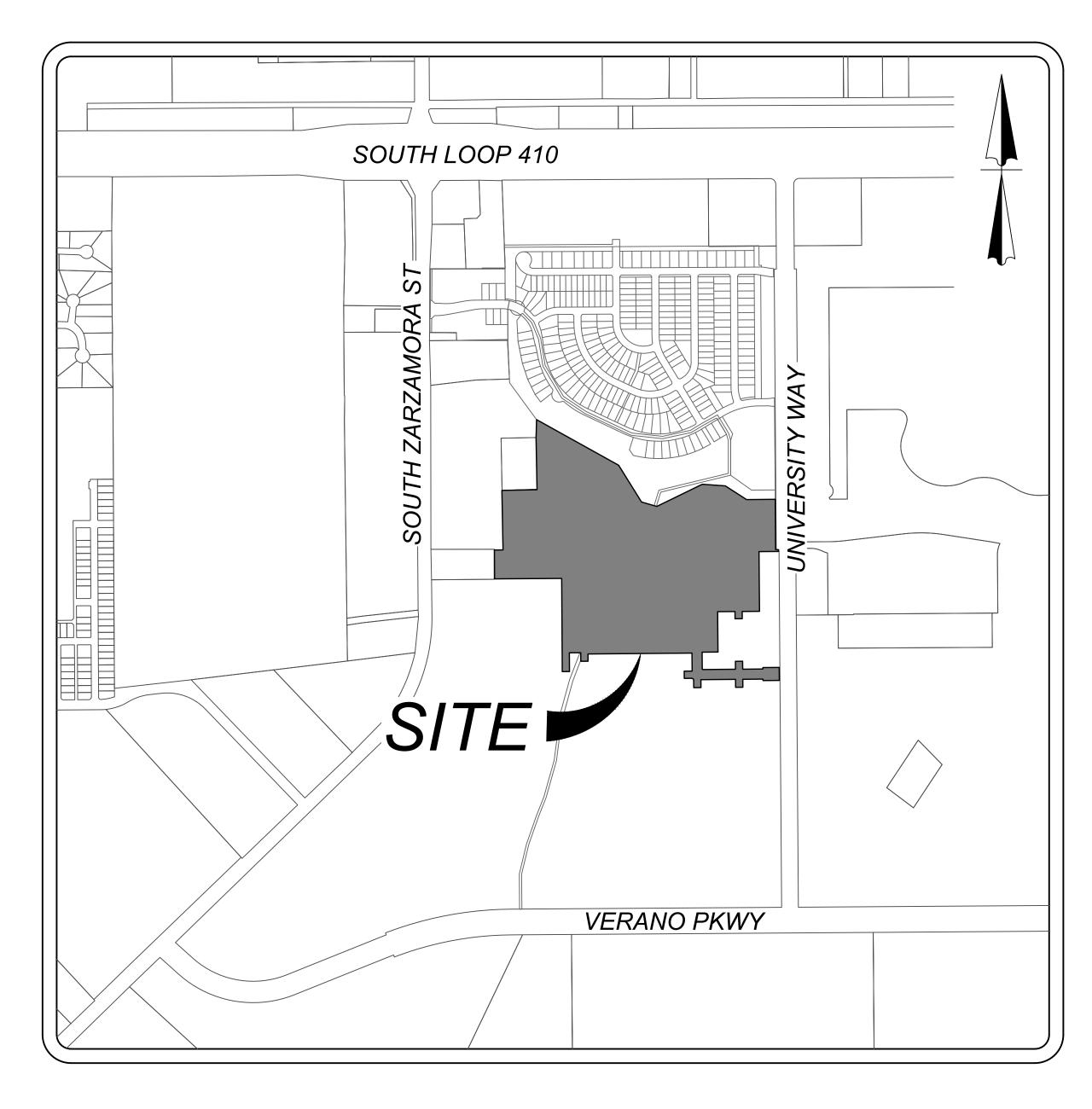
VIDA SAN ANTONIO PHASE 2

SAN ANTONIO, TEXAS

STREET, WATER, SANITARY SEWER & UTILITY IMPROVEMENTS



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}	INTERCEPTOR DRAIN "H" PLAN & PROFILE	4.7	
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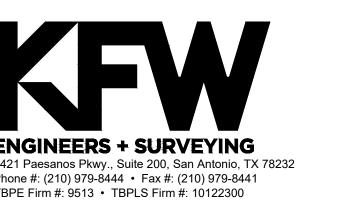
LOCATION MAP

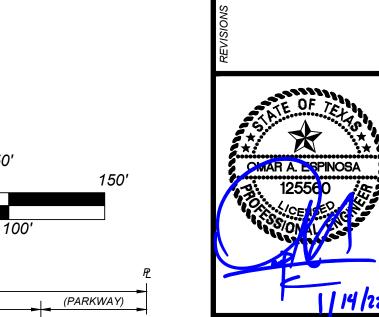
N.T.S.

OWNER/DEVELOPER: SOUTHSTAR AT VERANO, LLC 1118 VINTAGE WAY NEW BRAUNFELS, TEXAS 78132



REVISION	ISSUE DATE
ADDED TO SET OF PLANS	1/14/2022





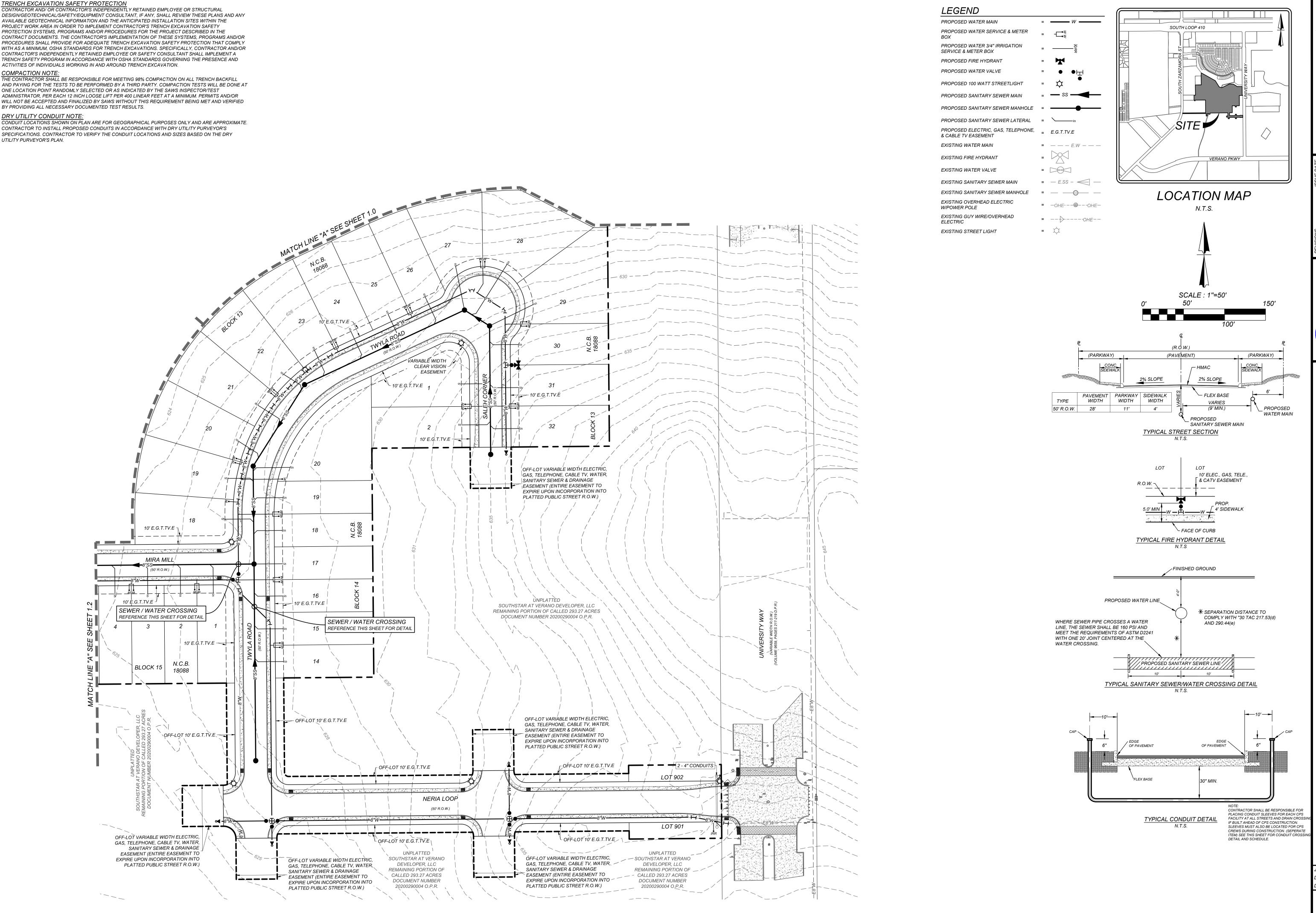
PROPOSED

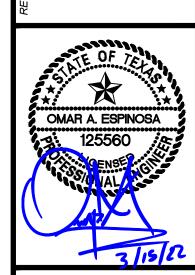
WATER MAIN

NOTE:
CONTRACTOR SHALL BE RESPONSIBLE FOR
PLACING CONDUIT SLEEVES FOR EACH CPS
FACILITY AT ALL STREETS AND DRAIN CROSS
IF BUILT AHEAD OF CPS CONSTRUCTION.
SLEEVES MUST ALSO BE LOCATED FOR CPS

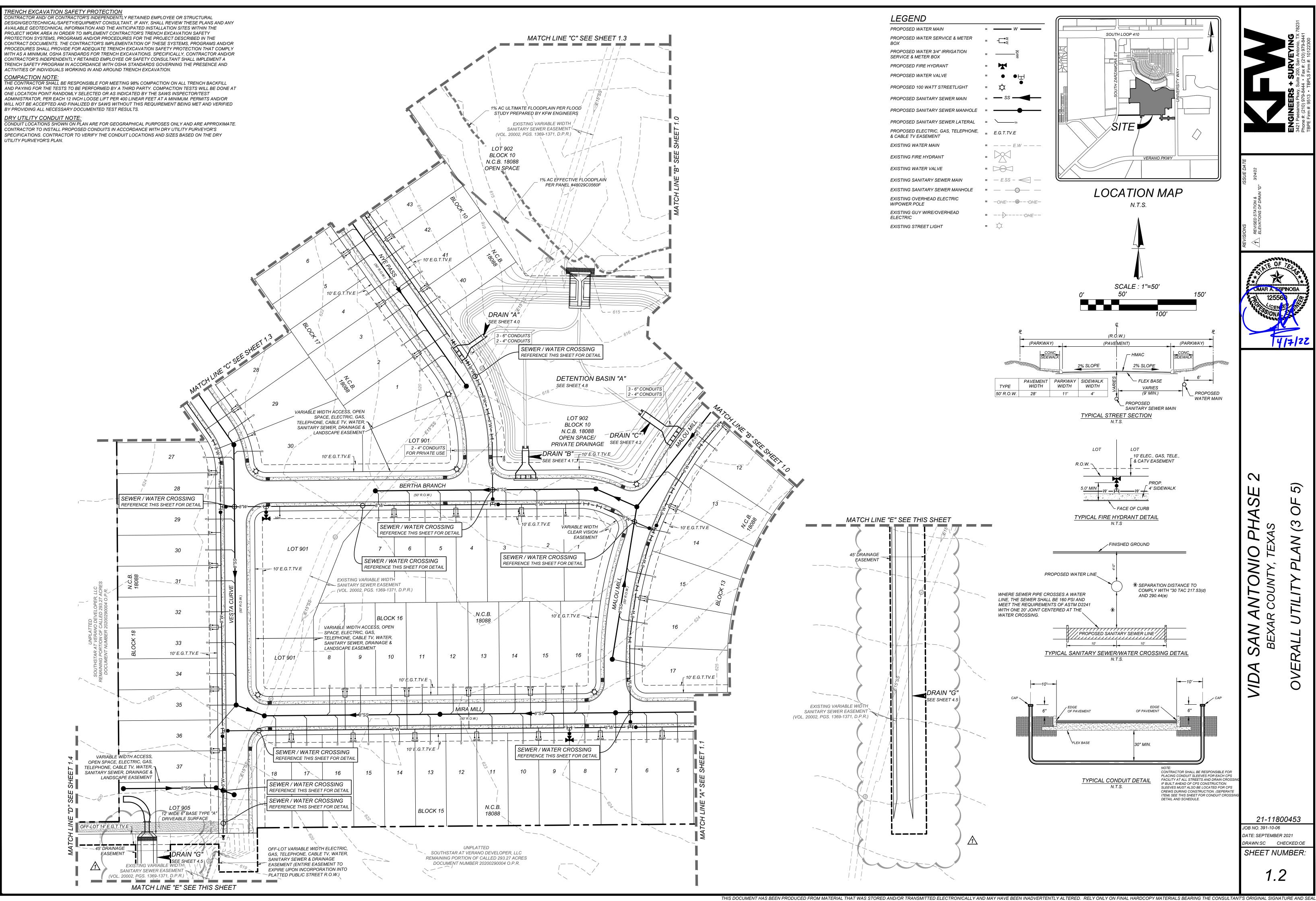
CREWS DURING CONSTRUCTION. (SEPERATE ITEM) SEE THIS SHEET FOR CONDUIT CROSS DETAIL AND SCHEDULE.

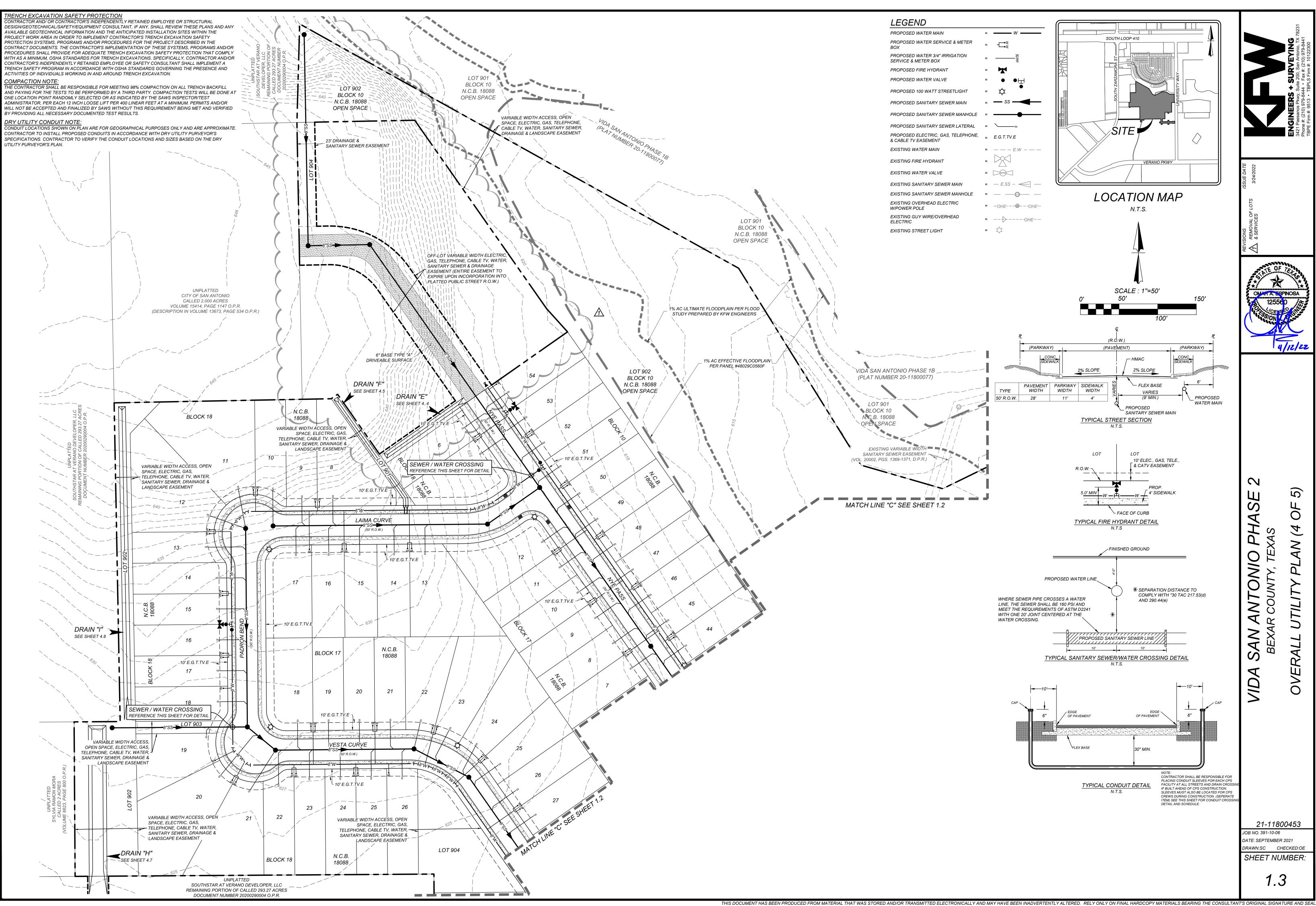
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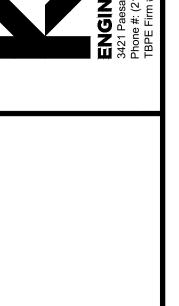


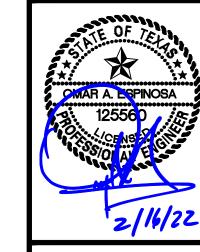
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ENGINEERS + SURVEYING 3421 Paesanos Pkwy, Suite 200, San Antonio, TX 78 Phone #: (210) 979-8444 • Fax #: (210) 979-8441 TBPE Firm #: 9513 • TBPLS Firm #: 10122300





VIDA SAN ANTONIO PHASE 2 BEXAR COUNTY, TEXAS

21-11800453

JOB NO. 391-10-06

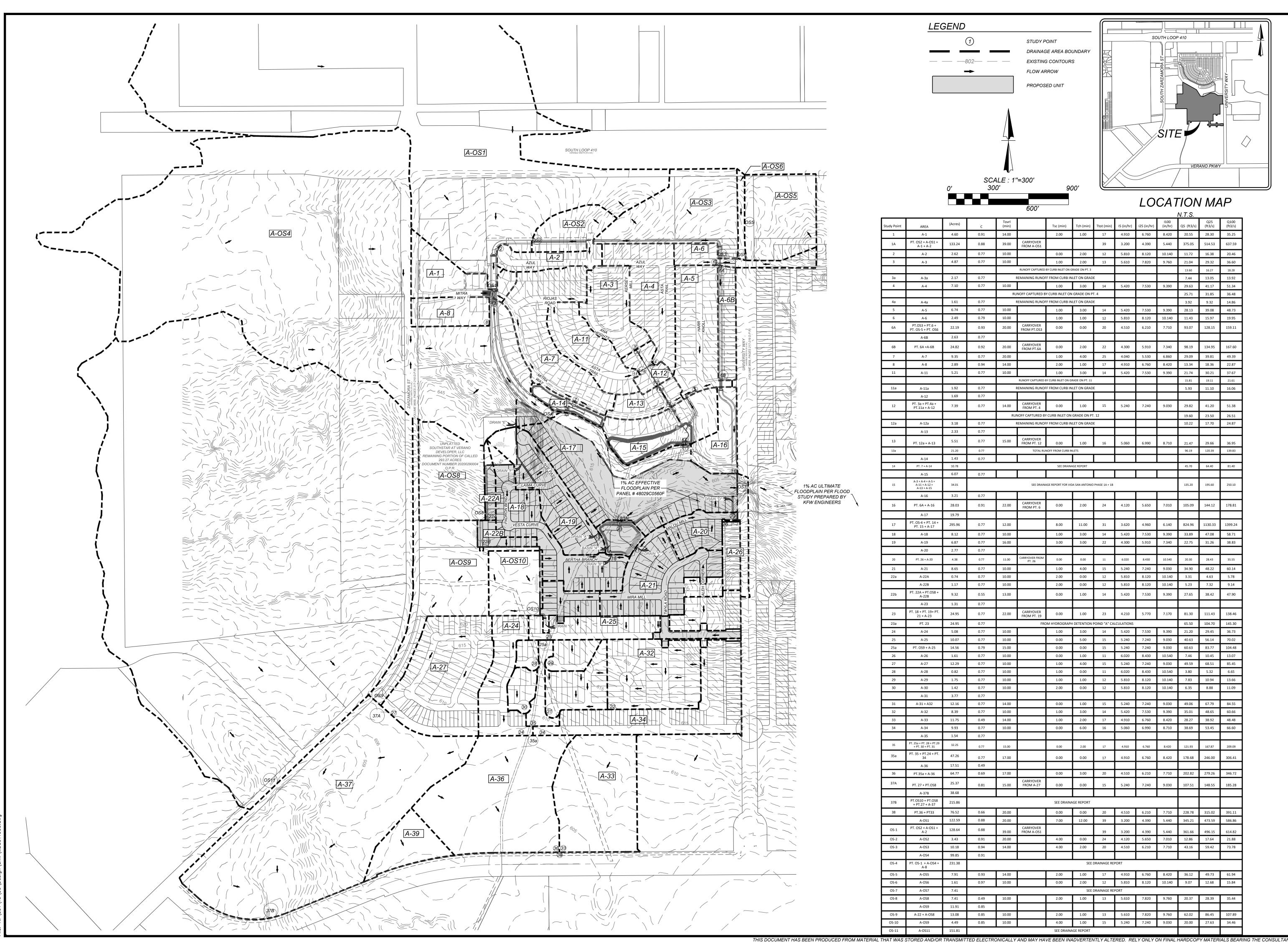
DATE: SEPTEMBER 2021

DRAWN:SC CHECKED:OE

SHEET NUMBER:

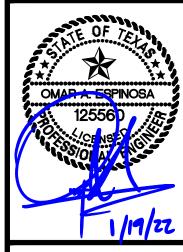
1.4

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DA SAN ANTONIO PHASE
BEXAR COUNTY, TEXAS

BEXAR C

21-11800453

JOB NO. 391-10-06

DATE: SEPTEMBER 2021

DRAWN:SC CHECKED:OE

SHEET NUMBER:

2.0

GENERAL NOTES:

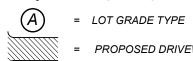
- 1. ELEVATION SHOWN ON FOUNDATION IS FOR FINISHED FLOOR.
- 2. CONTRACTOR SHALL PROVIDE OWNER ALL NECESSARY DENSITY TESTS FOR FILL LOTS AS REQUIRED BY HUD SPECIFICATIONS.
- 3. HOME BUILDER SHALL REFER TO THE APPROVED SUBDIVISION PLAT TO CONFIRM ALL BUILDING SETBACKS PRIOR TO ANY FOUNDATION WORK.
- 4. AS SOON AS PRACTICAL HOME BUILDER SHALL ESTABLISH VEGETATION (HYDROMULCH, SEEDING, SODDING, ETC...) TO PREVENT EROSION FROM OCCURRING.
- 5. CONTRACTOR SHALL CONTACT ENGINEER REGARDING ANY QUESTIONS ON THE INTENT OF THIS PLAN.
- 6. POSITIVE DRAINAGE SHALL BE MAINTAINED ON ALL SURFACE AREAS WITHIN THE SCOPE OF THIS PROJECT. DRAINAGE SHALL BE DIRECTED AWAY FROM ALL BUILDING FOUNDATIONS AND TOWARDS THE PROPER DRAINAGE EASEMENT OR STREET RIGHT OF WAY ACCORDING TO THE MASTER DRAINAGE PLAN FOR THE PROJECT. CONTRACTOR SHOULD TAKE PRECAUTIONS NOT TO ALLOW PONDING OF
- ALL ELEVATIONS AND CONTOURS SHOWN ON THIS GRADING PLAN REFLECT FINISHED GRADES. THE THICKNESS OF PAVEMENT, CURBS, AND SIDEWALKS MUST BE SUBTRACTED TO OBTAIN SUBGRADE ELEVATIONS.
- 8. GRADING PLAN IS INTENDED FOR USE IN LOT GRADING ONLY. CONTRACTOR SHOULD REFER TO CONSTRUCTION DRAWINGS FOR ALL OTHER GRADES, INCLUDING, BUT NOT LIMITED TO, CHANNELS, ROADS, AND DETENTION PONDS.
- 9. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE ALL

LEGEND

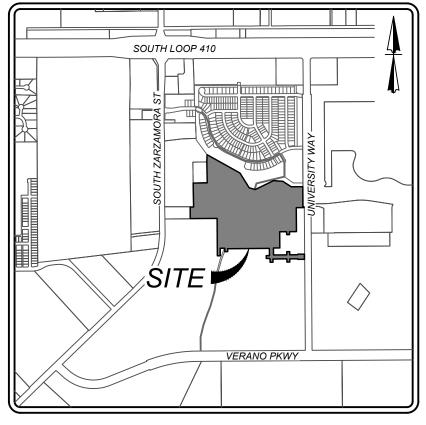
----BLOCK10--

G.E.T.TV.E. = GAS, ELECTRIC, TELEPHONE & CABLE EASEMENT

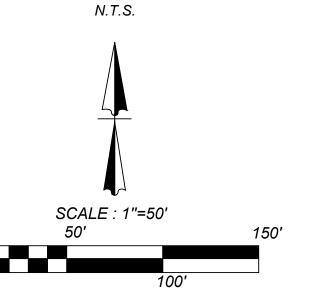
= FLOW ARROW

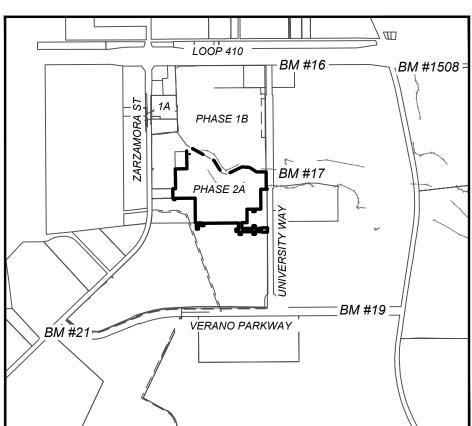


= PROPOSED DRIVEWAY LOCATION H.P. = HIGH POINT

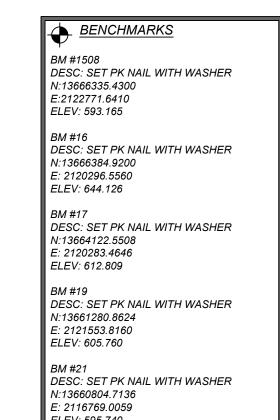


LOCATION MAP



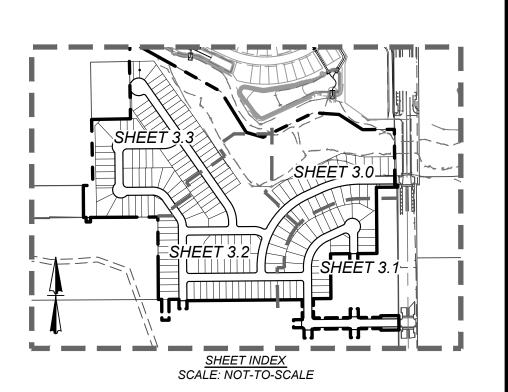


BENCHMARK MAP SCALE: 1" = 2000'



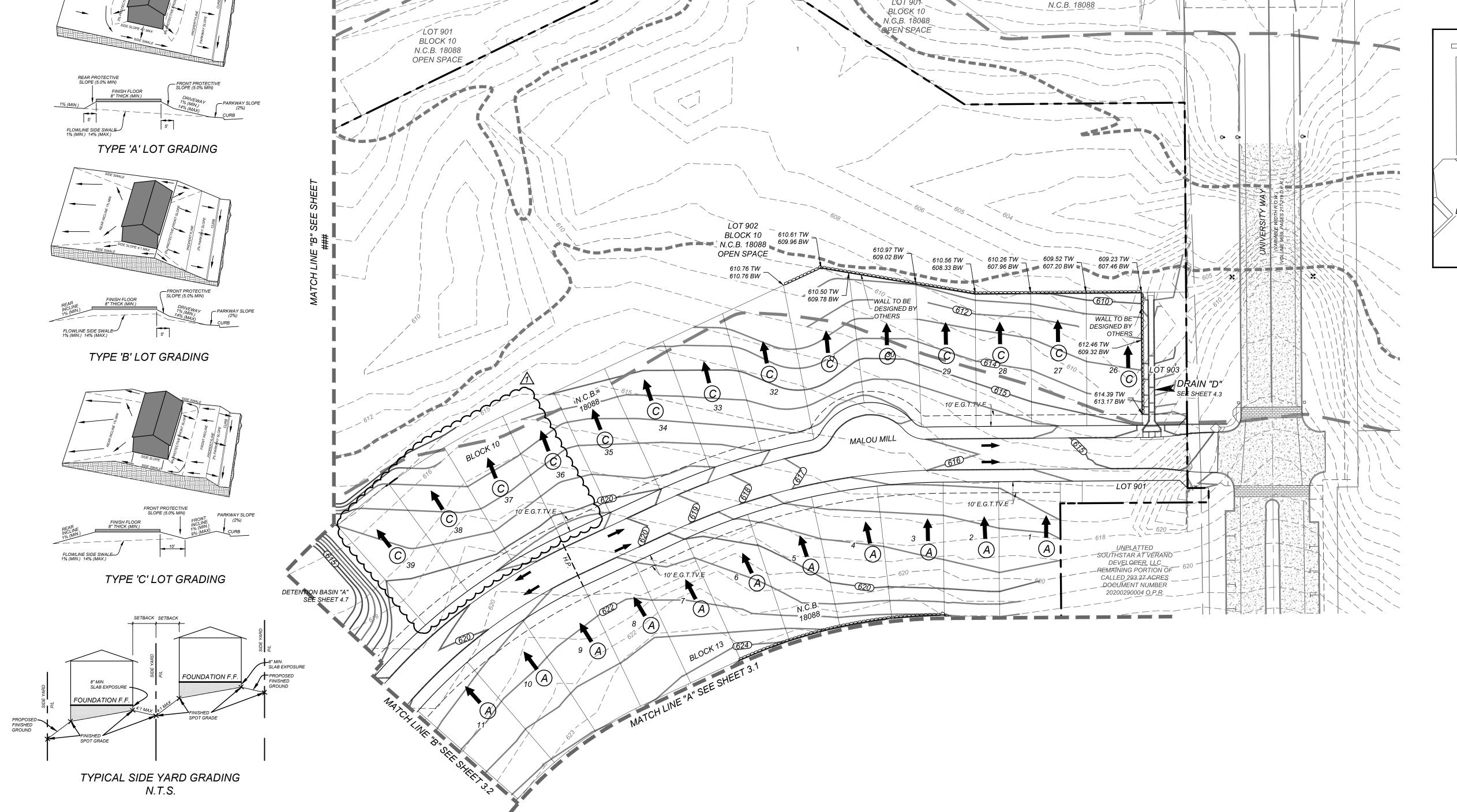
ELEV: 595.740 CONTRACTOR TO RUN LEVEL LOOP THROUGH BM'S PROVIDED TO CONFIRM BEFORE CONSTRUCTION. CONTACT ENGINEER/SURVEYOR IMMEDIATELY IF ELEVATIONS DO NOT MATCH THOSE SHOWN.

