

Texas Commission on Environmental Quality

Edwards Aquifer Application Cover Page

Our Review of Your Application

The Edwards Aquifer Program staff conducts an administrative and technical review of all applications. The turnaround time for administrative review can be up to 30 days as outlined in 30 TAC 213.4(e). Generally administrative completeness is determined during the intake meeting or within a few days of receipt. The turnaround time for technical review of an administratively complete Edwards Aquifer application is 90 days as outlined in 30 TAC 213.4(e). Please know that the review and approval time is directly impacted by the quality and completeness of the initial application that is received. In order to conduct a timely review, it is imperative that the information provided in an Edwards Aquifer application include final plans, be accurate, complete, and in compliance with [30 TAC 213](#).

Administrative Review

1. [Edwards Aquifer applications](#) must be deemed administratively complete before a technical review can begin. To be considered administratively complete, the application must contain completed forms and attachments, provide the requested information, and meet all the site plan requirements. The submitted application and plan sheets should be final plans. Please submit one full-size set of plan sheets with the original application, and half-size sets with the additional copies.

To ensure that all applicable documents are included in the application, the program has developed tools to guide you and web pages to provide all forms, checklists, and guidance. Please visit the below website for assistance: <http://www.tceq.texas.gov/field/eapp>.

2. This Edwards Aquifer Application Cover Page form (certified by the applicant or agent) must be included in the application and brought to the administrative review meeting.
3. Administrative reviews are scheduled with program staff who will conduct the review. Applicants or their authorized agent should call the appropriate regional office, according to the county in which the project is located, to schedule a review. The average meeting time is one hour.
4. In the meeting, the application is examined for administrative completeness. Deficiencies will be noted by staff and emailed or faxed to the applicant and authorized agent at the end of the meeting, or shortly after. Administrative deficiencies will cause the application to be deemed incomplete and returned.

An appointment should be made to resubmit the application. The application is re-examined to ensure all deficiencies are resolved. The application will only be deemed administratively complete when all administrative deficiencies are addressed.

5. If an application is received by mail, courier service, or otherwise submitted without a review meeting, the administrative review will be conducted within 30 days. The applicant and agent will be contacted with the results of the administrative review. If the application is found to be administratively incomplete, it can be retrieved from the regional office or returned by regular mail. If returned by mail, the regional office may require arrangements for return shipping.
6. If the geologic assessment was completed before October 1, 2004 and the site contains “possibly sensitive” features, the assessment must be updated in accordance with the *Instructions to Geologists* (TCEQ-0585 Instructions).

Technical Review

1. When an application is deemed administratively complete, the technical review period begins. The regional office will distribute copies of the application to the identified affected city, county, and groundwater conservation district whose jurisdiction includes the subject site. These entities and the public have 30 days to provide comments on the application to the regional office. All comments received are reviewed by TCEQ.
2. A site assessment is usually conducted as part of the technical review, to evaluate the geologic assessment and observe existing site conditions. The site must be accessible to our staff. The site boundaries should be

clearly marked, features identified in the geologic assessment should be flagged, roadways marked and the alignment of the Sewage Collection System and manholes should be staked at the time the application is submitted. If the site is not marked the application may be returned.

3. We evaluate the application for technical completeness and contact the applicant and agent via Notice of Deficiency (NOD) to request additional information and identify technical deficiencies. There are two deficiency response periods available to the applicant. There are 14 days to resolve deficiencies noted in the first NOD. If a second NOD is issued, there is an additional 14 days to resolve deficiencies. If the response to the second notice is not received, is incomplete or inadequate, or provides new information that is incomplete or inadequate, the application must be withdrawn or will be denied. Please note that because the technical review is underway, whether the application is withdrawn or denied **the application fee will be forfeited**.
4. The program has 90 calendar days to complete the technical review of the application. If the application is technically adequate, such that it complies with the Edwards Aquifer rules, and is protective of the Edwards Aquifer during and after construction, an approval letter will be issued. Construction or other regulated activity may not begin until an approval is issued.

Mid-Review Modifications

It is important to have final site plans prior to beginning the permitting process with TCEQ to avoid delays.

Occasionally, circumstances arise where you may have significant design and/or site plan changes after your Edwards Aquifer application has been deemed administratively complete by TCEQ. This is considered a "Mid-Review Modification". Mid-Review Modifications may require redistribution of an application that includes the proposed modifications for public comment.

If you are proposing a Mid-Review Modification, two options are available:

- If the technical review has begun your application can be denied/withdrawn, your fees will be forfeited, and the plan will have to be resubmitted.
- TCEQ can continue the technical review of the application as it was submitted, and a modification application can be submitted at a later time.

If the application is denied/withdrawn, the resubmitted application will be subject to the administrative and technical review processes and will be treated as a new application. The application will be redistributed to the affected jurisdictions.

Please contact the regional office if you have questions. If your project is located in Williamson, Travis, or Hays County, contact TCEQ's Austin Regional Office at 512-339-2929. If your project is in Comal, Bexar, Medina, Uvalde, or Kinney County, contact TCEQ's San Antonio Regional Office at 210-490-3096

Please fill out all required fields below and submit with your application.

1. Regulated Entity Name: City of Round Rock Wastewater Collection System				2. Regulated Entity No.: RN106005366			
3. Customer Name: City of Round Rock				4. Customer No.: CN600413181			
5. Project Type: (Please circle/check one)	☒ New	Modification		Extension		Exception	
6. Plan Type: (Please circle/check one)	WPAP	CZP	☒ SCS	UST	AST	EXP	EXT
7. Land Use: (Please circle/check one)	☒ Residential		Non-residential		8. Site (acres):		5.5
9. Application Fee:	\$712.50		10. Permanent BMP(s):				
11. SCS (Linear Ft.):	1,425		12. AST/UST (No. Tanks):				
13. County:	Williamson		14. Watershed:		Turkey Creek-Brushy Creek		

Application Distribution

Instructions: Use the table below to determine the number of applications required. One original and one copy of the application, plus additional copies (as needed) for each affected incorporated city, county, and groundwater conservation district are required. Linear projects or large projects, which cross into multiple jurisdictions, can require additional copies. Refer to the “Texas Groundwater Conservation Districts within the EAPP Boundaries” map found at:

http://www.tceq.texas.gov/assets/public/compliance/field_ops/eapp/EAPP%20GWCD%20map.pdf

For more detailed boundaries, please contact the conservation district directly.

Austin Region			
County:	Hays	Travis	Williamson
Original (1 req.)	--	--	<u>1</u>
Region (1 req.)	--	--	<u>1</u>
County(ies)	--	--	<u>1</u>
Groundwater Conservation District(s)	-- Edwards Aquifer Authority -- Barton Springs/ Edwards Aquifer -- Hays Trinity -- Plum Creek	-- Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	-- Austin -- Buda -- Dripping Springs -- Kyle -- Mountain City -- San Marcos -- Wimberley -- Woodcreek	-- Austin -- Bee Cave -- Pflugerville -- Rollingwood -- Round Rock -- Sunset Valley -- West Lake Hills	-- Austin -- Cedar Park -- Florence -- Georgetown -- Jerrell -- Leander -- Liberty Hill -- Pflugerville <u>1</u> Round Rock

San Antonio Region					
County:	Bexar	Comal	Kinney	Medina	Uvalde
Original (1 req.)	--	--	--	--	--
Region (1 req.)	--	--	--	--	--
County(ies)	--	--	--	--	--
Groundwater Conservation District(s)	-- Edwards Aquifer Authority -- Trinity-Glen Rose	-- Edwards Aquifer Authority	-- Kinney	-- EAA -- Medina	-- EAA -- Uvalde
City(ies) Jurisdiction	-- Castle Hills -- Fair Oaks Ranch -- Helotes -- Hill Country Village -- Hollywood Park -- San Antonio (SAWS) -- Shavano Park	-- Bulverde -- Fair Oaks Ranch -- Garden Ridge -- New Braunfels -- Schertz	NA	-- San Antonio ETJ (SAWS)	NA

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review.

Sherif Mabrouk

P: /Authorized Agent

Si  8/20/25

Authorized Agent

Date

****FOR TCEQ INTERNAL USE ONLY****

Date(s) Reviewed:		Date Administratively Complete:	
Received From:		Correct Number of Copies:	
Received By:		Distribution Date:	
EAPP File Number:		Complex:	
Admin. Review(s) (No.):		No. AR Rounds:	
Delinquent Fees (Y/N):		Review Time Spent:	
Lat./Long. Verified:		SOS Customer Verification:	
Agent Authorization Complete/Notarized (Y/N):		Fee Check:	Payable to TCEQ (Y/N):
Core Data Form Complete (Y/N):			Signed (Y/N):
Core Data Form Incomplete Nos.:			Less than 90 days old (Y/N):

General Information Form

Texas Commission on Environmental Quality

For Regulated Activities on the Edwards Aquifer Recharge and Transition Zones and Relating to 30 TAC §213.4(b) & §213.5(b)(2)(A), (B) Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **General Information Form** is hereby submitted for TCEQ review. The application was prepared by:

Print Name of Customer/Agent: Sherif Mabrouk

Date: 8/20/25

Signature of Customer/Agent:

 _____

Project Information

1. Regulated Entity Name: City of Round Rock Wastewater Collection System

2. County: Williamson

3. Stream Basin: Lake Creek-Brushy Creek

4. Groundwater Conservation District (If applicable): N/A

5. Edwards Aquifer Zone:

☒ Recharge Zone

☐ Transition Zone

6. Plan Type:

☐ WPAP

☒ SCS

☐ Modification

☐ AST

☐ UST

☐ Exception Request

7. Customer (Applicant):

Contact Person: Federico Sanchez
Entity: City of Round Rock
Mailing Address: 221 East Main Street
City, State: Round Rock, Texas Zip: 78664
Telephone: 512-218-6609 FAX: _____
Email Address: FSanchez@roundrocktexas.gov

8. Agent/Representative (If any):

Contact Person: Sherif Mabrouk
Entity: HDR
Mailing Address: 4401 West Gate Blvd Suite 400
City, State: Austin, TX Zip: 78745
Telephone: 512-912-5105 FAX: _____
Email Address: Sherif.Mabrouk@hdrinc.com

9. Project Location:

- ☒ The project site is located inside the city limits of City of Round Rock
☐ The project site is located outside the city limits but inside the ETJ (extra-territorial jurisdiction) of _____.
☐ The project site is not located within any city's limits or ETJ.

10. ☒ The location of the project site is described below. The description provides sufficient detail and clarity so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.

Wonder Drive is located approximately 0.28 miles west of Interstate 35 and 0.1 miles north of Round Rock Ave. The street runs north/south and connects to Sam Bass Rd.

11. ☒ **Attachment A – Road Map.** A road map showing directions to and the location of the project site is attached. The project location and site boundaries are clearly shown on the map.
12. ☒ **Attachment B - USGS / Edwards Recharge Zone Map.** A copy of the official 7 ½ minute USGS Quadrangle Map (Scale: 1" = 2000') of the Edwards Recharge Zone is attached. The map(s) clearly show:
- ☒ Project site boundaries.
 - ☒ USGS Quadrangle Name(s).
 - ☒ Boundaries of the Recharge Zone (and Transition Zone, if applicable).
 - ☒ Drainage path from the project site to the boundary of the Recharge Zone.
13. ☒ **The TCEQ must be able to inspect the project site or the application will be returned.** Sufficient survey staking is provided on the project to allow TCEQ regional staff to locate the boundaries and alignment of the regulated activities and the geologic or manmade features noted in the Geologic Assessment.
- ☒ Survey staking will be completed by this date: 8/29/2025

Please see attachment D for staking guidance from TCEQ.

14. ☒ **Attachment C – Project Description.** Attached at the end of this form is a detailed narrative description of the proposed project. The project description is consistent throughout the application and contains, at a minimum, the following details:

- ☒ Area of the site
- ☒ Offsite areas
- ☒ Impervious cover
- ☒ Permanent BMP(s)
- ☒ Proposed site use
- ☒ Site history
- ☒ Previous development
- ☒ Area(s) to be demolished

15. Existing project site conditions are noted below:

- ☒ Existing commercial site
- ☐ Existing industrial site
- ☒ Existing residential site
- ☒ Existing paved and/or unpaved roads
- ☐ Undeveloped (Cleared)
- ☐ Undeveloped (Undisturbed/Uncleared)
- ☐ Other: _____

Prohibited Activities

16. ☒ I am aware that the following activities are prohibited on the Recharge Zone and are not proposed for this project:

- (1) Waste disposal wells regulated under 30 TAC Chapter 331 of this title (relating to Underground Injection Control);
- (2) New feedlot/concentrated animal feeding operations, as defined in 30 TAC §213.3;
- (3) Land disposal of Class I wastes, as defined in 30 TAC §335.1;
- (4) The use of sewage holding tanks as parts of organized collection systems; and
- (5) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41(b), (c), and (d) of this title (relating to Types of Municipal Solid Waste Facilities).
- (6) New municipal and industrial wastewater discharges into or adjacent to water in the state that would create additional pollutant loading.

17. ☒ I am aware that the following activities are prohibited on the Transition Zone and are not proposed for this project:

- (1) Waste disposal wells regulated under 30 TAC Chapter 331 (relating to Underground Injection Control);
- (2) Land disposal of Class I wastes, as defined in 30 TAC §335.1; and

- (3) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41 (b), (c), and (d) of this title.

Administrative Information

18. The fee for the plan(s) is based on:

- ☐ For a Water Pollution Abatement Plan or Modification, the total acreage of the site where regulated activities will occur.
- ☒ For an Organized Sewage Collection System Plan or Modification, the total linear footage of all collection system lines.
- ☐ For a UST Facility Plan or Modification or an AST Facility Plan or Modification, the total number of tanks or piping systems.
- ☐ A request for an exception to any substantive portion of the regulations related to the protection of water quality.
- ☐ A request for an extension to a previously approved plan.

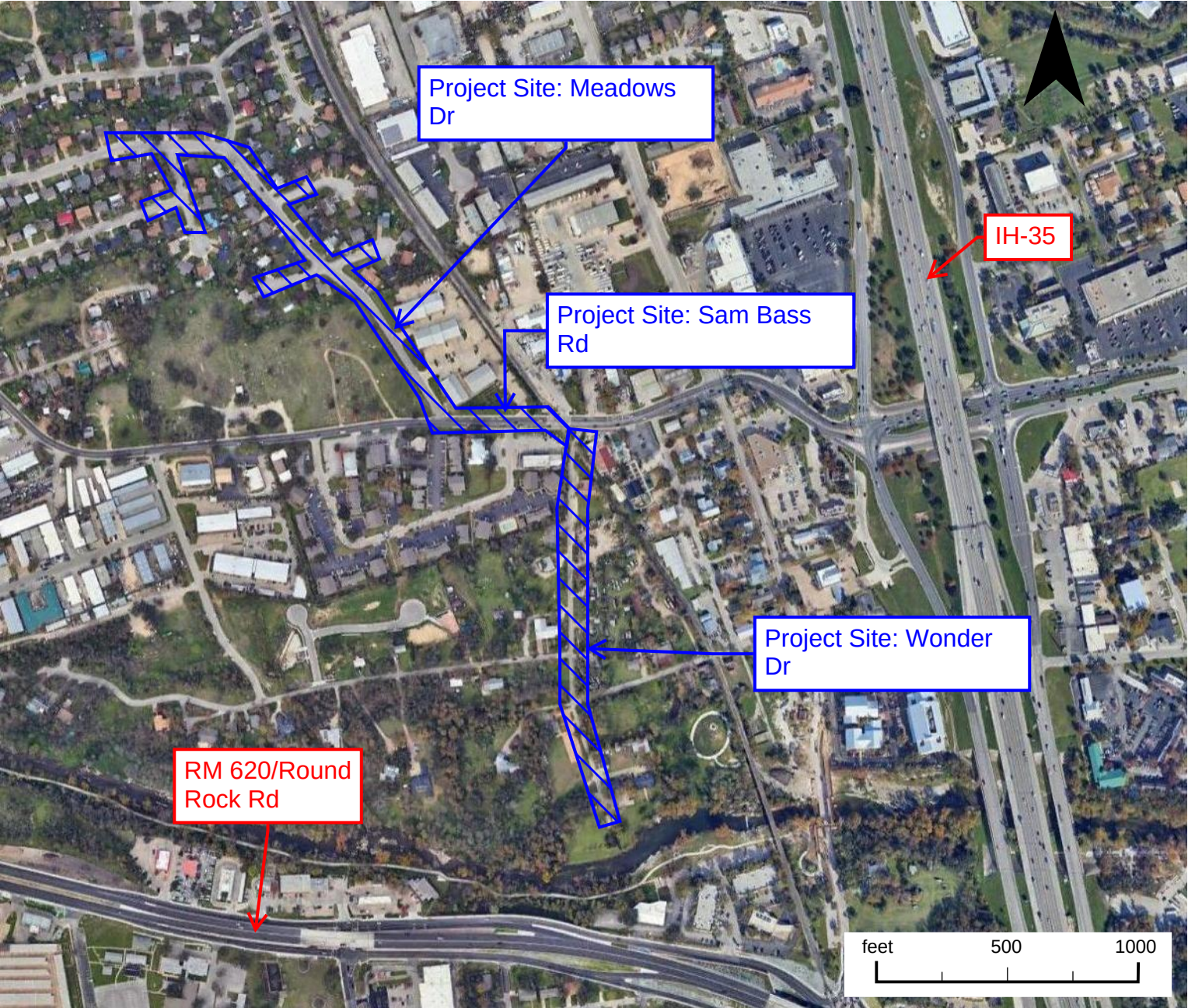
19. ☒ Application fees are due and payable at the time the application is filed. If the correct fee is not submitted, the TCEQ is not required to consider the application until the correct fee is submitted. Both the fee and the Edwards Aquifer Fee Form have been sent to the Commission's:

- ☐ TCEQ cashier
- ☐ Austin Regional Office (for projects in Hays, Travis, and Williamson Counties)
- ☐ San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)

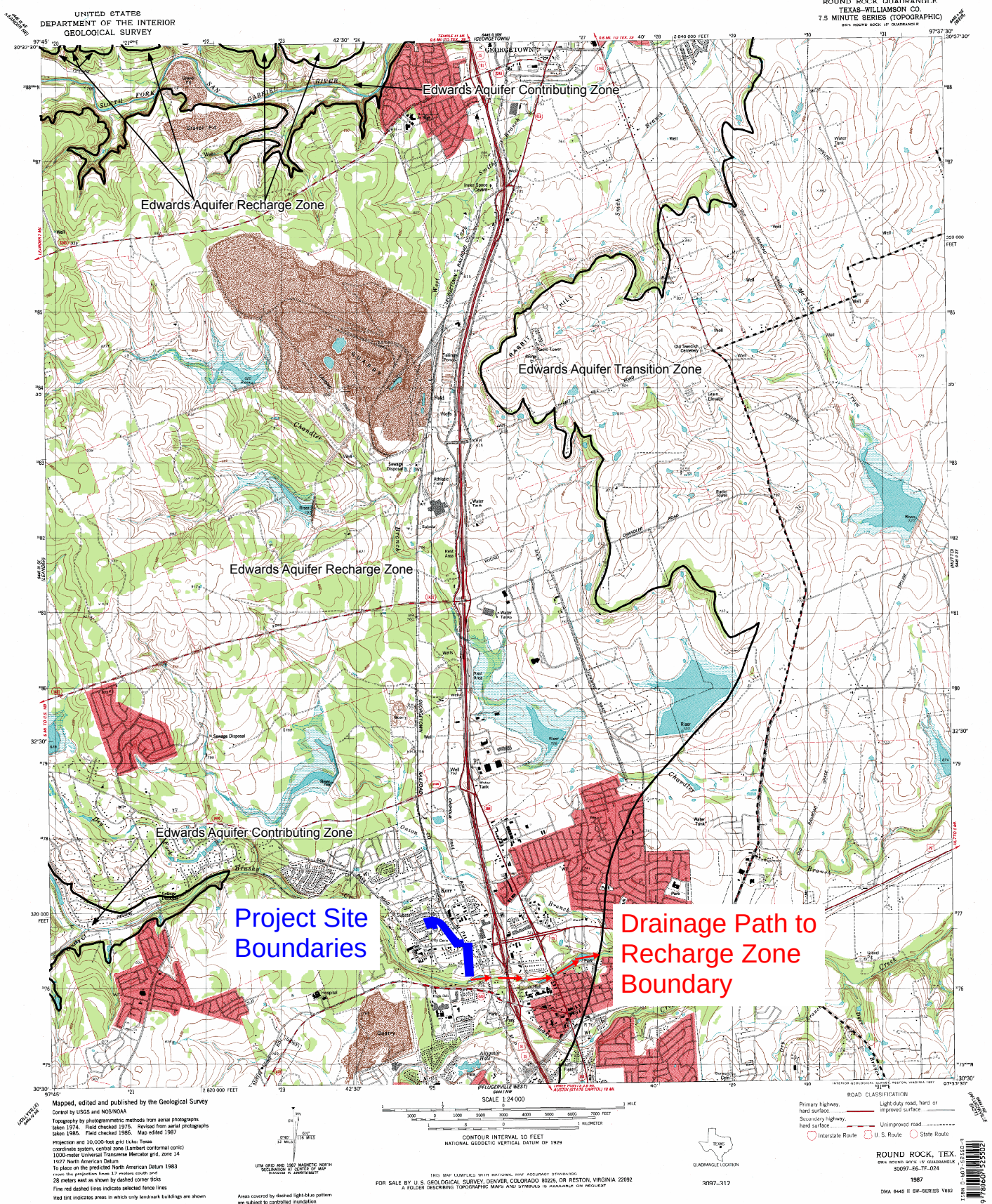
20. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

21. ☒ No person shall commence any regulated activity until the Edwards Aquifer Protection Plan(s) for the activity has been filed with and approved by the Executive Director.

Attachment A - Road Map



Attachment B - USGS/Edwards Recharge Zone Map



Attachment C - Project Description

The objective of this project is to reduce flooding for the Meadows Drive neighborhood by extending the storm drain system into the neighborhood to capture overland flow and convey runoff within a 4'x4' and 5'x4' reinforced concrete box (RCB) storm drain system. The headwaters of the proposed storm drain system begins at the intersection of Meadows Drive and HighMeadows Cove. From this intersection, the system extends approximately 1,600 feet to Sam Bass Road intersection. The proposed storm drain system then turns eastward for 600 feet along Sam Bass Road and then parallel to the UPRR to Wonder Drive. Finally, the system continues south on Wonder Drive to its outfall at Brushy Creek for approximately 1,600 feet. All proposed improvements are installed underneath existing roadway with no additional impervious cover.

Wonder Drive is home to both residential and commercial buildings. There is an Adventist Church, mulch supplier, and a cultural association (Texas Chautauqua Association) located on Wonder Drive. Meadows Drive is primarily residential, but there are a few commercial buildings on the southern end, including a boutique, church, salon, tattoo shop. The site area is approximately 5.5 acres.

It is proposed to abandon the existing 30" storm sewer on Sam Bass Road and 36" storm sewer on Wonder Drive. The existing 6" water line and 8" wastewater line on Wonder Drive will be replaced with a 8" water line and 12" wastewater line. A 5'x4' storm sewer will be installed on Sam Bass Road and Wonder Drive, and a 4'x4' storm sewer will be installed on Meadows Drive. The project will not be adding any impervious cover to the site and will not add any permanent BMP.

Attachment D - TCEQ Guidance

De Respino, Sophie

From: Emily Kerschner <Emily.Kerschner@tceq.texas.gov>
Sent: Tuesday, January 14, 2025 9:08 AM
To: De Respino, Sophie
Subject: RE: Water service lines crossing Wastewater line - new SCS application

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning, Sophie,

Thank you for your patience. You do not have to worry too much about staking out the site of your project since it is under the existing roadway. You can go along the side of the road following the direction of the sewer line. Please also submit an authorization form that states you have permission from the city or owner of the roadway to be doing work on that street. This can be a written document or an email but be sure to include that with your application.

Best,

Emily Kerschner (she/her)
Environmental Investigator
Edwards Aquifer Protection Program
Texas Commission on Environmental Quality
(512) 239-1929

From: De Respino, Sophie <Sophie.DeRespino@hdrinc.com>
Sent: Monday, January 13, 2025 8:26 AM
To: Emily Kerschner <Emily.Kerschner@tceq.texas.gov>
Cc: Mabrouk, Sherif <sherif.mabrouk@hdrinc.com>
Subject: RE: Water service lines crossing Wastewater line - new SCS application

Thanks for your help, Emily. I have one additional question. In the SCS application, there is an item for surveying/staking the proposed sewer lines to allow for a TCEQ assessment. The proposed alignment for our project is under the existing roadway. Is this item necessary for our project? If so, do you have recommended methods for indicating the proposed alignment under an existing roadway?

Thanks,

Sophie De Respino, PhD
Water/Wastewater EIT

HDR
4401 West Gate Blvd, Suite 400
Austin, Texas 78745
D 512-498-4760
Sophie.DeRespino@hdrinc.com

hdrinc.com/follow-us

From: Emily Kerschner <Emily.Kerschner@tceq.texas.gov>
Sent: Friday, January 10, 2025 1:31 PM
To: De Respino, Sophie <Sophie.DeRespino@hdrinc.com>
Cc: Mabrouk, Sherif <sherif.mabrouk@hdrinc.com>
Subject: RE: Water service lines crossing Wastewater line - new SCS application

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Sophie,

Thanks for sending over the sheets for more context. Please do include those extra service line crossings in the application. Feel free to reach out if you have any further questions.

Best,

Emily Kerschner (she/her)
Environmental Investigator
Edwards Aquifer Protection Program
Texas Commission on Environmental Quality
(512) 239-1929

From: De Respino, Sophie <Sophie.DeRespino@hdrinc.com>
Sent: Friday, January 10, 2025 10:33 AM
To: Emily Kerschner <Emily.Kerschner@tceq.texas.gov>
Cc: Mabrouk, Sherif <sherif.mabrouk@hdrinc.com>
Subject: Water service lines crossing Wastewater line - new SCS application

Hi Emily,

Thanks for speaking with me on the phone earlier. I am attaching drawings showing the proposed 12" wastewater line and proposed 8" water line. I have noted several locations where 2" water service lines cross the wastewater line, indicated by the blue cloud mark-up. Do we need to include these in our SCS application on Table 5 – Water Line Crossings?

Thanks for your help! Please let me know if there are any questions.

Sophie De Respino, PhD
Water/Wastewater EIT

HDR
4401 West Gate Blvd, Suite 400
Austin, Texas 78745
D 512-498-4760
Sophie.DeRespino@hdrinc.com

hdrinc.com/follow-us

Organized Sewage Collection System Application

Texas Commission on Environmental Quality

For Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(c), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Regulated Entity Name: City of Round Rock Wastewater Collection System

1. ☐ **Attachment A – SCS Engineering Design Report.** This Engineering Design Report is provided to fulfill the requirements of 30 TAC Chapter 217, including 217.10 of Subchapter A, §§217.51 – 217.70 of Subchapter C, and Subchapter D as applicable, and is required to be submitted with this SCS Application Form.

Customer Information

2. The entity and contact person responsible for providing the required engineering certification of testing for this sewage collection system upon completion (including private service connections) and every five years thereafter to the appropriate TCEQ region office pursuant to 30 TAC §213.5(c) is:

Contact Person: Federico Sanchez

Entity: City of Round Rock

Mailing Address: 221 East Main Street

City, State: Round Rock, Texas

Zip: 78664

Telephone: 512-218-6609

Fax: _____

Email Address: FSanchez@roundrocktexas.gov

The appropriate regional office must be informed of any changes in this information within 30 days of the change.

3. The engineer responsible for the design of this sewage collection system is:

Contact Person: Sherif Mabrouk

Texas Licensed Professional Engineer's Number: PE# 128396

Entity: HDR

Mailing Address: 4401 West Gate Blvd Suite 400

City, State: Austin, TX

Zip: 78745

Telephone: 512-912-5105

Fax: _____

Email Address: Sherif.Mabrouk@hdrinc.com

Project Information

4. Anticipated type of development to be served (estimated future population to be served, plus adequate allowance for institutional and commercial flows):

- ☒ Residential: Number of single-family lots: 8
☐ Multi-family: Number of residential units: _____
☒ Commercial
☐ Industrial
☐ Off-site system (not associated with any development)
☐ Other: _____

5. The character and volume of wastewater is shown below:

70 % Domestic 84,000 gallons/day
 _____ % Industrial _____ gallons/day
30 % Commingled 36,000 gallons/day

Total gallons/day: 120,000

**Estimate based on modeled dry weather flow*

6. Existing and anticipated infiltration/inflow is 530,000 gallons/day. This will be addressed by: watertight manholes **Estimate based on modeled wet weather flow*

7. A Water Pollution Abatement Plan (WPAP) is required for construction of any associated commercial, industrial or residential project located on the Recharge Zone.

- ☐ The WPAP application for this development was approved by letter dated _____. A copy of the approval letter is attached.
☐ The WPAP application for this development was submitted to the TCEQ on _____, but has not been approved.
☐ A WPAP application is required for an associated project, but it has not been submitted.
☒ There is no associated project requiring a WPAP application.

Please see attachments E and F for WPAP exemption and Geologic Assessment exception.

8. Pipe description:

Table 1 - Pipe Description

<i>Pipe Diameter(Inches)</i>	<i>Linear Feet (1)</i>	<i>Pipe Material (2)</i>	<i>Specifications (3)</i>
12"	415	PVC SDR 26	
12"	950	PVC DR 25	ASTM D2241/AWWA C900
6"	40	PVC DR 25	AWWA C900
8"	20	PVC DR 25	AWWA C900

Total Linear Feet: 1,425

(1) Linear feet - Include stub-outs and double service connections. Do not include private service laterals.

(2) Pipe Material - If PVC, state SDR value.

(3) Specifications - ASTM / ANSI / AWWA specification and class numbers should be included.

9. The sewage collection system will convey the wastewater to the _____ (name) Treatment Plant. The treatment facility is:

☒ Existing
☐ Proposed

10. All components of this sewage collection system will comply with:

☒ The City of ^{Round Rock} _____ standard specifications.
☐ Other. Specifications are attached.

11. ☒ No force main(s) and/or lift station(s) are associated with this sewage collection system.
☐ A force main(s) and/or lift station(s) is associated with this sewage collection system and the **Lift Station/Force Main System Application** form (TCEQ-0624) is included with this application.

Alignment

12. ☒ There are no deviations from uniform grade in this sewage collection system without manholes and with open cut construction.
13. ☒ There are no deviations from straight alignment in this sewage collection system without manholes.
- ☐ **Attachment B - Justification and Calculations for Deviation in Straight Alignment without Manholes.** A justification for deviations from straight alignment in this sewage collection system without manholes with documentation from pipe manufacturer allowing pipe curvature is attached.
- ☐ For curved sewer lines, all curved sewer line notes (TCEQ-0596) are included on the construction plans for the wastewater collection system.

Manholes and Cleanouts

14. ☒ Manholes or clean-outs exist at the end of each sewer line(s). These locations are listed below: (Please attach additional sheet if necessary)

Table 2 - Manholes and Cleanouts

<i>Line</i>	<i>Shown on Sheet</i>	<i>Station</i>	<i>Manhole or Clean-out?</i>
Please see Table 2 attached for manholes and clean-outs.			
	Of		
	Of		
	Of		
	Of		
	Of		
	Of		

Table 2 - Manholes and Cleanouts

Line	Shown on Sheet	Station	Manhole or Clean-out
1	1 of 4	10+00.00	Manhole
1	1 of 4	10+19.40	Manhole
2	1 of 4	12+82.89	Manhole
3	2 of 4	17+76.67	Manhole
4	3 of 4	19+57.40	Manhole
5	3 of 4	19+85.31	Manhole
6	3 of 4	21+80.60	Manhole
7	4 of 4	23+90.30	Manhole
2	1 of 4	12+12.70	Clean-out
2	1 of 4	12+83.08	Clean-out
3	1 of 4	13+48.41	Clean-out
3	1 of 4	13+88.47	Clean-out
3	2 of 4	14+28.71	Clean-out
3	2 of 4	15+19.28	Clean-out
3	2 of 4	15+77.20	Clean-out
3	2 of 4	16+22.57	Clean-out
3	2 of 4	17+60.27	Clean-out
4	2 of 4	17+97.88	Clean-out
6	3 of 4	19+86.34	Clean-out
6	3 of 4	20+19.34	Clean-out
6	3 of 4	20+94.88	Clean-out
6	3 of 4	21+43.27	Clean-out
6	3 of 4	21+80.68	Clean-out
7	4 of 4	22+89.30	Clean-out
7	4 of 4	22+90.06	Clean-out

<i>Line</i>	<i>Shown on Sheet</i>	<i>Station</i>	<i>Manhole or Clean-out?</i>
	Of		
	Of		
	Of		

15. ☒ Manholes are installed at all Points of Curvature and Points of Termination of a sewer line.
16. ☒ The maximum spacing between manholes on this project for each pipe diameter is no greater than:

Pipe Diameter (inches)	Max. Manhole Spacing (feet)
6 - 15	500
16 - 30	800
36 - 48	1000
≥54	2000

- ☐ **Attachment C – Justification for Variance from Maximum Manhole Spacing.** The maximum spacing between manholes on this project (for each pipe diameter used) is greater than listed in the table above. A justification for any variance from the maximum spacing is attached, and must include a letter from the entity which will operate and maintain the system stating that it has the capability to maintain lines with manhole spacing greater than the allowed spacing.
17. ☐ All manholes will be monolithic, cast-in-place concrete.
- ☒ The use of pre-cast manholes is requested for this project. The manufacturer's specifications and construction drawings, showing the method of sealing the joints, are attached.

Site Plan Requirements

Items 18 - 25 must be included on the Site Plan.

18. ☒ The Site Plan must have a minimum scale of 1" = 400'.
Site Plan Scale: 1" = _____'.
19. ☒ The Site Plan must include the sewage collection system general layout, including manholes with station numbers, and sewer pipe stub outs (if any). Site plan must be overlain by topographic contour lines, using a contour interval of not greater than ten feet and showing the area within both the five-year floodplain and the 100-year floodplain of any drainage way.
20. Lateral stub-outs:
- ☐ The location of all lateral stub-outs are shown and labeled.
- ☒ No lateral stub-outs will be installed during the construction of this sewer collection system.

21. Location of existing and proposed water lines:

- ☒ The entire water distribution system for this project is shown and labeled.
- ☐ If not shown on the Site Plan, a Utility Plan is provided showing the entire water and sewer systems.
- ☐ There will be no water lines associated with this project.

