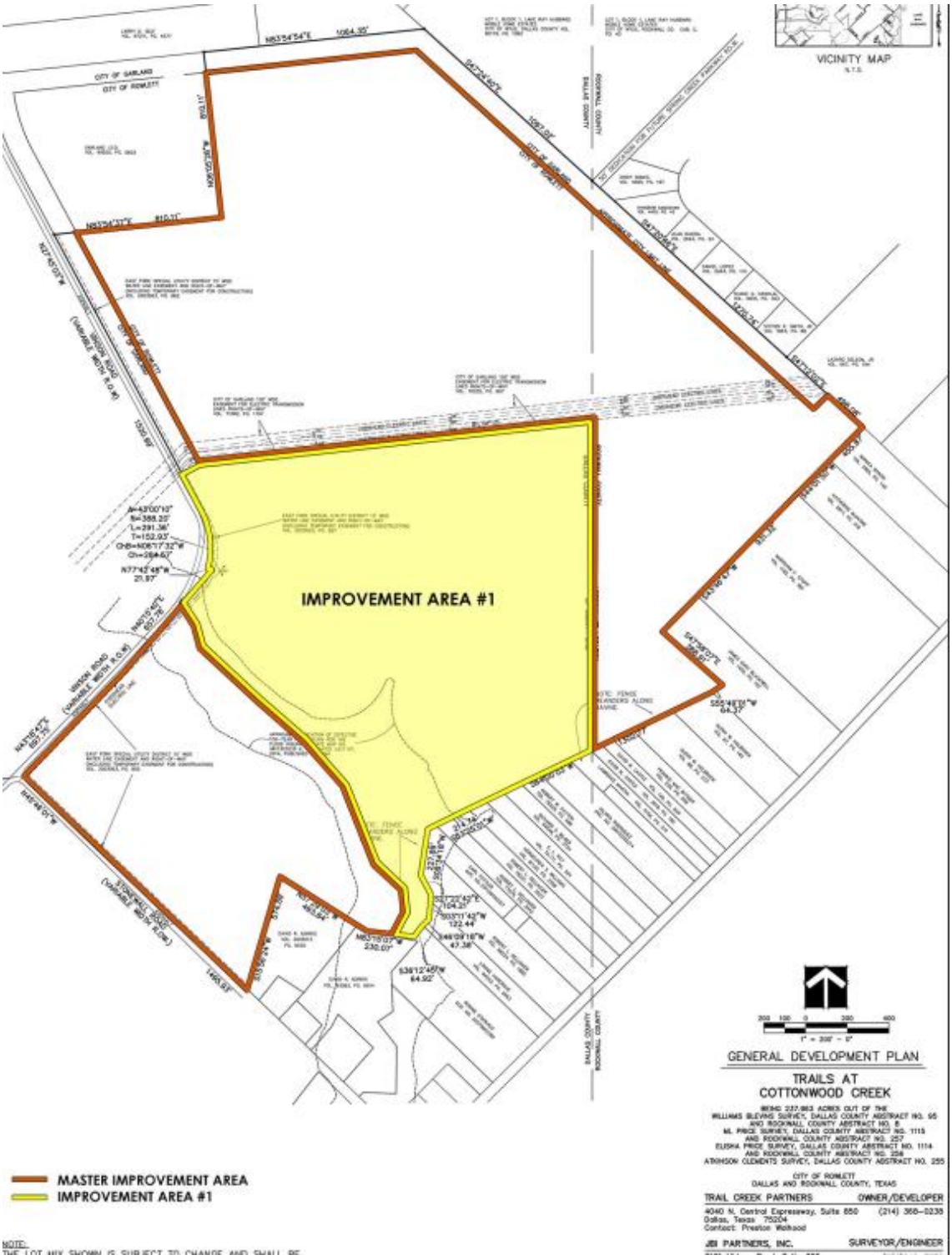
unenforceable provision shall, to the extent possible, be rewritten to be enforceable and to give effect to the intent of the City.

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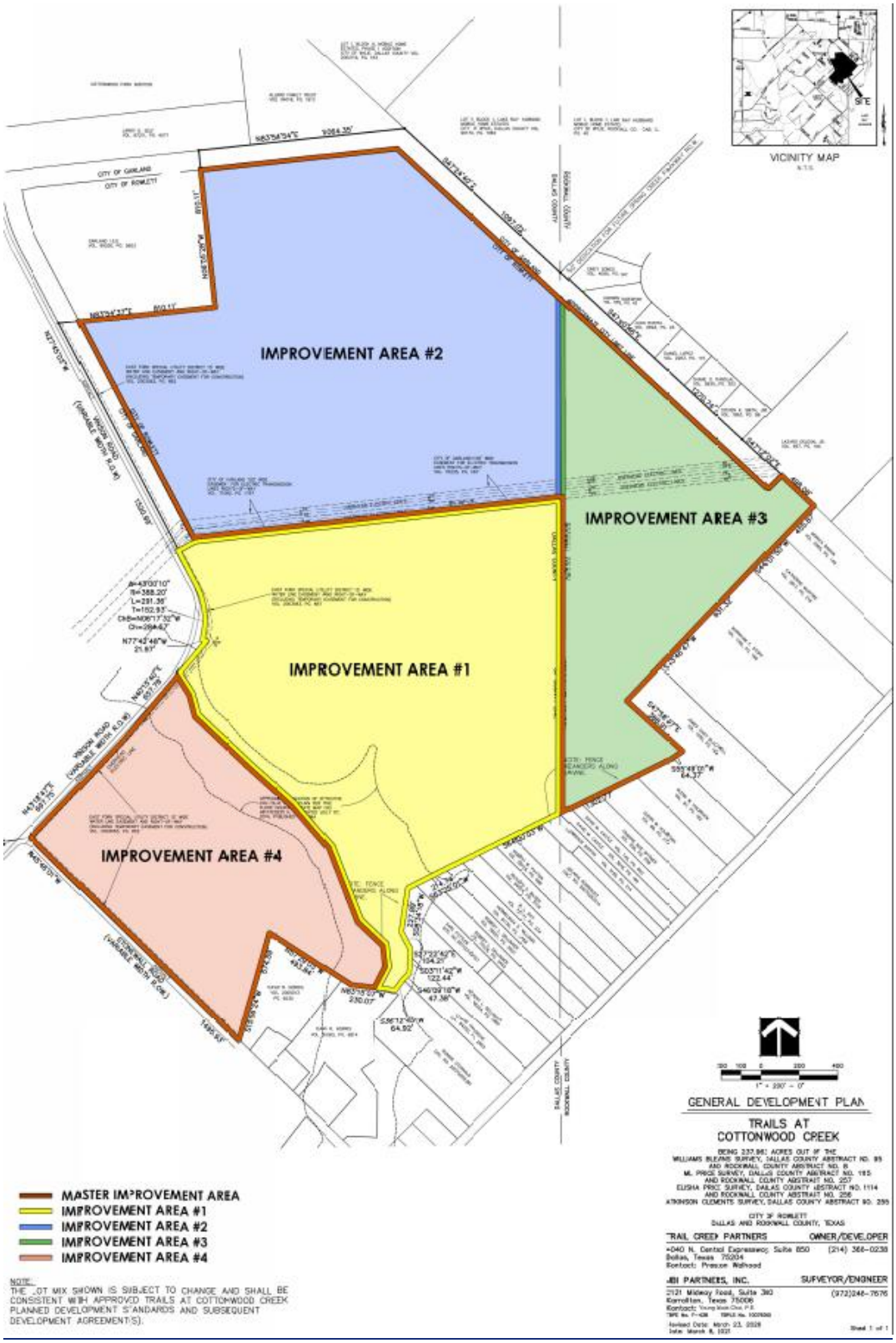
APPENDIX A-1
PID MAP



APPENDIX A-2
NEIGHBORHOOD IMPROVEMENT AREA #1 AND MAJOR IMPROVEMENT AREA MAP



APPENDIX A-3
NEIGHBORHOOD IMPROVEMENT AREAS #2-3 MAP



APPENDIX B
ESTIMATED COSTS OF AUTHORIZED IMPROVEMENTS

PRELIMINARY COST ESTIMATE
PREPARED BY JBI PARTNERS
THE TRAILS AT COTTONWOOD CREEK, PHASE 1
ROWLETT, TEXAS
JBI PROJECT NO. TWG001
MARCH 19, 2021

	Major Improvement Area - MIA		Improvement Area 1 - IA1	TOTAL
	Spine Road	Offsite Sewer		
APPROXIMATE GROSS ACRES:	**4.00**	**N/A**	**67.40**	**71.40**
APPROXIMATE NET ACRES:	**4.00**	**N/A**	**54.57**	**58.57**
APPROXIMATE NUMBER OF TYPE 1 LOTS:	**N/A**	**N/A**	**72**	**72**
APPROXIMATE NUMBER OF TYPE 2 LOTS:	**N/A**	**N/A**	**40**	**40**
APPROXIMATE NUMBER OF TYPE 3 MEWS LOTS:	**N/A**	**N/A**	**15**	**15**
APPROXIMATE NUMBER OF TYPE 3 TOWNHOME LOTS:	**N/A**	**N/A**	**67**	**67**
APPROXIMATE TOTAL NUMBER OF' LOTS:	**N/A**	**N/A**	**194**	**194**
APPROXIMATE DENSITY :	**N/A**	**N/A**	**3.56**	**3.31**
APPROXIMATE LENGTH OF STREETS (LF):	**3,212**	**N/A**	**8,908**	**12120**
APPROXIMATE LENGTH OF ALLEYS (LF):	**0**	**N/A**	**6,080**	**6080**

A.	EROSION CONTROL	$17,645.90	$0	$31,863.60	$49,509.50
B.	EARTHWORK	$43,256.00	$0	$459,373.45	$502,629.45
C.	PAVING	$820,126.89	$0	$2,097,654.81	$2,917,781.70
D.	WATER SYSTEM				
E.	SANITARY SEWER (Onsite)	$168,182.46	$0	$882,738.90	$1,050,921.36
E1.	SANITARY SEWER (Offsite includes 10% contingency)	$0	$2,221,826.88	$0.00	$2,221,826.88
F	DRAINAGE SYSTEM	$589,032.92	$0	$1,249,022.46	$1,838,055.38
G.	RETAINING WALLS	$0	$0	$117,760.00	$117,760.00
H.	DETENTION (Assume Study will show detention not needed)	$0	$0	$0	$0
I.	ELECTRIC SERVICE - (No Charge.)	$0	$0	$0	$0
J.	GAS SERVICE ($650/lot budget) (No offsite included)	$0	$0	$126,100.00	$126,100.00
K.	STREET LIGHTS (No Charge.)	$0	$0	$0	$0
L.	PLANNING/ZONING/ENGINEERING/PLATTING/SURVEYING ($3,800/lot)	$0	$0	$737,200.00	$737,200.00
L1.	ENGINEERING/SURVEYING OFFSITE (12%)	$0	$266,619.23	$0.00	$266,619.23
M.	GEOTECHNICAL STUDY ($650/ac)	$2,600.00	$0	$35,470.50	$38,070.50
N.	PARK FEES (No Fees - Private parks satify City park requireements)	$0	$0	$0	$0
O.	CITY INSPECTION FEES (6%) (C thru F)	$94,640.54	$133,309.61	$253,764.97	$481,715.12
S.	TREE MITIGATION (Mitigation , if any, to be on lots)	$0	$0	$0	$0
T.	AMENITY CENTER (Phase 2)	$0	$0	$0	$0
U.	MONUMENT & ENTRANCE FEATURES	$225,000.00	$0	$75,000	$300,000.00
V.	PERIMETER LANDSCAPE/IRRIGATION/SCREENING ($175/lf - No wall) (Phase 2)	$0	$0	$0	$0
W.	POCKET PARKS & MEDIAN ISLANDS ($20,000/each)	$0	$0	$80,000.00	$80,000.00
X.	HIKE & BIKE TRAILS	$0	$0	$314,600.00	$314,600.00
Y.	10% CONTINGENCY (A thru G, but not including E1)	$163,824.42	$0	$483,841.32	$647,665.74
	TOTAL	**$2,124,309.12**	**$2,621,755.72**	**$6,944,390.01**	**$11,690,454.85**
	MIA TOTAL	**$4,746,064.83**			
				$2,221,826.88	

NOTES & ASSUMPTIONS:

1 Estimate based on JBI Partners, Inc. Preliminary Concept Plan dated June 8, 2020 with markups provided by client November 16, 2020.
2 Estimate based on JBI Partners, Inc. Preliminary Engineering quantities prepared in February 2013.
3 November 17, 2020 update was for revising Phasing and unit costs only.
4 Excavation quantity is based on 1.3 feet of excavation across the entire developable area. A detailed earthwork analysis was not performed.
5 Rock excavation, if required, is not included.
6 Cost for electric/gas service and street lights is included, budget and onsite only.
7 Tree mitigation to be covered by homebuilder by upsizing trees, if required.
8 Estimate includes impact fee credits for upgrade to north side lift station..
9 Estimate includes City Inspection Fees of 6%.
10 Costs of moisture conditioning for high PVR's is not included in this estimate. Need geotechnical report to verify.
11 Estimate does not include any perimeter road improvements, other than round-a-bout and left turn at Vinson and Stonewall.
12 Unit prices based on current pricing seen in market place.
13 Estimate assumes that exposed beam footings will be used in order to minimize the need for retaining walls.
14 Estimate assumes there will be no pad mitigation. Need geotechnical report to verify.
15 Rowlett Paving Standards increase lot costs approximately $2,100 per lot.
16 Detention is not included. Need analysis to show watershed timing. If annalysis shows adverse affects, then detention will be needed.
17 Itemized Landscape costs should be updated with approved concepts.
18 Amenity Center will be constructed in Phase 2.
19 Major Improvement Area (MIA) includes Spine Road, Offsite Sewer, Monument and Entry Improvements.
20 Improvement Area 1 (IA1) includes the remaining costs for Phase 1 excluding MIA costs.
21 IA1 includes a portion of the Offsite Sanitary Sewer Costs relative to it's size. 194 / 765 = 25.4% of the Offsite Sanitary Sewer Cost.
22 IA1 includes a portion of the Spine Road Cost relative to the number of lots. (194 / 765 = 25.4% of the Spine Road Cost.

PRELIMINARY COST ESTIMATE
PREPARED BY JBI PARTNERS
THE TRAILS AT COTTONWOOD CREEK, IA1
ROWLETT, TEXAS
JBI PROJECT NO. TWG001
MARCH 19, 2021

	IA1
Approximate number of lots:	**194**
Approximate net acres:	**54.57**
Approximate length streets (ft):	**8,908**
Approximate length alley (ft):	**6,080**

A. Erosion Control	**Units**	**Cost**	**Quantity**	**Total**
1 Stabilized construction entrance	EA	$1,750.00	0	$0.00
2 Silt fence prior to earthwork	LF	$1.50	0	$0.00
3 8' curlex at streets both sides	LF	$1.10	17,296	$19,025.60
4 4' curlex at alleys both sides	LF	$0.55	12,160	$6,688.00
5 Inlet protection (2 stages)	EA	$150.00	41	$6,150.00
TOTAL				**$31,863.60**

B. Earthwork	**Units**	**Cost**	**Quantity**	**Total**
1 Clearing & grubbing	AC	$650.00	54.57	$35,470.50
2 Unclassified street and lot excavation	CY	$2.50	112,093	$280,232.50
3 Lot benching	LOT	$200.00	194	$38,800.00
4 final pad grading and cleanup	LOT	$165.00	194	$32,010.00
5 Testing	CY	$0.65	112,093	$72,860.45
TOTAL				**$459,373.45**

C. Paving	**Units**	**Cost**	**Quantity**	**Total**
1 8"-3500 psi conc street with #4- 18" O.C.E.W.	SY	$40.00	27,216	$1,088,640.00
2 8"-5"-8"-3500 psi conc alley w/ #4 - 24"O.C.E.W.	SY	$37.00	10,133	$374,921.00
3 Asphalt Pavement for Turn Lane	SY	$45.00	0	$0.00
4 6" lime stabilized subgrade	SY	$3.00	41,084	$123,251.70
5 6" cement stabilized subgrade	SY	$3.00	29,938	$89,812.80
6 Hydrated lime material (36#/SY)	TN	$175.00	740	$129,414.29
7 Cement material (27#/SY)	TN	$225.00	404	$90,935.46
8 Street signs & poles	EA	$500.00	19	$9,500.00
9 Connect to existing concrete pavement	LF	$11.00	0	$0.00
10 Concrete street header	LF	$22.00	88	$1,936.00
11 5' Sidewalk	SF	$5.75	14,360	$82,570.00
12 Barrier free ramps	EA	$1,875.00	25	$46,875.00
13 Remove & dispose of existing asphalt pavement	SY	$2,500.00	0	$0.00
14 Testing	SY	$0.95	41,084	$39,029.71
15 Traffic Control and striping	LS	$30,000.00	0	$0.00
16 Maintenance bond (1% of total $)	LS		1	$20,768.86
TOTAL				**$2,097,654.81**

PRELIMINARY COST ESTIMATE
PREPARED BY JBI PARTNERS
THE TRAILS AT COTTONWOOD CREEK, IA1
ROWLETT, TEXAS
JBI PROJECT NO. TWG001
MARCH 19, 2021

	IA1
Approximate number of lots:	**194**
Approximate net acres:	**54.57**
Approximate length streets (ft):	**8,908**

D. Water	**Units**	**Cost**	**Quantity**	**Total**
1 12" PVC Pipe	LF	$36.00	0	$0.00
2 8" PVC Pipe	LF	$24.00	8,940	$214,560.00
3 Bore under road for 8" water main	LF	$195.00	0	$0.00
4 12" x 12" tapping sleeve	EA	$4,000.00	0	$0.00
5 12" x 8" tapping sleeve	EA	$3,500.00	1	$3,500.00
6 12" Valves	EA	$2,400.00	0	$0.00
7 8" Valves	EA	$1,375.00	41	$56,375.00
8 6" Valves	EA	$1,200.00	23	$27,600.00
9 Fire hydrants	EA	$3,200.00	23	$73,600.00
10 Fittings	TON	$5,000.00	5.08	$25,400.00
11 Concrete encasement	LF	$45.00	219	$9,855.00
12 Connect to existing pipe	EA	$1,000.00	2	$2,000.00
13 1" Domestic service	EA	$725.00	183	$132,675.00
14 1" Irrigation service	EA	$725.00	4	$2,900.00
15 Sleeves	LF	$10.00	164	$1,640.00
16 Trench safety	LF	$0.25	8,940	$2,235.00
17 Testing	LF	$2.75	8,940	$24,585.00
18 Maintenance bond (1.5% of total $)	LS		1	$8,653.88
TOTAL				**$585,578.88**

E. Sanitary Sewer (Onsite)	**Units**	**Cost**	**Quantity**	**Total**
1. 12" diameter SDR 26 PVC pipe	LF	$55.00	1,700	$93,500.00
2 12" diameter SDR 35 PVC pipe	LF	$50.00	385	$19,250.00
3 10" diameter SDR 26 PVC pipe	LF	$40.00	330	$13,200.00
4 8" diameter SDR 26 PVC pipe	LF	$37.50	460	$17,250.00
5 8" diameter SDR 35 PVC pipe	LF	$32.50	7,805	$253,662.50
6 5' diameter manhole	EA	$7,600.00	33	$250,800.00
7 5' diameter drop manhole	EA	$8,000.00	5	$40,000.00
8 4" sanitary sewer services	EA	$735.00	183	$134,505.00
9 Trench safety	LF	$0.50	10,680	$5,340.00
10 Testing	LF	$3.95	10,680	$42,186.00
11 Maintenance bond (1.5% of total $)	LS		1	$13,045.40
TOTAL				**$882,738.90**

F. Drainage	**Units**	**Cost**	**Quantity**	**Total**
1 3 barrel 10' X 7' RCB	LF	$2,400.00	80	$192,000
2 3 barrel 10' X 6' RCB	LF	$2,265.00	30	$67,950
3 5' X 4' RCB	LF	$260.00	0	$0
4 4' X 4' RCB	LF	$240.00	300	$72,000
5 48" RCP	LF	$180.00	460	$82,800
6 42" RCP	LF	$150.00	450	$67,500
7 36" RCP	LF	$110.00	1,000	$110,000
8 30" RCP	LF	$85.00	1,460	$124,100
9 24" RCP	LF	$67.00	1,520	$101,840
10 21" RCP	LF	$57.00	790	$45,030
11 18" RCP	LF	$48.00	1,190	$57,120
12 Curb inlet	EA	$4,200.00	35	$147,000
13 Alley inlet	EA	$6,000.00	6	$36,000
14 Wye Inlet	EA	$4,200.00	0	$0
15 Type B storm manhole	EA	$5,000.00	7	$35,000
16 Wingwall	EA	$34,000.00	0	$0
17 Headwall	EA	$3,400.00	0	$0
18 Remove & dispose existing headwall	EA	$500.00	0	$0
19 Connect to existing pipe	EA	$400.00	0	$0
20 Rock rip-rap	SY	$93.00	620	$57,660
21 Grade to drain	LF	$10.00	1,600	$16,000
22 Trench safety	LF	$0.35	7,280	$2,548
23 Testing	LF	$2.20	7,280	$16,016
24 Maintenance bond (1.5% of total $)	LS		1	$18,458
TOTAL				**$1,249,022**

PRELIMINARY COST ESTIMATE
PREPARED BY JBI PARTNERS
THE TRAILS AT COTTONWOOD CREEK, OFFSITE SEWER
ROWLETT, TEXAS
JBI PROJECT NO. TWG001
MARCH 19, 2021

	I. Sewer North of The Enclave ("New Line")	Units	Cost	Quantity	Total
1	Clearing trees	LS	$10,000.00	1	$10,000
2	Silt fence	LF	$2.00	2,200	$4,400
3	15" SDR 35 PVC Pipe	LF	$65.00	2,200	$143,000
4	Street & creek bore with steel casing	LF	$375.00	120	$45,000
5	5' Diameter Type S manhole	EA	$8,000.00	12	$96,000
6	Trench safety	LF	$1.00	2,200	$2,200
7	Testing	LF	$3.95	2,200	$8,690
8	Re-establish vegetation	LS	$25,000.00	1	$25,000
9	Repaire driveways	LS	$25,000.00	1	$25,000
10	Bonds	%	$334,290.00	2	$6,686
11	Easement acquisition	LS	$150,000.00	1	$150,000
12	Contingency	%	$515,975.80	10	$51,598
	TOTAL COST SECTION I				**$567,573**

	II. Upgrade #2 Lift Station & Force Main ("#2 Upgrade")	Units	Cost	Quantity	Total
1	New wet well (in existing easement)	LS	$120,000.00	1	$120,000
2	New pumps	EA	$90,000.00	3	$270,000
3	Retro-fit existing controls (re-use SCADA system)	LS	$60,000.00	1	$60,000
4	New site concrete	LS	$40,000.00	1	$40,000
5	New screening walls	LS	$40,000.00	1	$40,000
6	Concrete retaining walls	LS	$60,000.00	1	$60,000
7	Abandon existing station	LS	$25,000.00	1	$25,000
8	New 8" force main (in existing Liberty Grove ROW)	LF	$60.00	1,700	$102,000
9	Testing	LS	$7,500.00	1	$7,500
10	Abandon existing force main	LS	$5,000.00	1	$5,000
11	Bores	LF	$375.00	250	$93,750
12	Bonds	%	$823,250.00	2	$16,465
13	Contingency	%	$839,715.00	10	$83,972
	TOTAL COST SECTION II				**$923,687**
	Assume no additional easements required.				

III. Upgrade exisitng NSLS ("#1 Upgrade") **$401,000 to $537,000**
(Grantham & Associates 2012 estimate)
No easement needed according to city.

	IV. Sewer South of Liberty Grove Rd. ("Expanded Line")	Units	Cost	Quantity	Total
1	Clearing trees	LS	$10,000.00	1	$10,000
2	Silt fence	LF	$2.00	700	$1,400
3	18" SDR 35 PVC Pipe	LF	$80.00	700	$56,000
4	5' Diameter Type S manhole	EA	$6,500.00	6	$39,000
5	Trench safety	LF	$1.00	700	$700
6	Testing	LF	$2.00	700	$1,400
7	Re-establish vegetation	LS	$15,000.00	1	$15,000
8	Abandon existing 12" line	LS	$20,000.00	1	$20,000
9	Bonds	%	$123,500.00	2	$2,470
10	Easement acquisition (construction easements only)	LS	$30,000.00	1	$30,000
11	Contingency	%	$175,970.00	10	$17,597
	TOTAL COST SECTION IV				**$193,567**

TOTAL COST OFF-SITE SANITARY SEWER IMPROVEMENTS **$2,221,827**

PRELIMINARY COST ESTIMATE
PREPARED BY JBI PARTNERS
THE TRAILS AT COTTONWOOD CREEK, SPINE ROAD
ROWLETT, TEXAS
JBI PROJECT NO. TWG001
MARCH 19, 2021

	Spine Road
Approximate number of lots:	**0**
Approximate net acres:	**4.00**
Approximate length streets (ft):	**3,472**
Approximate length alley (ft):	**0**

A. Erosion Control	**Units**	**Cost**	**Quantity**	**Total**
1 Stabilized construction entrance	EA	$1,750.00	1	$1,750.00
2 Silt fence prior to earthwork	LF	$1.50	3,705	$5,557.50
3 8' curlex at streets both sides	LF	$1.10	6,944	$7,638.40
4 4' curlex at alleys both sides	LF	$0.55	0	$0.00
5 Inlet protection (2 stages)	EA	$150.00	18	$2,700.00
TOTAL				**$17,645.90**

B. Earthwork	**Units**	**Cost**	**Quantity**	**Total**
1 Clearing & grubbing	AC	$650.00	4.00	$2,600.00
2 Unclassified street and lot excavation	CY	$2.50	12,907	$32,266.67
3 Lot benching	LOT	$200.00	0	$0.00
4 final pad grading and cleanup	LOT	$165.00	0	$0.00
5 Testing	CY	$0.65	12,907	$8,389.33
TOTAL				**$43,256.00**

C. Paving	**Units**	**Cost**	**Quantity**	**Total**
1 8"-3500 psi conc street with #4- 18" O.C.E.W.	SY	$40.00	11,896	$475,840.00
2 8"-5"-8"-3500 psi conc alley w/ #4 - 24"O.C.E.W.	SY	$37.00	0	$0.00
3 Asphalt Pavement for Turn Lane	SY	$45.00	1,200	$54,000.00
4 6" lime stabilized subgrade	SY	$3.00	13,086	$39,256.80
5 6" cement stabilized subgrade	SY	$3.00	13,086	$39,256.80
6 Hydrated lime material (36#/SY)	TN	$175.00	236	$41,219.64
7 Cement material (27#/SY)	TN	$225.00	177	$39,747.51
8 Street signs & poles	EA	$500.00	5	$2,500.00
9 Connect to existing concrete pavement	LF	$11.00	80	$880.00
10 Concrete street header	LF	$22.00	58	$1,276.00
11 5' Sidewalk	SF	$5.75	3,365	$19,348.75
12 Barrier free ramps	EA	$1,875.00	10	$18,750.00
13 Remove & dispose of existing asphalt pavement	SY	$2,500.00	15	$37,500.00
14 Testing	SY	$0.95	13,086	$12,431.32
15 Traffic Control and striping	LS	$30,000.00	1	$30,000.00
16 Maintenance bond (1% of total $)	LS		1	$8,120.07
TOTAL				**$820,126.89**

PRELIMINARY COST ESTIMATE
PREPARED BY JBI PARTNERS
THE TRAILS AT COTTONWOOD CREEK, SPINE ROAD
ROWLETT, TEXAS
JBI PROJECT NO. TWG001
MARCH 19, 2021

	Spine Road
Approximate number of lots:	**0**
Approximate net acres:	**4.00**
Approximate length streets (ft):	**3,472**

D. Water	**Units**	**Cost**	**Quantity**	**Total**
1 12" PVC Pipe	LF	$36.00	1,140	$41,040.00
2 8" PVC Pipe	LF	$24.00	1,860	$44,640.00
3 Bore under road for 8" water main	LF	$195.00	0	$0.00
4 12" x 12" tapping sleeve	EA	$4,000.00	1	$4,000.00
5 12" x 8" tapping sleeve	EA	$3,500.00	0	$0.00
6 12" Valves	EA	$2,400.00	6	$14,400.00
7 8" Valves	EA	$1,375.00	9	$12,375.00
8 6" Valves	EA	$1,200.00	3	$3,600.00
9 Fire hydrants	EA	$3,200.00	3	$9,600.00
10 Fittings	TON	$5,000.00	2.88	$14,400.00
11 Concrete encasement	LF	$45.00	20	$900.00
12 Connect to existing pipe	EA	$1,000.00	0	$0.00
13 1" Domestic service	EA	$725.00	11	$7,975.00
14 1" Irrigation service	EA	$725.00	3	$2,175.00
15 Sleeves	LF	$10.00	116	$1,160.00
16 Trench safety	LF	$0.25	3,000	$750.00
17 Testing	LF	$2.75	3,000	$8,250.00
18 Maintenance bond (1.5% of total $)	LS		1	$2,478.98
TOTAL				**$167,743.98**

E. Sanitary Sewer (Onsite)	**Units**	**Cost**	**Quantity**	**Total**
1. 12" diameter SDR 26 PVC pipe	LF	$55.00	0	$0.00
2 12" diameter SDR 35 PVC pipe	LF	$50.00	0	$0.00
3 10" diameter SDR 26 PVC pipe	LF	$40.00	0	$0.00
4 8" diameter SDR 26 PVC pipe	LF	$37.50	280	$10,500.00
5 8" diameter SDR 35 PVC pipe	LF	$32.50	1,880	$61,100.00
6 5' diameter manhole	EA	$7,600.00	9	$68,400.00
7 5' diameter drop manhole	EA	$8,000.00	1	$8,000.00
8 4" sanitary sewer services	EA	$735.00	11	$8,085.00
9 Trench safety	LF	$0.50	2,160	$1,080.00
10 Testing	LF	$3.95	2,160	$8,532.00
11 Maintenance bond (1.5% of total $)	LS		1	$2,485.46
TOTAL				**$168,182.46**

F. Drainage	**Units**	**Cost**	**Quantity**	**Total**
1 3 barrel 10' X 7' RCB	LF	$2,400.00	0	$0
2 3 barrel 10' X 6' RCB	LF	$2,265.00	50	$113,250
3 5' X 4' RCB	LF	$260.00	130	$33,800
4 4' X 4' RCB	LF	$240.00	0	$0
5 48" RCP	LF	$180.00	60	$10,800
6 42" RCP	LF	$150.00	200	$30,000
7 36" RCP	LF	$110.00	320	$35,200
8 30" RCP	LF	$85.00	140	$11,900
9 24" RCP	LF	$67.00	480	$32,160
10 21" RCP	LF	$57.00	380	$21,660
11 18" RCP	LF	$48.00	200	$9,600
12 Curb inlet	EA	$4,200.00	17	$71,400
13 Alley inlet	EA	$6,000.00	1	$6,000
14 Wye Inlet	EA	$4,200.00	0	$0
15 Type B storm manhole	EA	$5,000.00	3	$15,000
16 Wingwall	EA	$34,000.00	4	$136,000
17 Headwall	EA	$3,400.00	11	$37,400
18 Remove & dispose existing headwall	EA	$500.00	0	$0
19 Connect to existing pipe	EA	$400.00	0	$0
20 Rock rip-rap	SY	$93.00	120	$11,160
21 Grade to drain	LF	$10.00	0	$0
22 Trench safety	LF	$0.35	1,960	$686
23 Testing	LF	$2.20	1,960	$4,312
24 Maintenance bond (1.5% of total $)	LS		1	$8,705
TOTAL				**$589,033**

EXHIBIT C - ENGINEER'S OPINION OF PROBABLE COST
PREPARED BY JBI PARTNERS, INC.
TRAILS AT COTTONWOOD CREEK NIA2 (Phases 2-3)
ROWLETT, TEXAS
JBI PROJECT NO. TWG001
DATE: February 24, 2026

	NIA2 (Phases 2-3)
NUMBER OF LOTS (40' x 120')	159
NUMBER OF LOTS (50' x 120')	7
NUMBER OF LOTS (60' x 120')	87
NUMBER OF LOTS (70' x 120')	-
NUMBER OF LOTS (Townhomes)	40
TOTAL NUMBER OF LOTS	293
APPROXIMATE GROSS ACRES	84.09
APPROXIMATE POND ACRES	0.00
APPROXIMATE NET ACRES	84.09
APPROXIMATE DENSITY	3.48
APPROX. LENGTH STREET 25' B-B DIVIDED RESIDENTIAL ONSITE (FT)	300
APPROX. LENGTH STREET 29' B-B RESIDENTIAL ONSITE (FT)	13,000
APPROX. LENGTH ALLEY 14' E-E RESIDENTIAL ONSITE (FT)	7,600

I.	**ONSITE IMPROVEMENTS**	
A.	EROSION CONTROL	$103,085
B.	EARTHWORK	$1,532,155
C.	PAVING	$5,033,824
D.	WATER SYSTEM	$1,922,106
E.	SANITARY SEWER SYSTEM	$1,793,767
F.	DRAINAGE SYSTEM	$2,390,476
G.	RETAINING WALLS	$70,834
H.	ELECTRIC AND GAS SERVICE ($1900/Lot Budget)	$556,700
I.	STREET LIGHTS ($3000/ea.)	$54,000
J.	ZONING/PLANNING	$0
K.	ENGINEERING/SURVEYING	$996,200
L.	CONSTRUCTION MANAGEMENT	$263,700
M.	GEOTECHNICAL STUDY ($950/Acre)	$79,886
N.	CITY CONSTRUCTION DEVELOPMENT FEES (4.0%)	$434,132
O.	10% CONTINGENCY (A through G)	$1,284,625
	TOTAL	**$16,515,490**
II.	**LANDSCAPE IMPROVEMENTS**	
A.	HARDSCAPE	$784,550
B.	LANDSCAPE AND IRRIGATION	$1,337,338
C.	10% CONTINGENCY (A & B)	$212,189
	TOTAL	**$2,334,077**
	GRAND TOTAL COST	**$18,849,566**

EXHIBIT C - ENGINEER'S OPINION OF PROBABLE COST
PREPARED BY JBI PARTNERS, INC.
TRAILS AT COTTONWOOD CREEK NIA2 (Phases 2-3)
ROWLETT, TEXAS
JBI PROJECT NO. TWG001
DATE: February 24, 2026

	NIA2 (Phases 2-3)
NUMBER OF LOTS (40' x 120')	159
NUMBER OF LOTS (50' x 120')	7
NUMBER OF LOTS (60' x 120')	87
NUMBER OF LOTS (70' x 120')	-
NUMBER OF LOTS (Townhomes)	40
TOTAL NUMBER OF LOTS	293
APPROXIMATE GROSS ACRES	84.09
APPROXIMATE POND ACRES	0.00
APPROXIMATE NET ACRES	84.09
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NOTES & ASSUMPTIONS:

1. This estimate is based on the city approved civil plans, dated 11/18/2025
2. This estimate assumes this development to be built as 1 Phase.
3. Onsite Improvements Unit prices are based on current contract prices, subject to change. Landscape Improvements Unit prices are based on current market prices, subject to change.
4. City impact fees or credits are NOT included in this estimate.
5. City Construction Inspection Fees are included in this estimate.
6. Pad moisture conditioning assumed at 50% of the pads and rock excavation are included in this estimate as budget items. Nee
7. Earthwork quantities and retaining walls are based on aerial contours, will need to be verified with on the ground topographic survey.
8. Installation of telephone and cable assumed to be performed at no cost to developer, need to verify with provider.
9. Construction management fees are included in this estimate.
10. Common area sidewalk costs are included in this estimate.
11. Cost of payment and performance bonds is NOT included in this estimate.
12. Costs tree survey and tree mitigation are NOT included in this estimate. Tree mitigation will be based on final engineering and tree survey done in 2020.
13. This estimate includes pricing for onsite concrete batch plant.
14. City Park Fees are NOT included in this estimate.
15. This estimate assumes that East Fork SUD will provide water service from Vinson Road to serve the development.
16. This estimate assumes that paving and drainage improvements can be installed within the property located in the City of Garland City Limits.
17. This estimate assumes that the adjacent properties sheet flow undeveloped drainage to the site that will NOT be detained by this development.

