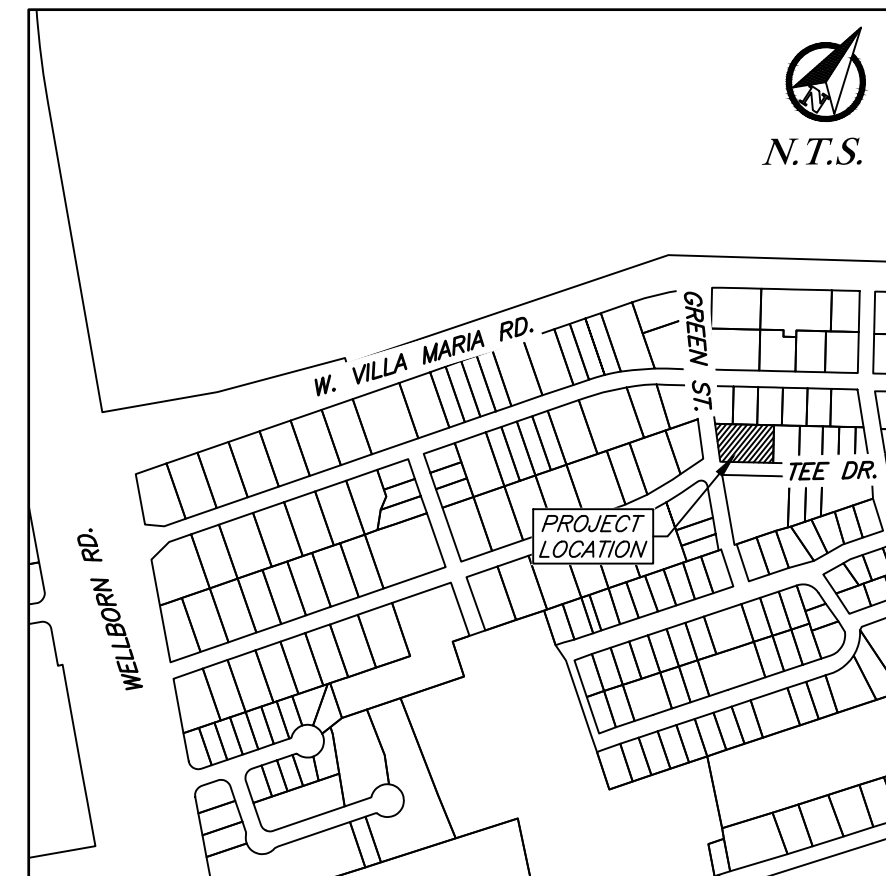


Tee Drive Townhomes

Country Club Estates Addition
Block D, Lots 1R-6R - 0.441 AC
Bryan, Brazos County, Texas



VICINITY PLAN

OWNER/DEVELOPER:

Optimal Housing Five, LLC
2529 Shenandoah Dr.
Bryan, TX 75701

ENGINEER:



Firm # 9951
PO Box 5192
Bryan, Texas 77805
979-739-0567

Sheet List Table	
Sheet Number	Sheet Title
C1	Notes
C2	Site Plan
C3	Pavement, Grading, & Detention Plan
L1	Landscape Plan
ST	BCS Unified Street Details
SW	BCS Unified Sidewalk Details



Know what's below.
Call before you dig.

**Preliminary Plans Only
Not for Construction**

This document is released for the purpose of interim review under the authority of Glenn Jones, P.E. 97600 on 30-Aug-23. It is not to be used for construction, bidding, or permitting purposes.

Released for Review

August 2023

General Notes:

- The contractor shall promptly notify the engineer of any discrepancies between these plans and other drawings of differing disciplines & specifications.
- The contractor is specifically cautioned that the location and/or elevation of the existing utilities as shown on these plans is based on records of the various utility companies and, where possible, measurements taken in the field. The information is not to be relied upon as being exact or complete. It is the contractor's responsibility to avoid all existing utilities and repair any damaged lines, at his own expense, whether the utility is shown on these plans or not. The contractor shall notify the appropriate utility company 48 hours prior to any excavation. The contractor shall also notify the engineer if design changes need to be made in the field.
- Contractor to verify all underground utilities in the field prior to construction.
- It is the responsibility of the contractor to comply with all state and federal regulations regarding construction activities near energized over head power lines.
- The contractor shall be responsible for the protection of all existing utilities or service lines that are crossed or exposed during construction operations. Where existing utilities or service lines are cut, broken, or damaged, the contractor shall repair or replace the utilities or service line with the same type of material and construction or better. This material and work shall be at the contractor's own expense.
- During the execution of the work, the contractor shall maintain the project site in an orderly and acceptable manner as far as practical. The contractor shall clean and remove from the project area all surplus and discarded materials, temporary structures, and debris of any kind and shall leave the project site in a neat and orderly condition. All clean up will be done to the satisfaction of the engineer.
- Contractor is responsible for OSHA established trench safety as described in the federal register 29 CFR Part 1926, a trench safety plan should be prepared and a "competent person" appointed prior to any and all excavating operations exceeding 5' depth. The plan is to be prepared and sealed by a registered Texas professional engineer and shall be submitted to the City of College Station and consulting engineer prior to any excavation on the project.
- A copy of the approved construction plans shall be kept on site at all times throughout the entire construction of the project. Contractor shall maintain a set of redline drawings, recording as-built conditions during construction. These redline marked up drawings will be submitted to the design consultant who will make the changes on the original tracings, labeling each sheet in the set as "record drawings".
- The contractor shall be responsible for safeguarding and protections all material and equipment stored on the jobsite. The contractor shall be responsible for the storage of materials in a safe and workmanlike manner to prevent injuries, during and after working hours, until project completion.
- Contractor to store materials at location(s) approved by & coordinated with the owner. Equipment is to be stored overnight at locations so as not to block streets or drives. Materials are to be protected from damage by the elements.
- Contractor shall saw cut remove and replace concrete pavement, and curb & gutter as required to construct proposed improvements.
- It shall be the responsibility of the contractor to pay for and obtain all required permits and inspection approvals for all work shown.
- Any adjacent property and right-of-way disturbed during construction will be returned to their existing condition or better. The contractor agrees to repair any damage to the public right-of-way in accordance with the standards of the applicable regulatory agency.
- All exposed dirt surfaces shall be seeded, hydro-mulched, or sodded.
- The contractor shall not create a dirt nuisance or safety hazard in any street or driveway. The pavement be cleaned daily.
- Adequate drainage shall be maintained at all times during construction and any drainage ditch or structure disturbed during construction shall be restored to existing conditions or better.
- The contractor shall coordinate all fence removal and replacement with the Owner.
- The contractor shall protect all monuments, iron pins, and property corners during construction.
- The contractor must provide construction staking from the information provided on the plans.

General Utility Note (Private & Public):

- All excavation for underground utilities shall be made true to grade. Excavation shall be made a minimum of six inches below the required grade and provide a sand bed for the piping. Backfill over piping shall be made with earth or fill sand, free of debris, and shall be tamped by hand or mechanical means to the density of the adjacent undisturbed earth or to 95% standard proctor density (ASTM D698), which ever is greater. All trenching and excavation shall be done in strict accordance with current OSHA requirements and all other applicable safety codes and standards.
- Minimum bury or cover specified is to be measured from finish grades. Where utility line extend under pavement, the bury or cover shall be measured from the bottom of the structure.
- Utility installations in non-structural areas shall be bedded and initial backfill consistent with non-structural requirements. In structural areas (i.e. under foundations, pavement, walks, etc.) the utility shall be bedded and initial backfill with cement stabilized sand. Final backfill in these areas shall be compacted by mechanical tamping to structural compaction requirements.
- Regardless of elevations shown for manhole rims, clean-outs, covers, or grates, these items shall be placed flush with the pavement elevations and slopes. Manholes and clean-outs not in pavement areas shall be set 3 inches above the finish grade.
- Contractor shall uncover existing utilities at all "points of interest" to determine if conflicts exist before commencing and construction. Notify the engineer at once of any conflict.
- The contractor shall coordinate all utility installation so that grade critical elements (i.e. storm drain, sanitary sewer, etc.) do not conflict with non-grade critical elements (i.e. electrical conduit, water services, etc.).
- The contractor shall furnish all materials, equipment, and labor for excavation, boring, installation, and backfilling of utility lines and relates appurtenances, as shown on the plans.
- The loading and unloading of all pipe and other accessories shall be in accordance with the manufacturer's recommended practices and shall, at all times, be performed with care to avoid any damage to the material. The contractor shall locate and provide the necessary storage areas for materials and equipment.
- Contractor shall be responsible for coordinating all connections to public systems and installations with regulatory inspectors.
- This project shall be built by means of open cut except as noted on the drawings. Contractor to determine the locations of bore pits in the field subject to the inspector's approval.
- Structural backfill will be required for all excavation within 5 feet of public roadway pavements or walks.

Private Utility Notes:

- The contractor shall install the proposed private utility lines in accordance with local codes, latest national plumbing code, and all applicable state and local laws. Other private or public utilities shall be installed in accordance with the utility company's specifications. Should these drawings or specifications differ with other utility company's specifications, the stricter of the two shall apply.
- It shall be the responsibility of the contractor to pay for and obtain all required permits and inspection approvals for all work shown.
- The contractor shall coordinate all installations of service lines, conduits, meters, etc., with the appropriate utility company.

Water Line Notes (Public & Private):

- All domestic water line pipe shall be constructed out of PVC (Sch 40). Public or fire water line pipe shall be constructed out of C900-DR14 and public services shall be copper.

Storm Sewer Notes (Private):

- All 15 inch to 42 inch storm sewer pipe, shall be constructed out of reinforced concrete pipe (RCP), C443 ASTM C76, Class III except as noted.
- All 6 inch to 12 inch storm sewer pipe, except as noted, shall be HDPE. SDR-35, ASTM D-3034, PVC pipe may be used in place of HDPE pipe.
- Contractor shall provide a minimum of 12 inch clearance at storm sewer and water line crossings and a minimum of 6 inch clearance at storm sewer and sanitary sewer crossings.
- Unless otherwise specified, the contractor shall install all storm sewer pipe in accordance with the trench detail contained in these construction drawings.

Demolition & Construction Notes:

- Demolition of existing structures and improvements shall include all work contained on these plans, but shall not be limited to the items specially identified. Any materials to be demolished or cleared shall be completely removed and disposed of. This work will not only consist of above ground items, but underground elements as well, including but not limited to: tree roots, foundation systems, old pipes, etc. The contractor shall notify the engineer of any additional items that require demolition, not identified on these plans, prior to removal.
- It shall be the responsibility of the contractor to stage and sequence all demolition work with utility companies to provide minimal interruption and inconvenience of utility services.
- Demolished surplus material shall be legally disposed of off-site.
- All pavement edges, bounding the construction area & matching with new construction, shall be neatly sw cut, unless gravel. Flexible pavement shall be saw cut a minimum of 24" beyond any proposed structures.
- The contractor shall clear all right-of-ways and easements contained in these construction drawings.
- The contractor shall field verify and locate all existing utilities on site prior to demolition.
- The contractor shall perform demolition activities as noted and shown on these plans and as directed by the owner/ developer.
- It shall be the responsibility of the contractor to obtain any permits and pay any fees required for demolition and disposal from the appropriate authorities.
- The contractor shall install all erosion and sediment control devices prior to commencing demolition work.
- The contractor is responsible for the protection of all utilities that are to remain in place.
- The contractor shall take all precautions to avoid damage to any existing road surface.
- All existing items that are to remain in place which are damaged during construction shall be restored to original condition, or better, at the sole expense of the contractor.
- Should any existing utilities not shown or shown incorrectly on this plan be found on site, the contractor shall contact the engineer immediately to discuss any possible conflicts before proceeding with any work in that area.
- An asbestos survey must be performed prior to the demolishing of any structures. The contractor shall adhere to the requirements set forth in the asbestos survey and report.

Dimensional Control Notes:

- The contractor may obtain an electronic copy of these plans for construction purposes. The electronic file and information generated, by J4 Engineering (J4E), for this project is considered by J4E to be confidential. When issued, it's use is intended solely for the individual or entity to which it is addressed. The material is intended for use by the recipient named, only, and permission is not granted to the recipient for distribution of these documents in any form or fashion. The recipient understands that this data is authorized "as is" without any warranty as to it performance, accuracy, freedom from error, or as to any results generated throughout its use. The recipient also understands and agrees that J4E, upon release of such data, is no longer responsible for their use or modification. The user and recipient of the electronic data accepts full responsibility and liability for any consequences arising out of their use.
- All dimensions shown are to be used in conjunction with these plans for locating all improvements and shall be field verified by the contractor for workability prior to construction of improvements.
- Unless otherwise shown, all dimensioning is to the back of curb or edge of pavement, which ever is applicable.

Grading Notes:

- All unpaved areas shall be adequately graded to drain at a minimum of 1.00% slope, unless otherwise noted, so that no ponding occurs.
- Unless otherwise specified, unpaved areas shall drain away from buildings so that the perimeter curb is a minimum 6" lower than the finished floor.
- Finish grade adjacent to curbing or sidewalk shall be 1/2" below the top of concrete and 2" below in landscaping areas.
- When top of curb elevations are shown, the curb height is 6" unless otherwise specified.
- The contractor shall follow the general intent of the grading plans. Minor adjustments to the actual elevations shown on the grading plan may be required to match existing ground elevations and structures.
- Adequate drainage shall be maintained at all times during construction and any drainage ditch or structure disturbed during construction shall be restored to existing conditions or better.
- The approval of these plans is not an authorization to grade adjacent properties. When field conditions warrant off-site grading, permission must be obtained from the affected property owner(s). Any adjacent property and right-of-way disturbed during construction will be returned to there existing conditions or better.