22. 100-year floodplain:

- ☐ After construction is complete, no part of this project will be in or cross a 100-year floodplain, either naturally occurring or manmade. (Do not include streets or concrete-lined channels constructed above of sewer lines.)
- ☒ After construction is complete, all sections located within the 100-year floodplain will have water-tight manholes. These locations are listed in the table below and are shown and labeled on the Site Plan. (Do not include streets or concrete-lined channels constructed above sewer lines.)

Table 3 - 100-Year Floodplain

<i>Line</i>	<i>Sheet</i>	<i>Station</i>
7	4 of 4	23+84.30 to 23+90.30
	of	to
	of	to
	of	to

23. 5-year floodplain:

- ☒ After construction is complete, no part of this project will be in or cross a 5-year floodplain, either naturally occurring or man-made. (Do not include streets or concrete-lined channels constructed above sewer lines.)
- ☐ After construction is complete, all sections located within the 5-year floodplain will be encased in concrete or capped with concrete. These locations are listed in the table below and are shown and labeled on the Site Plan. (Do not include streets or concrete-lined channels constructed above sewer lines.)

Table 4 - 5-Year Floodplain

<i>Line</i>	<i>Sheet</i>	<i>Station</i>
	of	to
	of	to
	of	to
	of	to

24. ☒ Legal boundaries of the site are shown.

25. ☒ The ***final plans and technical specifications*** are submitted for the TCEQ's review. Each sheet of the construction plans and specifications are dated, signed, and sealed by the Texas Licensed Professional Engineer responsible for the design on each sheet.

Items 26 - 33 must be included on the Plan and Profile sheets.

26. ☒ All existing or proposed water line crossings and any parallel water lines within 9 feet of sewer lines are listed in the table below. These lines must have the type of pressure rated pipe to be installed shown on the plan and profile sheets. Any request for a variance from the required pressure rated piping at crossings must include a variance approval from 30 TAC Chapter 290.

☐ There will be no water line crossings.

☐ There will be no water lines within 9 feet of proposed sewer lines.

Table 5 - Water Line Crossings

<i>Line</i>	<i>Station or Closest Point</i>	<i>Crossing or Parallel</i>	<i>Horizontal Separation Distance</i>	<i>Vertical Separation Distance</i>
Please see Table 5 attached for water line crossings.				

27. Vented Manholes:

☒ **No part** of this sewer line is within the 100-year floodplain and vented manholes are not required by 30 TAC Chapter 217.

☐ **A portion** of this sewer line is within the 100-year floodplain and vented manholes will be provided at less than 1500 foot intervals. These water-tight manholes are listed in the table below and labeled on the appropriate profile sheets.

☐ **A portion** of this sewer line is within the 100-year floodplain and an alternative means of venting shall be provided at less than 1500 feet intervals. A description of the alternative means is described on the following page.

☐ **A portion** of this sewer line is within the 100-year floodplain; however, there is no interval longer than 1500 feet located within. No vented manholes will be used.

Table 6 - Vented Manholes

<i>Line</i>	<i>Manhole</i>	<i>Station</i>	<i>Sheet</i>

Table 5 - Water Line Crossings

Line	Station	Crossing/Parallel	Horizontal Separation Distance	Vertical Separation Distance
2	STA 10+67.36	Parallel	4.2 feet	1.7 feet
3	STA 14+33.45	Parallel	4.2-5 feet	1.5 feet
4	STA 19+44.52	Parallel	4.2-5.8 feet	1.6 feet
5	STA 19+57.40	Parallel	5.8 feet	1.6 feet
6	STA 19+85.31	Parallel	5.8 feet	1 foot
6" Water Line Crossings				
2	STA 10+67.36	Crossing		1.7 feet
3	STA 14+33.45	Crossing		1.5 feet
4	STA 19+44.52	Crossing		1.6 feet
Wastewater Connection to Existing System Crossing				
2	STA 12+82.89	Crossing		1 foot
3	STA 17+76.67	Crossing		1 foot
4	STA 19+57.40	Crossing		2 feet
6" Wastewater Service Crossings				
3	STA 13+48.41	Crossing		1.5 feet
3	STA 14+28.71	Crossing		1.4 feet
3	STA 15+77.20	Crossing		1.5 feet
5	STA 19+85.31	Crossing		1.5 feet
6	STA 20+19.34	Crossing		1.5 feet
6	STA 21+43.27	Crossing		1.5 feet
7	STA 22+90.06	Crossing		1.6 feet
2" Water Service Crossings				
2	STA 11+81.05	Crossing		1.5 feet
2	STA 11+80.27	Crossing		1.5 feet
3	STA 13+78.80	Crossing		1.5 feet
3	STA 15+14.48	Crossing		1.5 feet
3	STA 16+12.60	Crossing		1.5 feet
6	STA 21+04.85	Crossing		2.2 feet
7	STA 22+17.73	Crossing		2.3 feet
7	STA 22+70.32	Crossing		3.5 feet
7	STA 22+95.22	Crossing		4.4 feet

<i>Line</i>	<i>Manhole</i>	<i>Station</i>	<i>Sheet</i>

28. Drop manholes:

- ☐ There are no drop manholes associated with this project.
- ☒ Sewer lines which enter new or existing manholes or "manhole structures" higher than 24 inches above the manhole invert are listed in the table below and labeled on the appropriate profile sheets. These lines meet the requirements of 30 TAC §217.55(l)(2)(H).

Table 7 - Drop Manholes

<i>Line</i>	<i>Manhole</i>	<i>Station</i>	<i>Sheet</i>
1	2	10+19.40	1
2	3	12+82.89	1
3	4	17+76.67	2
4	5	19+57.40	3

29. Sewer line stub-outs (For proposed extensions):

- ☐ The placement and markings of all sewer line stub-outs are shown and labeled.
- ☒ No sewer line stub-outs are to be installed during the construction of this sewage collection system.

30. Lateral stub-outs (For proposed private service connections):

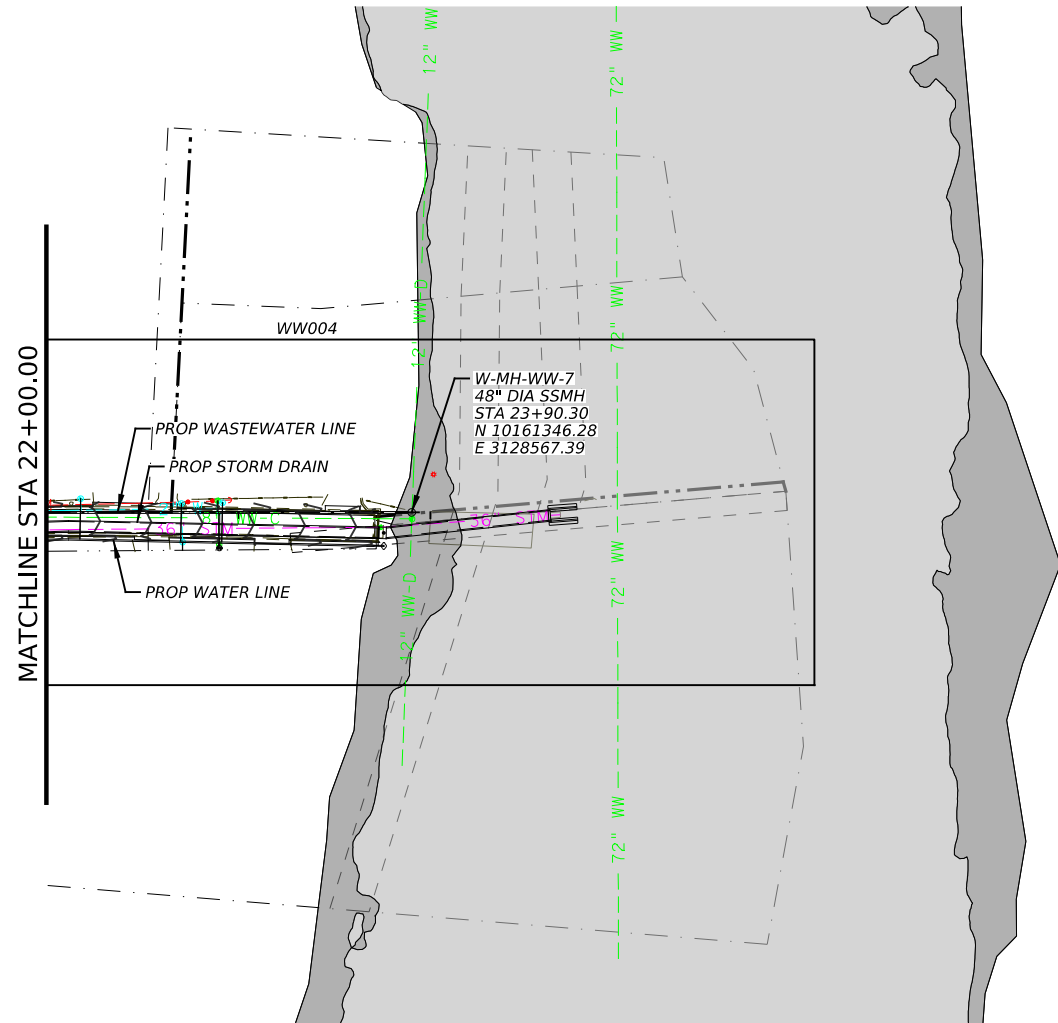
- ☐ The placement and markings of all lateral stub-outs are shown and labeled.
- ☒ No lateral stub-outs are to be installed during the construction of this sewage collection system.

31. Minimum flow velocity (From Appendix A)

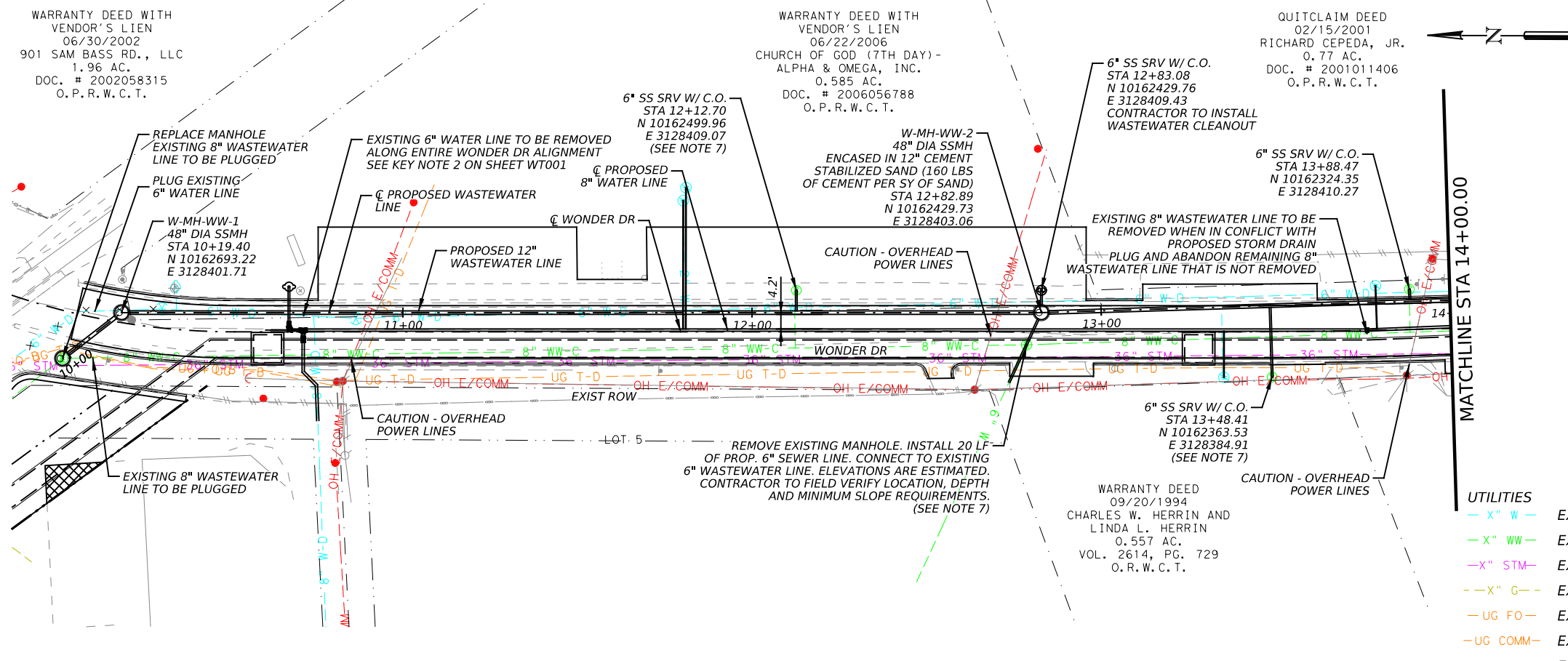
- ☒ Assuming pipes are flowing full; all slopes are designed to produce flows equal to or greater than 2.0 feet per second for this system/line.

32. Maximum flow velocity/slopes (From Appendix A)

- ☒ Assuming pipes are flowing full, all slopes are designed to produce maximum flows of less than or equal to 10 feet per second for this system/line.
- ☐ **Attachment D – Calculations for Slopes for Flows Greater Than 10.0 Feet per Second.** Assuming pipes are flowing full, some slopes produce flows which are greater than 10 feet per second. These locations are listed in the table below. Calculations are attached.



NO.	DATE	REVISION	APPR BY
CITY	COUNTY	SHEET NO.	
ROUND ROCK	WILLIAMSON	MEADOWS-STPLN-SH	



LEGEND

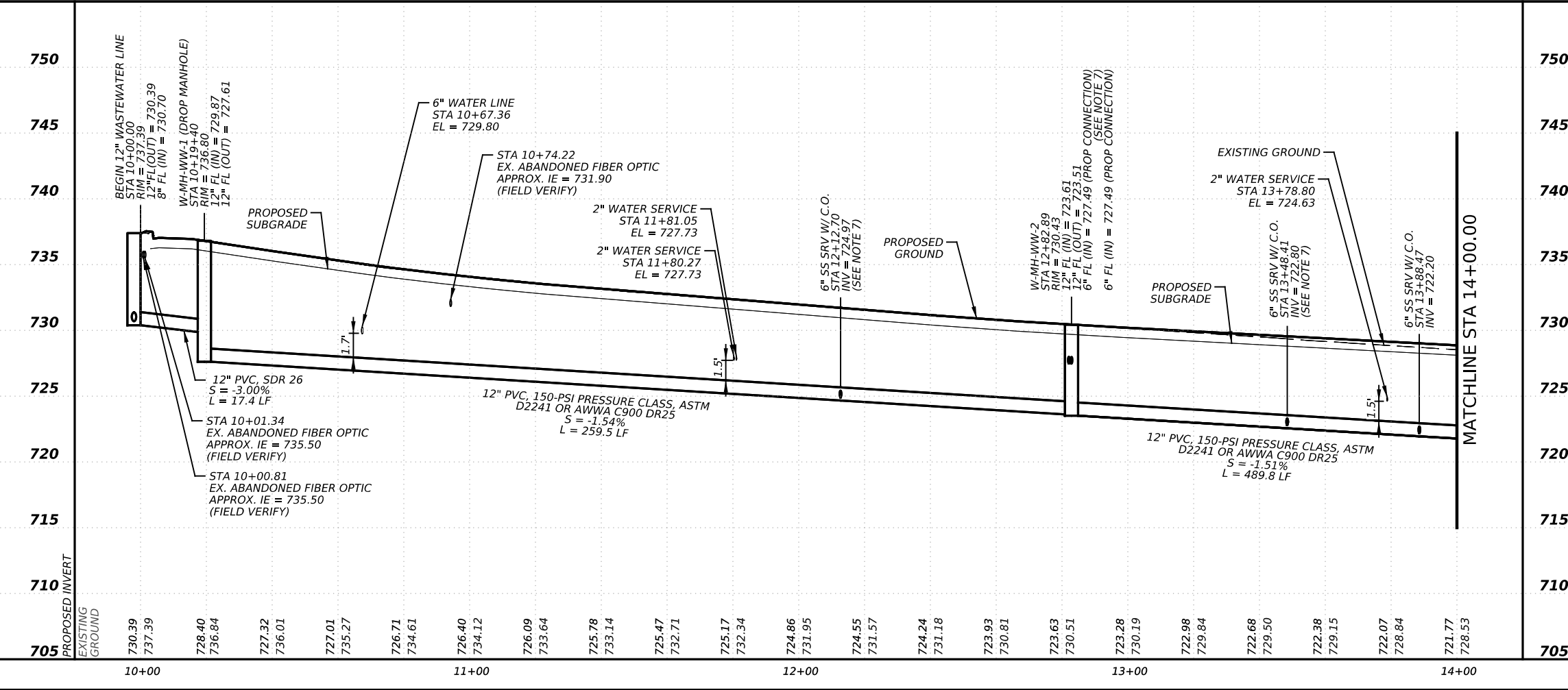
- PROPERTY LINE
- EXISTING ROW
- PROPOSED ROW
- PROPOSED EDGE OF PAVEMENT
- EXISTING FENCE

NOTES:

- THE LOCATIONS AND ELEVATIONS OF UTILITIES SHOWN ARE APPROXIMATE AND ALL EXISTING UTILITIES MAY NOT BE SHOWN. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND ELEVATION OF EXISTING UTILITIES BEFORE STARTING WORK AND SHALL NOTIFY THE ENGINEER OF CONFLICTS WITH THE IMPROVEMENTS.
- ALL SERVICES MAY NOT BE SHOWN. CONTRACTOR TO VERIFY EXISTENCE OF WATER AND SEWER SERVICES TO PRIVATE PROPERTY AND RECONNECT TO ACTIVE SERVICES ACCORDINGLY.
- COORDINATE FINAL APPURTENANCE ELEVATIONS WITH FINAL PROPOSED GRADING FOR FULL PROJECT EXTENTS.
- CONTRACTOR TO PROVIDE TEMPORARY SEWER SERVICE TO MAINTAIN SERVICE DURING SEWER MAIN REPLACEMENT. SEE BYPASS PUMPING PLAN SPEC 01 80 00.
- THE LOCATIONS OF THE UTILITIES SHOWN IN THESE PLANS DOES NOT RELIEVE THE CONTRACTOR FROM THE DUTY TO COMPLY WITH THE APPLICABLE UTILITY DAMAGE PREVENTION LAWS AND REGULATIONS, INCLUDING, BUT NOT LIMITED TO, GIVING NOTIFICATION TO UTILITY OWNER'S "ONE-CALL" CENTERS BEFORE EXCAVATION.
- ALL PROPOSED MANHOLES SHALL BE COATED AND VACUUM TESTED PER SPECIFICATIONS AND DETAILS.
- FOR ALL INSTANCES WHEN A WASTEWATER MAIN OR LATERAL CROSSES ABOVE A WATERLINE, INSTALL WASTEWATER LINE OR LATERAL AS 150 PSI PRESSURE CLASS PIPE, 9-FT IN BOTH DIRECTIONS (ONE 20-FT LENGTH OF PIPE) OF WATERLINE CROSSING. PIPE SHALL COMPLY WITH ASTM D2241 OR AWWA C900 DR25.

SCALE IN FEET

H: 0 20 40 60 80
V: 0 5 10 15 20



STATE OF TEXAS
SHERIF E. MABROUK
128396
LICENSED PROFESSIONAL ENGINEER
08/07/2025

HDR HDR Engineering, Inc.
Firm Registration No. F-754
710 Hester Crossing, Suite 150
Round Rock, Texas 78681

THE CITY OF ROUND ROCK, TEXAS
UTILITIES AND ENVIRONMENTAL SERVICES DEPARTMENT

MEADOWS DR WATER, WASTEWATER, & STORM DRAIN IMPROVEMENTS AREAS 2 & 4

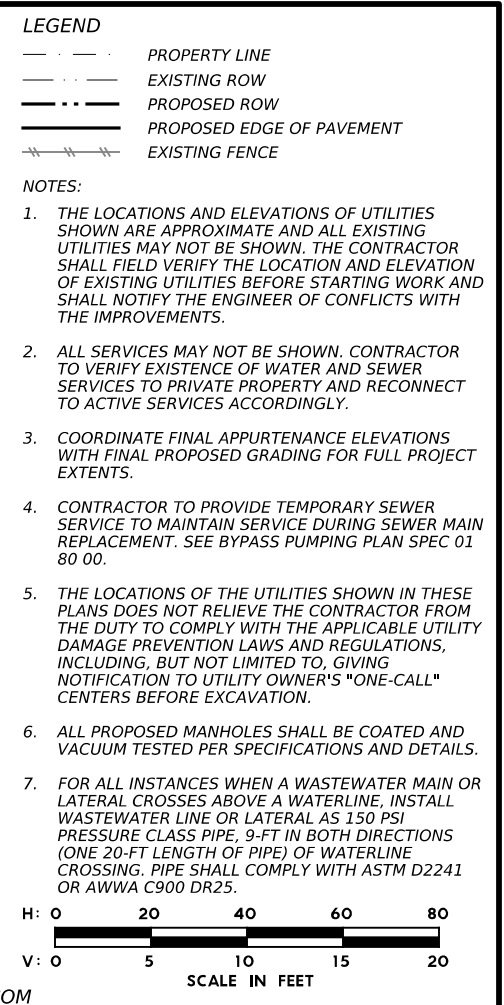
WASTEWATER PLAN & PROFILE WONDER DR BEGIN TO STA 14+00

SCALE: 1"=40'-H
1"=10'-V

SHEET 1 OF 4

NO.	DATE	REVISION	APPR BY

CITY	COUNTY	SHEET NO.
ROUND ROCK	WILLIAMSON	WW001



08/07/2025



HDR Engineering, Inc.
Firm Registration No. F-754
710 Hester Crossing, Suite 150
Round Rock, Texas 78681



THE CITY OF ROUND ROCK TEXAS
UTILITIES AND ENVIRONMENTAL
SERVICES DEPARTMENT

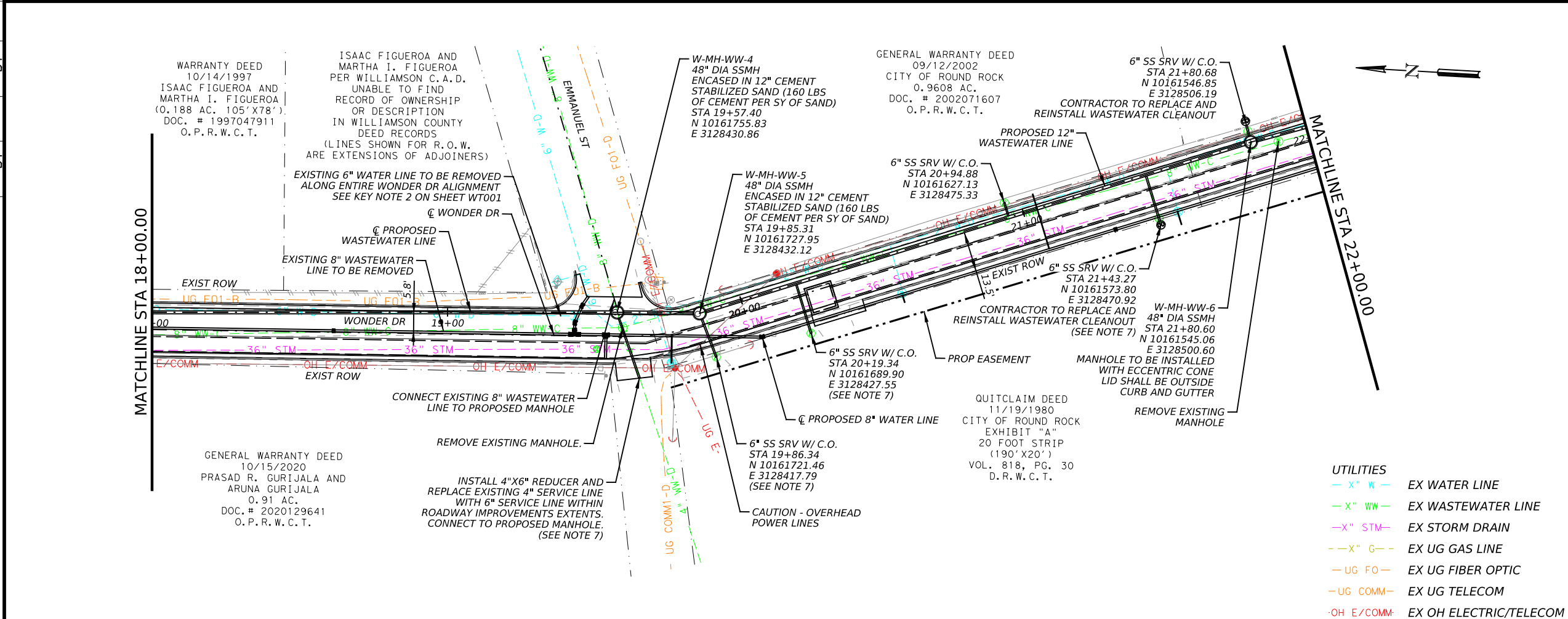
MEADOWS DR WATER,
WASTEWATER, & STORM
DRAIN IMPROVEMENTS
AREAS 2 & 4

WASTEWATER PLAN & PROFILE
WONDER DR
STA 14+00 TO STA 18+00

SCALE: 1"=40'-H
1"=10'-V

SHEET 2 OF 4

NO.	DATE	REVISION	APPR BY
CITY	COUNTY		SHEET NO.
ROUND ROCK	WILLIAMSON		WW002



LEGEND

- PROPERTY LINE
- EXISTING ROW
- PROPOSED ROW
- PROPOSED EDGE OF PAVEMENT
- EXISTING FENCE

NOTES:

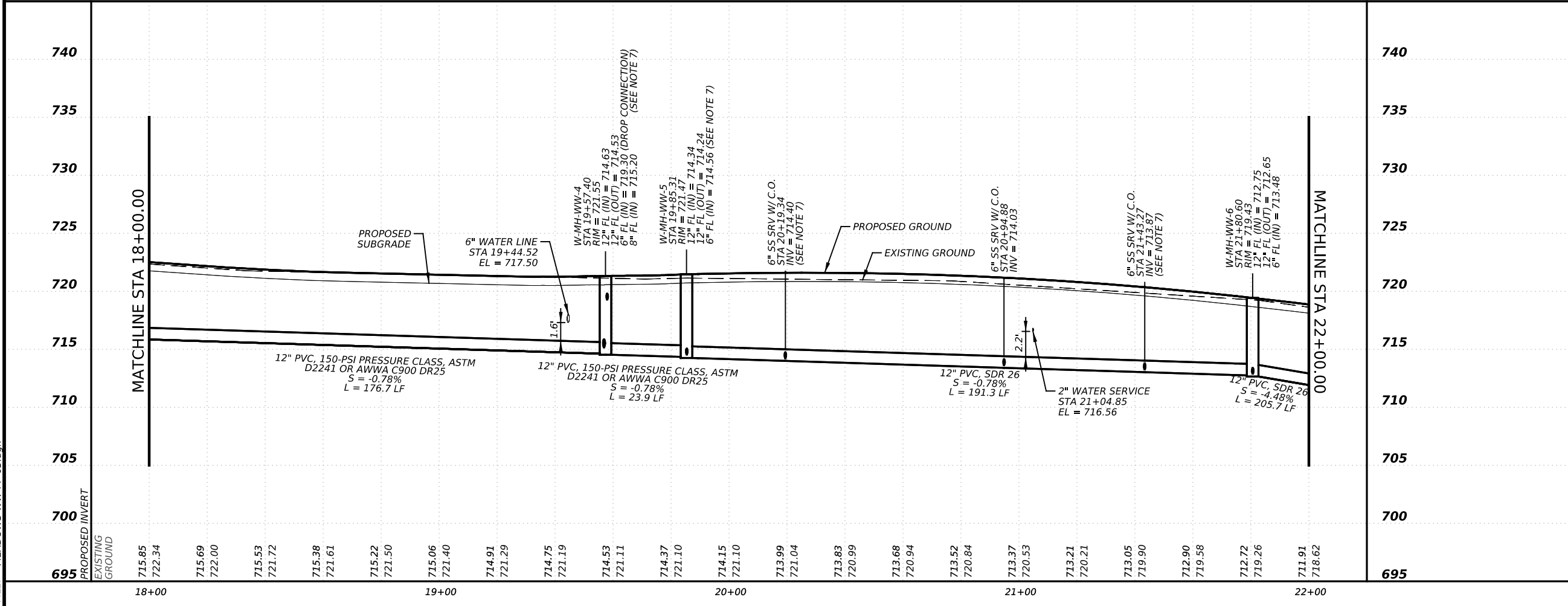
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UTILITIES

- X" W- EX WATER LINE
- X" WW- EX WASTEWATER LINE
- X" STM- EX STORM DRAIN
- X" G- EX UG GAS LINE
- UG FO- EX UG FIBER OPTIC
- UG COMM- EX UG TELECOM
- OH E/COMM- EX OH ELECTRIC/TELECOM

SCALE IN FEET

H: 0 20 40 60 80
V: 0 5 10 15 20



MEADOWS DR WATER, WASTEWATER, & STORM DRAIN IMPROVEMENTS AREAS 2 & 4

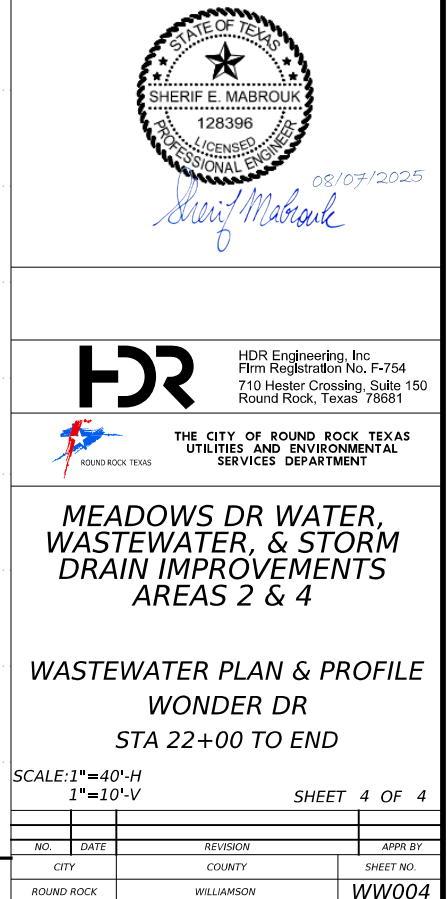
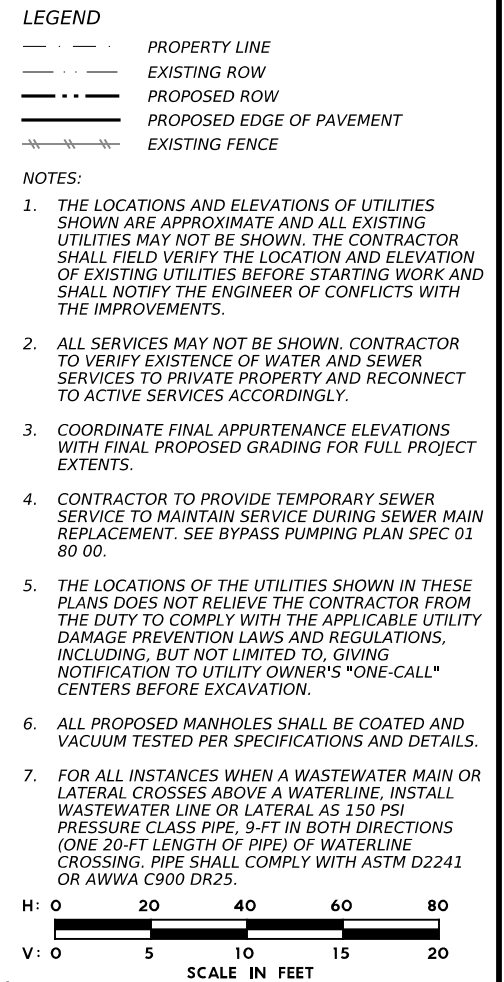
WASTEWATER PLAN & PROFILE WONDER DR STA 18+00 TO STA 22+00

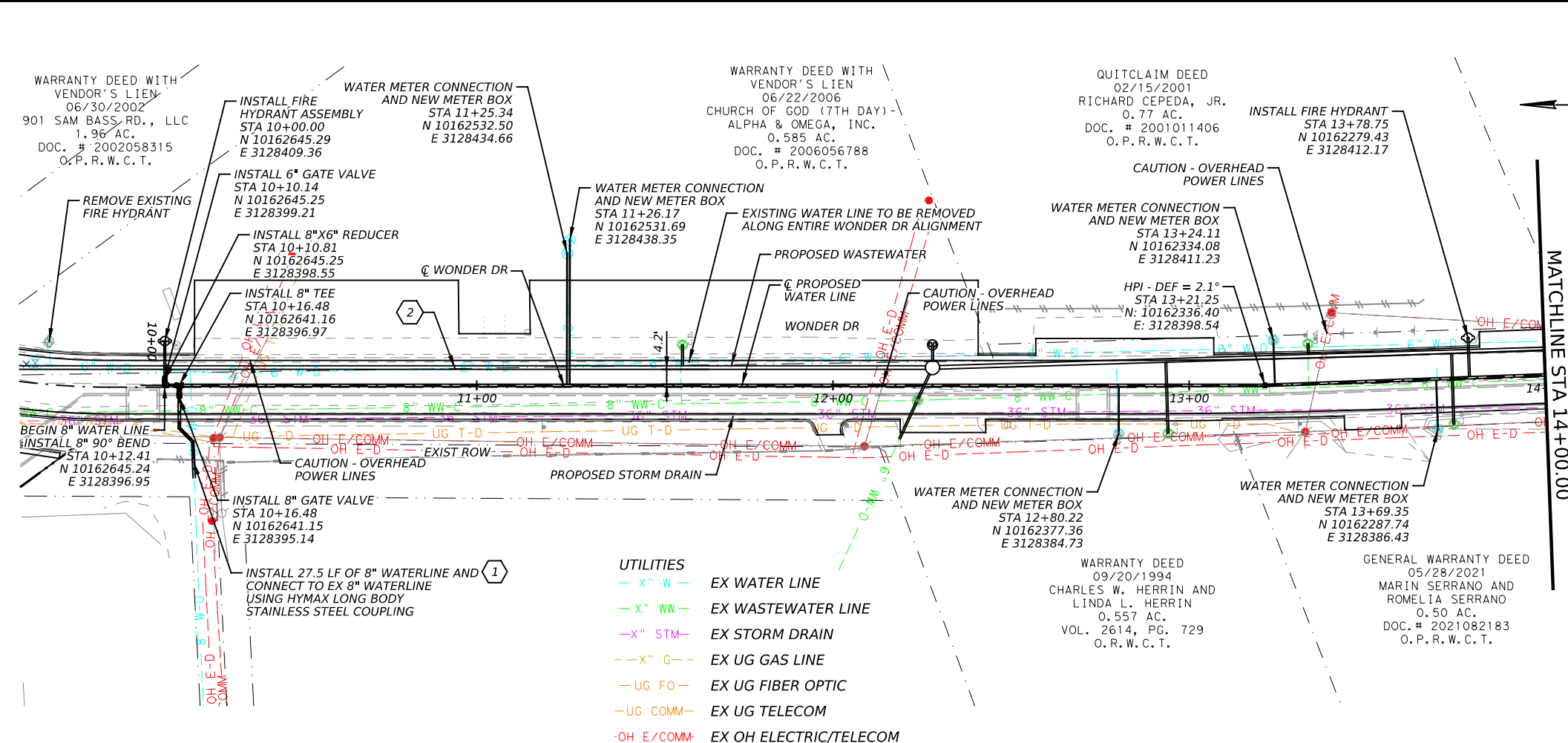
SCALE: 1"=40'-H
1"=10'-V

SHEET 3 OF 4

NO.	DATE	REVISION	APPR BY
1	8/7/2025	ISSUED FOR PERMIT	SHERIF E. MABROUK

CITY	COUNTY	SHEET NO.
ROUND ROCK	WILLIAMSON	WW003





LEGEND

- PROPERTY LINE
- EXISTING ROW
- PROPOSED ROW
- PROPOSED EDGE OF PAVEMENT
- EXISTING FENCE

NOTES:

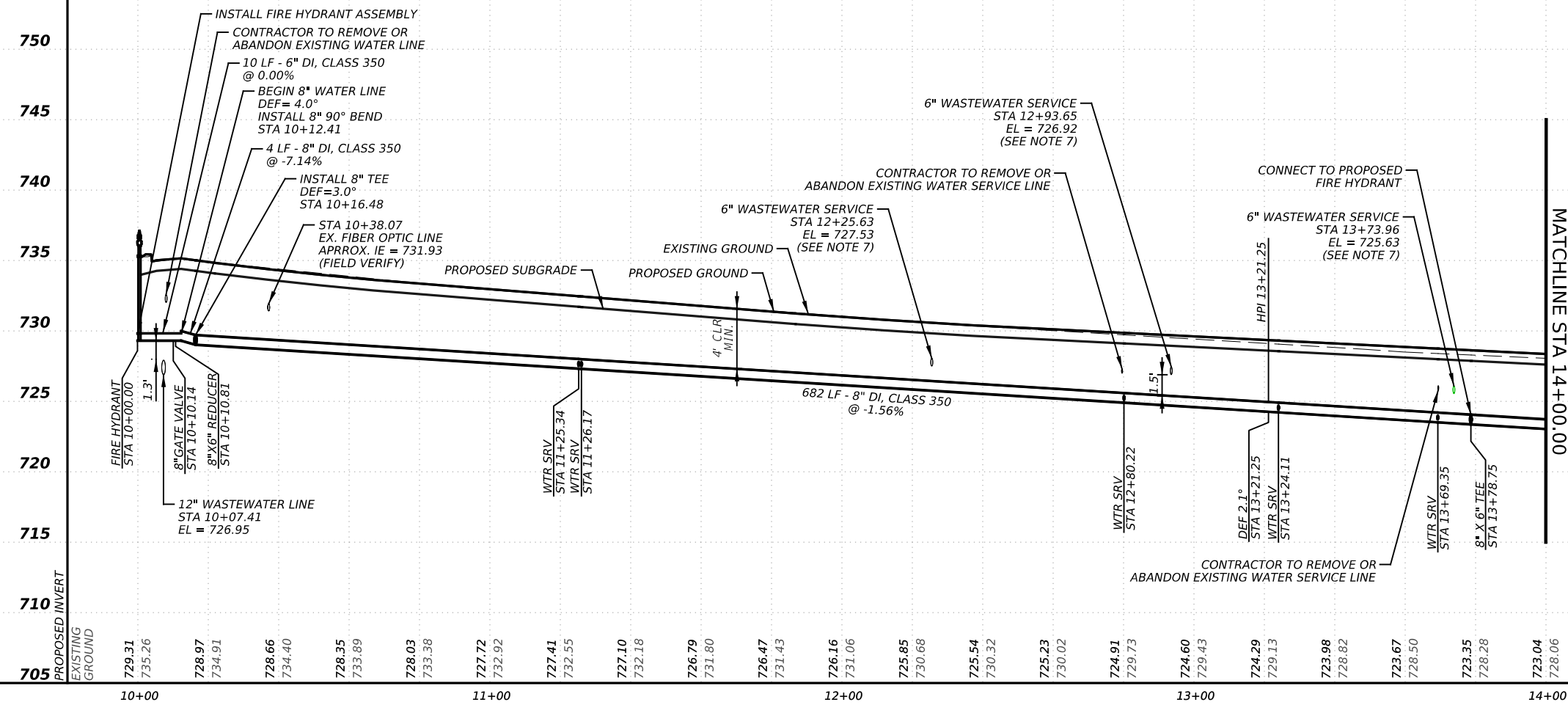
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- PROVIDE CONCRETE THRUST BLOCKS AT ALL BENDS AND FITTINGS. REFER TO CITY OF ROUND ROCK STANDARD DETAIL.
- FOR ALL INSTANCES WHEN A WASTEWATER MAIN OR LATERAL CROSSES ABOVE A WATERLINE, INSTALL WASTEWATER LINE OR LATERAL AS 150 PSI PRESSURE CLASS PIPE, 9" IN BOTH DIRECTIONS (ONE 20-ft LENGTH OF PIPE) OF WATERLINE CROSSING. PIPE SHALL COMPLY WITH ASTM D2241 OR AWWA C900 DR25.

KEY NOTES:

- EXISTING PIPE MATERIAL IS UNKNOWN. CONTRACTOR SHALL VERIFY EXISTING PIPE LOCATION, ELEVATION, AND PIPE MATERIAL PRIOR TO CONSTRUCTION. PROVIDE ALL NECESSARY FITTINGS, ADAPTORS, AND ALL OTHER MATERIALS NECESSARY TO COMPLETE THE CONNECTION WITH THE EXISTING LINE. PROVIDE THE CITY OF ROUND ROCK WITH ONE-WEEK NOTICE PRIOR TO WATERLINE SHUTDOWN AND CONNECTION. WATERLINE SHUTDOWN SHALL BE LIMITED TO 8 HOURS. THE CONTRACTOR SHALL PROVIDE A DETAILED PLAN TO COMPLETE CONNECTIONS, TO BE APPROVED BY THE CITY.
- EXISTING 6" WATERLINE MATERIAL IS ASBESTOS CEMENT(AC). CONTRACTOR SHALL FOLLOW ALL REGULATORY REQUIREMENTS FOR DISPOSAL OF AC PIPE.

SCALE IN FEET

H: 0 20 40 60 80
V: 0 5 10 15 20



MEADOWS DR WATER, WASTEWATER, & STORM DRAIN IMPROVEMENTS AREAS 2 & 4

WATER LINE PLAN & PROFILE WONDER DR BEGIN TO STA 14+00

SCALE: 1"=40'-H
1"=10'-V

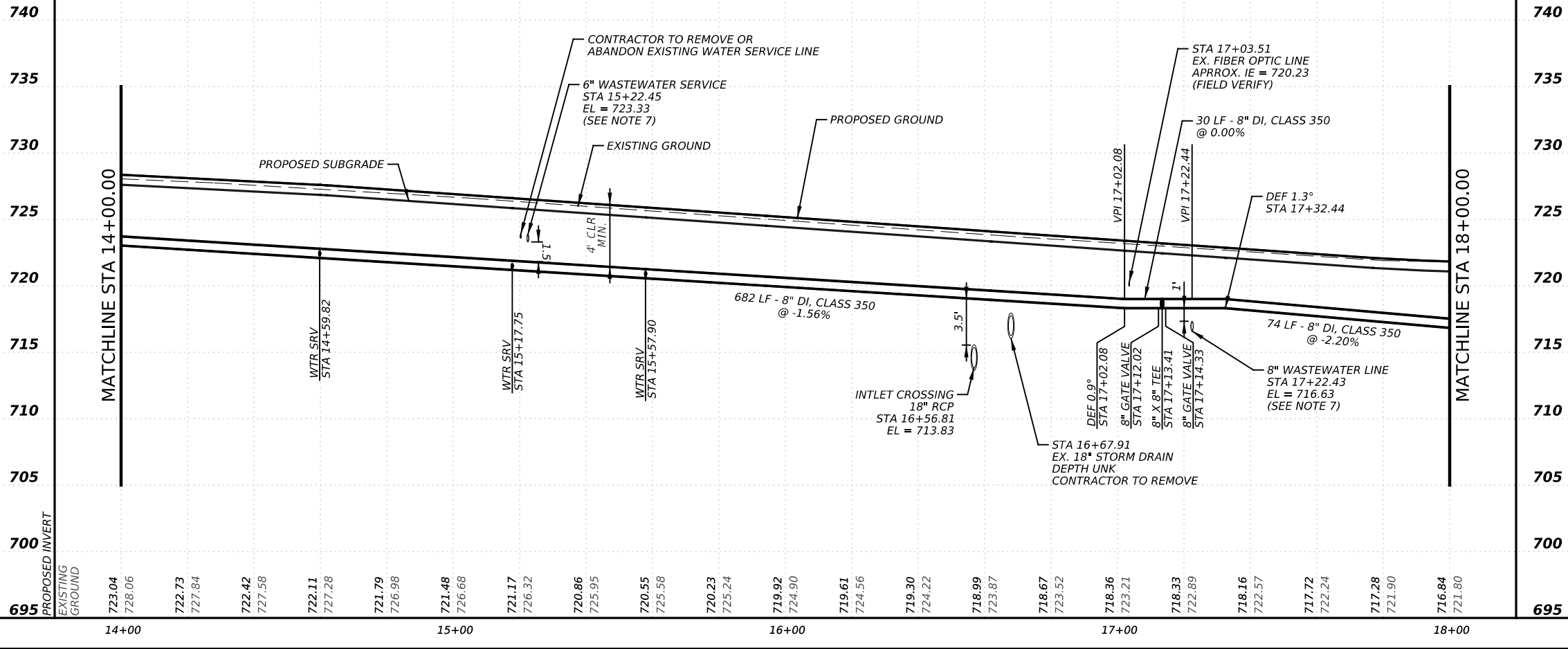
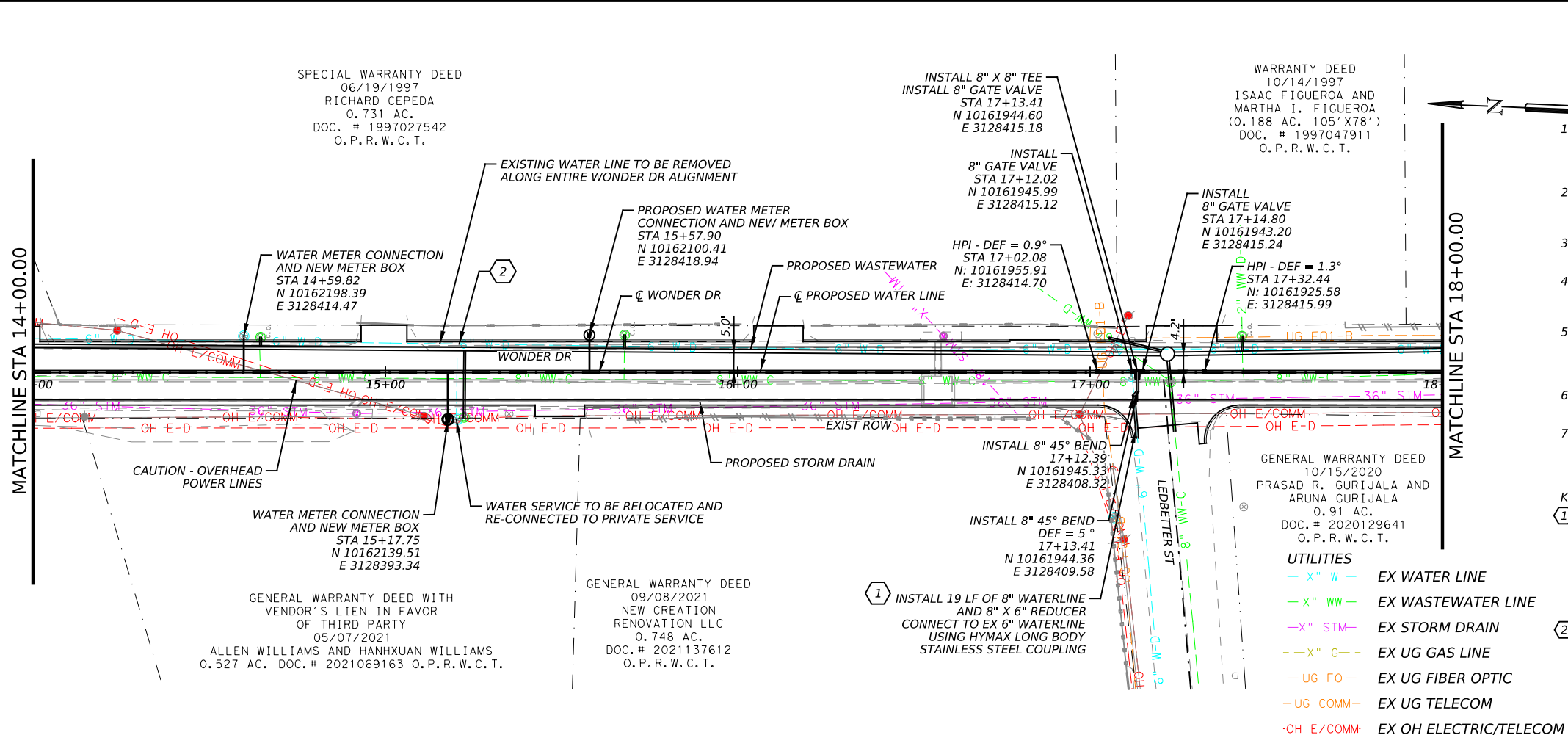
SHEET 1 OF 4

NO. DATE REVISION APPR BY

NO.	DATE	REVISION	APPR BY

CITY COUNTY SHEET NO.

CITY	COUNTY	SHEET NO.
ROUND ROCK	WILLIAMSON	WT001



LEGEND

- PROPERTY LINE
- EXISTING ROW
- PROPOSED ROW
- PROPOSED EDGE OF PAVEMENT
- EXISTING FENCE

NOTES:

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KEY NOTES:

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UTILITIES

- EX WATER LINE
- EX WASTEWATER LINE
- EX STORM DRAIN
- EX UG GAS LINE
- EX UG FIBER OPTIC
- EX UG TELECOM
- EX OH ELECTRIC/TELECOM

SCALE IN FEET

H: 0 20 40 60 80

V: 0 5 10 15 20

STATE OF TEXAS

SHERIF E. MABROUK

128396

08/07/2025

HDR Engineering, Inc.

Firm Registration No. F-754

710 Hester Crossing, Suite 150

Round Rock, Texas 78681

THE CITY OF ROUND ROCK, TEXAS

UTILITIES AND ENVIRONMENTAL SERVICES DEPARTMENT

MEADOWS DR WATER, WASTEWATER, & STORM DRAIN IMPROVEMENTS AREAS 2 & 4

WATER LINE PLAN & PROFILE WONDER DR

STA 14+00 TO STA 18+00

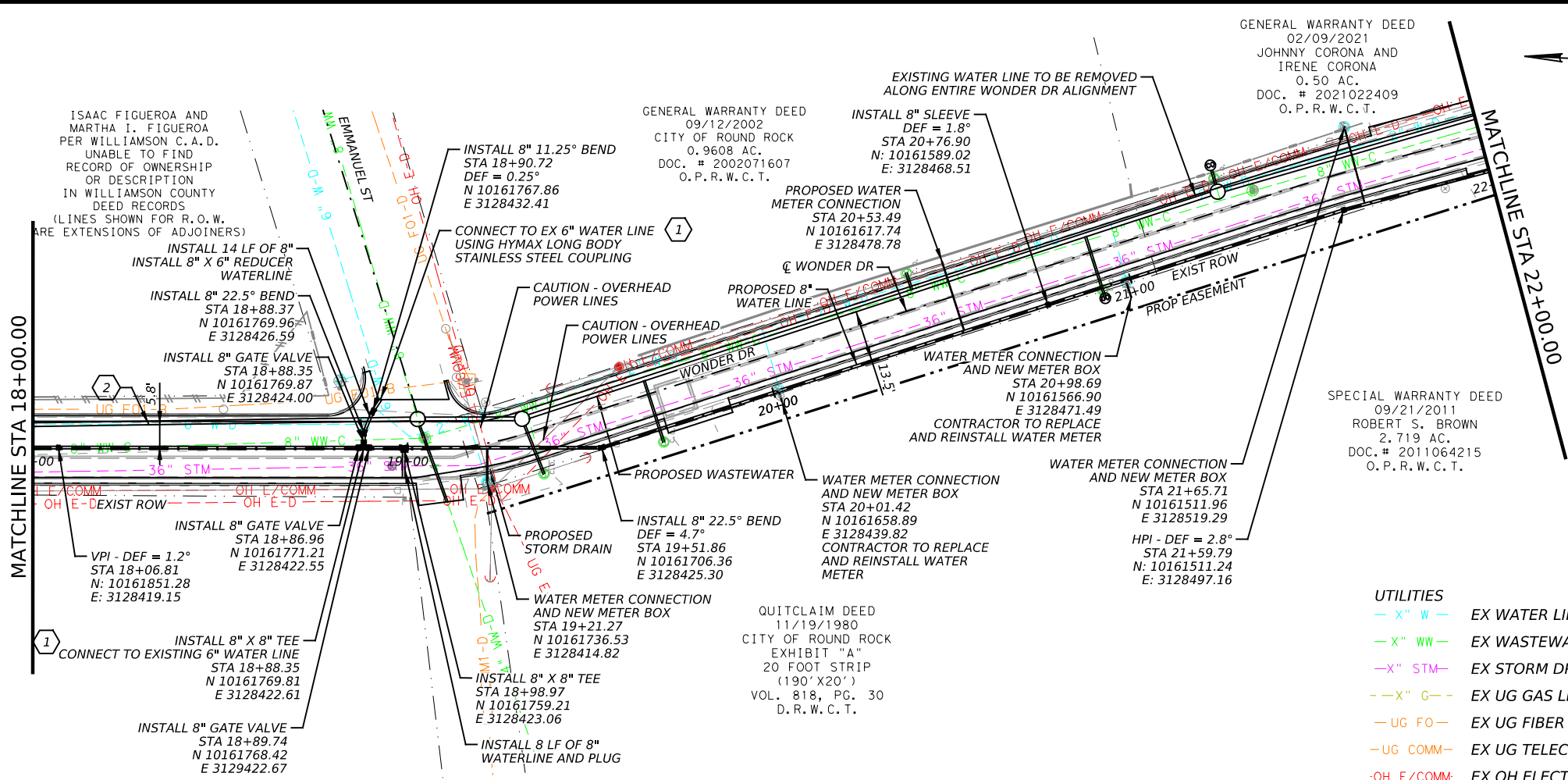
SCALE: 1"=40'-H

1"=10'-V

SHEET 2 OF 4

NO.	DATE	REVISION	APPR BY

CITY	COUNTY	SHEET NO.
ROUND ROCK	WILLIAMSON	WT002



LEGEND

- PROPERTY LINE
- EXISTING ROW
- PROPOSED ROW
- PROPOSED EDGE OF PAVEMENT
- EXISTING FENCE

NOTES:

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KEY NOTES:

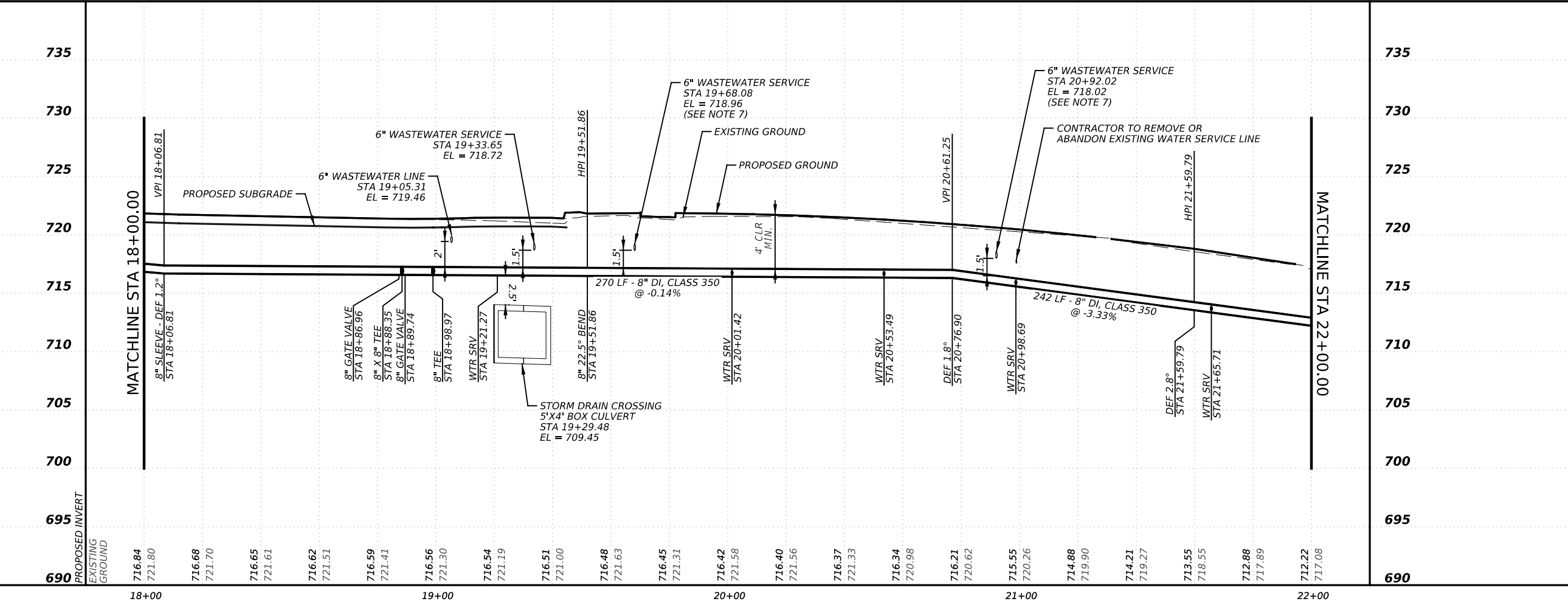
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UTILITIES

- EX WATER LINE
- EX WASTEWATER LINE
- EX STORM DRAIN
- EX UG GAS LINE
- EX UG FIBER OPTIC
- EX UG TELECOM
- EX OH ELECTRIC/TELECOM

SCALE IN FEET

H: 0 20 40 60 80
V: 0 5 10 15 20



MEADOWS DR WATER, WASTEWATER, & STORM DRAIN IMPROVEMENTS AREAS 2 & 4

WATER LINE PLAN & PROFILE WONDER DR STA 18+00 TO STA 22+00

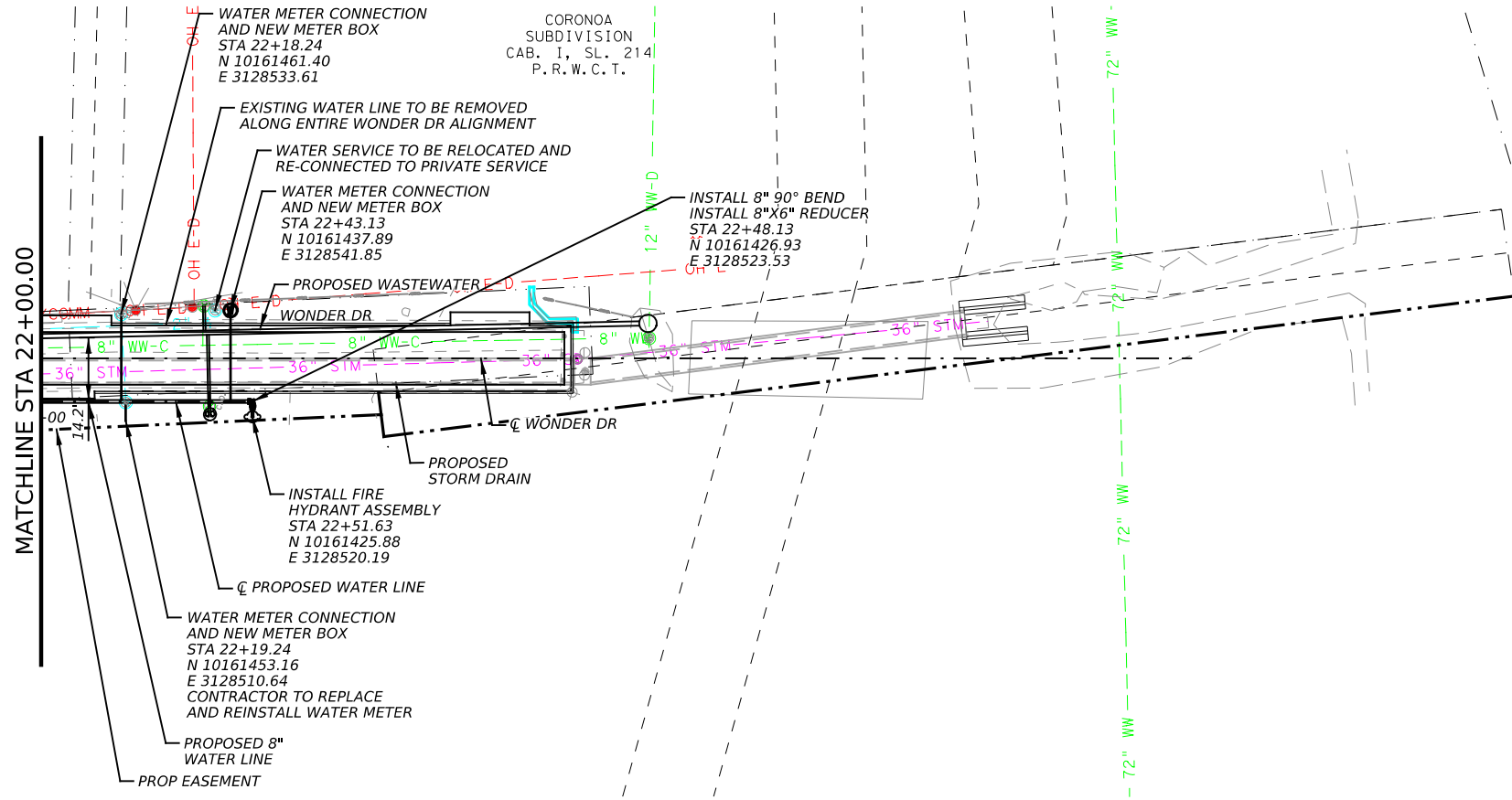
SCALE: 1"=40'-H
1"=10'-V

SHEET 3 OF 4

NO. DATE REVISION APPR BY

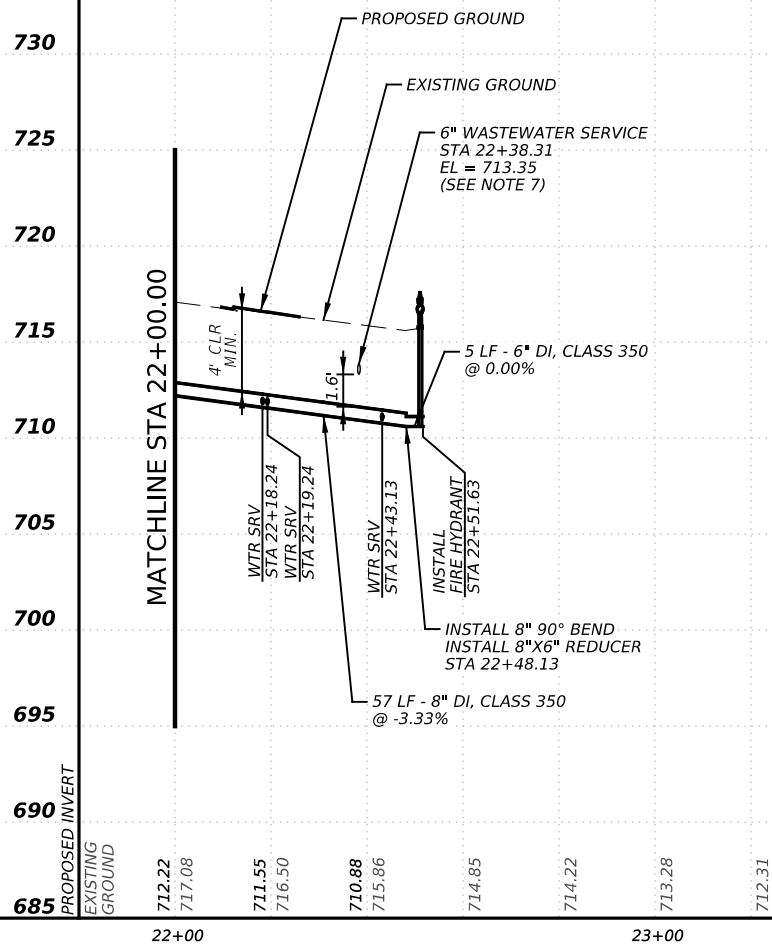
CITY COUNTY SHEET NO.