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ROWLETT, TEXAS
JBI PROJECT NO. TWG001
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ONSITE IMPROVEMENTS

A.	Erosion Control	Units	Cost	Quantity	Total
1.	Stabilized construction entrance	EA	$3,000.00	1	$3,000
2.	Silt fence (prior earthwork)	LF	$1.90	5,000	$9,500
3.	Rock check dam	EA	$1,000.00	7	$7,000
4.	Inlet protection	EA	$240.00	53	$12,720
5.	8' wide curlex behind curb	LF	$1.30	41,800	$54,340
6.	Seed all disturbed areas	AC	$340.00	10.00	$3,400
7.	Provide and maintain sedimentation basin	CY	$4.80	0	$0
8.	4' high orange safety fencing at dripline of existing trees	LF	$1.75	3,500	$6,125
9.	SWPPP & inspections	LS	$7,000.00	1	$7,000
TOTAL					**$103,085**

B.	Earthwork	Units	Cost	Quantity	Total
1.	Clearing & grubbing	AC	$1,950.00	75.80	$147,810
2	Street & lot excavation	CY	$2.50	80,911	$202,278
3	Lot benching at mass grading	LOT	$230.00	293	$67,390
4	Over-excavation and moisture conditioning at 7' below final grade	PAD	$2,350.00	15	$35,250
5	Over-excavation and moisture conditioning at 10' below final grade	PAD	$2,550.00	278	$708,900
6	6-mil polyethylene plastic sheeting, 5' oversize each way	PAD	$475.00	293	$139,175
7	Process and place wet utility spoils	CY	$3.50	22,952	$80,332
8	Lot fine grading (post paving)	LOT	$140.00	293	$41,020
9	Testing (Including compaction, density, and materials)	CY	$110,000.00	1.00	$110,000
TOTAL					**$1,532,155**

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ROWLETT, TEXAS
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ONSITE IMPROVEMENTS

C. Paving	Units	Cost	Quantity	Total
1. 10" - 4000 PSI concrete street pavement (Turn Lane)	SY	$119.00	1,555	$185,045
2. 6" - 3500 PSI concrete street pavement	SY	$49.75	41,284	$2,053,879
3. 8"-5"-8" - 3500 PSI concrete alley pavement	SY	$61.30	13,124	$804,501
4. 6" lime and cement stabilized subgrade	SY	$5.45	48,420	$263,889
5. 12" density controlled subgrade	SY	$2.90	48,420	$140,418
6. Hydrated lime material	TN	$320.00	1,328	$424,960
7. Cement material	TN	$397.00	567	$225,099
8. 5' wide 4" concrete sidewalk on 1" flexbase	SF	$10.20	66,123	$674,455
9. 8' wide 6" decomposed granite sidewalk	SF	$11.95	8,907	$106,439
10. Barrier free ramps	EA	$3,000.00	40	$120,000
11. Concrete street header	LF	$15.00	72	$1,080
12. Sawcut and connect to existing asphalt pavement	LF	$20.00	238	$4,760
13. Street sign posts	EA	$250.00	27	$6,750
14. Street name blades	EA	$105.00	54	$5,670
15. Stop Signs	EA	$95.00	24	$2,280
16. Street Barricades	LF	$50.00	72	$3,600
17. Traffic control	LS	$11,000.00	1	$11,000
TOTAL				**$5,033,824**

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ONSITE IMPROVEMENTS

D. Water System	Units	Cost	Quantity	Total
1. 12" diameter AWWA C-900 DR-18 PVC	LF	$55.50	2,221	$123,265.50
2. 14" diameter AWWA C-906 DR-9 HDPE	LF	$218.90	293	$64,137.70
3. 8" diameter AWWA C-900 DR-18 PVC	LF	$35.50	12,101	$429,585.50
4. 10" diameter AWWA C-906 DR-9 HDPE	LF	$133.10	1,050	$139,755.00
5. 12" Valves MJxFL	EA	$3,963.00	16	$63,408.00
6. 12" Valves MJxMJ	EA	$4,138.00	2	$8,276.00
7. 8" Valves MJxFL	EA	$2,332.00	68	$158,576.00
8. 8" Valves MJxMJ	EA	$2,344.00	32	$75,008.00
9. Tracer wire station at water main intersections	EA	$99.00	28	$2,772.00
10. Remove & Replace Fire Hydrant and Valves	EA	$9,095.00	1	$9,095.00
11. Fire hydrant	EA	$8,487.00	34	$288,558.00
12. Fittings	TON	$6,856.00	14.73	$100,988.88
13. Connect to existing 12" water main	EA	$3,016.00	5	$15,080.00
14. Connect to existing 8" water main	EA	$1,672.00	1	$1,672.00
15. 1" Domestic service	EA	$1,019.00	202	$205,838.00
16. 1" Domestic service with 2" encasement	EA	$1,134.00	91	$103,194.00
17. 2" Irrigation service	EA	$2,418.00	8	$19,344.00
18. 2" air release valve	EA	$9,095.00	2	$18,190.00
19. 2" automatic flush valve	EA	$9,484.00	3	$28,452.00
20. 6" Schedule 40 PVC irrigation sleeves	LF	$20.30	568	$11,530.40
21. 4" Schedule 40 PVC irrigation sleeves	LF	$17.30	1,028	$17,784.40
22. Trench safety	LF	$0.10	15,665	$1,566.50
23. Testing (Including compaction, density, and materials)	LF	$2.30	15,665	$36,029.50
TOTAL				**$1,922,106.38**

E. Sanitary Sewer System	Units	Cost	Quantity	Total
1. 16" diameter steel encasement pipe	LF	$155.60	50	$7,780.00
2. 8" SDR 26 PVC Pipe	LF	$51.40	4,500	$231,300.00
3. 8" SDR 35 PVC Pipe	LF	$45.80	8,939	$409,406.20
4. 5' Diameter manhole (0'-12')	EA	$11,659.00	37	$431,383.00
5. 5' Diameter manhole (12'-20')	EA	$15,450.00	9	$139,050.00
6. 5' Diameter internal drop manhole (0'-12')	EA	$15,990.00	1	$15,990.00
7. 5' Diameter manhole over existing sewer main	EA	$16,633.00	1	$16,633.00
8. 5' Diameter internal drop manhole (12'-20')	EA	$18,407.00	5	$92,035.00
9. 4" service	EA	$1,084.00	293	$317,612.00
10. Cement stabilized sand encasement	LF	$115.00	440	$50,600.00
11. Trench safety	LF	$0.60	13,439	$8,063.40
12. Testing (Including compaction, density, and materials)	LF	$3.50	13,439	$47,036.50
13. Re-Air Test after franchise utilities	LF	$2.00	13,439	$26,878.00
TOTAL				**$1,793,767.10**

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ONSITE IMPROVEMENTS

F. Drainage System	Units	Cost	Quantity	Total
1. 2-8'x5' RCB	LF	$1,107.10	65	$71,961.50
2. 6'x6' RCB	LF	$457.30	312	$142,677.60
3. 54" RCP	LF	$258.20	350	$90,370.00
4. 48" RCP	LF	$194.90	268	$52,233.20
5. 42" RCP	LF	$156.90	908	$142,465.20
6. 36" RCP	LF	$116.50	1,411	$164,381.50
7. 33" RCP	LF	$103.50	247	$25,564.50
8. 30" RCP	LF	$86.80	235	$20,398.00
9. 27" RCP	LF	$79.80	587	$46,842.60
10. 24" RCP	LF	$65.70	803	$52,757.10
11. 21" RCP	LF	$56.80	1,485	$84,348.00
12. 18" RCP	LF	$51.50	5,568	$286,752.00
13. 2-18" RCP	LF	$103.10	68	$7,010.80
14. 4-Grate Combination Inlet	EA	$17,050.00	4	$68,200.00
15. 2-Grate Combination Inlet	EA	$10,691.00	12	$128,292.00
16. 14' standard curb inlet	EA	$10,562.00	4	$42,248.00
17. 10' standard curb inlet	EA	$7,493.00	42	$314,706.00
18. 5' x 5' Type Y Inlet with concrete apron	EA	$9,212.00	2	$18,424.00
19. 4' x 4' Type Y Inlet with concrete apron	EA	$8,078.00	7	$56,546.00
20. 7.5'x7.5' Storm manhole	EA	$19,253.00	2	$38,506.00
21. 5'x4' Storm manhole	EA	$7,984.00	3	$23,952.00
22. 4'x4' Storm manhole	EA	$5,886.00	15	$88,290.00
23. Pedestrian Railing on Headwall	LF	$191.00	105	$20,055.00
24. Headwall at 2-barrel 8'x5' RCB	EA	$88,745.00	2	$177,490.00
25. Headwall at 6'x5' RCB	EA	$50,302.00	1	$50,302.00
26. Headwall at 54" RCP	EA	$11,070.00	2	$22,140.00
27. Headwall at 42" RCP	EA	$9,124.00	1	$9,124.00
28. Headwall at 33" RCP	EA	$7,049.00	1	$7,049.00
29. Headwall at 2-18" RCP	EA	$6,880.00	2	$13,760.00
30. Headwall at 18" RCP	EA	$5,085.00	2	$10,170.00
31. Grouted rock rip rap	SY	$122.00	670	$81,740.00
32. Trench safety	LF	$0.20	12,688	$2,537.60
33. Testing (Including compaction, density, and materials)	LF	$2.30	12,688	$29,182.40
TOTAL				**$2,390,476.00**

G. Retaining Wall	Units	Cost	Quantity	Total
1. 1' - 2' Height	FF	$11.00	887	$9,757.00
2. 2' - 3' Height	FF	$12.00	2,803	$33,636.00
3. 3' - 4' Height	FF	$13.25	2,071	$27,440.75
TOTAL				**$70,833.75**

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LANDSCAPE IMPROVEMENTS

A. Hardscape	Units	Cost	Quantity	Total
1. Fine Grading	LS	$10,000.00	1	$10,000
2. Secondary Entry Sign	LS	$120,000.00	1	$120,000
3. Brick Pavers	SF	$15.00	1,500	$22,500
4. Tubular Steel Dog Fence	LF	$80.00	760.00	$60,800
5. Radial Trellis	LS	$35,000.00	1	$35,000
6. Typical Trellis (16'x28')	EA	$30,000.00	3	$90,000
7. Playground Subsurface Drainage	LS	$15,000.00	1	$15,000
8. Playground Equipment & Installation	EA	$180,000.00	1	$180,000
9. Monolithic Concrete Edge	LF	$40.00	30	$1,200
10. Concrete Playground Edge	LF	$40.00	270	$10,800
11. Seat Wall	LF	$300.00	50	$15,000
12. Book Exchange Structure	EA	$3,500.00	1.00	$3,500
13. Hammocks	EA	$2,500.00	5	$12,500
14. Park Bench	EA	$3,250.00	20	$65,000
15. Stone Bench	EA	$1,250.00	10	$12,500
16 Trash Receptacle	EA	$3,250.00	15	$48,750
17 Pet Waste Station	EA	$1,000.00	22	$22,000
18 Site Lighting	LS	$60,000.00	1	$60,000
TOTAL				**$784,550**

B. Landscape and Irrigation	Units	Cost	Quantity	Total
1. 3" Shade Tree	EA	$675.00	78	$52,650
2. 10'-12' Ht. Ornamental Trees	EA	$550.00	50	$27,500
3. 5 Gallon Shrubs	EA	$35.00	870	$30,450
4. 1 Gallon Groundcovers	EA	$13.00	3,850	$50,050
5. Seasonal Color	EA	$2.75	935	$2,571
6. River Rock	SF	$0.12	55	$7
7. Hydromulch Seed	SF	$0.15	230,840	$34,626
8. Solid Bermuda Sod	SY	$4.75	59,800	$284,050
9. Plant Preparation/Mulch	SF	$2.10	16,340	$34,314
10. Ryerson Steel Edging	LF	$6.50	1,385	$9,003
11. Automatic Irrigation System	SF	$1.25	554,318	$692,898
12. Temporary Irrigation System	SF	$0.50	238,440	$119,220
TOTAL				**$1,337,338**

EXHIBIT C
OPINION OF PROBABLE COST
FOR
TRAILS AT COTTONWOOD CREEK PHASE 5 (NIA#3)
41.0 ACRES, 178 LOTS, 6851 LF STREETS, 6024 LF ALLEY/MEWS

SECTION A - Phase 5 Excavation

Item No.	Description	Unit	Quantity	Bid Unit Price		Bid Price
1	Clearing & Grubbing Site, to Include the Removal of Any/All Trees, Brush, and Barbed Wire Fence With Offsite Disposal, Complete in Place	AC	34.0	$1,550.00	$	***52,700.00***
2	Unclassified Excavation Street, Residential Lot, Complete in Place	CY	33,500	$2.65	$	***88,775.00***
3	Moisture Conditioning (30' x 73' Pad) - Depth of 7 Feet, Including Poly (6-8 mil) Extended a Minimum 5 Feet Beyond Perimeter of Building Pad, Complete in Place	LOT	21	$2,150.00	$	***45,150.00***
4	Moisture Conditioning (30' x 75' Pad) - Depth of 7 Feet, Including Poly (6-8 mil) Extended a Minimum 5 Feet Beyond Perimeter of Building Pad, Complete in Place	LOT	20	$2,150.00	$	***43,000.00***
5	Moisture Conditioning (30' x 72' Pad) - Depth of 10 Feet, Including Poly (6-8 mil) Extended a Minimum 5 Feet Beyond Perimeter of Building Pad, Complete in Place	LOT	13	$2,950.00	$	***38,350.00***
6	Moisture Conditioning (30' x 73' Pad) - Depth of 10 Feet, Including Poly (6-8 mil) Extended a Minimum 5 Feet Beyond Perimeter of Building Pad, Complete in Place	LOT	55	$2,950.00	$	***162,250.00***
7	Moisture Conditioning (30' x 75' Pad) - Depth of 10 Feet, Including Poly (6-8 mil) Extended a Minimum 5 Feet Beyond Perimeter of Building Pad, Complete in Place	LOT	69	$2,950.00	$	***203,550.00***
8	Rough Lot Benching, Complete in Place	LOT	178	$210.00	$	***37,380.00***
9	Final Lot Benching to be Completed Post Paving, Complete in Place	LOT	178	$130.00	$	***23,140.00***
10	Final Grade Clean Up at Open Space Lots and Street Parkways (POST PAVING), Complete in Place	LS	1	$6,500.00	$	***6,500.00***
11	Process and Place Utility Spoils Stockpiled by Utility Contractor in the Location to be Placed, Complete in Place at Time of Final Benching	LS	1	$24,500.00	$	***24,500.00***
12	Demo and Haul Off	LS	1	$5,000.00	$	***5,000.00***

SECTION A - Phase 5 Excavation Continued

Item No.	Description	Unit	Quantity	Bid Unit Price		Bid Price
13	Install Construction Entrance, Including All Maintenance and Additional Rock as Required by Owner During Earthwork Operations, Complete in Place	LS	2	$3,500.00	$	7,000.00
14	Remove Existing Curb and Dispose Offsite	LF	99	$35.00	$	3,465.00
15	Maintain Access to and Protect Existing Water & Sewer Structures and Appurtenances During Rough Grading Activities	LS	1	$5,000.00	$	5,000.00
	SECTION A - Phase 5 Excavation				$	745,760.00

SECTION B - Phase 5 Erosion Control

Item No.	Description	Unit	Quantity	Bid Unit Price		Bid Price
1	Construction Entrance	EA	2	$2,600.00	$	5,200.00
2	Wire-reinforceed Silt Fence Metal Posts	LF	3,000	$1.95	$	5,850.00
3	Install Inlet Protection	EA	35	$165.00	$	5,775.00
4	Rock Check Dam	EA	3	$1,050.00	$	3,150.00
5	8' Curlex	LF	12,625	$1.50	$	18,937.50
6	Seed and Harlow	AC	23	$350.00	$	8,050.00
7	8' Curlex - Slopes	LF	14,910	$0.19	$	2,832.90
	SECTION B - Phase 5 Erosion Control				$	49,795.40

SECTION C - Phase 5 Water Improvements

Item No.	Description	Unit	Quantity	Bid Unit Price		Bid Price
1	8" PVC Water Pipe (includes all tees, bends, crosses, fittings, plugs, bedding, reducers, etc.)	LF	7,072	$50.40	$	356,428.80
2	8" HDPE Water Pipe (includes all tees, bends, crosses, fittings, plugs, bedding, reducers, etc.)	LF	495	$275.00	$	136,125.00
3	1" Water Service	EA	160	$825.00	$	132,000.00
4	1" Irrigation Service	EA	10	$860.00	$	8,600.00
5	4" PVC Irrigation Sleeve	LF	1,420	$38.00	$	53,960.00
6	Fire Hydrant Assembly (includes lead, tee, valve, & box)	EA	13	$7,625.00	$	99,125.00
7	Remove & Replace Fire Hydrant Assembly On Existing Line (includes lead, tee, valve, & box)	EA	3	$7,650.00	$	22,950.00
8	8" Gate Valve & Box (includes concrete blocking, embedments, etc.)	EA	52	$2,060.00	$	107,120.00

SECTION C - Phase 5 Water Improvements Continued

Item No.	Description	Unit	Quantity	Bid Unit Price		Bid Price
9	Connect to Existing 8" Water Line	EA	6	$1,170.00	$	7,020.00
10	Adjust Existing Valves and Fire Hydrants as Identified in Plans	LS	1	$3,315.00	$	3,315.00
11	Trench Safety	LF	7,567	$0.10	$	756.70
12	Testing (Excluding Geotechnical)	LS	1	$13,730.00	$	13,730.00
13	2" Automatic Flush Valve	EA	7	$9,875.00	$	69,125.00
	SECTION C - Phase 5 Water Improvements				$	1,010,255.50

SECTION D - Phase 5 Sanitary Sewer Improvements

Item No.	Description	Unit	Quantity	Bid Unit Price		Bid Price
1	4" Sewer Service	EA	160	$1,055.00	$	168,800.00
2	8" Sewer Pipe (SDR-35) Sanitary Sewer including Excavation, Embedment, Etc.	LF	4,448	$51.50	$	229,072.00
3	8" Sewer Pipe (SDR-26) Sanitary Sewer including Excavation, Embedment, Etc.	LF	1,866	$62.90	$	117,371.40
4	5' Manhole (All Depths), including Excavation, Backfill, Manhole Frame & Cover, Manhole Inserts, False Bottom, Epoxy Manhole Liner, etc.	EA	30	$10,450.00	$	313,500.00
5	8" Sewer Pipe, CSS Backfill	LF	280	$50.00	$	14,000.00
6	Connect to Existing 8" Sewer Line	EA	3	$600.00	$	1,800.00
7	Connect to Existing Manhole	EA	2	$1,100.00	$	2,200.00
8	Manhole Vacuum Testing	EA	30	$220.00	$	6,600.00
9	Trench Safety	LF	6,314	$0.10	$	631.40
10	Testing (Excluding Geotechnical)	LS	1	$30,500.00	$	30,500.00
	SECTION D - Phase 5 Sanitary Sewer Improvements				$	884,474.80

SECTION E - Phase 5 Storm Sewer Improvements

Item No.	Description	Unit	Quantity	Bid Unit Price		Bid Price
1	18" RCP, Class III, All Depths, Including Excavation, Embedment, Backfill, Fittings, Joints/Connections, Wyes, etc.	LF	1,325	$70.00	$	***92,750.00***
2	21" RCP, Class III, All Depths, Including Excavation, Embedment, Backfill, Fittings, Joints/Connections, Wyes, etc.	LF	815	$77.00	$	***62,755.00***
3	24" RCP, Class III, All Depths, Including Excavation, Embedment, Backfill, Fittings, Joints/Connections, Wyes, etc.	LF	1,055	$85.00	$	***89,675.00***
4	27" RCP, Class III, All Depths, Including Excavation, Embedment, Backfill, Fittings, Joints/Connections, Wyes, etc.	LF	442	$104.00	$	***45,968.00***
5	30" RCP, Class III, All Depths, Including Excavation, Embedment, Backfill, Fittings, Joints/Connections, Wyes, etc.	LF	309	$110.00	$	***33,990.00***
6	33" RCP, Class III, All Depths, Including Excavation, Embedment, Backfill, Fittings, Joints/Connections, Wyes, etc.	LF	983	$122.00	$	***119,926.00***
7	36" RCP, Class III, All Depths, Including Excavation, Embedment, Backfill, Fittings, Joints/Connections, Wyes, etc.	LF	341	$133.00	$	***45,353.00***
8	42" RCP, Class III, All Depths, Including Excavation, Embedment, Backfill, Fittings, Joints/Connections, Wyes, etc.	LF	185	$175.00	$	***32,375.00***
9	48" RCP, Class III, All Depths, Including Excavation, Embedment, Backfill, Fittings, Joints/Connections, Wyes, etc.	LF	567	$210.00	$	***119,070.00***
10	54" RCP, Class III, All Depths, Including Excavation, Embedment, Backfill, Fittings, Joints/Connections, Wyes, etc.	LF	494	$245.00	$	***121,030.00***
11	3'X2' RCB, Class III, All Depths, Including Excavation, Embedment, Backfill, Fittings, Joints/Connections, Wyes, etc.	LF	262	$256.00	$	***67,072.00***
12	10' Curb Inlet, Including Excavation, Embedment, Backfill, etc.	EA	20	$8,165.00	$	***163,300.00***
13	14' Curb Inlet, Including Excavation, Embedment, Backfill, etc.	EA	3	$9,085.00	$	***27,255.00***
14	2-Grate Combination Inlet, Including Excavation, Embedment, Backfill, etc.	EA	3	$8,970.00	$	***26,910.00***
15	3-Grate Combination Inlet, Including Excavation, Embedment, Backfill, etc.	EA	3	$10,120.00	$	***30,360.00***
16	4-Grate Combination Inlet, Including Excavation, Embedment, Backfill, etc.	EA	3	$11,270.00	$	***33,810.00***
17	4'x4' Drop Inlet with Apron, Including Excavation, Embedment, Backfill, etc.	EA	2	$6,440.00	$	***12,880.00***
18	6'x6' Drop Inlet with Apron, Including Excavation, Embedment, Backfill, etc.	EA	1	$7,590.00	$	***7,590.00***

SECTION E - Phase 5 Storm Sewer Improvements Continued

Item No.	Description	Unit	Quantity	Bid Unit Price		Bid Price
19	Inlet Protection (Prior to Paving)	EA	35	$115.00	$	4,025.00
20	3' Type A Manhole, Including Excavation, Embedment, Backfill, etc.	EA	4	$6,325.00	$	25,300.00
21	4' Type A Manhole, Including Excavation, Embedment, Backfill, etc.	EA	4	$7,360.00	$	29,440.00
22	5' Type B Manhole, Including Excavation, Embedment, Backfill, etc.	EA	4	$8,165.00	$	32,660.00
23	6' Type B Manhole, Including Excavation, Embedment, Backfill, etc.	EA	2	$9,085.00	$	18,170.00
24	Install 4' Type A Manhole over Existing Line, Including Excavation, Embedment, Backfill, etc.	EA	1	$7,360.00	$	7,360.00
25	Connect to Existing RCP	EA	4	$1,250.00	$	5,000.00
26	Remove Drop Inlet & Connect to Ex. RCP	EA	1	$1,500.00	$	1,500.00
27	3'X2' RCB SW-0 Headwall	EA	1	$6,645.00	$	6,645.00
28	8" Grouted Rock Rip Rap	SY	29	$111.00	$	3,219.00
29	Grade to Drain	LS	1	$1,400.00	$	1,400.00
30	Trench Safety	LF	6,516	$0.10	$	651.60
	SECTION E - Phase 5 Storm Sewer Improvements				$	1,267,439.60

SECTION F - Bonds for Utility Improvements

Item No.	Description	Unit	Quantity	Bid Unit Price		Bid Price
1	Maintenance Bond - 2 YR, 100%	LS	1	$7,575.00	$	7,575.00
2	Performance and Payment Bond	LS	1	$39,800.00	$	39,800.00
	SECTION F - Bonds for Utility Improvements				$	47,375.00

SECTION G - Phase 5 Paving Improvements

Item No.	Description	Unit	Quantity	Bid Unit Price		Bid Price
1	6" Reinforced Concrete Pavement, Including Standard Curb and Gutter (3,500 PSI)	SY	22,852	$50.40	$	1,151,740.80
2	6" Reinforced Concrete Pavement, Including Mountable Curb and Gutter (3,500 PSI)	SY	52	$51.55	$	2,680.60
3	8"-5"-8" Reinforced Concrete Pavement (3,500 PSI) (Mews and Alleys)	SY	10,632	$56.00	$	595,392.00
4	6" Compacted Lime Stabilized Subgrade	SY	36,477	$2.80	$	102,135.60
5	12" Density Controlled Stabilized Subgrade	SY	24,407	$2.40	$	58,576.80
6	Hydrated Lime (48#/SY)	TONS	875	$320.00	$	280,000.00
7	5' Sidewalk	SF	12,041	$7.35	$	88,501.35
8	8' Sidewalk	SF	3,820	$6.85	$	26,167.00
9	6' Trail (4" Concrete)	SF	2,354	$7.35	$	17,301.90
10	8' Trail (4" Concrete)	SF	9,170	$6.85	$	62,814.50
11	8' Trail (6" Concrete)	SF	7,910	$9.30	$	73,563.00
12	Barrier Free Ramp Type A	EA	12	$2,850.00	$	34,200.00
13	Barrier Free Ramp Type B	EA	3	$2,850.00	$	8,550.00
14	Barrier Free Ramp Type C	EA	18	$2,850.00	$	51,300.00

SECTION G - Phase 5 Paving Improvements Continued

Item No.	Description	Unit	Quantity	Bid Unit Price		Bid Price
15	2' Full Depth Sawcut & Connect to Ex. Pavement	LF	66	$15.00	$	990.00
16	Remove Barricade and Connect to Ex. Header	EA	6	$500.00	$	3,000.00
17	Connect to Ex. Header	EA	3	$500.00	$	1,500.00
18	Pavement Barricade	EA	2	$1,600.00	$	3,200.00
19	Pavement Header	LF	58	$15.00	$	870.00
20	Stop Sign	EA	15	$95.00	$	1,425.00
21	Name Blade Pairs	EA	16	$430.00	$	6,880.00
	SECTION G - Phase 5 Paving Improvements				$	2,570,788.55

SECTION H - Bonds for Paving Improvements

Item No.	Description	Unit	Quantity	Bid Unit Price		Bid Price
1	Maintenance Bond - 2 YR, 100%	LS	1	$28,350.00	$	28,350.00
2	Performance and Payment Bond	LS	1	$1,000.00	$	1,000.00
	SECTION H - Bonds for Paving Improvements				$	29,350.00

SECTION I - Retaining Walls

Item No.	Description	Unit	Quantity	Bid Unit Price		Bid Price
1	Permits/Site Facilities/Inspections	LS	1	$7,649.00	$	7,649.00
2	Mosaic Sandstone Retaining Walls	LF	3,003	$44.00	$	132,132.00
	SECTION I - Retaining Walls				$	139,781.00

SECTION J - Landscape

Item No.	Description	Unit	Quantity	Bid Unit Price		Bid Price
1	Decomposed Granite	SF	4,706	$5.50	$	25,883.00
2	Landscape Edging	LF	1,070	$5.00	$	5,350.00
3	Bench	EA	12	$2,270.00	$	27,240.00
4	Litter Receptical	EA	4	$1,000.00	$	4,000.00
5	Dog Waste Station	EA	4	$950.00	$	3,800.00
6	Little Library	EA	2	$1,000.00	$	2,000.00
7	Nesting Box	EA	2	$400.00	$	800.00
8	Swing Set	EA	4	$9,340.00	$	37,360.00
9	3" Caliper Shade Tree - Arizona Cypress (Cupressus Arizonica)	EA	13	$645.00	$	8,385.00
10	3" Caliper Shade Tree - Cathedral Live Oak (Quercus virginiana)	EA	92	$395.00	$	36,340.00
11	3" Caliper Shade Tree - Cedar Elm (Ulmus crassifolia)	EA	116	$395.00	$	45,820.00