Erosion Control Notes:

- Erosion control measures shown in these plans shall be considered the very minimum required. It shall be the responsibility of the contractor to implement all other erosion control measures (diversion berms, drainage structures, swales, additional fencing, etc.) necessary to keep the existing improvements and developments from damage of any kind, during all phases of demolition and construction.
- The site operator, or his representative established by a letter of delegation, shall make a visual inspection of all siltation controls and newly stabilized areas on a daily basis, especially after a rainfall to insure that all controls are maintained and properly functioning. Any damaged controls shall be repaired or replaced prior to the end of the work day, including re-seeding and mulching or re-sodding, if necessary.
- All sediment trapping devices shall be installed as soon as practical after the area has been disturbed. All sediment trapping devices shall be cleaned when sediment level reaches 25% capacity. Sediment shall be disposed of by spreading on site or hauling away if not suitable for fill.
- During construction, contractor shall maintain best management practice (bmp). Sediment fence, hay bale barriers, or other devices shall control all storm water leaving the site.

- The contractor shall be responsible for establishing temporary erosion control measures as required for different phases of construction. Erosion control measures shown may need to be adjusted to handle increased or concentrated flows created by various stages of construction.
- Phase II erosion control measure measures shall be implemented immediately after construction of their associated improvements. Inlet protection barriers shall be constructed with hay bales or silt fencing. Inlets located in pavements areas shall be protected with sand bags, replacing the hay bales or silt fencing once the pavement is in place. Erosion control measures shall be kept in place until upstream drainage areas are fully stabilized.
- The contractor is responsible for removing sediment control devices after the site has been seeded and/ or sodded, and ground cover has taken root.
- The contractor shall take all necessary measures to ensure that all disturbed areas are stabilized. Designated areas shall be block sodded and all other areas disturbed due to construction shall be hydro-mulched seeded. These stabilized areas shall be sodded or seeded, fertilized, and watered to establish a solid ground cover within 30 days of completion or if activities cease for 14 days.
- When hydro-mulching is required, contractor shall keep mulch moist after installation and until area shows growth.
- Erosion control measures shall be implemented prior to any excavation or demolition work.

Sidewalk Construction

- Sidewalks shall be doweled into and tie to any concrete structure adjacent to sidewalk (driveway, inlet box, curb) #4 x 12" bars @ 18" O.C.
- ADA ramps shall be constructed per the ambulatory ramp details on the pavement plan shown in these plans. All ramps shall have a detectable warning surface for the full length of the ramp.

Paving Notes:

- The pavement system shown was designed without the aid of a geotechnical investigation. Due to the plastic soils within this area, some differential movement may still occur due to seasonal soil moisture variations.
- Sub-grade**
 - Existing trees, stumps, and large tree systems, shall be grubbed and removed. Vegetation shall be removed and the top 6 inches of top soil and sub-grade stripped from the areas to be covered by the proposed improvements.
 - Paving areas shall be proof-rolled with a 20 ton roller and, if required at the time of construction, the contractor shall stabilize weak areas by over excavation and backfilling.
 - Materials excavated on site, excluding the top 6 inches, may be used as fill material, under pavement areas only, if the material is free from trash, lumps, clods, organic substance, & other foreign matter.
 - Fill material shall be placed in eight inch maximum loose lifts, with each lift wetted or dried to a moisture content range of 0% to 43% of the optimum moisture content and compacted to a uniform density of 95% of the maximum dry density as determined by ASTM D698.
 - Compaction test, for fill, shall be verified by in-place density test for each lift. One in-place density test shall be performed for every 4,000 SF with a minimum of 3 tests being performed, per lift.
- Asphalt**
 - All asphalt paving shall be hot-mix asphalt cement (HMAC), Type D P64-22, in accordance with TxDOT Item #340.
 - No more than 20% RAP shall be used with HMAC mix design.
 - Limestone base shall be prime coating with RC-250, MC-30, CRS-1P/2P, or approved equal in accordance with TxDOT Item #300 and Item #310.
- Portland Cement Concrete**
 - All concrete, unless otherwise specified, shall have a minimum compressive strength of 3,500 psi at 28 days for pavement and 3,000 psi at 28days for non-pavement applications (i.e. sidewalks, drainage flumes, and containment structures).
 - All concrete shall be vibrated when placed and not raked a distance greater than 10 feet.
 - Unless otherwise noted, joint spacing shall not exceed 15 feet in any direction to another joint or edge of pavement. Control joints shall be cut between 4 and 18 hours after placement of concrete and may be substituted with construction joints. If provided, the contractor shall follow the general intent of the joint plans shown.
 - Expansion joints shall not exceed a maximum spacing of 45 feet and should not be placed through the middle of area inlets or junction boxes located in the pavement. All area inlets or junction boxes, located in pavement area, shall be installed with isolation joints between the structure and the pavement.
 - All joints shall be sealed with Sonoborn Sonolastic SL-1, or an approved equal.
 - Concrete shall not be placed if the air temperature is 50° F and falling or 95° F or higher. Concrete may be placed if the air temperature is 40° F and rising or less than 95° F.
- Steel**
 - All reinforcing steel shall be deformed billed steel bar having a minimum yield strength of not less than 60 KSI conforming to ASTM A615, Grade 60.
 - All reinforcing steel shall be free from rust or other bond reducing agents.
 - All splices in pavement and curbing steel shall be staggered and lapped 30 inches times the bar diameter or 12 inches, whichever is greater.
 - Concrete coverage for the reinforcing steel shall comply with the ACI code, latest edition. The steel shall have a minimum 1 1/2 inch clearance.

Gas Company Notes:

- At all underground gas utility crossings, the contractor shall give the appropriate utility company a minimum of 72 hours notice so that their field representative may be present.
- Eighteen (18) inch clearance shall be maintained between the proposed utility and the existing underground gas line. This clearance shall be measured form outside of pipe to outside of pipe, or sleeving, whichever is more conservative.
- For excavation near the underground gas line(s), the contractor shall cover, or remove, the bucket teeth of the excavator. The final thirty-six (36) inches surrounding the gas line shall be excavated by hand digging.

Traffic Control Notes:

- Contractor shall provide and install traffic control devices in conformance with part VI of the Texas Manual on Uniform Traffic Control Devices (Texas MUTCD, most recent edition with revisions) during construction.
- Lane closure will not be allowed unless approved by the TxDOT or COB representative, as applicable.
- The work shall be completed such that the roadway will be fully opened to traffic overnight. Overnight lane closures will not be permitted, unless otherwise approved by the applicable engineer.
- Plastic drums shall be used for overnight delineation of off roadway work areas.

Legend			
Line Types			
	W-B	Existing Water Line, Size Noted	
	W-6	Proposed Water Line, Size Noted	
	W	Existing Water Service	
	W	Proposed Water Service	
	S-B	Existing Sanitary Sewer Line, Size Noted	
	S-B	Proposed Sanitary Sewer Line, Size Noted	
	S	Existing Sanitary Sewer Service	
	S	Proposed Sanitary Sewer Service	
	ST	Existing Storm Sewer Piping	
	ST	Proposed Storm Sewer Piping	
	GAS	Existing Natural Gas Line	
	GAS	Proposed Natural Gas Line	
	UE	Existing Underground Electrical Line	
	UE	Proposed Underground Electrical Line	
	AE	Existing Aerial Electrical Line	
	AE	Proposed Aerial Electrical Line	
	T	Existing Underground Telephone	
	T	Proposed Underground Telephone	
		Existing Contour, Elevation Noted	
		Proposed Contour, Elevation Noted	
		Existing Easement	
		Proposed Easement	
	SILT	SILT Fence	
		Existing Chain Link Fence	
		Proposed Chain Link Fence	
	XXX	Existing Wire Fence	
	//	Existing Board Fence	
	//	Proposed Board Fence	
Symbols			
	Hydrant		Storm Grate Inlet
	Water Valve		S.E.T.
	Water Manhole		Sewer Manhole
	Water Meter		Sewer Clean-Out
	Phone Pedestal		Mail Box
	Sign		Power Pole
Abbreviations			
TP	Top of Pavement	ROW	Right of Way
TC	Top of Curb	W/	With
TG	Top of Ground	W/OUT	With Out
TW	Top of Walk	S.E.W.	Sloped End Treatment
TI	Top of Inlet	BM	Bench Mark
TR	Top of Wall	TBM	Temporary Bench Mark
FL	Flow Line	SY	Square Yard
EG	Existing Grade	LF	Linear Foot
PG	Proposed Grade	CO	Clean Out
TS	Top of Step	O.C.	On Center
Min	Minimum	O.C.E.W.	On Center Each Way
Max	Maximum	PSI	Pounds per Square Inch
N.T.S.	Not to Scale	PVC	Polyvinyl Chloride
PI	Point of Inflection	RCP	Reinforced Concrete Pipe
PT	Point of Tangency	PVMT	Pavement
PC	Point of Curvature	H	Horizontal
Sch	Schedule	V	Vertical

Notes

General Notes:

- It is the intent of these plans to comply with all City of Bryan guidelines, details, and specifications.

Preliminary Plans Only
Not for Construction

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Released for Review

No.	Revision/Issue	Date

Firm Name and Address:

PO Box 5192 - Bryan, Texas - 77805
979-739-0567 www.J4Engineering.com
Firm # 9951

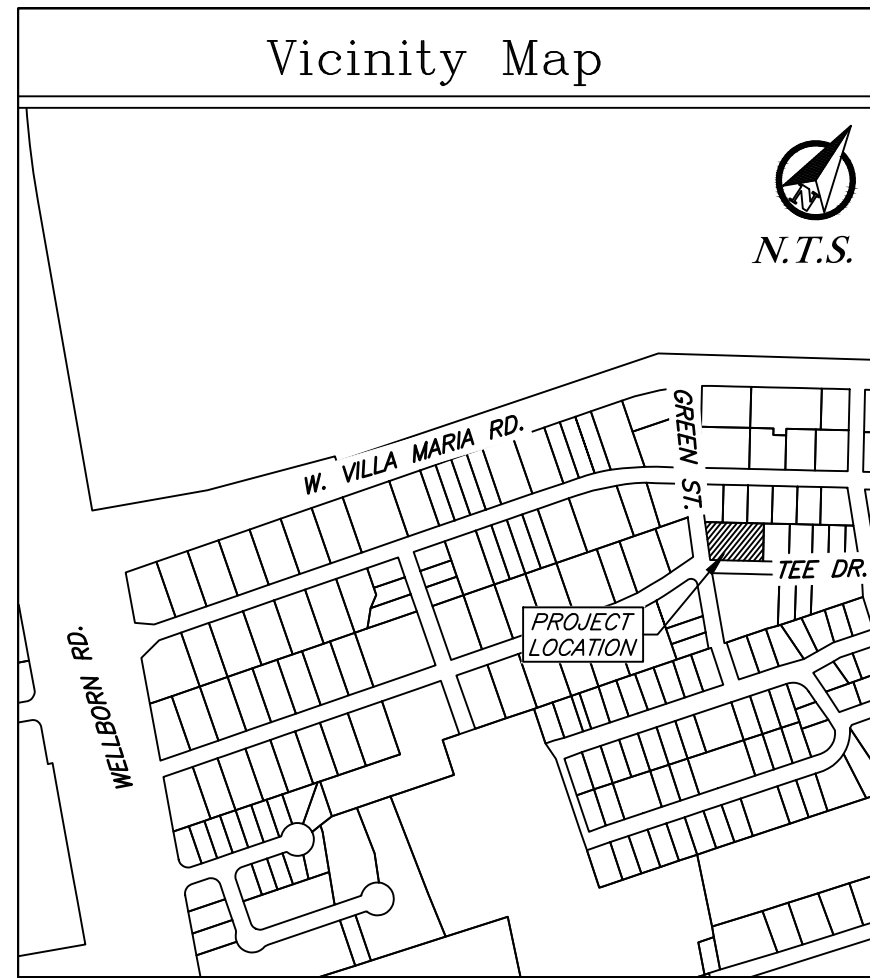
Project Name and Address:

Tee Drive
Townhomes

Country Club Estates Addition
Block D, Lots 10-13 -0.441 Acres

Bryan, Brazos County, Texas

Date: August 2023	Sheet:
Scale: As Noted	C1



NOTICE!

The contractor is specifically cautioned that the location and/or elevation of the existing utilities as shown on these plans is based on records of the various utility companies and, where possible, measurements taken in the field. The information is not to be relied upon as being exact or complete. It is the contractor's responsibility to avoid all existing utilities and repair any damaged lines, at his own expense, whether the utility is shown on these plans or not. The contractor shall notify the appropriate utility company 48 hours prior to any excavation.

