

# CITY OF ROCKWALL, TEXAS

CONSTRUCTION PLANS FOR:

## BUFFALO CREEK TRIBUTARY 1 SANITARY SEWER INTERCEPTOR IMPROVEMENTS

ROCKWALL PROJECT NO. CIP - SS2019-005

### CONSTRUCTION RECORD DRAWINGS

CONTRACTOR:	DOUGLAS DAILEY CONSTRUCTION, LLC	SUBSTANTIAL COMPLETION DATE: OCTOBER 14, 2022
ADDRESS/PHONE NO.	2005 BLUFF SPRINGS RD. FERRIS, TX 75125 PHONE: (214) 399-3160	CITY INSPECTOR: JAMES PALMER
FINAL CONTRACT AMOUNT:	\$1,552,797.90	

#### COUNCIL MEMBERS

KEVIN FOWLER, MAYOR  
BENNIE DANIELS  
JOHN HOHENSHELT  
TRACE JOHANNESSEN  
DANA MACALIK  
ANNA CAMPBELL  
CLARENCE JORIF

#### INTERIM CITY MANAGER

MARY SMITH

#### ASSISTANT CITY MANAGERS

JOEY BOYD



*[Handwritten Signature]*  
05/21/22

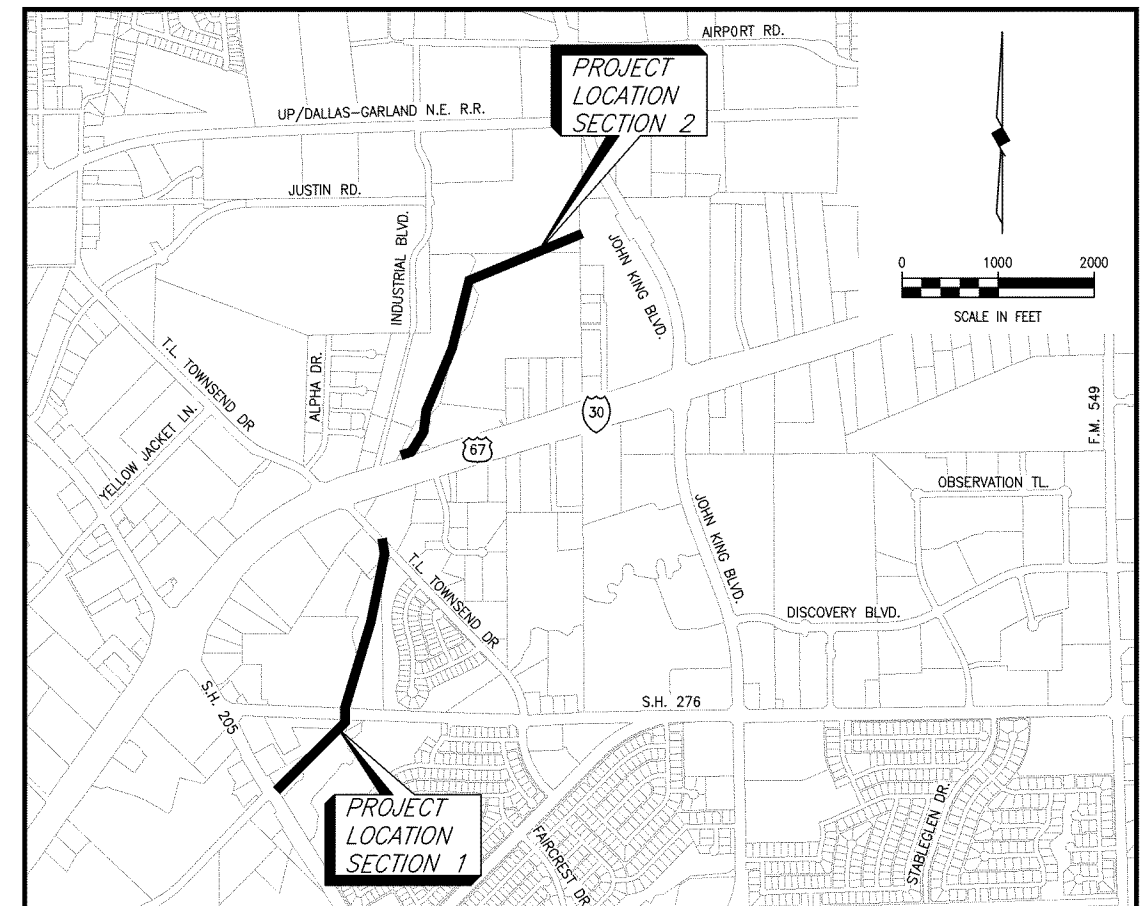
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BY DBC DATE 11/28/22



**BIRKHOFF, HENDRICKS & CARTER, L.L.P.**  
PROFESSIONAL ENGINEERS  
TBPE Firm No. 526; TBPLS Firm No. 10031800  
11910 Greenville Ave., Suite 600  
Dallas, Texas 75243 (214) 361-7900

MAY 2021



LOCATION MAP

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NOTE: ADDITIVE ALTERNATIVE BID WAS SELECTED, TO USE POLYMER CONCRETE FOR ALL PROPOSED MANHOLES.

**GENERAL ITEMS**

- All construction shall conform to the requirements of the "Standard Specifications for Public Works Construction" by the North Texas Central Council of Governments, 5th edition amended by the City of Rockwall. The CONTRACTOR shall reference the latest City of Rockwall standard details provided in the Rockwall Engineering Departments "Standards of Design and Construction" manual for details not provided in these plans. The CONTRACTOR shall possess one set of the NCTCOG Standard Specifications and Details and the City of Rockwall's "Standards of Design and Construction" manual on the project site at all times.
- The CONTRACTOR shall protect existing property monumentation and primary control. Any such points which the CONTRACTOR believes will be destroyed shall have offset points established by the CONTRACTOR prior to construction. Any monumentation destroyed by the CONTRACTOR shall be re-established at CONTRACTOR's expense by a registered professional land surveyor.
- Upon the CITIES request the CONTRACTOR shall provide survey Northings, Eastings and Elevations by registered professional land surveyor for: any existing utilities that may be in conflict with the proposed improvements of the construction plans, and any proposed installation to verify it has been installed per plan. (no separate pay)
- Any item called out for on the plans that does not have a specific bid item shall be subsidiary to the project and no separate pay shall be given.
- The CONTRACTOR is solely responsible for performing all construction layouts from the site layout control points, and from the dimensions and centerlines shown. The CONTRACTOR must notify the engineer of any discrepancies before proceeding with the work.
- CONTRACTOR shall take all available precautions to control dust. CONTRACTOR shall control dust by sprinkling water (no separate pay), or as approved by the City and engineer.
- CONTRACTOR shall video record and provide a copy to the construction inspector of the entire job site before construction starts. Video record of the site will be used to dispute discrepancies of any preexisting conditions of the project site before construction begins.
- It is the CONTRACTOR's responsibility to maintain a neat and accurate redline record of construction for the City's records. The CONTRACTOR shall provide the City full size reproducible markups that record all construction deviating from the plans. These redline construction plan records shall be submitted to the City at the end of the job and sign by the CONTRACTOR. These records must be received or the City will not release final retainage or acceptance on the job.

**EROSION CONTROL & VEGETATION**

- The CONTRACTOR or developer shall be responsible, as the entity exercising operational control, for all permitting as required by the Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ). This includes, but is not limited to, preparation of the Storm Water Pollution Prevention Plan (SWPPP), the Construction Site Notice (CSN), the Notice of Intent (NOI), the Notice of Termination (NOT) and any Notice of Change (NOC) and is required to pay all associated fees.
- Erosion control devices as shown on the erosion control plan for the project shall be installed prior to the start of land disturbing activities.
- All erosion control devices are to be installed in accordance with the approved plans, specifications and Storm Water Pollution Prevention Plan (SWPPP) for the project. Erosion control devices shall be placed and in working order prior to start of construction. Changes are to be reviewed by the design engineer and the City of Rockwall prior to implementation.
- If the Erosion Control Plans and Storm Water Pollution Prevention Plan (SWPPP) as approved cannot appropriately control erosion and off-site sedimentation from the project, the erosion control plan and/or the SWPPP is required to be revised and any changes reported to the Texas Commission on Environmental Quality (TCEQ), when applicable.
- All erosion control devices shall be inspected weekly by the CONTRACTOR and after all major rain events, or more frequently as dictated in the project Storm Water Pollution Prevention Plan (SWPPP). CONTRACTOR shall provide copies of inspection's reports to the engineering inspection after each inspection.
- The CONTRACTOR shall not dispose of waste and any materials into streams, waterways or floodplains. The CONTRACTOR shall secure all excavation at the end of each day and dispose of all excess materials. Disposal site shall be documented and provided to the City.
- CONTRACTOR shall grade ground and ditches disturbed by construction to prevent ponding of storm runoff. Grading shall be subsidiary to the appropriate bid item for unclassified street and unclassified channel excavation. Topsoil shall be stockpiled and replaced to a minimum depth of 6-inches and disc harrowed to a minimum depth of 4-inches (no pay item). CONTRACTOR shall replace grass areas disturbed by construction activities with solid sod. Sodded areas shall be watered and maintained until established.
- The CONTRACTOR shall provide 4 inches of top soil in all parkways that are to be sodded. Top soil shall be approved by the City in writing. Topsoil shall be subsidiary to placement of grass/sod.
- All areas outside pavement disturbed by construction activities shall be tilled 6-inches and topped with clean top soil to final grade and have grass sod established immediately. Sod shall match existing yard type. Payment shall be made under the appropriate bid schedule item. Areas disturbed outside the R.O.W. or limits of construction shall have grass sod established immediately at the CONTRACTOR's expense.

**FRANCHISE UTILITY NOTES**

- Reasonable effort has been made to show the location of all known underground franchise utilities and service lines. However, the owner assumes no responsibility for failure to show any or all existing subsurface franchise utilities or utility line, or to show them in their exact location. The CONTRACTOR shall be responsible for the protection of all existing utilities, service lines or the like, which are exposed by the construction operation.
- Existing franchise utilities shown in these plans reflect approximate locations prior to relocations. Some relocations have occurred with utility pole, gas, phone and cable utilities. The CONTRACTOR shall contact 811/Dig-Tess to locate existing and new utilities not shown in these plans.
- CONTRACTOR shall support utilities where crossing with proposed storm sewer, water lines and sanitary sewers. Method of support shall be provided to the owner 24 hours prior to crossing.
- The location off all Atmos gas lines, AT&T, Charter/Spectrum and TXU/Oncor electric underground phone lines in these plans are approximate. The CONTRACTOR shall contact Atmos, TXU/Oncor, AT&T and Charter/Spectrum to verify location and depth of all existing gas, electric and phone lines prior to construction.
- CONTRACTOR shall have and pay for TXU/Oncor, AT&T and/or Charter/Spectrum support and protect all power, guy wires or cable and/or light poles in the work area.
- Any damage incurred to existing franchise utilities, appurtenances, utility poles, light standards, etc. By construction related activities shall be the sole responsibility of the CONTRACTOR

**TRAFFIC CONTROL**

- A suggested traffic control sequence plan is provided in the plan set. At a minimum the CONTRACTOR will be required to use the suggested sequence plan. If the CONTRACTOR chooses to change the traffic control sequencing, a traffic control sequencing plan and traffic control sheets of each phase will have to be provided for review and approval by the City. All shall be signed and sealed by a Registered Professional Engineer with the State of Texas.
- All new Detouring or Traffic Control Plans submitted by the City for review and approval a minimum of 21 calendar days prior to planned day of implementation.
- CONTRACTOR shall notify the City 14 Calendar days prior to changing Detouring and Traffic Control for each Phase and Segment. This is to give time for Contractor to place Message Boards for warning of Detour Change and for City Notification to other departments, emergency services, mail delivery, school district, and trash services.
- Pedestrian and vehicular traffic flow, safety and access shall be maintained during all phases of construction. Barricading and traffic control during construction shall be the responsibility of the CONTRACTOR and shall conform to the "Texas Manual on Uniform Traffic Control Devices", latest edition, Part IV in particular. Traffic flow and access shall be maintained during all phases of construction unless otherwise noted on the traffic control plan. The CONTRACTOR is responsible for providing traffic safety measures for work on the project. The CONTRACTOR shall assume full responsibility for public safety in the construction area during the duration of construction activities.
- The CONTRACTOR shall furnish, install, maintain and remove all necessary traffic control devices in conformance with the Texas Manual on Uniform Traffic Control Devices (Part 6). The CONTRACTOR shall provide access to properties at all times during each phase of construction to all local residents, businesses, mail service, trash pick-up and emergency services.
- No traffic signs shall be taken down without permission from the City. CONTRACTOR needing to move and replace traffic sign for construction purposes should be paid for under traffic control bid item.
- CONTRACTOR will furnish and install all signage in accordance with TMUTCD guidelines. Prior to installation of signage, CONTRACTOR shall stake locations and receive approval from City on locations. All signage that is removed by the CONTRACTOR shall be saved and delivered to municipal service center, streets division. All replaced signs shall be new. See City requirements for sign materials.
- The CONTRACTOR shall be responsible for coordination, scheduling and temporary equipment that is needed for all temporary traffic signal modifications during construction traffic control phasing. (Subsidiary to all traffic control pay items)

**MAILBOXES, MAIL SERVICE AND TRASH SERVICE NOTES**

- Existing mailboxes in conflict with construction shall be temporarily taken out of service. Were possible the CONTRACTOR shall attempt to move and reset the same mailbox. When not possible to reuse the old mailbox, the mailbox shall be removed and replace to the same or better condition and placed in a location approved by the city/property owner. Photographs of the mailbox shall be taken with the address shown, shall be provided to the city prior to being removed.
- Payment for removal and replacement of existing mailbox will be paid for under the appropriate bid item. Brick mailbox shall match existing brick.
- Temporary mailbox shall be provided and maintained throughout the project where existing mail boxes are being removed. Addresses shall be provided on all temporary mail boxes. CONTRACTOR shall coordinate with coordinate with Construction Inspector and Postmaster/Mail carrier for location of temporary mailbox locations. (No Separate Pay)
- Trash service shall be maintained throughout the duration of construction. On collection days the contractor shall move trash and recycling receptacles to location along street to be collected and moved back to original location at the end of the day. (No Separate Pay)

**FENCES, TREES, LANDSCAPING, AND IRRIGATION NOTES**

- The removal, replacement or reconstruction of any fence for the convenience of construction shall be at the CONTRACTOR's expense (no separate pay). New materials shall match existing fences. All wood fences shall be replaced with new cedar with the post matching City requirements.
- Temporary fencing shall be required where there is evidence of livestock and where damaged or removed fences are not to be replaced by the end of the same work day. Unless there is a specific pay item then temporary fencing shall be considered subsidiary to the main remove and replacement fence pay item.
- All shrubs, plants, trees, etc. must be approved by the City before removal.
- The removal and replacement of all shrubs, plants, trees, etc. for the convenience of construction shall be at the CONTRACTOR's expense (no separate pay). New shrubs, tree, etc. shall be equal to or better than existing ones.
- CONTRACTOR shall replace any trees removed or destroyed that are not shown in these plans to be removed or shall pay fair market value to the owner as determined by the owner. (No Separate Pay).
- The CONTRACTOR shall locate and record existing irrigation systems prior to construction. If irrigations systems are damaged during construction the CONTRACTOR shall repair to same or better condition. An irrigator licensed in the state of Texas shall repair all damaged caused by construction. CONTRACTOR shall coordinate any irrigation work with the City of Rockwall and property owner's representatives. (No Separate Pay).
- If an irrigation system is damaged between the months of March and October the Contractor shall repair the system back in working order within one week. The contractor shall be responsible for any damage to landscaping, trees, shrubs, foundations, etc. due to the lack of non-working irrigation systems. (No Separate Pay)

**UTILITY NOTES**

- Reasonable effort has been made to show the location and type of all known City of Rockwall underground wet utilities and service lines. However, the City of Rockwall assumes no responsibility for failure to show any or all existing City of Rockwall underground wet utilities and service lines, or to show them in their exact location. The CONTRACTOR shall be responsible for the protection of all existing utilities, service lines or the like, which are exposed by the construction operation.
- Bidders shall make any investigation of existing subsurface conditions as deemed necessary at no expense to the City of Rockwall. Neither the City of Rockwall nor the engineer will be responsible in any way for additional compensation for excavation work performed under this contract due to the CONTRACTOR's assumptions.
- CONTRACTOR shall adjust all City of Rockwall utilities to the final grades.
- CONTRACTOR shall be responsible for the protection of all existing service lines crossed or exposed by construction operations. Where existing service lines are cut, broken or damaged, the CONTRACTOR shall immediately replace the service line with same type of original construction or better.
- The CONTRACTOR shall excavate and field locate the horizontal and vertical location of existing utility crossing locations utilizing provided project control. The CONTRACTOR shall immediately notify the engineer of any discrepancies identified between the CONTRACTOR's field verified existing utility location and proposed location of utilities for the project.
- The CONTRACTOR shall abide by all applicable federal, state, and local laws governing excavation. The CONTRACTOR shall provide detailed plans and specifications for trench safety systems that comply with applicable laws governing excavation. These plans shall be sealed by an engineer experienced in the design of trench safety systems, registered in the state of Texas. The CONTRACTOR shall submit completed trench safety plan to the engineer and City prior to commencing work. The CONTRACTOR shall be solely responsible for all aspects of work related to excavations.
- Dewatering of utility trenches, bores pits, and any other excavations shall be no separate pay and shall be subsidiary to the other pay items on the project.

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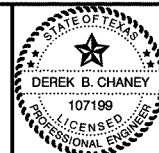


**GENERAL CONSTRUCTION NOTES**  
November 2020

**CITY OF ROCKWALL  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION**  
385 S. Goliad Rockwall, Texas 75087 P (972) 771-7746 F (972) 771-7748

These plans and related specifications were prepared for construction of this specific project only. Reuse of these documents is not permitted without written authorization of Birkhoff, Hendricks & Carter, L.L.P. If this drawing is converted to an electronic file, if any discrepancy occurs between the electronic file and the Birkhoff, Hendricks & Carter, L.L.P. original document, the original document will govern in all cases.

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*[Signature]*  
05/21/21

**CITY OF ROCKWALL, TEXAS**  
BUFFALO CREEK TRIBUTARY 1 SANITARY SEWER IMPROVEMENTS

CITY OF ROCKWALL GENERAL CONSTRUCTION NOTES

BHC  
PROJECT NO.  
2020-104

July 2021

SHEET NO.

**2**

**WATER LINE NOTES**

1. The CONTRACTOR shall maintain existing water service at all times during construction.
2. Proposed water lines shall be AWWA C900-16 PVC Pipe (blue in color) for all sizes, DR 14 (PC 305) for pipeline sizes 12-inch and smaller, and DR 18 (PC 235) for 14-inch and larger water pipelines unless otherwise shown on water plan and profiles sheets. Proposed water lines shall be constructed with minimum cover of 4 feet for 6-inch through 8-inch, 5 feet for 12-inch through 18-inch and 6 feet for 20-inch and larger.
3. Proposed water line embedment shall be NCTCOG Class 'B-3' as amended by the City of Rockwall's public works standards of design and construction manual.
4. CONTRACTOR shall coordinate the shutting down of all water lines with the City of Rockwall, Public Works, Water Division. The City shall operate all water valves.
5. CONTRACTOR shall furnish and install gasket on water lines between all dissimilar metals and at valves (both existing and proposed).
6. All fire hydrants and valves removed and salvaged shall be returned to the City of Rockwall municipal service center.
7. Blue EMS pads shall be installed at every change in direction, valve, curb stop and service tap on the proposed water line and every 250'.
8. CONTRACTOR to install new meter boxes, all fittings and new meters per each service complete including connection to the main line. CONTRACTOR shall be responsible to coordinate with Utility Billing 972-771-7736 on which meters need to be replaced and which meters are to remain for the project. New meters will be supplied by the Utility Billing Department. CONTRACTOR shall give the Utility Billing Department ample Notice to make sure meters are on hand to be installed for the project.
9. Existing meter and meter boxes, and valve stem and covers not specifically called to be relocated shall be adjusted to match final grades (no pay item). Any meter in pavement shall have a traffic rated lid.
10. All water valve extensions, bolts, nuts and washers shall be 316 Stainless Steel.
11. All fire hydrants bolts, nuts and washers that are buried shall be 316 Stainless Steel.
12. Abandoned water lines to remain in place shall be cut and plugged and all void spaces within the abandoned line shall be filled with grout, flowable fill or an expandable permanent foam product. Valves to be abandoned in place shall have any extensions and the valve box removed and shall be capped in concrete

**WASTEWATER LINE NOTES**

1. The CONTRACTOR shall maintain existing wastewater service at all times during construction.
2. Wastewater line for 4-inch through 15-inch shall be Green PVC – SDR 35 (ASTM D3034) [less 10 ft cover] and SDR 26 (ASTM D3034) [10 ft or more cover]. For 18-inch and larger wastewater line shall be Green PVC – PS 46 (ASTM F679) [less 10 ft cover] and PS 115 (ASTM F679) [10 ft or more cover].
3. Proposed wastewater line embedment shall be NCTCOG Class 'H' as amended by the City of Rockwall's standard design and construction manual.
4. Green EMS pads shall be installed at every 250', manhole, clean out and service lateral on proposed wastewater lines.
5. All existing wastewater services shall be transferred from wastewater lines being abandoned to proposed wastewater lines. Transferring wastewater services shall include double clean outs at the property lines, caps, tees, wyes, plugs and connection. Payment for transferring wastewater services shall be paid per each, under the appropriate bid schedule item.
6. CONTRACTOR shall CCTV all existing wastewater lines that are to be abandoned to ensure that all laterals are accounted for and transferred to proposed wastewater lines. (no separate pay)
7. All abandoned wastewater and force main lines shall be cut and plugged and all void spaces within the abandoned line shall be filled with grout, flowable fill or an expandable permanent foam product.
8. Existing manholes and cleanouts not specifically called to be relocated shall be adjusted to match final grades (no pay item).
9. All wastewater pipes and public services shall be inspected by photographic means (television and DVD) prior to final acceptance. The contractor shall furnish a DVD to the Engineering Division Construction Inspector for review. Any sags, open joints, cracked pipes, etc. shall be repaired or removed by the contractor at the contractor's expense. An additional television survey will be performed as part of the final testing in the twentieth (20<sup>th</sup>) month of the maintenance period.
10. All manholes (public or private) shall be fitted with inflow prevention. The inflow prevention shall conform to the measures called out in standard detail R-5031.
11. All new or existing manholes that are to be placed in pavement shall be fitted with a sealed (gasketed) rim and cover to prevent inflow.
12. All new or existing manholes being modified shall have corrosion protection being Raven Liner 405 epoxy coating, ConShield, or approved equal. Conshield must have terracotta color dye mixed in the precast and cast-in-place concrete. Where connections to existing manholes are made the contractor shall rehab manhole as necessary and install a 125 mil thick coating of Raven Liner 405 or approved equal.

**DEMOLITION, REMOVAL, DISPOSAL AND EXCAVATION NOTES**

1. CONTRACTOR shall remove and properly dispose of all existing concrete and HMAC pavement outside of the City limits as required for construction of the project. All cost shall be included in the appropriate item in the bid schedule.
2. Payments for removal and replacement of street, driveway and sidewalk pavement shall be based on plan quantity and no adjustments will be made unless approved in writing by the City engineer.
3. All pavements to be removed and replaced shall be saw cut to full depth along neat lines shown in the plans. Proposed concrete pavement shall be constructed with longitudinal butt construction joints at all connections to existing concrete pavement. Concrete Pavement to be removed and replaced shall be full panel replacement.
4. The CONTRACTOR shall remove from the project area all surplus material. This work shall be incidental and not a separate pay item. Surplus materials from excavation include dirt, trash, rock measuring greater than 6" in the largest dimension, etc. Shall be properly disposed of at a site acceptable to the City of Rockwall if within the City limits. No excess excavated material shall be deposited in low areas or along natural drainage ways without written permission from the affected property owner and the City of Rockwall. If the CONTRACTOR places excess materials in these areas without written permission, he will be responsible for all damages resulting from such fill and he shall remove the material at his own cost.
5. All excavation on the project is unclassified. If soil borings were conducted they are provided in the bid/contract documents.

**PAVING**


1. All paving roadway sections thickness, strength, reinforcement, joint type, joint spacing and subgrade treatment shall match the typical sections and details called out in the plans. If not called out on the plans all concrete paving shall conform to the minimum requirements in the Standards of Design and Construction.
2. Reinforcing steel shall be tied (100%). Reinforcing steel shall be set on plastic chairs. Bar laps shall be minimum 30 diameters. Sawed transverse dummy joints shall be spaced every 15 feet or 1.25 time longitudinal butt joint spacing whichever is less. Sawing shall occur within 5 to 12 hours after the pour, including sealing. Otherwise, the section shall be removed and longitudinal butt joint constructed.
3. All proposed HMAC street pavement shall consist of 4 inches of Type B (Base) with 2 inches of Type D (Surface) on top of 6" flex base (if not specified in the plans)
4. No sand shall be allowed under any paving.
5. Concrete mix design shall be submitted to the City for review and approval prior to placement.
6. Fly ash may be used in concrete pavement locations provided that the maximum cement reduction does not exceed 20% by weight per C.Y. of concrete. The fly ash replacement shall be 1.25 lbs per 1.0 lb cement reduction.
7. All curb and gutter shall be integral (monolithic) with the pavement. Curb height tapers shall be form by hand, saw-cutting of curb height tapers will be no be allow. Any saw-cutting of curbs will require full pavement removal and replacement at the CONTRACTOR's expense.
8. All fill shall be compacted by sheep's foot roller to a minimum 95% standard proctor. Maximum loose lift for compaction shall be 8 inches. All lifts shall be tested for density by an independent laboratory approved by the City.
9. All proposed sidewalks shall include barrier free ramps at intersecting streets, alleys, etc. Barrier free ramps shall meet current City and ADA requirements and be approved by the Texas Department of Licensing and Regulation (TDLR).
10. Sidewalks shall be doveled into pavement where it abuts curbs and driveways. Expansion joint material shall be used at these locations (no pay item).
11. All connection of proposed concrete pavement to existing concrete pavement shall include a longitudinal butt joint as the load transfer device. Concrete saw cuts for all driveways and sidewalks shall be subsidiary to the appropriate bid item for driveway and sidewalk replacement. All longitudinal butt joints shall be clean, straight and smooth (not jagged in appearance)
12. There shall be no separate payment for subgrade preparation under driveway and sidewalk areas and all cost shall be included in the appropriate items of the bid schedule.
13. Cracks formed in concrete pavement shall be repaired or removed by the CONTRACTOR at the City's discretion.

**DRAINAGE / STORM SEWER NOTES**

1. The CONTRACTOR shall maintain drainage at all times during construction. Ponding of water in streets, drives, trenches, etc. will not be allowed. Existing drainage ways shall not be blocked or removed unless explicitly stated in the plans or written approval is given by the City.
2. All structural concrete shall be 4200 psi compressive strength at 28 days minimum 7.0 sack, air entrained, no fly ash allowed, unless noted otherwise.
3. Proposed storm sewer embedment shall be NCTCOG Class 'B' as amended by the City of Rockwall's Public Works, Engineering Division Standards of Design and Construction Manual.
4. All storm pipe shall be reinforced concrete pipe (RCP), Class III, unless otherwise noted.
5. All drainage structures shall be double formed. No earth forms will be allowed.