SECTION J - Landscape Continued

Item No.	Description	Unit	Quantity	Bid Unit Price		Bid Price
12	3" Caliper Shade Tree - Chinese Pistache (Pistachia chinesis)	EA	84	$450.00	$	37,800.00
13	3" Caliper Shade Tree - Green Ash (Fraxinus Pennsylvanica)	EA	48	$450.00	$	21,600.00
14	3" Caliper Shade Tree - Shumard Red Oak (Quercus shumardii)	EA	163	$395.00	$	64,385.00
15	Tree Staking	EA	1,548	$20.00	$	30,960.00
16	5 Gallon Shrub - Red Yucca (Hesperaloe parviflora)	EA	64	$42.00	$	2,688.00
17	5 Gallon Shrub - Dwarf Buford Holly (Ilex cornuta 'Dwarf Buford')	EA	52	$42.00	$	2,184.00
18	5 Gallon Shrub - Rio Bravo Texas Sage (Leucophyllum Langmaniae 'Rio Bravo')	EA	52	$42.00	$	2,184.00
19	3 Gallon Shrub - Weeping Love Grass (Eragrostis Curvula)	EA	1,206	$40.00	$	48,240.00
20	1 Gallon Shrub - Big Blue Lilytruf (Liriope Muscari Big Blue)	EA	278	$11.00	$	3,058.00
21	4" Pot - Seasonal Color	EA	653	$3.00	$	1,959.00
22	Turf Sod - Bermudagrass	SF	150,068	$0.59	$	88,540.12
23	Hydro Mulch Seeding	SF	185,434	$0.17	$	31,523.78
24	Irrigation	SF	158,363	$1.40	$	221,708.20
25	Temporary Irrigation	LS	1	$37,000.00	$	37,000.00
26	Fertilizers	LS	1	$1,200.00	$	1,200.00
27	Kiddie Cushion	SF	4,491	$2.00	$	8,982.00
28	Finish Grading for all areas to receive sod and hydromulch	LS	1	$11,750.00	$	11,750.00
29	Provide labor and material for 4" depth of soil preperation and bedding mix tilled to nominal 8" depth	LS	1	$3,120.00	$	3,120.00
30	Provide labor and material for mulch at all bed areas and tree wells	LS	1	$24,000.00	$	24,000.00
31	Cornhole Boards	EA	2	$600.00	$	1,200.00
32	Playground Infrastructure; Includes excavation of area and installation of drainage	LS	1	$17,290.00	$	17,290.00
			SECTION J - Landscape		$	858,350.10

SECTION K - Fees

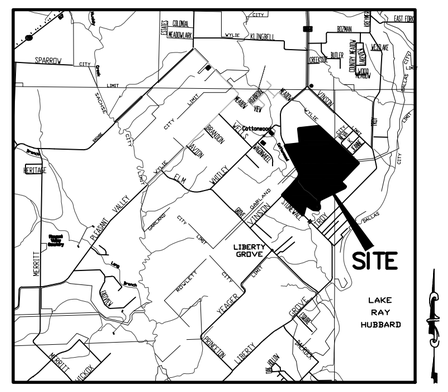
Item No.	Description	Unit	Quantity	Bid Unit Price		Bid Price
1	Engineering/Surveying/Platting Fees	LS	1	$651,750.00	***$***	***651,750.00***
2	Franchise Utility Coordination Fees	LS	1	$30,000.00	***$***	***30,000.00***
3	SWPPP	LS	1	$6,935.00	***$***	***6,935.00***
4	Geotechnical Fee	LS	1	$35,000.00	***$***	***35,000.00***
5	ESA Report Fee	LS	1	$3,800.00	***$***	***3,800.00***
6	Earthwork Construction Material Testing Fee	LOT	178	$453.37	***$***	***80,699.86***
7	Utilities & Concrete (City R.O.W.) Construction Material Testing Fee	LF	20,900	$2.18	***$***	***45,562.00***
8	Pavement Concrete, Lime, Cement, Asphalt Construction Material Testing Fee	LF	9,860	$2.34	***$***	***23,072.40***
9	Sidewalk, Earthwork, & Concrete (City R.O.W) Construction Material Testing Fee	LF	4,210	$1.96	***$***	***8,251.60***
10	City Inspection Fees (Sanitary Sewer, Storm Sewer, & Paving)	PERCENT	6%	$ 4,722,703.0	***$***	***283,362.18***
		SECTION K - Fees			***$***	***1,168,433.04***

COST SUMMARY

TRAILS AT COTTONWOOD CREEK PHASE 5 (NIA#3)

SECTION A - Phase 5 Excavation	**$**	**745,760.00**
SECTION B - Phase 5 Erosion Control	**$**	**49,795.40**
SECTION C - Phase 5 Water Improvements	***$***	***1,010,255.50***
SECTION D - Phase 5 Sanitary Sewer Improvements	***$***	***884,474.80***
SECTION E - Phase 5 Storm Sewer Improvements	***$***	***1,267,439.60***
SECTION F - Bonds for Utility Improvements	***$***	***47,375.00***
SECTION G - Phase 5 Paving Improvements	***$***	***2,570,788.55***
SECTION H - Bonds for Paving Improvements	***$***	***29,350.00***
SECTION I - Retaining Walls	***$***	***139,781.00***
SECTION J - Landscape	***$***	***858,350.10***
SECTION K - Fees	***$***	***1,168,433.04***
TOTAL NIA#3:	***$***	***8,771,802.99***

APPENDIX C
DIAGRAMS OF THE AUTHORIZED IMPROVEMENTS



VICINITY MAP
N.T.S.

CITY OF GARLAND
CITY OF ROWLETT
DALLAS COUNTY
ROCKWALL COUNTY
CITY OF GARLAND
CITY OF ROWLETT
APPROXIMATE CITY LIMIT LINE
VINSON ROAD
(VARIABLE WIDTH R.O.W)
ASPHALT
CITY OF ROWLETT
CITY OF GARLAND
OVERHEAD ELECTRIC LINES
OVERHEAD ELECTRIC LINES
DALLAS COUNTY
ROCKWALL COUNTY
APPROXIMATE LOCATION OF COUNTY LINE
VINSON ROAD
(VARIABLE WIDTH R.O.W)
ASPHALT
OVERHEAD ELECTRIC LINES
STONEWALL ROAD
(VARIABLE WIDTH R.O.W.)
ASPHALT
TROY ROAD (VARIABLE WIDTH R.O.W)
DALLAS COUNTY
ROCKWALL COUNTY

100 0 200
1" = 200' – 0"
200 400

LEGEND

NEIGHBORHOOD IMPROVEMENT AREA 1

PROPOSED PHASE LINE

NEIGHBORHOOD IMPROVEMENT AREA NO. 1 LIMITS

TRAILS AT COTTONWOOD CREEK

BEING 237.963 ACRES OUT OF THE
WILLIAMS BLEVINS SURVEY, DALLAS COUNTY ABSTRACT NO. 95
AND ROCKWALL COUNTY ABSTRACT NO. 8
ML PRICE SURVEY, DALLAS COUNTY ABSTRACT NO. 1115
AND ROCKWALL COUNTY ABSTRACT NO. 257
ELISHA PRICE SURVEY, DALLAS COUNTY ABSTRACT NO. 1114
AND ROCKWALL COUNTY ABSTRACT NO. 256
ATKINSON CLEMENTS SURVEY, DALLAS COUNTY ABSTRACT NO. 255

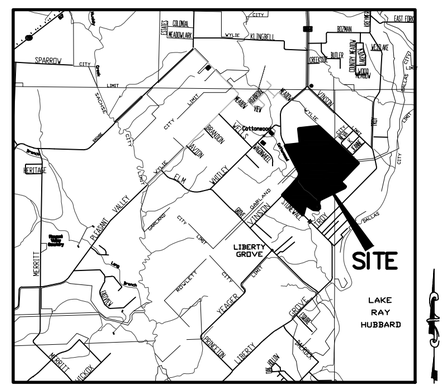
CITY OF ROWLETT
DALLAS AND ROCKWALL COUNTY, TEXAS

TRAIL CREEK PARTNERS — OWNER/DEVELOPER
4040 N. Central Expressway, Suite 850 (214) 368–0238
Dallas, Texas 75204
Contact: Preston Walhood

JBI PARTNERS, INC. — SURVEYOR/ENGINEER
2121 Midway Road, Suite 300 (972)248–7676
Carrollton, Texas 75006
Contact: Lee J. Radley, P.E.
TBPE No. F–438 TBPLS No. 10076000

Date: March 30, 2021 Sheet 1 of 1

Plotted by: lradley Plot Date: 3/30/2021 5:59 PM
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VICINITY MAP
N.T.S.

CITY OF GARLAND
CITY OF ROWLETT
DALLAS COUNTY
ROCKWALL COUNTY
APPROXIMATE CITY LIMIT LINE
VINSON ROAD
STONEWALL ROAD
APPROXIMATE LOCATION OF COUNTY LINE

100 0 200
1" = 200' – 0"
200 400

PAVING IMPROVEMENTS
SPINE ROAD

TRAILS AT COTTONWOOD CREEK

BEING 237.963 ACRES OUT OF THE
WILLIAMS BLEVINS SURVEY, DALLAS COUNTY ABSTRACT NO. 95
AND ROCKWALL COUNTY ABSTRACT NO. 8
ML PRICE SURVEY, DALLAS COUNTY ABSTRACT NO. 1115
AND ROCKWALL COUNTY ABSTRACT NO. 257
ELISHA PRICE SURVEY, DALLAS COUNTY ABSTRACT NO. 1114
AND ROCKWALL COUNTY ABSTRACT NO. 256
ATKINSON CLEMENTS SURVEY, DALLAS COUNTY ABSTRACT NO. 255

CITY OF ROWLETT
DALLAS AND ROCKWALL COUNTY, TEXAS

LEGEND

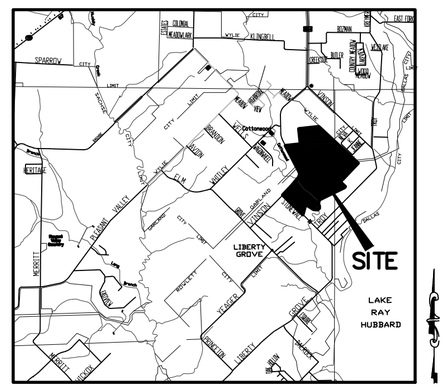
LIMITS OF SPINE ROAD PAVEMENT

TRAIL CREEK PARTNERS — OWNER/DEVELOPER
4040 N. Central Expressway, Suite 850 (214) 368–0238
Dallas, Texas 75204
Contact: Preston Walhood

JBI PARTNERS, INC. — SURVEYOR/ENGINEER
2121 Midway Road, Suite 300 (972)248–7676
Carrollton, Texas 75006
Contact: Lee J. Radley, P.E.
TBPE No. F–438 TBPLS No. 10076000

Date: March 30, 2021 Sheet 1 of 1

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VICINITY MAP
N.T.S.

CITY OF GARLAND
CITY OF ROWLETT
DALLAS COUNTY
ROCKWALL COUNTY
APPROXIMATE CITY LIMIT LINE
APPROXIMATE LOCATION OF COUNTY LINE
VINSON ROAD (VARIABLE WIDTH R.O.W) ASPHALT
STONEWALL ROAD (VARIABLE WIDTH R.O.W.) ASPHALT
TROY ROAD (VARIABLE WIDTH R.O.W)

100 0 200
1" = 200' – 0"
200 400

PAVING IMPROVEMENTS PHASE 1

TRAILS AT COTTONWOOD CREEK

BEING 237.963 ACRES OUT OF THE
WILLIAMS BLEVINS SURVEY, DALLAS COUNTY ABSTRACT NO. 95
AND ROCKWALL COUNTY ABSTRACT NO. 8
ML PRICE SURVEY, DALLAS COUNTY ABSTRACT NO. 1115
AND ROCKWALL COUNTY ABSTRACT NO. 257
ELISHA PRICE SURVEY, DALLAS COUNTY ABSTRACT NO. 1114
AND ROCKWALL COUNTY ABSTRACT NO. 256
ATKINSON CLEMENTS SURVEY, DALLAS COUNTY ABSTRACT NO. 255

CITY OF ROWLETT
DALLAS AND ROCKWALL COUNTY, TEXAS

LEGEND

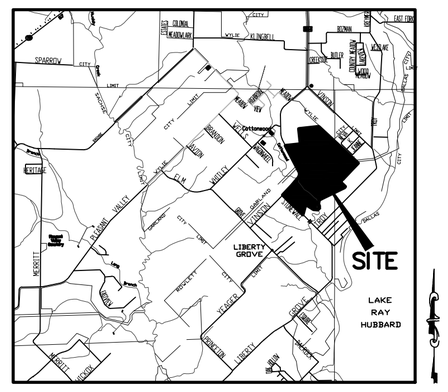
LIMITS OF PHASE 1
PAVING IMPROVEMENTS

TRAIL CREEK PARTNERS — OWNER/DEVELOPER
4040 N. Central Expressway, Suite 850 (214) 368–0238
Dallas, Texas 75204
Contact: Preston Walhood

JBI PARTNERS, INC. — SURVEYOR/ENGINEER
2121 Midway Road, Suite 300 (972)248–7676
Carrollton, Texas 75006
Contact: Lee J. Radley, P.E.
TBPE No. F–438 TBPLS No. 10076000

Date: March 30, 2021 Sheet 1 of 1

Plotted by: lradley Plot Date: 3/30/2021 5:58 PM
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VICINITY MAP
N.T.S.

CITY OF GARLAND
CITY OF ROWLETT
ROCKWALL COUNTY
DALLAS COUNTY
APPROXIMATE CITY LIMIT LINE
VINSON ROAD
ASPHALT
OVERHEAD ELECTRIC LINES
FL CMP-(3)
STONEWALL ROAD
APPROXIMATE LOCATION OF COUNTY LINE

200 100 0 200 400
1" = 200' – 0"

DRAINAGE IMPROVEMENTS SPINE ROAD

TRAILS AT COTTONWOOD CREEK

BEING 237.963 ACRES OUT OF THE
WILLIAMS BLEVINS SURVEY, DALLAS COUNTY ABSTRACT NO. 95
AND ROCKWALL COUNTY ABSTRACT NO. 8
ML PRICE SURVEY, DALLAS COUNTY ABSTRACT NO. 1115
AND ROCKWALL COUNTY ABSTRACT NO. 257
ELISHA PRICE SURVEY, DALLAS COUNTY ABSTRACT NO. 1114
AND ROCKWALL COUNTY ABSTRACT NO. 256
ATKINSON CLEMENTS SURVEY, DALLAS COUNTY ABSTRACT NO. 255

CITY OF ROWLETT
DALLAS AND ROCKWALL COUNTY, TEXAS

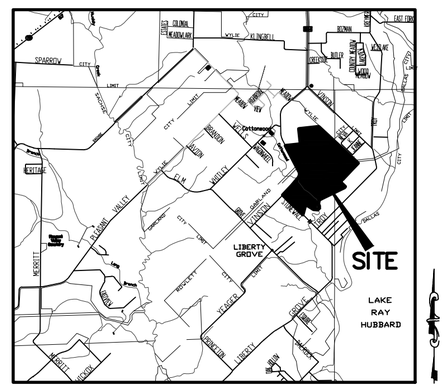
TRAIL CREEK PARTNERS — OWNER/DEVELOPER
4040 N. Central Expressway, Suite 850 (214) 368–0238
Dallas, Texas 75204
Contact: Preston Walhood

JBI PARTNERS, INC. — SURVEYOR/ENGINEER
2121 Midway Road, Suite 300 (972)248–7676
Carrollton, Texas 75006
Contact: Lee J. Radley, P.E.
TBPE No. F–438 TBPLS No. 10076000

Date: March 30, 2021

Sheet 1 of 1

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VICINITY MAP
N.T.S.

CITY OF GARLAND
CITY OF ROWLETT
ROCKWALL COUNTY
DALLAS COUNTY
APPROXIMATE CITY LIMIT LINE
VINSON ROAD
ASPHALT
OVERHEAD ELECTRIC LINES
FL CMP-(3)
STONEWALL ROAD
APPROXIMATE LOCATION OF COUNTY LINE

200 100 0 200 400
1" = 200' – 0"

DRAINAGE IMPROVEMENTS PHASE 1

TRAILS AT COTTONWOOD CREEK

BEING 237.963 ACRES OUT OF THE
WILLIAMS BLEVINS SURVEY, DALLAS COUNTY ABSTRACT NO. 95
AND ROCKWALL COUNTY ABSTRACT NO. 8
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AND ROCKWALL COUNTY ABSTRACT NO. 257
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AND ROCKWALL COUNTY ABSTRACT NO. 256
ATKINSON CLEMENTS SURVEY, DALLAS COUNTY ABSTRACT NO. 255

CITY OF ROWLETT
DALLAS AND ROCKWALL COUNTY, TEXAS

LEGEND

DRAINAGE SYSTEM PHASE 1

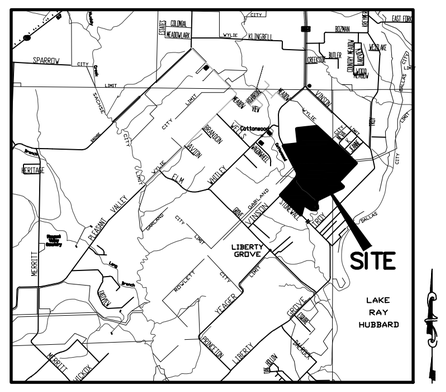
TRAIL CREEK PARTNERS — OWNER/DEVELOPER
4040 N. Central Expressway, Suite 850 (214) 368–0238
Dallas, Texas 75204
Contact: Preston Walhood

JBI PARTNERS, INC. — SURVEYOR/ENGINEER
2121 Midway Road, Suite 300 (972)248–7676
Carrollton, Texas 75006
Contact: Lee J. Radley, P.E.
TBPE No. F–438 TBPLS No. 10076000

Date: March 30, 2021 Sheet 1 of 1

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VICINITY MAP
N.T.S.

100 0 200
1" = 200' – 0"
200 400

LEGEND

- 8" PHASE 1 WATER
- 8" SPINE ROAD WATER
- 12" SPINE ROAD WATER

WATER IMPROVEMENTS
SPINE ROAD

TRAILS AT COTTONWOOD CREEK

BEING 237.963 ACRES OUT OF THE
WILLIAMS BLEVINS SURVEY, DALLAS COUNTY ABSTRACT NO. 95
AND ROCKWALL COUNTY ABSTRACT NO. 8
ML PRICE SURVEY, DALLAS COUNTY ABSTRACT NO. 1115
AND ROCKWALL COUNTY ABSTRACT NO. 257
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AND ROCKWALL COUNTY ABSTRACT NO. 256
ATKINSON CLEMENTS SURVEY, DALLAS COUNTY ABSTRACT NO. 255

CITY OF ROWLETT
DALLAS AND ROCKWALL COUNTY, TEXAS

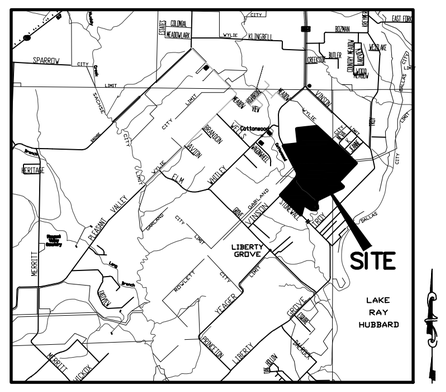
TRAIL CREEK PARTNERS — OWNER/DEVELOPER
4040 N. Central Expressway, Suite 850 (214) 368-0238
Dallas, Texas 75204
Contact: Preston Walhood

JBI PARTNERS, INC. — SURVEYOR/ENGINEER
2121 Midway Road, Suite 300 (972)248-7676
Carrollton, Texas 75006
Contact: Lee J. Radley, P.E.
TBPE No. F-438 TBPLS No. 10076000

Date: March 30, 2021

Sheet 1 of 1

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VICINITY MAP
N.T.S.

100 0 200
1" = 200' – 0"
200 400

LEGEND

- 8" PHASE 1 WATER
- 8" SPINE ROAD WATER
- 12" SPINE ROAD WATER

WATER IMPROVEMENTS PHASE 1

TRAILS AT COTTONWOOD CREEK

BEING 237.963 ACRES OUT OF THE
WILLIAMS BLEVINS SURVEY, DALLAS COUNTY ABSTRACT NO. 95
AND ROCKWALL COUNTY ABSTRACT NO. 8
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AND ROCKWALL COUNTY ABSTRACT NO. 257
ELISHA PRICE SURVEY, DALLAS COUNTY ABSTRACT NO. 1114
AND ROCKWALL COUNTY ABSTRACT NO. 256
ATKINSON CLEMENTS SURVEY, DALLAS COUNTY ABSTRACT NO. 255

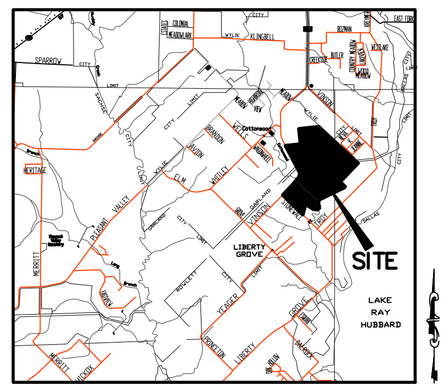
CITY OF ROWLETT
DALLAS AND ROCKWALL COUNTY, TEXAS

TRAIL CREEK PARTNERS — OWNER/DEVELOPER
4040 N. Central Expressway, Suite 850 (214) 368–0238
Dallas, Texas 75204
Contact: Preston Walhood

JBI PARTNERS, INC. — SURVEYOR/ENGINEER
2121 Midway Road, Suite 300 (972)248–7676
Carrollton, Texas 75006
Contact: Lee J. Radley, P.E.
TBPE No. F–438 TBPLS No. 10076000

Date: March 30, 2021 Sheet 1 of 1

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VICINITY MAP
N.T.S.

PROP. 8" SSWR
PROP. 10" SSWR
PROP. 12" SSWR
OFFSITE 15" SSWR

SEE OFFSITE EXHIBIT
FOR OFFSITE SSWR

100 0 200
1" = 200' – 0"
200 400

LEGEND

- PHASE 1 WASTEWATER
- SPINE ROAD WASTEWATER
- OFFSITE WASTEWATER

WASTEWATER IMPROVEMENTS SPINE ROAD

TRAILS AT COTTONWOOD CREEK

BEING 237.963 ACRES OUT OF THE
WILLIAMS BLEVINS SURVEY, DALLAS COUNTY ABSTRACT NO. 95
AND ROCKWALL COUNTY ABSTRACT NO. 8
ML PRICE SURVEY, DALLAS COUNTY ABSTRACT NO. 1115
AND ROCKWALL COUNTY ABSTRACT NO. 257
ELISHA PRICE SURVEY, DALLAS COUNTY ABSTRACT NO. 1114
AND ROCKWALL COUNTY ABSTRACT NO. 256
ATKINSON CLEMENTS SURVEY, DALLAS COUNTY ABSTRACT NO. 255

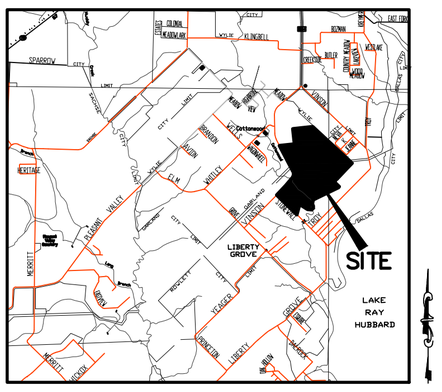
CITY OF ROWLETT
DALLAS AND ROCKWALL COUNTY, TEXAS

TRAIL CREEK PARTNERS — OWNER/DEVELOPER
4040 N. Central Expressway, Suite 850 (214) 368–0238
Dallas, Texas 75204
Contact: Preston Walhood

JBI PARTNERS, INC. — SURVEYOR/ENGINEER
2121 Midway Road, Suite 300 (972)248–7676
Carrollton, Texas 75006
Contact: Lee J. Radley, P.E.
TBPE No. F–438 TBPLS No. 10076000

Date: March 30, 2021 Sheet 1 of 1

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VICINITY MAP
N.T.S.

PROP. 8" SSWR
PROP. 10" SSWR
PROP. 12" SSWR
OFFSITE 15" SSWR
FL CMP-(3)

SEE OFFSITE EXHIBIT
FOR OFFSITE SSWR

100 0 200
1" = 200' - 0"
200 400

WASTEWATER IMPROVEMENTS PHASE 1

TRAILS AT COTTONWOOD CREEK

BEING 237.963 ACRES OUT OF THE
WILLIAMS BLEVINS SURVEY, DALLAS COUNTY ABSTRACT NO. 95
AND ROCKWALL COUNTY ABSTRACT NO. 8
ML PRICE SURVEY, DALLAS COUNTY ABSTRACT NO. 1115
AND ROCKWALL COUNTY ABSTRACT NO. 257
ELISHA PRICE SURVEY, DALLAS COUNTY ABSTRACT NO. 1114
AND ROCKWALL COUNTY ABSTRACT NO. 256
ATKINSON CLEMENTS SURVEY, DALLAS COUNTY ABSTRACT NO. 255

CITY OF ROWLETT
DALLAS AND ROCKWALL COUNTY, TEXAS

LEGEND

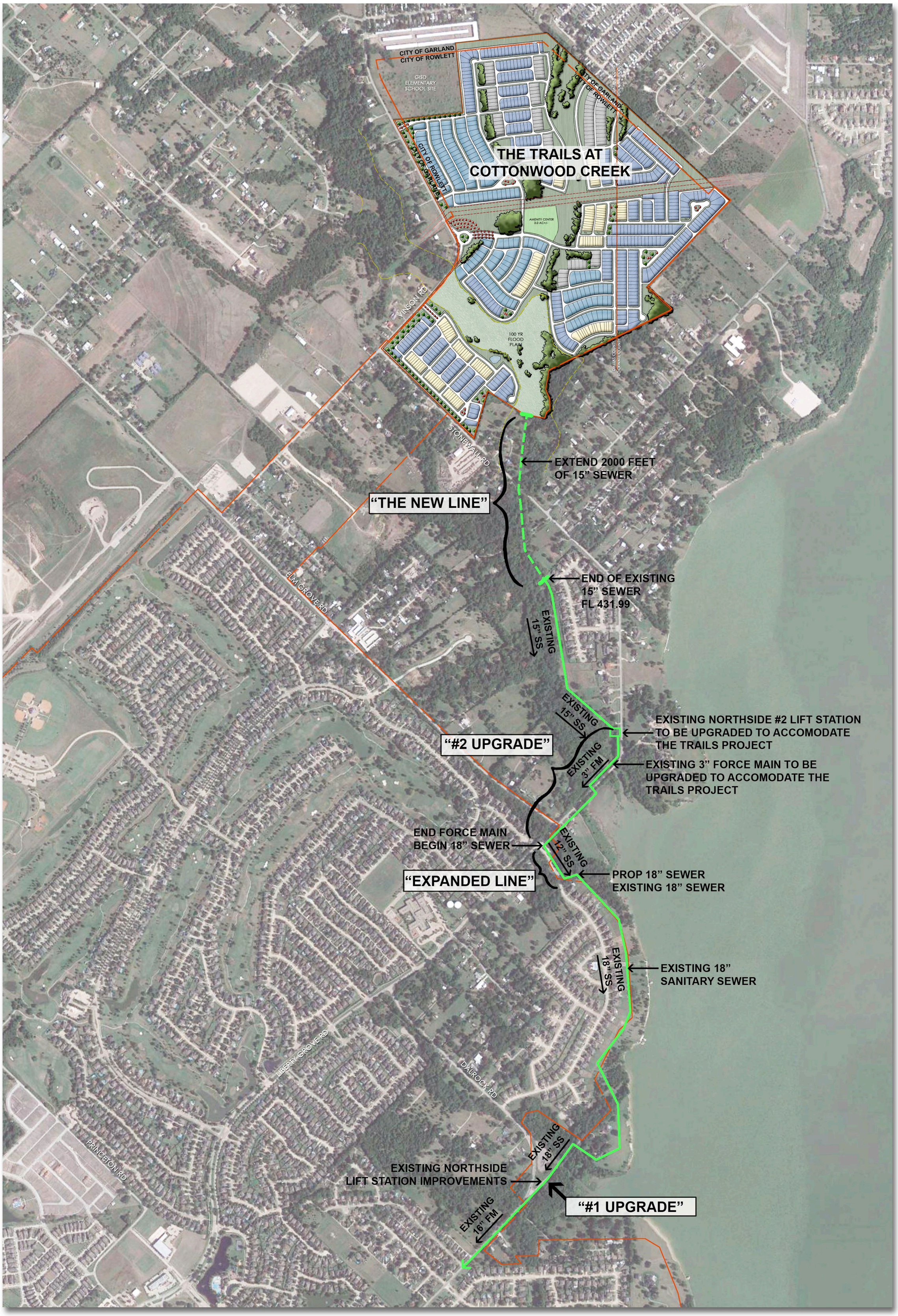
- PHASE 1 WASTEWATER
- SPINE ROAD WASTEWATER
- OFFSITE WASTEWATER

TRAIL CREEK PARTNERS — OWNER/DEVELOPER
4040 N. Central Expressway, Suite 850 (214) 368-0238
Dallas, Texas 75204
Contact: Preston Walhood

JBI PARTNERS, INC. — SURVEYOR/ENGINEER
2121 Midway Road, Suite 300 (972)248-7676
Carrollton, Texas 75006
Contact: Lee J. Radley, P.E.
TBPE No. F-438 TBPLS No. 10076000

Date: March 30, 2021 Sheet 1 of 1

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OFFSITE SANITARY SEWER EXHIBIT

0 250 500 1000
1"=500'

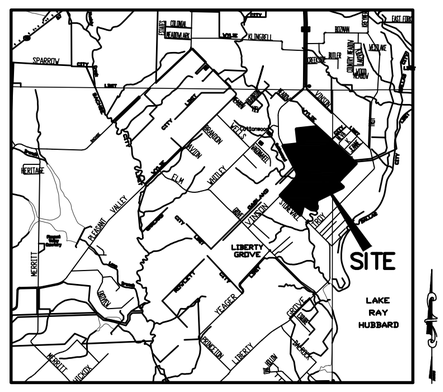
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MAR 30, 2021
TWG001

TRAILS AT COTTONWOOD CREEK

PID EXHIBIT
ROWLETT, TEXAS

JBI PARTNERS



VICINITY MAP
N.T.S.

N

GRAPHIC SCALE 1"=120'

120 0 120 240

EXHIBIT D
PAVING IMPROVEMENTS

TRAILS AT COTTONWOOD CREEK

BEING 237.963 ACRES OUT OF THE
WILLIAMS BLEVINS SURVEY, DALLAS COUNTY ABSTRACT NO. 95
AND ROCKWALL COUNTY ABSTRACT NO. 8
ML PRICE SURVEY, DALLAS COUNTY ABSTRACT NO. 1115
AND ROCKWALL COUNTY ABSTRACT NO. 257
ELISHA PRICE SURVEY, DALLAS COUNTY ABSTRACT NO. 1114
AND ROCKWALL COUNTY ABSTRACT NO. 256
ATKINSON CLEMENTS SURVEY, DALLAS COUNTY ABSTRACT NO. 255

CITY OF ROWLETT
DALLAS AND ROCKWALL COUNTY, TEXAS

TRAIL CREEK PARTNERS — OWNER/DEVELOPER
4040 N. Central Expressway, Suite 850 (214) 368-0238
Dallas, Texas 75204
Contact: Preston Walhood

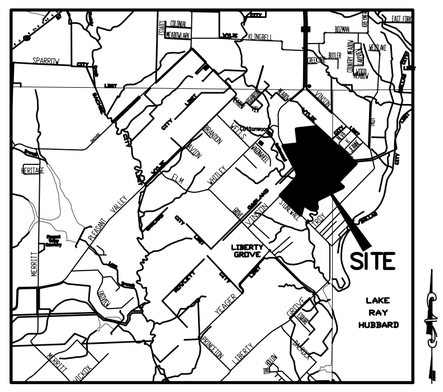
JBI PARTNERS, INC. — SURVEYOR/ENGINEER
2121 Midway Road, Suite 300 (972) 738-6162
Carrollton, Texas 75006
Contact: Young Wook Choi P.E.
TBPE No. F-438 TBPLS No. 10076000

Date: December 09, 2025

Sheet 1 of 1

JBI PARTNERS
2121 Midway Road
Suite 300
Carrollton, Texas 75006
972.248.7676
TBPE No. F-438
TBPLS No. 10076000

Plotted by: ychoi Plot Date: 12/10/2025 4:23 PM
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VICINITY MAP
N.T.S.