Contact Information:

Texas One Call: 800-245-4545
 Lone Star One Call: 800-669-8344
 Texas Excavation Safety: 800-344-8377
 City of Bryan: 979-209-5900
 System (Digless): 979-821-5865
 Bryan Texas Utilities: 979-774-2506
 Atmos Energy: 979-821-4300
 Frontier: 979-846-2229
 Suddenlink: 979-846-2229

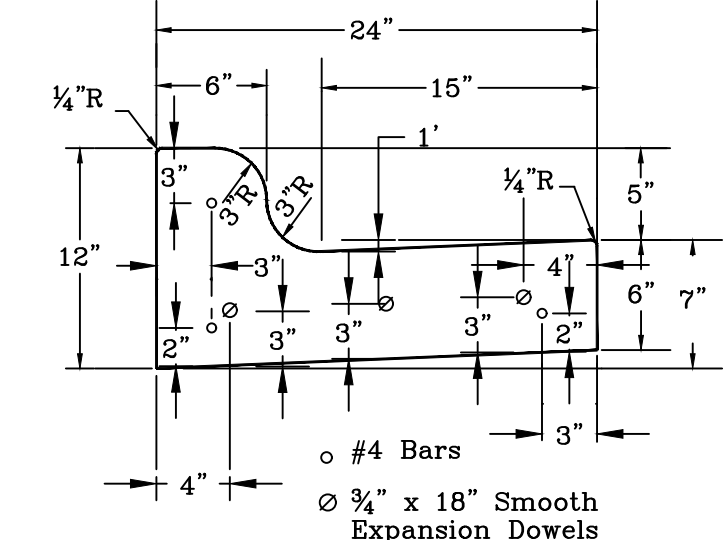
- Construction Notes:**
- All proposed sewer cleanouts that are to be placed within a concrete sidewalk shall be set at the same grade as the sidewalk and utilize a flush mount, brass cap, so that there are no tripping hazards.
 - All fill subgrade and base material shall be compacted to 98% STD in areas to be paved and 95% STD in all other areas.
 - All items to be removed during clearing and grubbing. Remove not only the above ground elements, but all underground elements as well. All excavated material shall become the property of the contractor unless otherwise directed by the Owner. All debris must be disposed of off site.
 - Prior to grading operations, contractor is to strip the first 6" of soil. Contractor shall proof roll the entire site and remove any unstable materials according to TxDOT Specifications. Select fill is to be used in replacing objectionable material.
 - Assure positive drainage across project site to the storm water structures.
 - The proposed limestone gravel pavement area shall follow the same detail and specifications as the asphalt parking lot, omitting the prime coat and asphalt-cement wearing surface. Limestone gravel surface shall be rolled smooth to finish grade.
 - Materials and methods for pavement markings shall conform to TxDOT Standard Specifications for Construction of Highways, Streets, and Bridges (current edition), with the following exceptions: 1) Type II marking materials need not be purchased from the Department, and 2) Glass beads may be omitted, but marking material shall be Type II paint-type material.
 - Fire Sprinkler System - potable water supply must be protected by testable double check valve assembly, and install as per City Ordinance.
 - Potable Water Protection - All devices, appliances, and apparatus intended to serve some special function and that connects to the water supply system, shall be provided with protection against backflow and contamination of the water supply system.
 - The Contractor shall be responsible for the containment and proper disposal of all liquid and solid waste associated with this project. The Contractor shall use all means necessary to prevent the occurrence of windblown litter from the project site.
 - Demolition/Construction Waste - Site is required to provide containment for waste prior to and during demolition/construction. Solid waste roll off boxes and/or metal dumpsters shall be supplied by City to permitted contractor(s) only.
 - Where electric facilities are installed, BTU has the right to install, operate, relocate, construct, reconstruct, add to, maintain, inspect, patrol, enlarge, repair, remove, and replace said facilities upon, over, under, and across the property included in the PUE, and the right of ingress and egress on the property adjacent to the PUE to access electric facilities.

- Site Specific Notes:**
- The owner of the property is Optimal Housing Five, LLC. The subject property is Block D, Lot 10-13 Bryan, Brazos County, Texas.
 - The proposed building is a Two-Story Type Vb without fire sprinklers totaling 6,375 SF, FF=334.5' & Height --.
 - The subject property is zoned, Residential 5000 District (RD-5).
 - Fire flow demand is 2250 gpm. The existing hydrants on Green Street and Tee Drive will provide the fire flow for this project.
 - No portion of this tract lies within a designated 100-yr floodplain according to the F.I.R.M. Maps Panel No. 48041C0215F, Revised Date, April 2, 2014.
 - The developed area for this project is 0.405 acres (17,662 SF).
 - Dumpster or solid waste service is proposed for the site.
 - All minimum building setbacks shall be in accordance with City of Bryan Ordinances.

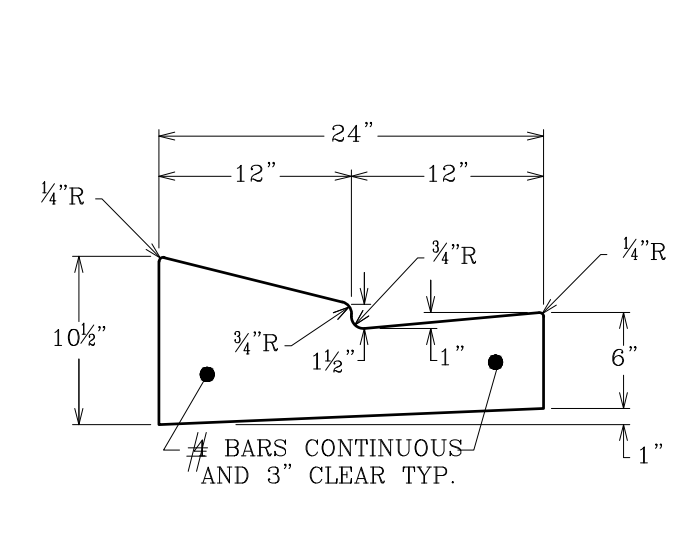
- Utility Notes:**
- Private water line and private sanitary sewer line construction shall be in accordance with the plumbing code. Cleanouts shall be installed per plumbing code.
 - Private water and sewer line service materials to be in accordance with plumbing code.
 - Contractor shall coordinate conduit and/or line installation for telecommunication providers for the site.
 - Depth of the existing water and sewer lines to be verified by the contractor.
 - Where electric facilities are installed, BTU has the right to install, operate, relocate, construct, reconstruct, add to, maintain, inspect, patrol, enlarge, repair, remove, and replace said facilities upon, over, under, and across the property included in the PUE, and the right of ingress and egress on the property adjacent to the PUE to access electric facilities.

Parking Analysis:

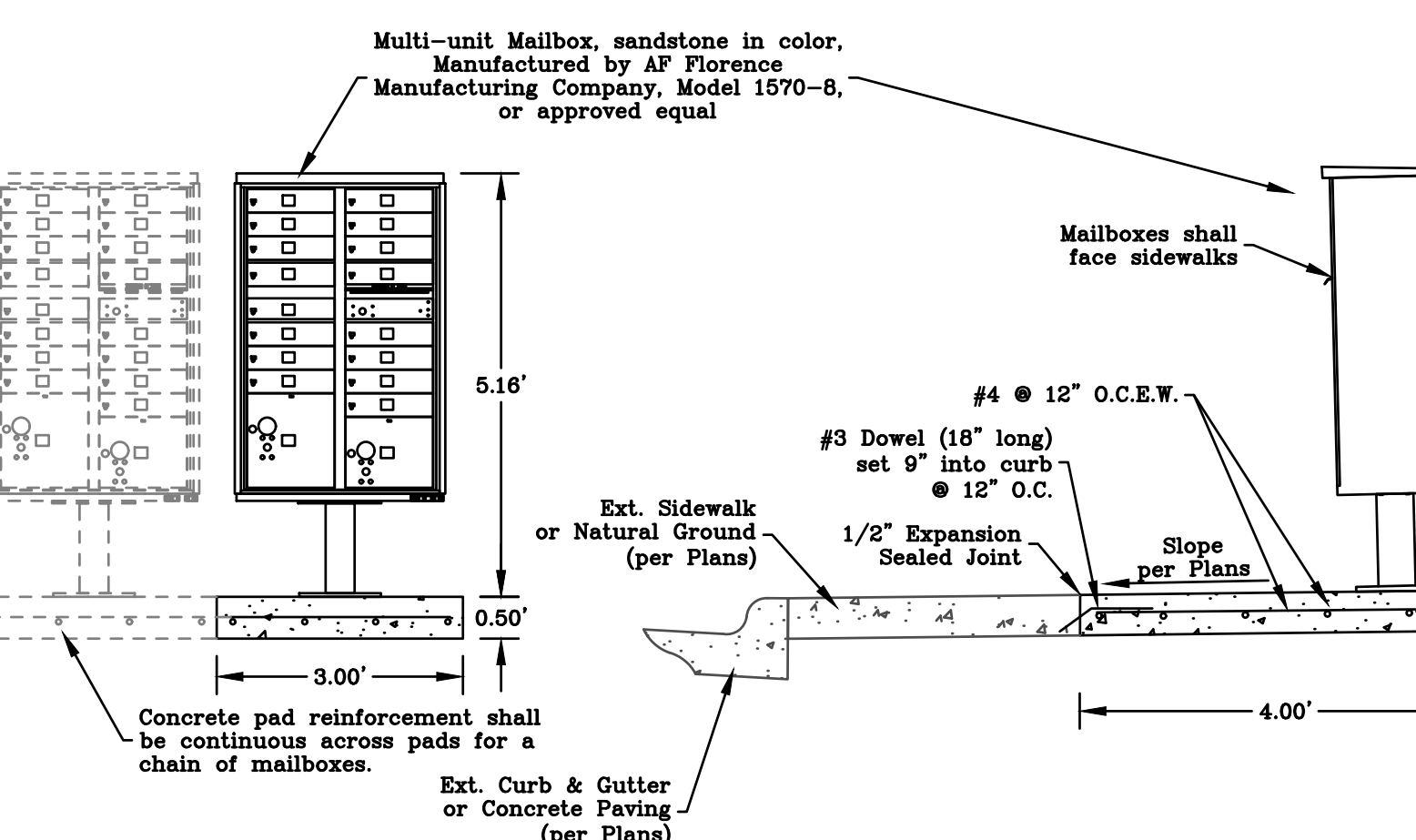
Proposed Improvements:	6 - 3 Bedroom Townhomes
New Required Parking:	18 - 1 Space per Bedroom
Total Proposed Parking:	18 - Straight in Parking 6 - Parallel Parking
	24 Total Parking



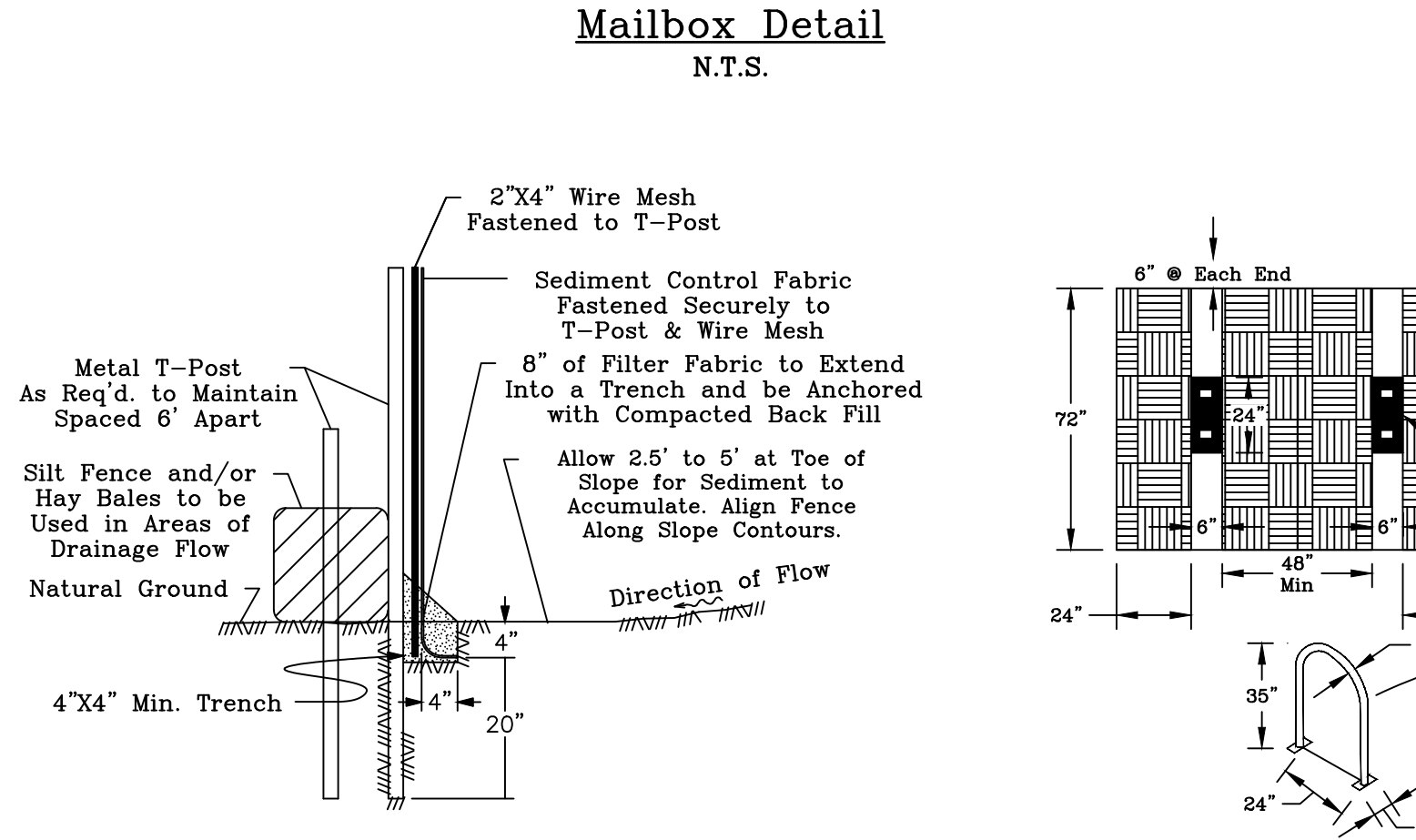
Driveway Raised Curb Detail
N.T.S.



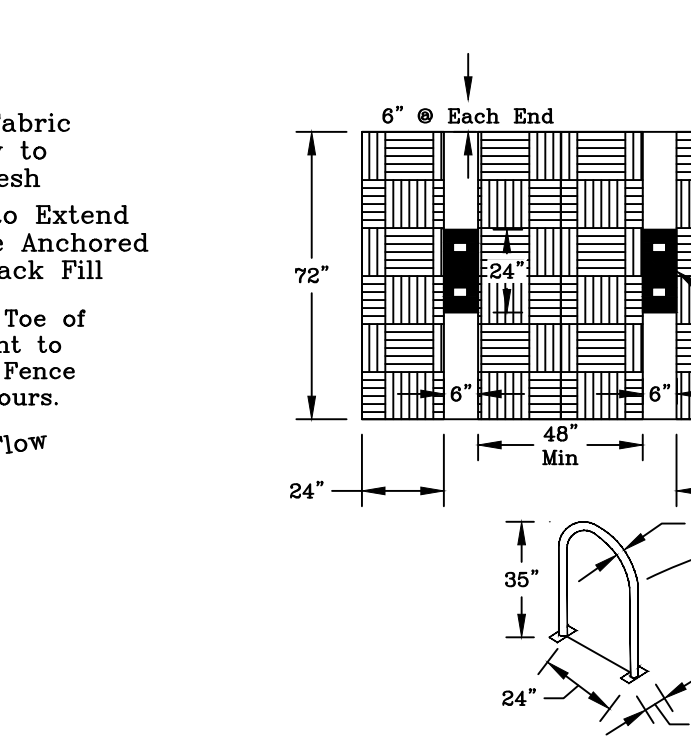
Lay Down Curb Detail
N.T.S.