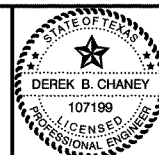
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BY DBC DATE 11/28/22

	<b>GENERAL CONSTRUCTION NOTES</b> November 2020
	CITY OF ROCKWALL PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION 385 S. Goliad Rockwall, Texas 75087


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*[Handwritten Signature]*  
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 CITY OF ROCKWALL GENERAL CONSTRUCTION NOTES

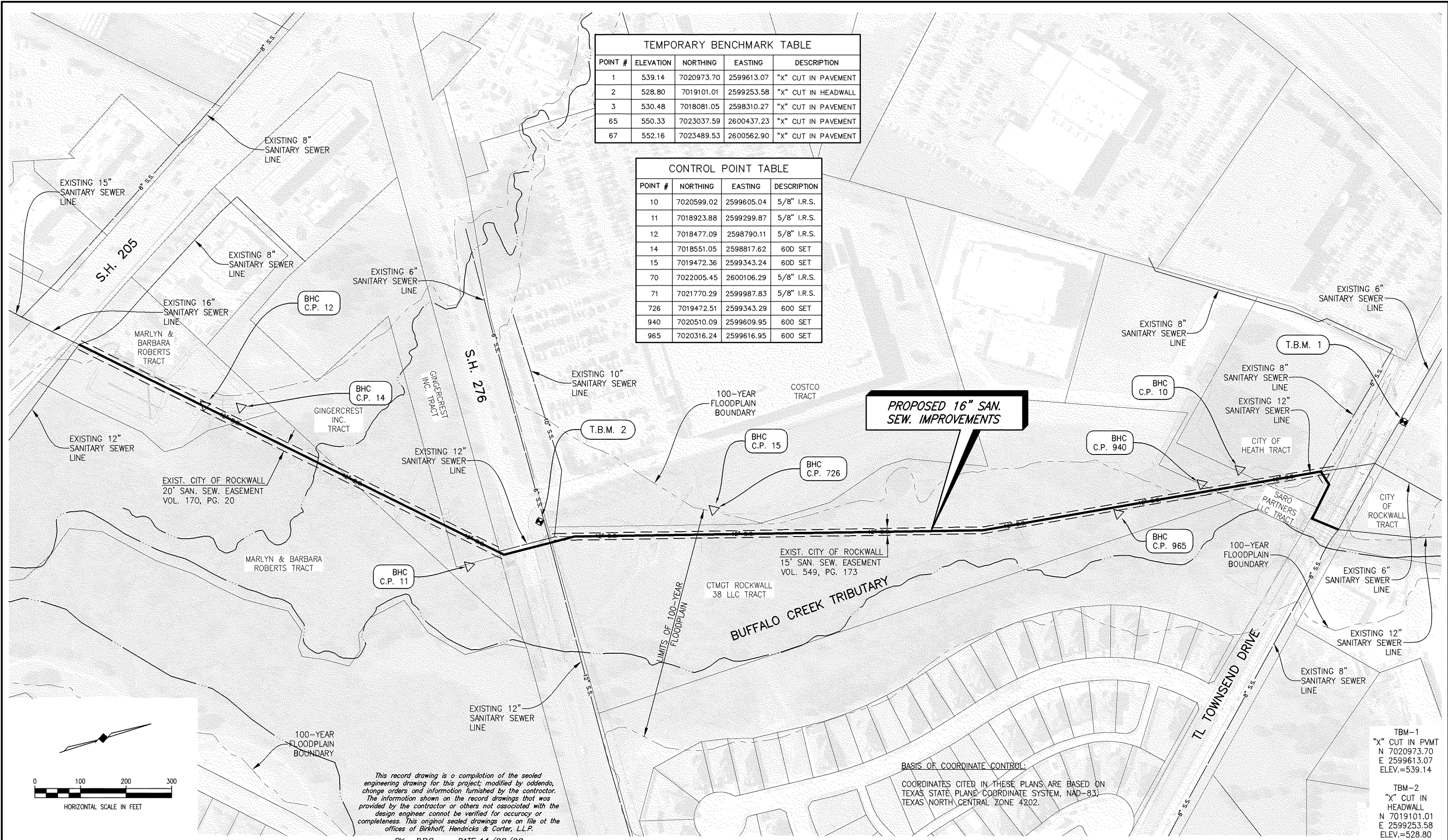
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SHEET NO.  
**3**

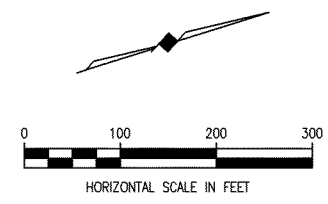


TEMPORARY BENCHMARK TABLE				
POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION
1	539.14	7020973.70	2599613.07	"X" CUT IN PAVEMENT
2	528.80	7019101.01	2599253.58	"X" CUT IN HEADWALL
3	530.48	7018081.05	2598310.27	"X" CUT IN PAVEMENT
65	550.33	7023037.59	2600437.23	"X" CUT IN PAVEMENT
67	552.16	7023489.53	2600562.90	"X" CUT IN PAVEMENT

CONTROL POINT TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
10	7020599.02	2599605.04	5/8" I.R.S.
11	7018923.88	2599299.87	5/8" I.R.S.
12	7018477.09	2598790.11	5/8" I.R.S.
14	7018551.05	2598817.62	60D SET
15	7019472.36	2599343.24	60D SET
70	7022005.45	2600106.29	5/8" I.R.S.
71	7021770.29	2599987.83	5/8" I.R.S.
726	7019472.51	2599343.29	600 SET
940	7020510.09	2599609.95	600 SET
965	7020316.24	2599616.95	600 SET



**PROPOSED 16" SAN. SEW. IMPROVEMENTS**



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**BASIS OF COORDINATE CONTROL:**  
 COORDINATES CITED IN THESE PLANS ARE BASED ON TEXAS STATE PLANE COORDINATE SYSTEM, NAD-83, TEXAS NORTH CENTRAL ZONE 4202.

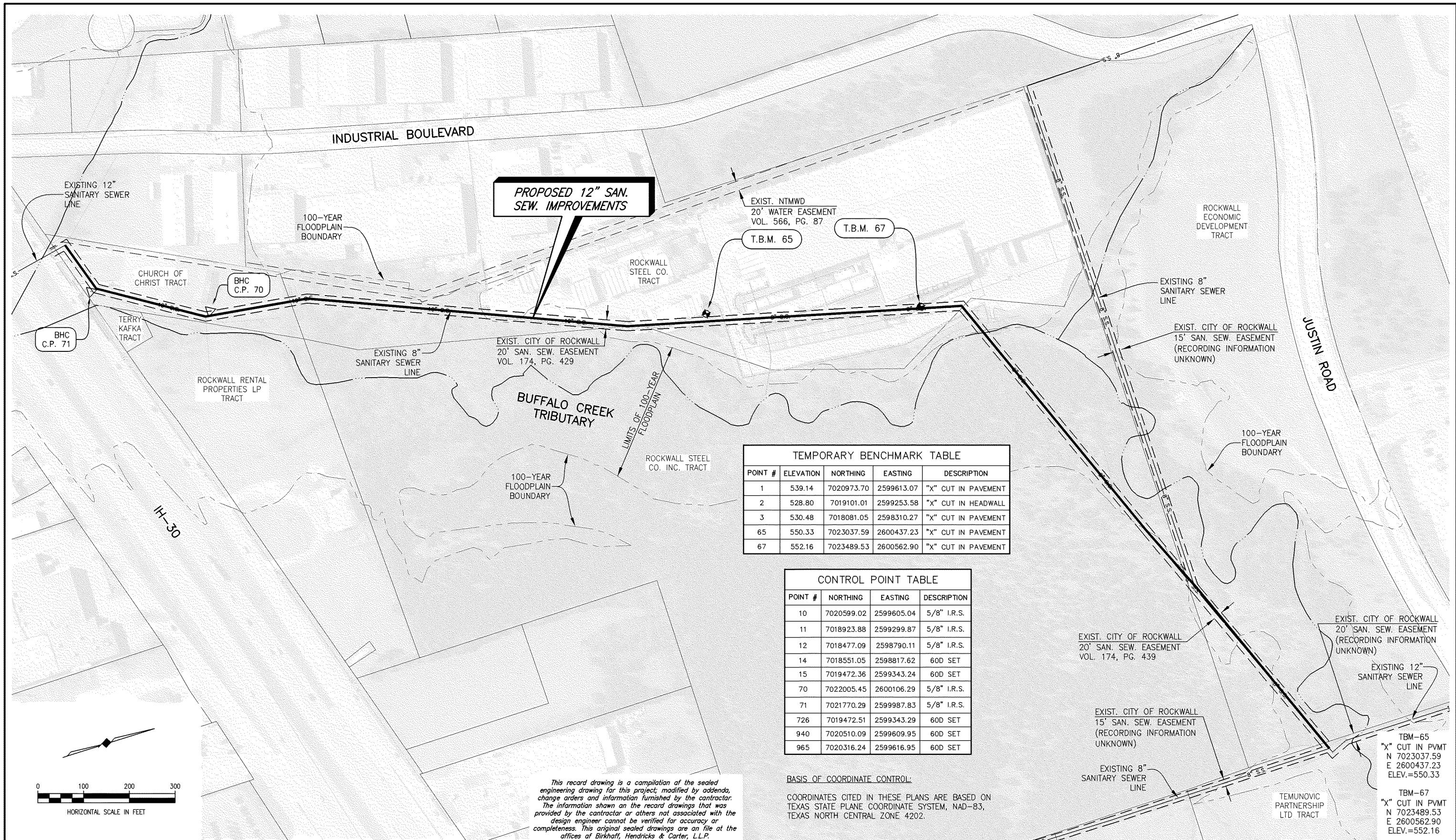
TBM-1  
 "X" CUT IN PVMT  
 N 7020973.70  
 E 2599613.07  
 ELEV.=539.14

TBM-2  
 "X" CUT IN HEADWALL  
 N 7019101.01  
 E 2599253.58  
 ELEV.=528.80

BY DBC DATE 11/28/22

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				<b>SECTION 1: PROP. 16-INCH SAN. SEW. COORDINATE CONTROL</b>	July 2021	





**TEMPORARY BENCHMARK TABLE**

POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION
1	539.14	7020973.70	2599613.07	"X" CUT IN PAVEMENT
2	528.80	7019101.01	2599253.58	"X" CUT IN HEADWALL
3	530.48	7018081.05	2598310.27	"X" CUT IN PAVEMENT
65	550.33	7023037.59	2600437.23	"X" CUT IN PAVEMENT
67	552.16	7023489.53	2600562.90	"X" CUT IN PAVEMENT

**CONTROL POINT TABLE**

POINT #	NORTHING	EASTING	DESCRIPTION
10	7020599.02	2599605.04	5/8" I.R.S.
11	7018923.88	2599299.87	5/8" I.R.S.
12	7018477.09	2598790.11	5/8" I.R.S.
14	7018551.05	2598817.62	60D SET
15	7019472.36	2599343.24	60D SET
70	7022005.45	2600106.29	5/8" I.R.S.
71	7021770.29	2599987.83	5/8" I.R.S.
726	7019472.51	2599343.29	60D SET
940	7020510.09	2599609.95	60D SET
965	7020316.24	2599616.95	60D SET

**BASIS OF COORDINATE CONTROL:**  
 COORDINATES CITED IN THESE PLANS ARE BASED ON TEXAS STATE PLANE COORDINATE SYSTEM, NAD-83, TEXAS NORTH-CENTRAL ZONE 4202.

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BY DBC DATE 11/28/22

TBM-65  
 "X" CUT IN PVMT  
 N 7023037.59  
 E 2600437.23  
 ELEV.=550.33

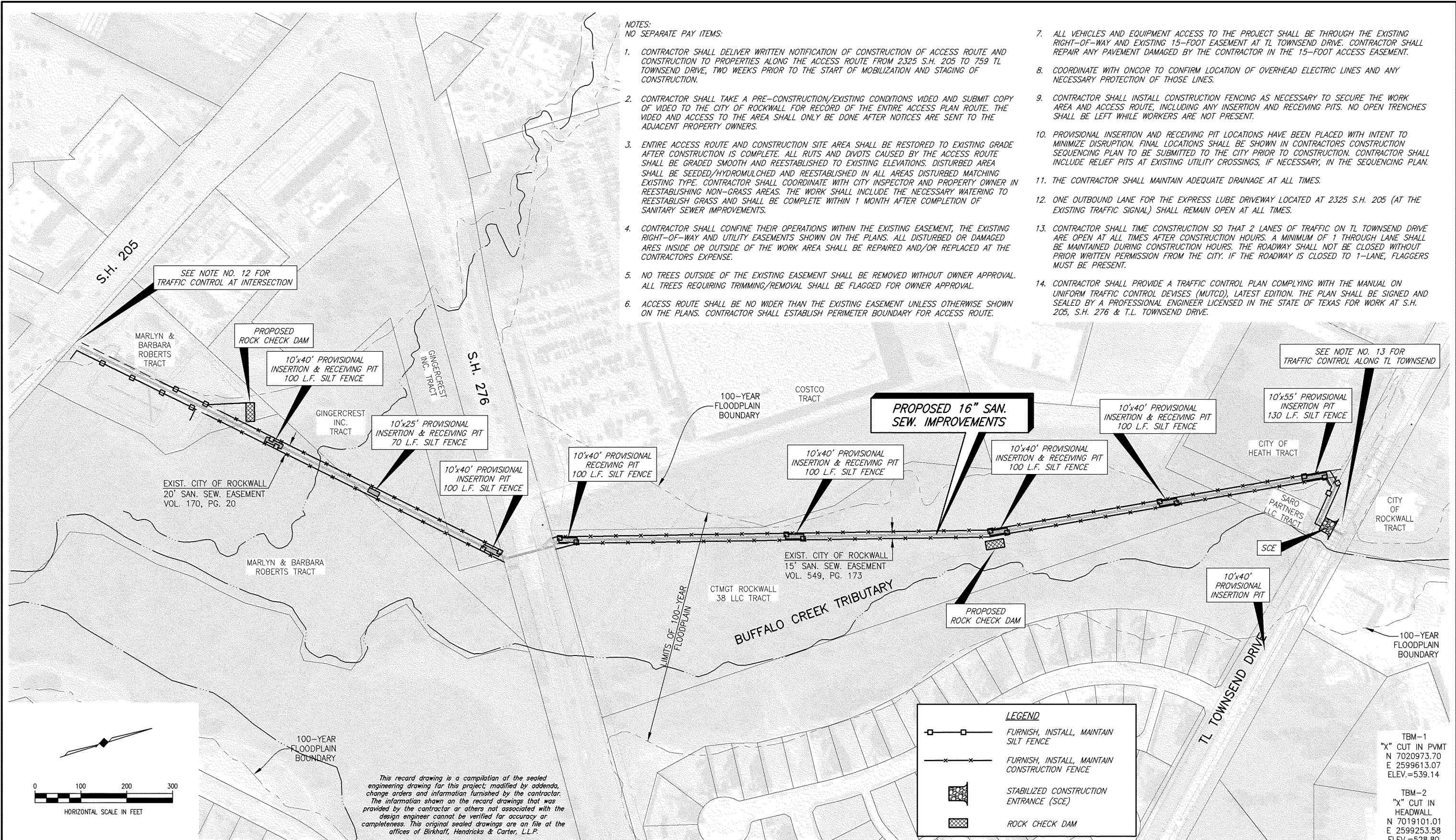
TBM-67  
 "X" CUT IN PVMT  
 N 7023489.53  
 E 2600562.90  
 ELEV.=552.16

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NOTES:  
NO SEPARATE PAY ITEMS:

- CONTRACTOR SHALL DELIVER WRITTEN NOTIFICATION OF CONSTRUCTION OF ACCESS ROUTE AND CONSTRUCTION TO PROPERTIES ALONG THE ACCESS ROUTE FROM 2325 S.H. 205 TO 759 TL TOWNSEND DRIVE, TWO WEEKS PRIOR TO THE START OF MOBILIZATION AND STAGING OF CONSTRUCTION.
- CONTRACTOR SHALL TAKE A PRE-CONSTRUCTION/EXISTING CONDITIONS VIDEO AND SUBMIT COPY OF VIDEO TO THE CITY OF ROCKWALL FOR RECORD OF THE ENTIRE ACCESS PLAN ROUTE. THE VIDEO AND ACCESS TO THE AREA SHALL ONLY BE DONE AFTER NOTICES ARE SENT TO THE ADJACENT PROPERTY OWNERS.
- ENTIRE ACCESS ROUTE AND CONSTRUCTION SITE AREA SHALL BE RESTORED TO EXISTING GRADE AFTER CONSTRUCTION IS COMPLETE. ALL RUTS AND DIVOTS CAUSED BY THE ACCESS ROUTE SHALL BE GRADED SMOOTH AND REESTABLISHED TO EXISTING ELEVATIONS. DISTURBED AREA SHALL BE SEEDED/HYDROMULCHED AND REESTABLISHED IN ALL AREAS DISTURBED MATCHING EXISTING TYPE. CONTRACTOR SHALL COORDINATE WITH CITY INSPECTOR AND PROPERTY OWNER IN REESTABLISHING NON-GRASS AREAS. THE WORK SHALL INCLUDE THE NECESSARY WATERING TO REESTABLISH GRASS AND SHALL BE COMPLETE WITHIN 1 MONTH AFTER COMPLETION OF SANITARY SEWER IMPROVEMENTS.
- CONTRACTOR SHALL CONFINE THEIR OPERATIONS WITHIN THE EXISTING EASEMENT, THE EXISTING RIGHT-OF-WAY AND UTILITY EASEMENTS SHOWN ON THE PLANS. ALL DISTURBED OR DAMAGED AREAS INSIDE OR OUTSIDE OF THE WORK AREA SHALL BE REPAIRED AND/OR REPLACED AT THE CONTRACTORS EXPENSE.
- NO TREES OUTSIDE OF THE EXISTING EASEMENT SHALL BE REMOVED WITHOUT OWNER APPROVAL. ALL TREES REQUIRING TRIMMING/REMOVAL SHALL BE FLAGGED FOR OWNER APPROVAL.
- ACCESS ROUTE SHALL BE NO WIDER THAN THE EXISTING EASEMENT UNLESS OTHERWISE SHOWN ON THE PLANS. CONTRACTOR SHALL ESTABLISH PERIMETER BOUNDARY FOR ACCESS ROUTE.
- ALL VEHICLES AND EQUIPMENT ACCESS TO THE PROJECT SHALL BE THROUGH THE EXISTING RIGHT-OF-WAY AND EXISTING 15-FOOT EASEMENT AT TL TOWNSEND DRIVE. CONTRACTOR SHALL REPAIR ANY PAVEMENT DAMAGED BY THE CONTRACTOR IN THE 15-FOOT ACCESS EASEMENT.
- COORDINATE WITH ONCOR TO CONFIRM LOCATION OF OVERHEAD ELECTRIC LINES AND ANY NECESSARY PROTECTION OF THOSE LINES.
- CONTRACTOR SHALL INSTALL CONSTRUCTION FENCING AS NECESSARY TO SECURE THE WORK AREA AND ACCESS ROUTE, INCLUDING ANY INSERTION AND RECEIVING PITS. NO OPEN TRENCHES SHALL BE LEFT WHILE WORKERS ARE NOT PRESENT.
- PROVISIONAL INSERTION AND RECEIVING PIT LOCATIONS HAVE BEEN PLACED WITH INTENT TO MINIMIZE DISRUPTION. FINAL LOCATIONS SHALL BE SHOWN IN CONTRACTORS CONSTRUCTION SEQUENCING PLAN TO BE SUBMITTED TO THE CITY PRIOR TO CONSTRUCTION. CONTRACTOR SHALL INCLUDE RELIEF PITS AT EXISTING UTILITY CROSSINGS, IF NECESSARY, IN THE SEQUENCING PLAN.
- THE CONTRACTOR SHALL MAINTAIN ADEQUATE DRAINAGE AT ALL TIMES.
- ONE OUTBOUND LANE FOR THE EXPRESS LUBE DRIVEWAY LOCATED AT 2325 S.H. 205 (AT THE EXISTING TRAFFIC SIGNAL) SHALL REMAIN OPEN AT ALL TIMES.
- CONTRACTOR SHALL TIME CONSTRUCTION SO THAT 2 LANES OF TRAFFIC ON TL TOWNSEND DRIVE ARE OPEN AT ALL TIMES AFTER CONSTRUCTION HOURS. A MINIMUM OF 1 THROUGH LANE SHALL BE MAINTAINED DURING CONSTRUCTION HOURS. THE ROADWAY SHALL NOT BE CLOSED WITHOUT PRIOR WRITTEN PERMISSION FROM THE CITY. IF THE ROADWAY IS CLOSED TO 1-LANE, FLAGGERS MUST BE PRESENT.
- CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN COMPLYING WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION. THE PLAN SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF TEXAS FOR WORK AT S.H. 205, S.H. 276 & T.L. TOWNSEND DRIVE.



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BY DBC DATE 11/28/22

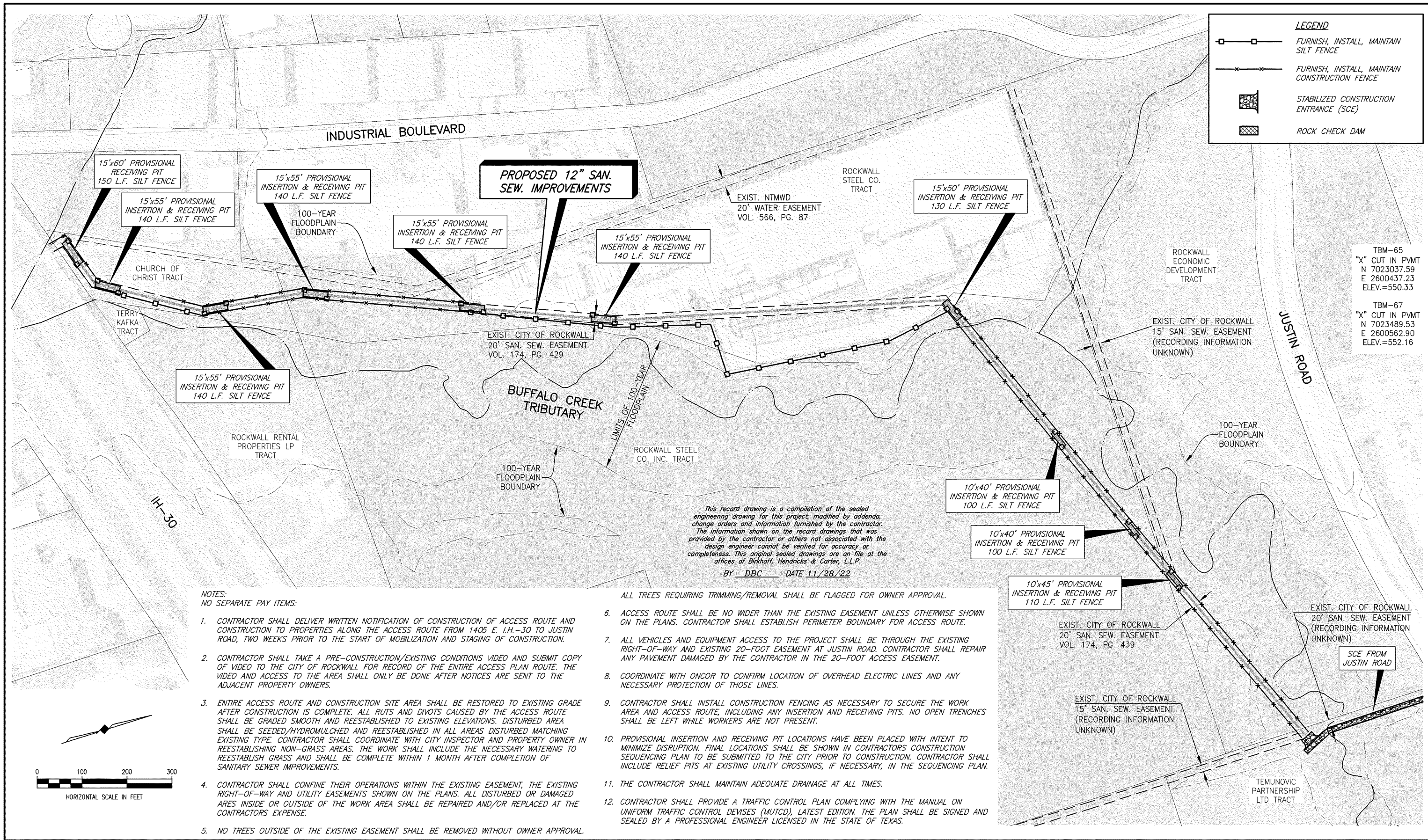
LEGEND	
	FURNISH, INSTALL, MAINTAIN SILT FENCE
	FURNISH, INSTALL, MAINTAIN CONSTRUCTION FENCE
	STABILIZED CONSTRUCTION ENTRANCE (SCE)
	ROCK CHECK DAM

TBM-1  
"X" CUT IN PVMT  
N 7020973.70  
E 2599613.07  
ELEV.=539.14

TBM-2  
"X" CUT IN HEADWALL  
N 7019101.01  
E 2599253.58  
ELEV.=528.80

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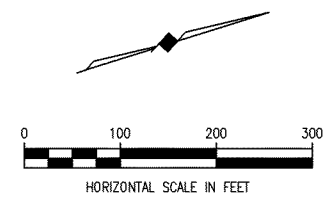




NOTES:  
NO SEPARATE PAY ITEMS:

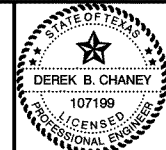
- CONTRACTOR SHALL DELIVER WRITTEN NOTIFICATION OF CONSTRUCTION OF ACCESS ROUTE AND CONSTRUCTION TO PROPERTIES ALONG THE ACCESS ROUTE FROM 1405 E. I.H.-30 TO JUSTIN ROAD, TWO WEEKS PRIOR TO THE START OF MOBILIZATION AND STAGING OF CONSTRUCTION.
- CONTRACTOR SHALL TAKE A PRE-CONSTRUCTION/EXISTING CONDITIONS VIDEO AND SUBMIT COPY OF VIDEO TO THE CITY OF ROCKWALL FOR RECORD OF THE ENTIRE ACCESS PLAN ROUTE. THE VIDEO AND ACCESS TO THE AREA SHALL ONLY BE DONE AFTER NOTICES ARE SENT TO THE ADJACENT PROPERTY OWNERS.
- ENTIRE ACCESS ROUTE AND CONSTRUCTION SITE AREA SHALL BE RESTORED TO EXISTING GRADE AFTER CONSTRUCTION IS COMPLETE. ALL RUTS AND DIVOTS CAUSED BY THE ACCESS ROUTE SHALL BE GRADED SMOOTH AND REESTABLISHED TO EXISTING ELEVATIONS. DISTURBED AREA SHALL BE SEEDED/HYDROMULCHED AND REESTABLISHED IN ALL AREAS DISTURBED MATCHING EXISTING TYPE. CONTRACTOR SHALL COORDINATE WITH CITY INSPECTOR AND PROPERTY OWNER IN REESTABLISHING NON-GRASS AREAS. THE WORK SHALL INCLUDE THE NECESSARY WATERING TO REESTABLISH GRASS AND SHALL BE COMPLETE WITHIN 1 MONTH AFTER COMPLETION OF SANITARY SEWER IMPROVEMENTS.
- CONTRACTOR SHALL CONFINE THEIR OPERATIONS WITHIN THE EXISTING EASEMENT, THE EXISTING RIGHT-OF-WAY AND UTILITY EASEMENTS SHOWN ON THE PLANS. ALL DISTURBED OR DAMAGED AREAS INSIDE OR OUTSIDE OF THE WORK AREA SHALL BE REPAIRED AND/OR REPLACED AT THE CONTRACTORS EXPENSE.
- NO TREES OUTSIDE OF THE EXISTING EASEMENT SHALL BE REMOVED WITHOUT OWNER APPROVAL.

- ALL TREES REQUIRING TRIMMING/REMOVAL SHALL BE FLAGGED FOR OWNER APPROVAL.
- ACCESS ROUTE SHALL BE NO WIDER THAN THE EXISTING EASEMENT UNLESS OTHERWISE SHOWN ON THE PLANS. CONTRACTOR SHALL ESTABLISH PERIMETER BOUNDARY FOR ACCESS ROUTE.
  - ALL VEHICLES AND EQUIPMENT ACCESS TO THE PROJECT SHALL BE THROUGH THE EXISTING RIGHT-OF-WAY AND EXISTING 20-FOOT EASEMENT AT JUSTIN ROAD. CONTRACTOR SHALL REPAIR ANY PAVEMENT DAMAGED BY THE CONTRACTOR IN THE 20-FOOT ACCESS EASEMENT.
  - COORDINATE WITH ONCOR TO CONFIRM LOCATION OF OVERHEAD ELECTRIC LINES AND ANY NECESSARY PROTECTION OF THOSE LINES.
  - CONTRACTOR SHALL INSTALL CONSTRUCTION FENCING AS NECESSARY TO SECURE THE WORK AREA AND ACCESS ROUTE, INCLUDING ANY INSERTION AND RECEIVING PITS. NO OPEN TRENCHES SHALL BE LEFT WHILE WORKERS ARE NOT PRESENT.
  - PROVISIONAL INSERTION AND RECEIVING PIT LOCATIONS HAVE BEEN PLACED WITH INTENT TO MINIMIZE DISRUPTION. FINAL LOCATIONS SHALL BE SHOWN IN CONTRACTORS CONSTRUCTION SEQUENCING PLAN TO BE SUBMITTED TO THE CITY PRIOR TO CONSTRUCTION. CONTRACTOR SHALL INCLUDE RELIEF PITS AT EXISTING UTILITY CROSSINGS, IF NECESSARY, IN THE SEQUENCING PLAN.
  - THE CONTRACTOR SHALL MAINTAIN ADEQUATE DRAINAGE AT ALL TIMES.
  - CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN COMPLYING WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION. THE PLAN SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF TEXAS.



