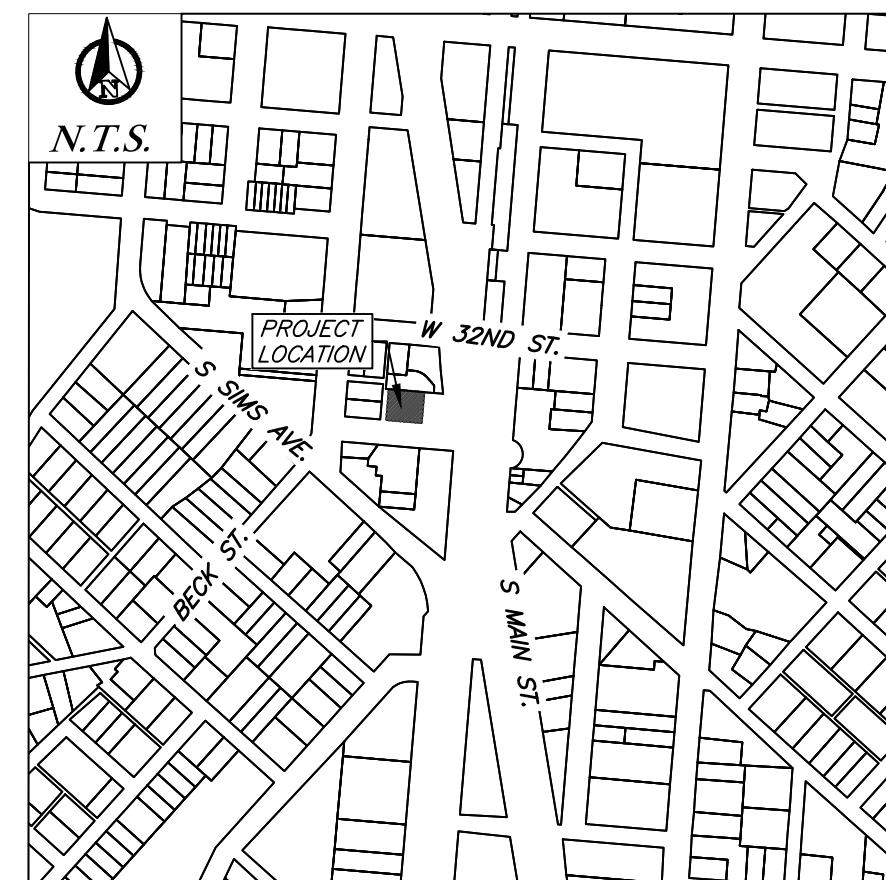


Spritz Townhomes

City of Bryan Townsite Addition
Block B, Lots 1R1-1R8 - 0.356 AC
708 Finfeather Rd.
Bryan, Brazos County, Texas



VICINITY PLAN

OWNER/DEVELOPER:

NN Out Properties, LLC
708 Finfeather Rd.
Bryan, TX 77803

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 Plan
C4	Drainage Plan
C5	S-01 Plan & Profile
L1	Landscape Plan



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 19-Mar-25. It is not to be used for construction, bidding, or permitting purposes.

Released for Review

March 2025

General Notes:

- 1. The contractor shall promptly notify the engineer of any discrepancies between these plans and other drawings of differing disciplines & specifications.
2. 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.
3. Contractor to verify all underground utilities in the field prior to construction.
4. It is the responsibility of the contractor to comply with all state and federal regulations regarding construction activities near energized over head power lines.
5. The contractor shall be responsible for the protection of all existing utilities or service lines that are crossed or exposed during construction operations.
6. During the execution of the work, the contractor shall maintain the project site in an orderly and acceptable manner as far as practical.
7. Contractor is responsible for OSHA established trench safety as described in the federal register 29 CFR Part 1926.
8. A copy of the approved construction plans shall be kept on site at all times throughout the entire construction of the project.
9. The contractor shall be responsible for safeguarding and protections all material and equipment stored on the jobsite.
10. Contractor to store materials at location(s) approved by & coordinated with the owner.
11. Contractor shall saw cut remove and replace concrete pavement, and curb & gutter as required to construct proposed improvements.
12. It shall be the responsibility of the contractor to pay for and obtain all required permits and inspection approvals for all work shown.
13. Any adjacent property and right-of-way disturbed during construction will be returned to their existing condition or better.
14. All exposed dirt surfaces shall be seeded, hydro-mulched, or sodded.
15. The contractor shall not create a dirt nuisance or safety hazard in any street or driveway.
16. 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.
17. The contractor shall coordinate all fence removal and replacement with the Owner.
18. The contractor shall protect all monuments, iron pins, and property corners during construction.
19. The contractor must provide construction staking from the information provided on the plans.

General Utility Note (Private & Public):

- 1. 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.
2. Minimum bury or cover specified is to be measured from finish grades.
3. Utility installations in non-structural areas shall be bedded and initial backfill consistent with non-structural requirements.
4. Regardless of elevations shown for manhole rims, clean-out covers, or grates, these items shall be placed flush with the pavement elevations and slopes.
5. Contractor shall uncover existing utilities at all "points of interest" to determine if conflicts exist before commencing and construction.
6. 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.).
7. 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.
8. 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.
9. Contractor shall be responsible for coordinating all connections to public systems and installations with regulatory inspector.
10. This project shall be built by means of open cut except as noted on the drawings.
11. Structural backfill will be required for all excavation within 5 feet of public roadway pavements or walks.

Private Utility Notes:

- 1. 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.
2. It shall be the responsibility of the contractor to pay for and obtain all required permits and inspection approvals for all work shown.
3. The contractor shall coordinate all installations of service lines, conduits, meters, etc., with the appropriate utility company.

Water Line Notes (Public & Private):

- 1. 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):

- 1. 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.
2. 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.
3. 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.
4. 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:

- 1. Demolition of existing structures and improvements shall include all work contained on these plans, but shall not be limited to the items specially identified.
2. 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.
3. Demolished surplus material shall be legally disposed of off-site.
4. All pavement edges, bounding the construction area & matching with new construction, shall be neatly sw cut, unless gravel.
5. The contractor shall clear all right-of-ways and easements contained in these construction drawings.
6. The contractor shall field verify and locate all existing utilities on site prior to demolition.
7. The contractor shall perform demolition activities as noted and shown on these plans and as directed by the owner/ developer.
8. 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.
9. The contractor shall install all erosion and sediment control devices prior to commencing demolition work.
10. The contractor is responsible for the protection of all utilities that are to remain in place.
11. The contractor shall take all precautions to avoid damage to any existing road surface.
12. 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.
13. 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.
14. 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:

- 1. The contractor may obtain an electronic copy of these plans for construction purposes.
2. 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.
3. Unless otherwise shown, all dimensioning is to the back of curb or edge of pavement, which ever is applicable.

Grading Notes:

- 1. All unpaved areas shall be adequately graded to drain at a minimum of 1.00% slope, unless otherwise noted, so that no ponding occurs.
2. Unless otherwise specified, unpaved areas shall drain away from buildings so that the perimeter curb is a minimum 6" lower than the finished floor.
3. Finish grade adjacent to curbing or sidewalk shall be 1/2" below the top of concrete and 2" below in landscaping areas.
4. When top of curb elevations are shown, the curb height is 6" unless otherwise specified.
5. The contractor shall follow the general intent of the grading plans.
6. 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.
7. The approval of these plans is not an authorization to grade adjacent properties.

Erosion Control Notes:

- 1. Erosion control measures shown in these plans shall be considered the very minimum required.
2. 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.
3. All sediment trapping devices shall be installed as soon as practical after the area has been disturbed.
4. 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.

- 5. The contractor shall be responsible for establishing temporary erosion control measures as required for different phases of construction.
6. Phase II erosion control measure measures shall be implemented immediately after construction of their associated improvements.
7. The contractor is responsible for removing sediment control devices after the site has been seeded and/ or sodded, and ground cover has taken root.
8. The contractor shall take all necessary measures to ensure that all disturbed areas are stabilized.
9. The contractor shall take all necessary measures to ensure that all disturbed areas are stabilized.
10. When hydro-mulching is required, contractor shall keep mulch moist after installation and until area shows growth.
11. Erosion control measures shall be implemented prior to any excavation or demolition work.

Sidewalk Construction

- 1. Sidewalks shall be doweled into and tie to any concrete structure adjacent to sidewalk (driveaway, inlet box, curb) #4 x 12" bars @ 18" O.C.
2. ADA ramps shall be constructed per the ambulatory ramp details on the pavement plan shown in these plans.

Paving Notes:

- 1. The pavement system shown was designed without the aid of a geotechnical investigation.
2. Sub-grade
a. Existing trees, stumps, and large tree systems, shall be grubbed and removed.
b. 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.
c. Materials excavated on site, excluding the top 6 inches, may be used as fill material.
d. 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.
e. Compaction test, for fill, shall be verified by in-place density test for each lift.
3. Asphalt
a. All asphalt paving shall be hot-mix asphalt cement (HMAC), Type D P64-22, in accordance with TxDOT Item #340.
b. No more than 20% RAP shall be used with HMAC mix design.
c. 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.
4. Portland Cement Concrete
a. 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).
b. All concrete shall be vibrated when placed and not raked a distance greater than 10 feet.
c. Unless otherwise noted, joint spacing shall not exceed 15 feet in any direction to another joint or edge of pavement.
d. 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.
e. All joints shall be sealed with Sonoborn Sonolastic SL-1, or an approved equal.
f. Concrete shall not be placed if the air temperature is 50° F and falling or 95° F or higher.
5. Steel
a. 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.
b. All reinforcing steel shall be free from rust or other bond reducing agents.
c. All splices in pavement and curbing steel shall be staggered and lapped 30 inches times the bar diameter or 12 inches, whichever is greater.
d. Concrete coverage for the reinforcing steel shall comply with the ACI code, latest edition.

Gas Company Notes:

- 1. 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.
2. Eighteen (18) inch clearance shall be maintained between the proposed utility and the existing underground gas line.
3. For excavation near the underground gas line(s), the contractor shall cover, or remove, the bucket teeth of the excavator.

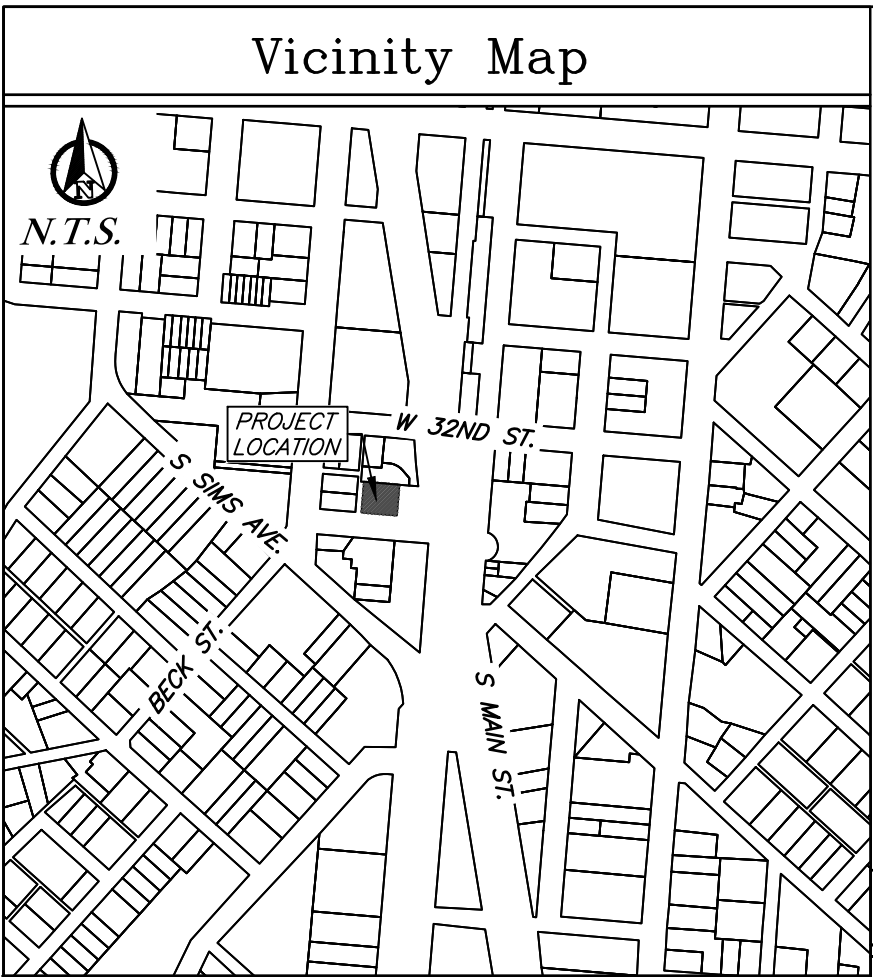
Traffic Control Notes:

- 1. 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.
2. Lane closure will not be allowed unless approved by the TxDOT or COB representative, as applicable.
3. The work shall be completed such that the roadway will be fully opened to traffic overnight.
4. Plastic drums shall be used for overnight delineation of off roadway work areas.

Legend
Line Types
W-8 Existing Water Line, Size Noted
W-6 Proposed Water Line, Size Noted
W Existing Water Service
W Proposed Water Service
S-8 Existing Sanitary Sewer Line, Size Noted
S-6 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
SILT Silt Fence
Existing Chain Link Fence
Proposed Chain Link Fence
Existing Wire Fence
Existing Board Fence
Proposed Board Fence
Symbols
Hydrant
Water Valve
Water Manhole
Water Meter
Phone Pedestal
Sign
Storm Grate Inlet
S.E.T.
Sewer Manhole
Sewer Clean-Out
Mail Box
Power Pole
Abbreviations
TP Top of Pavement
TC Top of Curb
TG Top of Ground
TW Top of Walk
TI Top of Inlet
TR Top of Wall
FL Flow Line
EG Existing Grade
PG Proposed Grade
TS Top of Step
Min Minimum
Max Maximum
N.T.S. Not to Scale
PI Point of Inflection
PT Point of Tangency
PC Point of Curvature
Sch Schedule
ROW Right of Way
W/ With
W/OUT With Out
S.E.W. Sloped End Treatment
BM Bench Mark
TBM Temporary Bench Mark
SY Square Yard
CO Clean Out
O.C. On Center
O.C.E.W. On Center Each Way
PSI Pounds per Square Inch
PVC Polyvinyl Chloride
RCP Reinforced Concrete Pipe
PVMT Pavement
H Horizontal
V Vertical

Notes
General Notes:
1. 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
Firm Name and Address:
14 Engineering
PO Box 5192 - Bryan, Texas - 77805
979-739-0567 www.14Engineering.com Firm # 9951
Project Name and Address:
The Spritz Townhomes
City of Bryan Townsite Addition Block 1, Lots 1R1-1R8, 0.356 Acres, 708 Finchcather Rd. Bryan, Brazos County, Texas 77803
Date: March 2025
Scale: As Noted
Drawn by: KB
Sheet: C1

J4E Project # 24-034
03/19/2025
Spritz Townhomes - Site Plan.dwg
J4 Engineering



Site Specific Notes:

- The owner of the property is NN Out Properties, LLC. The subject property is Block 1, Lots 1R1-1R8, located at 708 Finfeather Rd., Bryan, Brazos County, Texas.
- The proposed building is a Two-Story Type Vb without fire sprinklers totaling 5,328 SF, FF=365.63' & Height 19.50'.
- This property is Zoned (PD-H) Planned Development Housing as approved by the Bryan City Council on 12/10/24 with Ordinance No. 2722.
- The Partial Abandonment of Alleyway located in Block 97 in the Bryan Original Townsite was abandoned on 12/10/24 by the Bryan City Council with Ordinance No. 2726.
- The Partial Abandonment of Finfeather Road ROW located in Block 97 in the Bryan Original Townsite was abandoned on 12/10/24 by the Bryan City Council with Ordinance No. 2726.
- Fire flow demand is 2250 gpm. The existing hydrant on West 33rd St. 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, 04-02-2014.
- The developed area for this project is 0.277 acres (12,063 SF).
- One, 90 gal roll off can for each unit for solid waste service is proposed for this site.
- All minimum building setbacks shall be in accordance with City of Bryan Ordinances.

Construction Notes:

- All concrete to be constructed with 3,500 psi (Min) - 28 day strength portland cement concrete.
- 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.
- Normal Domestic Wastewater is anticipated to be discharged from this development.
- Potable Water Protection - All devices, appurtenances, 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. As noted in Texas Administrative code 30 TAC 290.47 - Appendix F.
- Irrigation System - Potable water supply must be protected by either an atmospheric or pressure vacuum breaker, or testable double check valve assembly, and installed per City Ordinance.
- Each utility contractor is responsible for positioning and trenching of service lines. Mark all lines with utility tape. Utility contractors are responsible for coordinating with paving contractor in placement and installation of any necessary utility conduit prior to subgrade preparation. Lines requiring slope control are to be installed first. All other lines not requiring slope control or elevation shall be installed second. Each contractor is responsible for knowing final determination of installation order.
- 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.
- 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.
- Contractor is responsible for field verifying existing and proposed grades prior to any construction and reporting any inconsistencies to the Owner.