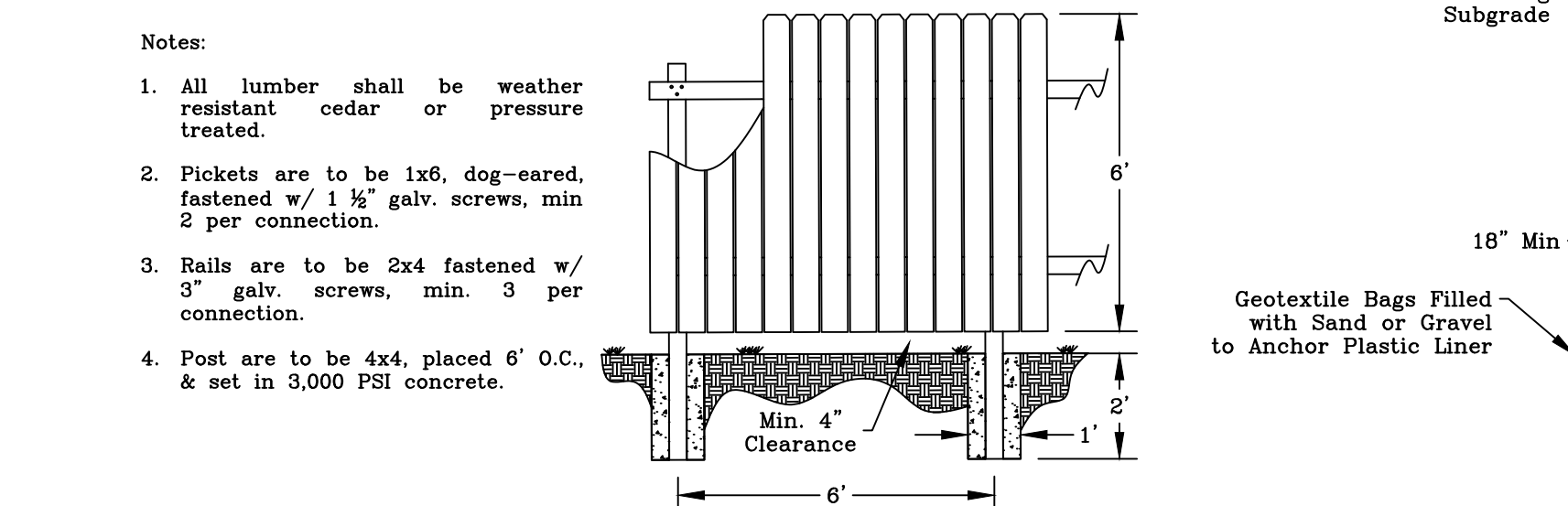
- Notes:**
- Concrete shall be 3,000 psi
 - Concrete pad to be placed on undisturbed soil or "select" material compacted to 95% Standard Proctor (ASTM D698) at 0 to 2% above optimum moisture.
 - Mailbox shall be secured to pad with anchor bolts as per manufacturer's recommendations.
 - Residential Mailbox openings shall face away from street.
 - Mailbox Bld items includes: mailbox, 3'x4'x8" reinforced concrete pad, and connection to curb.



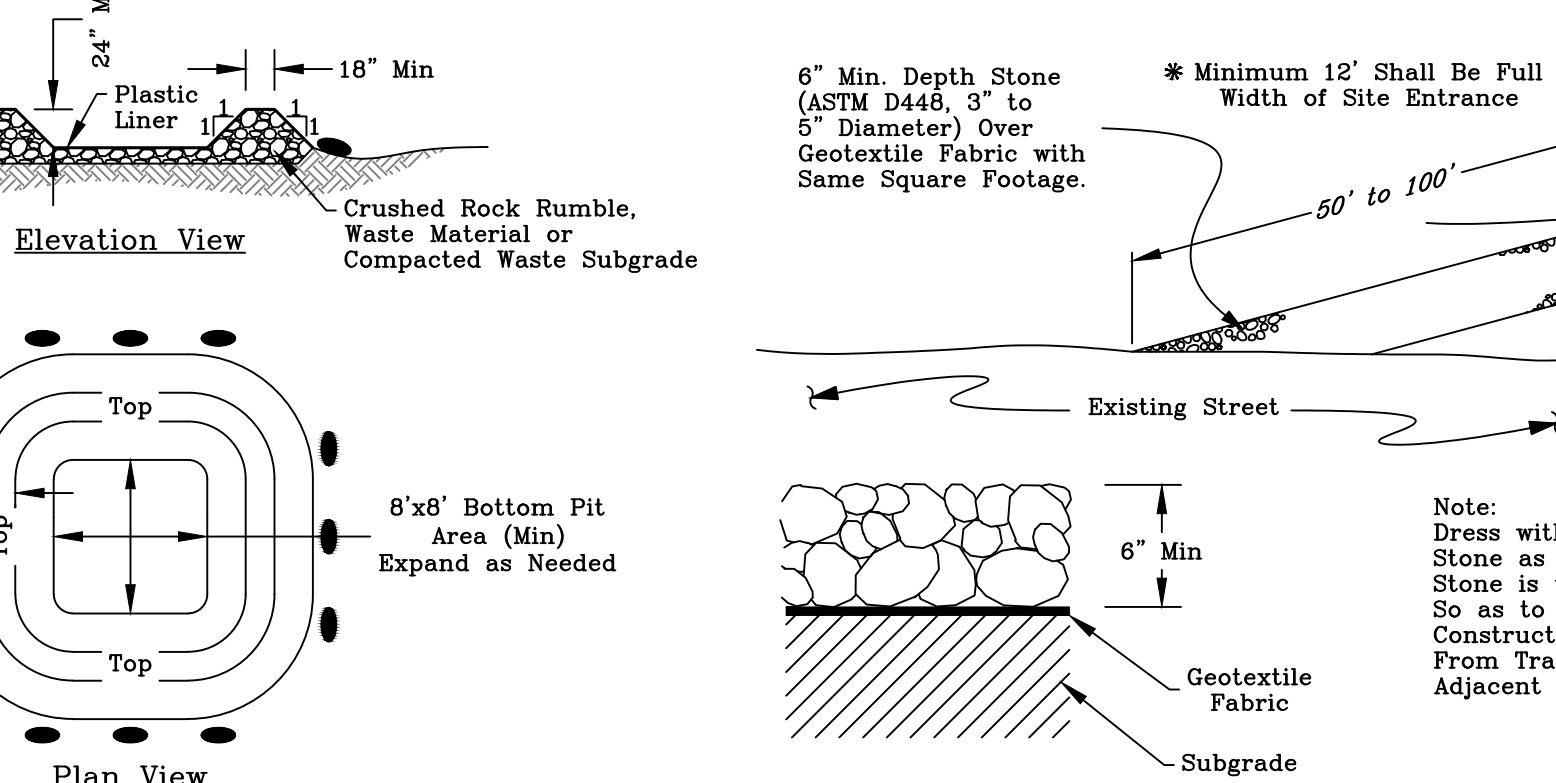
Silt Fence
N.T.S.



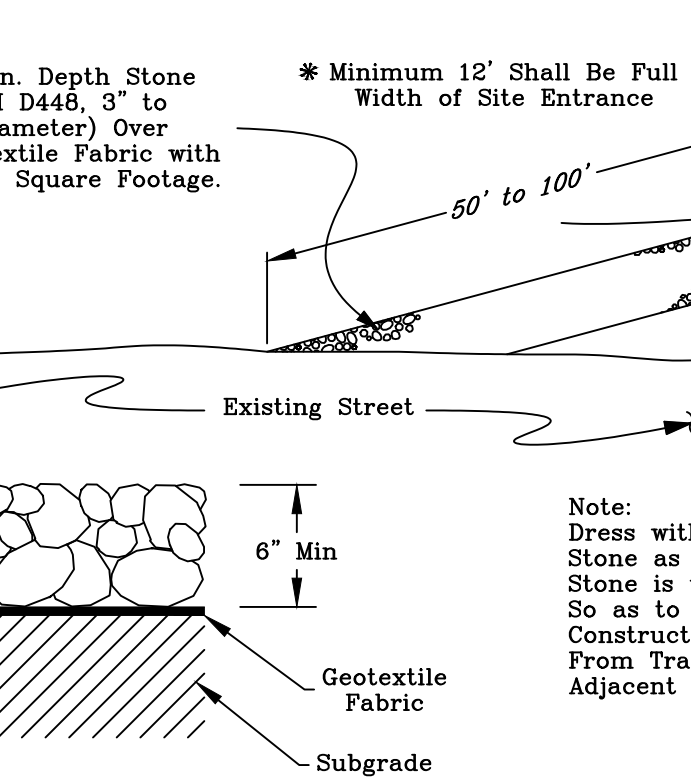
Bike Rack Detail
N.T.S.



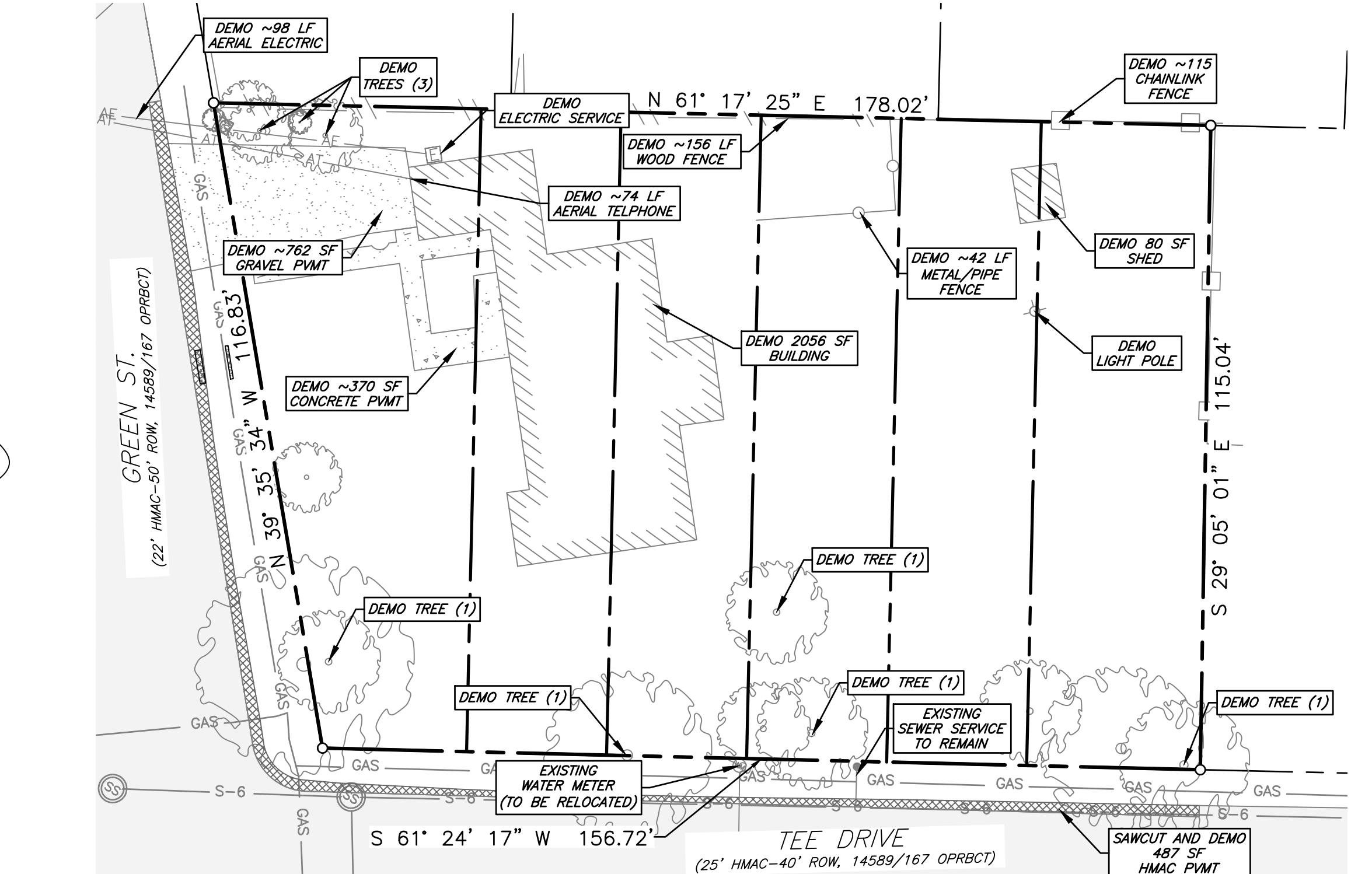
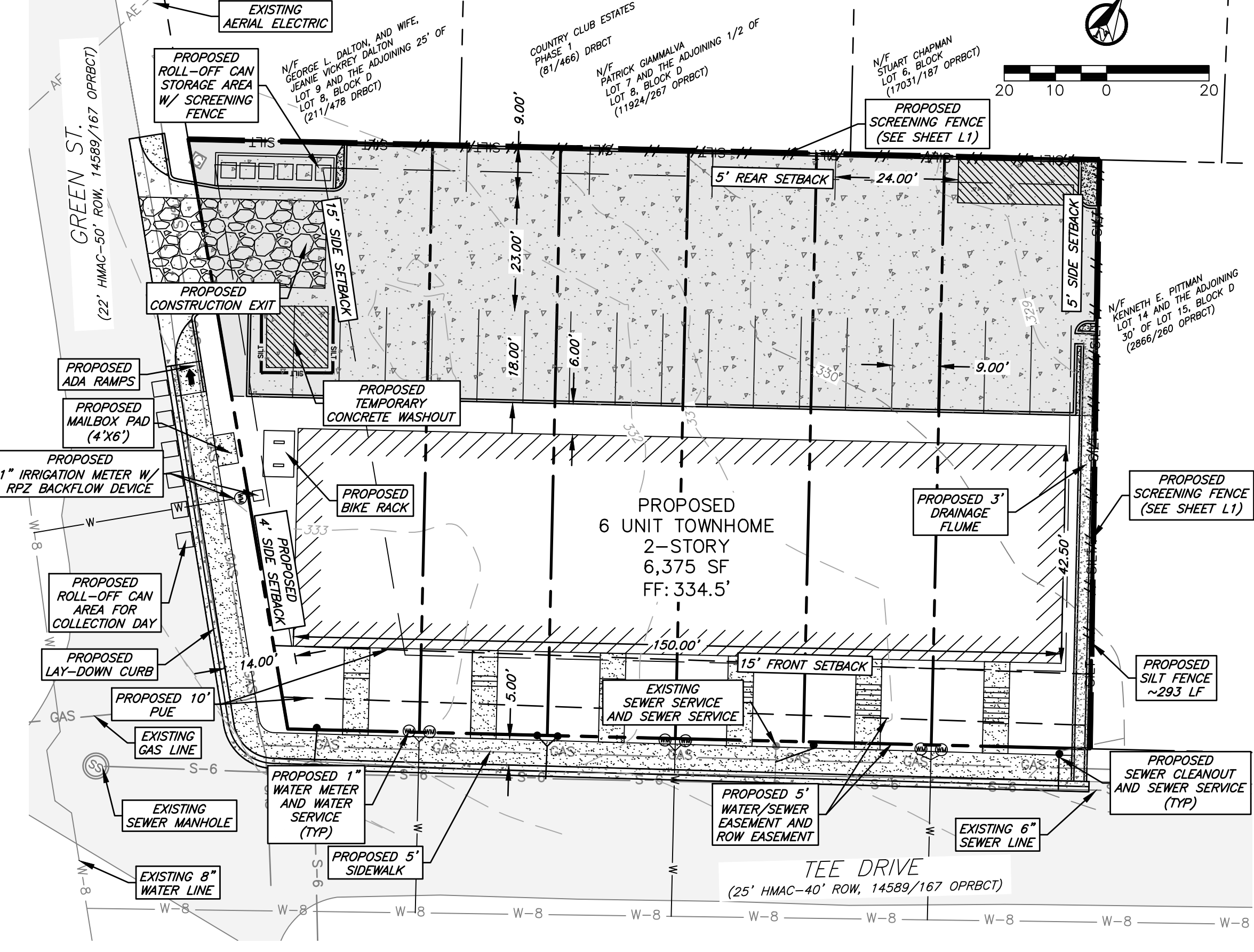
Dumpster Screening Fence
N.T.S.