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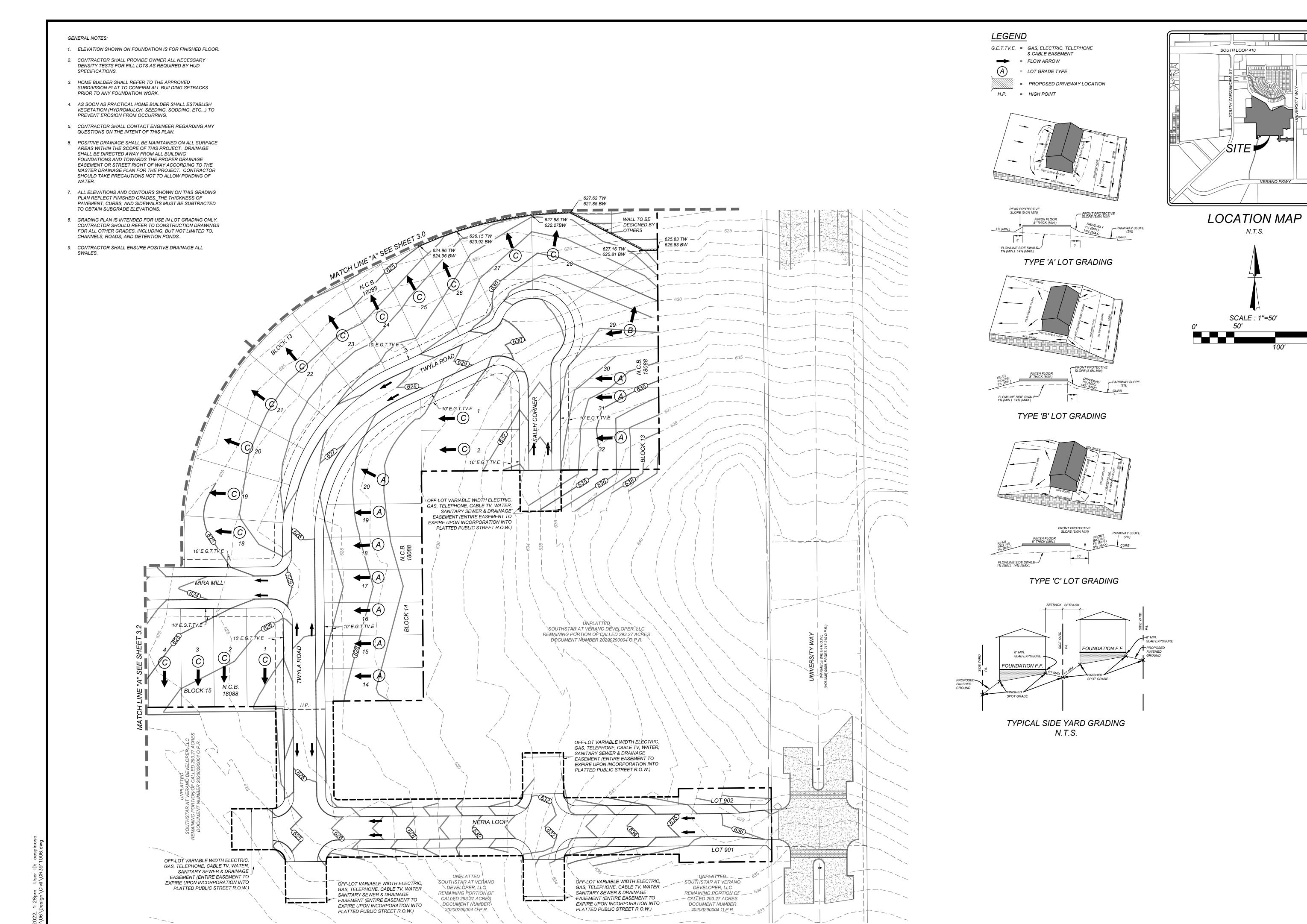


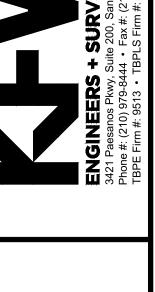


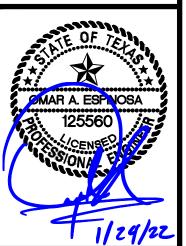
21-11800453 JOB NO. 391-10-06 DATE: SEPTEMBER 2021 DRAWN:SC CHECKED:OE SHEET NUMBER:



VIDA SAN ANTONIO PHASE 1B (PLAT NUMBER 20-11800077)

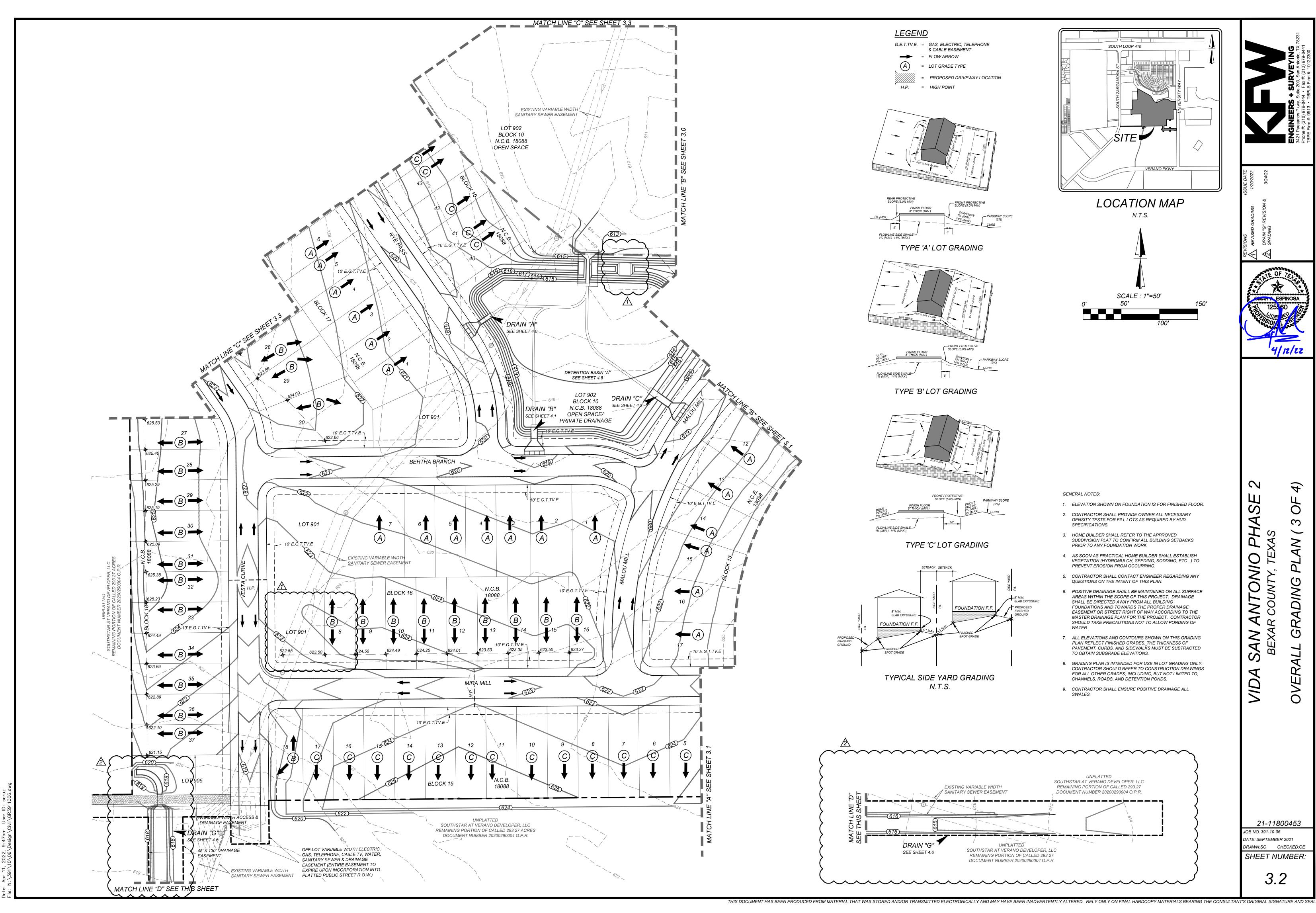




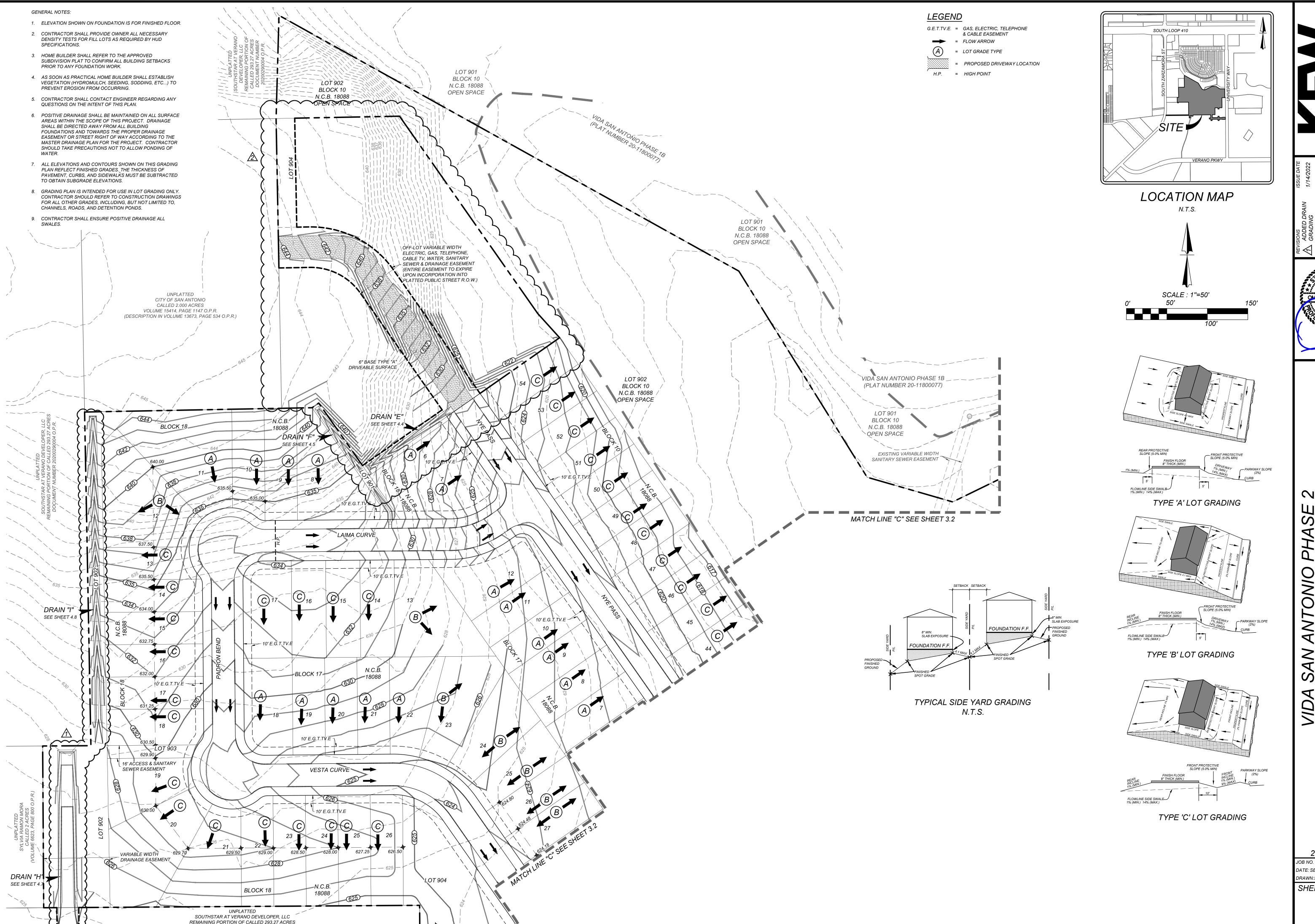


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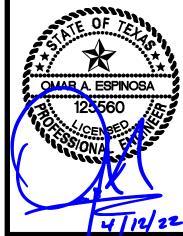
SHEET NUMBER:







DOCUMENT NUMBER 20200290004 O.P.R.



21-11800453 JOB NO. 391-10-06 DATE: SEPTEMBER 2021 DRAWN:SC CHECKED:OE SHEET NUMBER:

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The folded units shall be taken out from the bundle and placed on a hard flat surface. Reno mattresses shall be opened, unfolded, and pressed out to their original shape. Front, back and end panels shall be lifted to a vertical position to form an open box shape. End flaps shall be folded and/or overlapped, as appropriate. All edges of the diaphragms and end panels shall be tied or fastened to the front and back of the mattress. The mattresses should be assembled individually, by erecting the sides, ends and diaphragms, ensuring that all creases are in the correct position and the tops of all sides are level.

Fastening Procedure
Connect the edges of the mattress by using either lacing wire or ring fasteners. When steel ring fasteners are used, the use of either a mechanical or a pneumatic fastening tool is required.
Spacing of the rings shall be in accordance with ASTM A975-97 Table 2, Panel to Panel connection, Pull-Apart Resistance. In any case, ring fasteners spacing shall not exceed 6 in (150 mm). Rings shall be installed at the top and the bottom connections of the end and center diaphrapms and along all connections of the end and center diaphragms and along a edges. Care should be taken to ensure the steel ring fastener is completely closed after installation (Fig. 3). When this is not possible, fixing rings must be complemented or replaced with The procedure for using lacing wire consists of cutting a sufficient length of wire, and first looping and/or twisting the

lacing wire to the wire mesh. Proceed to lace with alternating double and single loops through every mesh opening approximately every 6 in (150 mm) pulling each loop tight and finally securing the end of the lacing wire to the wire mesh by looping and/or twisting. The use of pliers to aid assembly and wiring of the units using the binding wire supplied with the Foundation Preparation

The foundation Preparation

The foundation on which the Reno mattresses are to be placed shall be level, and graded to the elevations as shown on the project construction drawings. The foundation for Reno mattresses shall be free of surface irregularities, loose material, and vegetation in accordance with the project specifications. Appropriate measures shall be taken for filtering and drainage of the foundation, as per the project specifications (filter cloth, drain works, etc.) Gestevities required to be installed behind or drain works, etc.). Geotextiles required to be installed behind or underneath Reno mattress structures shall comply with the requirements for subsurface drainage applications.

MACCAFERRI

Installation and Filling After assembly, the mattresses are placed in their proper location and securely attached to adjacent units. For structural integrity, all adjoining empty units should be connected by means of lacing wire or ring fasteners along all the edges of their contact surfaces, in order to form a monolithic structure. On slopes, the mattress should be laid with the width perpendicular to the slope, except for very small ditches. Mattresses should be placed and securely attached while empty. Where mattresses are to be placed on steep slopes, the unit should be secured by hardwood or steel pegs driven into the ground just below the upper end panel, at 6 ft (2 m) centers or as specified in the Nattresses can conform to bends up to a radius of 60-70 ft. (18 -21 m) without alteration, and placed to the required curvature for

filling. Mattresses may be cut to form curves or bevels.

Rocks for mattresses may be produced by any suitable quarrying method, and by the use of any device that yields the guired sizes within the gradation limits chosen Rocks shall be hard, angular to round, durable and of such quality that they shall not disintegrate on exposure to water or weathering during the life of the structure.

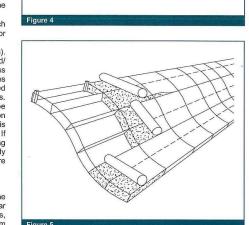
Reno mattress rocks shall range between 3-6 in (75-150 mm).

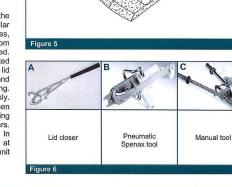
The range in sizes may allow for a variation of 5% oversize and/ or 5% undersize rock, provided it is not placed on the mattress exposed surface. In all cases, any oversize rock for mattresses shall allow for a placement of a minimum two layers of mixed rock sizes, dependent upon the height/thickness of the mattress. When using PVC coated Reno mattresses, care should be taken when placing the stone to ensure that the PVC coating on the mattress will not be damaged. Some hand placing is necessary to ensure the void ratio is kept to a minimum. I installing on a slope, start at the bottom of the slope. Filling should be done unit by unit, but several units should be ready for filling at any one time. Ensure that the diaphragm tops are

accessible for lacing to the mattress lids when required. Closing
To allow for settlement, level off the fill 1 in (25 mm) above the top of the mesh. In aprons downstream of weirs and similar places where water will fall directly onto the Reno mattresses, install bracing wires vertically between the top and bottom mesh. Make sure the top edges of the diaphragms are expose Lay the lid down, pull the edges of the panels to be connected together where necessary using an appropriate tool as a lid closer. The lids shall be tightly laced along all edges, ends and diaphragms in the same manner as described for assembling. Adjacent lids may be securely attached simultaneously. Securely attached the lids to the ends of the mattresses and then securely attach them to the sides, and diaphragms, using alternate double and single loops, or steel wire ring fasteners. Adjacent lids can securely be attached in one operation. In cases where a number of adjacent bases are to be covered at one time, rolls of mesh can be used in place of individual unit

Williamsport, MD 21795-3116 email: hdqtrs@maccaferri-usa.con

Maccaferri reserves the right to amend product specifications without notice and specifiers are requested to check as to the validity of the specifications they are using.





TRENCH EXCAVATION SAFETY PROTECTION

CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS. PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

CAUTION!!:

DETENTION BASIN "A"

SEE SHEET 4.9

CONTRACTOR TO INSTALL

LOT 902 BLOCK 10 N.C.B. 18088 OPEN SPACE

5 L.F. RENO MATTRESS -

(SEE THIS SHEET)

10' ELEC., GAS, TELÉ.

R.O.W, LINE ✓ 4' SIDĘWALK – FACE OF CURB —

& CA. T.V. EASEMENT

THE CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITED TO: WATER, SEWER, TELEPHONE AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCTBANKS, LANDSCAPE IRRIGATION FACILITIES, AND GAS LINES. ANY UTILITY CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO THE ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE REPAIR SHALL BE AT CONTRACTOR'S SOLE EXPENSE WHETHER THE UTILITY IS SHOWN ON THESE PLANS OR

1. ALL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF NOT LESS THAN 3000 PSI IN 28 DAYS.

2. ANY DISTURBED AREAS WILL BE VEGETATED BY SEEDING OR SODDING. EIGHTY-FIVE PERCENT OF THE DISTURBED SURFACE AREA MUST HAVE ESTABLISHED VEGETATION BEFORE THE CITY OF SAN ANTONIO WILL ACCEPT.

CURB OPENING

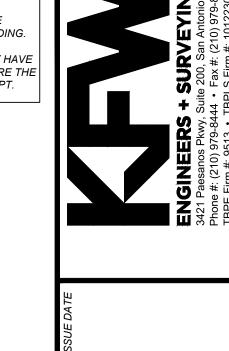
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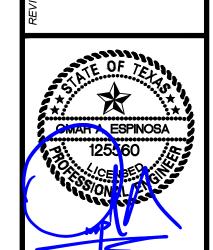
. L = 14.42 L.F.

(3.087) (0.79)

USE 18.00 L.F. CURB OPENING

HYDRAULIC CALCULATION



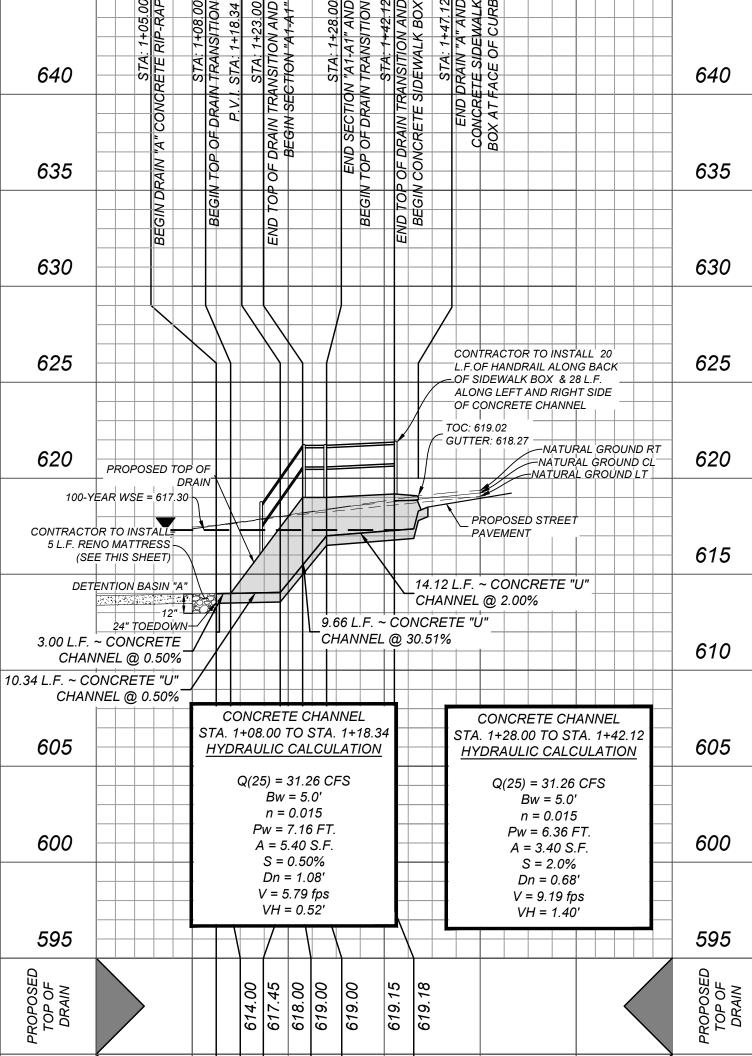


 \geq

V

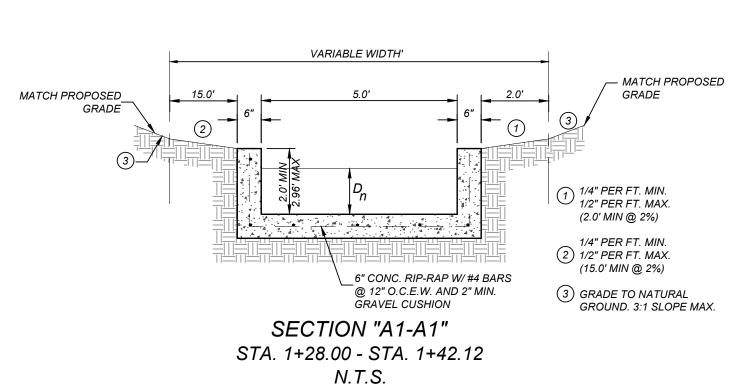
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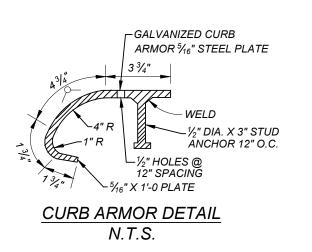
DRAIN "A" HORZ SCALE: 1"=20' STA. 1+00.00 TO END VERT SCALE: 1"=5'

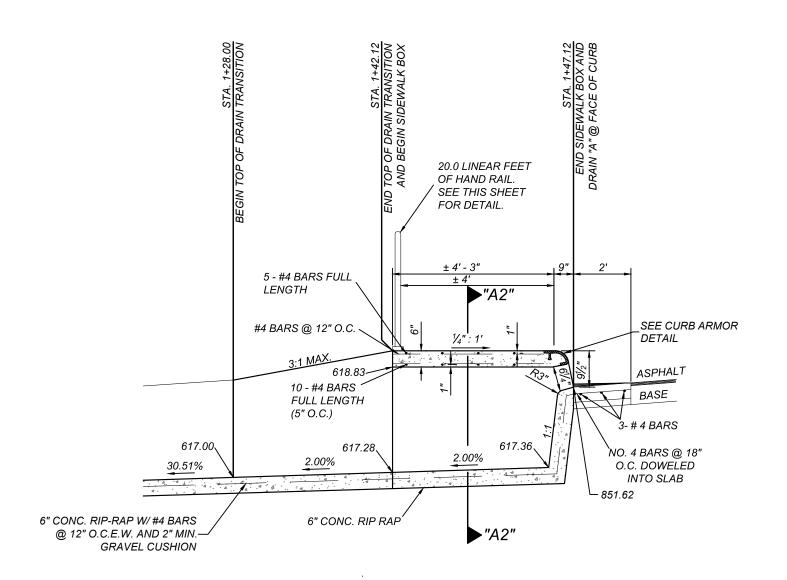


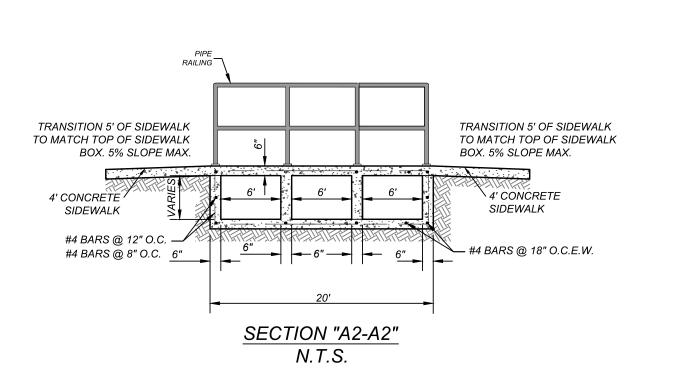
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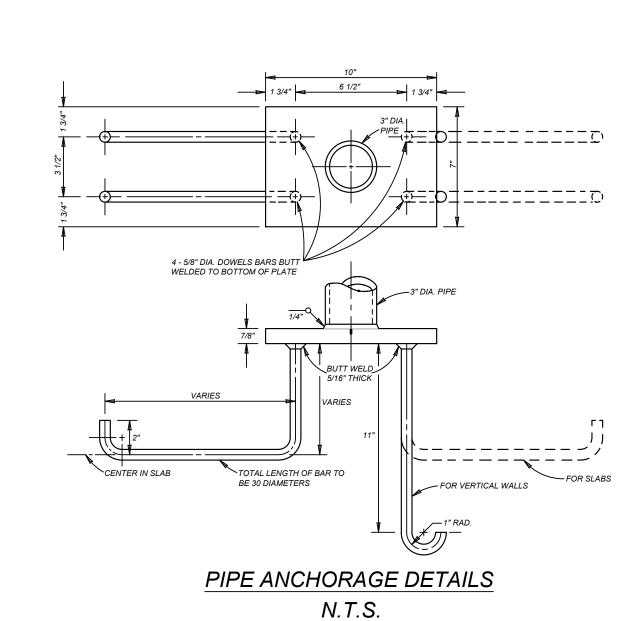
1+80

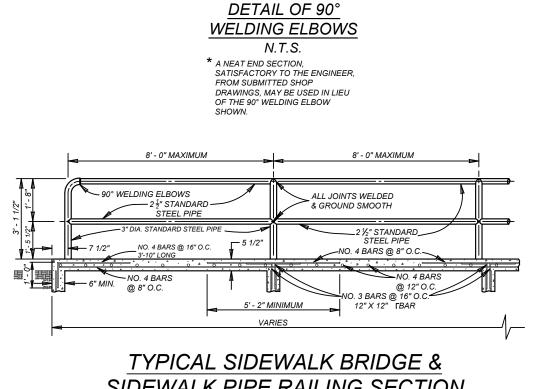












3/8" FILLET WELD & GROUND SMOOTH—

2 1/2" DIA. —

3" DIA. 90° ELBOW OR 🖋

4" DIA. 90° ELBOW

SIDEWALK PIPE RAILING SECTION N.T.S.

→ 3" DIA. DOUBLE - EXTRA STRONG

STANDARD POST OR 4" DIA. STANDARD STEEL PIPE

CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

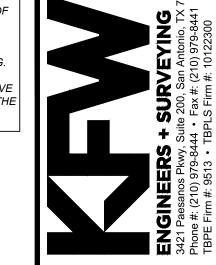
CAUTION!!:

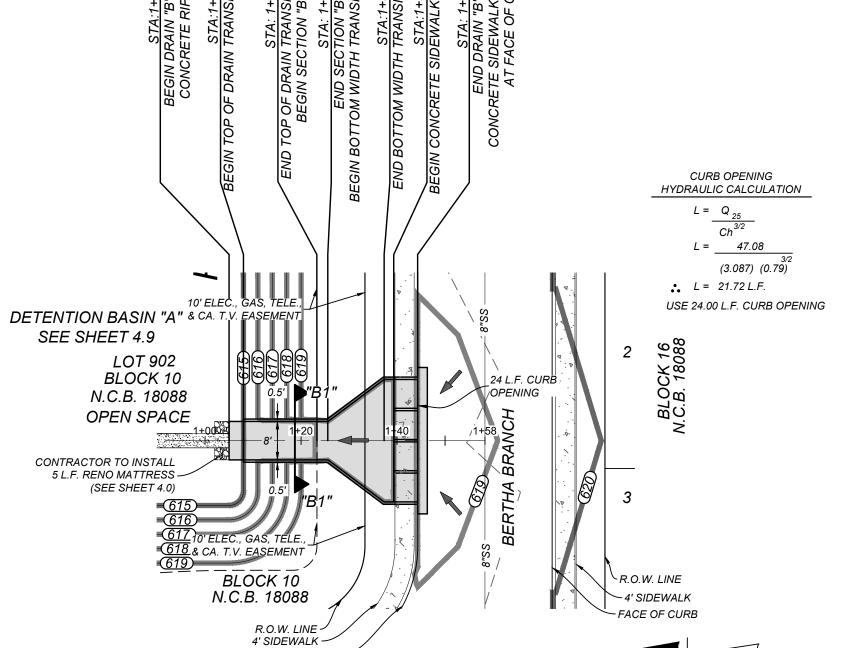
THE CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITED TO: WATER, SEWER, TELEPHONE AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCTBANKS, LANDSCAPE IRRIGATION FACILITIES, AND GAS LINES. ANY UTILITY CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO THE ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE REPAIR SHALL BE AT CONTRACTOR'S SOLE EXPENSE WHETHER THE UTILITY IS SHOWN ON THESE PLANS OR

NOTE:

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MINIMUM COMPRESSIVE STRENGTH OF
NOT LESS THAN 3000 PSI IN 28 DAYS.

2. ANY DISTURBED AREAS WILL BE VEGETATED BY SEEDING OR SODDING.
EIGHTY-FIVE PERCENT OF THE DISTURBED SURFACE AREA MUST HAVE ESTABLISHED VEGETATION BEFORE THE CITY OF SAN ANTONIO WILL ACCEPT.

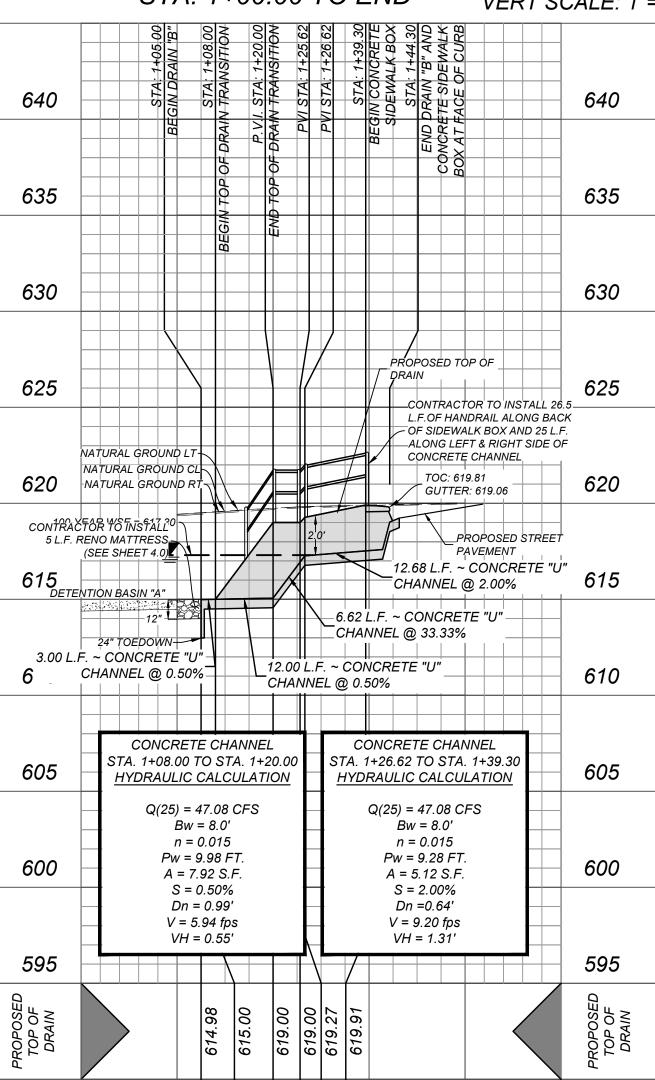




DRAIN "B" STA. 1+00.00 TO END

FACE OF CURB

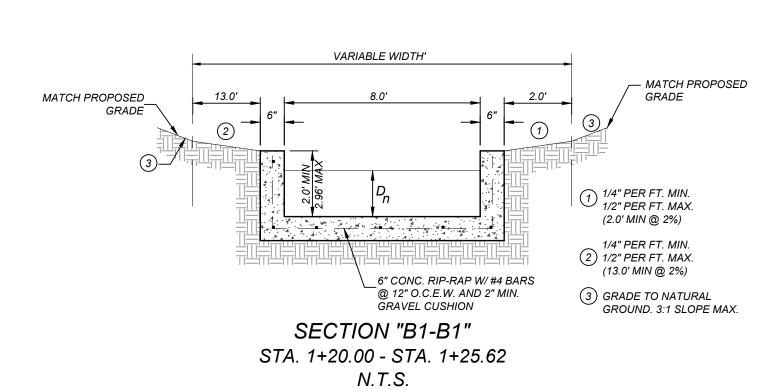
HORZ SCALE: 1"=20' VERT SCALE: 1"=5'

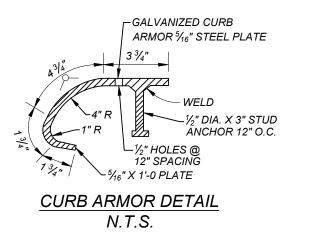


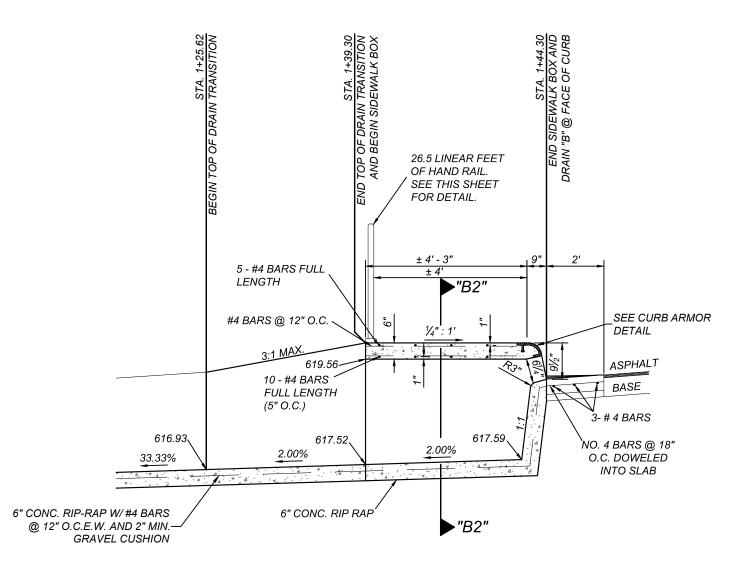
1+60

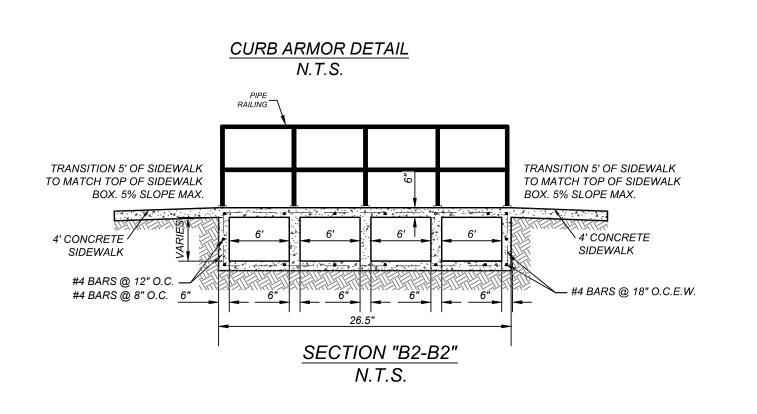
1+00

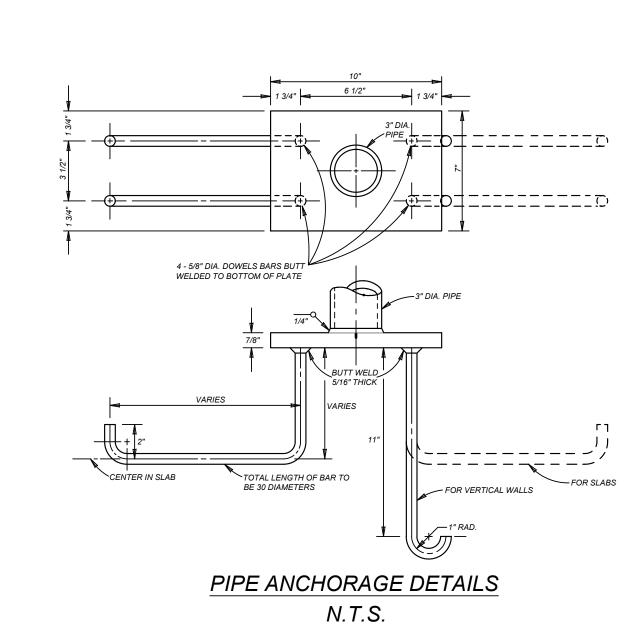
THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL

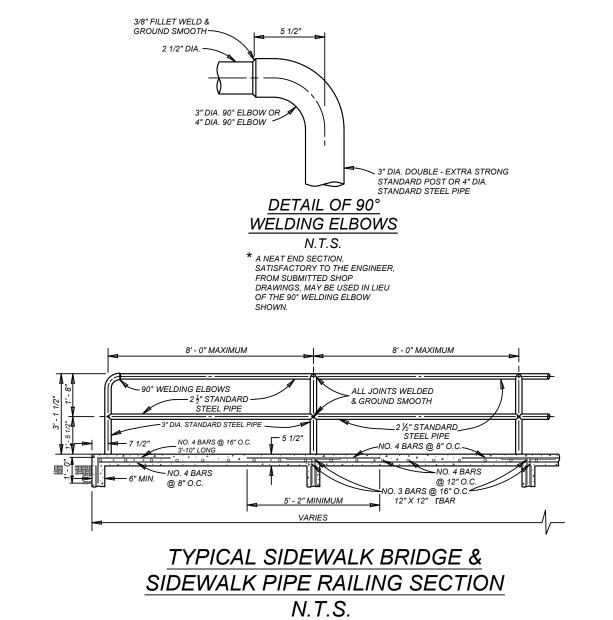












21-11800453

JOB NO. 391-10-06

DATE: SEPTEMBER 2021

DRAWN:SC CHECKED:OE

SHEET NUMBER:

AN

"B

4.1

ate: Apr 26, 2022, 4:51pm User ID: scruz Ie: N: \391\10\06\Design\Civil\Drains\DR3911006 —