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**BIRKHOFF, HENDRICKS & CARTER, L.L.P.**  
PROFESSIONAL ENGINEERS  
TBPE Firm No. 526; TBPLS Firm No. 10031800  
11910 Greenville Ave., Suite 600  
Dallas, Texas 75243 (214) 361-7900




*[Signature]*  
05/21/22

**CITY OF ROCKWALL, TEXAS**  
BUFFALO CREEK TRIBUTARY 1 SANITARY SEWER IMPROVEMENTS  
SECTION 2: PROP. 12-INCH SAN. SEW. EROSION CONTROL/SITE ACCESS PLAN

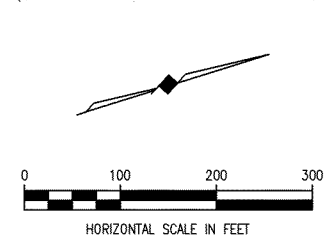
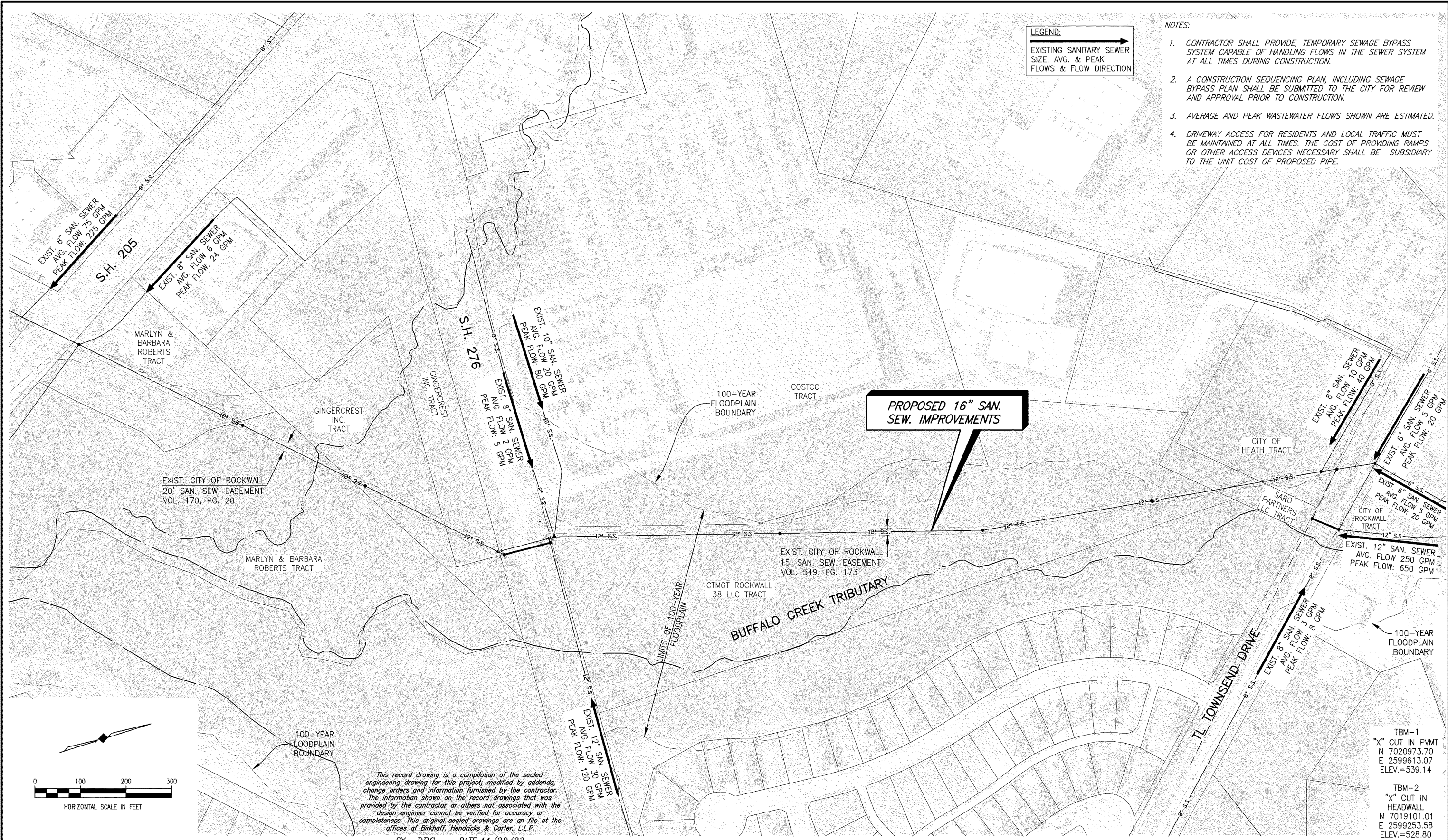
BHC PROJECT NO. 2020-104  
July 2021

SHEET NO. **7**



**LEGEND:**  
 EXISTING SANITARY SEWER  
 SIZE, AVG. & PEAK FLOWS & FLOW DIRECTION

- NOTES:**
1. CONTRACTOR SHALL PROVIDE, TEMPORARY SEWAGE BYPASS SYSTEM CAPABLE OF HANDLING FLOWS IN THE SEWER SYSTEM AT ALL TIMES DURING CONSTRUCTION.
  2. A CONSTRUCTION SEQUENCING PLAN, INCLUDING SEWAGE BYPASS PLAN SHALL BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
  3. AVERAGE AND PEAK WASTEWATER FLOWS SHOWN ARE ESTIMATED.
  4. DRIVEWAY ACCESS FOR RESIDENTS AND LOCAL TRAFFIC MUST BE MAINTAINED AT ALL TIMES. THE COST OF PROVIDING RAMPS OR OTHER ACCESS DEVICES NECESSARY SHALL BE SUBSIDIARY TO THE UNIT COST OF PROPOSED PIPE.



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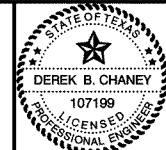
BY DBC DATE 11/28/22

TBM-1  
 "X" CUT IN PVMT  
 N 7020973.70  
 E 2599613.07  
 ELEV.=539.14

TBM-2  
 "X" CUT IN HEADWALL  
 N 7019101.01  
 E 2599253.58  
 ELEV.=528.80

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 PROFESSIONAL ENGINEERS  
 TBPE Firm No. 526; TBPLS Firm No. 10031800  
 11910 Greenville Ave., Suite 600  
 Dallas, Texas 75243 (214) 361-7900



*DTG*  
 05/21/21

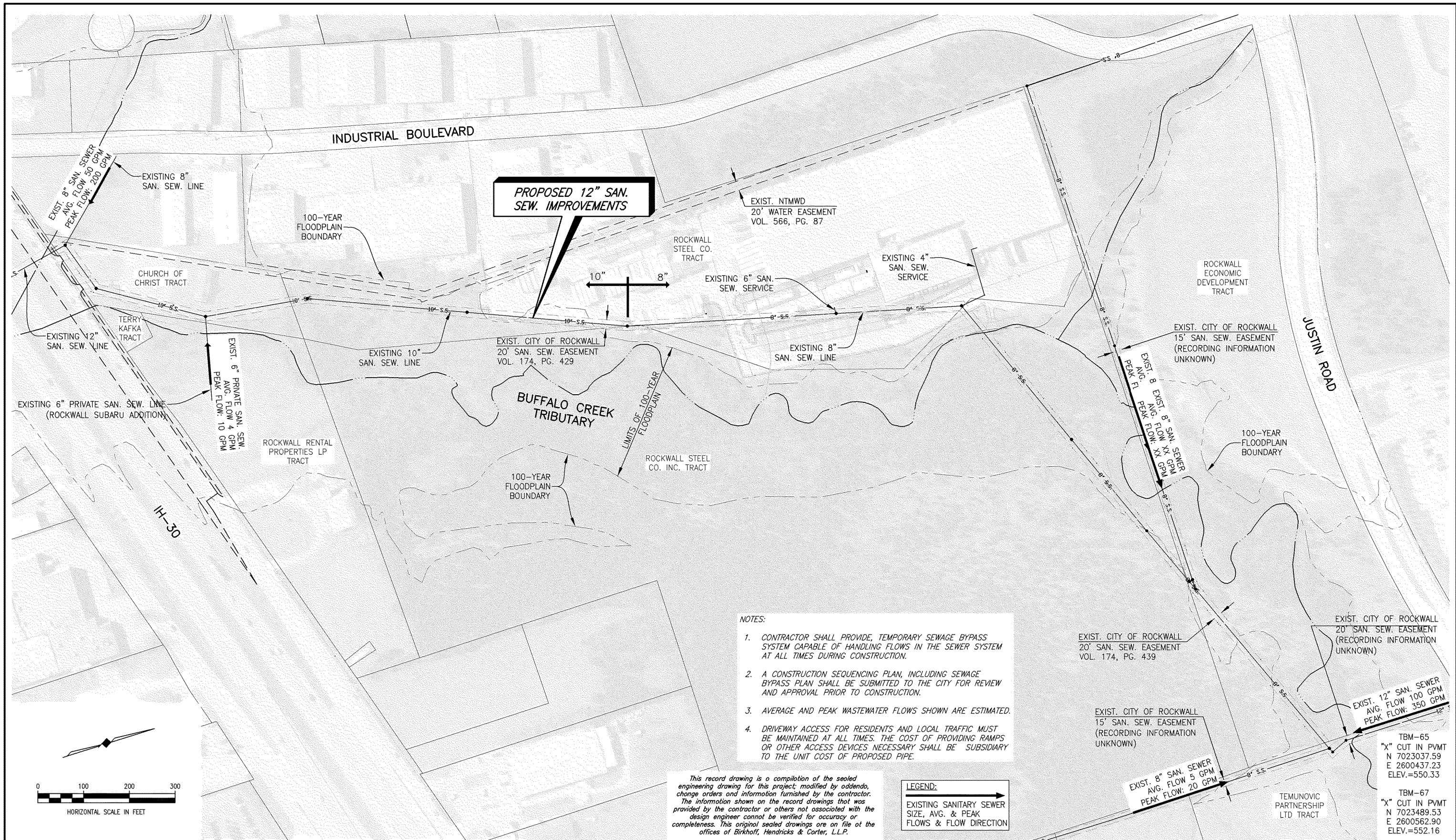
**CITY OF ROCKWALL, TEXAS**  
 BUFFALO CREEK TRIBUTARY 1 SANITARY SEWER IMPROVEMENTS

**SECTION 1: PROP. 16-INCH SAN. SEWER BYPASS PUMPING PLAN**

BHC PROJECT NO. 2020-104  
 November 2022

SHEET NO. **8**

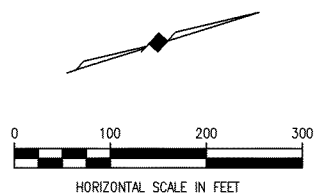




- NOTES:**
1. CONTRACTOR SHALL PROVIDE, TEMPORARY SEWAGE BYPASS SYSTEM CAPABLE OF HANDLING FLOWS IN THE SEWER SYSTEM AT ALL TIMES DURING CONSTRUCTION.
  2. A CONSTRUCTION SEQUENCING PLAN, INCLUDING SEWAGE BYPASS PLAN SHALL BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
  3. AVERAGE AND PEAK WASTEWATER FLOWS SHOWN ARE ESTIMATED.
  4. DRIVEWAY ACCESS FOR RESIDENTS AND LOCAL TRAFFIC MUST BE MAINTAINED AT ALL TIMES. THE COST OF PROVIDING RAMPS OR OTHER ACCESS DEVICES NECESSARY SHALL BE SUBSIDIARY TO THE UNIT COST OF PROPOSED PIPE.

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**LEGEND:**  
 → EXISTING SANITARY SEWER SIZE, AVG. & PEAK FLOWS & FLOW DIRECTION



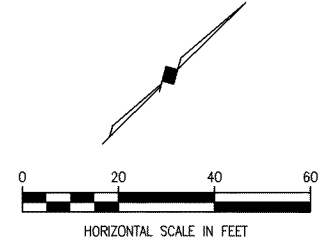
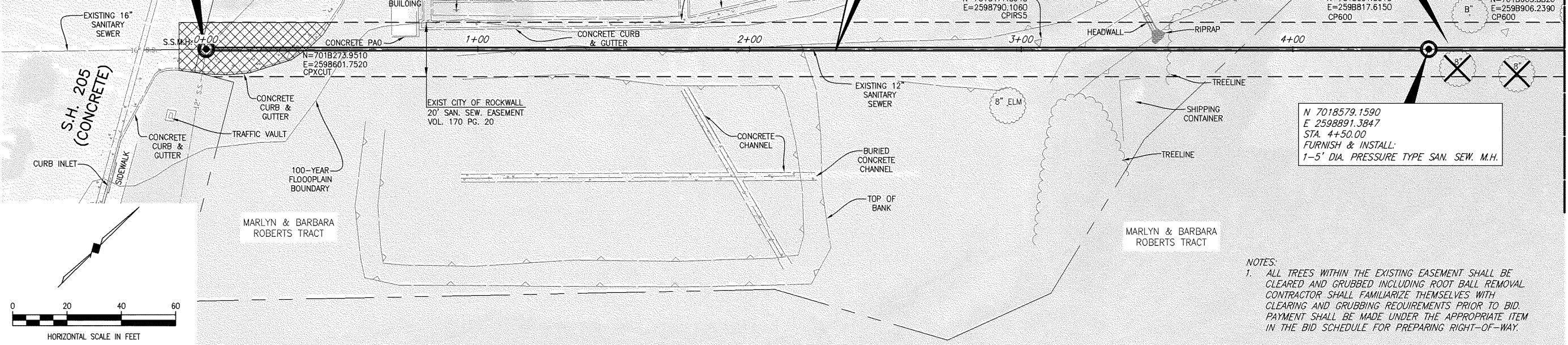
BY DBC DATE 11/28/22

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N 7018254.2800  
E 2598580.0110  
STA. 0+00.00  
BEGIN SECTION 1 IMPROVEMENTS  
REHABILITATE EXIST. 4' DIA. M.H.,  
INCLUDING EXPOXY COATING & NEW 30" RING & COVER  
REMOVE & REPLACE 95 S.Y. CONC. PAVEMENT  
CONNECT TO EXIST. 12" SAN. SEW. (NW)  
CONNECT TO EXIST. 8" SAN. SEW. (NE)  
CONNECT TO EXIST. 16" SAN. SEW. (SW)

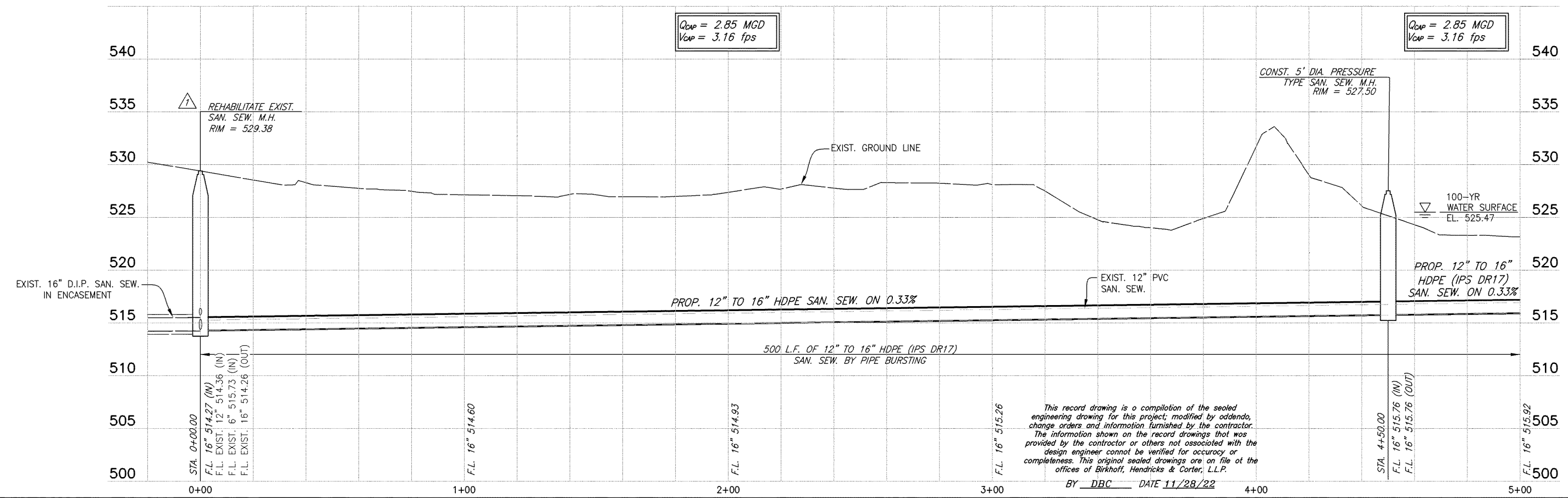
**PROPOSED 16" HDPE  
SAN. SEW. BY PIPE  
BURSTING EXIST. 12" PVC**

N 7018579.1590  
E 2598891.3847  
STA. 4+50.00  
FURNISH & INSTALL:  
1-5' DIA. PRESSURE TYPE SAN. SEW. M.H.



NOTES:  
1. ALL TREES WITHIN THE EXISTING EASEMENT SHALL BE CLEARED AND GRUBBED INCLUDING ROOT BALL REMOVAL. CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH CLEARING AND GRUBBING REQUIREMENTS PRIOR TO BID. PAYMENT SHALL BE MADE UNDER THE APPROPRIATE ITEM IN THE BID SCHEDULE FOR PREPARING RIGHT-OF-WAY.

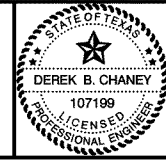
TBM-1  
"X" CUT IN PVMT  
N 7020973.70  
E 2599613.07  
ELEV.=539.14  
  
TBM-2  
"X" CUT IN  
HEADWALL  
N 7019101.01  
E 2599253.58  
ELEV.=528.80



CHANGE ORDER NO. 1: CHANGE MANHOLE WORK AT STA 0+00 FROM REMOVE & REPLACE TO REHABILITATION.

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PROFESSIONAL ENGINEERS  
TBPE Firm No. 526; TBPLS Firm No. 10031800  
11910 Greenville Ave., Suite 600  
Dallas, Texas 75243 (214) 361-7900



*Derek B. Chaney*  
05/21/21

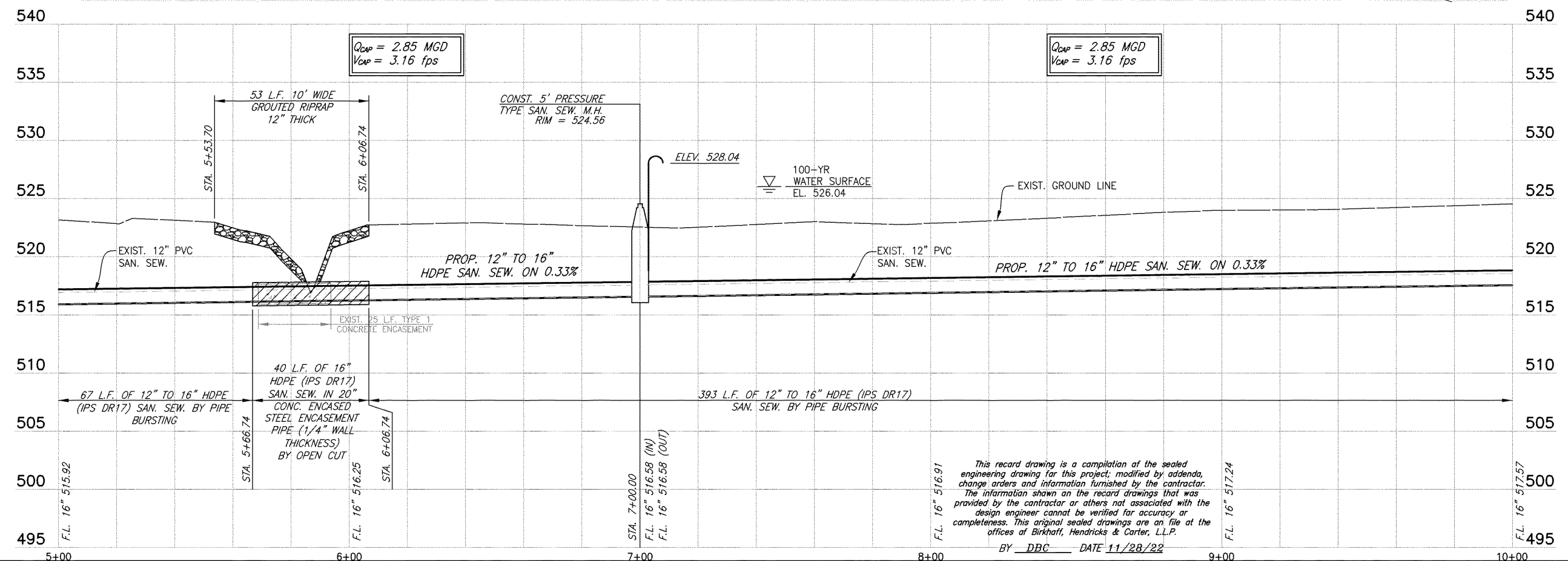
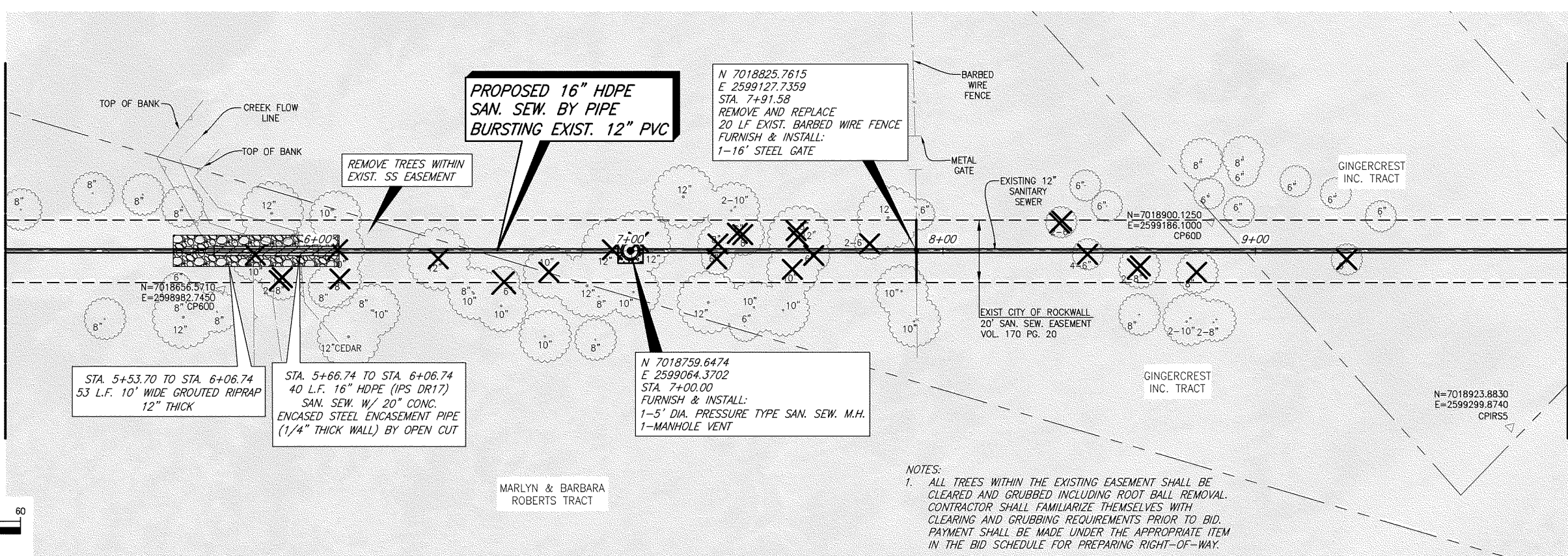
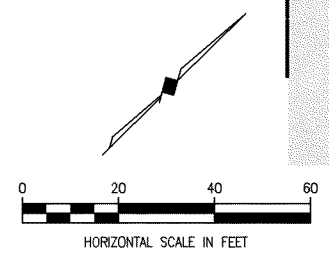
**CITY OF ROCKWALL, TEXAS**  
BUFFALO CREEK TRIBUTARY 1 SANITARY SEWER IMPROVEMENTS  
SECTION 1: 16-INCH SAN. SEW.  
PLAN & PROFILE STA. 0+00 TO STA. 5+00

BHC  
PROJECT NO.  
2020-104  
July 2021  
SHEET NO.  
**10**



N 7018615.2567, E 2598925.9818  
MATCH LINE STA. 5+00

MATCH LINE STA. 10+00  
N 7018976.2334, E 2599271.9527



TBM-1  
"X" CUT IN PVMT  
N 7020973.70  
E 2599613.07  
ELEV.=539.14

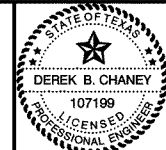
TBM-2  
"X" CUT IN  
HEADWALL  
N 7019101.01  
E 2599253.58  
ELEV.=528.80

NOTES:  
1. ALL TREES WITHIN THE EXISTING EASEMENT SHALL BE CLEARED AND GRUBBED INCLUDING ROOT BALL REMOVAL. CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH CLEARING AND GRUBBING REQUIREMENTS PRIOR TO BID. PAYMENT SHALL BE MADE UNDER THE APPROPRIATE ITEM IN THE BID SCHEDULE FOR PREPARING RIGHT-OF-WAY.

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BY DBC DATE 11/28/22

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**BIRKHOFF, HENDRICKS & CARTER, L.L.P.**  
PROFESSIONAL ENGINEERS  
TBPE Firm No. 526; TBPLS Firm No. 10031800  
11910 Greenville Ave., Suite 600  
Dallas, Texas 75243 (214) 361-7900

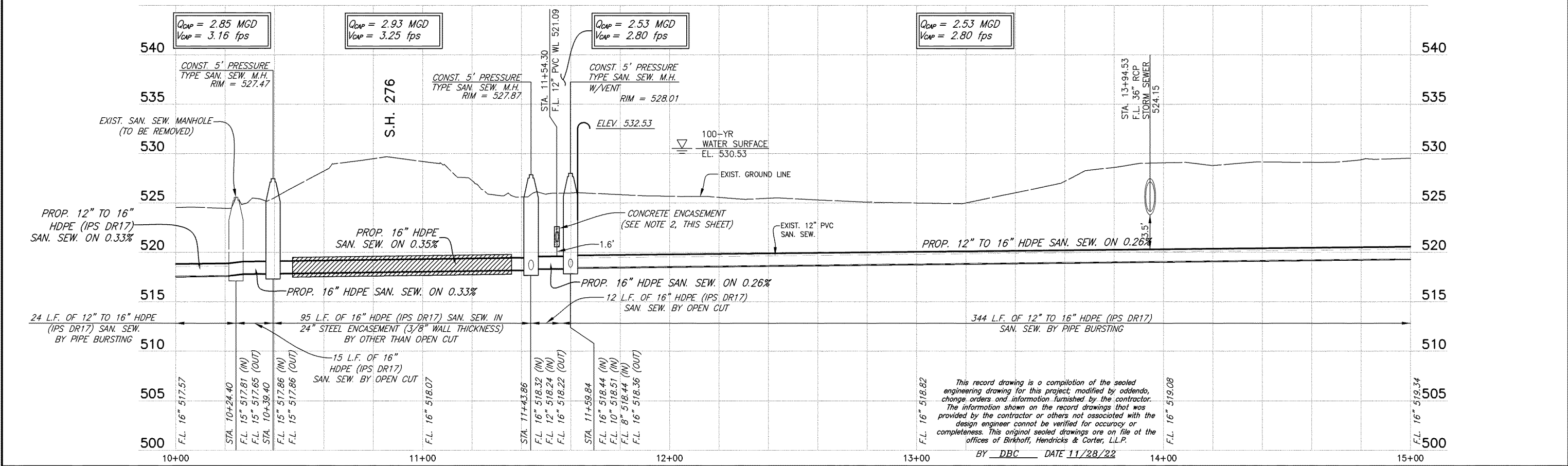
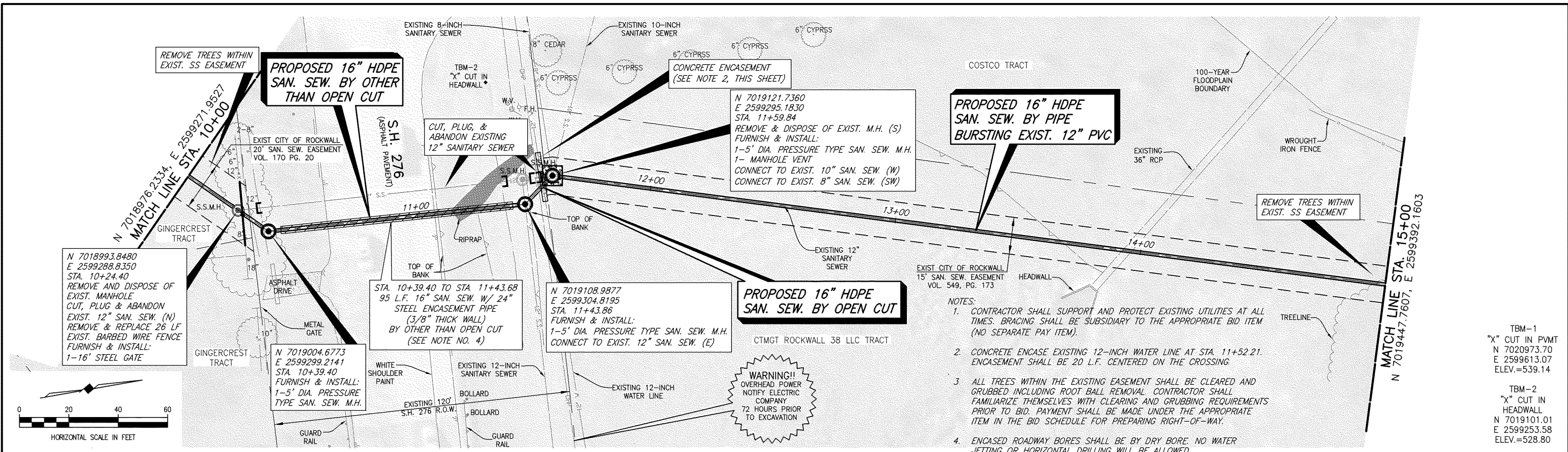


*[Signature]*  
05/21/21

**CITY OF ROCKWALL, TEXAS**  
BUFFALO CREEK TRIBUTARY 1 SANITARY SEWER IMPROVEMENTS  
SECTION 1: 16-INCH SAN. SEW.  
PLAN & PROFILE STA. 5+00 TO STA. 10+00