CITY OF GARLAND
CITY OF ROWLETT
CITY OF WYLIE
CITY OF GARLAND
CITY OF ROWLETT
CITY OF ROWLETT
CITY OF GARLAND

ACADIA TRAIL
PALMETTO TRAIL
PINE RIDGE TRAIL
MADERA TRAIL
COTTONWOOD CREEK TRAIL
HIGH POINT TRAIL
RAE GROVE
ANGEL FALLS TRAIL
SPANISH OAK TRAIL
DANIEL DRIVE
ARROWHEAD TRAIL
MEADOW GLEN TRAIL
MOSS GLEN TRAIL
PALMER AVENUE
ELIZABETH AVENUE
VINSON ROAD
(VARIABLE WIDTH R.O.W)
CHAMBERLYN MEWS

20' ALLEY
30' MEWS ALLEY
30' ALLEY

BLOCK J HOA LOT 23X
POCKET PARK E
BLOCK H, HOA LOT 1X
BLOCK F, HOA LOT 37X
POCKET PARK I
BLOCK F HOA LOT 36X
BLOCK J HOA LOT 23X
BLOCK N HOA LOT 35X
POCKET PARK A
BLOCK M HOA LOT 29X
POCKET PARK B
BLOCK L HOA LOT 29X
POCKET PARK C
BLOCK K HOA LOT 23X
POCKET PARK D
POCKET PARK K
BLOCK E HOA LOT 37X
BLOCK A HOA LOT 14X
BLOCK O HOA LOT 18X
BLOCK D HOA LOT 38X
BLOCK O HOA LOT 17X
BLOCK C HOA LOT 42X
BLOCK C1 HOA LOT 41X
BLOCK B HOA LOT 14X

15' S.S.E.
20' S.S.E.
100'

N

GRAPHIC SCALE 1"=120'
120 0 120 240

EXHIBIT E
WATER IMPROVEMENTS

TRAILS AT COTTONWOOD CREEK

BEING 237.963 ACRES OUT OF THE
WILLIAMS BLEVINS SURVEY, DALLAS COUNTY ABSTRACT NO. 95
AND ROCKWALL COUNTY ABSTRACT NO. 8
ML PRICE SURVEY, DALLAS COUNTY ABSTRACT NO. 1115
AND ROCKWALL COUNTY ABSTRACT NO. 257
ELISHA PRICE SURVEY, DALLAS COUNTY ABSTRACT NO. 1114
AND ROCKWALL COUNTY ABSTRACT NO. 256
ATKINSON CLEMENTS SURVEY, DALLAS COUNTY ABSTRACT NO. 255

CITY OF ROWLETT
DALLAS AND ROCKWALL COUNTY, TEXAS

TRAIL CREEK PARTNERS — OWNER/DEVELOPER
4040 N. Central Expressway, Suite 850 (214) 368-0238
Dallas, Texas 75204
Contact: Preston Walhood

JBI PARTNERS, INC. — SURVEYOR/ENGINEER
2121 Midway Road, Suite 300 (972) 738-6162
Carrollton, Texas 75006
Contact: Young Wook Choi P.E.
TBPE No. F-438 TBPLS No. 10076000

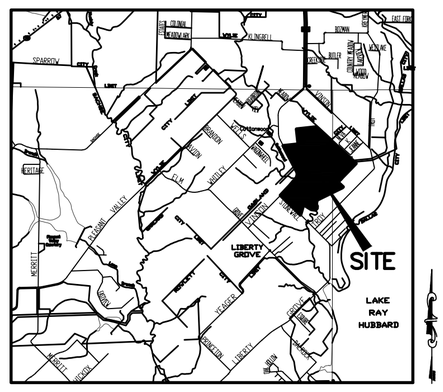
Date: December 09, 2025

Sheet 1 of 1

JBI PARTNERS
2121 Midway Road
Suite 300
Carrollton, Texas 75006
972.248.7676
TBPE No. F-438
TBPLS No. 10076000

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Plotted by: ychoi Plot Date: 12/10/2025 4:23 PM



VICINITY MAP
N.T.S.

CITY OF GARLAND
CITY OF ROWLETT
CITY OF WYLIE
CITY OF ROWLETT
CITY OF GARLAND
CITY OF ROWLETT
CITY OF GARLAND

PINE RIDGE TRAIL
PALMETTO TRAIL
ACADIA TRAIL
MADERA TRAIL
COTTONWOOD CREEK TRAIL
HIGH POINT TRAIL
ANGEL FALLS TRAIL
RAE GROVE
PINE RIDGE TRAIL
SPANISH OAK TRAIL
DANIEL DRIVE
ARROWHEAD TRAIL
MOSS GLEN TRAIL
MEADOW GLEN TRAIL
PALMER AVENUE
ELIZABETH AVENUE
VINSON ROAD
(VARIABLE WIDTH R.O.W)

30' MEWS ALLEY
CHAMBERLYN MEWS
BLOCK F, HOA LOT 37X
POCKET PARK I
20' ALLEY
30' ALLEY
BLOCK J HOA LOT 23X
POCKET PARK E
BLOCK F HOA LOT 36X
BLOCK K HOA LOT 23X
POCKET PARK D
BLOCK L HOA LOT 23X
POCKET PARK C
BLOCK M HOA LOT 29X
POCKET PARK B
BLOCK N HOA LOT 35X
POCKET PARK A
BLOCK E HOA LOT 37X
POCKET PARK K
BLOCK O HOA LOT 18X
BLOCK D HOA LOT 38X
BLOCK D HOA LOT 37X
BLOCK C HOA LOT 42X
BLOCK C HOA LOT 41X
BLOCK O HOA LOT 17X
BLOCK B HOA LOT 14X
BLOCK A HOA LOT 14X
BLOCK H, HOA LOT 1X
15' S.S.E.
20' S.S.E.
100'
50'

GRAPHIC SCALE 1"=120'
120 0 120 240

EXHIBIT E
WATER IMPROVEMENTS

TRAILS AT COTTONWOOD CREEK

BEING 237.963 ACRES OUT OF THE
WILLIAMS BLEVINS SURVEY, DALLAS COUNTY ABSTRACT NO. 95
AND ROCKWALL COUNTY ABSTRACT NO. 8
ML PRICE SURVEY, DALLAS COUNTY ABSTRACT NO. 1115
AND ROCKWALL COUNTY ABSTRACT NO. 257
ELISHA PRICE SURVEY, DALLAS COUNTY ABSTRACT NO. 1114
AND ROCKWALL COUNTY ABSTRACT NO. 256
ATKINSON CLEMENTS SURVEY, DALLAS COUNTY ABSTRACT NO. 255

CITY OF ROWLETT
DALLAS AND ROCKWALL COUNTY, TEXAS

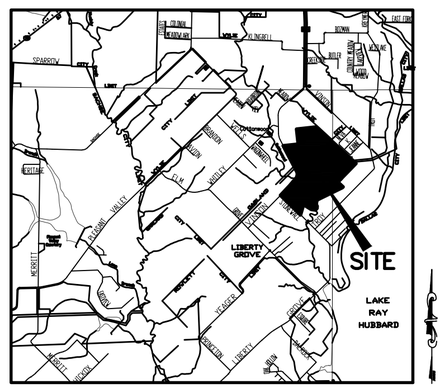
TRAIL CREEK PARTNERS — OWNER/DEVELOPER
4040 N. Central Expressway, Suite 850 (214) 368-0238
Dallas, Texas 75204
Contact: Preston Walhood

JBI PARTNERS, INC. — SURVEYOR/ENGINEER
2121 Midway Road, Suite 300 (972) 738-6162
Carrollton, Texas 75006
Contact: Young Wook Choi P.E.
TBPE No. F-438 TBPLS No. 10076000

JBI PARTNERS
2121 Midway Road
Suite 300
Carrollton, Texas 75006
972.248.7676
TBPE No. F-438
TBPLS No. 10076000

Date: December 09, 2025

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VICINITY MAP
N.T.S.

GRAPHIC SCALE 1"=120'

120 0 120 240

EXHIBIT G
DRAINAGE IMPROVEMENTS

TRAILS AT COTTONWOOD CREEK

BEING 237.963 ACRES OUT OF THE
WILLIAMS BLEVINS SURVEY, DALLAS COUNTY ABSTRACT NO. 95
AND ROCKWALL COUNTY ABSTRACT NO. 8
ML PRICE SURVEY, DALLAS COUNTY ABSTRACT NO. 1115
AND ROCKWALL COUNTY ABSTRACT NO. 257
ELISHA PRICE SURVEY, DALLAS COUNTY ABSTRACT NO. 1114
AND ROCKWALL COUNTY ABSTRACT NO. 256
ATKINSON CLEMENTS SURVEY, DALLAS COUNTY ABSTRACT NO. 255

CITY OF ROWLETT
DALLAS AND ROCKWALL COUNTY, TEXAS

TRAIL CREEK PARTNERS — OWNER/DEVELOPER
4040 N. Central Expressway, Suite 850 (214) 368-0238
Dallas, Texas 75204
Contact: Preston Walhood

JBI PARTNERS, INC. — SURVEYOR/ENGINEER
2121 Midway Road, Suite 300 (972) 738-6162
Carrollton, Texas 75006
Contact: Young Wook Choi P.E.
TBPE No. F-438 TBPLS No. 10076000

Date: December 09, 2025 Sheet 1 of 1

JBI PARTNERS
2121 Midway Road
Suite 300
Carrollton, Texas 75006
972.248.7676
TBPE No. F-438
TBPLS No. 10076000

Plotted by: ychoi Plot Date: 12/10/2025 4:24 PM

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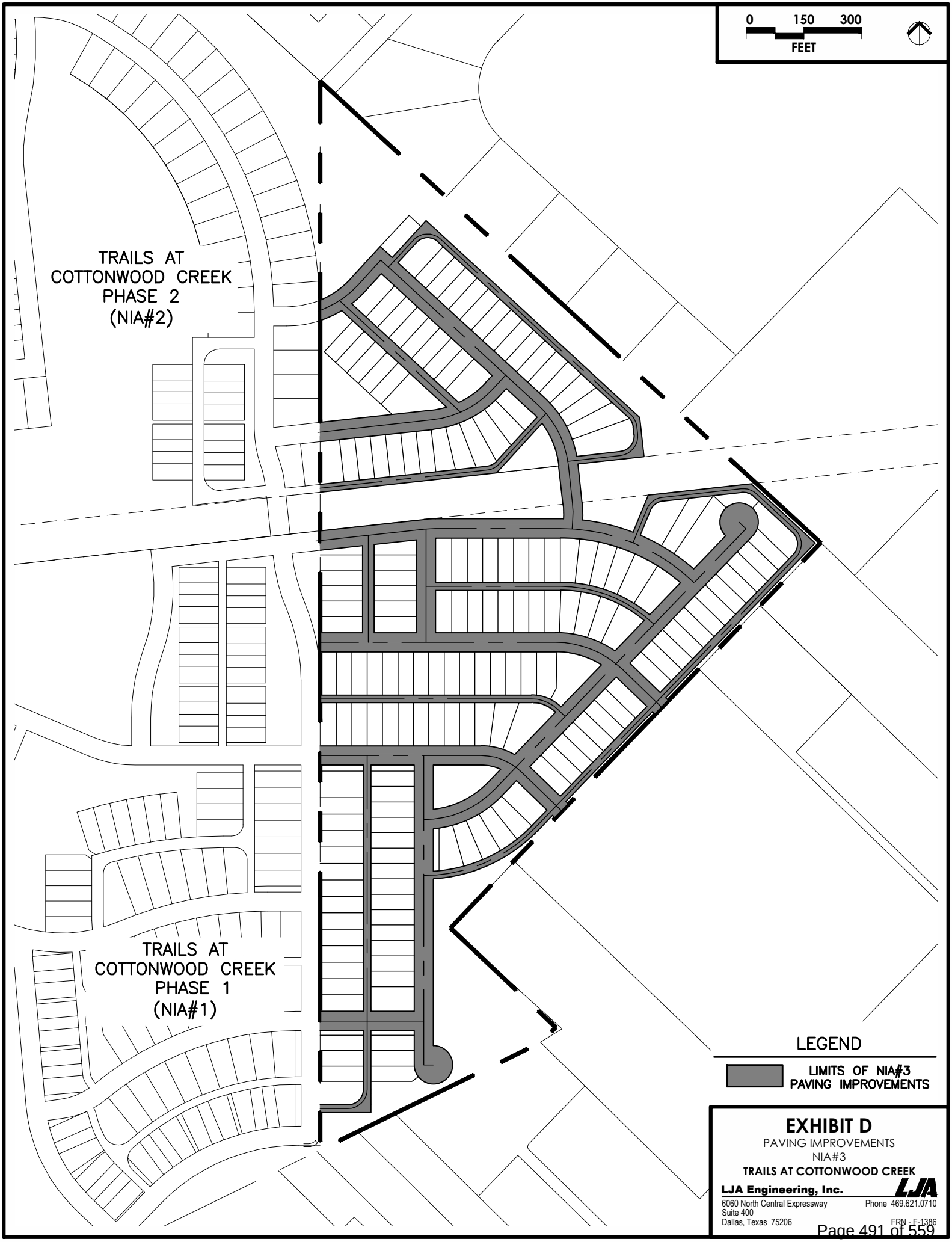


EXHIBIT D

PAVING IMPROVEMENTS

NIA#3

TRAILS AT COTTONWOOD CREEK

LJA Engineering, Inc.
6060 North Central Expressway
Suite 400
Dallas, Texas 75206
Phone 469.621.0710
FRN - F-1386

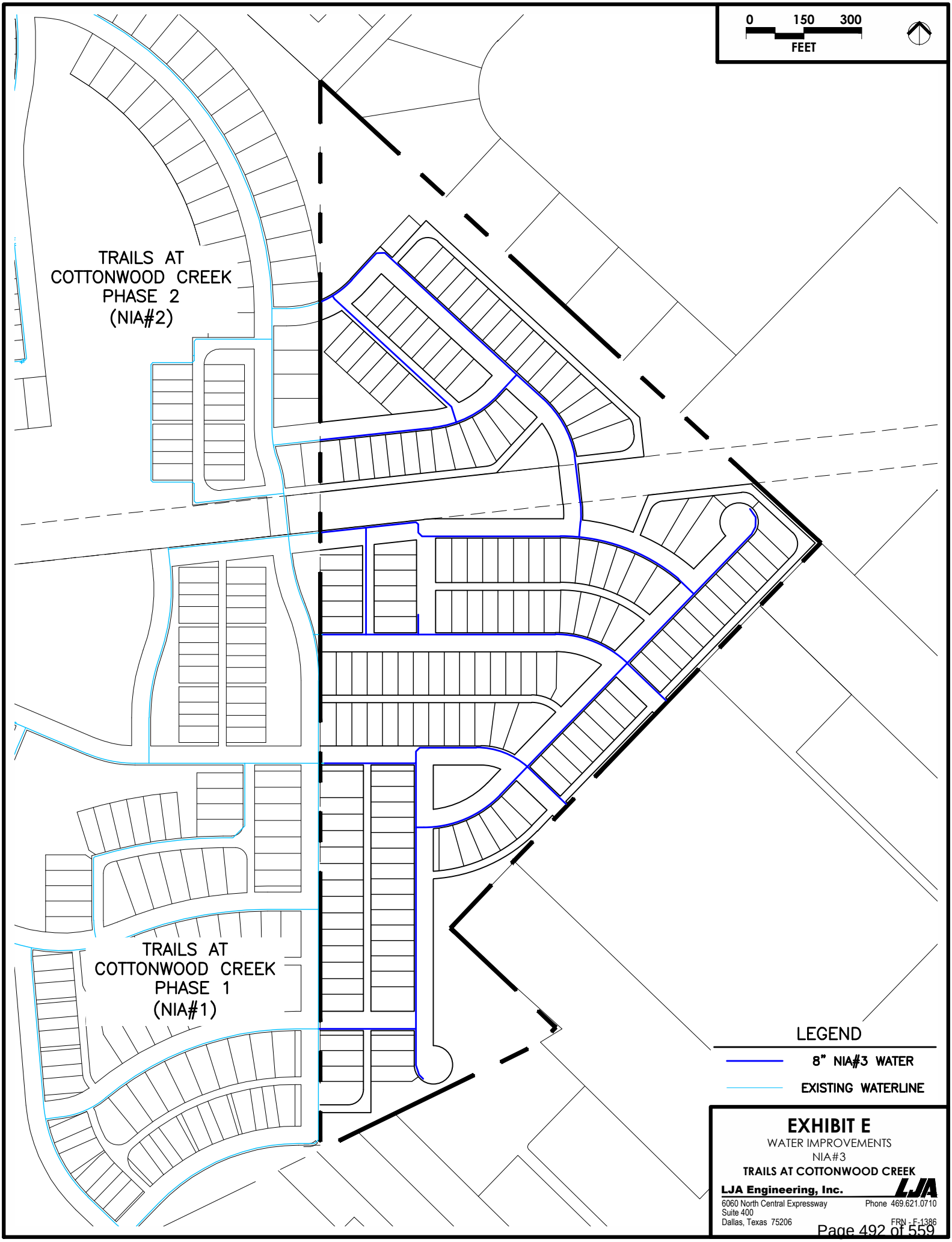


EXHIBIT E

WATER IMPROVEMENTS

NIA#3

TRAILS AT COTTONWOOD CREEK

LJA Engineering, Inc.

6060 North Central Expressway
Suite 400
Dallas, Texas 75206

Phone 469.621.0710

FRN - F-1386

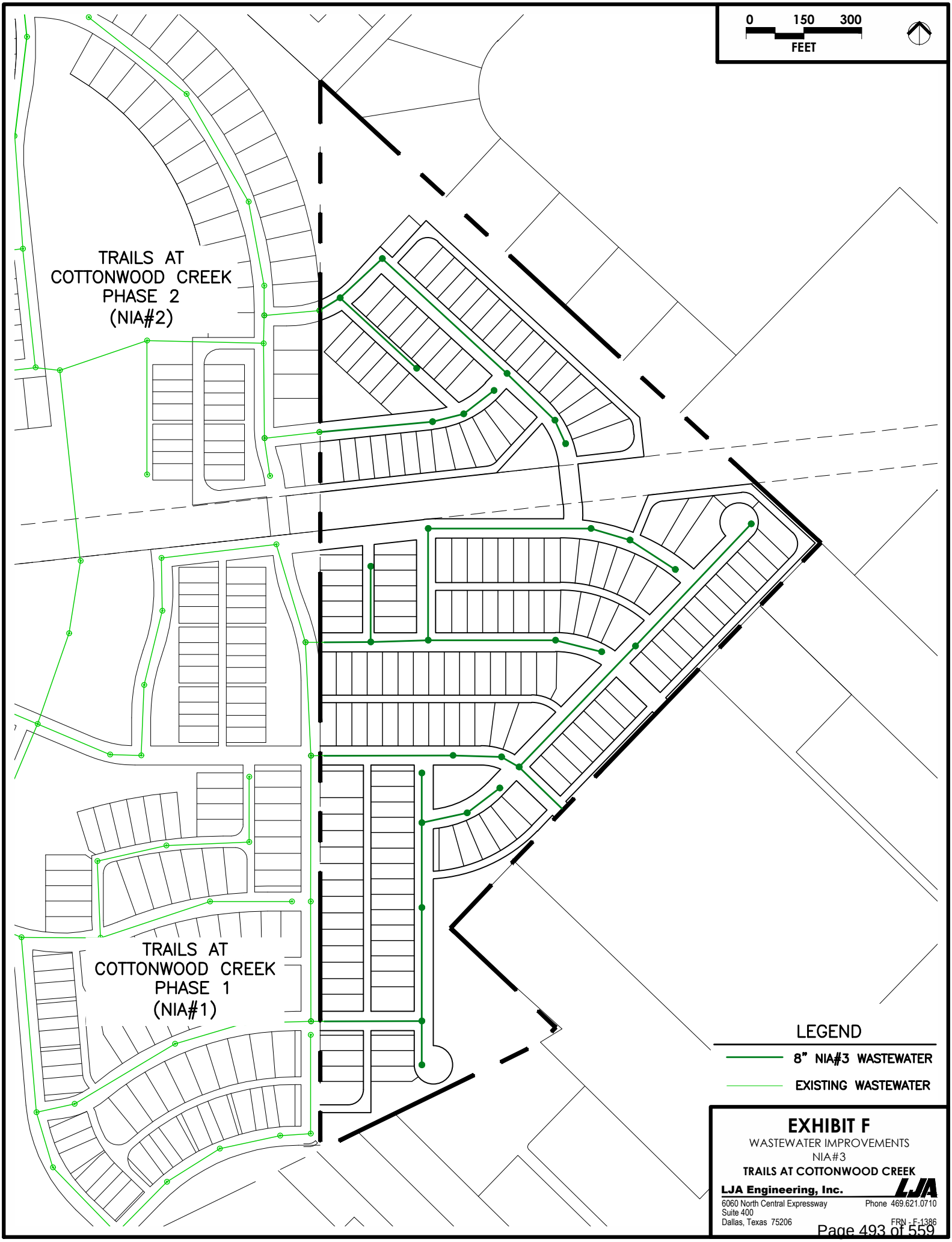


EXHIBIT F

WASTEWATER IMPROVEMENTS
NIA#3
TRAILS AT COTTONWOOD CREEK

LJA Engineering, Inc.
6060 North Central Expressway
Suite 400
Dallas, Texas 75206
Phone 469.621.0710
FRN - F-1386

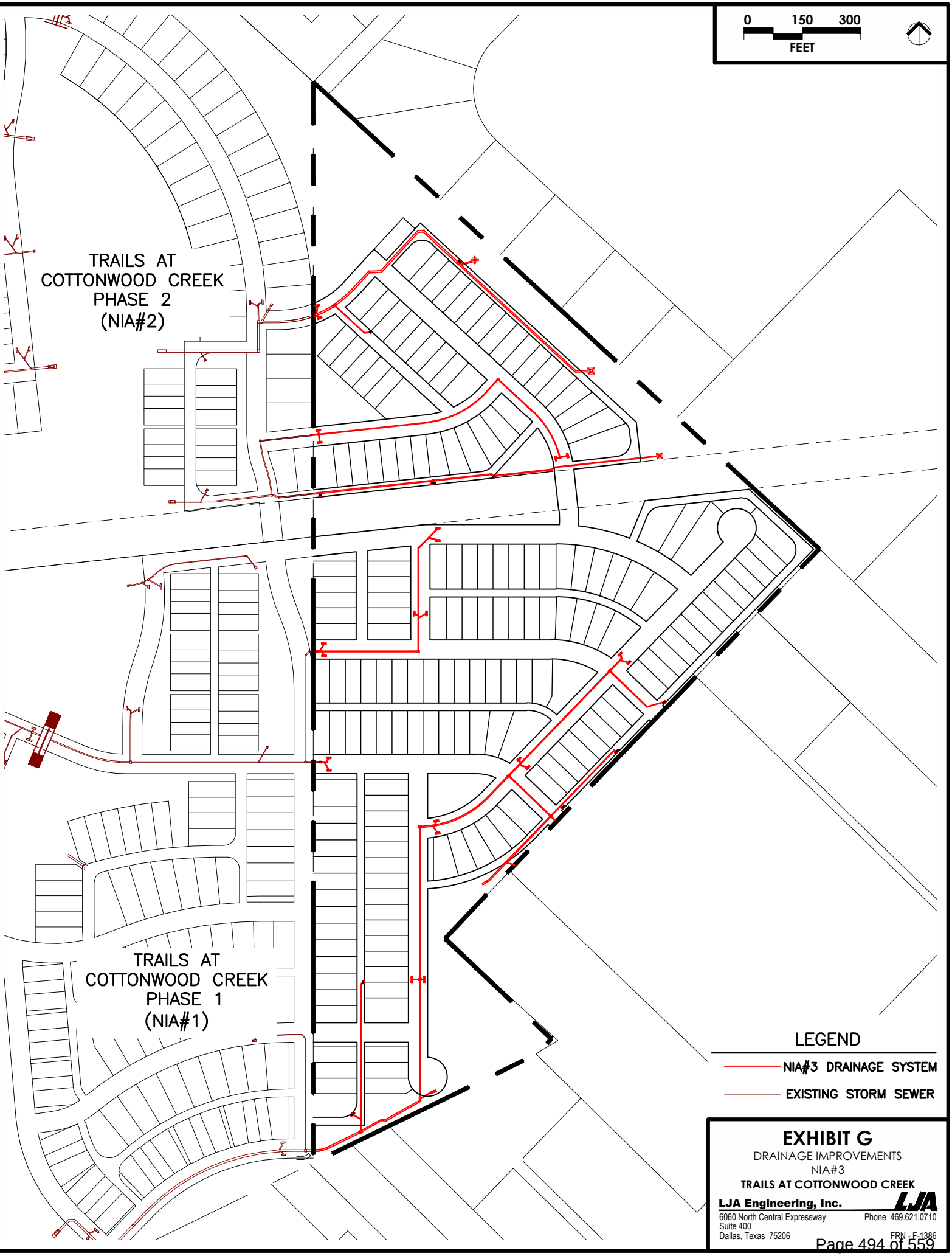


EXHIBIT G

DRAINAGE IMPROVEMENTS
NIA#3
TRAILS AT COTTONWOOD CREEK

LJA Engineering, Inc.
6060 North Central Expressway
Suite 400
Dallas, Texas 75206
Phone 469.621.0710
FRN - F-1386

APPENDIX D
ASSESSMENT PER EQUIVALENT UNIT, PROJECTED LEVERAGE AND PROJECTED TAX RATE EQUIVALENTS

Appendix D

For purposes of calculating and allocating the Assessments, the Assessed Property has been classified in one of four Lot Types.

"Lot Type 1" means lots identified as such on the applicable Assessment Roll, being lots typically with a Lot width of approximately 50 feet.

"Lot Type 2" means lots identified as such on the applicable Assessment Roll, being lots typically with a Lot width of approximately 40 feet.

"Lot Type 3" means lots identified as such on the applicable Assessment Roll, being lots identified as Townhomes.

"Lot Type 4" means lots identified as such on the applicable Assessment Roll, being lots typically with a Lot width of approximately 60 feet.

A) Proposed Development

Table D-1 shows the original proposed residential units to be developed within the PID.

Table D-1
Proposed Development within the PID - Original

Description	Proposed Development	
Lot Type 1 (50 Ft Lots)	182	Units
Lot Type 2 (40 Ft Lots)	432	Units
Lot Type 3 (Townhomes)	151	Units
Total	**765**	**Units**

Table D-1.1 shows the revised proposed residential units to be developed within the PID.

Table D-1.1
Proposed Development within the PID - Revised

Description	Proposed Development	
Lot Type 1 (50 Ft Lots)	79	Units
Lot Type 2 (40 Ft Lots)	469	Units
Lot Type 3 (Townhomes)	107	Units
Lot Type 4 (60 ft Lots)	110	Units
Total	**765**	**Units**

Table D-2 shows the residential units within Neighborhood Improvement Area #1.

Table D-2
Actual Development – Neighborhood Improvement Area #1

Description	Proposed Development	
Lot Type 1 (50 Ft Lots)	72	Units
Lot Type 2 (40 Ft Lots)	55	Units
Lot Type 3 (Townhomes)	67	Units
Total	**194**	**Units**

Table D-3 shows the original proposed residential Lot Types within the Major Improvement Area.

Table D-3
Proposed Development – Major Improvement Area - Original

Description	Proposed Development	
Lot Type 1 (50 Ft Lots)	110	Units
Lot Type 2 (40 Ft Lots)	377	Units
Lot Type 3 (Townhomes)	84	Units
Total	**571**	**Units**

Table D-3.1 shows the revised proposed residential Lot Types within the Major Improvement Area.

Table D-3.1
Proposed Development – Major Improvement Area - Revised

Description	Proposed Development	
Lot Type 1 (50 Ft Lots)	7	Units
Lot Type 2 (40 Ft Lots)	414	Units
Lot Type 3 (Townhomes)	40	Units
Lot Type 4 (60 ft Lots)	110	Units
Total	**571**	**Units**

Table D-4 shows the proposed residential Lot Types within the Neighborhood Improvement Area #2.

Table D-4
Proposed Development – Neighborhood Improvement Area #2

Description	Proposed Development	
Lot Type 1 (50 Ft Lots)	7	Units
Lot Type 2 (40 Ft Lots)	159	Units
Lot Type 3 (Townhomes)	40	Units
Lot Type 4 (60 ft Lots)	87	Units
Total	**293**	**Units**

Table D-5 shows the proposed residential Lot Types within the Neighborhood Improvement Area #3.

Table D-5
Proposed Development – Neighborhood Improvement Area #3

Description	Proposed Development	
Lot Type 2 (40 Ft Lots)	178	Units
Total	178	**Units**

B) Calculation of Equivalent Units

For purpose of this Service and Assessment Plan, the City Council has determined that the Actual Costs of the Major Improvement Area Projects to be financed with the Major Improvement Area Bonds shall be allocated to the Major Improvement Area Assessed Property by spreading the entire Assessment across the Parcels based on the estimated Equivalent Units based on the average home value of each Lot Type.

For purposes of this Service and Assessment Plan, the City Council has determined that the Assessments shall be allocated to the Major Improvement Area Assessed Property on the basis of the Equivalent Units based on the average home value of each Lot Type, and that such method of allocation will result in the imposition of equal shares of the Assessments on Parcels similarly benefited. Additionally, the City Council has determined that the Assessments shall be allocated to the Neighborhood Improvement Area #1 Assessed Property, the Neighborhood Improvement Area #2 Assessed Property, and the Neighborhood Improvement Area #3 Assessed Property on the basis of the Equivalent Units based on the average home value of each Lot Type, and that such method of allocation will result in the imposition of equal shares of the Assessments on Parcels similarly benefited. In determining the average home value of each Lot Type, the City Council has taken into consideration (i) the type of lots (i.e., 50 Ft, 40 Ft, etc.); (ii) current and projected home prices; (iii) the costs of the Authorized Improvements, and (iv) the ability of different property types to utilize and benefit from the Authorized Improvements.

Having taken into consideration the matters described above, the City Council has determined that allocating the Assessments among Parcels based on average home value is best accomplished by creating classifications of benefited Parcels based on the "Lot Types" defined above. These classifications from Lot Type 4 (60 Ft Lots) representing the highest home value to Lot Type 3 (Townhomes) representing the lowest home value for residential lots are set forth in Table D-5 below. Assessments are allocated to each Lot Type on the basis of the Equivalent Units based on the average home value for each class of lots. This is accomplished by giving each Lot Type an Equivalent Unit factor. Equivalent Units are the ratio of the average home value of Lots within each assessment class, setting the Equivalent Unit factor for Lot Type 1 (50 Ft Lots) to 1.0.

Table D-5
Equivalent Unit Factors - Original

Lot Type	Estimated Average Unit Value	Equivalent Unit Factor
Lot Type 1 (50 Ft Lot)	$380,000	1.00 per dwelling unit
Lot Type 2 (40 Ft Lot)	$340,000	0.89 per dwelling unit
Lot Type 3 (Townhome)	$300,000	0.79 per dwelling unit

Table D-5.1
Equivalent Unit Factors - Updated

Lot Type	Estimated Average Unit Value	Equivalent Unit Factor
Lot Type 1 (50 Ft Lots)	$380,000	1.00 per dwelling unit
Lot Type 2 (40 Ft Lots)	$340,000	0.89 per dwelling unit
Lot Type 3 (Townhomes)	$300,000	0.79 per dwelling unit
Lot Type 4 (60 ft Lots)[1]	$456,000	1.20 per dwelling unit

[1]Home Value based on a calculation of the original home prices value per front foot

The total Equivalent Units for Neighborhood Improvement Area #1 are shown in Table D-6 below as calculated based on the original Equivalent Unit factors shown in Table D-5 above, estimated Lot Types and number of units estimated to be built within Neighborhood Improvement Area #1.