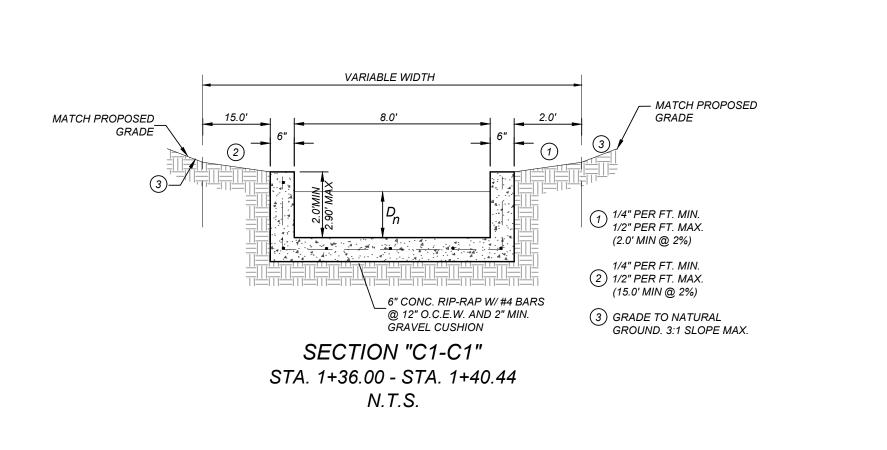
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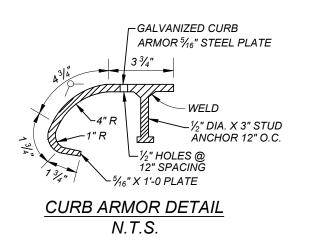
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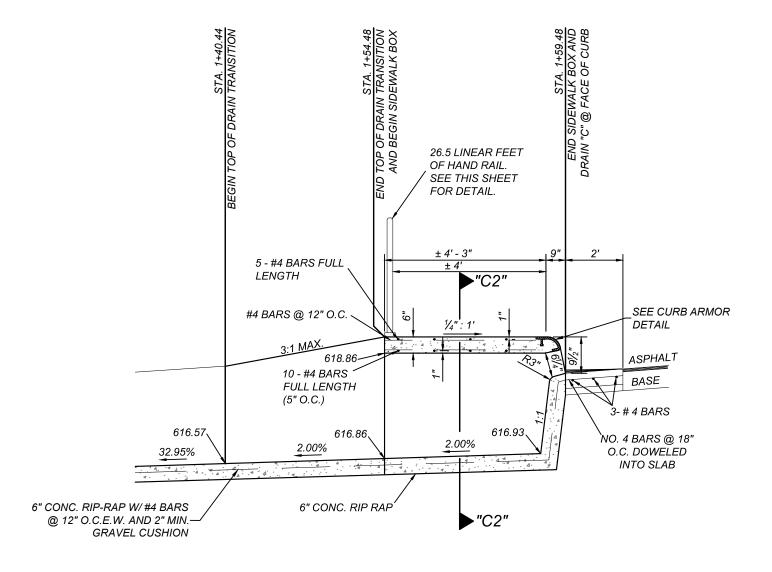
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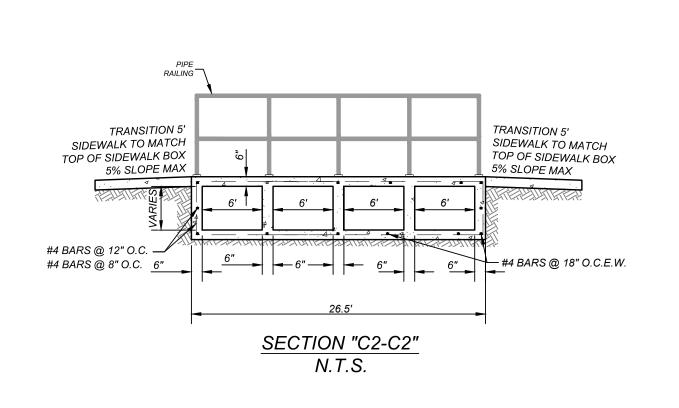
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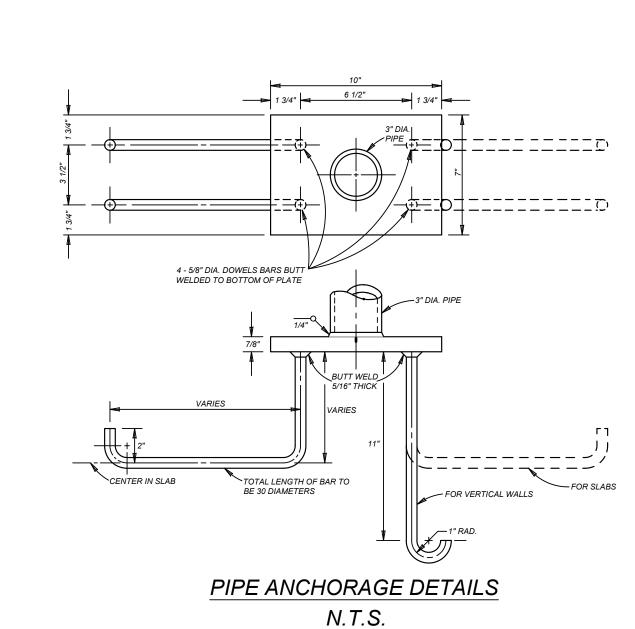
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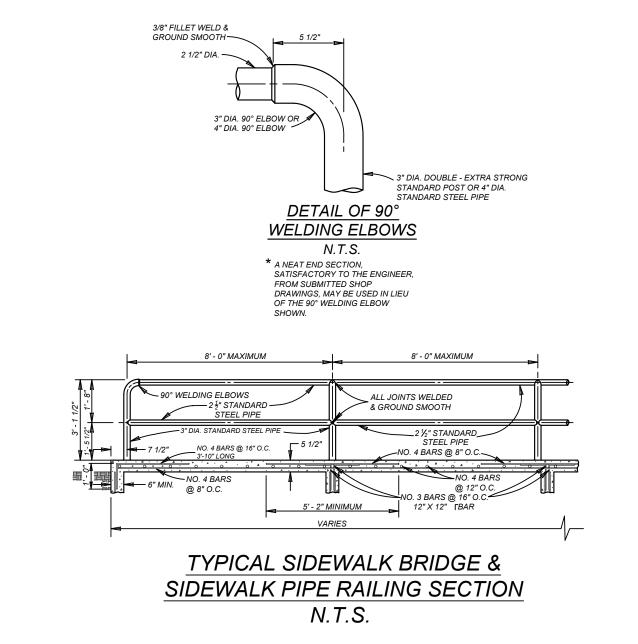


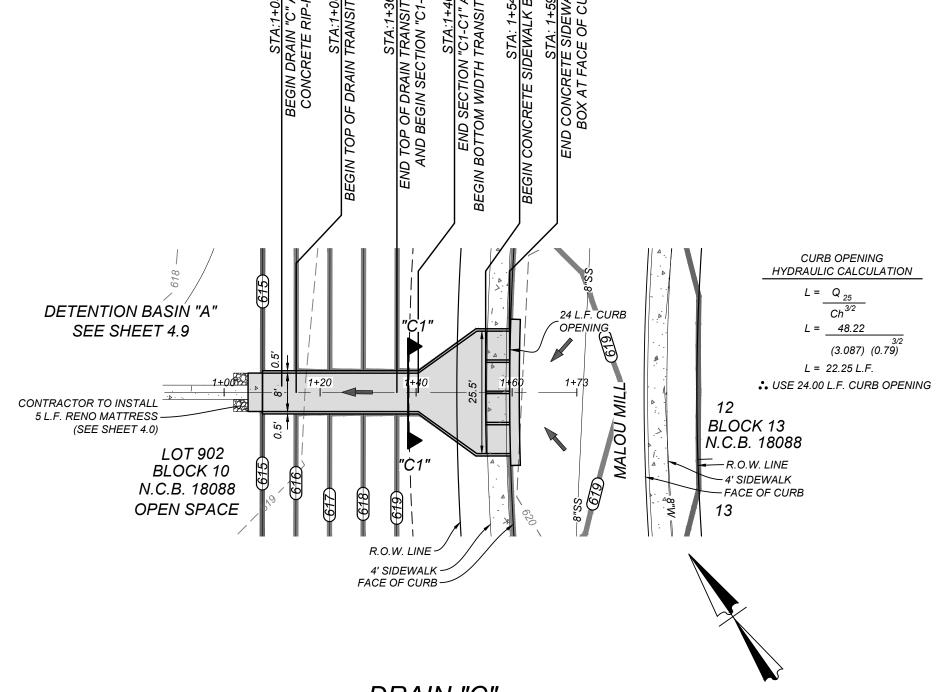






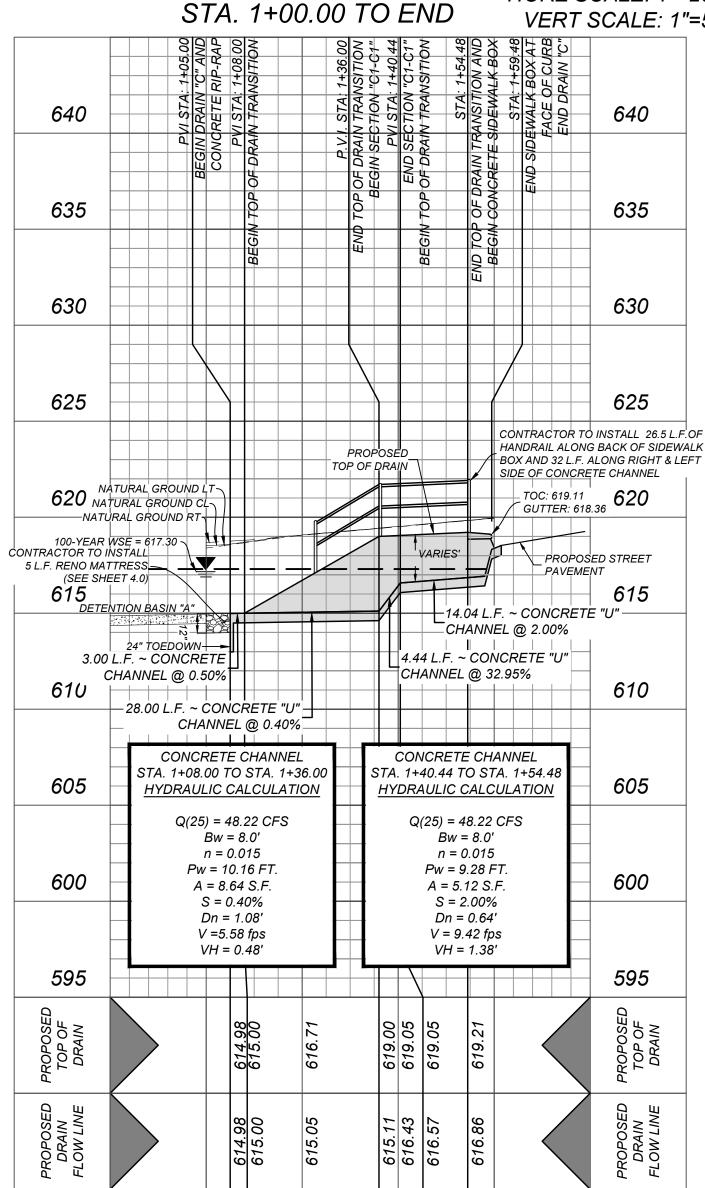






DRAIN "C" STA. 1+00.00 TO END

HORZ SCALE: 1"=20' VERT SCALE: 1"=5'



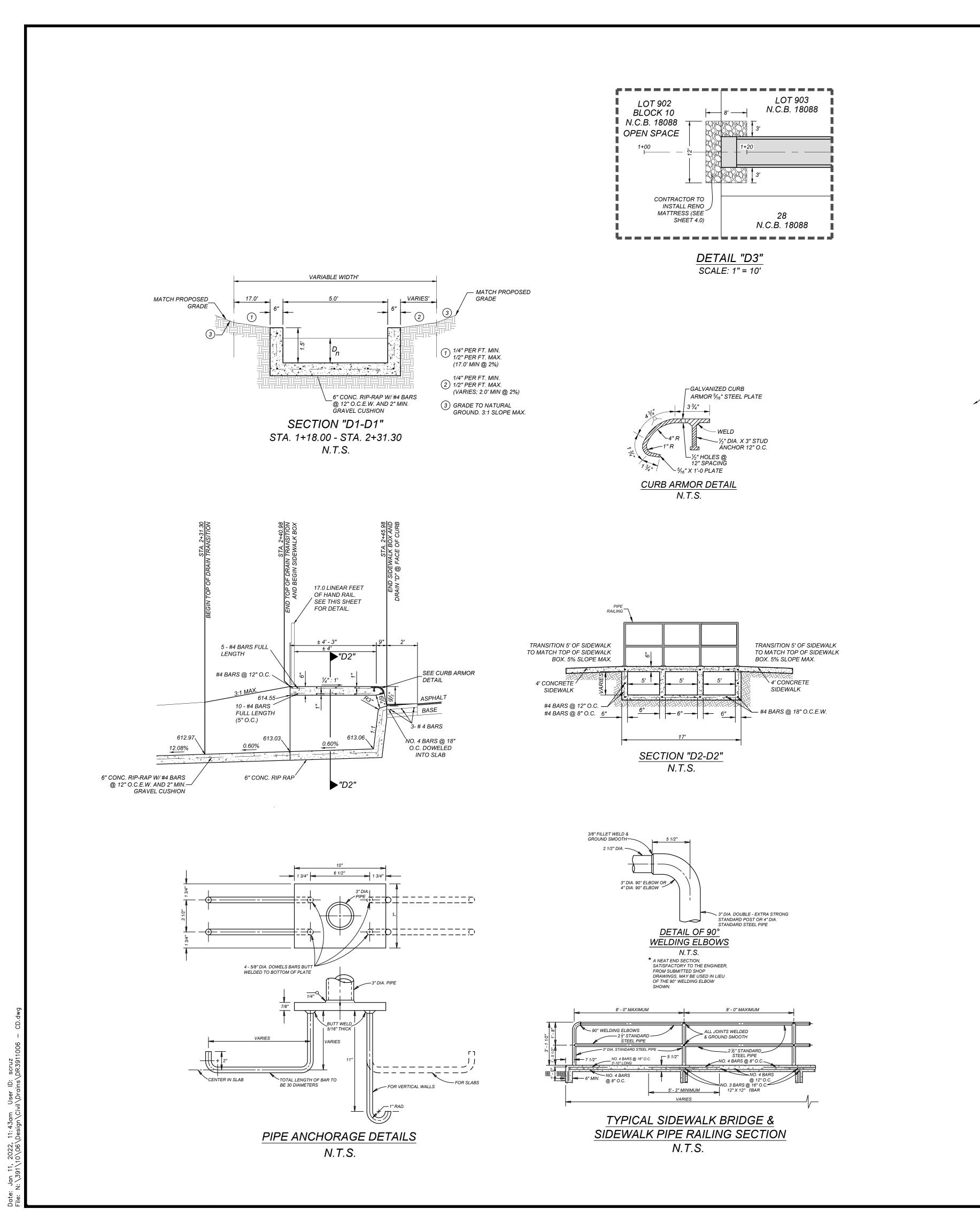
1+60

1+00

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8

AN-





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ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

SEE DETAIL "D3"

ON THIS SHEET

CONTRACTOR TO

1% AC ULTIMATE FLOODPLAIN PER FLOOD STUDY PREPARED

BY KFW ENGINEERS

620

615

595

590

1+00

LOT 902

BLOCK 10

OPEN SPACE /

N.C.B. 18088

INSTALL RENO

MATTRESS (SEE

__SHEET 4.0).

THE CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITED TO: WATER, SEWER, TELEPHONE AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCTBANKS, LANDSCAPE IRRIGATION FACILITIES, AND GAS LINES. ANY UTILITY CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO THE ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE REPAIR SHALL BE AT CONTRACTOR'S SOLE EXPENSE WHETHER THE UTILITY IS SHOWN ON THESE PLANS OR

CAUTION!!:

RĒTAINING WALL TO BE

DESIGNED BY OTHERS

DRAIN "D"

STA. 1+15.00 TO END

1% AC EFFECTIVE

FLOODPLAIN PER PANEL -

#48029C0560F

R.O.W. LINE 7 4' SIDEWALK ~

FACE OF CURB —

1. ALL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF NOT LESS THAN 3000 PSI IN 28 DAYS.

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CURB OPENING

HYDRAULIC CALCULATION

L = ___28.43

L = 13.12 L.F.

(3.087) (0.79)

USE 15.00 L.F. CURB OPENING



HORZ SCALE: 1"=20' VERT SCALE: 1"=5'

2+60

630 625 620 CONTRACTOR TO INSTALL 17.0 L.F.OF HANDRAIL ALONG BACK OF SIDEWALK BOX OF -ÇONÇREȚE CHAŅNEL TOC: 614.80 GUTTER: 614.05 615 PROPOSED CONTRACTOR TO TOP OF DRAIN= PROPOSED STREET INSTALL RENO __PAVEMENT MATTRESS (SEE 610 SHEET 4.0) 9.68 L.F. ~ CONCRETE "U" CHANNEL @ 0.60% 16.66 L.F. ~ CONCRETE "U" 39.82 L.F. ~ CONCRETE "U" CHANNEL @ 12.08% 605 CHANNEL @ 0.60% 24" TOEDOWN--- 10.00 L.F. ~ CONCRETE "U" -3.00 L.F. ~ CONCRETE "U" CHANNEL @ 0.60% CHANNEL @ 0.60% = 600 CONCRETE CHANNEL CONCRETE CHANNEL CONCRETE CHANNEL STA. 1+28.00 TO STA. 1+67.82 STA. 1+67.82 TO STA. 2+14.64 STA. 2+14.64 TO STA. 2+31.30 HYDRAULIC CALCULATION HYDRAULIC CALCULATION HYDRAULIC CALCULATION 595 Q(25) = 28.43 CFSQ(25) = 28.43 CFSQ(25) = 28.43 CFSBw = 5.0'Bw = 5.0'Bw = 5.0'n = 0.015n = 0.015n = 0.015Pw = 6.92 FT.Pw = 5.72 FT.Pw = 5.78 FT.A = 4.80 S.F.A = 1.95 S.F.A = 1.80 S.F.S = 0.60%S = 7.0%S = 12.08% 590 Dn = 0.96'Dn = 0.39'Dn = 0.36' $V = 5.92 \, fps$ V = 12.44 fps $V = 15.79 \, fps$ VH = 0.54'VH = 2.40'VH = 3.87'585 613. 613. 613.

2+00

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V

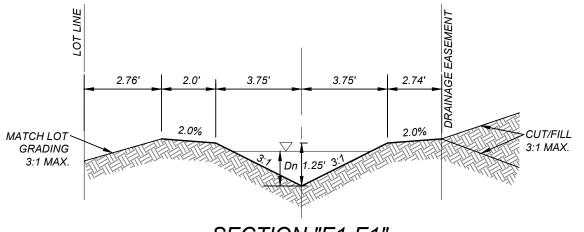
S

NO

8

AN

Q''



SECTION "E1-E1" STA. 1+25.00 - STA. 2+36.34 N.T.S.

TRENCH EXCAVATION SAFETY PROTECTION

OFF-LOT VARIABLÉ WIDTH ELECTRIC, GAS, TELEPHONE, CABLE TV, WATER, SANITARY SEWER & DRAINAGE

EASEMENT (ENTIRE EASEMENT TO

1+00

EXPIRE UPON INCORPORATION INTO

PLATTED PUBLIC STREET R.O.W.)

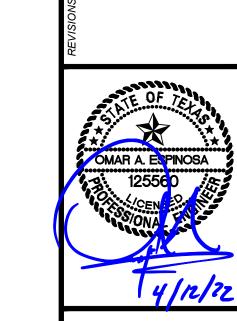
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CAUTION!!:

10' ELECTRIC, GAS, TELEPHONE

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2

INTERCEPTOR DRAIN "E" STA. 1+14.00 TO END

/ SOUTHSTAR AT VERANO DEVELOPER, LLC

REMAINING PORTION OF CALLED 293.27

DOCUMENT NUMBER 20200290004 O.P.R.

AGE (632)

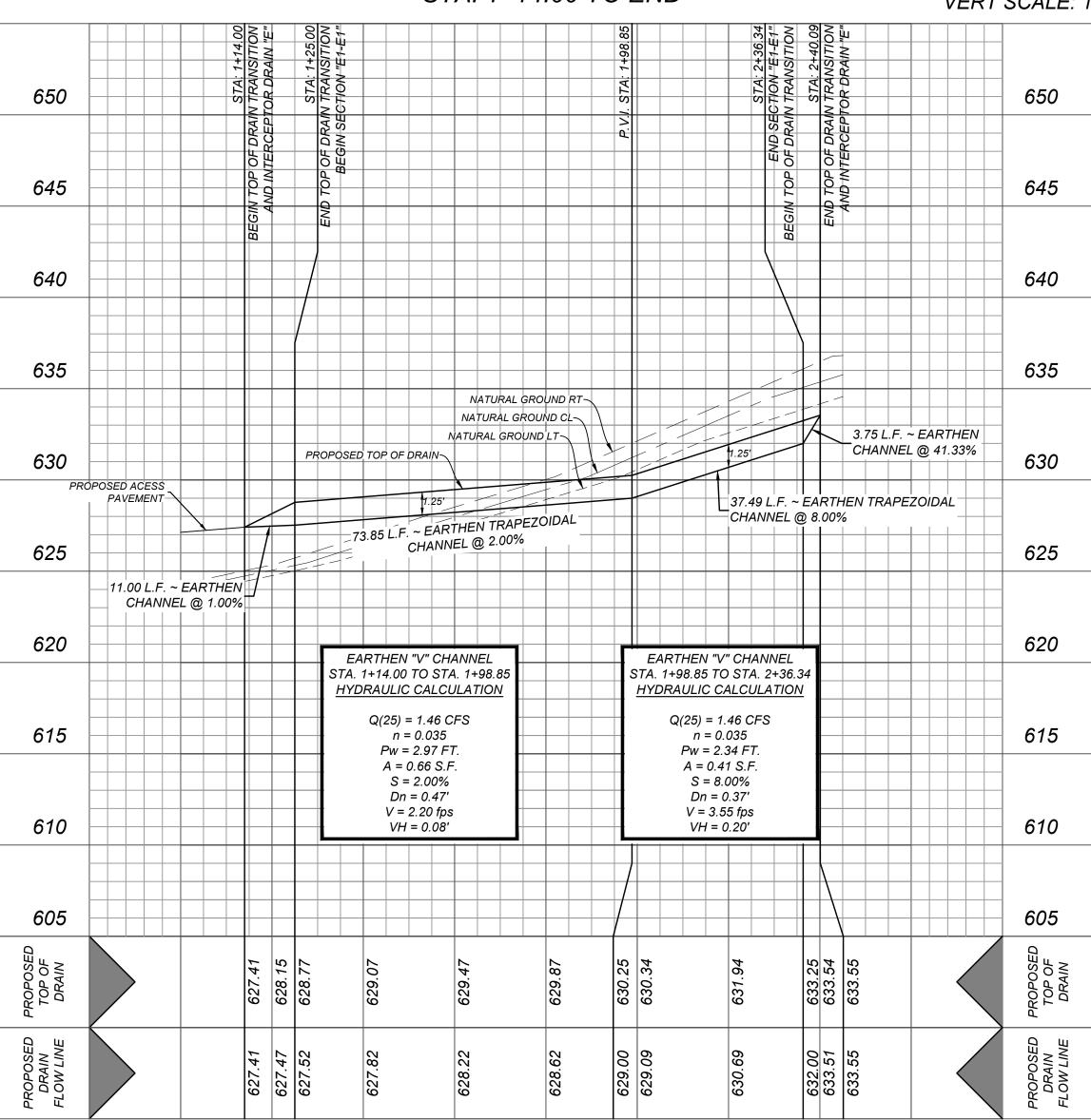
HORZ SCALE: 1"=20' VERT SCALE: 1"=5'

BLOCK 18 N.C.B. 18088

DRAIN "F"

SEE SHEET 4.5

2+60

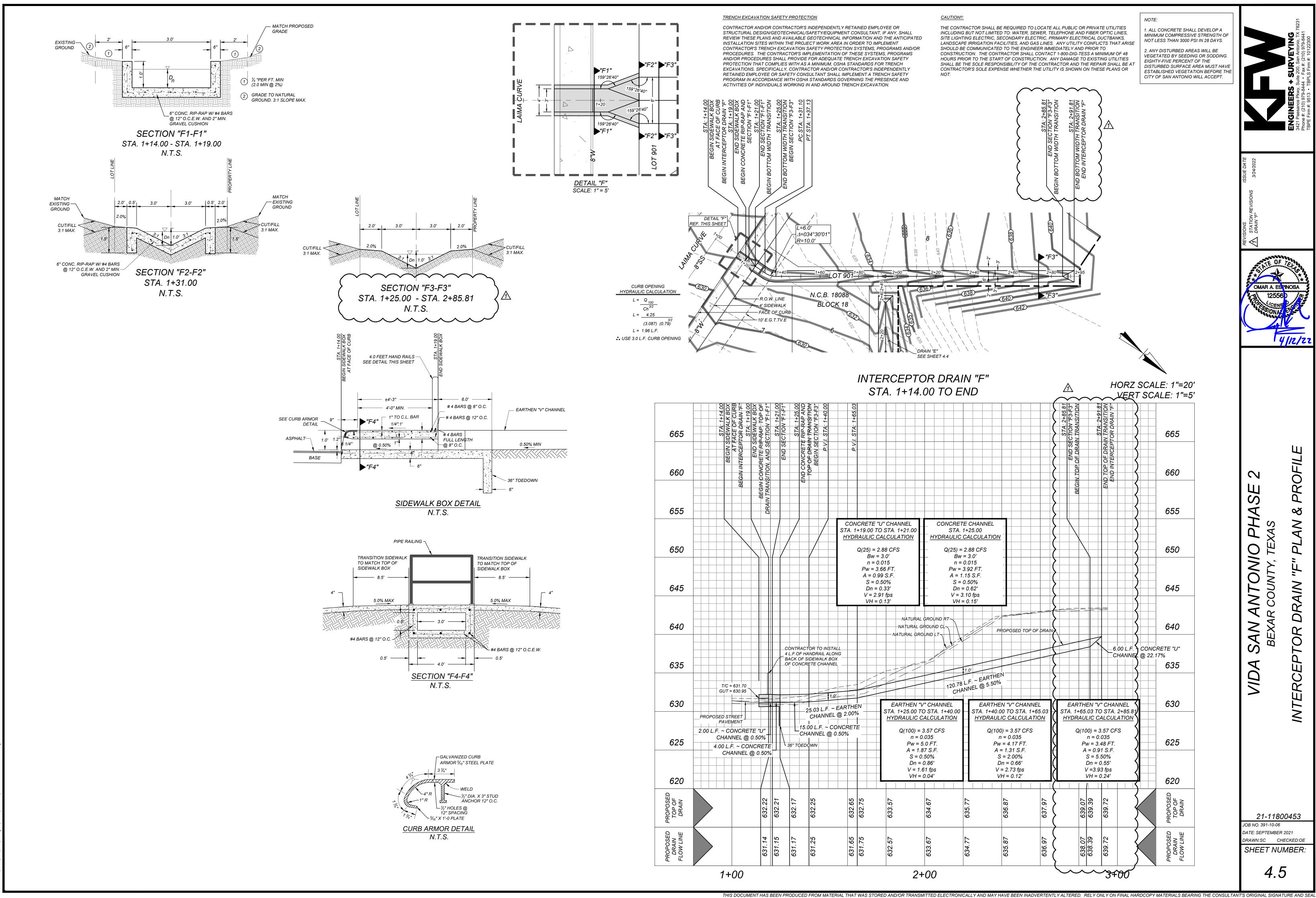


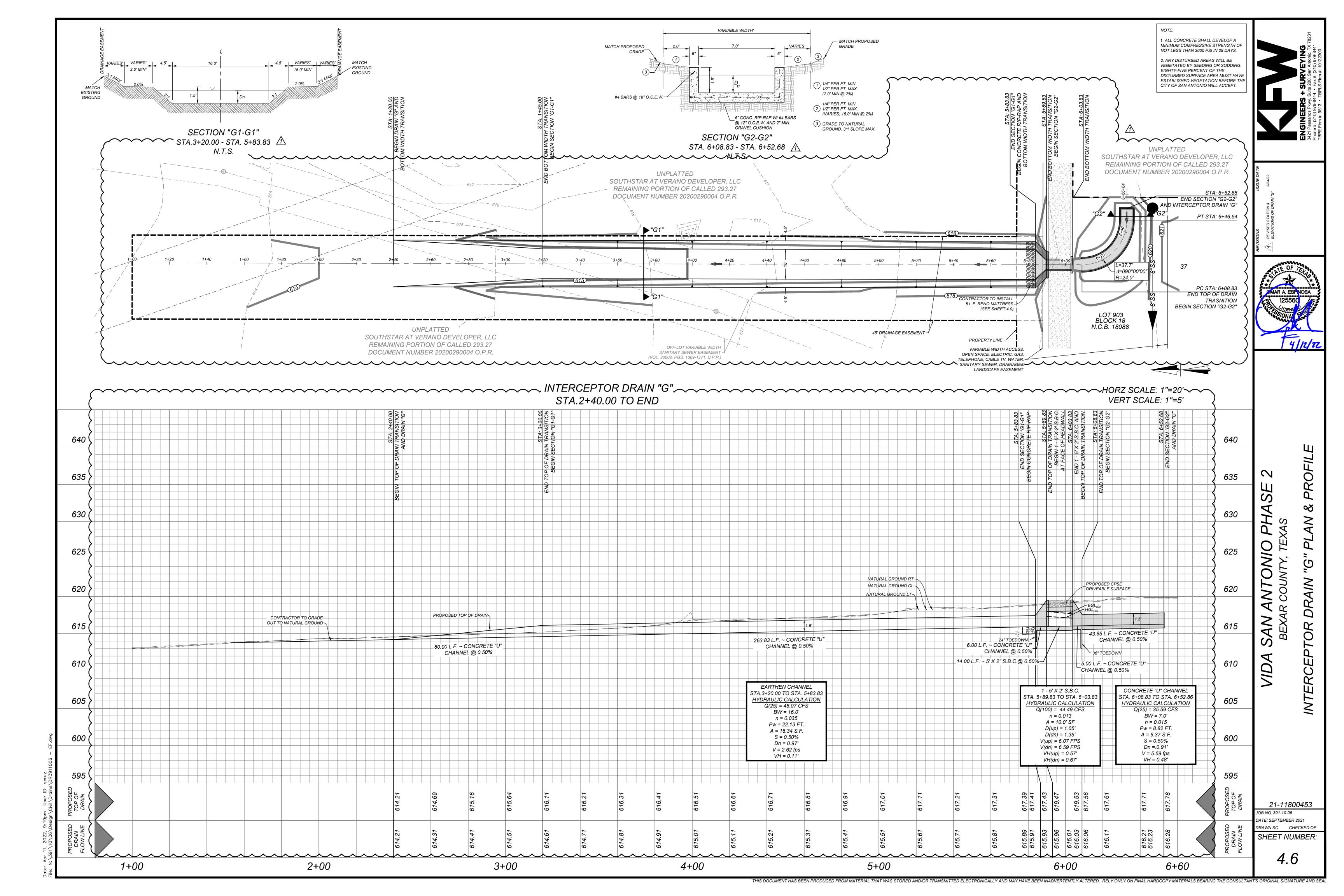
2+00

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21-11800453 JOB NO. 391-10-06 DATE: SEPTEMBER 2021 DRAWN:SC CHECKED:OE SHEET NUMBER:

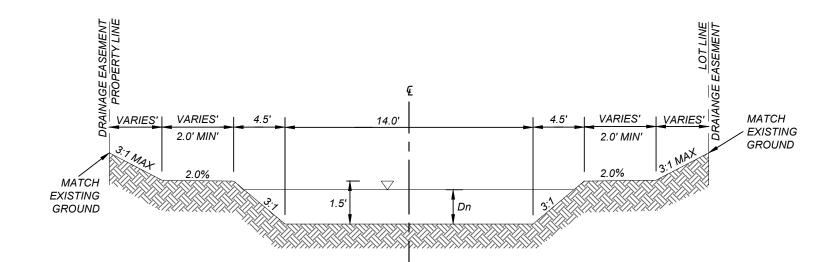
DRAIN



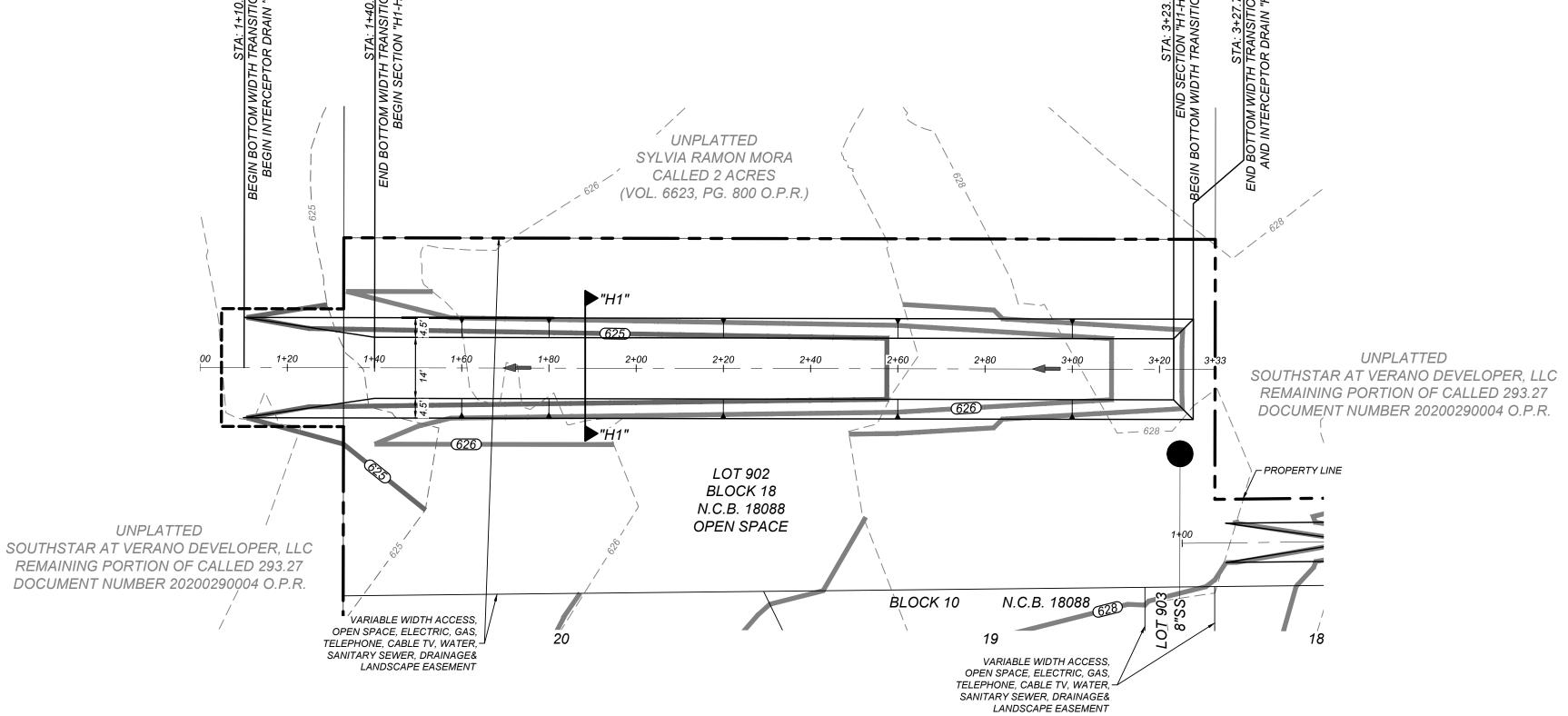


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SECTION "H1-H1" STA. 1+40.00 - STA. 3+23.26 N.T.S.



−NATURAL GROUND RT-

<u> NATURAL GROUND CL</u> - NATURAL GROUND LT-

99.99 L.F. ~ EARTHEN TRAPEZOIDAL

CHANNEL @ 0.50%

EARTHEN CHANNEL

STA.1+40.00 TO STA.2+40.00

HYDRAULIC CALCULATION

Q(25) = 38.42 CFS

BW = 14.0'

n = 0.035

Pw = 19.82 FT.

A = 15.42 S.F.

S = 0.50%

Dn = 0.92'

 $V = 2.49 \, fps$

VH = 0.09'

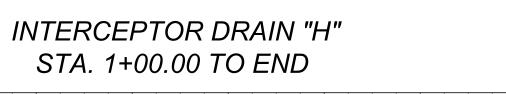
2+00

625

605

 $^-$ 30.01 L.F. \sim EARTHEN \pm

CHANNEL @ 0.50%



PROPOSED TOP OF DRAIN-

4.50 L.F. ~ EARTHEN

CHANNEL @ 35.33% ⁻

EARTHEN CHANNEL

STA.2+40.00 TO STA. 3+23.26

HYDRAULIC CALCULATION

Q(25) = 38.42 CFS

BW = 14.0'

n = 0.035

Pw = 17.86 FT.

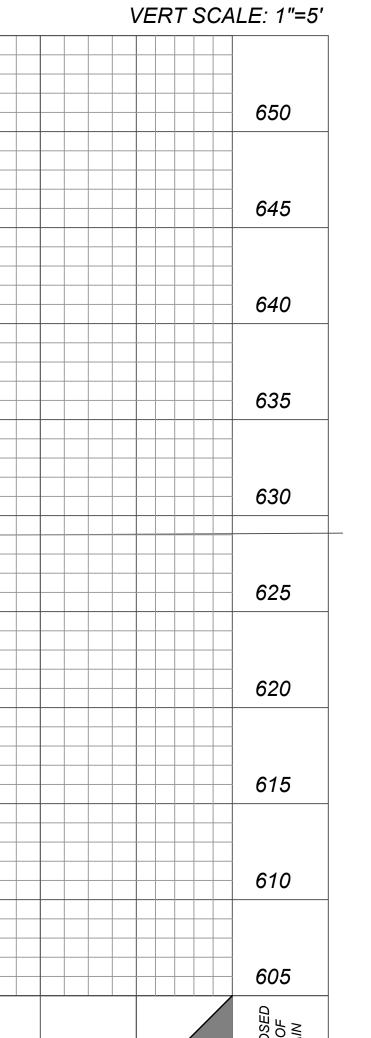
A = 9.66 S.F.