J4 Engineering
 03/19/2025
 Spritz Townhomes - Site Plan.dwg
 J4 Project # 24-034

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):	
Bryan Texas Utilities:	979-821-5865
Amos Energy:	979-774-2506
Frontier:	979-821-4300
Suddenlink:	979-846-2229

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:

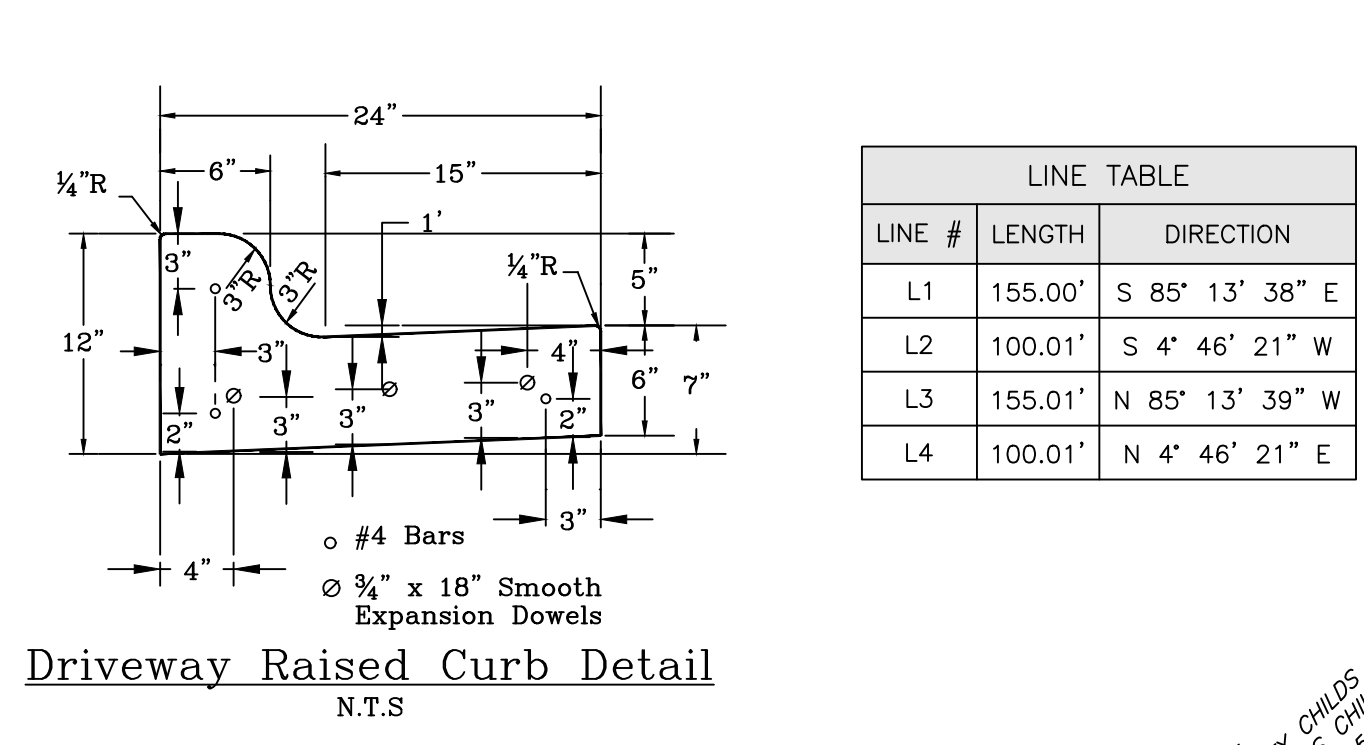
- 8 - 2 Bedroom Townhomes

New Required Parking:

- 16 - 1 Space per Bedroom

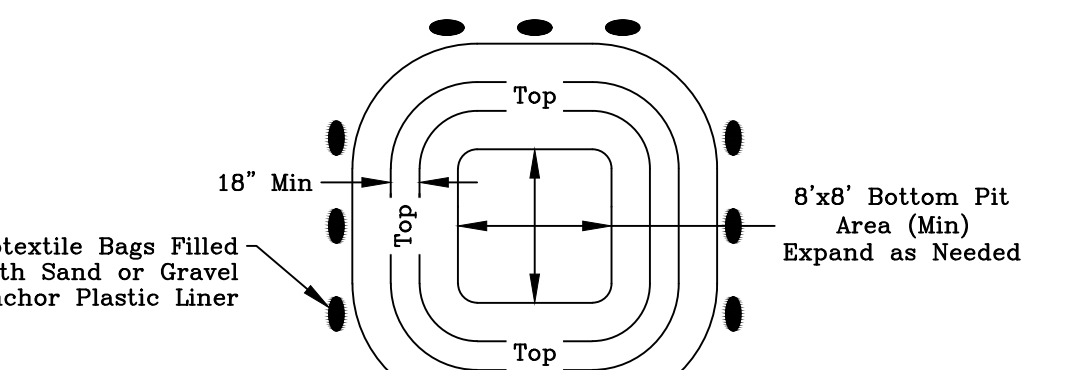
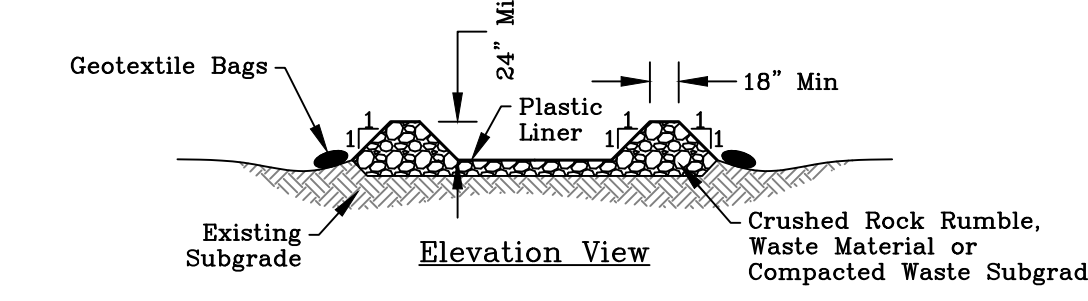
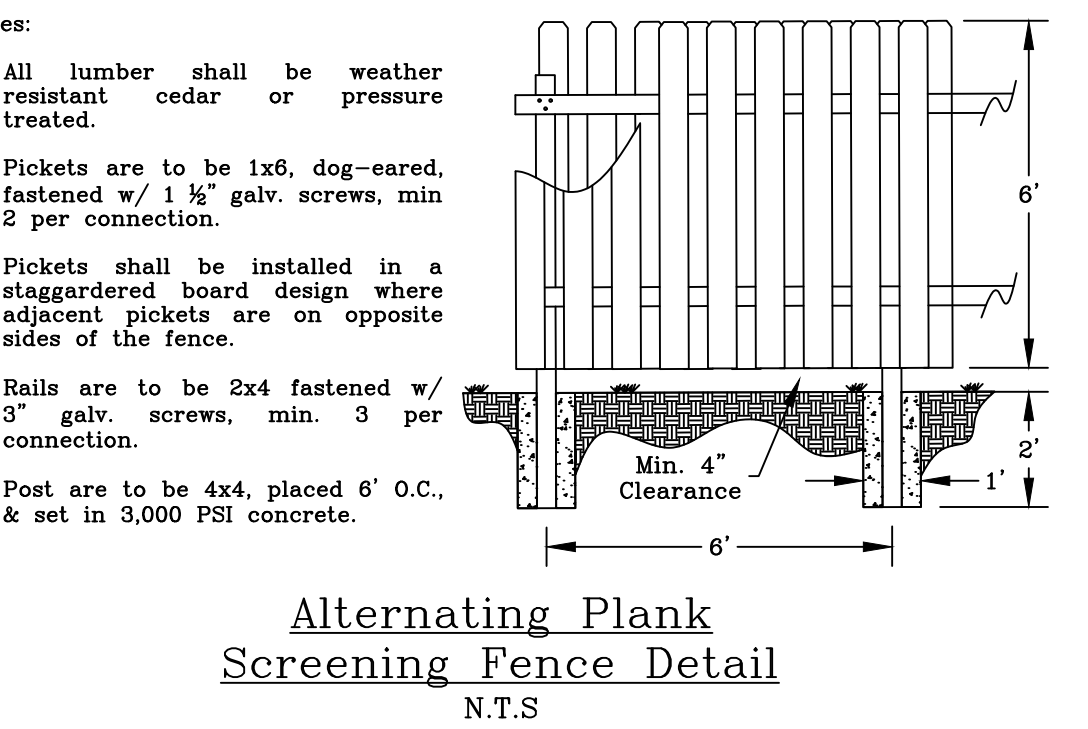
Total Proposed Parking

- 16 - Straight in Parking

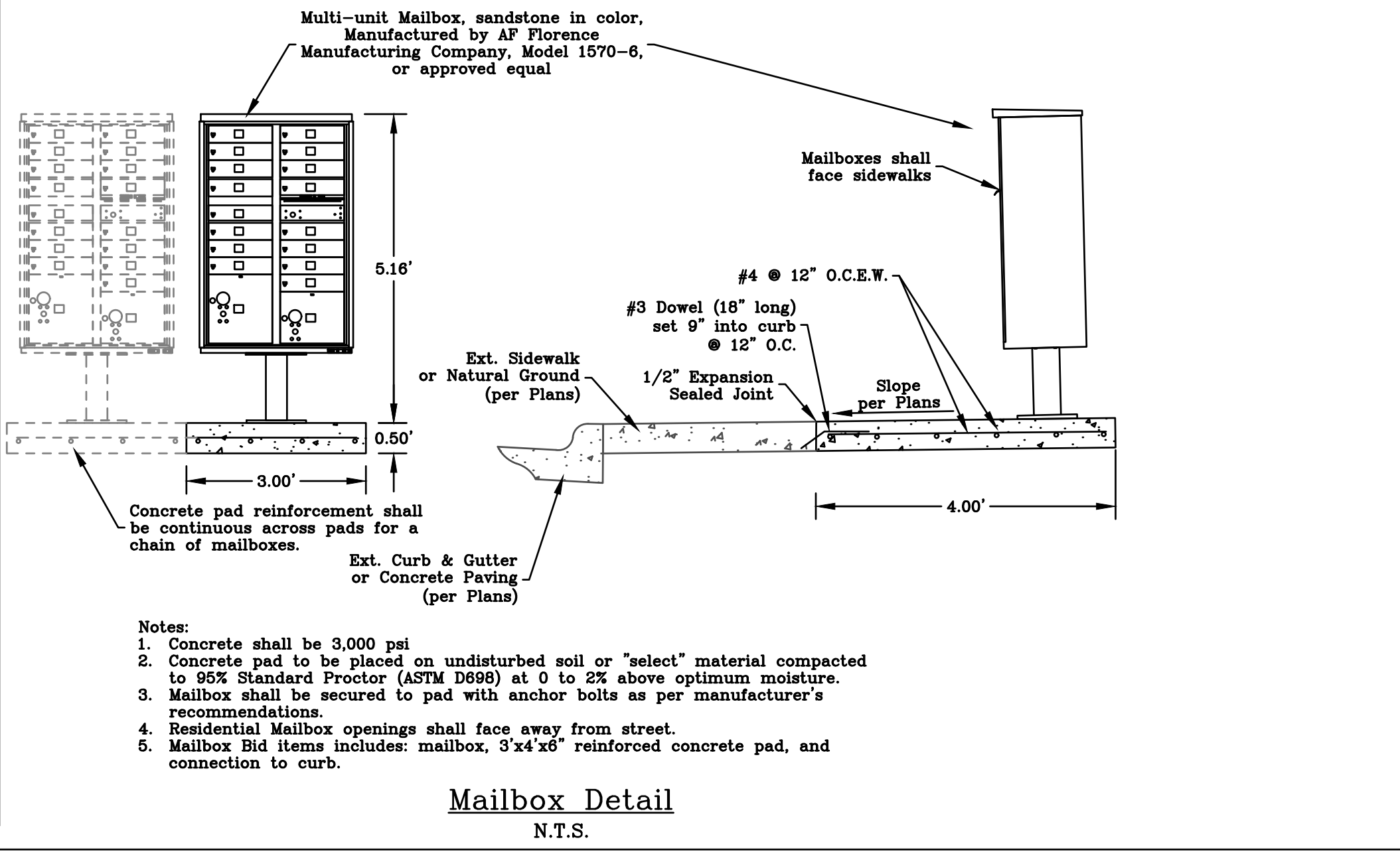


LINE TABLE

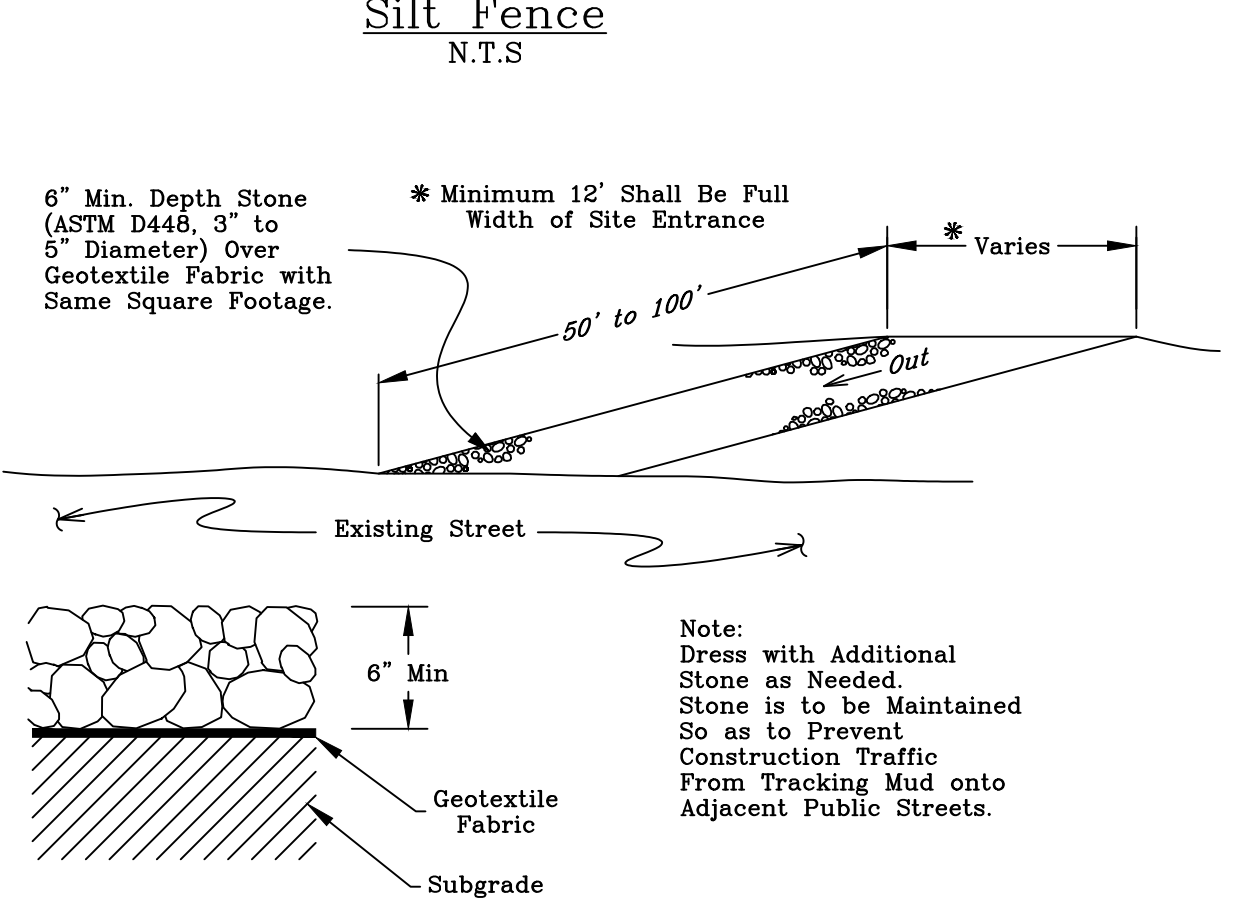
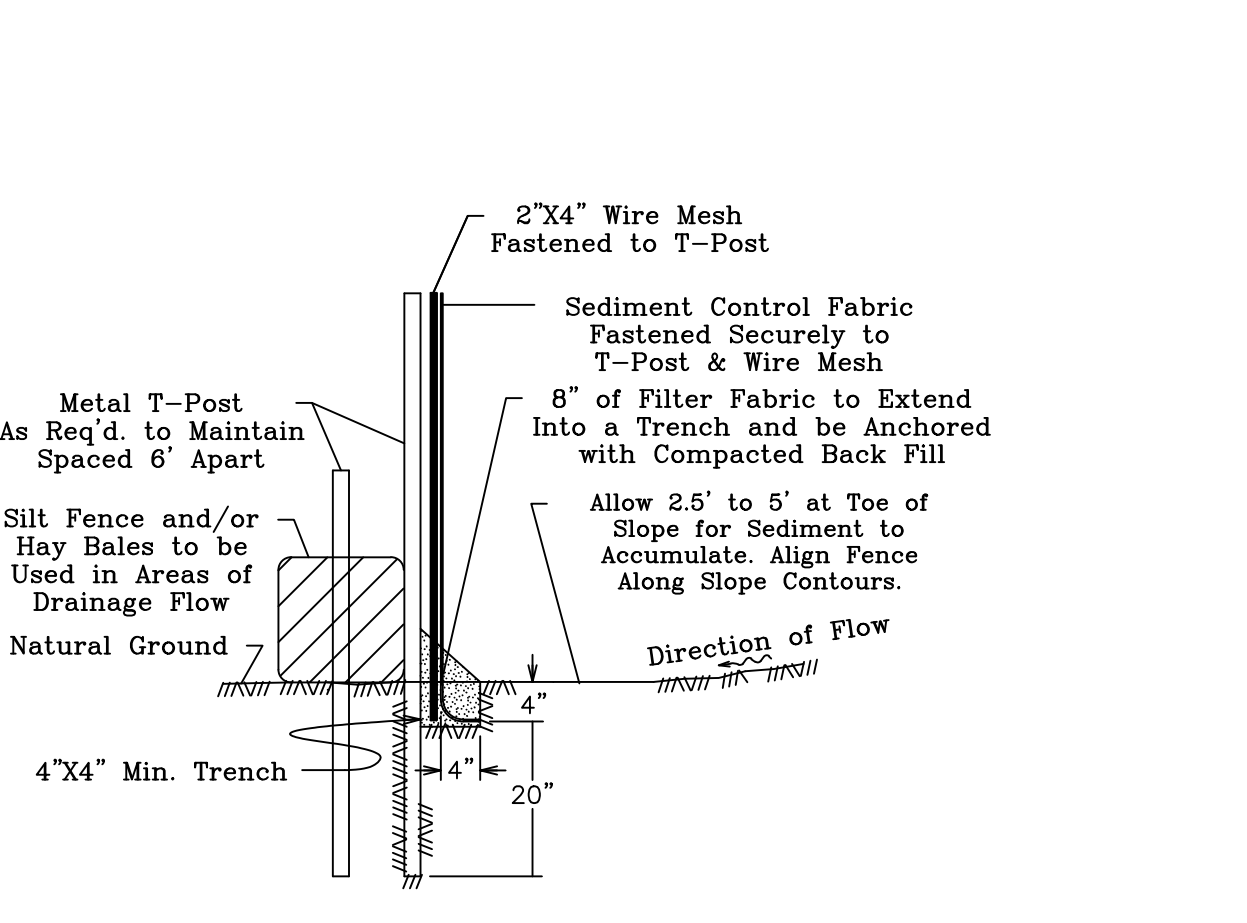
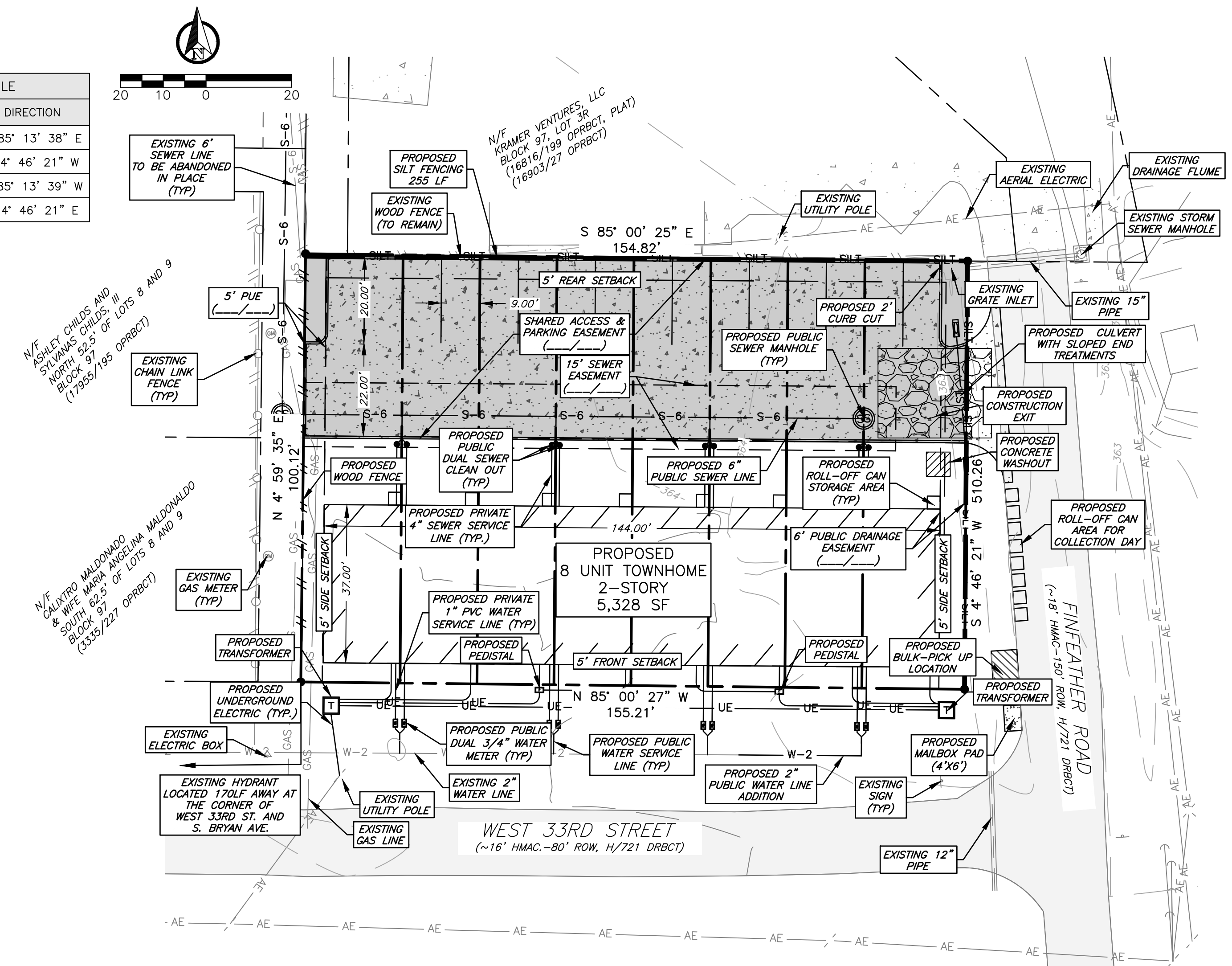
LINE #	LENGTH	DIRECTION
L1	155.00'	S 85° 13' 38" E
L2	100.01'	S 4° 46' 21" W
L3	155.01'	N 85° 13' 39" W
L4	100.01'	N 4° 46' 21" E