Table D-6
Estimated Equivalent Units - Neighborhood Improvement Area #1

Lot Type	Planned No. of units	Equivalent Unit Factor	Total Equivalent Units
Lot Type 1 (50 Ft Lot)	72	1.00	72.00
Lot Type 2 (40 Ft Lot)	55	0.89	49.21
Lot Type 3 (Townhome)	67	0.79	52.89
Total Equivalent Units	**194**		**174.11**

The total original estimated Equivalent Units for Major Improvement Area are shown in Table D-7 below as calculated based on the Equivalent Unit factors shown in Table D-5 above, estimated Lot Types and number of units estimated to be built within the Major Improvement Area.

Table D-7
Estimated Equivalent Units - Major Improvement Area - Original

Lot Type	Planned No. of units	Equivalent Unit Factor	Total Equivalent Units
Lot Type 1 (50 Ft Lot)	110	1.00	110.00
Lot Type 2 (40 Ft Lot)	377	0.89	337.32
Lot Type 3 (Townhome)	84	0.79	66.32
Total Equivalent Units	**571**		**513.63**

The total updated estimated Equivalent Units for Major Improvement Area are shown in Table D-8 on the following page as calculated based on the Equivalent Unit factors shown in Table D-5.1 above, estimated Lot Types and number of units estimated to be built within the Major Improvement Area.

Table D-8
Estimated Equivalent Units - Major Improvement Area - Updated

Lot Type	Planned No. of units	Equivalent Unit Factor	Total Equivalent Units
Lot Type 1 (50 Ft Lots)	7	1.00	7.00
Lot Type 2 (40 Ft Lots)	414	0.89	370.42
Lot Type 3 (Townhomes)	40	0.79	31.58
Lot Type 4 (60 ft Lots)	110	1.20	132.00
Total Equivalent Units	**571**		**541.00**

C) Original Allocation of Assessments to Lots within Neighborhood Improvement Area #1

As shown in Appendix G of this Service and Assessment Plan, the Neighborhood Improvement Area #1 Bonds allocable to the Neighborhood Improvement Area #1 Assessed Property, which represents the total Assessment to be allocated on all Neighborhood Improvement Area #1 Assessed Property, is $2,543,000. As shown in Table D-6, there are a total of 174.11 estimated Equivalent Units in Neighborhood Improvement Area #1, resulting in an Assessment per Equivalent Unit of $14,606.11.

The Assessment per dwelling unit in Neighborhood Improvement Area #1 is calculated as the product of (i) $14,606.11 multiplied by (ii) the applicable Equivalent Unit value for each Lot Type. For example, the Assessment for a Lot Type 1 (50 Ft Lot) dwelling unit is $14,606.11 (i.e., $14,606.11 × 1.00). The Assessment for a Lot Type 2 (40 Ft Lot) dwelling unit is $13,068.62 (i.e., $14,606.11 × 0.89). The Assessment for a Lot Type 3 (Townhome) dwelling unit is $11,531.14 (i.e., $14,606.11 × 0.79). Table D-9 sets forth the Assessment per unit for each Lot Type in Neighborhood Improvement Area #1.

Table D-9
Assessment Per Unit – Neighborhood Improvement Area #1

Type	Planned No. of Units	Assessment per Equivalent Unit	Equivalent Unit Factor	Assessment per Unit		Total Assessments
Lot Type 1 (50 Ft Lot)	72	$14,606.11	1.00	$14,606.11	per dwelling unit	$1,051,640
Lot Type 2 (40 Ft Lot)	55	$14,606.11	0.89	$13,068.62	per dwelling unit	$718,774
Lot Type 3 (Townhome)	67	$14,606.11	0.79	$11,531.14	per dwelling unit	$772,586
Total	**194**					**$2,543,000**

The projected leverage calculated based on the estimated land values, finished lot values and home values for each unit is shown in Table D-10 below.

Table D-10
Projected Leverage – Neighborhood Improvement Area #1

Description	Planned No. of Units	Estimated Finished Lot Value per unit	Projected Home Value per unit	Assessment per Unit[1]	Leverage (Lot Value)	Leverage (Home Value)
Lot Type 1 (50 Ft Lot)	72	$75,000	$650,000	$14,606.11	5.13	44.50
Lot Type 2 (40 Ft Lot)	55	$65,000	$550,000	$13,068.62	4.97	42.09
Lot Type 3 (Townhome)	67	$55,000	$470,000	$11,531.14	4.77	40.76

1 – Amounts are rounded to the nearest dollar amount.

The projected tax rate equivalent per unit calculated based on the estimated finished lot values and home values for each unit is shown in Table D-11 below.

Table D-11
Estimated Tax Rate Equivalent per unit – Neighborhood Improvement Area #1

Description	Planned No. of Units	Estimated Finished Lot Value per unit	Projected Home Value per unit	Projected Average Annual Installment per unit	Tax Rate Equivalent (per $100 Lot Value)	Tax Rate Equivalent (per $100 Home Value)
Lot Type 1 (50 Ft Lot)	72	$75,000	$650,000	$1,175.46	$1.57	$0.18
Lot Type 2 (40 Ft Lot)	55	$65,000	$550,000	$1,051.73	$1.62	$0.19
Lot Type 3 (Townhome)	67	$55,000	$470,000	$927.99	$1.69	$0.20

The Assessment and Annual Installments for each Parcel or Lot located within Neighborhood Improvement Area #1 is shown on the Neighborhood Improvement Area #1 Assessment Roll, attached as Appendix G, and no Assessment shall be changed except as authorized by this Service and Assessment Plan and the PID Act.

D) Original Allocation of Major Improvement Area Assessments to Lot Types in Major Improvement Area

As shown in Appendix F of this Service and Assessment Plan, the Major Improvement Area Bonds allocable to the Major Improvement Area Assessed Property, which represents the total Assessment to be allocated on all Major Improvement Area Assessed Property, is $5,065,000. As shown in Table D-6, there was an original total of 513.63 estimated Equivalent Units in the Major Improvement Area, resulting in an original Assessment per Equivalent Unit of $9,861.15.

The original Assessment per unit is calculated as the product of (i) $9,861.15 multiplied by (ii) the applicable Equivalent Unit value for each Lot Type. For example, the original Assessment for a Lot Type 1 (50 Ft Lot) dwelling unit is $9,861.15 (i.e., $9,861.15 × 1.00). The original Assessment for a Lot Type 2 (40 Ft Lot) dwelling unit is $8,823.14 (i.e., $9,861.15 × 0.89). The original Assessment for a Lot Type 3 (Townhome) dwelling unit is $7,785.12 (i.e., $9,861.15 × 0.79). Table D-12 below sets forth the original Assessment per unit for each Lot Type in the Major Improvement Area.

Table D-12
Assessment Per Unit – Major Improvement Area - Original

Type	Planned No. of Units	Assessment per Equivalent Unit	Equivalent Unit Factor	Assessment per Unit		Total Assessments
Lot Type 1 (50 Ft Lot)	110	$9,861.15	1.00	$9,861.15	per dwelling unit	$1,084,727
Lot Type 2 (40 Ft Lot)	377	$9,861.15	0.89	$8,823.14	per dwelling unit	$3,326,323
Lot Type 3 (Townhome)	84	$9,861.15	0.79	$7,785.12	per dwelling unit	$653,950
Total	**571**					**$5,065,000**

The original projected leverage calculated based on the estimated land values, finished lot values and home values for each unit within the Major Improvement Area is shown in Table D-13.

Table D-13
Projected Leverage – Major Improvement Area

Description	Planned No. of Units	Estimated Finished Lot Value per unit	Projected Home Value per unit	Assessment per Unit[1]	Leverage (Lot Value)	Leverage (Home Value)
Lot Type 1 (50 Ft Lot)	110	$75,000	$380,000	$9,861.15	7.61	38.54
Lot Type 2 (40 Ft Lot)	377	$65,000	$340,000	$8,823.14	7.37	38.54
Lot Type 3 (Townhome)	84	$55,000	$300,000	$7,785.12	7.06	38.54

1 – Amounts are rounded to the nearest dollar amount.

The original projected tax rate equivalent per unit calculated based on the estimated finished lot values and home values for each unit within the Major Improvement Area is shown in Table D-14.

Table D-14
Estimated Tax Rate Equivalent per unit – Major Improvement Area - Original

Description	Planned No. of Units	Estimated Finished Lot Value per unit	Projected Home Value per unit	Projected Average Annual Installment per unit	Tax Rate Equivalent (per $100 Lot Value)	Tax Rate Equivalent (per $100 Home Value)
Lot Type 1 (50 Ft Lot)	110	$75,000	$380,000	$727.51	$0.97	$0.19
Lot Type 2 (40 Ft Lot)	377	$65,000	$340,000	$650.93	$1.00	$0.19
Lot Type 3 (Townhome)	84	$55,000	$300,000	$574.35	$1.04	$0.19

The original Assessment and Annual Installments for each Parcel or Lot located within the Major Improvement Area is shown on the Major Improvement Area Assessment Roll, attached as Appendix F, and no Assessment shall be changed except as authorized by this Service and Assessment Plan and the PID Act.

E) Revised Allocation of Major Improvement Area Assessments to Lot Types in Major Improvement Area

As shown in Appendix F of this Service and Assessment Plan, the Major Improvement Area Bonds allocable to the Major Improvement Area Assessed Property, which represents the total Assessment to be allocated on all Parcels within the Major Improvement Area, is $5,065,000. As shown in Table D-7, there were an original total of 513.63 estimated Equivalent Units in the Major Improvement Area, resulting in an Assessment per Equivalent Unit of $9,861.15. As shown in Table D-8, there are now a total of 541.00 estimated Equivalent Units in the Major Improvement Area, resulting in an Assessment per Equivalent Unit of $8,768.95.

The revised Assessment per unit is calculated as the product of (i) $8,768.95 multiplied by (ii) the applicable Equivalent Unit value for each Lot Type. For example, the Assessment for a Lot Type 1 (50 Ft Lot) dwelling unit is $8,768.95 (i.e., $8,768.95 × 1.00). The Assessment for a Lot Type 2 (40 Ft Lot) dwelling unit is $7,845.90 (i.e., $8,768.95 × 0.89). The Assessment for a Lot Type 3 (Townhomes) dwelling unit is $6,922.85 (i.e. $8,768.95 × 0.79). The Assessment for a Lot Type 4 (60 Ft Lot) dwelling unit is $10,522.74 (i.e., $8,768.95 × 1.20). Table D-15 sets forth the revised Assessment per unit for each Lot Type in the Major Improvement Area.

Table D-15
Assessment Per Unit – Major Improvement Area - Revised

Type	Planned No. of Units	Outstanding Assessment per Equivalent Unit	Equivalent Unit Factor	Outstanding Assessment per Unit		Total Outstanding Assessments
Lot Type 1 (50 Ft Lots)	7	$8,768.95	1.00	$8,768.95	per dwelling unit	$61,383
Lot Type 2 (40 Ft Lots)	414	$8,768.95	0.89	$7,845.90	per dwelling unit	$3,248,202
Lot Type 3 (Townhomes)	40	$8,768.95	0.79	$6,922.85	per dwelling unit	$276,914
Lot Type 4 (60 ft Lots)	110	$8,768.95	1.20	$10,522.74	per dwelling unit	$1,157,501
Total	**571**					**$4,744,000**

The revised projected leverage calculated based on the estimated land values, finished lot values and home values for each unit within the Major Improvement Area is shown in Table D-16 below.

Table D-16
Projected Leverage – Major Improvement Area - Revised

Description	Planned No. of Units	Estimated Finished Lot Value per unit	Projected Home Value per unit	Outstanding Assessment per Unit[1]	Leverage (Lot Value)	Leverage (Home Value)
Lot Type 1 (50 Ft Lots)	7	$132,500	$650,000	$8,768.95	15.11	74.13
Lot Type 2 (40 Ft Lots)	414	$106,000	$550,000	$7,845.90	13.51	70.10
Lot Type 3 (Townhomes)	40	$92,750	$470,000	$6,922.85	13.40	67.89
Lot Type 4 (60 ft Lots)	110	$159,000	$750,000	$10,522.74	15.11	71.27

1 – Amounts are rounded to the nearest dollar amount.

The revised projected tax rate equivalent per unit calculated based on the estimated finished lot values and home values for each unit within the Major Improvement Area is shown in Table D-17 below.

Table D-17
Estimated Tax Rate Equivalent per unit – Major Improvement Area - Revised

Description	Planned No. of Units	Estimated Finished Lot Value per unit	Projected Home Value per unit	Projected Average Outstanding Annual Installment per unit	Tax Rate Equivalent (per $100 Lot Value)	Tax Rate Equivalent (per $100 Home Value)
Lot Type 1 (50 Ft Lots)	7	$132,500	$650,000	$690.69	$0.52	$0.11
Lot Type 2 (40 Ft Lots)	414	$106,000	$550,000	$618.03	$0.58	$0.11
Lot Type 3 (Townhomes)	40	$92,750	$470,000	$545.32	$0.59	$0.12
Lot Type 4 (60 ft Lots)	110	$159,000	$750,000	$828.88	$0.52	$0.11

The revised Assessment and Annual Installments for each Parcel or Lot located within the Major Improvement Area is shown on the Major Improvement Area Assessment Roll, attached as Appendix F, and no Assessment shall be changed except as authorized by this Service and Assessment Plan and the PID Act.

F) Allocation of Assessments to Lots within Neighborhood Improvement Area #2

According to the Neighborhood Improvement Area #2 Developer, the average home prices in Neighborhood Improvement Area #2 have substantially increased as compared to Neighborhood Improvement Area #1. This increase in average home prices for Neighborhood Improvement Area #2 is disproportional between the different Lot Types as compared with Neighborhood Improvement Area #1. As a result, new Equivalent Unit factors are calculated as shown in Table D-18.

Table D-18
Estimated Equivalent Units - Neighborhood Improvement Area #2

Lot Type	Planned No. of units	Equivalent Unit Factor	Total Equivalent Units
Lot Type 1 (50 Ft Lots)	7	1.00	7.00
Lot Type 2 (40 Ft Lots)	159	0.85	134.54
Lot Type 3 (Townhomes)	40	0.72	28.92
Lot Type 4 (60 ft Lots)	87	1.15	100.38
Total Equivalent Units	**293**		**270.85**

As shown in Appendix H of this Service and Assessment Plan, the Neighborhood Improvement Areas #2-3 Bonds allocable to the Neighborhood Improvement Area #2 Assessed Property, which represents the total Assessment to be allocated on all Parcels within Neighborhood Improvement Area #2, is $4,418,000. As shown in Table D-18, there are a total of 270.85 estimated Equivalent Units in Neighborhood Improvement Area #2, resulting in an Assessment per Equivalent Unit of $16,311.84.

The Assessment per dwelling unit in Neighborhood Improvement Area #2 is calculated as the product of (i) $16,311.84 multiplied by (ii) the applicable Equivalent Unit value for each Lot Type. For example, the Assessment for a Lot Type 1 (50 Ft Lot) dwelling unit is $16,311.84 (i.e., $16,311.84 × 1.00). The Assessment for a Lot Type 2 (40 Ft Lot) dwelling unit is $13,802.33 (i.e., $16,311.84 × 0.85). The Assessment for a Lot Type 3 (Townhomes) dwelling unit is $11,794.72 (i.e.,$16,311.84 × 0.72). The Assessment for a Lot Type 4 (60 Ft Lot) dwelling unit is $18,821.36 (i.e., $16,311.84 × 1.15). Table D-19 sets forth the Assessment per unit for each Lot Type in Neighborhood Improvement Area #2.

Table D-19
Assessment Per Unit – Neighborhood Improvement Area #2

Type	Planned No. of Units	Assessment per Equivalent Unit	Equivalent Unit Factor	Assessment per Unit		Total Assessments
Lot Type 1 (50 Ft Lots)	7	$16,311.84	1.00	$16,311.84	per dwelling unit	$114,183
Lot Type 2 (40 Ft Lots)	159	$16,311.84	0.85	$13,802.33	per dwelling unit	$2,194,570
Lot Type 3 (Townhomes)	40	$16,311.84	0.72	$11,794.72	per dwelling unit	$471,789
Lot Type 4 (60 ft Lots)	87	$16,311.84	1.15	$18,821.36	per dwelling unit	$1,637,458
Total	**293**					**$4,418,000**

Table D-20 sets forth the combined MIA and NIA #2 Assessment per unit for each Lot Type in Neighborhood Improvement Area #2.

Table D-20
Combined Assessment Per Unit – Neighborhood Improvement Area #2 & MIA

Description	Planned No. of Units	Major Improvement Area Assessment Per Unit	Neighborhood Improvement Area #2 Assessment Per Unit	Combined Assessment Per Unit	Total Assessment
Lot Type 1 (50 Ft Lots)	7	$8,768.95	$16,311.84	$25,080.79	$175,566
Lot Type 2 (40 Ft Lots)	159	$7,845.90	$13,802.33	$21,648.23	$3,442,068
Lot Type 3 (Townhomes)	40	$6,922.85	$11,794.72	$18,717.57	$748,703
Lot Type 4 (60 ft Lots)	87	$10,522.74	$18,821.36	$29,344.09	$2,552,936
Total	**293**				**$6,919,273**

The projected leverage calculated based on the estimated land values, finished lot values and home values for each unit is shown in Table D-21 below.

Table D-21
Projected Leverage – Neighborhood Improvement Area #2

Description	Planned No. of Units	Estimated Finished Lot Value per unit	Projected Home Value per unit	Assessment per Unit[1]	Leverage (Lot Value)	Leverage (Home Value)
Lot Type 1 (50 Ft Lots)	7	$132,500	$650,000	$16,311.84	8.12	39.85
Lot Type 2 (40 Ft Lots)	159	$106,000	$550,000	$13,802.33	7.68	39.85
Lot Type 3 (Townhomes)	40	$92,750	$470,000	$11,794.72	7.86	39.85
Lot Type 4 (60 ft Lots)	87	$159,000	$750,000	$18,821.36	8.45	39.85

1 – Amounts are rounded to the nearest dollar amount.

The combined projected leverage calculated based on the estimated land values, finished lot values and home values for each unit is shown in Table D-22 below.

Table D-22
Combined Projected Leverage – Neighborhood Improvement Area #2 & MIA

Description	Planned No. of Units	Estimated Finished Lot Value per unit	Projected Home Value per unit	Assessment per Unit[1]	Leverage (Lot Value)	Leverage (Home Value)
Lot Type 1 (50 Ft Lots)	7	$132,500	$650,000	$25,080.79	5.28	25.92
Lot Type 2 (40 Ft Lots)	159	$106,000	$550,000	$21,648.23	4.90	25.41
Lot Type 3 (Townhomes)	40	$92,750	$470,000	$18,717.57	4.96	25.11
Lot Type 4 (60 ft Lots)	87	$159,000	$750,000	$29,344.09	5.42	25.56

1 – Amounts are rounded to the nearest dollar amount.

The projected tax rate equivalent per unit calculated based on the estimated finished lot values and home values for each unit is shown in Table D-23 below.

Table D-23
Estimated Tax Rate Equivalent per unit – Neighborhood Improvement Area #2

Description	Planned No. of Units	Estimated Finished Lot Value per unit	Projected Home Value per unit	Projected Average Annual Installment per unit	Tax Rate Equivalent (per $100 Lot Value)	Tax Rate Equivalent (per $100 Home Value)
Lot Type 1 (50 Ft Lots)	7	$132,500	$650,000	$1,418.99	$1.07	$0.22
Lot Type 2 (40 Ft Lots)	159	$106,000	$550,000	$1,200.69	$1.13	$0.22
Lot Type 3 (Townhomes)	40	$92,750	$470,000	$1,026.04	$1.11	$0.22
Lot Type 4 (60 ft Lots)	87	$159,000	$750,000	$1,637.30	$1.03	$0.22

The combined projected tax rate equivalent per unit calculated based on the estimated finished lot values and home values for each unit is shown in Table D-24.

Table D-24
Estimated Tax Rate Equivalent per unit – Neighborhood Improvement Area #2 & MIA

Description	Planned No. of Units	Estimated Finished Lot Value per unit	Projected Home Value per unit	Projected Average Annual Installment per unit	Tax Rate Equivalent (per $100 Lot Value)	Tax Rate Equivalent (per $100 Home Value)
Lot Type 1 (50 Ft Lots)	7	$132,500	$650,000	$2,109.68	$1.59	$0.32
Lot Type 2 (40 Ft Lots)	159	$106,000	$550,000	$1,818.71	$1.72	$0.33
Lot Type 3 (Townhomes)	40	$92,750	$470,000	$1,571.36	$1.69	$0.33
Lot Type 4 (60 ft Lots)	87	$159,000	$750,000	$2,466.18	$1.55	$0.33

The Assessment and Annual Installments for each Parcel or Lot located within Neighborhood Improvement Area #2 is shown on the Neighborhood Improvement Area #2 Assessment Roll, attached as Appendix H, and no Assessment shall be changed except as authorized by this Service and Assessment Plan and the PID Act.

G) Allocation of Assessments to Lots within Neighborhood Improvement Area #3

According to the Neighborhood Improvement Area #3 Developer, the average home prices in Neighborhood Improvement Area #3 have substantially increased as compared to Neighborhood Improvement Area #1. This increase in average home prices for Neighborhood Improvement Area #3 is disproportional between the different Lot Types as compared with Neighborhood Improvement Area #1. As a result, new Equivalent Unit factors are calculated as shown in Table D-25.

Table D-25
Estimated Equivalent Units - Neighborhood Improvement Area #3

Lot Type	Planned No. of units	Equivalent Unit Factor	Total Equivalent Units
Lot Type 2 (40 Ft Lots)	178	0.85	150.62
Total Equivalent Units	**178**		**150.62**

As shown in Appendix I of this Service and Assessment Plan, the Neighborhood Improvement Areas #2-3 Bonds allocable to the Neighborhood Improvement Area #3 Assessed Property, which represents the total Assessment to be allocated on all Parcels within Neighborhood Improvement Area #3, is $2,120,000. As shown in Table D-25, there are a total of 150.62 estimated Equivalent Units in Neighborhood Improvement Area #3, resulting in an Assessment per Equivalent Unit of $14,075.59.

The Assessment per dwelling unit in Neighborhood Improvement Area #3 is calculated as the product of (i) $14,075.59 multiplied by (ii) the applicable Equivalent Unit value for each Lot Type. For example, the Assessment for a Lot Type 2 (40 Ft Lot) dwelling unit is $11,910.11 (i.e., $14,075.59 × 0.85). Table D-26 sets forth the Assessment per unit for each Lot Type in Neighborhood Improvement Area #3.

Table D-26
Assessment Per Unit – Neighborhood Improvement Area #3

Type	Planned No. of Units	Assessment per Equivalent Unit	Equivalent Unit Factor	Assessment per Unit		Total Assessments
Lot Type 2 (40 Ft Lot)	178	$14,075.59	0.85	$11,910.11	per dwelling unit	$2,120,000
Total	**178**					**$2,120,000**

Table D-27 sets forth the combined MIA and NIA #3 Assessment per unit for each Lot Type in Neighborhood Improvement Area #3.

Table D-27
Combined Assessment Per Unit – Neighborhood Improvement Area #3 & MIA

Description	Planned No. of Units	Major Improvement Area Assessment Per Unit	Neighborhood Improvement Area #3 Assessment Per Unit	Combined Assessment Per Unit	Total Assessment
Lot Type 2 (40 Ft Lots)	178	$7,845.90	$11,910.11	$19,756.01	$3,516,570
Total	**178**				**$3,516,570**

The projected leverage calculated based on the estimated land values, finished lot values and home values for each unit is shown in Table D-28 below.

Table D-28
Projected Leverage – Neighborhood Improvement Area #3

Description	Planned No. of Units	Estimated Finished Lot Value per unit	Projected Home Value per unit	Assessment per Unit[1]	Leverage (Lot Value)	Leverage (Home Value)
Lot Type 2 (40 Ft Lots)	178	$106,000	$550,000	$11,910.11	8.90	46.18

1 – Amounts are rounded to the nearest dollar amount.

The combined projected leverage calculated based on the estimated land values, finished lot values and home values for each unit is shown in Table D-29 below.

Table D-29
Combined Projected Leverage – Neighborhood Improvement Area #3 & MIA

Description	Planned No. of Units	Estimated Finished Lot Value per unit	Projected Home Value per unit	Assessment per Unit[1]	Leverage (Lot Value)	Leverage (Home Value)
Lot Type 2 (40 Ft Lots)	178	$106,000	$550,000	$19,756.01	5.37	27.84

1 – Amounts are rounded to the nearest dollar amount.

The projected tax rate equivalent per unit calculated based on the estimated finished lot values and home values for each unit is shown in Table D-30 below.

Table D-30
Estimated Tax Rate Equivalent per unit – Neighborhood Improvement Area #3

Description	Planned No. of Units	Estimated Finished Lot Value per unit	Projected Home Value per unit	Projected Average Annual Installment per unit	Tax Rate Equivalent (per $100 Lot Value)	Tax Rate Equivalent (per $100 Home Value)
Lot Type 2 (40 Ft Lots)	178	$106,000	$550,000	$1,148.36	$1.08	$0.21

The combined projected tax rate equivalent per unit calculated based on the estimated finished lot values and home values for each unit is shown in Table D-31.

Table D-31
Estimated Tax Rate Equivalent per unit – Neighborhood Improvement Area #3 & MIA

Description	Planned No. of Units	Estimated Finished Lot Value per unit	Projected Home Value per unit	Projected Average Annual Installment per unit	Tax Rate Equivalent (per $100 Lot Value)	Tax Rate Equivalent (per $100 Home Value)
Lot Type 2 (40 Ft Lots)	178	$106,000	$550,000	$1,766.38	$1.67	$0.32

The Assessment and Annual Installments for each Parcel or Lot located within Neighborhood Improvement Area #3 is shown on the Neighborhood Improvement Area #3 Assessment Roll, attached as Appendix I, and no Assessment shall be changed except as authorized by this Service and Assessment Plan and the PID Act.

APPENDIX E-1
LEGAL DESCRIPTION OF PARCELS WITHIN THE MAJOR IMPROVEMENT AREA

Legal Description – Major Improvement Area

BEING a tract of land located in the City of Rowlett, Dallas and Rockwall County, Texas, a part of the William Blevins Survey (Dallas County Abstract Number 95 and Rockwall County Abstract Number 8), a part of the M. L. Price Survey (Dallas County Abstract Number 1115 and Rockwall County Abstract Number 257, a part of the Elisha Price Survey (Dallas County Abstract Number 1114), a part of the Atkinson Clements Survey (Dallas County Abstract Number 255), and being part of that called 237.963 acre tract of land described in Special Warranty Deed to Freedom Quest, LLC recorded as Document No. 201400025448, Deed Records, Dallas County, Texas and as Document No. 20140000001315, Deed Records, Rockwall County, Texas, and being more particularly described as follows:

BEGINNING at a one-half inch iron rod with cap stamped "JBI" found at the west corner of said 237.963 acre tract of land, said point being the intersection of the southeast right-of-way line of Vinson Road (a variable width right-of-way) with the northeast right-of-way line of Stonewall Road (a variable width right-of-way);

THENCE along the southeast right-of-way line of Vinson Road as follows:

North 43 degrees 18 minutes 50 seconds East, 697.75 feet to a one-half inch iron rod with cap stamped "Precise" found for corner;

North 40 degrees 06 minutes 22 seconds East, 655.78 feet to a one-half inch iron rod with cap stamped "Precise" found for corner;

North 75 degrees 37 minutes 24 seconds West, 19.59 feet to a one-half inch iron rod with cap stamped "Precise" found for corner, the beginning of a non-tangent curve to the left;

Northwesterly, 291.44 feet along said curve to the left which has a central angle of 43 degrees 00 minutes 50 seconds, a radius of 388.20 feet, a tangent of 152.97 feet, and whose chord bears North 06 degrees 16 minutes 58 seconds West, 284.64 feet to a one-half inch iron rod with cap stamped "Precise" found for corner, now being in the northeasterly right-of-way line of Vinson Road;

THENCE along said northeasterly right-of-way line, North 27 degrees 44 minutes 36 seconds West, 203.46 feet to a point for corner, being the southwest corner of a 15.456 acre tract of land (100 foot wide strip) of land described in City of Garland Ordinance No. 5146, recorded in Volume 2002074, Page 9337, Deed Records, Dallas County, Texas;

THENCE departing said right-of-way line, over and across said 237.963 acre tract and along the south and east lines of said 15.456 acre tract as follows**:**

North 62 degrees 14 minutes 57 East, 100.00 feet to a point for corner;

North 27 degrees 44 minutes 36 seconds West, 1,277.93 feet to a point for corner, being in the south line of a called 17.702 acre tract of land described in a deed to the Garland Independent School District as recorded in Volume 99250, Page 5603, Dallas County Deed Records;

THENCE departing the east line of said 15.456 acre tract and along the south line of said 17.702 acre tract, North 83 degrees 54 minutes 22 seconds East, 702.48 feet to a one-half inch iron rod with cap stamped "Precise" found at the southeast corner of said 17.702 acre tract;

THENCE along the east line of said 17.702 acre tract, North 06 degrees 05 minutes 24 seconds West, 709.89 feet to a point for corner, being in the southerly line of aforementioned 15.546 acre tract;

THENCE along the southerly line of said 15.546 acre tract as follows;

North 83 degrees 54 minutes 46 seconds East, 1.019.16 feet to a point for corner;

South 47 degrees 24 minutes 52 seconds East, 1,051.92 feet to a point for corner;

South 47 degrees 20 minutes 22 seconds East, 1,270.16 feet to a point for corner;

South 47 degrees 13 minutes 17 seconds East, 272.01 feet to a point for corner;

North 42 degrees 47 minutes 58 seconds East, 100.00 feet to a point for corner, being in the southwest line of a called 15.36 acre tract of land described in deed to Steve Conkle as recorded as Document No. 20170000017561, Rockwall County Deed Records;

THENCE South 47 degrees 13 minutes 17 seconds East, 226.04 feet along the southwest line of said 15.36 acre tract to a one-half inch iron rod with cap stamped "JBI" found at the southeast corner of said 237.963 acre tract of land, said point being the north corner of a called 4.957 acre tract of land described in a deed to Monica Banon as recorded in Volume 2565, Page 149, Rockwall County Deed Records;

THENCE along the southeast line of said 237.693 acre tract as follows:

South 44 degrees 01 minutes 34 seconds West, 455.64 feet to a three-fourth inch iron rod found at west corner of a called 2.044 acre tract of land described in deed to Sheri Tate recorded as Document No. 20080000397967, Rockwall County Deed Records, being the north corner of a called 14.87 acre tract of land described in deed to Freedom Quest, LLC recorded as Document No. 20150000005622, Rockwall County Deed Records;

Along the northwest line of said 14.87 acre tract, South 43 degrees 51 minutes 20 seconds West, 690.70 feet to a three-quarter inch iron rod found at the west corner of said 14.87 acre tract, being the north corner of a called 5.930 acre tract of land described in deed to James Gary Blackwell recorded in Volume 2659, Page 111, Rockwall County Deed Records;

South 43 degrees 34 minutes 07 seconds West, 240.67 feet to a one-half inch iron rod found at the west corner of said 5.930 acre tract;

South 46 degrees 34 minutes 54 seconds East, 375.46 feet to a one-half inch iron rod with cap stamped "Precise" found for corner in the southwest line of said James Gary Blackwell tract of land;

South 43 degrees 56 minutes 38 seconds West, 53.64 feet to a one-half inch iron rod found at the north corner of Lot 2, Block 1, Wilson Estates as recorded in Cabinet I, Slide 347, Rockwall County Plat Records;

South 64 degrees 00 minutes 46 seconds West, 1303.04 feet to a one-half inch iron rod found the north corner of a called 2.00 acre tract of land described in deed to Robert Lee Dellinger and wife, Mary Dellinger as recorded in Volume 78221, Page 3522, Dallas County Deed Records;

South 63 degrees 20 minutes 37 seconds West, 214.47 feet to a one-half inch iron rod found at the northwest corner of a called 2.2965 acre tract of land described in a deed to Karl Fottler and wife, Karen Fottler as recorded in Document Number 201100102057, Dallas County Deed Records;

South 08 degrees 34 minutes 18 seconds West, 227.89 feet to a one-inch iron rod set for corner in the west line of a called 4.0 acre tract of land described in deed to Robert L. Dellinger as recorded in Volume 88224, Page 1885, Dallas County Deed Records;

South 27 degrees 22 minutes 42 seconds East, 104.21 feet to a one-half inch iron rod set for corner in the west line of said 4.0 acre tract of land;

South 03 degrees 11 minutes 42 seconds West, 122.44 feet to a one-half inch iron rod set for corner in the west line of a called 2.0 acre tract of land described in deed to Lonnie Hargrove as recorded in Volume 84252, Page 2993, Dallas County Deed Records;

South 46 degrees 23 minutes 48 seconds West, 47.44 feet to a one-half inch iron rod found at the northwest corner of said Lonnie Hargrove tract of land, said point being the north corner of a called 5.2397 acre tract of land described in deed to Ronnie O'Donald and Vicki O'Donald as recorded in Document Number 20070002381, Dallas County Deed Records;

South 35 degrees 51 minutes 32 seconds West, 65.14 feet to a one-half inch iron rod found for corner in the north line of said 5.2397 acre tract of land;

North 83 degrees 13 minutes 36 seconds West, 230.16 feet to a one-half inch iron rod found at the northwest corner of said 5.2397 acre tract of land;

North 57 degrees 28 minutes 34 seconds West, 493.75 feet to a one-half inch iron rod found at the northwest corner of a called 4.3073 acre tract of land described in deed to David R. Norris and wife, Bonnie S. Norris as recorded in Volume 2005013, Page 9530, Dallas County Deed Records;

South 15 degrees 56 minutes 28 seconds West, 574.42 feet to a one-half inch iron rod found at the southwest corner of said 4.3073 acre tract of land and at the south corner of said 237.693 acre tract of land, said point being in the northeast right-of-way line of Stonewall Road (variable width right-of-way);

THENCE North 45 degrees 46 minutes 06 seconds West, 1496.01 feet along the northeast right-of-way line of Stonewall Road to the **POINT OF BEGINNING** and containing 9,867,910 square feet or 226.536 acres of land.