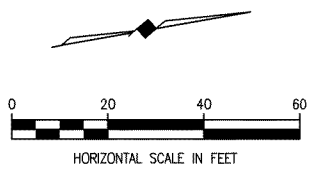
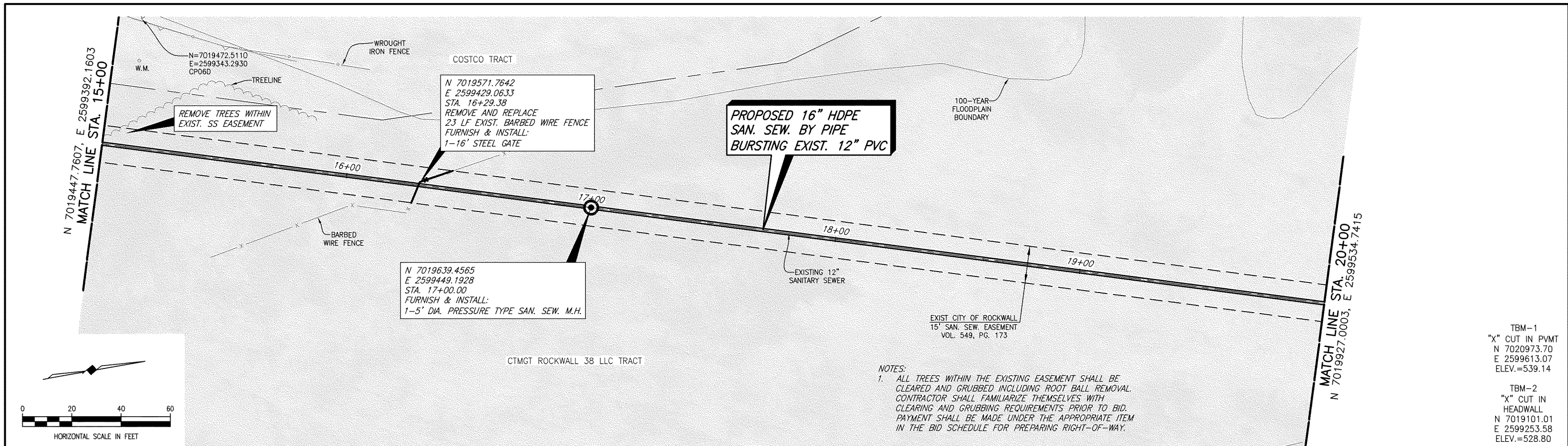
BHC  
PROJECT NO.  
2020-104  
July 2021

SHEET NO.  
**11**



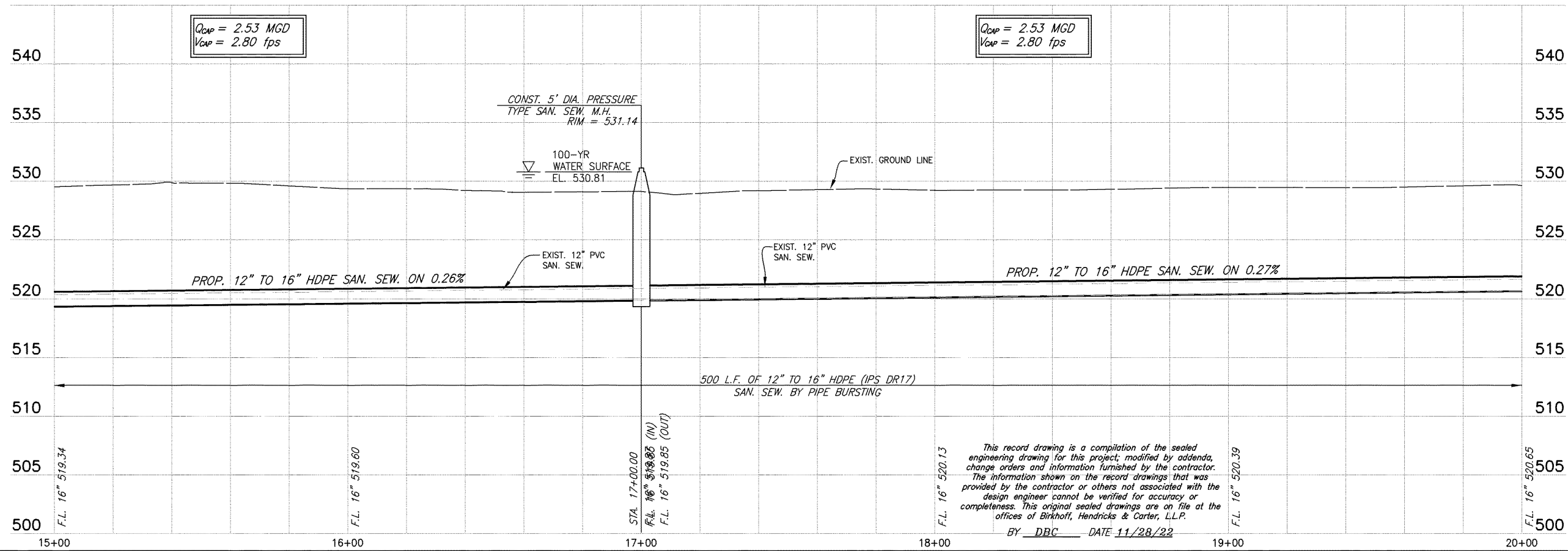
<p>These plans and related specifications were prepared for construction of this specific project only. Reuse of these documents is not permitted without written authorization of Birkhoff, Hendricks &amp; Carter, L.L.P. If this drawing is converted to an electronic file, if any discrepancy occurs between the electronic file and the Birkhoff, Hendricks &amp; Carter, L.L.P. original document, the original document will govern in all cases.</p>	<p><b>BIRKHOFF, HENDRICKS &amp; CARTER, L.L.P.</b>          PROFESSIONAL ENGINEERS          TBPE Firm No. 526; TBPLS Firm No. 10031800          11910 Greenville Ave., Suite 600          Dallas, Texas 75243 (214) 361-7900</p>		<p>BY <i>DBC</i> DATE 11/28/22</p>	<p><b>CITY OF ROCKWALL, TEXAS</b>          BUFFALO CREEK TRIBUTARY 1 SANITARY SEWER IMPROVEMENTS          SECTION 1: 16-INCH SAN. SEW.          PLAN &amp; PROFILE STA. 10+00 TO STA. 15+00</p>	<p>BHC          PROJECT NO.          2020-104          July 2021</p>	<p>SHEET NO.  <b>12</b></p>
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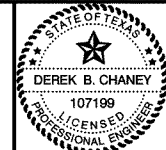
TBM-1  
"X" CUT IN PVMT  
N 7020973.70  
E 2599613.07  
ELEV.=539.14

TBM-2  
"X" CUT IN  
HEADWALL  
N 7019101.01  
E 2599253.58  
ELEV.=528.80



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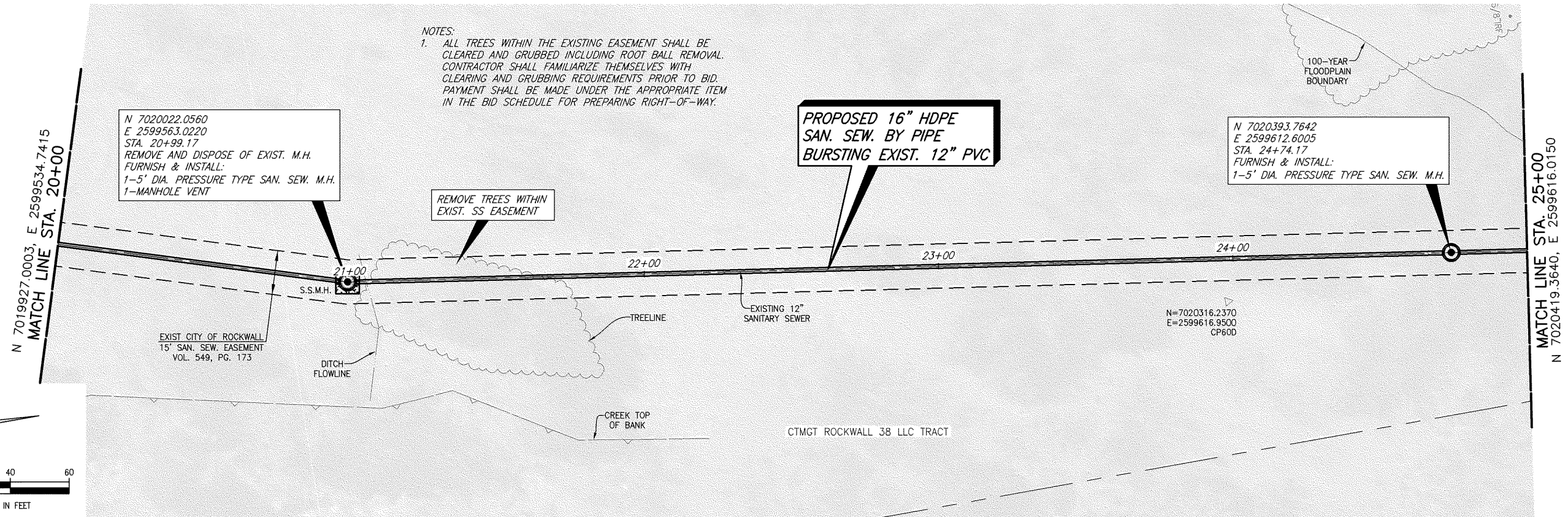


*[Signature]*  
05/21/22

**CITY OF ROCKWALL, TEXAS**  
BUFFALO CREEK TRIBUTARY 1 SANITARY SEWER IMPROVEMENTS  
SECTION 1: 16-INCH SAN. SEW.  
PLAN & PROFILE STA. 15+00 TO STA. 20+00

BHC  
PROJECT NO.  
2020-104  
July 2021

SHEET NO.  
**13**

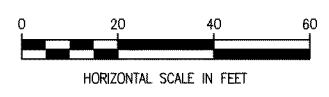


NOTES:  
 1. ALL TREES WITHIN THE EXISTING EASEMENT SHALL BE CLEARED AND GRUBBED INCLUDING ROOT BALL REMOVAL. CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH CLEARING AND GRUBBING REQUIREMENTS PRIOR TO BID. PAYMENT SHALL BE MADE UNDER THE APPROPRIATE ITEM IN THE BID SCHEDULE FOR PREPARING RIGHT-OF-WAY.

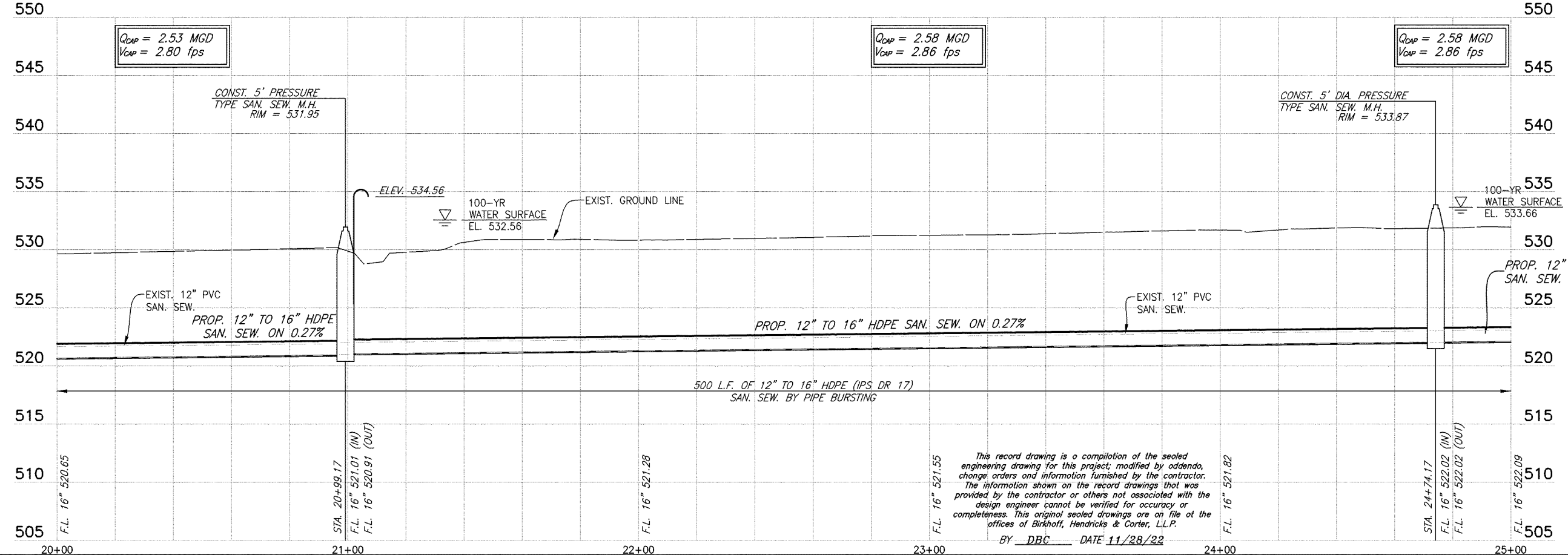
N 7020022.0560  
 E 2599563.0220  
 STA. 20+99.17  
 REMOVE AND DISPOSE OF EXIST. M.H.  
 FURNISH & INSTALL:  
 1-5' DIA. PRESSURE TYPE SAN. SEW. M.H.  
 1-MANHOLE VENT

PROPOSED 16" HDPE  
 SAN. SEW. BY PIPE  
 BURSTING EXIST. 12" PVC

N 7020393.7642  
 E 2599612.6005  
 STA. 24+74.17  
 FURNISH & INSTALL:  
 1-5' DIA. PRESSURE TYPE SAN. SEW. M.H.



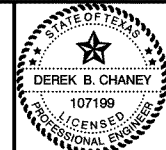
TBM-1  
 "X" CUT IN PVMT  
 N 7020973.70  
 E 2599613.07  
 ELEV.=539.14  
 TBM-2  
 "X" CUT IN  
 HEADWALL  
 N 7019101.01  
 E 2599253.58  
 ELEV.=528.80



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 BY DBC DATE 11/28/22

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 TBPE Firm No. 526; TBPLS Firm No. 10031800  
 11910 Greenville Ave., Suite 600  
 Dallas, Texas 75243 (214) 361-7900

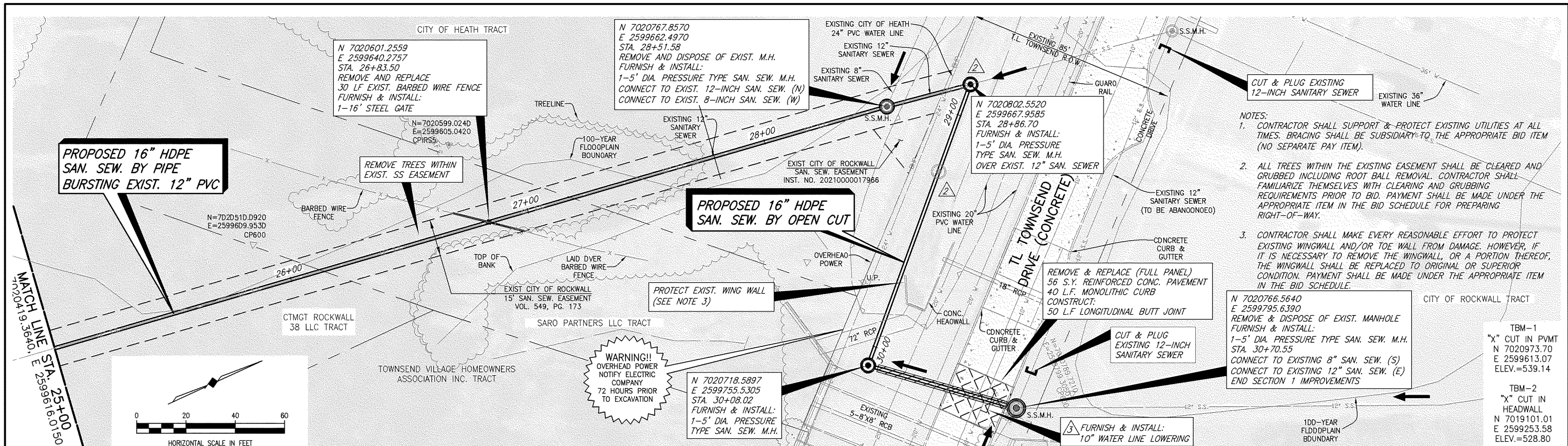


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 05/21/22

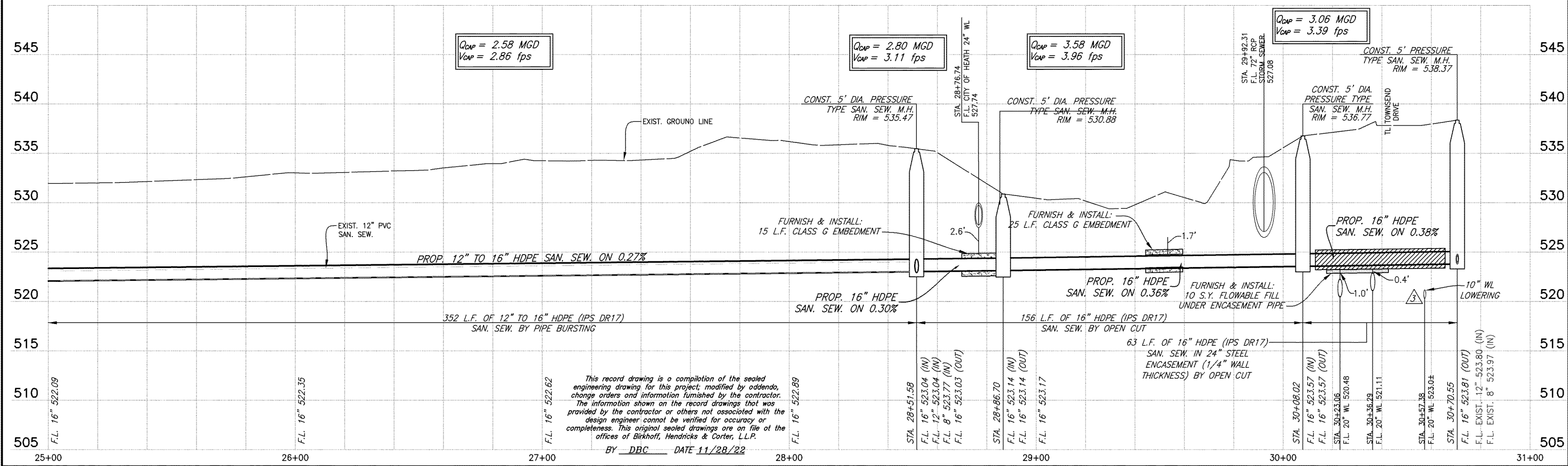
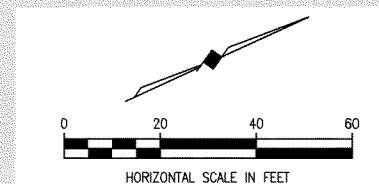
**CITY OF ROCKWALL, TEXAS**  
 BUFFALO CREEK TRIBUTARY 1 SANITARY SEWER IMPROVEMENTS  
 SECTION 1: 16-INCH SAN. SEW.  
 PLAN & PROFILE STA. 20+00 TO STA. 25+00

BHC  
 PROJECT NO.  
 2020-104  
 July 2021  
 SHEET NO.  
**14**





- NOTES:
1. CONTRACTOR SHALL SUPPORT & PROTECT EXISTING UTILITIES AT ALL TIMES. BRACING SHALL BE SUBSIDIARY TO THE APPROPRIATE BID ITEM (NO SEPARATE PAY ITEM).
  2. ALL TREES WITHIN THE EXISTING EASEMENT SHALL BE CLEARED AND GRUBBED INCLUDING ROOT BALL REMOVAL. CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH CLEARING AND GRUBBING REQUIREMENTS PRIOR TO BID. PAYMENT SHALL BE MADE UNDER THE APPROPRIATE ITEM IN THE BID SCHEDULE FOR PREPARING RIGHT-OF-WAY.
  3. CONTRACTOR SHALL MAKE EVERY REASONABLE EFFORT TO PROTECT EXISTING WINGWALL AND/OR TOE WALL FROM DAMAGE. HOWEVER, IF IT IS NECESSARY TO REMOVE THE WINGWALL, OR A PORTION THEREOF, THE WINGWALL SHALL BE REPLACED TO ORIGINAL OR SUPERIOR CONDITION. PAYMENT SHALL BE MADE UNDER THE APPROPRIATE ITEM IN THE BID SCHEDULE.

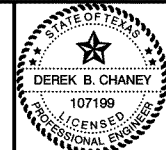


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CHANGE ORDER NO. 2: RELOCATE MANHOLE AT 28+85.36 APPROX. 30- FEET TO NORTHWEST DIVER EXISTING 12" S.S.; D7/14/22
CHANGE ORDER NO. 3: LOWER 10" WATER LINE TO RESOLVE CONFLICT W/ PROPOSED 16" S.S.; 08/01/22

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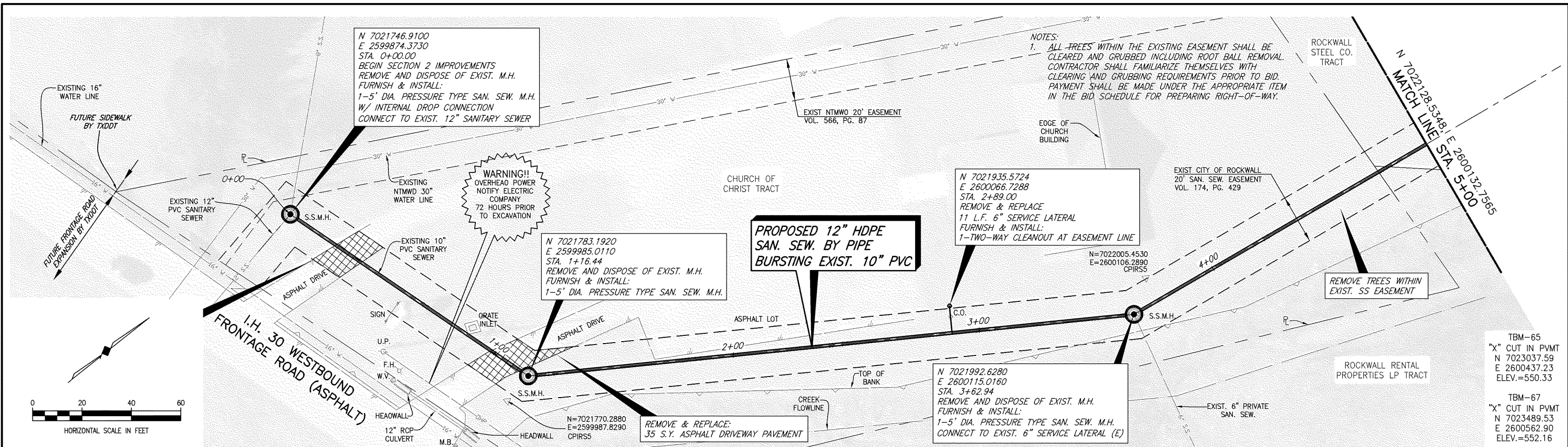
**BIRKHOFF, HENDRICKS & CARTER, L.L.P.**  
 PROFESSIONAL ENGINEERS  
 TBPE Firm No. 526; TBPLS Firm No. 10031800  
 11910 Greenville Ave., Suite 600  
 Dallas, Texas 75243 (214) 361-7900



*D.B.C.*  
 05/21/22

**CITY OF ROCKWALL, TEXAS**  
 BUFFALO CREEK TRIBUTARY 1 SANITARY SEWER IMPROVEMENTS  
 SECTION 1: 16-INCH SAN. SEW.  
 PLAN & PROFILE STA. 25+00 TO STA. 30+31.52

BHC PROJECT NO. 2020-104	SHEET NO. <b>15</b>
July 2021	



N 7021746.9100  
E 2599874.3730  
STA. 0+00.00  
BEGIN SECTION 2 IMPROVEMENTS  
REMOVE AND DISPOSE OF EXIST. M.H.  
FURNISH & INSTALL:  
1-5' DIA. PRESSURE TYPE SAN. SEW. M.H.  
W/ INTERNAL DROP CONNECTION  
CONNECT TO EXIST. 12" SANITARY SEWER

**WARNING!!**  
OVERHEAD POWER  
NOTIFY ELECTRIC  
COMPANY  
72 HOURS PRIOR  
TO EXCAVATION

N 7021783.1920  
E 2599985.0110  
STA. 1+16.44  
REMOVE AND DISPOSE OF EXIST. M.H.  
FURNISH & INSTALL:  
1-5' DIA. PRESSURE TYPE SAN. SEW. M.H.

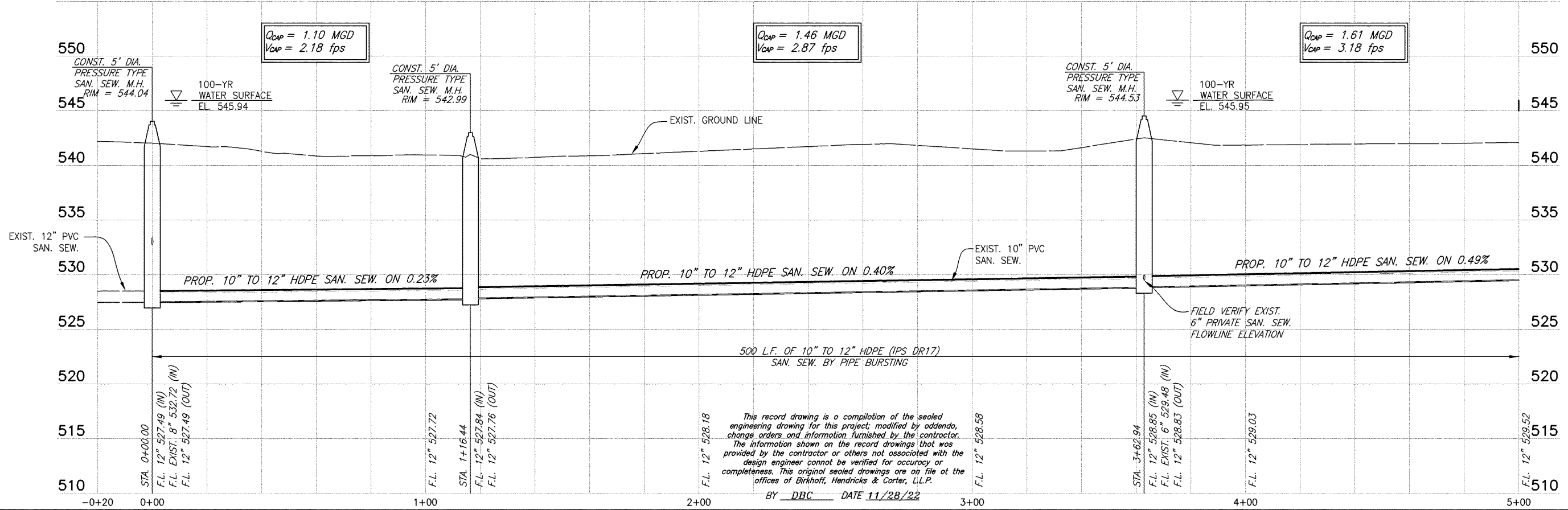
**PROPOSED 12" HDPE  
SAN. SEW. BY PIPE  
BURSTING EXIST. 10" PVC**

N 7021935.5724  
E 2600066.7288  
STA. 2+89.00  
REMOVE & REPLACE  
11 L.F. 6" SERVICE LATERAL  
FURNISH & INSTALL:  
1-TWO-WAY CLEANOUT AT EASEMENT LINE

N 7021992.6280  
E 2600115.0160  
STA. 3+62.94  
REMOVE AND DISPOSE OF EXIST. M.H.  
FURNISH & INSTALL:  
1-5' DIA. PRESSURE TYPE SAN. SEW. M.H.  
CONNECT TO EXIST. 6" SERVICE LATERAL (E)

NOTES:  
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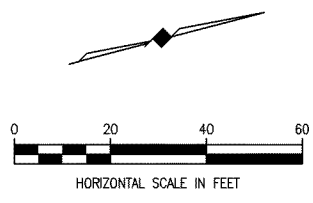
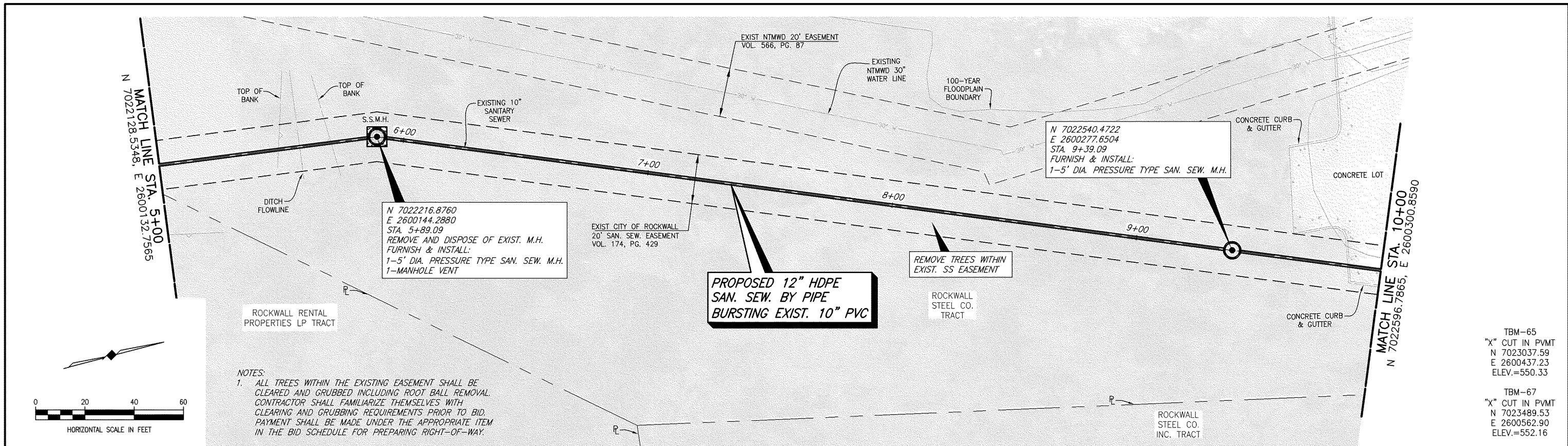
TBM-65  
"X" CUT IN PVMT  
N 7023037.59  
E 2600437.23  
ELEV.=550.33  
  