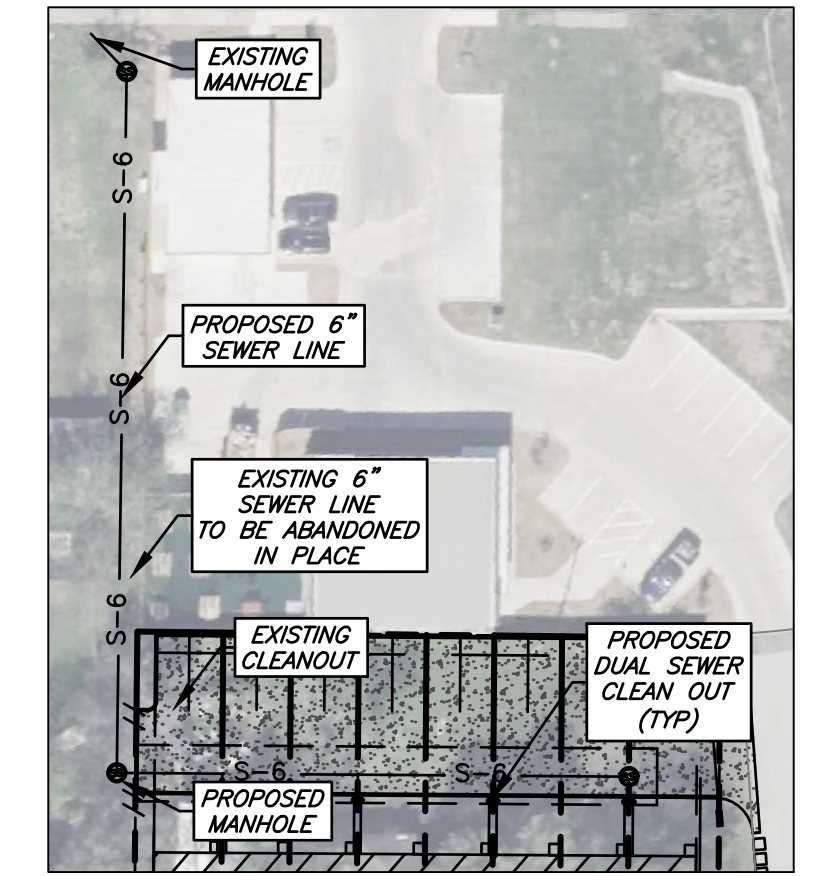
Concrete Washout
N.T.S.



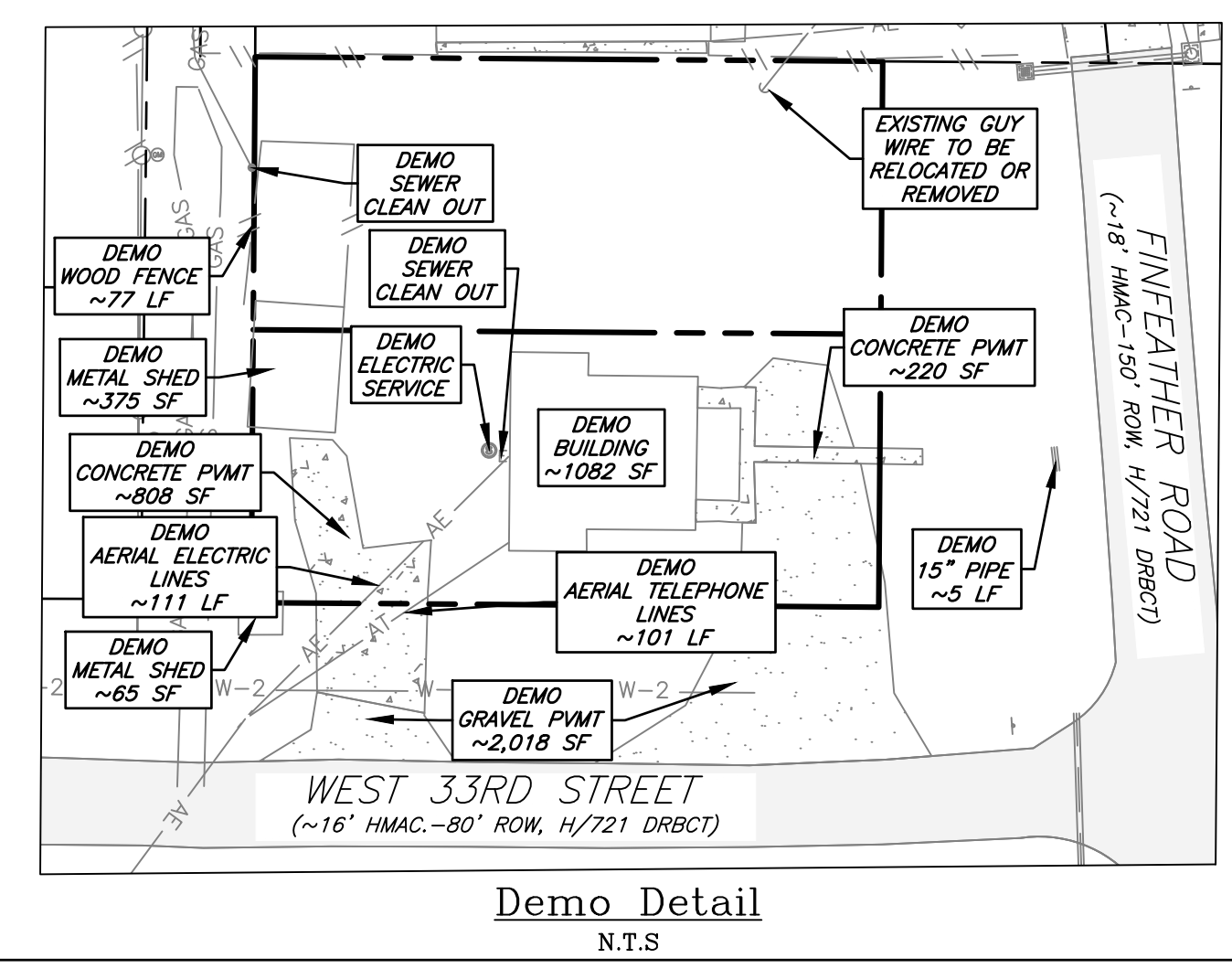
Mailbox Detail
N.T.S.



Construction Exit Detail
N.T.S.



Sewer 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.

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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:

**The Spritz
Townhomes**
 City of Bryan Townsite Addition
 Block 1, Lots 1R1-1R8 (1.256 Acres,
 708 Finfeather Rd.,
 Bryan, Brazos County, Texas 77803

Date: March 2025	Sheet: C2
Scale: As Noted	Drawn by: KB

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:

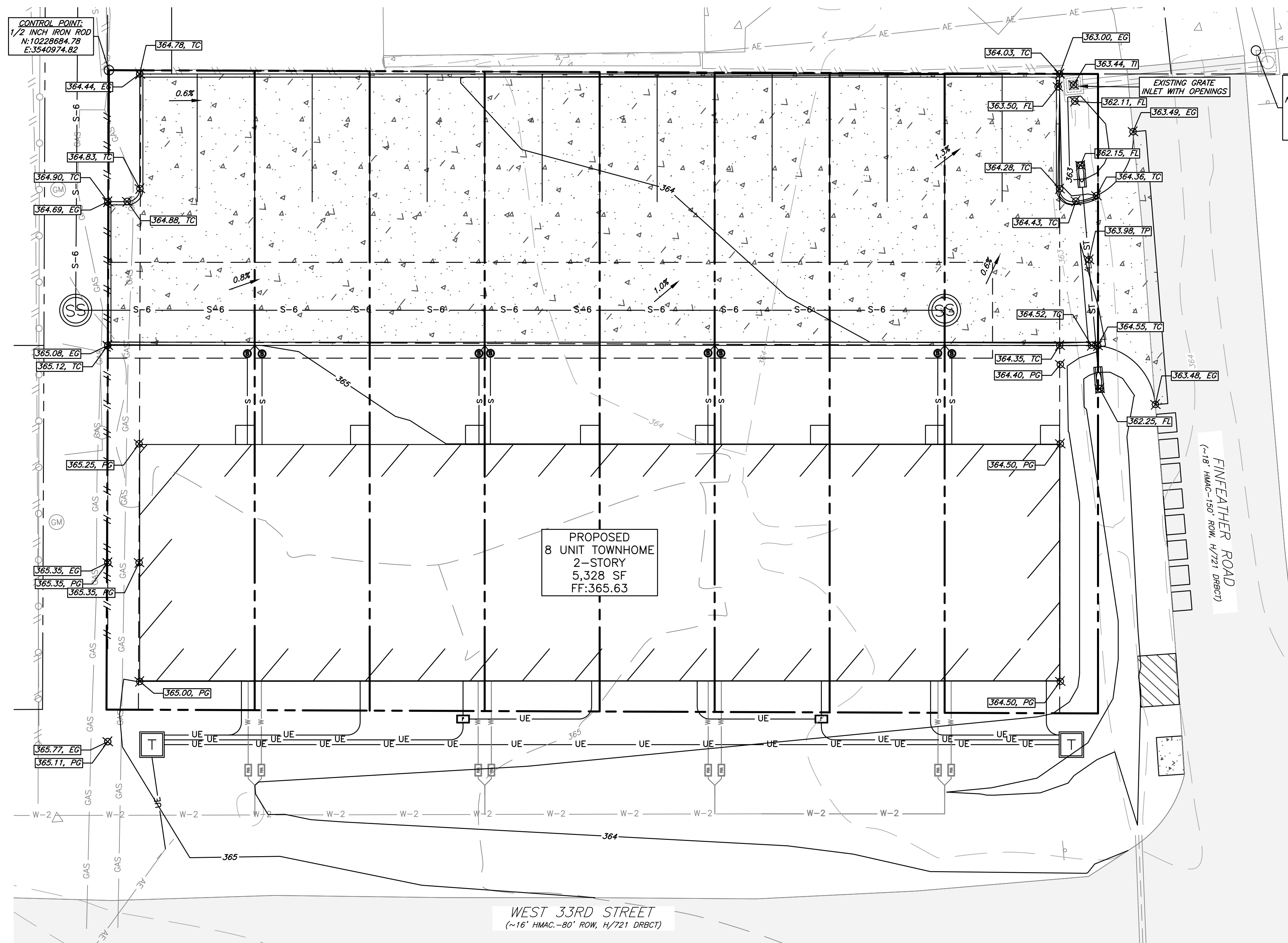
PI = Plasticity Index	LL = Liquid Limit	
If PI >20 and LL <35, Then Lime Stabilize Subgrade		
If PI >15 and LL >36, Then Lime Stabilize Subgrade		
If PI <5, Then Cement Stabilize Subgrade		
Acceptable soils other than those defined by the limits above, do not require stabilization.		
PI	% Required	Material
<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

- Existing Asphalt Pavement
- Proposed 6" Concrete Pavement

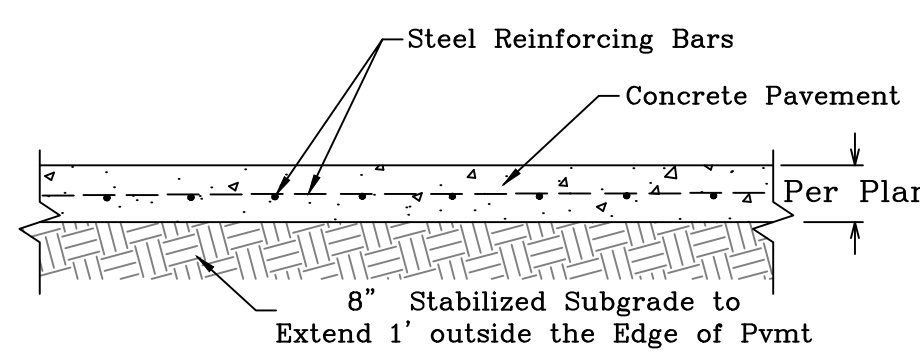


Cut/Fill Report

Generated: 2024-10-03 13:57:49
 By user: CAD Tech
 Drawing: J:\2024\24-034 Spritz Townhomes\Site Plan\2024\24-034 Spritz Townhomes\Site Plan\Spritz Townhomes - Site Plan.dwg

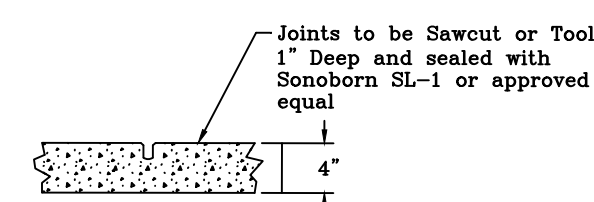
Volume Summary							
Name	Type	Cut Factor	Fill Factor	2d Area (Sq. Ft.)	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu. Yd.)
Cut-Fill	full	1.000	1.000	21105.13	152.77	299.56	146.80<Fill>
Totals				2d Area (Sq. Ft.)	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu. Yd.)
Total				21105.13	152.77	299.56	146.80<Fill>

* Value adjusted by cut or fill factor other than 1.0

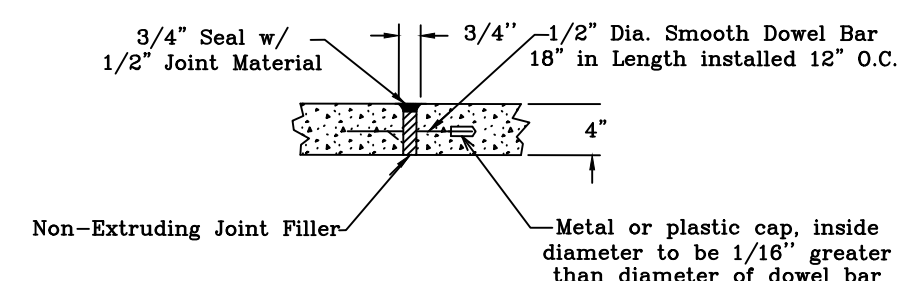


1. 6" Pavement - use #4 rebar @ 18" O.C.E.W.

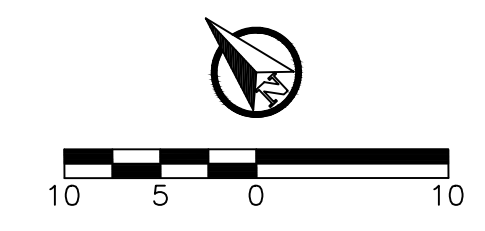
Typical Concrete Paving Section
N.T.S.



Contraction Joint Detail
N.T.S.



Expansion Joint Detail
N.T.S.



Pavement & Grading Plan

General Notes:

- The topography shown is from field survey data.
- Refer to Final Plat for all lot dimensions and bearings.
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- 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.
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- 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
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Released for Review

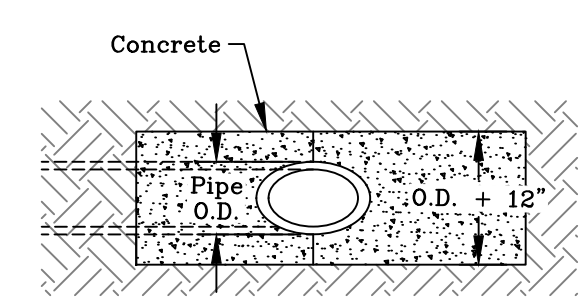
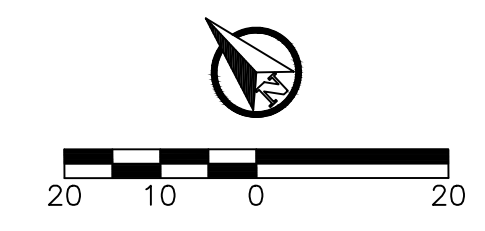
No.	Revision/Issue	Date

Firm Name and Address:

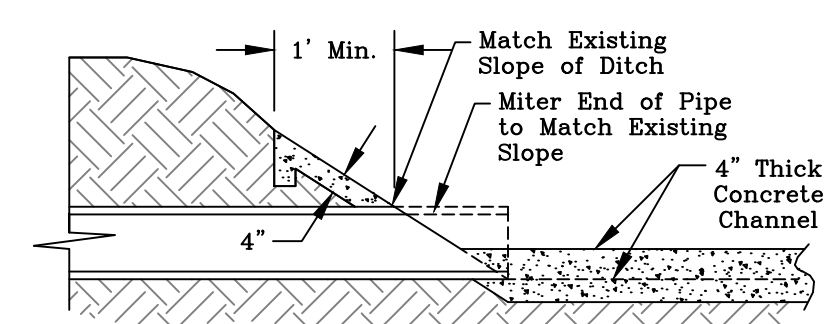
 PO Box 5192 - Bryan, Texas - 77805
 979-739-0567 www.J4Engineering.com
 Firm# 9951

Project Name and Address:
The Spritz Townhomes
 City of Bryan Townsite Addition
 Block 1, Lots 1R1-1R8 (0.356 Acres,
 708 Finfeather Rd,
 Bryan, Brazos County, Texas 77803

Date: March 2025
Scale: As Noted
Drawn by: KB
Sheet: C3



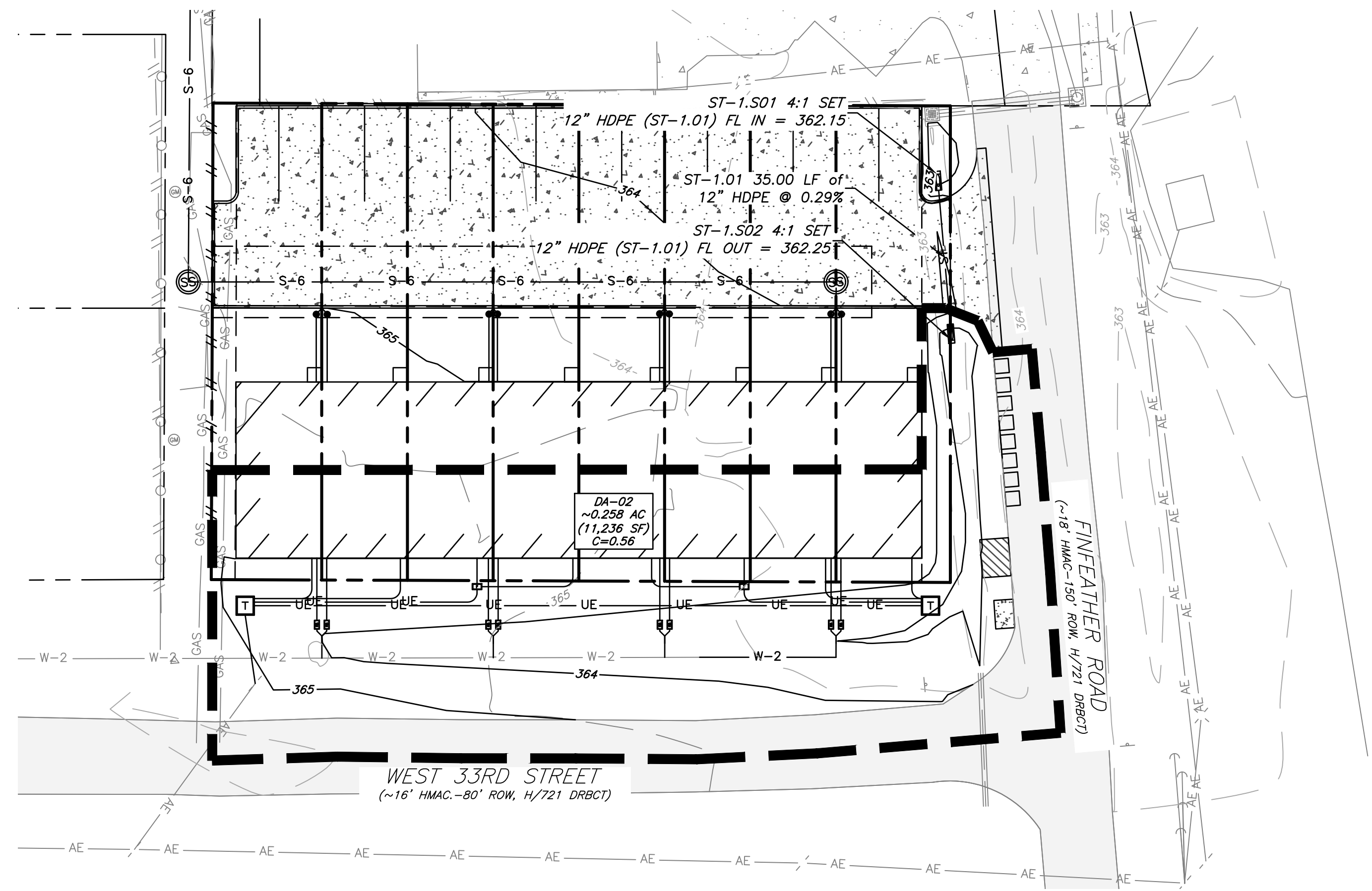
Sloped End Treatment - Plan
N.T.S.



