# **CONSTRUCTION PLANS FOR** NORTHWEST WILLIAMSON CO. MUNICIPAL UTILITY DISTRICT NO.2 PARMER RANCH, PHASES 9 & 10 DRAINAGE, PAVING, WASTEWATER & WATER SYSTEM IMPROVEMENTS **CITY OF GEORGETOWN** WILLIAMSON COUNTY, TEXAS 2021-40-CON



### NOTE:

- 1. These construction plans were prepared, sealed, signed, and dated by a Texas Licensed Professional Engineer. Therefore based on the engineer's concurrence of compliance, the construction plans for construction of the proposed project are hereby approved subject to the Standard Construction Specifications and Details Manual and all other applicable City, State and Federal Requirements and Codes.
- 2. This project is subject to all City Standard Specifications and Details in effect at the time of submittal of the project to the City.
- 3. The subdivision is 36.94 acres 4. All electric distribution lines and individual service lines shall be installed underground. if overhead lines existed prior to underground installation, such poles, guy wires, and related structures shall be removed following construction of the underground infrastructure.
- 5. All electric and communication infrastructure shall comply with UDC section 13.06 6. All bearings and coordinates are referenced to the Texas Coordinate System, Central Zone. NAD 83 horizontal control datum and NAVD 88 vertical control datum. All coordinates are grid.



TEXAS ONE-CALL 800-344-8377

NOTE: CONTRACTOR IS TO FURNISH A SET OF CONSTRUCTION PLANS BACK TO THE ENGINEER AT THE END OF THE PROJECT WITH ALL DEVIATIONS NOTED IN RED INK ON THE PLAN SHEETS. CONTRACTOR SHALL NOT RECEIVE FINAL PAYMENT UNTIL COMPLETE "AS-BUILT" SET IS RETURNED TO ENGINEER

REQUEST

R. Travis Perthuis Chair

ATTEST

Secretary



PLANNING AND ZONING COMMISSION **CERTIFICATE OF APPROVAL** 

DATE: February 15, 2022 CASE NUMBER: 2021-40-CON PROPERTY OWNER: Parmer Ranch Partners, LP, c/o loe Owen LOCATION:

10128 Ronald W Reagan Blvd LEGAL DESCRIPTION: 36.9 acres in the Chas. H. Delaney Sur. A-181. Approval based on the findings that the request meets the City of Georgetown ordinances, rules and regulations identified in the Exhibits.

The above referenced request was APPROVED by the Georgetown Planning and Zoning Commission ("Commission") on February 15, 2022, by a vote of 5 in favor and 0 in opposition with \_\_\_\_\_ abstaining.

COMMISSION:

f. i - pe :

Faylah McCard

Kaylah McCord,

RYAN ERIC MOOR Submitted By TYENW CENSE A 03/23/2022 Bryan E. Moore, P.E. Date

Reviewed for compliance with County requirements: Doug Woodall, P.C. For Withamson County

972-866-0300 JOE@OWENH SURVE'

ew limited to water, wastewater, and drainage and does

not indicate review of the adequacy of the design for facilities.

In approving these plans the district must rely on the

adequacy of the work of the design engineer.

03/23/2022

Date

STEGER BIZZELL **TBPLS FIRM NO. 10003700** 1978 S. AUSTIN AVE GEORGETOWN, TEXAS 78626

BENCHMARKS: BM 1 - SQUARE WITH AN "X" CUT ON CONCRETE AT GUARD RAIL FOOTING LOCATED APPROXIMATLEY 3773 FEET SOUTH OF RONALD REAGAN BLVD. CENTERLINE AND APPROXIMATLEY 43 FEET NORTH OF WILLIAMS DR (R.M. 2338) CENTERLINE. ELEV=942.62

N=10,239,902.37 E=3,094,909.48 STEGER BIZZELL 1978 S. AUSTIN AVENUE GEORGETOWN, TX 78626 TEXAS REGISTERED ENGINEERING FIRM F-181 V/EB TBPLS FIRM No.10003700 STEGERBIZZELL.COM 512.930.9412 >>ENGINEERS >>PLANNERS >>SURVEYORS

1	
9	There are existing water pipelines, underground telephon cables and other above and below ground utilities in the vicinity of this project. The Contractor shall contact all
2	appropriate companies prior to any construction in the area and determine if any conflicts exist. If so, the
2	Contractor shall immediately contact the Engineer who shall revise the design as necessary.

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EROSION AND SEDIMENTATION CONTROL PLAN

EROSION AND SEDIMENTATION CONTROL DETAILS

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PHASING PLAN

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08

Number

# **OWNER / DEVELOPER**

PARMER RANCH PARTNERS, L.P. JOE OWEN - GENERAL PARTNER 6706 W COURT ARD, AUSTIN, TEXAS 78730 972-866-0300 JOE@OWENHOLDINGS.COM
SURVEYOR
Texas Land Surveying, Inc. TBPLS FIRM NO. 10056200 3613 WILLIAMS DRIVE, STE. 903 GEORGETOWN, TEXAS 78628 512-930-1600 CONTACT: KENNETH CRIDER,R,P.L,S

### ENGINEER/APPLICANT:



OFFICE: 512-930-9412 CONTACT: BRYAN MOORE



NORTHWEST WILLIAMSON CO.MUNICIPAL UTILITY DISTRICT NO.2: 2019-4-PP SEPTEMBER 3, 2019

> Project Number: 22223-PHASE 9 & 10

## 1 of 60

### SEQUENCE OF CONSTRUCTION

- 1. Temporary erosion and sedimentation controls are to be installed as indicated on the approved construction plan and in accordance with the Stormwater Pollution Prevention Plan (SWPPP) that is required to be posted on the site. Install tree protection and initiate tree mitigation measures.
- 2. Prior to beginning construction, the Owner or his authorized representative, shall convene a Pre-Construction Conference between the City of Georgetown, Engineer, Contractor, County Engineer (if applicable), Texas Commission on Environmental Quality Field Office, and any other affected parties. Notify all such parties at least 48 hours prior to the time of the conference and 48 hours prior to beginning construction.
- The Environmental Project Manager, and/or Site Supervisor, and/or Designated Responsible Party, and the General Contractor will follow the Storm Water Pollution Prevention Plan (SWPPP) posted on the site. Temporary erosion and sedimentation controls will be revised, if needed, to comply with City Inspectors' directives, and revised construction schedule relative to the water quality plan requirements and the erosion plan.
- Rough grade the pond(s) at 100% proposed capacity. Either the permanent outlet structure or a temporary outlet must be constructed prior to development of embankment or excavation that leads to ponding conditions. The outlet system shall be protected from erosion and shall be maintained throughout the course of construction until installation of the permanent water quality pond(s).
- Temporary erosion and sedimentation controls will be inspected and maintained in accordance with the Storm Water Pollution Prevention Plan (SWPPP) posted on the
- Begin site clearing/construction activities.
- 7. Permanent water quality ponds or controls will be cleaned out and filter media will be installed prior to/concurrently with revegetation of site.
- 8. Complete construction and start revegetation of the site and installation of landscaping.
- 9. Upon completion of the site construction and revegetation of a project site, a final inspection will be scheduled by the appropriate City Inspector.
- 10. After a final inspection has been conducted by the City Inspector and with approval from the City Inspector, remove the temporary erosion and sedimentation controls and complete any necessary final revegetation resulting from removal of the controls. Conduct any maintenance and rehabilitation of the water quality ponds or controls.

### ACCESSIBILITY NOTES

- Project shall be constructed in full compliance with the Texas Accessibility Standards (TAS) 2012
- Slopes in the direction of pedestrian travel shall not exceed 5% (1:20) or have a cross slope greater than 2% (1:48). This shall include routes that cross-vehicular ways including but not limited pedestrian/ vehicular ways such as street intersections.
- A. Exception: Per TAS 405.8 and 68.102 (1) grades at the new sidewalks parallel to the streets shall be equal to, or less than, the street grade. Should the new sidewalks exceed the street grade, and the new sidewalk grades exceed 5% in the direction of travel, ramps complying with TAS 405 are required at these conditions. Curb Ramps:
- A. Curb ramps shall not exceed 8.3% (1:12) in the direction of pedestrian travel.
- B. Curb ramps flares (wings) shall not exceed 1:10. C. Minimum width of a curb ramp is 36".
- D. Top of the curb ramp must be 2% in all directions for an area 36" wide and 48" deep. E. When truncated domes are used, the truncated dome system shall extend the full width of the curb ramp and for a minimum depth of 24" at the bottom of the curb ramp.
- F. Returned curb ramps shall only be used where the adjacent surface on one or both sides of the curb ramp do not allow pedestrian travel such as but not limited to stop lights, stop signs and permanently mounted waste receptacles.
- 4. There shall be no changes in level greater than  $\frac{1}{4}$  on any accessible route or  $\frac{1}{2}$  with a 1:2 bevel.
- Decomposed granite surfaces, or similar Engineer-approved surfaces shall be compacted tight and maintained by the Owner at all times.
- 6. Provide directional signage using the international symbol of accessibility when not all routes are accessible. Signage shall be placed at the beginning of the route to avoid a patron from proceeding on a non-accessible route.
- 7. Verify that no plantings or other site elements on circulation paths would be protruding objects based on TAS 307 (protrudes more 4" and is higher than 27" from the surface and less than 80" from the surface).

Contractor shall notify the Engineer before proceeding with any Work, which is in conflict with the Texas Accessibility Standards. Contractor is financially responsible for proceeding with any Work without written direction on any clarification from the Engineer.

### GENERAL CONSTRUCTION NOTES

- Prior to beginning construction, the Owner or his authorized representative, shall convene a Pre-Construction Conference between the City of Georgetown, Engineer, Contractor, County Engineer (if applicable), Texas Commission on Environmental Quality Field Office, and any other affected parties. Notify all such parties at least 48 hours prior to the time of the conference and 48 hours prior to beginning construction.
- Any existing utilities, pavement, curbs, and/or sidewalks damaged or removed shall be repaired by the Contractor at his expense before acceptance of the project. The location of any existing water, wastewater lines or other utilities shall be verified by the
- City of Georgetown & other utility providers prior to construction.
- 4. Manhole frames, covers, water valve covers, etc., shall be raised to finished pavement grade at the Contractor's expense by a qualified contractor with City inspection. All utility adjustments shall be completed prior to final paving construction.
- Steger Bizzell has endeavored to design these plans compliant with ADA/TDLR and other accessibility requirements. However, the contractor shall not be relieved of any responsibility for constructing these improvements compliant with all applicable accessibility standards. If the contractor notices any discrepancies between these plans and accessibility laws/rules, he is to stop work in the area of conflict and notify Steger Bizzell immediately for a resolution and/or revision to these plans. Steger Bizzell shall not be held responsible for constructing this site compliant with accessibility laws/rules regardless of what is shown in these plans.
- Topography based upon mapping, dated August 8, 2016 by Texas Land Surveying. The contractor shall notify the design engineer in writing of any discrepancies discovered during construction prior to proceeding.

### TCEQ WATER DISTRIBUTION SYSTEM GENERAL CONSTRUCTION NOTES

- 1. This water distribution system must be constructed in accordance with the current Texas Commission on Environmental Quality (TCEQ) Rules and Regulations for Public Water Systems 30 Texas Administrative Code (TAC) Chapter 290 Subchapter D. When conflicts are noted with local standards, the more stringent requirement shall be applied. Construction for public water systems must always, at a minimum, meet TCEQ's "Rules and Regulations for Public Water Systems
- 2. An appointed engineer shall notify in writing the local TCEQ's Regional Office when construction will start. Please keep in mind that upon completion of the water works project, the engineer or owner shall notify the commission's Water Supply Division, in writing, as to its completion and attest to the fact that the work has been completed essentially according to the plans and change orders on file with the commission as required in 30 TAC §290.39(h)(3).
- 3. All newly installed pipes and related products must conform to American National Standards Institute (ANSI)/NSF International Standard 61 and must be certified by an organization accredited by ANSI, as required by 30 TAC §290.44(a)(1).
- 4. Plastic pipe for use in public water systems must bear the NSF International Seal of Approval (NSF-pw) and have an ASTM design pressure rating of at least 150 psi or a standard dimension ratio of 26 or less, as required by 30 TAC §290.44(a)(2).
- 5. No pipe which has been used for any purpose other than the conveyance of drinking water shall be accepted or relocated for use in any public drinking water supply, as required by 30 TAC §290.44(a)(3).
- 6. Water transmission and distribution lines shall be installed in accordance with the manufacturer's instructions. However, the top of the water line must be located below the frost line and in no case shall the top of the water line be less
- 7. Pursuant to 30 TAC §290.44(a)(5), the hydrostatic leakage rate shall not exceed the amount allowed or recommended by the most current AWWA formulas for PVC pipe, cast iron and ductile iron pipe. Include the formulas in the notes on the plans.
  - The hydrostatic leakage rate for polyvinyl chloride (PVC) pipe and appurtenances shall not exceed the amount allowed or recommended by formulas in America Water Works Association (AWWA) C-605 as required in 30 TAC §290.44(a)(5). Please ensure that the formula for this calculation is correct and most current formula is in use;
  - $Q = L x D x P^{1/2}$
  - 148.000
  - Q = the quantity of makeup water in gallons per hour, L = the length of the pipe section being tested, in feet,
  - D = the nominal diameter of the pipe in inches, and P = the average test pressure during the hydrostatic test in pounds per square inch (psi).
  - The hydrostatic leakage rate for ductile iron (DI) pipe and appurtenances shall not exceed the amount allowed or recommended by formulas in America Water Works Association (AWWA) C-600 as required in 30 TAC \$290.44(a)(5). Please ensure that the formula for this calculation is correct and most current formula is in use;
  - $L = S \times D \times P^{1/2}$

square inch (psi).

- 148.000
- L = the quantity of makeup water in gallons per hour, S = the length of the pipe section being tested, in feet,
- D = the nominal diameter of the pipe in inches, and P = the average test pressure during the hydrostatic test in pounds per
- 8. The maximum allowable lead content of pipes, pipe fittings, plumbing fittings,
- and fixtures to 0.25 percent. 9. The system must be designed to maintain a minimum pressure of 35 psi at all points within the distribution network at flow rates of at least 1.5 gallons per minute per connection. When the system is intended to provide firefighting
- capability, it must also be designed to maintain a minimum pressure of 20 psi under combined fire and drinking water flow conditions as required by 30 TAC §290.44(d). 10. The contractor shall install appropriate air release devices in the distribution
- system at all points where topography or other factors may create air locks in the lines. All vent openings to the atmosphere shall be covered with 16-mesh or finer, corrosion resistant screening material or an acceptable equivalent as required by 30 TAC §290.44(d)(1).
- 11. Pursuant to 30 TAC §290.44(d)(4), accurate water meters shall be provided. Service connections and meter locations should be shown on the plans. 12. Pursuant to 30 TAC §290.44(d)(5), sufficient valves and blowoffs to make
- repairs. The engineering report shall establish criteria for this design. 13. Pursuant to 30 TAC §290.44(d)(6), the system shall be designed to afford effective circulation of water with a minimum of dead ends. All dead-end mains shall be provided with acceptable flush valves and discharge piping. All dead-end lines less than two inches in diameter will not require flush valves if
- they end at a customer service. Where dead ends are necessary as a stage in the growth of the system, they shall be located and arranged to ultimately connect the ends to provide circulation. 14. The contractor shall maintain a minimum separation distance in all directions of
- nine feet between the proposed waterline and wastewater collection facilities including manholes and septic tank drainfields. If this distance cannot be maintained, the contractor must immediately notify the project engineer for further direction. Separation distances, installation methods, and materials utilized must meet 30 TAC §290.44(e)(1-4) of the current rules.
- 15. Pursuant to 30 TAC §290.44(e)(5), the separation distance from a potable waterline to a wastewater main or lateral manhole or cleanout shall be a minimum of nine feet. Where the nine-foot separation distance cannot be achieved, the potable waterline shall be encased in a joint of at least 150 psi pressure class pipe at least 18 feet long and two nominal sizes larger than the new conveyance. The space around the carrier pipe shall be supported at

	NO.	REVISION	BY	DATE	
WARNING!					EJH, LB, TG, NN
There are existing water pipelines, underground telephone cables and other above and below ground utilities in the					
vicinity of this project. The contractor shall contact all					EJH, LB, TG, NN DRAWN BY:
area and determine if any conflicts exist. If so, the					
shall revise the design as necessary.					CHECKED BY:
					APPROVED BY:

than 24 inches below ground surface, as required by 30 TAC §290.44(a)(4).

five-foot intervals with spacers or be filled to the springline with washed sand. The encasement pipe shall be centered on the crossing and both ends sealed with cement grout or manufactured sealant.

16. Pursuant to 30 TAC §290.44(e)(6), fire hydrants shall not be installed within nine feet vertically or horizontally of any wastewater line, wastewater lateral, or wastewater service line regardless of construction.

- 17. Pursuant to 30 TAC §290.44(e)(7), suction mains to pumping equipment shall not cross wastewater mains, wastewater laterals, or wastewater service lines. Raw water supply lines shall not be installed within five feet of any tile or concrete wastewater main, wastewater lateral, or wastewater service line.
- 18. Pursuant to 30 TAC §290.44(e)(8), waterlines shall not be installed closer than ten feet to septic tank drainfields.
- 19. Pursuant to 30 TAC §290.44(f)(1), the contractor shall not place the pipe in water or where it can be flooded with water or sewage during its storage or installation
- 20. Pursuant to 30 TAC §290.44(f)(2), when waterlines are laid under any flowing or intermittent stream or semi-permanent body of water the water main shall be installed in a separate watertight pipe encasement. Valves must be provided on each side of the crossing with facilities to allow the underwater portion of the system to be isolated and tested.
- 21. The contractor shall disinfect the new water mains in accordance with AWWA Standard C-651 and then flush and sample the lines before being placed into service. Samples shall be collected for microbiological analysis to check the effectiveness of the disinfection procedure which shall be repeated if contamination persists. A minimum of one sample for each 1,000 feet of completed water line will be required or at the next available sampling point beyond 1,000 feet as designated by the design engineer, in accordance with 30 TAC §290.44(f)(3).

### **CITY OF GEORGETOWN GENERAL NOTES**

- 1. These construction plans were prepared, sealed, signed and dated by a Texas Licensed Professional Engineer. Therefore based on the engineer's concurrence of compliance, the construction plans for construction of the proposed project are hereby approved subject to the standard Construction Specifications and Details Manual and all other applicable City, State and Federal Requirements and Codes. 2. This project is subject to all City Standard Specifications and Details in effect at the
- time of submittal of the project to the City. 3. The site construction plans shall meet all requirements of the approved site plan.
- Wastewater mains and service lines shall be SDR 26 PVC.
- 5. Wastewater mains shall be installed without horizontal or vertical bends.
- Maximum distance between wastewater manholes is 500 feet. 7. Wastewater mains shall be low pressure air tested and mandrel tested by the
- contractor according to the City of Georgetown and TCEQ requirements.
- 8. Wastewater manholes shall be vacuum tested and coated by the contractor according to City of Georgetown and TCEQ requirements. 9. Wastewater mains shall be camera tested by the contractor and submitted to the City
- on DVD format prior to paving the streets. 10. Private water system fire lines shall be tested by the contractor to 200 psi for 2 hours.
- 11. Private water system fire lines shall be ductile iron piping from the water main to the building sprinkler system, and 200 psi C900 PVC for all others.
- 12. Public water system mains shall be 150 psi C900 PVC and tested by the contractor at 150 psi for 4 hours. 13. All bends and changes in direction on water mains shall be restrained and thrust
- blocked
- 14. Long fire hydrant leads shall be restrained. 15. All water lines are to be bacteria tested by the contractor according to the City standards and specifications.
- 16. Water and Sewer main crossings shall meet all requirements of the TCEQ and the
- 17. Flexible base material for public streets shall be TXDOT Type A Grade 1. 18. Hot mix asphaltic concrete pavement shall be Type D unless otherwise specified and
- shall be a minimum of 2 inches thick on public streets and roadways. 19. All sidewalk ramps and sidewalks not intended to be constructed with the individual
- houses shall be installed with the public infrastructure. 20. A maintenance bond is required to be submitted to the City prior to acceptance of the public improvements. This bond shall be established for 2 years in the amount of 10%
- of the cost of the public improvements and shall follow the City format. 21. Record drawings of the public improvements shall be submitted to the City by the design engineer prior to acceptance of the project. These drawings shall be TIFF or
- PDF disk (300 dpi). 22. All electrical distribution lines and individual services shall be installed underground. If overhead lines existed prior to underground installation, such poles, guy wires and related structures shall be removed following construction of the underground
- infrastructure 23. All electric and communication infrastructure shall comply with UDC section 13.06

### PERMANENT EROSION CONTROL NOTES

- All disturbed areas shall be restored as noted below:
- a. A minimum of four inches of imported sandy loam topsoil or approved equal shall be placed in all drainage channels (except rock) and on all cleared areas. b. Grass areas may be sodded, plugged, sprigged or seeded except that solid sod shall be
- used in swales or other areas subject to erosion. The seeding for permanent erosion control shall be applied over areas disturbed by
- construction as follows, unless specified elsewhere: i. From September 15 to March 1, seeding shall be with a combination of 1 pound per
- 1,000 square feet of unhulled Bermuda and 7 pounds per 1,000 square feet of Winter Rye with a purity of 95% with 90% germination.
- ii.From March 2 to September 14, seeding shall be with hulled Bermuda at a rate of 3 pounds per 1,000 square feet with a purity of 95% with 85% germination. c. Fertilizer shall be slow release granular or pelleted type and shall have an analysis of
- 15-15-15 and shall be applied at the rate of 23 pounds per acre once at the time of planting and again once during the time of establishment. d. All planted areas shall be provided with a readily available water supply and watered
- as necessary to ensure continuous healthy growth and development. The planted area shall be irrigated or sprinkled in a manner that will not erode the top soil, but will sufficiently soak the soil to a depth of six inches. The irrigation shall occur at ten-day intervals during the first two months. Rainfall occurrences of 1/2 inch or more shall postpone the watering schedule for one week.
- e. Mulch type used shall be Mulch, applied at a rate of 1,500 pounds per acre. 2. Disturbed areas within areas to become public shall be re-vegetated to the City of Georgetown requirements. See section G7 of the City of Georgetown Specifications.



ADDRESS 1978 S. AUSTIN AVENUE GEORGETOWN, TX 78626 TEXAS REGISTERED ENGINEERING FIRM F-181 TBPLS FIRM No.10003700 STEGERBIZZELL.COM 512.930.9412 SERVICES >>PLANNERS >>SURVEYORS >>ENGINEERS

STEGER BIZZELL

### WILLIAMSON COUNTY CONSTRUCTION NOTES

### B4 - Construction -- General

- B4.1 A preconstruction meeting shall be scheduled prior to the start of construction. The Design Engineer, Owner, Contractor, Subcontractors, and County Engineer shall attend this meeting. All roads are to be constructed in accordance with the construction documents as approved by the County Engineer and in accordance with the specifications found in the current version of the "Texas Department of Transportation Manual Standard Specifications for Construction of Highways, Streets, and Bridges" unless otherwise stated on the construction documents approved by the County Engineer.
- B4.2 All materials shall be sampled and tested by an Independent Testing Laboratory in accordance with the construction documents approved by the County Engineer. The Owner shall pay for all testing services and shall furnish the County Engineer with certified copies of these test results. The
- County Engineer must approve the test results prior to constructing the next course of the roadway structure. Any material which does not meet the minimum required test specifications shall be removed and recompacted or replaced unless alternative remedial action is approved in writing from the County Engineer.
- B4.3 Except for electrical lines, all underground nonferrous utilities within a right-of-way or easement must be accompanied by ferrous metal lines to aid in tracing the location of said utilities through the use of a metal detector.
- B4.4 All pavements are to be designed by a Registered Professional Engineer. The design shall be based on a 20-year design life and in conjunction with recommendations based upon a soils report of samples taken along the proposed roadways. Test borings shall be placed at a maximum spacing of 500 feet or other sampling frequency approved by the County Engineer based on recommendations provided by the geotechnical engineer. The soils report and pavement design shall be submitted to the County Engineer for review. The pavement design must be approved by the County Engineer prior to or concurrently with the review and approval of the construction plans. In addition to the basis of the pavement design, the soils report shall contain the results of sampled and tested subgrade for plasticity index, pH, sulfate content, and maximum density.

### B5 - Subgrade

- B5.1 The preparation of the subgrade shall follow good engineering practices as directed by the County Engineer in conjunction with recommendations outlined in the geotechnical report. When the Plasticity Index (PI) is greater than 20, a sufficient amount of lime shall be added as described in Item 260 of the current edition of the TxDOT Standard Specifications for Construction until the PI is less than 20. If the addition of lime as described in Item 260 is not feasible, an alternate stabilizing design shall be proposed and submitted to the County Engineer for approval. The subgrade shall be prepared and compacted to achieve a dry density per TxDOT Item 132. In addition, proof rolling may be required by the County Engineer.
- B5.2 The subgrade shall be inspected and approved by an Independent Testing Laboratory and a certified copy of all inspection reports furnished to the County Engineer, who must approve the report prior to application of the base material. All density test reports shall include a copy of the work sheet showing the percentage of the maximum dry (Proctor) density. The number and location of all subgrade tests shall be determined by the County Engineer.

### B6 - Base Material

- B6.1 Base material shall conform to Item 247 of the current edition of the TxDOT Standard Specifications for Construction, "Flexible Base". The base material shall be Type A Grade 1, Type A Grade 2, or as approved by the County Engineer.
- B6.2 Each layer of base course shall be tested for in-place dry density and measured for compacted thickness. The number and location of all base test samples shall be determined by the County Engineer.
- B6.3 The base shall be prepared and compacted to achieve a minimum of 100% of the maximum (Proctor) dry density or as approved by the County Engineer upon recommendation by the testing laboratory. The maximum lift shall not exceed six inches. The base must be inspected and approved by an Independent Testing Laboratory and a certified copy of the test results furnished to the County Engineer for approval. Prior to the placement of the first lift of base, the stockpile shall be tested for the specifications found in Item 247 Table 1 and the result furnished to the County Engineer for approval

### B7 - Bituminous Pavement

- B7.1 Urban roads require a minimum 2 inch wearing surface of HMAC Type D. The mix shall be from a TxDOT certified plant. The mix design shall be submitted to the County Engineer for approval prior to placement of the material. Contractor's Quality Control (CQC) test reports shall be submitted to the County Engineer on a daily basis. As a minimum, daily CQC testing on the produced mix shall include: Sieve Analysis TEX-200-F, Asphalt Content TEX-210-F, Hveem Stability TEX-208-F, Laboratory Compacted Density TEX-207-F, and Maximum Specific Gravity TEX-227-F. The number and location of all HMAC tests shall be determined by the County Engineer with a minimum of three, 6-inch diameter field cores secured and tested by the contractor from each day's paving Each HMAC course shall be tested for in-place density, bituminous content and aggregate gradation, and shall be measured for compacted thickness. The number and location of all HMAC test samples shall be determined by the County Engineer.
- B7.2 Rural roads may use either the specifications found in Section B7.1 or a two-course surface in accordance with Item 316, treatment wearing surface, of the current edition of the TxDOT Standard Specifications for Construction. The type and rate of asphalt and aggregate shall be indicated on the plans as a basis of estimate and shall be determined at the preconstruction conference. Aggregate used in the mix shall be on the TxDOT Quality Monitoring Schedule. Aggregate shall be Type B Grade 4. Gradation tests shall be required for each 300 cubic yards of material placed with a minimum of two tests per each grade per each project. Test results shall be reviewed by the County Engineer prior to application of the material.

### B9 - Concrete - General

- B9.1 Unless otherwise specified, concrete shall be in accordance with Item 421 of the current edition of the TxDOT Standard Specifications for Construction and be placed in accordance with the applicable item.
- B9.2 All concrete shall be tested for compressive strength. One set of three concrete test cylinders shall be molded for every 50 cubic yards of concrete placed for each class of concrete per day, or at any other interval as determined by the County Engineer. A slump test shall be required with each set of test cylinders. One cylinder shall be tested for compressive strength at an age of seven days and the remaining two cylinders shall be tested at 28 days of age.



### TEXAS COMMISSION ON ENVIRONMENTAL QUALITY CONTRIBUTING ZONE PLAN 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 (ED), 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 (TAC), 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 ED, 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, TAC, 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 ED'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, TAC § 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 ED to any part of Title 30 TAC, Chapters 213 and 217, or any other TCEQ applicable regulation

- 1. A written notice of construction must be submitted to the TCEQ regional office at least 48 hours prior to the start of any ground disturbance or construction activities. This notice must include:
  - the name of the approved project;
  - the activity start date; and - the contact information of the prime contractor.
- All contractors conducting regulated activities associated with this project should be provided with complete copies of the approved Contributing Zone Plan (CZP) and the TCEQ letter indicating the specific conditions of its approval. During the course of these regulated activities, the contractor(s) should keep copies of the approved plan and approval letter on-site.
- 3. No hazardous substance storage tank shall be installed within 150 feet of a water supply source, distribution system, well, or sensitive feature.
- 4. 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. If inspections indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations. These controls must remain in place until the disturbed areas have been permanently stabilized.
- Any sediment that escapes the construction site must be collected and properly disposed of before the next rain event to ensure it is not washed into surface streams. sensitive features, etc.
- 6. Sediment must be removed from the sediment traps or sedimentation basins when it occupies 50% of the basin's design capacity.
- 7. Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from being discharged offsite.
- All excavated material that will be stored on-site must have proper E&S controls.
- 9. If portions of the site will have a cease in construction activity lasting longer than 14 days, soil stabilization in those areas shall be initiated as soon as possible prior to the 14<sup>th</sup> day of inactivity. If activity will resume prior to the 21<sup>st</sup> day, stabilization measures are not required. If drought conditions or inclement weather prevent action by the 14<sup>th</sup> day, stabilization measures shall be initiated as soon as possible
- 10. The following records should be maintained and made available to the TCEQ upon request: - 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.
- 11. The holder of any approved CZP must notify the appropriate regional office in writing and obtain approval from the executive director prior to initiating any of the following:
- any physical or operational modification of any best management practices (BMPs) or structure(s), including but not limited to temporary or permanent ponds, dams, berms, silt fences, and diversionary structures;
- B. any change in the nature or character of the regulated activity from that which was originally approved;
- C. any change that would significantly impact the ability to prevent pollution of the Edwards Aquifer; or
- D. any development of land previously identified as undeveloped in the approved
- contributing zone plan.