TBM-67  
"X" CUT IN PVMT  
N 7023489.53  
E 2600562.90  
ELEV.=552.16



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BY DBC DATE 11/28/22

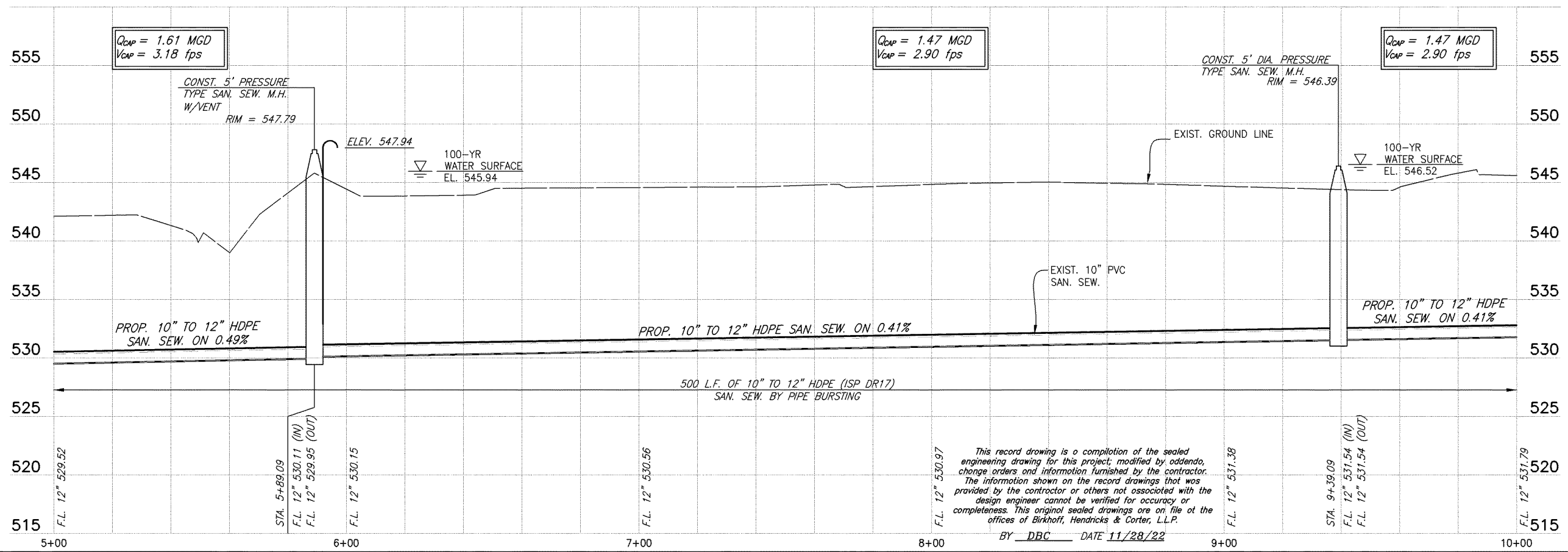
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				<b>SECTION 2: 12-INCH SAN. SEW.</b> PLAN & PROFILE STA. 0+00 TO STA. 5+00	July 2021	





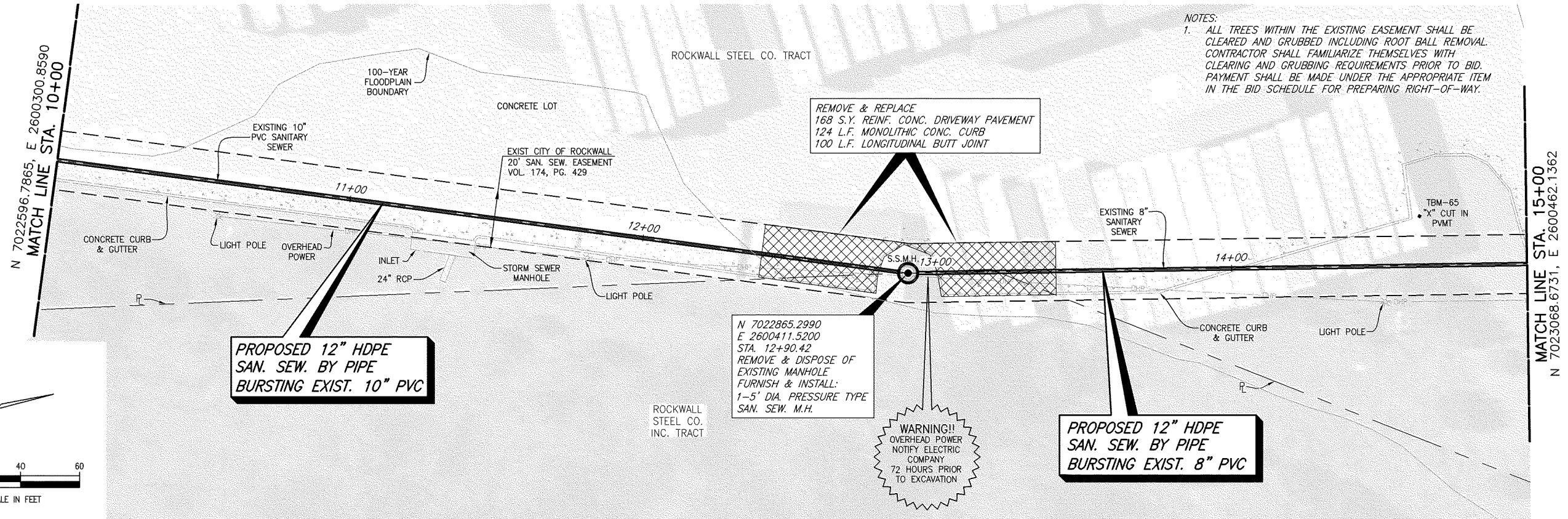
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TBM-65  
 "X" CUT IN PVMT  
 N 7023037.59  
 E 2600437.23  
 ELEV.=550.33  
  
 TBM-67  
 "X" CUT IN PVMT  
 N 7023489.53  
 E 2600562.90  
 ELEV.=552.16



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 BY DBC DATE 11/28/22

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				<b>SECTION 2: 12-INCH SAN. SEW.</b> <b>PLAN &amp; PROFILE STA. 5+00 TO STA. 10+00</b>		



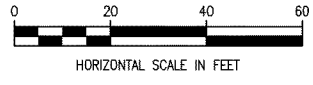
NOTES:  
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**PROPOSED 12" HDPE SAN. SEW. BY PIPE BURSTING EXIST. 10" PVC**

N 7022865.2990  
 E 2600411.5200  
 STA. 12+90.42  
 REMOVE & DISPOSE OF EXISTING MANHOLE FURNISH & INSTALL: 1-5' DIA. PRESSURE TYPE SAN. SEW. M.H.

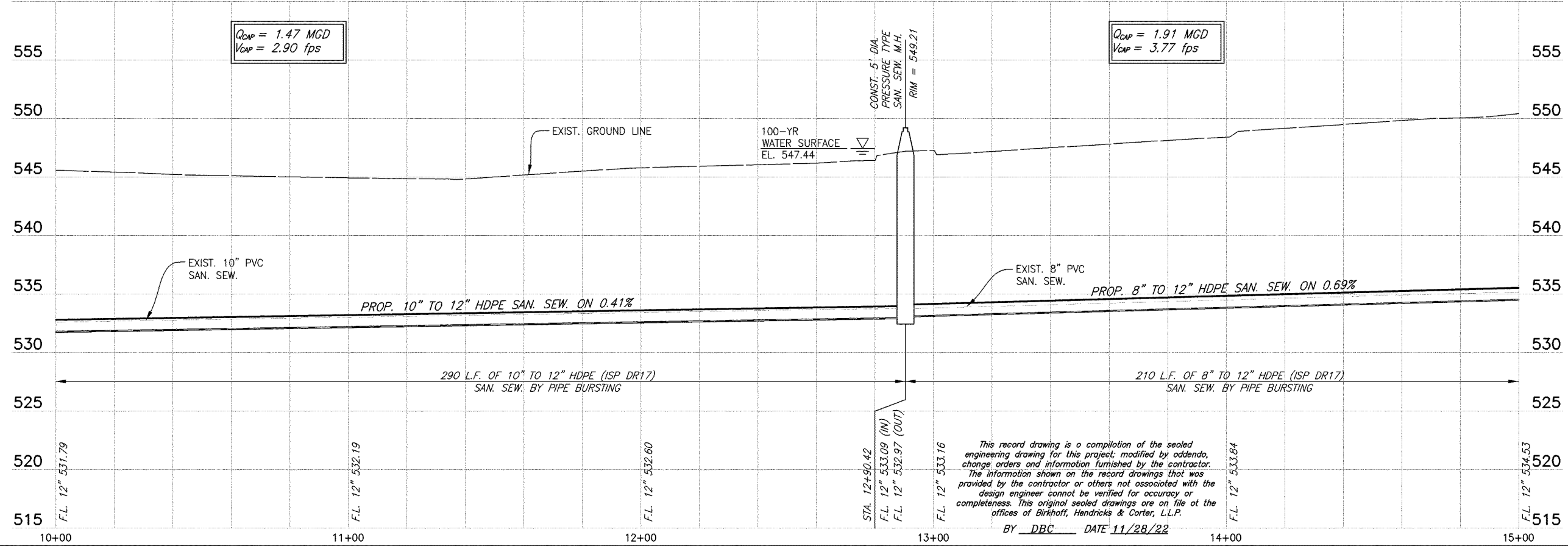
**WARNING!!**  
 OVERHEAD POWER NOTIFY ELECTRIC COMPANY 72 HOURS PRIOR TO EXCAVATION

**PROPOSED 12" HDPE SAN. SEW. BY PIPE BURSTING EXIST. 8" PVC**



TBM-65  
 "X" CUT IN PVMT  
 N 7023037.59  
 E 2600437.23  
 ELEV.=550.33

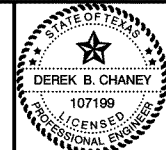
TBM-67  
 "X" CUT IN PVMT  
 N 7023489.53  
 E 2600562.90  
 ELEV.=552.16



$Q_{CAP} = 1.47 \text{ MGD}$   
 $V_{CAP} = 2.90 \text{ fps}$

$Q_{CAP} = 1.91 \text{ MGD}$   
 $V_{CAP} = 3.77 \text{ fps}$

STA. 12+90.42  
 F.L. 12" 533.09 (IN)  
 F.L. 12" 532.97 (OUT)  
 RIM = 549.21



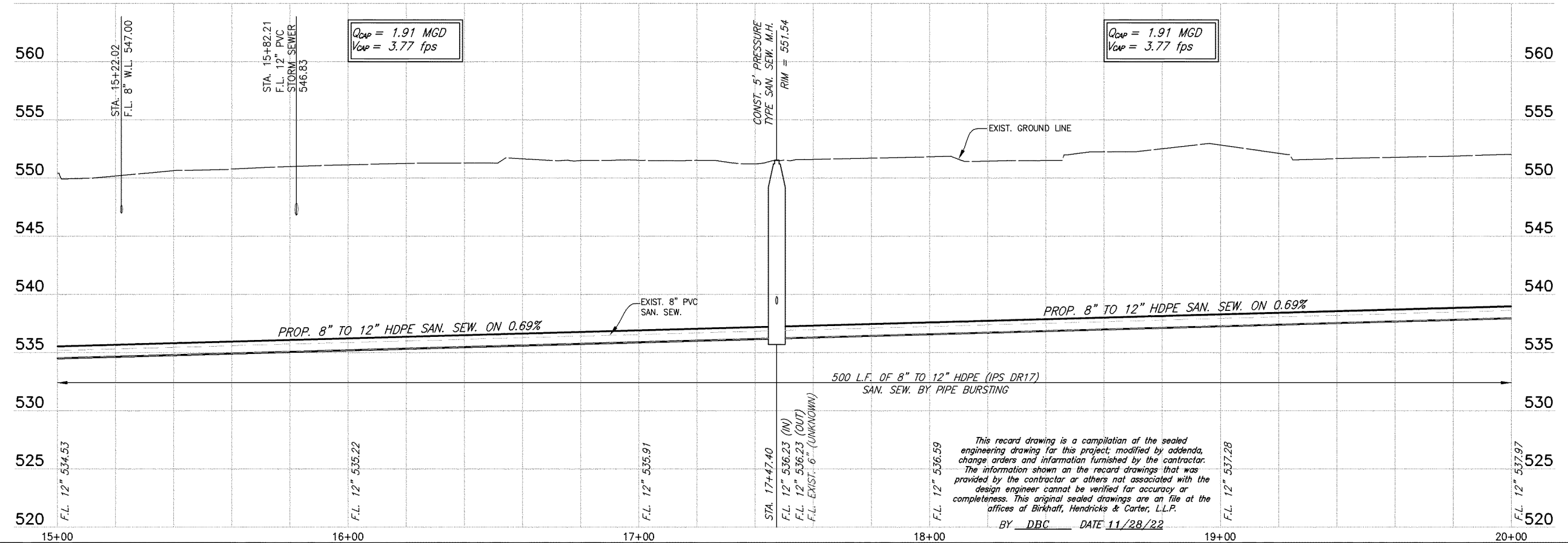
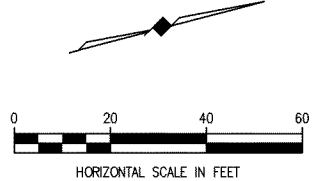
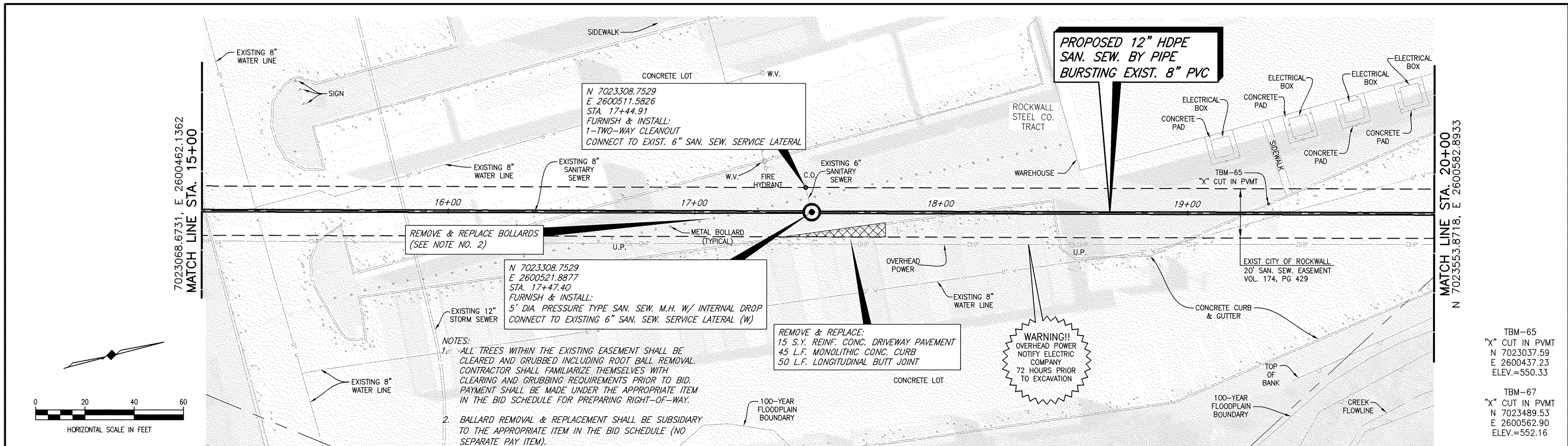
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 05/21/22

**CITY OF ROCKWALL, TEXAS**  
**BUFFALO CREEK TRIBUTARY 1 SANITARY SEWER IMPROVEMENTS**  
**SECTION 2: 12-INCH SAN. SEW.**  
**PLAN & PROFILE STA. 10+00 TO STA. 15+00**

BHC  
 PROJECT NO.  
 2020-104  
 July 2021

SHEET NO.  
**18**



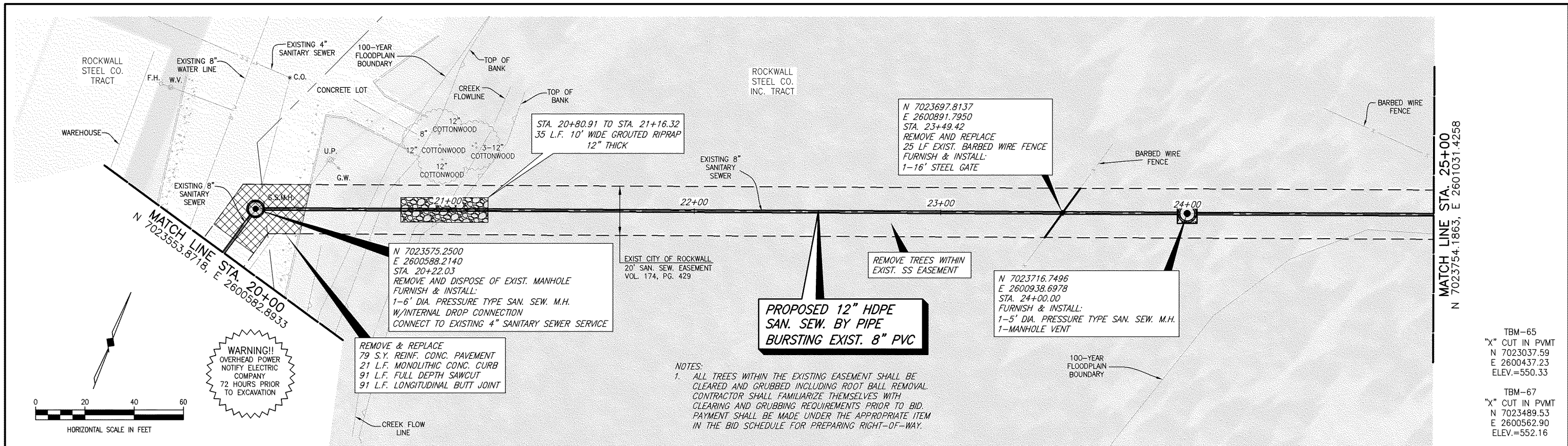


MATCH LINE STA. 20+00  
 N 7023553.8718, E 2600582.8933

TBM-65  
 "X" CUT IN PVMT  
 N 7023037.59  
 E 2600437.23  
 ELEV.=550.33

TBM-67  
 "X" CUT IN PVMT  
 N 7023489.53  
 E 2600562.90  
 ELEV.=552.16

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				<b>SECTION 2: 12-INCH SAN. SEW.</b> PLAN & PROFILE STA. 15+00 TO STA. 20+00		



**WARNING!!**  
OVERHEAD POWER  
NOTIFY ELECTRIC  
COMPANY  
72 HOURS PRIOR  
TO EXCAVATION

N 7023575.2500  
E 2600588.2140  
STA. 20+22.03  
REMOVE AND DISPOSE OF EXIST. MANHOLE  
FURNISH & INSTALL:  
1-6' DIA. PRESSURE TYPE SAN. SEW. M.H.  
W/INTERNAL DROP CONNECTION  
CONNECT TO EXISTING 4" SANITARY SEWER SERVICE

REMOVE & REPLACE  
79 S.Y. REINF. CONC. PAVEMENT  
21 L.F. MONOLITHIC CONC. CURB  
91 L.F. FULL DEPTH SAWCUT  
91 L.F. LONGITUDINAL BUTT JOINT

STA. 20+80.91 TO STA. 21+16.32  
35 L.F. 10' WIDE GROUTED RIPRAP  
12" THICK

**PROPOSED 12" HDPE  
SAN. SEW. BY PIPE  
BURSTING EXIST. 8" PVC**

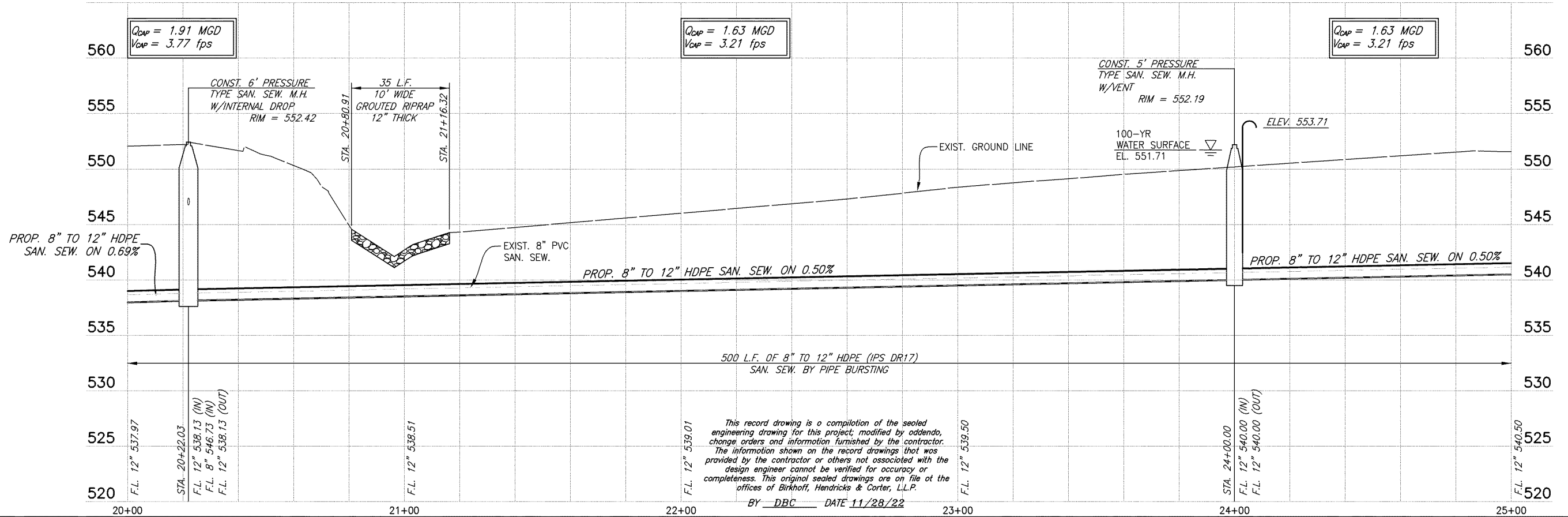
REMOVE TREES WITHIN  
EXIST. SS EASEMENT

N 7023716.7496  
E 2600938.6978  
STA. 24+00.00  
FURNISH & INSTALL:  
1-5' DIA. PRESSURE TYPE SAN. SEW. M.H.  
1-MANHOLE VENT

**NOTES:**  
1. ALL TREES WITHIN THE EXISTING EASEMENT SHALL BE  
CLEARED AND GRUBBED INCLUDING ROOT BALL REMOVAL.  
CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH  
CLEARING AND GRUBBING REQUIREMENTS PRIOR TO BID.  
PAYMENT SHALL BE MADE UNDER THE APPROPRIATE ITEM  
IN THE BID SCHEDULE FOR PREPARING RIGHT-OF-WAY.

MATCH LINE STA. 25+00  
N 7023754.1863, E 2601031.4258

TBM-65  
"X" CUT IN PVMT  
N 7023037.59  
E 2600437.23  
ELEV.=550.33  
  
TBM-67  
"X" CUT IN PVMT  
N 7023489.53  
E 2600562.90  
ELEV.=552.16



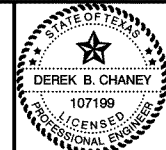
500 L.F. OF 8" TO 12" HDPE (IPS DR17)  
SAN. SEW. BY PIPE BURSTING

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engineering drawing for this project, modified by addendo,  
change orders and information furnished by the contractor.  
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design engineer cannot be verified for accuracy or  
completeness. This original sealed drawings are on file at the  
offices of Birkhoff, Hendricks & Carter, L.L.P.

BY DBC DATE 11/28/22

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TBPE Firm No. 526; TBPLS Firm No. 10031800  
11910 Greenville Ave., Suite 600  
Dallas, Texas 75243 (214) 361-7900

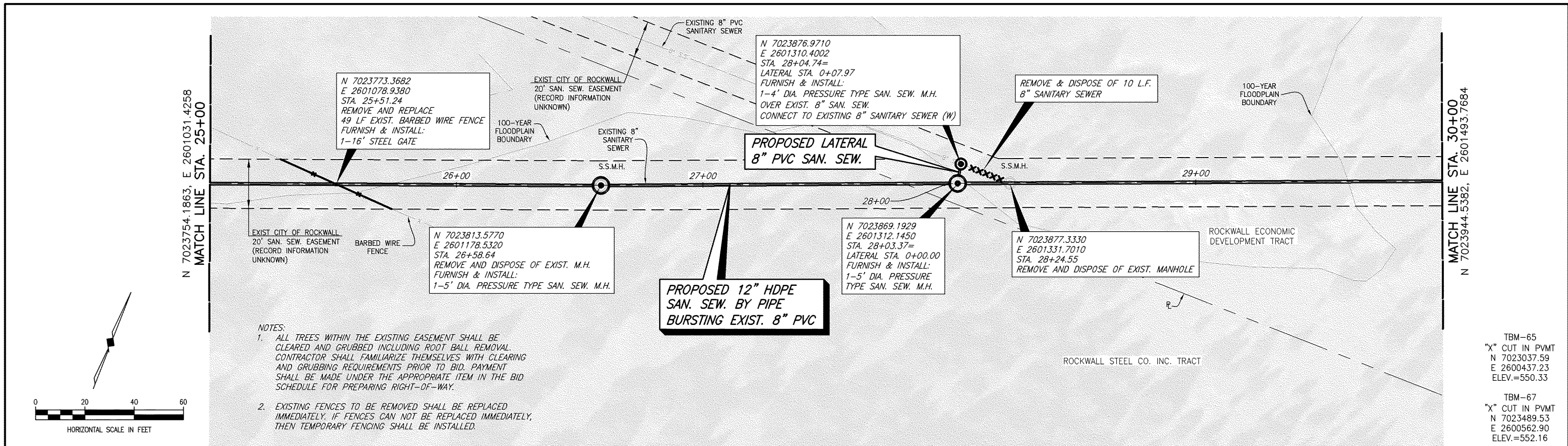


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05/21/22

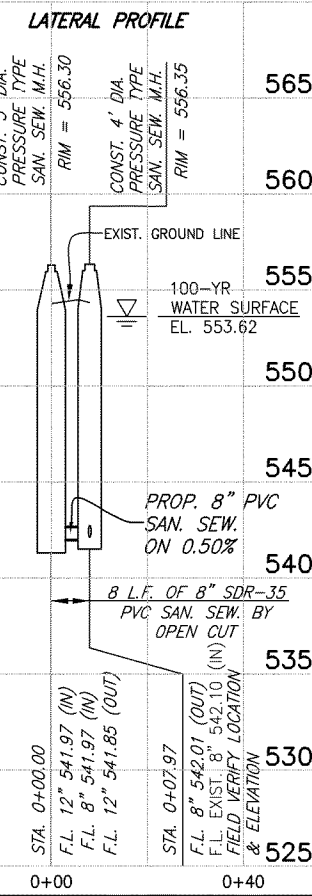
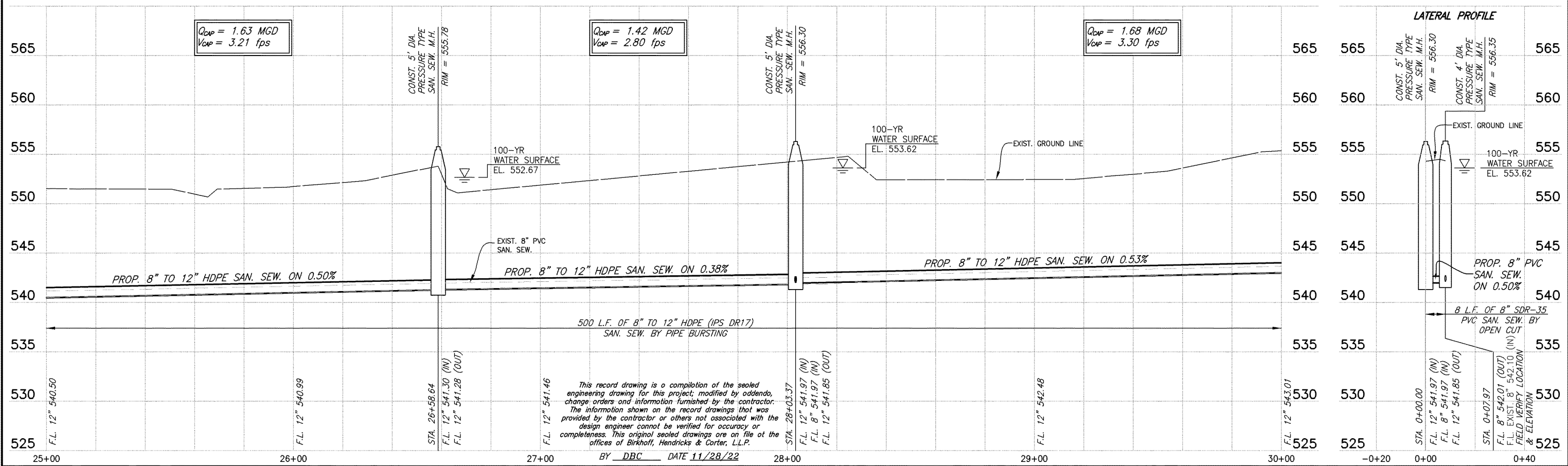
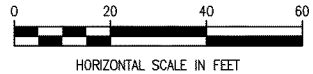
**CITY OF ROCKWALL, TEXAS**  
BUFFALO CREEK TRIBUTARY 1 SANITARY SEWER IMPROVEMENTS  
  
SECTION 2: 12-INCH SAN. SEW.  
PLAN & PROFILE STA. 20+00 TO STA. 25+00

BHC  
PROJECT NO.  
2020-104  
July 2021  
  
SHEET NO.  
**20**





- NOTES:
- ALL TREES WITHIN THE EXISTING EASEMENT SHALL BE CLEARED AND GRUBBED INCLUDING ROOT BALL REMOVAL. CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH CLEARING AND GRUBBING REQUIREMENTS PRIOR TO BID. PAYMENT SHALL BE MADE UNDER THE APPROPRIATE ITEM IN THE BID SCHEDULE FOR PREPARING RIGHT-OF-WAY.
  - EXISTING FENCES TO BE REMOVED SHALL BE REPLACED IMMEDIATELY. IF FENCES CAN NOT BE REPLACED IMMEDIATELY, THEN TEMPORARY FENCING SHALL BE INSTALLED.