Sloped End Treatment - Profile
N.T.S.

Drainage Summary:			
Driveway Culvert: 12" RCP	Q ₁₀₀ =	1.28 CFS	V ₁₀₀ = 2.06 FT/S
	Q ₅₀ =	1.48 CFS	V ₅₀ = 2.32 FT/S
	Q ₁₀ =	1.70 CFS	V ₁₀ = 2.60 FT/S

- Drainage Notes:**
- The proposed culverts shall be 33 LF of 12" RCP with 4:1 SET's for a total length of 41 LF, installed at a slope of 0.25% to match the grade of the existing drainage ditch. The anticipated 25-yr storm event run-off was found to be 1.28 CFS. For this storm flow, the culvert was found to a velocity of 2.06 fps with sufficient capacity to handle this flow.
 - The contractor shall follow the general intent of the drainage plans. Minor adjustments to the actual elevations and flow lines shown hereon may be required to match existing ground elevations and structures.
 - See Sheet C1 - General Notes.

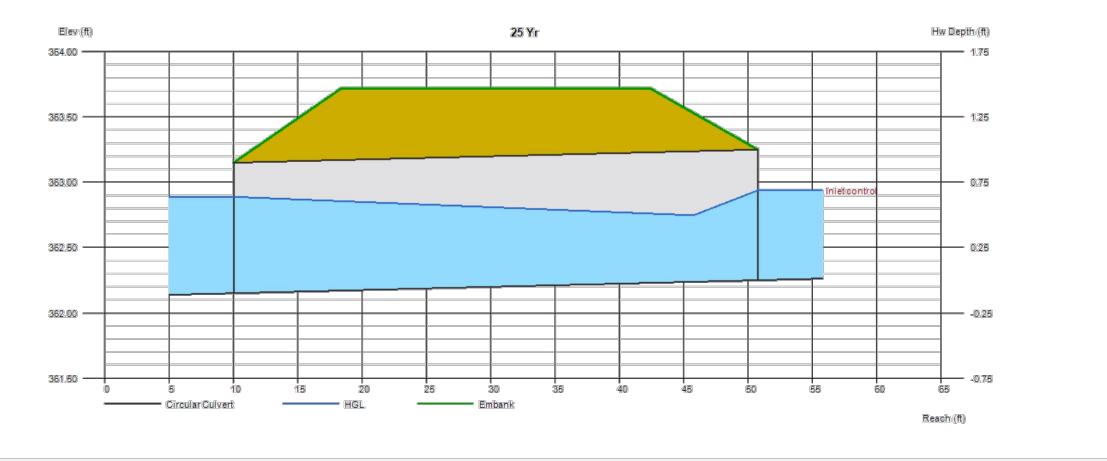


Culvert Report

Hydroflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Oct 2 2024

25 Yr			
Invert Elev Dn (ft)	=	362.15	
Pipe Length (ft)	=	40.75	
Slope (%)	=	0.25	
Invert Elev Up (ft)	=	362.25	
Rise (in)	=	12.0	
Shape	=	Circular	
Span (in)	=	12.0	
No. Barrels	=	1	
n-Value	=	0.013	
Culvert Type	=	Circular Concrete	
Culvert Entrance	=	Square edge w/headwall (C)	
Coeff. K,M,c,Y,k	=	0.0098, 2, 0.0398, 0.67, 0.5	
Embankment			
Top Elevation (ft)	=	363.72	
Top Width (ft)	=	24.00	
Crest Width (ft)	=	10.00	

Calculations			
Q _{min} (cfs)	=	0.00	
Q _{max} (cfs)	=	1.28	
Tailwater Elev (ft)	=	(dc+D)/2	
Highlighted			
Q _{total} (cfs)	=	1.28	
Q _{pipe} (cfs)	=	1.28	
Q _{overtop} (cfs)	=	0.00	
Veloc Dn (ft/s)	=	2.06	
Veloc Up (ft/s)	=	3.46	
HGL Dn (ft)	=	362.89	
HGL Up (ft)	=	362.73	
Hw Elev (ft)	=	362.94	
Hw/D (ft)	=	0.69	
Flow Regime	=	Inlet Control	

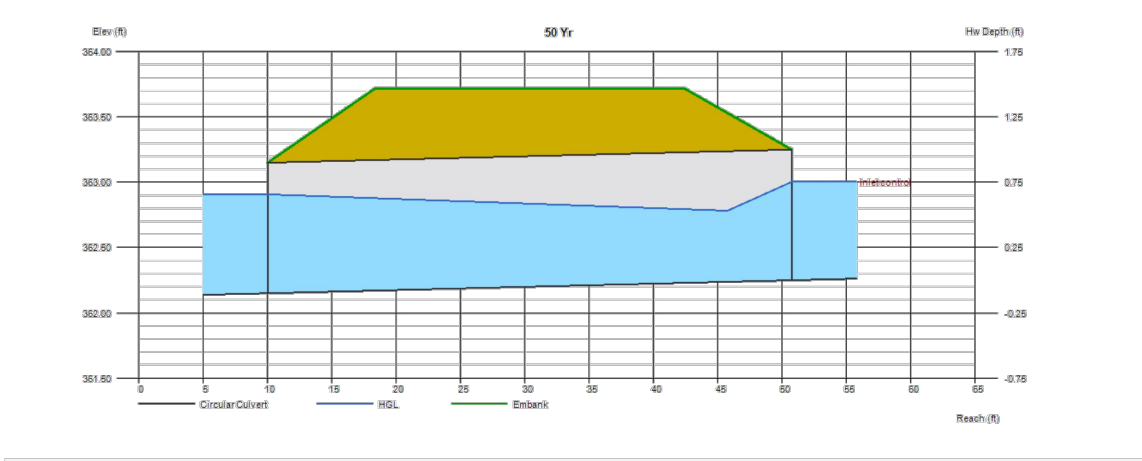


Culvert Report

Hydroflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Oct 2 2024

50 Yr			
Invert Elev Dn (ft)	=	362.15	
Pipe Length (ft)	=	40.75	
Slope (%)	=	0.25	
Invert Elev Up (ft)	=	362.25	
Rise (in)	=	12.0	
Shape	=	Circular	
Span (in)	=	12.0	
No. Barrels	=	1	
n-Value	=	0.013	
Culvert Type	=	Circular Concrete	
Culvert Entrance	=	Square edge w/headwall (C)	
Coeff. K,M,c,Y,k	=	0.0098, 2, 0.0398, 0.67, 0.5	
Embankment			
Top Elevation (ft)	=	363.72	
Top Width (ft)	=	24.00	
Crest Width (ft)	=	10.00	

Calculations			
Q _{min} (cfs)	=	0.00	
Q _{max} (cfs)	=	1.48	
Tailwater Elev (ft)	=	(dc+D)/2	
Highlighted			
Q _{total} (cfs)	=	1.48	
Q _{pipe} (cfs)	=	1.48	
Q _{overtop} (cfs)	=	0.00	
Veloc Dn (ft/s)	=	2.32	
Veloc Up (ft/s)	=	3.63	
HGL Dn (ft)	=	362.91	
HGL Up (ft)	=	362.77	
Hw Elev (ft)	=	363.00	
Hw/D (ft)	=	0.75	
Flow Regime	=	Inlet Control	

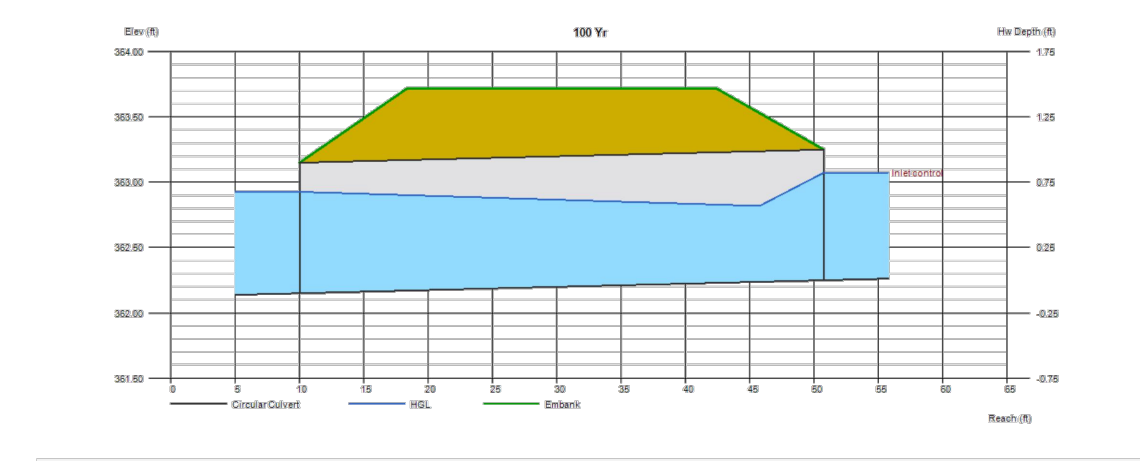


Culvert Report

Hydroflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Oct 2 2024

100 Yr			
Invert Elev Dn (ft)	=	362.15	
Pipe Length (ft)	=	40.75	
Slope (%)	=	0.25	
Invert Elev Up (ft)	=	362.25	
Rise (in)	=	12.0	
Shape	=	Circular	
Span (in)	=	12.0	
No. Barrels	=	1	
n-Value	=	0.013	
Culvert Type	=	Circular Concrete	
Culvert Entrance	=	Square edge w/headwall (C)	
Coeff. K,M,c,Y,k	=	0.0098, 2, 0.0398, 0.67, 0.5	
Embankment			
Top Elevation (ft)	=	363.72	
Top Width (ft)	=	24.00	
Crest Width (ft)	=	10.00	

Calculations			
Q _{min} (cfs)	=	0.00	
Q _{max} (cfs)	=	1.70	
Tailwater Elev (ft)	=	(dc+D)/2	
Highlighted			
Q _{total} (cfs)	=	1.70	
Q _{pipe} (cfs)	=	1.70	
Q _{overtop} (cfs)	=	0.00	
Veloc Dn (ft/s)	=	2.60	
Veloc Up (ft/s)	=	3.81	
HGL Dn (ft)	=	362.93	
HGL Up (ft)	=	362.80	
Hw Elev (ft)	=	363.07	
Hw/D (ft)	=	0.82	
Flow Regime	=	Inlet Control	



Drainage 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.
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- See Sheet C1 - General Notes

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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:

The Spritz Townhomes

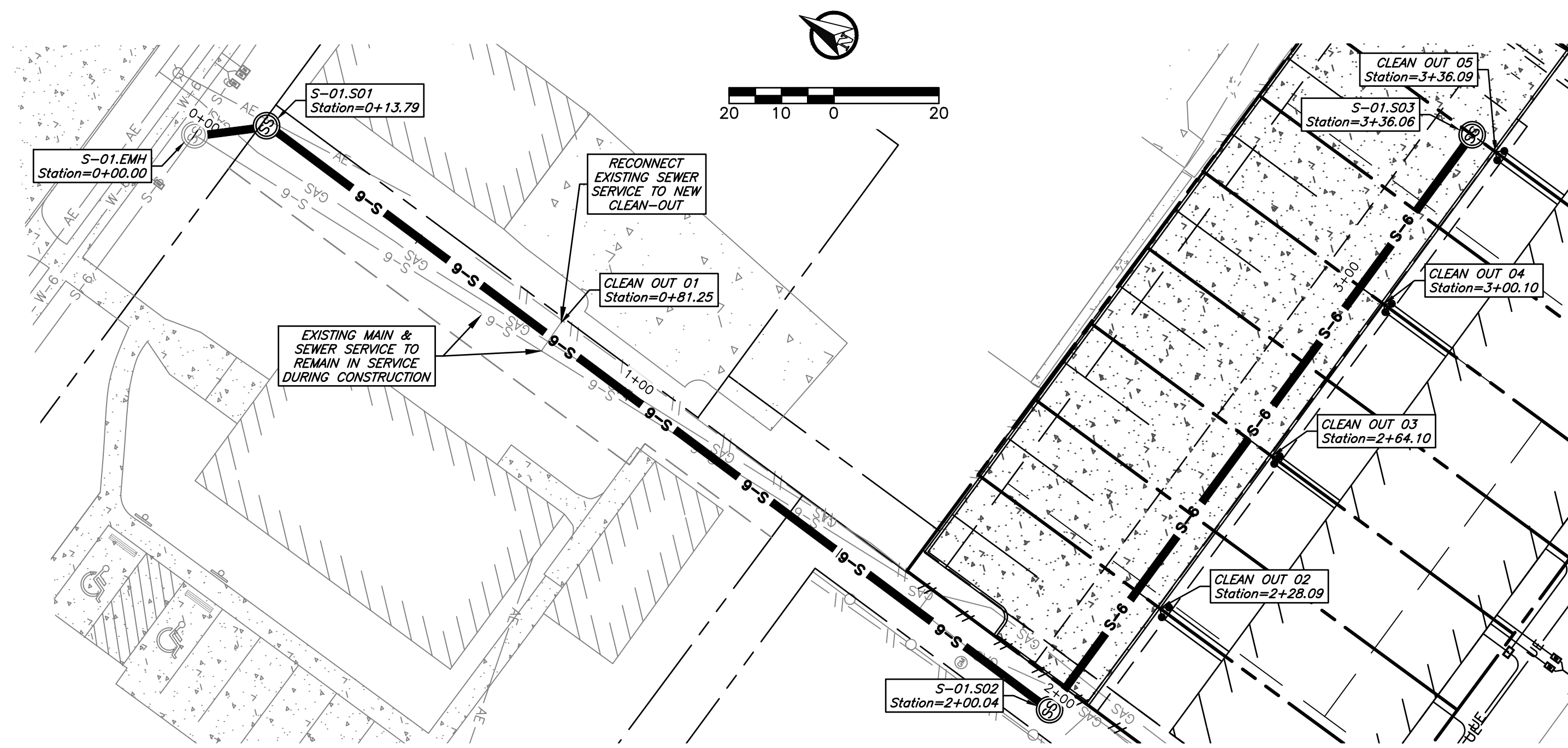
City of Bryan Townsite Addition
Block 1, Lots 1R1-1R8 (0.356 Acres,
708 Finfeather Rd.
Bryan, Brazos County, Texas 77803

Date: March 2025 **Sheet:**

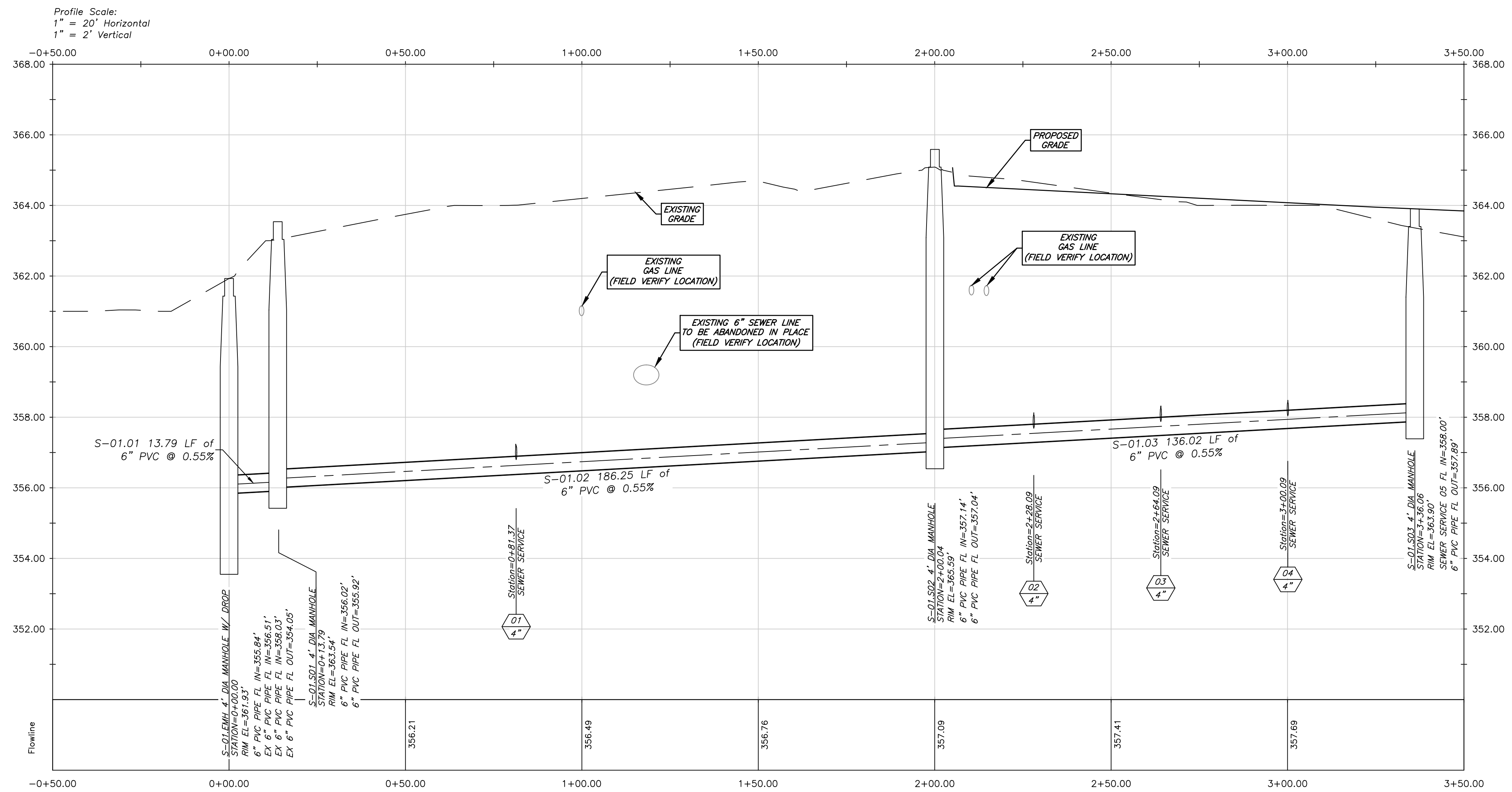
Scale: As Noted **C4**

Drawn by: KB

Plan: S-1
-0+50.00 to 3+50.00



Profile: S-01
-0+50.00 to 3+50.00



S-01 Plan & Profile

General Notes:

- Adjust manhole ring and covers to match final grade.
- Refer to the Plan View for sewer service line locations.
- Sewer line & service pipe material shall be PVC conforming to ASTM D3034, SDR-26, Class 150, except where the cover over the sewer line is 3.5 feet or less, where the pipe material shall be Ductile Iron conforming to AWWA C151, Class 350.
- Sewer service leads must have a minimum cover of 2 feet, including at drainage channels.
- Separation of public water and wastewater mains will be consistent with the current Rules and Regulations for Public Water Systems of TCEQ. Separation of public water and wastewater mains from other underground utilities (storm, gas, etc.) shall be a minimum of 2' longitudinally.
- Sewer services must be extended to 4 feet above natural ground at the end of the line.
- Existing ground profile shown is based on field survey data.
- All construction, including services, shall be in accordance with the current Bryan Standard Specifications, Details, and Design Guidelines.
- It is the intent of these plans to comply with all City of Bryan guidelines, details & specifications.
- See Sheet C1 - General Notes.