APPENDIX E-2
LEGAL DESCRIPTION OF PARCELS WITHIN THE NEIGHBORHOOD IMPROVEMENT AREA #1

Legal Description – Neighborhood Improvement Area #1

BEING a tract of land located in the City of Garland and in the City of Rowlett, Dallas County, Texas, part of the William Blevins Survey, Abstract Number 95, part of the Atkinson Clements Survey, Abstract Number 255, and being part of that called 252.784 acre tract of land described in Special Warranty Deed recorded as Document No. 202000342983, Deed Records, Dallas County, Texas and being more particularly described as follows:

COMMENCING at a one-half inch iron rod with cap stamped "JBI" found at the west corner of said 252.784 acre tract of land, said point being the intersection of the southeast right-of-way line of Vinson Road (a variable width right-of-way) with the northeast right-of-way line of Stonewall Road (a variable width right-of-way);

THENCE along the southeast right-of-way line of Vinson Road as follows:

North 43 degrees 18 minutes 50 seconds East, 697.75 feet to a one-half inch iron rod with cap stamped "Precise" found for corner;

North 40 degrees 06 minutes 22 seconds East, 435.78 feet to a point in the approximate centerline of Cottonwood Creek, the **POINT OF BEGINNING;**

THENCE continuing along the southeast right-of-way line and along the northeast right-of-way line of Vinson Road as follows:

North 40 degrees 06 minutes 22 seconds East, 220.00 feet to a one-half inch iron rod with cap stamped "Precise" found for corner;

North 75 degrees 37 minutes 24 seconds West, 19.59 feet to a one-half inch iron rod with cap stamped "Precise" found for corner, the beginning of a non-tangent curve to the left;

Northwesterly, 291.44 feet along said curve to the left which has a central angle of 43 degrees 00 minutes 50 seconds, a radius of 388.20 feet, a tangent of 152.97 feet, and whose chord bears North 06 degrees 16 minutes 58 seconds West, 284.64 feet to a one-half inch iron rod with cap stamped "Precise" found for corner;

North 27 degrees 44 minutes 36 seconds West, 203.46 feet to a one-half inch iron rod with cap stamped "JBI" set at the southwest corner of a 100 foot wide strip of land, (called 15.456 acres) annexed by the City of Garland by Ordinance No. 5156 as recorded in Volume 2002074, Page 9337, Dallas County Deed Records;

THENCE along the southerly line of said 15.456 acre tract of land as follows:
North 62 degrees 14 minutes 57 seconds East, 100.13 feet to a one-half inch iron rod with cap stamped "JBI" set for corner;

THENCE North 27 degrees 45 minutes 03 seconds West, 7.81 feet to a one-half inch iron rod with cap stamped "JBI" set for corner, being in the south line of a 100 foot wide easement to the City of Garland Electric Transmission Line Easement as recorded in Volume 71082, Page 1797 and in Volume 70235, Page 967, Deed Records, Dallas County, Texas;
THENCE North 83 degrees 45 minutes 33 seconds East, 1,898.68 feet along the south line of said 100 foot wide Easement tract to a one-half inch iron rod with cap stamped "JBI" set for corner;

THENCE departing the south line of said Easement tract, over and across said 237.963 acre tract, South, a distance of 1608.00 feet to a point in the southeast line of said 237.963 acre tract;

THENCE along the southeast line of said 252.784 acre tract as follows:

South 64 degrees 00 minutes 46 seconds West, 664.20 feet to a one-half inch iron rod found for the north corner of a called 2.00 acre tract of land described in deed to Robert Lee Dellinger and wife, Mary Dellinger as recorded in Volume 78221, Page 3522, Dallas County Deed Records;

South 63 degrees 20 minutes 37 seconds West, 214.47 feet to a one-half inch iron rod found at the northwest corner of a called 2.2965 acre tract of land described in a deed to Karl Fottler and wife, Karen Fottler as recorded in Document Number 201100102057, Dallas County Deed Records;

South 08 degrees 34 minutes 18 seconds West, 227.89 feet to a one-inch iron rod set for corner in the west line of a called 4.0 acre tract of land described in deed to Robert L. Dellinger as recorded in Volume 88224, Page 1885, Dallas County Deed Records;

South 27 degrees 22 minutes 42 seconds East, 104.21 feet to a one-half inch iron rod set for corner in the west line of said 4.0 acre tract of land;

South 03 degrees 11 minutes 42 seconds West, 122.44 feet to a one-half inch iron rod set for corner in the west line of a called 2.0 acre tract of land described in deed to Lonnie Hargrove as recorded in Volume 84252, Page 2993, Dallas County Deed Records;

South 46 degrees 23 minutes 48 seconds West, 47.44 feet to a one-half inch iron rod found at the northwest corner of said Lonnie Hargrove tract of land, said point being the north corner of a called 5.2397 acre tract of land described in deed to Ronnie O'Donald and Vicki O'Donald as recorded in Document Number 20070002381, Dallas County Deed Records;

South 35 degrees 51 minutes 32 seconds West, 65.14 feet to a one-half inch iron rod found for corner in the north line of said 5.2397 acre tract of land;

North 83 degrees 13 minutes 36 seconds West, 94.80 feet to a point in the approximate centerline of Cottonwood Creek;

THENCE northwesterly along the approximate centerline of Cottonwood Creek as follows:

North 27 degrees 00 minutes 00 seconds East for a distance of 118.09 feet;
North 07 degrees 00 minutes 00 seconds West for a distance of 115.00 feet;
North 47 degrees 00 minutes 00 seconds West for a distance of 180.00 feet;
North 20 degrees 00 minutes 00 seconds West for a distance of 225.00 feet;
North 24 degrees 00 minutes 00 seconds West for a distance of 185.00 feet;
North 40 degrees 00 minutes 00 seconds West for a distance of 275.00 feet;
North 48 degrees 00 minutes 00 seconds West for a distance of 455.00 feet;
North 46 degrees 00 minutes 00 seconds West for a distance of 235.00 feet;
North 14 degrees 00 minutes 00 seconds West for a distance of 110.00 feet;

North 32 degrees 00 minutes 00 seconds West for a distance of 125.00 feet to the **POINT OF BEGINNING** and containing 3,110,490 square feet or 71.407 acres

APPENDIX E-3
LEGAL DESCRIPTION OF PARCELS WITHIN THE NEIGHBORHOOD IMPROVEMENT AREA #2

Legal Description – Neighborhood Improvement Area #2

BEING a tract of land located in the City of Rowlett, Dallas County, Texas, being part of the Atkinson Clements Survey, Abstract Number 255, part of the Elisha M. Price Survey, Abstract No. 1114, part of the M.L. Price Survey, Abstract Number 1115, part of the Williams Blevins Survey, Abstract No. 95 and being part of that called 252.784 acre tract of land described in Special Warranty Deed to Trail Creek Partners, Ltd. recorded as Document No. 202000342983, Deed Records, Dallas County, Texas and being more particularly described as follows:

BEGINNING at a one-half inch iron rod with cap stamped "Precise" found for the most westerly northwest corner of said 252.784 acre tract, being the southwest corner of a called 17.702 acre tract of land described in deed to Garland Independent School District recorded in Volume 99250, Page 5603, Deed Records, Dallas County, Texas, being in the easterly right-of-way line of Vinson Road (variable width R.O.W.);

THENCE, along the common line of said 525.784 acre tract and said 17.702 acre tract as follows:
North 83 degrees 54 minutes 22 seconds East for a distance of 810.03 feet to a one-half inch iron rod with cap stamped "Precise" found for the southeast corner of said 17.702 acre tract;

North 06 degrees 05 minutes 24 seconds West for a distance of 809.80 feet to a one-half inch iron rod with cap stamped "Precise" found for the northeast corner of said 17.702 acre tract, being the most northerly northwest corner of said 252.784 acre tract, being in the south line of a called 6.76 acre tract of land described in deed to TBS Property Co. 2, LLC recorded as Document No. 202000282488, Official Public Records, Dallas County, Texas;

THENCE, North 83 degrees 54 minutes 46 seconds East along the north line of said 252.784 acre tract, the south line of said 6.76 acre tract, passing at a distance of 268.80 feet the southeast corner of said 6.76 acre tract and southwest corner of a called 8.315 acre tract of land described in deed to Warner Land Advisors, L.P. recorded as Instrument No. 202200229408, Official Public Records, Dallas County, Texas, continuing for a total distance of 1064.39 feet to a one-half inch iron rod with cap stamped "Precise" found for the southeast corner of said 8.315 acre tract, being the northeast corner of said 252.784 acre tract, being in the southwest line of Lot 1, Block 1, Lake Ray Hubbard Mobile Home Estates, an addition to the City of Wylie recorded in Volume 90179, Page 1062, Deed Records, Dallas County, Texas;

THENCE, along the northeast line of said 252.784 acre tract and the southwest line of said Lot 1, Block 1, South 47 degrees 24 minutes 52 seconds West for a distance of 1097.22 feet to a one-half inch iron rod found for the south corner of said Lot 1, Block 1, said point being in the east line of said Abstract No. 1115, the west line of the Elisha M. Price Survey, Abstract No. 256 (Rockwall County), being on the approximate east line of Dallas County and the west line of Rockwall County;

THENCE, along said common Abstract Line and said County Line, South 00 degrees 00 minutes 01 seconds West for a distance of 1167.85 feet to a one-half inch iron rod set, being the northeast corner of Trails at Cottonwood Creek Phase 1, an addition to the City of Rowlett, Dallas County, Texas recorded as Instrument No. 202400050327, Official Public Records, Dallas County, Texas;

THENCE, along the north line of said Trails at Cottonwood Creek, Phase 1 as follows:
South 83 degrees 45 minutes 33 seconds West, a distance of 1,898.68 feet to a one-half inch iron rod with cap stamped "JBI" set;

South 27 degrees 45 minutes 03 seconds East for a distance of 7.81 feet to a one-half inch iron rod with cap stamped "JBI" set;

South 62 degrees 14 minutes 57 seconds West for a distance of 100.13 feet to a one-half inch iron rod with cap stamped “JBI” set, being the northwest corner of said Trails at Cottonwood Creek, Phase 1, and being in the easterly right-of-way line of Vinson Road and the westerly line of said 252.784 acre tract;

THENCE, along the easterly right-of-way line of Vinson Road and the westerly line of said 252.784 acre tract, North 27 degrees 44 minutes 36 seconds West for a distance of 1317.63 feet to the POINT OF BEGINNING and containing 3,866,976 square feet or 88.774 acres.

SAVE AND EXCEPT:

TRACT 1
LEGAL DESCRIPTION
(2.981 ACRES)

Being a parcel of land located in the City of Garland, Dallas County, Texas, being a part of the Atkinson Clements Survey, Abstract Number 255, and being a part of that called 88.774 acre tract of land described in deed to TACC Development, LLC as recorded in Instrument No. 202400110083, Official Public Records, Dallas County, Texas, and being further described as follows:

BEGINNING at a one-half inch iron rod with cap stamped "Precise" found for the most westerly northwest corner of said 88.774 acre tract, being the southwest corner of a called 17.702 acre tract of land described in deed to Garland Independent School District recorded in Volume 99250, Page 5603, Deed Records, Dallas County, Texas, being in the easterly right-of-way line of Vinson Road (a variable width R.O.W.);

THENCE North 83 degrees 54 minutes 22 seconds East along the common line of said 88.774 acre tract and said 17.702 acre tract, 107.55 feet to a point for corner, said point being in the approximate city limit line for the City of Garland and the City of Rowlett, Dallas County;

THENCE South 27 degrees 45 minutes 03 seconds East along the approximate city limit line for the City of Garland and the City of Rowlett, Dallas County, 1,277.94 feet to a one-half inch iron rod with yellow cap stamped “JBI” found for corner in the south line of said 88.774 acre tract, said point being in the north line of Trails at Cottonwood Creek Phase 1, an addition to the City of Rowlett, Dallas County, Texas recorded as Instrument No. 202400050327, Official Public Records, Dallas County, Texas;

THENCE South 62 degrees 14 minutes 57 seconds West along the north line of Trails at Cottonwood Creek Phase 1, 100.13 feet to a one-half inch iron rod with yellow cap stamped “JBI” found at the southwest corner of said 88.774 acre tract, said point being the northwest corner of said Trails at Cottonwood Creek, Phase 1, said point also being in the easterly right-of-way line of Vinson Road;

THENCE North 27 degrees 44 minutes 36 seconds West along the west line of said 88.774 acre tract and the easterly right-of-way line of Vinson Road, 1,317.63 feet to the POINT OF BEGINNING and containing 129,833 square feet or 2.981 acres of land.

Basis of Bearing: The basis of bearing is based on the coordinate system (North Central Zone 4202 State Plane Coordinates, NAD83).
AND:

TRACT 2
LEGAL DESCRIPTION
(4.964 ACRES)

Being a parcel of land located in the City of Garland, Dallas County, Texas, being a part of the Elisha M. Price Survey, Abstract Number 1114, being a part of the M. L. Price Survey, Abstract Number 1115, and being a part of that called 88.774 acre tract of land described in deed to TACC Development, LLC as recorded in Instrument No. 202400110083, Official Public Records, Dallas County, Texas, and being further described as follows:

APPENDIX E-4
LEGAL DESCRIPTION OF PARCELS WITHIN THE NEIGHBORHOOD IMPROVEMENT AREA #3

Legal Description – Neighborhood Improvement Area #3 38.481 Acres

BEING A 38.481 ACRE TRACT OF LAND SITUATED IN THE WILLIAM BLEVINS SURVEY, ABSTRACT NO. 8 AND THE M.L. PRICE SURVEY, ABSTRACT NO. 257, CITY OF ROWLETT, ROCKWALL COUNTY, TEXAS AND BEING PART OF A 41.871 ACRE TRACT OF LAND CONVEYED TO TPG AG EHC III (MTH) MULTI STATE 5, LTD., AS RECORDED IN COUNTY CLERK'S FILE NO. 20250000002838, OFFICIAL PUBLIC RECORDS, ROCKWALL COUNTY, TEXAS. SAID 38.481 ACRE TRACT, WITH BEARING BASIS BEING GRID NORTH, TEXAS STATE PLANE COORDINATES, NORTH CENTRAL ZONE, NAD83 (NAD83 (2011) EPOCH 2010), DETERMINED BY GPS OBSERVATIONS, CALCULATED FROM COLLIN CORS ARP (PID-DF8982) AND DALLAS CORS ARP (PID-DF8984) AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT A 1/2 INCH IRON ROD WITH PLASTIC CAP STAMPED "JBI" FOUND FOR A WEST CORNER OF SAID 41.871 ACRE TRACT, THE COMMON NORTHEAST CORNER OF TRAILS AT COTTONWOOD CREEK, PHASE 1, AN ADDITION TO THE CITY OF ROWLETT, AS RECORDED IN COUNTY CLERK'S FILE NO. 202400050327, OFFICIAL PUBLIC RECORDS, DALLAS COUNTY, TEXAS, AND FOR THE COMMON SOUTHWEST CORNER AN 88.774 ACRE TRACT OF LAND, CONVEYED TO TACC DEVELOPMENT, LLC, AS RECORDED IN COUNTY CLERK'S FILE NO. 202400110083, OFFICIAL PUBLIC RECORDS, DALLAS COUNTY, TEXAS. SAME POINT BEING IN THE NORTHERLY RIGHT-OF-WAY LINE OF MADERA TRAIL (A 50' RIGHT-OF-WAY);

THENCE, NORTH 00 DEGREES 00 MINUTES 01 SECONDS EAST, ALONG THE COMMON LINE OF SAID 41.871 ACRE TRACT AND SAID 88.774 ACRE TRACT, A DISTANCE OF 1032.16 FEET TO A POINT FOR CORNER ON SAID COMMON LINE;

THENCE, OVER AND ACROSS SAID 41.871 ACRE TRACT AND ALONG THE CITY OF GARLAND CITY LIMIT LINE, THE FOLLOWING COURSES AND DISTANCES:

> SOUTH 47 DEGREES 20 MINUTES 22 SECONDS EAST, A DISTANCE OF 1434.19 FEET TO A POINT FOR CORNER;
>
> NORTH 42 DEGREES 46 MINUTES 43 SECONDS EAST, A DISTANCE OF 99.47 FEET TO POINT FOR CORNER ON THE NORTHEASTERLY LINE OF SAID 41.871 ACRE TRACT AND THE COMMON SOUTHWESTERLY LINE OF A 15.36 ACRE TRACT OF LAND, CONVEYED TO KIFLAY GHABRE AND FANUEL ASFAHA, AS RECORDED IN COUNTY CLERK'S FILE NO. 20220000008474, OFFICIAL PUBLIC RECORDS, ROCKWALL COUNTY, TEXAS;

THENCE, SOUTH 47 DEGREES 13 MINUTES 17 SECONDS EAST, ALONG THE COMMON LINE OF SAID 41.871 ACRE TRACT AND SAID 15.36 ACRE TRACT, A DISTANCE OF 242.23 FEET TO A 1/2 INCH IRON ROD WITH PLASTIC CAP STAMPED "JBI" FOUND FOR A NORTHEAST CORNER OF SAID 41.871 ACRE TRACT AND THE COMMON NORTH CORNER OF A 4.976 ACRE TRACT OF LAND, CONVEYED TO

MONICA BANON, AS RECORDED IN VOLUME 2565, PAGE 149, OFFICIAL PUBLIC RECORDS, ROCKWALL COUNTY, TEXAS;

THENCE, ALONG THE EASTERLY LINE OF SAID 41.871 ACRE TRACT, THE FOLLOWING COURSES AND DISTANCES:

SOUTH 43 DEGREES 59 MINUTES 51 SECONDS WEST, ALONG THE COMMON NORTHWESTERLY LINES OF SAID 4.976 ACRE TRACT, AND A 2.044 ACRE TRACT OF LAND, CONVEYED TO SHERI TATE, AS RECORDED IN COUNTY CLERK'S FILE NO. 200800397967, OFFICIAL PUBLIC RECORDS, ROCKWALL COUNTY, TEXAS, A DISTANCE OF 455.68 FEET TO A 1 INCH IRON ROD FOUND FOR CORNER ON SAID EAST LINE OF 41.871 ACRE TRACT AND THE WEST CORNER OF SAID 2.044 ACRE TRACT;

SOUTH 43 DEGREES 57 MINUTES 18 SECONDS WEST, A DISTANCE OF 690.77 FEET TO A 1 INCH IRON ROD FOUND FOR CORNER ON THE EAST LINE OF SAID 41.871 ACRE TRACT AND FOR THE COMMON NORTH CORNER OF A 5.925 ACRE TRACT OF LAND, CONVEYED TO JAMES GARY BLACKWELL AND, CARIE C. BLACKWELL, AS RECORDED IN VOLUME 2659, PAGE 111, OFFICIAL PUBLIC RECORDS, ROCKWALL COUNTY, TEXAS;

SOUTH 43 DEGREES 19 MINUTES 10 SECONDS WEST, ALONG THE COMMON NORTHWESTERLY LINE OF SAID 5.925 ACRE TRACT, A DISTANCE OF 240.90 FEET TO A 1/2 INCH IRON ROD FOUND FOR AN INTERIOR ELL CORNER OF SAID 41.871 ACRE TRACT AND THE WEST CORNER OF SAID 5.925 ACRE TRACT;

SOUTH 46 DEGREES 35 MINUTES 36 SECONDS EAST, ALONG THE WESTERLY LINE OF SAID 5.925 ACRE TRACT, A DISTANCE OF 375.54 FEET TO A 1/2 INCH IRON ROD WITH PLASTIC CAP STAMPED "JBI" FOUND FOR AN EASTERLY CORNER OF SAID 41.871 ACRE TRACT AND A COMMON INTERIOR ELL CORNER OF SAID 5.925 ACRE TRACT;

SOUTH 43 DEGREES 56 MINUTES 38 SECONDS WEST, CONTINUING ALONG SAID WESTERLY LINE OF SAID 5.925 ACRE TRACT, A DISTANCE OF 53.62 FEET TO A 5/8 INCH IRON ROD WITH YELLOW PLASTIC CAP STAMPED "LJA SURVEYING" SET FOR A SOUTHEAST CORNER OF SAID 41.871 ACRE TRACT, AN EXTERIOR ELL CORNER OF SAID 5.925 ACRE TRACT, AND A NORTHERLY CORNER OF LOT 2, BLOCK 1, WILSON ESTATES, AN ADDITION TO THE CITY OF ROWLETT, AS RECORDED IN COUNTY CLERK'S FILE NO. 20160000006411, OFFICIAL PUBLIC RECORDS, ROCKWALL COUNTY, TEXAS;

THENCE, SOUTH 64 DEGREES 00 MINUTES 46 SECONDS WEST, ALONG THE SOUTH LINE OF SAID 41.871 ACRE TRACT AND THE COMMON NORTHWESTERLY LINES OF SAID LOT 2, AND A 1.72 ACRE TRACT OF LAND, CONVEYED TO MATTHEW BURKE, AS RECORDED IN COUNTY CLERKS FILE NO. 20210000025168, OFFICIAL PUBLIC RECORDS, ROCKWALL COUNTY, TEXAS, AND A 1.00 ACRE

TRACT OF LAND, CONVEYED TO DAVID M. CASTLE ET UX, BOBBIE G. CASTLE, AS RECORDED IN VOLUME 600, PAGE 149, OFFICIAL PUBLIC RECORDS, ROCKWALL COUNTY, TEXAS, A DISTANCE OF 639.00 FEET TO A 1/2 INCH IRON ROD WITH PLASTIC CAP STAMPED “JBI” FOUND FOR THE SOUTH CORNER OF SAID 41.871 ACRE TRACT, AND THE COMMON SOUTHEAST CORNER OF AFORESAID TRAILS AT COTTONWOOD CREEK, PHASE 1, AND SAME POINT BEING ON SAID NORTHWESTERLY LINE OF SAID 1.00 ACRE TRACT;

THENCE, NORTH 00 DEGREES 00 MINUTES 01 SECONDS EAST, ALONG THE COMMON LINE OF SAID 41.871 ACRE TRACT AND SAID TRAILS AT COTTONWOOD CREEK, PHASE 1, A DISTANCE OF 1608.24 FEET TO THE **POINT OF BEGINNING** AND CONTAINING A CALCULATED AREA OF 1,676,226 SQUARE FEET, OR 38.481 ACRES OF LAND.

APPENDIX F
MAJOR IMPROVEMENT AREA ASSESSMENT ROLL

Appendix F-1
Major Improvement Area Assessment Roll

Parcel(s)	**All Parcels**
Equivalent Units	**513.63**
Original Assessment	**$5,065,000**
Outstanding Assessment	**$4,744,000**

Year[1]	Principal[2]	Interest[2]	Administrative Expenses[3]	Prepayment and Delinquency Reserve	Debt Service Reserve Fund	Capitalized Interest	Total Annual Installment
9/30/2021	$0	$55,024	$39,600	$0	$0	($55,024)	$39,600
9/30/2022	$0	$208,513	$43,100	$0	$0	($208,513)	$43,100
9/30/2023	$0	$208,513	$50,000	$25,325	$0	($208,513)	$75,325
9/30/2024	$103,000	$208,513	$50,000	$24,810	($13,747)	$0	$372,575
9/30/2025	$107,000	$204,650	$50,000	$24,810	($24,086)	$0	$362,374
9/30/2026	$111,000	$200,638	$47,000	$24,275	($4,000)	$0	$378,913
9/30/2027	$115,000	$196,475	$38,643	$23,720	$0	$0	$373,838
9/30/2028	$119,000	$192,163	$39,416	$23,145	$0	$0	$373,723
9/30/2029	$123,000	$187,700	$40,204	$22,550	$0	$0	$373,454
9/30/2030	$128,000	$183,088	$41,008	$21,935	$0	$0	$374,031
9/30/2031	$132,000	$178,288	$41,828	$21,295	$0	$0	$373,411
9/30/2032	$137,000	$173,338	$42,665	$20,635	$0	$0	$373,637
9/30/2033	$143,000	$167,686	$43,518	$19,950	$0	$0	$374,154
9/30/2034	$148,000	$161,788	$44,388	$19,235	$0	$0	$373,411
9/30/2035	$154,000	$155,683	$45,276	$18,495	$0	$0	$373,454
9/30/2036	$160,000	$149,330	$46,182	$17,725	$0	$0	$373,237
9/30/2037	$167,000	$142,730	$47,105	$16,925	$0	$0	$373,760
9/30/2038	$174,000	$135,841	$48,048	$16,090	$0	$0	$373,979
9/30/2039	$181,000	$128,664	$49,008	$15,220	$0	$0	$373,892
9/30/2040	$188,000	$121,198	$49,989	$14,315	$0	$0	$373,501
9/30/2041	$196,000	$113,443	$50,988	$13,375	$0	$0	$373,806
9/30/2042	$204,000	$105,358	$52,008	$12,395	$0	$0	$373,761
9/30/2043	$213,000	$96,688	$53,048	$11,375	$0	$0	$374,111
9/30/2044	$222,000	$87,635	$54,109	$10,310	$0	$0	$374,054
9/30/2045	$231,000	$78,200	$55,191	$9,200	$0	$0	$373,591
9/30/2046	$241,000	$68,383	$56,295	$8,045	$0	$0	$373,723
9/30/2047	$251,000	$58,140	$57,421	$6,840	$0	$0	$373,401
9/30/2048	$262,000	$47,473	$58,570	$5,585	$0	$0	$373,627
9/30/2049	$273,000	$36,338	$59,741	$4,275	$0	$0	$373,354
9/30/2050	$285,000	$24,735	$60,936	$2,910	$0	$0	$373,581
9/30/2051	$297,000	$12,623	$62,155	$1,485	($311,650)	$0	$61,612
Total	**$5,065,000**	**$4,088,830**	**$1,517,441**	**$456,250**	**($353,484)**	**($472,049)**	**$10,301,989**

1 - The 9/30/XX dates represent the fiscal year end for the Bonds.

2 – Represent the principal and interest on the Major Improvement Area Bonds. Interest is calculated using an interest rate of 3.75% in years 2021 through 2031, 4.125% in years 2032 through 2041, and 4.250% in years 2042 through 2051 on the Bonds.

3- Administrative Expenses are estimated and will be updated each year in the Annual Service Plan Updates. Assumes a 2% increase per year.

Appendix F-2
Assessment Roll by Lot Type

Lot Type	**Lot Type 1 (50 Ft)**
Original Assessment	**$9,861**
Outstanding Assessment	**$8,769**
Equivalent Unit	**1.00**

Year[1]	Principal[2]	Interest[2]	Administrative Expenses[3]	Prepayment and Delinquency Reserve	Debt Service Reserve Fund	Capitalized Interest	Total Annual Installment
9/30/2021	$0	$102	$73	$0	$0	($102)	$73
9/30/2022	$0	$385	$80	$0	$0	($385)	$80
9/30/2023	$0	$385	$92	$47	$0	($385)	$139
9/30/2024	$190	$385	$92	$46	($25)	$0	$689
9/30/2025	$198	$378	$92	$46	($45)	$0	$670
9/30/2026	$205	$371	$87	$45	($7)	$0	$700
9/30/2027	$213	$363	$71	$44	$0	$0	$691
9/30/2028	$220	$355	$73	$43	$0	$0	$691
9/30/2029	$227	$347	$74	$42	$0	$0	$690
9/30/2030	$237	$338	$76	$41	$0	$0	$691
9/30/2031	$244	$330	$77	$39	$0	$0	$690
9/30/2032	$253	$320	$79	$38	$0	$0	$691
9/30/2033	$264	$310	$80	$37	$0	$0	$692
9/30/2034	$274	$299	$82	$36	$0	$0	$690
9/30/2035	$285	$288	$84	$34	$0	$0	$690
9/30/2036	$296	$276	$85	$33	$0	$0	$690
9/30/2037	$309	$264	$87	$31	$0	$0	$691
9/30/2038	$322	$251	$89	$30	$0	$0	$691
9/30/2039	$335	$238	$91	$28	$0	$0	$691
9/30/2040	$348	$224	$92	$26	$0	$0	$690
9/30/2041	$362	$210	$94	$25	$0	$0	$691
9/30/2042	$377	$195	$96	$23	$0	$0	$691
9/30/2043	$394	$179	$98	$21	$0	$0	$692
9/30/2044	$410	$162	$100	$19	$0	$0	$691
9/30/2045	$427	$145	$102	$17	$0	$0	$691
9/30/2046	$445	$126	$104	$15	$0	$0	$691
9/30/2047	$464	$107	$106	$13	$0	$0	$690
9/30/2048	$484	$88	$108	$10	$0	$0	$691
9/30/2049	$505	$67	$110	$8	$0	$0	$690
9/30/2050	$527	$46	$113	$5	$0	$0	$691
9/30/2051	$549	$23	$115	$3	($576)	$0	$114
Total	**$9,362**	**$7,558**	**$2,805**	**$843**	**($653)**	**($873)**	**$19,042**

1 - The 9/30/XX dates represent the fiscal year end for the Bonds.
2 – Represent the principal and interest on the Major Improvement Area Bonds. Interest is calculated using an interest rate of 3.75% in years 2021 through 2031, 4.125% in years 2032 through 2041, and 4.250% in years 2042 through 2051 on the Bonds.
3- Administrative Expenses are estimated and will be updated each year in the Annual Service Plan Updates. Assumes a 2% increase per year.