ROUND ROCK WILLIAMSON WT003



- UTILITIES**
- EX WATER LINE
 - EX WASTEWATER LINE
 - EX STORM DRAIN
 - EX UG GAS LINE
 - EX UG FIBER OPTIC
 - EX UG TELECOM
 - EX OH ELECTRIC/TELECOM

- LEGEND**
- PROPERTY LINE
 - EXISTING ROW
 - PROPOSED ROW
 - PROPOSED EDGE OF PAVEMENT
 - EXISTING FENCE
- NOTES:**
- THE LOCATIONS AND ELEVATIONS OF UTILITIES SHOWN ARE APPROXIMATE AND ALL EXISTING UTILITIES MAY NOT BE SHOWN. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND ELEVATION OF EXISTING UTILITIES BEFORE STARTING WORK AND SHALL NOTIFY THE ENGINEER OF CONFLICTS WITH THE IMPROVEMENTS.
 - ALL SERVICES MAY NOT BE SHOWN. CONTRACTOR TO VERIFY EXISTENCE OF WATER AND SEWER SERVICES TO PRIVATE PROPERTY AND RECONNECT TO ACTIVE SERVICES ACCORDINGLY.
 - COORDINATE FINAL APPURTENANCE ELEVATIONS WITH FINAL PROPOSED GRADING FOR FULL PROJECT EXTENTS.
 - CONTRACTOR TO PROVIDE TEMPORARY WATER SERVICE TO MAINTAIN SERVICE DURING WATER MAIN REPLACEMENT. SEE TEMPORARY WATER SERVICE SPEC 33 04 30 AND DETAILS.
 - THE LOCATIONS OF THE UTILITIES SHOWN IN THESE PLANS DOES NOT RELIEVE THE CONTRACTOR FROM THE DUTY TO COMPLY WITH THE APPLICABLE UTILITY DAMAGE PREVENTION LAWS AND REGULATIONS, INCLUDING, BUT NOT LIMITED TO, GIVING NOTIFICATION TO UTILITY OWNER'S "ONE-CALL" CENTERS BEFORE EXCAVATION.
 - PROVIDE CONCRETE THRUST BLOCKS AT ALL BENDS AND FITTINGS. REFER TO CITY OF ROUND ROCK STANDARD DETAIL.
 - FOR ALL INSTANCES WHEN A WASTEWATER MAIN OR LATERAL CROSSES ABOVE A WATERLINE, INSTALL WASTEWATER LINE OR LATERAL AS 150 PSI PRESSURE CLASS PIPE, 9' IN BOTH DIRECTIONS (ONE 20-ft LENGTH OF PIPE) OF WATERLINE CROSSING. PIPE SHALL COMPLY WITH ASTM D2241 OR AWWA C900 DR25.
- KEY NOTES:**
- EXISTING PIPE MATERIAL IS UNKNOWN. CONTRACTOR SHALL VERIFY EXISTING PIPE LOCATION, ELEVATION, AND PIPE MATERIAL PRIOR TO CONSTRUCTION. PROVIDE ALL NECESSARY FITTINGS, ADAPTORS, AND ALL OTHER MATERIALS NECESSARY TO COMPLETE THE CONNECTION WITH THE EXISTING LINE. PROVIDE THE CITY OF ROUND ROCK WITH ONE-WEEK NOTICE PRIOR TO WATERLINE SHUTDOWN AND CONNECTION. WATERLINE SHUTDOWN SHALL BE LIMITED TO 8 HOURS. THE CONTRACTOR SHALL PROVIDE A DETAILED PLAN TO COMPLETE CONNECTIONS, TO BE APPROVED BY THE CITY.
 - EXISTING 6" WATERLINE MATERIAL IS ASBESTOS CEMENT(AC). CONTRACTOR SHALL FOLLOW ALL REGULATORY REQUIREMENTS FOR DISPOSAL OF AC PIPE.
- SCALE IN FEET**
- H: 0 20 40 60 80
V: 0 5 10 15 20



08/07/2025
Sherif Mabrouk

HDR HDR Engineering, Inc.
Firm Registration No. F-754
710 Hester Crossing, Suite 150
Round Rock, Texas 78681

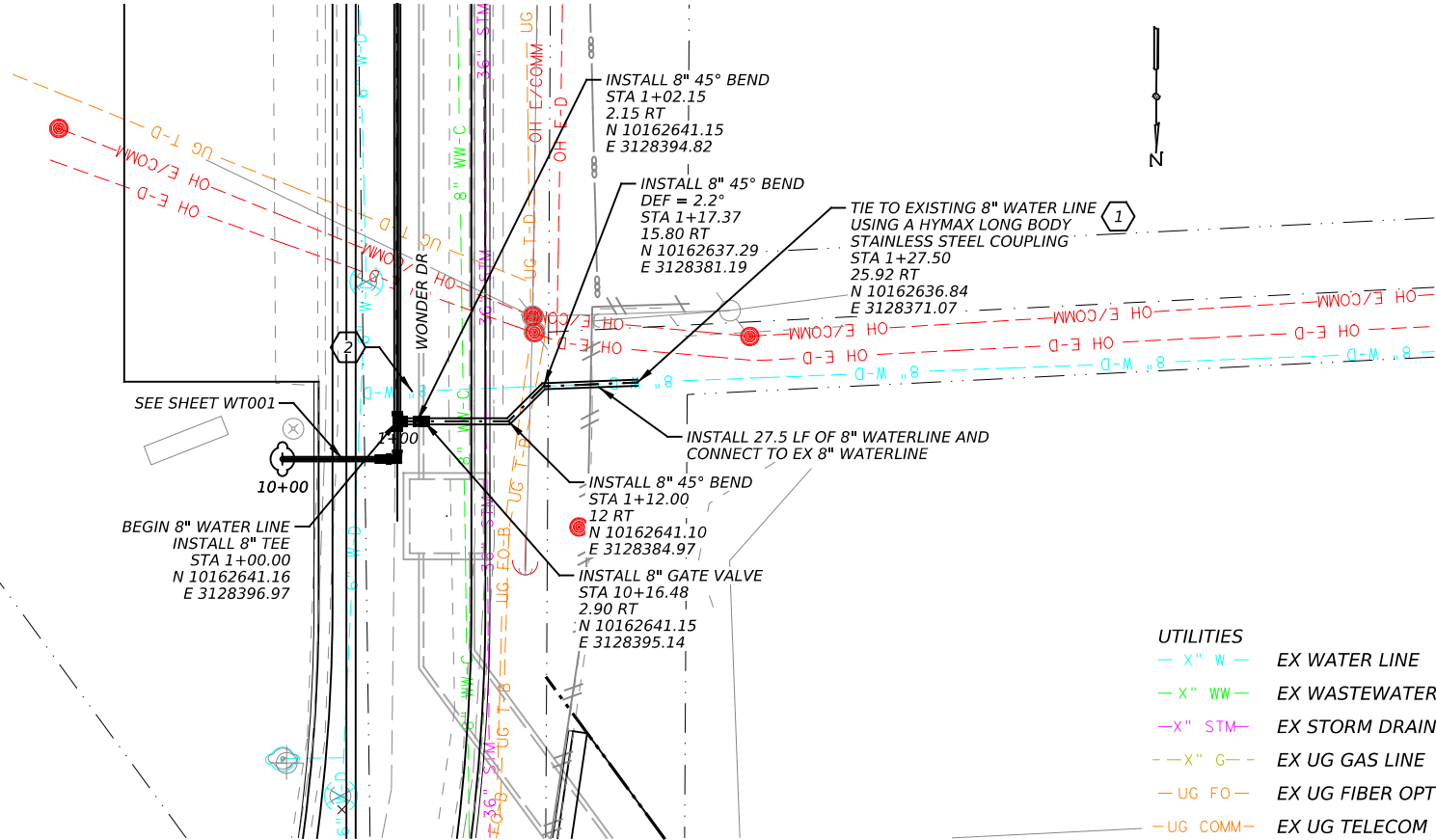
THE CITY OF ROUND ROCK, TEXAS
UTILITIES AND ENVIRONMENTAL
SERVICES DEPARTMENT

MEADOWS DR WATER, WASTEWATER, & STORM DRAIN IMPROVEMENTS AREAS 2 & 4

WATER LINE PLAN & PROFILE WONDER DR STA 22+00 TO END

SCALE: 1"=40'-H 1"=10'-V		SHEET 4 OF 4	
NO.	DATE	REVISION	APPR BY
CITY	COUNTY	SHEET NO.	
ROUND ROCK	WILLIAMSON	WT004	

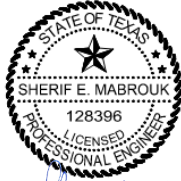
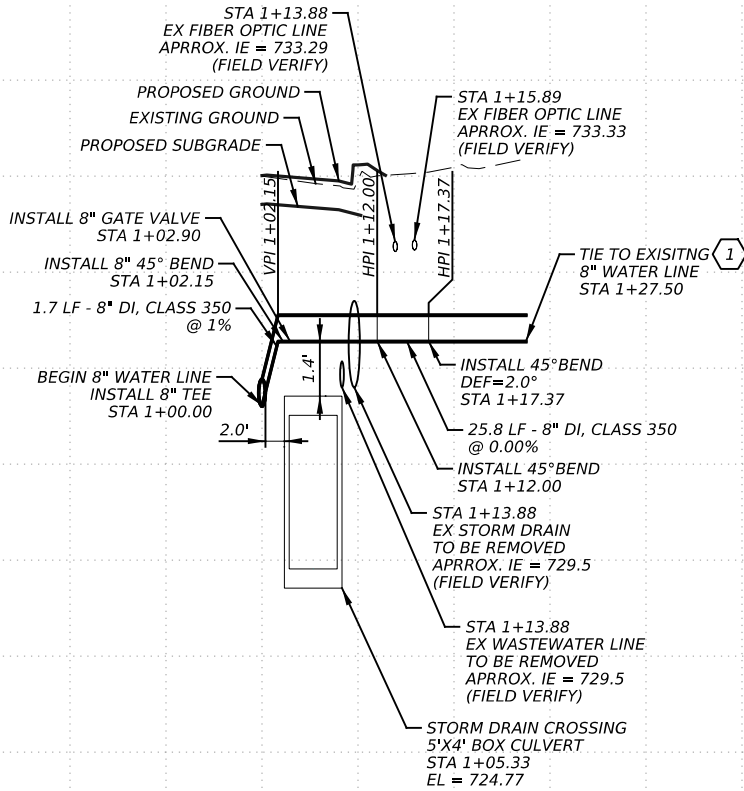
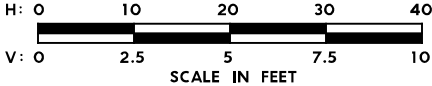
WARRANTY DEED WITH
VENDOR'S LIEN
06/30/2002
901 SAM BASS RD., LLC
1.96 AC.
DOC. # 2002058315
O.P.R.W.C.T.



- LEGEND**
- PROPERTY LINE
 - EXISTING ROW
 - PROPOSED ROW
 - PROPOSED EDGE OF PAVEMENT
 - EXISTING FENCE

- NOTES:**
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08/07/2025
Sherif Mabrouk



HDR Engineering, Inc.
Firm Registration No. F-754
710 Hester Crossing, Suite 150
Round Rock, Texas 78681



THE CITY OF ROUND ROCK, TEXAS
UTILITIES AND ENVIRONMENTAL
SERVICES DEPARTMENT

MEADOWS DR WATER, WASTEWATER, & STORM DRAIN IMPROVEMENTS AREAS 2 & 4

WATER LINE PLAN & PROFILE CROSSING BEGIN TO END

SCALE: 1"=20'-H
1"=5'-V

SHEET 1 OF 1

NO.	DATE	REVISION	APPR BY
CITY	COUNTY	SHEET NO.	
ROUND ROCK	WILLIAMSON	WT005	

Table 8 - Flows Greater Than 10 Feet per Second

<i>Line</i>	<i>Profile Sheet</i>	<i>Station to Station</i>	<i>FPS</i>	<i>% Slope</i>	<i>Erosion/Shock Protection</i>

33. Assuming pipes are flowing full, where flows are ≥ 10 feet per second, the provisions noted below have been made to protect against pipe displacement by erosion and/or shock under 30 TAC §217.53(l)(2)(B).

- ☐ Concrete encasement shown on appropriate Plan and Profile sheets for the locations listed in the table above.
- ☐ Steel-reinforced, anchored concrete baffles/retards placed every 50 feet shown on appropriate Plan and Profile sheets for the locations listed in the table above.
- ☒ N/A

Administrative Information

34. ☒ The final plans and technical specifications are submitted for TCEQ review. Each sheet of the construction plans and specifications are dated, signed, and sealed by the Texas Licensed Professional Engineer responsible for the design on each sheet.
35. ☒ Standard details are shown on the detail sheets, which are dated, signed, and sealed by the Texas Licensed Professional Engineer, as listed in the table below:

Table 9 - Standard Details

Standard Details	Shown on Sheet
Lateral stub-out marking [Required]	N/A of
Manhole, showing inverts comply with 30 TAC §217.55(l)(2) [Required]	1 of 7
Alternate method of joining lateral to existing SCS line for potential future connections [Required]	N/A of
Typical trench cross-sections [Required]	6 of 7
Bolted manholes [Required]	2 of 7
Sewer Service lateral standard details [Required]	4 of 7
Clean-out at end of line [Required, if used]	5 of 7
Baffles or concrete encasement for shock/erosion protection [Required, if flow velocity of any section of pipe >10 fps]	N/A of
Detail showing Wastewater Line/Water Line Crossing [Required, if crossings are proposed]	Shown on plan and profile sheets
Mandrel detail or specifications showing compliance with 30 TAC §217.57(b) and (c) [Required, if Flexible Pipe is used]	N/A of

Standard Details	Shown on Sheet
Drop manholes [Required, if a pipe entering a manhole is more than 24 inches above manhole invert]	1 of 7

36. ☒ All organized sewage collection system general construction notes (TCEQ-0596) are included on the construction plans for this sewage collection system.
37. ☒ All proposed sewer lines will be sufficiently surveyed/staked to allow an assessment prior to TCEQ executive director approval. If the alignments of the proposed sewer lines are not walkable on that date, the application will be deemed incomplete and returned.
- ☒ Survey staking was completed on this date: 8/29/2025
38. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.
39. ☒ Any modification of this SCS application will require TCEQ approval, prior to construction, and may require submission of a revised application, with appropriate fees.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Organized Sewage Collection System Application** is hereby submitted for TCEQ review and executive director approval. The system was designed in accordance with the requirements of 30 TAC §213.5(c) and 30 TAC §217 and prepared by:

Print Name of Licensed Professional Engineer: Sherif Mabrouk

Date: 08/20/25

Place engineer's seal here:



Signature of Licensed Professional Engineer:

Sherif Mabrouk _____

Texas Commission on Environmental Quality
Organized Sewage Collection System
General Construction Notes

Edwards Aquifer Protection Program Construction Notes – Legal Disclaimer

The following/listed "construction notes" are intended to be advisory in nature only and do not constitute an approval or conditional approval by the Executive Director, nor do they constitute a comprehensive listing of rules or conditions to be followed during construction. Further actions may be required to achieve compliance with TCEQ regulations found in Title 30, Texas Administrative Code, Chapters 213 and 217, as well as local ordinances and regulations providing for the protection of water quality. Additionally, nothing contained in the following/listed "construction notes" restricts the powers of the Executive Director, the commission or any other governmental entity to prevent, correct, or curtail activities that result or may result in pollution of the Edwards Aquifer or hydrologically connected surface waters. The holder of any Edwards Aquifer Protection Plan containing "construction notes" is still responsible for compliance with Title 30, Texas Administrative Code, Chapters 213 or any other applicable TCEQ regulation, as well as all conditions of an Edwards Aquifer Protection Plan through all phases of plan implementation. Failure to comply with any condition of the Executive Director's approval, whether or not in contradiction of any "construction notes," is a violation of TCEQ regulations and any violation is subject to administrative rules, orders, and penalties as provided under Title 30, Texas Administrative Code § 213.10 (relating to Enforcement). Such violations may also be subject to civil penalties and injunction. The following/listed "construction notes" in no way represent an approved exception by the Executive Director to any part of Title 30 Texas Administrative Code, Chapters 213 and 217, or any other TCEQ applicable regulation.

1. This Organized Sewage Collection System (SCS) must be constructed in accordance with 30 Texas Administrative Code (TAC) §213.5(c), the Texas Commission on Environmental Quality's (TCEQ) Edwards Aquifer Rules and any local government standard specifications.
2. All contractors conducting regulated activities associated with this proposed regulated project must be provided with copies of the SCS plan and the TCEQ letter indicating the specific conditions of its approval. During the course of these regulated activities, the contractors must be required to keep on-site copies of the plan and the approval letter.
3. A written notice of construction must be submitted to the presiding TCEQ regional office at least 48 hours prior to the start of any regulated activities. This notice must include:
 - the name of the approved project;
 - the activity start date; and
 - the contact information of the prime contractor.
4. Any modification to the activities described in the referenced SCS application following the date of approval may require the submittal of an SCS application to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval.
5. Prior to beginning any construction activity, all temporary erosion and sedimentation (E&S) control measures must be properly installed and maintained in accordance with the manufacturers specifications. These controls must remain in place until the disturbed areas have been permanently stabilized.
6. If any sensitive features are discovered during the wastewater line trenching activities, all regulated activities near the sensitive feature must be suspended immediately. The applicant must immediately notify the appropriate regional office of the TCEQ of the feature discovered. A geologist's assessment of the location and extent of the feature discovered must be reported to that regional office in writing and the applicant must submit a plan for ensuring the structural integrity of the sewer line or for modifying the proposed collection system alignment around the feature. The regulated activities near the sensitive feature may not proceed until the

executive director has reviewed and approved the methods proposed to protect the sensitive feature and the Edwards Aquifer from any potentially adverse impacts to water quality while maintaining the structural integrity of the line.

7. Sewer lines located within or crossing the 5-year floodplain of a drainage way will be protected from inundation and stream velocities which could cause erosion and scouring of backfill. The trench must be capped with concrete to prevent scouring of backfill, or the sewer lines must be encased in concrete. All concrete shall have a minimum thickness of 6 inches.
8. Blasting procedures for protection of existing sewer lines and other utilities will be in accordance with the National Fire Protection Association criteria. Sand is not allowed as bedding or backfill in trenches that have been blasted. If any existing sewer lines are damaged, the lines must be repaired and retested.
9. All manholes constructed or rehabilitated on this project must have watertight size on size resilient connectors allowing for differential settlement. If manholes are constructed within the 100-year floodplain, the cover must have a gasket and be bolted to the ring. Where gasketed manhole covers are required for more than three manholes in sequence or for more than 1500 feet, alternate means of venting will be provided. Bricks are not an acceptable construction material for any portion of the manhole.

The diameter of the manholes must be a minimum of four feet and the manhole for entry must have a minimum clear opening diameter of 30 inches. These dimensions and other details showing compliance with the commission's rules concerning manholes and sewer line/manhole inverts described in 30 TAC §217.55 are included on Plan Sheet __ of __.

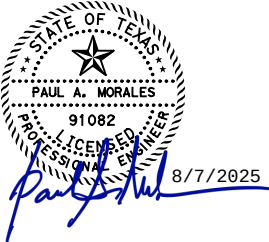
It is suggested that entrance into manholes in excess of four feet deep be accomplished by means of a portable ladder. The inclusion of steps in a manhole is prohibited.

10. Where water lines and new sewer line are installed with a separation distance closer than nine feet (i.e., water lines crossing wastewater lines, water lines paralleling wastewater lines, or water lines next to manholes) the installation must meet the requirements of 30 TAC §217.53(d) (Pipe Design) and 30 TAC §290.44(e) (Water Distribution).
11. Where sewers lines deviate from straight alignment and uniform grade all curvature of sewer pipe must be achieved by the following procedure which is recommended by the pipe manufacturer: _____.

If pipe flexure is proposed, the following method of preventing deflection of the joint must be used: _____.

Specific care must be taken to ensure that the joint is placed in the center of the trench and properly bedded in accordance with 30 TAC §217.54.

12. New sewage collection system lines must be constructed with stub outs for the connection of anticipated extensions. The location of such stub outs must be marked on the ground such that their location can be easily determined at the time of connection of the extensions. Such stub outs must be manufactured wyes or tees that are compatible in size and material with both the sewer line and the extension. At the time of original construction, new stub-outs must be constructed sufficiently to extend beyond the end of the street pavement. All stub-outs must be sealed with a manufactured cap to prevent leakage. Extensions that were not anticipated at the time of original construction or that are to be connected to an existing sewer line not furnished with stub outs must be connected using a manufactured saddle and in accordance with accepted plumbing techniques.





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THE CITY OF ROUND ROCK TEXAS
UTILITIES AND ENVIRONMENTAL
SERVICES DEPARTMENT

MEADOWS DR WATER,
WASTEWATER, & STORM
DRAIN IMPROVEMENTS
AREAS 2 & 4

TCEQ
GENERAL NOTES

SHEET 2 OF 4

NO.	DATE	REVISION	APPR BY
CITY	COUNTY	SHEET NO.	
ROUND ROCK	WILLIAMSON	G005	

If no stub-out is present an alternate method of joining laterals is shown in the detail on Plan Sheet ___ of ___. (For potential future laterals).

The private service lateral stub-outs must be installed as shown on the plan and profile sheets on Plan Sheet ___ of ___ and marked after backfilling as shown in the detail on Plan Sheet ___ of ___.

13. Trenching, bedding and backfill must conform with 30 TAC §217.54. The bedding and backfill for flexible pipe must comply with the standards of ASTM D-2321, Classes IA, IB, II or III. Rigid pipe bedding must comply with the requirements of ASTM C 12 (ANSI A 106.2) classes A, B or C.
14. Sewer lines must be tested from manhole to manhole. When a new sewer line is connected to an existing stub or clean-out, it must be tested from existing manhole to new manhole. If a stub or clean-out is used at the end of the proposed sewer line, no private service attachments may be connected between the last manhole and the cleanout unless it can be certified as conforming with the provisions of 30 TAC §213.5(c)(3)(E).
15. All sewer lines must be tested in accordance with 30 TAC §217.57. The engineer must retain copies of all test results which must be made available to the executive director upon request. The engineer must certify in writing that all wastewater lines have passed all required testing to the appropriate regional office within 30 days of test completion and prior to use of the new collection system. Testing method will be:

(a) For a collection system pipe that will transport wastewater by gravity flow, the design must specify an infiltration and exfiltration test or a low-pressure air test. A test must conform to the following requirements:

(1) *Low Pressure Air Test.*

(A) A low pressure air test must follow the procedures described in American Society For Testing And Materials (ASTM) C-828, ASTM C-924, or ASTM F-1417 or other procedure approved by the executive director, except as to testing times as required in Table C.3 in subparagraph (C) of this paragraph or Equation C.3 in subparagraph (B)(ii) of this paragraph.

(B) For sections of collection system pipe less than 36 inch average inside diameter, the following procedure must apply, unless a pipe is to be tested as required by paragraph (2) of this subsection.

(i) A pipe must be pressurized to 3.5 pounds per square inch (psi) greater than the pressure exerted by groundwater above the pipe.

(ii) Once the pressure is stabilized, the minimum time allowable for the pressure to drop from 3.5 psi gauge to 2.5 psi gauge is computed from the following equation:

Equation C.3

$$T = \frac{0.085 \times D \times K}{Q}$$

Where:

- T = time for pressure to drop 1.0 pound per square inch gauge in seconds
- K = 0.000419 X D X L, but not less than 1.0
- D = average inside pipe diameter in inches

- L = length of line of same size being tested, in feet
- Q = rate of loss, 0.0015 cubic feet per minute per square foot internal surface

(C) Since a K value of less than 1.0 may not be used, the minimum testing time for each pipe diameter is shown in the following Table C.3:

Pipe Diameter (inches)	Minimum Time (seconds)	Maximum Length for Minimum Time (feet)	Time for Longer Length (seconds/foot)
6	340	398	0.855
8	454	298	1.520
10	567	239	2.374
12	680	199	3.419
15	850	159	5.342
18	1020	133	7.693
21	1190	114	10.471
24	1360	100	13.676
27	1530	88	17.309
30	1700	80	21.369
33	1870	72	25.856

- (D) An owner may stop a test if no pressure loss has occurred during the first 25% of the calculated testing time.
- (E) If any pressure loss or leakage has occurred during the first 25% of a testing period, then the test must continue for the entire test duration as outlined above or until failure.
- (F) Wastewater collection system pipes with a 27 inch or larger average inside diameter may be air tested at each joint instead of following the procedure outlined in this section.
- (G) A testing procedure for pipe with an inside diameter greater than 33 inches must be approved by the executive director.
- (2) *Infiltration/Exfiltration Test.*

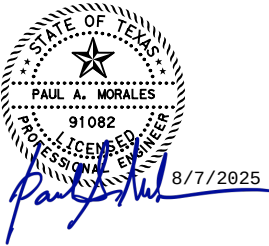
(A) The total exfiltration, as determined by a hydrostatic head test, must not exceed 50 gallons per inch of diameter per mile of pipe per 24 hours at a minimum test head of 2.0 feet above the crown of a pipe at an upstream manhole.

(B) An owner shall use an infiltration test in lieu of an exfiltration test when pipes are installed below the groundwater level.

(C) The total exfiltration, as determined by a hydrostatic head test, must not exceed 50 gallons per inch diameter per mile of pipe per 24 hours at a minimum test head of two feet above the crown of a pipe at an upstream manhole, or at least two feet above existing groundwater level, whichever is greater.

(D) For construction within a 25-year flood plain, the infiltration or exfiltration must not exceed 10 gallons per inch diameter per mile of pipe per 24 hours at the same minimum test head as in subparagraph (C) of this paragraph.

(E) If the quantity of infiltration or exfiltration exceeds the maximum quantity specified, an owner shall undertake remedial action in order to reduce



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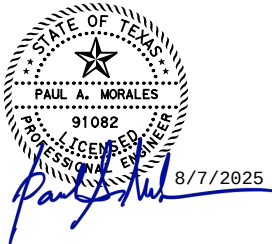
- the infiltration or exfiltration to an amount within the limits specified. An owner shall retest a pipe following a remediation action.
- (b) If a gravity collection pipe is composed of flexible pipe, deflection testing is also required. The following procedures must be followed:
- (1) For a collection pipe with inside diameter less than 27 inches, deflection measurement requires a rigid mandrel.
- (A) *Mandrel Sizing.*
- (i) A rigid mandrel must have an outside diameter (OD) not less than 95% of the base inside diameter (ID) or average ID of a pipe, as specified in the appropriate standard by the ASTMs, American Water Works Association, UNI-BELL, or American National Standards Institute, or any related appendix.
- (ii) If a mandrel sizing diameter is not specified in the appropriate standard, the mandrel must have an OD equal to 95% of the ID of a pipe. In this case, the ID of the pipe, for the purpose of determining the OD of the mandrel, must equal be the average outside diameter minus two minimum wall thicknesses for OD controlled pipe and the average inside diameter for ID controlled pipe.
- (iii) All dimensions must meet the appropriate standard.
- (B) *Mandrel Design.*
- (i) A rigid mandrel must be constructed of a metal or a rigid plastic material that can withstand 200 psi without being deformed.
- (ii) A mandrel must have nine or more odd number of runners or legs.
- (iii) A barrel section length must equal at least 75% of the inside diameter of a pipe.
- (iv) Each size mandrel must use a separate proving ring.
- (C) *Method Options.*
- (i) An adjustable or flexible mandrel is prohibited.
- (ii) A test may not use television inspection as a substitute for a deflection test.
- (iii) If requested, the executive director may approve the use of a deflectometer or a mandrel with removable legs or runners on a case-by-case basis.
- (2) For a gravity collection system pipe with an inside diameter 27 inches and greater, other test methods may be used to determine vertical deflection.
- (3) A deflection test method must be accurate to within plus or minus 0.2% deflection.
- (4) An owner shall not conduct a deflection test until at least 30 days after the final backfill.
- (5) Gravity collection system pipe deflection must not exceed five percent (5%).
- (6) If a pipe section fails a deflection test, an owner shall correct the problem and conduct a second test after the final backfill has been in place at least 30 days.
16. All manholes must be tested to meet or exceed the requirements of 30 TAC §217.58.
- (a) All manholes must pass a leakage test.
- (b) An owner shall test each manhole (after assembly and backfilling) for leakage, separate and independent of the collection system pipes, by hydrostatic exfiltration testing, vacuum testing, or other method approved by the executive director.
- (1) Hydrostatic Testing.

- (A) The maximum leakage for hydrostatic testing or any alternative test methods is 0.025 gallons per foot diameter per foot of manhole depth per hour.
- (B) To perform a hydrostatic exfiltration test, an owner shall seal all wastewater pipes coming into a manhole with an internal pipe plug, fill the manhole with water, and maintain the test for at least one hour.
- (C) A test for concrete manholes may use a 24-hour wetting period before testing to allow saturation of the concrete.
- (2) Vacuum Testing.
- (A) To perform a vacuum test, an owner shall plug all lift holes and exterior joints with a non-shrink grout and plug all pipes entering a manhole.
- (B) No grout must be placed in horizontal joints before testing.
- (C) Stub-outs, manhole boots, and pipe plugs must be secured to prevent movement while a vacuum is drawn.
- (D) An owner shall use a minimum 60 inch/lb torque wrench to tighten the external clamps that secure a test cover to the top of a manhole.
- (E) A test head must be placed at the inside of the top of a cone section, and the seal inflated in accordance with the manufacturer's recommendations.
- (F) There must be a vacuum of 10 inches of mercury inside a manhole to perform a valid test.
- (G) A test does not begin until after the vacuum pump is off.
- (H) A manhole passes the test if after 2.0 minutes and with all valves closed, the vacuum is at least 9.0 inches of mercury.
17. All private service laterals must be inspected and certified in accordance with 30 TAC §213.5(c)(3)(I). After installation of and, prior to covering and connecting a private service lateral to an existing organized sewage collection system, a Texas Licensed Professional Engineer, Texas Registered Sanitarian, or appropriate city inspector must visually inspect the private service lateral and the connection to the sewage collection system, and certify that it is constructed in conformity with the applicable provisions of this section. The owner of the collection system must maintain such certifications for five years and forward copies to the appropriate regional office upon request. Connections may only be made to an approved sewage collection system.

Austin Regional Office
12100 Park 35 Circle, Building A
Austin, Texas 78753-1808
Phone (512) 339-2929
Fax (512) 339-3795

San Antonio Regional Office
14250 Judson Road
San Antonio, Texas 78233-4480
Phone (210) 490-3096
Fax (210) 545-4329

THESE GENERAL CONSTRUCTION NOTES MUST BE INCLUDED ON THE CONSTRUCTION PLANS PROVIDED TO THE CONTRACTOR AND ALL SUBCONTRACTORS.



HDR HDR Engineering, Inc.
Firm Registration No. F-754
710 Hester Crossing, Suite 150
Round Rock, Texas 78681



MEADOWS DR WATER,
WASTEWATER, & STORM
DRAIN IMPROVEMENTS
AREAS 2 & 4

TCEQ
GENERAL NOTES

SHEET 4 OF 4

NO.	DATE	REVISION	APPR BY
CITY	COUNTY	SHEET NO.	
ROUND ROCK	WILLIAMSON	G007	



1. IF DROP IS SIX INCHES (6") TO TWO FEET (2'-0"), CONSTRUCTION OF DROP SHALL PROVIDE AN OVERSIZED INVERT TO EXTEND UNDER THE DROP CONNECTION.
2. SEE CONSTRUCTION PLANS FOR MANHOLE SIZE, LOCATION, CONFIGURATION, TYPE OF TOP SECTION, VENTING REQUIREMENTS, PIPE SIZES AND TYPES.
3. MANHOLES SHALL BE PRECAST A.S.T.M. C478 BELL AND SPIGOT WITH "O" RING JOINTS.
4. MANHOLES TO BE DESIGNED TO RESIST LATERAL AND VERTICAL SOIL FORCES RESULTING FROM MANHOLE DEPTH. ADDITIONALLY, MANHOLES LOCATED IN PAVEMENT TO BE DESIGNED FOR H2O TRAFFIC LOADING.
5. ALL MANHOLE COVERS SHALL BE BOLTED AND GASKETED, WHEN MANHOLES ARE LOCATED OUTSIDE OF PAVEMENT.
6. FRAME ADJUSTMENT HEIGHT SHALL CONSIST OF FIVE INCHES (5") MINIMUM TO EIGHTEEN INCHES (18") MAXIMUM. GRADE RINGS SHALL BE GROUTED WITH A NON-SHRINK GROUT INSIDE AND OUTSIDE. HDPE GRADE RINGS, MAY NOT BE USED.
7. FOR MANHOLES TO BE VENTED, SEE DETAILS WW-05 AND WW-06.
8. A FLOW CHANNEL SHALL BE CONSTRUCTED INSIDE MANHOLE TO DIRECT INFLUENT INTO THE FLOW STREAM. ALL P.V.C. PIPE SHALL BE REMOVED FROM INVERT.
9. BASE SECTION SHALL BE DESIGNED FOR H2O LOADING, PLUS EARTH LOAD AT 130 PCF.
10. ENTIRE INTERIOR CONCRETE SURFACES OF WASTEWATER MANHOLES TO BE COATED WITH RAVEN 405, SPRAYWALL, OR APPROVED EQUAL, (WITH A UNIFORM THICKNESS OF 124 MILS AND A MINIMUM THICKNESS OF 100 MILS, APPLIED AFTER MANHOLE HAS PASSED THE VACUUM TEST). FOR REHABILITATING MANHOLES 1/2" MINIMUM THICKNESS CALCIUM ALUMINATE CEMENTITIOUS COATING AND OTHER INTERIOR SURFACES MAY BE COATED IF RECOMMENDED BY COATING MANUFACTURER. (IN LIEU OF INTERIOR COATINGS NEW PRECAST MANHOLES CONTAINING CONSHIELD WILL BE ACCEPTED PROVIDING THE MANUFACTURER STENCILS "CONSHIELD" ON THE INSIDE AND OUTSIDE OF ALL MANHOLE SECTIONS.)

THE ARCHITECT/ENGINEER ASSUMES
RESPONSIBILITY FOR THE APPROPRIATE
USE OF THIS DETAIL. (NOT TO SCALE)

PRECAST CONCRETE WASTEWATER MANHOLE DETAIL



ROUND ROCK TEXAS
UTILITIES AND ENVIRONMENTAL SERVICES



1. SEE NOTES #2 THROUGH #10 ON DETAIL WW-01.
2. DROP CONNECTIONS SHALL BE REQUIRED WHENEVER AN INFLUENT SEWER IS LOCATED MORE THAN TWO FEET (2'-0") ABOVE THE MAIN INVERT CHANNEL.
3. WHEN P.V.C. PIPE IS USED IN SANITARY SEWER LINES, SOLVENT TYPE JOINT P.V.C. FITTINGS TO BE UTILIZED IN THE DROP ASSEMBLY ONLY. FITTINGS TO BE P.V.C. SDR-35 WITH TWO PART WATER RESISTANT GLUE AT ALL JOINTS.