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

Project Name and Address:
The Spritz Townhomes
 City of Bryan Townsite Addition
 Block 1, Lots 1R1-1R8, 0.336 Acres,
 708 Finlather Rd.
 Bryan, Brazos County, Texas 77803

Date: March 2025	Sheet: C5
Scale: As Noted	
Drawn by: KB	

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)


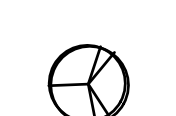
Net Total = 12,063 SF

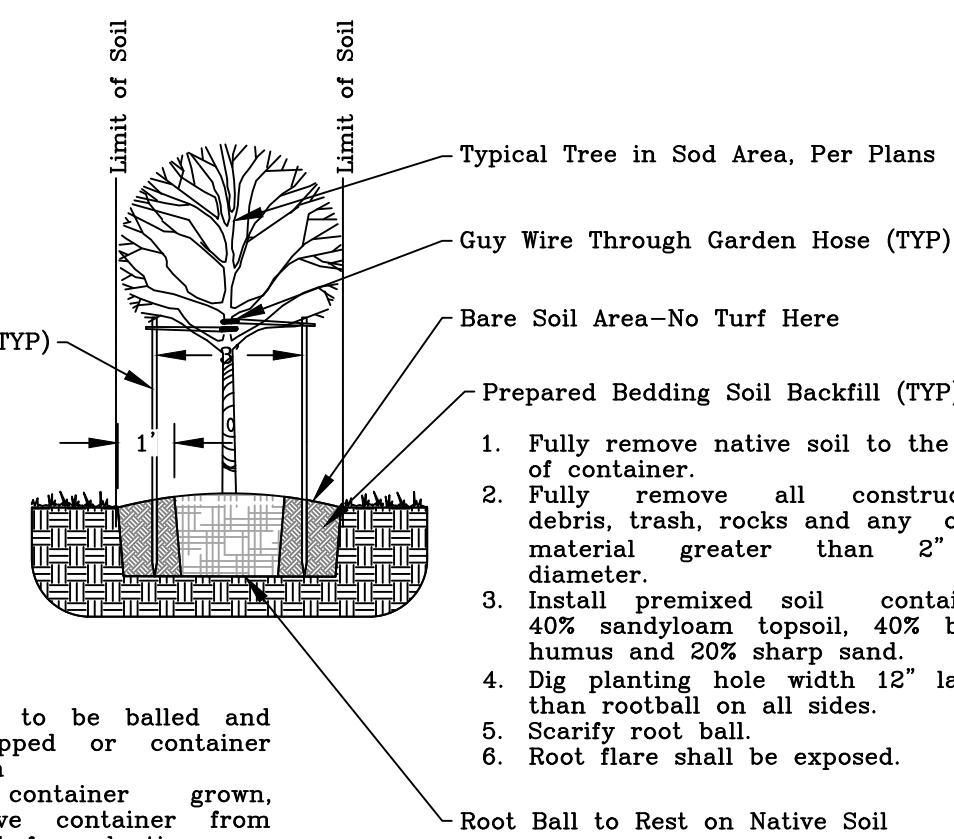
Requirements:

Disturbed Area
12,063 SF @ 17% = 2,051 SF
Net Total = 2,051 SF

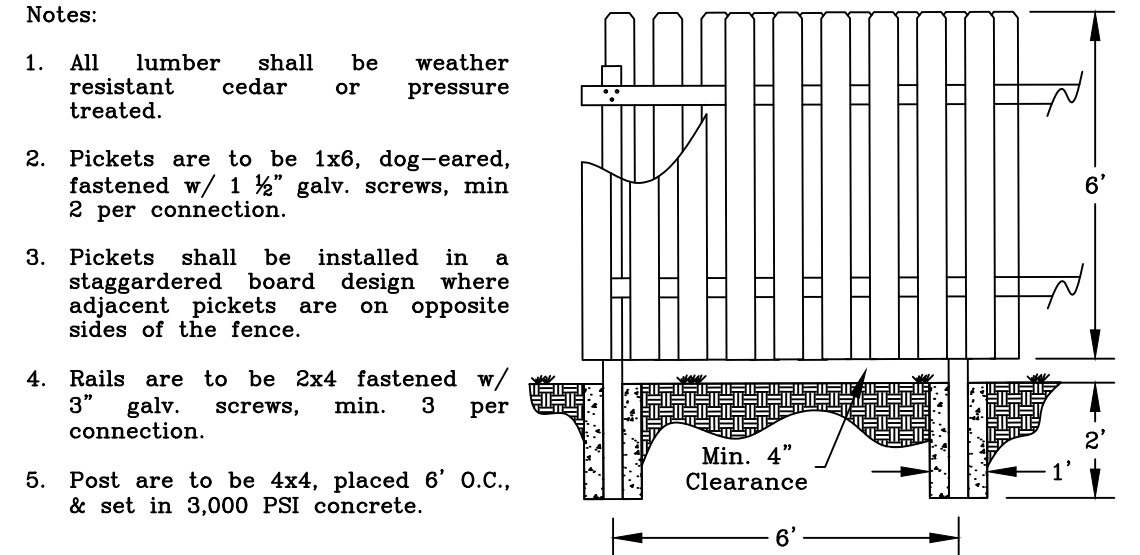
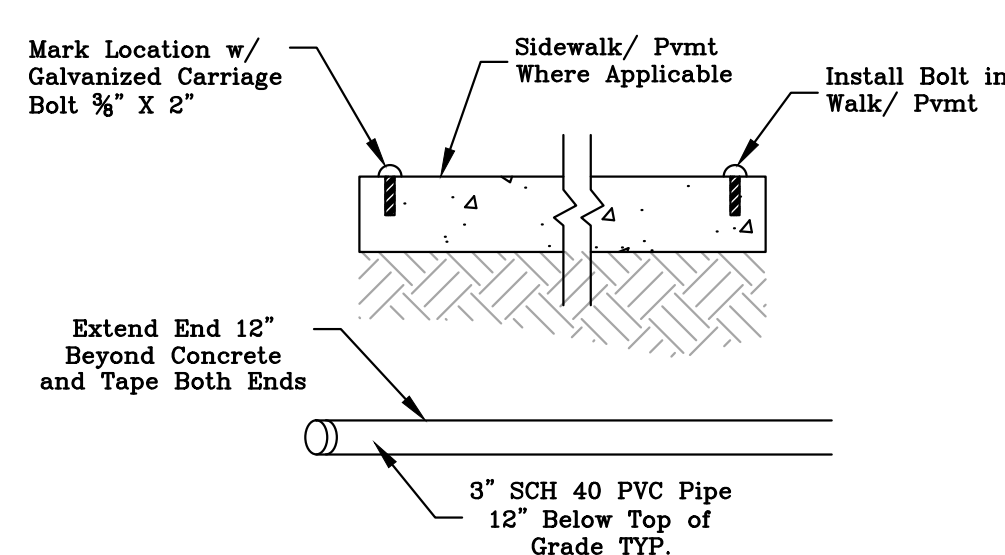
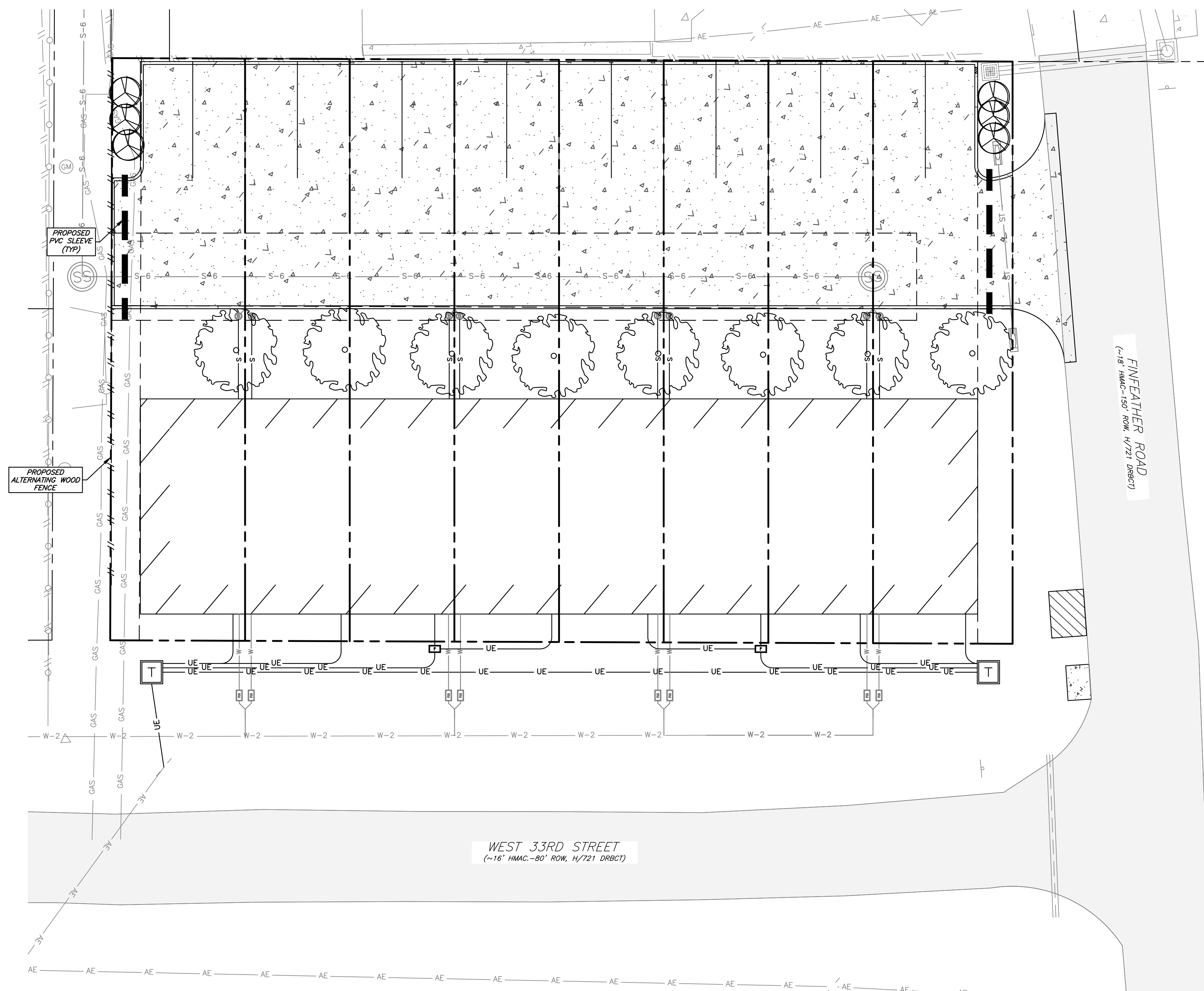
Provided:

Proposed Canopy Trees
8 @ 200 SF = 1,600 SF
Proposed Non-Canopy Trees
6 @ 100 SF = 600 SF
Net Total = 2,200 SF

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



Tree Staking & Planting
N.T.S



Notes:

- All lumber shall be weather resistant cedar or pressure treated.
- Pickets are to be 1x6, dog-eared, fastened w/ 1 1/2" galv. screws, min 2 per connection.
- Pickets shall be installed in a staggered board design where adjacent pickets are on opposite sides of the fence.
- 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.

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.

No.	Revision/Issue	Date

Firm Name and Address:

J4 Engineering

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

Project Name and Address:

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City of Bryan Townsite Addition
Block 1, Lots 1R1-1R8 (0.356 Acres)
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Bryan, Brazos County, Texas 77803

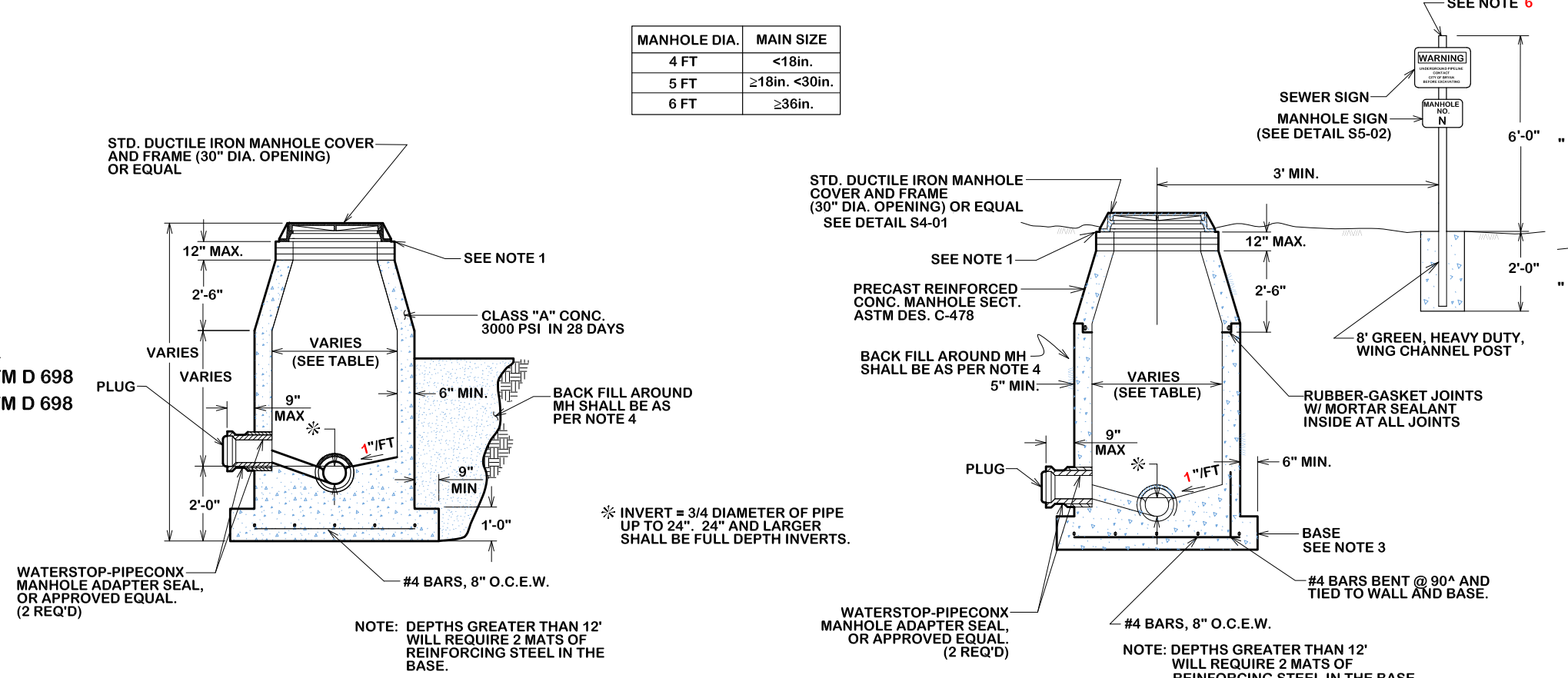
Date: **March 2025**

Scale: **As Noted**

Drawn by: **KB**

Sheet: **L1**

- NOTES:
- A MAX. OF 4 AND A MIN. OF 2 THROAT RINGS SHALL BE USED AT EACH MANHOLE IN NEW OR EXISTING RIGHT-OF-WAY.
 - USE NP 1 SEALANT OR APPROVED EQUAL BETWEEN RING/COVER, ADJUSTMENT AND CHIMNEY OR CORBEL/CONE SECTION.
 - MANHOLE BASE THICKNESS AND FOUNDATION FROM FLOWLINE TO RIM AS FOLLOWS:
- | MANHOLE DEPTH (FT.) | BASE THICKNESS |
|---------------------|----------------|
| 0 - 12 | 8" |
| 12 AND OVER | 12" |
- MANHOLE LOCATION AND COMPACTION AS FOLLOWS:
- | LOCATION | COMPACTION REQUIREMENT |
|----------------|------------------------------------|
| PAVEMENT | 98 % STANDARD PROCTOR - ASTM D 698 |
| LANDSCAPE AREA | 90 % STANDARD PROCTOR - ASTM D 698 |
- IN FLOODPLAINS OR AREAS OF CONCENTRATED FLOW, THE CONE SHALL EXTEND 1 FOOT ABOVE THE BASE FLOOD ELEVATION OR A BOLT DOWN WATER-TIGHT RING AND COVER SHALL BE USED, WANTED WHERE REQUIRED.
 - WARNING SIGN ONLY TO BE PLACED WHERE SEWER CROSSES OPEN FIELDS.