Appendix F-3
Assessment Roll by Lot Type

Lot Type	**Lot Type 2 (40 Ft)**
Original Assessment	**$8,823**
Outstanding Assessment	**$7,846**
Equivalent Unit	**0.89**

Year[1]	Principal[2]	Interest[2]	Administrative Expenses[3]	Prepayment and Delinquency Reserve	Debt Service Reserve Fund	Capitalized Interest	Total Annual Installment
9/30/2021	$0	$91	$65	$0	$0	($91)	$65
9/30/2022	$0	$345	$71	$0	$0	($345)	$71
9/30/2023	$0	$345	$83	$42	$0	($345)	$125
9/30/2024	$170	$345	$83	$41	($23)	$0	$616
9/30/2025	$177	$338	$83	$41	($40)	$0	$599
9/30/2026	$184	$332	$78	$40	($7)	$0	$627
9/30/2027	$190	$325	$64	$39	$0	$0	$618
9/30/2028	$197	$318	$65	$38	$0	$0	$618
9/30/2029	$203	$310	$66	$37	$0	$0	$618
9/30/2030	$212	$303	$68	$36	$0	$0	$619
9/30/2031	$218	$295	$69	$35	$0	$0	$618
9/30/2032	$227	$287	$71	$34	$0	$0	$618
9/30/2033	$237	$277	$72	$33	$0	$0	$619
9/30/2034	$245	$268	$73	$32	$0	$0	$618
9/30/2035	$255	$257	$75	$31	$0	$0	$618
9/30/2036	$265	$247	$76	$29	$0	$0	$617
9/30/2037	$276	$236	$78	$28	$0	$0	$618
9/30/2038	$288	$225	$79	$27	$0	$0	$619
9/30/2039	$299	$213	$81	$25	$0	$0	$618
9/30/2040	$311	$200	$83	$24	$0	$0	$618
9/30/2041	$324	$188	$84	$22	$0	$0	$618
9/30/2042	$337	$174	$86	$20	$0	$0	$618
9/30/2043	$352	$160	$88	$19	$0	$0	$619
9/30/2044	$367	$145	$89	$17	$0	$0	$619
9/30/2045	$382	$129	$91	$15	$0	$0	$618
9/30/2046	$399	$113	$93	$13	$0	$0	$618
9/30/2047	$415	$96	$95	$11	$0	$0	$618
9/30/2048	$433	$79	$97	$9	$0	$0	$618
9/30/2049	$452	$60	$99	$7	$0	$0	$617
9/30/2050	$471	$41	$101	$5	$0	$0	$618
9/30/2051	$491	$21	$103	$2	($515)	$0	$102
Total	**$8,377**	**$6,762**	**$2,510**	**$755**	**($585)**	**($781)**	**$17,038**

1 - The 9/30/XX dates represent the fiscal year end for the Bonds.
2 – Represent the principal and interest on the Major Improvement Area Bonds. Interest is calculated using an interest rate of 3.75% in years 2021 through 2031, 4.125% in years 2032 through 2041, and 4.250% in years 2042 through 2051 on the Bonds.
3- Administrative Expenses are estimated and will be updated each year in the Annual Service Plan Updates. Assumes a 2% increase per year.

Appendix F-4
Assessment Roll by Lot Type

Lot Type	**Lot Type 3 (Townhome)**
Original Assessment	**$7,785**
Outstanding Assessment	**$6,923**
Equivalent Unit	**0.79**

Year[1]	Principal[2]	Interest[2]	Administrative Expenses[3]	Prepayment and Delinquency Reserve	Debt Service Reserve Fund	Capitalized Interest	Total Annual Installment
9/30/2021	$0	$80	$58	$0	$0	($80)	$58
9/30/2022	$0	$304	$63	$0	$0	($304)	$63
9/30/2023	$0	$304	$73	$37	$0	($304)	$110
9/30/2024	$150	$304	$73	$36	($20)	$0	$544
9/30/2025	$156	$299	$73	$36	($35)	$0	$529
9/30/2026	$162	$293	$69	$35	($6)	$0	$553
9/30/2027	$168	$287	$56	$35	$0	$0	$546
9/30/2028	$174	$280	$58	$34	$0	$0	$545
9/30/2029	$179	$274	$59	$33	$0	$0	$545
9/30/2030	$187	$267	$60	$32	$0	$0	$546
9/30/2031	$193	$260	$61	$31	$0	$0	$545
9/30/2032	$200	$253	$62	$30	$0	$0	$545
9/30/2033	$209	$245	$64	$29	$0	$0	$546
9/30/2034	$216	$236	$65	$28	$0	$0	$545
9/30/2035	$225	$227	$66	$27	$0	$0	$545
9/30/2036	$233	$218	$67	$26	$0	$0	$545
9/30/2037	$244	$208	$69	$25	$0	$0	$545
9/30/2038	$254	$198	$70	$23	$0	$0	$546
9/30/2039	$264	$188	$72	$22	$0	$0	$546
9/30/2040	$274	$177	$73	$21	$0	$0	$545
9/30/2041	$286	$166	$74	$20	$0	$0	$545
9/30/2042	$298	$154	$76	$18	$0	$0	$545
9/30/2043	$311	$141	$77	$17	$0	$0	$546
9/30/2044	$324	$128	$79	$15	$0	$0	$546
9/30/2045	$337	$114	$81	$13	$0	$0	$545
9/30/2046	$352	$100	$82	$12	$0	$0	$545
9/30/2047	$366	$85	$84	$10	$0	$0	$545
9/30/2048	$382	$69	$85	$8	$0	$0	$545
9/30/2049	$398	$53	$87	$6	$0	$0	$545
9/30/2050	$416	$36	$89	$4	$0	$0	$545
9/30/2051	$433	$18	$91	$2	($455)	$0	$90
Total	**$7,391**	**$5,967**	**$2,214**	**$666**	**($516)**	**($689)**	**$15,034**

1 - The 9/30/XX dates represent the fiscal year end for the Bonds.
2 – Represent the principal and interest on the Major Improvement Area Bonds. Interest is calculated using an interest rate of 3.75% in years 2021 through 2031, 4.125% in years 2032 through 2041, and 4.250% in years 2042 through 2051 on the Bonds.
3- Administrative Expenses are estimated and will be updated each year in the Annual Service Plan Updates. Assumes a 2% increase per year.

Appendix F-5
Assessment Roll by Lot Type

Lot Type	**Lot Type 4 (60 Ft)**
Original Assessment	**$11,235**
Outstanding Assessment	**$10,523**
Equivalent Unit	**1.20**

Year[1]	Principal[2]	Interest[2]	Administrative Expenses[3]	Prepayment and Delinquency Reserve	Debt Service Reserve Fund	Capitalized Interest	Total Annual Installment
9/30/2021	$0	$122	$88	$0	$0	($122)	$88
9/30/2022	$0	$463	$96	$0	$0	($463)	$96
9/30/2023	$0	$463	$111	$56	$0	($463)	$167
9/30/2024	$228	$463	$111	$55	($30)	$0	$826
9/30/2025	$237	$454	$111	$55	($53)	$0	$804
9/30/2026	$246	$445	$104	$54	($9)	$0	$840
9/30/2027	$255	$436	$86	$53	$0	$0	$829
9/30/2028	$264	$426	$87	$51	$0	$0	$829
9/30/2029	$273	$416	$89	$50	$0	$0	$828
9/30/2030	$284	$406	$91	$49	$0	$0	$830
9/30/2031	$293	$395	$93	$47	$0	$0	$828
9/30/2032	$304	$384	$95	$46	$0	$0	$829
9/30/2033	$317	$372	$97	$44	$0	$0	$830
9/30/2034	$328	$359	$98	$43	$0	$0	$828
9/30/2035	$342	$345	$100	$41	$0	$0	$828
9/30/2036	$355	$331	$102	$39	$0	$0	$828
9/30/2037	$370	$317	$104	$38	$0	$0	$829
9/30/2038	$386	$301	$107	$36	$0	$0	$830
9/30/2039	$401	$285	$109	$34	$0	$0	$829
9/30/2040	$417	$269	$111	$32	$0	$0	$828
9/30/2041	$435	$252	$113	$30	$0	$0	$829
9/30/2042	$452	$234	$115	$27	$0	$0	$829
9/30/2043	$472	$214	$118	$25	$0	$0	$830
9/30/2044	$492	$194	$120	$23	$0	$0	$830
9/30/2045	$512	$173	$122	$20	$0	$0	$829
9/30/2046	$535	$152	$125	$18	$0	$0	$829
9/30/2047	$557	$129	$127	$15	$0	$0	$828
9/30/2048	$581	$105	$130	$12	$0	$0	$829
9/30/2049	$606	$81	$133	$9	$0	$0	$828
9/30/2050	$632	$55	$135	$6	$0	$0	$829
9/30/2051	$659	$28	$138	$3	($691)	$0	$137
Total	**$11,235**	**$9,069**	**$3,366**	**$1,012**	**($784)**	**($1,047)**	**$22,851**

1 - The 9/30/XX dates represent the fiscal year end for the Bonds.
2 – Represent the principal and interest on the Major Improvement Area Bonds. Interest is calculated using an interest rate of 3.75% in years 2021 through 2031, 4.125% in years 2032 through 2041, and 4.250% in years 2042 through 2051 on the Bonds.
3- Administrative Expenses are estimated and will be updated each year in the Annual Service Plan Updates. Assumes a 2% increase per year.

APPENDIX G
NEIGHBORHOOD IMPROVEMENT AREA #1 ASSESSMENT ROLL

Appendix G-1
Neighborhood Improvement Area #1 Assessment Roll

Parcel (s)	**All Parcels**
Equivalent Units	**174.11**
Original Assessment	**$2,543,000**
Outstanding Assessment	**$2,358,000**

Year[1]	Principal[2]	Interest[2]	Administrative Expenses[3]	Prepayment and Delinquency Reserve	Debt Service Reserve Fund	Capitalized Interest	Total Annual Installment
9/30/2021	$0	$25,071	$0	$0	$0	($25,071)	$0
9/30/2022	$0	$95,005	$39,600	$0	$0	($95,005)	$39,600
9/30/2023	$0	$95,005	$43,100	$0	$0	($95,005)	$43,100
9/30/2024	$60,000	$95,005	$50,000	$12,715	($6,843)	$0	$210,877
9/30/2025	$62,000	$93,130	$50,000	$12,415	($16,094)	$0	$201,451
9/30/2026	$63,000	$89,562	$47,000	$11,889	($2,000)	$0	$209,451
9/30/2027	$65,000	$89,224	$38,643	$11,790	$0	$0	$204,657
9/30/2028	$66,000	$87,193	$39,416	$11,465	$0	$0	$204,073
9/30/2029	$68,000	$85,130	$40,204	$11,135	$0	$0	$204,469
9/30/2030	$70,000	$83,005	$41,008	$10,795	$0	$0	$204,808
9/30/2031	$72,000	$80,818	$41,828	$10,445	$0	$0	$205,091
9/30/2032	$73,000	$78,568	$42,665	$10,085	$0	$0	$204,317
9/30/2033	$76,000	$75,830	$43,518	$9,720	$0	$0	$205,068
9/30/2034	$78,000	$72,980	$44,388	$9,340	$0	$0	$204,708
9/30/2035	$80,000	$70,055	$45,276	$8,950	$0	$0	$204,281
9/30/2036	$83,000	$67,055	$46,182	$8,550	$0	$0	$204,787
9/30/2037	$85,000	$63,943	$47,105	$8,135	$0	$0	$204,183
9/30/2038	$88,000	$60,755	$48,048	$7,710	$0	$0	$204,513
9/30/2039	$91,000	$57,455	$49,008	$7,270	$0	$0	$204,733
9/30/2040	$94,000	$54,043	$49,989	$6,815	$0	$0	$204,846
9/30/2041	$97,000	$50,518	$50,988	$6,345	$0	$0	$204,851
9/30/2042	$100,000	$46,880	$52,008	$5,860	$0	$0	$204,748
9/30/2043	$103,000	$42,880	$53,048	$5,360	$0	$0	$204,288
9/30/2044	$107,000	$38,760	$54,109	$4,845	$0	$0	$204,714
9/30/2045	$111,000	$34,480	$55,191	$4,310	$0	$0	$204,981
9/30/2046	$114,000	$30,040	$56,295	$3,755	$0	$0	$204,090
9/30/2047	$119,000	$25,480	$57,421	$3,185	$0	$0	$205,086
9/30/2048	$123,000	$20,720	$58,570	$2,590	$0	$0	$204,880
9/30/2049	$127,000	$15,800	$59,741	$1,975	$0	$0	$204,516
9/30/2050	$132,000	$10,720	$60,936	$1,340	$0	$0	$204,996
9/30/2051	$136,000	$5,440	$62,155	$680	($155,130)	$0	$49,145
Total	**$2,543,000**	**$1,840,547**	**$1,467,441**	**$209,469**	**($180,067)**	**($215,081)**	**$5,665,309**

1 - The 9/30/XX dates represent the fiscal year end for the Bonds.

2 – Represent the principal and interest on the Neighborhood Improvement Area #1 Bonds. Interest is calculated using an interest rate of 3.125% in years 2021 through 2031, 3.75% in years 2032 through 2041, and 4.0% in years 2042 through 2051 on the Bonds.

3- Administrative Expenses are estimated and will be updated each year in the Annual Service Plan Updates. Assumes a 2% increase per year.

Appendix G-2
Assessment Roll by Lot Type

Lot Type	**Lot Type 1 (50 Ft)**
Original Assessment	**$14,606**
Outstanding Assessment	**$13,544**
Equivalent Unit	**1.00**

Year[1]	Principal[2]	Interest[2]	Administrative Expenses[3]	Prepayment and Delinquency Reserve	Debt Service Reserve Fund	Capitalized Interest	Total Annual Installment
9/30/2021	$0	$144	$0	$0	$0	($144)	$0
9/30/2022	$0	$546	$227	$0	$0	($546)	$227
9/30/2023	$0	$546	$248	$0	$0	($546)	$248
9/30/2024	$345	$546	$287	$73	($39)	$0	$1,211
9/30/2025	$356	$535	$287	$71	($92)	$0	$1,157
9/30/2026	$362	$514	$270	$68	($11)	$0	$1,203
9/30/2027	$373	$512	$222	$68	$0	$0	$1,175
9/30/2028	$379	$501	$226	$66	$0	$0	$1,172
9/30/2029	$391	$489	$231	$64	$0	$0	$1,174
9/30/2030	$402	$477	$236	$62	$0	$0	$1,176
9/30/2031	$414	$464	$240	$60	$0	$0	$1,178
9/30/2032	$419	$451	$245	$58	$0	$0	$1,174
9/30/2033	$437	$436	$250	$56	$0	$0	$1,178
9/30/2034	$448	$419	$255	$54	$0	$0	$1,176
9/30/2035	$459	$402	$260	$51	$0	$0	$1,173
9/30/2036	$477	$385	$265	$49	$0	$0	$1,176
9/30/2037	$488	$367	$271	$47	$0	$0	$1,173
9/30/2038	$505	$349	$276	$44	$0	$0	$1,175
9/30/2039	$523	$330	$281	$42	$0	$0	$1,176
9/30/2040	$540	$310	$287	$39	$0	$0	$1,177
9/30/2041	$557	$290	$293	$36	$0	$0	$1,177
9/30/2042	$574	$269	$299	$34	$0	$0	$1,176
9/30/2043	$592	$246	$305	$31	$0	$0	$1,173
9/30/2044	$615	$223	$311	$28	$0	$0	$1,176
9/30/2045	$638	$198	$317	$25	$0	$0	$1,177
9/30/2046	$655	$173	$323	$22	$0	$0	$1,172
9/30/2047	$683	$146	$330	$18	$0	$0	$1,178
9/30/2048	$706	$119	$336	$15	$0	$0	$1,177
9/30/2049	$729	$91	$343	$11	$0	$0	$1,175
9/30/2050	$758	$62	$350	$8	$0	$0	$1,177
9/30/2051	$781	$31	$357	$4	($891)	$0	$282
Total	**$14,606**	**$10,427**	**$8,428**	**$1,203**	**($1,034)**	**($1,091)**	**$32,540**

1 - The 9/30/XX dates represent the fiscal year end for the Bonds.

2 – Represent the principal and interest on the Neighborhood Improvement Area #1 Bonds. Interest is calculated using an interest rate of 3.125% in years 2021 through 2031, 3.75% in years 2032 through 2041, and 4.0% in years 2042 through 2051 on the Bonds.

3- Administrative Expenses are estimated and will be updated each year in the Annual Service Plan Updates. Assumes a 2% increase per year.

Appendix G-3
Assessment Roll by Lot Type

Lot Type	**Lot Type 2 (40 Ft)**
Original Assessment	**$13,069**
Outstanding Assessment	**$12,188**
Equivalent Unit	**0.89**

Year[1]	Principal[2]	Interest[2]	Administrative Expenses[3]	Prepayment and Delinquency Reserve	Debt Service Reserve Fund	Capitalized Interest	Total Annual Installment
9/30/2021	$0	$129	$0	$0	$0	($129)	$0
9/30/2022	$0	$488	$204	$0	$0	($488)	$204
9/30/2023	$0	$488	$221	$0	$0	($488)	$221
9/30/2024	$308	$488	$257	$65	($35)	$0	$1,084
9/30/2025	$319	$479	$257	$64	($83)	$0	$1,035
9/30/2026	$324	$460	$242	$61	($10)	$0	$1,076
9/30/2027	$334	$459	$199	$61	$0	$0	$1,052
9/30/2028	$339	$448	$203	$59	$0	$0	$1,049
9/30/2029	$349	$437	$207	$57	$0	$0	$1,051
9/30/2030	$360	$427	$211	$55	$0	$0	$1,053
9/30/2031	$370	$415	$215	$54	$0	$0	$1,054
9/30/2032	$375	$404	$219	$52	$0	$0	$1,050
9/30/2033	$391	$390	$224	$50	$0	$0	$1,054
9/30/2034	$401	$375	$228	$48	$0	$0	$1,052
9/30/2035	$411	$360	$233	$46	$0	$0	$1,050
9/30/2036	$427	$345	$237	$44	$0	$0	$1,052
9/30/2037	$437	$329	$242	$42	$0	$0	$1,049
9/30/2038	$452	$312	$247	$40	$0	$0	$1,051
9/30/2039	$468	$295	$252	$37	$0	$0	$1,052
9/30/2040	$483	$278	$257	$35	$0	$0	$1,053
9/30/2041	$498	$260	$262	$33	$0	$0	$1,053
9/30/2042	$514	$241	$267	$30	$0	$0	$1,052
9/30/2043	$529	$220	$273	$28	$0	$0	$1,050
9/30/2044	$550	$199	$278	$25	$0	$0	$1,052
9/30/2045	$570	$177	$284	$22	$0	$0	$1,053
9/30/2046	$586	$154	$289	$19	$0	$0	$1,049
9/30/2047	$612	$131	$295	$16	$0	$0	$1,054
9/30/2048	$632	$106	$301	$13	$0	$0	$1,053
9/30/2049	$653	$81	$307	$10	$0	$0	$1,051
9/30/2050	$678	$55	$313	$7	$0	$0	$1,053
9/30/2051	$699	$28	$319	$3	($797)	$0	$253
Total	**$13,069**	**$9,330**	**$7,541**	**$1,076**	**($925)**	**($976)**	**$29,114**

1 - The 9/30/XX dates represent the fiscal year end for the Bonds.

2 – Represent the principal and interest on the Neighborhood Improvement Area #1 Bonds. Interest is calculated using an interest rate of 3.125% in years 2021 through 2031, 3.75% in years 2032 through 2041, and 4.0% in years 2042 through 2051 on the Bonds.

3- Administrative Expenses are estimated and will be updated each year in the Annual Service Plan Updates. Assumes a 2% increase per year.

Appendix G-4
Assessment Roll by Lot Type

Lot Type	**Lot Type 3 (Townhome)**
Original Assessment	**$13,531**
Outstanding Assessment	**$12,188**
Equivalent Unit	**0.79**

Year[1]	Principal[2]	Interest[2]	Administrative Expenses[3]	Prepayment and Delinquency Reserve	Debt Service Reserve Fund	Capitalized Interest	Total Annual Installment
9/30/2021	$0	$114	$0	$0	$0	($114)	$0
9/30/2022	$0	$431	$180	$0	$0	($431)	$180
9/30/2023	$0	$431	$195	$0	$0	($431)	$195
9/30/2024	$272	$431	$227	$58	($31)	$0	$956
9/30/2025	$281	$422	$227	$56	($73)	$0	$913
9/30/2026	$286	$406	$213	$54	($9)	$0	$950
9/30/2027	$295	$405	$175	$53	$0	$0	$928
9/30/2028	$299	$395	$179	$52	$0	$0	$925
9/30/2029	$308	$386	$182	$50	$0	$0	$927
9/30/2030	$317	$376	$186	$49	$0	$0	$929
9/30/2031	$326	$366	$190	$47	$0	$0	$930
9/30/2032	$331	$356	$193	$46	$0	$0	$926
9/30/2033	$345	$344	$197	$44	$0	$0	$930
9/30/2034	$354	$331	$201	$42	$0	$0	$928
9/30/2035	$363	$318	$205	$41	$0	$0	$926
9/30/2036	$376	$304	$209	$39	$0	$0	$929
9/30/2037	$385	$290	$214	$37	$0	$0	$926
9/30/2038	$399	$275	$218	$35	$0	$0	$927
9/30/2039	$413	$261	$222	$33	$0	$0	$928
9/30/2040	$426	$245	$227	$31	$0	$0	$929
9/30/2041	$440	$229	$231	$29	$0	$0	$929
9/30/2042	$453	$213	$236	$27	$0	$0	$928
9/30/2043	$467	$194	$241	$24	$0	$0	$926
9/30/2044	$485	$176	$245	$22	$0	$0	$928
9/30/2045	$503	$156	$250	$20	$0	$0	$929
9/30/2046	$517	$136	$255	$17	$0	$0	$925
9/30/2047	$540	$116	$260	$14	$0	$0	$930
9/30/2048	$558	$94	$266	$12	$0	$0	$929
9/30/2049	$576	$72	$271	$9	$0	$0	$927
9/30/2050	$599	$49	$276	$6	$0	$0	$930
9/30/2051	$617	$25	$282	$3	($703)	$0	$223
Total	**$11,531**	**$8,232**	**$6,654**	**$950**	**($817)**	**($862)**	**$25,689**

1 - The 9/30/XX dates represent the fiscal year end for the Bonds.

2 – Represent the principal and interest on the Neighborhood Improvement Area #1 Bonds. Interest is calculated using an interest rate of 3.125% in years 2021 through 2031, 3.75% in years 2032 through 2041, and 4.0% in years 2042 through 2051 on the Bonds.

3- Administrative Expenses are estimated and will be updated each year in the Annual Service Plan Updates. Assumes a 2% increase per year.

APPENDIX H
PROPOSED NEIGHBORHOOD IMPROVEMENT AREA #2 ASSESSMENT ROLL

Appendix H-1
Proposed Neighborhood Improvement Area #2 Assessment Roll

Parcel (s)	**65111431510110100**
Equivalent Units	**270.85**
Assessment	**$4,418,000**

Year[1]	Principal[2]	Interest[2]	Administrative Expenses[3]	Prepayment and Delinquency Reserve	Debt Service Reserve Fund	Capitalized Interest	Total Annual Installment
9/30/2026	$0	$121,495	$0	$0	$0	($121,495)	$0
9/30/2027	$70,000	$242,990	$51,000	$22,090	$0	$0	$386,080
9/30/2028	$73,000	$239,140	$52,020	$21,740	$0	$0	$385,900
9/30/2029	$76,000	$235,125	$53,060	$21,375	$0	$0	$385,560
9/30/2030	$79,000	$230,945	$54,122	$20,995	$0	$0	$385,062
9/30/2031	$82,000	$226,600	$55,204	$20,600	$0	$0	$384,404
9/30/2032	$86,000	$222,090	$56,308	$20,190	$0	$0	$384,588
9/30/2033	$90,000	$217,360	$57,434	$19,760	$0	$0	$384,554
9/30/2034	$94,000	$212,410	$58,583	$19,310	$0	$0	$384,303
9/30/2035	$98,000	$207,240	$59,755	$18,840	$0	$0	$383,835
9/30/2036	$102,000	$201,850	$60,950	$18,350	$0	$0	$383,150
9/30/2037	$107,000	$196,240	$62,169	$17,840	$0	$0	$383,249
9/30/2038	$112,000	$190,355	$63,412	$17,305	$0	$0	$383,072
9/30/2039	$118,000	$184,195	$64,680	$16,745	$0	$0	$383,620
9/30/2040	$123,000	$177,705	$65,974	$16,155	$0	$0	$382,834
9/30/2041	$129,000	$170,940	$67,293	$15,540	$0	$0	$382,773
9/30/2042	$136,000	$163,845	$68,639	$14,895	$0	$0	$383,379
9/30/2043	$143,000	$156,365	$70,012	$14,215	$0	$0	$383,592
9/30/2044	$150,000	$148,500	$71,412	$13,500	$0	$0	$383,412
9/30/2045	$157,000	$140,250	$72,841	$12,750	$0	$0	$382,841
9/30/2046	$166,000	$131,615	$74,297	$11,965	$0	$0	$383,877
9/30/2047	$174,000	$122,485	$75,783	$11,135	$0	$0	$383,403
9/30/2048	$183,000	$112,915	$77,299	$10,265	$0	$0	$383,479
9/30/2049	$193,000	$102,850	$78,845	$9,350	$0	$0	$384,045
9/30/2050	$203,000	$92,235	$80,422	$8,385	$0	$0	$384,042
9/30/2051	$214,000	$81,070	$82,030	$7,370	$0	$0	$384,470
9/30/2052	$226,000	$69,300	$83,671	$6,300	$0	$0	$385,271
9/30/2053	$238,000	$56,870	$85,344	$5,170	$0	$0	$385,384
9/30/2054	$251,000	$43,780	$87,051	$3,980	$0	$0	$385,811
9/30/2055	$265,000	$29,975	$88,792	$2,725	$0	$0	$386,492
9/30/2056	$280,000	$15,400	$90,568	$1,400	($312,990)	$0	$74,378
Total	**$4,418,000**	**$4,744,135**	**$2,068,972**	**$420,240**	**($312,990)**	**($121,495)**	**$11,216,862**

1 - The 9/30/XX dates represent the fiscal year end for the Bonds.

2 – Represent the Neighborhood Improvement Area #2 portion of the principal and interest on the Neighborhood Improvement Areas #2-3 Bonds. Interest is calculated using an interest rate of 5.50% in years 2026 through 2056 on the Bonds.

3- Administrative Expenses are estimated and will be updated each year in the Annual Service Plan Updates. Assumes a 2% increase per year.

Appendix H-2
Proposed Assessment Roll by Lot Type

Lot Type	**Lot Type 1 (50 Ft)**
Assessment	**1.00**
Equivalent Unit	**$16,312**

Year[1]	Principal[2]	Interest[2]	Administrative Expenses[3]	Prepayment and Delinquency Reserve	Debt Service Reserve Fund	Capitalized Interest	Total Annual Installment
9/30/2026	$0	$449	$0	$0	$0	($449)	$0
9/30/2027	$258	$897	$188	$82	$0	$0	$1,425
9/30/2028	$270	$883	$192	$80	$0	$0	$1,425
9/30/2029	$281	$868	$196	$79	$0	$0	$1,424
9/30/2030	$292	$853	$200	$78	$0	$0	$1,422
9/30/2031	$303	$837	$204	$76	$0	$0	$1,419
9/30/2032	$318	$820	$208	$75	$0	$0	$1,420
9/30/2033	$332	$803	$212	$73	$0	$0	$1,420
9/30/2034	$347	$784	$216	$71	$0	$0	$1,419
9/30/2035	$362	$765	$221	$70	$0	$0	$1,417
9/30/2036	$377	$745	$225	$68	$0	$0	$1,415
9/30/2037	$395	$725	$230	$66	$0	$0	$1,415
9/30/2038	$414	$703	$234	$64	$0	$0	$1,414
9/30/2039	$436	$680	$239	$62	$0	$0	$1,416
9/30/2040	$454	$656	$244	$60	$0	$0	$1,413
9/30/2041	$476	$631	$248	$57	$0	$0	$1,413
9/30/2042	$502	$605	$253	$55	$0	$0	$1,415
9/30/2043	$528	$577	$258	$52	$0	$0	$1,416
9/30/2044	$554	$548	$264	$50	$0	$0	$1,416
9/30/2045	$580	$518	$269	$47	$0	$0	$1,413
9/30/2046	$613	$486	$274	$44	$0	$0	$1,417
9/30/2047	$642	$452	$280	$41	$0	$0	$1,416
9/30/2048	$676	$417	$285	$38	$0	$0	$1,416
9/30/2049	$713	$380	$291	$35	$0	$0	$1,418
9/30/2050	$750	$341	$297	$31	$0	$0	$1,418
9/30/2051	$790	$299	$303	$27	$0	$0	$1,420
9/30/2052	$834	$256	$309	$23	$0	$0	$1,422
9/30/2053	$879	$210	$315	$19	$0	$0	$1,423
9/30/2054	$927	$162	$321	$15	$0	$0	$1,424
9/30/2055	$978	$111	$328	$10	$0	$0	$1,427
9/30/2056	$1,034	$57	$334	$5	($1,156)	$0	$275
Total	**$16,312**	**$17,516**	**$7,639**	**$1,552**	**($1,156)**	**($449)**	**$41,414**

1 - The 9/30/XX dates represent the fiscal year end for the Bonds.
2 – Represent the Neighborhood Improvement Area #2 portion of the principal and interest on the Neighborhood Improvement Areas #2-3 Bonds. Interest is calculated using an interest rate of 5.50% in years 2026 through 2056 on the Bonds.
3- Administrative Expenses are estimated and will be updated each year in the Annual Service Plan Updates. Assumes a 2% increase per year.

Appendix H-3
Proposed Assessment Roll by Lot Type

Lot Type	**Lot Type 2 (40 Ft)**
Assessment	**0.85**
Equivalent Unit	**$13,802**

Year[1]	Principal[2]	Interest[2]	Administrative Expenses[3]	Prepayment and Delinquency Reserve	Debt Service Reserve Fund	Capitalized Interest	Total Annual Installment
9/30/2026	$0	$380	$0	$0	$0	($380)	$0
9/30/2027	$219	$759	$159	$69	$0	$0	$1,206
9/30/2028	$228	$747	$163	$68	$0	$0	$1,206
9/30/2029	$237	$735	$166	$67	$0	$0	$1,205
9/30/2030	$247	$721	$169	$66	$0	$0	$1,203
9/30/2031	$256	$708	$172	$64	$0	$0	$1,201
9/30/2032	$269	$694	$176	$63	$0	$0	$1,201
9/30/2033	$281	$679	$179	$62	$0	$0	$1,201
9/30/2034	$294	$664	$183	$60	$0	$0	$1,201
9/30/2035	$306	$647	$187	$59	$0	$0	$1,199
9/30/2036	$319	$631	$190	$57	$0	$0	$1,197
9/30/2037	$334	$613	$194	$56	$0	$0	$1,197
9/30/2038	$350	$595	$198	$54	$0	$0	$1,197
9/30/2039	$369	$575	$202	$52	$0	$0	$1,198
9/30/2040	$384	$555	$206	$50	$0	$0	$1,196
9/30/2041	$403	$534	$210	$49	$0	$0	$1,196
9/30/2042	$425	$512	$214	$47	$0	$0	$1,198
9/30/2043	$447	$489	$219	$44	$0	$0	$1,198
9/30/2044	$469	$464	$223	$42	$0	$0	$1,198
9/30/2045	$490	$438	$228	$40	$0	$0	$1,196
9/30/2046	$519	$411	$232	$37	$0	$0	$1,199
9/30/2047	$544	$383	$237	$35	$0	$0	$1,198
9/30/2048	$572	$353	$241	$32	$0	$0	$1,198
9/30/2049	$603	$321	$246	$29	$0	$0	$1,200
9/30/2050	$634	$288	$251	$26	$0	$0	$1,200
9/30/2051	$669	$253	$256	$23	$0	$0	$1,201
9/30/2052	$706	$217	$261	$20	$0	$0	$1,204
9/30/2053	$744	$178	$267	$16	$0	$0	$1,204
9/30/2054	$784	$137	$272	$12	$0	$0	$1,205
9/30/2055	$828	$94	$277	$9	$0	$0	$1,207
9/30/2056	$875	$48	$283	$4	($978)	$0	$232
Total	**$13,802**	**$14,821**	**$6,464**	**$1,313**	**($978)**	**($380)**	**$35,043**

1 - The 9/30/XX dates represent the fiscal year end for the Bonds.
2 – Represent the Neighborhood Improvement Area #2 portion of the principal and interest on the Neighborhood Improvement Areas #2-3 Bonds. Interest is calculated using an interest rate of 5.50% in years 2026 through 2056 on the Bonds.
3- Administrative Expenses are estimated and will be updated each year in the Annual Service Plan Updates. Assumes a 2% increase per year.