Concrete Washout
N.T.S.



Construction Exit Detail
N.T.S.



Demo Detail
N.T.S.

Site Plan

General Notes:

- The topography shown is from field survey data.
- Refer to Final Plat for all lot dimensions and bearings.
- All utilities shown are taken from the best available information based on construction utility documents obtained by J4 Engineering from City and Independent agencies and/or above ground field evidence. Shown positions may not represent as-built conditions.
- The contractor shall be responsible for verifying the exact location of all existing underground utilities, whether shown on these plans or not. Notification of the utility companies 48 hours in advance of construction is required.
- All construction shall be in accordance with the current BCS Standard Specifications, Details, and Design Guidelines for Water, Sewer, Streets, and Drainage, unless otherwise noted.
- It is the intent of these plans to comply with all City of Bryan guidelines, details, and specifications.
- See Sheet C1 - General Notes.

Owner/Developer:
 Optimal Housing Five, LLC
 2529 Shenandoah Dr.
 Bryan, TX 77801

**Preliminary Plans Only
Not for Construction**

This document is released for the purpose of interim review under the authority of Glenn Jones, P.E. 97600 on 30-Aug-23. It is not to be used for construction, bidding, or permitting purposes.

Released for Review

No.	Revision/Issue	Date

Firm Name and Address:

PO Box 5192 - Bryan, Texas - 77805
 979-739-0567 www.J4Engineering.com
 Firm# 9951

Project Name and Address:

**Tee Drive
Townhomes**
 Country Club Estates Addition
 Block D, Lots 10-13-0.441 Acres
 Bryan, Brazos County, Texas

Date: August 2023	Sheet: C2
Scale: As Noted	

Paving Notes:

- All concrete for pavement construction shall be to the minimum depth shown on the plans and shall have a minimum 28-day compressive strength of 3,500 PSI. The maximum percentage of fly ash replacement of Portland cement shall be 20 percent by weight.
- Item 360 of the TxDOT "Standard Specifications for Construction and Maintenance of Highways, Street, & Bridges" shall be used as a technical specification for reinforced concrete pavement.
- Subgrade shall be stabilized per the "Subgrade Stabilization Table."
- The subgrade beneath the concrete sidewalks shall be compacted and "proof-rolled". Any weak or soft areas identified by the "proof-rolling" shall be removed and replaced.
- A sand leveling course under concrete pavement is NOT permitted.
- Joint sealant material to be Sonneborn SL-1 or approved equal.
- Curing compound shall be applied uniformly to the concrete after the surface finishing is complete at the rate recommended by the manufacturer. The curing compound shall meet the requirements of TxDOT Item 526.
- Contractor shall provide engineer with a proposed pavement expansion and contraction joint plan prior to pavement construction.
- See Sheet C1 - General Notes.

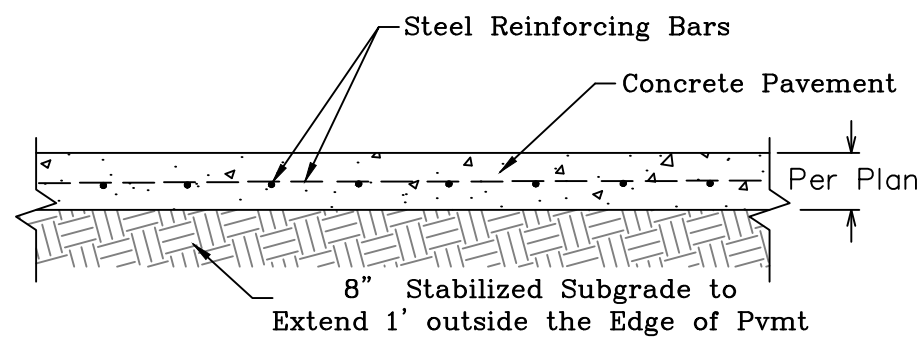
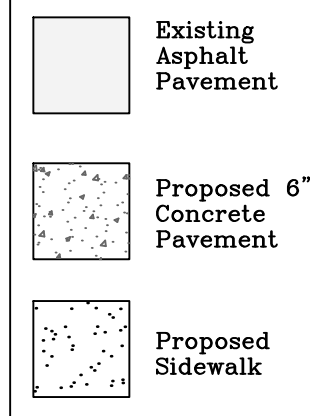
Subgrade Stabilization Table:

PI = Plasticity Index	LL = Liquid Limit	
If PI >20 and LL <35, Then Lime Stabilize Subgrade		
If PI >15 and LL >36, Then Lime Stabilize Subgrade		
If PI <5, Then Cement Stabilize Subgrade		
Acceptable soils other than those defined by the limits above, do not require stabilization.		
PI	% Required	Material
<5	5%	Cement
<25	5%	Lime
26-33	6%	Lime
34-40	7%	Lime
>40	Determined by ASTM C977 Lime	

Grading Notes:

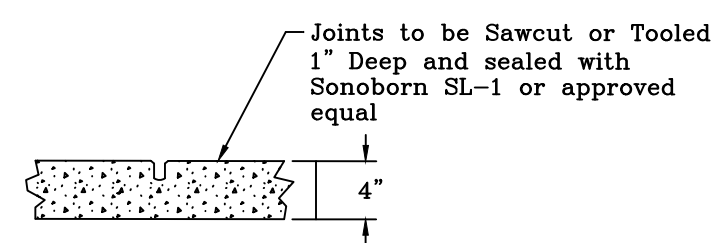
- Fill material used to achieve grade in areas to receive pavement or within the street right-of-way shall be compacted to at least 98% of the maximum dry density as determined by the standard proctor test, (ASTM D698), at a moisture content from optimum moisture content to 4% above the optimum moisture content. Areas outside of the street right-of-way shall be compacted to 95% of the maximum dry density.
- The subgrade beneath the concrete sidewalks shall be compacted and "proof-rolled". Any weak or soft areas identified by the "proof-rolling" shall be removed and replaced.
- ADA ramp slopes shall not exceed 1v:12h.
- The topography shown is from field survey data.
- Structural backfill for utility or storm drain trenches is required whenever the trench is within 5' of pavement or sidewalk.
- The contractor shall follow the general intent of the grading plans. minor adjustments to the actual elevations shown on the grading plan may be required to match existing ground elevations and structures. the proposed contour lines shown are approximate only, the design grade spot elevations should be used for construction of the site work.
- Refer to pavement plan for pavement construction details and notes.
- The contractor shall salvage all topsoil and replace it on all disturbed areas. all parking lot islands and areas adjacent to parking and sidewalk areas shall receive 6" sandy loam topsoil prior to placement of grass sod or hydromulch.
- The contractor shall field verify and locate all existing utilities on site prior to demolition.
- The contractor shall install all erosion and sediment control devices, as shown, prior to commencing demolition work.
- Should any existing utilities not shown or shown incorrectly on this plan be found on site, the contractor shall contact the design engineer immediately to discuss any possible conflicts before proceeding with any work in that area.

Legend

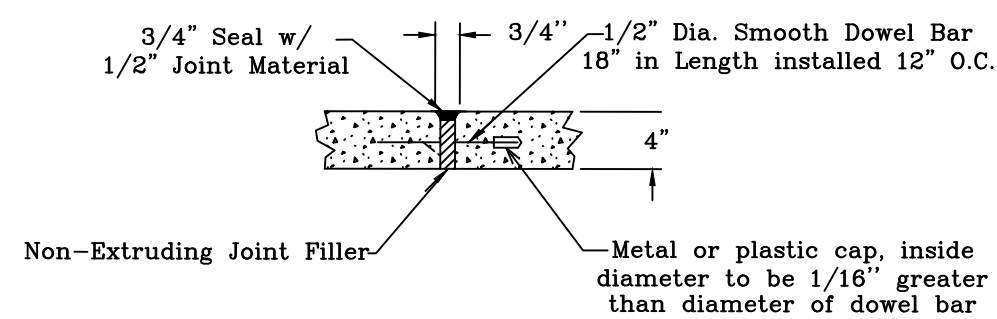


1. 6" Pavement - use #4 rebar @ 18" O.C.E.W.

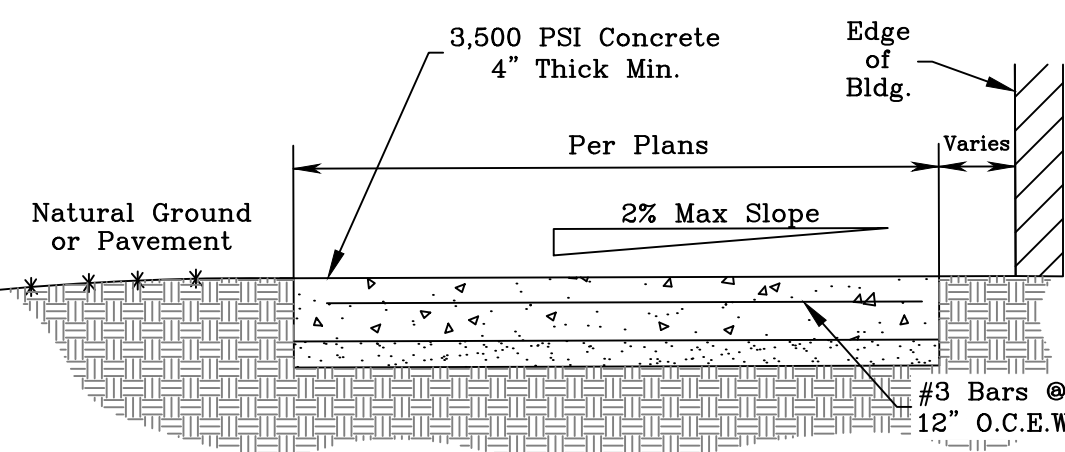
Typical Concrete Paving Section
N.T.S.



Contraction Joint Detail
N.T.S.



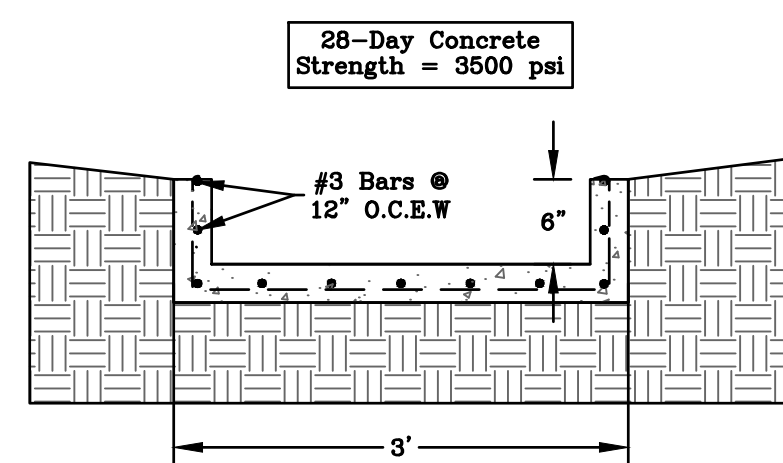
Expansion Joint Detail
N.T.S.