CAST IN PLACE MANHOLE

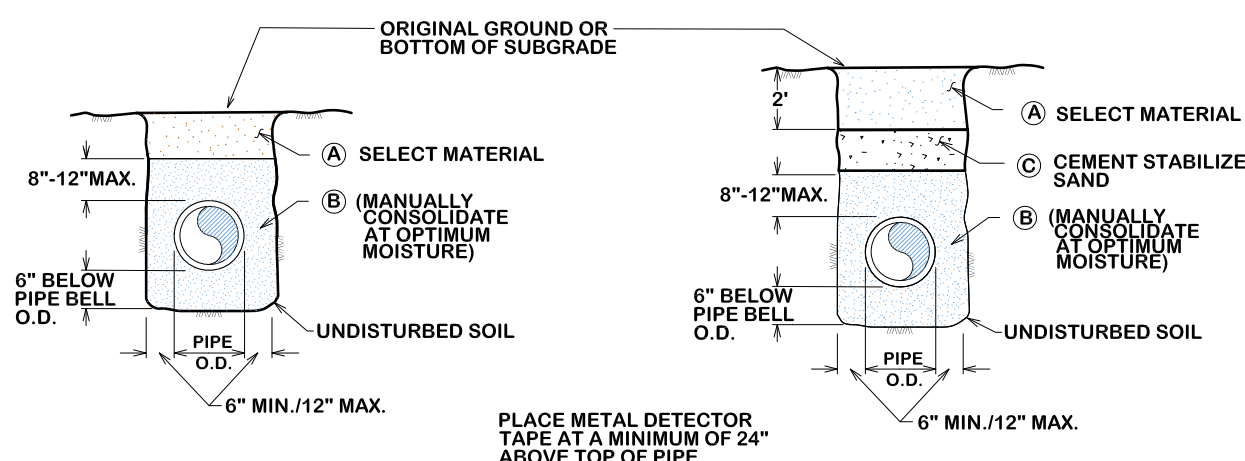
PRE-CAST MANHOLE

STANDARD MANHOLE

S1-00

- NOTES:
- FOR BEDDING AND TRENCHING WITHIN ALL EXISTING PAVED AREAS, SEE DETAILS FOR OPEN CUT STREETS (Details S14-00, S14-01, S14-02). THIS NOTE DOES NOT APPLY TO STREETS BEING RECONSTRUCTED.
 - ALL BEDDING & INSTALLATION OF PVC PIPE SHALL BE IN ACCORDANCE TO ANSI/AWWA STANDARDS FOR PVC PIPE.
 - ALL BEDDING & INSTALLATION OF DUCTILE IRON PIPE SHALL BE IN ACCORDANCE TO ANSI/AWWA C150/A21.50.
 - COMPACTION SHALL BE ATTAINED BY MECHANICAL TAMPING.
 - ALL TRENCHES SHALL BE BACK FILLED AND TEMPORARY PAVING OR PLANKING PLACED AT THE END OF EACH WORKING DAY.
 - EVERY 100 FEET PROVIDE A WATER STOP BLOCK COMPOSED OF CEMENT SAND OR IMPERVIOUS NATIVE MATERIAL DEPENDING ON EMBEDMENT. BLOCK SHALL BE 6 FEET IN LENGTH. NO BEDDING SAND IN THIS AREA.

- SELECT NATIVE MATERIAL
- MATERIAL EXCAVATED FROM THE DITCH, (WHICH IS FREE OF ROCKS, LUMPS, CLODS, OR DEBRIS LARGER THAN TWO (2) INCHES IN THE LARGEST DIMENSION), COMPACTED TO A MINIMUM OF 90% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D698 (STANDARD) AT A MOISTURE CONTENT WITHIN OPTIMUM TO +4% OF OPTIMUM UNDER NON-STRUCTURAL AREAS (i.e., YARDS, PASTURES, EASEMENTS) (OPTION 1) AND TO A MINIMUM OF 98% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D698 (STANDARD) AT A MOISTURE CONTENT WITHIN OPTIMUM TO +4% OF OPTIMUM UNDER NEW STREET AREAS AND STREETS TO BE RECONSTRUCTED. (OPTION 2)
- GRANULAR MATERIAL
- MATERIAL SHALL BE BANK RUN RIVER SAND WHICH IS FREE OF DETRIMENTAL QUANTITIES OF CLAY, DEBRIS, OR ORGANIC MATERIAL, AND WHICH, WHEN TESTED BY STANDARD LABORATORY METHODS, MEET THE FOLLOWING REQUIREMENTS:
- | | |
|---------------------------------------|-----|
| MAXIMUM LIQUID LIMIT | 45 |
| MAXIMUM PLASTICITY INDEX | 15 |
| MAXIMUM PERCENT PASSING NO. 200 SIEVE | 35 |
| MINIMUM PERCENT PASSING 3/4" SIEVE | 100 |
- THE MATERIAL SHALL BE FREE FLOWING AND WHEN WET, SHALL NOT ADHERE TO OR FORM A BALL WHEN PRESSED IN HAND.
- CEMENT STABILIZED SAND
- 1-1/2" SACKS CEMENT/ICY MINIMUM
2 SACKS CEMENT/ICY MINIMUM WHEN DISTANCE BETWEEN SANITARY LINES AND WATER LINES IS < 9 FT



NON-STRUCTURAL AREAS

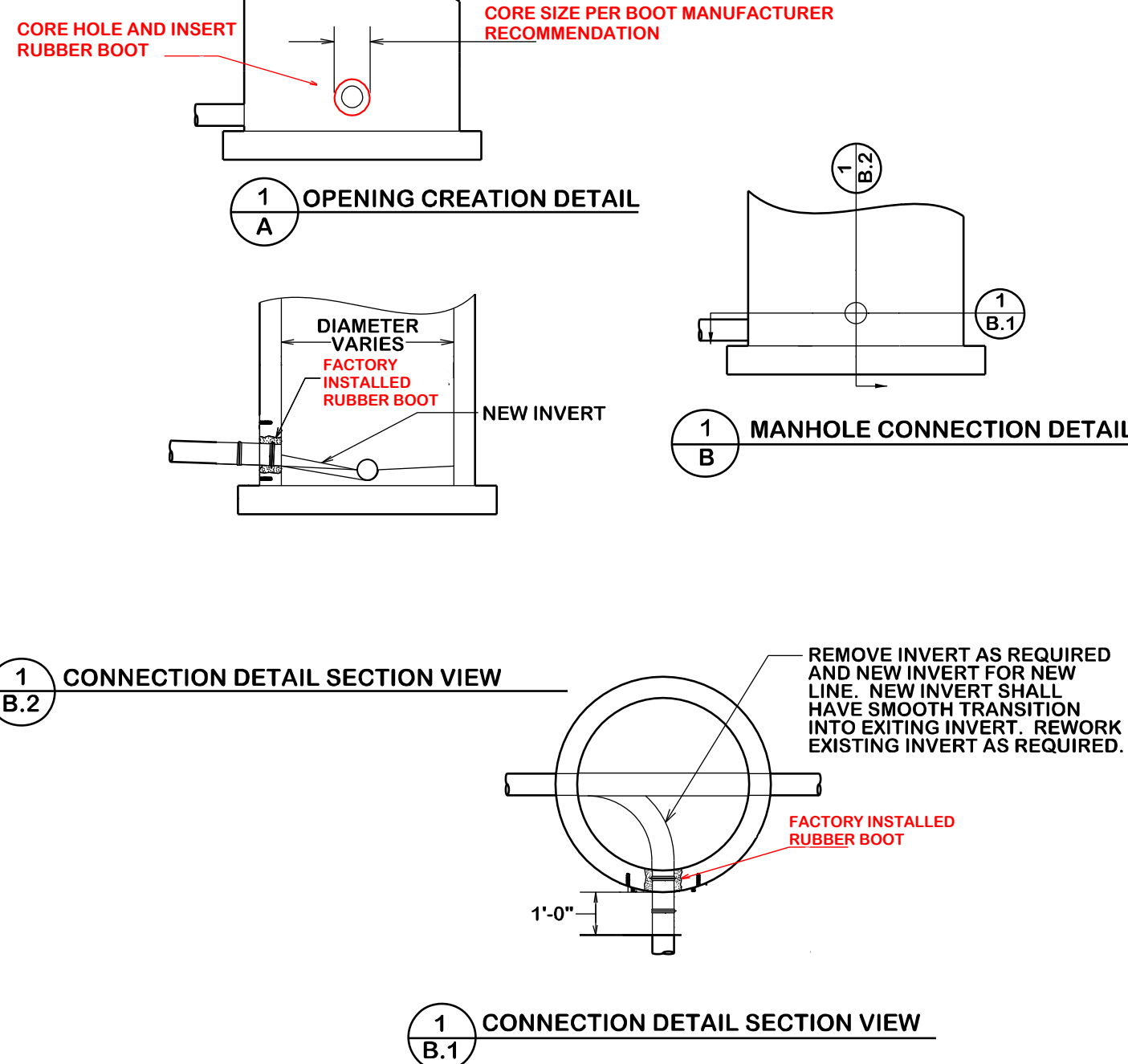
AREAS TO BE PAVED OR STREETS TO BE RECONSTRUCTED

BEDDING AND TRENCH FOR DI PIPE & PVC PIPE

S1-01

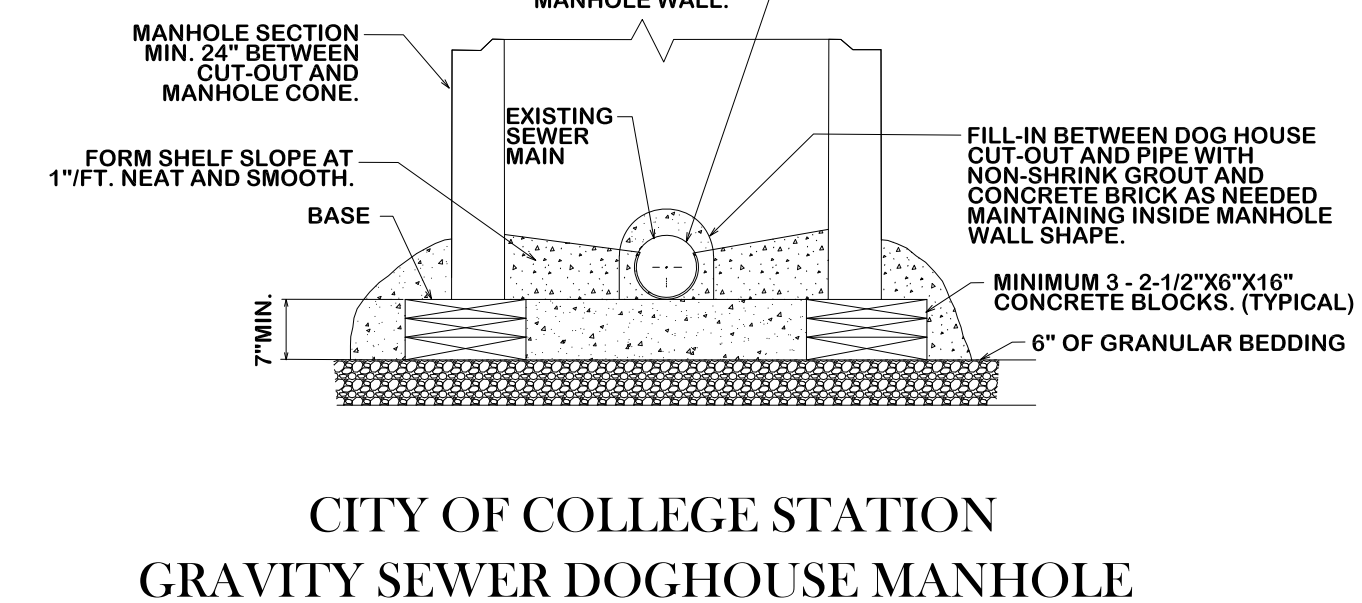
- NOTES:
- FLOW SHALL BE MAINTAINED DURING CONSTRUCTION.
 - THIS DETAIL TO BE USED WHEN A 6" OR LARGER LATERAL NECESSITATES CONSTRUCTION OF A NEW MANHOLE.
 - FOR ADDITIONAL STANDARDS NOT SHOWN, SEE "STANDARD MANHOLE" DETAIL S1-02.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPORT OF EXISTING SEWER DURING INSTALLATION OF MANHOLE.
 - DOGHOUSE OPENING MAY ONLY BE USED WHEN PLACING A NEW MANHOLE OVER AN EXISTING LINE; OTHERWISE, THE OPENING MUST BE CAST, SIZE, LOCATION, AND ANGLE OF ENTRY SHALL BE AS REQUIRED BY THE PLANS.
 - EXCAVATE TRENCH TO MIN. 13" BELOW BOTTOM OF EXISTING PIPE, COMPACT SUBGRADE, PLACE AND COMPACT 6" OF GRANULAR BEDDING. MONOLITHIC POUR OF MIN. 7" DEPTH, SACK TOPPING MIX TO BE PLACED INSIDE, UNDER, AND OUTSIDE MANHOLE BARREL FROM SURFACE OF BEDDING, AROUND CONCRETE BLOCK RISERS, TO A POINT APPROXIMATELY AT THE SPRING LINE OF THE EXIST. PIPE.
 - DURING THE SAME POUR, THE FINISH MANHOLE SHELF SHALL BE FORMED AND FINISHED AROUND THE BARREL AND EXISTING PIPE AS SHOWN.
 - AFTER CONCRETE SHELF HAS CURED, AND THE MANHOLE HAS BEEN VACUUM TESTED, THE EXISTING PIPE SHALL BE SAW CUT. ONLY AFTER CITY APPROVED, PASSING MANHOLE LEAKAGE TESTING, THE EXISTING PIPE SHALL FORM THE TROUGH OF THE MANHOLE AS SHOWN. FILE CUT PIPE TO GIVE SMOOTH EDGES.

- NOTES:
- CONCRETE SHALL BE 3,000 P.S.I.