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

### **TEMPORARY EROSION CONTROL NOTES**

- 1. The Contractor shall install erosion/sedimentation controls and tree protective fencing prior to any site preparation work (clearing grubbing or excavation).
- 2. The placement of erosion/sedimentation controls shall be in accordance with the **EROSION & SEDIMENTATION CONTROL PLAN**
- 3. Any significant variation in materials or locations of controls or fences from those shown on the approved plans must be approved by the City Engineer.
- The Contractor is required to inspect all controls and fences at weekly intervals and after significant rainfall events to insure that they are functioning properly. The person(s) responsible for maintenance of controls and fences shall immediately make any necessary repairs to damaged areas. Silt accumulation at controls must be removed when the depth reaches six (6) inches.
- Prior to final acceptance, haul roads and waterway crossings constructed for temporary Contractor access must be removed, accumulated sediment removed from the waterway and the area restored to the original grade and revegetated. All land clearing debris shall be disposed of in approved spoil disposal sites.
- Field revisions to the EROSION & SEDIMENTATION CONTROL PLAN required by the Engineer or field inspector with the Texas Commission may be on Environmental Quality (TCEQ) during the course of construction to correct control inadequacies. Major revisions must be approved by the (TCEQ)
- 7. Add feature information upon receipt of Geologic Assessment.

GENERAL NOTES (1 OF 2) PARMER RANCH PHASES 9 & 10 City of Georgetown Williamson County, Texas

Project Number: 22223-Phase 04 AS NOTED SCALE: Project Path: P\22000-22999\22223 Project Name: Parmer Ranch Drawing Path: CAD\Plans Xref DWG FILE eet Number: 02 of 60 sheets

- 1. This Organized Sewage Collection System must be designed and constructed in accordance with the Texas Commission on Environmental Quality's (TCEQ) Edwards Aguifer Rules 30 Texas Administrative Code (TAC) §§213.5(c) and 217.51 - 217.70 and 30 TAC Chapter 217, Subchapter D, and the City of Georgetown Standard Specifications.
- 2. All contractors conducting regulated activities associated with this proposed regulated project must be provided with copies of the Sewage Collection System 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. No later than 48 hours prior to commencing any regulated activity, the applicant or his agent must notify the Austin Regional Office, in writing, of the date on which the regulated activity will begin
- 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.
- All temporary erosion and sedimentation controls must be installed prior to construction, must be maintained during construction, and must be removed when sufficient vegetation is established to control the erosion and sedimentation and the construction area is stabilized.
- 6. The sewer line trench details showing the cross section with the dimensions, pipe placement, and backfill instructions are included on Plan Sheet 43 & 44 of these plans. All sewer pipes joints must meet the requirements in 30 TAC §217.53(c) an 217.65.
- 7. Gravity lines must have a SDR-26 or less. Pressurized sewer systems must have pipe with a minimum working pressure rating of 150 psi.

The ASTM, ANSI, or AWWA specification numbers for the pipe(s) and joints are: ASTM D 3034, F679, AWWAC900, CL150.

The pipe material, the pressure classes, and the SDR and/or DR designations are: PVC SDR-26, PS-115, DR-18.

- 8. 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 Texas Commission on Environmental Quality 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 within two working days. 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.
- 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 six (6) inches.
- 10. 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.
- 11. 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 43 & 44.

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.

- 12. 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).
- 13. 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: NOT APPLICABLE

If pipe flexure is proposed, the following method of preventing deflection of the joint must be used: NOT APPLICABLE.

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.

14. 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.

If no stub-out is present an alternate method of joining laterals is shown in the detail on Plan Sheet 44. (For potential future laterals).

The private service lateral stub-outs must be installed as shown on the plan and profile sheets on Plan Sheet 43 and marked after backfilling as shown in the detail on Plan Sheet 43.

- 15. 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.
- 16. 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).
- 17. 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:

- 17.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: 17.a.1. Low Pressure Air Test.
- 17.a.1.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 17.a.1.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. 17.a.1.B.a. A pipe must be pressurized to 3.5 pounds per square inch (psi) greater than the pressure exerted by groundwater above the
- 17.a.1.B.b. 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

Where:

T = time for pressure to drop 1.0 pound per square

 $T = 0.085 \times D \times K$ 

- inch gauge in seconds  $K = 0.000419 \times D \times L$ , 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

17.b.1.B. 17.b.1.B.a.

- 17.b.1.B.c.
- 17.b.1.B.d.
- 17.b.1.C.
- 17.b.1.C.a.

		NO.	REVISION	BY	DATE	
WARNING! There are existing water pipelines cables and other above and below vicinity of this project. The contract appropriate utility companies prior	s, underground telephone v ground utilities in the ctor shall contact all r to any construction in the					EJH, LB, TG, NN DESIGNED BY: EJH, LB, TG, NN DRAWN BY:
area and determine if any conflicts Contractor shall immediately cont shall revise the design as necessa	s exist. If so, the act the Engineer, who ary.					CHECKED BY:

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\03 GENERAL NOTES (2 OF 2).dwg By: Luis Botello Date: 4/3/2022 9:02 PM

### 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 (IN)	MINIMUM TIME (SEC)	MAXIMUM LENGTH FOR MINIMUM TIME (FT)	TIME FOR LONGER LENGTH (SEC/FT)
6	340	398	0.8550
8	454	298	1.5200
10	567	239	2.3740
12	680	199	3.4190
15	850	159	5.3420
18	1020	133	7.6930
21	1190	114	10.4710
24	1360	100	13.6760
27	1530	88	17.3090
30	1700	80	21.3690
33	1870	72	25.8560

An owner may stop a test if no pressure loss has 17.a.1.C. occurred during the first 25% of the calculated testing time.

- 17.a.1.D. 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.
- 17.a.1.E. 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.
- 17.a.1.F. A testing procedure for pipe with an inside diameter greater than 33 inches must be approved by the executive director. 17.a.2. Infiltration/Exfiltration Test.
- 17.a.2.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. 17.a.2.B. An owner shall use an infiltration test in lieu of an
- exfiltration test when pipes are installed below the groundwater level. 17.a.2.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.
- 17.a.2.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 subpargraph (C) of this paragraph.
- 17.a.2.E. If the quantity of infiltration or exfiltration exceeds the maximum quantity specified, an owner shall undertake remedial action in order to reduce the infiltration or exfiltration to an amount within the limits specified. An owner shall retest a pipe following a remediation action.

17.b. If a gravity collection pipe is composed of flexible pipe, deflection testing is also required. The following procedures must be followed:

17.b.1. For a collection pipe with inside diameter less than 27 inches, deflection measurement requires a rigid mandrel.

17.b.1.A. Mandrel Sizing.

- 17.b.1.A.a. 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. 17.b.1.A.b. 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 17.b.1.A.c. All dimensions must meet the appropriate standard. Mandrel Design
- A rigid mandrel must be constructed of a metal or a rigid plastic material that can withstand 200 psi without being deformed. 17.b.1.B.b. A mandrel must have nine or more odd number of runners or legs.
  - A barrel section length must equal at least 75% of the inside diameter of a pipe. Each size mandrel must use a separate proving ring.
  - Method Options. An adjustable or flexible mandrel is prohibited.



- 17.b.1.C.b. A test may not use television inspection as a substitute for a deflection test. 17.b.1.C.c. 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. 17.b.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. 17.b.3. A deflection test method must be accurate to within plus or minus 0.2% deflection. 17.b.4. An owner shall not conduct a deflection test until at least 30 days after the final backfill. 17.b.5. Gravity collection system pipe deflection must not exceed five percent (5%). 17.b.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.
- 18. All manholes must be tested to meet or exceed the requirements of 30 TAC §217.58.
- 19. 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

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

### MANHOLE TESTING

All manholes must pass a leakage test. 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.

### HYDROSTATIC TESTING

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. 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. A test for concrete manholes may use a 24 hour wetting period before testing to allow saturation of the concrete.

### VACUUM TESTING

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. No grout must be placed in horizontal joints before testing. Stub outs, manhole boots and pipe plugs must be secured to prevent movement while a vacuum is drawn. 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. 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. There must be a vacuum of 10 inches of mercury inside a manhole to perform a valid test. A test does not begin until after the vacuum pump is off. A manhole passes the test if after 2.0 minutes and with all valves closed, the vacuum is a least 9.0 inches of mercury.

### NORTHWEST WILLIAMSON COUNTY MUNICIPAL UTILITY **DISTRICT NO. 2 NOTES:**

The District Engineer, Jones-Heroy & Associates, Inc. (Ken Heroy, Ph:512/989-2200) shall be contacted 48 hours prior to:

- Pre-construction meetings;
- Beginning each phase of construction; ii)
- iii) Testing; and, iv) Final walk-through of facilities.

### ADDITIONAL WASTEWATER NOTES

- 1. If a conflict exists between the various documents, the documents will take precedence in the following order: a. Municipal Utility Specifications
- b. Change Orders
- c. Addenda Issue During Bidding
- d. Construction Plans e. Project Specifications
- 2. The following pipe diameters, pipe material and national standard specifications are proposed for this project:

PIPE DIAMETER (IN)	LINEAR FEET (FT)	PIPE MATERIAL	NATIONAL STANDARD FOR PIPE MATERIAL	NATIONAL STANDARD FOR PIPE JOINTS
6	1825	PVC SDR-26	ASTM D 3034	ASTM D 3212
8	6613	PVC SDR-26	ASTM D 3034	ASTM D 3212
8	160	PVC DR-18	ASTM D 3034	ASTM D 3212

- 3. Watertight, size on size resilient connectors conforming to ASTM C 923 must be used for connecting pipe to manholes.
- 4. The bedding class for each diameter of flexible pipe and each flexible pipe material is as follows:

PIPE DIAMETER (IN)	PIPE MATERIAL	BEDDING CLASS
8	PVC SDR-26/DR-18	1B
12	PVC SDR-26/DR-18	1B
15	PVC SDR-26/DR-18	1B
18	PVC PS-115/DR-18	1B
21	PVC PS-115/DR-18	1B

- 5. Brick manhole construction is not allowed. Use of brick for adjusting manhole overs to grade is also prohibited.
- 6. All manholes shall be of precast concrete construction.
- 7. The structural integrity of the collection line due to high soil P.I.'s will require the bedding around the pipe to be 6" minimum below the pipe, 6" minimum on each side of the pipe, and 12" minimum above the pipe.
- 8. If faults, caverns, or subsidence are discovered during construction, construction shall be halted to allow the features to be inspected by the design engineer or a geological or geotechnical engineer. Based on this inspection, revisions approval to the design may be required.
- 9. The trench walls shall be vertical to at least one foot above the pipe.
- 10. The trench backfill shall be free of stones greater than 6 inches in diameter and free of organic or any other unstable material.
- 11. Manholes shown on the plans with sealed and gasketed covers are provided as protection against inflow for those manholes which lie 1) within a 100 year flood plain, 2) lie with a drainageway, 3) lie within a street subject to carrying drainage flows, and 4) additional locations as determined necessary by the Engineer.
- 12. No drop connections are proposed in these plans.
- 13. The minimum allowable tensile strength and cell class for each flexible pipe shall be as follows:

PIPE MATERIAL	TENSILE STRENGTH	CEI (PV
SDR-26	7,000	12
PS-115	7,000	12

- 14. All gravity lines utilizing flexible pipe must be tested for deflection by pulling a rigid mandrel through the installed pipe. The test must be conducted at least 30 days after placement and compaction of final backfill. No pipe shall exceed a deflection of 5 rigid mandrel shall be used to measure deflection. The test must be performed without mechanical pulling devices. The mandrel's minimum outside diameter is 95 inside diameter. The mandrel must have an odd number of runners, totaling nine or more. The barrel section of the mandrel must have a length at least 75 inside diameter. A TV test cannot substitute for the deflection
- 15. A leakage test is required for all gravity lines. For line that is not horizontally curved, a hydrostatic test and/or a low pressure air test must be performed on all proposed gravity sanitary sewer collection piping. These tests must comply with Section 217.57(a) of the TCEQ's rules. The contractor shall have the option of utilizing either a hydrostatic test or a low pressure air test.
- 16. Manholes must be tested for leakage. Manholes will be tested with a hydrostatic test, or with a vacuum test, Contractor's Option.
- 17. The hydrostatic manhole test shall comply with the test requirements detailed in Section 217.58(b)(1) of the TCEQ's rules.
- 18. Each manhole shall be tested immediately after assembly and prior to backfilling. Manholes which have been backfilled shall either be excavated to expose the entire exterior prior to vacuum testing or the manhole shall be tested for leakage by means of a hydrostatic test.
- 19. All lift holes and exterior joints shall be plugged with an approved non-shrink grout.
- 20. No grout shall be placed in horizontal joints before testing.
- 21. All pipes entering the manhole shall be plugged, taking care to securely brace the plugs from being drawn into the manhole.



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- 22. Stubouts, manhole boots and pipe plugs shall be secured to prevent movement while the vacuum is drawn.
- 23. A minimum 60-inch/lb torque wrench shall be used to tighten the external clamps that secure the test cover to the top of the manhole.
- 24. The test head shall be placed at the inside of the top of the cone section and the seal inflated in accordance with the manufacturer's recommendation.
- 25. A vacuum of 10 inches of mercury shall be drawn and the vacuum pump shut off. With the valves closed, the time shall be measured for the vacuum to drop to 9 inches of mercury. The manhole shall pass if the time is greater than 2 minutes. If the manhole fails the initial test, necessary repairs shall be made with a non-shrink grout while the vacuum is still being drawn. If the manhole fails a second time, repairs should again be made and the manhole shall be tested by means of a hydrostatic test which complies with Section 217.58(b)(1) of the TCEQ's rules. If any manhole fails the hydrostatic test, after failing the vacuum test twice, the contractor should consider replacing that manhole. If the contractor chooses to attempt to repair that manhole, the manhole must be retested by means of the hydrostatic test outlined in Section 217.58(b)(1) of the TCEQ's rules, until it passes.
- 26. Inspection must be provided during critical phases of construction by a qualified inspector under the direction of a P.E. Critical phases of construction are deemed at a minimum to include testing of pipe and manholes for leakage, testing of flexible pipe for installed deflection, and any other as directed by the City. The City and design engineer shall provide inspection as appropriate.
- 27. TCEQ approval letters for plans and specifications review contain the requirement that once the project is completed, a P.E. registered in the state of Texas must certify that the construction was performed substantially in accordance with the approved plans and specifications. If flexible pipe was installed, a P.E. must also certify that all pipe was subjected to and passed the required deflection test. The design engineer, with concurrence of the City, will certify the installation.
- 28. The project plans and specifications must ensure that the pipe installation will adhere to the minimum separation distances allowed by 217.53 (d), TCEQ's rules.

Separation Distances.

The following rules apply to separation distances between potable water and wastewater treatment plants, and waterlines and sanitary sewers.

- (a) Water line/new sewer line separation. When new sanitary sewers are installed, they shall be installed no closer to waterlines than nine feet in all directions. Sewers that parallel waterlines must be installed in separate trenches. Where the nine foot separation distance cannot be achieved, the following guidelines will apply: (b) SDF
- (1) Where a sanitary sewer parallels a waterline, the sewer shall be constructed of cast iron, ductile iron or PVC meeting ASTM specifications with a pressure rating for both the pipe and joints of 150 psi. The vertical separation shall be a minimum of two feet between outside diameters and the horizontal separation shall be a minimum of four feet between outside diameters. The sewer shall be located below the waterline.
- (2) Where a sanitary sewer crosses a waterline and the sewer is constructed of cast iron, ductile iron or PVC with a minimum pressure rating of 150 psi, an absolute minimum distance of 6 inches between outside diameters shall be maintained. In addition the sewer shall be located below the waterline where possible and one length of the sewer pipe must be centered on the waterline.
- (3) Where a sewer crosses under a waterline and the sewer is con-structed of ABS truss pipe, similar semi-rigid plastic composite pipe, clay pipe or concrete pipe with gasketed joints, a minimum two foot separation distance shall be maintained. The initial backfill shall be cement stabilized sand (two or more bags of cement per cubic yard of sand) for all sections of sewer within nine feet of the waterline. This initial backfill shall be from one quarter diameter below the centerline of the pipe to one pipe diameter (but not less than 12 inches) above the top of the pipe.
- (4) Where a sewer crosses over a waterline all portions of the sewer within nine feet of the waterline shall be constructed of cast iron, ductile iron, or PVC pipe with a pressure rating of at least 150 psi using appropriate adapters. In lieu of this procedure the new conveyance may be encased in a joint of 150 psi pressure class pipe at least 18 feet long and two nominal sizes larger than the new conveyance. The space around the carrier pipe shall be supported at 5 feet intervals with spacers or be filled to the springline with washed sand. The encasement pipe should be centered on the crossing and both ends sealed with cement grout or manufactured seal.
- b) Water line/manhole separation. Unless sanitary sewer manholes and the connecting sewer can be made watertight and tested for no leakage, they must be installed so as to provide a minimum of nine feet of horizontal clearance from an existing or proposed waterline. Where the nine foot separation distance cannot be achieved, a carrier pipe as des- cribed in subsection (a)(4) of this section may be used where appropriate.

The separation distance between any unknown water lines which are discovered during the installation phase of the project, and, the gravity sanitary sewer pipe which will be installed, shall be sufficient to comply with the minimum separation distances allowed by 217.53(d) of the TCEQ's rules as stated above.

- 29. AN EROSION AND SEDIMENTATION CONTROL PLAN is included with these plans. These provisions are intended to control erosion and sedimentation due to runoff during construction. These provisions must be installed prior to any other construction activities.
- 30. It is the intent of this project that portable ladders be used to access manholes during construction by the Contractor as well as for maintenance purposes after construction is complete by the City.
- 31. It is the intent of this project that personal gas detectors are required for wear by all personnel whose jobs require entering enclosed spaces (such as manholes and lift stations) capable of accumulations of hydrogen sulfide or other harmful gases. It shall be the responsibility of the Contractor to ensure these detectors are provided to the appropriate personnel during the construction of this project. It shall be the responsibility of the City to ensure these detectors are provided to the appropriate personnel during the maintenance of this project after construction.

GENERAL NOTES (2 OF 2) PARMER RANCH PHASES 9 & 10 City of Georgetown Williamson County, Texas

Project Number: 22223-Phase 04 SCALE: Project Path: Project Name: Drawing Path:

AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

Xref DWG FILE

eet Number: 03 of 60 sheets

PRELIN	SURVEY OF TREES AND TOPOGRAPHY ON CT1: 250.58 ACRES OF LAND OUT OF THE CHAS H. DELANEY SURVEY, ABSTRACT NO. 181 AND THE LEWIS P. DYCHES SURVEY, ABSTRACT NO. 171, IN WILLIAMSON COUNTY, TEXAS, AND BEING PART OF THAT TRACT CALLED 501.59 ACRES IN A DEED TO PARMER RANCH DATAFORE J. D. DECOMPOSITION OF 200272008, OSTONAL DUBLIS
	RECORDS OF WILLIAMSON COUNTY, TEXAS. CT 2: 204.28 ACRES OF LAND OUT OF THE CHAS H. DELANEY SURVEY, ABSTRACT NO. 181 AND THE LEWIS P. DYCHES SURVEY, ABSTRACT NO. 171, IN WILLAMSON COUNTY, TEXAS, AND BEING PART OF THAT TRACT CALLED 501.59 ACRES IN A DEED TO PARMER RANCH PARTNERS, L.P. RECORDED UNDER DOCUMENT NO. 2002073008, OFFICIAL PUBLIC
PAR	RECORDS OF WILLIAMSON COUNTY, TEXAS.
GEORGETOWN,	IN TERSE (TION OF THE NORTH LINE OF ROMALD REAGAN BOULEVARD (250 RIGH 1-OF-WAY) AND THE EAST LINE OF RANCH TO MARKET ROAD 2338 (R.M. 2338), RECORDED IN THAT DEED TO WILLIAMSON COUNTY, TEXAS UNDER DOCUMENT NO. 2007/26639 OF SAID OFFICIAL PUBLIC RECORDS, FOR THE SOUTHWEST CORNER OF THIS TRACT ; THENCE : INSIDE OF SAID 501 .59 ACRE TRACT WITH THE EAST LINE OF SAID R.M. 2338 AS CONVEYED IN SAID DEED TO WILLIAMSON COUNTY, TEXAS THE FOLLOWING THREE (3) COURSES:
SUBMITTA	1,075.53 FEET ALONG A CURVE TO THE RIGHT (R= 5,925 FEET, LE= N 26°05'35" W, 1,074.05 FEET) TO A "TXDOT" 3 INCH BRASS DISK IN CONCRETE FOUND, MARKING AN ANGLE POINT IN THE EAST LINE OF SAID R.M. 2338, FOR AN ANGLE POINT IN THE WEST LINE OF THIS TRACT; N 20°47'37" W, 63.88 FEET TO A "TXDOT" 3 INCH BRASS DISK IN CONCRETE FOUND, MARKING AN ANGLE POINT IN THE EAST LINE OF SAID R.M. 2338, FOR AN ANGLE POINT IN THE WEST LINE OF THIS TRACT;
TRACT 2 METES & BOUNDS CONT.: S 61°11'54" W, 43.03 FEET TO A 1/2" IRON ROD IN CONCRETE WITH ORANGE CAP STAMPED "RPLS 5784" FOUN MARKING AN ANGLE POINT IN THE EAST LINE OF RANCH TO MARKET ROAD 2338 (R.M. 2338) BEING RECORDED	S 69°33'46" W., 34,82 FEET TO A "TXDOT" 3 INCH BRASS DISK IN CONCRETE FOUND, MARKING AN ANGLE POINT IN THE EAST LINE OF R.M. 2338 AS CONVEYED TO THE STATE OF TEXAS BY VOLUME 416, PAGE 60, DEED RECORDS OF MILLIAMSON COUNTY TEXAS, BEING THE NORTHWEST CORNER OF SAID WILLIAMSON COUNTY TRACT, FOR AN ANGLE 20INT IN THE WEST LINE OF SAID 501. 59 ACRE TRACT AND THIS TRACT. THENCE: N 20°5944" W. 1.257, 94 EFET WITH THE EAST LINE OF SAID P.M. 2338 CONVEXED TO THE STATE OF TEXAS
DEED TO WILLIAMSON COUNTY, TEXAS, FOR AN ANGLE POINT IN THE SOUTH LINE OF THIS TRACT; THENCE: INTO SAID 501.59 ACRE TRACT WITH THE EAST LINE OF SAID R.M. 2338 THE FOLLOWING FOUR (4) C \$89°55'45" W, 870.55 FEET TO A "TXDOT" 3 INCH BRASS DISK IN CONCRETE FOUND, FOR AN ANGLE POINT IN SOUTH LINE OF THIS FRACT.	MADD THE WEST LINE OF SAID 501.59 ACRE TRACT TO A 1/2" IRON ROD WITH ORANGE CAP STAMPED "RPLS 218" FOUND, WARKING THE SOUTHWEST CORNER OF THAT TRACT CALLED 10.00 ACRES IN A DEED TO MOST REV. VINCENT M. HARRIS RECORDED IN VOLUME 578, PAGE 520 OF SAID DEED RECORDS, FOR THE NORTHWEST CORNER OF SAID 501.59 ACRE TRACT AND THIS TRACT; N 68°21'25" F. WITH THE NORTH LINE OF SAID 501.59 ACRE TRACT AT 884.97 EFET RASS A 10" IRON ROD FOUND.
1,128.40 FEET ALONG A CURVE TO THE RIGHT (R= 1,660.00 FEET, LE= N 70°34'57" W , 1,106.80 FEET) TO A 1/2" IF IN CONCRETE WITH ORANGE CAP STAMPED "RPLS 5784" FOUND , FOR THE SOUTHWEST CORNER OF THIS TR/ N 46°31'43" W , 1,237.18 FEET TO A 2 INCH PIPE FENCE CORNER POST FOUND , FOR AN ANGLE POINT IN THE W	MARKING THE SOUTHEAST CORNER OF SAID HARRIS TRACT AND THE SOUTHWEST CORNER OF THAT TRACT CONVEYED TO JOHNSON FAMILY TRUST BY DEED RECORDED IN DOCUMENT NO. 2007059047 OF SAID OFFICIAL PUBLIC RECORDS, AND CONTINUING FOR AN OVERALL DISTANCE OF 3,044.18 FEET WITH THE SOUTH LINE OF SAID JOHNSON AMILY TRUST TRACT TO A 1/2" IRON ROD WITH YELLOW CAP STAMPED "CCC" FOUND IN THE WEST LINE OF THAT TRACT CALLED 17.15 ACRES IN A DEED TO JUSTIN L. HALL AND BRENDA L. HALL BY DEED RECORDED IN VOLUME 1525, DEFEORD OFFICIAL PEOCEDS OF WILL MARSON COLUMNTY TEXAS A MARKING THE SOUTH FOR TAT CONDUCT OF DATA
847.58 FEET ALONG A CURVE TO THE RIGHT (R= 5,925.00 FEET , LE= N 40°09'49" W , 846.86 FEET) TO A 1/2" IROI WITH PINK CAP STAMPED "TLS INC." SET AT THE INTERSECTION OF THE NORTH LINE OF SAID RONALD REAGA BOULEVARD AND THE EAST LINE OF SAID R.M. 2338, FOR AN ANGLE POINT IN THE WEST LINE OF THIS TRACT ;	JOHNSON FAMILY TRUST TRACT, FOR THE NORTHEAST CORNER OF SAID 501.59 ACRE TRACT AND THIS TRACT ; WITH THE EAST LINE OF SAID 501.59 ACRE TRACT THE FOLLOWING FOURTEEN (14) COURSES , FOR THE EAST LINE OF THIS TRACT: S 22°08'13" E, 375.79 FEET WITH THE WEST LINE OF SAID 17.15 ACRE HALL TRACT TO A 1/2" IRON ROD FOUND MARKING
N 19*4010* E, 136.77 FEET WITH THE SOUTH LINE OF SAID RONALD REAGAN BOULEVARD TO THE POINT OF BE CONTAINING 204.28 ACRES OF LAND, MORE OR LESS. ALL BEARINGS CITED HEREON BASED ON GRID NORTH TEXAS STATE PLANE COORDINATE SYSTEM (CE ZONE) NAD83(93)	THE SOUTHWEST CORNER OF SAID 17.15 ACRE HALL TRACT AND THE NORTHWEST CORNER OF THAT TRACT CALLED 9 614 ACRES IN A DEED TO ROY A. HALL AND IVAN I. HALL RECORDED IN VOLUME 2109, PAGE 738, OF SAID OFFICIAL RECORDS, FOR AN ANGLE POINT IN THE EAST LINE OF THIS TRACT; 3 22°12′46″ E, 359.37 FEET WITH THE WEST LINE OF SAID 9.614 ACRE HALL TRACT TO A 1/2″ IRON ROD FOUND MARKING THE SOUTHWEST CORNER OF SAID 9.614 ACRE HALL TRACT AND THE NORTHWEST CORNER OF THAT TRACT CALLED
SUBDIVISION PLAT NOTES: 1. UTILITY PROVIDERS FOR THIS DEVELOPMENT ARE WATER: GEORGETOWN, WASTEWATER/SEF	5.83 ACRES IN A DEED TO WILLIAM BERMAN RECORDED IN DOCUMENT NO. 2010010969, OF SAID OFFICIAL PUBLIC RECORDS, FOR AN ANGLE POINT IN THE EAST LINE OF THIS TRACT; 5 22°48'07" E, 182.62 FEET WITH THE WEST LINE OF SAID BERMAN TRACT TO A 60D NAIL WITH FLAGGING FOUND WARKING THE SOUTHWEST CORNER OF SAID BERMAN TRACT AND THE NORTHWEST CORNER OF THAT TRACT CALLED 9.52 ACRES IN A DEED TO DENNER OF SAID BERMAN TRACT AND THE NORTHWEST CORNER OF THAT TRACT CALLED 9.52 ACRES IN A DEED TO DENNER OF SAID BERMAN TRACT AND THE NORTHWEST CORNER OF THAT TRACT CALLED
<ul> <li><u>GEORGETOWN</u>, AND ELECTRIC: <u>PEC</u>.</li> <li>ALL STRUCTURES / OBSTRUCTIONS ARE PROHIBITED IN DRAINAGE EASEMENTS.</li> <li>THERE ARE NO AREAS WITHIN THE BOUNDARIES OF THIS SUBDIVISION IN THE 100-YEAR FLOC AS DESCRIBED BY FIRM MAP NUMBER <u>48491C0275E</u>, EFFECTIVE DATE OF <u>SEPT 26, 2018</u></li> <li>IN ORDER TO PROMOTE DRAINAGE AWAY FROM A STRUCTURE, THE SLAB ELEVATION SHOULD BUILT AT LEAST ONE-FOOT ABOUT THE SURROUNDING GROUND, AND THE GROUND SHOULD GRADED AWAY FROM THE STRUCTURE AT A SLOPE OF <sup>1</sup>/<sub>2</sub>" PER FOOT FOR A DISTANCE OF AT LICENTER AT A SLOPE OF <sup>1</sup>/<sub>2</sub>" PER FOOT FOR A DISTANCE OF AT LICENTER</li> </ul>	OR AN ANGLE POINT IN THE EAST LINE OF THIS TRACT; 5 21 "50"53" E, 769, 29 FEET WITH THE WEST LINE OF SAID SAWYER TRACT TO A 1/2" IRON ROD FOUND, MARKING THE SOUTHWEST CORNER OF SAID SAWYER TRACT, FOR AN ANGLE POINT IN THE EAST LINE OF THIS TRACT; 1 89"3224" E, 1,093.87 FEET WITH THE SOUTH LINE OF SAID SAWYER TRACT TO A 1/2" IRON ROD WITH YELLOW CAP STAMPED "CCC" FOUND, MARKING THE SOUTHEAST CORNER OF SAID SAWYER TRACT AND AN ANGLE POINT IN THE MEST LINE OF THAT TRACT CALLED 128.38 ACRES IN A DEED TO GW GEORGETOWN PROPERTY, L.P. RECORDED IN DOCUMENT NO, 2008067253 OF SAID OFFICIAL PLIRIC RECORDS FOR AN ANGLE POINT THE FORMER THE FORMER THE SOUTHEAST CORNER FOR AN ANGLE POINT IN THE FORMER THE FORMER THE FORMER THE SOUTH SAURD THE SAURD THE SAURD THE SOUTH SAURD THE SAURD T
<ul> <li>FEET.</li> <li>PARKLAND DEDICATION REQUIREMENTS SHALL BE PROVIDED IN ACCORDANCE WITH ARTICLE THE CONSENT AGREEMENT.</li> <li>ANY HERITAGE TREE AS NOTED ON THIS PLAT IS SUBJECT, IN PERPETUITY, TO THE MAINTENA CARE, PRUNING AND REMOVAL REQUIREMENTS OF THE CITY OF GEORGETOWN. APPROVED REMOVAL DOES NOT REQUIRE MODIFICATION OF THE CITY OF GEORGETOWN. APPROVED</li> </ul>	IRACT; 5 27°18'53" E, 133.42 FEET WITH THE WEST LINE OF SAID GW GEORGETOWN PROPERTY TRACT. TO A 1/2" IRON ROD FOUND, MARKING AN ANGLE POINT IN THE WEST LINE OF SAID GW GEORGETOWN PROPERTY TRACT, FOR AN ANGLE POINT IN THE EAST LINE OF THIS TRACT; 5 20°33'15" E, 616.42 FEET IN PART WITH THE WEST LINE OF SAID CM/CEORDETOWN PROPERTY TRACT, FOR AN ANGLE 20°33'15" E, 616.42 FEET IN PART WITH THE WEST LINE OF SAID CM/CEORDETOWN PROPERTY TRACT, FOR AN ANGLE
<ol> <li>A 15-FOOT PUBLIC UTILITY EASEMENT IS RESERVED ALONG ALL COLLECTOR STREET FRONTA WITHIN THIS PLAT. A 10-FOOT PUBLIC UTILITY EASEMENT IS RESERVED ALONG ALL RESIDENT STREET FRONTAGES WITHIN THIS PLAT.</li> <li>THE MONUMENTS OF THIS PLAT HAVE BEEN ROTATED TO THE NAD 83/93 HARN - TEXAS CENTR ZONE AND NAVD 88.</li> </ol>	INE OF THE AMENDED PLAT OF MISSION OAKS, PHASE IV, RECORDED IN DOCUMENT NO. 2015012308 OF SAID OFFICIAL PUBLIC RECORDS TO A 1/2" IRON ROD FOUND, MARKING THE NORTHWEST CORNER OF THAT 21.02 ACRE TRACT CALLED TRACT I IN A DEED TO WILLIE J. KOPECKY, JR. AND MARDI KOPECKY RECORDED IN DOCUMENT NO. 2001040377 OF SAID OFFICIAL PUBLIC RECORDS, FOR AN ANGLE POINT IN THE EAST LINE OF THIS RACT:
<ol> <li>THE MAXIMUM IMPERVIOUS COVERAGE PER RESIDENTIAL LOT SHALL BE PURSUANT TO THE L</li> <li>THE MAXIMUM IMPERVIOUS COVERAGE PER NON-RESIDENTIAL LOT SHALL BE PURSUANT TO UDC AT THE TIME OF SITE PLAN APPLICATION BASED ON ZONING DESIGNATION OF THE PROPURLESS OTHERWISE PROMULGATED IN THE RECORDED CONSENT AGREEMENT BETWEEN TH</li> <li>OF GEORGETOWN AND PARMER RANCH PARTNERS. L.P.</li> </ol>	S 20°34'17" E, 357.47 FEET WITH THE WEST LINE OF SAID KOPECKY TRACT TO A 1/2" IRON ROD WITH PINK CAP STAMPED TLS INC." SET, MARKING AN ANGLE POINT IN THE WEST LINE OF SAID KOPECKY TRACT , FOR AN ANGLE POINT IN THE AST LINE OF THIS TRACT. S 20°13'17" E, 92.48 FEET WITH THE WEST LINE OF SAID KOPECKY TRACT TO A 1/2" IRON ROD WITH PINK CAP STAMPED TLS INC." SET, MARKING THE SOUTHWEST CORNER OF SAID KOPECKY TRACT AND THE NORTHWEST CORNER OF THAT
11. THE LANDOWNER ASSUMES ALL RISKS ASSOCIATED WITH IMPROVEMENTS LOCATED IN THE RIGHT-OF-WAY, OR ROAD WIDENING EASEMENTS. BY PLACING ANYTHING IN THE RIGHT-OF-W ROAD WIDENING EASEMENTS, THE LANDOWNER INDEMNIFIES AND HOLDS THE CITY OF GEORGETOWN, WILLIAMSON COUNTY, THEIR OFFICERS, AGENTS AND EMPLOYEES HARMLESS ANY LIABILITY OWING TO PROPERTY DEFECTS OR NEGLIGENCE NOT ATTRIBUTABLE TO THEM	24.857 ACRE TRACT CALLED TRACT IV IN A DEED TO GEORGE HEJTMANEK AND BARBARA HEJTMANEK RECORDED IN DOCUMENT NO. 2014022501 OF SAID OFFICIAL PUBLIC RECORDS, FOR AN ANGLE POINT IN THE EAST LINE OF THIS TRACT; 5 20°27'47" E, 255.80 FEET WITH THE WEST LINE OF SAID HEJTMANEK TRACT TO A 1/2" IRON ROD WITH PINK CAP 5 TAMPED "TLS INC." SET, MARKING AN ANGLE POINT IN THE WEST LINE OF SAID HEJTMANEK TRACT, FOR AN ANGLE
ACKNOWLEDGES THAT THE IMPROVEMENTS MAY BE REMOVED BY THE CITY AND/OR COUNTY THAT THE OWNER OF THE IMPROVEMENTS WILL BE RESPONSIBLE FOR THE RELOCATION AND REPLACEMENT OF THE IMPROVEMENTS. 12. THE BUILDING OF ALL STREETS, ROADS, AND OTHER PUBLIC THOROUGHFARES AND ANY BRID OR CULVERT NECESSARY TO BE CONSTRUCTED OR PLACED IS THE RESPONSIBILITY OF THE	20INT IN THE EAST LINE OF THIS TRACT; 5 20°25'4 T° E, 736. 23 FEET WITH THE WEST LINE OF SAID HEJTMANEK TRACT TO A 1/2" IRON ROD FOUND, MARKING THE SOUTHWEST CORNER OF SAID HEJTMANEK TRACT, FOR AN ANGLE POINT IN THE EAST LINE OF THIS TRACT; 1 69°16'38" E, 1,022.60 FEET WITH THE SOUTH LINE OF SAID HEJTMANEK TRACT TO A 1/2" IRON ROD FOUND, MARKING AN INGLE POINT IN THE SOUTH UNE OF SAID HE TRACTE TRACT AND THE NOT THAT FOR A THE SOUTH OF THE SOUTH OF SAID HE TRACT.
OWNERS OF THE TRACT OF LAND COVERED BY THIS PLAT IN ACCORDANCE WITH THE PLANS A SPECIFICATIONS PRESCRIBED BY THE CITY OF GEORGETOWN AND/OR WILLIAMSON COUNTY, NEITHER THE CITY OF GEORGETOWN NOR WILLIAMSON COUNTY ASSUMES ANY RESPONSIBIL FOR DRAINAGE WAYS OR EASEMENTS IN THE SUBDIVISION, OTHER THAN THOSE DRAINING PROTECTION THE ROAD SYSTEM AND STREETS IN THEIR RESPECTIVE. IN PROJECTIONS	9.05 ACRE TRACT CALLED TRACT A IN A DEED TO MARCUS GROUP 11, LLC, RECORDED IN DOCUMENT NO. 2015039581, OF SAID OFFICIAL PUBLIC RECORDS, FOR AN ANGLE POINT IN THE EAST LINE OF THIS TRACT; 2015039581, OF SAID OFFICIAL PUBLIC RECORDS, FOR AN ANGLE POINT IN THE EAST LINE OF THIS TRACT; 201° 13'22' E, 883.25 FEET WITH THE WEST LINE OF SAID TRACT A TO A 1/2' IRON ROD WITH PINK CAP STAMPED "TLS NC." SET, MARKING THE SOUTHWEST CORNER OF SAID TRACT A AND THE NORTHWEST CORNER OF THAT 15.49 ACRE TRACT CALLE DE TRACTE RIN SAID DEED TO MARCUS ROUBLE ALL OF DEN THE NORTHWEST CORNER OF THAT 15.49 ACRE
13. NEITHER THE CITY OF GEORGETOWN NOR WILLIAMSON COUNTY ASSUMES ANY RESPONSIBIL FOR THE ACCURACY OF REPRESENTATIONS BY OTHER PARTIES IN THIS PLAT. FLOOPLAIN D. PARTICULAR, MAY CHANGE DEPENDING ON SUBSEQUENT DEVELOPMENT. IT IS FURTHER UNDERSTOOD THAT THE OWNERS OF THE TRACT OF LAND COVERED BY THIS PLAT MUST INS AT THEIR OWN EXPENSE ALL TRAFFIC CONTROL DEVICES AND SIGNAGE THAT MAY BE DECLINE.	TRACT CALLED TRACT DIN SAID DEED TO MARCUS GROUP 1.1., LLC, FOR AN ANGLE POINT IN THE EAST LINE OF THIS TRACT ; 3 21°55'57" E, 669.34 FEET IN PART WITH THE WEST LINE OF SAID TRACT B AND WITH THE WEST LINE OF THAT .24 ACRE TRACT CALLED TRACT C IN SAID DEED TO MARCUS GROUP II, LLC TO A 1/2" IRON ROD WITH ORANGE CAP STAMPED OF RPLS 5784" FOUND IN THE NORTH LINE OF SAID RONALD REAGAN BOULEVARD, MARKING THE SOUTHWEST .0PANED OF SAID TRACT C TO THE SOUTH LINE OF SAID RONALD REAGAN BOULEVARD, MARKING THE SOUTHWEST
BEFORE THE STREETS IN THE SUBDIVISION HAVE FINALLY BEEN ACCEPTED FOR MAINTENANC THE CITY AND/OR COUNTY. 14. RIGHT-OF-WAY EASEMENTS FOR THE WIDENING ROADWAYS OR IMPROVING DRAINAGE SHALL MAINTAINED BY THE LANDOWNER UNTIL ROAD OR DRAINAGE IMPROVEMENTS ARE ACTUALLY CONSTRUCTED ON THE PROPERTY. THE CITY AND/OR COUNTY HAVE THE PICTURE AT ANY TIME	INSIDE OF SAID 104 OF , FOR THE SOUTHEAST CORNER OF THIS TRACT ; INSIDE OF SAID 501 .59 ACRE TRACT WITH THE NORTH LINE OF SAID RONALD REAGAN BOULEVARD THE FOLLOWING OUR (4) COURSES, FOR THE SOUTH LINE OF THIS TRACT; I 64*55'55'' W, 2,294.14 FEET TO A COTTON SPINDLE FOUND , FOR AN ANGLE POINT IN THE SOUTH LINE OF THIS TRACT ;
TAKE POSSESSION OF ANY ROAD WIDENING EASEMENT FOR CONSTRUCTION, IMPROVEMENT MAINTENANCE OF THE ADJACENT ROAD. 15. THIS PLAT IS SUBJECT TO THE PROVISIONS OF THE CITY OF GEORGETOWN WATER CONSERV ORDINANCE. 16. THE SUBJUSION SUBJECT TO THIS ADDUCATION IS SUBJECT TO THE WATER OUT IN	1,154 9U FEET ALONG A CURVE TO THE LEFT (R= 3,580 FEET, LE= S 89°49'07" W, 3,053 .80 FEET) TO A 1/2" IRON ROD WITH JRANGE CAP STAMPED "RPLS 5784" FOUND, FOR AN ANGLE POINT IN THE SOUTH LINE OF THIS TRACT; 64°34'16" W, 487, 50 FEET TO A "TXDOT" 3 INCH BRASS DISK IN CONCRETE FOUND, FOR AN ANGLE POINT IN THE SOUTH LINE OF THIS TRACT; 10°36'37" W, 184 33 FEET TO THE POINT OF BECINNING, CONTAINING SEA 53 A 2015 2 CONTAINING SEA 54 A 2015 2 CONTAINING SEA 55 A 2015 2 CONTAINING
<ol> <li>THE SUBJECTION SUBJECT TO THIS APPLICATION IS SUBJECT TO THE WATER QUALITY REGULATIONS OF THE CITY OF GEORGETOWN AND TCEQ.</li> <li>ALL SEDIMENTATION, FILTRATION, DETENTION AND/OR RETENTION BASINS AND RELATED APPURTENANCES SHOWN SHALL BE SITUATED WITHIN A DRAINAGE EASEMENT OR DRAINAGE THE OWNERS, HOA OR ASSIGNEES OF THE TRACTS UPON WHICH ARE LOCATED SUCH EASEM ADDUBTENANCES AND DETENTION FACILITIES OF THE TRACTS UPON WHICH ARE LOCATED SUCH EASEM ADDUBTENANCES AND DETENTION FACILITIES OF THE TRACTS UPON WHICH ARE LOCATED SUCH EASEM ADDUBTENANCES AND DETENTION FACILITIES OF THE TRACTS UPON WHICH ARE LOCATED SUCH EASEM ADDUBTENANCES AND DETENTION FACILITIES OF THE TRACTS UPON WHICH ARE LOCATED SUCH EASEM ADDUBTENANCES AND DETENTION FACILITIES OF THE TRACTS UPON WHICH ARE LOCATED SUCH EASEM ADDUBTENANCES AND DETENTION FACILITIES OF THE TRACTS UPON WHICH ARE LOCATED SUCH EASEM ADDUBTENANCES AND DETENTION FACILITIES OF THE TRACTS UPON WHICH ARE LOCATED SUCH EASEM ADDUBTENCES AND DETENTION FACILITIES OF THE TRACTS UPON WHICH ARE LOCATED SUCH EASEM ADDUBTENCES AND DETENTION FACILITIES OF THE TRACTS UPON WHICH ARE LOCATED SUCH EASEM ADDUBTENCES AND DETENTION FACILITIES OF THE TRACTS UPON WHICH ARE LOCATED SUCH EASEM ADDUBTENCES AND DETENTION FACILITIES OF THE TRACTS UPON WHICH ARE LOCATED SUCH EASEM ADDUBTENCES AND DETENTION FACILITIES AND D</li></ol>	ALL BEARINGS CITED HEREON BASED ON GRID NORTH TEXAS STATE PLANE COORDINATE SYSTEM (CENTRAL CONE) NAD83(93).
<ul> <li>APPORTENANCES AND DETENTION FACILITIES SHALL MAINTAIN SAME AND BE RESPONSIBLE F THEIR MAINTENANCE, ROUTINE INSPECTION AND UPKEEP.</li> <li>18. IMPROVEMENTS WITHIN THE COUNTY ROAD RIGHT-OF-WAY INCLUDING, BUT NOT LIMITED TO, LANDSCAPING, IRRIGATION LIGHTING, CUSTOM SIGNS, IS PROHIBITED WITHOUT FIRST OBTAIN EXCUTED LICENSE AGREEMENT WITH WILLIAMSON COUNTY.</li> </ul>	RACT 2 METES & BOUNDS: EGINNING AT A "TXDOT 3 INCH BRASS DISK IN CONCRETE FOUND INSIDE OF SAID 501.59 ACRE TRACT IN THE SOUTH INE OF RONALD REAGAN BOULEVARD (260' RIGHT-OF-WAY), RECORDED IN THAT DEED TO WILLIAMSON COUNTY, EXAS UNDER DOCUMENT NO. 2007026639 OF SAID OFFICIAL PUBLIC RECORDS, FOR THE NORTHWEST CORNER OF HIS TRACT.
<ol> <li>ALL SIDEWALKS ARE TO BE MAINTAINED BY EACH OF THE ADJACENT PROPERTY OWNERS.</li> <li>ALL PUBLIC ROADWAYS AND EASEMENTS AS SHOWN ON THIS PLAT ARE FREE OF LEINS</li> <li>THIS SUBDIVISION IS SUBJECT TO STORM-WATER MANAGEMENT CONTROLS AS REQUIRED BY WILLIAMSON COUNTY SUBDIVISION REGULATIONS, SECTION B11.1, ON NEW DEVELOPMENT TH WOULD EVOKE SUCH CONTROLS BEYOND EXISTING CONDITIONS.</li> </ol>	HENCE: INSIDE OF SAID 501.59 ACRE TRACT WITH THE SOUTH LINE OF SAID RONDALD REAGAN BOULEVARD THE OLLOWING THREE (3) COURSES 164*33*21" E, 451.17 FEET TO A 1/2" IRON ROD WITH ORANGE CAP STAMPED " RPLS 5784" FOUND , MARKING AN ANGLE
22. THIS PROJECT IS SUBJECT TO THE CONSENT AGREEMENT BY AND BETWEEN THE CITY OF GEORGETO' PARMER RANCH PARTNERS, LP AND NORTHWEST WILLIAMSON COUNTY MUNICIPAL UTILITY DISTRICT # THE EVENT OF CONFLICT WITH OTHER REGULATIONS, THE CONSENT AGREEMENT SHALL BE THE CONTROLING DOCUMENT.	RACT ; RACT ; ,925.64 FEET ALONG A CURVE TO THE RIGHT (R= 3,320.00 FEET, LE= N 89°49'16" E, 2,831.89 FEET) TO A 1/ 2" IRON ROD VITH ILLEGIBLE ORANGE CAP FOUND , MARKING AN ANGLE POINT IN THE SOUTH LINE OF SAID RONALD REAGAN OULEVARD, FOR AN ANGLE POINT IN THE NORTH LINE OF THIS TRACT ;
TOTAL AREA: 454.86 ACRES NEW STREETS: 44.798 LF	64*55'55" E, 2,573 13 FEET TO A 1/2" IRON ROD WITH PINK CAP STAMPED "TLS INC." SET IN THE EAST LINE OF SAID 01.59 ACRE TRACT, MARKING THE NORTH CORNER OF THAT TRACT CONVEYED TO CIRCLE B-Y PARTNERS LTD. AND NCHELLE DUBE BY DEED RECORDED IN DOCUMENT NO. 2012087245 OF SAID OFFICIAL PUBLIC RECORDS, FOR THE NORTHEAST CORNER OF THIS TRACT ;
ALLEYS: 833 LF 842 RESIDENTIAL LOTS 16 OPEN SPACE LOTS 1 MULTI-ACRE PARK 1 AMENITY CENTER LOT 1 ELEMENTARY SCHOOL LOT	HENCE : \$ 21°55'57" E 172.10 FEET WITH THE NORTH LINE OF SAID CIRCLE B-Y PARTNERS TRACT AND THE EAST LINE OF SAID 501.59 ACRE TRACT TO A 1/2" IRON ROD WITH PINK CAP STAMPED "TLS INC." SET, MARKING AN ANGLE POINT IN HE NORTH LINE OF SAID CIRCLE B-Y PARTNERS TRACT, FOR THE SOUTHEAST CORNER OF SAID 501.59 ACRE TRACT IND THIS TRACT ; MITH THE SOUTH LINE OF SAID 501.59 ACRE TRACT THE FOLLOWING TWO (2) COURSES: 57°5604" W. 2.484 98 EEET IN PART WITH THE NORTH LINE OF SAID CIRCLE B Y DARTNERS TRACT SAID 501.59
1 MIDDLE SCHOOL LOT. 13 MIXED USE LOTS 4 CLUSTER HOME LOTS TOTAL 879 LOTS	AND ON THAT TRACT CALLED 13.82 ACRES IN A DEED TO MIKE NATIONS RECORDED IN DOCUMENT NO. 1999072883 OF AID OFFICIAL PUBLIC RECORDS TO A 1/2" IRON ROD FOUND, MARKING AN ANGLE POINT IN THE NORTH LINE OF SAID ATIONS TRACT, FOR AN ANGLE POINT IN THE SOUTH LINE OF THIS TRACT;

	NO.	REVISION	BY	DATE	
WARNING!					EJH, LB, TG, NN
There are existing water pipelines, underground telephone					DESIGNED BY:
cables and other above and below ground utilities in the vicinity of this project. The contractor shall contact all					EJH, LB, TG, NN
appropriate utility companies prior to any construction in the					DRAWN BY:
Contractor shall immediately contact the Engineer, who					
shall revise the design as necessary.					CHECKED BY:
	$\vdash$				
					APPROVED BY:

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\04 PRELIMINARY PLAT (1 OF 4).dwg By: Luis Botello Date: 4/3/2022 9:02 PM

# RELIMINARY PLAT FOR PARMER RANCH

SHEET NUMBER

11

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13

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19

EORGETOWN, WILLIAMSON COUNTY, TEXAS SUBMITTAL DATE: MARCH 5, 2019 2019-4-PP

ETES & BOUNDS CONT.: A 1/2" IRON ROD IN CONCRETE WITH ORANGE CAP STAMPED "RPLS 5784" FOUND . THE EAST LINE OF RANCH TO MARKET ROAD 2338 (R.M. 2338) BEING RECORDED IN SAID TY, TEXAS , FOR AN ANGLE POINT IN THE SOUTH LINE OF THIS TRACT ; CRE TRACT WITH THE EAST LINE OF SAID R M. 2338 THE FOLLOWING FOUR (4) COURSES

### IN PLAT NOTES:

THIS DEVELOPMENT ARE WATER: GEORGETOWN, WASTEWATER/SEPTIC. ECTRIC: PEC. STRUCTIONS ARE PROHIBITED IN DRAINAGE EASEMENTS. WITHIN THE BOUNDARIES OF THIS SUBDIVISION IN THE 100-YEAR FLOODPLAIN M MAP NUMBER <u>48491CO275E</u>, EFFECTIVE DATE OF <u>SEPT 26, 2018</u> E DRAINAGE AWAY FROM A STRUCTURE, THE SLAB ELEVATION SHOULD BE OOT ABOUT THE SURROUNDING GROUND, AND THE GROUND SHOULD BE THE STRUCTURE AT A SLOPE OF  $\frac{1}{2}$ " PER FOOT FOR A DISTANCE OF AT LEAST 10 REQUIREMENTS SHALL BE PROVIDED IN ACCORDANCE WITH ARTICLE VII OF



LOCATION MAP 1" = 5000'

OWNER / DEVELOPER: PARMER RANCH PARTNERS, LP JOE OWEN - GENERAL PARTNER 13760 NOEL ROAD, SUITE 1020 DALLAS, TEXAS 972-866-0300 JOE@OWENHOLDINGS.COM SURVEYOR: TEXAS LAND SURVEYING, INC. TBPLS FIRM NO. 10056200 3613 WILLIAMS DRIVE, STE. 903 GEORGETOWN, TEXAS 78628 512-930-1600 CONTACT: KENNETH CRIDER, R.P.L.S.

ENGINEER/APPLICANT:

CONSULTING, LLC FIRM ND. 16384 5508 HIGHWAY 290 WEST, SUITE 150 AUSTIN, TX • 78735 OFFICE: (512) 872-6696 CONTACT: JUDD WILLMANN, P.E.



Approved by the City of Georgetown Planning & Zoning Commission on:

09-03-2019

Per Section 3.08.070.E of the Unified Development Code, this Preliminary Plat will expire on <u>09-03-2021</u> if a Final Plat is not recorded.



ALL RESPONSIBILITY FOR ENGINEER WHO PREPAR RELY ON THE ADEQUACY

THE MAJORITY OF THE PE TO BE OUTSIDE THE 100-Y INSURANCE RATE MAP P SMALL PORTION IS LOCAT 100 YEAR FLOODPLAIN.



2021-10-18 DATE X BRYAN FRIC MOOI 2021-10-18 98920 DATE DATE 04/04/202

STEGER BIZZELL ADDRESS 1978 S. AUSTIN AVENUE GEORGETOWN, TX 78626 512.930.9412

TEXAS REGISTERED ENGINEERING FIRM F-181 TBPLS FIRM No.10003700 STEGERBIZZELL.COM SERVICES >>ENGINEERS >>PLANNERS >>SURVEYORS

PRELIMINARY PLAT (1 OF 4) PARMER RANCH PHASES 9 & 10 City of Georgetown Williamson County, Texas

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	ROW			PEDESTRIAN	DESIGN	LENGTH			N G , L VEST, SUIT → 7873	.872.66 16384
	ROW	MIN. PVMT WIDTH (F-F)	CURB TYPE	PEDESTRIAN CLEAR ZONE WIDTH	DESIGN SPEED	LENGTH (LF)			「 」 N  G ,  L 90 west, suit ×  →  7873	<b>1 2 8 7 2 6 6</b> 0. 16384
R	ROW WIDTH 73' 65'	MIN. PVMT WIDTH (F-F) 45' 37'	CURB TYPE 24" CURB & GUTTER 24" CURB & GUTTER	PEDESTRIAN CLEAR ZONE WIDTH 0' 0'	DESIGN SPEED 30 MPH 30 MPH	LENGTH (LF) 7670 3639			L T I N G , L Y 290 WEST, SUIT , TX · 7873	Δ 2 1 2 . 8 7 2 . 6 6 X 2 1 5 3 8 4
R	ROW WIDTH 73' 65' 50'	MIN. PVMT WIDTH (F-F) 45' 37' 28' 28' 28' 28' 28' 28' 28' 28' 28' 28	CURB TYPE 24" CURB & GUTTER 24" CURB & GUTTER 24" CURB & GUTTER 24" CURB & GUTTER 24" CURB & GUTTER	PEDESTRIAN CLEAR ZONE WIDTH 0' 0' 0'	DESIGN SPEED 30 MPH 30 MPH 25 MPH 25 MPH 25 MPH	LENGTH (LF) 7670 3639 1962 827			U L T I N G , L 4WAY 290 WEST, SUIT FIN, TX · 7873	E: 512.872.66 FIRM NO. 16384
I R TOR	ROW WIDTH 73' 65' 50' 50' 50' 50' 50' 50' 50'	MIN. PVMT WIDTH (F-F) 45' 37' 28' 28' 28' 28' 28' 28' 28' 28' 28' 28	CURB TYPE 24" CURB & GUTTER 24" CURB & GUTTER	PEDESTRIAN CLEAR ZONE WIDTH 0' 0' 0' 0' 0' 0' 0'	25 MPH 25 MPH 25 MPH 25 MPH 25 MPH 25 MPH 25 MPH	LENGTH (LF) 7670 3639 1962 827 191 1884 207			N S U L T I N G , L 41GHWAY 290 WEST, SUIT JSTIN, TX · 7873	FICE: 512.872.66 FIRM NO. 16384
I R TOR	ROW WIDTH 73' 65' 50' 50' 50' 50' 50' 50' 50' 50'	MIN. PVMT WIDTH (F-F) 45' 37' 28' 28' 28' 28' 28' 28' 28' 28' 28' 28	CURB TYPE 24" CURB & GUTTER 24" CURB & GUTTER	PEDESTRIAN CLEAR ZONE WIDTH 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	25 MPH 25 MPH 25 MPH 25 MPH 25 MPH 25 MPH 25 MPH 25 MPH 25 MPH 25 MPH	LENGTH (LF) 7670 3639 1962 827 191 1884 207 770 2268			0 N S U L T I N G , L 38 HIGHWAY 290 WEST, SUIT A U S T I N , T X · 7873	OFFICE: 512.872.66 FIRM NO. 16384
N N TOR	ROW WIDTH 73' 65' 50' 50' 50' 50' 50' 50' 50' 50' 50' 5	MIN. PVMT WIDTH (F-F) 45' 37' 28' 28' 28' 28' 28' 28' 28' 28' 28' 28	CURB TYPE 24" CURB & GUTTER 24" CURB & GUTTER	PEDESTRIAN CLEAR ZONE WIDTH 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	25 MPH 25 MPH	LENGTH (LF) 7670 3639 1962 827 191 1884 207 770 2268 178 117			С О N S U L T I N G , L 5508 НІСНМАҮ 290 WEST, SUIT А U S T I N , T X · 7873	0 FFLCE: 512.872.66 FIRM NO. 16384
I R TOR	ROW WIDTH 73' 65' 50' 50' 50' 50' 50' 50' 50' 50' 50' 5	MIN. PVMT WIDTH (F-F) 45' 37' 28' 28' 28' 28' 28' 28' 28' 28' 28' 28	CURB TYPE 24" CURB & GUTTER 24" CURB & GUTTER	PEDESTRIAN CLEAR ZONE WIDTH 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	25 MPH 25 MPH	LENGTH (LF) 7670 3639 1962 827 191 1844 207 770 2268 178 117 1816 150			C O N S U L T I N G , L 5508 HIGHWAY 290 WEST, SUIT A U S T I N , T X · 7873	0 FFICE: 51 2.872.66 FIRM NO. 16384
J IR TOR	ROW WIDTH 73' 65' 50' 50' 50' 50' 50' 50' 50' 50' 50' 5	MIN. PVMT WIDTH (F-F) 45' 37' 28' 28' 28' 28' 28' 28' 28' 28' 28' 28	CURB TYPE 24" CURB & GUTTER 24" CURB & GUTTER	PEDESTRIAN CLEAR ZONE WIDTH 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	DESIGN SPEED 30 MPH 30 MPH 25 MPH	LENGTH (LF) 7670 3639 1962 827 191 1884 207 770 2268 178 117 1816 150 3193 761			C O N S U L T I N G , L 5508 HIGHWAY 290 WEST, SUIT A U STIN, TX · 7873	0 FFICE: 51 2.872.66 FIRM 20.16384
J IR TOR	ROW WIDTH 73' 65' 50' 50' 50' 50' 50' 50' 50' 50' 50' 5	MIN. PVMT WIDTH (F-F) 45' 37' 28' 28' 28' 28' 28' 28' 28' 28' 28' 28	CURB TYPE 24" CURB & GUTTER 24" CURB & GUTTER 24	PEDESTRIAN CLEAR ZONE WIDTH 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	DESIGN SPEED 30MPH 30MPH 25MPH 25MPH 25MPH 25MPH 25MPH 25MPH 25MPH 25MPH 25MPH 25MPH 25MPH 25MPH 25MPH 25MPH 25MPH	LENGTH (LF) 7670 3639 1962 827 191 1884 207 770 2268 178 117 1816 150 3193 761 920 1282 856			C O N S U L T I N G , L 5508 HIGHWAY 290 WEST, SUIT A U STIN, TX · 7873	CELCE: 512.872.66 FIRM NO. 16384
J	ROW WIDTH 73' 65' 50' 50' 50' 50' 50' 50' 50' 50' 50' 5	MIN. PVMT WIDTH (F-F) 45' 37' 28' 28' 28' 28' 28' 28' 28' 28' 28' 28	CURB TYPE 24" CURB & GUTTER 24" CURB & GUTTER	PEDESTRIAN CLEAR ZONE WIDTH 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	DESIGN SPEED 30MPH 30MPH 25MPH 25MPH 25MPH 25MPH 25MPH 25MPH 25MPH 25MPH 25MPH 25MPH 25MPH 25MPH 25MPH 25MPH 25MPH 25MPH 25MPH 25MPH	LENGTH (LF) 7670 3639 1962 827 191 1884 207 770 2268 178 117 1816 150 3193 761 920 1282 856 777 2562			Image: Construction     Image: Construct	CFICE: 512.872.66
N DR TOR	ROW WIDTH 73' 65' 50' 50' 50' 50' 50' 50' 50' 50' 50' 5	MIN. PVMT WIDTH (F-F) 45' 37' 28' 28' 28' 28' 28' 28' 28' 28' 28' 28	CURB TYPE 24" CURB & GUTTER 24" CURB & GUTTER 24	PEDESTRIAN CLEAR ZONE WIDTH 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	DESIGN SPEED 30MPH 30MPH 25MPH	LENGTH (LF) 7670 3639 1962 827 191 1884 207 770 2268 178 117 1816 150 3193 761 920 1282 856 777 1282 856 777 562 926			0     0 <td>CFICE: 512.872.66</td>	CFICE: 512.872.66
	ROW WIDTH 73' 65' 50' 50' 50' 50' 50' 50' 50' 50' 50' 5	MIN. PVMT WIDTH (F-F) 45' 37' 28' 28' 28' 28' 28' 28' 28' 28' 28' 28	CURB TYPE 24" CURB & GUTTER 24" CURB & GUTTER 24	PEDESTRIAN CLEAR ZONE WIDTH 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	DESIGN SPEED 30MPH 30MPH 25MPH	LENGTH (LF) 7670 3639 1962 827 191 1884 207 770 2268 178 117 1816 150 3193 761 920 1282 856 777 1822 856 777 562 926 1576 566 1576 566 3249			1110 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7007
	ROW WIDTH 73' 65' 50' 50' 50' 50' 50' 50' 50' 50' 50' 5	MIN. PVMT WIDTH (F-F) 45' 37' 28' 28' 28' 28' 28' 28' 28' 28' 28' 28	CURB TYPE 24" CURB & GUTTER 24" CURB & GUTTER 24	PEDESTRIAN CLEAR ZONE WIDTH 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	DESIGN SPEED 30MPH 30MPH 25MPH	LENGTH (LF) 7670 3639 1962 827 191 1884 207 770 2268 178 117 1816 150 3193 761 920 1282 856 1576 3249 1576 566 3249 1938 771 553			Image: Construction of the state of the	7007
N DR TOR	ROW WIDTH 73' 65' 50' 50' 50' 50' 50' 50' 50' 50' 50' 5	MIN. PVMT WIDTH (F-F) 45' 37' 28' 28' 28' 28' 28' 28' 28' 28' 28' 28	CURB TYPE 24" CURB & GUTTER 24" CURB & GUTTER 24	PEDESTRIAN CLEAR ZONE WIDTH 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	DESIGN SPEED 30MPH 30MPH 25MPH	LENGTH (LF) 7670 3639 1962 827 191 1884 207 770 2268 178 117 1816 150 3193 761 920 1282 856 1576 3193 761 920 1282 856 1576 1576 1576 566 3249 1938 715 553 3637			Image: Construction of the state of the	7007
N DR TOR	ROW WIDTH 73' 65' 50' 50' 50' 50' 50' 50' 50' 50' 50' 5	MIN. PVMT WIDTH (F-F) 28' 28' 28' 28' 28' 28' 28' 28' 28' 28'	CURB TYPE 24" CURB & GUTTER 24" CURB & GUTTER	PEDESTRIAN CLEAR ZONE WIDTH 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	DESIGN SPEED 30MPH 30MPH 25MPH	LENGTH (LF) 7670 3639 1962 827 191 1884 207 770 2268 178 117 1816 150 3193 761 920 1282 856 1576 920 1282 856 1576 1576 1576 926 1576 1576 1576 1576 1576 1576 1576 157				7506 71002 163 21 2 8 7 2 . 6 0 7 1 8 2 2 2 . 8 7 2 . 6 0
	ROW WIDTH 73' 65' 50' 50' 50' 50' 50' 50' 50' 50' 50' 5	MIN. PVMT WIDTH (F-F) 28' 28' 28' 28' 28' 28' 28' 28' 28' 28'	CURB TYPE 24" CURB & GUTTER 24" CURB & GUTTER	PEDESTRIAN CLEAR ZONE WIDTH 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	DESIGN SPEED 30MPH 30MPH 25MPH	LENGTH (LF) 7670 3639 1962 827 191 1884 207 770 2268 178 117 1886 150 3193 761 920 1282 856 1576 3249 1938 777 562 926 1576 3249 1938 715 553 637 505 331				1007/1027/102/102/102/102/102/102/102/102/102/102
	ROW WIDTH 73' 65' 50' 50' 50' 50' 50' 50' 50' 50' 50' 5	MIN. PVMT WIDTH (F-F) 45' 37' 28' 28' 28' 28' 28' 28' 28' 28' 28' 28	CURB TYPE 24" CURB & GUTTER 24" CURB & GUTTER 24	PEDESTRIAN CLEAR ZONE WIDTH 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	DESIGN SPEED 30MPH 30MPH 25MPH	LENGTH (LF) 7670 3639 1962 827 191 1884 207 770 2268 178 117 1816 150 3193 761 920 1282 856 77 762 926 1576 566 3249 1938 715 566 3249 1938 715 566 3249 1938 715 566 3249 1938 715 566 3249 1938 715 566 3249 1938 715 566 3249 1938 715 566 3249 1938 715 566 3249 1938 715 566 3249 1938 715 566 3249 1938 715 566 3249 1938 715 567 567 331 205 331				XAS 0 FFICE: 512.872.66
J DR TOR	ROW WIDTH 73' 65' 50' 50' 50' 50' 50' 50' 50' 50' 50' 5	MIN. PVMT WIDTH (F-F) 37' 28' 28' 28' 28' 28' 28' 28' 28' 28' 28	CURB TYPE 24" CURB & GUTTER 24" CURB & GUTTER	PEDESTRIAN CLEAR ZONE WIDTH 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	DESIGN           30MPH           30MPH           30MPH           25MPH           25MPH<	LENGTH (LF)           7670           3639           1962           827           191           1884           207           770           2268           178           117           1816           150           3193           761           920           1282           856           777           562           926           1576           566           3249           1938           715           553           637           505           3311           4444           205           1913           884				TEXAS DEFICE: 512.872.66
	ROW WIDTH 73' 65' 50' 50' 50' 50' 50' 50' 50' 50' 50' 5	MIN. PVMT WIDTH (F-F) 45' 37' 28' 28' 28' 28' 28' 28' 28' 28' 28' 28	CURB TYPE 24" CURB & GUTTER 24" CURB & GUTTER 24	PEDESTRIAN CLEAR ZONE WIDTH 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	JUDESIGN           SPEED           30MPH           30MPH           25MPH           25MP	LENGTH (LF)           7670           3639           1962           827           191           1884           207           770           2268           178           117           1816           150           3193           761           920           1282           856           777           562           926           1576           566           3249           1938           715           553           637           505           331           444           979           47	HEET			V, TEXAS