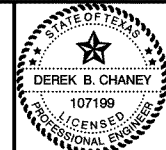


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 Dallas, Texas 75243 (214) 361-7900

BY DBC DATE 11/28/22

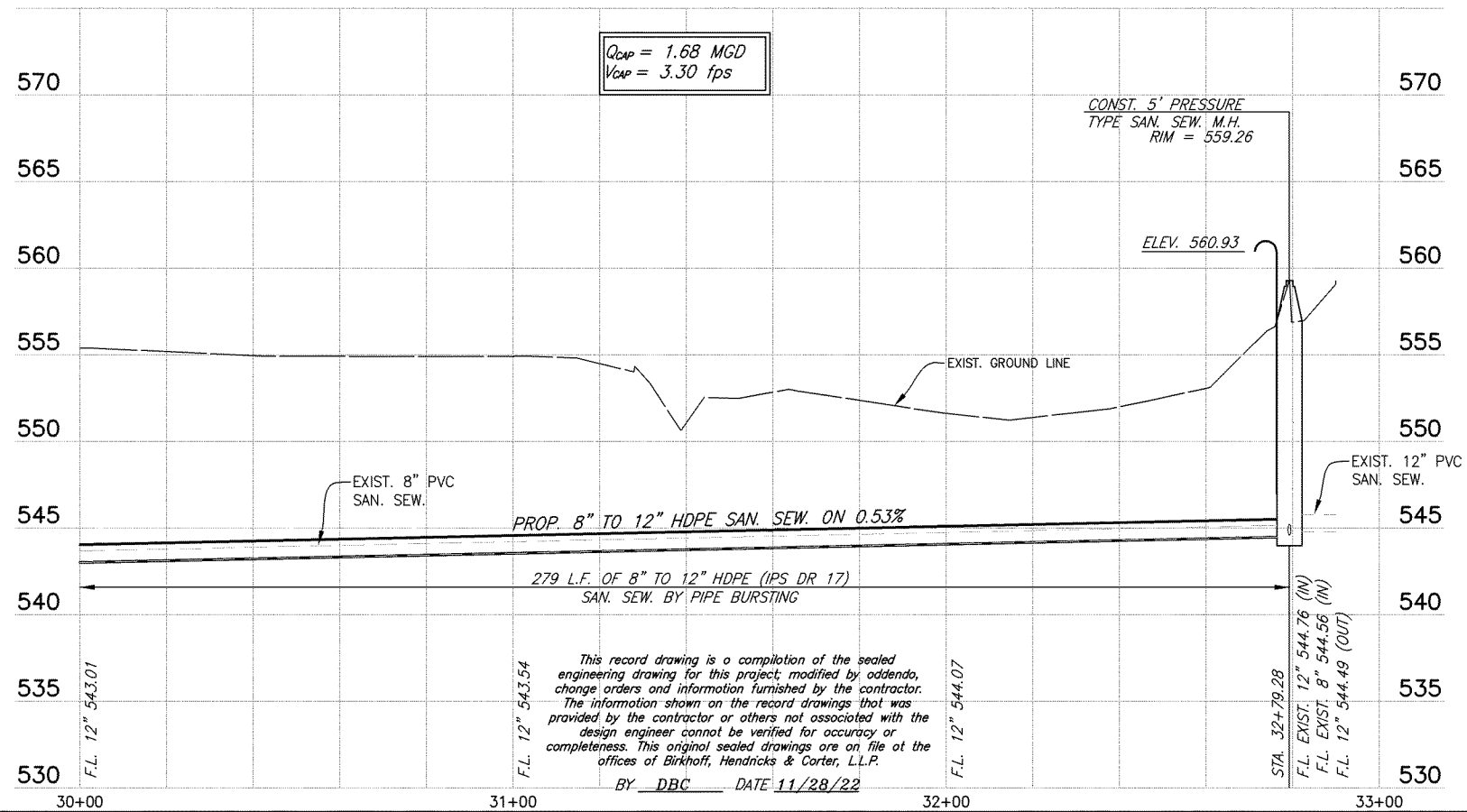
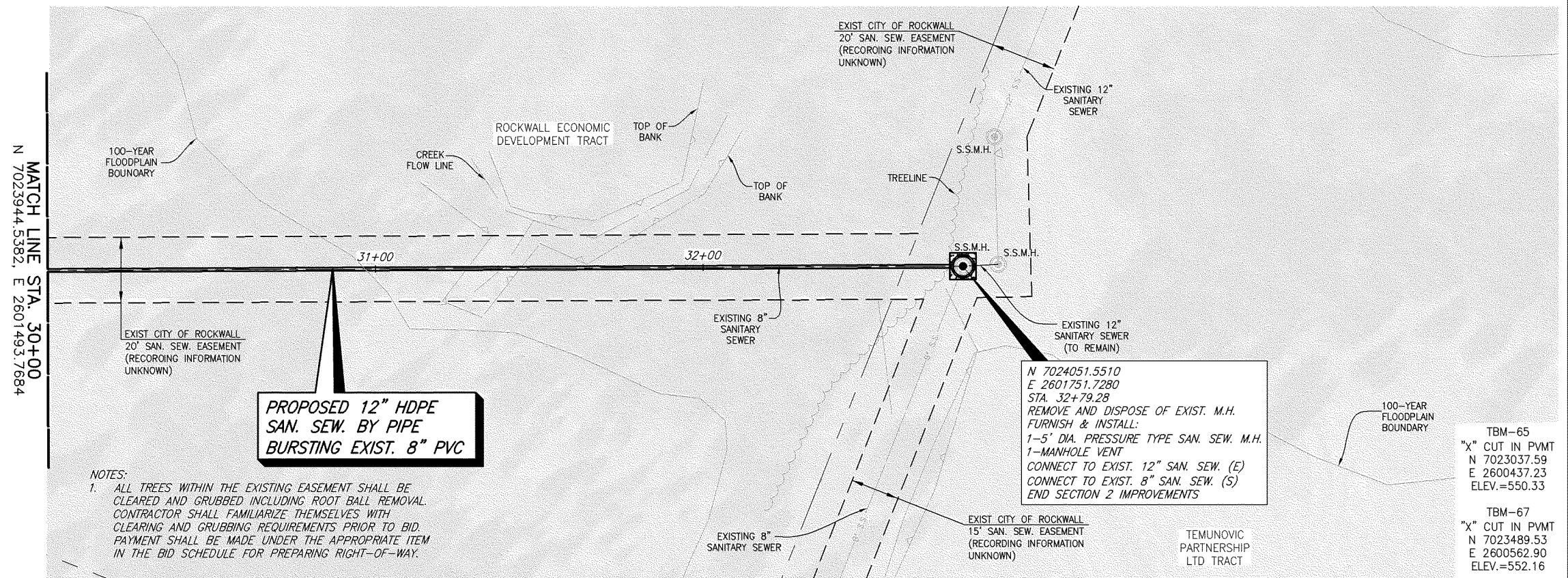
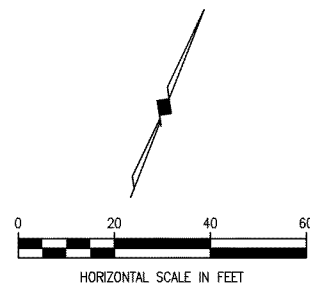


*Derek B. Chaney*  
 05/21/21

**CITY OF ROCKWALL, TEXAS**  
 BUFFALO CREEK TRIBUTARY 1 SANITARY SEWER IMPROVEMENTS

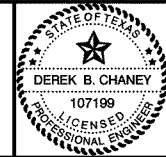
**SECTION 2: 12-INCH SAN. SEW.**  
 PLAN & PROFILE STA. 25+00 TO STA. 30+00

BHC PROJECT NO. 2020-104	SHEET NO. <b>21</b>
July 2021	



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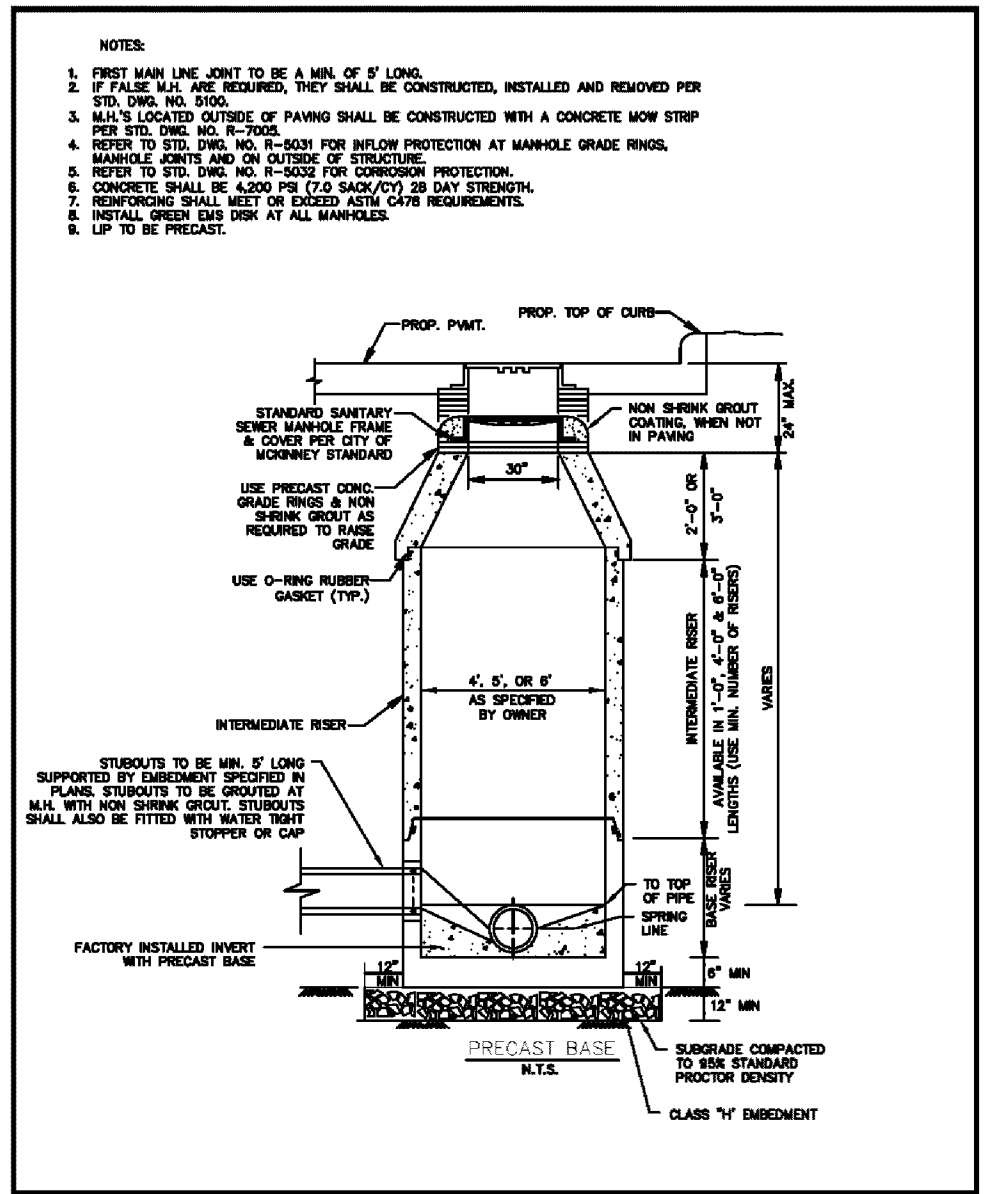
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05/21/22

**CITY OF ROCKWALL, TEXAS**  
BUFFALO CREEK TRIBUTARY 1 SANITARY SEWER IMPROVEMENTS  
SECTION 2: 12-INCH SAN. SEW.  
PLAN & PROFILE STA. 30+00 TO STA. 32+79.28

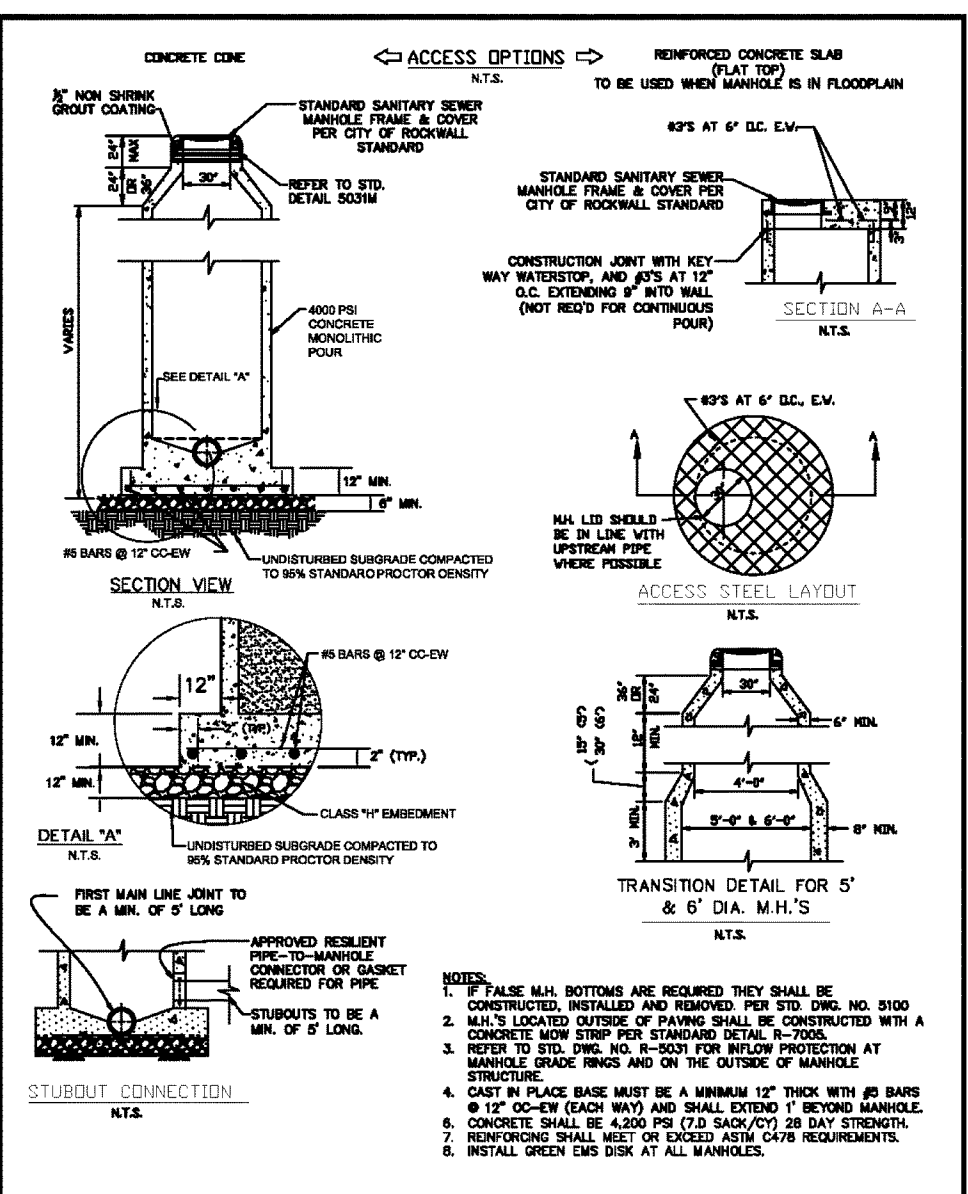
BHC  
PROJECT NO.  
2020-104  
July 2021

SHEET NO.  
**22**

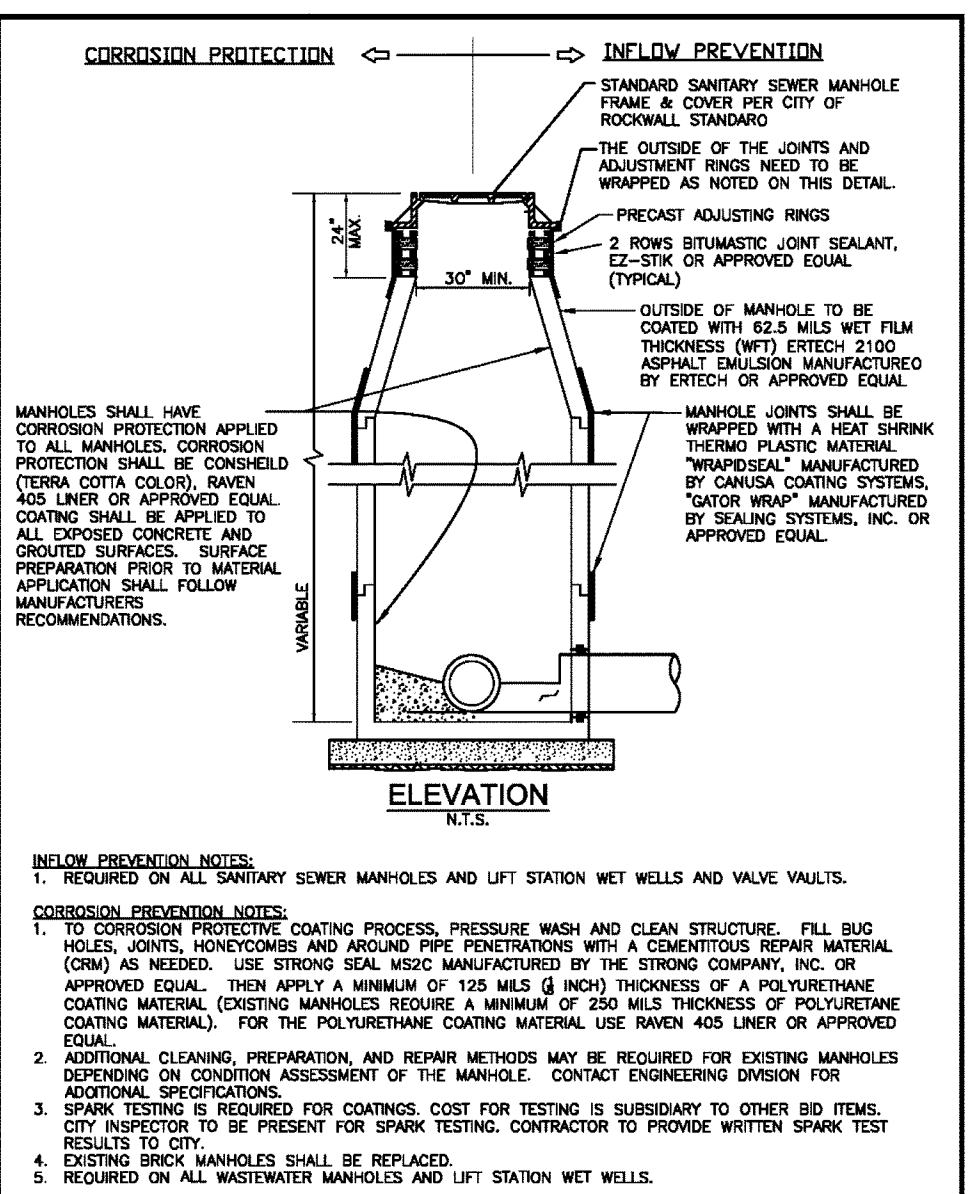




WASTEWATER MANHOLE	CITY OF ROCKWALL	DATE	DRAWING NO.
PRECAST		AUG '19	R-5020



WASTEWATER MANHOLE	CITY OF ROCKWALL	DATE	DRAWING NO.
CAST-IN-PLACE		AUG '19	R-5030

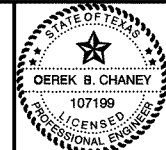


WASTEWATER MANHOLE	CITY OF ROCKWALL	DATE	DRAWING NO.
INFLOW PREVENTION & CORROSION PROTECTION		AUG '19	R-5031

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BY DBC DATE 11/28/22

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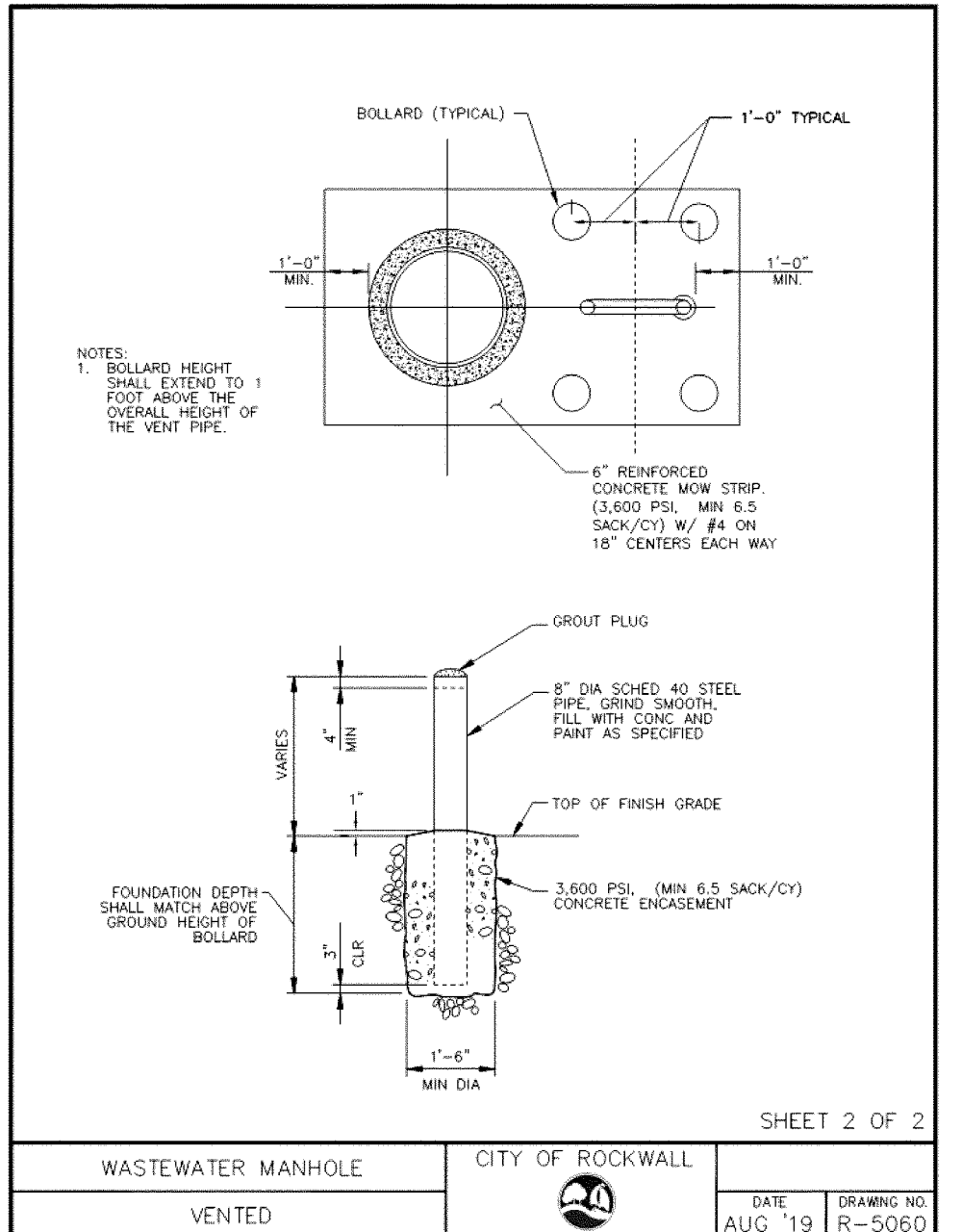
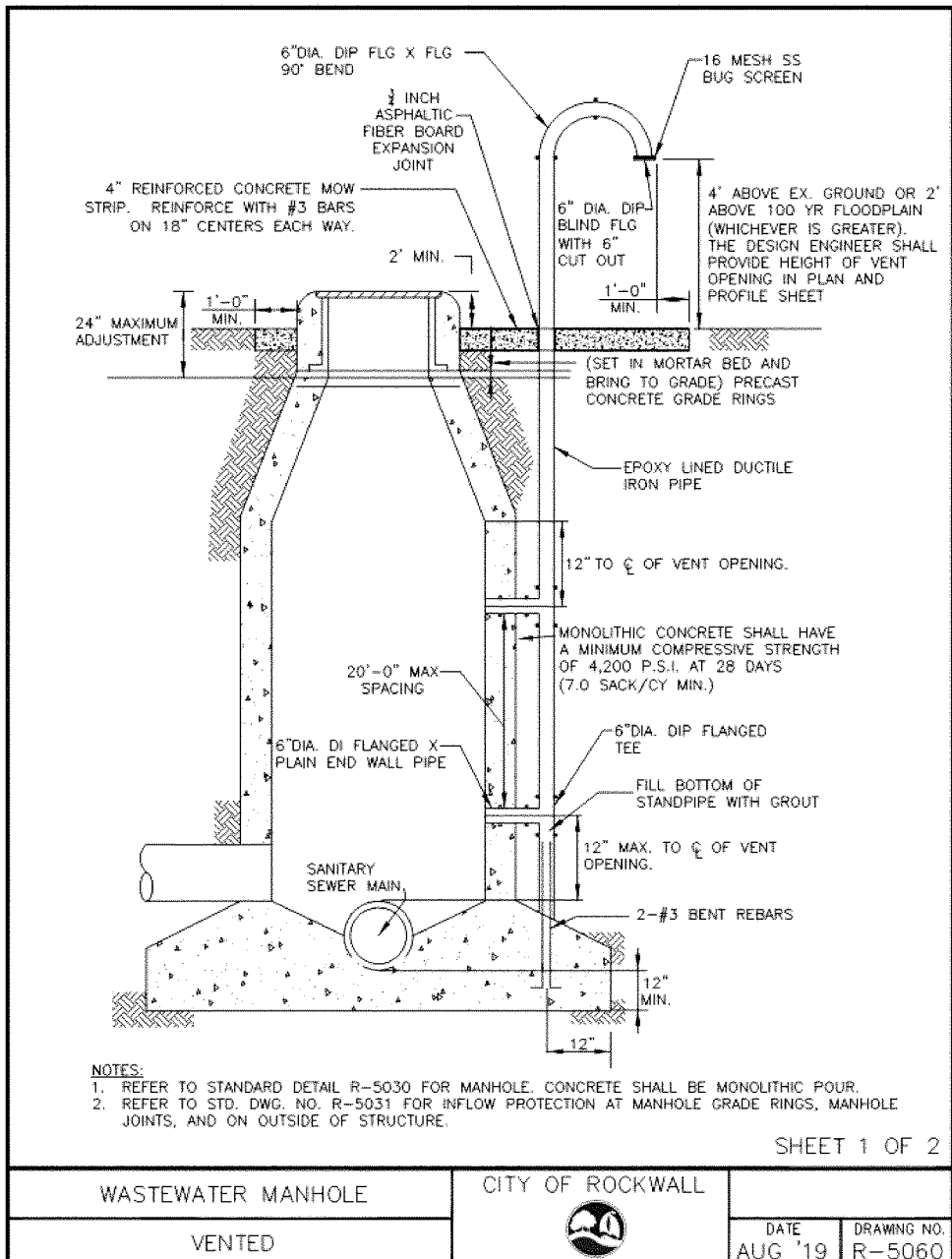
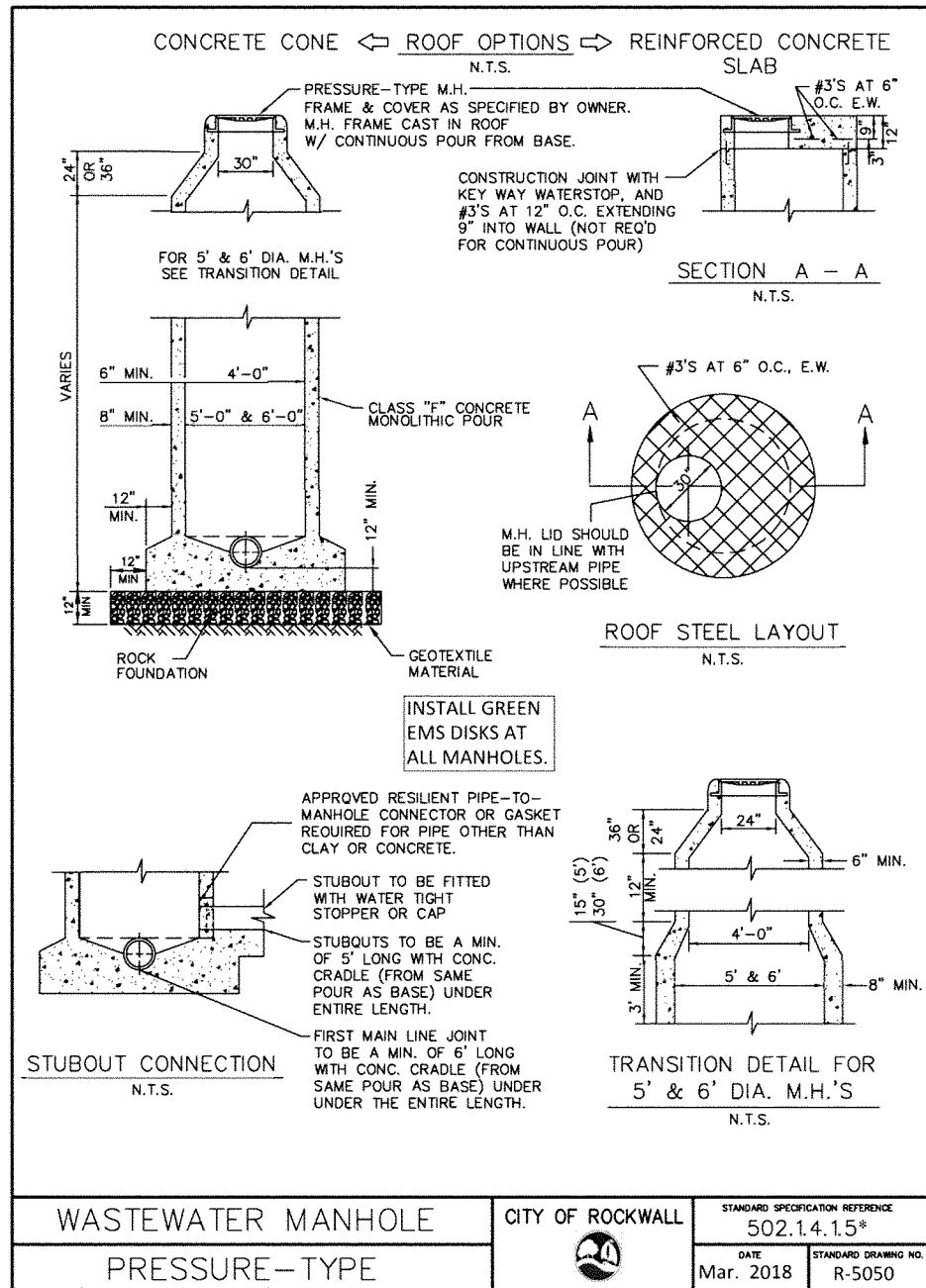
**BIRKHOFF, HENDRICKS & CARTER, L.L.P.**  
PROFESSIONAL ENGINEERS  
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11910 Greenville Ave., Suite 600  
Dallas, Texas 75243 (214) 361-7900