S = 2.00%Dn = 0.61'

 $V = 3.98 \, fps$

VH = 0.25'

3+00



4+00

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HORZ SCALE: 1"=20'

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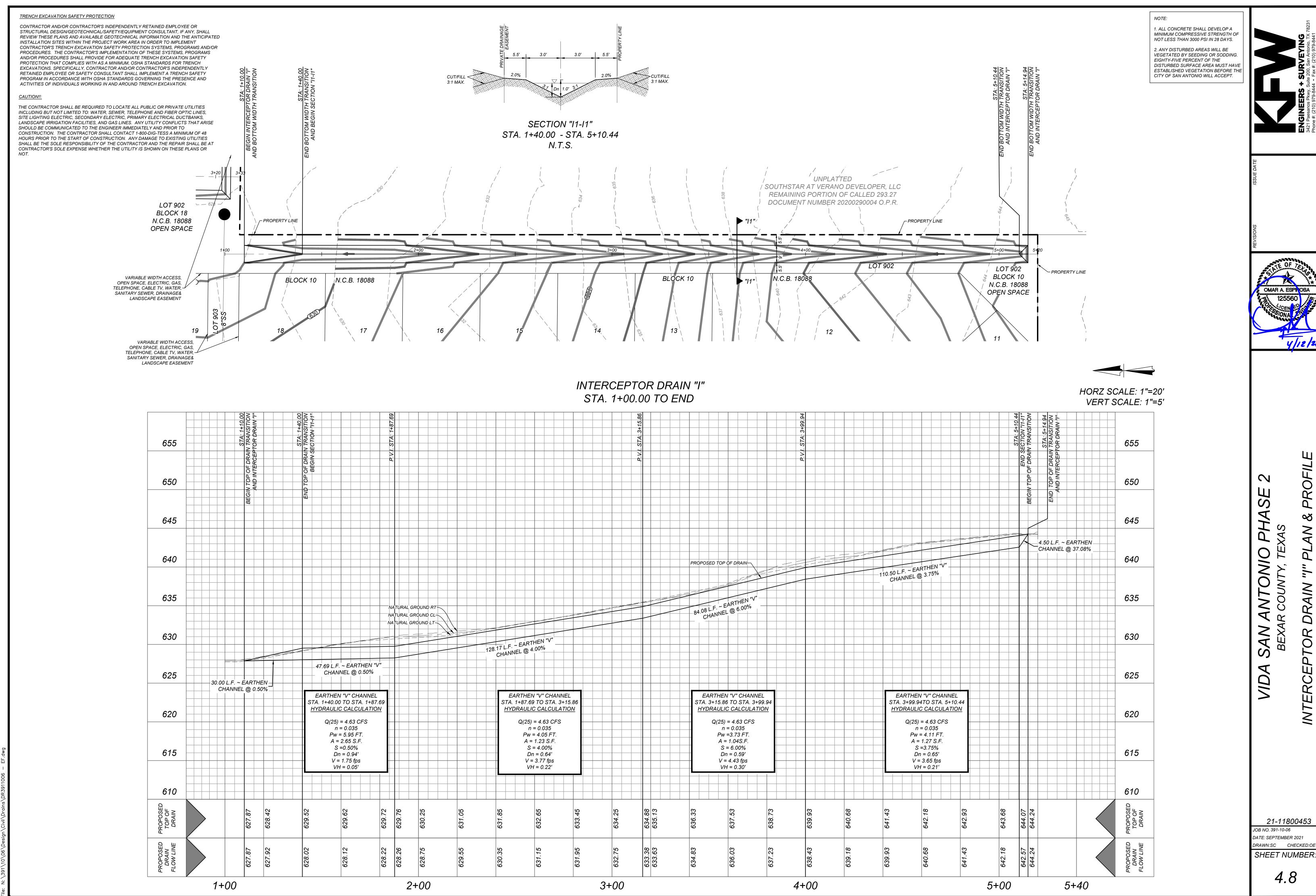
VEGETATED BY SEEDING OR SODDING. EIGHTY-FIVE PERCENT OF THE

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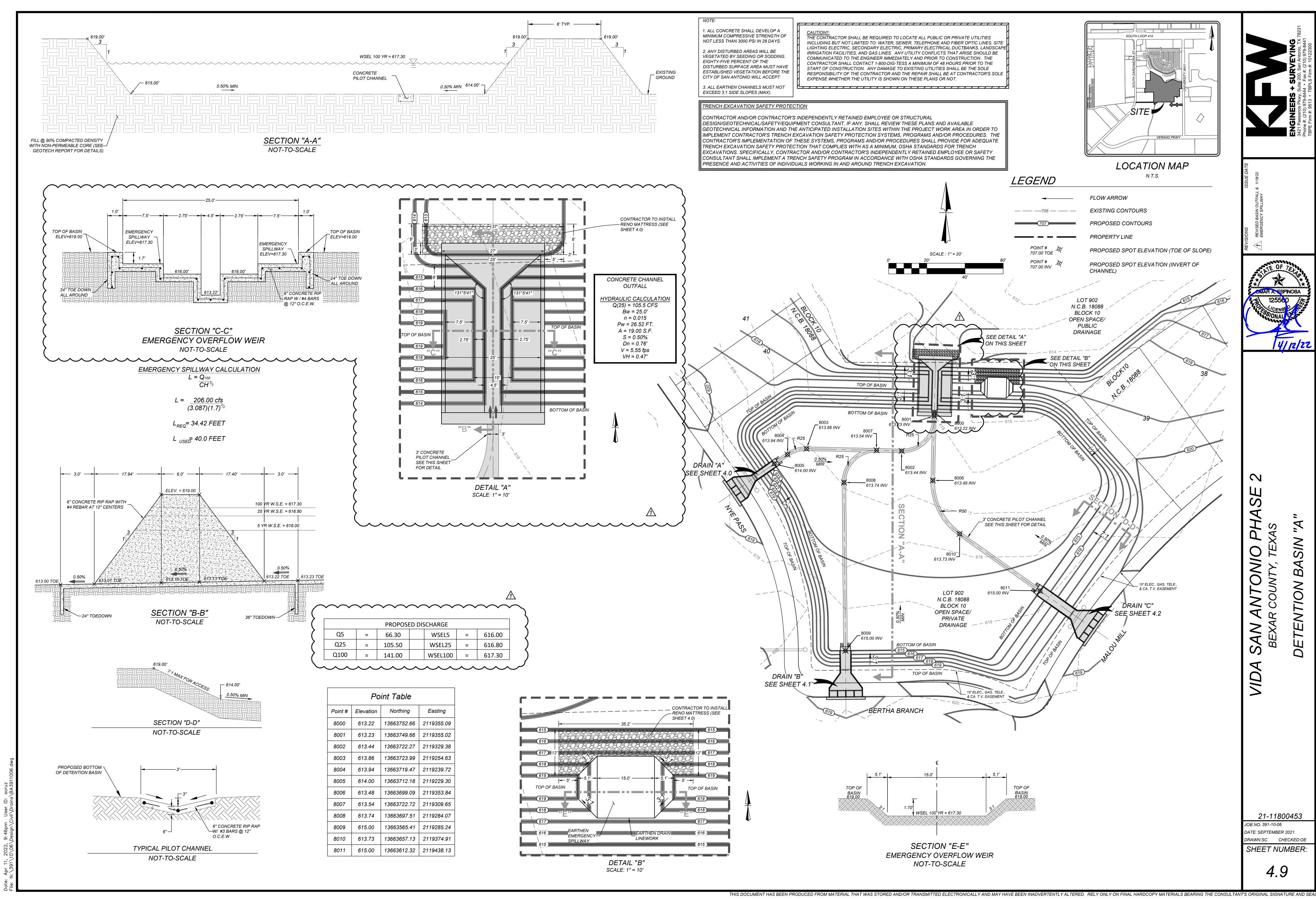
ESTABLISHED VEGETATION BEFORE THE

CITY OF SAN ANTONIO WILL ACCEPT.

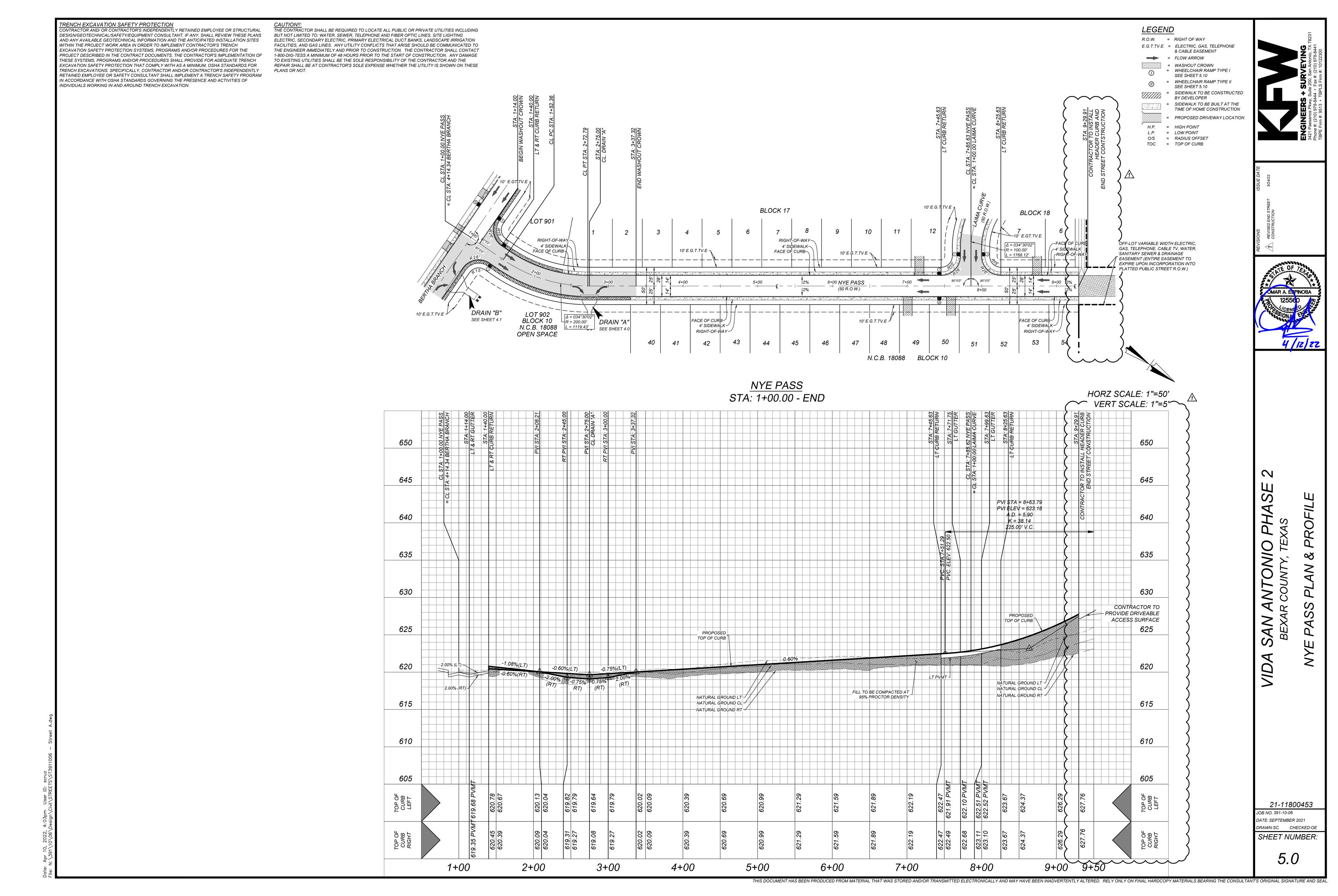
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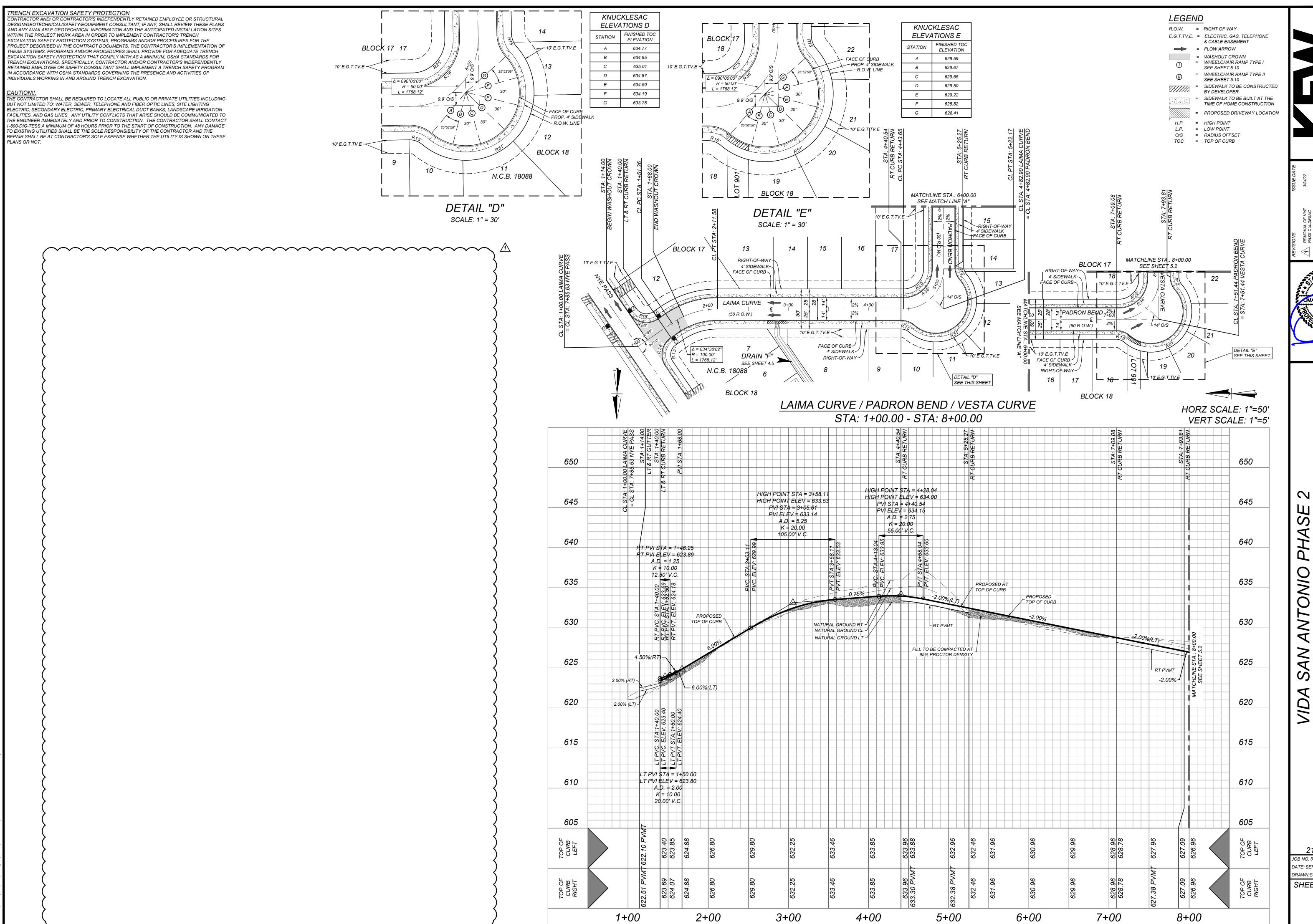


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21-11800453



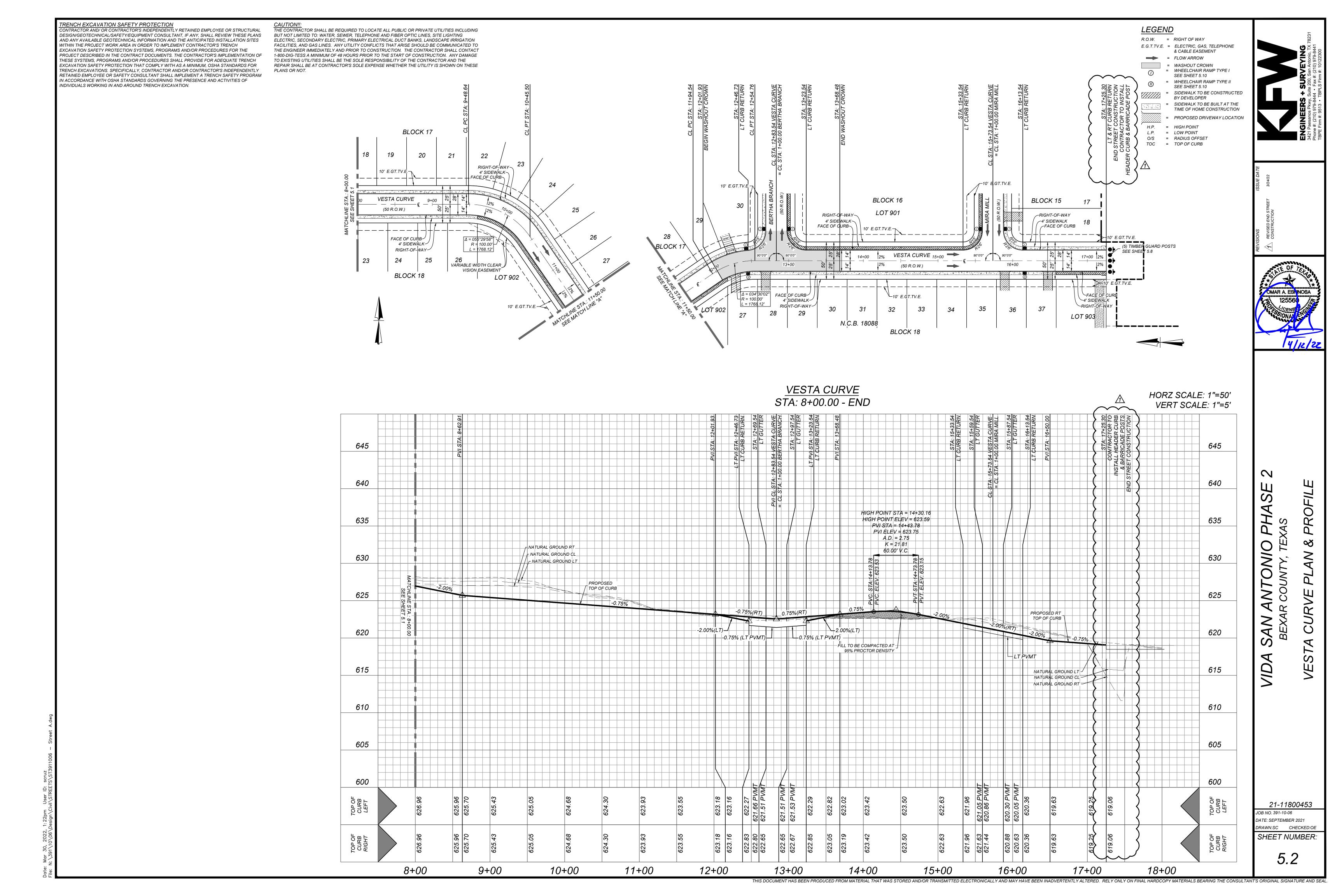


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> 21-11800453 JOB NO. 391-10-06 DATE: SEPTEMBER 2021

DRAWN:SC CHECKED:OE SHEET NUMBER:

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INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

TRENCH EXCAVATION SAFETY PROTECTION
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LEGEND

R.O.W. = RIGHT OF WAY

G.E.T.TV.E. = GAS, ELECTRIC, TELEPHONE & CABLE EASEMENT

= FLOW ARROW = WASHOUT CROWN

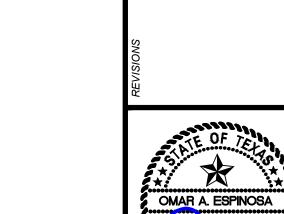
= WHEELCHAIR RAMP TYPE I SEE SHEET 5.13 = WHEELCHAIR RAMP TYPE II SEE SHEET 5.13

= SIDEWALK TO BE CONSTRUCTED BY DEVELOPER = SIDEWALK TO BE BUILT AT THE TIME OF HOME CONSTRUCTION

= PROPOSED DRIVEWAY LOCATION

H.P. = HIGH POINT L.P. = LOW POINTO/S = RADIUS OFFSET

TOC = TOP OF CURB



HORZ SCALE: 1"=50'

6+00 6+50

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LOT 902 BLOCK 10

N.C.B. 18088

OPEN SPACE

∠DRAIN "B"

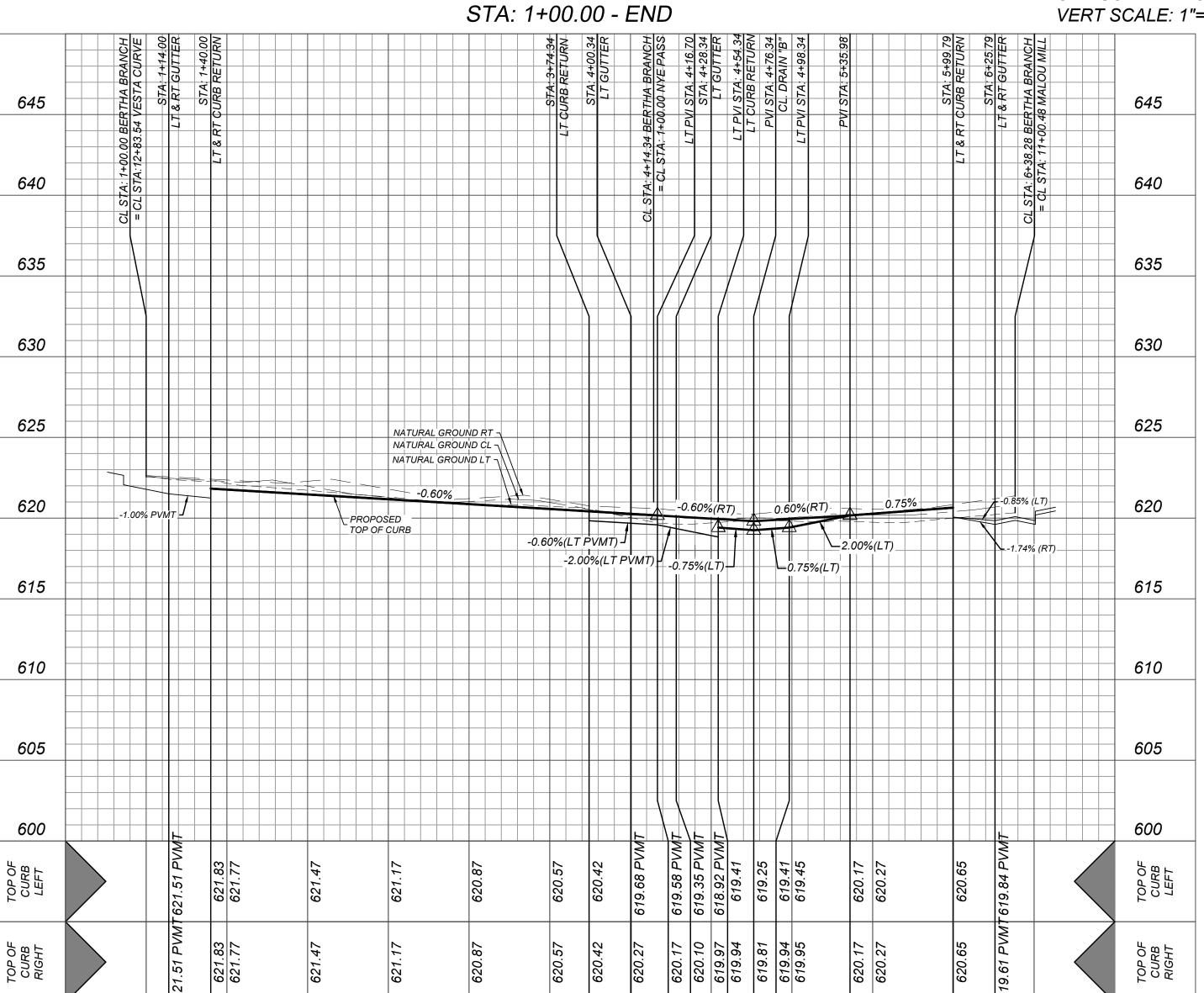
FACE OF CURB~

__4' SIDEWALK

 $\Delta = 024^{\circ}04'53''$ R = 100.00' L = 538.28'

RIGHT-OF-WAY

VERT SCALE: 1"=5'



4+00

5+00

TA: 4+14.34 BERTHA BRANCH = CL STA: 1+00.00 NYE PASS

FACE OF CURB

BLOCK 16

BERTHA BRANCH

4' SIDEWALK ₽

RIGHT-OF-WAY

EXISTING VARIABLE WIDTH SANITARY SEWER EASEMENT

LQT 901

10' G.E.T.TV.E.¬

/10' G,É.T.TV.E.-

BLOCK 17

BERTHA BŖÁNÇH 3+00

(50 R.O.W.)

EXISTING VARIABLE WIDTH

PLAT # 20-118000049)

SANITARY SEWER EASEMENT (VIDA SAN ANTONIO PHASE 1A

FACE OF CURB~

4' SIDEWALK \

RIGHT-OF-WAY

RIGHT-OF-WAY

∽FACE OF CURB

√4' SIĎEWAĹK

N.C.B. 18088

10' G.E.T.TV.E.¬\

10' G.E.T.TV.E. →

1+00

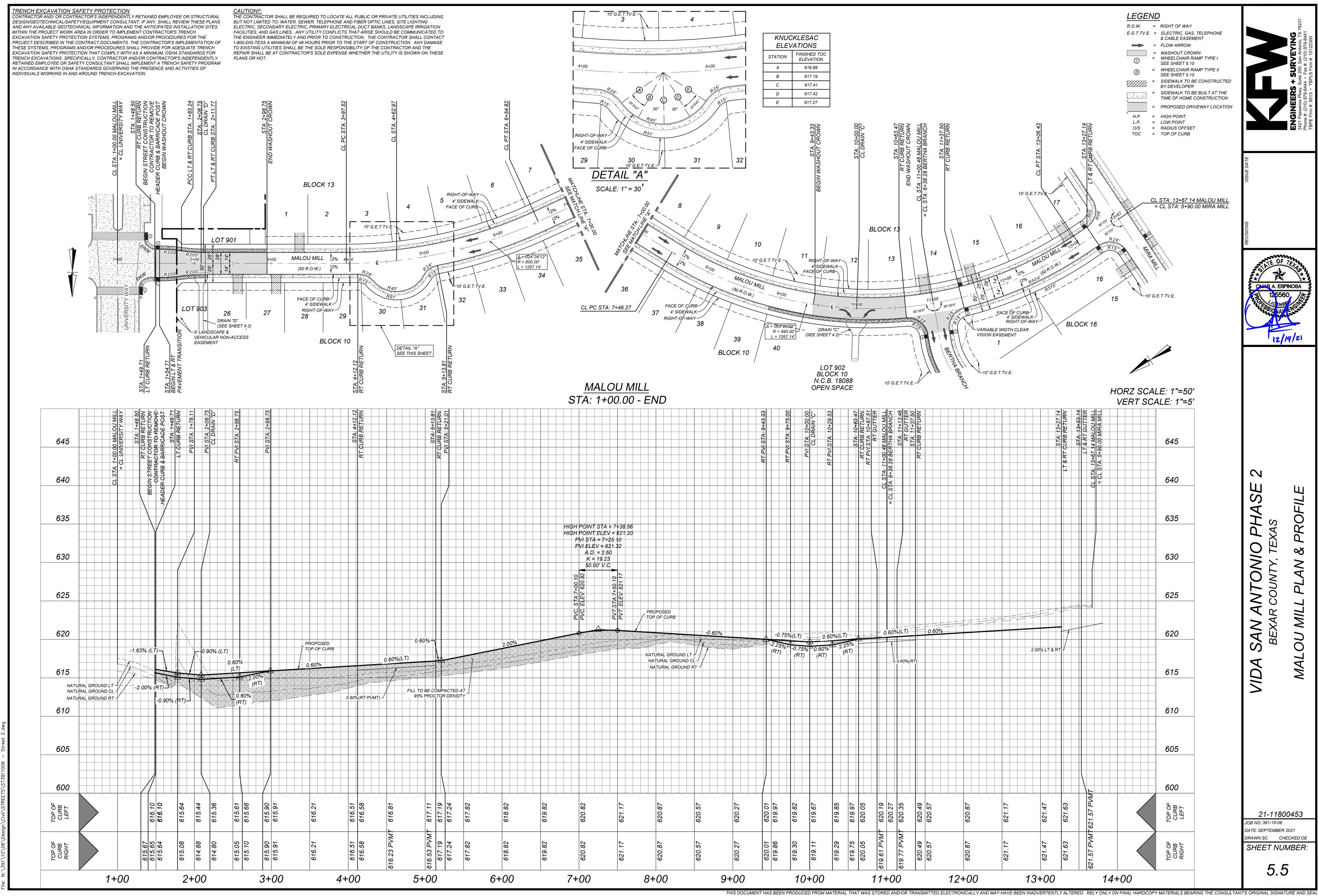
2+00

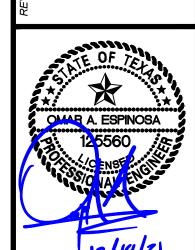
3+00

BLOCK 18

10' G.E.T.TV.E.

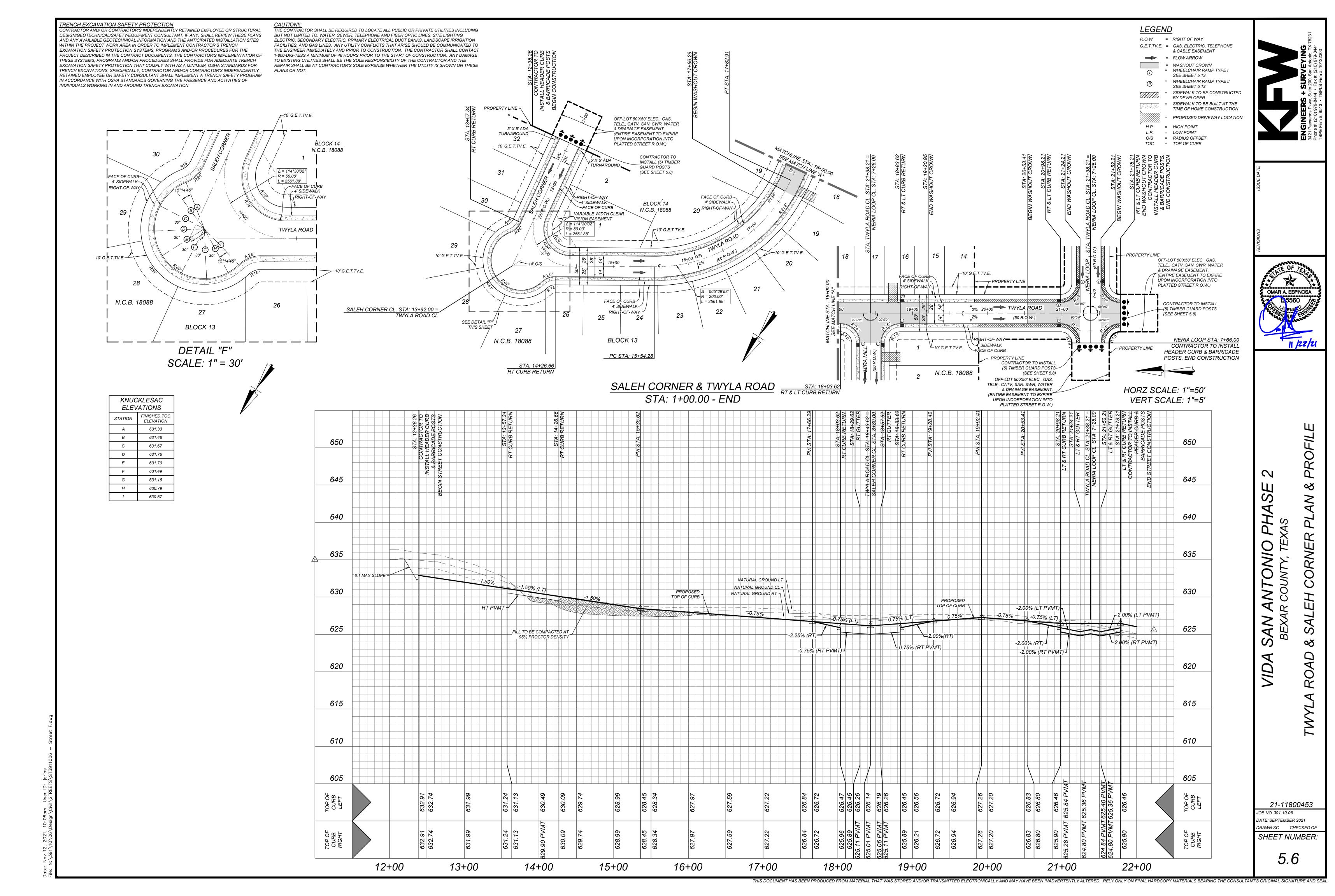
TRENCH EXCAVATION SAFETY PROTECTION
CONTRACTOR AND/ OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL
DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS CAUTION!!:
THE CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITED TO: WATER, SEWER, TELEPHONE AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, SECONDARY ELECTRIC, PRIVATE DATE OF THE PRIVATE OF THE PRIV **LEGEND** R.O.W. = RIGHT OF WAYAND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH FACILITIES, AND GAS LINES. ANY UTILITY CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO G.E.T.TV.E. = GAS, ELECTRIC, TELEPHONE EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE THE ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT & CABLE EASEMENT PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION. ANY DAMAGE = FLOW ARROW TO EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH = WASHOUT CROWN EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR REPAIR SHALL BE AT CONTRACTOR'S SOLE EXPENSE WHETHER THE UTILITY IS SHOWN ON THESE TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY PLANS OR NOT. = WHEELCHAIR RAMP TYPE I RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM SEE SHEET 5.13 IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF = WHEELCHAIR RAMP TYPE II INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION. SEE SHEET 5.13 = SIDEWALK TO BE CONSTRUCTED BY DEVELOPER = SIDEWALK TO BE BUILT AT THE TIME OF HOME CONSTRUCTION TIME OF HOME CONSTRUCTION = PROPOSED DRIVEWAY LOCATION H.P. = HIGH POINT L.P. = LOW POINTO/S = RADIUS OFFSET TOC = TOP OF CURB EXISTING VARIABLE WIDTH SANITARY SEWER EASEMENT (VIDA SAN ANTONIO PHASE 1A 10' G.E.T.TV.E.-BLOCK 16 PLAT # 20-11800049) LØT 901 BLOCK 13 10 RIGHT-OF-WAY 18 RIGHT-OF-WAY 4' SIDEWALK \ 4' SIDEWALK FACE OF CURB FACE OF CURB (50 R.O.W.) (50 R.O.W.) 10' G.E.T.ŢV.É. 🖳 FACE OF CURB FACE OF CURB 4' SIDEWALK~ 4' SIDEWALK~ RIGHT-OF-WAY RIGHT-OF-WAY 10 15 11 12 18 17 14 13 BLOCK 15 N.C.B. 18088 10' G.E.T.TV.E.—У MIRA MILL HORZ SCALE: 1"=50' STA: 1+00.00 - END VERT SCALE: 1"=5' 2 640 630 NATURAL GROUND RT -NATURAL GROUND CL -TOP OF CURB PROPOSED 625 625 TOP OF CURB 0.65%(RT) †0.75% (LT) 0.75% -0.75%(RT) **2.00% PVMT** -2.00%(LT)-NATURAL GROUND LT FILL TO BE COMPACTED AT _NATURAL GROUND CL 4 -0.75%(LT PVMT)↓ 95% PROCTOR DENSITY $[2.00\%]_{(RT)} [J] = 2.00\%(RT) - J$ NATURAL GROUND RT 0.75%(LT PVMT) 615 615 610 610 605 600 600 21-11800453 JOB NO. 391-10-06 DATE: SEPTEMBER 2021 DRAWN:SC CHECKED:OE .67 .70 SHEET NUMBER: 5.4 9+00 2+00 3+00 4+00 5+00 6+00 7+00 8+00 THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL





21-11800453

DRAWN:SC CHECKED:OE



CAUTION!!:
THE CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITED TO: WATER, SEWER, TELEPHONE AND FIBER OPTIC LINES, SITE LIGHTING TRENCH EXCAVATION SAFETY PROTECTION
CONTRACTOR AND/ OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL LEGEND DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS R.O.W. = RIGHT OF WAYAND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCT BANKS, LANDSCAPE IRRIGATION WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH FACILITIES, AND GAS LINES. ANY UTILITY CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO G.E.T.TV.E. = GAS, ELECTRIC, TELEPHONE EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE THE ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT & CABLE EASEMENT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION. ANY DAMAGE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF = FLOW ARROW THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH TO EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR = WASHOUT CROWN REPAIR SHALL BE AT CONTRACTOR'S SOLE EXPENSE WHETHER THE UTILITY IS SHOWN ON THESE TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY = WHEELCHAIR RAMP TYPE I RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM SEE SHEET 5.13 IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF = WHEELCHAIR RAMP TYPE II INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION. SEE SHEET 5.13 SIDEWALK TO BE CONSTRUCTED BY DEVELOPER = SIDEWALK TO BE BUILT AT THE TIME OF HOME CONSTRUCTION = PROPOSED DRIVEWAY LOCATION H.P. = HIGH POINT . STA: 4+36.00 . STA: 8+03.67 P CL STA: 7+26.00 CL STA: 21+38.21 = LOW POINT O/S = RADIUS OFFSET TOC = TOP OF CURB UNPLATTED SOUTHSTAR AT VERANO OFF-LOT 50'X50' ELEC., GAS, DEVELOPER, LLC OFF-LOT 50'X50' ELEC., GAS, REMAINING PORTION OF TELE,, CATV, SAN. SWR, WATER TELE,, CATV, SAN. SWR, WATER OFF-LOT 50'X50' ELEC., GAS. OFF-LOT 50'X50' ELEC., GAS, & DRAINAGE EASEMENT. & DRAINAGE EASEMENT. TELE,, CATV, SAN. SWR, WATER CALLED 293.27 ACRES TELE,, CATV, SAN. SWR, WATER (ENTIRE EASEMENT TO EXPIRE (ENTIRE EASEMENT TO EXPIRE CONTRACTOR TO & DRAINAGE EASEMENT. & DRAINAGE EASEMENT. DOCUMENT NUMBER UPON INCORPORATION INTO UPON INCORPORATION INTO INSTALL (5) TIMBER (ENTIRE EASEMENT TO EXPIRE (ENTIRE EASEMENT TO EXPIRE 20200290004 O.P.R. PLATTED STREET R.O.W.) PLATTED STREET R.O.W.) GUARD PÓSTS UPON INCORPORATION INTO UPON INCORPORATION INTO (SEE SHEET 5.8) PLATTED STREET R.O.W.) CONTRACTOR TO PLATTED STREET R.O.W.) | ••••• INSTALL (5) TIMBER PROPERTY ____LINE _____ GUARD POSTS (SEE SHEET 5.8) SALEH CORNER OFF-LOT 50'X50' ELEC., GAS, TELE,, CATV, SAN. SWR, WATER NERIA LOOP & DRAINAGE EASEMENT. (ENTIRE EASEMENT TO EXPIRE UPON INCORPORATION INTO CONTRACTOR TO CONTRACTOR TO PLATTED STREET R.O.W.) INSTALL (5) TIMBER INSTALL (5) TIMBER LOT 902 CONTRACTOR TO PROPERTY / LINE GUARD POSTS GUARD POSTS (SEE SHEET 5.8) (SEE SHEET 5.8) UNPLATTED GUARD POSTS OFF-LOT 50'X50' ELEC., GAS, SOUTHSTAR AT VERANO (SEE SHEET 5.8) TELE,, CATV, SAN. SWR, WATER UNPLATTED DEVELOPER, LLC & DRAINAGE EASEMENT. SOUTHSTAR AT VERANO DEVELOPER, LLC REMAINING PORTION OF (ENTIRE EASEMENT TO EXPIRE REMAINING PORTION OF CALLED 293.27 ACRES UPON INCORPORATION INTO CALLED 293.27 ACRES PLATTED STREET R.O.W.) DOCUMENT NUMBER 20200290004 O.P.R. DOCUMENT NUMBER STA: 1+49.73 RT CURB RETURN 20200290004 O.P.R. **BEGIN STREET CONSTRUCTION** CONTRACTOR TO REMOVE NERIA LOOP SALEH CORNER **HEADER CURB & BARRICADE POST** HORZ SCALE: 1"=50' HORZ SCALE: 1"=50' BEGIN WASHOUT CROWN STA: 7+50.00 - STA: 8+50.00 STA: 1+00.00 - END RT & LT PC STA: 1+54.73
BEGIN PAVEMENT TRANSITION VERT SCALE: 1"=5' VERT SCALE: 1"=5" STA: 8+17.67 & RT GUTTER 650 650 650 650 645 645 645 645 640 640 640 NATURAL GROUND RT EXISTING TO TIE TO NATURAL GROUND CL EXISTING PAVEMENT NATURAL GROUND LT ¬ -1.91/% (RT) --NATURAL GROUND CL-NATURAL GROUND LT -635 -2.00% (RT PVMT) 635 635 0.75%(LT) 2.00% (RT PVMT) SAN MAX SLOPE 6:1 TOP OF CURB 2.00% (LT PVMT) 630 630 630 -2.00% (LT PVMT) LT & RT PVMT FILL TO BE COMPACTED AT 625 625 625 95% PROCTOR DENSITY MAX 6:1 SLOPE 620 620 620 620 615 615 615 610 610 610 610 636.71 636.71 636.71 TOP OF CURB LEFT 637.90 637.89 8+00 8+50 1+00 2+00 8+00 3+00 4+00 5+00 6+00 7+00

OMAR A. ESPINOSA

2

ONIO

IN ANTONI EXAR COUNTY,

21-11800453

SHEET NUMBER:

5.7

JOB NO. 391-10-06 DATE: SEPTEMBER 2021 DRAWN:SC CHECKED:OE

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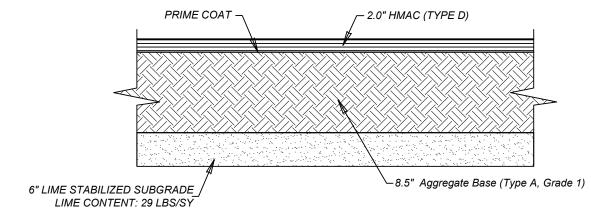
50' R.O.W. 11' PARKWAY 28' PAVEMENT 11' PARKWAY 1/4" / FT MIN 1/4" / FT MIN 2.0" TYPE D 1" / FT MAX ` 1" / FT MAX - ASPHALTIC CONCRETE PAVEMENT - ITEM 205 2% SLOPE 2% SLOPE 2% SLOPE – 8.5" AGGREGATE BASE 4' CONC. SIDEWALK 4' CONC. SIDEWALK 6" LIME STABILIZED ~ PRIME COAT - 0.2 GAL/SY ITEM #202 ITEM 502-1 ITEM 502-1 SUBGRADE (29.0 LBS/SY) AND TACK - 0.1 GAL/SY ITEM #203

TYPICAL LOCAL "A" STREET SECTION

NOT TO SCALE

USE LOCAL "A" STREET SECTION FOR STREETS BELOW: NYE PASS - STA: 1+00.00 - END LAIMA CURVE, PADRON BEND & VESTA CURVE - STA: 1+00.00 - END BERTHA BRANCH - STA: 1+00.00 - END MIRA MILL - STA: 1+00.00 - END MALOU MILL - STA: 1+00.00 - END SALEH CORNER & TWYLA ROAD - STA: 12+38.26 - END NERIA LOOP - STA: 1+00.00 - END

Pavement Section 2.0" HMAC Type "D" 8.5" Aggregate Base (Type A, Grade 1) 6" Lime Stablized Subgrade(29 LBS/SY) Total: 16.5" Structural No: 2.55 CBR: 3.0 REQUIRED IF SUBGRADE PI > 20



ASPHALT PAVEMENT DETAIL DETAIL FOR ALL LOCAL TYPE A

1. PAVEMENT DESIGN THICKNESS BASED ON GEOTECHNICAL REPORT BY INTEC, L.P., PROJECT NO. S211319 DATED 09/29/21.

2. REFERENCE PROJECT GEOTECHNICAL REPORT AND PROJECT SPECIFICATION FOR ADDITIONAL REQUIREMENTS AND ALTERNATE PAVEMENT SECTIONS.

3. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING MATERIAL TESTING. TESTING TO BE

4. GEOTECHNICAL ENGINEER TO BE ON SITE TO MAKE FINAL SUBGRADE DETERMINATION. CHANGES TO THIS PAVEMENT DESIGN SHALL BE SUBMITTED TO COSA-DSD PRIOR TO PLACEMENT OF BASE

GENERAL NOTES:

1. THE SUBGRADE SOILS SHOULD BE TESTED FOR SOLUBLE SULPHATE CONTENT PRIOR TO INSTALLATION OF THE LIME OR CEMENT.

2. THE APPLICATION RATE OF LIME SHALL BE DETERMINED BASED ON LABORATORY TESTING AND SHALL BE THE LOWEST PERCENTAGE OF LIME THAT PROVIDES AN UNCONFINED COMPRESSIVE STRENGTH (UCS) AT 7-DAYS OF AT LEAST 160 PSI IN ACCORDANCE WITH ASTM D5102 STANDARD TEST METHODS FOR UNCONFINED COMPRESSIVE STRENGTH OF COMPACTED SOIL-LIME MIXTURES (PROCEDURE B) (IN ADDITION, CURING SHOULD OCCUR FOR 7 DAYS AT 40° AND SPECIMENS SHOULD BE

FOR CONSTRUCTION VERIFICATION THE FOLLOWING SHALL BE CONDUCTED IN THE

SUBJECT TO 24-HR CAPILLARY SOAK PRIOR TO TESTING.

MINIMUM PASSING NO. 4 SIEVE

AFTER INITIAL MIXING THE SOIL-LIME MIXTURE SHALL MELLOW FOR A PERIOD OF TWO TO THREE (2 - 3) DAYS. MAINTAIN MOISTURE DURING MELLOWING;

2. AFTER MELLOWING AND FINAL MIXING, THE PULVERIZATION SHALL BE CHECKED USING THE FOLLOWING CRITERIA (REMOVE NON-SLAKING AGGREGATES RETAINED ON THE ¾ INCH SIEVE FROM THE SAMPLE): MINIMUM PASSING 1 ¾" SIEVE MINIMUM PASSING 3/4" SIEVE

3. SAMPLE SOIL-LIME MIXTURE FOR DETERMINATION OF MAXIMUM DRY DENSITY (MDD). IN THE LABORATORY, MOLD SPECIMENS TO 95% OF MDD AT OPTIMUM MOISTURE CONTENT AND VERIFY UCS TO BE AT LEAST 160 PSI IN ACCORDANCE WITH PROCEDURE OUTLINED ABOVE FOR MIXTURE DESIGN.

4. COMPACT AND CHECK FIELD DENSITY (MINIMUM OF 95% OF MDD REQUIRED)

5. CURE FOR AN ADDITIONAL 2 TO 5 DAYS (TOTAL MELLOWING AND CURING TIME SHOULD TOTAL AT LEAST 5 DAYS).

6. VERIFY DEPTH OF LIME STABILIZED LAYER TO DEPTH AS NOTED ON PLAN TO

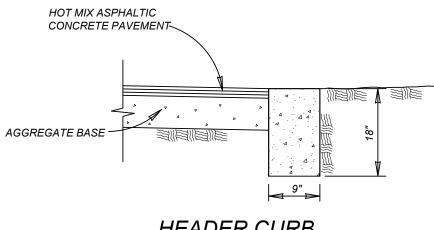
WITHIN ± 1.0 INCH.

ANY FILL USED TO RAISE THE SUBGRADE: SHOUD NOT CONTAIN ANY DELETERIOUS MATERIAL. SHOULD HAVE A CBR VALUE OF 3.0 OR GREATER SHOULD NOT HAVE GRAVELS LARGER THAN 3 INCH IN SIZE

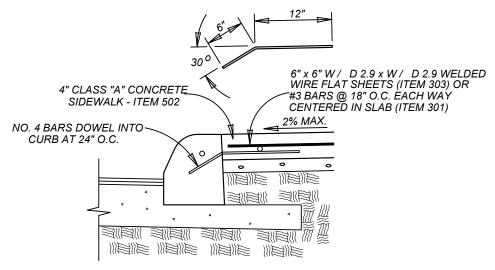
 SHOULD HAVE THE "LIME PERCENTAGE/APPLICATION RATE" RE-RUN PRIOR TO INSTALLATION

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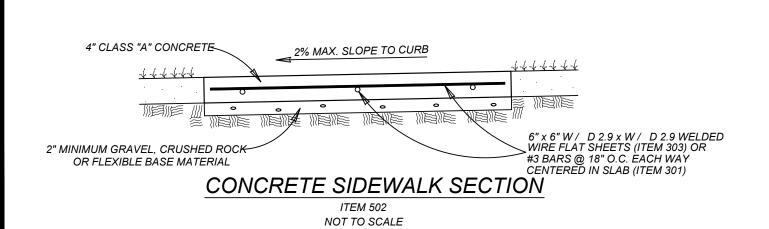
PSI SHOULD BE LESS THAN 20

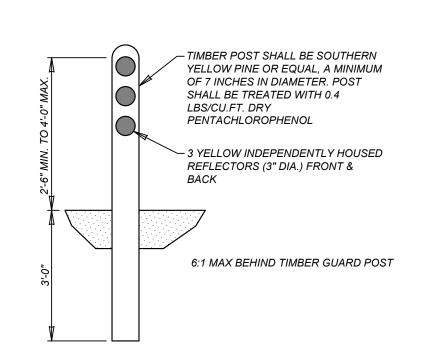


HEADER CURB ITEM 500 ON SAND OR GRAVEL NOT TO SCALE

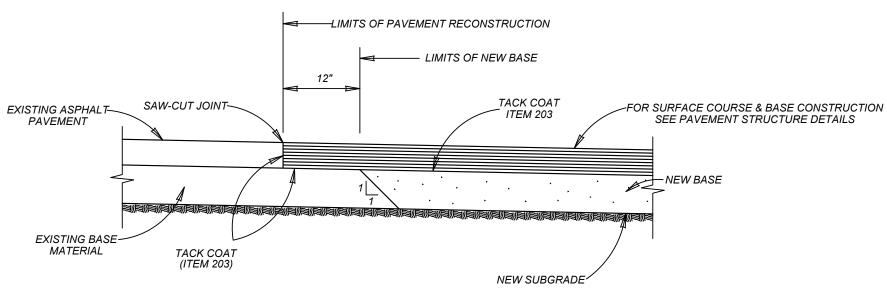


CONCRETE SIDEWALK ABUTTING CURB SECTION NOT TO SCALE

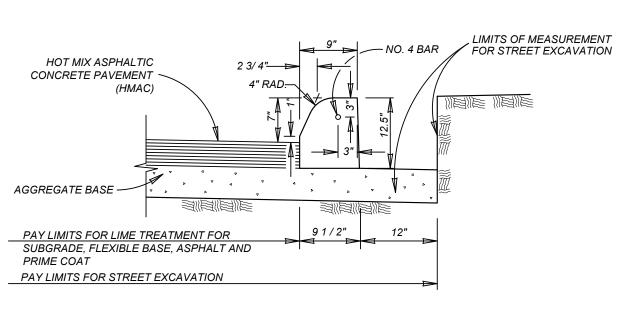




TIMBER GUARD POST DETAIL NOT-TO-SCALE



PAVEMENT JUNCTION DETAILS NOT TO SCALE



CONCRETE CURB ITEM 500 ON ASPHALT TREATED BASE OR ASPHALTIC CONCRETE BASE NOT TO SCALE

TOP OF ASPHALT PAVEMENT—

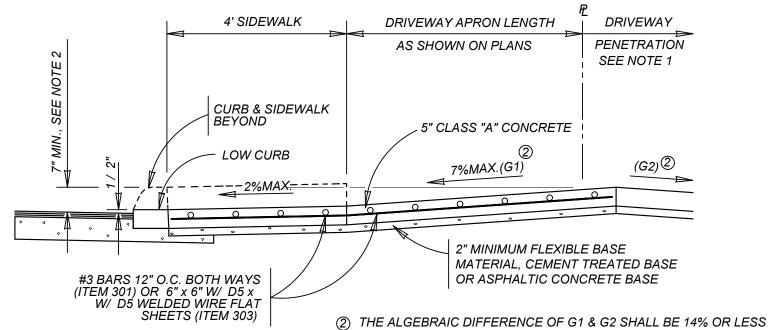
DRAWN:SC CHECKED:OE SHEET NUMBER:

DATE: SEPTEMBER 2021

DRIVEWAY DRIVEWAY APRON LENGTH 4' SIDEWALK AS SHOWN ON PLANS PENETRATION SEE NOTE 1 CURB & SIDEWALK BEYOND > 5" CLASS "A" CONCRETE ∠ LOW CURB 14%MAX. --<u>-</u> 2%MAX:----2" MINIMUM FLEXIBLE BASE MATERIAL, CEMENT TREATED BASE OR ASPHALTIC CONCRETE #3 BARS 12" O.C. BOTH WAYS (ITEM 301) OR 6" x 6" W/ D5 x W/ D5 WELDED WIRE FLAT

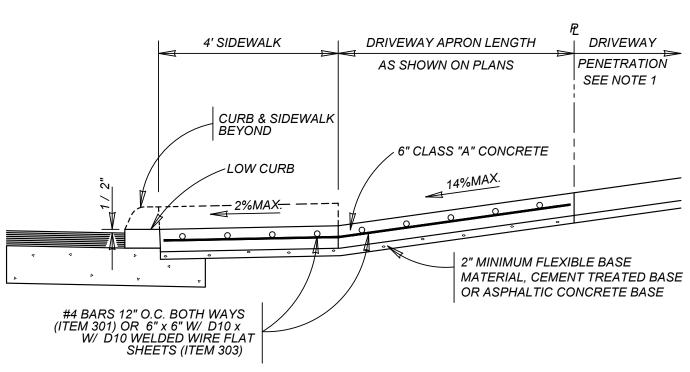
TYPICAL RESIDENTIAL DRIVEWAY SECTION

WITH SIDEWALK ABUTTING CURB ITEM 503.1



TYPICAL RESIDENTIAL DRIVEWAY SECTION

WHERE PROPERTY IS LOWER THAN STREET & SIDEWALK IS ABUTTING CURB ITEM 503.1



TYPICAL COMMERCIAL DRIVEWAY SECTION

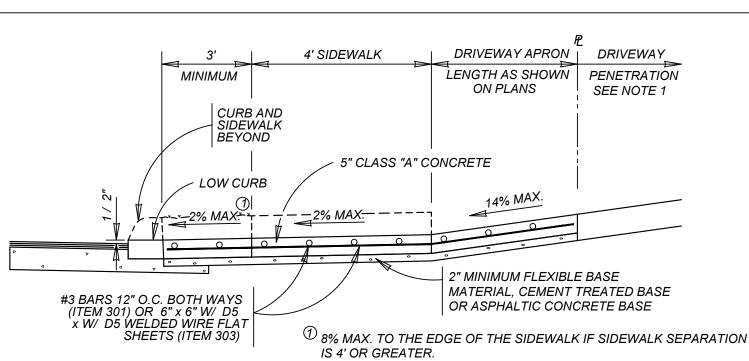
WITH SIDEWALK ABUTTING CURB ITEM 503.2

CONCRETE DRIVEWAY NOTES

- 1. DRIVEWAY PENETRATION REFERS TO A PORTION OF THE DRIVEWAY THAT MAY BE NECESSARY TO RECONSTRUCT WITHIN PRIVATE PROPERTY TO COMPLY WITH A MAXIMUM DRIVEWAY SLOPE. THIS PORTION OF THE DRIVEWAY SHALL BE PAID FOR UNDER THE FOLLOWING ITEMS AS MAY APPLY: A.) CONCRETE DRIVEWAY PAID FOR UNDER ITEM NO. 503.1 OR 503.2.
- B.) ASPHALTIC CONCRETE DRIVEWAY PAID FOR UNDER ITEM NO. 503.4 AND SHALL INCLUDE A MINIMUM OF 1" ASPHALT TYPE 'D' & 6" FLEXIBLE BASE C.) GRAVEL DRIVEWAY PAID FOR UNDER ITEM NO. 503.5 AND SHALL INCLUDE A MINIMUM OF 6" FLEXIBLE BASE
- 2. 7" MINIMUM HEIGHT WILL NOT NECESSARILY OCCUR AT THE PROPERTY LINE. IT MAY OCCUR WITHIN THE RIGHT OF WAY OR WITHIN THE DRIVEWAY PENETRATION ON PRIVATE PROPERTY.
- 3. THE PROPOSED DRIVEWAY SHOULD MATCH THE EXISTING WIDTH AT THE PROPERTY LINE BUT UNLESS AUTHORIZED BY THE CITY TRAFFIC ENGINEER, THE WIDTH SHALL BE WITHIN THE FOLLOWING VALUES:

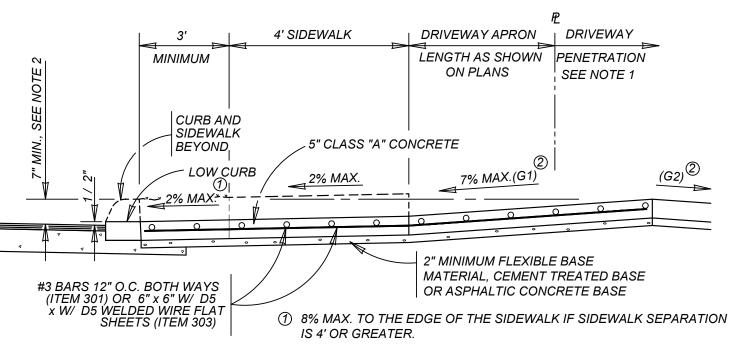
TYPE	MINIMUM	MAXIMUM
RESIDENTIAL	10'	20'
COMMERCIAL - ONE WAY	12'	20'
COMMERCIAL - TWO WAY	24'	30'

- 4. FOR LOCAL TYPE "A" STREETS, SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 4' AND IF SEPARATED FROM THE CURB, THE SIDEWALK SHALL BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.
- 5. FOR OTHER THAN LOCAL TYPE "A" STREETS, THE SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 4' AND SEPARATED A MINIMUM OF 3' FROM THE BACK OF CURB OR, AS AN OPTION, THE SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 6' WHEN LOCATED AT THE BACK OF CURB.
- 6. DUMMY JOINTS PARALLEL TO THE CURB SHALL BE PLACED WHERE THE SIDEWALK MEETS THE DRIVEWAY. DUMMY JOINTS PERPENDICULAR TO THE CURB, AND WITHIN THE BOUNDARIES OF THE PARALLEL DUMMY JOINTS, SHALL BE PLACED AT INTERVALS EQUAL TO THE WIDTH OF THE SIDEWALK.
- 7. A MINIMUM OF TWO ROUND AND SMOOTH DOWEL BARS 3 /8" IN DIAMETER AND 18" IN LENGTH SHALL BE SPACED 18" APART AT EACH EXPANSION JOINT.
- 8. SIDEWALK RAMP LENGTHS SHALL BE OF SUFFICIENT LENGTH TO MAINTAIN 8.33% (1:12) MAXIMUM SLOPE. WHERE SIDEWALKS CROSS DRIVEWAYS, SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
- 9. SIDEWALK RAMP SURFACE SHALL BE BRUSH FINISHED.



TYPICAL RESIDENTIAL DRIVEWAY SECTION

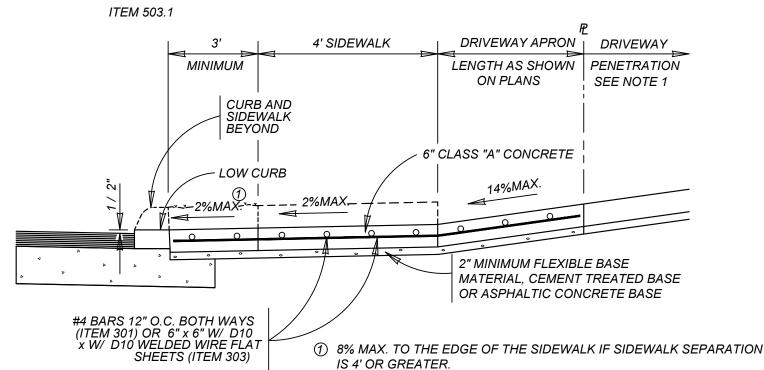
WITH SIDEWALK SEPARATED FROM CURB ITEM 503.1



② THE ALGEBRAIC DIFFERENCE OF G1 & G2 SHALL BE 14% OR LESS

TYPICAL RESIDENTIAL DRIVEWAY SECTION

WHERE PROPERTY IS LOWER THAN STREET & SIDEWALK IS SEPARATED FROM CURB

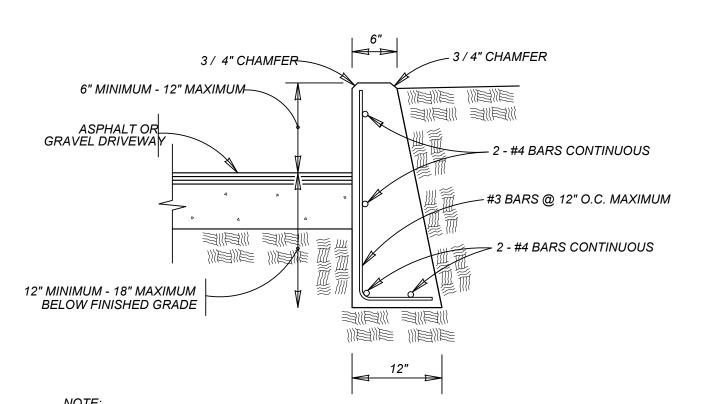


TYPICAL COMMERCIAL DRIVEWAY SECTION

WITH SIDEWALK SEPARATED FROM CURB

ITEM 307.1

ITEM 503.2

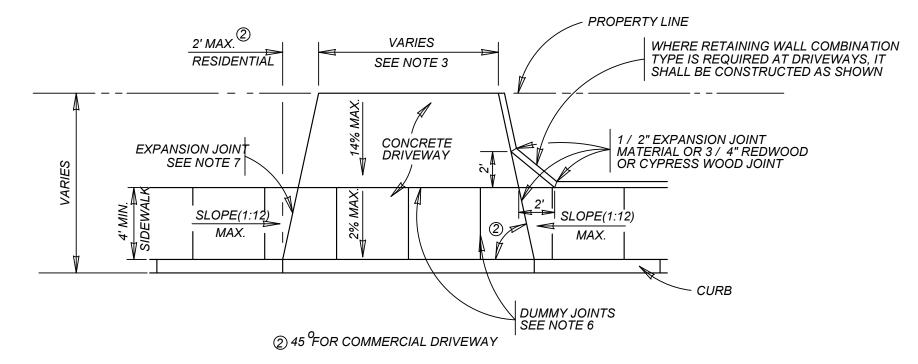


- 1. COST OF REINFORCEMENT TO BE INCLUDED IN UNIT COST OF ITEM 307.1
- 2. CONCRETE RETAINING WALL COMBINATION TYPE SHALL BE USED FOR CONCRETE DRIVEWAYS.

DRIVEWAY - CONCRETE RETAINING WALL ON COMPACTED SUBGRADE

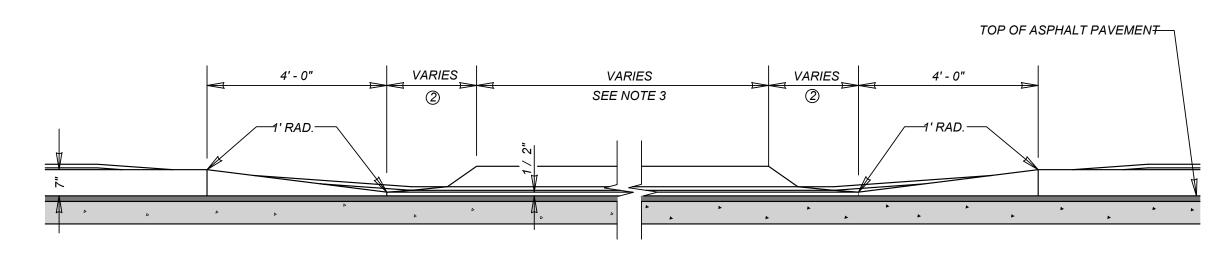
VARIES VARIES SLOPE (1:12) **VARIES** SLOPE (1:12) MAXIMUM SEE NOTE 3 MAXIMUM -1' RAD. -- 1' RAD. - ② RESIDENTIAL : 2' MAXIMUM; COMMERCIAL: SEE PLAN VIEW CURB PROFILE AT DRIVEWAY

WITH SIDEWALK ABUTTING CURB



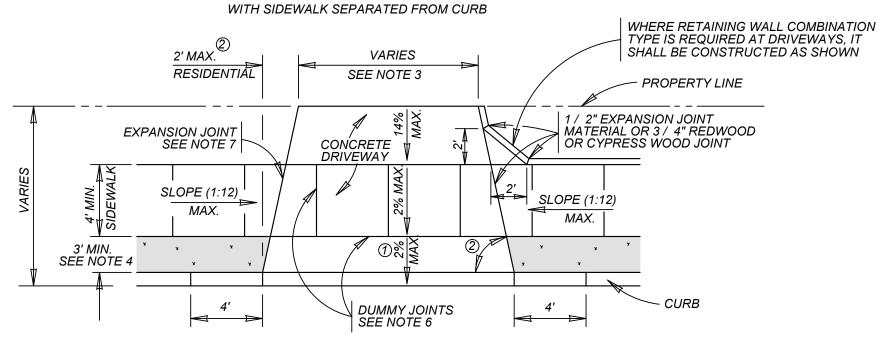
TYPICAL DRIVEWAY PLAN VIEW

WITH SIDEWALK ABUTTING CURB



② RESIDENTIAL : 2' MAXIMUM; COMMERCIAL: SEE PLAN VIEW

CURB PROFILE AT DRIVEWAY



- ① 8% MAX. TO THE EDGE OF THE SIDEWALK IF SIDEWALK SEPARATION IS 4' OR GREATER.
- ② 45 FOR COMMERCIAL DRIVEWAY

TYPICAL DRIVEWAY PLAN VIEW

WITH SIDEWALK SEPARATED FROM CURB

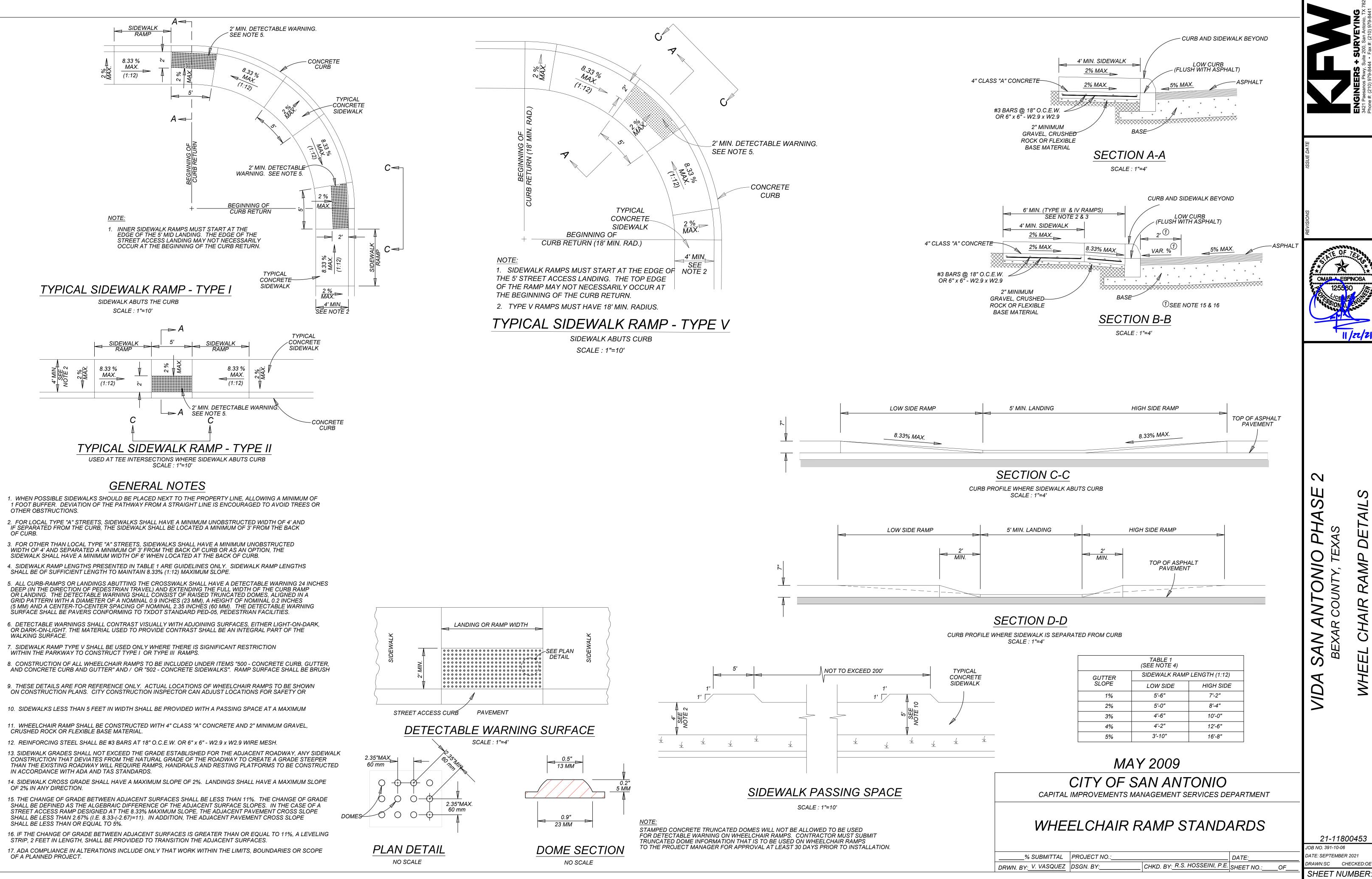
MAY 2009

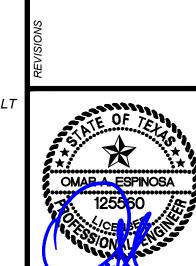
CITY OF SAN ANTONIO CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

CONCRETE DRIVEWAY STANDARDS

% SUBMITTAL	PROJECT NO.:	L	DATE:	
DRWN. BY: V. VASQUEZ	DSGN. BY:	CHKD. BY: R.S. HOSSEINI, P.E. S	SHEET NO.:	OF

THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL





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V.N.A.E. = VEHICULAR NON-ACCESS EASEMENT

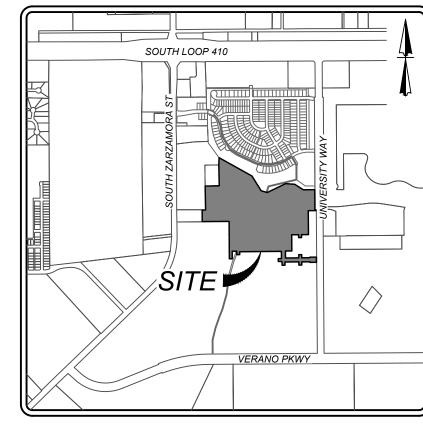
= WHEELCHAIR RAMP TYPE I

= WHEELCHAIR RAMP TYPE II

= SINGLE DIRECTION WHEELCHAIR RAMP SEE SHEET 5.10

= DUAL DIRECTION WHEELCHAIR RAMP SEE SHEET 5.10

= PROPOSED DRIVEWAY LOCATION



LOCATION MAP N.T.S.