Project Number: 22223-Phase 04 SCALE: Project Path: Project Name: Drawing Path:

CHECKED BY: KCS

PPROVED BY: JTW

SHEET <u>1</u> of **20** 

2019-4-PP

AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

Xref DWG FILE. eet Number: 04 of 60 sheets



File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\05 PRELIMINARY PLAT (2 OF 4).dwg By: Luis Botello Date: 4/3/2022 9:02 PM

AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

Xref DWG FILE.



File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\06 PRELIMINARY PLAT (3 OF 4).dwg By: Luis Botello Date: 4/3/2022 9:02 PM

AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

heet Number: 06 of 110 sheets

### 2021-36-CON



Project Number: 22223-Phase 04 AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

heet Number: 07 of 60 sheets 2021-40-CON

![](_page_7_Figure_0.jpeg)

RMER RANCH AND ACCOUNTS FOR	
REMOVAL FOR THE PORTION OF THE SUBJECT	

PEAK FLOW CH	ANGE DUE	TO DEVEL	OPMENT [	CFS]
POINT OF INTEREST	100-YEAR	25-YEAR	10-YEAR	2-YEAR
POI-4	-9.3	-38.4	-53.3	-51.4
POI-5	-98.9	-70.4	-51.4	-16.6
POI-6	-1.0	-6.1	-9.1	-10.3
POI-7	-9.0	-5.3	-3.1	1.9
POI-C1	-0.6	-11.6	-17.4	-21.2
POI-C2	-117.0	-83.4	-61.2	-25.3

		POND A VO	LUME			Main Pond	Sediment Forebay		Area
				Avg End Area	Stage (ft	Area (sf)	Area (sf)	Total Area (sf)	Volume (cf)
			Avg End Area	Cumulative	954.75	100169	0	100,169	0
	Stage (ft)	Area (sf)	Volume (cf)	Volume (cf)	955	101749	0	101,749	25,240
$\frown$	964	25	0	0	956	108,120	0	108,120	104,934
POLS	965	12005	6,015	6,015	957	114,572	0	114,572	111,346
FUI-8	966	32866	22,436	28,451	958	121,107	24,063	145,169	129,871
	967	51365	42,115	70,566	959	127,723	27,955	155.678	150,424
DD XO	968	59054	55,210	125,776	960	134,421	31,882,76	166,304	160,991
PR-10	969	62450	60,752	186,528	961	141 201	35 839 73	177 041	171.672
Si/SACKES	970	65934	64,192	250,720	962	148,063	39,890,96	187,954	182,498
de la companya de la	971	69506	67,720	318,440	963	161 169	44 014 77	205 184	196,569
	972	73167	71,336	389,776	964	190,170	48,211,56	238 382	221,783
	973	76916	214,274	464,994	964 25	191 058	49 272 00	240 330	59 839
	974	80745	225,377	543,816	965	193,734	52,480,55	246,214	242.298
960	975	84645	236,718	626,495	966	254,118		254,118	250,166
	976	88609	248,287	/13,281	967	262,088		262,088	258,103
	2.8 28 80 . 1		ime Required:	169,321	968	270,124		270,124	266,106
		5 L 95 - ~			969	278,227		278,227	540,314
الم المراجع المراجع المحالية ( المراجع		1 wolow w	do the		970	286,395		286,395	282,311
	المرجع المحمد المحمل	and want and and	~~~~~		971.5	294,030		294,030	148 351
	محمد لليمريخ ويريد	3 martin	merin			200,	TOTALS	200,	Required
TI ( ) LARV ( ) , 2 ( STAN A STAN A STAN A STANDARD A	مستعسباتك مسمس فيمرجهم	1 Arian	No. No.			Sedime	nt Forebay Vol Req. =	······································	155,546
PR-70 PH 19 - C PR-70		F = F Man 2	~ ~ ~ ~ ~ ~	2		Perm P	ool Volume Required =		476,453
120 ACRES		X E Anon	ale of all a	N. N.		Wate	er Quality Volume =		476,453
	XXX		<b>PR-6</b> ~~			Permanent Poo	I and Water Quality Vo	lume =	952,906
PONDE PONDE	900		NO5 MIN PR-1 39.7 ACRES TO EXISTING POND B			TC: 34.45 MIII	N. ACRES	PR-48 18.1 ACRES	
	-990 -985 -980 -980		RONALD	REAGAN BOULEVARD		POI-C2	PF 5.0	R-AE ACRES	P

IS	Ň	RCS RCN Calculations	S											NRCS Time	of Concen	ntration									
0/	mpervious	Demuisue DCN	Composite			5	Sheet Flow	1		Shall	ow Concer	ıtrated - Ur	ipaved	Shallow	Concentra	ted - Pave	ed			Storm Drain/Open Channel					
- 70	RCN	Pervious RCN	RCN																						Total
																		R <sub>h</sub> [ft] = A/P						Total Tt	Tlag
1	98	.84	91.5	Drainage Basin	L [ft]	S [ft/ft]	n	P2	Tt [min]	S [ft/ft]	V [ft/s]	L [ft]	Tt [min]	S [ft/ft]	V [ft/s]	L [ft]	Tt [min]		L [ft]	n	S [ft/ft]	V [ft/s]	Tt [min]	[min]	[min]
%	98	84	92.9																						
%	98	84	92.2	PR-1	125.00	0.001	0.24	4.20	59.00					0.005	1.44	150.00	1.74	1.25	3,010.00	0.013	0.013	15.14	3.31	64.05	38.43
%	98	84	84.0	PR-4A	150.00	0.005	0.24	4.20	30.65	0.01	1.34	150.00	1.86	0.015	2.49	100.00	0.67	0.50	764.60	0.013	0.02	10.00	1.27	34.45	20.67
%	98	84	86.6	PR-4B	150.00	0.020	0.24	4.20	17.23	0.013	1.83	100.00	0.91	0.018	2.74	100.00	0.61	1.00	1,699.13	0.013	0.012	12.31	2.30	21.05	12.63
6	98	84	85.2	PR-4C	300.00	0.013	0.13	4.20	21.91	0.013	1.83	200.00	1.82					0.75	310.24	0.030	0.037	7.91	0.65	24.39	14.63
%	98	84	93.2	PR-4D	150.00	0.016	0.13	4.20	11.42	0.022	2.42	236.55	1.63	0.033	3.68	60.00	0.27	0.75	252.23	0.013	0.026	15.24	0.28	13.60	8.16
%	98	84	90.9	PR-4E	150.00	0.042	0.24	4.20	12.85	0.099	5.09	50.00	0.16					0.75	1,089.92	0.030	0.008	3.73	4.87	17.89	10.73
%	98	84	90.6	PR-6										A MNIMUM TC OF	6 MINUTE	S WAS US	ED							6.00	3.60
6	98	84	84.0	PR-7A	150.00	0.004	0.24	4.20	32.75	0.011	1.72	550.00	5.33	0.007	1.74	100.00	0.96	0.50	2,666.05	0.013	0.012	8.03	5.53	44.57	26.74
%	98	84	91.3	PR-7B	150.00	0.008	0.24	4.20	24.96	0.020	2.28	820.00	5.98	0.013	2.28	50.00	0.37	0.75	357.70	0.013		0.00	0.00	31.31	18.78
%	98	84	93.0	PR-7C		· · · ·								A MNIMUM TC OF	6 MINUTE	S WAS US	ED							6.00	3.60
%	98	84	91.0	PR-8	150.00	0.013	0.24	4.20	20.31	0.016	2.03	200.00	1.64	0.009	1.89	100.00	0.88	0.75	371.84	0.013	0.002	4.41	1.40	24.24	14.54
6	98	84	85.00	PR-9									1	A MNIMUM TC OF	6 MINUTE	S WAS US	ED	-						6.00	3.60
				PR-10	150.00	0.018	0.24	4.20	18.17	0.032	2.89	100.00	0.58					0.75	2,147.72	0.013	0.009	9.19	3.89	22.64	13.58
				EX-80FF	300	0.003	0.13	4.2	37.63	0.004	1.05	200	3.17					0.75	1821.3	0.03	0.009	3.87	7.85	48.65	29.19

-Dec-20 TE -Dec-20 TE	BRYAN ERIC MOORE	STEGEROBIZZELL	ATTACHMENT "B" - PROPOSED COND for PARMER RANCH NO
	SS ONAL ENGL	ADDRESS 1978 S. AUSTIN AVENUE GEORGETOWN, TX 78626	Georgetown, Tex
IE.	Maines	METRO STEGERBIZZEL STEGERBIZZEL	L.COM
TE	01.10.22	SERVICES >>ENGINEERS >>PLANNERS >>SURVEYORS	

![](_page_7_Picture_7.jpeg)

	PON	ID F VOLUME	
			Avg End Area
		Avg End Area	Cumulative
Stage (ft)	Area (sf)	Volume (cf)	Volume (cf)
992	25	0	0
993	19,206	9,615	9,615
994	38,286	28,746	38,361
995	44,281	41,283	79,644
995.25	44,281	11,070	90,715
996	46,881	45,581	125,225
997	49,546	48,213	173,439
998	52,277	50,911	224,350
999	55,073	53,675	278,025
1000	57,935	56,504	334,529
1000.5	59,390	29,331	363,860
	W	Q Volume Required:	90,321

Project Number:	22223
SCALE:	1" = 200'
Project Path:	22223 Joe Owen
Project Name:	Parmer Ranch
Drawing Path: P:\22000-22999\22 \01-PHASE 03\Rep Xref DWG FILE.	223 Joe Owen NW WMCO MUD#2 ports
Sheet Number:	1

DEVELOPED DRAINAGE PLAN PARMER RANCH PHASES 9 & 10 City of Georgetown Williamson County, Texas

SCALE: Project Path: Project Name: Drawing Path:

Project Number: 22223-Phase 04 AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

Xref DWG FILE.

heet Number: 08 of 60 sheets

![](_page_8_Figure_0.jpeg)

![](_page_9_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\10 INLET CALCULATIONS (1 OF 2).dwg By: Luis Botello Date: 4/3/2022 9:07 PM

		0	0	0	Junc	Throat	Curb	Inlet Calcula Gutter	tion Summa Gutter	ary: 100 Year Cross	Cross	n-value	Gutter	Gutter	Inlet	Bypass	Loca
Inlet ID	Incr Q (cfs)	Carryover (cfs)	Captured (cfs)	Bypass (cfs)	Туре	Height (in)	Length (ft)	Slope (ft/ft)	Width (ft)	Slope, Sw (ft/ft)	Slope, Sx (ft/ft)	Gutter	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depres (in)
B101 B102	4.70 4.42	0.00	4.70 4.42	0.00	Curb Curb	3.8 3.8	10.00	Sag Sag	0.83 0.83	0.100	0.020		0.38 0.37	15.80 15.16	0.88 0.87	n/a n/a	6.0 6.0
B103 B105 B106	3.36 5.99 6.33	0.00	3.36 5.68 6.11	0.00	Curb Curb	3.8 3.8 3.8	10.00 10.00 10.00	0.006	0.83	0.100	0.020	0.015	0.31	12.01 13.88 14.43	0.81	0.00 4.09 5.20	6.0 6.0
B107 B108	6.06 7.21	0.53	6.08 6.46	0.51	Curb Curb	3.8 3.8	10.00 10.00	0.009	0.83	0.100	0.020	0.015	0.35	14.39 14.89	0.85	5.12 6.03	6.0 6.0
B109 B110	5.50 7.33	0.51	5.60 6.80	0.42	Curb Curb	3.8	10.00	0.011	0.83	0.100	0.020	0.015	0.33	13.37 14.97	0.83	4.45	6.0 6.0
B111 B112 B113	6.25 5.02	<u> </u>	6.51 5.10	<u> </u>	Curb	3.8 3.8 3.8	10.00	0.011	0.83	0.100	0.020	0.015	0.33	12.97 14.57 12.73	0.83	<u>3.62</u> 6.60 3.04	6.0 6.0 6.0
B114 B115	6.69 8.50	1.02 0.20	6.60 7.20	1.10 1.50	Curb Curb	3.8 3.8	10.00 10.00	0.011 0.010	0.83 0.83	0.100 0.100	0.020 0.020	0.015 0.015	0.36 0.38	14.70 15.69	0.86 0.88	6.81 7.89	6.0 6.0
B116 EX. B117 EX.	8.01 6.29	0.00	7.12	0.89	Curb Curb	3.8	10.00	0.007	0.83	0.100	0.020	0.015	0.39	16.27 14.84	0.89	6.87 4.15	6.0 6.0
B201 B202 B203	<u> </u>	0.53	7.03 5.65	<u> </u>	Curb Curb Curb	<u>3.8</u> <u>3.8</u> <u>3.8</u>	<u> </u>	0.009 0.009 Sag	0.83	0.100	0.020	0.015	0.36	<u>14.44</u> 15.65 17.86	0.88	   n/a	6.0 6.0
B204 B205	3.09 5.53	0.00 0.00	3.09 5.53	0.00 0.00	Curb Curb	3.8 3.8	10.00 10.00	Sag 0.004	0.83 0.83	0.100 0.100	0.020 0.020	 0.015	0.31 0.38	11.96 15.72	0.81 0.88	n/a 0.22	6.0 6.0
B206 B207	2.69 8.86	0.00	2.69 6.92	0.00	Curb Curb	3.8	10.00	0.004	0.83	0.100	0.020	0.015	0.30	11.91 14.62	0.80	0.00 8.07	6.0 6.0
B209 B210	<u> </u>	<u> </u>	5.23 5.43 6.18	0.00	Curb Curb Curb	3.8 3.8	10.00 10.00 10.00	<u>Sag</u> 0.015	0.83	0.100	0.020	0.015	0.26	<u> </u>	0.91	0.00  6.52	6.0 6.0
B211 B212	7.88 7.64	0.00 0.00	6.85 6.39	1.03 1.25	Curb Curb	3.8 3.8	10.00 10.00	0.009 0.014	0.83 0.83	0.100 0.100	0.020 0.020	0.015 0.015	0.37 0.35	15.41 13.99	0.87 0.85	6.91 6.84	6.0 6.0
B213 B214 B215	8.28 6.24	1.15 1.25	7.24 6.31	2.20 1.18	Curb Curb	3.8 3.8	10.00 10.00	0.014	0.83	0.100	0.020	0.015	0.37	15.17 13.89	0.87	8.60 6.68	6.0 6.0
B215 B216 B217	4.69	1.18 0.00	5.39	0.49	Curb	3.8	10.00	0.014	0.83	0.100	0.020	0.015	0.33	12.64 12.80	0.82	4.53	6.0 6.0
B218 B219	5.62 2.15	0.00 1.88	5.29 4.03	0.33 0.00	Curb Curb	3.8 3.8	10.00 10.00	0.012 Sag	0.83 0.83	0.100 0.100	0.020 0.020	0.015	0.32 0.35	12.81 14.26	0.82 0.85	3.88 n/a	6.0 6.0
B220 B221 B222	2.40 6.19 6.03	2.28 1.10 1.50	4.68 6.68 5.65	0.00 0.61 1.88	Curb Curb	3.8 3.8 3.8	10.00 10.00 10.00	Sag 0.007 0.035	0.83	0.100	0.020	0.015	0.38	15.76 15.70 11.65	0.88	n/a 5.86 6.70	6.0 6.0
C01 C02	8.59 7.78	0.00	6.43 5.61	2.17	Curb Curb	3.8 3.8	10.00 10.00	0.023	0.83 0.83	0.100	0.020	0.015 0.015	0.33	13.30 11.40	0.83	7.74 6.85	6.0 6.0
C03 C05	8.09 7.84	2.17 3.18	7.07 8.39	3.18 2.62	Curb Curb	3.8 3.8	10.00	0.023	0.83	0.100	0.020	0.015	0.35	14.24 17.51	0.85	9.03 10.07	6.0 6.0
C06 C08 C09	8.32 6.85 5.44	2.62 0.00 3.42	7.53 5.80 7.60	3.42 1.05 1.26	Curb Curb Curb	3.8 3.8 3.8	10.00 10.00 10.00	0.019 0.018 0.007	0.83 0.83 0.83	0.100 0.100 0.100	0.020	0.015 0.015 0.015	0.37 0.32 0.40	15.15 12.78 16.91	0.87 0.82 0.90	9.65 6.02 7.91	6.0 6.0 6.0
C10 C11	8.41 8.40	0.00	6.66 6.65	1.75 1.75	Curb Curb	3.8 3.8	10.00 10.00	0.016	0.83 0.83	0.100	0.020	0.015	0.35	14.15 14.14	0.85 0.85	7.64 7.63	6.0 6.0
C12 C13	6.71 1.51	1.05	6.97 6.13	0.79	Curb Curb	3.8 3.8	10.00 10.00	0.007 0.005	0.83	0.100	0.020	0.015 0.015	0.39	16.08 15.80	0.89	6.53 3.15	6.0 6.0
C14 C15 C16	3.52 3.46 5.44	0.15 0.85 0.00	3.67 4.31 5.43	0.00	Curb Curb Curb	3.8 3.8 3.8	10.00 10.00 10.00	Sag Sag 0.005	0.83 0.83 <u>0.83</u>	0.100	0.020	  0.015	0.33 0.36 <u>0.37</u>	13.39 14.92 14.97	0.83 0.86 0.87	n/a n/a <u>0.64</u>	6.0 6.0 6.0
C17 C18	5.69 5.35	0.00 0.34	5.64 5.68	0.04 0.01	Curb Curb	3.8 3.8	10.00 10.00	0.005 0.004	0.83 0.83	0.100	0.020 0.020	0.015 0.015	0.37 0.38	15.22 15.89	0.87 0.88	1.20 0.49	6.0 6.0
C19 C20 C21 EX	2.80 6.48	0.00	2.80 6.14	0.00	Curb Curb	3.8 3.8	10.00 10.00	0.007	0.83	0.100	0.020	0.015 0.015	0.28	10.86 15.00	0.78	0.00 4.51	6.0 6.0
C22 EX.	4.80 5.80	0.00	4.80 5.80	0.00	Curb	3.8	10.00	Sag	0.83	0.100	0.020		0.38	18.18	0.88	n/a n/a	6.0
Inlet ID	Incr Q	Q Carryover	Q Captured	Q Bypass	Junc Type	Throat Height	Curb Length	Inlet Calcula Gutter Slope	tion Summa Gutter Width	ary: 25 Year Cross Slope, Sw	Cross Slope, Sx	n-value Gutter	Gutter Depth	Gutter Spread	Inlet Depth	Bypass Spread	Local Depress
B101	(cfs) 3.89	(cfs) 0.00	(cfs) 3.89	(cfs) 0.00	Curb	(in) 3.8	(ft) 10.00	(ft/ft) Sag	(ft) 0.83	(ft/ft) 0.100	(ft/ft) 0.020		(ft) 0.34	(ft) 13.92	(ft) 0.84	(ft) n/a	(in) 6.0
B102 B103 B106	3.76 2.79 5.31	0.00 0.00 0.07	3.76 2.79 5.23	0.00	Curb Curb	3.8 3.8 3.8	10.00 10.00 10.00	Sag 0.006 0.009	0.83 0.83 0.83	0.100 0.100 0.100	0.020 0.020 0.020	 0.015 0.015	0.34 0.29 0.33	13.61 11.16 13.31	0.84 0.79 0.83	n/a 0.00 2.74	6.0 6.0
B107 B108	5.02 6.05	0.15	5.07 5.72	0.11 0.33	Curb Curb	3.8 3.8	10.00 10.00 10.00	0.009	0.83	0.100	0.020	0.015 0.015	0.33 0.34	13.11 13.93	0.83 0.83 0.84	2.17 2.17 4.19	6.0 6.0
B109 B110	4.62 6.15	0.11	4.65 5.90	0.07	Curb Curb	3.8 3.8	10.00	0.011	0.83	0.100	0.020	0.015	0.31	12.18 13.76	0.81	1.39 5.21	6.0 6.0
B111 B112 B1 <u>13</u>	4.32 5.18 4.16	0.07 0.59 0.02	4.37 5.43 4.18	0.02 0.34 0.01	Curb Curb Curb	3.8 3.8 3.8	10.00 10.00 10.00	0.011 0.011 <u>0.011</u>	0.83 0.83 0.83	0.100 0.100 0.100	0.020 0.020 0.020	0.015 0.015 0.015	0.30 0.33 0.30	11.84 13.15 <u>11.62</u>	0.80 0.83 0.80	0.62 4.02 0.37	6.0 6.0 6.0
B114 B115	5.54 7.14	0.34	5.51 6.36	0.37 0.79	Curb Curb	3.8 3.8	10.00 10.00	0.011 0.010	0.83 0.83	0.100	0.020	0.015	0.33	13.25 14.55	0.83 0.86	4.22 6.05	6.0 6.0
B116 EX. B117 EX. B201	6.72 5.29	0.00	6.30 5.23	0.42	Curb Curb	3.8 3.8 2.9	10.00 10.00	0.007	0.83	0.100	0.020	0.015	0.37	15.21 13.88	0.87	4.95 1.51	6.0 6.0
B202 B203	6.35 3.75	0.00	6.05 4.25	0.50	Curb Curb Curb	3.8 3.8	10.00 10.00 10. <u>00</u>	0.009 0.009 Sag	0.83 0.83 0.83	0.100	0.020 0.020 0.020	0.015	0.34 0.35 0.36	14.36 14.77	0.84 0.85 0.86	5.23 5.05 n/a	6.0 6.0 6.0
B204 B205	2.63 4.64	0.00 0.00	2.63 4.64	0.00 0.00	Curb Curb	3.8 3.8	10.00 10.00	Sag 0.004	0.83 0.83	0.100 0.100	0.020 0.020	 0.015	0.28 0.36	10.74 14.70	0.78 0.86	n/a 0.00	6.0 6.0
B206 B207 B208	2.23 7.44 2.73	0.00 0.00	2.23 6.24 2.73	0.00	Curb Curb	3.8 3.8 3.8	10.00 10.00 10.00	0.004 0.015 0.017	0.83 0.83 0.83	0.100 0.100 0.100	0.020 0.020 0.020	0.015 0.015 0.015	0.29 0.34 0.25	11.07 13.67 9.03	0.79 0.84 0.75	0.00 6.64 0.00	6.0 6.0
B209 B210	3.69 4.52	0.52	4.21 5.26	0.00	Curb Curb	3.8 3.8	10.00 10.00	Sag 0.015	0.83	0.100	0.020	0.015	0.36	14.68 12.36	0.86 0.81	n/a 4.37	6.0 6.0
B211 B212	6.61 6.42	0.00	6.09 5.72	0.52	Curb Curb	3.8 3.8	10.00	0.009	0.83	0.100	0.020	0.015	0.35	14.41 13.09	0.85	5.16 5.34	6.0 6.0
B213 B214 B215	6.95 5.24 <u>3.86</u>	0.47 0.70 1.14	6.28 5.43 4.80	1.14 0.51 0.21	Curb Curb Curb	3.8 3.8 3.8	10.00 10.00 10.00	0.014 0.014 0.014	0.83 0.83 <u>0.83</u>	0.100 0.100 0.100	0.020 0.020 0.020	0.015 0.015 0.015	0.34 0.32 <u>0.30</u>	13.84 12.70 11.88	0.84 0.82 <u>0.80</u>	6.59 4.63 <u>2.90</u>	6.0 6.0 6.0
B216 B217	3.94 3.60	0.51	4.37 3.60	0.08	Curb Curb	3.8 3.8	10.00 10.00	0.014 0.007	0.83 0.83	0.100	0.020 0.020	0.015	0.29 0.31	11.35 11.96	0.79 0.81	1.28 0.00	6.0 6.0
B218 B219 B220	4.72 1.83	0.00	4.63 2.80	0.09	Curb Curb	3.8 3.8 2.9	10.00 10.00	0.012 Sag	0.83	0.100	0.020	0.015	0.31 0.29	11.97 11.18	0.81	1.70 n/a	6.0 6.0
B221 B222	5.20 5.06	0.37	5.46 4.88	0.11	Curb Curb Curb	3.8 3.8	10.00 10.00 10. <u>00</u>	0.007 0.035	0.83 0.83 0.83	0.100	0.020 0.020 0.020	0.015 0.015	0.27	10.38 14.16 10.57	0.77	2.47 5.03	6.0 6.0
C01 C02	7.21 6.53	0.00	5.81 5.10	1.40 1.44	Curb Curb	3.8 3.8	10.00 10.00	0.023	0.83 0.83	0.100 0.100	0.020 0.020	0.015 0.015	0.32 0.28	12.44 10.65	0.82 0.78	6.46 5.75	6.0 6.0
C03 C04 C05	6.79 3.35	1.40 1.44 1.92	6.25 4.75 7.20	1.93 0.04 1.32	Curb Curb	3.8 3.8 3.8	10.00 10.00	0.023	0.83 0.83	0.100 0.100	0.020	0.015 0.015 0.015	0.33 0.32	13.06 12.73 15.87	0.83	7.39 0.79 7.65	6.0 6.0
C06 C08	6.90 5.66	1.32	6.42 5.13	1.79 0.53	Curb Curb	3.8	10.00 10.00 10.00	0.019	0.83	0.100	0.020	0.015	0.34	13.57 13.57 11. <u>8</u> 7	0.88	7.45	6.0 6.0
C09 C10	4.57 7.06	1.79 0.00	6.05 5.99	0.31 1.07	Curb Curb	3.8 3.8	10.00 10.00	0.007	0.83 0.83	0.100	0.020 0.020	0.015 0.015	0.36 0.33	14.90 13.23	0.86 0.83	4.29 6.23	6.0 6.0
C11 C12 C13	7.05 5.64 1.27	0.00 0.53 2.44	5.99 5.92 3.71	1.06 0.25 0.00	Curb Curb	3.8 3.8 3.8	10.00 10.00 10.00	0.016 0.007 0.005	0.83 0.83 0.83	0.100 0.100 0.100	0.020 0.020 0.020	0.015 0.015 0.015	0.33 0.36 0.32	13.22 14.72 12 91	0.83 0.86 0.82	6.22 3.91 0.00	6.0 6.0
C14 C15	2.95	0.00	2.95	0.00	Curb Curb	3.8	10.00 10.00 10.00	Sag Sag	0.83	0.100	0.020		0.30	11.59 12.13	0.82	n/an/a	6.0 6.0
C16 C17	4.57	0.00 0.00	4.57 4.78	0.00	Curb Curb	3.8 3.8	10.00 10.00	0.005	0.83 0.83	0.100	0.020	0.015 0.015	0.35 0.35	14.00 14.24	0.85 0.85	0.00	6.0 6.0
018	4.78	0.07	4.51	0.00 0.00	Curb Curb	3.8 3.8 3.8	10.00 10.00 10.00	0.004 0.007 0.007	0.83 0.83 0.83	0.100 0.100 0.100	0.020 0.020 0.020	0.015 0.015 0.015	0.36 0.27 0.35	14.53 10.14 13.94	0.86 0.77 0.85	0.00 0.00 1.74	6.0 6.0
C18 C19 C20	4.78 4.43 2.36	0.00	<u> </u>	0.07		0.0		0.00/	-A0D	0.11010	0.020					447/ <sup>4</sup> 1	0.0
C18 C19 C20 C21 EX. C22 EX.	4.78 4.43 2.36 5.35 3.86 4.79	0.00 0.00 0.00 0.00	5.28 3.86 4.79	0.07 0.00 0.00	Curb Curb Curb	3.8 3.8	10.00 10.00	Sag Sag	0.83 0.83	0.100 0.100	0.020		0.34 0.39	13.87 16.01	0.84 0.89	n/a n/a	6.0 6.0
C18 C19 C20 C21 EX. C22 EX.	4.78 4.43 2.36 5.35 3.86 4.79	0.00 0.00 0.00 0.00	5.28 3.86 4.79	0.07 0.00 0.00	Curb Curb	3.8 3.8	10.00	Sag Sag REVIS	0.83 0.83	0.100	0.020 0.020 BY	DATE	0.34	<u>13.87</u> 16.01	0.84 0.89	n/a n/a	6.0 6.0
C18 C19 C20 C21 EX. C22 EX. WARNING	4.78 4.43 2.36 5.35 3.86 4.79	0.00 0.00 0.00	5.28 3.86 4.79	0.07 0.00 0.00		3.8 3.8 IO.	10.00	Sag Sag REVIS	0.83 0.83 ION	0.100	BY	DATE	0.34 0.39 EJH, LB, DESIGN	13.87 16.01 TG, NN ED BY:	0.84 0.89	n/a n/a	6.0
C18 C19 C20 C21 EX. C22 EX. WARNING There are existin cables and other vicinity of this pro-	4.78 4.43 2.36 5.35 3.86 4.79	0.00 0.00 0.00 0.00	5.28 5.28 3.86 4.79 erground tel nd utilities i aall contact	0.07 0.00 0.00 lephone in the all		3.8 3.8 IO.	<u>10.00</u> <u>10.00</u>	Sag Sag REVIS	0.83 0.83 ION	0.100	BY	DATE	<u>EJH, LB,</u> <u>EJH, LB,</u> <u>DESIGN</u>	13.87 16.01 TG, NN ED BY: TG, NN	0.84	n/a n/a	6.0
C18 C19 C20 C21 EX. C22 EX. C22 EX. WARNING There are existin cables and other vicinity of this pro appropriate utility area and determ Contractor shall	4.78 4.43 2.36 5.35 3.86 4.79	0.00 0.00 0.00 0.00 0.00	5.28 3.86 4.79 erground tel nd utilities i iall contact i y constructi t. If so, the e Engineer	0.07 0.00 0.00 lephone in the all tion in the who		3.8 3.8	10.00 10.00	Sag Sag REVIS	0.83 0.83	0.100 0.100	BY	DATE	0.34 0.39 EJH, LB, DESIGN EJH, LB, DRAWN	13.87 16.01 TG, NN ED BY: TG, NN BY:	0.84 0.89	n/a n/a	6.0
C18 C19 C20 C21 EX. C22 EX. C22 EX. WARNING There are existin cables and other vicinity of this pre appropriate utility area and determ Contractor shall shall revise the contractor shall	4.78 4.43 2.36 5.35 3.86 4.79 Jeg water pip r above and oject. The o y companie ine if any c immediatel design as n	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	5.28 5.28 3.86 4.79 erground tel nd utilities i nall contact : y constructi t. If so, the e Engineer,	0.07 0.00 0.00 lephone in the all ion in the who		3.8 3.8 IO.		Sag Sag REVIS	0.83 0.83	0.100	BY	DATE	U.34 0.39 EJH, LB, DESIGN EJH, LB, DRAWN CHECKE	13.87 16.01 TG, NN ED BY: TG, NN BY: ED BY:	0.84 0.89	n/a n/a	6.0