*Derek B. Chaney*  
05/21/22

**CITY OF ROCKWALL, TEXAS**  
BUFFALO CREEK TRIBUTARY 1 SANITARY SEWER IMPROVEMENTS  
CITY OF ROCKWALL CONSTRUCTION DETAILS

BHC PROJECT NO. 2020-104  
July 2021  
SHEET NO. 23

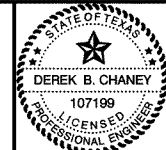


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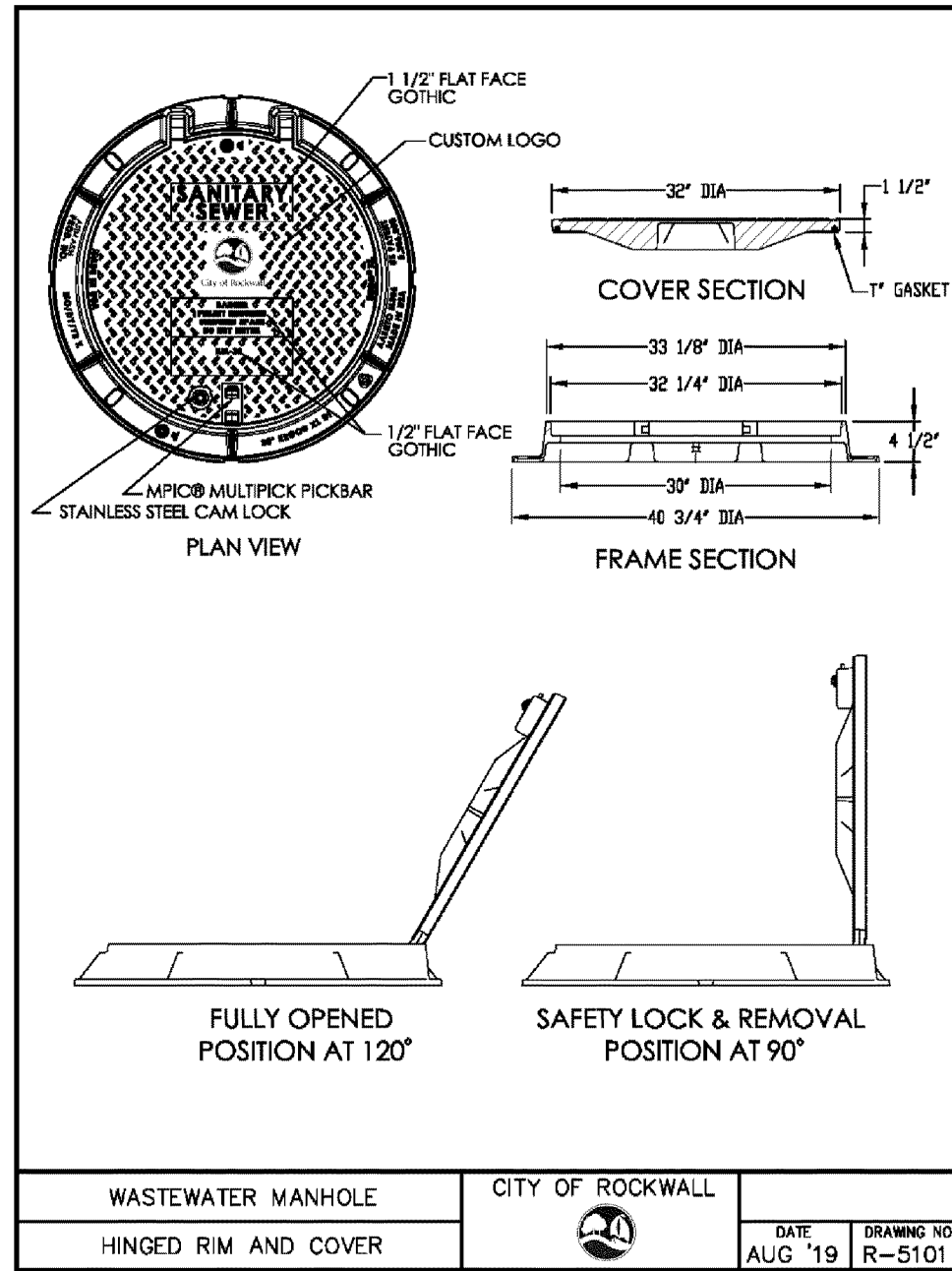
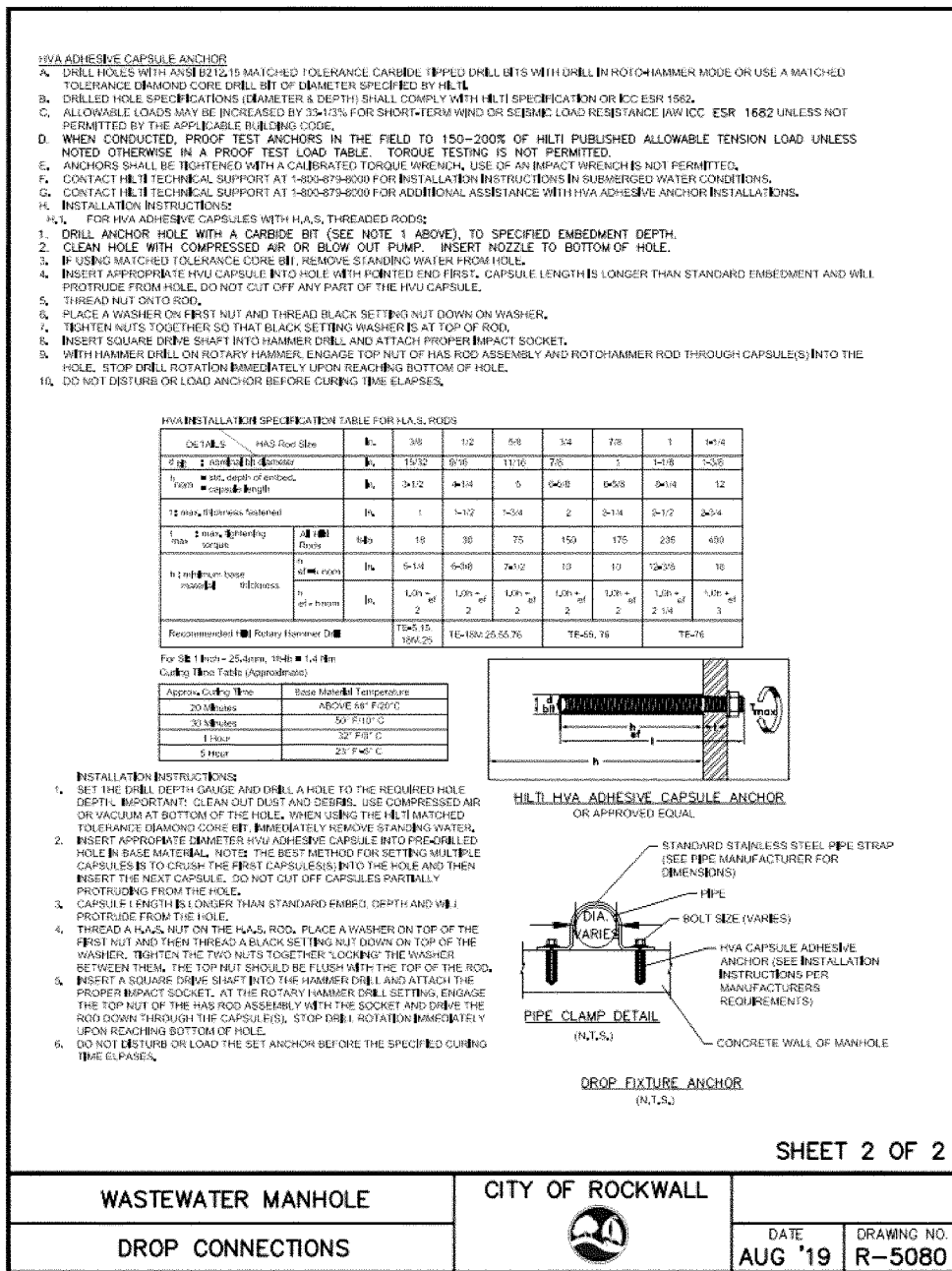
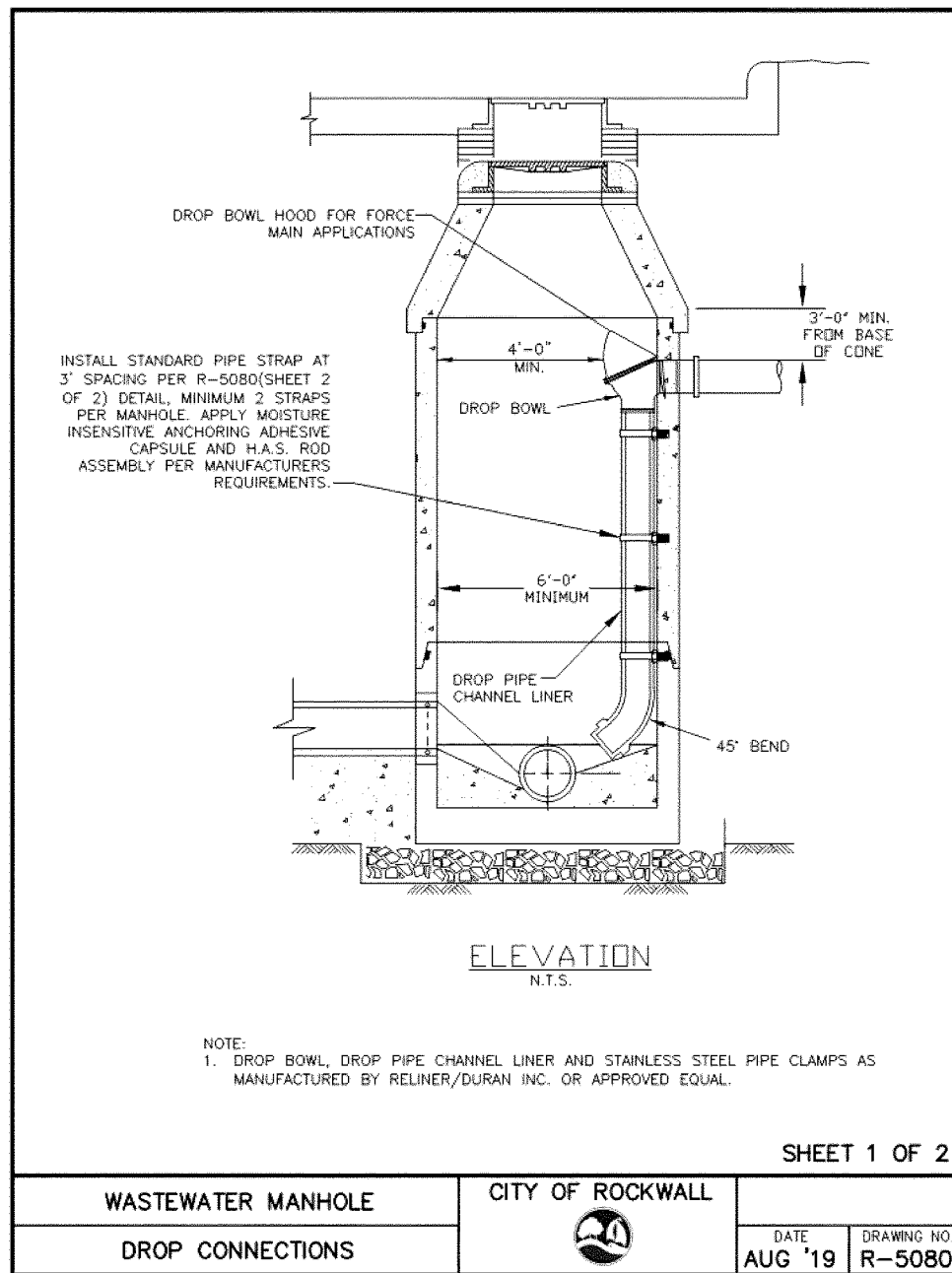
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05/21/21

**CITY OF ROCKWALL, TEXAS**  
BUFFALO CREEK TRIBUTARY 1 SANITARY SEWER IMPROVEMENTS  
CITY OF ROCKWALL CONSTRUCTION DETAILS

BHC PROJECT NO. 2020-104  
July 2021

SHEET NO. **24**

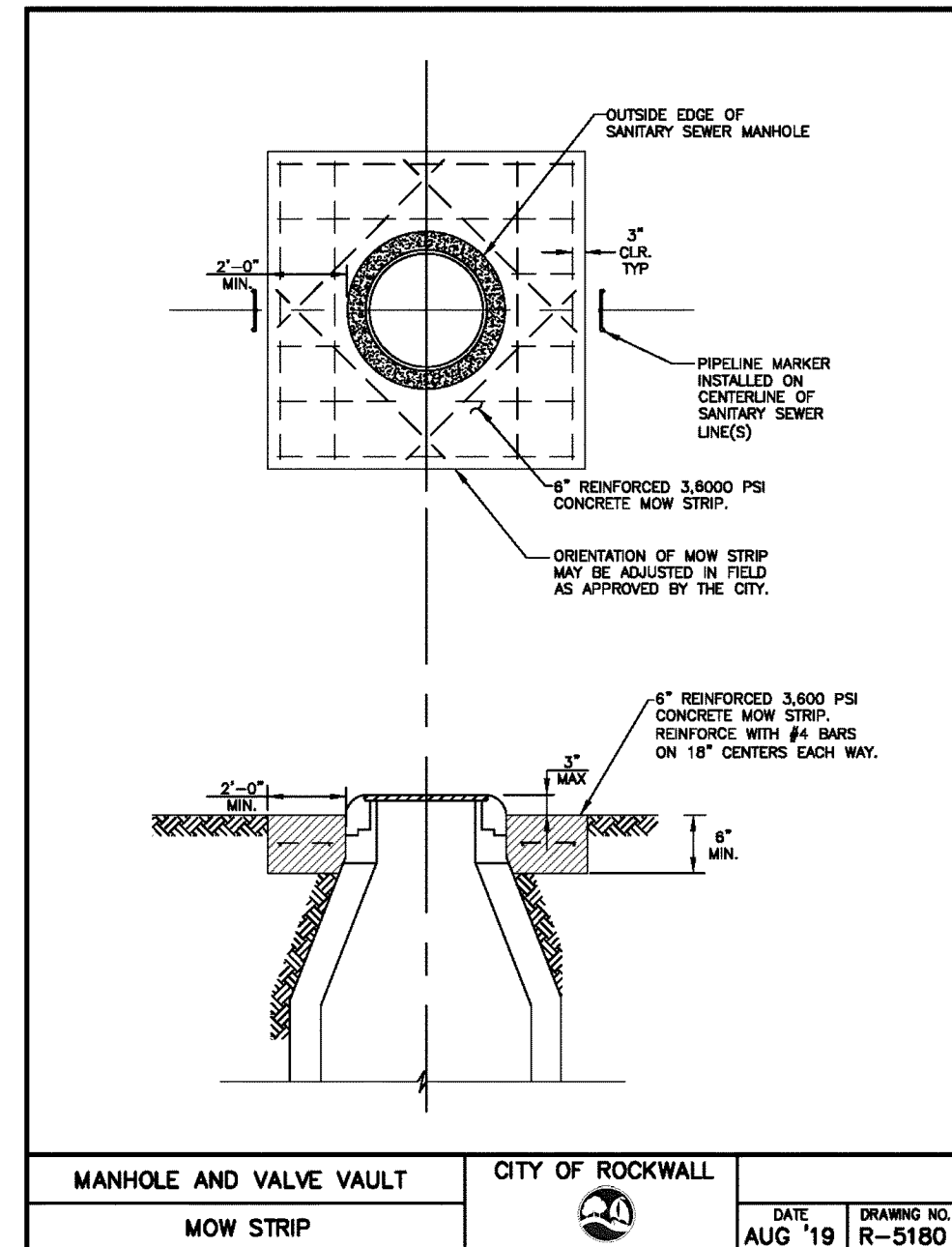
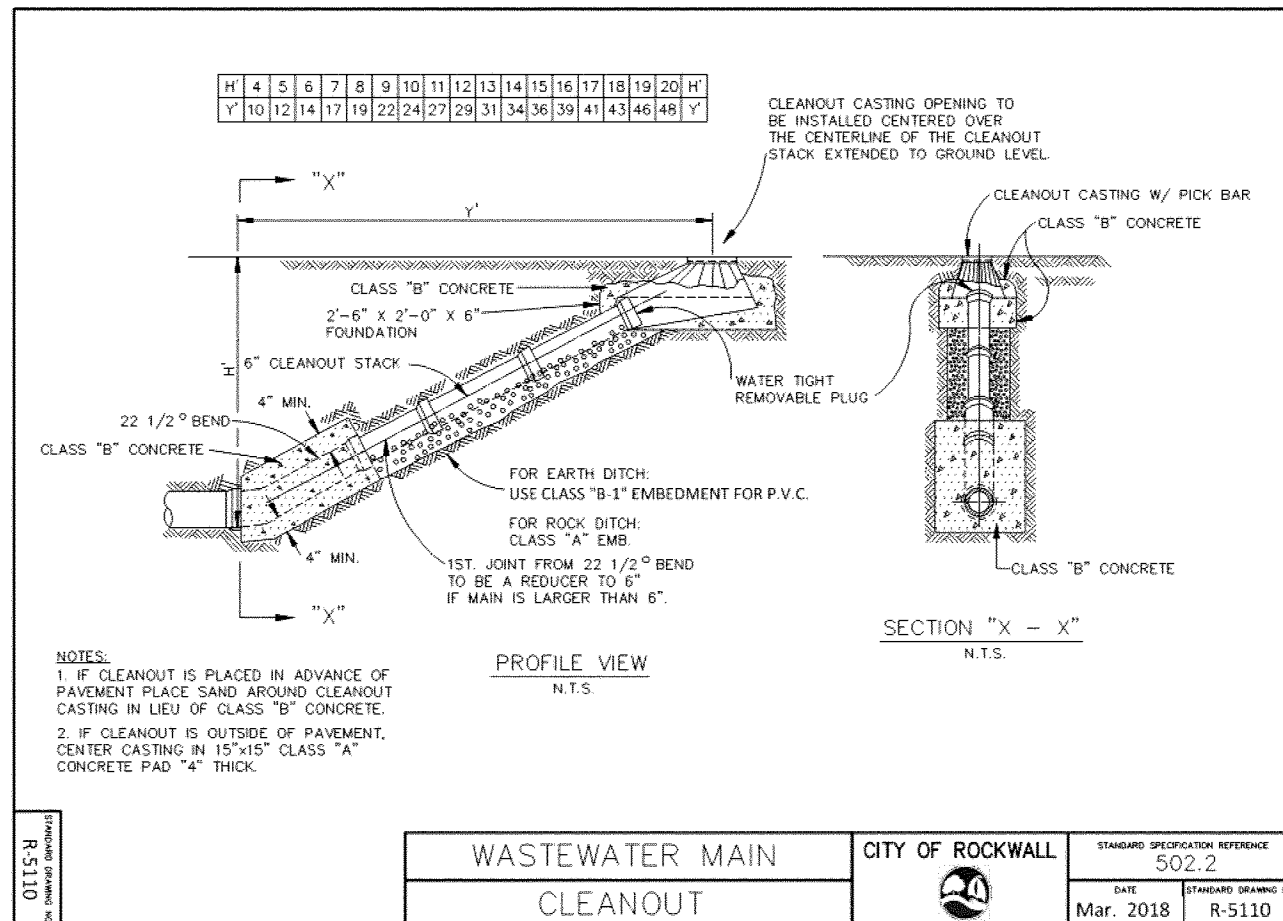




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BY DBC DATE 11/28/22

REVISED: 11/29/22 - TTAYLOR H:\Projects\Rockwall\2020104-Buffalo Crk Tributary 1-SS Intercept. Improvements\Sheets\2020104 - Miscellaneous Details.dwg	These plans and related specifications were prepared for construction of this specific project only. Reuse of these documents is not permitted without written authorization of Birkhoff, Hendricks & Carter, L.L.P. If this drawing is converted to an electronic file, if any discrepancy occurs between the electronic file and the Birkhoff, Hendricks & Carter, L.L.P. original document, the original document will govern in all cases.	<b>BIRKHOFF, HENDRICKS &amp; CARTER, L.L.P.</b> PROFESSIONAL ENGINEERS TBPE Firm No. 526; TBPLS Firm No. 10031800 11910 Greenville Ave., Suite 600 Dallas, Texas 75243 (214) 361-7900			<b>CITY OF ROCKWALL, TEXAS</b> BUFFALO CREEK TRIBUTARY 1 SANITARY SEWER IMPROVEMENTS	BHC PROJECT NO. 2020-104	SHEET NO. <b>25</b>
					CITY OF ROCKWALL CONSTRUCTION DETAILS	July 2021	

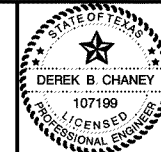


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*DT*  
05/21/21

**CITY OF ROCKWALL, TEXAS**  
BUFFALO CREEK TRIBUTARY 1 SANITARY SEWER IMPROVEMENTS  
CITY OF ROCKWALL CONSTRUCTION DETAILS

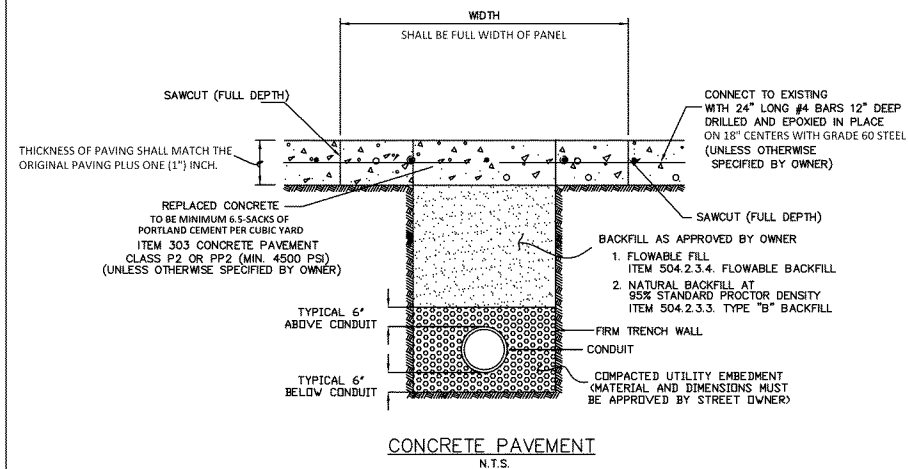
BHC  
PROJECT NO.  
2020-104  
July 2021

SHEET NO.

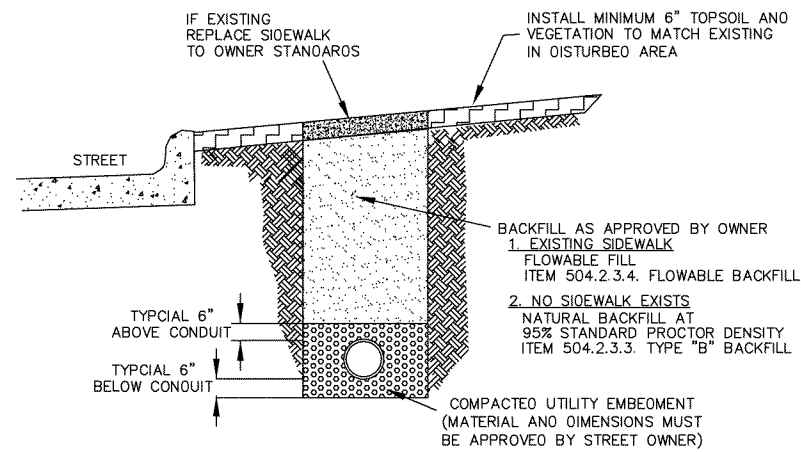
26



GENERAL NOTE: CHECK WITH STREET OWNER FOR SPECIFIC REQUIREMENTS NOT CONTAINED HEREIN

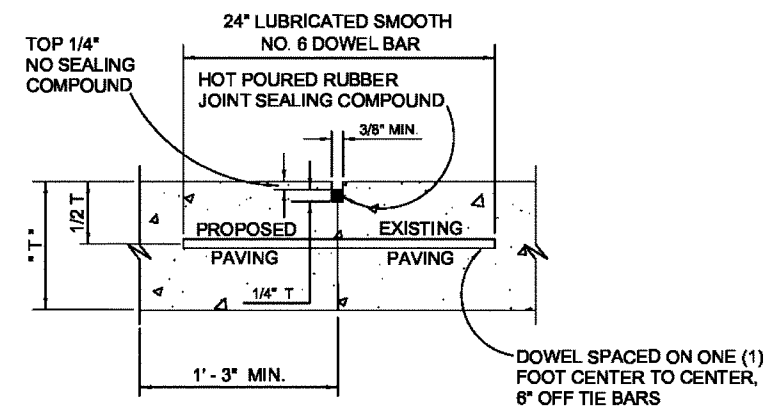


CONCRETE PAVEMENT  
N.T.S.



STREET PARKWAY  
N.T.S.

PAVEMENT CUT AND REPAIR	CITY OF ROCKWALL	STANDARD SPECIFICATION REFERENCE	402
CONCRETE AND PARKWAY		DATE	Mar. 2018
		STANDARD DRAWING NO.	R-3070A



NOTES: T = PAVEMENT

1. LONGITUDINAL BUTT CONSTRUCTION MAY BE UTILIZED IN PLACE OF LONGITUDINAL HINGED (KEYWAY) JOINT AT CONTRACTORS OPTION.
2. DOWEL BARS SHALL BE DRILLED INTO PAVEMENT HORIZONTALLY BY USE OF A MECHANICAL RIG.
3. DRILLING BY HAND IS NOT ACCEPTABLE, PUSHING DOWEL BARS INTO GREEN CONCRETE NOT ACCEPTABLE.