THE ARCHITECT/ENGINEER ASSUMES
RESPONSIBILITY FOR THE APPROPRIATE
USE OF THIS DETAIL. (NOT TO SCALE)

PRECAST CONCRETE WASTEWATER MANHOLE WITH DROP CONNECTION DETAIL



ROUND ROCK TEXAS
UTILITIES AND ENVIRONMENTAL SERVICES



08/07/2022
Sami Mabrouk



HDR Engineering, Inc
Firm Registration No. F-754
710 Hester Crossing, Suite 150
Round Rock, Texas 78681



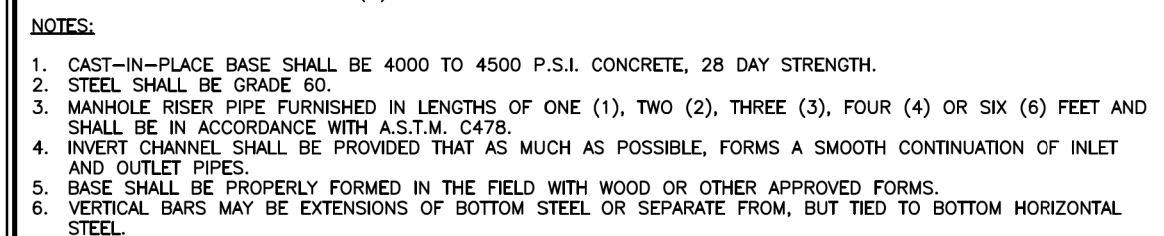
THE CITY OF ROUND ROCK TEXAS
UTILITIES AND ENVIRONMENTAL
SERVICES DEPARTMENT

MEADOWS DR WATER,
WASTEWATER, & STORM
DRAIN IMPROVEMENTS
AREAS 2 & 4

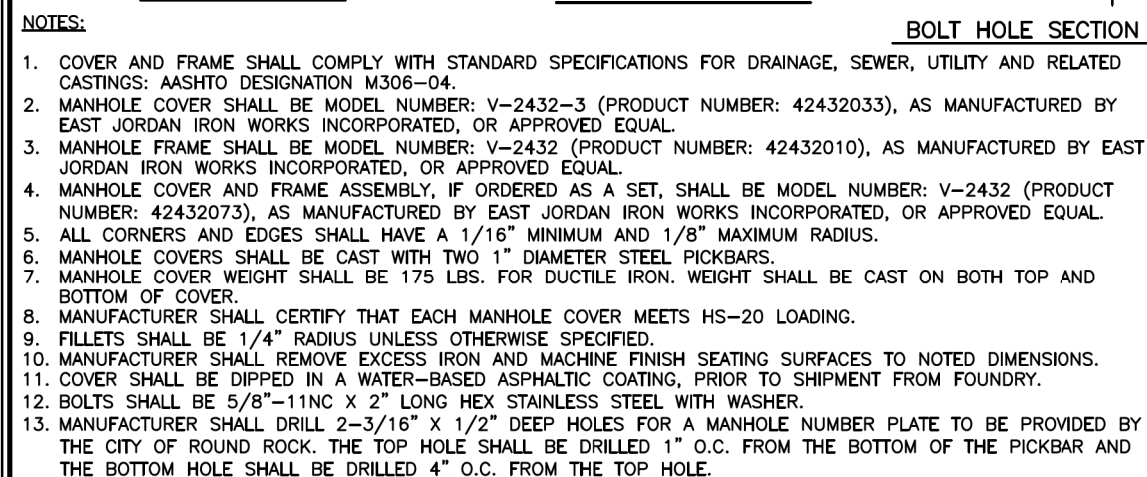
WASTEWATER UTILITIES STANDARDS

SHEET 1 OF 7

NO.	DATE	REVISION	APPR BY
CITY	COUNTY		SHEET NO.
ROUND ROCK	WILLIAMSON		WW10



RECORD SIGNED COPY ON FILE AT U&ES DEPARTMENT APPROVED 03-01-18 DATE THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL. (NOT TO SCALE)	CITY OF ROUND ROCK CAST-IN-PLACE BASE FOR CONCRETE WASTEWATER MANHOLE DETAIL	DRAWING NO: WW-04  ROUND ROCK TEXAS UTILITIES AND ENVIRONMENTAL SERVICES
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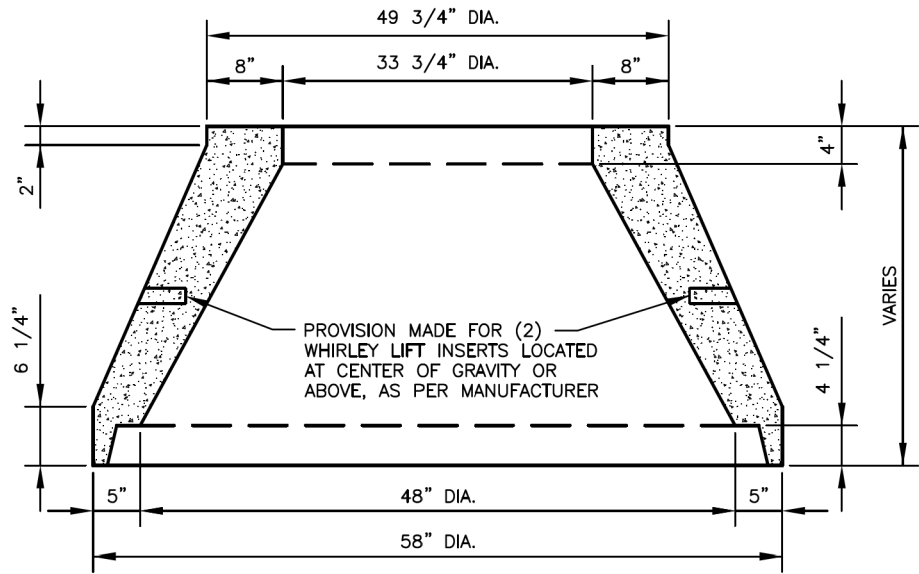


RECORD SIGNED COPY ON FILE AT U&ES DEPARTMENT	CITY OF ROUND ROCK	DRAWING NO. WW-07
APPROVED	BOLTED WASTEWATER MANHOLE COVER AND FRAME DETAIL	
03-01-18		
DATE		ROUND ROCK TEXAS UTILITIES AND ENVIRONMENTAL SERVICES
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL. (NOT TO SCALE)		



MEADOWS DR WATER,
WASTEWATER, & STORM
DRAIN IMPROVEMENTS
AREAS 2 & 4

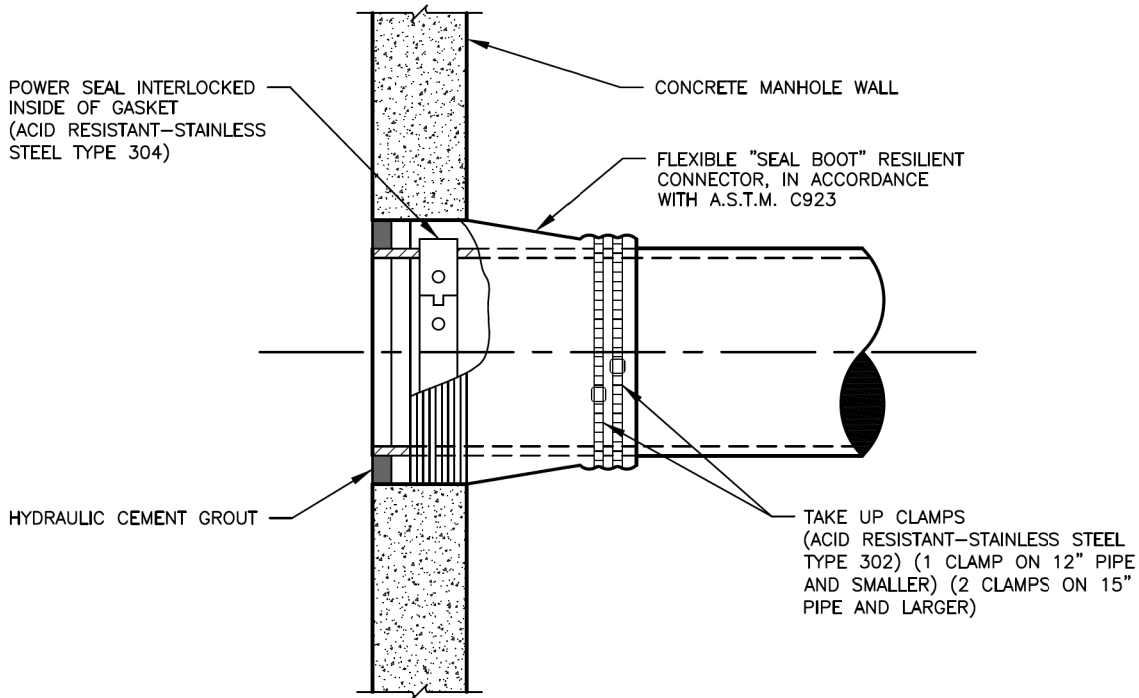
WASTEWATER UTILITIES STANDARDS



NOTE:

CONCENTRIC CONCRETE CONE SECTION SHALL BE MANUFACTURED USING 4000 TO 4500 P.S.I. CONCRETE, 28 DAY STRENGTH AND IN ACCORDANCE WITH A.S.T.M. C478, AS MANUFACTURED BY CONCRETE PRODUCTS INCORPORATED, OR APPROVED EQUAL.

RECORD SIGNED COPY ON FILE AT U&ES DEPARTMENT	CITY OF ROUND ROCK	DRAWING NO: WW-09
APPROVED		
03-01-18 DATE	PRECAST 48" CONCENTRIC CONCRETE CONE SECTION DETAIL	
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL. (NOT TO SCALE)		



NOTE:

1. FLEXIBLE "SEAL BOOT" RESILIENT CONNECTOR TO BE A MINIMUM OF 12 INCHES (12") FROM A MANHOLE JOINT.

RECORD SIGNED COPY ON FILE AT U&ES DEPARTMENT	CITY OF ROUND ROCK	DRAWING NO: WW-10
APPROVED		
03-01-18 DATE	FLEXIBLE "SEAL BOOT" RESILIENT CONNECTOR DETAIL	
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL. (NOT TO SCALE)		



08/07/2025



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710 Hester Crossing, Suite 150
Round Rock, Texas 78681



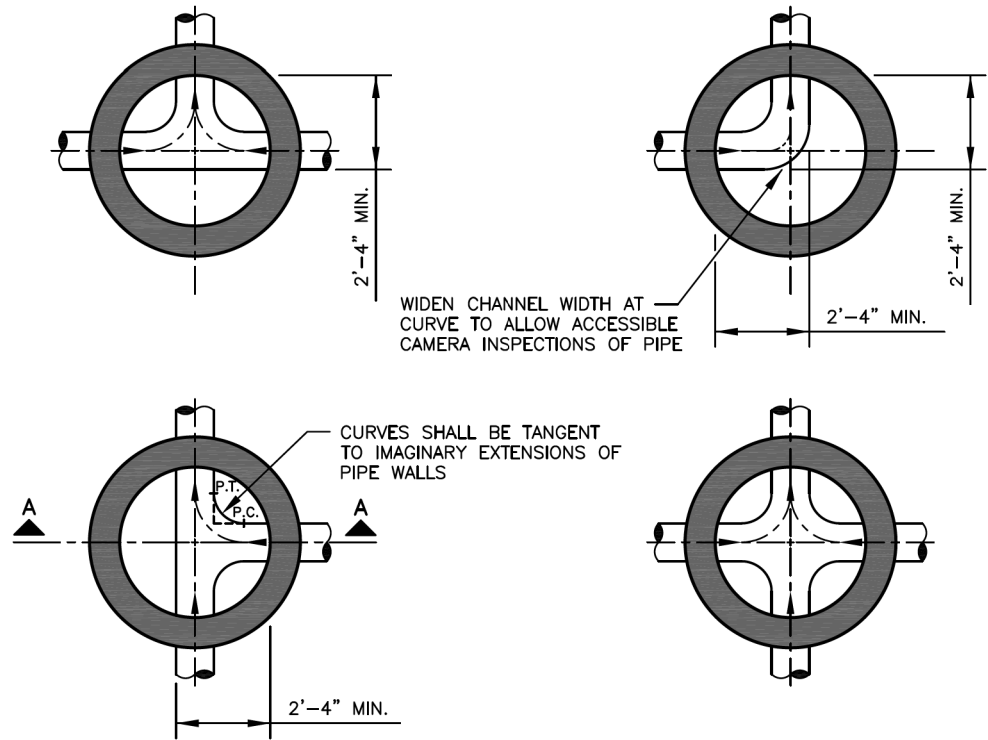
THE CITY OF ROUND ROCK TEXAS
UTILITIES AND ENVIRONMENTAL
SERVICES DEPARTMENT

MEADOWS DR WATER,
WASTEWATER, & STORM
DRAIN IMPROVEMENTS
AREAS 2 & 4

WASTEWATER
UTILITIES STANDARDS

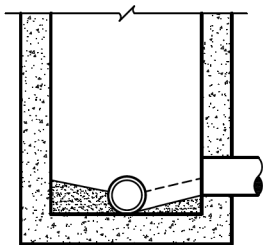
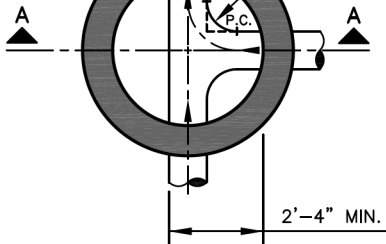
SHEET 3 OF 7

NO.	DATE	REVISION	APPR BY
CITY	COUNTY	SHEET NO.	
ROUND ROCK	WILLIAMSON	WW103	



WIDEN CHANNEL WIDTH AT CURVE TO ALLOW ACCESSIBLE CAMERA INSPECTIONS OF PIPE

CURVES SHALL BE TANGENT TO IMAGINARY EXTENSIONS OF PIPE WALLS



SECTION "A-A"

NOTES:

1. MINIMUM DROP FROM INLET TO OUTLET OF MANHOLE IS 0.1 FEET AND MAXIMUM DROP IS 2 FEET, UNLESS SPECIAL APPROVAL IS OBTAINED FROM THE CITY OF ROUND ROCK.
2. INVERT CHANNELS TO BE CONSTRUCTED FOR SMOOTH FLOW WITH NO OBSTRUCTIONS.
3. SPILLWAYS SHALL BE CONSTRUCTED BETWEEN PIPES WITH DIFFERENT INVERT ELEVATIONS PROVIDING FOR SMOOTH FLOW.
4. CHANNELS FOR FUTURE CONSTRUCTIONS, SHALL BE CONSTRUCTED WITH PIPE EXTENDING 3' BEYOND EXTERIOR OF MANHOLE WALL, WITH GLUED PLUG.
5. SLOPE MANHOLE BENCH AT 2:1 SLOPE FROM MANHOLE WALL TO CHANNEL.
6. INVERT CHANNEL SHALL BE A MINIMUM OF 1/2 THE DIAMETER OF THE LARGEST PIPE OR FOUR INCHES (4") DEEP.

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APPROVED
03-01-18
DATE
THE ARCHITECT/ENGINEER ASSUMES
RESPONSIBILITY FOR THE APPROPRIATE
USE OF THIS DETAIL. (NOT TO SCALE)

CITY OF ROUND ROCK

WASTEWATER FLOW PATTERNS FOR
INVERT CHANNELS DETAIL

DRAWING NO:
WW-11

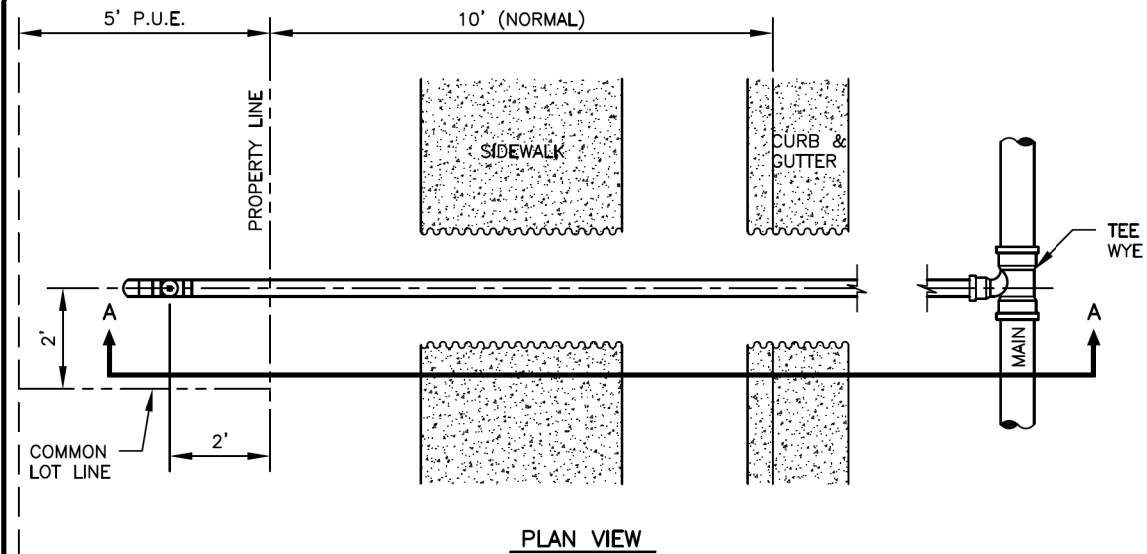


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RESPONSIBILITY FOR THE APPROPRIATE
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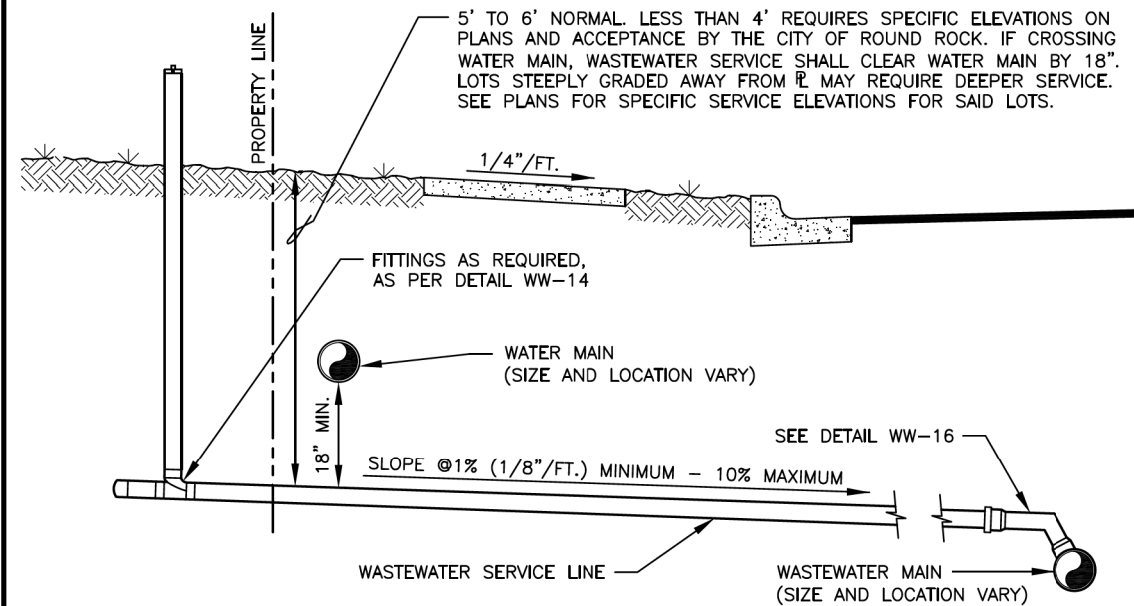
CITY OF ROUND ROCK

WASTEWATER SERVICE DETAIL

DRAWING NO:
WW-12



PLAN VIEW



SECTION "A-A"



08/07/2025
Sherif Mabrouk



HDR Engineering, Inc.
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710 Hester Crossing, Suite 150
Round Rock, Texas 78681



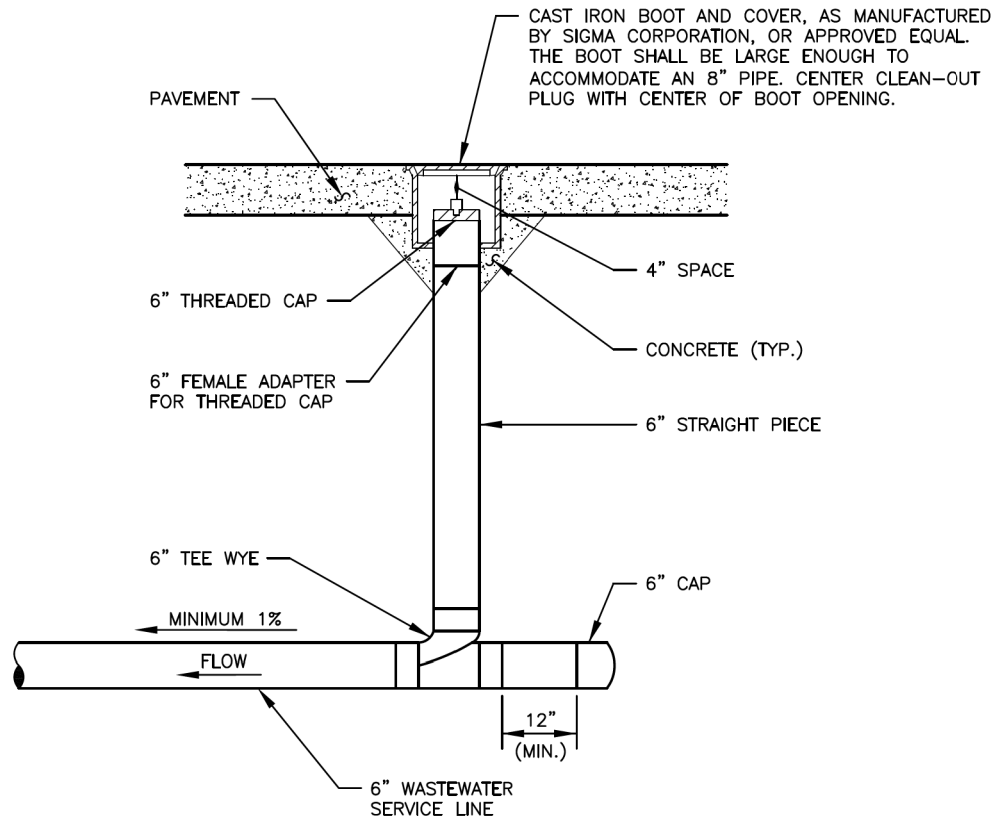
THE CITY OF ROUND ROCK TEXAS
UTILITIES AND ENVIRONMENTAL
SERVICES DEPARTMENT

MEADOWS DR WATER,
WASTEWATER, & STORM
DRAIN IMPROVEMENTS
AREAS 2 & 4

WASTEWATER
UTILITIES STANDARDS

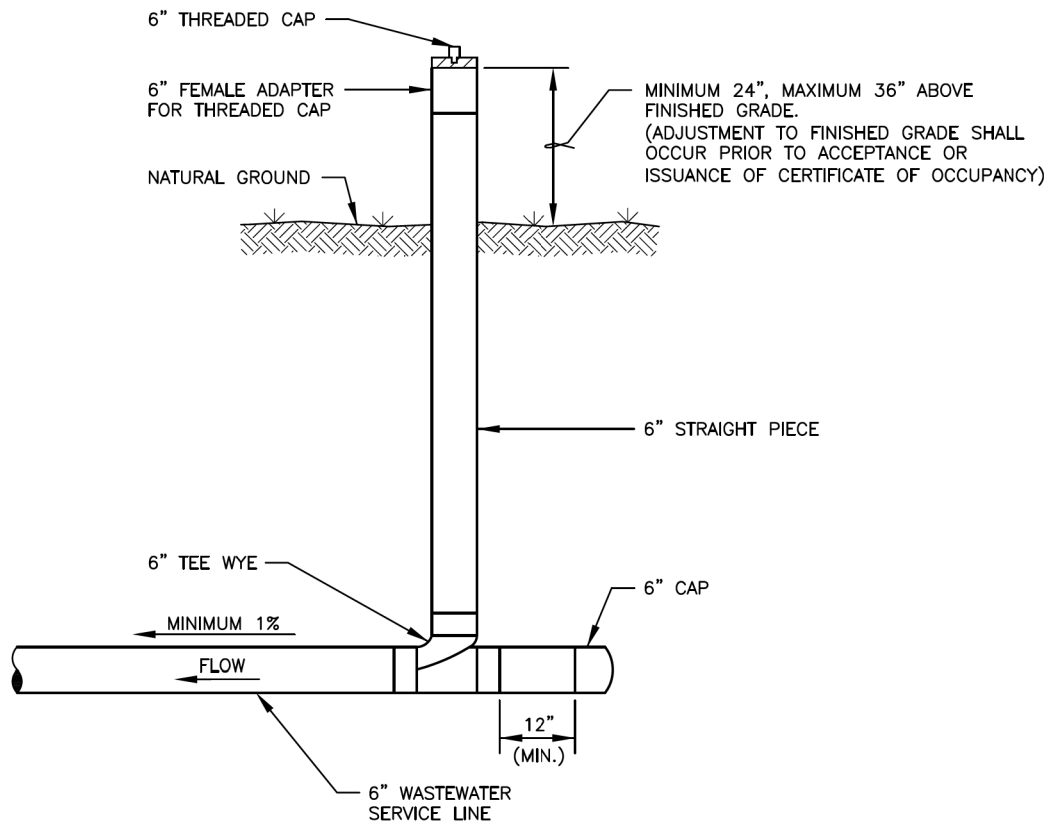
SHEET 4 OF 7

NO.	DATE	REVISION	APPR BY
CITY		COUNTY	SHEET NO.
ROUND ROCK		WILLIAMSON	WW104



- NOTES:
1. ALL PIPE TO BE SDR 26.
 2. ALL FITTINGS TO BE SDR 35 SOLVENT WELD FITTINGS.

RECORD SIGNED COPY ON FILE AT U&ES DEPARTMENT	CITY OF ROUND ROCK	DRAWING NO: WW-13
APPROVED	WASTEWATER SERVICE CLEAN-OUT DETAIL (PAVED SURFACE)	
03-01-18 DATE		
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL. (NOT TO SCALE)		



- NOTES:
1. ALL PIPE TO BE SDR 26.
 2. ALL FITTINGS TO BE SDR 35 SOLVENT WELD FITTINGS.

RECORD SIGNED COPY ON FILE AT U&ES DEPARTMENT	CITY OF ROUND ROCK	DRAWING NO: WW-14
APPROVED	WASTEWATER SERVICE CLEAN-OUT DETAIL (NON-PAVED SURFACE)	
03-01-18 DATE		
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL. (NOT TO SCALE)		



08/07/2025

Sherif Mabrouk

HDR HDR Engineering, Inc.
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710 Hester Crossing, Suite 150
Round Rock, Texas 78681

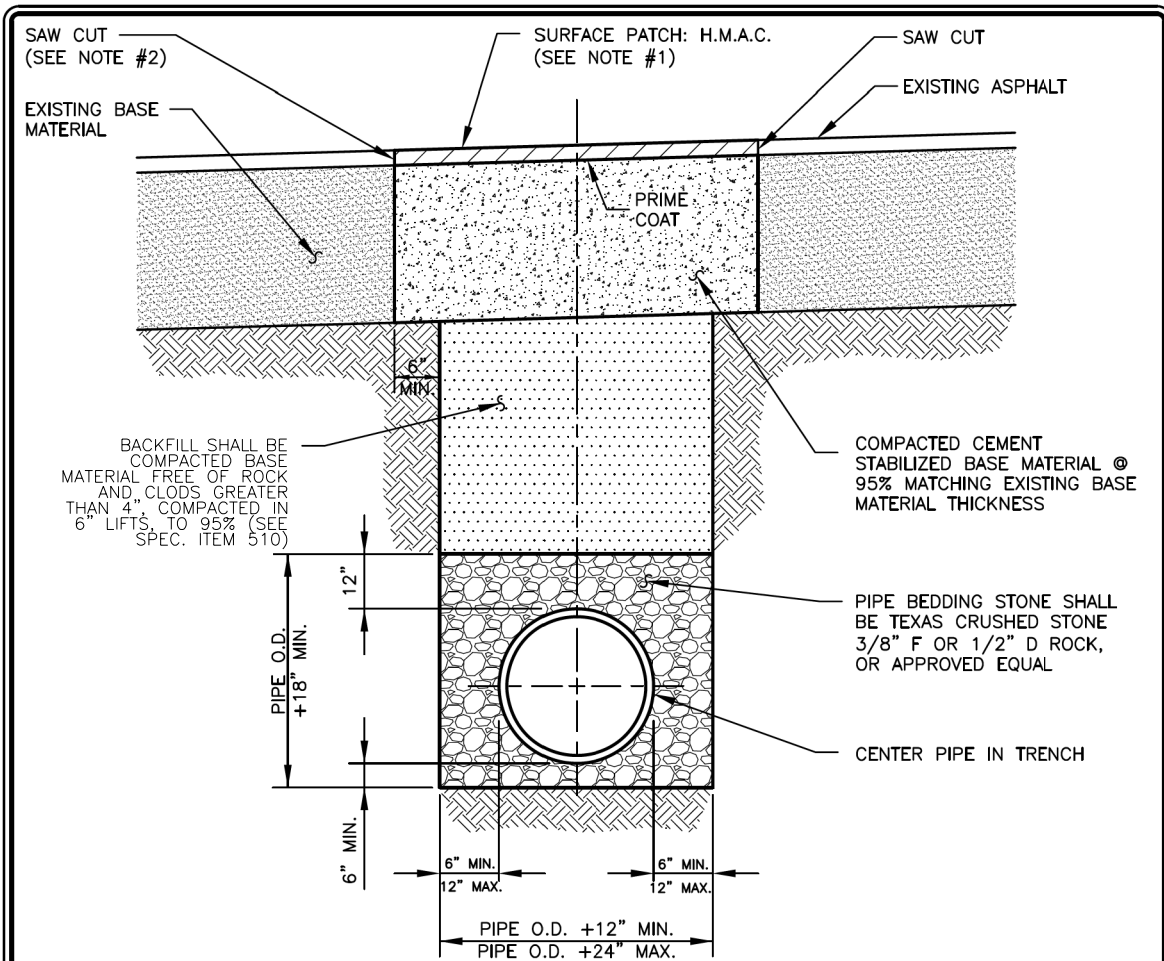
 THE CITY OF ROUND ROCK TEXAS
UTILITIES AND ENVIRONMENTAL
SERVICES DEPARTMENT

MEADOWS DR WATER,
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DRAIN IMPROVEMENTS
AREAS 2 & 4

WASTEWATER
UTILITIES STANDARDS

SHEET 5 OF 7

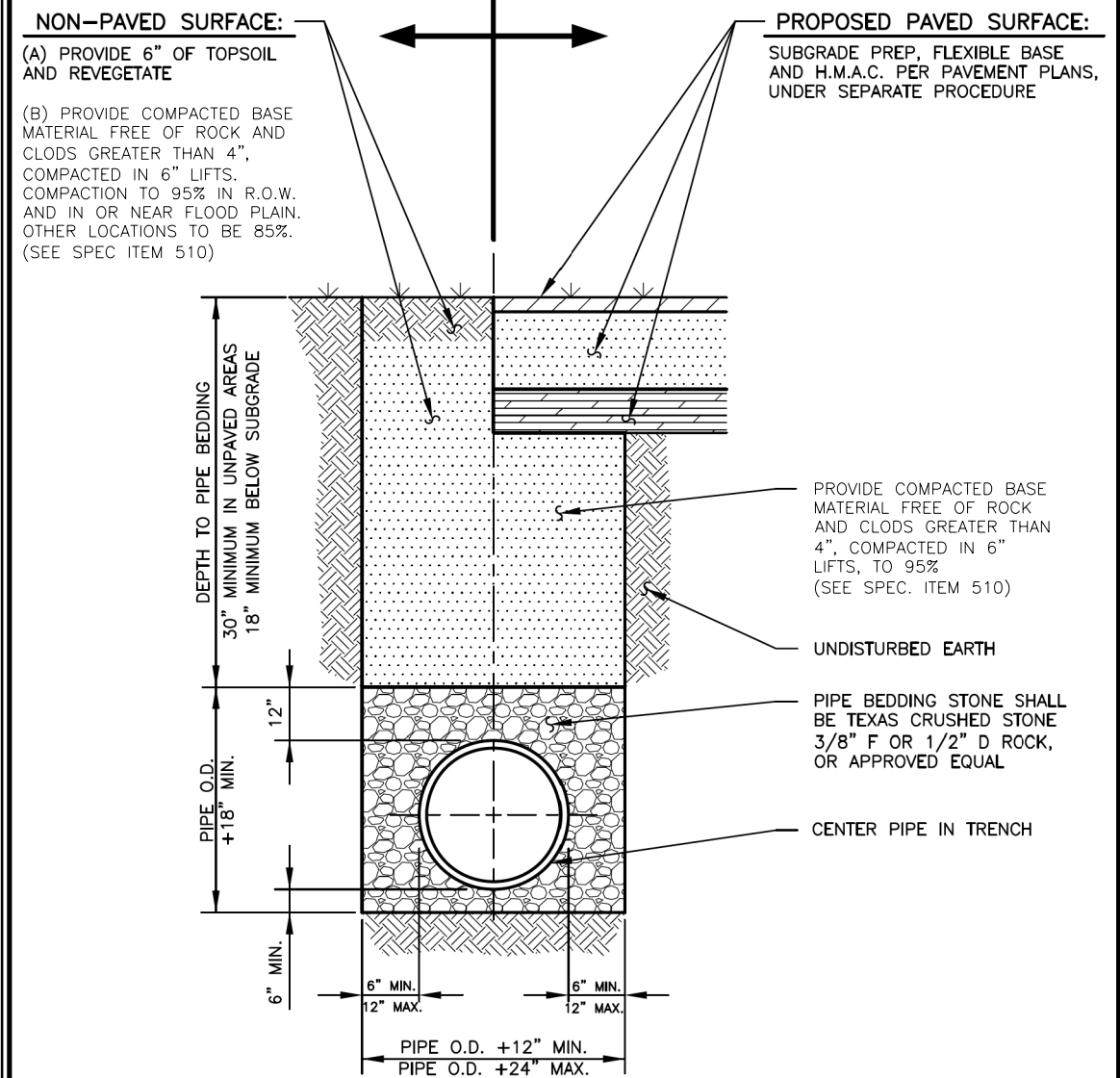
NO.	DATE	REVISION	APPR BY
CITY	COUNTY	SHEET NO.	
ROUND ROCK	WILLIAMSON	WW105	



NOTES:

1. H.M.A.C. THICKNESS SHALL MATCH EXISTING ASPHALT THICKNESS AND NO LESS THAN 2".
2. THE CONTRACTOR SHALL SAW CUT, REMOVE AND REPLACE EXISTING PAVEMENT AND FLEXIBLE BASE A MINIMUM OF 6" BEYOND EITHER THE EDGE OF THE WASTEWATER LINE TRENCH OR THE POINT WHERE EXISTING PAVEMENT IS DAMAGED DUE TO TRENCHING OPERATIONS, WHICHEVER IS GREATER. FINISHED PATCH SHALL BE NEAT AND UNIFORM.
3. INSTALLATION OF BACKFILL, SAW CUTTING AND REMOVAL OF EXISTING PAVEMENT AND SURFACE PATCH SHALL NOT BE PAID FOR SEPARATELY. COSTS FOR THESE ITEMS SHALL BE INCLUDED IN UNIT PRICE BID FOR WASTEWATER PIPE.
4. THE CONTRACTOR SHALL PROVIDE STEEL PLATES TO SPAN THE TRENCH AS NECESSARY OR TO ALLOW BACKFILL TO CURE. SUCH PLATES SHALL BE SUITABLE FOR VEHICLE PASSAGE OVER THE TRENCH AND SHALL BE SATISFACTORILY ANCHORED IN PLACE. COSTS FOR THIS ITEM SHALL BE INCLUDED IN UNIT PRICE BID FOR WASTEWATER PIPE.
5. ALL TRENCHING AND TRENCH SAFETY SHALL COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.

RECORD SIGNED COPY ON FILE AT U&ES DEPARTMENT	CITY OF ROUND ROCK	DRAWING NO: WW-17
APPROVED		
03-01-18 DATE		
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL. (NOT TO SCALE)	WASTEWATER LINE BEDDING AND SURFACE REPAIR DETAIL (EXISTING PAVED SURFACE)	ROUND ROCK TEXAS Utilities and Environmental Services



NOTE:

ALL TRENCHING AND TRENCH SAFETY SHALL COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.