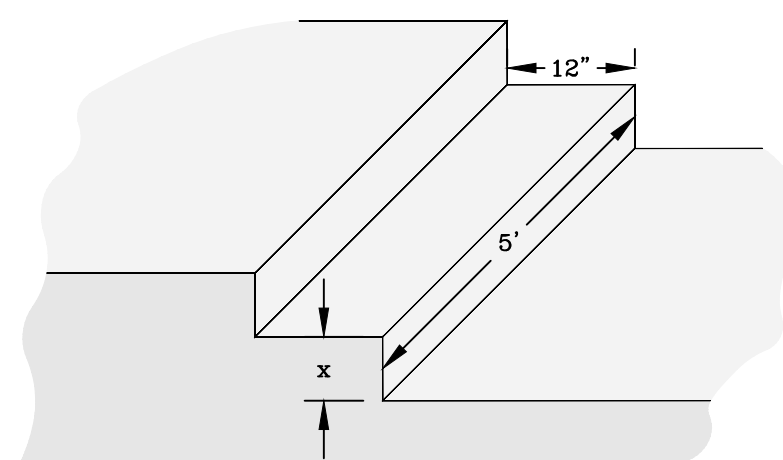
Note:

- Install expansion joints at 40' (max) longitudinal spacing and install contraction joints spaced at a maximum interval equal to the sidewalks width.
- All Sidewalks shall have a light broom finish.

Typical Sidewalk
N.T.S.



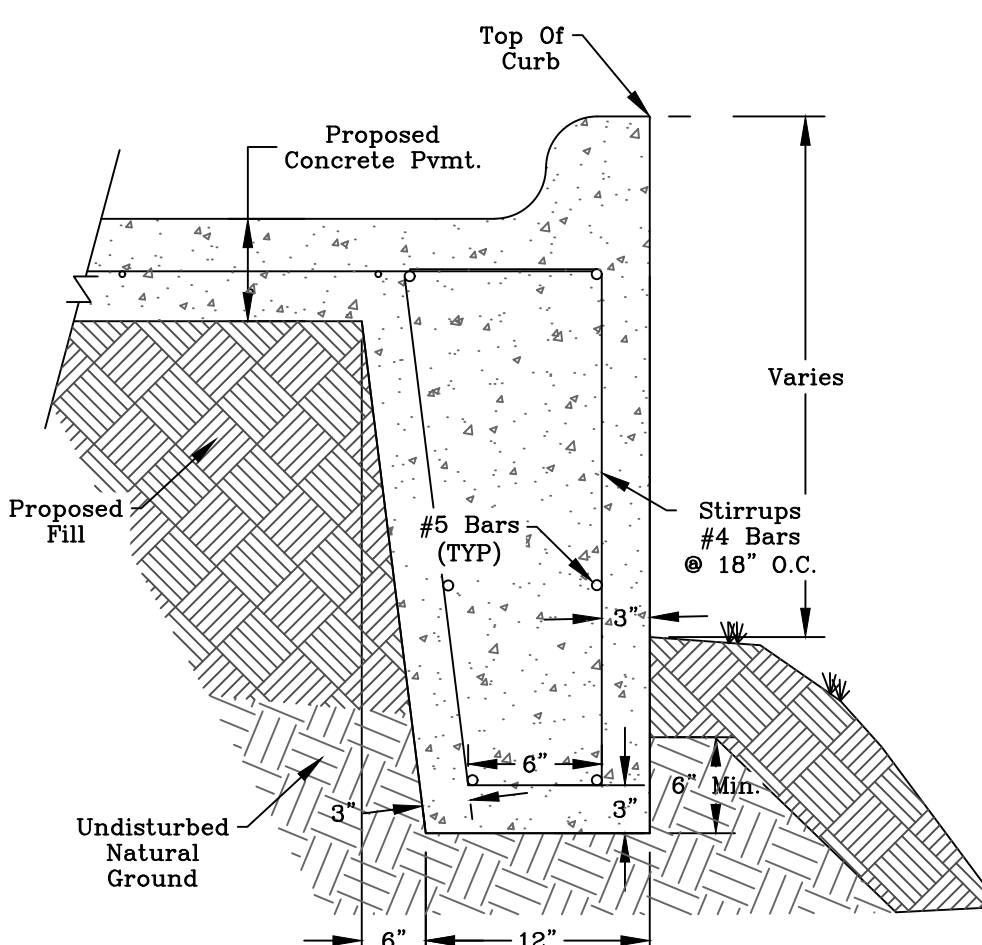
Storm Flume Cross-Section
N.T.S.



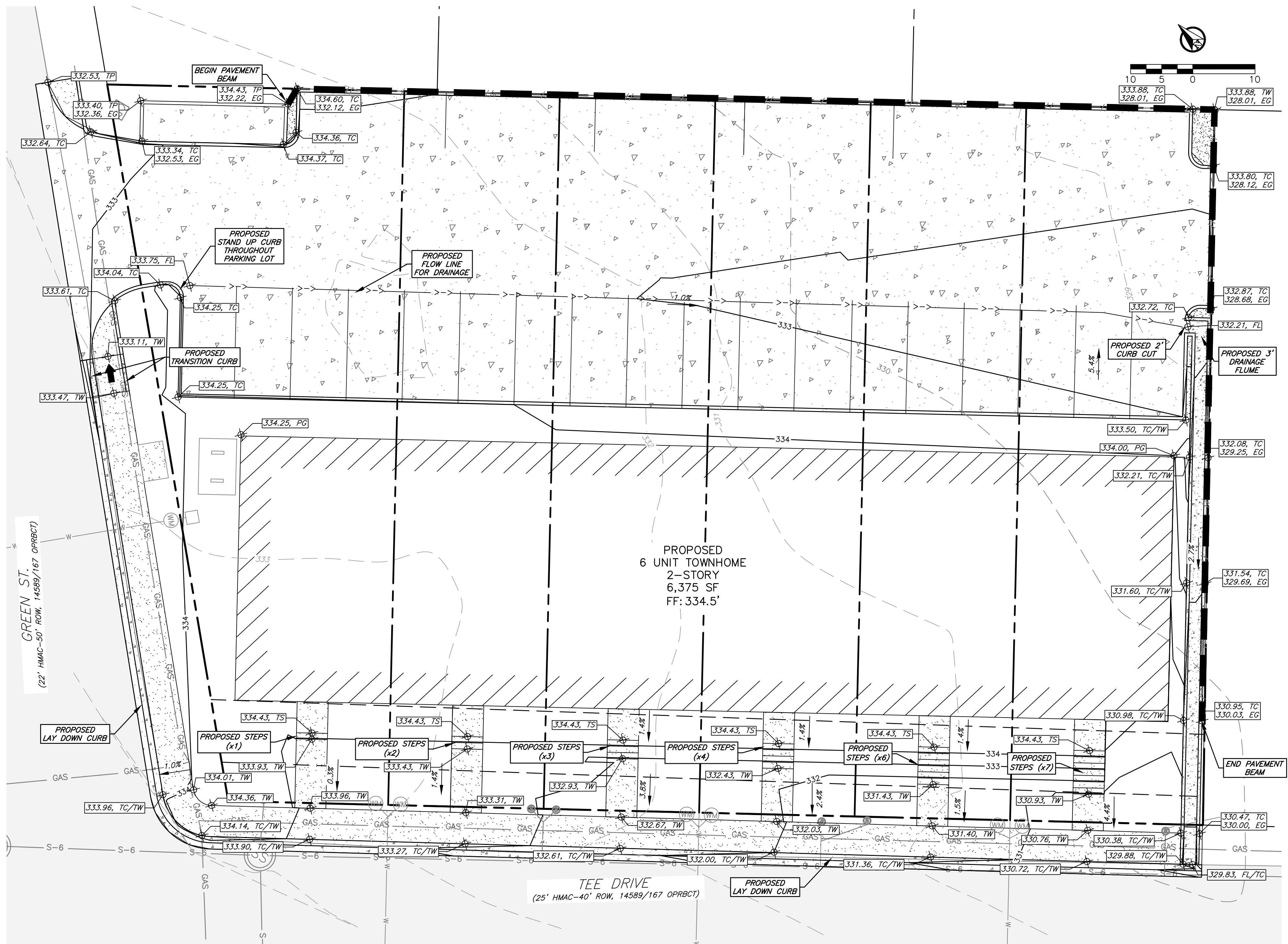
Notes:

- x varies from 5" to 7" as needed.

Typical Step Detail
N.T.S.



Pavement Beam Detail
N.T.S.



Pavement, Grading, & Detention Plan

General Notes:

- The topography shown is from field survey data.
- Refer to Final Plat for all lot dimensions and bearings.
- All utilities shown are taken from the best available information based on construction utility documents obtained by J4 Engineering from City and Independent agencies and/or above ground field evidence. Shown positions may not represent as-built conditions.
- The contractor shall be responsible for verifying the exact location of all existing underground utilities, whether shown on these plans or not. Notification of the utility companies 48 hours in advance of construction is required.
- Contractor is responsible for field verifying existing and proposed grades prior to any construction and reporting any inconsistencies to the Owner.
- All construction shall be in accordance with the current BCS Standard Specifications, Details, and Design Guidelines for Water, Sewer, Streets, and Drainage, unless otherwise noted.
- The contractor shall be responsible for the containment and proper disposal of all liquid and solid waste associated with the project and shall use all means necessary to prevent the occurrence of wind blown litter.
- It is the intent of these plans to comply with all City of Bryan guidelines, specifications & details.
- See Sheet C1 - General Notes

Preliminary Plans Only Not for Construction

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Released for Review

No.	Revision/Issue	Date

Firm Name and Address:

 PO Box 5192 - Bryan, Texas - 77805
 979-739-0567 www.J4Engineering.com
 Firm# 9951

Project Name and Address:
Tee Drive Townhomes
 Country Club Estates Addition
 Block D, Lots 10-13 -0.441 Acres
 Bryan, Brazos County, Texas

Date: August 2023 Sheet:
 Scale: As Noted **C3**

J4 Engineering 08/30/2023 Greens St. Townhomes-Site Plan.dwg J4 Project # 23-032

Landscape Notes:

- All trees shall be provided as container grown trees.
- All landscaping plant material shall be guaranteed for a period of thirty days from the date of installation by contractor. After thirty days, the owner will be responsible for maintenance of all landscaping.
- The property owner is responsible for regular weeding, mowing, fertilizing, and other maintenance of all plantings following acceptance from Contractor. The required landscaping must be maintained in a healthy, growing condition at all times.
- Plant material shown here is represented at its mature size. Plantings to be installed will be significantly smaller than those shown and should not be expected to reach maturity for several years dependant on growing conditions.
- Contractor is to seed all disturbed areas left unpaved and guarantee coverage of vegetation until establishment of grass. Grass type shall be Bermuda grass or Rye/Bermuda mixture.
- All water meters, hydrants, valves, manholes, and cleanouts, on or adjacent to the property, must remain accessible during construction and upon the completion of necessary grading and landscaping.
- "Cal." indicates caliper at 12" above the ground. Multi-trunk trees' caliper is measured with the single, largest cane.
- Existing Trees used for landscape credit must have a minimum trunk diameter of four and one-half inches or larger and be in a healthy physical state. Should existing trees used for landscape credit die, they shall be replaced with new trees according to the requirements of section 62-429(a)(3)c. Existing trees with a trunk diameter less than four and one-half inches may be given the same landscape credit as that given newly planted trees with similar characteristics.
- Replacement of dead landscaping shall occur within 90 days of notification. Replacement material must be of similar character as the dead landscaping. Failure to replace dead landscaping as required by the zoning official or his/her designee, shall constitute a violation of this article subject to the general penalty provisions of City Code section 1-14.
- To ensure the growth of trees in end islands, a minimum 24-inch soil depth and 250 cubic feet of appropriate planting medium is required per tree, with topsoil mounded to a center height.