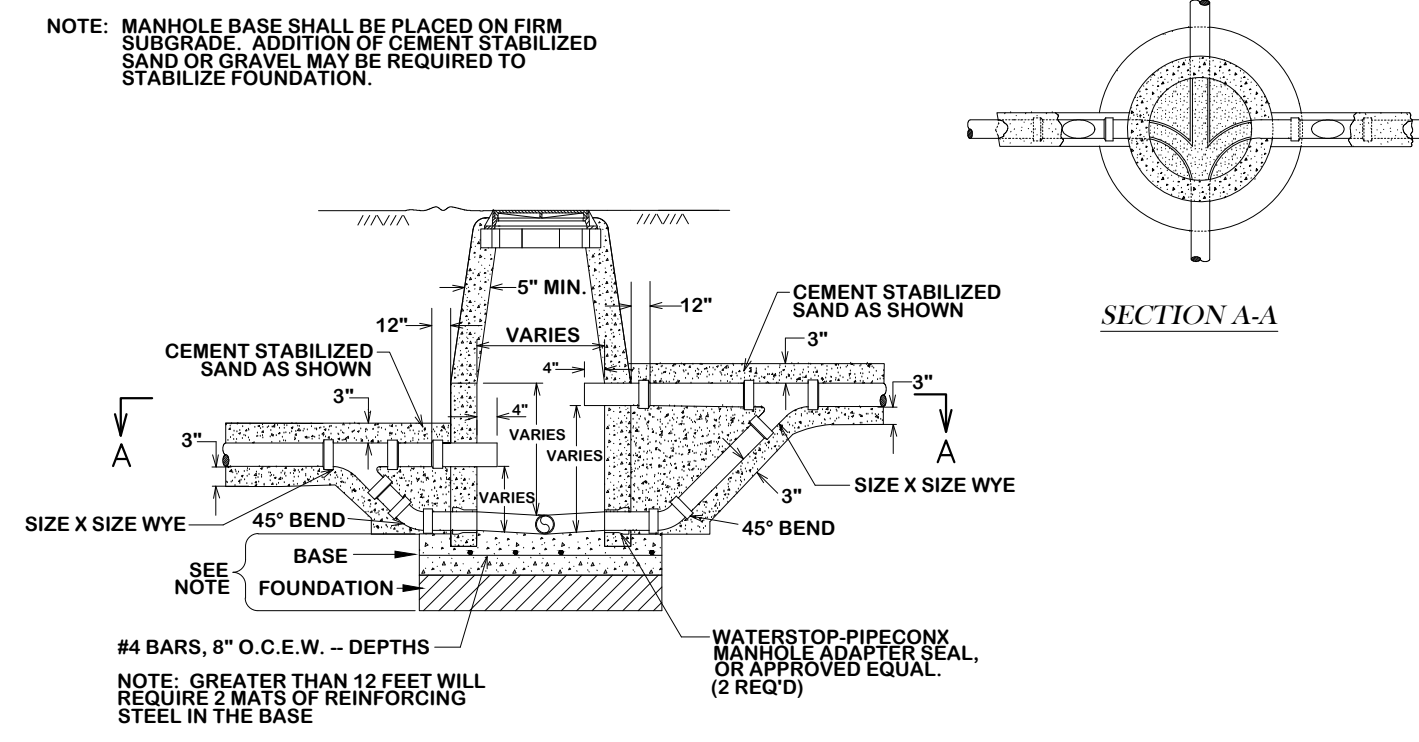
STANDARD MANHOLE TIE-IN

S3-01



CITY OF COLLEGE STATION
GRAVITY SEWER DOGHOUSE MANHOLE

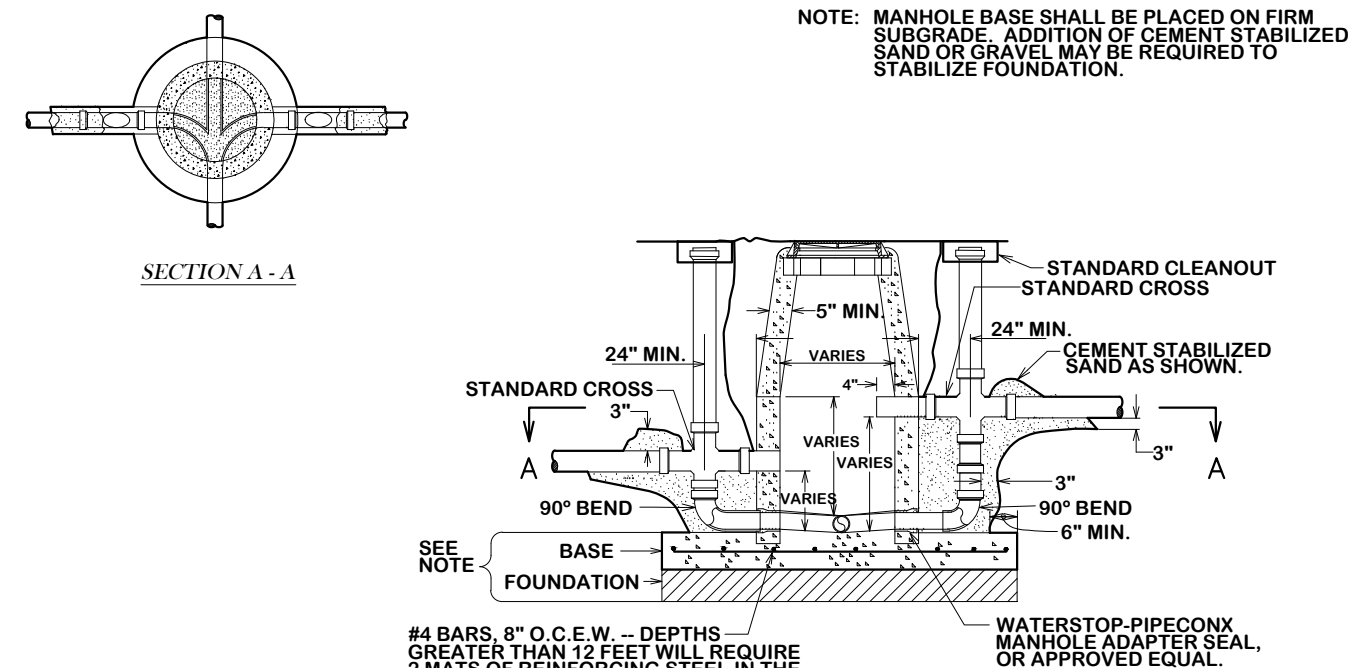
S3-00



CITY OF COLLEGE STATION
OUTSIDE DROP MANHOLE

ONLY ALLOWED FOR MAIN LINE CONNECTIONS 6" AND LARGER

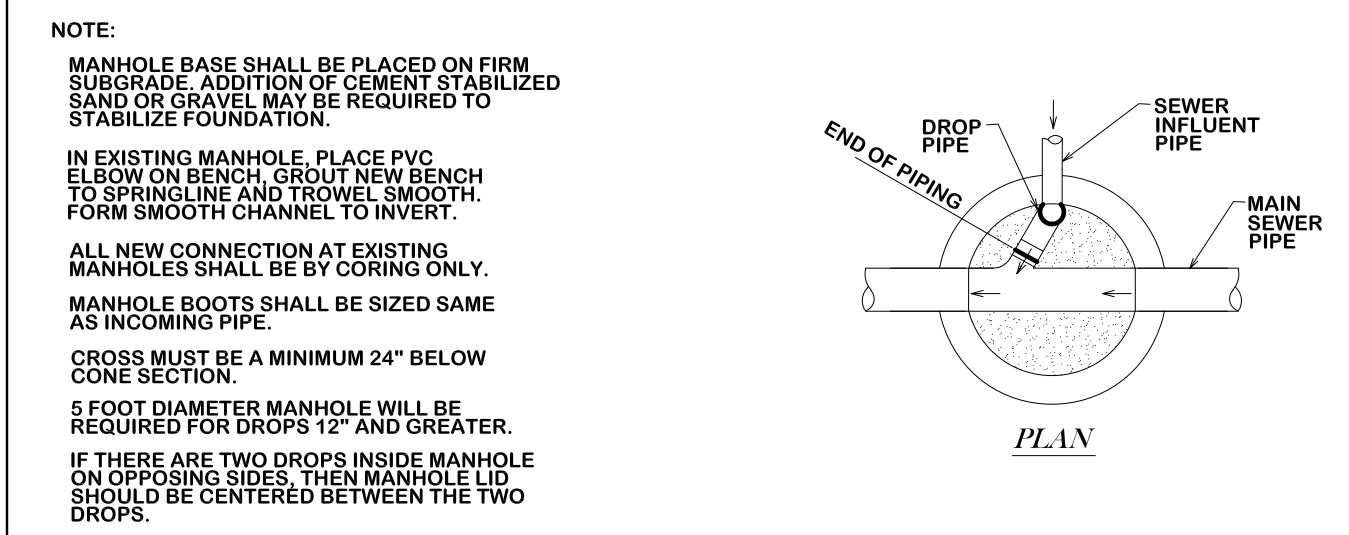
S2-00



CITY OF BRYAN
OUTSIDE DROP MANHOLE

ONLY WHEN APPROVED BY CITY ENGINEER

S2-01

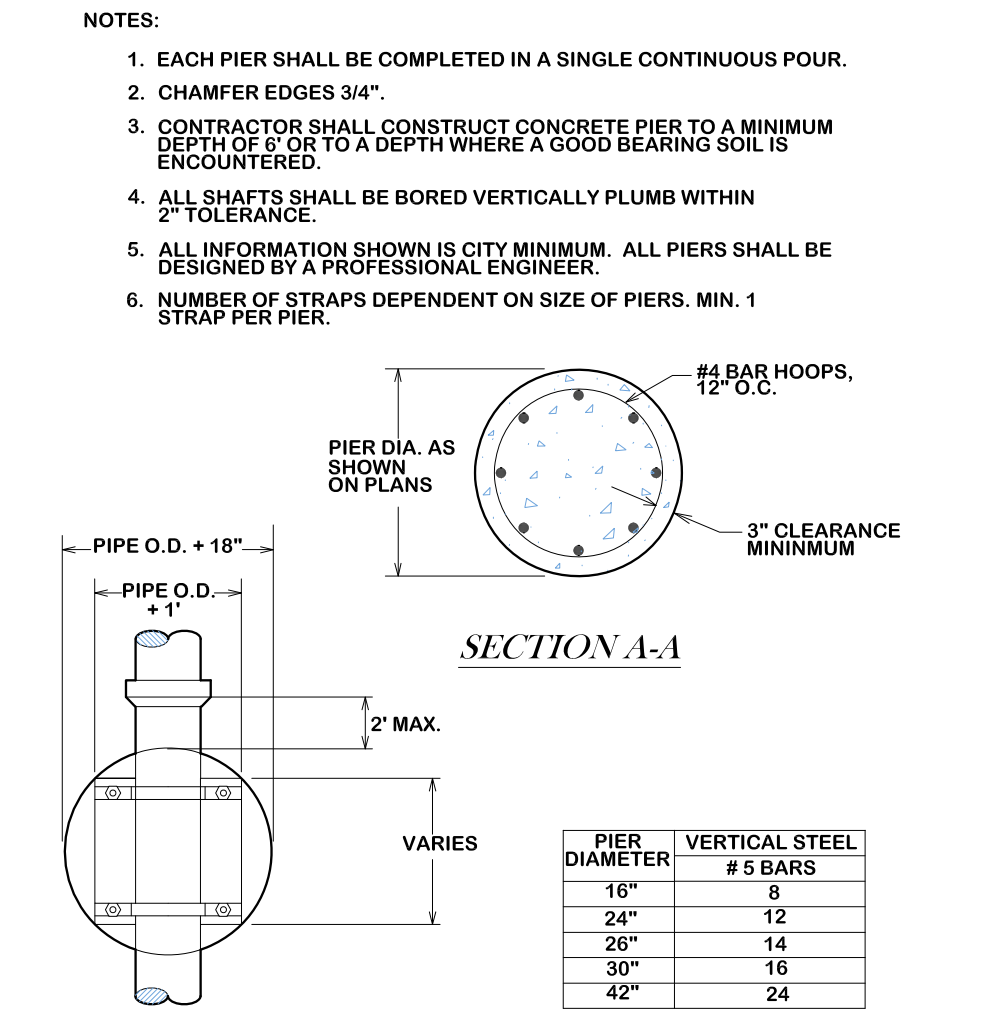


STANDARD DROP MANHOLE

CITY OF BRYAN - DROP MANHOLE TO BE USED ON LINES UP TO 12" IN SIZE

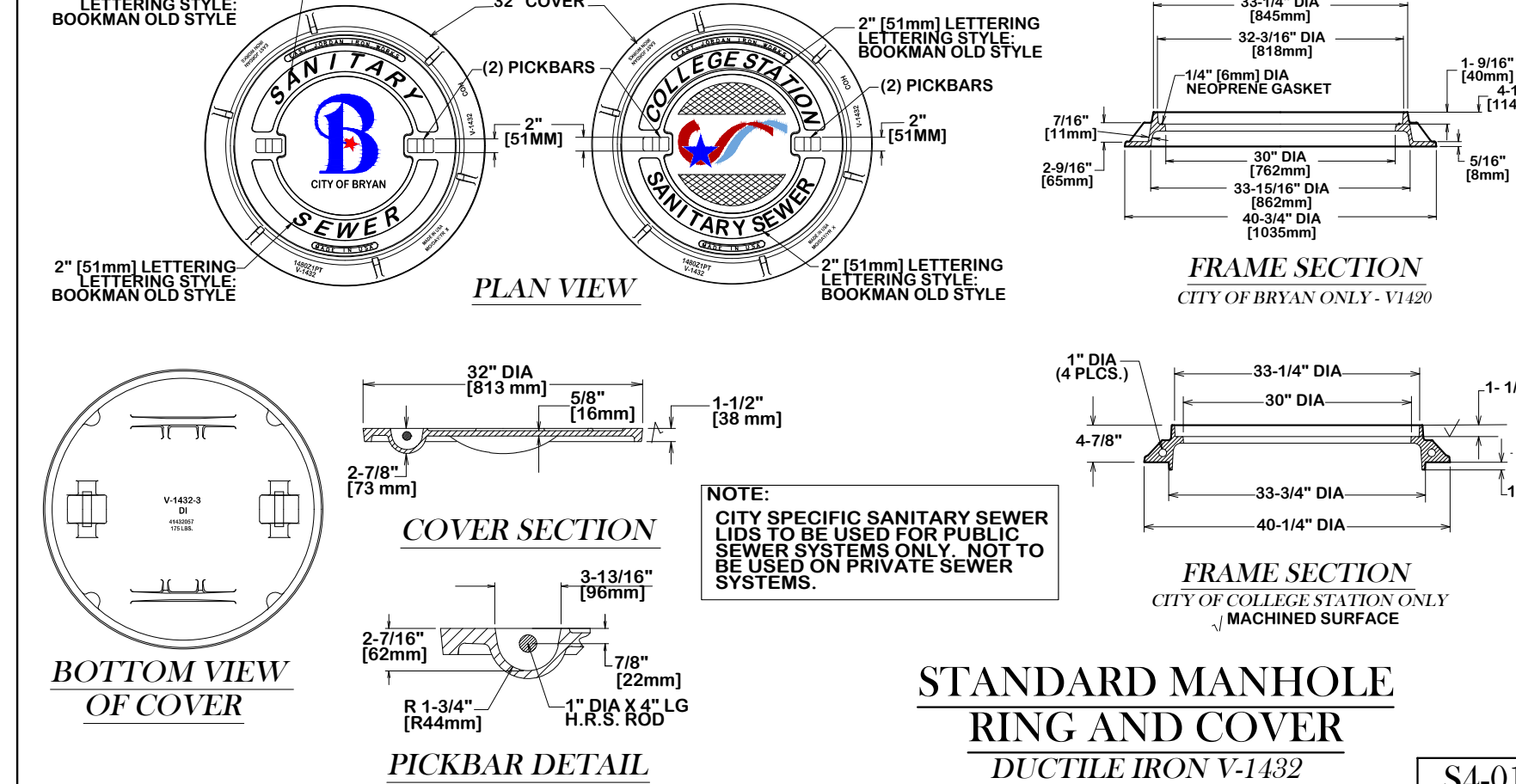
CITY OF COLLEGE STATION - DROP MANHOLE TO BE USED ON LINES UP TO 1" IN SIZE

S2-02



TYPICAL CONCRETE DRILLED
PIER FOR AERIAL SEWER

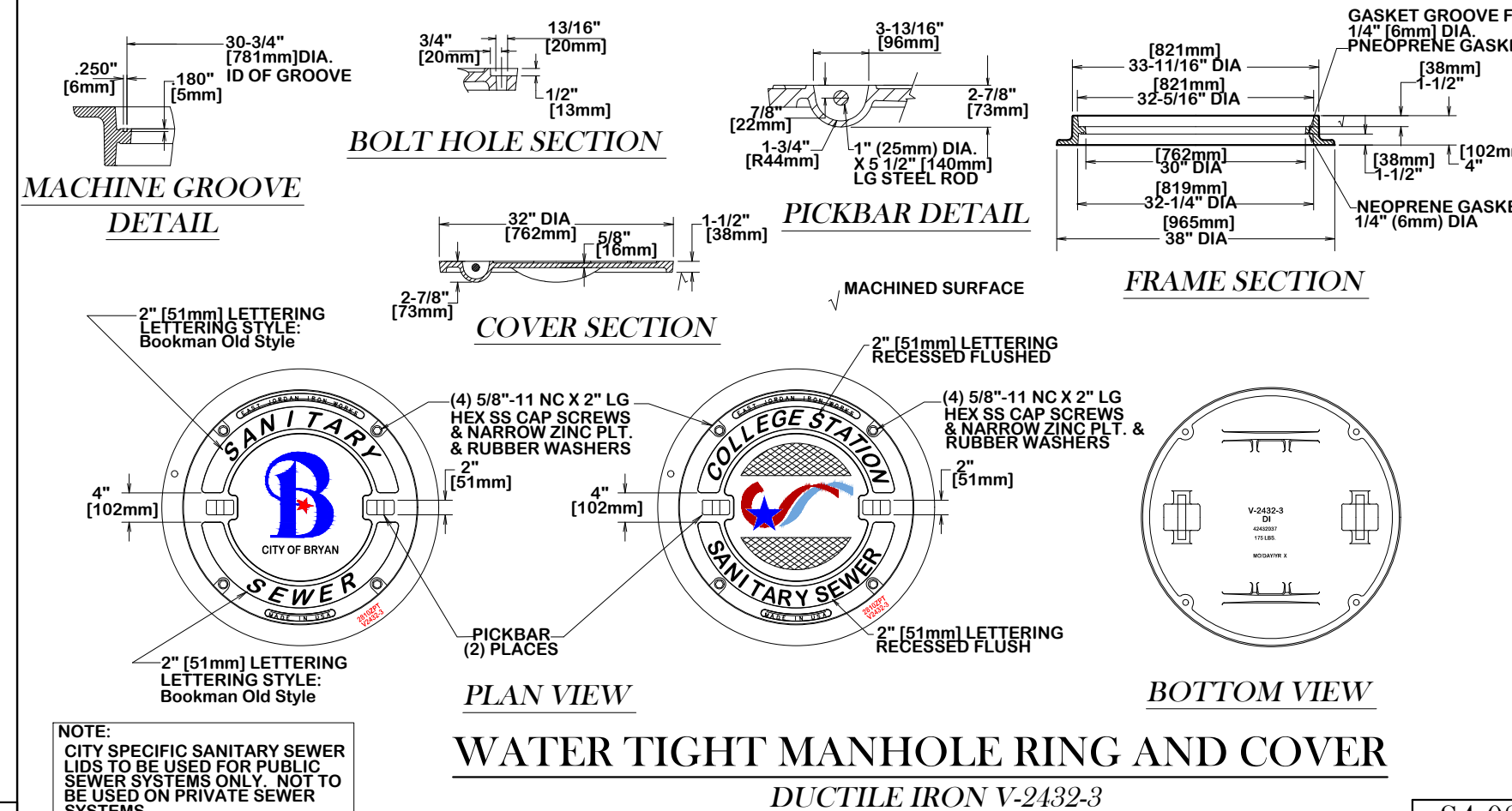
S4-00



STANDARD MANHOLE
RING AND COVER

DUCTILE IRON V-1432

S4-01



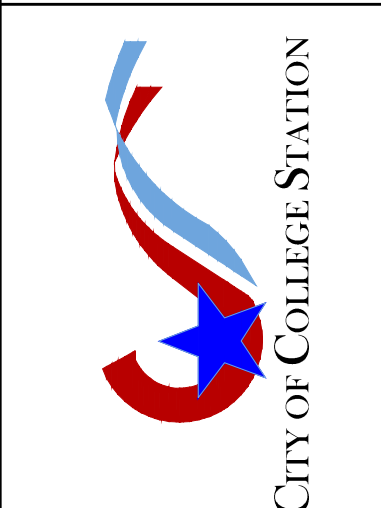
WATER TIGHT MANHOLE RING AND COVER

DUCTILE IRON V-2432-3

S4-02

REVISIONS:
7/26/2022 - S4-01 FRAME

BRYAN - COLLEGE STATION
STANDARD SEWER DETAILS



DRAWN BY: K.L.
DATE: APR 2024
SCALE: NTS
APPROVED: W. P. K.

S1
SHEET 1 OF 2

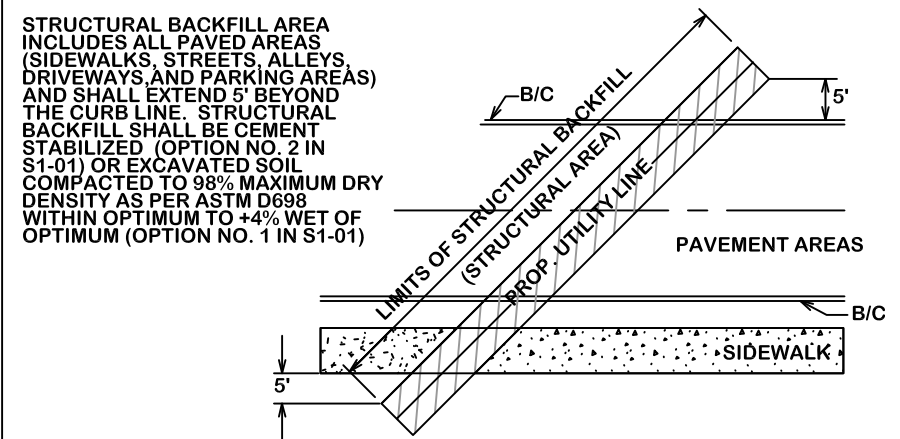
GENERAL NOTES:

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

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

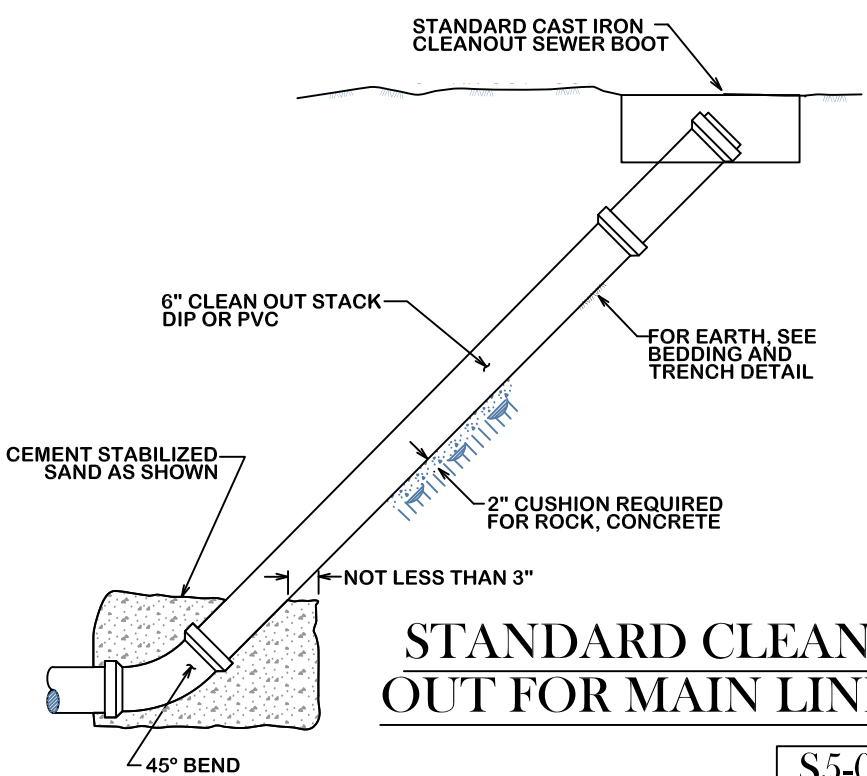
ALL EROSION CONTROL MEASURES SHOULD BE CLEANED OF SILT AFTER EVERY RAIN.

ESTABLISHMENT OF VEGETATION MAY BE A WARRANTY ITEM.