RECORD SIGNED COPY ON FILE AT U&ES DEPARTMENT	CITY OF ROUND ROCK	DRAWING NO: WW-18
APPROVED		
03-01-18 DATE		
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL. (NOT TO SCALE)	WASTEWATER LINE BEDDING AND SURFACE REPAIR DETAIL (NON-PAVED & PROPOSED PAVED SURFACE)	ROUND ROCK TEXAS Utilities and Environmental Services



08/07/2025
Sherif Mabrouk

HDR HDR Engineering, Inc.
Firm Registration No. F-754
710 Hester Crossing, Suite 150
Round Rock, Texas 78681

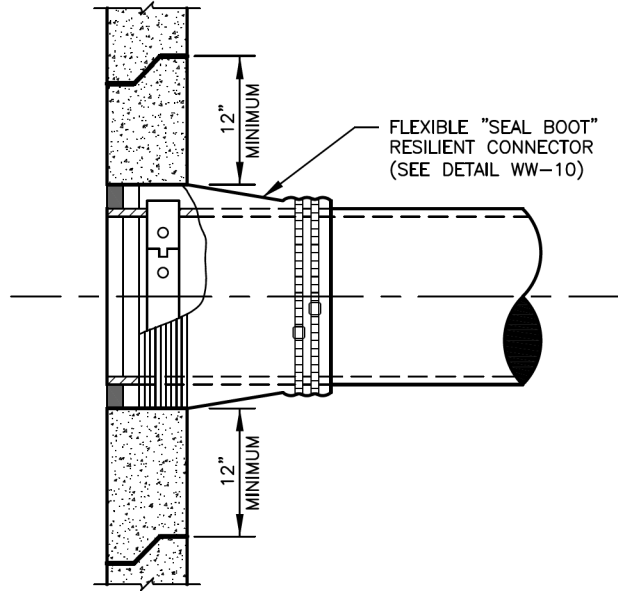
THE CITY OF ROUND ROCK TEXAS
UTILITIES AND ENVIRONMENTAL
SERVICES DEPARTMENT

MEADOWS DR WATER,
WASTEWATER, & STORM
DRAIN IMPROVEMENTS
AREAS 2 & 4

WASTEWATER
UTILITIES STANDARDS

SHEET 6 OF 7

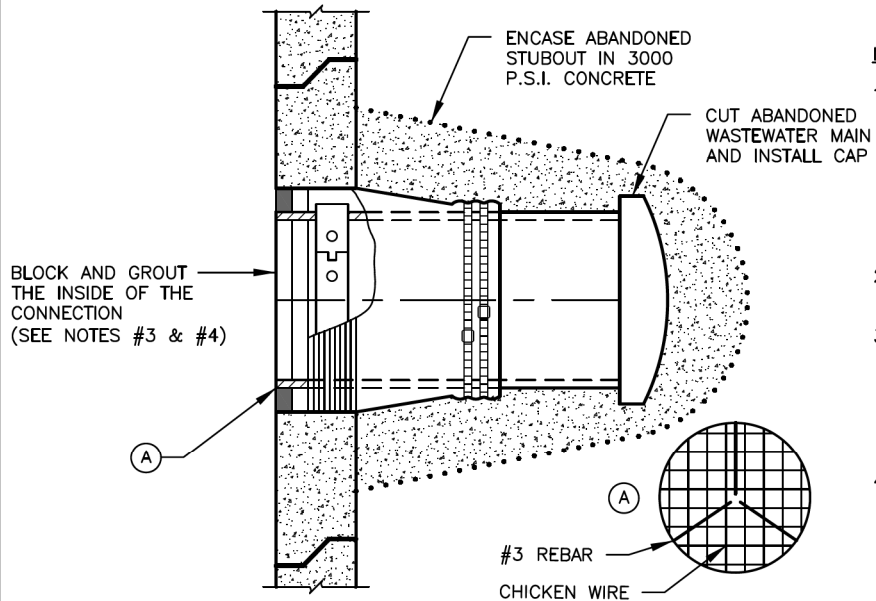
NO.	DATE	REVISION	APPR BY
CITY	COUNTY	SHEET NO.	
ROUND ROCK	WILLIAMSON	WW106	



NEW CONNECTIONS TO EXISTING WASTEWATER MANHOLES

NOTES:

1. EXISTING MANHOLES TO BE VACUUM TESTED PRIOR TO ANY CONNECTIONS.
2. NEW CONNECTIONS TO HAVE MINIMUM VERTICAL AND HORIZONTAL SEPARATION OF 12" ON THE OUTSIDE FACE OF THE MANHOLE FROM ANY EXISTING PENETRATIONS AND/OR MANHOLE JOINTS.
3. CONNECTIONS MADE INTO EXISTING MANHOLES ARE TO BE CORED AND NOT DRILLED/CHISELED.
4. CUT, SHAPE AND SLOPE NEW INVERT CHANNEL IN THE EXISTING CONCRETE BENCH FOR SMOOTH FLOW FROM THE NEW WASTEWATER CONNECTION.
5. EXISTING MANHOLES TO BE RECOATED AFTER ANY NEW WASTEWATER CONNECTION IS ADDED.



ABANDONMENT OF CONNECTIONS TO EXISTING WASTEWATER MANHOLES

NOTES:

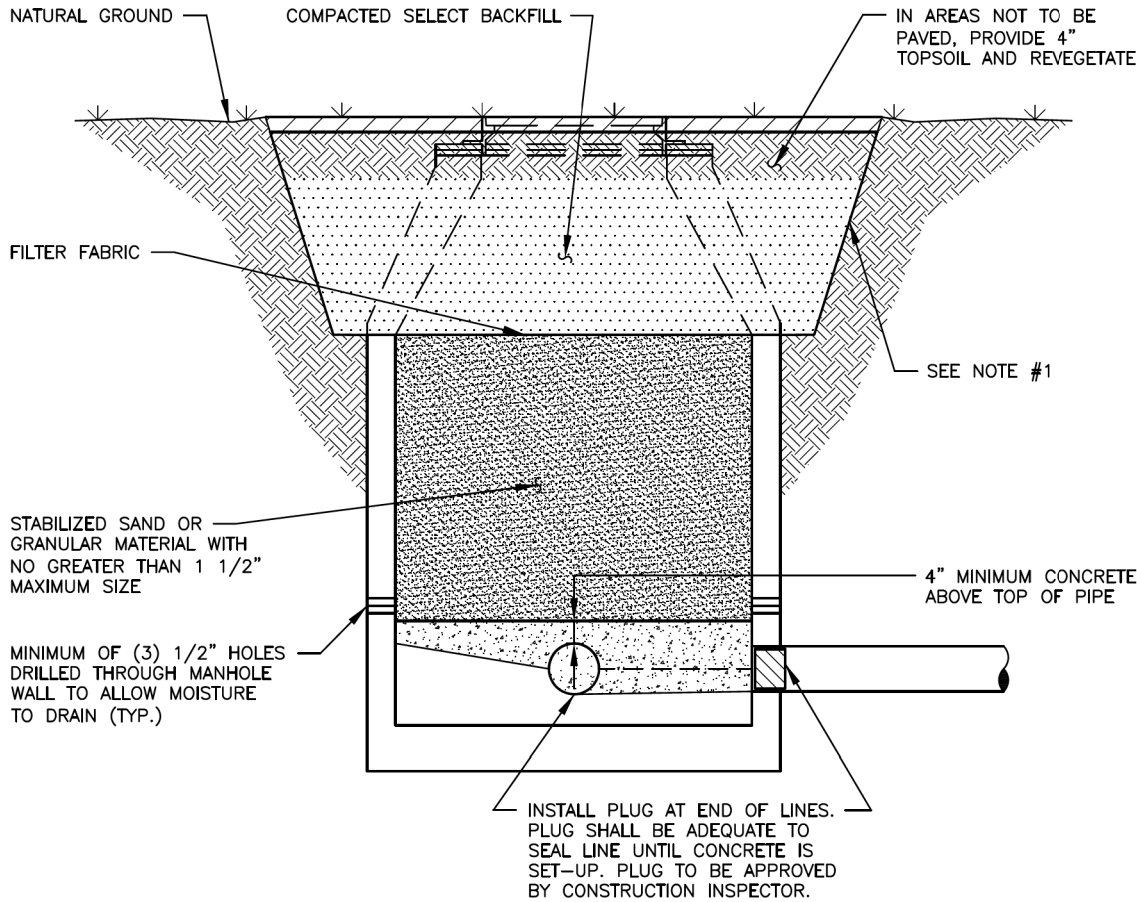
1. THIS DETAIL IS INTENDED FOR WASTEWATER MANHOLES THAT WILL REMAIN IN SERVICE. FOR WASTEWATER MANHOLES THAT ARE TO BE ABANDONED, REFERENCE DETAIL WW-15.
2. WASTEWATER MANHOLE TO BE RECOATED AFTER GROUT IS INSTALLED.
3. BLOCK THE INLET OF THE MANHOLE WITH CHICKEN WIRE AND 3-#3 REBAR. GROUT THE INSIDE OF THE MANHOLE FLUSH WITH THE MANHOLE WALL.
4. CONNECTIONS 24" AND LARGER REQUIRE BRICK BLOCKING TO BE INSTALLED PRIOR TO GROUTING.

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03-01-18
DATE
THE ARCHITECT/ENGINEER ASSUMES
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CITY OF ROUND ROCK

EXISTING WASTEWATER MANHOLE
CONNECTION DETAIL

DRAWING NO:
WW-21



NOTES:

1. REMOVE ENTIRE CONE SECTION AND DEMOLISH STRUCTURE TWO FEET (2') MINIMUM BELOW GROUND LEVEL.
2. IF LINE WHICH IS TO ABANDONED IN PLACE, EXTENDS UNDER EXISTING OR PROPOSED STRUCTURE, THEN THE ENTIRE LINE TO THE NEXT MANHOLE SHALL BE GROUTED OR SLURRY FILLED.
3. IF LINE IS NOT LOCATED UNDER A STRUCTURE, ABANDON EXISTING LINE IN PLACE BY PLUGGING BOTH ENDS OF LINE AND GROUTING AROUND PLUGS.
4. THE CONTRACTOR IS TO RECORD AND CERTIFY QUANTITIES OF GROUT OR SLURRY PUMPED. QUANTITIES MUST BE A MINIMUM OF 90% OF CALCULATED EXISTING VOID CAPACITY.

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03-01-18
DATE
THE ARCHITECT/ENGINEER ASSUMES
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CITY OF ROUND ROCK

WASTEWATER MANHOLE
ABANDONMENT DETAIL

DRAWING NO:
WW-15



08/07/2025
Sherif Mabrouk



HDR Engineering, Inc.
Firm Registration No. F-754
710 Hester Crossing, Suite 150
Round Rock, Texas 78681



THE CITY OF ROUND ROCK TEXAS
UTILITIES AND ENVIRONMENTAL
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WASTEWATER
UTILITIES STANDARDS

SHEET 7 OF 7

NO.	DATE	REVISION	APPR BY
CITY	COUNTY	SHEET NO.	
ROUND ROCK	WILLIAMSON	WW107	

Appendix A-Flow Velocity Table

Flow Velocity (Flowing Full) All gravity sewer lines on the Edwards Aquifer Recharge Zone shall be designed and constructed with hydraulic slopes sufficient to give a velocity when flowing full of not less than 2.0 feet per second, and not greater than 10 feet per second. The grades shown in the following table are based on Manning's formula and an n factor of 0.013 and shall be the minimum and maximum acceptable slopes unless provisions are made otherwise.

Table 10 - Slope Velocity

<i>Pipe Diameter(Inches)</i>	<i>% Slope required for minimum flow velocity of 2.0 fps</i>	<i>% Slope which produces flow velocity of 10.0 fps</i>
6	0.50	12.35
8	0.33	8.40
10	0.25	6.23
12	0.20	4.88
15	0.15	3.62
18	0.11	2.83
21	0.09	2.30
24	0.08	1.93
27	0.06	1.65
30	0.055	1.43
33	0.05	1.26
36	0.045	1.12
39	0.04	1.01
>39	*	*

**For lines larger than 39 inches in diameter, the slope may be determined by Manning's formula (as shown below) to maintain a minimum velocity greater than 2.0 feet per second when flowing full and a maximum velocity less than 10 feet per second when flowing full.*

$$v = \frac{1.49}{n} \times R_h^{0.67} \times \sqrt{S}$$

Figure 1 - Manning's Formula

Where:

v = velocity (ft/sec)

n = Manning's roughness coefficient (0.013)

R_h = hydraulic radius (ft)

S = slope (ft/ft)

De Respino, Sophie

From: Roberto Castro <Roberto.Castro@tceq.texas.gov>
Sent: Friday, January 3, 2025 5:09 PM
To: Morales, Paul
Cc: De Respino, Sophie; Mabrouk, Sherif; Krumbach, Angie
Subject: RE: Meadows Storm Drain Improvements - WPAP exemption request

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Paul,

Since the proposed project described in the e-mail below does not involve the installation of any new impervious cover for a project that will improve the drainage area of a site to prevent flooding, the project is exempt from the requirement of requiring an Edwards Aquifer Protection plan.

Bob Castro, P.E.

Environmental Engineer
Texas Commission on Environmental Quality
Region 11 - Austin, Edwards Aquifer Protection Program
Phone: 512.239.6992

From: Morales, Paul <Paul.Morales@hdrinc.com>
Sent: Friday, January 3, 2025 2:39 PM
To: Roberto Castro <Roberto.Castro@tceq.texas.gov>
Cc: De Respino, Sophie <Sophie.DeRespino@hdrinc.com>; Mabrouk, Sherif <sherif.mabrouk@hdrinc.com>; Krumbach, Angie <Angelica.Krumbach@hdrinc.com>
Subject: Meadows Storm Drain Improvements - WPAP exemption request

Hello Mr. Castro,

Earlier today you spoke to Sophie De Respino about the Meadows Drive Storm Drain Improvements project for the City of Round Rock. See attached for select 90% sheets showing the project overview and typical cross sections. The Meadows Drive neighborhood is located east of IH-35 and north of Sam Bass Road in the City of Round Rock. An address of a property near the headwaters of the proposed system is 1304 Meadows Drive, Round Rock, TX 78681.

The objective of this project is to reduce flooding for the Meadows Drive neighborhood by extending the storm drain system into the neighborhood to capture overland flow and convey runoff within a 4'x4' and 5'x4' reinforced concrete box (RCB) storm drain system. The headwaters of the proposed storm drain system begins at the intersection of Meadows Drive and HighMeadows Cove. From this intersection, the system extends approximately 1,600 feet to Sam Bass Road intersection. The proposed storm drain system then turns eastward for 600 feet along Sam Bass Road and then parallel to the UPRR to Wonder Drive. Finally, the system continues south on Wonder Drive to its outfall at Brushy Creek for approximately 1,600 feet.

The proposed improvements do not add any additional impervious cover as all improvements will be constructed under existing roadway widths.

This email is being sent to request a WPAP exemption request for the proposed Meadows Drive Storm Drain Improvements.

Let us know if you have any questions as part of your review.

Thanks for your time and we look forward to hearing from you soon.

Paul Morales, PE, CFM
Sr. Water Resources Project Manager

HDR
710 Hesters Crossing, Suite 150
Round Rock, Texas 78681
D 512-531-5974 **M** 512-529-8785
Paul.Morales@hdrinc.com

hdrinc.com/follow-us

De Respino, Sophie

From: James Slone <james.slone@tceq.texas.gov>
Sent: Tuesday, January 7, 2025 7:55 AM
To: Morales, Paul
Cc: De Respino, Sophie; Mabrouk, Sherif
Subject: RE: Meadows Storm Drain Improvements - GA exception request

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Paul,
You can submit the plan without a Geologic Assessment. Please note, if we find anything during our site assessment a Geologic assessment may be required. Please retain this email for your records.
Bo

James "Bo" Slone, P.G.
Team Leader
Edwards Aquifer Protection Program
Texas Commission on Environmental Quality
(512) 239-6994

From: Morales, Paul <Paul.Morales@hdrinc.com>
Sent: Friday, January 3, 2025 2:53 PM
To: James Slone <james.slone@tceq.texas.gov>
Cc: De Respino, Sophie <Sophie.DeRespino@hdrinc.com>; Mabrouk, Sherif <sherif.mabrouk@hdrinc.com>
Subject: Meadows Storm Drain Improvements - GA exception request

Hello Mr. Slone,

We spoke to Roberto Castro and suggested we send you an email to request a geologic assessment (GA) exception for the Meadows Storm Drain Improvement project in the City of Round Rock because this area is already developed. The Meadows Drive neighborhood is located east of IH-35 and north of Sam Bass Road in the City of Round Rock. An address of a property near the headwaters of the proposed system is 1304 Meadows Drive, Round Rock, TX 78681. See attached for select 90% sheets showing the project overview and typical cross sections.

The objective of this project is to reduce flooding for the Meadows Drive neighborhood by extending the storm drain system into the neighborhood to capture overland flow and convey runoff within a 4'x4' and 5'x4' reinforced concrete box (RCB) storm drain system. The headwaters of the proposed storm drain system begins at the intersection of Meadows Drive and HighMeadows Cove. From this intersection, the system extends approximately 1,600 feet to Sam Bass Road intersection. The proposed storm drain system then turns eastward for 600 feet along Sam Bass Road and then parallel to the UPRR to Wonder Drive. Finally, the system continues south on Wonder Drive to its outfall at Brushy Creek for approximately 1,600 feet.

We are currently preparing a SCS submittal for the proposed wastewater system on Wonder Dr.

Let us know if you have any questions as part of your review.

Thanks for your time and we look forward to hearing from you soon.

Paul Morales, PE, CFM
Sr. Water Resources Project Manager

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TECHNICAL SPECIFICATIONS

CITY OF ROUND ROCK STANDARD SPECIFICATIONS

The following standard specifications from “City of Round Rock Design and Construction Standards”, updated January 28, 2021, are incorporated into these construction documents by reference, where specifically listed below. In addition, specifications that are not listed herein, but are referred to within specification that is listed, shall also be incorporated into these Construction Documents by reference. Descriptions to the pay items are further defined in the Proposal Form. Full specifications can be found at: <https://www.roundrocktexas.gov/city-departments/transportation/traffic-operations/design-and-construction-standards/>

Standard Specifications (Refer to web address above)

RR 101	Preparing Right of Way
RR 102	Clearing and Grubbing
RR 436	Concrete Valley Gutters
Item 503	Frames, Grates, Rings and Covers
Item 505	Concrete Encasement and Encasement Pipe
Item 506	Manholes
Item 508	Miscellaneous Structures and Appurtenances
Item 509	Trench Safety Systems
Item 510	Pipe
Item SP 510	Pipe (Special Provision)
Item 511	Water Valves
Item SP 511	Water Valves (Special Provision)
Item 559	Portland Cement Concrete Box Culverts
Item 602	Sodding for Erosion Control
Item 604	Seeding for Erosion Control
RR 610	Preservation of Trees and Other Vegetation
Item 639	Rock Berm
Item 641	Stabilized Construction Entrance
RR 700	Mobilization
RR 701	Fencing
RR 802	Project Signs
RR 803	Barricades, Signs, and Traffic Handling

TEXAS DEPARTMENT OF TRANSPORTATION SPECIFICATIONS

The following standard specifications from “Texas Department of Transportation Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges”, updated September 1, 2024, are incorporated into these construction documents by reference, where specifically listed below. Full specifications can be found at:

<https://www.txdot.gov/business/resources/txdot-specifications/2024-standard-specifications.html>

TXDOT SPECIFICATIONS (Refer to web address above)

Item 104	Removing Concrete
Item 105	Removing Treated and Untreated Base and Asphalt Pavement
Item 110	Excavation
Item 132	Embankment
Item 160	Topsoil
Item 170	Irrigation System
Item 204	Sprinkling
Item 210	Rolling
Item 247	Flexible Base
Item 292	Asphalt Treatment
Item 300	Asphalts, Oils, And Emulsions
Item 310	Prime Coat
Item 316	Seal Coat
Item 320	Equipment for Asphalt Concrete Pavement
Item 340	Hot Mix Asphaltic Concrete Pavement
Item 354	Planing and Texturing Pavement
Item 401	Flowable Backfill
Item 465	Junction Boxes, Manholes, and Inlets
Item 466	Headwalls and Wingwalls
Item 496	Removing Structures
Item 502	Barricades, Signs, and Traffic Handling
Item 506	Temporary Erosion, Sedimentation, and Environmental Controls
Item 508	Constructing Detours
Item 510	One-Way Traffic Control
Item 529	Concrete Curb, Gutter and Combined Curb and Gutter
Item 530	Intersections, Driveways, and Turnouts
Item 531	Sidewalks
Item 560	Mailbox Assemblies
Item 644	Small Roadside Sign Assemblies
Item 658	Delineator and Object Marker Assemblies
Item 666	Retroreflectorized Pavement Markings
Item 672	Raised Pavement Markers
Item 752	Tree and Brush Removal
Item 5015	Construction Perimeter Fence with Screen
Item 7034	Remove/Replace Mailbox

HDR SPECIFICATIONS

The following specifications are hereby incorporated into these construction documents by reference.

HDR Specifications (Attached)

01 80 00	Bypass Pumping
33 04 30	Temporary Water Service

Special Provision to Item 510

Pipe

For this project, City of Round Rock Item 510 “Pipe” is amended with respect to the clauses below. No other clauses or requirements of this item are waived.

DELETE the 1st sentence in the 1st paragraph in Section 510.1 – Description and REPLACE with the following.

510.1 Description

This item shall consist of furnishing and installing all pipe and/or materials for constructing pipe mains, sewers, laterals, stubs, inlet leads, service connections and culverts, including all applicable Work such as excavating, bedding, jointing, backfilling materials, tests, concrete trench cap, concrete cap and encasement, internal pipe dissipation blocks, etc., prescribed under this item and in accordance with the provisions of the Edwards Aquifer Protection Ordinance, when applicable.

ADD paragraph to end of Section 510.5 – Payment, Item (1).

510.5 Payment

(1) Pipe

No separate payment will be made for internal pipe energy dissipation blocks and are considered incidentals necessary to complete the pipe installation as indicated in the plans.

Special Provision to Item 511

Water Valves

For this project, City of Round Rock Item 511 “Valves” is amended with respect to the clauses below. No other clauses or requirements of this item are waived.

REPLACE the second paragraph in Section 511.6 Payment to match the second paragraph in Section 511.5 Measurement as follows:

511.6 Payment:

Unless indicated otherwise in the Drawings, bury depths that exceed 5.5 feet (1.68 meters) shall be considered subsidiary to the completed unit.

SECTION 01 80 00
BYPASS PUMPING AND PLUG PLAN

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The work covered by this item consists of bypass pumping operations for the gravity sewer located along Wonder Drive in order to provide adequate and reliable sanitary sewer flow at all times during construction of the gravity sewer replacement. The work also covered in this item is for the use of inflatable and mechanical pipe plugs. The use of inflatable / mechanical plugs in the water and sewer industry is the standard method to temporarily plug a pipe where permanent flow control devices are not available or are not operating as designed. An inherent danger exists with all inflatable products. If any conditions with this equipment exist that may jeopardize the safety of workers or others, do not use it.
- B. This item includes all requirements for implementing a temporary pumping system for the purpose of diverting sanitary sewage flow around any construction-related activity along Wonder Drive to an approved reintroduction point. The Contractor shall minimize the health, safety, and regulatory risks by taking all reasonable measures to avoid an overflow at all structures. Therefore, the Owner requires the Contractor to manage the flow of wastewater in a planned and proactive manner. Contractor shall be fully responsible for all damages and costs related to the installation, operation, and maintenance of Contractor's bypass pumping operations including damages, clean up, fines, penalties, and other related costs.
- C. Bypass pumping systems shall be stationary systems consisting of portable pumps, piping, and controls. All bypass systems shall comply with all the requirements of this section unless specifically noted otherwise.
- D. The Contractor shall be responsible for the design of Contractor's bypass pumping plan and system. Contractor's bypass pumping system design shall be developed based upon the data and requirements of the Contract Documents. Owner will furnish data in the Contract Documents and drawings which will include:
 - 1. Wastewater flow information and Bypass Pumping Plan (BPP) site data.
 - 2. Proposed locations for insertable plugs, bypass pumping system discharge locations including pipe diameters, etc.
 - 3. Allowable locations for routing of bypass pumping system pipes and equipment.
- E. Contractor may rely upon the data provided in the Contract Documents for designing Contractor's bypass pumping system.
- F. The following dry and wet weather peak flows are anticipated:
 - 1. Dry weather peak flows: 85 gallons per minute (gpm).
 - 2. Wet weather peaking factor: 5
 - 3. Quantity of pumps:
 - a. Duty: 1 (Capable of meeting wet weather peak flows)
 - b. Standby (Redundant): 1 (identical to Duty pumps)

1.2 SUBMITTALS:

- A. For all projects requiring bypass pumping, the Contractor shall prepare and submit a Bypass Pumping Plan (BPP). The BPP shall be submitted a minimum of two weeks prior to commencing any portion of the proposed scope of work and shall be acknowledged by Owner prior to beginning Work. The BPP shall be signed and sealed by a professional engineer licensed in the State of Texas (Contractor's Engineer).

- B. Contractor shall submit manufacturer's product data, instructions, recommendations, shop drawings, and necessary certifications in order for the proposed BPP to be reviewed and acknowledged.
- C. The following shall be submitted as part of the BPP:
1. A cover letter containing the following information:
 - a. The project name and job number.
 - b. The name and address of the Contractor.
 - c. Contact information of the Contractor's project manager, superintendent, foreman/supervisor, safety professional, etc.
 - d. A description and location of the planned bypass pumping work to be performed; include data for stationary and flow diversion bypass systems as applicable.
 2. Emergency ("24/7") contact information for the bypass pumping sub-contractor, if applicable. Make sure to include the name, cell phone number, and title of the person(s) onsite responsible for the bypass pumping operation.
 3. The name, phone number, title, signature, and PE seal of the Contractor's Engineer preparing the BPP.
 4. Copies of permits or other documents showing the Contractor has obtained all clearances necessary for installation and operation of the BPP.
 5. Use of excavated trenches are not allowable for diverting sanitary sewer flows.
 6. Certificate of Compliance that the BPP complies with all Williamson County and Texas Commission on Environmental Quality (TCEQ) regulatory requirements and that all components have been designed by a professional engineer licensed in the State of Texas. The Contractor's Engineer shall review all components of the submitted BPP for adequacy to the Contractor's selected design flow conditions and insure that all bypass pumping system components are of adequate size, strength, meet the reliability criteria specified herein.
 7. A description of the maximum amount of sanitary sewer flows to be bypassed by the Contractor's bypass pumping system and how the flow conditions will be monitored during system operations (including all flow measurement devices, calculations, equipment, or other sources of how data was obtained). If the bypass plan is not based on the maximum wet weather flow, this description must include an explanation for how the contractor plans to monitor the weather for potential flows exceeding his bypass system capacity and how he will avoid having to bypass during wet weather events exceeding his bypass system capacity.
 8. Descriptions of all proposed bypass pumping components to be used. If applicable, describe all different bypass pumping phases. Include bypass pump(s) size(s) and capacity, as well as the size(s) and capacity of the suction/discharge piping. The description shall also include structure(s) depth(s) and size(s) that will be used during the bypass pumping operation, sanitary sewer plugging method and type of plugs to be used, flowmeter installation locations, etc. Contractor shall provide Owner with adequate prior notification to allow Owner to witness installation and removal of all plugs.
 9. Description of procedure for locating and recovering any lost plug.
 10. The pump curves, showing operating range. This shall include the proposed system curve, addressing the pump operation in relation to the suction/discharge piping's alignment with respect to restriction and/or elevations.
 11. Suction, discharge, and diversion piping material(s) and capacity to be used for the bypass pumping operation, including the material(s) for any bend(s) and/or valve(s) that will be used.
 12. A sketch showing the location of the pump(s) and the route of the suction, discharge, and diversion piping. All features possibly affected by the alignment of the BPP's components (driveways, vehicular traffic, etc.) shall likewise be addressed.
 13. An Emergency Plan detailing procedures to be followed in the event any portion of the bypass operation fails and causes either surcharging or an actual overflow.

- a. The Contractor's BPP cannot cause any excess surcharging (beyond that normally occurring within the existing sanitary sewer system at that flow event) that results in damage or overflows.
 - b. Any damage or overflows during bypass pumping operations resulting from Contractor's bypass system shall be deemed a failure of BPP, and the Contractor must re-propose an improvement to their BPP for review and acknowledgment. A sanitary sewer surcharge is herein defined as any flows entering the structure (above the crown of the pipe). Excessive sanitary sewer surcharges are higher than normally occurring levels of surcharge levels resulting from the Contractor's BPP that result in damage or overflows. Contractor shall be fully responsible for all damages and costs related to the installation, operation, and maintenance of Contractor's bypass pumping operations including damages, clean up, fines, penalties, and other related costs.
14. Where bypass piping is installed within the floodplain of waterways subject to flooding, the Contractor shall submit an anchorage plan and calculations to ensure that piping and all equipment is properly anchored. Flow diversion pipes shall have watertight seals at inlet and outlet connections with existing structures. The pipe shall be capable of remaining in place during a 100-year storm event. Anchorage plan and calculations shall be designed and sealed by a professional engineer licensed in the State of Texas (Contractor's Engineer). This shall be the same PE that sealed the BPP Certificate of Compliance.
 15. Submit the checklist found at the end of this document confirming that all items required by this section are included in the BPP submittal.
- D. For all work requiring the use of pipe plugs on pipes the Contractor shall furnish a submittal containing manufacturer's product data, instructions, recommendations and a project Plug Use Plan (PUP). The PUP shall be submitted a minimum of two weeks prior to commencing any portion of the proposed scope of work.
- E. The following shall be submitted with the PUP:
1. A cover letter containing the following information;
 - a. The project name and job number;
 - b. The name and address of the Contractor
 - c. Contact information of the Contractor's project manager, superintendent, foreman/supervisor, safety professional, etc.
 - d. Emergency (24/7) contact information for the staff responsible for operating and maintaining the plug. Include the name, phone number, email address and the person(s) onsite who is responsible for the project.
 - e. The name and contact information for the PUP preparer.
 2. Plug Plan
 - a. The plan shall show where on the project site the contractor intends to use pipe plugs, including;
 - b. the upstream and downstream pipe diameters and pipe materials;
 - c. pipe slopes;
 - d. pipe depth;
 - e. pipe flow direction;
 - f. known peak or surcharge flow data;
 - g. types of plugs to be used;
 - h. types of restraint used;
 3. Calculations
 - a. Provide calculations of the maximum anticipated head pressure on the plug and the resultant tensile force required to restrain the plug prior to plug inflation and during plug removal.
 - b. Provide calculations of the required inflation pressure of the plug.

- c. Calculations shall be sealed and signed by a professional engineer licensed in the State of Texas in civil or mechanical engineering.
- 4. Plug selection
 - a. Detail the plug selection for each installation including given conditions, pipe size and anticipated pressure requirements. Include in this plan whether sleeves will be used.
- 5. Plug inspection:
 - a. Provide an inspection form detailing manufacturer's recommendations for plug inspection of plug condition before and after use; form to be signed by contractor staff responsible for plug installation prior to and after plug installation.
- 6. Monitoring plan
 - a. Provide a monitoring plan for observing the plug inflation pressure gauge and hoses. Monitoring shall be for 24-hours per day during the plug use duration.
 - b. Provide a written response plan for when the plug loses pressure.
 - c. Provide a plug retrieval plan.
- 7. Plug restraint details
 - a. Provide means and methods for anchoring, support and bracing appropriate for anticipated operating pressure conditions
 - b. Size restraint (cable or chain) based on calculated loads using a safety factor of 4.
 - c. Provide multiple tie-off locations for chain or wire cable restraint.
 - d. Rope of any kind is not an acceptable material for plug restraint.
- 8. Manufacturer's Literature
 - a. Provide manufacturer's literature on proper plug use and safety precautions, including available on-line training.
- F. An example sequence of work for BPP is provided below for contractor's reference only. The contractor is solely responsible for developing and implementing BPP:
 - 1. Phase 1 – Construction along Wonder Dr. South of Emmanuel St.
 - a. Install temporary water service.
 - b. Install temporary sewer line in a widened trench of the proposed sewer line, or parallel trench to the proposed sewer line. Connect individual wastewater services to temporary sewer line.
 - c. Bypass pumping from the existing manhole at Emmanuel St and Wonder Dr to the temporary sewer line will be required.
 - d. Install proposed sanitary sewer line between station 19+57 and station 23+90, parallel to temporary sewer line. Reconnect individual wastewater services to proposed sewer line.
 - e. After completing proper testing and acceptance procedures, bring proposed sewer line online between station 19+57 and 23+90.
 - 2. Phase 2 – Construction along Wonder Dr. North of Emmanuel St.
 - a. Install temporary water service.
 - b. Existing sanitary sewer system can remain online.
 - c. Bypass pumping from existing manhole at the intersection of Emmanuel St and Wonder Dr to new Manhole W-MH-WW-4.
 - d. Install proposed sanitary sewer line between station 10+19 and station 19+57.
 - e. Bypass pumping from existing manhole on Sam Bass Rd, west of the railroad tracks (UID 1430792) to new Manhole W-MH-WW-1 will be required for the installation of proposed manhole at station 10+00.

PART 2 - PRODUCTS

2.1 EQUIPMENT AND MATERIALS

- A. The Contractor shall provide all necessary pumping equipment, piping and all other necessary appurtenances in order to maintain adequate and reliable sanitary sewer flow at all times during construction for stationary pumping and flow diversion bypass pumping systems. All materials, equipment, etc., must be in good condition, and should not have visible damage such as cracks, holes, foreign material, blisters, etc.

1. Plugs

- a. Plugs must be selected and installed according to the size of the line to be plugged. Plugs shall be adequately secured and anchored to prevent plug movement or escape into the adjoining sanitary sewers should the plug fail.

An additional plug (for each size of plug used) must be onsite and ready to be installed in the event a plug fails or becomes dislodged. Plug(s) will be reviewed by the Owner and/or Engineer for defects that might lead to failure prior to being installed. Contractor shall immediately locate and remove any plug that has shifted its position, slipped within the pipe, dislodged, moved, or otherwise provided an indication that its suitability for use in plugging may be suspect or compromised. Contractor shall notify Owner of any plug that has provided an indication that its suitability for use in plugging may be suspect or compromised and allow Owner to observe plug removal and replacement. It is also imperative that the Contractor notify the Owner at the completion of the work in order to verify that all plugs have been removed from the system.

- b. The Contractor shall provide all necessary equipment, plugs, hoses, gauges and necessary appurtenances to install the plug, maintain the plug during use and remove the plug at completion.
- c. All plugs must be in good condition, and shall not have visible damage such as cracks, holes, tears, cuts, punctures, abrasions, loose or damaged fittings, cracks in castings and excessive wear.
- d. If the plug is damaged, do not use the plug and remove it from the job site.
- e. Contractor must be aware of the limitations associated with plugs.

2.2 STATIONARY BYPASS PUMPING SYSTEM

- A. High-Density Polyethylene (HDPE) is the required pipe material for all bypass piping. HDPE shall be used when bypass discharge pipe will be going through streams, storm water culverts, environmentally sensitive areas, and all other locations.

1. HDPE pipe must be assembled and joined using couplings, flanges or fusion welding in order to avoid joint leakage. Owner shall be notified in sufficient time to allow them to inspect the pipe joints during assembly.
2. HDPE fusion welding must be performed by personnel certified as fusion technician(s) by the manufacturer of HDPE pipe and/or fusing equipment. A qualified third party inspector shall examine welds prior to use in BPP operation.
3. BPP shall indicate the proposed DR of the pipe to be used.
4. Any hoses or pipes that leak shall be removed and replaced with non-leaking hoses or pipes.
5. Neither "Irrigation type" pipe nor glued PVC pipe will be permitted.