Landscape Analysis:

Construction Activities:
Disturbed Area (Parking, Pavement, Sidewalk, Structures)


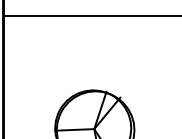
Net Total = 17,662 SF

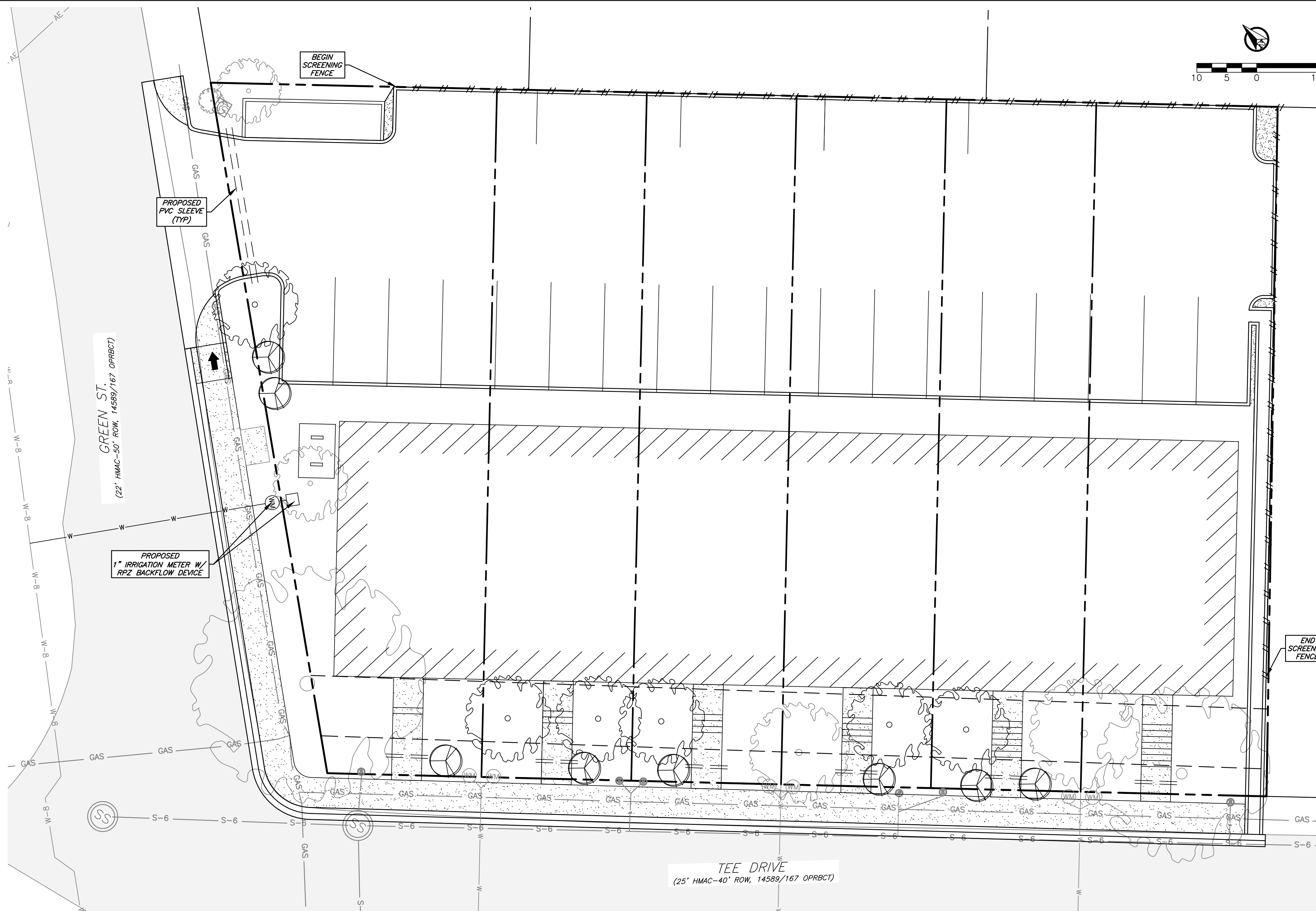
Requirements:

Disturbed Area = 17,662 SF @ 15%
Net Total = 2,650 SF

Provided:

Proposed Canopy Trees = 6 @ 250 SF = 1,500 SF
Proposed Non-Canopy Trees = 8 @ 150 SF = 1,200 SF
Net Total = 2,700 SF

Symbol	Qty.	Common Name	Botanical Name	Size
	6	Cedar Elm	Ulmus crassifolia	3" cal.
	8	Crepe Myrtle	Lagerstroemia indica	1 1/2" cal.



Landscape Plan

General Notes:

- An irrigation system to service all new plantings will be installed by a certified installer prior to a certificate of occupancy being issued.
- Irrigation system must be protected by either a pressure vacuum breaker, reduced pressure principle back flow device, or a double-check back flow device and installed as per city ordinance 2394.
- All backflow devices must be installed and tested upon installation as per city ordinance 2394.
- 100% coverage of groundcover, decorative paving, decorative rock(not loose) or a perennial grass is required in parking lot islands, swales and drainage areas, the parking lot setback, rights-of-way, and adjacent property disturbed during construction.
- It is the intent of these plans to comply with all City of Bryan guidelines, specifications, & details.
- See Sheet C1-General Notes.

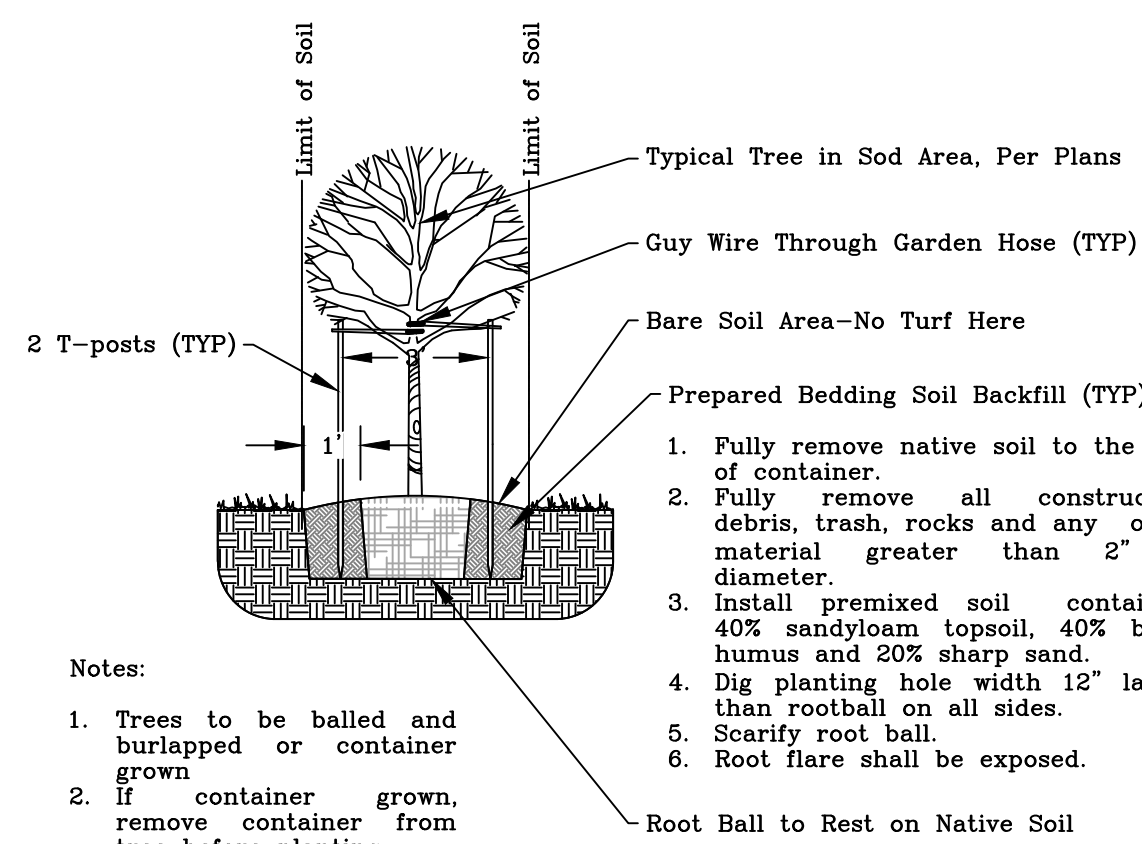
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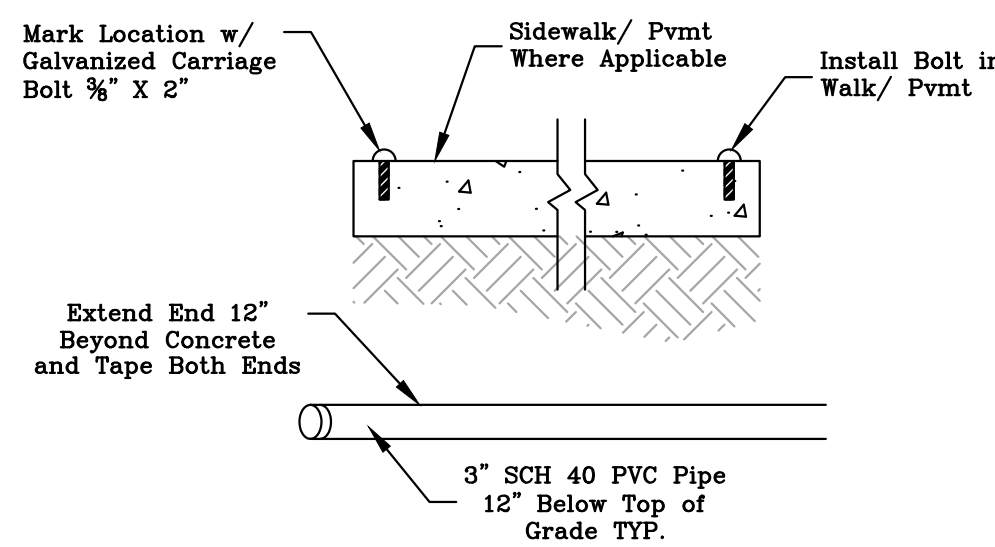
Project Name and Address:
Tee Drive Townhomes
 Country Club Estates Addition
 Block D, Lots 10-13-0,441 Acres
 Bryan, Brazos County, Texas

Date: August 2023
 Scale: As Noted
 Sheet: L1



- Notes:
- Trees to be balled and burlapped or container grown.
 - If container grown, remove container from tree before planting.
 - Top of root ball to be 3" higher than final grade.
 - Top of root ball to be exposed.
 - Fully remove native soil to the size of container.
 - Fully remove all construction debris, trash, rocks and any other material greater than 2" in diameter.
 - Install premixed soil containing 40% sand/loam topsoil, 40% black humus and 20% sharp sand.
 - Dig planting hole width 12" larger than rootball on all sides.
 - Securely root ball.
 - Root flare shall be exposed.

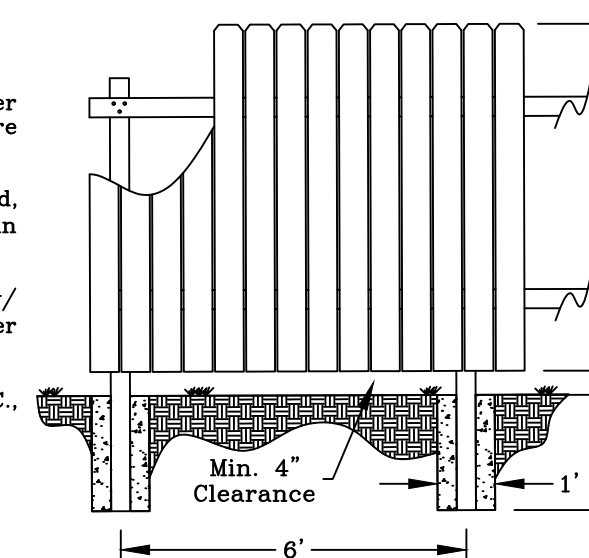
Tree Staking & Planting
N.T.S.