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\11 INLET CALCULATIONS (2 OF 2).dwg By: Luis Botello Date: 4/3/2022 9:07 PM

				Area Inlets: 100	Year				
4-Sided Inlets	Qfrom passing + Q <sub>100</sub>	Side Length	Total Opening Area	Depth of Flow at Inlet Face	Water Depth above Orifice Centroid	Q - inlet allowed	Q - pass	Q - Inlet	Comment
	cfs	ft	ft^2	ft	ft	cfs	cfs	cfs	
C07	33.45	3.00	6.00	2.00	1.75	42.68	0.00	33.45	3' x 3' - 4 sided
B104	24.09	4.00	8.00	2.00	1.75	56.90	0.00	24.09	4' x 4' - 4 sided
D06	9.13	4.00	8.00	0.50	0.25	21.51	0.00	9.13	4' x 4' - 4 sided
D07	22.15	4.00	8.00	0.50	0.25	21.51	0.64	21.51	4' x 4' - 4 sided

				Area Inlets: 25	/ear				
4-Sided Inlets	Qfrom passing + Q <sub>100</sub>	Side Length	Total Opening Area	Depth of Flow at Inlet Face	Water Depth above Orifice Centroid	Q - inlet allowed	Q - pass	Q - Inlet	Comment
	cfs	ft	ft^2	ft	ft	cfs	cfs	cfs	
C07	25.20	3.00	6.00	2.00	1.75	42.68	0.00	25.20	3' x 3' - 4 sided
B104	17.58	4.00	8.00	2.00	1.75	56.90	0.00	17.58	4' x 4' - 4 sided
D06	6.84	4.00	8.00	0.50	0.25	21.51	0.00	6.84	4' x 4' - 4 sided
D07	16.80	4.00	8.00	0.50	0.25	21.51	0.00	16.80	4' x 4' - 4 sided

HYDROLOGIC SUMM	ARY TABLE																			
Subarea Number	Area	Тс	i2	i10	i25	i100	C2	C10	C25	C100	Q2	Q10	Q25	Q100	Building/Dri ves	%	Roadway/Si dewalks	%	Grass	%
	(acres)	(min)	(in/hr)	(in/hr)	(in/hr)	(in/hr)					(cfs)	(cfs)	(cfs)	(cfs)	(ac)		(ac)		(ac)	
B101	0.514	5	6.48	8.64	9.84	11.88	0.71	0.73	0.74	0.77	2.36	3.24	3.75	4.69	0	0	0.311	0.6	0.203	0.39
B102	0.443	5	6.48	8.64	9.84	11.88	0.81	0.82	0.83	0.84	2.31	3.13	3.6	4.44	0	0	0.333	0.75	0.11	0.25
B103	0.354	5	6.48 2.57	8.64	9.84	11.88	0.75	0.76	0.77	0.8	1.71	2.34	2.7 10 F	3.35	0	0	0.235	0.66	0.119	0.34
B104 B105	7.125	25.2 5	3.57 6.49	5.05 8.64	5.94 0.94	7.3Z 11.00	0.31	0.36	0.39	0.46	7.89	12.94 1 1 2	10.5	24.01 5.07	0	0 25	0 177	0 27	1.125	0 30 T
B105 B106	0.047	5	0.40 6.48	8.04 8.6/	9.04 9.84	11.00	0.72	0.74	0.75	0.78 0.8	3.01	4.15 A A1	4.77 5.09	633	0.224	0.33	0.177	0.27	0.240	0.38
B105 B107	0.63	5	6.48	8.64	9.84	11.88	0.76	0.77	0.78	0.81	3.09	4,21	4.86	6.03	0.346	0.55	0.082	0.12	0.223	0.32
B108	0.749	5	6.48	8.64	9.84	11.88	0.77	0.78	0.79	0.81	3.73	5.07	5.84	7.24	0.381	0.51	0.139	0.19	0.229	0.31
B109	0.572	5	6.48	8.64	9.84	11.88	0.76	0.78	0.79	0.81	2.82	3.84	4.42	5.49	0.308	0.54	0.082	0.14	0.182	0.32
B110	0.762	5	6.48	8.64	9.84	11.88	0.76	0.78	0.79	0.81	3.76	5.12	5.9	7.32	0.404	0.53	0.118	0.15	0.24	0.32
B111	0.535	5	6.48	8.64	9.84	11.88	0.76	0.78	0.79	0.81	2.64	3.59	4.14	5.14	0.283	0.53	0.084	0.16	0.168	0.31
B112	0.65	5	6.48	8.64	9.84	11.88	0.76	0.77	0.78	0.81	3.19	4.35	5.01	6.23	0.355	0.55	0.087	0.13	0.208	0.32
B113	0.522	5	6.48	8.64	9.84	11.88	0.76	0.77	0.78	0.81	2.56	3.49	4.02	4.99	0.271	0.52	0.082	0.16	0.168	0.32
B114	0.695	5	6.48	8.64	9.84	11.88	0.76	0.77	0.78	0.81	3.41	4.65	5.36	6.65	0.384	0.55	0.087	0.12	0.224	0.32
B115	0.884	5	6.48	8.64	9.84	11.88	0.77	0.78	0.79	0.81	4.4	5.98	6.89	8.54	0.322	0.36	0.29	0.33	0.272	0.31
	0.865	5	6.48 6.48	8.64 8.64	9.84	11.88	0.73	0.75	0.76	0.78	4.08 2.20	5.58	6.45 5.00	8.05	0.122	0.14	0.426	0.49	0.317	0.37
B117 EA. B201	0.010	5	0.40 6.48	8.04 8.64	9.04 9.84	11.00	0.82	0.85	0.84	0.80	5.20 3.41	4.45 4.66	5.09	6.20	0 362	0 51	0.477	0.77	0.139	0.23
B201	0.828	5	6.48	8.64	9.84	11.88	0.74	0.78	0.75	0.78	3.86	5.28	6.11	7.64	0.417	0.5	0.096	0.12	0.314	0.38
B203	0.483	5	6.48	8.64	9.84	11.88	0.73	0.74	0.76	0.78	2.27	3.11	3.59	4.48	0.239	0.5	0.065	0.14	0.178	0.37
B204	0.303	5	6.48	8.64	9.84	11.88	0.83	0.84	0.85	0.86	1.63	2.2	2.53	3.11	0.058	0.19	0.182	0.6	0.063	0.21
B205	0.582	5	6.48	8.64	9.84	11.88	0.76	0.77	0.78	0.8	2.85	3.88	4.48	5.57	0.237	0.41	0.156	0.27	0.189	0.32
B206	0.283	5	6.48	8.64	9.84	11.88	0.74	0.76	0.77	0.8	1.37	1.86	2.15	2.68	0.143	0.5	0.044	0.15	0.097	0.34
B207	0.91	5	6.48	8.64	9.84	11.88	0.78	0.79	0.8	0.82	4.57	6.22	7.16	8.86	0.427	0.47	0.215	0.24	0.268	0.29
B208	0.326	5	6.48	8.64	9.84	11.88	0.8	0.81	0.82	0.84	1.68	2.28	2.62	3.24	0.121	0.37	0.12	0.37	0.086	0.26
B209 B210	0.463	5	6.48 6.48	8.64 8.64	9.84	11.88	0.75	0.77	0.78	0.8	2.26	3.08	3.55	4.41 5.42	0.265	0.57	0.045	0.1	0.153	0.33
B210 B211	0.567	5	0.48 6.48	8.04 8.64	9.64 9.84	11.00	0.76	0.77	0.78	0.8	2.78 4.02	5.70 5.49	4.50 6 34	5.42 7 9	0.517	0.56	0.000	0.12	0.184	0.52
B212	0.766	5	6.48	8.64	9.84	11.88	0.8	0.81	0.82	0.84	3.98	5.39	6.2	7.65	0.339	0.44	0.231	0.3	0.196	0.35
B213	0.861	5	6.48	8.64	9.84	11.88	0.76	0.78	0.79	0.81	4.24	5.78	6.66	8.27	0.467	0.54	0.121	0.14	0.274	0.32
B214	0.657	5	6.48	8.64	9.84	11.88	0.76	0.77	0.78	0.8	3.22	4.38	5.05	6.28	0.368	0.56	0.076	0.12	0.213	0.32
B215	0.478	5	6.48	8.64	9.84	11.88	0.76	0.78	0.79	0.81	2.36	3.21	3.7	4.6	0.255	0.53	0.073	0.15	0.151	0.32
B216	0.494	5	6.48	8.64	9.84	11.88	0.75	0.77	0.78	0.8	2.41	3.29	3.79	4.71	0.284	0.57	0.048	0.1	0.162	0.33
B217	0.44	5	6.48	8.64	9.84	11.88	0.78	0.8	0.8	0.82	2.23	3.02	3.48	4.31	0.194	0.44	0.12	0.27	0.126	0.29
B218	0.57	5	6.48	8.64	9.84	11.88	0.79	0.8	0.81	0.83	2.91	3.96	4.55	5.62	0.232	0.41	0.182	0.32	0.156	0.27
B219 B220	0.213	5	6.48	8.64 8.64	9.84	11.88	0.82	0.83	0.84	0.85	1.13	1.53	1.75 1.07	2.10	0.05	0.24	0.114	0.54	0.049	0.23
B220 B221	0.235	5	0.48 6.48	8.0 <del>4</del> 8.64	9.84	11.88	0.82	0.83	0.84	0.80	3 19	4 34	1.94 5	6 19	0.303	0.23	0.114	0.45	0.055	0.23
B222	0.604	5	6.48	8.64	9.84	11.88	0.8	0.81	0.82	0.84	3.12	4.22	4.86	6	0.246	0.41	0.199	0.33	0.159	0.26
C01	0.893	5	6.48	8.64	9.84	11.88	0.76	0.78	0.79	0.81	4.42	6.01	6.93	8.6	0.486	0.54	0.127	0.14	0.28	0.31
C02	0.809	5	6.48	8.64	9.84	11.88	0.77	0.78	0.79	0.81	4.01	5.46	6.29	7.81	0.415	0.51	0.144	0.18	0.249	0.31
C03	0.851	5	6.48	8.64	9.84	11.88	0.76	0.77	0.78	0.8	4.17	5.68	6.54	8.13	0.478	0.56	0.096	0.11	0.276	0.32
C04	0.415	5	6.48	8.64	9.84	11.88	0.77	0.78	0.79	0.81	2.06	2.8	3.22	4	0.212	0.51	0.074	0.18	0.129	0.31
C05	0.815	5	6.48	8.64	9.84	11.88	0.76	0.78	0.79	0.81	4.01	5.46	6.3	7.82	0.442	0.54	0.113	0.14	0.259	0.32
C06	0.865 0.482	5 27 64	6.48 3.4	8.64 1.82	9.84 5.68	11.88 7.02	0.76	0.78	0.78	0.81	4.26 9.52	5.8 15.60	6.68 20.05	8.3 20.22	0.469	0.54	0.121	0.14	0.276	0.32
C08	0 769	27.0 <del>4</del> 5	5.4 6.48	4.82 8.64	9.84	11 88	0.5	0.34	0.37	0.44	3.44	4 73	5 48	6 89	0.430	0.05	0 144	0 19	0 326	0.33
C09	0.566	5	6.48	8.64	9.84	11.88	0.77	0.78	0.79	0.81	2.81	3.82	4.41	5.47	0.287	0.51	0.105	0.18	0.175	0.31
C10	0.874	5	6.48	8.64	9.84	11.88	0.76	0.78	0.79	0.81	4.31	5.87	6.77	8.4	0.476	0.55	0.122	0.14	0.276	0.32
C11	0.873	5	6.48	8.64	9.84	11.88	0.76	0.78	0.79	0.81	4.32	5.88	6.77	8.4	0.475	0.54	0.124	0.14	0.274	0.31
C12	0.698	5	6.48	8.64	9.84	11.88	0.76	0.78	0.79	0.81	3.45	4.7	5.42	6.72	0.367	0.53	0.112	0.16	0.219	0.31
C13	0.146	5	6.48	8.64	9.84	11.88	0.84	0.85	0.85	0.87	0.79	1.07	1.22	1.5	0.036	0.25	0.08	0.55	0.03	0.21
C14	0.375	5	6.48	8.64	9.84	11.88	0.74	0.76	0.77	0.79	1.79	2.45	2.82	3.52	0.184	0.49	0.059	0.16	0.131	0.35
C15	0.347	5	6.48	8.64	9.84	11.88	0.8	0.81	0.82	0.84	1.8	2.44	2.8	3.46	0.138	0.4	0.12	0.35	0.09	0.26
C16	0.573	5	6.48	8.64	9.84	11.88	0.76	0.77	0.78	0.8	2.81	3.83	4.41	5.48	0.237	0.41	0.151	0.26	0.186	0.32
C1/	0.5//	5	6.48 6.48	8.64	9.84	11.88	0.78	0.8	0.81	0.83	2.93	3.98	4.58	5.66	0.262	0.45	0.152	0.26	0.163	0.28
C19	0.330		6.48	8.04 8.64	9.84	11.88	0.78	0.79	0.78	0.81	2.73 1.45	3.72 1 97	4.28	2.52 2.81	0.51	0.50	0.007	0.12	0.18	0.32
C20	0.727		6.48	8.64	9.84	11.88	0.68	0.71	0.72	0.75	3.22	4.43	5.14	6.47	0.197	0.27	0.215	0.3	0.315	0.43
C21 EX.	0.45	5	6.48	8.64	9.84	11.88	0.82	0.83	0.84	0.86	2.4	3.24	3.72	4.57	0	0	0.349	0.77	0.101	0.22
C22 EX.	0.651	5	6.48	8.64	9.84	11.88	0.68	0.7	0.72	0.75	2.88	3.96	4.59	5.78	0.114	0.18	0.253	0.39	0.283	0.44
D06	1.341	5	6.48	8.64	9.84	11.88	0.46	0.5	0.52	0.57	3.96	5.74	6.84	9.13	0.29	0.22	0.007	0.01	1.044	0.78

![](_page_10_Picture_5.jpeg)

 Sag

 B101

 B106

 B107

 B109

 B110

 B111

 B112

 B113

 B114

 B115

 B212

 Offsite

 B203

 Sag

 B203

 B204

 B205

 B206

 B209

 Sag

 B210

 B213

 B204

 B215

 B216

 B220

 Sag

 B2113

 B209

 Sag

 B2114

 B215

 B216

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 Sag

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C13 C13 C15 C15 Sag C15 C15 C15 C15 C14 C15 C18

Sag Sag B101 B107 B109 B110 B111 B112 B113 B114 B115 B221

 Offsite

 B202

 B203

 Sag

 B206

 B203

 B206

 B203

 B206

 B203

 B204

 B205

 B210

 B209

 Sag

 B213

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 B214

 B215

 B216

 B220

 B219

 B220

 Sag

 B220

 B219

 C03

 C04

 C05

 Offsite

 C06

 C09

 C12

 C13

 C14

 Sag

 Sag

 C15

 C14

 Sag

 C15

JSTIN AVENUE GEORGETOWN, TX 78626 TEXAS REGISTERED ENGINEERING FIRM F-181 TBPLS FIRM No.10003700 WEB STEGERBIZZELL.COM ADDRESS 1978 S. AUSTIN AVENUE 512.930.9412 SERVICES >>ENGINEERS >>PLANNERS >>SURVEYORS

STEGER BIZZELL

8.64

6.48

9.84

# INLE PARME

11.88 0.49 0.53 0.55 0.6

NOTE: 1.- PLEASE REFER TO THE CITY OF GEORGETOWN DCM FOR EQUATIONS.

City of Georgetown IDF Curve Values 
 Year
 a
 b
 c

 2
 106.29
 16.81
 0.9076

 10
 96.84
 15.88
 0.7952

 25
 111.07
 17.23
 0.7815

 100
 129.03
 17.83
 0.7625

ET CALCULATIONS (2 OF 2)
ER RANCH PHASES 9 & 10
City of Georgetown
Villiamson County, Texas

22.15

0.858

0.28

0

9.9 14.17 16.8

Project Number: 22223-Phase 04 AS NOTED SCALE: Project Path: P\22000-22999\22223 Project Name: Parmer Ranch Drawing Path: CAD\Plans Xref DWG FILE.

Sheet Number: 11 of 60 sheets

![](_page_11_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\12 EROSION AND SEDIMENTATION CONTROL PLAN.dwg By: Luis Botello Date: 4/3/2022 9:10 PM

			TOTALS	TREE CALCULATIONS			
	EXISTING TOTAL TREES (INCHES)	EXISTING HERITAGE TREES (INCHES)	HERITAGE TREES TO BE REMOVED (INCHES)	HERITAGE TREES PRESERVED (INCHES)	MITIGATION INCHES (EXCLUDING COLLECTOR) (3:1 RATIO)	MITIGATION (EXCLUDING COLLECTOR) AT \$200 / INCH	FORM OF MITIGATION - SEE LANDSCAPE PLANS FOR BREAKDOWN AND TOTALS
PHASE 1	3817	1109	308	802	839	\$56,000	Aeration & Fertilization, Onsite planting of replacement inches
PHASES 2-4	926	521.5	355.5	166	901.5	\$60,200	Aeration & Fertilization, Onsite planting of replacement inches
Phase 13	2864	657.5	147	510.5	441	\$29,400	Aeration & Fertilization, Onsite planting of replacement inches
Parmer Ranch Boulevard (PRB) - Phase 2	237	237	80	157	81	\$5,400	Onsite Planting of replacement inches
PHASES 9-10	757	291	38.5	252.5	115.5	\$7,800	Aeration & Fertilization, Onsite planting of replacement inches
PHASES 5A, 6 & 7	2006	415	254	161	762	\$50,800	Aeration & Fertilization, Onsite planting of replacement inches
						-	
			COLLECTO	OR TREE CALCULATIONS			
					MITIGATION INCHES	MITIGATION	
	EXISTING TOTAL TREES	EXISTING HERITAGE	HERITAGE TREES TO BE	HERITAGE TREES	(EXCLUDING	(EXCLUDING	FORM OF MITIGATION
	(INCHES)	TREES (INCHES)	REMOVED (INCHES)	PRESERVED (INCHES)	COLLECTOR) (3:1	COLLECTOR) AT \$200 /	
	2210	4 - 1	20	422	KATIO)	INCH	
PHASE I	2210	451	28	423	0	ŞU	
PHASES 2-4	03	55	55	0	0	\$U \$0	
DRB Dbc 2	0	53	52	0	1	30 \$0	
	0	0	0	0	1	φ0 \$0	
PHASES 54, 6 & 7	0	0	0	0	0	\$0	
			OTHER	TREE CALCULATIONS			
					MITIGATION INCHES	MITIGATION	
	EXISTING TOTAL TREES	EXISTING HERITAGE	HERITAGE TREES TO BE	HERITAGE TREES	(EXCLUDING	(EXCLUDING	
	(INCHES)	TREES (INCHES)	REMOVED (INCHES)	PRESERVED (INCHES)	COLLECTOR) (3:1 RATIO)	COLLECTOR) AT \$200 / INCH	BREAKDOWN AND TOTALS
PHASE 1	1607	658	280	379	839	\$56,000	Aeration & Fertilization, Onsite planting of replacement inches
PHASES 2-4	863	466.5	300.5	166	901.5	\$60,200	Aeration & Fertilization, Onsite planting of replacement inches
	2001		1 47	F10 F	4.4.1	¢20.400	Aeration & Fertilization, Onsite

![](_page_11_Figure_9.jpeg)

Topography based upon aerial mapping, dated August 8, 2016 by Texas Land Surveying. All proposed development of this site conforms to the City of Georgetown's subdivision regulations and/or the development agreement. Limits of construction line has been offset for clarity.

4. All temporary erosion and sedimentation controls shall be inspected every 7 days.

5. Contractor shall maintain all temporary erosion and sediment controls in accordance with local, state and federal regulations. 6. Contractor shall place rock filter dams at the locations where concentrated flow enters and exits the limits of construction.

Contractor shall place construction entrance at the location determined by the owner in the field.

8. Curb inlet protection is required at inlets installed with this project. Protection to remain in place until the project is accepted.

9. Rock berm and temporary pond shall be used during initial grading activities. Straw erosion control logs shall be installed once the site has been brought to grade.

### TREE PROTECTION NOTES:

Existing trees to remain shall be flagged by contractor prior to beginning any work on site.

Contractor shall place a minimum 4' height protective fencing 5' outside the edge of canopy of all trees to remain and as shown on the tree protection and removal plans.

All understory trees, undergrowth, shrubs, cacti and native grasses shall remain in areas protected by tree protection fence unless noted otherwise on the landscape plans.

Contractor shall maintain flagging and protective fencing around existing trees to remain at least until substantial completion. Contractor shall ensure that no dumping of backfill, soil excavation, staking or storage of materials or dumping of any kind shall occur within the fenced area of the trees to remain.

6. Contractor shall ensure that no parking of any type of vehicle, equipment or construction trailer shall occur within the fenced area of trees to remain.

Contractor shall ensure that no driving of vehicles shall occur within the fenced area of trees to remain.

Contractor shall ensure that no grade changes shall occur within the canopy of the existing trees to remain.

9. Contractor shall keep fenced areas of trees to remain free of trash, debris or excessive runoff.

10. No trenching for utilities or irrigation shall occur within the dripline (canopy) of existing trees to remain.

11. For irrigation, any lateral line or mainline trenches which encroach in the dripline of existing trees shall be hand dug. 12. For utilities, any lines which cannot be altered to fall outside the canopy of existing trees shall be installed by boring a minimum of 24" below grade.

13. Tree wells shall be installed no closer than a trees ½ Critical Root Zone (per UDC section 8.02.030.C) and shall include the full critical root zone when possible, and no disturbance shall occur within the ½ Critical Root Zone or tree will be considered removed and mitigation will be required (per UDC section 8.02.040.C).

14. See Grading Plan Sheet 53 for Tree Well Grading and Details.

Phase					9,1
Plat Type					Residentia
Mitigation Type					Standar
Allowed Removal (par 3)	He	ritage Trees	Heritage Credit	Protected Trees	Credit Trees
Allowed Removal (par. 5)		26"+	Trees 18"-26"	12"-26"	6"-12"
Standard Tree Preservation					
Residential		0%	100%	100%	100%
Non-Residential		0%	0%	0%	100%
Alternative Tree Preservation					
Residential		20%	100%	100%	100%
Non-Residential		20%	80%	80%	100%
	He	ritage Trees	Heritage Credit	Protected Trees	Credit Trees
<u>Ref.</u> <u>Item</u>		26"+	Trees 18"-26"	12"-18"	6"-11"
Tree Counts					
Total within limits of current Final Plat		9	6	24	
2.a. Removed within limits of current Final Plat		1	3		
Percent Removed within limits of current Final Plat		11%	50%	0%	0%
Tree Inches					
Total within limits of current Final Plat		291	122	344	
2.a. Removed within Major Collector ROW					
2.a. Removed within limits of current Final Plat		39	67		
2.b. Remaining within limits of current Final Plat		253	55	344	
		233		511	
Mitigation Bank					
2.d Credits earned this Final Plat			55	344	
2.e. Total Credits Earned on previous Applications			2,120	72	
2.f. Total credits applied on previous Final Plats		-			
2.g. Total tree inches available for mitigation			2,175	416	
2.h. Less applied Credit Trees on this Application		_			
2.i. Mitigation inches carried forward			2,175	416	
Mitigation Calculations					
Total inches removed		38.5	67		
3.d. Less Major ROW					
3 Less % allowed under applicable standards			(67)		
2.c. Total Inches Needing Mitigation		39			
Mitigation Ratio		3	1	1	-
Required replacement inches		115.5	-	-	-
less tree care		(11.6)			
2.h. Less applied Credit Trees					
less onsite plantings					
2 c Mitigation Inches Requiring Fee-In-Lieu		35.00			
Fee-in-lieu Calculation					
Mitigation Inches		35.00			
Cost per Inch	Ś	200	\$ 150	\$ 150	\$ _
Total Fee-in-lieu	\$	7.000.00	\$ <u>-</u>	\$ <u>-</u>	\$ <u>-</u>
Aeration and Fertilization	Ś	1.732.50	<u>ś</u> -	Ś _	<u> </u>
Total Tree Mitigation Paid	\$_	8,732.50	<u>ś</u>	\$	<u>ś</u>

**EROSION AND SEDIMENTATION CONTROL PLAN** PARMER RANCH PHASES 9 & 10 City of Georgetown Williamson County, Texas

Project Number: 22223-Phase 04 SCALE: Project Path: Project Name: Drawing Path:

Xref DWG FILE.

AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

![](_page_12_Figure_0.jpeg)

![](_page_12_Figure_1.jpeg)

![](_page_12_Figure_2.jpeg)

SHAPES AND SIZES FOR SEDIMENT CONTAINMENT

DISCHARGE HOSE

Minimum Bag Size - 6' x 6'

Sediment Dewatering Bag

FILTERED WATER

WATER

PUMP

77		NO.	REVISION	BY	DATE		
WA	ARNING!					EJH, LB, TG, NN DESIGNED BY:	2021-10-18 DATE
cable	es and other above and below ground utilities in the ty of this project. The contractor shall contact all	<u> </u>				EJH, LB, TG, NN	2021-10-18
appro area	opriate utility companies prior to any construction in the and determine if any conflicts exist. If so, the					DRAWN BY:	DATE
Cont shall	ractor shall immediately contact the Engineer, who revise the design as necessary.	<u> </u>				CHECKED BY:	DATE
YZZ	///////////////////////////////////////					APPROVED BY:	

![](_page_12_Figure_4.jpeg)

STEGER BIZZELL

TEXAS REGISTERED ENGINEERING FIRM F-181 TBPLS FIRM No.10003700

>>ENGINEERS >>PLANNERS

GEORGETOWN, TX 78626

>>SURVEYORS

STEGERBIZZELL.COM

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\13 EROSION AND SEDIMENTATION CONTROL DETAILS.dwg By: Luis Botello Date: 4/3/2022 9:11 PM

X

98920

04/04/202

ADDRESS

SERVICES

512.930.9412

1978 S. AUSTIN AVENUE

BRYAN FRIC MOO

**EROSION AND SEDIMENTATION CONTROL DETAILS** PARMER RANCH PHASES 9 & 10 City of Georgetown Williamson County, Texas

bject Number: 22223-Phase 04 SCALE: Project Path: Project Name: Drawing Path: Xref DWG FILE

eet Number: 13 of 60 sheets

AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

OF STEGER & BIZZELL ENGINEEKING, INC. IS STRICTLY PRON						
were prepared. Keproduction or reuse of these drawings in whole or in part without written permission			Street-B			Street-H
these drawings is hereby restricted to the original site for which they						HASE B
he sole property of SIEGER & BIZZELL ENGINEEKING, INC. The use of						
Ihese drawings are	<b>WARNING!</b> There are existing water pipelines, underground telephone cables and other above and below ground utilities in the vicinity of this project. The contractor shall contact all appropriate utility companies prior to any construction in the area and determine if any conflicts exist. If so, the Contractor shall immediately contact the Engineer, who shall revise the design as necessary.	NO.	REVISION	BY	DATE	EJH, LB, TG, NN202DESIGNED BY:DATEJH, LB, TG, NN202DRAWN BY:DATCHECKED BY:DAT

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\14 PHASING PLAN.dwg By: Luis Botello Date: 4/3/2022 9:11 PM

APPROVED B

![](_page_13_Figure_3.jpeg)

![](_page_13_Picture_4.jpeg)

![](_page_13_Picture_5.jpeg)

PHASING PLAN PARMER RANCH PHASES 9 & 10 City of Georgetown Williamson County, Texas

SCALE: Project Path: Project Name: Drawing Path: Xref DWG FILE.

Project Number: 22223-Phase 04 AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

Sheet Number: 14 of 60 sheets

![](_page_14_Figure_0.jpeg)

Street - B

![](_page_14_Figure_2.jpeg)

	NO.	REVISION	BY	DATE	
WARNING!					EJH, LB, TG, NN
There are existing water pipelines, underground telephone					DESIGNED BY:
cables and other above and below ground utilities in the vicinity of this project. The contractor shall contact all					EJH, LB, TG, NN
appropriate utility companies prior to any construction in the					DRAWN BY:
area and determine if any conflicts exist. If so, the Contractor shall immediately contact the Engineer, who					
shall revise the design as necessary.					CHECKED BY:
					APPROVED BY:

![](_page_14_Figure_5.jpeg)

![](_page_14_Figure_6.jpeg)

3+00

SCALE 1" = 40' HORIZONTAL 1" = 4' VERTICAL

Street - G

![](_page_14_Figure_9.jpeg)

![](_page_14_Picture_10.jpeg)

4+00

![](_page_14_Figure_11.jpeg)

### NOTES:

- 1. UNLESS OTHERWISE MENTIONED, ALL STATIONING AND OFFSETS ARE BASED ON PROPOSED STREET - B AND STREET - G CENTERLINE.
- 2. STREET G IS A LOCAL WITH A DESIGN SPEED OF 30 MPH. STREET - B IS A RESIDENTIAL COLLECTOR WITH A DESIGN SPEED OF 30 MPH.
- SEE SHEETS 37 TO 39 FOR TYPICAL SECTION DETAILS AND FOR 3. PAVING AND DRAINAGE DETAILS.
- SEE SHEETS 57 TO 60 FOR INTERSECTION DETAILS. 4.
- SEE SHEET 52 FOR STRIPING AND SIGNAGE DETAILS. 5. SIDEWALKS ON HOME LOT FRONTAGES TO BE INSTALLED AT 6.
- TIME OF HOME CONSTRUCTION. COMMON AREA SIDEWALKS AND RAMPS TO BE INSTALLED WITH STREET INFRASTRUCTURE.

Curve Table								
Curve #	Radius	Arc Length	Chord Length	Chord Direction				
C1	23.000	36.119	32.52	N78° 19' 07.76"E				
C2	23.000	34.151	31.10	N09° 12' 22.72"W				
С3	23.000	36.128	32.53	N53° 49' 08.49"E				
C4	23.000	36.128	32.53	S36° 10' 51.51"E				

Curve Table: Alignments								
Curve #	Radius	Arc Length	Chord Length	Chord Direction				
C5	410.000	301.313	294.58	S35° 38' 22.65"E				

STREET - B & STREET - G PARMER RANCH PHASES 9 & 10 City of Georgetown Williamson County, Texas

Project Number:
SCALE:
Project Path:
Project Name:
Drawing Path:
Xref DWG FILE

22223-Phase 04 AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

2021-40-CON

Sheet Number: 15 of 60 sheets

![](_page_15_Figure_0.jpeg)

![](_page_15_Picture_3.jpeg)

### LEGEND D STORM MANHOLE STORM JUNCTION BOX S WASTEWATER MANHOLE CURB INLET RIGHT-OF-WAY PROPOSED CENTERLINE - EDGE OF PAVEMENT BACK OF CURB ■ LIMIT OF CONSTRUCTION EDGE OF SIDEWALK EXISTING CONTOURS (MAJOR) EXISTING CONTOURS (MINOR) PROPOSED GRADE AT CENTERLINE EX. GROUND AT PROPOSED CENTERLINE

### NOTES:

- 1. UNLESS OTHERWISE MENTIONED, ALL STATIONING AND
- OFFSETS ARE BASED ON PROPOSED STREET F CENTERLINE. STREET - F IS A LOCAL WITH A DESIGN SPEED OF 30 MPH. 2.
- SEE SHEETS 37 TO 39 FOR TYPICAL SECTION DETAILS AND FOR PAVING AND DRAINAGE DETAILS.
- SEE SHEETS 57 TO 60 FOR INTERSECTION DETAILS. 4.
- SEE SHEET 52 FOR STRIPING AND SIGNAGE DETAILS. 5. SIDEWALKS ON HOME LOT FRONTAGES TO BE INSTALLED AT 6. TIME OF HOME CONSTRUCTION. COMMON AREA SIDEWALKS AND RAMPS TO BE INSTALLED WITH STREET INFRASTRUCTURE.
- 7. LOT 4, BLOCK A SHALL HAVE A DOWNHILL DRIVEWAY.

Curve Table								
Curve #	Radius	Arc Length	Chord Length	Chord Direction				
C1	23.000	36.119	32.52	N78° 19' 07.76"E				
C2	23.000	34.151	31.10	N09° 12' 22.72"W				
C3	23.000	37.105	33.21	N79° 32' 51.52"E				
C4	484.000	489.182	468.62	N69° 51' 51.89"E				
C5	516.000	581.920	551.57	S66° 30' 40.78"W				
C8	23.000	38.194	33.95	N06° 39' 46.41"W				
Curve Table: Alignments								
Curve #	Radius	Arc Length	Chord Length	Chord Direction				
C6	500.000	571.492	540.89	N66° 04' 29.82"E				

STREET - F (1 OF 3) PARMER RANCH PHASES 9 & 10 City of Georgetown Williamson County, Texas

Project Number
SCALE:
Project Path:
Project Name:
Drawing Path:

22223-Phase 04 AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

Xref DWG FILE

2021-40-CON

Sheet Number: 16 of 60 sheets

![](_page_16_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\17 STREET - F (2 OF 3).dwg By: Luis Botello Date: 4/4/2022 11:41 AM

LEGEND D STORM MANHOLE STORM JUNCTION BOX © WASTEWATER MANHOLE CURB INLET RIGHT-OF-WAY PROPOSED CENTERLINE - EDGE OF PAVEMENT BACK OF CURB LIMIT OF CONSTRUCTION EDGE OF SIDEWALK EXISTING CONTOURS (MAJOR) EXISTING CONTOURS (MINOR) PROPOSED GRADE AT CENTERLINE \_\_\_\_\_ EX. GROUND AT PROPOSED CENTERLINE

### NOTES:

- UNLESS OTHERWISE MENTIONED, ALL STATIONING AND 1.
- OFFSETS ARE BASED ON PROPOSED STREET F CENTERLINE. STREET - F IS A LOCAL WITH A DESIGN SPEED OF 30 MPH. 2.
- SEE SHEETS 37 TO 39 FOR TYPICAL SECTION DETAILS AND FOR 3 PAVING AND DRAINAGE DETAILS.
- SEE SHEETS 57 TO 60 FOR INTERSECTION DETAILS. 4 SEE SHEET 52 FOR STRIPING AND SIGNAGE DETAILS.
- SIDEWALKS ON HOME LOT FRONTAGES TO BE INSTALLED AT 6 TIME OF HOME CONSTRUCTION. COMMON AREA SIDEWALKS AND RAMPS TO BE INSTALLED WITH STREET INFRASTRUCTURE.
- 7. LOT 9, BLOCK C SHALL HAVE A DOWNHILL DRIVEWAY.

Curve Table							
Curve #	Radius	Arc Length	Chord Length	Chord Direction			
C1	516.000	581.920	551.57	S66° 30' 40.78"W			
C4	23.000	36.128	32.53	N53° 49' 08.49"E			
C5	23.000	36.128	32.53	S36° 10' 51.51"E			
C6	266.000	100.381	99.79	S70° 22' 12.13"E			
C8	484.000	489.182	468.62	N69° 51' 51.89"E			
C9	24.000	22.595	21.77	S86° 31' 47.00"E			
C11	51.000	163.913	101.93	S21° 25' 34.83"E			
C13	24.000	24.198	23.19	S41° 45' 47.30"W			
C14	234.000	107.528	106.58	S68° 00' 59.87"E			
C15	34.000	40.192	37.89	S20° 59' 12.61"E			

Curve Table: Alignments								
Curve #	Radius	Arc Length	Chord Length	Chord Direction				
C2	500.000	571.492	540.89	N66° 04' 29.82"E				
C7	250.000	114.881	113.87	S68° 00' 59.87"E				
C12	50.000	59.106	55.72	S20° 59' 12.61"E				

PARMER RANCH PHASES 9 & 10 City of Georgetown Williamson County, Texas

SCALE: Project Path: Project Name: Drawing Path: Xref DWG FILE.

Project Number: 22223-Phase 04 AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

heet Number: 17 of 60 sheets

![](_page_17_Figure_0.jpeg)

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hall revise the design as necessary.	1			CHECKED BY:	DATE
	1				
				APPROVED BY:	DATE

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\18 STREET - F (3 OF 3).dwg By: Luis Botello Date: 4/3/2022 9:30 PM

>>ENGINEERS >>PLANNERS >>SURVEYORS

	C			
				LEGEND
		40	 $\bigcirc$	STORM MANHOLE
 —	4	40	 et 🗌	STORM JUNCTION BOX
		•	S	WASTEWATER MANHOLE
				CURB INLET
			 	RIGHT-OF-WAY
			 	PROPOSED CENTERLINE
				EDGE OF PAVEMENT
				BACK OF CURB
				LIMIT OF CONSTRUCTION
				EDGE OF SIDEWALK
				EXISTING CONTOURS (MAJOR)
			 	EXISTING CONTOURS (MINOR)
				PROPOSED GRADE AT CENTERLINE
			 	EX. GROUND AT PROPOSED CENTERLINE

### NOTES:

- 1. UNLESS OTHERWISE MENTIONED, ALL STATIONING AND OFFSETS ARE BASED ON PROPOSED STREET - F CENTERLINE.
- STREET F IS A LOCAL WITH A DESIGN SPEED OF 30 MPH. 2. SEE SHEETS 37 TO 39 FOR TYPICAL SECTION DETAILS AND FOR 3
- PAVING AND DRAINAGE DETAILS. SEE SHEETS 57 TO 60 FOR INTERSECTION DETAILS. 4.
- SEE SHEET 52 FOR STRIPING AND SIGNAGE DETAILS. 5.
- SIDEWALKS ON HOME LOT FRONTAGES TO BE INSTALLED AT 6. TIME OF HOME CONSTRUCTION. COMMON AREA SIDEWALKS AND RAMPS TO BE INSTALLED WITH STREET INFRASTRUCTURE.

	Curve Table						
Curve #	Radius	Arc Length	Chord Length	Chord Direction			
C1	23.000	35.891	32.36	S57° 35' 00.34"W			
C3	23.000	34.377	31.27	N34° 53' 34.86"W			
C4	484.000	67.390	67.34	S08° 53' 23.21"W			
C5	23.000	36.128	32.53	N49° 54' 03.41"E			
C6	23.000	36.128	32.53	S40° 05' 56.59"E			
C7	516.000	27.241	27.24	N06° 24' 48.01"E			

		Curve Table	e: Alignments	
Curve #	Radius	Arc Length	Chord Length	Chord Direction
C2	500.000	69.618	69.56	S08° 53' 23.21"W

STREET - F (3 OF 3) PARMER RANCH PHASES 9 & 10 City of Georgetown Williamson County, Texas

Project Number: 22223-Phase 04 SCALE: Project Path: Project Name: Drawing Path:

AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

Xref DWG FILE.

heet Number: 18 of 60 sheets

![](_page_18_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\19 STREET - I (1 OF 3).dwg By: Luis Botello Date: 4/4/2022 11:55 AM

![](_page_18_Figure_2.jpeg)

- SIDEWALKS ON HOME LOT FRONTAGES TO BE INSTALLED AT TIME OF HOME CONSTRUCTION. COMMON AREA SIDEWALKS

	Curve Table					
Curve #	Radius	Arc Length	Chord Length	Chord Direction		
C1	23.000	38.194	33.95	N06° 39' 46.41"W		
C2	23.000	37.105	33.21	N79° 32' 51.52"E		
C3	316.000	110.589	110.03	N44° 12' 35.20"W		
C4	316.000	110.589	110.03	N44° 12' 35.20"W		
C5	284.000	179.377	176.41	S36° 08' 28.66"E		
C6	23.000	33.476	30.60	N75° 52' 51.18"W		
C7	23.000	33.476	30.60	S20° 43' 31.06"W		
C8	34.000	32.025	30.85	S08° 56' 13.41"W		
C9	34.000	48.820	44.73	S59° 10' 54.45"E		
C10	51.000	169.306	101.60	S59° 10' 54.45"E		
C11	34.000	32.025	30.85	N52° 41' 57.70"E		

Cuive #	Raulus	Are Length	chord Length	
C1	23.000	38.194	33.95	N06° 39' 46.41
C2	23.000	37.105	33.21	N79° 32' 51.52
C3	316.000	110.589	110.03	N44° 12' 35.20
C4	316.000	110.589	110.03	N44° 12' 35.20
C5	284.000	179.377	176.41	S36° 08' 28.66
C6	23.000	33.476	30.60	N75° 52' 51.18
С7	23.000	33.476	30.60	S20° 43' 31.06
C8	34.000	32.025	30.85	S08° 56' 13.41
C9	34.000	48.820	44.73	S59° 10' 54.45
C10	51.000	169.306	101.60	S59° 10' 54.45
C11	34.000	32.025	30.85	N52° 41' 57.70

$\bigcirc$	STORM MANHOLE
	STORM JUNCTION BOX
S	WASTEWATER MANHOLE
	CURB INLET
	RIGHT-OF-WAY
	PROPOSED CENTERLINE
	EDGE OF PAVEMENT
	BACK OF CURB
	LIMIT OF CONSTRUCTION
	EDGE OF SIDEWALK
	EXISTING CONTOURS (MAJOR)
	EXISTING CONTOURS (MINOR)
	PROPOSED GRADE AT CENTERLINE

		Curve Table	: Alignments	
Curve #	Radius	Arc Length	Chord Length	Chord Direction
C13	50.000	71.794	65.78	S59° 10' 54.45"E
C12	300.000	189.483	186.35	S36° 08' 28.66"E

![](_page_19_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\20 STREET - I (2 OF 3).dwg By: Luis Botello Date: 4/3/2022 9:39 PM

### LEGEND D STORM MANHOLE STORM JUNCTION BOX S WASTEWATER MANHOLE CURB INLET RIGHT-OF-WAY — PROPOSED CENTERLINE EDGE OF PAVEMENT BACK OF CURB LIMIT OF CONSTRUCTION EDGE OF SIDEWALK EXISTING CONTOURS (MAJOR) EXISTING CONTOURS (MINOR) PROPOSED GRADE AT CENTERLINE EX. GROUND AT PROPOSED CENTERLINE

### NOTES:

- 1. UNLESS OTHERWISE MENTIONED, ALL STATIONING AND
- OFFSETS ARE BASED ON PROPOSED STREET F CENTERLINE.
- STREET F IS A LOCAL WITH A DESIGN SPEED OF 30 MPH. 2. SEE SHEETS 37 TO 39 FOR TYPICAL SECTION DETAILS AND FOR 3
- PAVING AND DRAINAGE DETAILS.
- SEE SHEETS 57 TO 60 FOR INTERSECTION DETAILS. 4.
- SEE SHEET 52 FOR STRIPING AND SIGNAGE DETAILS. SIDEWALKS ON HOME LOT FRONTAGES TO BE INSTALLED AT
- TIME OF HOME CONSTRUCTION. COMMON AREA SIDEWALKS AND RAMPS TO BE INSTALLED WITH STREET INFRASTRUCTURE.

	Curve Table						
Curve #	Radius	Arc Length	Chord Length	Chord Direction			
C1	284.000	75.429	75.21	N87° 17' 31.86"E			
C2	316.000	83.928	83.68	N87° 17' 31.86"E			
C3	23.000	36.128	32.53	N49° 54' 03.41"E			
C4	23.000	36.128	32.53	S40° 05' 56.59"E			
C5	384.000	289.518	282.71	N73° 18' 06.59"E			
C6	416.000	115.916	115.54	N86° 55' 06.25"E			

		Curve Table	: Alignments	
Curve #	Radius	Arc Length	Chord Length	Chord Direction
С7	300.000	79.679	79.44	N87° 17' 31.86"E
C8	400.000	522.802	486.38	N57° 27' 28.86"E

# STREET - I (2 OF 3)

PARMER RANCH PHASES 9 & 10 City of Georgetown Williamson County, Texas

Project Numbe
SCALE:
Project Path:
Project Name:
Drawing Path:

er: 22223-Phase 04 AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

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heet Number: 20 of 60 sheets

![](_page_20_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\21 STREET - I (3 OF 3).dwg By: Luis Botello Date: 4/3/2022 9:43 PM

![](_page_20_Figure_2.jpeg)

### NOTES:

- UNLESS OTHERWISE MENTIONED, ALL STATIONING AND 1. OFFSETS ARE BASED ON PROPOSED STREET - F CENTERLINE.
- STREET F IS A LOCAL WITH A DESIGN SPEED OF 30 MPH. 2. SEE SHEETS 37 TO 39 FOR TYPICAL SECTION DETAILS AND FOR
- PAVING AND DRAINAGE DETAILS.
- SEE SHEETS 57 TO 60 FOR INTERSECTION DETAILS. 4. SEE SHEET 52 FOR STRIPING AND SIGNAGE DETAILS.
- SIDEWALKS ON HOME LOT FRONTAGES TO BE INSTALLED AT TIME OF HOME CONSTRUCTION. COMMON AREA SIDEWALKS AND RAMPS TO BE INSTALLED WITH STREET INFRASTRUCTURE.

Curve Table				
Curve #	Radius	Arc Length	Chord Length	Chord Direction
C1	23.000	34.081	31.05	S58° 36' 52.23"E
C3	384.000	289.518	282.71	N73° 18' 06.59"E
C5	416.000	353.787	343.22	N44° 22' 43.25"E
C8	384.000	289.518	282.71	N73° 18' 06.59"E
C9	23.000	38.618	34.24	N03° 36' 06.25"E
C10	23.000	38.618	34.24	N87° 23' 59.22"E
C14	384.000	129.241	128.63	N29° 39' 24.95"E

Curve Table: Alignments				
Curve #	Radius	Arc Length	Chord Length	Chord Direction
C13	500.000	571.492	540.89	N66° 04' 29.82"E
C2	400.000	522.802	486.38	N57° 27' 28.86"E
C7	400.000	522.802	486.38	N57° 27' 28.86"E
C11	400.000	522.802	486.38	N57° 27' 28.86"E
C15	400.000	522.802	486.38	N57° 27' 28.86"E

STREET - I (3 OF 3) PARMER RANCH PHASES 9 & 10 City of Georgetown Williamson County, Texas

Project Number:
SCALE:
Project Path:
Project Name:
Drawing Path:

22223-Phase 04 AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

2021-40-CON

Sheet Number: 21 of 60 sheets

![](_page_21_Figure_0.jpeg)

![](_page_21_Figure_3.jpeg)

$\square$	STORM MANHOLE
	STORM JUNCTION BOX
S	WASTEWATER MANHOLE
	CURB INLET
	RIGHT-OF-WAY
	PROPOSED CENTERLINE
	EDGE OF PAVEMENT
	BACK OF CURB
	LIMIT OF CONSTRUCTION
	EDGE OF SIDEWALK
	EXISTING CONTOURS (MAJOR)
	EXISTING CONTOURS (MINOR)

Curve Table				
Curve #	Radius	Arc Length	Chord Length	Chord Direction
C1	23.000	33.476	30.60	N75° 52' 51.18"W
C2	23.000	33.476	30.60	S20° 43' 31.06"W
C3	316.000	219.871	215.46	S82° 21' 18.81"W
C5	284.000	197.605	193.64	S82° 21' 18.81"W
C6	24.000	39.922	35.48	N30° 03' 32.11"W
C7	51.000	169.667	101.56	S77° 42' 42.32"E
C8	24.000	39.922	35.48	S54° 38' 07.46"W

Curve Table: Alignments				
Curve # Radius Arc Length Chord Length Chord Direction				
C4	300.000	208.738	204.55	N82° 21' 18.81"E

![](_page_22_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\23 STREET - J & STREET - K.dwg By: Luis Botello Date: 4/3/2022 9:53 PM

	80 Feet
	LEGEND
$\bigcirc$	STORM MANHOLE
	STORM JUNCTION BOX
S	WASTEWATER MANHOLE
	CURB INLET
	RIGHT-OF-WAY
	PROPOSED CENTERLINE
	EDGE OF PAVEMENT
	BACK OF CURB
	LIMIT OF CONSTRUCTION
	EDGE OF SIDEWALK
	EXISTING CONTOURS (MAJOR)
	EXISTING CONTOURS (MINOR)
	PROPOSED GRADE AT CENTERLINE
	EX. GROUND AT PROPOSED CENTERLIN

Curve Table				
Curve #	Radius	Arc Length	Chord Length	Chord Direction
C1	416.000	353.787	343.22	N44° 22' 43.25"E
С3	24.000	24.198	23.19	N45° 02' 57.77"W
C4	51.000	263.064	54.40	N73° 50' 06.51"E
C6	23.000	38.618	34.24	N87° 23' 59.22"E
С7	34.000	32.025	30.85	S17° 30' 54.58"E
C8	51.000	256.297	60.00	N45° 30' 02.80"E
С9	34.000	32.025	30.85	N71° 28' 59.82"W
C10	23.000	38.618	34.24	N03° 36' 06.25"E

![](_page_22_Figure_5.jpeg)

![](_page_22_Figure_6.jpeg)

![](_page_22_Figure_13.jpeg)

![](_page_23_Figure_0.jpeg)

![](_page_23_Figure_2.jpeg)

NOTE: 1. SEE SHEET 11 FOR 25 AND 100 YEAR STORM SEWER PIPE CALCULATIONS.

### LEGEND

PROPOSED STORM LINE
 EXISTING STORM LINE
CURB INLET
 MAJOR EXISTING CONTOUR
 MINOR EXISTING CONTOUR
 PROPERTY BOUNDARY

OVERALL STORMWATER PLAN PARMER RANCH PHASES 9 & 10 City of Georgetown Williamson County, Texas

SCALE: Project Path: Project Name: Drawing Path:

Project Number: 22223-Phase 04 AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

Xref DWG FILE.

heet Number: 24 of 60 sheets

![](_page_24_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\25 STRM B101 PLAN & PROFILE (1 OF 3).dwg By: Luis Botello Date: 4/3/2022 10:08 PM

PARMER RANCH PHASES 9 & 10 City of Georgetown Williamson County, Texas

Project Number: 22223-Phase 04 AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

![](_page_24_Figure_7.jpeg)

![](_page_24_Figure_8.jpeg)

![](_page_24_Figure_9.jpeg)

![](_page_24_Figure_10.jpeg)

eet Number: 25 of 60 sheets

![](_page_25_Figure_0.jpeg)

![](_page_26_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\27 STRM B101 PLAN & PROFILE (3 OF 3).dwg By: Luis Botello Date: 4/4/2022 2:18 PM

![](_page_26_Picture_3.jpeg)

	LEGEND
Ø	STORM MANHOLE
	STORM JUNCTION BOX
S	WASTEWATER MANHOLE
	CURB INLET
	AREA INLET
	PROPOSED PROFILE
	EXISTING GRADE AT PROPOSED CENTERLIN
	HYDRAULIC GRADE LINE (100YR)
	HYDRAULIC GRADE LINE (25 YR)
	WATER SERVICE
-	SEWER SERVICE
100	MAJOR EXISTING CONTOUR
— — 100 — —	MINOR EXISTING CONTOUR
100	MAJOR PROPOSED CONTOUR
100	MINOR PROPOSED CONTOUR
	PROPERTY BOUNDARY

PARMER RANCH PHASES 9 & 10 City of Georgetown Williamson County, Texas

Project Numbe
SCALE:
Project Path:
Project Name:
Drawing Path:
Xref DWG FIL

22223-Phase 04 AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

2021-40-CON

Sheet Number: 27 of 60 sheets

![](_page_27_Figure_0.jpeg)

![](_page_28_Figure_0.jpeg)

![](_page_29_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\30 STRM B201 LATERALS.dwg By: Luis Botello Date: 4/3/2022 11:17 PM

Ø	STORM MANHOLE
	STORM JUNCTION BOX
S	WASTEWATER MANHOLE
	CURB INLET
	AREA INLET
	PROPOSED PROFILE
	EXISTING GRADE AT PROPOSED CENTERLINE
	HYDRAULIC GRADE LINE (100YR)
	HYDRAULIC GRADE LINE (25 YR)
	WATER SERVICE
	SEWER SERVICE
100	MAJOR EXISTING CONTOUR
— — 100 — —	MINOR EXISTING CONTOUR
100	MAJOR PROPOSED CONTOUR
100	MINOR PROPOSED CONTOUR
	PROPERTY BOUNDARY

![](_page_30_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\31 STRM C01 PLAN & PROFILE (1 OF 3).dwg By: Luis Botello Date: 4/3/2022 11:31 PM

![](_page_30_Figure_3.jpeg)

![](_page_30_Picture_6.jpeg)

### LEGEND

Ø	STORM MANHOLE
	STORM JUNCTION BOX
S	WASTEWATER MANHOLE
	CURB INLET
D	AREA INLET
	PROPOSED PROFILE
	EXISTING GRADE AT PROPOSED CENTERLINI
	HYDRAULIC GRADE LINE (100YR)
	HYDRAULIC GRADE LINE (25 YR)
	WATER SERVICE
——	SEWER SERVICE
100	MAJOR EXISTING CONTOUR
— — 100 — —	MINOR EXISTING CONTOUR
100	MAJOR PROPOSED CONTOUR
100	MINOR PROPOSED CONTOUR
	PROPERTY BOUNDARY

SCALE

1" = 40' HORIZONTAL 1" = 4' VERTICAL

**SS-C03** Q/100 = 7.07  $\tilde{V}$ /100 = 4.00 Q/25 = 6.25 M ELE 38.79 V/25 = 5.20 990 990 18" RCP *└*@ 5.82% 985 18" FL IN: 983.77 18" FL IN: 983.77 4" FL OUT: 983.27 975--975 0 Ü Ü 0+17.48 SS-0 2+18.93 SS-0 970--970 STA: STA: 968 <u>6</u> 992. 988. -0+25 0+00 0+50

![](_page_30_Figure_12.jpeg)

STRM C01 PLAN & PROFILE (1 OF 3) PARMER RANCH PHASES 9 & 10 City of Georgetown Williamson County, Texas

SCALE: Project Path: Project Name: Drawing Path: Xref DWG FILE

Project Number: 22223-Phase 04 AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

2021-40-CON

neet Number: **31** of **60** sheets

![](_page_31_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\32 STRM C01 PLAN & PROFILE (2 OF 3).dwg By: Luis Botello Date: 4/3/2022 11:53 PM

![](_page_31_Figure_3.jpeg)

![](_page_31_Figure_4.jpeg)

![](_page_31_Figure_7.jpeg)

![](_page_32_Figure_0.jpeg)

![](_page_32_Figure_4.jpeg)

![](_page_32_Figure_5.jpeg)

D	STORM MANHOLE
	STORM JUNCTION BOX
S	WASTEWATER MANHOLE
	CURB INLET
	AREA INLET
	PROPOSED PROFILE
	EXISTING GRADE AT PROPOSED CENTERLIN
·	HYDRAULIC GRADE LINE (100YR)
	HYDRAULIC GRADE LINE (25 YR)
	WATER SERVICE
	SEWER SERVICE
—100——	MAJOR EXISTING CONTOUR
—100—	MINOR EXISTING CONTOUR
100	MAJOR PROPOSED CONTOUR
	MINOR PROPOSED CONTOUR
	PROPERTY BOUNDARY