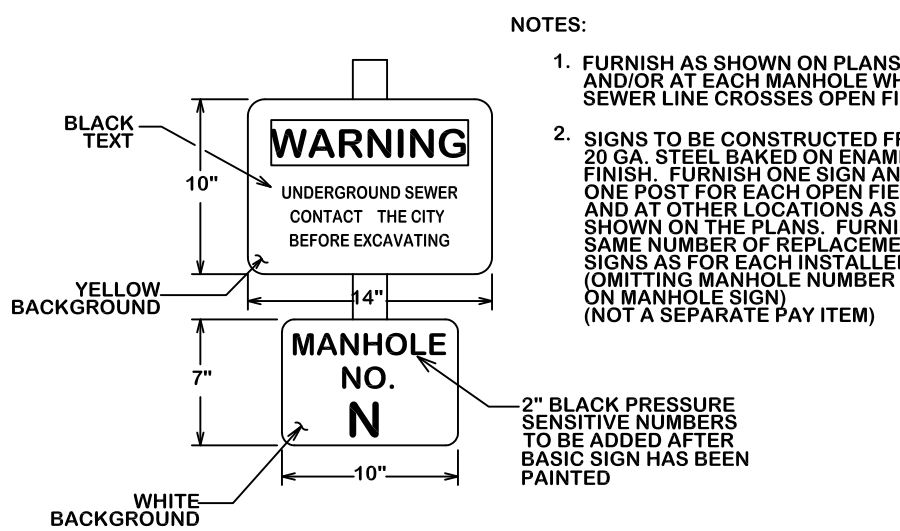
STRUCTURAL BACKFILL AREA

S5-00



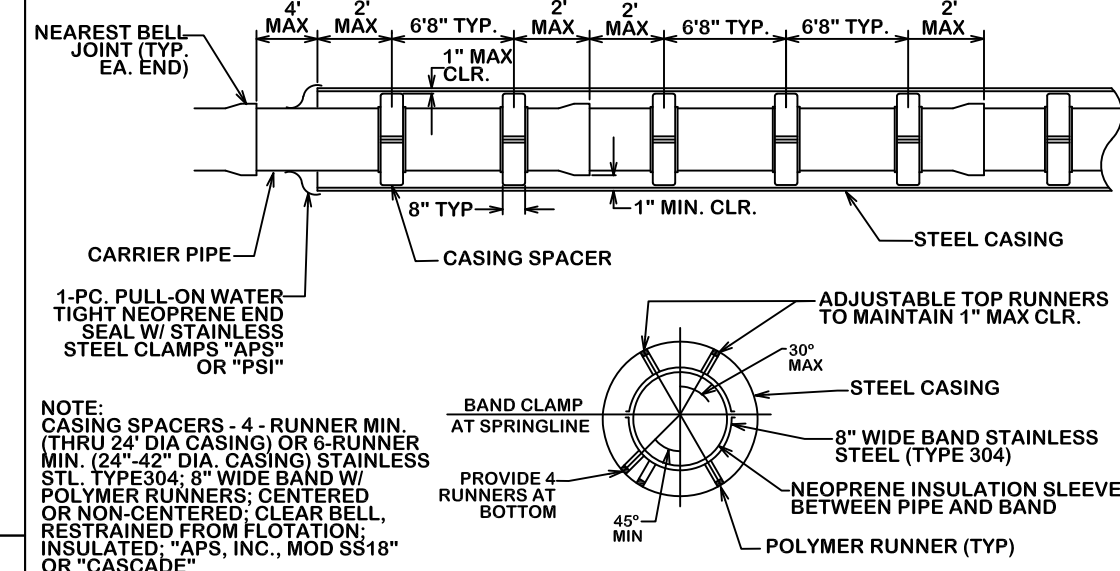
STANDARD CLEAN OUT FOR MAIN LINE

S5-01



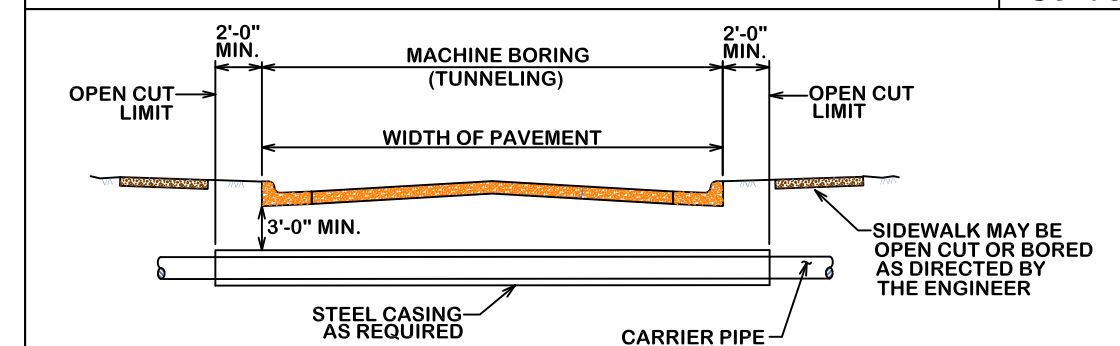
SEWER WARNING AND MANHOLE IDENTIFICATION SIGN

S5-02



CASING DETAIL

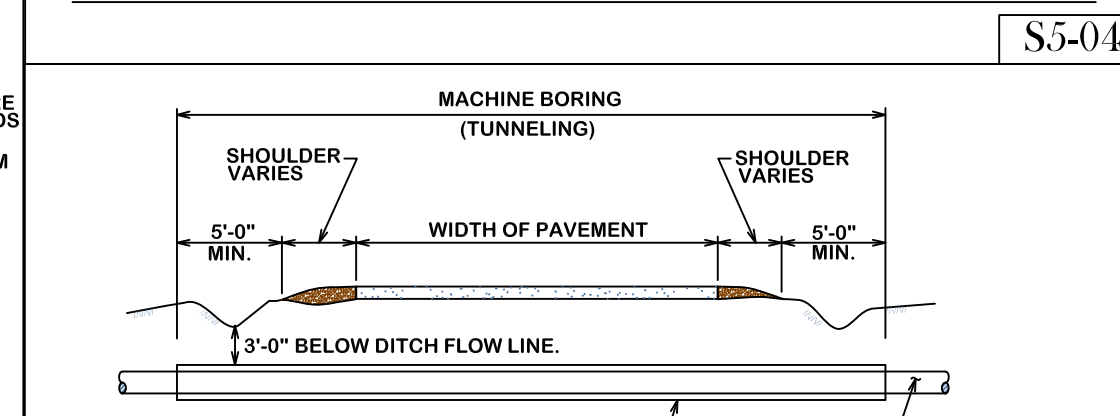
S5-03



NOTE:
1. FOR MORE INFORMATION ON WATER AND SEWER LINE CROSSING SEE CITY STANDARD SPECIFICATION FOR WATER AND SEWER LINE CONSTRUCTION.
2. STEEL CASING SHALL BE AS SPECIFIED IN THE TECHNICAL SPECIFICATIONS.
3. DRY BORING PREFERRED, WET BORING ALLOWED ONLY WHEN APPROVED BY THE CITY ENGINEER.

TYPICAL URBAN CITY STREET CROSSING

S5-04



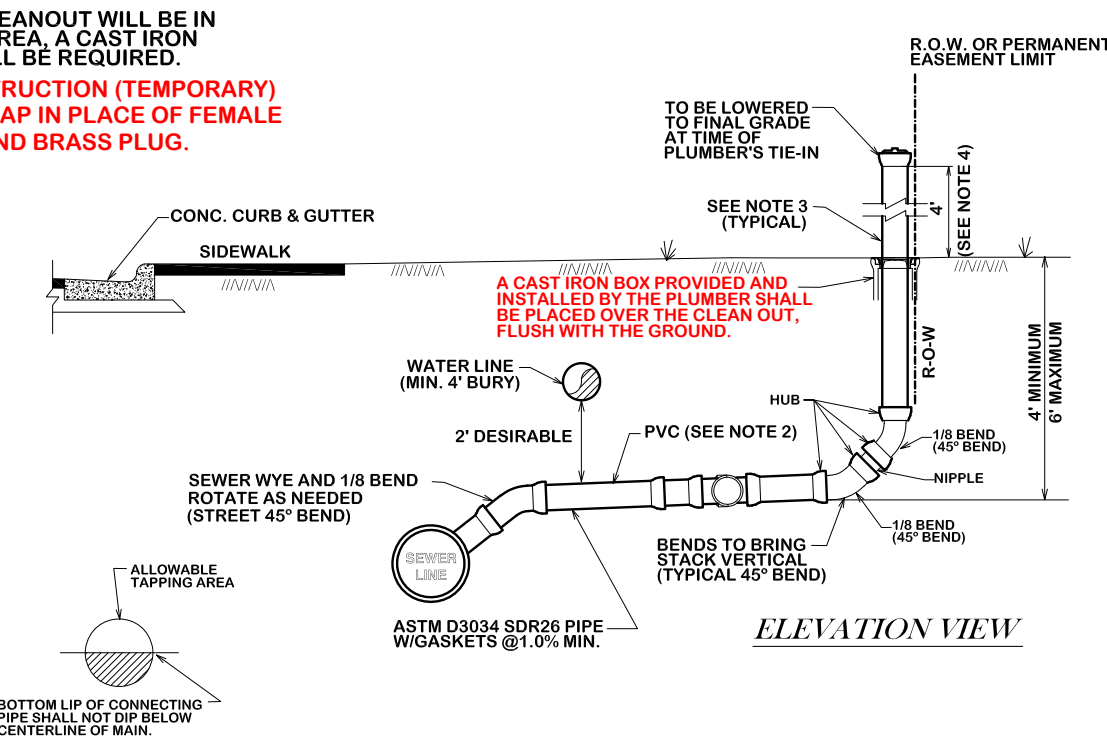
TYPICAL RURAL STREET CROSSING

S5-05

NOTE:
1. FOR MORE INFORMATION ON WATER AND SEWER LINE CROSSING SEE CITY STANDARD SPECIFICATION FOR WATER AND SEWER LINE CONSTRUCTION.
2. STEEL CASING SHALL BE AS SPECIFIED IN THE TECHNICAL SPECIFICATIONS.
3. DRY BORING IS REQUIRED.

- NOTE:
1. ALL MATERIAL SHALL BE ASTM D3034 SDR26 W/ GASKETS
 2. ALL SERVICE CONNECTIONS & EXTENSIONS ARE TO BE INSTALLED WITH THE MAIN LINE CONSTRUCTION.
 3. A CLEAN OUT IS REQUIRED AND WILL BE INSTALLED BY THE CONTRACTOR AT THE ROW FOR EACH LONG AND SHORT SIDE SERVICE. CLEANOUT SHALL INCLUDE A BRASS PLUG. CLEANOUTS SHALL BE EXTENDED 4 FEET ABOVE NATURAL GROUND. CLEANOUT CAP FITTING SHALL BE PLACED ON TOP.
 4. LOT CORNERS SHALL BE MARKED WITH A LATH UNDER THE SUPERVISION OF A S.P.L.S. UPON COMPLETION OF CONSTRUCTION
 5. "STANDARD" SERVICE CONNECTIONS APPLY WHEN TRENCH IS LESS THAN 7' DEEP.
 6. "DEEP" SERVICE CONNECTIONS APPLY WHEN TRENCH IS MORE THAN 7' DEEP.
 7. SERVICE SHALL BE AS SHALLOW AS POSSIBLE AND STILL SERVICE LOT.
 8. WHERE A SINGLE SERVICE THAT SERVES A SINGLE RESIDENCE TAPS INTO A MANHOLE NEAR THE PROPERTY LINE OF THAT LOT A SEWER STACK SHALL NOT BE REQUIRED.
 9. WHERE A CLEANOUT WILL BE IN A TRAFFIC AREA A CAST IRON TOP HAT WILL BE REQUIRED.
 10. NEW CONSTRUCTION (TEMPORARY) USE GLUE CAP IN PLACE OF FEMALE ADAPTER AND BRASS PLUG.

PLAN VIEW



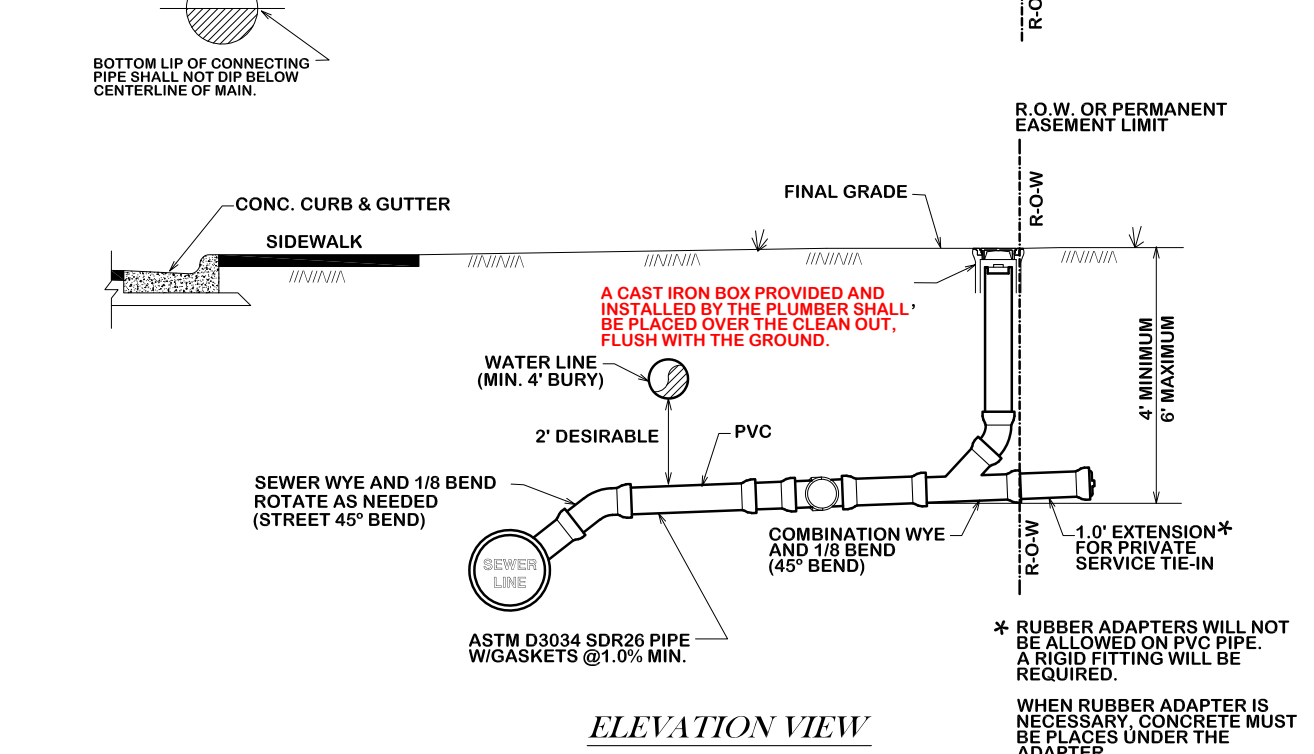
STANDARD SEWER SERVICE CONNECTION

NEW CONSTRUCTION ONLY

S6-00

- NOTE:
1. ALL MATERIAL SHALL BE ASTM D3034 SDR26 W/ GASKETS
 2. SERVICE SHALL BE AS SHALLOW AS POSSIBLE AND STILL SERVICE LOT
 3. WHERE A SINGLE SERVICE THAT SERVES A SINGLE RESIDENCE TAPS INTO A MANHOLE NEAR THE PROPERTY LINE OF THAT LOT A SEWER STACK SHALL NOT BE REQUIRED.
 4. WHERE A CLEANOUT WILL BE IN A TRAFFIC AREA, A CAST IRON TOP HAT WILL BE REQUIRED.
 4. A CLEANOUT MUST BE INSTALLED ON EACH SERVICE RE-CONNECTION AT THE ROW LINE.

PLAN VIEW



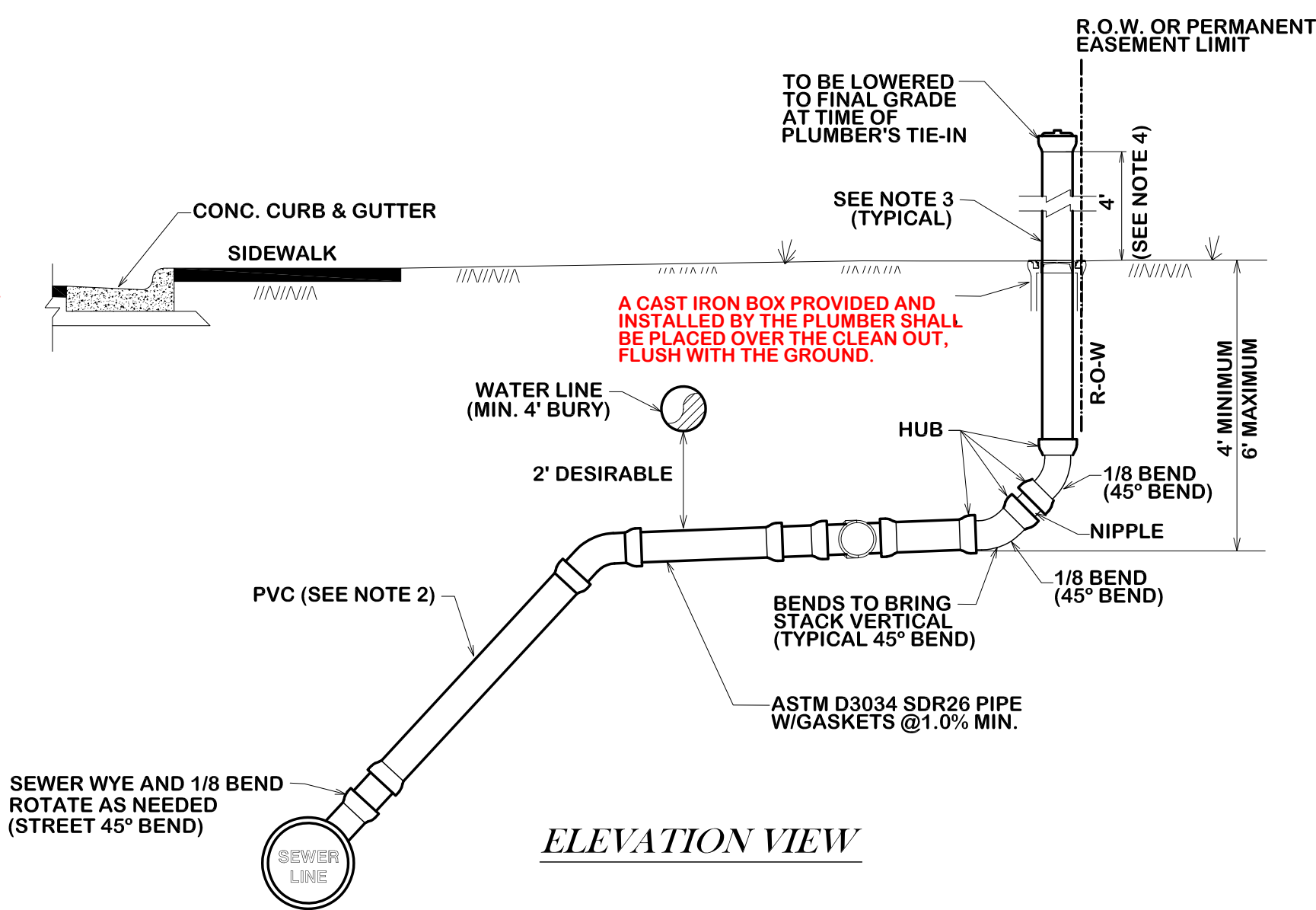
ELEVATION VIEW

STANDARD SEWER SERVICE RE-CONNECTION

PLUMBER CONNECTION OR CIP RECONSTRUCTION

S6-01

- NOTE:
1. ALL MATERIAL SHALL BE ASTM D3034 SDR26 W/ GASKETS
 2. ALL SERVICE CONNECTIONS & EXTENSIONS ARE TO BE INSTALLED WITH THE MAIN LINE CONSTRUCTION.
 3. A CLEAN OUT IS REQUIRED AND WILL BE INSTALLED BY THE CONTRACTOR AT THE ROW FOR EACH LONG AND SHORT SIDE SERVICE CLEANOUT SHALL INCLUDE A BRASS PLUG.
 4. CLEANOUTS SHALL BE EXTENDED 4 FEET ABOVE NATURAL GROUND. CLEANOUT CAP FITTING SHALL BE PLACED ON TOP.
 5. NEW CONSTRUCTION (TEMPORARY) USE GLUE CAP IN PLACE OF FEMALE ADAPTER AND BRASS PLUG.



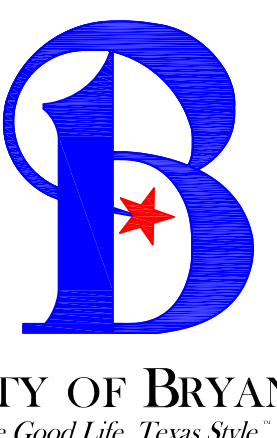
SEWER DEEP SERVICE CONNECTION

NEW CONSTRUCTION ONLY

S8-00

REVISIONS:
S5-00 & S6-01 revised 10/26/2012.

**BRYAN - COLLEGE STATION
STANDARD SEWER DETAILS**



DRAWN BY: K.L.
DATE: APR 2024
SCALE: N T S
APPROVED: W. P. K.

S2
SHEET 2 OF 2