Appendix H-4
Proposed Assessment Roll by Lot Type

Lot Type	**Lot Type 3 (Townhomes)**
Assessment	**0.72**
Equivalent Unit	**$11,795**

Year[1]	Principal[2]	Interest[2]	Administrative Expenses[3]	Prepayment and Delinquency Reserve	Debt Service Reserve Fund	Capitalized Interest	Total Annual Installment
9/30/2026	$0	$324	$0	$0	$0	($324)	$0
9/30/2027	$187	$649	$136	$59	$0	$0	$1,031
9/30/2028	$195	$638	$139	$58	$0	$0	$1,030
9/30/2029	$203	$628	$142	$57	$0	$0	$1,029
9/30/2030	$211	$617	$144	$56	$0	$0	$1,028
9/30/2031	$219	$605	$147	$55	$0	$0	$1,026
9/30/2032	$230	$593	$150	$54	$0	$0	$1,027
9/30/2033	$240	$580	$153	$53	$0	$0	$1,027
9/30/2034	$251	$567	$156	$52	$0	$0	$1,026
9/30/2035	$262	$553	$160	$50	$0	$0	$1,025
9/30/2036	$272	$539	$163	$49	$0	$0	$1,023
9/30/2037	$286	$524	$166	$48	$0	$0	$1,023
9/30/2038	$299	$508	$169	$46	$0	$0	$1,023
9/30/2039	$315	$492	$173	$45	$0	$0	$1,024
9/30/2040	$328	$474	$176	$43	$0	$0	$1,022
9/30/2041	$344	$456	$180	$41	$0	$0	$1,022
9/30/2042	$363	$437	$183	$40	$0	$0	$1,024
9/30/2043	$382	$417	$187	$38	$0	$0	$1,024
9/30/2044	$400	$396	$191	$36	$0	$0	$1,024
9/30/2045	$419	$374	$194	$34	$0	$0	$1,022
9/30/2046	$443	$351	$198	$32	$0	$0	$1,025
9/30/2047	$465	$327	$202	$30	$0	$0	$1,024
9/30/2048	$489	$301	$206	$27	$0	$0	$1,024
9/30/2049	$515	$275	$210	$25	$0	$0	$1,025
9/30/2050	$542	$246	$215	$22	$0	$0	$1,025
9/30/2051	$571	$216	$219	$20	$0	$0	$1,026
9/30/2052	$603	$185	$223	$17	$0	$0	$1,029
9/30/2053	$635	$152	$228	$14	$0	$0	$1,029
9/30/2054	$670	$117	$232	$11	$0	$0	$1,030
9/30/2055	$707	$80	$237	$7	$0	$0	$1,032
9/30/2056	$748	$41	$242	$4	($836)	$0	$199
Total	**$11,795**	**$12,665**	**$5,524**	**$1,122**	**($836)**	**($324)**	**$29,946**

1 - The 9/30/XX dates represent the fiscal year end for the Bonds.
2 – Represent the Neighborhood Improvement Area #2 portion of the principal and interest on the Neighborhood Improvement Areas #2-3 Bonds. Interest is calculated using an interest rate of 5.50% in years 2026 through 2056 on the Bonds.
3- Administrative Expenses are estimated and will be updated each year in the Annual Service Plan Updates. Assumes a 2% increase per year.

Appendix H-5
Proposed Assessment Roll by Lot Type

Lot Type	**Lot Type 4 (60 Ft)**
Assessment	**1.15**
Equivalent Unit	**$18,821**

Year[1]	Principal[2]	Interest[2]	Administrative Expenses[3]	Prepayment and Delinquency Reserve	Debt Service Reserve Fund	Capitalized Interest	Total Annual Installment
9/30/2026	$0	$518	$0	$0	$0	($518)	$0
9/30/2027	$298	$1,035	$217	$94	$0	$0	$1,645
9/30/2028	$311	$1,019	$222	$93	$0	$0	$1,644
9/30/2029	$324	$1,002	$226	$91	$0	$0	$1,643
9/30/2030	$337	$984	$231	$89	$0	$0	$1,640
9/30/2031	$349	$965	$235	$88	$0	$0	$1,638
9/30/2032	$366	$946	$240	$86	$0	$0	$1,638
9/30/2033	$383	$926	$245	$84	$0	$0	$1,638
9/30/2034	$400	$905	$250	$82	$0	$0	$1,637
9/30/2035	$417	$883	$255	$80	$0	$0	$1,635
9/30/2036	$435	$860	$260	$78	$0	$0	$1,632
9/30/2037	$456	$836	$265	$76	$0	$0	$1,633
9/30/2038	$477	$811	$270	$74	$0	$0	$1,632
9/30/2039	$503	$785	$276	$71	$0	$0	$1,634
9/30/2040	$524	$757	$281	$69	$0	$0	$1,631
9/30/2041	$550	$728	$287	$66	$0	$0	$1,631
9/30/2042	$579	$698	$292	$63	$0	$0	$1,633
9/30/2043	$609	$666	$298	$61	$0	$0	$1,634
9/30/2044	$639	$633	$304	$58	$0	$0	$1,633
9/30/2045	$669	$597	$310	$54	$0	$0	$1,631
9/30/2046	$707	$561	$317	$51	$0	$0	$1,635
9/30/2047	$741	$522	$323	$47	$0	$0	$1,633
9/30/2048	$780	$481	$329	$44	$0	$0	$1,634
9/30/2049	$822	$438	$336	$40	$0	$0	$1,636
9/30/2050	$865	$393	$343	$36	$0	$0	$1,636
9/30/2051	$912	$345	$349	$31	$0	$0	$1,638
9/30/2052	$963	$295	$356	$27	$0	$0	$1,641
9/30/2053	$1,014	$242	$364	$22	$0	$0	$1,642
9/30/2054	$1,069	$187	$371	$17	$0	$0	$1,644
9/30/2055	$1,129	$128	$378	$12	$0	$0	$1,647
9/30/2056	$1,193	$66	$386	$6	($1,333)	$0	$317
Total	**$18,821**	**$20,211**	**$8,814**	**$1,790**	**($1,333)**	**($518)**	**$47,786**

1 - The 9/30/XX dates represent the fiscal year end for the Bonds.
2 – Represent the Neighborhood Improvement Area #2 portion of the principal and interest on the Neighborhood Improvement Areas #2-3 Bonds. Interest is calculated using an interest rate of 5.50% in years 2026 through 2056 on the Bonds.
3- Administrative Expenses are estimated and will be updated each year in the Annual Service Plan Updates. Assumes a 2% increase per year.

APPENDIX I
PROPOSED NEIGHBORHOOD IMPROVEMENT AREA #3 ASSESSMENT ROLL

Appendix I-1
Proposed Neighborhood Improvement Area #3 Assessment Roll

Parcel (s)	**All Parcels**
Equivalent Units	**150.62**
Assessment	**$2,120,000**

Year[1]	Principal[2]	Interest[2]	Administrative Expenses[3]	Prepayment and Delinquency Reserve	Debt Service Reserve Fund	Capitalized Interest	Total Annual Installment
9/30/2026	$0	$58,300	$0	$0	$0	($58,300)	$0
9/30/2027	$39,000	$116,600	$40,800	$10,600	$0	$0	$207,000
9/30/2028	$40,000	$114,455	$41,616	$10,405	$0	$0	$206,476
9/30/2029	$42,000	$112,255	$42,448	$10,205	$0	$0	$206,908
9/30/2030	$43,000	$109,945	$43,297	$9,995	$0	$0	$206,237
9/30/2031	$44,000	$107,580	$44,163	$9,780	$0	$0	$205,523
9/30/2032	$45,000	$105,160	$45,046	$9,560	$0	$0	$204,766
9/30/2033	$47,000	$102,685	$45,947	$9,335	$0	$0	$204,967
9/30/2034	$49,000	$100,100	$46,866	$9,100	$0	$0	$205,066
9/30/2035	$50,000	$97,405	$47,804	$8,855	$0	$0	$204,064
9/30/2036	$52,000	$94,655	$48,760	$8,605	$0	$0	$204,020
9/30/2037	$54,000	$91,795	$49,735	$8,345	$0	$0	$203,875
9/30/2038	$56,000	$88,825	$50,730	$8,075	$0	$0	$203,630
9/30/2039	$58,000	$85,745	$51,744	$7,795	$0	$0	$203,284
9/30/2040	$61,000	$82,555	$52,779	$7,505	$0	$0	$203,839
9/30/2041	$63,000	$79,200	$53,835	$7,200	$0	$0	$203,235
9/30/2042	$66,000	$75,735	$54,911	$6,885	$0	$0	$203,531
9/30/2043	$68,000	$72,105	$56,010	$6,555	$0	$0	$202,670
9/30/2044	$71,000	$68,365	$57,130	$6,215	$0	$0	$202,710
9/30/2045	$75,000	$64,460	$58,272	$5,860	$0	$0	$203,592
9/30/2046	$78,000	$60,335	$59,438	$5,485	$0	$0	$203,258
9/30/2047	$82,000	$56,045	$60,627	$5,095	$0	$0	$203,767
9/30/2048	$85,000	$51,535	$61,839	$4,685	$0	$0	$203,059
9/30/2049	$89,000	$46,860	$63,076	$4,260	$0	$0	$203,196
9/30/2050	$94,000	$41,965	$64,337	$3,815	$0	$0	$204,117
9/30/2051	$98,000	$36,795	$65,624	$3,345	$0	$0	$203,764
9/30/2052	$103,000	$31,405	$66,937	$2,855	$0	$0	$204,197
9/30/2053	$108,000	$25,740	$68,275	$2,340	$0	$0	$204,355
9/30/2054	$114,000	$19,800	$69,641	$1,800	$0	$0	$205,241
9/30/2055	$119,000	$13,530	$71,034	$1,230	$0	$0	$204,794
9/30/2056	$127,000	$6,985	$72,454	$635	($155,600)	$0	$51,474
Total	**$2,120,000**	**$2,218,920**	**$1,655,178**	**$196,420**	**($155,600)**	**($58,300)**	**$5,976,618**

1 - The 9/30/XX dates represent the fiscal year end for the Bonds.

2 – Represent the Neighborhood Improvement Area #3 portion of the principal and interest on the Neighborhood Improvement Areas #2-3 Bonds. Interest is calculated using an interest rate of 5.50% in years 2026 through 2056 on the Bonds.

3- Administrative Expenses are estimated and will be updated each year in the Annual Service Plan Updates. Assumes a 2% increase per year.

Appendix I-2
Proposed Assessment Roll by Lot Type

Lot Type	**Lot Type 2 (40 Ft)**
Assessment	**0.85**
Equivalent Unit	**$11,910**

Year[1]	Principal[2]	Interest[2]	Administrative Expenses[3]	Prepayment and Delinquency Reserve	Debt Service Reserve Fund	Capitalized Interest	Total Annual Installment
9/30/2026	$0	$328	$0	$0	$0	($328)	$0
9/30/2027	$219	$655	$229	$60	$0	$0	$1,163
9/30/2028	$225	$643	$234	$58	$0	$0	$1,160
9/30/2029	$236	$631	$238	$57	$0	$0	$1,162
9/30/2030	$242	$618	$243	$56	$0	$0	$1,159
9/30/2031	$247	$604	$248	$55	$0	$0	$1,155
9/30/2032	$253	$591	$253	$54	$0	$0	$1,150
9/30/2033	$264	$577	$258	$52	$0	$0	$1,152
9/30/2034	$275	$562	$263	$51	$0	$0	$1,152
9/30/2035	$281	$547	$269	$50	$0	$0	$1,146
9/30/2036	$292	$532	$274	$48	$0	$0	$1,146
9/30/2037	$303	$516	$279	$47	$0	$0	$1,145
9/30/2038	$315	$499	$285	$45	$0	$0	$1,144
9/30/2039	$326	$482	$291	$44	$0	$0	$1,142
9/30/2040	$343	$464	$297	$42	$0	$0	$1,145
9/30/2041	$354	$445	$302	$40	$0	$0	$1,142
9/30/2042	$371	$425	$308	$39	$0	$0	$1,143
9/30/2043	$382	$405	$315	$37	$0	$0	$1,139
9/30/2044	$399	$384	$321	$35	$0	$0	$1,139
9/30/2045	$421	$362	$327	$33	$0	$0	$1,144
9/30/2046	$438	$339	$334	$31	$0	$0	$1,142
9/30/2047	$461	$315	$341	$29	$0	$0	$1,145
9/30/2048	$478	$290	$347	$26	$0	$0	$1,141
9/30/2049	$500	$263	$354	$24	$0	$0	$1,142
9/30/2050	$528	$236	$361	$21	$0	$0	$1,147
9/30/2051	$551	$207	$369	$19	$0	$0	$1,145
9/30/2052	$579	$176	$376	$16	$0	$0	$1,147
9/30/2053	$607	$145	$384	$13	$0	$0	$1,148
9/30/2054	$640	$111	$391	$10	$0	$0	$1,153
9/30/2055	$669	$76	$399	$7	$0	$0	$1,151
9/30/2056	$713	$39	$407	$4	($874)	$0	$289
Total	**$11,910**	**$12,466**	**$9,299**	**$1,103**	**($874)**	**($328)**	**$33,577**

1 - The 9/30/XX dates represent the fiscal year end for the Bonds.
2 – Represent the Neighborhood Improvement Area #3 portion of the principal and interest on the Neighborhood Improvement Areas #2-3 Bonds. Interest is calculated using an interest rate of 5.50% in years 2026 through 2056 on the Bonds.
3- Administrative Expenses are estimated and will be updated each year in the Annual Service Plan Updates. Assumes a 2% increase per year.

APPENDIX J
PROPOSED COMBINED NEIGHBORHOOD IMPROVEMENT AREAS #2-3
ASSESSMENT ROLL

Appendix J-1
Proposed Combined Neighborhood Improvement Areas #2-3 Assessment Roll

Parcel (s)	**All Parcels**
Equivalent Units	**421.46**
Assessment	**$6,538,000**

Year[1]	Principal[2]	Interest[2]	Administrative Expenses[3]	Prepayment and Delinquency Reserve	Debt Service Reserve Fund	Capitalized Interest	Total Annual Installment
9/30/2026	$0	$179,795	$0	$0	$0	($179,795)	$0
9/30/2027	$109,000	$359,590	$91,800	$32,690	$0	$0	$593,080
9/30/2028	$113,000	$353,595	$93,636	$32,145	$0	$0	$592,376
9/30/2029	$118,000	$347,380	$95,509	$31,580	$0	$0	$592,469
9/30/2030	$122,000	$340,890	$97,419	$30,990	$0	$0	$591,299
9/30/2031	$126,000	$334,180	$99,367	$30,380	$0	$0	$589,927
9/30/2032	$131,000	$327,250	$101,355	$29,750	$0	$0	$589,355
9/30/2033	$137,000	$320,045	$103,382	$29,095	$0	$0	$589,522
9/30/2034	$143,000	$312,510	$105,449	$28,410	$0	$0	$589,369
9/30/2035	$148,000	$304,645	$107,558	$27,695	$0	$0	$587,898
9/30/2036	$154,000	$296,505	$109,709	$26,955	$0	$0	$587,169
9/30/2037	$161,000	$288,035	$111,904	$26,185	$0	$0	$587,124
9/30/2038	$168,000	$279,180	$114,142	$25,380	$0	$0	$586,702
9/30/2039	$176,000	$269,940	$116,425	$24,540	$0	$0	$586,905
9/30/2040	$184,000	$260,260	$118,753	$23,660	$0	$0	$586,673
9/30/2041	$192,000	$250,140	$121,128	$22,740	$0	$0	$586,008
9/30/2042	$202,000	$239,580	$123,551	$21,780	$0	$0	$586,911
9/30/2043	$211,000	$228,470	$126,022	$20,770	$0	$0	$586,262
9/30/2044	$221,000	$216,865	$128,542	$19,715	$0	$0	$586,122
9/30/2045	$232,000	$204,710	$131,113	$18,610	$0	$0	$586,433
9/30/2046	$244,000	$191,950	$133,735	$17,450	$0	$0	$587,135
9/30/2047	$256,000	$178,530	$136,410	$16,230	$0	$0	$587,170
9/30/2048	$268,000	$164,450	$139,138	$14,950	$0	$0	$586,538
9/30/2049	$282,000	$149,710	$141,921	$13,610	$0	$0	$587,241
9/30/2050	$297,000	$134,200	$144,759	$12,200	$0	$0	$588,159
9/30/2051	$312,000	$117,865	$147,655	$10,715	$0	$0	$588,235
9/30/2052	$329,000	$100,705	$150,608	$9,155	$0	$0	$589,468
9/30/2053	$346,000	$82,610	$153,620	$7,510	$0	$0	$589,740
9/30/2054	$365,000	$63,580	$156,692	$5,780	$0	$0	$591,052
9/30/2055	$384,000	$43,505	$159,826	$3,955	$0	$0	$591,286
9/30/2056	$407,000	$22,385	$163,023	$2,035	($468,590)	$0	$125,853
Total	**$6,538,000**	**$6,963,055**	**$3,724,150**	**$616,660**	**($468,590)**	**($179,795)**	**$17,193,480**

1 - The 9/30/XX dates represent the fiscal year end for the Bonds.

2 – Represents the principal and interest on the Neighborhood Improvement Areas #2-3 Bonds. Interest is calculated using an interest rate of 5.50% in years 2026 through 2056 on the Bonds.

3- Administrative Expenses are estimated and will be updated each year in the Annual Service Plan Updates. Assumes a 2% increase per year.

APPENDIX K
PID ASSESSMENT NOTICE

AFTER RECORDING RETURN TO:

_____
_____
_____
_____
_____][1]

NOTICE OF OBLIGATION TO PAY IMPROVEMENT DISTRICT ASSESSMENT TO
CITY OF ROWLETT, TEXAS
CONCERNING THE FOLLOWING PROPERTY

_____
STREET ADDRESS

LOT TYPE _____ PRINCIPAL ASSESSMENT: $_____

As the purchaser of the real property described above, you are obligated to pay assessments to the City of Rowlett, Texas (the "City"), for the costs of a portion of a public improvement or services project (the "Authorized Improvements") undertaken for the benefit of the property within ***Trails at Cottonwood Creek Public Improvement District*** (the "District") created under Subchapter A, Chapter 372, Local Government Code.

AN ASSESSMENT HAS BEEN LEVIED AGAINST YOUR PROPERTY FOR THE AUTHORIZED IMPROVEMENTS, WHICH MAY BE PAID IN FULL AT ANY TIME. IF THE ASSESSMENT IS NOT PAID IN FULL, IT WILL BE DUE AND PAYABLE IN ANNUAL INSTALLMENTS THAT WILL VARY FROM YEAR TO YEAR DEPENDING ON THE AMOUNT OF INTEREST PAID, COLLECTION COSTS, ADMINISTRATIVE COSTS, AND DELINQUENCY COSTS.

The exact amount of the assessment may be obtained from the City. The exact amount of each annual installment will be approved each year by the City Council in the annual service plan update for the District. More information about the assessments, including the amounts and due dates, may be obtained from the City.

Your failure to pay any assessment or any annual installment may result in penalties and interest being added to what you owe or in a lien on and the foreclosure of your property.

[1] To be included in separate copy of the notice required by Section 5.0143, Tex. Prop. Code, to be executed at the closing of the purchase and sale and to be recorded in the deed records of Dallas County.

[The undersigned purchaser acknowledges receipt of this notice before the effective date of a binding contract for the purchase of the real property at the address described above.

DATE: DATE:

SIGNATURE OF PURCHASER SIGNATURE OF PURCHASER

The undersigned seller acknowledges providing this notice to the potential purchaser before the effective date of a binding contract for the purchase of the real property at the address described above.

DATE: DATE:

SIGNATURE OF SELLER SIGNATURE OF SELLER][2]

[2] To be included in copy of the notice required by Section 5.014, Tex. Prop. Code, to be executed by seller in accordance with Section 5.014(a-1), Tex. Prop. Code.

[The undersigned purchaser acknowledges receipt of this notice before the effective date of a binding contract for the purchase of the real property at the address described above. The undersigned purchaser acknowledged the receipt of this notice including the current information required by Section 5.0143, Texas Property Code, as amended.

DATE: DATE:

_____ _____

SIGNATURE OF PURCHASER SIGNATURE OF PURCHASER

STATE OF TEXAS §
§
COUNTY OF DALLAS §

The foregoing instrument was acknowledged before me by_____ and _____, known to me to be the person(s) whose name(s) is/are subscribed to the foregoing instrument and acknowledged to me that he or she executed the same for the purposes therein expressed.

Given under my hand and seal of office on this _____, 20__.

Notary Public, State of Texas][3]

[3] To be included in separate copy of the notice required by Section 5.0143, Tex. Prop. Code, to be executed at the closing of the purchase and sale and to be recorded in the deed records of Dallas County.

The undersigned seller acknowledges providing a separate copy of the notice required by Section 5.014 of the Texas Property Code including the current information required by Section 5.0143, Texas Property Code, as amended, at the closing of the purchase of the real property at the address above.

DATE: DATE:

SIGNATURE OF SELLER SIGNATURE OF SELLER

STATE OF TEXAS §
§
COUNTY OF DALLAS §

The foregoing instrument was acknowledged before me by _____and _____ , known to me to be the person(s) whose name(s) is/are subscribed to the foregoing instrument and acknowledged to me that he or she executed the same for the purposes therein expressed.

Given under my hand and seal of office on this_____ , 20__.

Notary Public, State of Texas][4]

[4] To be included in separate copy of the notice required by Section 5.0143, Tex. Prop. Code, to be executed at the closing of the purchase and sale and to be recorded in the deed records of Dallas County.

CITY OF ROWLETT, TEXAS
NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN THAT a public hearing will be conducted by the City Council of the City of Rowlett, Texas (the "City") at 7:00 p.m. on May 5, 2026, at the City Hall Municipal Building, 4000 Main Street, Rowlett, Texas 75088. The public hearing will be held to consider proposed assessments to be levied against certain assessable property within Neighborhood Improvement Area #2 and Neighborhood Improvement Area #3 (jointly, "Neighborhood Improvement Areas #2-3") of the Trails at Cottonwood Creek Public Improvement District (the "District") pursuant to the provisions of Chapter 372 of the Texas Local Government Code, as amended (the "Act").

The general nature of the proposed public improvements include the design, acquisition, construction and improvement of public improvement projects authorized by the Act that are necessary for the development of the Property (defined below), in phases, which include (collectively, the "Authorized Improvements") (a) acquisition, construction and improvements, and maintenance of the improvements, consisting of (1) landscaping; (2) erection of fountains, distinctive lighting and signs; (3) acquiring, constructing, improving, widening, narrowing, closing or rerouting of sidewalks or of streets, any other roadways, or their rights-of-way, including related landscaping, lighting, traffic control devices, screening walls and retaining walls; (4) construction or improvement of pedestrian malls; (5) acquisition and installation of pieces of art; (6) acquisition, construction or improvement of off-street parking facilities; (7) acquisition, construction or improvement of water, wastewater or drainage facilities or improvements; (8) the establishment or improvement of parks; (9) projects similar to those listed in (1)-(8); (10) acquisition, by purchase or otherwise, of real property or contract rights in connection with an Authorized Improvement; (11) special supplemental and maintenance services for improvement and promotion of the District, including services relating to advertising, promotion, health and sanitation, water and wastewater, roadways, public safety, security, business recruitment, development, recreation and cultural enhancement and (b) the payment of expenses incurred in the establishment, administration and operation of the District, including maintenance costs, costs of issuance, funding debt service and capitalized interest reserves and credit enhancement fees of any bonds issued by or on behalf of the City or the District and secured by assessments levied against the property in the District that benefit from such Authorized Improvements (the "Property"). The Authorized Improvements shall promote the interests of the City and confer a special benefit upon the Property. The estimated total costs of the Authorized Improvements benefitting Neighborhood Improvement Areas #2-3 is $26,912,382.

The boundaries of the District include approximately 226.58 acres of land generally located at the northeast corner of Vinson Road and Stonewall Road, and as more particularly described by a metes and bounds description available for public inspection at the City Secretary's office in the City Hall Municipal Building located at 4000 Main Street, Rowlett, Texas 75088.

All written or oral objections on the proposed assessments within Neighborhood Improvement Areas #2-3 will be considered at the public hearing.

Copies of the Proposed Assessment Rolls relating to the Authorized Improvements to be undertaken at this time, which includes the assessments to be levied against certain assessable parcels in Neighborhood Improvement Areas #2-3, are available for public inspection at the City Secretary's office in the City Hall Municipal Building located at 4000 Main Street, Rowlett, Texas 75088.

SECOND AMENDMENT TO DEVELOPMENT AGREEMENT

This Second Amendment to Development Agreement (this "Second Amendment") is entered into by and between the CITY OF ROWLETT, TEXAS, a Texas home-rule municipality (the "City") and TRAIL CREEK PARTNERS, LTD., a Texas limited partnership ("Developer") (each individually, a "Party," and collectively, the "Parties"), to be effective as of May __, 2026.

RECITALS

WHEREAS, the City and Warner Land Advisors, LP, previously entered into that certain Development Agreement, effective as of July 24, 2020, which was assigned to and assumed by the Developer effective March 4, 2021, as amended by that First Amendment to Development Agreement effective March 18, 2025 (as so amended, the "Agreement"); and

WHEREAS, capitalized terms used in this Second Amendment but not otherwise defined herein shall have the meanings assigned to them in the Agreement; and

WHEREAS, the Parties desire to amend Section 4.1 and Section 11.3 of the Agreement to provide for amendments to agreements relating to the issuance of PID Bonds and to update the notice addresses provided therein; and

WHEREAS, the Parties acknowledge and agree that, except to the extent amended by this Second Amendment herein, all provisions and terms contained in the Agreement shall remain in full force and effect; and

NOW, THEREFORE, for and in consideration of the mutual covenants of the Parties set forth in this Second Amendment, and for good and valuable consideration the receipt and adequacy of which are acknowledged and agreed, the Parties agree as follows:

AGREEMENT

1. Defined Terms. All capitalized terms used in this Second Amendment, to the extent not otherwise expressly defined herein, shall have the meanings assigned to them in the Agreement.

2. Amendments.

2.1 Amendment to Section 4.1(o). Subsection 4.1(o) of the Agreement is amended to read as follows:

(a) "(o) the final maturity for any PID Bonds shall be not later than 45 years from the date of this Agreement;

2.2 Amendments to Section 7.2. Subsection 7.2(a) of the Agreement is amended to read as follows (with the amended text in bold, italics and underline):

"(a) Public Safety Obligation. The Parties agree that construction of an emergency medical services and fire safety facility (the "EMS/Fire Facility") within the Trails at Cottonwood Creek is in the best interest of all Parties, the PID and surrounding properties. Accordingly, the Developer shall provide a cash contribution to the City of $2,100,000 to defray the City's costs in constructing the EMS/Fire Facility (the "EMS/Fire Contribution"). Such EMS/Fire Contribution shall be paid no earlier than sixty (60) and not later than ninety (90) days after the closing date of any bonds issued to fund direct improvements for the ***fourth*** phase of development in the District (whether such bonds are issued in connection with the bonds to fund improvements in ***the fifth phase*** of development in the District or as standalone bonds) (such bonds referred to herein as, the "Phase ***4*** PID Bonds"); provided that the EMS/Fire Contribution shall be reduced to $850,000 (which shall be payable at the time specified in the preceding clause) if total authorized improvements which may be funded through the PID is not increased to at least $20,000,000 through an amended creation petition or other process acceptable to the City's Bond Counsel in consultation with the Attorney General of the State of Texas (acting through its Public Finance Division)."

All references in the Agreement to "Phase 3 PID Bonds" shall be deemed to refer to Phase 4 PID Bonds as defined above.

2.3 The addresses for the Developer under Section 11.3 of the Agreement are amended to read as follows:

To the Developer:	Trail Creek Partners, Ltd. Attn: Preston Walhood and Steven Sallman 4040 North Central Expressway, Suite 850 Dallas, Texas 75204 Email: pwalhood@warnergroup.com and ssallman@warnergroup.com
With a copy to:	Greenberg Traurig, LLP Attn: Drew Slone 2021 McKinney Avenue, Suite 2000 Dallas, Texas 75201 Email: drew.slone@gtlaw.com

3. Miscellaneous.

(a) This Second Amendment amends the Agreement in no other manner except as expressly set forth herein. Except as amended herein, the terms, provisions, agreements, covenants and conditions of the Agreement shall continue in full force and effect. In the event of a conflict between this Second Amendment and the Agreement, the terms of this Second Amendment shall control.

(b) This Second Amendment together with the Agreement shall constitute the entire agreement between the Parties and supersedes all prior agreements and understandings,

whether oral or written, concerning the subject matter of this Second Amendment and the Agreement. This Second Amendment and the Agreement shall not be modified or amended except in writing signed by the Parties.

(c) This Second Amendment may be executed in one (1) or more counterparts, each of which when taken together shall constitute one and the same instrument. The Developer and the City agree that electronic signatures to this Second Amendment may be regarded as original signatures.

(d) The City represents and warrants that the individual executing this Second Amendment on behalf of the City has been duly authorized to do so. The Developer represents and warrants that the individual executing this Second Amendment on behalf of the Developer has been duly authorized to do so.

4. Statutory Verifications. The Developer makes the following representations and covenants pursuant to Chapters 2252, 2271, 2274, and 2276, Texas Government Code, as heretofore amended (the "Government Code"), in entering into this Agreement. As used in such verifications, "affiliate" means an entity that controls, is controlled by, or is under common control with the Developer within the meaning of SEC Rule 405, 17 C.F.R. § 230.405, and exists to make a profit. Liability for breach of any such verification during the term of this Agreement shall survive until barred by the applicable statute of limitations, and shall not be liquidated or otherwise limited by any provision of this Agreement, notwithstanding anything in this Agreement to the contrary.

a. Not a Sanctioned Company. The Developer represents that neither it nor any of its parent company, wholly- or majority-owned subsidiaries, and other affiliates is a company identified on a list prepared and maintained by the Texas Comptroller of Public Accounts under Section 2252.153 or Section 2270.0201, Government Code. The foregoing representation excludes the Developer and each of its parent company, wholly- or majority-owned subsidiaries, and other affiliates, if any, that the United States government has affirmatively declared to be excluded from its federal sanctions regime relating to Sudan or Iran or any federal sanctions regime relating to a foreign terrorist organization.

b. No Boycott of Israel. The Developer hereby verifies that it and its parent company, wholly- or majority-owned subsidiaries, and other affiliates, if any, do not boycott Israel and will not boycott Israel during the term of this Agreement. As used in the foregoing verification, "boycott Israel" has the meaning provided in Section 2271.001, Government Code.

c. No Discrimination Against Firearm Entities. The Developer hereby verifies that it and its parent company, wholly- or majority-owned subsidiaries, and other affiliates, if any, do not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and will not discriminate against a firearm entity or firearm trade association during the term of this Agreement. As used in the foregoing verification, "discriminate against a firearm entity or firearm trade association" has the meaning provided in Section 2274.001(3), Government Code.

d. No Boycott of Energy Companies. The Developer hereby verifies that it and its parent company, wholly- or majority-owned subsidiaries, and other affiliates, if any, do not boycott energy companies and will not boycott energy companies during the term of this Agreement. As used in the foregoing verification, "boycott energy companies" has the meaning provided in Section 2276.001(1), Government Code.

5. Form 1295. Submitted herewith is a completed Form 1295 from the Developer. The City hereby confirms receipt of the Form 1295 from the Developer. The Parties understand and agree that, with the exception of information identifying the City and the contract identification number, neither the City nor its consultants are responsible for the information contained in the Form 1295; that the information contained in the Form 1295 has been provided solely by the Developer; and, neither the City nor its consultants have verified such information.

[Signature Pages to Follow]

EXECUTED BY THE PARTIES TO BE EFFECTIVE AS OF _____, 2026:

CITY OF ROWLETT, TEXAS

By:_____
Name: Jeff Winget
Title: Mayor
Date: _____

STATE OF TEXAS §
COUNTY OF §

This instrument was acknowledged before me on _____, 2026, by Jeff Winget, Mayor of the City of Rowlett, Texas, on behalf of said City.

_____
Notary Public, State of Texas

[SEAL]

DEVELOPER:

TRAIL CREEK PARTNERS, LTD.,
a Texas limited partnership

By: Trail Creek Advisors, LLC,
a Texas limited liability company
Its: General Partner

By: _____
Stephen L. Sallman
Manager

STATE OF TEXAS §
COUNTY OF §

This instrument was acknowledged before me, on _____, 2026, by Stephen L. Sallman, Manager of Trail Creek Advisors, LLC, a Texas limited liability company, and general partner of Trail Creek Partners, Ltd., on behalf of said company.

[S E A L]

_____
Notary Public, State of Texas