![](_page_33_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\34 STRM D06 PLAN & PROFILE.dwg By: Luis Botello Date: 4/4/2022 12:21 AM

![](_page_34_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\35 SWALE-A PLAN & PROFILE.dwg By: Luis Botello Date: 4/4/2022 12:27 AM

	Q10	Q25	Q100	Building/Drives	%	Roadway/Sidewalks	%	Grass	%	Total	%	Gra	ss Coef	ficients(2	2-7%)			She	et		Shallow		SC				Channel		Total	
)	(cfs)	(cfs)	(cfs)	(ac)		(ac)		(ac)		(ac)			Develop	ed		Le	ength	Slope	n	Тс	Length	Slope	n	V**	Тс	Length	Velocity	Tc***		
2	9.60	12.27	17.88	0.00	0.00%	0.000	0.00%	5.53	100.00%	5.53	100.00%	0.31	0.36	0.39	0.46	15	50.00	1.48%	0.2	5.86	784.39	1.48%	0.2	1.97	21.47	75.00	4	0.31	27.65	
3	10.92	13.47	18.72	0.44	11.03%	0.000	0.00%	3.51	88.97%	3.95	100.00%	0.31	0.36	0.39	0.46	15	50.00	1.49%	0.2	5.85	266.35	1.49%	0.2	1.97	7.27	245.00	4	1.02	14.15	
		جح	ATE OF TE	Aller .														ر۷۷			<u> </u>						Project Nu	ımber: 22	223-Phase 04	
202	1-10-18	-	***	*		STEC	<b>j</b> ER		BIZ	ΖE	LL							300	ALL-	AFL		FNUF	ILL				SCALE:	AS	NOTED	
DAI		BRY	AN ERIC M	OORE		<u> </u>																			40		Project Pa	ith: P\2	22000-22999\222	223
 	1-10-18 E	-	98920	18			/									PA		VIER	K KA	AINC	H Pr	142	E2 8	JĂ	10		Project Na	ame: Pa	rmer Ranch	
		9.0	CENSES		ADDRE						× 78696			_					City	of G	eora		n				Drawing P	ath: CA	\D\Plans	
DAT	E		ONAL E	METH	RO 512	930 9412 TEX	AS REGISTER		RING FIRM F-18	ETOVVN, 1. 31	WEB STEG	ERBIZZE		-													Xref DW0	G FILE.		
DAT	E	- 180	Epo	04/04/2022	SERVIC	SES >>ENGIN	EERS	>>PLANNE	3700 RS >>SL	JRVEYORS	3120							VVil	iam	son	Coun	ty, Te	exas				Sheet Nur	nber: 35	of <b>60</b> sheets	3

![](_page_34_Figure_5.jpeg)

### LEGEND

Ø	STORM MANHOLE
	STORM JUNCTION BOX
S	WASTEWATER MANHOLE
	CURB INLET
	AREA INLET
	PROPOSED PROFILE
	EXISTING GRADE AT PROPOSED CENTERLINE
	HYDRAULIC GRADE LINE (100YR)
	HYDRAULIC GRADE LINE (25 YR)
	WATER SERVICE
$\longrightarrow$	SEWER SERVICE
	TC FLOW PATH
	PROPERTY BOUNDARY
100	EXISTING CONTOURS (MAJOR)
	EXISTING CONTOURS (MINOR)
	PROPOSED CONTOURS (MAJOR)
	PROPOSED CONTOURS (MINOR)
	CATCHMENT AREA BOUNDARY

![](_page_35_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\36 SWALE-B PLAN & PROFILE.dwg By: Luis Botello Date: 4/4/2022 12:32 AM

Q25 (cfs)	Q100 (cfs)	Building/Drives (ac)	%	Roadway/Sidewalks (ac)	%	Grass (ac)	%	Total (ac)	%	Gra	ass Coef Develop	ficients(2 bed	-7%)		Length	Sh Slope	eet n	Тс	Shallow Length	Slope	SC n	V**	Тс	Length	Channel Velocity	Tc***	Total
7.76	11.33	0.00	0.00%	0.000	0.00%	3.64	100.00%	3.64	100.00%	0.31	0.36	0.39	0.46		150.00	0.81%	0.2	7.96	579.69	0.81%	0.2	1.45	21.53	100.00	4	0.42	29.91
8.19	11.91	0.00	0.00%	0.000	0.00%	3.49	100.00%	3.49	100.00%	0.31	0.36	0.39	0.46		150.00	0.57%	0.2	9.44	317.39	0.57%	0.2	1.22	13.99	250.00	4	1.04	24.47
2021-10-1 DATE 2021-10-1 DATE DATE DATE	3	BRYAN ERIC MOOF BRYAN ERIC MOOF 98920 9920 9920 9920 9920 9920 9920 9020 9	E 04/2022	ADDRESS METRO 512.930.9 SERVICES	<b>ST</b> 1978 S. A 9412	AUSTIN AV TEXAS	ENUE SREGISTERED TBPLS FIR ERS >>	ENGINEEF M No.10005	GEORO RING FIRM F-1 2700 RS >>S	ZZ	EL N, TX 780 WEB ORS	L 526 STEGE	RBIZZEI	L.COM			F	PARI	sw MEF Wil	ALE-E R RA City ( liams	3 PLA NC of G	AN & H P eorg Coui	PRO HAS getov nty, 1	FILE SES vn Γexa	9 & s	10	

oject Number:	22223-F
CALE:	AS NOT
oject Path:	P\22000
oject Name:	Parmer F
rawing Path:	CAD\Pla

![](_page_36_Figure_0.jpeg)

![](_page_36_Figure_1.jpeg)

	NO.	REVISION	BY	DATE	
WARNING!					EJH, LB, TG, NN DESIGNED BY:
cables and other above and below ground utilities in the vicinity of this project. The contractor shall contact all					EJH, LB, TG, NN
appropriate utility companies prior to any construction in the area and determine if any conflicts exist. If so, the					DRAWN BY:
Shall revise the design as necessary.					CHECKED BY:
					APPROVED BY:

	The Architect/Engineer assumes responsibility for appropriate use of this standard.	NOTE: LANDING LENGTH VARIES PER CURB RAMP. CITY'S DISCRETION TO MAKE ALL CONSISTENT OR VARY PER TYPE.
	<ol> <li>COMMERCIAL SIDEWALKS WIDTHS – 6' RESIDENTIAL SIDEWALKS WIDTHS – 5'</li> <li><u>ALL SLOPES ARE MAXIMUM ALLOWABLE</u>. FLATTER SLOPES THAT WILL STILL DRAIN PROPERLY ARE ENCOURAGED.</li> </ol>	NOTE: 4' MINIMUM RAMP WIDTH, TYPE T OR II.
SUBBASE	3. ALL CONCRETE SURFACES SHALL RECEIVE A LIGHT BROOM FINISH UNLESS NOTED OTHERWISE IN THE PLANS.	
(SEE SURFACED STREETS DETAILS AND SPECS.)	<ol> <li>FOR PURPOSES OF WARNING, THE CURB RAMPS SHALL HAVE A LIGHT REFLECTIVE VALUE AND TEXTURE THAT SIGNIFICANTLY CONTRASTS WITH THAT OF ADJOINING PEDESTRIAN ROUTES.</li> </ol>	Stopping
E 0.D	<ol> <li>TEXTURES MAY CONSIST OF PAVERS WITH TRUNCATED DOMED SURFACES. TEXTURES ARE REQUIRED TO BE DETECTABLE UNDERFOOT. SURFACES THAT WOULD ALLOW WATER TO ACCUMULATE ARE PROHIBITED.</li> </ol>	
	<ol> <li>COLOR CONTRAST, FOR EXAMPLE, MAY BE ACCOMPLISHED WITH COLORED CONCRETE PAVERS THAT HAVE TRUNCATED DOMES WHICH WOULD PROVIDE A CONTRAST WITH TYPICALLY LIGHT COLORED CONCRETE.</li> </ol>	PERPENDICULAR CURB RAMPS SIDEWALK CURB - MM
	<ol> <li>ADDITIONAL INFORMATION ON CURB RAMP LOCATION, DESIGN, VISIBILITY AND TEXTURE MAY BE FOUND IN THE CURRENT EDITION OF THE TEXAS ACCESSIBILITY STANDARDS (TAS) PREPARED AND ADMINISTERED BY THE TEXAS DEPARTMENT OF LICENSING AND REGULATION (TDLR).</li> </ol>	1:12 MAX. LANDING
	8. RAISED MEDIANS SEPARATE OPPOSING DIRECTIONS OF TRAFFIC AND PROVIDE A REFUGE AREA FOR PEDESTRIANS IF THEY ARE UNABLE TO CROSS THE ENTIRE ROADWAY IN THE ALLOTTED SIGNAL PHASE. MEDIAN CROSSING SHALL BE A MINIMUM OF 5' WIDE. MEDIANS SHIOULD BE DESIGNED TO PROVIDE ACCESSIBLE PASSAGE OVER OR TROUGH THEM.	LANDING CROSS SLOPE TYPE
OF GEORGETOWN	<ol> <li>ALL SIDEWALK PLANS AND DETAILS SHALL BE SUBMITTED AND APPROVED BY "REGISTERED ACCESSIBILITY SPECIALIST" (RAS).</li> </ol>	LONGITUDINAL STREET PITCH
ALTERNATE BACKFILL MATERIAL	<ul> <li>10. ANY PART OF THE ACCESSIBLE ROUTE WITH A SLOPE GRATER THAN 1:20 (5%) SHALL BE CONSIDERED A RAMP. IF A RAMP HAS A RISE GREATER THAN 6 INCHES OR A HORIZONTAL PROJECTION GREATER THAN 72 INCHES, THEN IT SHALL MEET THE REQUIREMENTS OF A RAMP PER TAS 405.THE ONLY EXCEPTION IS AT CURB RAMPS. HANDRAILS ARE NOT REQUIRED ON CURB RAMPS. CURB RAMPS SHALL BE PROVIDED WHERE EVER AN ACCESSIBLE ROUTE CROSSES (PENETRATES) A CURB.</li> </ul>	1:12 MAX. RAMP Canadian Control of Control o
	<ol> <li>TRAFFIC SIGNAL OR ILLUMINATION POLES, GROUND BOXES, CONTROLLER BOXES, SIGNS, DRAINAGE FACILITIES AND OTHER ITEMS SHALL BE PLACED SO NOT TO OBSTRUCT THE ACCESSIBLE ROUTE OR ACT PROTRUDING OBJECTS.</li> </ol>	PLANTING OR
	12. ALL SIDEWALKS SHALL BE DOWELED INTO EXISTING SIDEWALKS, DRIVEWALKS, DRIVEWAYS, INLET BOXES, RETAINING WALLS, ETC.	OTHER CURBER III
The Architect/Engineer assumes responsibility for appropriate	13. ALL SIDEWALK CROSS-SLOPES SHALL NOT EXCEED 1:50, UNLESS A VARIANCE IS PROVIDED BY TDLR.	The Architect/Engineer assumes
use of this standard.	(PENETRATES) A CURB.	use of this standard. PARALLEL CURB RAMPS [PRIMARKAN MORE]
REVISION NOTE: ADOPTED 6/21/2006	RESIGN MORE ADOPTED 6/21/2006 TRB	
SD41 SCHE: AME NTS 1/2003 Delaw # MRS TRB	CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS PEDESTRIAN RAMPS GENERAL NOTES PEDESTRIAN RAMPS GENERAL NOTES SOLE NTS 1/2003 Details Details TRB	CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS SIDEWALK RAMP DETAILS TYPE 1-3

![](_page_36_Picture_6.jpeg)

![](_page_36_Figure_8.jpeg)

PAVING DRAINAGE DETAILS (1 OF 3) PARMER RANCH PHASES 9 & 10 City of Georgetown Williamson County, Texas

SCALE: Project Path: Project Name: Drawing Path:

Project Number: 22223-Phase 04 AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

Xref DWG FILE

neet Number: 37 of 60 sheets

![](_page_37_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\38 PAVING DRAINAGE DETAILS (2 OF 3).dwg By: Luis Botello Date: 4/4/2022 12:32 AM

Project Number:
SCALE:
Project Path:
Project Name:
Drawing Path:
Xref DWG FILE.

![](_page_38_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\39 PAVING DRAINAGE DETAILS (3 OF 3).dwg By: Luis Botello Date: 4/4/2022 12:33 AM

A <u>(INCHES)</u>	B (INCHES)
4	9 3/16
9 1/2	15 9/16
14 3/4	16 1/2
12 1/2	14 3/8
16 1/4	18 5/16
20	22 1/4
23 3/4	26 1/4
27 1/2	27 3/4
31 1/4	31 5/8

![](_page_38_Figure_7.jpeg)

responsibility for appropriate use of this standard.	2	MODIFIED Revision note:	OF ROLLE	ED CURB 12/19/2016 D 6/21/2006				
J.	CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	SD10						
Georgetown Utility Systems Fuer Community Unional Union	TYPICAL SECTION	DRAWN BY: MRS	DATE: 1/2003 APPROVED BY: TRB					

![](_page_38_Figure_10.jpeg)

![](_page_38_Figure_13.jpeg)

![](_page_38_Figure_14.jpeg)

![](_page_38_Figure_15.jpeg)

### Pavement Thickness Design

The recommendations below constitute a pavement design intended to address the subsurface and traffic conditions for each street classification. This information is intended to be incorporated into a set of civil engineering plans such that the pavement cross sections (including curb and gutter details) and street classifications specific to each street (which are unknown at this time) can be appropriately addressed.

Street Classification	Subgrade Material	Hot Mix Asphaltic Concrete, in	Crush ed Limestone Base, in
Local Street	Subgrade PI < 20*	2.0	8
Residential Collector	Subgrade PI < 20*	2.0	10
Major Collector	Subgrade PI < 20*	2.0	11

The recommendations below constitute a pavement design intended to address the subsurface and traffic conditions for each street classification. This information is intended to be incorporated into a set of civil engineering plans such that the pavement cross sections (including curb and gutter details) and street classifications specific to each street (which are unknown at this time) can be appropriately addressed.

### CONSTRUCTION CONSIDERATIONS

Ground Water Should ground water become a problem during excavation, or if surface water

accumulates during a rainy period, saturated soil should be dried out and/or removed and replaced with crushed limestone base.

### Pavement

1. Subgrade and Foundation Soil Preparation

Strip and remove from construction area any top soil, organics and vegetation to a

minimum depth of 6 inches below the existing natural ground surface. b. Fill sections may be composed of low PI (PI < 20) on-site material

excluding top soil, vegetation, and organics. Fills should be compacted in lifts not exceeding

inches after compaction and meet Section SD3 of the City of Georgetown's "Construction Specifications and Standards (5)."

c. Compaction of cut areas, on-grade areas, and fill sections should be to 95 percent of TxDOT TEX-114-E. Compaction should be performed with the moisture

content of the soil adjusted to within 3 percent of optimum for soils with a PI

than 20. For soils with a PI greater than 20, the moisture content should range from optimum to 3 percent above optimum. If exposed limestone is suspected

geotechnical engineer should be notified to provide a field confirmation.

- Proof-roll the subgrade as per City of Georgetown's current "Construction Specifications and Standards" Item No. 216 prior to placement of the first course of flexible base.
- 2. Lime Stabilized Subgrade
- Lime stabilization of the subgrade should be performed in accordance with TxDOT Item 260, as applicable.
- The surface clay should be tested for sulfate reaction to make sure that lime stabilization is feasible.
- The surface clay shall be tested using the Atterberg Limits procedure C. (ASTM D to determine the percent lime to be added. This should be done by adding varying percentages of lime to samples of the surface soil and then determining the Plasticity Index of each sample. The lowest percentage of lime added that significantly reduces the Plasticity Index of the lime-clay sample, as determined by the Geotechnical Engineer, shall be the percent lime to be added in the field.
- Base Course
- Base material shall meet the specifications outlined by City of Georgetown's Construction Specifications and Standards.
- Thickness of the base course should be as shown on the enclosed **Recommendations - Pavement Thickness Sections.**
- Base course compaction shall be 100 percent of TxDOT TEX-113-E using 13.26 ft. lbs./cu.in. compaction effort. The moisture content during compaction shall be maintained within 3 percent of optimum moisture content. Density control by means of field density determination shall be exercised.
- d. After compaction, testing, and curing of the base material, the surface shall be primed using an Asphalt Emulsified Petroleum (AE-P) primer or other acceptable priming material as per City of Georgetown's **Construction Specifications and Standards.**
- Surface Course Options
- The recommended surfacing option consists of hot-mix asphalt. This surfacing shall consist of a hot-mix asphaltic concrete (HMAC) meeting the requirement of Item 340, Type "D" of the current City of **Georgetown's Construction**
- The surface clay should be tested for sulfate reaction to make sure that lime stabilization is feasible.
- The surface clay shall be tested using the Atterberg Limits procedure (ASTM D to determine the percent lime to be added. This should be done by adding varying percentages of lime to samples of the surface soil and then determining the Plasticity Index of each sample. The lowest percentage of lime added that significantly reduces the Plasticity Index of the lime-clay sample, as determined

by the Geotechnical Engineer, shall be the percent lime to be added in the field.

2. Base Course

Base material shall meet the specifications outlined by City of Georgetown's

Construction Specifications and Standards.

- Thickness of the base course should be as shown on the enclosed Recommendations - Pavement Thickness Sections.
- c. Base course compaction shall be 100 percent of TxDOT TEX-113-E using 13.26 ft. lbs./cu.in. compaction effort. The moisture content during compaction shall be maintained within 3 percent of optimum moisture content. Density control by means of field density determination shall be exercised.
- After compaction, testing, and curing of the base material, the surface shall be primed using an Asphalt Emulsified Petroleum (AE-P) primer or other acceptable priming material as per City of Georgetown's Construction Specifications and Standards.
- Surface Course Options
- The recommended surfacing option consists of hot-mix asphalt. This surfacing shall consist of a hot-mix asphaltic concrete (HMAC) meeting the requirement of Item 340, Type "D" of the current City of Georgetown's Construction pavement materials. These drains should be sloped a minimum of 0.5 percent to provide positive drainage to daylight. French drains should be constructed in general accordance with ASTM D 2321 "Standard Practice for Underground Installation of Thermoplastic Pipe of Sewer and Other Gravity Flow Applications(6)." The French drain design should be reviewed by the
- geotechnical engineer prior to installation. All pavements should be constructed with a curb and gutter system on all sides.

Project Number: 22223-Phase 04 AS NOTED SCALE: Project Path: P\22000-22999\22223 Project Name: Parmer Ranch Drawing Path: CAD\Plans Xref DWG FILE eet Number: 39 of 60 sheets 2021-40-CON

![](_page_39_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\40 OVERALL WASTEWATER PLAN.dwg By: Luis Botello Date: 4/4/2022 11:01 AM

![](_page_39_Figure_5.jpeg)

### LEGEND

	PROPOSED WASTEWATER LINE
	EXISTING WASTEWATER LINE
S	PROPOSED WASTEWATER MANHO
S	EXISTING WASTEWATER MANHOLE
$\bowtie$	PROPOSED GATE VALVE
M	EXISTING GATE VALVE
•	EXISTING FIRE HYDRANT
$\bullet$	PROPOSED FIRE HYDRANT
	CURB INLET
	DOUBLE WATER SERVICE
	SINGLE WATER SERVICE
$\rightarrow$	DOUBLE SEWER SERVICE
	SINGLE SEWER SERVICE
100	MAJOR EXISTING CONTOUR
	MINOR EXISTING CONTOUR
	PROPERTY BOUNDARY
	* SEE MODIFIED DETAIL "W01A" FOR TYPICAL UTULTY

ASSIGNMENTS

### CITY OF GEORGETOWN GENERAL NOTES

INSTALL

SINGLE

SERVICE

14

- 1. These construction plans were prepared, sealed, signed and dated by a Texas Licensed Professional Engineer. Therefore based on the engineer's concurrence of compliance, the construction plans for construction of the proposed project are hereby approved subject to the standard Construction Specifications and Details Manual and all other applicable City, State and
- Federal Requirements and Codes. 2. This project is subject to all City Standard Specifications and Details in effect at the time of submittal of the project to the City.
- The site construction plans shall meet all requirements of the approved site plan.
- Wastewater mains and service lines shall be SDR 26 PVC.
- Wastewater mains shall be installed without horizontal or vertical bends. Maximum distance between wastewater manholes is 500 feet.
- Wastewater mains shall be low pressure air tested and mandrel tested by the contractor according to the City of Georgetown and TCEQ requirements.
- Wastewater manholes shall be vacuum tested and coated by the contractor according to City of Georgetown and TCEQ requirements.
- 9. Wastewater mains shall be camera tested by the contractor and submitted to the City on DVD format prior to paving the streets. Private water system fire lines shall be tested by the contractor to 200 psi for 2 hours.
- 11. Private water system fire lines shall be ductile iron piping from the water main to the building sprinkler system, and 200 psi C900 PVC for all others.
- 12. Public water system mains shall be 150 psi C900 PVC and tested by the contractor at 150 psi for 2
- 13. All bends and changes in direction on water mains shall be restrained and thrust blocked. 14. Long fire hydrant leads shall be restrained.
- 15. All water lines are to be bacteria tested by the contractor according to the City standards and specifications.
- 16. Water and Sewer main crossings shall meet all requirements of the TCEQ and the City.
- 17. Flexible base material for public streets shall be TXDOT Type A Grade 1. 18. Hot mix asphaltic concrete pavement shall be Type D unless otherwise specified and shall be a
- minimum of 2 inches thick on public streets and roadways. 19. All sidewalk ramps are to be installed with the public infrastructure.
- 20. A maintenance bond is required to be submitted to the City prior to acceptance of the public improvements. This bond shall be established for 2 years in the amount of 10% of the cost of the public improvements and shall follow the City format.
- 21. Record drawings of the public improvements shall be submitted to the City by the design engineer prior to acceptance of the project. These drawings shall be PDF (300 dpi).

OVERALL WASTEWATER PLAN PARMER RANCH PHASES 9 & 10 City of Georgetown Williamson County, Texas

Project Number: 22223-Phase 04 SCALE: Project Path: Project Name: Drawing Path:

AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

Xref DWG FILE

eet Number: 40 of 60 sheets

![](_page_40_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\41 WW-A01 PROFILE (1 OF 2).dwg By: Luis Botello Date: 4/4/2022 11:02 AM

![](_page_40_Figure_3.jpeg)

1.

WASTEWATER LINE CROSSING WATER LINE WITH LESS THAN NINE FEET OF SEPARATION SHALL HAVE A FULL JOINT OF C900 DR-18 (250 PSI) PVC PIPE CONFORMING TO ASTM D1784 MUST BE CENTERED ON THE WATERLINE. JOINTS MUST BE DESIGNED TO SEAL AT ATMOSPHERIC PRESSURE PER TAC 217.53(d)(7)(A)(iv) AND MEET ASTM D3139. SEE SHEET 47 FOR DETAIL.

AS NOTED P\22000-22999\22223 Parmer Ranch

![](_page_41_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\42 WW-A01 (2 OF 2) AND WW-A06.dwg By: Luis Botello Date: 4/4/2022 11:04 AM

![](_page_41_Figure_3.jpeg)

### NOTES: 1.

WASTEWATER LINE CROSSING WATER LINE WITH LESS THAN NINE FEET OF SEPARATION SHALL HAVE A FULL JOINT OF C900 DR-18 (250 PSI) PVC PIPE CONFORMING TO ASTM D1784 MUST BE CENTERED ON THE WATERLINE. JOINTS MUST BE DESIGNED TO SEAL AT ATMOSPHERIC PRESSURE PER TAC 217.53(d)(7)(A)(iv) AND MEET ASTM D3139. SEE SHEET 47 FOR DETAIL.

	Project Number:	22223-Phase 04
V - AUT (Z UF Z) AND VVV - AUO	SCALE:	AS NOTED
	Project Path:	P\22000-22999\22223
ER RANCH PHASES 9 & 10	Project Name:	Parmer Ranch
City of Georgetown	Drawing Path:	CAD\Plans
Villiamson County Texas	Xref DWG FILE.	
Villariisofi County, Texas	Sheet Number: 4	2 of 60 sheets
		2021-40-CON

![](_page_42_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\43 WW-A07 AND WW-A08 PROFILE.dwg By: Luis Botello Date: 4/4/2022 11:06 AM

WASTEWATER LINE CROSSING WATER LINE WITH LESS THAN NINE FEET OF SEPARATION SHALL HAVE A FULL JOINT OF C900 DR-18 (250 PSI) PVC PIPE CONFORMING TO ASTM D1784 MUST BE CENTERED ON THE WATERLINE. JOINTS MUST BE DESIGNED TO SEAL AT ATMOSPHERIC PRESSURE PER TAC 217.53(d)(7)(A)(iv) AND MEET ASTM D3139. SEE SHEET 44 FOR DETAIL.

SCALE: Project Path: Project Name: Drawing Path:

Project Number: 22223-Phase 04 AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

Xref DWG FILE. neet Number: 43 of 60 sheets

![](_page_43_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\44 WW-A02 PRB PROFILE (1 OF 2).dwg By: Luis Botello Date: 4/4/2022 11:07 AM

### NOTES:

1.

WASTEWATER LINE CROSSING WATER LINE WITH LESS THAN NINE FEET OF SEPARATION SHALL HAVE A FULL JOINT OF C900 DR-18 (250 PSI) PVC PIPE CONFORMING TO ASTM D1784 MUST BE CENTERED ON THE WATERLINE. JOINTS MUST BE DESIGNED TO SEAL AT ATMOSPHERIC PRESSURE PER TAC 217.53(d)(7)(A)(iv) AND MEET ASTM D3139. SEE SHEET 47 FOR DETAIL.

> SCALE 1" = 40' HORIZONTAL 1" = 4' VERTICAL

WW-A02 PRB PROFILE (1 OF 2) PARMER RANCH PHASES 9 & 10 City of Georgetown Williamson County, Texas

Project Number: 22223-Phase 04 SCALE: Project Path: Project Name: Drawing Path:

AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

Xref DWG FILE.

heet Number: **44** of **60** sheets

![](_page_44_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\45 WW-A02 PRB (2 OF 2), WW-A03 & WW-A04 PROFILES.dwg By: Luis Botello Date: 4/4/2022 11:09 AM

### NOTES:

1

WASTEWATER LINE CROSSING WATER LINE WITH LESS THAN NINE FEET OF SEPARATION SHALL HAVE A FULL JOINT OF C900 DR-18 (250 PSI) PVC PIPE CONFORMING TO ASTM D1784 MUST BE CENTERED ON THE WATERLINE. JOINTS MUST BE DESIGNED TO SEAL AT ATMOSPHERIC PRESSURE PER TAC 217.53(d)(7)(A)(iv) AND MEET ASTM D3139. SEE SHEET 47 FOR DETAIL.

> SCALE 1" = 40' HORIZONTAL 1" = 4' VERTICAL

WW-A02 PRB (2 OF 2), WW-A03 & WW-A04 PROFILES PARMER RANCH PHASES 9 & 10 City of Georgetown Williamson County, Texas

Project Number: 22223-Phase 04 SCALE: Project Path: Project Name: Drawing Path:

AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

Xref DWG FILE.

neet Number: 45 of 60 sheets 2021-40-CON

![](_page_45_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\46 WW-A09 AND WW-A10 PRB PROFILES.dwg By: Luis Botello Date: 4/4/2022 11:11 AM

![](_page_45_Figure_3.jpeg)

### NOTES:

1.

WASTEWATER LINE CROSSING WATER LINE WITH LESS THAN NINE FEET OF SEPARATION SHALL HAVE A FULL JOINT OF C900 DR-18 (250 PSI) PVC PIPE CONFORMING TO ASTM D1784 MUST BE CENTERED ON THE WATERLINE. JOINTS MUST BE DESIGNED TO SEAL AT ATMOSPHERIC PRESSURE PER TAC 217.53(d)(7)(A)(iv) AND MEET ASTM D3139. SEE SHEET 44 FOR DETAIL.

> SCALE 1" = 40' HORIZONTAL 1" = 4' VERTICAL

WW-A09 AND WW-A10 PRB PROFILES PARMER RANCH PHASES 9 & 10 City of Georgetown Williamson County, Texas

SCALE: Project Path: Project Name: Drawing Path:

Project Number: 22223-Phase 04 AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

Xref DWG FILE.

heet Number: **46** of **60** sheets

![](_page_46_Figure_0.jpeg)

	NO.	REVISION	BY	DATE		
WARNING!					EJH, LB, TG, NN	2021-1
There are existing water pipelines, underground telephone					DESIGNED BY:	DATE
cables and other above and below ground utilities in the vicinity of this project. The contractor shall contact all					EJH, LB, TG, NN	2021-1
appropriate utility companies prior to any construction in the					DRAWN BY:	DATE
area and determine if any conflicts exist. If so, the Contractor shall immediately contact the Engineer, who						
shall revise the design as necessary.					CHECKED BY:	DATE
					APPROVED BY:	DATE

![](_page_46_Figure_3.jpeg)

![](_page_46_Figure_4.jpeg)

![](_page_46_Picture_5.jpeg)

Project Number: 22223-Phase 04 WASTEWATER DETAILS (1 OF 2) AS NOTED SCALE: Project Path: P\22000-22999\22223 PARMER RANCH PHASES 9 & 10 Project Name: Parmer Ranch Drawing Path: City of Georgetown CAD\Plans Xref DWG FILE Williamson County, Texas eet Number: 47 of 60 sheets

![](_page_47_Figure_0.jpeg)

		NO	REVISION				
		<u> </u>	REVISION		DATE		
	WARNING					EJH, LB, TG, NN	2021-10-18
	There are existing water pipelines, underground telephone					DESIGNED BY:	DATE
	cables and other above and below ground utilities in the	<u> </u>				EJH, LB, TG, NN	2021-10-18
	vicinity of this project. The contractor shall contact all					DRAWN BY	DATE
	appropriate utility companies prior to any construction in the					Browne Br.	DATE
	Contractor shall immediately contact the Engineer, who	<u> </u>					
	shall revise the design as necessary.					CHECKED BY:	DATE
	V						
		L					
1				1	1		

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\48 WASTEWATER DETAILS (2 OF 2).dwg By: Luis Botello Date: 4/4/2022 12:47 AM

![](_page_47_Figure_3.jpeg)

![](_page_47_Figure_4.jpeg)

![](_page_47_Figure_5.jpeg)

![](_page_47_Figure_6.jpeg)

2" HMAC TYPE "D" —

UNDISTURBED TRENCH WALL -

BEDDING SHALL BE REQUIRED AS PER TYPICAL BEDDING SPECIFICATIONS IN CITY OF GEORGETOWN CONSTRUCTION SPECIFICATIONS.