- B. Pumps must be fully automatic self-priming units that do not require the use of foot-valves or vacuum pumps to prime the system. No electric pumps will be allowed; all pumps must be diesel powered. Contractor shall provide suitable spill control and containment measures to avoid environmental contamination by pumps, fuels, or lubricants. All pumps shall be open impeller solids handling type pumps, capable of passing a minimum of 3" diameter solids. Contractor shall have one backup pump, equal in capacity to the largest pump in the system,

connected into the bypass pumping system, and ready for operation in case any of the primary pumps fail. The backup pump shall not be used in Contractor's calculations for determining the pumping capacity requirements for the stated flow conditions above. Sound-attenuated pump enclosures shall be required where the bypass pumps are located within 50 feet of any residence, business, park, or other presence of people. Contractor shall provide sufficient sound attention measures to comply with Williamson County's noise limitation requirements.

PART 3 - EXECUTION

3.1 CONSTRUCTION

- A. During construction, it will be the Contractor's responsibility to maintain a safe and secure environment at all times. All provisions and/or requirements of the BPP must be followed throughout the course of any bypass flow operations. Contractor must notify the Owner 72 hours prior to commencing the bypass pumping operations.
1. The Contractor shall have full time (24/7), onsite qualified pump personnel including supervision for monitoring the entire bypass installation while it is in operation. The entire length of bypass piping shall be walked and inspected hourly to monitor for leaks. High-level alarm notification to cell phones shall not eliminate this requirement.
 2. Prior to installing any plugs, the Contractor and Owner shall inspect the existing pipe using a pole camera, for imperfections that might cause damage to the plug, cause the plug to not seal and function properly, or compromise the integrity of the pipe when the plug is inflated. The results of this inspection shall directly impact the planned plugging location(s). Afford Owner an opportunity to confirm that the location of plug(s) is acceptable.
 3. Lines inserted into any structures shall be constructed with elbows, or be otherwise angled, to direct discharge along the most efficient path for entry into the downstream line without causing unnecessary turbulence of flow. The termination point of the discharge piping shall extend to the crown of the pipe housed within the structure receiving the bypassed flows.
 4. Contractor shall provide continuous supply on-site fuel storage sufficient for 24- hour operation of the bypass pumping installation.
 5. Contractor shall protect all components of the bypass operations from vandalism and vehicular damage by making the site secure.
 6. Contractor shall minimize sanitary sewer odors by using lids, shroud covers, or any method accepted by the Inspector or Engineer.
 7. Contractor shall be solely responsible for any and all damages to private and/or public property caused by, or during, the installation, operation, and/or removal of the bypass pumping system. Contractor shall be fully responsible for all damages and costs related to the installation, operation, and maintenance of Contractor's bypass pumping operations including damages, clean up, fines, penalties, and other related costs.
 8. Once all work is completed and the bypass pumping operation is no longer required, the Contractor must drain the entire sanitary sewer system flows into an existing sanitary sewer manhole prior to disassembly and removal of the system from the construction site. The intent is to prevent spillage of sewage.
 9. Plug Installation
 - a. Safety
 - 1) The Contractor shall be solely responsible for the safe and effective use of plugs, including the proper combination of inflatable/mechanical plugs to block the sewer flow at both the upstream and downstream ends of a sewer bypass.
 - 2) Inflatable plugs should be used only after receiving training as recommended by the manufacturer.
 - 3) An inherent danger exists with all inflatable products. If any conditions with this equipment exist that may jeopardize the safety of workers or others corrective actions should be taken prior to the equipment use.
 - b. Plugs

- 1) Plugs must be selected and installed in accordance with the manufacturers recommendations.
- 2) Plugs must also be selected and installed according to the size of the line to be plugged.
- 3) Spare plugs – Provide spare plugs on-site ready to be installed in the event a plug fails or becomes dislodged.
- 4) Plugs will be in good condition and reviewed by the Contractor for defects that might lead to failure prior to being installed. The Contractor shall sign the Plug Inspection form.
- 5) Plugs must be removed from the system upon completion of the work.
- 6) Damages – The Contractor will be responsible for damages due to plugs being left in place or dislodged, including but not limited to:
 - a) Damages to Owner's infrastructure or private property.
 - b) Costs associated with sanitary sewer overflows including: regulatory fines; sewage and debris cleanup; debris disposal at an appropriate landfill; disinfection of all surfaces which have come in contact with the sewage.
 - c) Costs associated with locating and retrieving lost or dislodged plugs.

3.2 TESTING AND QUALITY CONTROL

- A. Testing and quality control will be required for all bypass pumping systems, stationary pumping and flow diversion systems, as indicated below. Contractor shall obtain and keep copies of all required permits on site prior to beginning Testing and throughout performance of the Work.
 1. Contractor must prove to the Owner that the equipment, materials and all operational aspects and/or appurtenances related to the BPP are in good condition prior to commencing the bypass pumping operation. Failure to do so will result in the Contractor not being permitted to continue with any construction work requiring bypass pumping operations. Contractor must notify Owner 48 hours prior to commencing any testing. Any flows excessively surcharging the sanitary sewer system during the test and/or during actual bypass periods will deem the BPP to be unacceptable and must be revised and resubmitted for approval. There will be no separate pay item if this condition occurs during the timeframe in which bypass pumping test and/or operations are underway during the project. No testing of the bypass pumping operation shall be conducted between Thursday and Sunday, unless approved by Owner. If bypass pumping will take place outside normal work hours which are between 8 am to 5 pm Mondays through Fridays (except for Owner's observed holidays), Contractor shall reimburse Owner for the overtime costs required by their bypass pumping testing outside of Owner's normal work hours.
 2. Discharge piping, joints and all accessories will be required to be hydrostatic tested. All piping, joints, and accessories shall be able to withstand at least twice the maximum system pressure or a minimum of 50 psi, whichever is greater.
 3. For any bypass operations proposed a 24-hour test run must be satisfactorily performed prior to commencing any construction work. The Inspector must provide acknowledgment first. Contractor shall provide both a strobe light type high level alarm, as well as alarm notification to their cell phones, as well as other appointed personnel to be identified by Owner, and insure adequate alarm notification is attained prior to actual startup of the test period.
 4. During the testing period, the Contractor shall install a Float Monitoring System in the structure to confirm that the bypass pumping flow data shown in their BPP remains applicable. The float monitoring system shall remain in the structure for the duration of the bypass operation. The data collected during the test and duration of the bypass operation shall be provided to Owner for evaluation and recording. It will be required of the Contractor to have personnel remain onsite at the flow monitoring system in order to continuously record (every 30 minutes) the flows during both the test and actual bypass pumping periods. Contractor shall submit a copy of Testing Float Monitoring System Data log to Owner upon successful completion of test. Data log shall be in column format with each line

entry indicating the time, elapsed time of test, level of flow indicated in structures, total flow being pumped by the BPP system, and any comments pertaining to the test. Any failure of equipment, or activities associated with the bypass pumping operations contributing to either an excessive surcharge or overflow, shall be deemed a failed test. The test shall then be stopped and any necessary cleanup or reporting efforts performed. The BPP will need to be revised, resubmitted and acknowledged prior to the test initiating again. Any effort by Owner or other third parties to mitigate damages resulting from any surcharging or overflows shall be the direct and sole responsibility of the Contractor. This includes any related fines, penalties, or damages.

B. Plug Testing

1. Plugs shall be tested prior to use. The inflatable plug shall be placed inside of a structurally sound pipe or conduit and inflated to its operating pressure and monitored for 24 hours to observe it holds the required pressure. This testing shall be performed in accordance with the manufacturer's recommendations. Inflating a plug when it is not constrained or overinflating the plug creates a risk of being injured by pieces of the plug exploding if it fails.

3.3 MEASUREMENT AND PAYMENT

- A. Measurement for the work specified herein will be by lump sum and as required by the contract documents. Payment of the "Lump Sum" bid for Bypass Pumping shall be in accordance with the following: Any effort required for multiple set-ups and operations shall be included in the lump sum price.
1. When initial set-up and operation of the bypass pumping system begins (including a successful test), 20% of the "Lump Sum" cost will be paid as applicable to stationary bypass pumping to include flow diversion if used.
 2. 60% of the "Lump Sum" cost will be paid over equal monthly payments (estimated from the BPP or other documentation approved by the Engineer) during the course of the bypass pumping operation as applicable to stationary bypass pumping to include flow diversion if used.
 3. 20% of the remaining "Lump Sum" cost will be paid upon an acceptable removal and/or disassembly of all components of the BPP, including site cleanup as applicable to stationary bypass pumping to include flow diversion if used.
 4. Any damages, repairs, etc., to private or public property will not be considered for any additional payment.
- B. Measurement of the work for pipe plugs shall be incidental to the work and will not have a separate pay item.

BYPASS PUMPING PLAN SUBMITTAL CHECKLIST

- ☐ Cover
- ☐ Sanitary Sewer Flow Management Description
- ☐ Bypass Pumping Description (including Plug Use Plan)
- ☐ Bypass Pumping Schedule
- ☐ Pump and System Curve Information
- ☐ Piping Information
- ☐ System Sketch
- ☐ Traffic Control Plan (if necessary)
- ☐ Emergency Spill Response Plan
- ☐ Floodplain Permits (if necessary)

- ☐ Street Cut Permits (if necessary)
- ☐ Other Permits (Contractor shall list as required)
- ☐ Anchorage Design for Piping and Equipment in Floodplain (if necessary)
- ☐ Required Notifications (Contractor shall list as required)
- ☐ Contact List with Contact Information (Contractor shall list as required)
- ☐ Sewage Mitigation Plan should any portion/part/component of bypass pumping system fail
- ☐ Contractor's Engineer's PE Seal

END OF SECTION

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SECTION 33 04 30
TEMPORARY WATER SERVICE

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes:

1. Temporary water service needed to maintain service during water main replacements projects.

1.2 PRICE AND PAYMENT PROCEDURES

A. Measurement and Payment.

1. Measurement.
 - a. Measurement for Temporary Water Services will be measured by:
 - 1) Lump sum.
2. Payment.
 - a. The work performed and materials furnished in accordance with this item and measured under "Measurement" will be paid for at the unit price bid for "Temporary Water Service" of the type specified.
3. The price shall include:
 - a. Temporary water service line.
 - b. Connections.
 - c. Fittings.
 - d. Valves.
 - e. Corporation stops.
 - f. Temporary asphalt for crossings.
 - g. Traffic control.
 - h. Disinfection.
 - i. Removal of temporary services.

1.3 REFERENCES

A. Reference Standards.

1. Reference standards cited in this Specification refer to the current reference standard published at the time of the latest revision date logged at the end of this Specification, unless a date is specifically cited.
2. NSF International.
 - a. Drinking Water System Components – Health Effects.
3. ASTM International (ASTM):
 - a. D3035, Standard Specification for Polyethylene (PE) Plastic Pipe (DR-PR) Based on Controlled Outside Diameter.

1.4 ADMINISTRATIVE REQUIREMENTS

A. Scheduling.

1. Provide advance notice for service interruption and meet requirements of Division.

1.5 SUBMITTALS

1. Provide Temporary Water Service Plan for Engineer and Owner to review before implementation.

PART 2 - PRODUCTS

2.1 OWNER-FURNISHED PRODUCTS

- A. Fire Hydrant Meters.

2.2 EQUIPMENT, PRODUCT TYPE, AND MATERIALS

- A. Description

- 1. Regulatory Requirements.
 - a. All Temporary Water Service components in contact with potable water shall conform 5 to the requirements of NSF 61.

- B. Materials.

- 1. Service Couplings, Fittings, and Corporation Stops.
 - a. Conform to City of Round Rock Standard Specifications.
- 2. Service lines.
 - a. Polyethylene tubing.
 - b. Conform to ASTM D3035 and SDR 9.
- 3. Temporary Water Service Main.
 - a. Galvanized steel pipe.
 - b. Conform to Schedule 40.
- 4. Driveway Approach.
 - a. Asphalt.
 - 1) Type B Asphalt.

- C. Design Criteria.

- 1. Service lines.
 - a. 1-inch minimum pipe size.
 - b. Minimum flow rate of 5 GPM at a dynamic pressure of 35 psi.
- 2. Temporary Water Service Main.
 - a. 2-inch minimum pipe size.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. General.

- 1. Install Temporary Water Services in accordance with provisions herein and in accordance with City Standard Details.
- 2. Perform disinfection test of temporary water service main and water services in accordance with City of Round Rock Standard Specifications.

- B. Temporary Water Service Installation.

- 1. Connect to existing water supply.
 - a. Fire hydrant.
 - 1) Connect to fire hydrant with hydrant meter and 2-inch gate valve.
 - b. If a fire hydrant is not available, tap existing water main.
 - 1) Connect to water main with 2-inch service tap and a corporation stop in accordance with City of Round Rock Standard Specifications.
 - 2) Record water usage with a hydrant meter.
 - 3) Do not tap existing water main, unless approved by the City.
- 2. Water service.

- a. Connect 1-inch water service to 2-inch temporary water service main.
 - b. Remove existing meters, tag with address and provide to City Inspector.
 - c. Connect 1-inch temporary water service to existing private service.
 - d. Cover domestic meter box with protective guard or barricade.
- C. Intersection and Driveway Approach Crossing for Temporary Water Service
- 1. Crossing for Temporary Water Service Main.
 - a. Cover temporary service line with sufficient asphalt to protect service line and to provide a drivable crossing.
 - b. If required to bury temporary service line due to high volume in traffic, or other reasons required by the City, excavate, embed, and backfill in accordance with Special Provisions.

3.2 FIELD QUALITY CONTROL

- A. Field Tests and Inspections.
- B. Check each water service installation for leaks with full flow through the curb stop at the time the main is tested in accordance with City of Round Rock Standard specifications.

END OF SECTION

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Temporary Stormwater Section

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b)(4)(A), (B), (D)(I) and (G); Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Temporary Stormwater Section** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

Print Name of Customer/Agent: Sherif Mabrouk

Date: 08/20/25

Signature of Customer/Agent:



Regulated Entity Name: City of Round Rock Wastewater Collection System

Project Information

Potential Sources of Contamination

Examples: Fuel storage and use, chemical storage and use, use of asphaltic products, construction vehicles tracking onto public roads, and existing solid waste.

1. Fuels for construction equipment and hazardous substances which will be used during construction:

☐ The following fuels and/or hazardous substances will be stored on the site: _____

These fuels and/or hazardous substances will be stored in:

- ☐ Aboveground storage tanks with a cumulative storage capacity of less than 250 gallons will be stored on the site for less than one (1) year.

- ☐ Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year.
- ☐ Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An Aboveground Storage Tank Facility Plan application must be submitted to the appropriate regional office of the TCEQ prior to moving the tanks onto the project.
- ☒ Fuels and hazardous substances will not be stored on the site.
- 2. ☒ **Attachment A - Spill Response Actions.** A site specific description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is attached.
- 3. ☒ Temporary aboveground storage tank systems of 250 gallons or more cumulative storage capacity must be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature.
- 4. ☒ **Attachment B - Potential Sources of Contamination.** A description of any activities or processes which may be a potential source of contamination affecting surface water quality is attached.

Sequence of Construction

- 5. ☒ **Attachment C - Sequence of Major Activities.** A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is attached.
 - ☒ For each activity described, an estimate (in acres) of the total area of the site to be disturbed by each activity is given.
 - ☒ For each activity described, include a description of appropriate temporary control measures and the general timing (or sequence) during the construction process that the measures will be implemented.
- 6. ☒ Name the receiving water(s) at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project: Brushy Creek

Temporary Best Management Practices (TBMPs)

Erosion control examples: tree protection, interceptor swales, level spreaders, outlet stabilization, blankets or matting, mulch, and sod. Sediment control examples: stabilized construction exit, silt fence, filter dikes, rock berms, buffer strips, sediment traps, and sediment basins. Please refer to the Technical Guidance Manual for guidelines and specifications. All structural BMPs must be shown on the site plan.

- 7. ☒ **Attachment D – Temporary Best Management Practices and Measures.** TBMPs and measures will prevent pollution of surface water, groundwater, and stormwater. The construction-phase BMPs for erosion and sediment controls have been designed to retain sediment on site to the extent practicable. The following information is attached:

- ☒ A description of how BMPs and measures will prevent pollution of surface water, groundwater or stormwater that originates upgradient from the site and flows across the site.
 - ☒ A description of how BMPs and measures will prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated stormwater runoff from the site.
 - ☒ A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.
 - ☒ A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally-occurring sensitive features identified in either the geologic assessment, TCEQ inspections, or during excavation, blasting, or construction.
8. ☐ The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.
- ☐ **Attachment E - Request to Temporarily Seal a Feature.** A request to temporarily seal a feature is attached. The request includes justification as to why no reasonable and practicable alternative exists for each feature.
- ☒ There will be no temporary sealing of naturally-occurring sensitive features on the site.
9. ☒ **Attachment F - Structural Practices.** A description of the structural practices that will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site is attached. Placement of structural practices in floodplains has been avoided.
10. ☒ **Attachment G - Drainage Area Map.** A drainage area map supporting the following requirements is attached:
- ☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin will be provided.
 - ☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a smaller sediment basin and/or sediment trap(s) will be used.
 - ☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin or other equivalent controls are not attainable, but other TBMPs and measures will be used in combination to protect down slope and side slope boundaries of the construction area.
 - ☐ There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. A smaller sediment basin and/or sediment trap(s) will be used in combination with other erosion and sediment controls within each disturbed drainage area.

- ☒ There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. Erosion and sediment controls other than sediment basins or sediment traps within each disturbed drainage area will be used.
11. ☐ **Attachment H - Temporary Sediment Pond(s) Plans and Calculations.** Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are attached.
- ☒ N/A
12. ☒ **Attachment I - Inspection and Maintenance for BMPs.** A plan for the inspection of each temporary BMP(s) and measure(s) and for their timely maintenance, repairs, and, if necessary, retrofit is attached. A description of the documentation procedures, recordkeeping practices, and inspection frequency are included in the plan and are specific to the site and/or BMP.
13. ☒ All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections by the applicant or the executive director, or other information indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations.
14. ☒ If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).
15. ☒ Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake will be provided that can indicate when the sediment occupies 50% of the basin volume.
16. ☒ Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

Soil Stabilization Practices

Examples: establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, or preservation of mature vegetation.

17. ☒ **Attachment J - Schedule of Interim and Permanent Soil Stabilization Practices.** A schedule of the interim and permanent soil stabilization practices for the site is attached.

18. ☒ Records must be kept at the site of the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
19. ☒ Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

Administrative Information

20. ☒ All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.
21. ☒ If any geologic or manmade features, such as caves, faults, sinkholes, etc., are discovered, all regulated activities near the feature will be immediately suspended. The appropriate TCEQ Regional Office shall be immediately notified. Regulated activities must cease and not continue until the TCEQ has reviewed and approved the methods proposed to protect the aquifer from any adverse impacts.
22. ☒ Silt fences, diversion berms, and other temporary erosion and sediment controls will be constructed and maintained as appropriate to prevent pollutants from entering sensitive features discovered during construction.

Attachment A - Spill Response Actions

Spill response actions will follow good housekeeping practices to minimize stormwater pollution by managing non-sediment pollutants such as chemicals, trash, and hydrocarbons including:

1. Spill and leak response to manage accidental spills or leaks of chemicals.
2. Stockpile management to include appropriate sediment controls.
3. Sanitary waste management for the collection and disposing of sanitary waste.
4. Chemical management to include proper use and storage of chemical materials.
5. Concrete waste management to prevent the discharge of concrete waste material.

Attachment B - Potential Sources of Contamination

Construction activities and equipment may produce potential sources of contamination of sediment including fuel and oil leaks from construction equipment, and concrete truck wash areas.

Attachment C - Sequence of Major Activities

1. Install erosion and sedimentation controls.
2. Phase I - Wonder Dr. - From Emmanuel St. to stormdrain outfall, install waste water waterline, stormdrain, and water line. Construct roadway and install sodding behind curb.
3. Phase II - Wonder Dr. - Between Ledbetter St. to Emmanuel St., install waste water waterline, stormdrain, and water line. Construct roadway and install sodding behind curb.
4. Phase III - Wonder Dr. - Between UPRR to Ledbetter St., install waste water waterline, stormdrain, and water line. Construct roadway and install sodding behind curb.
5. Phase IV - Sam Bass Rd. - Install stormdrain. Construct roadway and install sodding behind curb.
6. Phase V - Meadows Dr. - Install stormdrain. Construct roadway and install sodding behind curb.

Attachment D – Temporary Best Management Practices and Measures

Temporary best management practices (BMP) include erosion and sediment controls to contain soils from leaving the site. Temporary BMPs include erosion control logs, curb inlet protection, and rock filter dams. These BMPs prevent sediment from entering surface streams by trapping it before it reaches the stream.

Attachment F - Structural Practices

Structural practices will not be implemented for this project.

Attachment I - Inspection and Maintenance for BMPs

Temporary BMPs will be inspected on regular basis and after a rain event greater than 1/2 inch. Any damage to the temporary BMPs will be repaired or replaced. If sediment build up of more than 30% height of the BMP, sediment will be removed.

Attachment J - Schedule of Interim and Permanent Soil Stabilization Practices

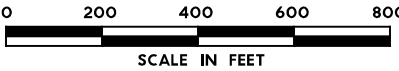
The work will take place in the existing roadway. Any soil disturbed behind the back of curb will be stabilized through sodding.

Attachment G - Drainage Area Map



- DRAINAGE LEGEND**
- DRAINAGE AREA BOUNDARY
 - STREAM CENTERLINE
 - FLOW DIRECTION
 - EFFECTIVE ZONE AE SFHA
 - EFFECTIVE ZONE X 0.2% AC
 - 2-FT CONTOURS
 - POI INDICATOR
 - DRAINAGE AREA ID

- NOTES:**
- DRAINAGE BOUNDARIES WERE DELINEATED BASED ON THE 2-FT CONTOURS DERIVED FROM THE 2021 BEXAR & TRAVIS COUNTIES LIDAR DATA.
 - DRAINAGE BASINS WERE CREATED FOR THE PROPOSED INLETS WITHIN THE PROJECT LIMITS. ADDITIONAL DRAINAGE BASINS OUTSIDE OF THE PROJECT LIMITS WERE CREATED AT THE SELECTED POI TO ACCOUNT FOR POTENTIAL INTER-BASIN OVERLAND FLOWS WITHIN THE 2D DOMAIN IN XPSWMM MODEL.
 - DRAINAGE BASIN IDS WERE NAMED AFTER THE RECEIVING NODE IDS. FOR EXAMPLE, DA-1000.01 IS THE CONTRIBUTING AREA FOR NODE N-1000.01.
 - FOR DRAINAGE AREA CALCULATIONS REFER TO HYDROLOGIC DATA SHEETS.
 - EFFECTIVE FLOODPLAIN SOURCE FEMA FIRM PANEL 48491C0489F EFFECTIVE DECEMBER 19, 2019.



8/7/2025

HDR Engineering, Inc.
Firm Registration No. F-754
710 Hester Crossing, Suite 150
Round Rock, Texas 78681

THE CITY OF ROUND ROCK, TEXAS
UTILITIES AND ENVIRONMENTAL
SERVICES DEPARTMENT

MEADOWS DR WATER, WASTEWATER, & STORM DRAIN IMPROVEMENTS AREAS 2 & 4

OVERALL SITE DRAINAGE AREA MAP

HYDROLOGIC SUMMARY			
POI	NAME	PEAK FLOW (CFS)	
		25-YR	100-YR
1	WONDER DR OUTFALL	145	146

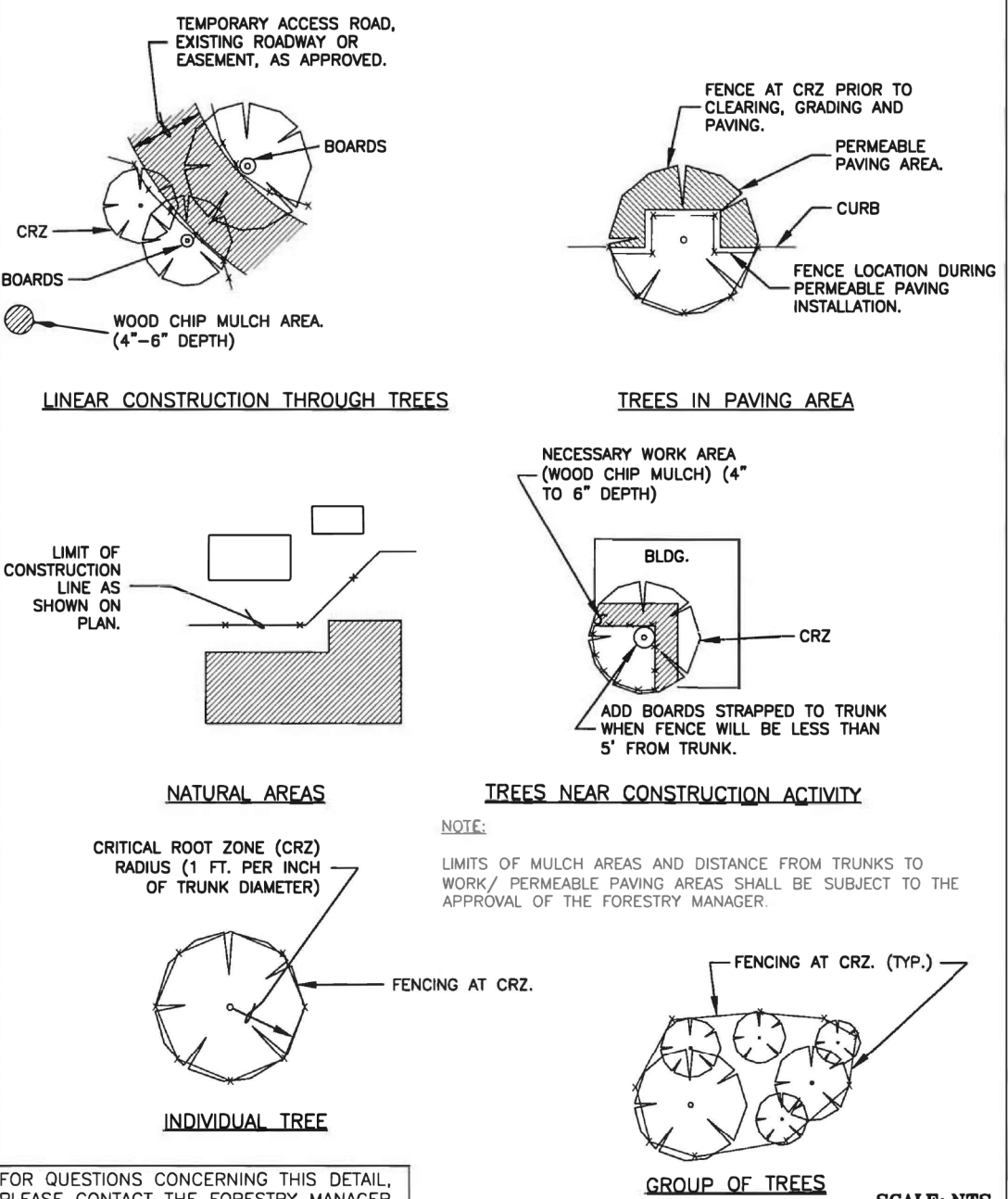
SCALE: 1"=400'		SHEET 1 OF 1	
NO.	DATE	REVISION	APPR BY
CITY	COUNTY	SHEET NO.	
ROUND ROCK	WILLIAMSON	CD001	

1. ALL TREES NOT LOCATED WITHIN THE LIMITS OF CONSTRUCTION AND OUTSIDE OF DISTURBED AREAS SHALL BE PRESERVED. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL TREES TO BE PRESERVED FROM HIS ACTIVITIES.
2. ALL TREES SHOWN TO BE RETAINED ON THE PLANS, SHALL BE PROTECTED DURING CONSTRUCTION WITH FENCING. SEE: TREE PROTECTION TREE WELLS (EC-02), TREE PROTECTION TREE LOCATION (EC-03) AND TREE PROTECTION FENCE-CHAIN LINK (EC-04).
3. TREE PROTECTION FENCES SHALL BE ERECTED ACCORDING TO CITY STANDARDS FOR TREE PROTECTION, INCLUDING TYPES OF FENCING AND SIGNAGE.
4. TREE PROTECTION FENCES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING, OR GRADING) AND SHALL BE MAINTAINED THROUGHOUT ALL PHASES OF THE CONSTRUCTION PROJECT.
5. EROSION AND SEDIMENTATION CONTROL BARRIERS SHALL BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SOIL BUILD-UP WITHIN TREE DRIPLINES.
6. FENCES SHALL COMPLETELY SURROUND THE TREE, OR CLUSTERS OF TREES, LOCATED AT THE OUTERMOST LIMITS OF THE TREE BRANCHES (DRIPLINE) OR CRITICAL ROOT ZONE (CRZ), WHICHEVER IS GREATER; AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROJECT IN ORDER TO PREVENT THE FOLLOWING:
 - 6A. SOIL COMPACTION IN CRZ AREA RESULTING FROM VEHICULAR TRAFFIC OR STORAGE OF EQUIPMENT OR MATERIAL.
 - 6B. CRZ DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN 6 INCHES CUT OR FILL) OR TRENCHING NOT REVIEWED AND AUTHORIZED BY THE FORESTRY MANAGER.
 - 6C. WOUNDS TO EXPOSED ROOTS, TRUNK, OR LIMBS BY MECHANICAL EQUIPMENT
 - 6D. OTHER ACTIVITIES DETRIMENTAL TO TREES SUCH AS CHEMICAL STORAGE, CONCRETE TRUCK CLEANING, AND FIRES.
7. EXCEPTIONS TO INSTALLING TREE FENCES AT THE TREE DRIPLINES OR CRZ, WHICHEVER IS GREATER, MAY BE PERMITTED IN THE FOLLOWING CASES:
 - 7A. WHERE THERE IS TO BE AN APPROVED GRADE CHANGE, IMPERMEABLE PAVING SURFACE, OR TREE WELL;
 - 7B. WHERE PERMEABLE PAVING IS TO BE INSTALLED, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA.
 - 7C. WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE NO CLOSER THAN 6 FEET TO THE BUILDING.
 - 7D. WHERE THERE ARE SEVERE SPACE CONSTRAINTS DUE TO TRACT SIZE, OR OTHER SPECIAL REQUIREMENTS, CONTACT THE FORESTRY MANAGER TO DISCUSS ALTERNATIVES.
8. WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN A FENCE THAT IS CLOSER THAN 5 FEET TO A TREE TRUNK, THE TRUNK SHALL BE PROTECTED BY STRAPPED-ON PLANKING TO A HEIGHT OF 8 FEET (OR TO THE LIMITS OF LOWER BRANCHING) IN ADDITION TO THE REDUCED FENCING PROVIDED.
9. WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN AREAS OF UNPROTECTED ROOT ZONES UNDER THE DRIPLINE OR CRZ, WHICHEVER IS GREATER, THOSE AREAS SHOULD BE COVERED WITH 4 INCHES OF ORGANIC MULCH TO MINIMIZE SOIL COMPACTION.
10. ALL GRADING WITHIN CRZ AREAS SHALL BE DONE BY HAND OR WITH SMALL EQUIPMENT TO MINIMIZE ROOT DAMAGE. PRIOR TO GRADING, RELOCATE PROTECTIVE FENCING TO 2 FEET BEHIND THE GRADE CHANGE AREA.
11. ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL AND BACKFILLED WITH GOOD QUALITY TOP SOIL WITHIN TWO DAYS. IF EXPOSED ROOT AREAS CANNOT BE BACKFILLED WITHIN 2 DAYS, AN ORGANIC MATERIAL WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION SHALL BE PLACED TO COVER THE ROOTS UNTIL BACKFILL CAN OCCUR.
12. PRIOR TO EXCAVATION OR GRADE CUTTING WITHIN TREE DRIPLINES, A CLEAN CUT SHALL BE MADE BETWEEN THE DISTURBED AND UNDISTURBED ROOT ZONES WITH A ROCK SAW OR SIMILAR EQUIPMENT, IN A LOCATION AND TO A DEPTH APPROVED BY THE FORESTRY MANAGER, TO MINIMIZE DAMAGE TO REMAINING ROOTS.
13. TREES MOST HEAVILY IMPACTED BY CONSTRUCTION ACTIVITIES WILL BE WATERED DEEPLY ONCE A WEEK DURING PERIODS OF HOT, DRY WEATHER. TREE CROWNS ARE TO BE SPRAYED WITH WATER PERIODICALLY TO REDUCE DUST ACCUMULATION ON LEAVES.
14. WHEN INSTALLING CONCRETE ADJACENT TO THE ROOT ZONE OF A TREE, A PLASTIC VAPOR BARRIER SHALL BE PLACED BEHIND THE CONCRETE TO PROHIBIT LEACHING OF LIME INTO THE CRZ.
15. ANY TRENCHING REQUIRED FOR THE INSTALLATION OF LANDSCAPE IRRIGATION SHALL BE PLACED AS FAR FROM EXISTING TREE TRUNKS AS POSSIBLE.
16. NO LANDSCAPE TOPSOIL DRESSING GREATER THAN FOUR (4) INCHES SHALL BE PERMITTED WITHIN THE DRIPLINE OR CRZ OF TREES, WHICHEVER IS GREATER. NO TOPSOIL IS PERMITTED ON ROOT FLARES OF ANY TREE.
17. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC, AND CONSTRUCTION EQUIPMENT SHALL TAKE PLACE BEFORE CONSTRUCTION BEGINS. ALL PRUNING MUST BE DONE ACCORDING TO CITY STANDARDS AND AS OUTLINED IN LITERATURE PROVIDED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA PRUNING TECHNIQUES).
18. ALL OAK TREE CUTS, INTENTIONAL OR UNINTENTIONAL, SHALL BE SEALED WITH AN APPROVED PRUNING SEALER IMMEDIATELY (WITHIN 10 MINUTES). PRUNING SEAL OR TREE PAINT MUST BE KEPT ON SITE AT ALL TIMES.
19. THE FORESTRY MANAGER HAS THE AUTHORITY TO REQUIRE ADDITIONAL TREE PROTECTION BEFORE OR DURING CONSTRUCTION.
20. TREES APPROVED FOR REMOVAL SHALL BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED. REFER TO THE CITY OF ROUND ROCK TREE TECHNICAL MANUAL FOR APPROPRIATE REMOVAL METHODS.
21. PRIOR TO CONSTRUCTION, ALL LOWER TREE LIMBS OVER ROADWAYS MUST BE PRUNED TO A HEIGHT OF 14 FEET USING THE TECHNIQUES DESCRIBED IN THE CITY OF ROUND ROCK TREE TECHNICAL MANUAL.
22. DEVIATIONS FROM THE ABOVE NOTES MAY BE CONSIDERED ORDINANCE VIOLATIONS IF THERE IS NON COMPLIANCE OR IF A TREE SUSTAINS DAMAGE AS A RESULT.