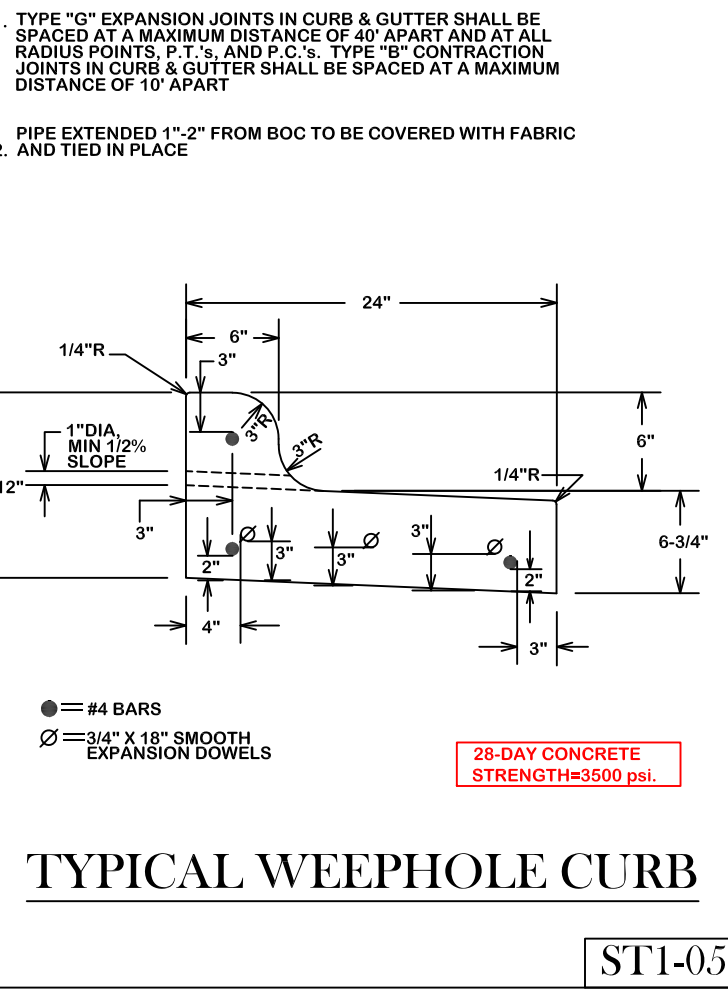
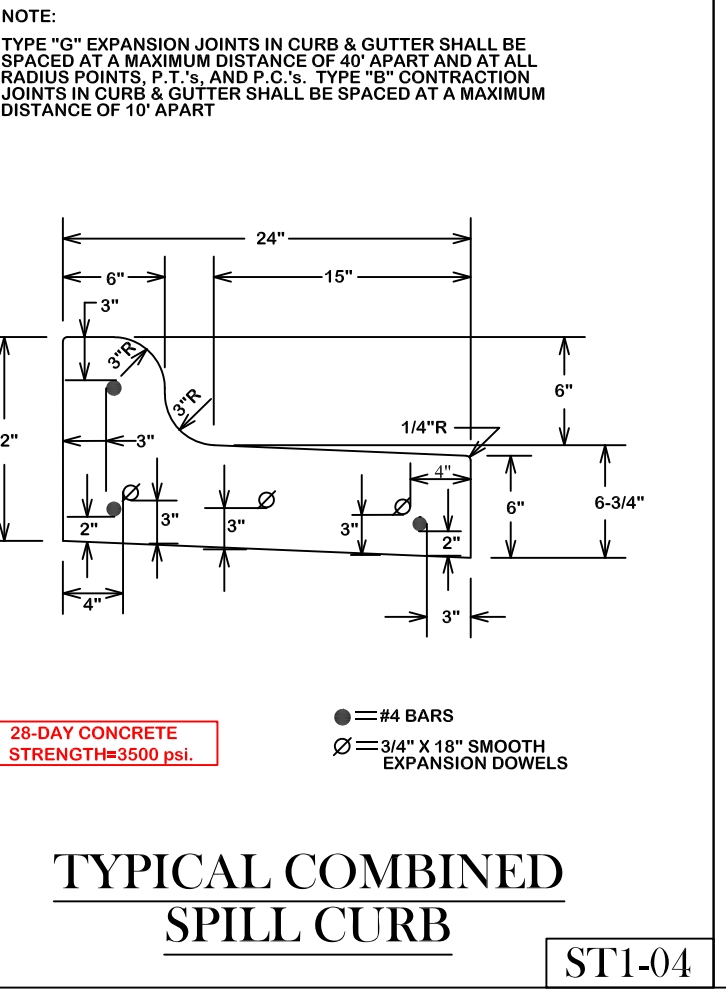
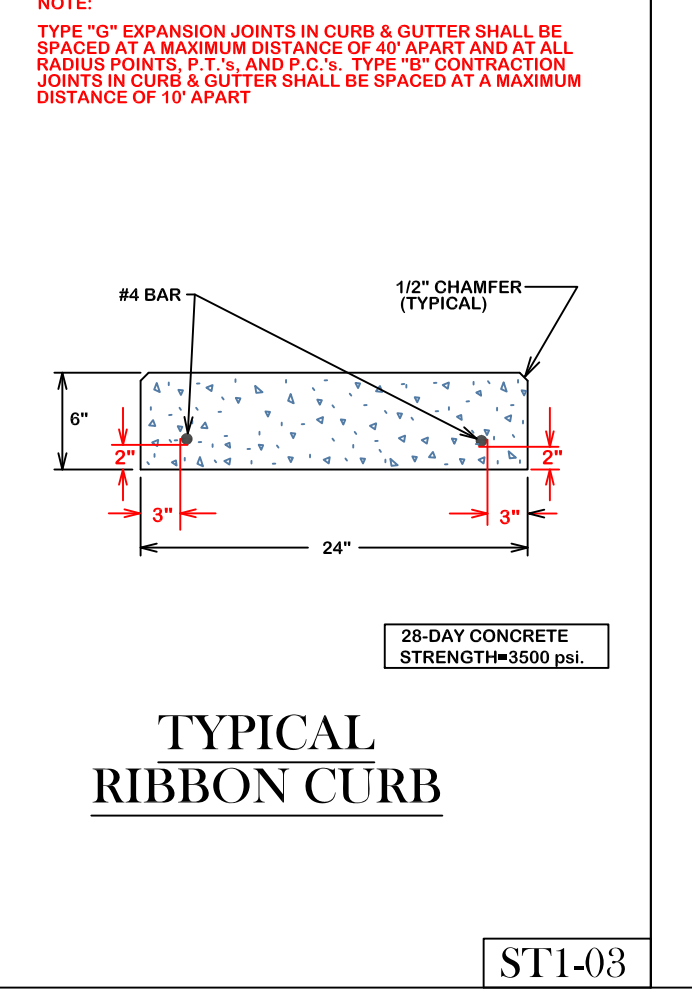
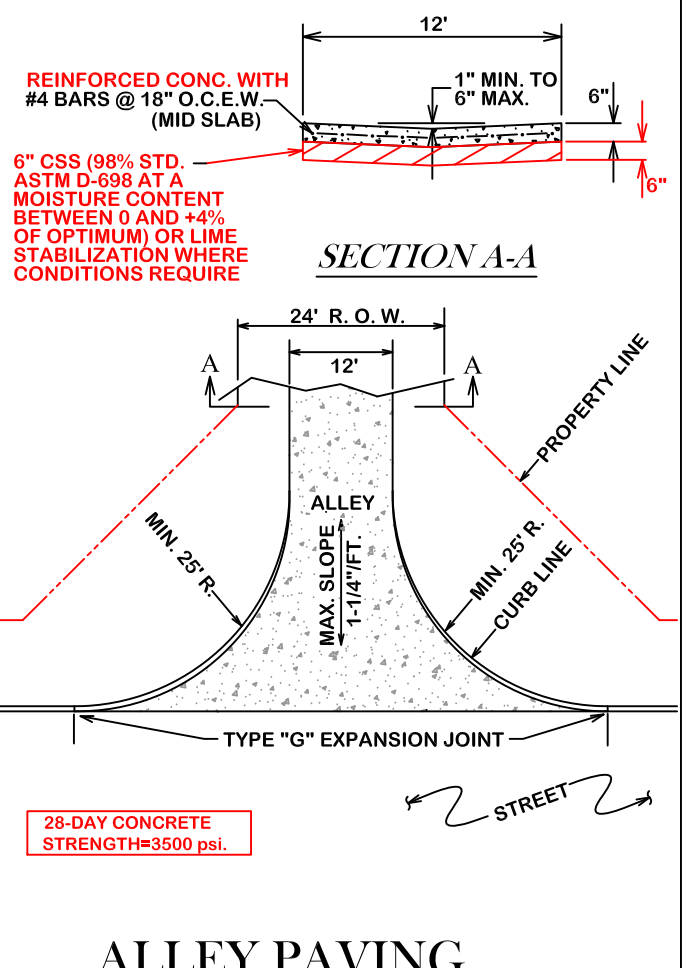
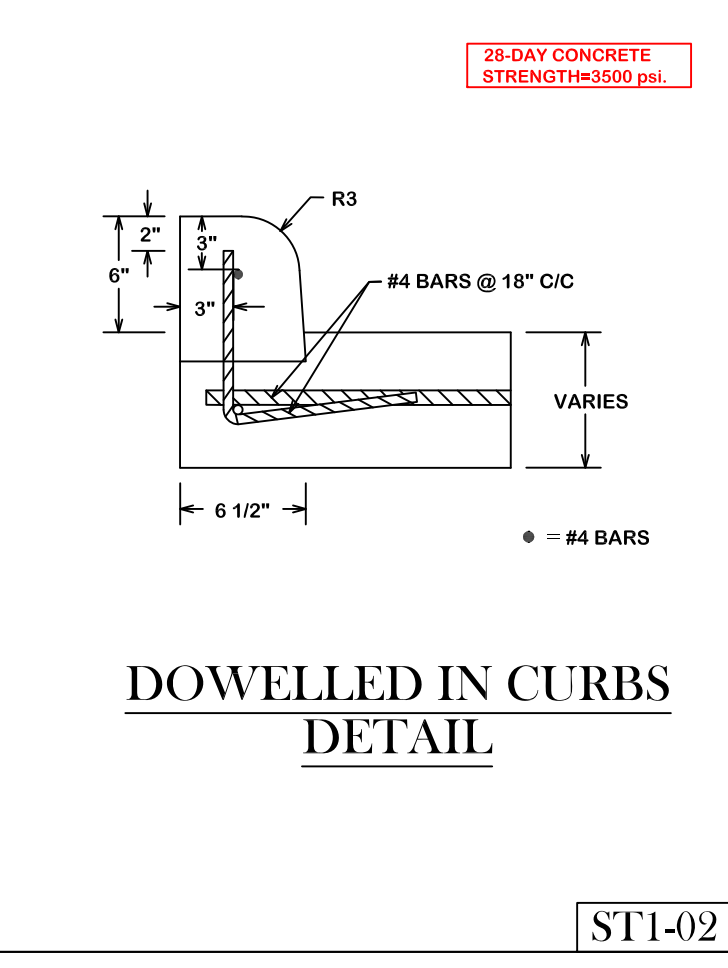
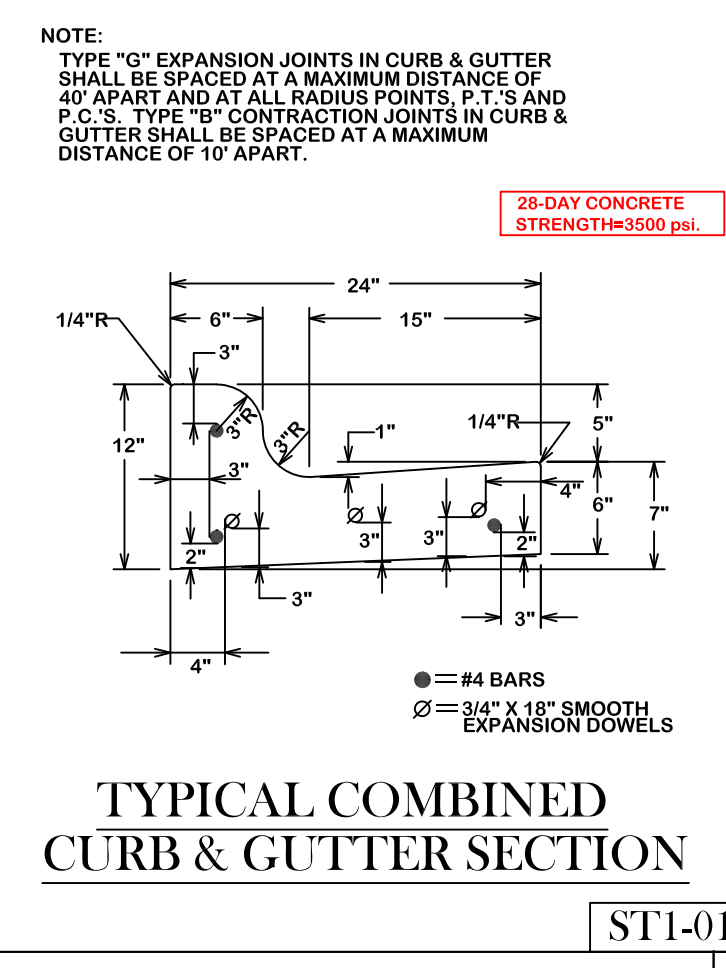
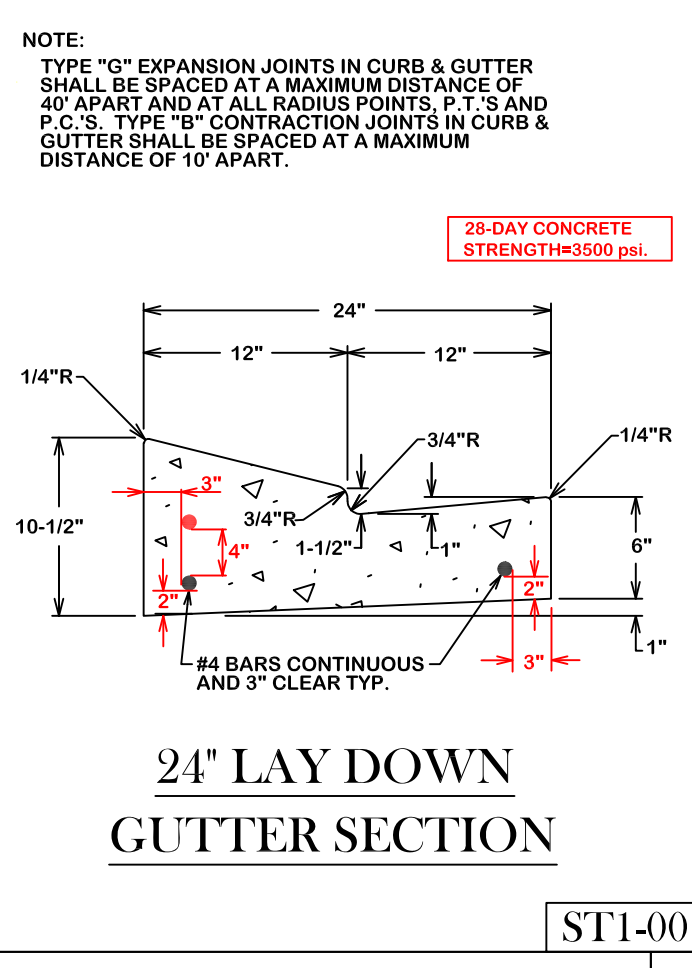
Typical PVC Sleeve
N.T.S.

Notes:

- All lumber shall be weather resistant cedar or pressure treated.
- Pickets are to be 1x6, dog-eared, fastened w/ 1 3/8" galv. screws, min 2 per connection.
- Rails are to be 2x4 fastened w/ 3" galv. screws, min. 3 per connection.
- Post are to be 4x4, placed 6' O.C., & set in 3,000 PSI concrete.



Screening Fence
N.T.S.



GENERAL NOTES:

ALL AREAS WHERE EXISTING VEGETATION AND GRASS COVER HAVE BEEN BARRED BY CONSTRUCTION SHALL BE ABOLUTELY BLOCK SODED OR HYDROLOGICALLY AND WATERED UNTIL GROWTH IS ESTABLISHED. IN DEVELOPED AREAS WHERE GRASS IS PRESENT BLOCK SOD WILL BE REQUIRED. BARED AREAS SHALL BE SEED OR SODED WITHIN 14 CALENDAR DAYS OF LAST DISTURBANCE.

APPROVED EROSION CONTROL MEASURES MUST BE INSTALLED DURING THE ENTIRE TIME THAT EARTH HAS BEEN BARRIED BY CONSTRUCTION AND SHALL STAY IN PLACE UNTIL ACCEPTABLE VEGETATION GROWTH IS ESTABLISHED AFTER CONSTRUCTION IS COMPLETE AND THEN REMOVED BY CONTRACTOR.

ALL EROSION CONTROL MEASURES SHOULD BE CLEANED OF SILT AFTER EVERY RAIN.

ALL TRAFFIC SIGNALS AND APPURTENANCES, AND ALL PAVEMENT MARKINGS AND MARKERS SHALL BE IN ACCORDANCE WITH TxDOT STANDARDS.

REFER TO SPEC 31 11 23.23 (PAVEMENT MARKINGS) FOR ADDITIONAL LOCAL REQUIREMENTS.