SYME	ITEM NUMBER	
STOP	R1-1 30 X 30	531.03
STREET NAME ####	STANDARD COSA STREET NAME SIGN STD X 9	531.59
	OM4-3 END-OF-ROADWAY MARKER	531.56

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21-11800453 JOB NO. 391-10-06 DATE: SEPTEMBER 2021

SHEET NUMBER:

LEGEND

N.C.B = NEW CITY BLOCK

E.G.T.C.E. = GAS, ELECTRIC, TELEPHONE & CABLE EASEMENT

V.N.A.E. = VEHICULAR NON-ACCESS EASEMENT

= WHEELCHAIR RAMP TYPE I SEE SHEET 5.10

(I) = WHEELCHAIR RAMP TYPE II SEE SHEET 5.10

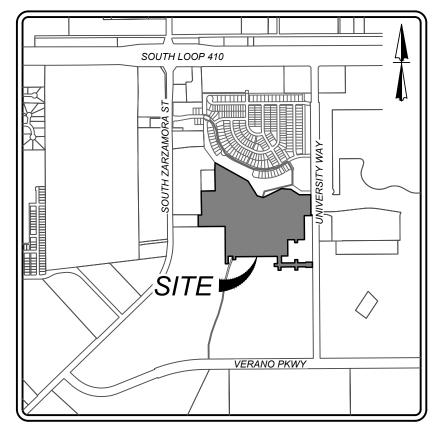
SDW = SINGLE DIRECTION WHEELCHAIR RAMP SEE SHEET 5.10

DDW = DUAL DIRECTION WHEELCHAIR RAMP SEE SHEET 5.10

= SIDEWALK TO BE CONSTRUCTED
BY DEVELOPER

= SIDEWALK TO BE BUILT AT THE TIME
OF HOME CONSTRUCTION

= PROPOSED DRIVEWAY LOCATION



LOCATION MAP

SCALE: 1"=50' 50' 150'

SYMI	ITEM NUMBER	
STOP	R1-1 30 X 30	531.03
STREET NAME ####	STANDARD COSA STREET NAME SIGN STD X 9	531.59

END-OF-ROADWAY

MARKER

THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL

531.56

VIDA SAN ANTONIO PHASE 2 BEXAR COUNTY, TEXAS

21-11800453

JOB NO. 391-10-06

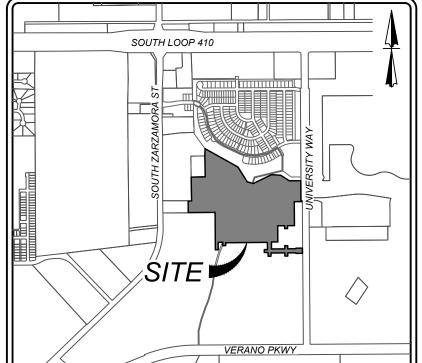
DATE: SEPTEMBER 2021

DRAWN:SC CHECKED:OE

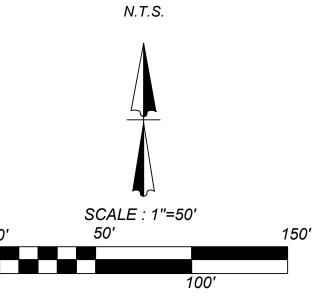
SHEET NUMBER:

.12





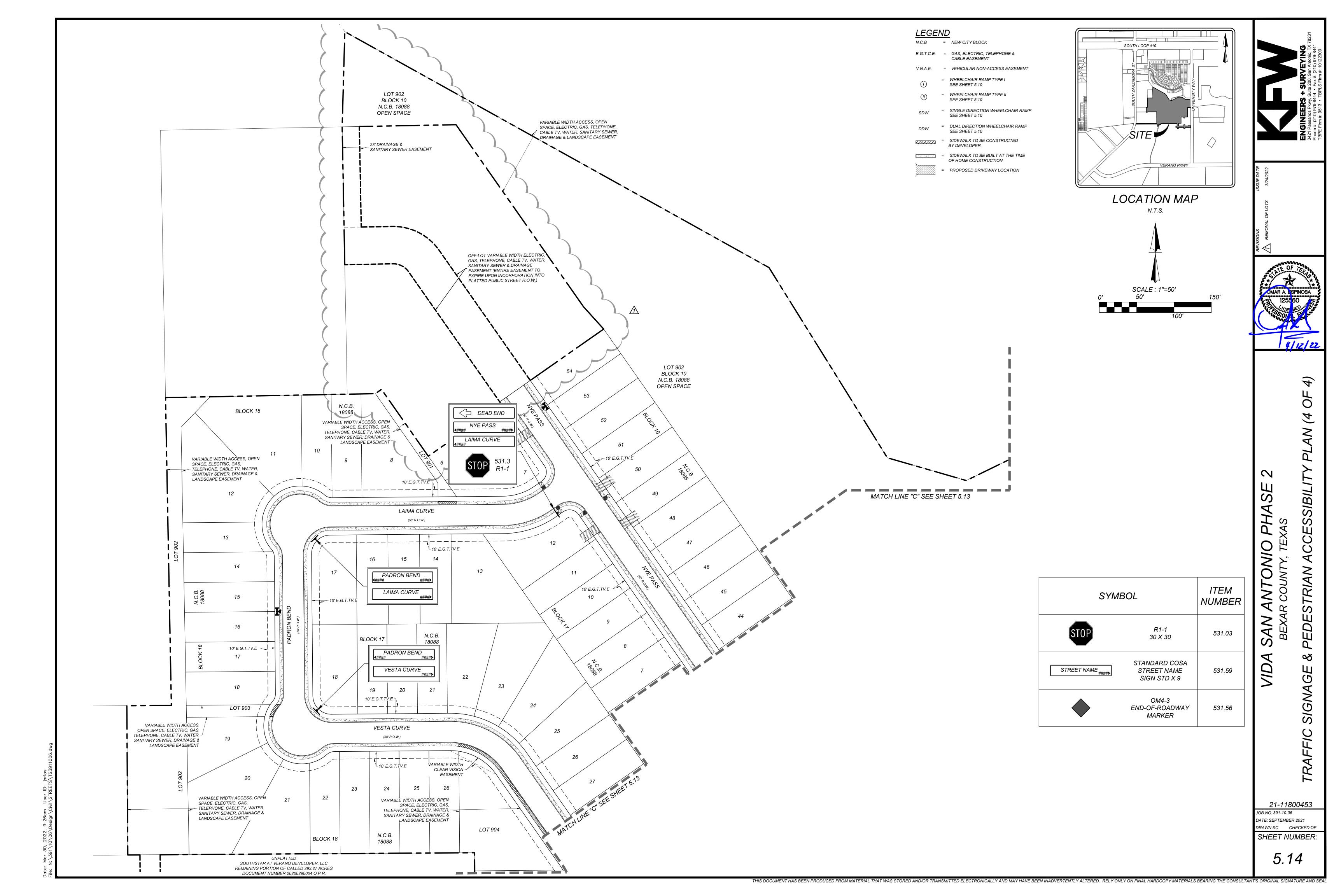




		STATE OF	TETAS
100'	150'	MAR A. BS	

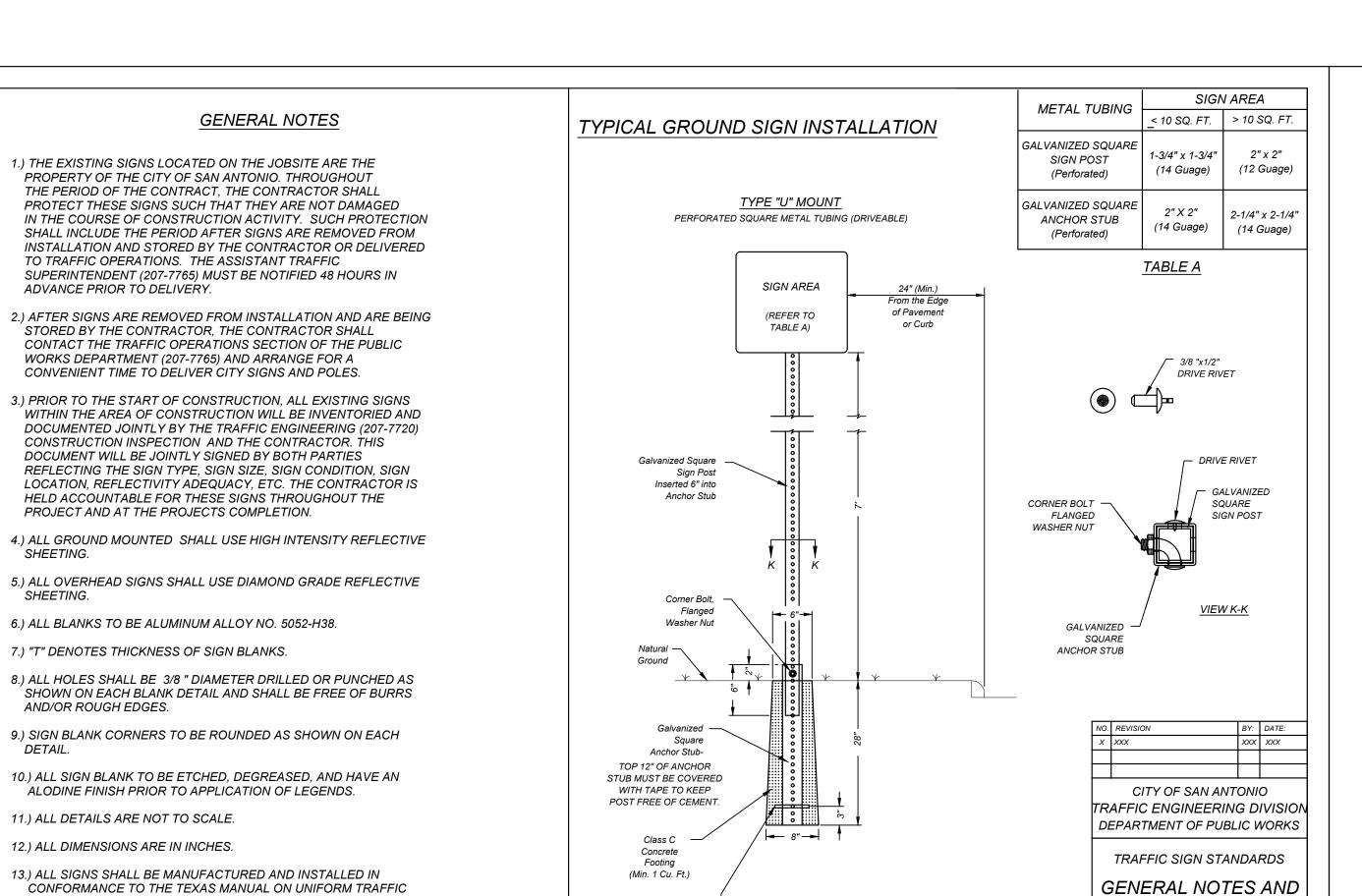
		,
SYMI	ITEM NUMBER	
STOP	R1-1 30 X 30	531.03
STREET NAME	STANDARD COSA STREET NAME SIGN STD X 9	531.59
	OM4-3 END-OF-ROADWAY MARKER	531.56

THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL





SIGNA



6" X 3/8 " DIA. Steel Pin or

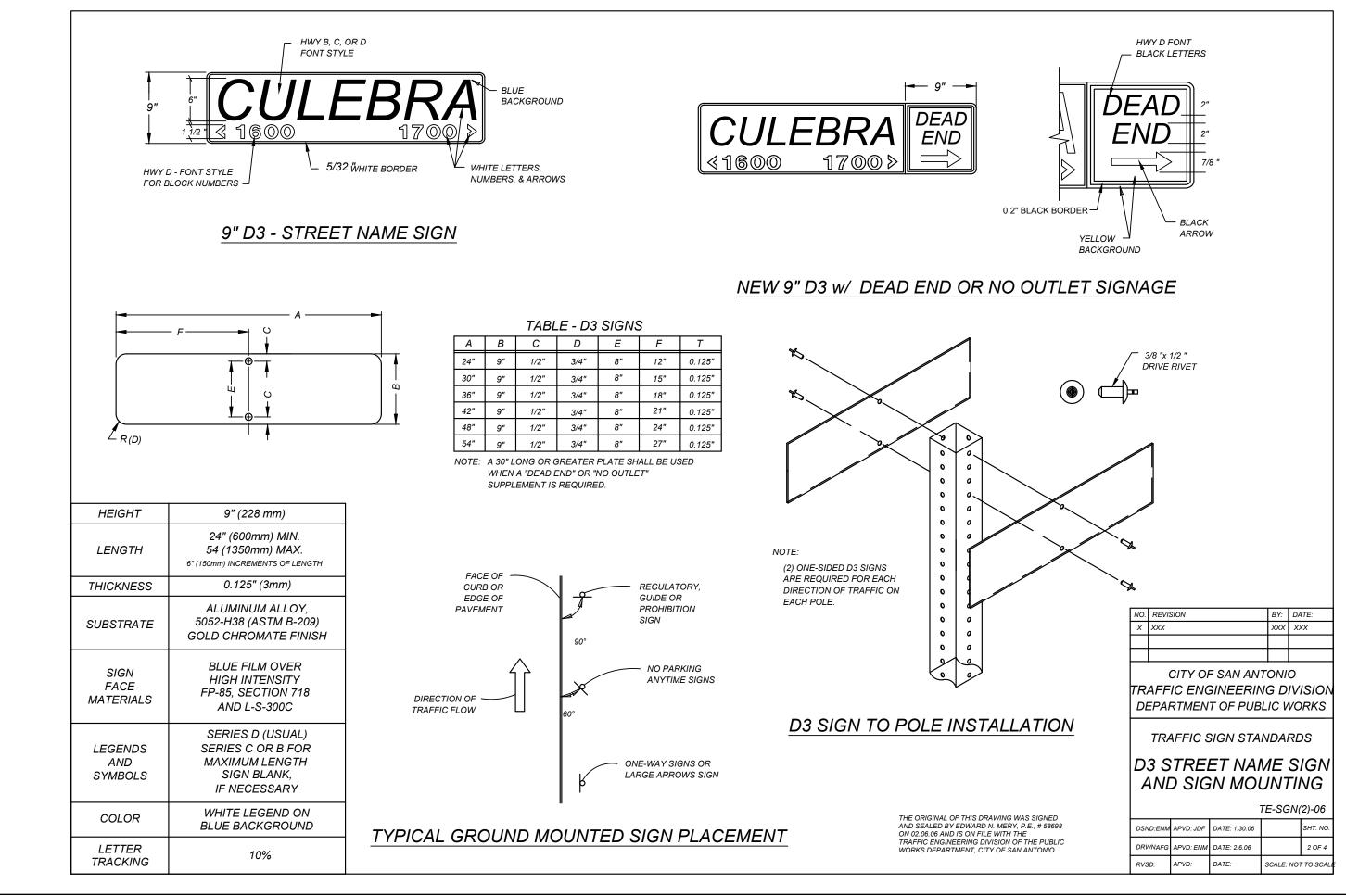
Disfigure End

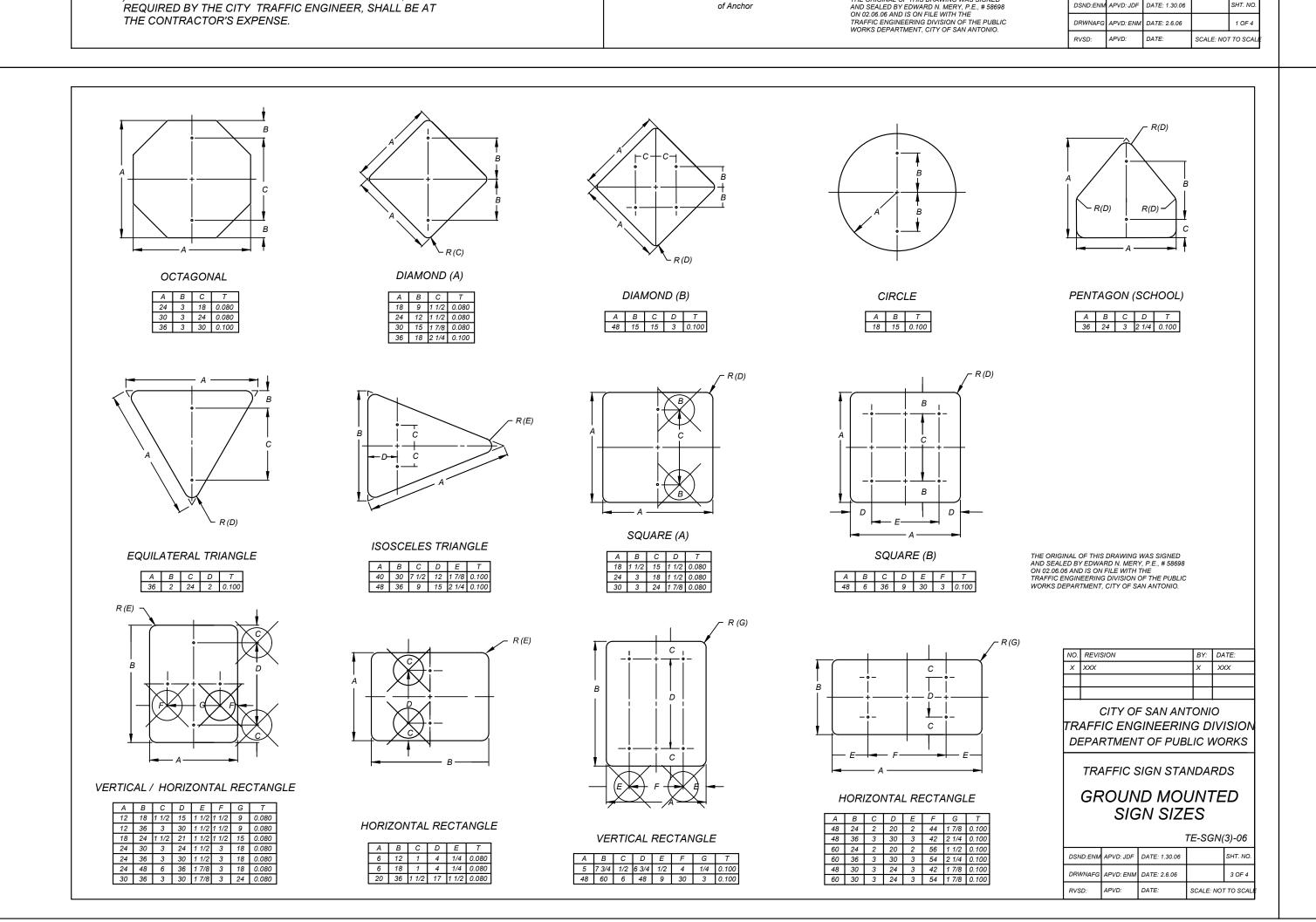
of Anchor

GROUND SIGN MOUNTING

DSND:ENM APVD: JDF DATE: 1.30.06

DRWNAFG APVD: ENM DATE: 2.6.06



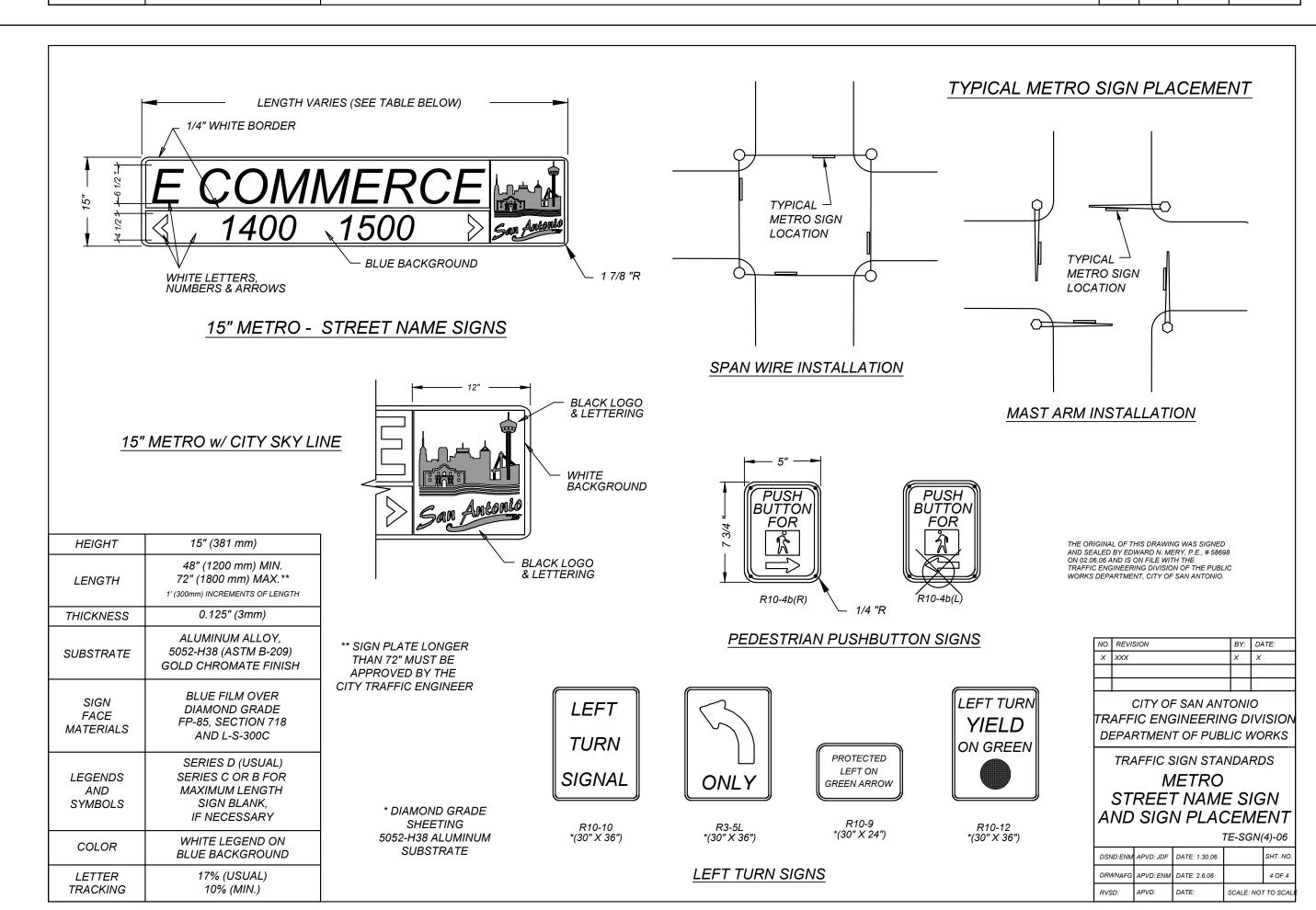


CONTROL DEVISES AND STANDARD HIGHWAY SIGNS (FHWA)

14.) REINSTALLATION OF PREVIOUSLY EXISTING SIGNS, WHERE

THE CONTRACTOR'S EXPENSE.

REQUIRED BY THE CITY TRAFFIC ENGINEER, SHALL BE AT



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21-11800453 JOB NO. 391-10-06 DATE: SEPTEMBER 2021 DRAWN:SC CHECKED:OE SHEET NUMBER:

S

NO₋

V

VIDA SAN ANTONIO PHASE 2

BEXAR COUNTY, TEXAS SANITARY SEWER IMPROVEMENTS

GENERAL SEWER NOTES (REVISED JULY 2017)

1. All materials and construction procedures within the scope of this contract shall be approved by the San Antonio Water System (SAWS) and comply with the Plans, Specifications, General Conditions and with the following as applicable:

- A. Current Texas Commission on Environmental Quality (TCEQ) "Design Criteria for Domestic Waste water System", Texas Administrative Code (TAC) Title 30 Part 1 Chapter 217 and "Public Drinking Water", TAC Title 30 Part 1 Chapter 290.
- B. Current TXDOT "Standard Specifications for Construction of Highways, Streets and Drainage".
 C. Current "San Antonio Water System Standard Specifications for Water and Sanitary Sewer
- Construction".

 D. Current City of San Antonio "Standard Specifications for Public Works Construction".

E. Current City of San Antonio "Utility Excavation Criteria Manual" (UECM).

- 2. The contractor shall not proceed with any pipe installation work until they obtain a copy of the approved Counter Permit or General Construction Permit (GCP) from the consultant and has been notified by SAWS Construction I nspection Division to proceed with the work and has arranged a meeting with the inspector and consultant for the work requirements. Work completed by the contractor without an approved Counter Permit and/or a GCP will be
- 3. The Contractor shall obtain the SAWS Standard Details from the SAWS website,

subject to removal and replacement at the expense of the contractors and/or the developer.

http://www.saws.org/business_center/specs. Unless otherwise noted within the design plans.

- 4. The Contractor is to make arrangements with the SAWS Construction Inspection Division at (210) 233-2973, on notification procedures that will be used to notify affected home residents and/or property owners 48 hours prior to beginning any work
- 5. Location and depth of existing utilities and service laterals shown on the plans are understood to be approximate. Actual locations and depths must be field verified by the Contractor at least 1 week prior to construction. It shall be the Contractor's responsibility to locate utility service lines as required for construction and to protect them during construction at no cost to SAWS.
- 6. The Contractor shall verify the exact location of underground utilities and drainage structures at least 1-2 weeks prior to construction whether shown on plans or not. Please allow up to 7 business days for locates requesting pipe location markers on SAWS facilities. The following contact information are supplied for verification purposes:
- SAWS Utility Locates: http://www.saws.org/Service/Locates COSA Drainage (210) 207-0724 or (210) 207-6026 COSA Traffic Signal Operations (210) 206-8480 COSA Traffic Signal Damages (210) 207-3951

Texas State Wide One Call Locator 1-800-545-6005 or 811

damages are made as a result of the project's construction.

- 7. The Contractor shall be responsible for restoring existing fences, curbs, streets, driveways, sidewalks, landscaping and structures to its original or better condition if
- 8. All work in Texas Department of Transportation (TxDOT) and/or Bexar County right-of-way shall be done in accordance with respective construction specifications and permit requirements.
- 9. The Contractor shall comply with City of San Antonio or other governing municipality's tree ordinances when
- 10. The Contractor shall not place any waste materials in the 100-year Flood Plain without first obtaining an
- approved Flood Plain Permit.

 11. Holiday Work: Contractors will not be allowed to perform SAWS work on SAWS recognized holidays. Request should be sent to constworkreq@saws.org. Weekend Work: Contractors are required to notify the SAWS Inspection Construction Department 48 hours in advance to request weekend work. Request should be sent to

constworkreg@saws.org. Any and all SAWS utility work installed without holiday/weekend approval will be subject

- 12. Compaction note (Item 804): The contractor shall be responsible for meeting the compaction requirements on all trench backfill and for paying for the tests performed by a third party. Compaction tests will be done at one location point randomly selected, or as indicated by the SAWS Inspector and/or the test administrator, per each 12-inch loose lift per 400 linear feet at a minimum. This project will not be accepted and finalized by SAWS without this requirement being met and verified by providing all necessary documented test results.
- 13. A copy of all testing reports shall be forwarded to SAWS Construction Inspection Division.

Sewer Notes:

Sewer Construction.

to be uncovered for proper inspection

- 1. The Contractor is responsible for ensuring that no Sanitary Sewer Overflow (SSO) occurs as a result of their work. All contractor personnel responsible for SSO prevention and control shall be trained on proper response. Should an SSO occur, the contractor shall:
 - A. Identify the soruce of the SSO and notify SAWS Emergency Operations Center (EOC) immediately at (210) 233-2014. Provide the address of the spill and en estimated volume or flow.
 - B. Attempt to eliminate the source of the SSOC. Contain sewage from the SSO to the extent of preventing a possible contamination of waterways.
 - D. Clean up spill site (return contained sewage to the collection system if possible) and properly dispose of contaminated soil/materials.
 - E. Clean the affected sewer mains and remove any debris.
 F. Meet all post-SSO requirements as per the EPA Consent Decree, including line cleaning and televising the affected sewer mains (at SAWS direction) within 24 hours.
- Should the Contractor fail to address an SSO immediately and to SAWS satisfaction, they will be responsible for all cost incurred by SAWS, including any fines from EPA, TCEQ and/or any other Federal, State or Local Agencies.
- No separate measurement or payment shall be made for this work. All work shall be done according to guidelines set by TCEQ and SAWS.
- 2. If bypass pumping is required, the Contractor shall perform such work in accordance with SAWS Standard Specification for Water and Sanitary Sewer Construction, Item No. 864, "Bypass Pumping".
- 3. Prior to tie-ins, any shutdowns of existing force mains of any size must be coordinated with the SAWS Construction Inspection Division at (210) 233-2973 at least one week in advance of the shutdown. The Contractor must also provide a sequence of work as related to the tie-ins: this is at no additional cost to SAWS or the project and it is the responsibility of the Contractor sequence the work accordingly.
- Sewer pipe where water line crosses shall be 160 psi and meet the requirements of ASTM D2241, TAC 217.53 and TCEQ 290.44(Ee)(4)(B). Contractor shall center a 20' joint of 160 psi pressure rated PVC at the proposed water crossing.
 ELEVATIONS POSTED FOR TOP OF MANHOLES ARE FOR REFERENCE ONLY: It shall be the responsibility
- of the Contractor to make allowances and adjustments for top of manholes to match the finished grade of the project's improvements. (NSPI).

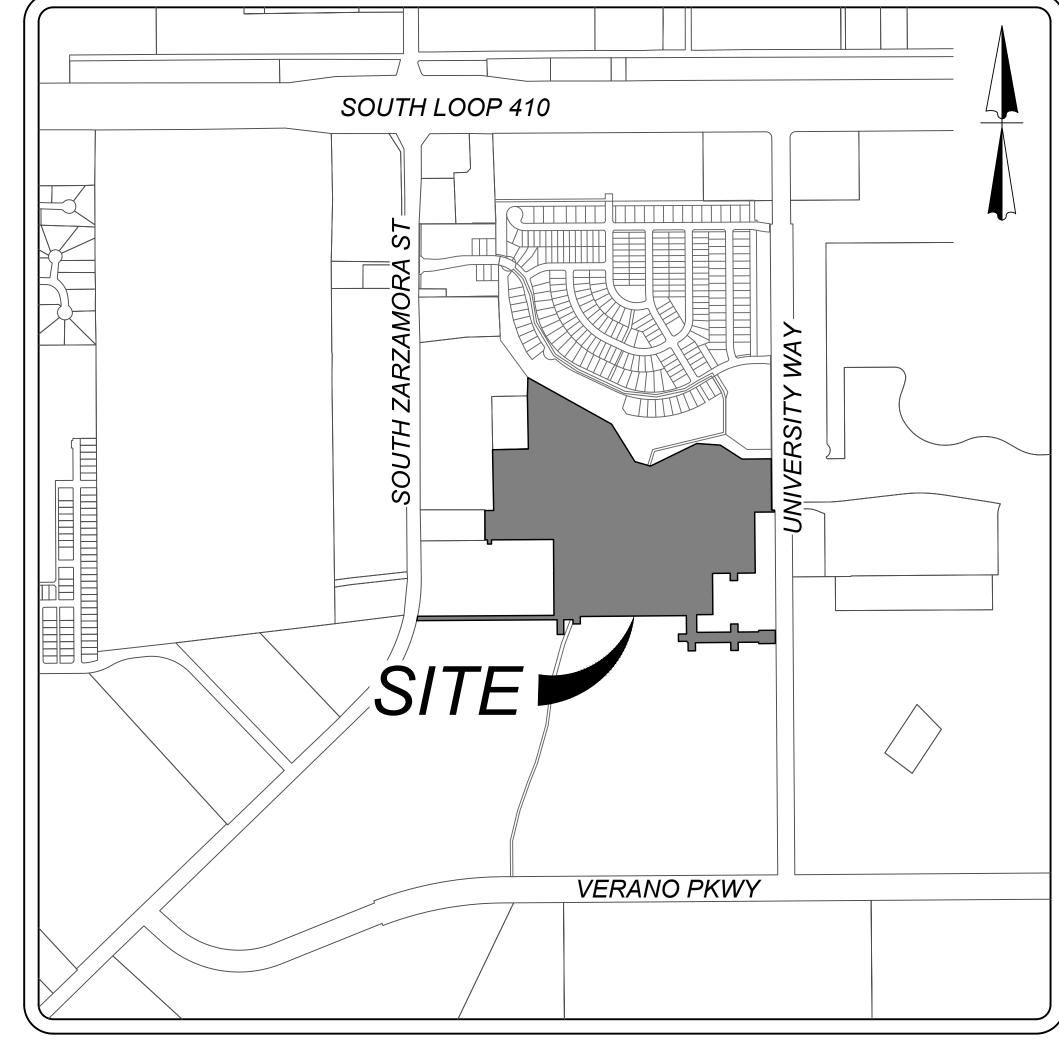
 6. Spills, Overflows, or Discharges of Wastewater: All Spills, overflows, or discharges of wastewater, recycled
- Counter Permit or GEneral Construction Permit (GCP). This requirement applies to every spill, overflow, or discharge regardless of size.

 7. Manhole and all pipe testing (including the TV inspection) must be performed and passed prior to Final Field

Acceptance by SAWS Construction Inspection Division, as per SAWS Specifications For Water and Sanitary

water, petroleum products, or chemicals must be reported immediately to the SAWS Inspector assigned to the

8. All PVC pipe over 14 feet of cover shall be extra strength with minimum pipe stiffness of 115 psi.



LOCATION MAP

N.T.S.

OWNER/DEVELOPER: SOUTHSTAR AT VERANO, LLC 1118 VINTAGE WAY NEW BRAUNFELS, TEXAS 78132 Sheet List Table

SHEET TITLE	SHEET NUMBER
SANITARY SEWER COVER SHEET	6.0
OVERALL SANITARY SEWER PLAN (1 OF 4)	6.1
OVERALL SANITARY SEWER PLAN (2 OF 4)	6.2
OVERALL SANITARY SEWER PLAN (3 OF 4)	6.3
OVERALL SANITARY SEWER PLAN (4 OF 4)	6.4
LINE "A" PLAN & PROFILE	6.5
LINE "B" & "C" PLAN & PROFILE (1 OF 2)	6.6
LINE "C" PLAN & PROFILE (2 OF 2)	6.7
LINE "E" PLAN & PROFILE	6.8
LINE "E" & "F" PLAN & PROFILE	6.9
LINE "G" PLAN & PROFILE	6.10
LINE "H" & "I" & "J" PLAN & PROFILE	6.11
LINE "K" PLAN & PROFILE	6.12

ENGINEERS + SURVEYING
3921 Paesanos Pkwy., Suite 200, San Antonio, TX 78232
Phone #: (210) 979-8444 • Fax #: (210) 979-8441
TBPE Firm #: 9513 • TBPLS Firm #: 10122300

SEWER - WEST SEWERSHED - LEON CREEK

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SEWER - WEST SEWERSHED - LEON CREEK W.R.C.

DEVELOPER'S NAME: SOUTHSTAR AT VERANO, LLC

DEVELOPER'S ADDRESS: 1118 VINTAGE WAY

CITY: NEW BRAUNFELS STATE: TEXAS ZIP: 78132

PHONE#: FAX#: TOTAL ACREAGE: 45.40 ACRES

SAWS BLOCK MAP#: 148538 TOTAL EDU'S: 166

TOTAL LINEAR FOOTAGE OF PIPE: 6,150 LF ~ 8" SDR 26 PLAT NO.: 21-11800453

PLAT NO.21-11800453

SAWS JOB#: 21-1668

SHEET 6.0

Date: Mar 30, 2022, 9:14am User ID: jarios File: N-\391110\06\Design\Civi\SFWER\CVOS3911006 dwg ENCH EXCAVATION SAFETY PROTECTION

INTRACTOR AND/ OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY

PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

NOTE:

1. SEWER PIPE WHERE WATER LINE CROSSES SHALL BE MEET THE REQUIREMENTS OF ASTM D2241. CONTRACTOR SHALL CENTER A 20 FOOT JOINT OF 160 P.S.I. PRESSURE RATED P.V.C. AT THE PROPOSED

WATER CROSSING (NO SEPARATE PAY ITEM). REFERENCE SHEET 6.0, SANITARY SEWER GENERAL NOTES, S.A.W.S. CRITERIA FOR SEWER MAIN CONSTRUCTION IN THE VICINITY OF WATER MAINS. . SEE THIS SHEET FOR BENCHMARK INFORMATION. . PIPE TYPE DESIGNATIONS ARE SDR 26.

. SEE THIS SHEET FOR TYPICAL SANITARY SEWER / WATER CROSSING DETAIL. . ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL BE IN ACCORDANCE WITH THE SAN ANTONIO WATER SYSTEM (SAWS) STANDARD SPECIFICATIONS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL TRENCH BACKFILL AND PAYING FOR THE TESTS TO BE PERFORMED BY A THIRD PARTY. COMPACTION TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED OR AS INDICATED BY THE SAWS INSPECTOR/TEST ADMINISTRATOR, PER EACH 12 INCH LOOSE LIFT PER 400 LINEAR FEET AT A MINIMUM. PERMITS AND/OR WILL NOT BE ACCEPTED AND FINALIZED BY SAWS WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST

DRY UTILITY CONDUIT NOTE:

CONDUIT LOCATIONS SHOWN ON PLAN ARE FOR GEOGRAPHICAL PURPOSES ONLY AND ARE APPROXIMATE. CONTRACTOR TO INSTALL PROPOSED CONDUITS IN ACCORDANCE WITH DRY UTILITY PURVEYOR'S SPECIFICATIONS. CONTRACTOR TO VERIFY THE CONDUIT LOCATIONS AND SIZES BASED ON THE DRY UTILITY PURVEYOR'S PLAN.