LONGITUDINAL BUTT JOINT  
NOT TO SCALE

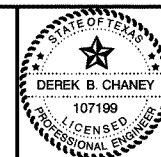
REINFORCED CONCRETE PAVEMENT	CITY OF ROCKWALL	DATE	OCT. '17	DRAWING NO.	R-2051
LONGITUDINAL BUTT JOINT					

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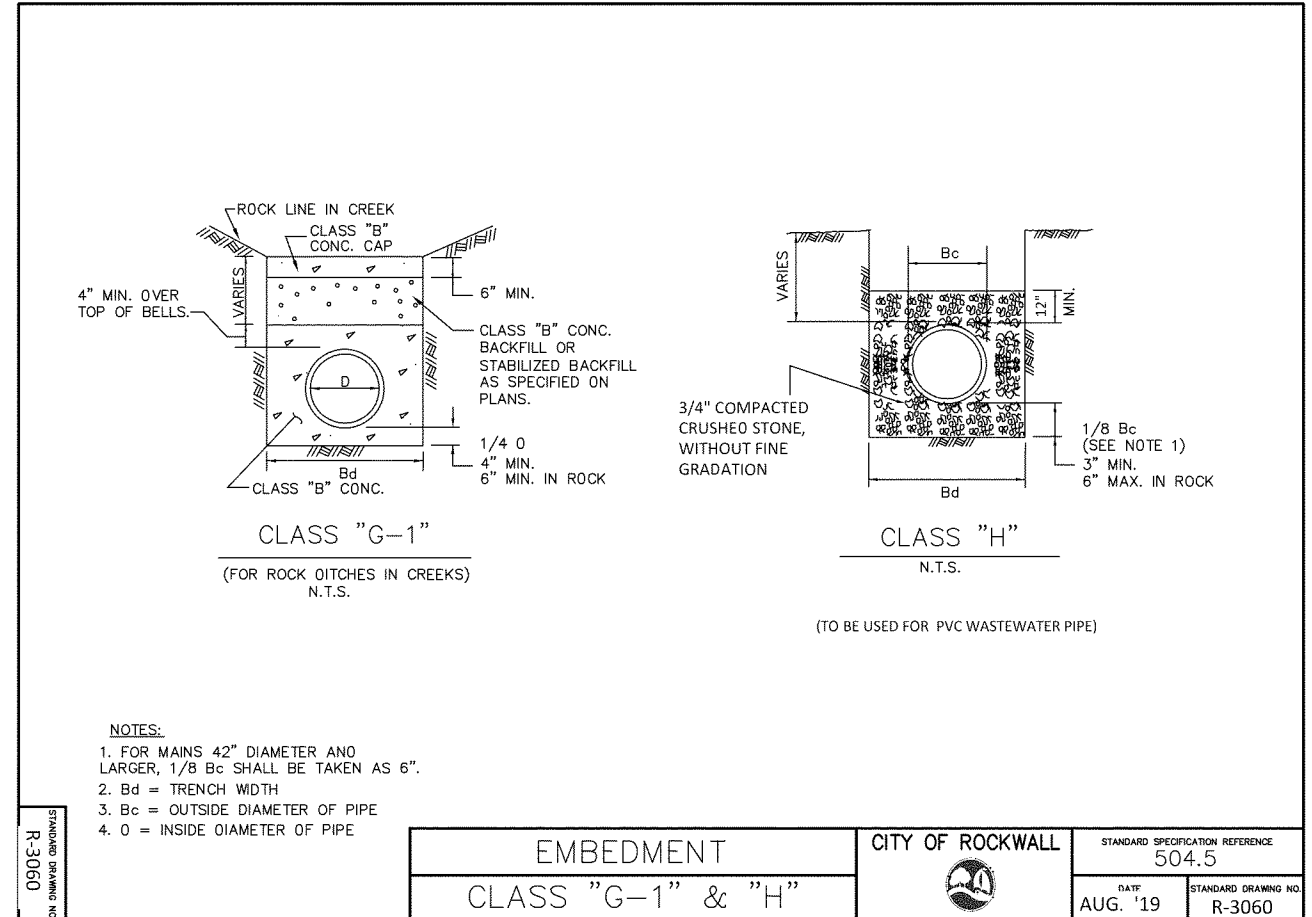
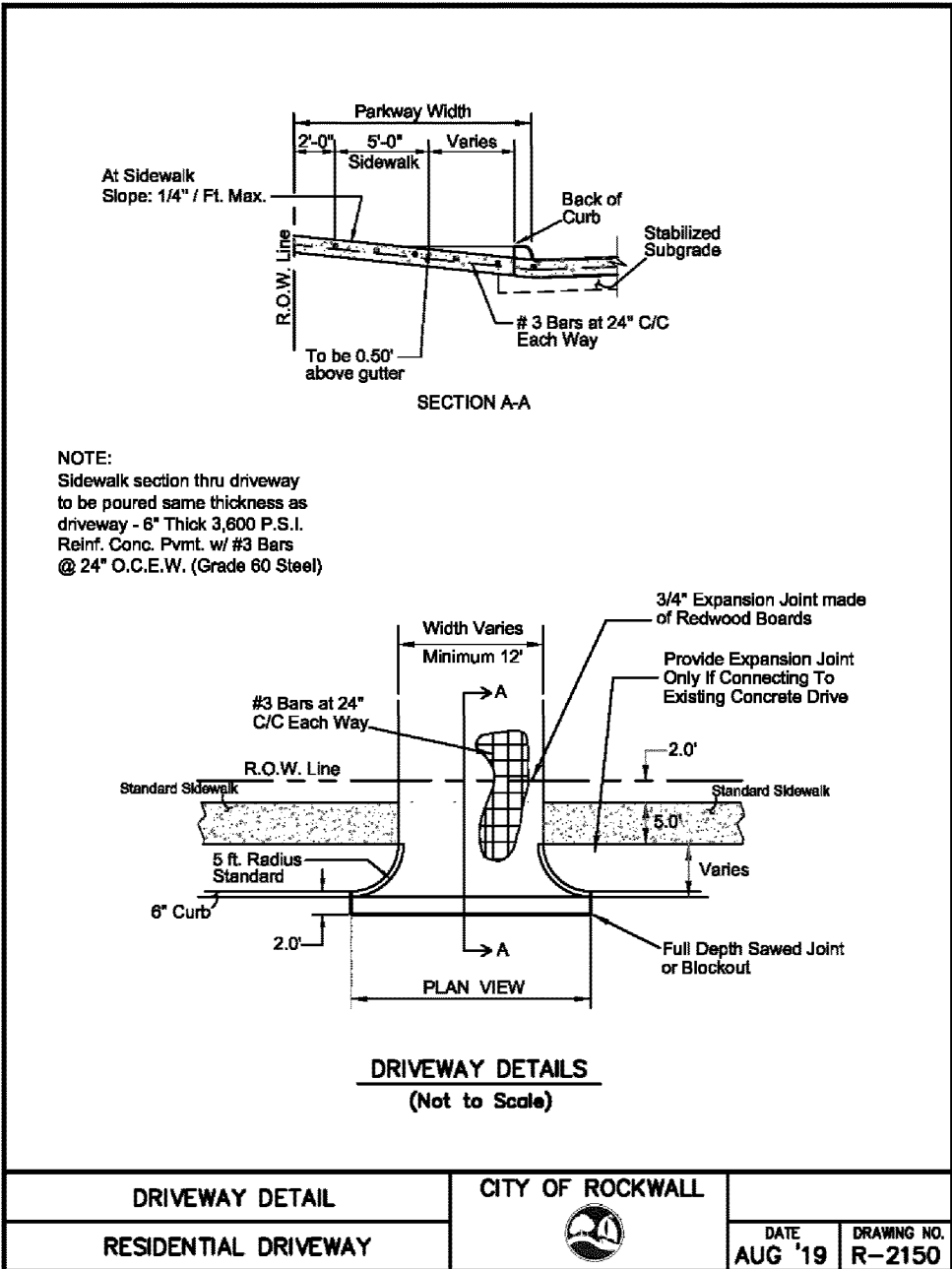
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05/21/21

**CITY OF ROCKWALL, TEXAS**  
BUFFALO CREEK TRIBUTARY 1 SANITARY SEWER IMPROVEMENTS  
CITY OF ROCKWALL CONSTRUCTION DETAILS

BHC  
PROJECT NO.  
2020-104  
July 2021

SHEET NO.

27



DRIVEWAY DETAIL	CITY OF ROCKWALL	DATE	DRAWING NO.
RESIDENTIAL DRIVEWAY		AUG '19	R-2150

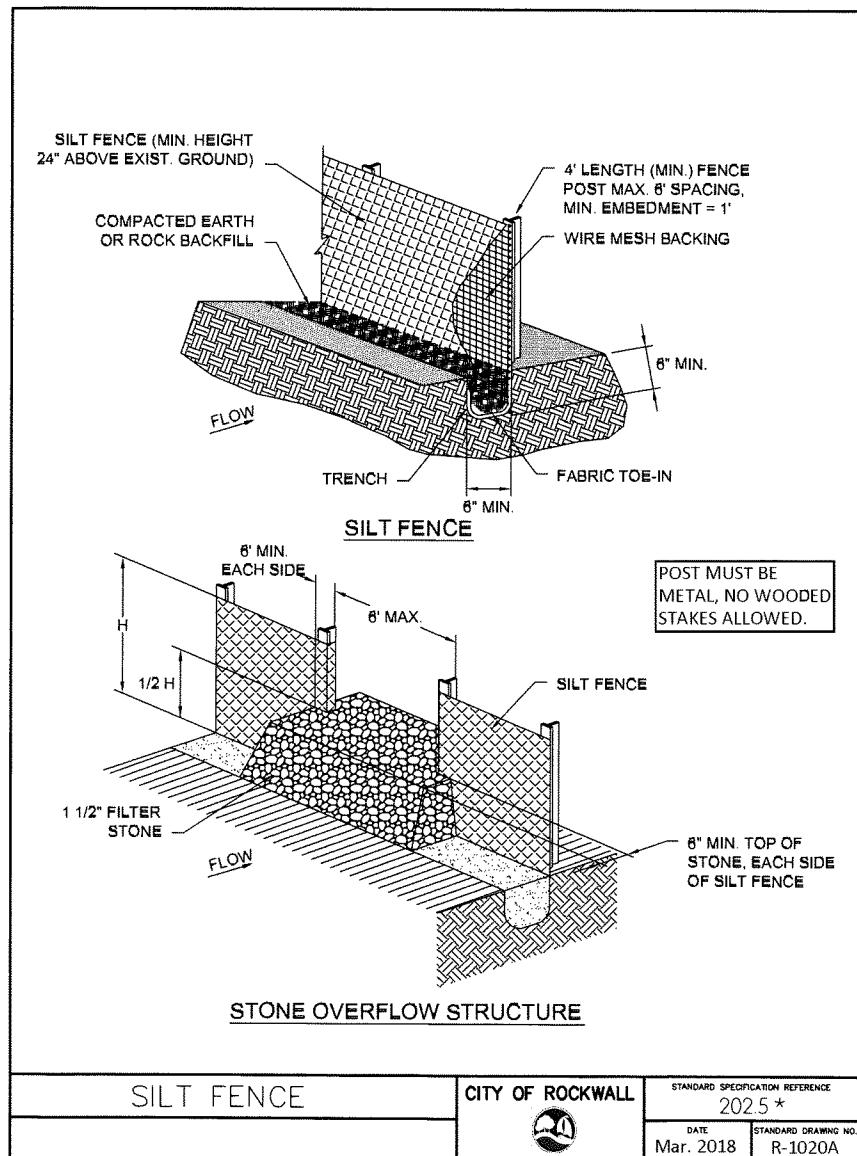
EMBEDMENT	CITY OF ROCKWALL	STANDARD SPECIFICATION REFERENCE
CLASS "G-1" & "H"		504.5
		DATE
		AUG. '19
		STANDARD DRAWING NO.
		R-3060

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				CITY OF ROCKWALL EROSION CONTROL DETAILS	July 2021	





\*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*

**SILT FENCE GENERAL NOTES:**

1. POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF ONE FOOT.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (e.g. PAVEMENT), WEIGHT FABRIC FLAP WITH ROCK ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE.
3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH SUPPORT POST OR TO WIRE BACKING, WHICH IN TURN IS ATTACHED TO THE FENCE POST. THERE SHALL BE A 3 FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.
5. INSPECTION SHALL BE AS SPECIFIED IN THE SWPPP. REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN FINAL STABILIZATION IS ACHIEVED OR ANOTHER EROSION OR SEDIMENT CONTROL DEVICE IS EMPLOYED.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF HALF THE HEIGHT OF THE FENCE. THE SILT SHALL BE DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.
8. FILTER STONE SHALL BE WRAPPED IN FILTER FABRIC AND BURIED SIX (6") INCHES MINIMUM.

\*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*

**ROCK CHECK DAM GENERAL NOTES:**

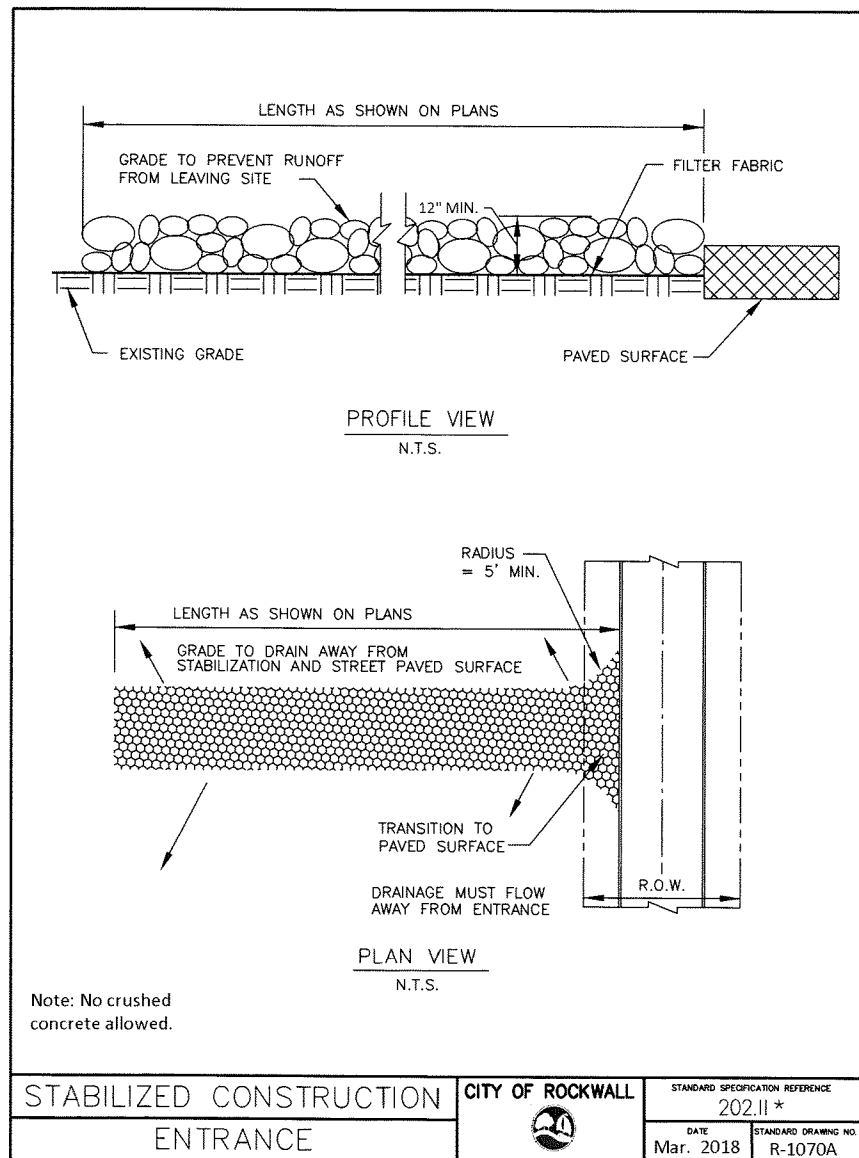
1. STONE SHALL BE WELL GRADED WITH SIZE RANGE FROM 1½ TO 3½ INCHES IN DIAMETER DEPENDING ON EXPECTED FLOWS.
2. THE CHECK DAM SHALL BE INSPECTED AS SPECIFIED IN THE SWPPP AND SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
3. WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD OF THE HEIGHT OF THE CHECK DAM OR ONE FOOT, WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF PROPERLY.
4. WHEN THE SITE HAS ACHIEVED FINAL STABILIZATION OR ANOTHER EROSION OR SEDIMENT CONTROL DEVICE IS EMPLOYED, THE CHECK DAM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.
5. FILTER STONE SHALL BE WRAPPED IN APPROPRIATE SIZED WIRE MESH TO CONTAIN STONE AND BURIED SIX (6") INCHES MINIMUM.

\*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*

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				CITY OF ROCKWALL EROSION CONTROL DETAILS	July 2021	



Note: No crushed concrete allowed.

STABILIZED CONSTRUCTION ENTRANCE	CITY OF ROCKWALL	STANDARD SPECIFICATION REFERENCE 202.11 *	
		DATE Mar. 2018	STANDARD DRAWING NO. R-1070A

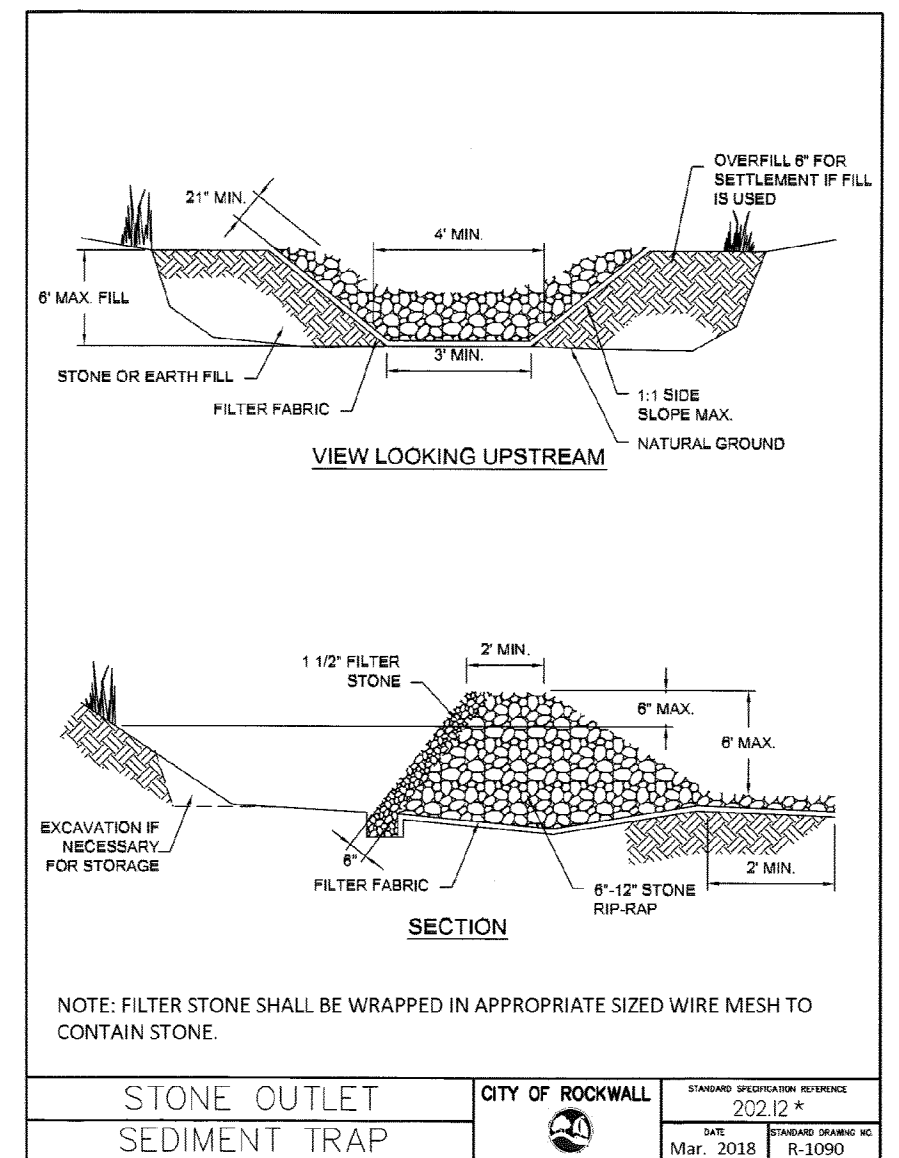
\*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*

**STABILIZED CONSTRUCTION ENTRANCE GENERAL NOTES:**

1. STONE SHALL BE 4 TO 6 INCH DIAMETER COARSE AGGREGATE.
2. MINIMUM LENGTH SHALL BE 50 FEET AND WIDTH SHALL BE 20 FEET.
3. THE THICKNESS SHALL NOT BE LESS THAN 12 INCHES.
4. THE WIDTH SHALL BE NO LESS THAN THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
5. WHEN NECESSARY, VEHICLES SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO A PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WITH DRAINAGE FLOWING AWAY FROM BOTH THE STREET AND THE STABILIZED ENTRANCE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
6. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PAVED SURFACES. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PAVED SURFACES MUST BE REMOVED IMMEDIATELY.
7. THE ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.
8. PREVENT SHORTCUTTING OF THE FULL LENGTH OF THE CONSTRUCTION ENTRANCE BY INSTALLING BARRIERS AS NECESSARY.
9. INSPECTION SHALL BE AS SPECIFIED IN THE SWPPP.
10. NO CRUSHED CONCRETE ALLOWED.

STABILIZED CONSTRUCTION ENTRANCE	CITY OF ROCKWALL	STANDARD SPECIFICATION REFERENCE 202.11 *	
		DATE Mar. 2018	STANDARD DRAWING NO. R-1070B

\*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*



NOTE: FILTER STONE SHALL BE WRAPPED IN APPROPRIATE SIZED WIRE MESH TO CONTAIN STONE.

STONE OUTLET SEDIMENT TRAP	CITY OF ROCKWALL	STANDARD SPECIFICATION REFERENCE 202.12 *	
		DATE Mar. 2018	STANDARD DRAWING NO. R-1090

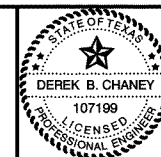
\*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*

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 PROFESSIONAL ENGINEERS  
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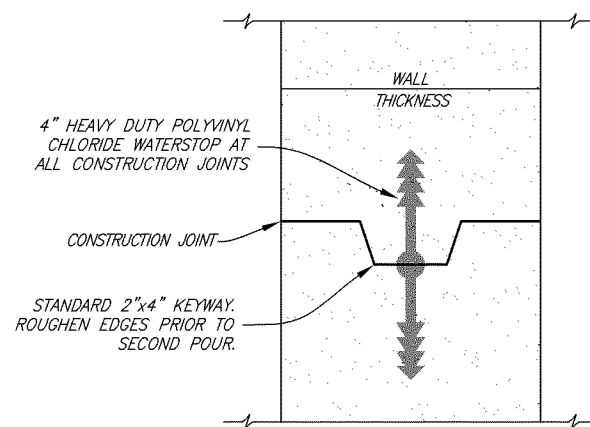
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**CITY OF ROCKWALL, TEXAS**  
 BUFFALO CREEK TRIBUTARY 1 SANITARY SEWER IMPROVEMENTS  
 CITY OF ROCKWALL EROSION CONTROL DETAILS

BHC  
 PROJECT NO.  
 2020-104  
 July 2021

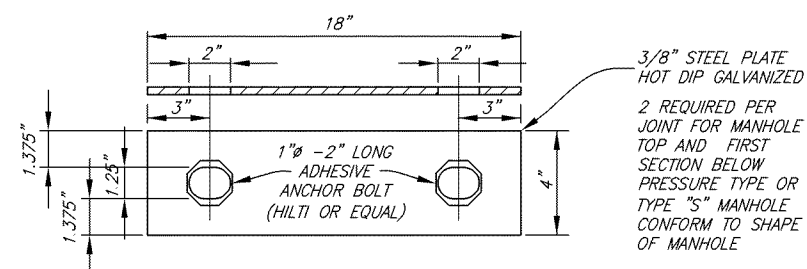
SHEET NO.  
**30**





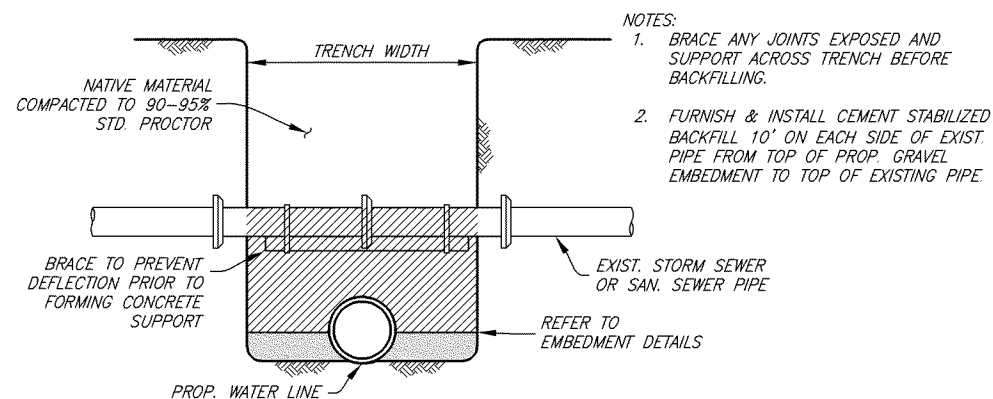
**CAST IN PLACE MANHOLE CONSTRUCTION JOINT**

STANDARD SANITARY SEWER 4', 5' & 6' DIAMETER CONCENTRIC MANHOLES  
KEYWAY WITH WATERSTOP  
NO SCALE



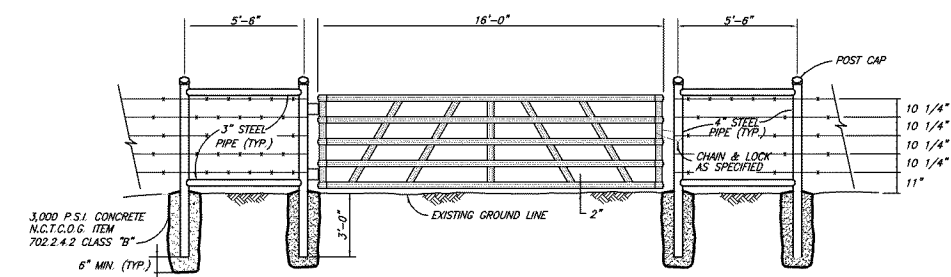
**JOINT RESTRAINER FOR PRECAST MANHOLE**

SEE SPECIFICATIONS FOR PRECAST MANHOLE REQUIREMENTS  
NO SCALE



**WATER, SANITARY OR STORM SEWER SUPPORT**

NO SCALE

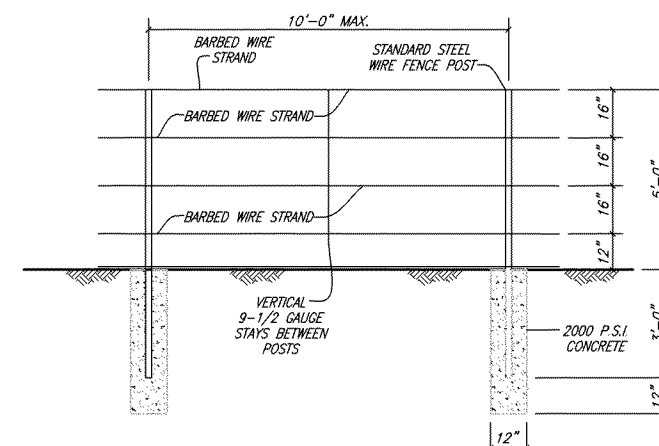


**16' STEEL GATE DETAIL**

NO SCALE

**STEEL GATE GENERAL NOTES:**

1. BARBED WIRE SHALL BE TWO STRANO TWISTED NO. 12-1/2 AWS GAUGE GALVANIZED STEEL WIRE WITH TWO-POINT BARBS OF NO. 14 AWS GAUGE STEEL WIRE AND CONFORMING TO ZINC-COATED (GALVANIZED) STEEL BARBED WIRE, ASTM DESIGNATION A 121, CLASS 1.
2. WOVEN WIRE FENCE FABRIC (HOG WIRE) SHALL BE OF A GOOD COMMERCIAL QUALITY OF STEEL MEETING THE REQUIREMENTS OF ZINC-COATED(GALVANIZED) STEEL WOVEN WIRE FENCE FABRIC, ASTM DESIGNATION A 116. THE TOP AND BOTTOM WIRES SHALL BE A MINIMUM NO. 10 AWS GAUGE AND THE INTERMEDIATE WIRES AND VERTICAL STAYS SHALL BE NO. 12-1/2 AWS GAUGE.
3. METAL POSTS, RAILS, GATES, BRACES AND FITTINGS MAY BE ROLLED, FORMED OR TUBULAR IN CROSS SECTION AND SHALL BE IN ACCORDANCE WITH STRENGTH REQUIREMENTS OF METAL POSTS AND RAILS FOR INDUSTRIAL CHAIN LINK FENCE, ASTM DESIGNATION F669. ALL POSTS, RAILS, GATES AND BRACES NOT GALVANIZED SHALL BE PAINTED WITH AN APPROVED ANTI-CORROSIVE PAINT. POST CAPS SHALL BE INSTALLED ON THE OPEN END OF PIPE POSTS TO PREVENT CORROSION. FITTINGS SHALL BE IN ACCORDANCE WITH FENCE FITTINGS, ASTM DESIGNATION F626.
4. PULL POST UNITS FOR FARM FENCE SHALL BE LOCATED AT 300 FEET CENTER TO CENTER MAXIMUM. METAL T-POSTS SHALL BE SPACED AT 10 FEET C.-C. AT CONNECTIONS TO EXISTING FENCE, A PULL POST UNIT, CORNER UNIT OR JUNCTION UNIT SHALL BE CONSTRUCTED.
5. GATE MANUFACTURER SHALL FURNISH HINGES, BOLTS AND A SLIDING LATCH FOR EACH GATE.
6. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 P.S.I. IN 28 DAYS.
7. LINE BRACE ASSEMBLY SHALL BE PLACED ON APEX OF ALL CURVES.
8. METAL T-POSTS (6-1/2" MIN.) TO BE GREEN WITH REFLECTIVE TOPS.
9. FENCE REPLACEMENT SHALL BE "IN KINO".



**FOUR-STRAND BARBED WIRE FENCE**

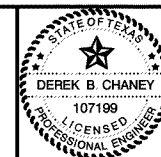
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*Signature*  
05/21/22

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BUFFALO CREEK TRIBUTARY 1 SANITARY SEWER IMPROVEMENTS  
MISCELLANEOUS CONSTRUCTION DETAILS

BHC PROJECT NO 2020-104  
July 2021

SHEET NO. **31**