FOR QUESTIONS CONCERNING THIS DETAIL,
PLEASE CONTACT THE FORESTRY MANAGER.

SCALE: NTS

RECORD SIGNED COPY ON FILE	CITY OF ROUND ROCK	DRAWING NO: EC-01 SHEET 1 of 1
APPROVED		
01-28-21		
DATE	TREE PROTECTION NOTES	
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL. (NOT TO SCALE)		



FOR QUESTIONS CONCERNING THIS DETAIL,
PLEASE CONTACT THE FORESTRY MANAGER.

SCALE: NTS

RECORD SIGNED COPY ON FILE	CITY OF ROUND ROCK	DRAWING NO: EC-03
APPROVED		SHEET 1 of 1
01-28-21 DATE		
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL. (NOT TO SCALE)	TREE PROTECTION FENCE LOCATIONS	



8/6/2025

HDR Engineering, Inc.
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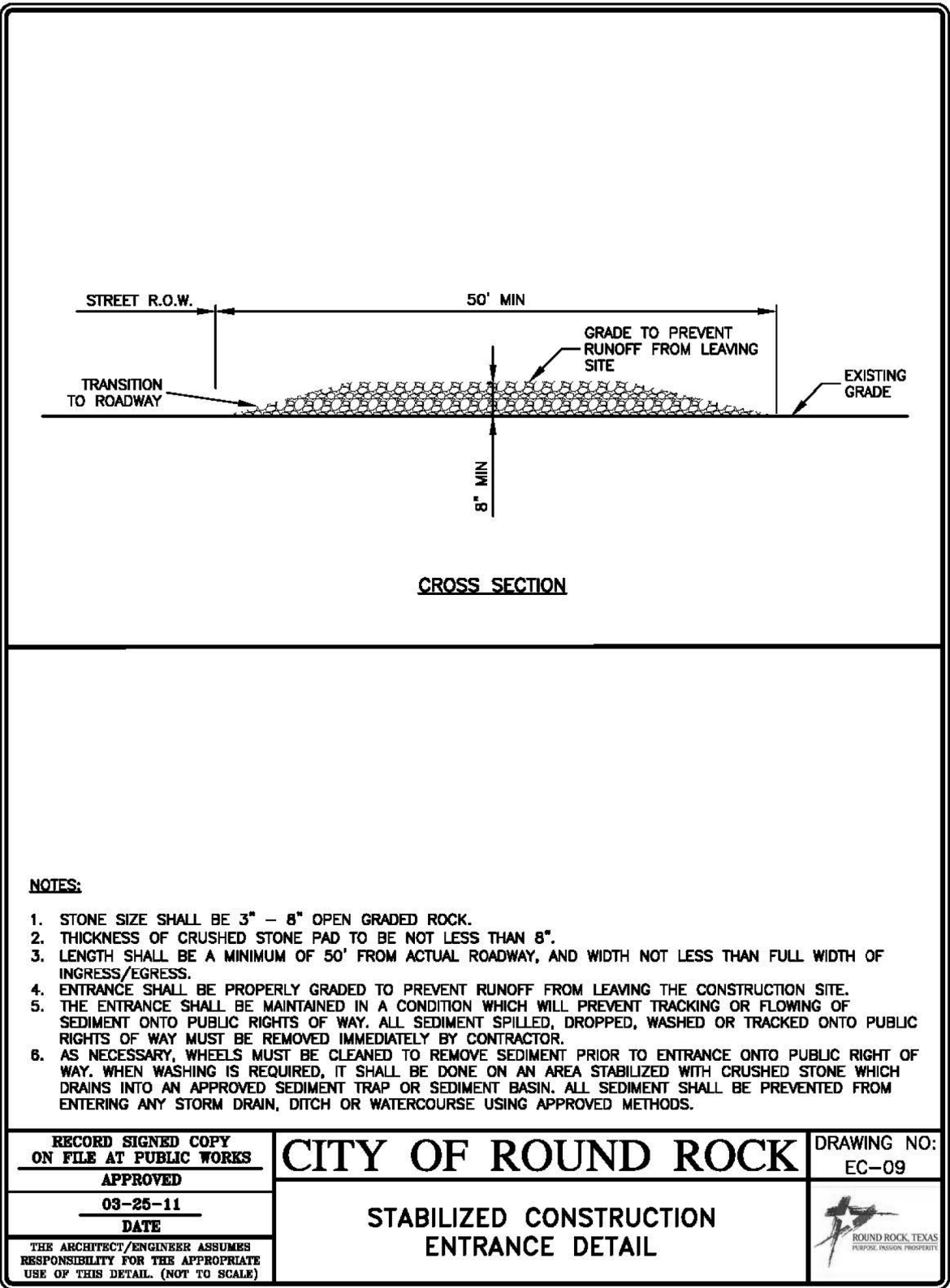
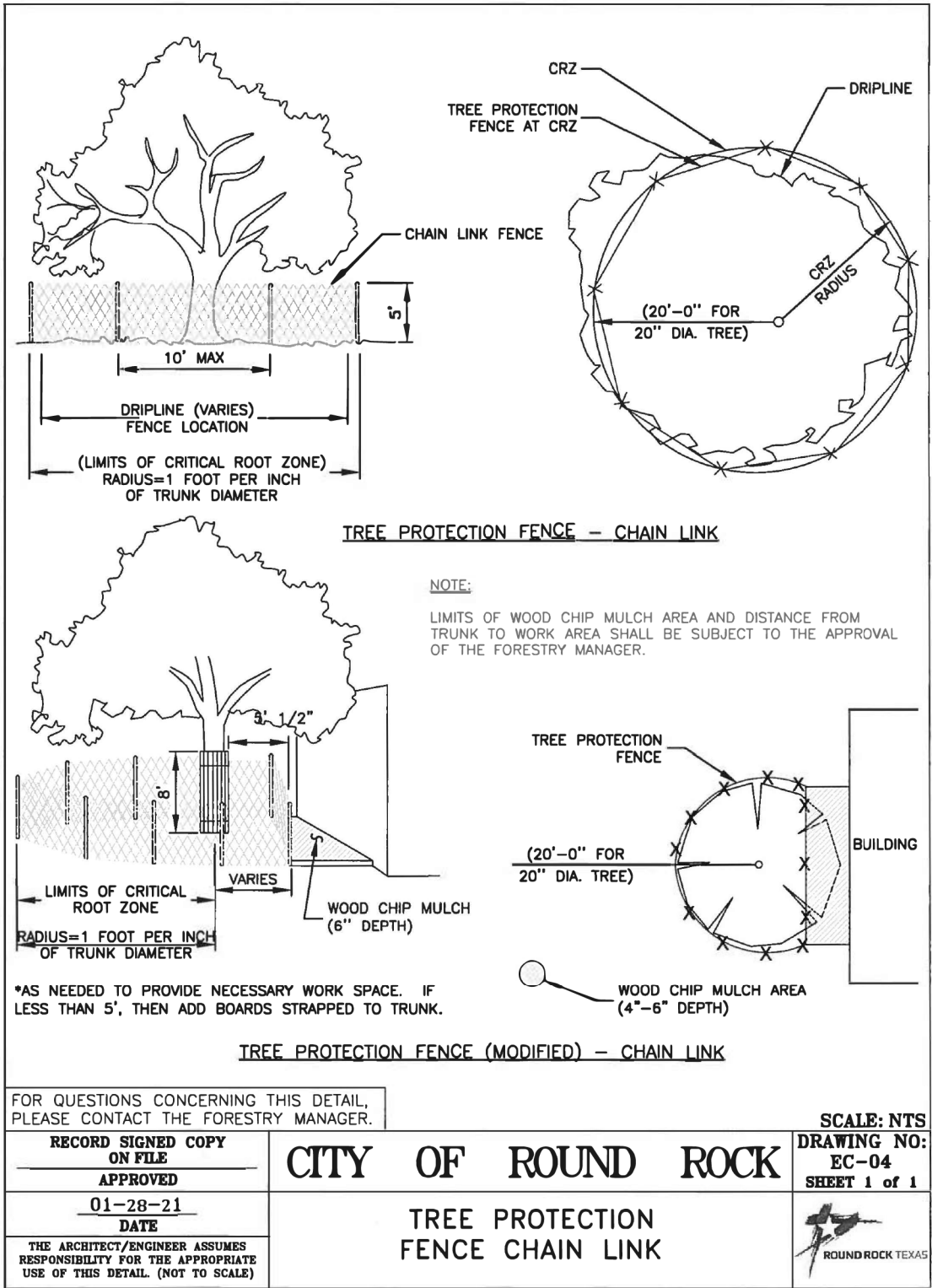
THE CITY OF ROUND ROCK TEXAS
UTILITIES AND ENVIRONMENTAL
SERVICES DEPARTMENT

MEADOWS DR WATER,
WASTEWATER, & STORM
DRAIN IMPROVEMENTS
AREAS 2 & 4

EROSION & SEDIMENT
CONTROL PLAN
STANDARDS

SHEET 1 OF 4

NO.	DATE	REVISION	APPR BY
CITY	COUNTY	SHEET NO.	
ROUND ROCK	WILLIAMSON	CE201	



STATE OF TEXAS
MATTHEW SKRINSKI
147243
LICENSED PROFESSIONAL ENGINEER

8/6/2025

HDR HDR Engineering, Inc.
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710 Hester Crossing, Suite 150
Round Rock, Texas 78681

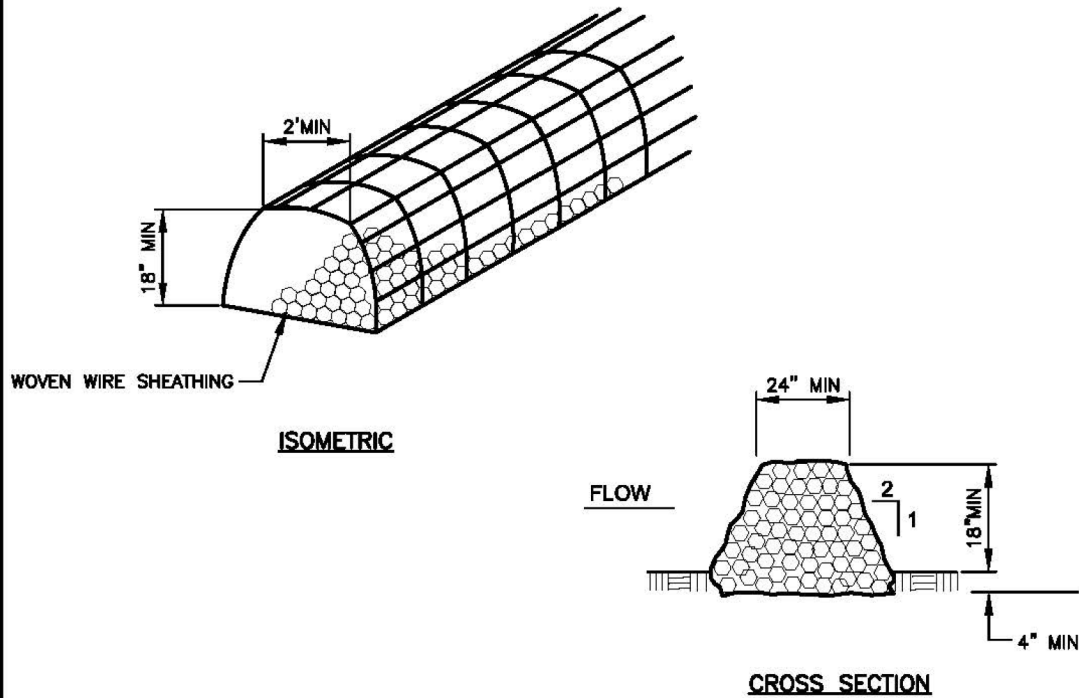
THE CITY OF ROUND ROCK TEXAS
UTILITIES AND ENVIRONMENTAL SERVICES DEPARTMENT

MEADOWS DR WATER, WASTEWATER, & STORM DRAIN IMPROVEMENTS AREAS 2 & 4

EROSION & SEDIMENT CONTROL PLAN STANDARDS

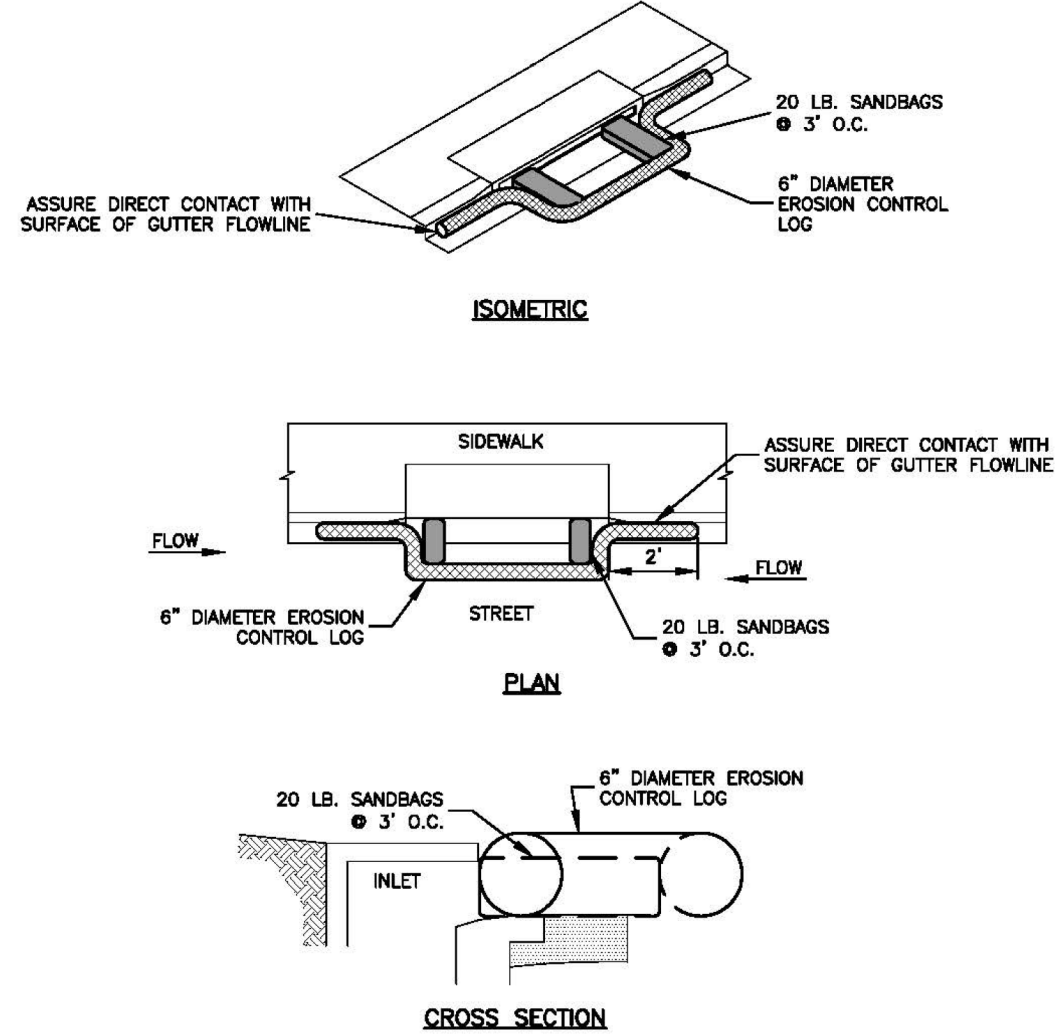
SHEET 2 OF 4

NO.	DATE	REVISION	APPR BY
CITY		COUNTY	SHEET NO.
ROUND ROCK		WILLIAMSON	CE202



- NOTES:**
1. USE ONLY OPEN GRADED ROCK (3 to 5") DIAMETER FOR ALL CONDITIONS.
 2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 1" OPENING AND MINIMUM WIRE DIAMETER OF 20 GAUGE.
 3. THE ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STONE AND/ OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SEDIMENT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
 4. IF SEDIMENT REACHES A DEPTH OF 6", THE SEDIMENT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SEDIMENTATION PROBLEM.
 5. WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

RECORD SIGNED COPY ON FILE AT PUBLIC WORKS APPROVED 03-25-11 DATE	CITY OF ROUND ROCK	DRAWING NO: EC-12
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL. (NOT TO SCALE)	ROCK BERM DETAIL	



- NOTES:**
1. EROSION CONTROL LOG CONTAINMENT MESH SHALL BE 100% BIODEGRADABLE, PHOTODEGRADABLE OR RECYCLABLE; AND FILL MATERIAL SHALL CONSIST OF MULCH, ASPEN EXCELSIOR FIBERS, CHIPPED SITE VEGETATION, COCONUT FIBERS, 100% RECYCLABLE FIBERS, OR ANY OTHER ACCEPTABLE MATERIAL EXCLUDING STRAW AND HAY.
 2. DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN DEPTH REACHES 2".
 3. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY REMOVE THE INLET PROTECTIONS IF THE STORM WATER BEGINS TO OVERTOP THE CURB.
 4. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT IS STABILIZED.

RECORD SIGNED COPY ON FILE AT PUBLIC WORKS APPROVED 03-25-11 DATE	CITY OF ROUND ROCK	DRAWING NO: EC-13
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL. (NOT TO SCALE)	CURB INLET PROTECTION WITH EROSION CONTROL LOG DETAIL	



8/6/2025



HDR Engineering, Inc.
Firm Registration No. F-754
710 Hester Crossing, Suite 150
Round Rock, Texas 78681



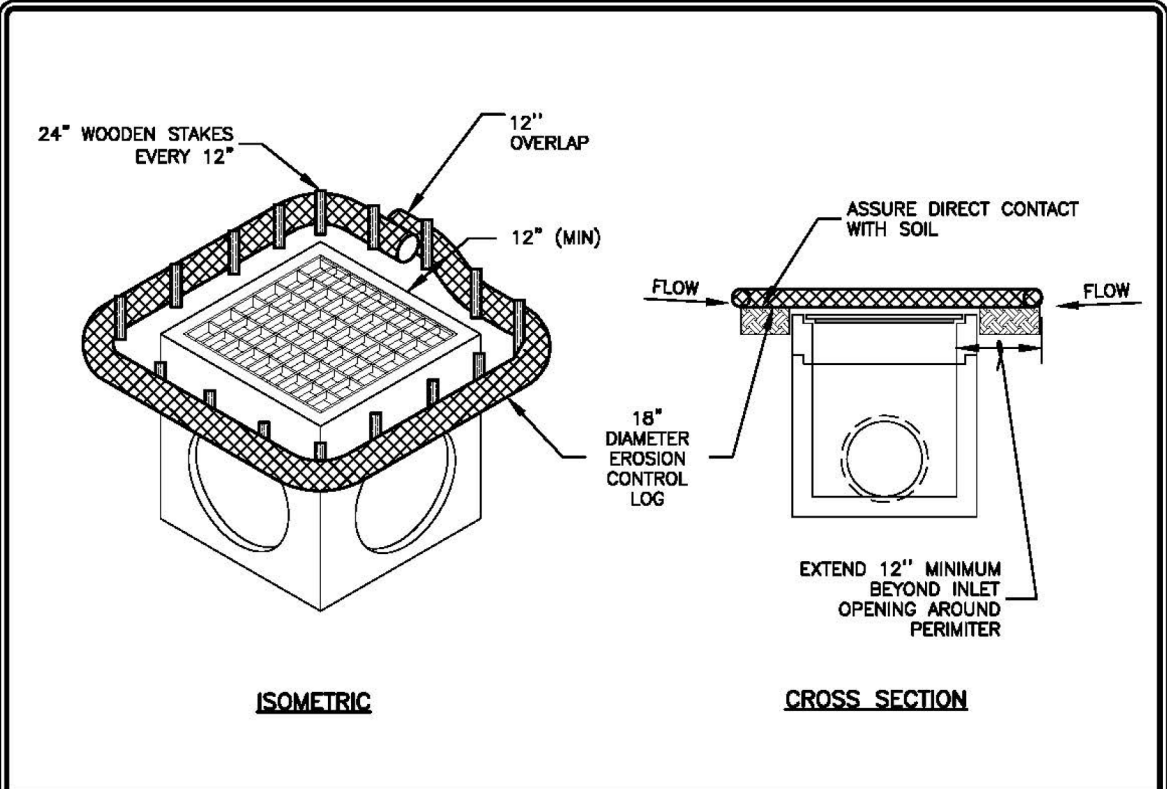
THE CITY OF ROUND ROCK, TEXAS
UTILITIES AND ENVIRONMENTAL
SERVICES DEPARTMENT

**MEADOWS DR WATER,
WASTEWATER, & STORM
DRAIN IMPROVEMENTS
AREAS 2 & 4**

**EROSION & SEDIMENT
CONTROL PLAN
STANDARDS**

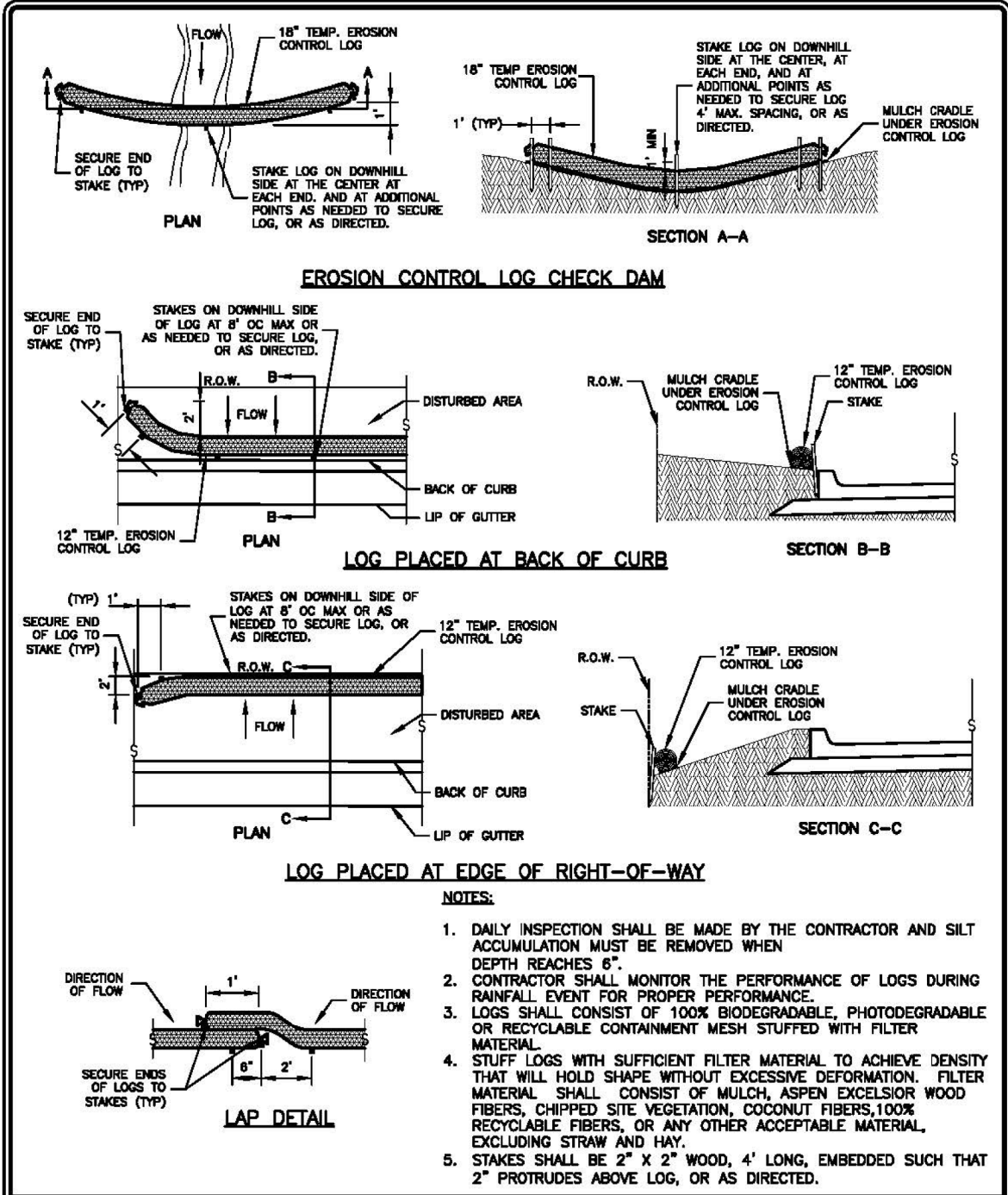
SHEET 3 OF 4

NO.	DATE	REVISION	APPR BY
CITY	COUNTY	SHEET NO.	
ROUND ROCK	WILLIAMSON	CE203	



- NOTES:**
1. EROSION CONTROL LOG CONTAINMENT MESH SHALL BE 100% BIODEGRADABLE, PHOTODEGRADABLE OR RECYCLABLE; AND FILL MATERIAL SHALL CONSIST OF MULCH, ASPEN EXCELSIOR FIBERS, CHIPPED SITE VEGETATION, COCONUT FIBERS, 100% RECYCLABLE FIBERS, OR ANY OTHER ACCEPTABLE MATERIAL EXCLUDING STRAW AND HAY.
 2. DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN DEPTH REACHES 6".
 3. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY CLEAN THE INLET PROTECTION IF EXCESSIVE PONDING OCCURS.
 4. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT IS STABILIZED.

RECORD SIGNED COPY ON FILE AT PUBLIC WORKS APPROVED 03-25-11 DATE THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL. (NOT TO SCALE)	CITY OF ROUND ROCK	DRAWING NO: EC-16
	AREA INLET PROTECTION WITH EROSION CONTROL LOG DETAIL	



RECORD SIGNED COPY ON FILE AT PUBLIC WORKS APPROVED 03-25-11 DATE THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL. (NOT TO SCALE)	CITY OF ROUND ROCK	DRAWING NO: EC-17
	EROSION CONTROL LOG DETAIL	

STATE OF TEXAS
MATTHEW SKRINSKI
147243
LICENSED PROFESSIONAL ENGINEER

8/6/2025

HDR Engineering, Inc.
Firm Registration No. F-754
710 Hester Crossing, Suite 150
Round Rock, Texas 78681

THE CITY OF ROUND ROCK, TEXAS
UTILITIES AND ENVIRONMENTAL
SERVICES DEPARTMENT

MEADOWS DR WATER,
WASTEWATER, & STORM
DRAIN IMPROVEMENTS
AREAS 2 & 4

EROSION & SEDIMENT
CONTROL PLAN
STANDARDS

SHEET 4 OF 4

NO.	DATE	REVISION	APPR BY
CITY	COUNTY	SHEET NO.	
ROUND ROCK	WILLIAMSON	CE204	

Agent Authorization Form
For Required Signature
Edwards Aquifer Protection Program
Relating to 30 TAC Chapter 213
Effective June 1, 1999

I Federico Sanchez,

Print Name
Stormwater Engineer,

Title - Owner/President/Other
of City of Round Rock,

Corporation/Partnership/Entity Name
have authorized Sherif Mabrouk

Print Name of Agent/Engineer
of HDR Engineering

Print Name of Firm

to represent and act on the behalf of the above named Corporation, Partnership, or Entity for the purpose of preparing and submitting this plan application to the Texas Commission on Environmental Quality (TCEQ) for the review and approval consideration of regulated activities.

I also understand that:

1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to \$10,000 per day per violation.
2. For those submitting an application who are not the property owner, but who have the right to control and possess the property, additional authorization is required from the owner.
3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TCEQ cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.
4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.
5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

SIGNATURE PAGE:

Federico Sanchez
Applicant's Signature

2/13/2025
Date

THE STATE OF TX §

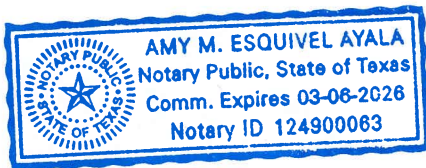
County of Williamson §

BEFORE ME, the undersigned authority, on this day personally appeared Federico Sanchez known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 13 day of February.

Amy M. Esquivel-Ayala
NOTARY PUBLIC

Amy M. Esquivel-Ayala
Typed or Printed Name of Notary



MY COMMISSION EXPIRES: 3-6-26

Application Fee Form

Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: City of Round Rock Wastewater Collection System

Regulated Entity Location: Round Rock, TX

Name of Customer: City of Round Rock

Contact Person: Federico Sanchez

Phone: 512-218-6609

Customer Reference Number (if issued): CN 600413181

Regulated Entity Reference Number (if issued): RN RN106005366

Austin Regional Office (3373)

☐ Hays

☐ Travis

☒ Williamson

San Antonio Regional Office (3362)

☐ Bexar

☐ Medina

☐ Uvalde

☐ Comal

☐ Kinney

Application fees must be paid by check, certified check, or money order, payable to the **Texas Commission on Environmental Quality**. Your canceled check will serve as your receipt. **This form must be submitted with your fee payment.** This payment is being submitted to:

☒ Austin Regional Office

☐ San Antonio Regional Office

☐ Mailed to: TCEQ - Cashier

☐ Overnight Delivery to: TCEQ - Cashier

Revenues Section

Mail Code 214

P.O. Box 13088

Austin, TX 78711-3088

12100 Park 35 Circle

Building A, 3rd Floor

Austin, TX 78753

(512)239-0357

Site Location (Check All That Apply):

☒ Recharge Zone

☐ Contributing Zone

☐ Transition Zone

<i>Type of Plan</i>	<i>Size</i>	<i>Fee Due</i>
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	\$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	\$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	Acres	\$
Sewage Collection System	1,425 L.F.	\$ 712.50
Lift Stations without sewer lines	Acres	\$
Underground or Aboveground Storage Tank Facility	Tanks	\$
Piping System(s)(only)	Each	\$
Exception	Each	\$
Extension of Time	Each	\$

Signature: _____

Shirley Mabrouk

Date: 08/20/25

Application Fee Schedule

Texas Commission on Environmental Quality

Edwards Aquifer Protection Program 30 TAC Chapter 213 (effective 05/01/2008)

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

<i>Project</i>	<i>Project Area in Acres</i>	<i>Fee</i>
One Single Family Residential Dwelling	< 5	\$650
Multiple Single Family Residential and Parks	< 5	\$1,500
	5 < 10	\$3,000
	10 < 40	\$4,000
	40 < 100	\$6,500
	100 < 500	\$8,000
	≥ 500	\$10,000
Non-residential (Commercial, industrial, institutional, multi-family residential, schools, and other sites where regulated activities will occur)	< 1	\$3,000
	1 < 5	\$4,000
	5 < 10	\$5,000
	10 < 40	\$6,500
	40 < 100	\$8,000
	≥ 100	\$10,000

Organized Sewage Collection Systems and Modifications

<i>Project</i>	<i>Cost per Linear Foot</i>	<i>Minimum Fee- Maximum Fee</i>
Sewage Collection Systems	\$0.50	\$650 - \$6,500

Underground and Aboveground Storage Tank System Facility Plans and Modifications

<i>Project</i>	<i>Cost per Tank or Piping System</i>	<i>Minimum Fee- Maximum Fee</i>
Underground and Aboveground Storage Tank Facility	\$650	\$650 - \$6,500

Exception Requests

<i>Project</i>	<i>Fee</i>
Exception Request	\$500

Extension of Time Requests

<i>Project</i>	<i>Fee</i>
Extension of Time Request	\$150



TCEQ Core Data Form

For detailed instructions on completing this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)		
☒ New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
☐ Renewal (Core Data Form should be submitted with the renewal form)	☐ Other	
2. Customer Reference Number (if issued)	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number (if issued)
CN 600413181		RN

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)					
☐ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership ☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)							
<i>The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).</i>							
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)				<i>If new Customer, enter previous Customer below:</i>			
City of Round Rock							
7. TX SOS/CPA Filing Number		8. TX State Tax ID (11 digits)		9. Federal Tax ID (9 digits)	10. DUNS Number (if applicable)		
11. Type of Customer:		☐ Corporation		☐ Individual	Partnership: ☐ General ☐ Limited		
Government: ☒ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other		☐ Sole Proprietorship		☐ Other:			
12. Number of Employees				13. Independently Owned and Operated?			
☐ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher				☒ Yes ☐ No			
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following							
☐ Owner ☐ Operator ☒ Owner & Operator ☐ Other: ☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant							
15. Mailing Address:	3400 Sunrise Road						
	City	Round Rock	State	TX	ZIP	78665	ZIP + 4
16. Country Mailing Information (if outside USA)				17. E-Mail Address (if applicable)			
				fsanchez@roundrocktexas.gov			

18. Telephone Number	19. Extension or Code	20. Fax Number (if applicable)
(512) 218-6609		() -

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (If 'New Regulated Entity' is selected, a new permit application is also required.)								
☐ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information								
<i>The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).</i>								
22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)								
City of Round Rock Wastewater Collection System								
23. Street Address of the Regulated Entity: (No PO Boxes)								
	City		State		ZIP		ZIP + 4	
24. County	Williamson							

If no Street Address is provided, fields 25-28 are required.

25. Description to Physical Location:	Meadows Drive is located approximately 0.36 miles west of Interstate 35 and 0.38 miles north of Round Rock Ave. The street connects to Sam Bass Rd in two locations. Wonder Drive is located approximately 0.28 miles west of Interstate 35 and 0.1 miles north of Round Rock Ave. The street runs north/south and connects to Sam Bass Rd.							
26. Nearest City				State		Nearest ZIP Code		
Round Rock				TX		78681		
<i>Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).</i>								
27. Latitude (N) In Decimal:		30.515406969898585			28. Longitude (W) In Decimal:		-97.69254093623768	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds			
29. Primary SIC Code		30. Secondary SIC Code		31. Primary NAICS Code		32. Secondary NAICS Code		
(4 digits)		(4 digits)		(5 or 6 digits)		(5 or 6 digits)		
33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)								
34. Mailing Address:								
	City		State		ZIP		ZIP + 4	
35. E-Mail Address:								
36. Telephone Number			37. Extension or Code			38. Fax Number (if applicable)		
() -						() -		

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

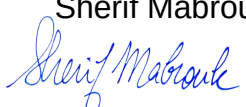
☐ Dam Safety	☐ Districts	☒ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☒ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☒ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	Sherif Mabrouk	41. Title:	Project Engineer
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
512-912-5105		() -	Sherif.Mabrouk@hdrinc.com

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	HDR Engineering, Inc.	Job Title:	Project Engineer
Name (In Print):	Sherif Mabrouk	Phone:	512-912-5105
Signature:		Date:	08/20/25