(SEE C9 FLOWABLE BACKFILL FOR THE SPECIFICATION).

WASTEWATER LINE

TRENCH WIDTHS

\*PIPE LESS THAN 20" DIAMETER

1'-0" + PIPE O.D.

\*20" DIAMETER PIPE AND LARGER

2'-0" + PIPE O.D.

8" COMPACTED FLEXIBLE BASE TYPE I PER CITY OF GEORGETOWN -

COMPACTED SELECT FIL

IN ACCORDANCE WITH CITY OF GEORGETOWN SPECIFICATIONS.

CONTRUCTION SPECIFICATIONS.

![](_page_47_Figure_8.jpeg)

![](_page_47_Figure_9.jpeg)

- SERVICE MARKER DETAIL

![](_page_47_Picture_13.jpeg)

![](_page_47_Figure_16.jpeg)

STEWATER DETAILS (2 OF 2)	Project Number: SCALE:	22223-Phase 04 AS NOTED
ER RANCH PHASES 9 & 10	Project Path: Project Name:	P\22000-22999\22223 Parmer Ranch
City of Georgetown	Drawing Path: Xref DWG FILE.	CAD\Plans
Villiamson County, Texas	Sheet Number: Z	48 of 60 sheets
		2021-40-CON

![](_page_48_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\49 OVERALL WATER PLAN.dwg By: Erik Haberman Date: 4/6/2022 4:57 PM

![](_page_48_Figure_2.jpeg)

### NOTES:

INDIVIDUAL PRESSURE REDUCING VALVES (PRV) REQUIRED ON ALL LOTS WHERE STATIC PRESSURE IS GREATER THAN 80 PSI. AT THE CONCLUSION OF CONSTRUCTION, FIRE HYDRANTS SHALL BE FLOW TESTED AND COLOR CODED IN ACCORDANCE TO CITY'S

FOR TYPICAL UTILITY

ASSIGNMENTS

- STANDARDS, AND RESULTS SHALL BE EMAILED TO THE FIRE DEPARTMENT. IFC 507.5 FIRE HYDRANTS SYSTEMS. CAUTION, IF PRESSURE REDUCING VALVES WERE INSTALLED IN
- THIS PHASING THEY MUST BE SET PRIOR TO FIRE HYDRANT FLOW TESTING
- 4. WATER PRESSURE WERE DETERMINED USING THE 1178 PRESSURE PLANE.

### PIPE MATERIAL NOTES:

- ALL WATER LINE SHALL BE 8" C900 (150 PSI) PVC UNLESS
- OTHERWISE NOTED. WATER VALVES SHALL NOT BE INSTALLED IN SIDEWALKS, RAMPS
- OR CURBS ALL JOINTS WHERE REQUIRED SHALL BE RESTRAINED.

### CITY OF GEORGETOWN GENERAL NOTES

- These construction plans were prepared, sealed, signed and dated by a Texas Licensed Professional Engineer. Therefore based on the engineer's concurrence of compliance, the construction plans for construction of the proposed project are hereby approved subject to the standard Construction Specifications and Details Manual and all other applicable City. State and Federal Requirements and Codes.
- This project is subject to all City Standard Specifications and Details in effect at the time of submittal of the project to the City. The site construction plans shall meet all requirements of the approved
- site plan.
- Wastewater mains and service lines shall be SDR 26 PVC. Wastewater mains shall be installed without horizontal or vertical bends.
- Maximum distance between wastewater manholes is 500 feet. Wastewater mains shall be low pressure air tested and mandrel tested by
- the contractor according to the City of Georgetown and TCEQ requirements.
- Wastewater manholes shall be vacuum tested and coated by the 8. contractor according to City of Georgetown and TCEQ requirements.
- Wastewater mains shall be camera tested by the contractor and submitted to the City on DVD format prior to paving the streets.
- 10. Private water system fire lines shall be tested by the contractor to 200 psi for 2 hours. 11. Private water system fire lines shall be ductile iron piping from the water
- main to the building sprinkler system, and 200 psi C900 PVC for all others. . Public water system mains shall be 150 psi C900 PVC and tested by the contractor at 150 psi for 4 hours.
- 13. All bends and changes in direction on water mains shall be restrained and thrust blocked
- 14. Long fire hydrant leads shall be restrained. 15. All water lines are to be bacteria tested by the contractor according to the
- City standards and specifications. 16. Water and Sewer main crossings shall meet all requirements of the TCEQ
- and the City. 17. Flexible base material for public streets shall be TXDOT Type A Grade 1. 18. Hot mix asphaltic concrete pavement shall be Type D unless otherwise specified and shall be a minimum of 2 inches thick on public streets and roadwavs
- 19. All sidewalk ramps are to be installed with the public infrastructure. 20. A maintenance bond is required to be submitted to the City prior to acceptance of the public improvements. This bond shall be established for
- 2 years in the amount of 10% of the cost of the public improvements and shall follow the City format. 21. Record drawings of the public improvements shall be submitted to the City
- by the design engineer prior to acceptance of the project. These drawings shall be PDF (300 dpi).

SCALE: Project Path: Project Name: Drawing Path:

Project Number: 22223-Phase 04 AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

Xref DWG FILE

eet Number: 49 of 60 sheets

![](_page_49_Picture_0.jpeg)

	NO.	REVISION	BY	DATE	
WARNING!					EJH, LB, TG, NN
There are existing water pipelines, underground telephone					DESIGNED BY:
vicinity of this project. The contractor shall contact all					EJH, LB, TG, NN
appropriate utility companies prior to any construction in the area and determine if any conflicts exist. If so, the					DRAWN BY:
Contractor shall immediately contact the Engineer, who					
shall revise the design as necessary.	<u> </u>				
	<u> </u>				

![](_page_49_Figure_4.jpeg)

![](_page_49_Figure_5.jpeg)

![](_page_49_Picture_6.jpeg)

# WATER DETAILS PARMER RANCH PHASES 9 & 10 City of Georgetown Williamson County, Texas

SCALE: Project Path: Project Name: Drawing Path: Xref DWG FILE.

Project Number: 22223-Phase 04 AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

eet Number: 50 of 60 sheets

![](_page_50_Figure_0.jpeg)

4' CAP S SEE FINISH 10-12' STO MORTARE SEE FINISH	TONE, NOTES NE BLOCK, D JOINTS, NOTES	-	LEGEND
ې TENSION F SEALED S ENGINEERI	ROD PER IRUCTURAL NG DETAILS.	••	STREET LIGHT
TO BE PR BY CONTI	OVIDED RACTOR.	-0-	SIGN
FINISHE	D GRADE	<del>0_0_0</del>	END OF ROAD BARRICADES
FOC STRI DET	DTING DESIGN PER SEALED JCTURAL ENGINEERING AILS, TO BE PROVIDED BY VIRACTOR.	—	24" WHITE STOP BAR
		MAIL	MAIL KIOSK
			WALL
ITRACTOR SHALL PROVIDE 4'X4' MOO IE/BLOCK/VENEER FOR APPROVAL. PI I MORTAR TO MATCH LIGHTEST STOP /IDE WEEPS OR DRAINAGE BLOCK-OL CING OF 20' OC. TRACTOR TO PROVIDE SHOP DRAWN	CKUP OF WALL RIOR TO CONSTRUCTION. NE COLOR. JTS, 8"X4", AT MINIMUM		

![](_page_51_Figure_0.jpeg)

![](_page_51_Figure_1.jpeg)

![](_page_51_Figure_2.jpeg)

			1		
	NO.	REVISION	BY	DATE	
WARNING!					EJH, LB, TG, NN
There are existing water pipelines, underground telephone					DESIGNED BY:
cables and other above and below ground utilities in the vicinity of this project. The contractor shall contact all					EJH, LB, TG, NN
appropriate utility companies prior to any construction in the					DRAWN BY:
area and determine if any conflicts exist. If so, the Contractor shall immediately contact the Engineer, who					
shall revise the design as necessary.					CHECKED BY:
<u> </u>				ļ	
					APPROVED BY:

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\52 STRIPING & SIGNAGE DETAILS.dwg By: Luis Botello Date: 4/4/2022 12:54 AM

![](_page_51_Figure_6.jpeg)

**MARKED OR** 

### **D - URBAN INTERSECTION**

NOTES: All regulatory signs shall be approved by the City.
 All signs shall be installed in accordance with the "Texas Manual on Uniform Traffic Control Devices" current addition.

TXMUTCD Typical Sign Location (Urban Intersection)

![](_page_51_Picture_10.jpeg)

25

W1-2a-L 30x30

## NOTE: STREET NAME SIGNS SHALL BE GREEN TO MEET WILLIAMSON COUNTY REQUIREMENTS AND MEET TXMUTCD REQUIREMENTS FOR CAPITAL AND LOWERCASE LETTERING

![](_page_51_Figure_15.jpeg)

Letters Border

![](_page_51_Picture_18.jpeg)

![](_page_51_Picture_19.jpeg)

R2-1 24" x 30"

**STRIPING & SIGNAGE DETAILS** PARMER RANCH PHASES 9 & 10 City of Georgetown Williamson County, Texas

SCALE: Project Path: Project Name: Drawing Path: Xref DWG FILE.

Project Number: 22223-Phase 04 AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

eet Number: 52 of 60 sheets

![](_page_52_Figure_0.jpeg)

![](_page_52_Picture_1.jpeg)

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	PROPOSE
	EDGE OF I
	BACK OF (
	LIMIT OF
	EDGE OF S
	EXISTING
	EXISTING
	PROPOSE
	PROPOSE

**GRADING PLAN** PARMER RANCH PHASES 9 & 10 City of Georgetown Williamson County, Texas

Project Number: 22223-Phase 04 SCALE: Project Path: Project Name: Drawing Path: Xref DWG FILE.

AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

heet Number: 53 of 60 sheets

GENERAL CONSTRUCTION NOTES

- 1. These drawings and documents are submitted to the Owner of the project for review and approval prior to any release for bidding or construction. Contractors shall receive all bid information, instructions, bid forms, general terms and conditions, and all other required clarification from the Owner's Authorized Representative administering this project. Unless otherwise indicated, the Owner's Representative for this project shall be a specifically designated Landscape Architect from SEC Planning. The contractor will also be required to coordinate and correspond with the Landscape Architect from SEC Planning and key consultants for the Owner.
- 2. These drawings supplement other contractual information which includes Bid Instructions and Project Specifications. Anything mentioned in the Project Specifications and not in the drawings, or vice-versa, shall be of like effect as if shown on or mentioned in both. In case of a discrepancy between Drawings or Project Specifications, the matter shall be immediately submitted to the Owners Representative; without his decision said discrepancy shall not be adjusted by the Contractor, save only at his own risk and expense. The contractor shall not take advantage of any apparent error or omission on the Drawings or in the Specifications. In the event the Contractor discovers such error or omission, they shall immediately notify the Owner's Representative. The Owner's Representative will then make such clarification and interpretations as may be deemed necessary for the Contractor to fulfill the intent of the Contract.
- 3. The intent of these drawings, details and associated specifications is for the Contractor to provide the Owner with a complete, accurate, functionally and technically sound project as generally described in these documents. In most cases, unless explicitly noted otherwise, drawing symbols are used to represent complete-in-place systems to be provided as part of the base bid. All elements shown or implied by the drawings, if not specifically detailed or specified, shall be installed per building codes, manufacturer's recommendations, state highway department standards, city standards and specifications and standard industry practices.
- 4. All plan quantities provided are approximate only. The Contractor is responsible for their own plan take-off's and accuracy of their bid based on actual site conditions. The contractor shall not take advantage of any apparent error or omission on the Drawings or in the Specifications. In the event the Contractor discovers such error or omission, they shall immediately notify the Owner's Representative. The Owner's Representative will then make such clarification and interpretations as may be deemed necessary for the Contractor to fulfill the intent of the Contract.
- 5. All work within this project shall conform to current local codes, ordinances, as well as all other applicable governing regulations in effect.
- 6. All range points, ties, benchmarks or other survey control points which may be encountered during construction, must be preserved or modified/recorded by a registered surveyor at the Contractor's expense. Immediately upon discovery, the Contractor shall notify the Owner's Representative of any survey control points found and obtain direction prior to proceeding with construction.
- 7. The Contractor shall coordinate and obtain all permits which are necessary to perform the proposed work. Owner is to pay for all construction permits unless otherwise indicated in the Contract Documents. Contractor shall obtain, at his expense, all specialty permits needed for specific items included with the work, unless otherwise indicated in the Contract Documents. Should the Contractor commence work, prior to obtaining the required permits or jurisdictional approvals, the Contractor shall be responsible corrections, modifications, replacement or removal of the non-permitted work.
- 8. It is the Contractor's responsibility to be aware of and comply with all notifications and inspection requirements of the Jurisdiction.
- 9. Unless specifically noted otherwise in the Contract Documents, the Contractor shall obtain and coordinate all technical tests and reports by a certified independent laboratory or agency as outlined in the Specifications or these Drawings. The Owner may, at the Owner's sole discretion, provide separate testing and/or inspection service and the Contractor is required to fully coordinate with those consultants/contractors. Owner is to pay for all soils and materials testing.
- 10. An Existing Condition Survey may have been provided to the Owner by registered surveyors under separate contracts for the basis of design. It is not to be considered as part of these Contract Documents. If provided, these survey plans may have been reformatted and included in these documents. The Contractor is required to visit the site to verify information. Without exception, any deviations or omissions found between these plans and existing site conditions shall immediately be brought to the attention of the Owner's Representative, but will not be considered as basis for additional payment except as allowed in change order process per General Conditions and Supplementary Conditions under the "Owner-Contractor Agreements/Contracts. For official survey information, Contractor may wish to contact the Owner, or Owner's surveyor at the Contractors expense.
- 11. Existing utility information and utility information for proposed work by others that is shown in these documents is approximate and for general information only. It is not intended to depict exact locations of all utilities. The Contractor shall notify all utility companies to stake and field verify the locations including depths of all utilities (existing, proposed by others, or currently under construction), prior to commencing any related operations. Contractor shall maintain utility locations/structures during all remaining phases of work. The Contractor shall report to the Owner's Representative any utilities that may conflict with proposed work. This Contractor shall explore, understand, and coordinate (with subcontractors and others) all utilities impacts prior to submitting bid and shall be responsible for any modifications or damages to utility lines, structures or injuries therefrom. For existing utility information contact Texas 811. A minimum notice of 3 business days in advance of locational needs is required.
- 12. These drawings do not specify safety materials, staffing, equipment, methods or sequencing to protect persons and property. It shall be the Contractor's sole responsibility to direct and implement safety operations, staffing, procedures to protect the Owner and his representatives, new improvements, property, other contractors, the public and others.
- 13. The Contractor shall meet periodically with the Owner's Representative to determine marshalling areas, on-site storage, and contractor staff parking and to coordinate security issues, construction sequencing/phasing, scheduling, and maintaining public, emergency, handicapped or operations access before starting the related work. The Contractor shall meet any "Construction Criteria" or requirements shown on any Contract Documents, phasing plans or any imposed plan by the Owner as a part of the Base Bid.
- 14. Some work in this Contract may occur concurrent with work by others. Phasing, sequencing and coordination, with work by others, and on-going facility operations in and around the site area, is a part of the scope of work for this project. Notice to proceed with work in any general area shall be obtained from the Owner.
- 15. The Contractor will be required to complete all the work of this project according to these proposed drawings or subsequent clarification. A strict period of performance, including dates of substantial completion (for all and/or portions) and liquidation damages may be an integral element of the Contract.
- 16. Any site improvements requiring removal under this contract shall be properly and legally disposed off-site or, at the Owner's option, surrendered/stockpiled in an 7. The plans may call for specific temporary benchmarks to be transferred to the site by a certified surveyor and accurately established on site as a part of this approved on-site location per the direction of the Owner or Owner's Representative.
- The Contractor is required to maintain a complete and "up-to-date" set of all Contract Documents, including clarifications, change orders, etc., in good condition, at the construction site at all times. This set of documents will be made immediately available for review by the Owner's Representative and/or authorized Consultants upon request. Complete "As-Built" drawings and document submittals are also a requirement of this contract.
- 18. Maintenance, warranties and performance guarantees may be a requirement of this contract see specifications.
- 19. Notes and details on specific drawings shall take precedence over general notes and typical details. The Contractor shall refer to all other Division Notes, Sheets Notes, Drawings and Project Contract Documents for additional information.

20. Contractor shall refer to other related drawings for all other related improvements that will impact this project and require coordination. Drawings may be made available to the Contractors at request.

TREE PROTECTION NOTE

1. All existing trees shall be protected from construction activities within construction zone. During which time, the use of a silt or chain link fence is required around each singular or group of protected trees. Parking of construction vehicles, equipment, and stockpiles within tree root zones is strictly prohibited. Contractor shall be responsible for any damage incurred to existing trees, including replacement, fees, fines or reimbursement to owner for said damages and, or to the City or Jurisdiction with governing authority per the Tree Ordinance.

OAK WILT PREVENTION NOTE

1. If Oak Wilt is found on site within work zone, owner must be notified and the following procedures must be followed in accordance with USDA standards, (http://www.na.fs.fed.us) including disinfecting construction removal devices, tree removal and treatment to prevent development of spore mats. These treatments include debarking, chipping and drying the wood, covering dead wood with plastic, burying the edges for six months and air drying for a similar amount of time to kill fungus and associated insects off site at state designated facility.

### SIDEWALK NOTES:

- 1. Layout of concrete walkways shall be staked in the field and review by the Owner or Owner's Representative prior to construction. At that time walk may be adjusted as needed, using the Hardscape Plan as a guide. All grades and layout shall be confirmed prior to construction. Notify Owner and Owner's Representative of any conflicts or deviations to the issued plans.
- 2. All pedestrian paths shall be in compliance with all current Texas Accessibility Standards (T.A.S.) and ADA standards.
- 3. All walkway grades shall have a running slope of no greater than 4.7% (1:21) and a cross-slope that is not greater than 1.5% (1:66).
- 4. Slopes at or between 5.0% (1:20) and 8.3% (1:12) must have hand rails on both sides with ADA compliant level landings, and cross-slopes shall not exceed 1.5% (1:66).

- HARDSCAPE LAYOUT AND INSTALLATION

- the intent of any and all portions of this contract.

### GRADING NOTES

- inspections.

- a. Full locating, investigating and protection of ALL existing utilities to remain. b. Removal of any organic materials or debris. c. Stripping and stockpiling of all topsoil in approved location(s).
- d. Removal of all unstable fill materials encountered.
- and improvement elevations.
- i. Replacement of topsoil after grading changes have been accomplished.

### LIGHTING

- commencing installation.
- amount.

- 9. All wire run underground must be in rigid conduit.

# 11. Tree lighting (if applicable)

- growth.
- two inches between tree and mounting plate. c) All tree downlights are to be mounted in the top third of the tree canopy.

All work shown shall be field staked and subject to field verification, review and approval by the Owner or Owner's Representative prior to any constructions or demolition. Field staking of all proposed work and adjacent construction (even if future work by others) may be required by the Owner's Representative prior to approval of all improvements and adequate stakes shall be provided by Contractor's surveyor.

2. To expedite, the layout of the site layout coordinates and/or grids may have been established in the Drawings. These points shall be field staked by the Contractor's surveyor as a part of this contract. The establishment of these points shall be approved by the Owner's Representative prior to any construction in those areas and will assist the Contractor in the layout of all site improvements as shown on drawing or otherwise.

The construction tolerances for this project are minimal and the dimensions shown are to be strictly adhered to.

4. Computed dimensions shall take precedence over scaled dimensions. Large scale drawings shall take precedence over small scale drawings. Dimensions shown with (+/-) shall be the only layout information allowed to vary, and may only vary to the tolerances given.

The Contractor is responsible to provide complete-in-place systems, and a complete project. Any intermittent or periodic approvals received for portions of work, stakes, grades, or forms (by the Owner or Owner's Representative, Architects, Engineers, or others) shall not waive the Contractor's requirements to comply with

6. All locations for walks, roads, swales, walls, curbs, structures etc. shall be staked by the Contractor. All layout information is based on ground coordinates and the Contractor shall meet with the owner's surveyors and engineers to clarify all datum, benchmark and control point requirements. Specific layout information will be provided to the Contractor by the Owner's Representative in AutoCAD (.dwg) format when requested.

7. It is the intent and requirement of this contract to provide curvilinear walks, walls and curbs with smooth transitions and arcs (both horizontal and vertical). Straight segments and abrupt transitions will not be accepted unless shown as such on the plans. Wood curving forms may be required to obtain the proper effects.

8. Hardscape improvements that are to be constructed per the drawings, shall be coordinated on site with the Owner's Representative, and be field staked or painted for approval of layout by the Owner's Representative prior to installation. Notify the Owner's Representative a minimum of 24 hours in advance for review. Improvements installed without field approval by Owner's Representative may be rejected and will be replaced at Contractors expense. At the time of staking, the Contractor shall confirm the quantity of the improvements match the approved contract. In the event the Contractor discovers such a discrepancy, he shall immediately notify the Owner's or Owner's Representative for direction on how to proceed, prior to commencing work.

9. All lot fencing or lot screen walls shall be placed on the property line or property boundary. Contractor shall confirm final location by field staking, to be reviewed by the Owner or Owner's Representative prior to construction

1. The Contractor shall obtain and review the Summary Report and Recommendations prepared by the geotechnical engineers and fully understand the existing soil conditions encountered prior to submitting bid. The Contractor shall comply with all recommendations made by the geotechnical engineers, civil engineers, structural engineers and Owner's Representative, as designated in the soil report, on these drawings, specified, or as directed during field observations and

All earthwork operations will be subject to full inspection and regular testing by a qualified soils and materials engineer and this Contractor shall be responsible to coordinate scheduling, notification and procuring test results and documentation as required. The Contractor shall notify the Owner's Representative of any subsoil conditions encountered, which vary from those found during previous soil investigations and/or that may not have been known during design. Any failed tests which must be retested will be a Contractor's expense.

3. All earthwork operations shall be conducted in strict compliance with the project specifications including but not limited to:

e. Scarification and re-compaction to the minimum depth as specified and/or directed within all areas to receive fill, pavements or structures.

f. All classifications of "excavation" as required to meet proposed lines, grades, typical cross sections and improvement elevations.

g. Placement, shaping, and structural compaction of all classifications of "fill" or "embankment" as required to meet proposed lines, grades, typical cross sections

h. Providing dewatering, optimum moisture control, climate protection, dust control, erosion control and all other specified treatments.

4. See, and comply with, all specifications for depth of moisture density treatments, controls and compaction requirements.

5. These grading plans are intended to show vertical control of the site and are based upon the benchmarks, existing elevations and topography as provided by the Owner's surveyor. However, the Contractor, upon submittal of bid, agrees to accept the site grades and make all adjustments required to accomplish the work as proposed. Additionally proposed design elevations for adjacent construction projects may have to be incorporated if necessary. (Construction drawings for work by others, if applicable, are available upon request). Staking of future adjacent improvements, by this contract phase or by others, may be required if directed by the Owner's Representative to ensure proper coordination and requested staking is to be provided as part of this Base Bid.

6. This Contractor shall verify all existing grades to remain and all adjacent new construction grades for compliance with those shown, prior to bid and construction. All deviations or conflicts with proposed work shall be reported immediately (with follow-up written) notice within 24 hours to the Owner's Representative for direction to proceed, but will not be considered as basis for additional payment except as allowed in change order process per General Conditions and Supplementary Conditions under the existing "Owner-Contractor Agreements/Contracts".

contract. Contractor shall verify all benchmarks and information used in design and compare to existing conditions.

8. It is this Contractor's responsibility to provide proper positive drainage throughout this contract area. Field conditions shall be verified in conjunction with the proposed elevations to ensure that adequate drainage is provided. Report deviations or conflicts to Owner's Representative. Unless otherwise indicated, minimum slope for paved surfaces shall be 1% and minimum slope for non-paved areas shall be 2%. Slope away from all structures shall be 3% minimum, for a distance of 5' minimum. Maximum ground slopes to be 4' horizontal to 1' vertical, unless otherwise approved in advance.

9. All design elevations shown are "finished grades" unless otherwise indicated. Contractors shall refer to drawings, details and specifications regarding depth of sub-grade materials required to construct project improvements.

10. All topsoil and/or drainage way muck excavation shall be saved and stockpiled in approved locations for future use.

Landscape lighting system is to be installed by a licensed electrician with documented experience in installing lighting systems of similar scope within the last two years. The Contractor is to supply a complete lighting system including all associated equipment such as conduit, weather proof and/or water proof junction boxes, ballasts, connectors, harnesses, time clocks, photocells, etc.

The Contractor shall review proposed layout of lighting system and all related equipment locations with the Owner or Owner's Representative prior to

After installation the Contractor will be required to adjust light fixtures until the Owner's Representative is satisfied with the desired effect. This will require the Contractor and/or the Contractor's electrician to meet with the Owner and Owner's Representative after sunset. This adjustment is to be included in the base Bid

The Contractor shall provide a two year warranty on all equipment including lamps, ballasts and installation.

Independent ballasts, if required, shall be "ganged" in an inconspicuous, accessible location in a horizontal, weatherproof box or tray near ground level. Mounting of ballast in trees will not be allowed without written authorization from the Owner's Representative.

All exposed boxes, trays, conduit, etc. shall be painted by the contractor to blend in with surrounding landscape elements.

7. All equipment shall be U.L. listed and installation shall comply with N.E.C. and all other applicable codes.

8. All lights are to be controlled by a photocell on and timer off system unless specified otherwise on the drawings.

10. Plan layout of underground wiring to minimize disturbance to the roots of existing trees. If underground wiring must pass through the critical root zone of protected trees, trenching and related work must be preformed by hand. No mechanical trenching is permitted within the Critical Root Zone.

a) Install Karlock (or equal) flexible conduit from base of tree to a minimum eight foot height above ground. At the end of the conduit install a waterproof hub (for single cable) or W-P bell box for multiple cables. Paint conduit and box to match tree trunk. Use SJTO electrical cord from conduit to light fixture. Attach cord to tree using long galvanized cord staples or other approved method. Provide a 36" loop of extra cord at the light fixture to allow for light adjustment and tree

b) Attach light fixtures to trees utilizing galvanized mounting plates drilled for hub connection with a minimum of two mounting screws. Mounting screws are to be 1/20 threads x 5" length (one end wood screw threads and the other end bolt threads). Install at least two inches of thread into tree and install with at least

d) All fixtures are to be located, adjusted as needed and shielded to prevent glare, light trespass on to adjacent properties or Rights-of-way.

![](_page_53_Picture_111.jpeg)

![](_page_53_Picture_112.jpeg)

TEXAS LAW REQUIRES 48 HOURS OF NOTICE PRIOR TO DIGGING, EXCLUDING WEEKENDS THAN HOLIDAYS. ALL BEFORE YOU DIG, WAIT THE REQUIRED AMOUNT OF TIME, RESPEC THE MARKS, AND DIG WITH CARE! THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY A FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

![](_page_54_Figure_0.jpeg)

![](_page_55_Figure_0.jpeg)

LAYOUT AND GRADING NOTES

- 1. Layout of concrete walkways shall be determined in the field, using the Hardscape Plan as a guide.
- 2. All pedestrian paths shall be in compliance with all current Texas Accessibility Standards (T.A.S.) and
- 3. All walkway grades shall have a running slope of no greater than 4.7% (1:21) and a cross-slope that is not greater than 1.5% (1:66).
- 4. Slopes at or between 5.0% (1:20) and 8.3% (1:12) must have hand rails on both sides with ADA compliant level landings, and cross-slopes shall not exceed 1.5%

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DAMAGES WHICH MAY OCCUR BY A FAILURE TO EXACTLY LOCATE AND PRESERVE ANY
AND ALL UNDERGROUND UTILITIES.

![](_page_55_Picture_11.jpeg)

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![](_page_56_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORT	HSIDE\CAD\Plans\PARMER RANCH 09 & 10\57	NTERSECTION DETAILS (1 OF 4).dwg	By: Luis Botello Date: 4/4/2022 1:0

![](_page_56_Figure_2.jpeg)

![](_page_56_Picture_3.jpeg)

![](_page_56_Figure_9.jpeg)

SCALE: Project Path: Project Name: Drawing Path:

Project Number: 22223-Phase 04 AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

Xref DWG FILE.

Sheet Number: **57** of **60** sheets

![](_page_57_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\58 INTERSECTION DETAILS (2 OF 4).dwg By: Luis Botello Date: 4/4/2022 1:05 AM

![](_page_57_Figure_2.jpeg)

SCALE: Project Path: Project Name: Drawing Path: Xref DWG FILE.

Project Number: 22223-Phase 04 AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

0 10 20 Feet

Sheet Number: 58 of 60 sheets

![](_page_58_Figure_0.jpeg)

File Name: P:\22000-22999\22223 Joe Owen NW WMCO MUD#2\04-NORTHSIDE\CAD\Plans\PARMER RANCH 09 & 10\59 INTERSECTION DETAILS (3 OF 4).dwg By: Luis Botello Date: 4/4/2022 1:10 AM

![](_page_58_Figure_2.jpeg)

↓ 10 20 Feet

SCALE: Project Path: Project Name: Drawing Path:

Project Number: 22223-Phase 04 AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

Xref DWG FILE. Sheet Number: 59 of 60 sheets

![](_page_59_Figure_0.jpeg)

![](_page_59_Figure_3.jpeg)

STEGER BIZZELL INTERSECTION DETAILS (4 OF 4) PARMER RANCH PHASES 9 & 10 City of Georgetown 1978 S. AUSTIN AVENUE GEORGETOWN, TX 78626 TEXAS REGISTERED ENGINEERING FIRM F-181 TBPLS FIRM No.10003700 WEB STEGERBIZZELL.COM 512.930.9412 Williamson County, Texas SERVICES w >>ENGINEERS >>PLANNERS >>SURVEYORS DATE

APPROVED BY

1. SEE ACCESSIBILITY NOTES ON GENERAL

NOTES:

3.

NOTES SHEET 02. 2. SEE SHEETS 32 TO 34 FOR CITY OF GEORGETOWN STANDARD SIDEWALK AND RAMP DETAILS. ALL SIDEWALK IS FIVE FOOT WIDE UNLESS OTHERWISE NOTED.

> Project Number: 22223-Phase 04 SCALE: Project Path: Project Name: Drawing Path:

AS NOTED P\22000-22999\22223 Parmer Ranch CAD\Plans

Xref DWG FILE.

heet Number: **60** of **60** sheets