LEGEND

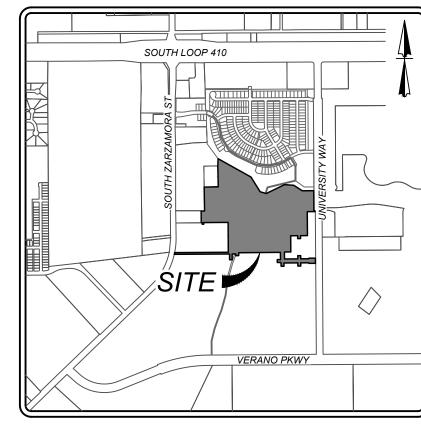
W/POWER POLE

EXISTING STREET LIGHT

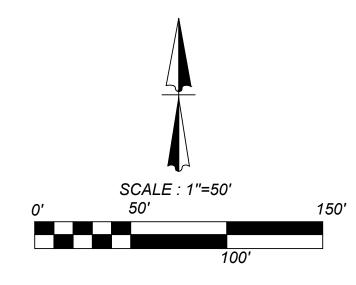
ELECTRIC

PROPOSED WATER MAIN PROPOSED FIRE HYDRANT PROPOSED WATER VALVE PROPOSED 100 WATT STREETLIGHT PROPOSED SANITARY SEWER MAIN PROPOSED SANITARY SEWER MANHOLE PROPOSED SANITARY SEWER LATERAL PROPOSED ELECTRIC, GAS, TELEPHONE, = E. G. T. TV. E & CABLE TV EASEMENT EXISTING WATER MAIN EXISTING FIRE HYDRANT EXISTING WATER VALVE EXISTING SANITARY SEWER MAIN

= ---- E.W ----= 🖂 = — E.SS − <u></u> EXISTING SANITARY SEWER MANHOLE EXISTING OVERHEAD ELECTRIC **=** -OHE---⊗---OHE-EXISTING GUY WIRE/OVERHEAD = ------OHE--



LOCATION MAP

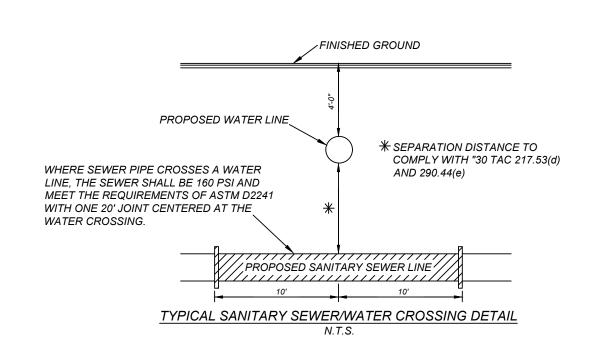


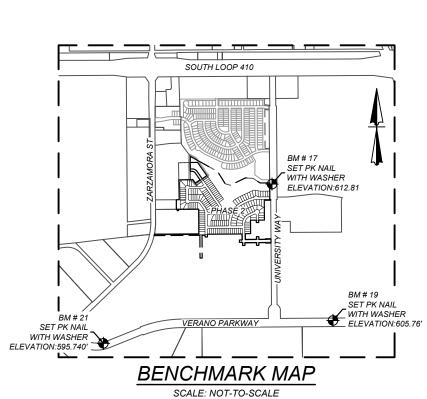
THE CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITED TO: WATER, SEWER, TELEPHONE AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCTBANKS, LANDSCAPE IRRIGATION FACILITIES, AND GAS LINES. ANY UTILITY CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO THE ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE REPAIR SHALL BE AT CONTRACTOR'S SOLE EXPENSE WHETHER THE UTILITY IS SHOWN ON THESE

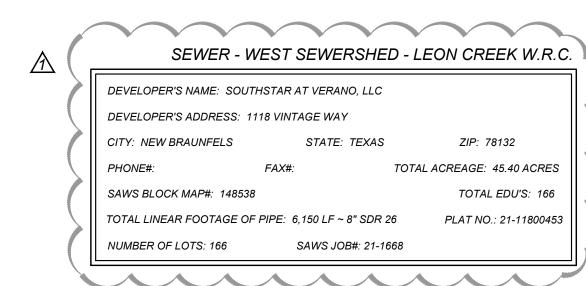
MANHOLE NOTE:

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ALL MANHOLES MUST BE WATERTIGHT, WITH WATERTIGHT RINGS AND COVERS. THESE MANHOLES MUST BE VENTED PER SAWS DETAIL DD852-02.



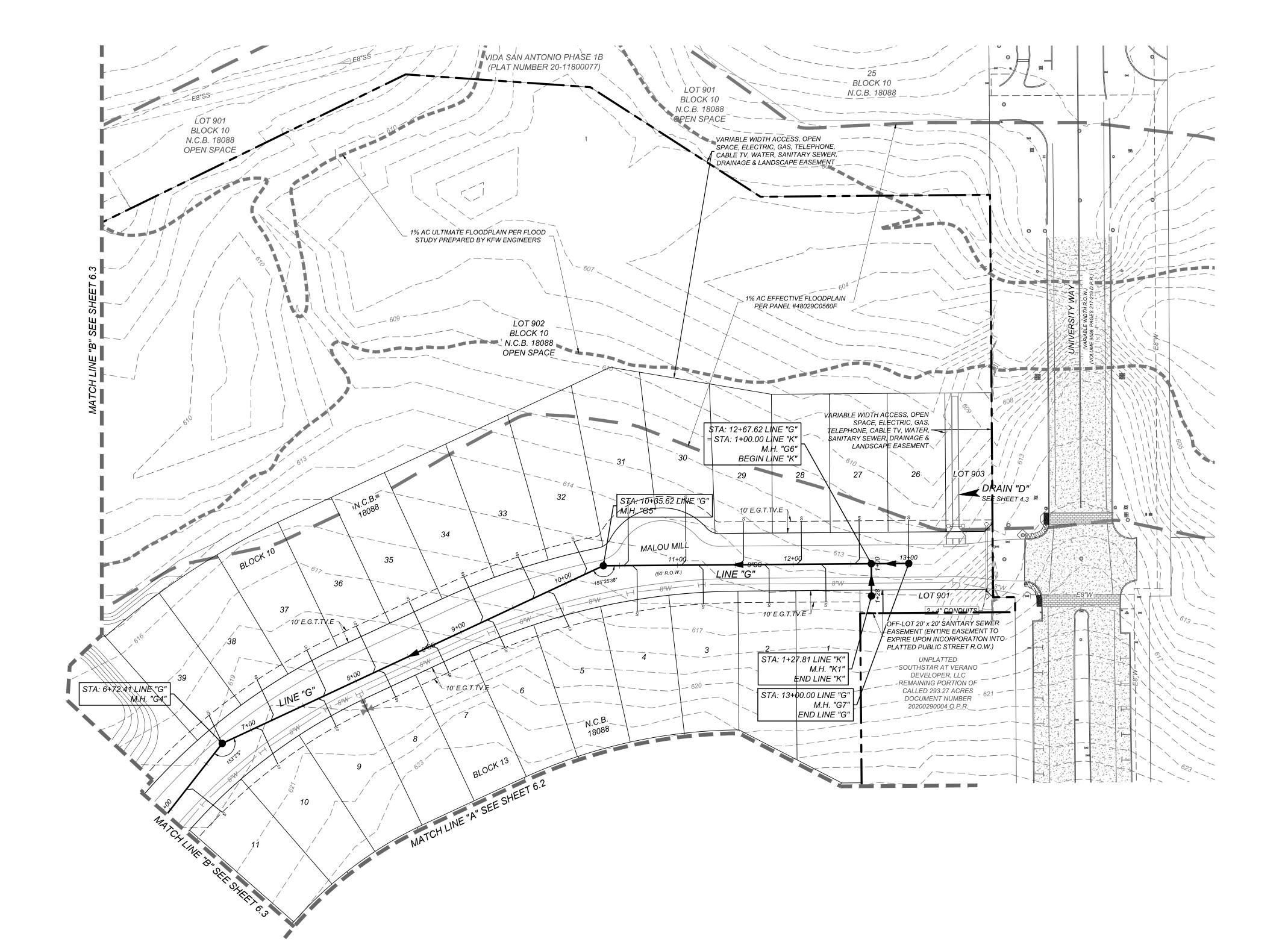




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21-11800453 JOB NO. 391-10-06 DATE: SEPTEMBER 2021 DRAWN:SC CHECKED:OE SHEET NUMBER:

6.1



ENCH EXCAVATION SAFETY PROTECTION INTRACTOR AND/ OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION. 1. SEWER PIPE WHERE WATER LINE CROSSES SHALL BE MEET THE REQUIREMENTS OF ASTM D2241. CONTRACTOR SHALL CENTER A 20 FOOT JOINT OF 160 P.S.I. PRESSURE RATED P.V.C. AT THE PROPOSED WATER CROSSING (NO SEPARATE PAY ITEM). REFERENCE SHEET 6.0, SANITARY SEWER GENERAL NOTES, S.A.W.S. CRITERIA FOR SEWER MAIN CONSTRUCTION IN THE VICINITY OF WATER MAINS. . SEE SHEET 6.1 FOR BENCHMARK INFORMATION. . PIPE TYPE DESIGNATIONS ARE SDR 26. . SEE THIS SHEET FOR TYPICAL SANITARY SEWER / WATER CROSSING DETAIL. . ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL BE IN ACCORDANCE WITH THE SAN ANTONIO WATER SYSTEM (SAWS) STANDARD SPECIFICATIONS.

10' E.G.T.TV.E ┐

7+00 MIRA MILL

WATER CROSSING

BLOCK 15

STA: 8+25.60

DETAIL THIS SHEET

OFF-LOT VARIABLE WIDTH ELECTRIC,

GAS, TELEPHONE, CABLE TV, WATER, SANITARY SEWER & DRAINAGE EASEMENT (ENTIRE EASEMENT TO

EXPIRE UPON INCORPORATION INTO

PLATTED PUBLIC STREET R.O.W.)

18088

10' Ė.G.T.TV.E

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL TRENCH BACKFILL AND PAYING FOR THE TESTS TO BE PERFORMED BY A THIRD PARTY. COMPACTION TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED OR AS INDICATED BY THE SAWS INSPECTOR/TEST ADMINISTRATOR, PER EACH 12 INCH LOOSE LIFT PER 400 LINEAR FEET AT A MINIMUM. PERMITS AND/OR WILL NOT BE ACCEPTED AND FINALIZED BY SAWS WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST

DRY UTILITY CONDUIT NOTE: CONDUIT LOCATIONS SHOWN ON PLAN ARE FOR GEOGRAPHICAL PURPOSES ONLY AND ARE APPROXIMATE. CONTRACTOR TO INSTALL PROPOSED CONDUITS IN ACCORDANCE WITH DRY UTILITY PURVEYOR'S SPECIFICATIONS. CONTRACTOR TO VERIFY THE CONDUIT LOCATIONS AND

10' E.G.T.TV.E -

STA: 10+81.61 LINE "E"

STA: 9+64.08 LINE "E"

10' E.G.T.TV.E |

STA: 3+40.00 LINE "F"

M.H. "F1" END LINE "F"

OFF-LOT VARIABLE WIDTH ELECTRIC,

EASEMENT (ENTIRE EASEMENT TO

PLATTED PUBLIC STREET R.O.W.)

EXPIRE UPON INCORPORATION INTO

SANITARY SEWER & DRAINAGE

GAS, TELEPHONE, CABLE TV, WATER,

M.H. "E5"

M.H. "E4"

STA: 8+44.60 LINE "E" = STA: 1+00.00 LINE "F"

WATER CROSSING

STA: 1+52.00

REF: WATER CROSSING DETAIL THIS SHEET

M.H. "E3" BEGIN LINE "F"

SIZES BASED ON THE DRY UTILITY PURVEYOR'S PLAN.

STA: 13+33.17 LINE "E

OFF-LOT VARIABLE WIDTH ELECTRIC,

GAS, TELEPHONE, CABLE TV, WATER,

SANITARY SEWER & DRAINAGE EASEMENT (ENTIRE EASEMENT TO PLATTED PUBLIC STREET R.O.W.)

SOUTHSTAR AT VERANO DEVELOPER, LLC REMAINING PORTION OF CALLED 293.27 ACRES

DOCUMENT NUMBER 20200290004 O.P.R.

OFF-LOT VARIÁBLE WIDTH ELECTRIC, GAS, TELEPHONE, CABLE TV, WATER, SANITARY SEWER & DRAINAGE EASEMENT (ENTIRE EASEMENT TO EXPIRE UPON INCORPORATION INTO PLATTED PUBLIC STREET R.O.W.)

OFF-LOT VARIABLE WIDTH ELECTRIC,

SANITARY SEWER & DRAINAGE

EASEMENT (ENTIRE EASEMENT TO

PLATTED PUBLIC STREET R.O.W.)

GAS, TELEPHONE, CABLE TV, WATER,

EXPIRE UPON INCORPORATION INTO

LOT 901

UNPLATTED

DEVELOPER. LLC

CALLED 293.27 ACRES

DOCUMENT NUMBER

20200290004 O.P.R.

REMAINING PORTION OF

/ — SOUTHSTAR AT VERANO

M.H. "E7"

STA: 12+96.99 LINE "E"

VARIABLÉ WIDTH È

CLEAR VISION -

EASEMENT

10' E.G.T.TV.E

M.H. "E8"

END LINE "E"

NERIA LOOP

UNPLATTED

DEVELOPER. LLC

REMAINING PORTION OF

CALGED 293.27 ACRES

DOCUMENT NUMBER

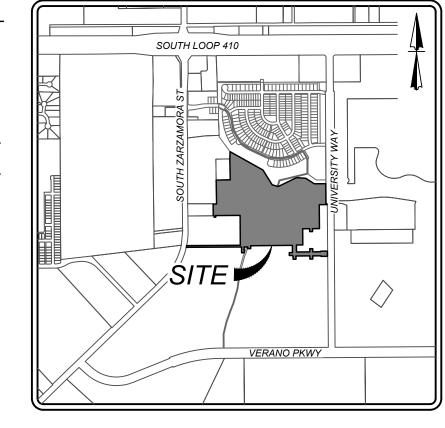
20200290004 O.P.R.

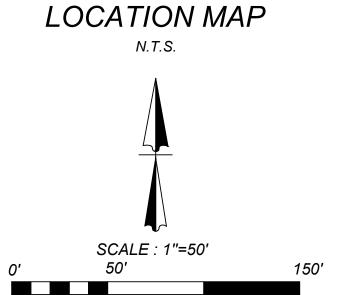
SOUTHSTAR AT VERANO

STA: 14+90.00 LINE "E"

LEGEND PROPOSED WATER MAIN PROPOSED FIRE HYDRANT PROPOSED WATER VALVE PROPOSED 100 WATT STREETLIGHT PROPOSED SANITARY SEWER MAIN PROPOSED SANITARY SEWER MANHOLE PROPOSED SANITARY SEWER LATERAL PROPOSED ELECTRIC, GAS, TELEPHONE, = E. G. T. TV. E & CABLE TV EASEMENT EXISTING WATER MAIN EXISTING FIRE HYDRANT EXISTING WATER VALVE = 🖂 EXISTING SANITARY SEWER MAIN = − E.SS − € − EXISTING SANITARY SEWER MANHOLE EXISTING OVERHEAD ELECTRIC **=** −OHE---⊗---OHE-W/POWER POLE EXISTING GUY WIRE/OVERHEAD ELECTRIC

EXISTING STREET LIGHT

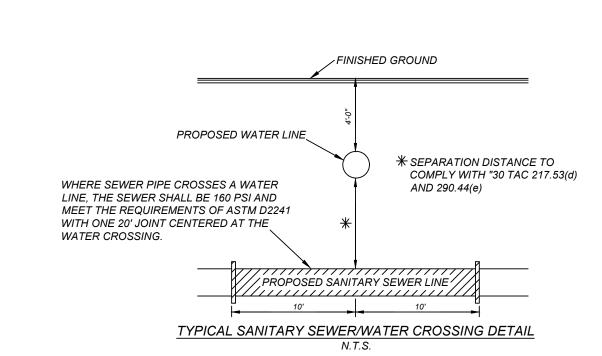




THE CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITED TO: WATER, SEWER, TELEPHONE AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCTBANKS, LANDSCAPE IRRIGATION FACILITIES, AND GAS LINES. ANY UTILITY CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO THE ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE REPAIR SHALL BE AT CONTRACTOR'S SOLE EXPENSE WHETHER THE UTILITY IS SHOWN ON THESE

MANHOLE NOTE

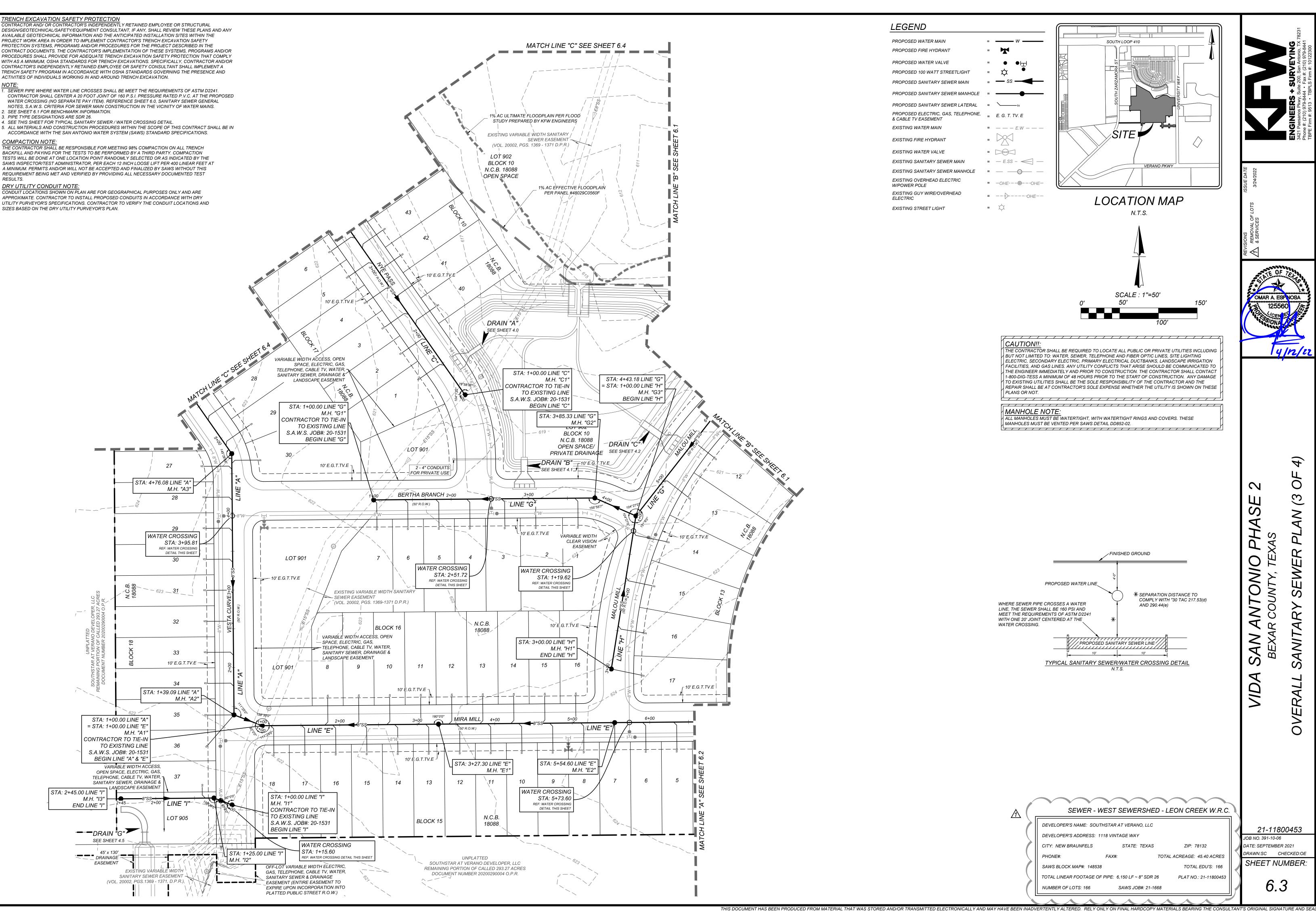
ALL MANHOLES MUST BE WATERTIGHT, WITH WATERTIGHT RINGS AND COVERS. THESE MANHOLES MUST BE VENTED PER SAWS DETAIL DD852-02.

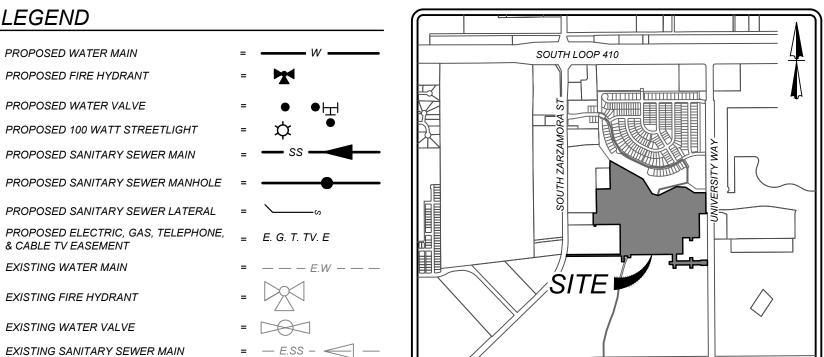


SEWER - WEST SEWERSHED - LEON CREEK W.R.C. DEVELOPER'S NAME: SOUTHSTAR AT VERANO, LLC DEVELOPER'S ADDRESS: 1118 VINTAGE WAY ZIP: 78132 CITY: NEW BRAUNFELS TOTAL ACREAGE: 45.40 ACRES PHONE#: SAWS BLOCK MAP#: 148538 TOTAL EDU'S: 166 TOTAL LINEAR FOOTAGE OF PIPE: 6,150 LF ~ 8" SDR 26 PLAT NO.: 21-11800453 NUMBER OF LOTS: 166 SAWS JOB#: 21-1668

THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL

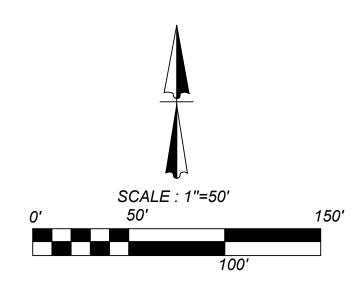
21-11800453 JOB NO. 391-10-06 DATE: SEPTEMBER 2021 DRAWN:SC CHECKED:OE SHEET NUMBER:





LOCATION MAP

VERANO PKWY

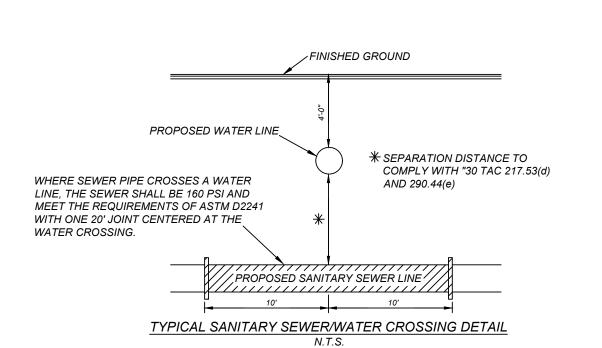


= −OHE---⊗---OHE-

THE CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITED TO: WATER, SEWER, TELEPHONE AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCTBANKS, LANDSCAPE IRRIGATION FACILITIES, AND GAS LINES. ANY UTILITY CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO THE ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE REPAIR SHALL BE AT CONTRACTOR'S SOLE EXPENSE WHETHER THE UTILITY IS SHOWN ON THESE

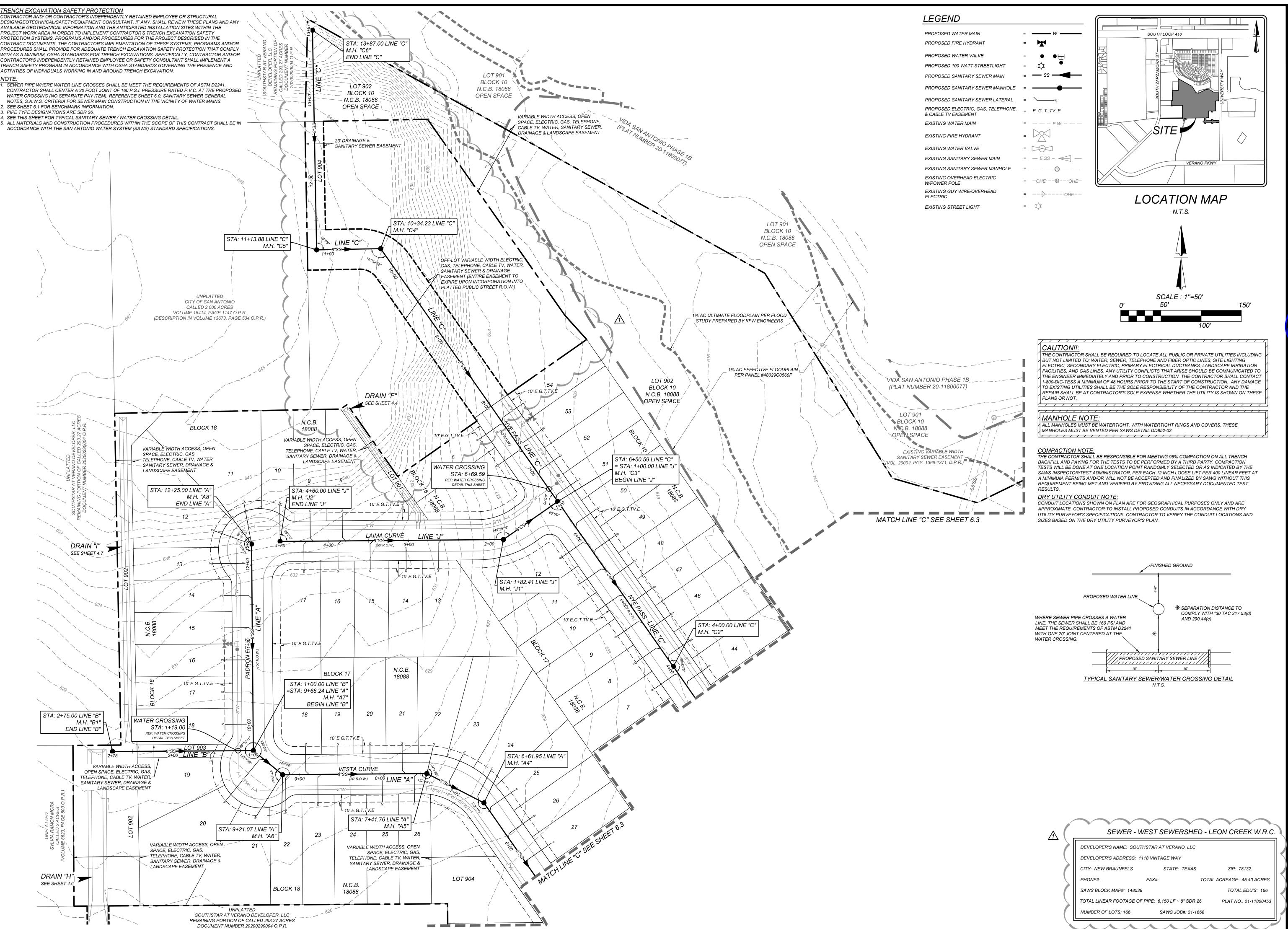
MANHOLE NOTE

ALL MANHOLES MUST BE WATERTIGHT, WITH WATERTIGHT RINGS AND COVERS. THESE MANHOLES MUST BE VENTED PER SAWS DETAIL DD852-02.



SEWER - WEST SEWERSHED - LEON CREEK W.R.C. DEVELOPER'S NAME: SOUTHSTAR AT VERANO, LLC DEVELOPER'S ADDRESS: 1118 VINTAGE WAY ZIP: 78132 CITY: NEW BRAUNFELS TOTAL ACREAGE: 45.40 ACRES PHONE#: SAWS BLOCK MAP#: 148538 TOTAL EDU'S: 166 TOTAL LINEAR FOOTAGE OF PIPE: 6,150 LF ~ 8" SDR 26 PLAT NO.: 21-11800453 SAWS JOB#: 21-1668 NUMBER OF LOTS: 166

21-11800453 JOB NO. 391-10-06 DATE: SEPTEMBER 2021 DRAWN:SC CHECKED:OE SHEET NUMBER:



GINEERS + SURVEYING1 Paesanos Pkwy, Suite 200, San Antonio, TX 78
ine #: (210) 979-8444 • Fax #: (210) 979-8441
PE Firm #: 9513 • TBPLS Firm #: 10122300

REMOVAL OF LOTS
3/2

OMAR A. ESPINOSA

125560

CENTONIA

BEXAR COUNTY, TEXAS
VERALL SANITARY SEIVER PLAN (4 OF 4)

21-11800453

JOB NO. 391-10-06

DATE: SEPTEMBER 2021

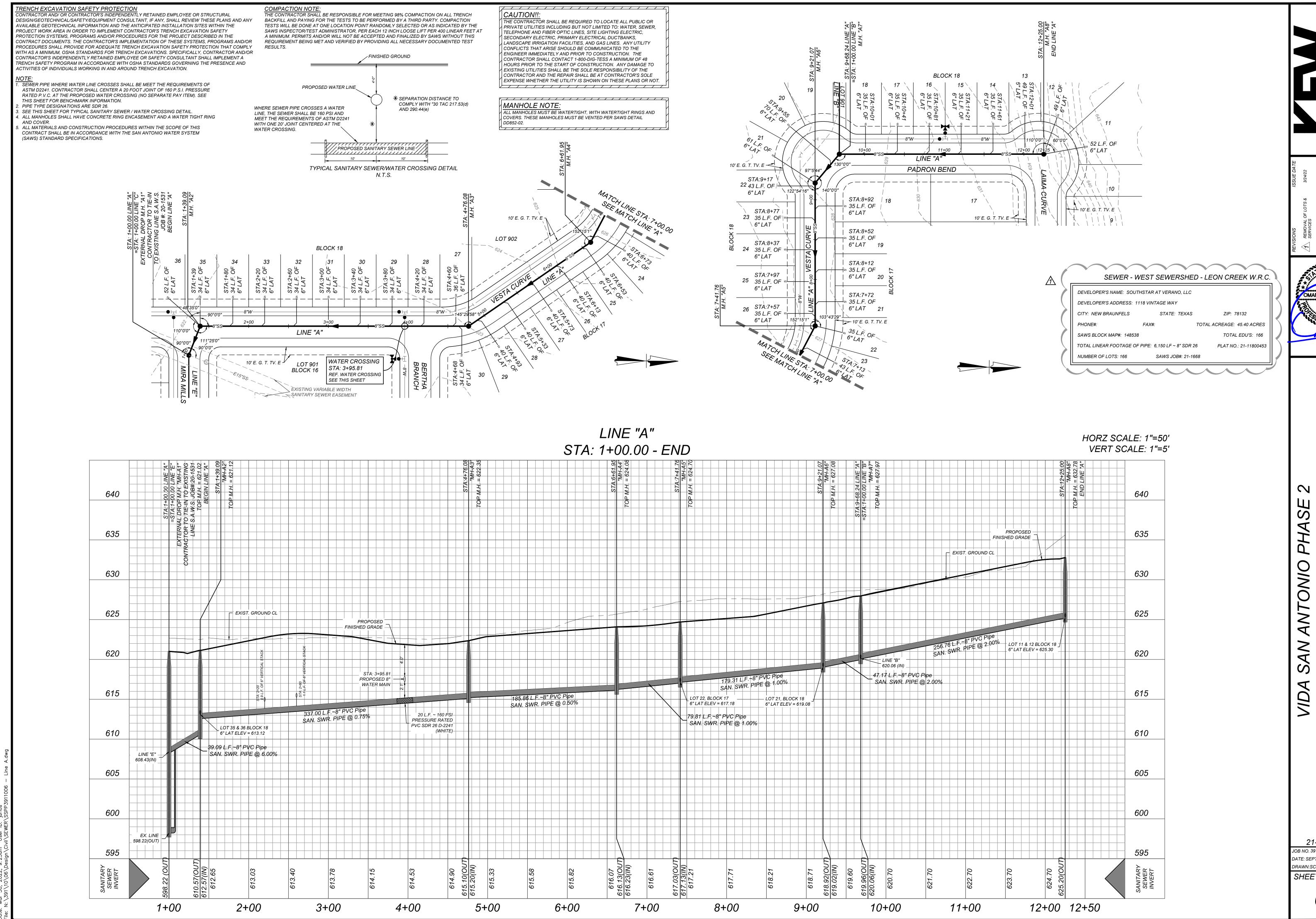
DRAWN:SC CHECKED:OE

SHEET NUMBER:

T NUMBER:

6.4

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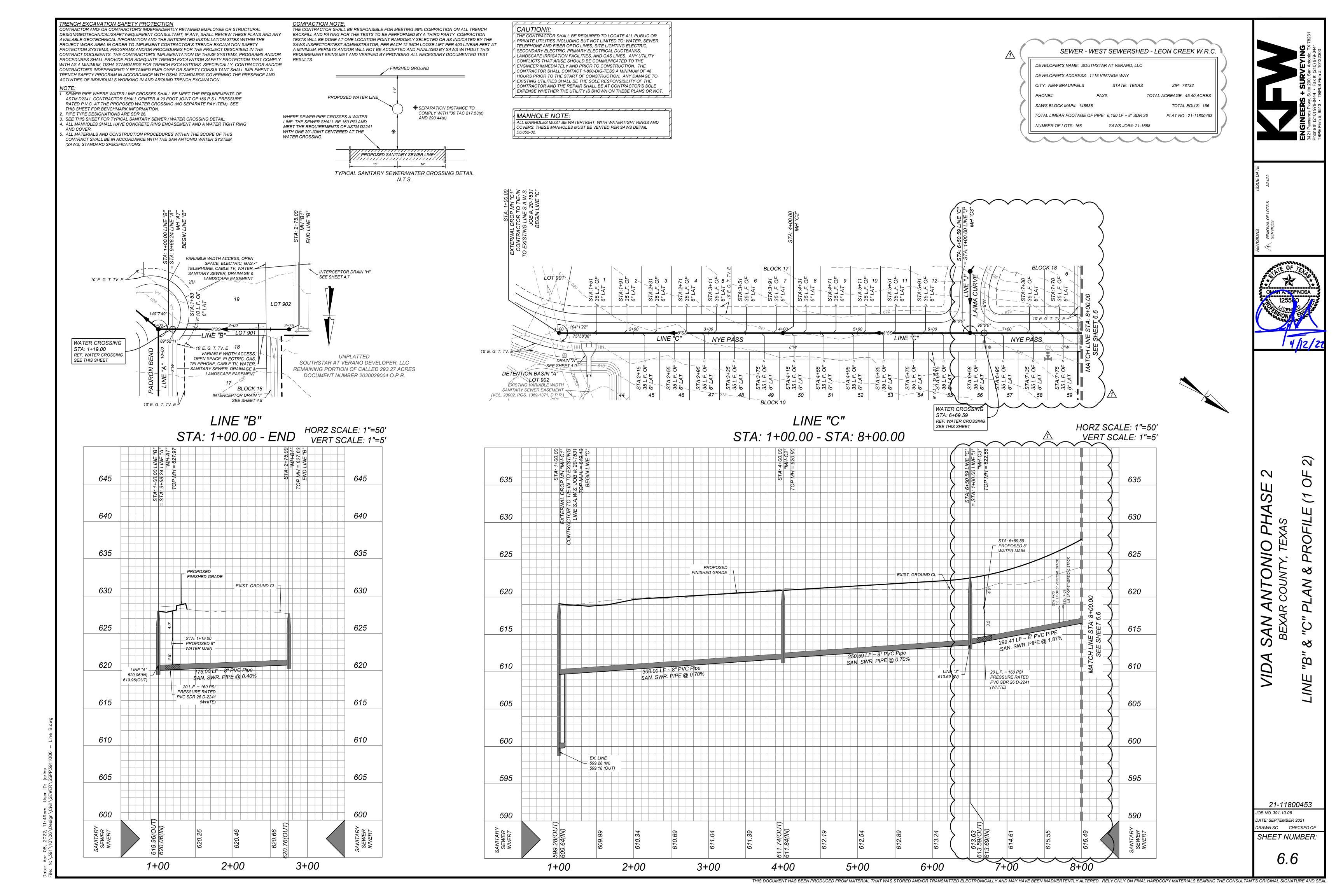


ANT IR COL

21-11800453 JOB NO. 391-10-06 DATE: SEPTEMBER 2021 DRAWN:SC CHECKED:OE SHEET NUMBER:

6.5

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ENCH EXCAVATION SAFETY PROTECTION CAUTION!!: CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL TRENCH ONTRACTOR AND/ OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY BACKFILL AND PAYING FOR THE TESTS TO BE PERFORMED BY A THIRD PARTY. COMPACTION THE CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED OR AS INDICATED BY THE AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PRIVATE UTILITIES INCLUDING BUT NOT LIMITED TO: WATER, SEWER, SEWER - WEST SEWERSHED - LEON CREEK W.R.C. SAWS INSPECTOR/TEST ADMINISTRATOR, PER EACH 12 INCH LOOSE LIFT PER 400 LINEAR FEET AT PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY TELEPHONE AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE A MINIMUM. PERMITS AND/OR WILL NOT BE ACCEPTED AND FINALIZED BY SAWS WITHOUT THIS SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCTBANKS, CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST LANDSCAPE IRRIGATION FACILITIES, AND GAS LINES. ANY UTILITY DEVELOPER'S NAME: SOUTHSTAR AT VERANO, LLC PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY RESULTS. CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO THE WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. THE FINISHED GROUND DEVELOPER'S ADDRESS: 1118 VINTAGE WAY CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND HOURS PRIOR TO THE START OF CONSTRUCTION. ANY DAMAGE TO CITY: NEW BRAUNFELS STATE: TEXAS ZIP: 78132 ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION. EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE REPAIR SHALL BE AT CONTRACTOR'S SOLE PHONE#: TOTAL ACREAGE: 45.40 ACRES EXPENSE WHETHER THE UTILITY IS SHOWN ON THESE PLANS OR NOT. . SEWER PIPE WHERE WATER LINE CROSSES SHALL BE MEET THE REQUIREMENTS OF PROPOSED WATER LINE ASTM D2241. CONTRACTOR SHALL CENTER A 20 FOOT JOINT OF 160 P.S.I. PRESSURE SAWS BLOCK MAP#: 148538 TOTAL EDU'S: 166 RATED P.V.C. AT THE PROPOSED WATER CROSSING (NO SEPARATE PAY ITEM). SEE * SEPARATION DISTANCE TO THIS SHEET FOR BENCHMARK INFORMATION. TOTAL LINEAR FOOTAGE OF PIPE: 6,150 LF ~ 8" SDR 26 PLAT NO.: 21-11800453 MANHOLE NOTE: COMPLY WITH "30 TAC 217.53(d) . PIPE TYPE DESIGNATIONS ARE SDR 26. WHERE SEWER PIPE CROSSES A WATER ALL MANHOLES MUST BE WATERTIGHT, WITH WATERTIGHT RINGS AND . SEE THIS SHEET FOR TYPICAL SANITARY SEWER / WATER CROSSING DETAIL. AND 290.44(e) NUMBER OF LOTS: 166 SAWS JOB#: 21-1668 LINE, THE SEWER SHALL BE 160 PSI AND COVERS. THESE MANHOLES MUST BE VENTED PER SAWS DETAIL 4. ALL MANHOLES SHALL HAVE CONCRETE RING ENCASEMENT AND A WATER TIGHT RING MEET THE REQUIREMENTS OF ASTM D2241 WITH ONE 20' JOINT CENTERED AT THE ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS WATER CROSSING. CONTRACT SHALL BE IN ACCORDANCE WITH THE SAN ANTONIO WATER SYSTEM (SAWS) STANDARD SPECIFICATIONS. /PROPOSED SANITARY SEWER LINE TYPICAL SANITARY SEWER/WATER CROSSING DETAIL UNPLATTED N.T.S. CITY OF SAN ANTONIO CALLED 2.000 ACRES UNPLATTED VOL. 15414, PG. 1147 O.P.R. SOUTHSTAR AT VERANO. (DESCRIPTION IN VOL. 13673, PG. 534 O.P.R.) DEVELOPER, LLC REMAINING PORTION OF CALLED 293.27 ACRES 23' DRAINAGE & -\$ANITARY SEWER EASEMENT DOCUMENT NUMBER 2020029004 O.P.R. SOUTHSTAR AT VERANO DEVELOPER, LLC REMAINING PORTION OF OFF-LOT VARIABLE WIDTH ELECTRIC, - CALLED 293.27 ACRES GAS, TELEPHONE, CABLE TV, WATER, DOCUMENT NUMBER SANITARY SEWER & DRAINAGE EASEMENT (ENTIRE EASEMENT TO 2020029004 O.P.R. - EXPIRE UPON INCORPORATION INTO PLATTED PUBLIC STREET R.O.W.) UNPLATTED SOUTHSTAR AT VERANO DEVELOPER, LLC VARIABLE WÎDTH ACCESS, REMAINING PORTION OF CALLED 293.27 ACRES OPEN SPACE, ELECTRIC, GAS, DOCUMENT NUMBER 2020029004 O.P.R. TELEPHONE, CABLE TV, WATER, SANITARY SEWER, DRAINAGE & LANDSCAPE EASEMENT LOT 902 BLOCK 10 N.C.B. 18088 _OPEN SPACE 1% AC ULTIMATE FLOODPLAIN PER FLOOD STUDY PREPARED BY KFW ENGINEERS LINE "C" HORZ SCALE: 1"=50' STA: 8+00.00 - END VERT SCALE: 1"=5" EXIST. GROUND CL 645 645 640 640 PROPOSED 635 635 630 630 625 625 273.12 LF ~ 8" PVC Pipe SAN. SWR. PIPE @ 0.40% 620 620 8" PVC Pipe SAN. SWR. PIPE @ 0.40% 615 615 610 610 605 605 600 600

INGINEERS + SURVEYING 121 Paesanos Pkwy, Suite 200, San Antonio, TJ none #: (210) 979-8444 • Fax #: (210) 979-844 3PE Firm #: 9513 • TBPLS Firm #: 10122300

REVISIONS ISSUE I

A REMOVAL OF LOTS & 3/24/2/2

SERVICES

OMAR A. ESPINOSA

125500

CEN ED

3/0N/

4/12/3

DA SAN ANTONIO PHASE 2 BEXAR COUNTY, TEXAS VE "C" PLAN & PROFILE (2 OF 2)

21-11800453

JOB NO. 391-10-06

DATE: SEPTEMBER 2021

DRAWN:SC CHECKED:OE

SHEET NUMBER:

6.7

THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL

ENCH EXCAVATION SAFETY PROTECTION CAUTION!!: INTRACTOR AND/ OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL E CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL TRENCH DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY BACKFILL AND PAYING FOR THE TESTS TO BE PERFORMED BY A THIRD PARTY. COMPACTION TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED OR AS INDICATED BY THE AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE SAWS INSPECTOR/TEST ADMINISTRATOR, PER EACH 12 INCH LOOSE LIFT PER 400 LINEAR FEET AT PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY A MINIMUM. PERMITS AND/OR WILL NOT BE ACCEPTED AND FINALIZED BY SAWS WITHOUT THIS PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR FINISHED GROUND CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION. . SEWER PIPE WHERE WATER LINE CROSSES SHALL BE MEET THE REQUIREMENTS OF PROPOSED WATER LINE ASTM D2241. CONTRACTOR SHALL CENTER A 20 FOOT JOINT OF 160 P.S.I. PRESSURE RATED P.V.C. AT THE PROPOSED WATER CROSSING (NO SEPARATE PAY ITEM). SEE * SEPARATION DISTANCE TO THIS SHEET FOR BENCHMARK INFORMATION. MANHOLE NOTE: COMPLY WITH "30 TAC 217.53(d) P. PIPE TYPE DESIGNATIONS ARE SDR 26. WHERE SEWER PIPE CROSSES A WATER . SEE THIS SHEET FOR TYPICAL SANITARY SEWER / WATER CROSSING DETAIL. AND 290.44(e) LINE, THE SEWER SHALL BE 160 PSI AND 4. ALL MANHOLES SHALL HAVE CONCRETE RING ENCASEMENT AND A WATER TIGHT RING MEET THE REQUIREMENTS OF ASTM D2241 DD852-02. WITH ONE 20' JOINT CENTERED AT THE ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS WATER CROSSING. CONTRACT SHALL BE IN ACCORDANCE WITH THE SAN ANTONIO WATER SYSTEM (SAWS) STANDARD SPECIFICATIONS. /PROPOSED SANITARY SEWER LINE TYPICAL SANITARY SEWER/WATER CROSSING DETAIL N.T.S. 18 10' E. G. T. TV. E 640 635 630 625 620 615 610 LINE "A" 608.22(IN) 605 600 595

THE CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITED TO: WATER, SEWER, SEWER - WEST SEWERSHED - LEON CREEK W.R.C. TELEPHONE AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCTBANKS, LANDSCAPE IRRIGATION FACILITIES, AND GAS LINES. ANY UTILITY DEVELOPER'S NAME: SOUTHSTAR AT VERANO, LLC CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO THE ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. THE DEVELOPER'S ADDRESS: 1118 VINTAGE WAY CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION. ANY DAMAGE TO ZIP: 78132 CITY: NEW BRAUNFELS EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE REPAIR SHALL BE AT CONTRACTOR'S SOLE PHONE#: FAX#: TOTAL ACREAGE: 45.40 ACRES EXPENSE WHETHER THE UTILITY IS SHOWN ON THESE PLANS OR NOT. TOTAL EDU'S: 166 SAWS BLOCK MAP#: 148538 TOTAL LINEAR FOOTAGE OF PIPE: 6,150 LF ~ 8" SDR 26 PLAT NO.: 21-11800453 ALL MANHOLES MUST BE WATERTIGHT, WITH WATERTIGHT RINGS AND NUMBER OF LOTS: 166 SAWS JOB#: 21-1668 COVERS. THESE MANHOLES MUST BE VENTED PER SAWS DETAIL MATCH LINE STA: 9+00.00

LINE "E"

MIRA MİLL

LOT 901

BLOCK 16

STA:1+: 35 L.F. 6" LAT

17

16

2+00

STA:2+; 35 L.F. (6" LAT

15

14

STA:3+. 35 L.F. 6" LAT

LINE "E"

BLOCK 15

12

13

10' E. G. T. TV. E ✓

STA:3+ 35 L.F. 6" LAT

11

4+00

4+00

—8″W—

10

STA:3+ 35 L.F. 6" LAT

HORZ SCALE: 1"=50" STA: 1+00.00 - STA: 9+00.00 VERT SCALE: 1"=5" 640 635 630 EXIST. GROUND CL 625 PROPOSED FINISHED GRADE STA: 8+25.60 BLOCK 14 620 PROPOSED 8" 6" LAT - WATER MAIN STA: 5+73.60 PROPOSED 8" 290.00 L.F.-8" PVC Pipe SAN. SWR. PIPE @ 1 25% 615 20 L.F. ~ 160 PSI 618.44(IN) $_{\scriptscriptstyle -}$ PRESSURE RATED \sqcup PVC SDR 26 D-2241 227.30 L F.~8" PVC Pipe PRESSURE RATED SAN. SWR. PIPE @ 0.40% PVC SDR 26 D-2241 610 605 600 EX. LINE 598.22(OUT) 595 612.97(OUT) 613.07(IN) 613. 614.

5+00

6+00

7+00

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8+00



SEE SHEET 6.9

STA:8+85 18

35 L.F. OF

STA:8+45

∘ 35 L.F. OF

BLOCK 14

WATER CROSSING

REF. WATER CROSSING

STA: 8+25.60

SEE THIS SHEET

6" LAT

6" LAT

STA:9+00

___6" LAT

-55 OF

35 L.F. OF

—8″W|—

95 9

BLOCK 13

10' E. G. T. TV. E -+15 ⁹ Of -

10' E. G. T. TV. E ✓

5

WATER CROSSING

REF. WATER CROSSING

STA: 5+73.60

SEE THIS SHEET

- ∄•—

-55 OF

STA:5+ 35 L.F. 6" LAT

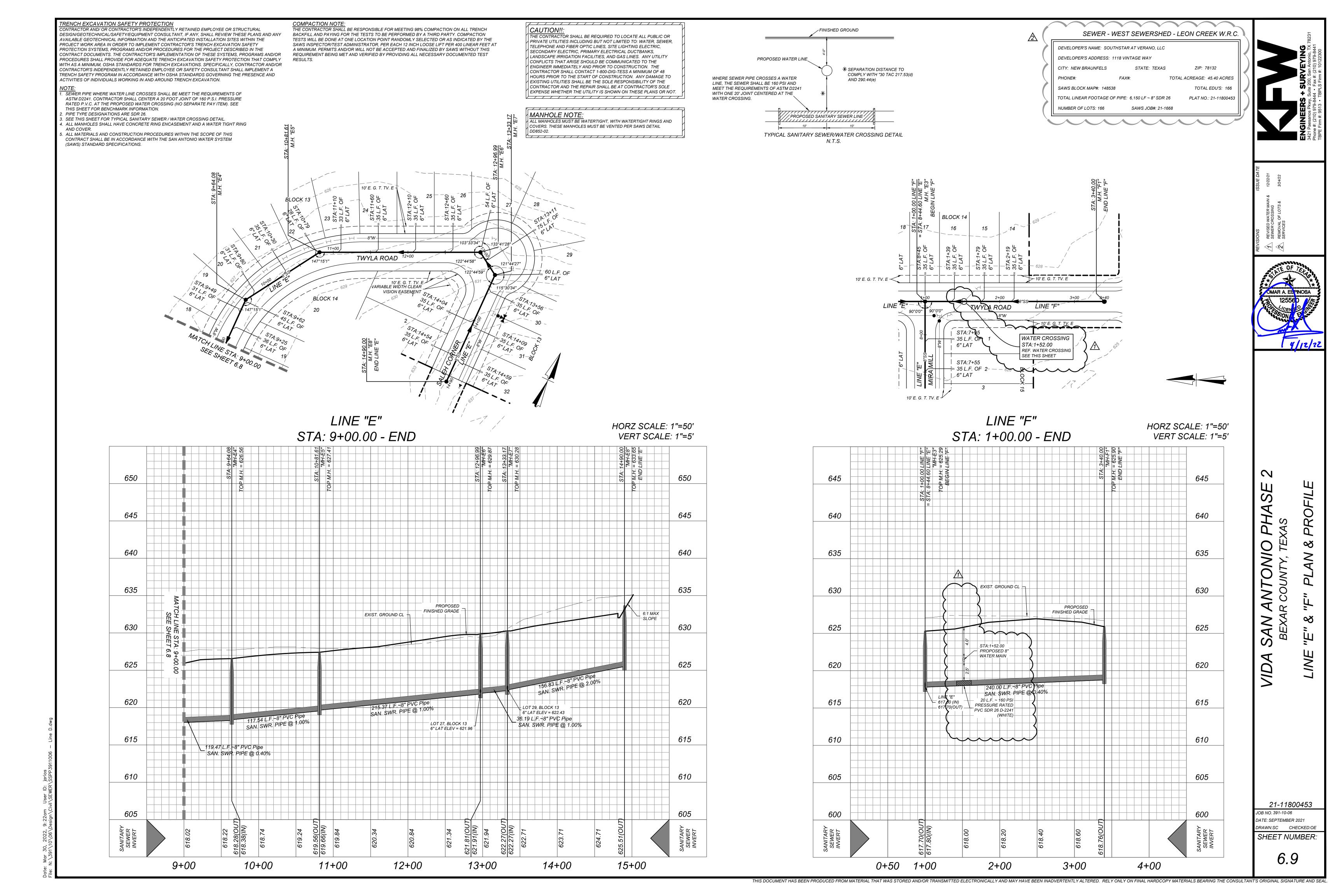
8

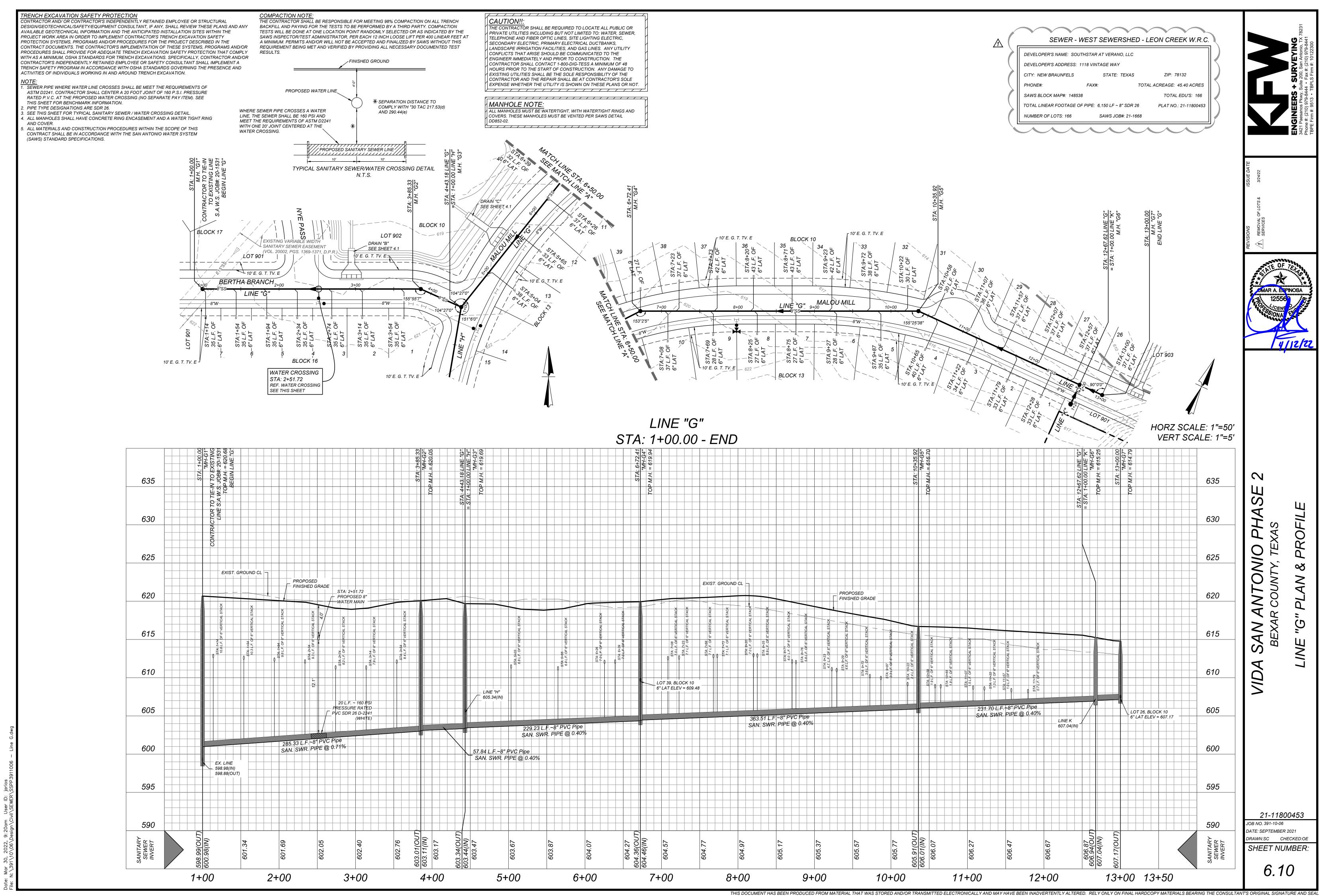


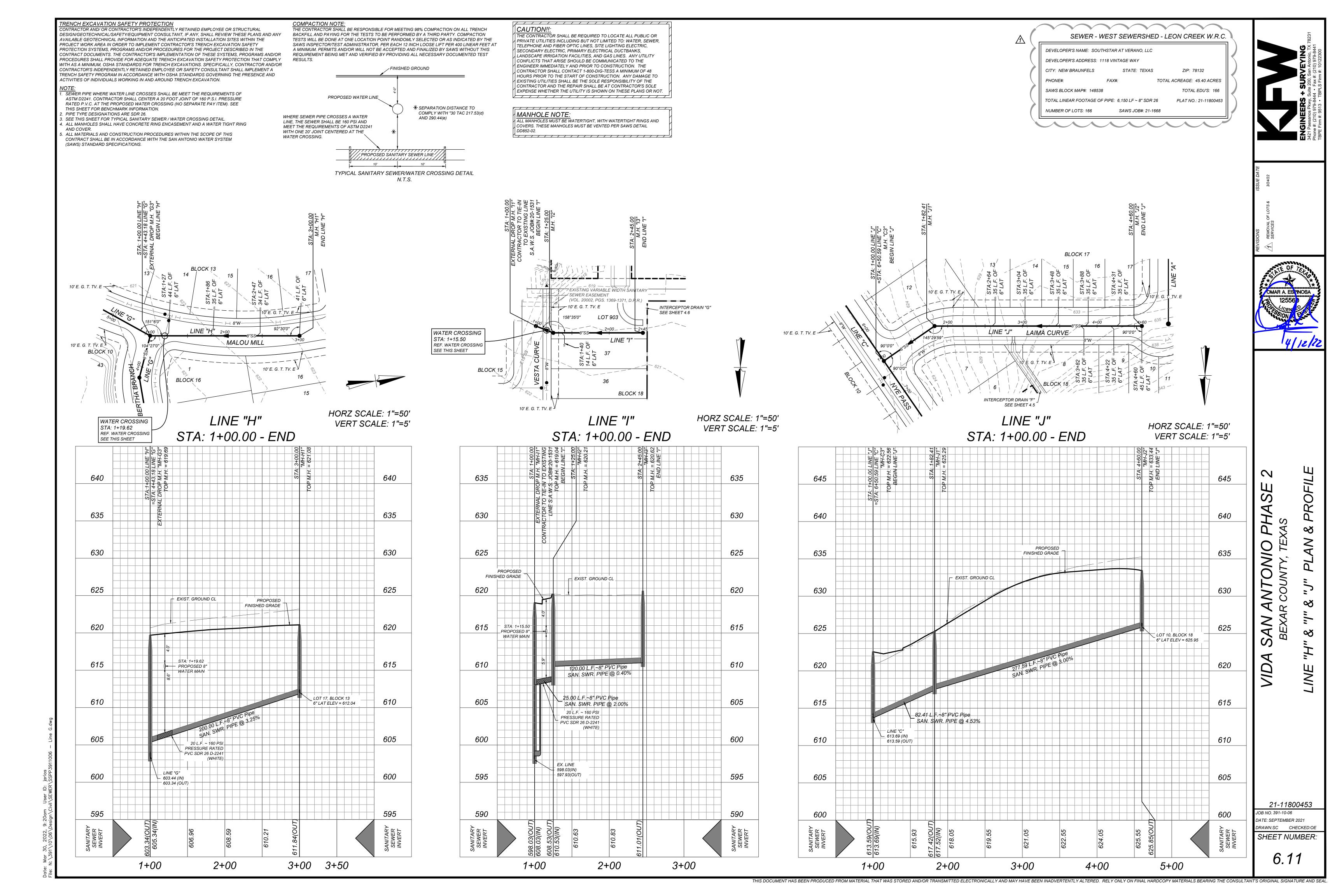
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21-11800453 JOB NO. 391-10-06 DATE: SEPTEMBER 2021 DRAWN:SC CHECKED:OE SHEET NUMBER:

6.8







ENCH EXCAVATION SAFETY PROTECTION

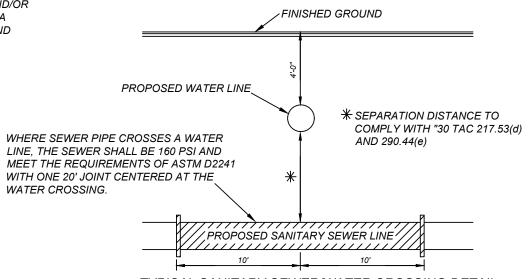
ONTRACTOR AND/ OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND

ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

- . SEWER PIPE WHERE WATER LINE CROSSES SHALL BE MEET THE REQUIREMENTS OF ASTM D2241. CONTRACTOR SHALL CENTER A 20 FOOT JOINT OF 160 P.S.I. PRESSURE RATED P.V.C. AT THE PROPOSED WATER CROSSING (NO SEPARATE PAY ITEM). SEE THIS SHEET FOR BENCHMARK INFORMATION. . PIPE TYPE DESIGNATIONS ARE SDR 26.
- 3. SEE THIS SHEET FOR TYPICAL SANITARY SEWER / WATER CROSSING DETAIL. 4. ALL MANHOLES SHALL HAVE CONCRETE RING ENCASEMENT AND A WATER TIGHT RING
- . ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL BE IN ACCORDANCE WITH THE SAN ANTONIO WATER SYSTEM (SAWS) STANDARD SPECIFICATIONS.

E CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL TRENCH BACKFILL AND PAYING FOR THE TESTS TO BE PERFORMED BY A THIRD PARTY. COMPACTION

TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED OR AS INDICATED BY THE SAWS INSPECTOR/TEST ADMINISTRATOR, PER EACH 12 INCH LOOSE LIFT PER 400 LINEAR FEET AT A MINIMUM. PERMITS AND/OR WILL NOT BE ACCEPTED AND FINALIZED BY SAWS WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST FINISHED GROUND



TYPICAL SANITARY SEWER/WATER CROSSING DETAIL

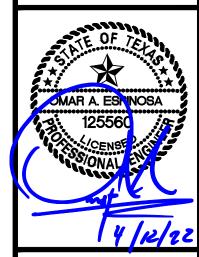
N.T.S.

CAUTION!!:
THE CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITED TO: WATER, SEWER, TELEPHONE AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCTBANKS, LANDSCAPE IRRIGATION FACILITIES, AND GAS LINES. ANY UTILITY CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO THE ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE REPAIR SHALL BE AT CONTRACTOR'S SOLE EXPENSE WHETHER THE UTILITY IS SHOWN ON THESE PLANS OR NOT.

MANHOLE NOTE: ALL MANHOLES MUST BE WATERTIGHT, WITH WATERTIGHT RINGS AND COVERS. THESE MANHOLES MUST BE VENTED PER SAWS DETAIL DD852-02.

SEWER - WEST SEWERSHED - LEON CREEK W.R.C. DEVELOPER'S NAME: SOUTHSTAR AT VERANO, LLC DEVELOPER'S ADDRESS: 1118 VINTAGE WAY STATE: TEXAS ZIP: 78132 CITY: NEW BRAUNFELS PHONE#: TOTAL ACREAGE: 45.40 ACRES SAWS BLOCK MAP#: 148538 TOTAL EDU'S: 166 TOTAL LINEAR FOOTAGE OF PIPE: 6,150 LF ~ 8" SDR 26 PLAT NO.: 21-11800453 NUMBER OF LOTS: 166 SAWS JOB#: 21-1668

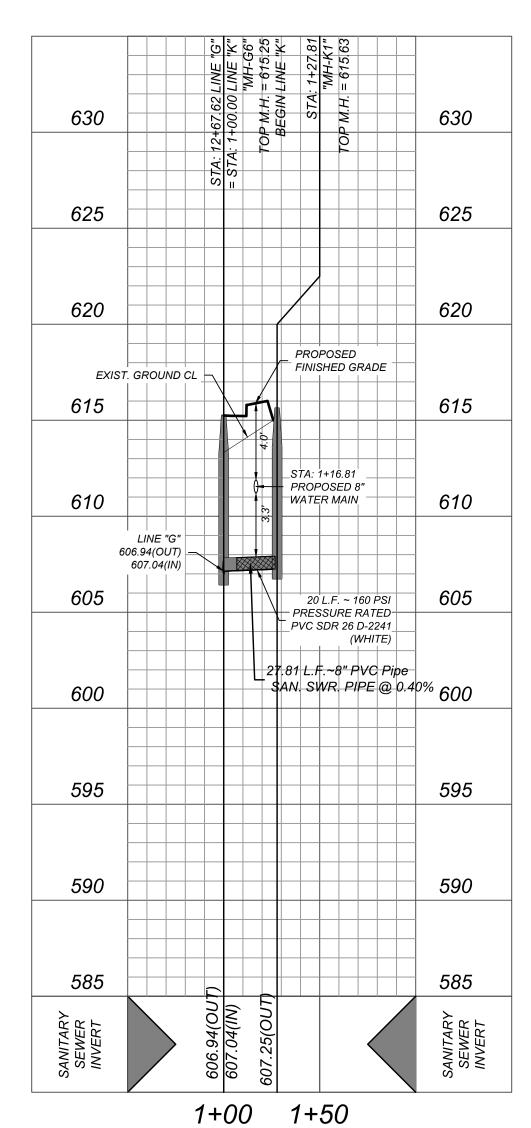




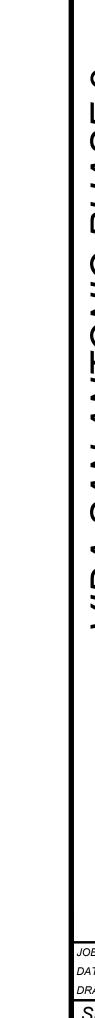
LINE "K" STA: 1+00.00 - END

WATER CROSSING STA: 1+16.81 REF. WATER CROSSING SEE THIS SHEET

> HORZ SCALE: 1"=50' VERT SCALE: 1"=5"



THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL



21-11800453 JOB NO. 391-10-06 DATE: SEPTEMBER 2021 DRAWN:SC CHECKED:OE SHEET NUMBER:

6.12

VIDA SAN ANTONIO PHASE 2

BEXAR COUNTY, TEXAS WATER IMPROVEMENTS

GENERAL WATER NOTES

1. All materials and construction procedures within the scope of this contract shall be approved by the San Antonio Water System (SAWS) and comply with the Plans, Specifications, General Conditions and with the following as applicable:

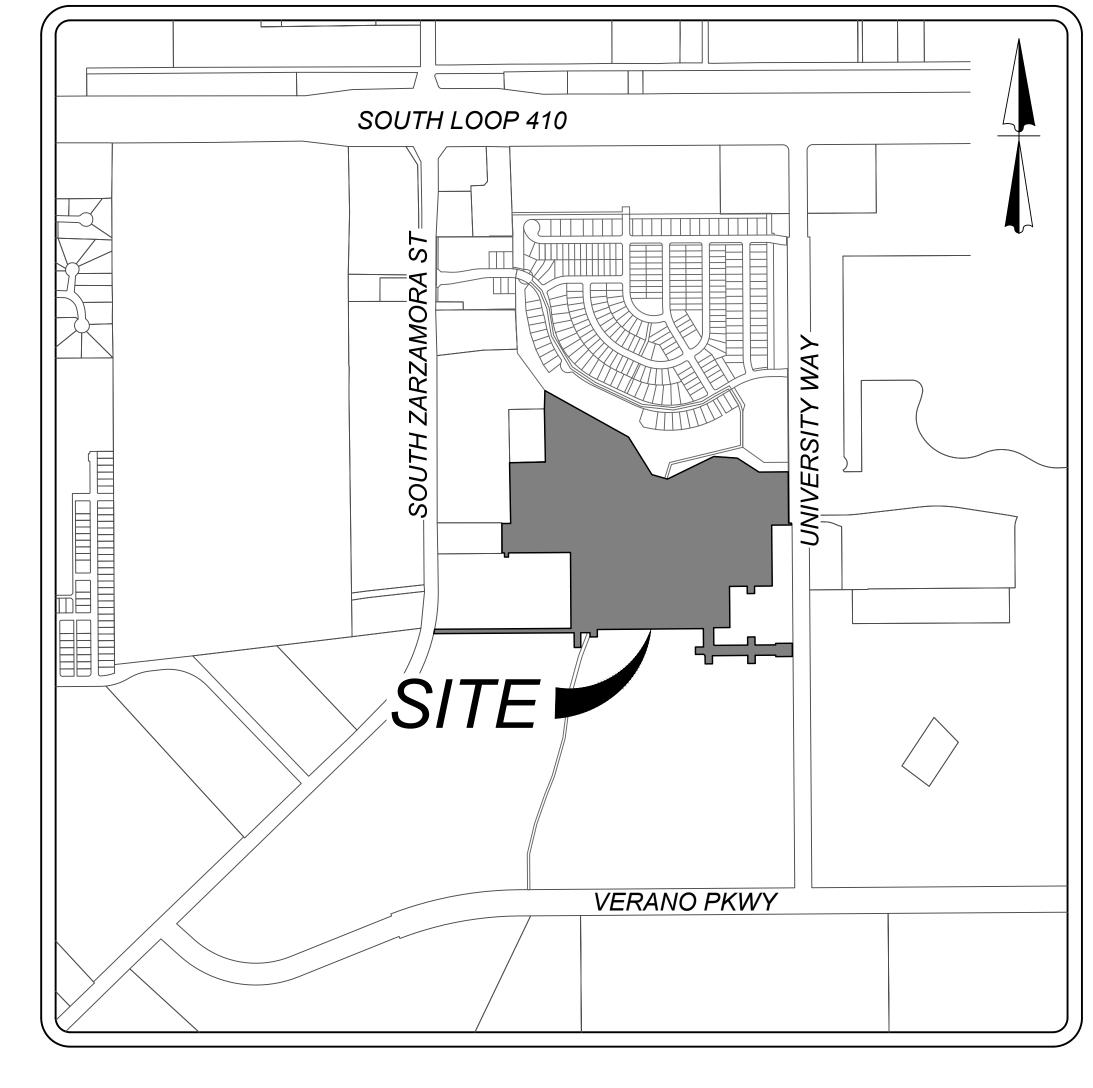
- A. Current Texas Commission on Environmental Quality (TCEQ) "Design Criteria for Domestic Waste water System", Texas Administrative Code (TAC) Title 30 Part 1 Chapter 217 and "Public Drinking Water", TAC Title 30 Part 1 Chapter 290.
- B. Current TXDOT "Standard Specifications for Construction of Highways, Streets and Drainage". Current "San Antonio Water System Standard Specifications for Water and Sanitary Sewer Construction". Current City of San Antonio "Standard Specifications for Public Works Construction". E. Current City of San Antonio "Utility Excavation Criteria Manual" (UECM).
- 2. The contractor shall not proceed with any pipe installation work until they obtain a copy of the approved Counter Permit or General Construction Permit (GCP) from the consultant and has been notified by SAWS Construction I nspection Division to proceed with the work and has arranged a meeting with the inspector and consultant for the work requirements. Work completed by the contractor without an approved Counter Permit and/or a GCP will be subject to removal and replacement at the expense of the contractors and/or the developer.
- 3. The Contractor shall obtain the SAWS Standard Details from the SAWS website, http://www.saws.org/business_center/specs. Unless otherwise noted within the design plans.
- 4. The Contractor is to make arrangements with the SAWS Construction Inspection Division at (210) 233-2973, on notification procedures that will be used to notify affected home residents and/or property owners 48 hours prior to beginning any work.
- 5. Location and depth of existing utilities and service laterals shown on the plans are understood to be approximate. Actual locations and depths must be field verified by the Contractor at least 1 week prior to construction. It shall be the Contractor's responsibility to locate utility service lines as required for construction and to protect them during construction at no cost to SAWS.
- 6. The Contractor shall verify the exact location of underground utilities and drainage structures at least 1-2 weeks prior to construction whether shown on plans or not. Please allow up to 7 business days for locates requesting pipe location markers on SAWS facilities. The following contact information are supplied for verification purposes:
- SAWS Utility Locates: http://www.saws.org/Service/Locates COSA Drainage (210) 207-0724 or (210) 207-6026 COSA Traffic Signal Operations (210) 206-8480 COSA Traffic Signal Damages (210) 207-3951

Texas State Wide One Call Locator 1-800-545-6005 or 811

- 7. The Contractor shall be responsible for restoring existing fences, curbs, streets, driveways, sidewalks, landscaping and structures to its original or better condition if damages are made as a result of the project's construction.
- 8. All work in Texas Department of Transportation (TxDOT) and/or Bexar County right-of-way shall be done in accordance with respective construction specifications and permit requirements.
- 9. The Contractor shall comply with City of San Antonio or other governing municipality's tree ordinances when excavating
- 10. The Contractor shall not place any waste materials in the 100-year Flood Plain without first obtaining an approved Flood
- 11. Holiday Work: Contractors will not be allowed to perform SAWS work on SAWS recognized holidays. Request should be sent to constworkreq@saws.org. Weekend Work: Contractors are required to notify the SAWS Inspection Construction Department 48 hours in advance to request weekend work. Request should be sent to constworkreq@saws.org. Any and all SAWS utility work installed without holiday/weekend approval will be subject to be uncovered for proper inspection
- 12. Compaction note (Item 804): The contractor shall be responsible for meeting the compaction requirements on all trench backfill and for paying for the tests performed by a third party. Compaction tests will be done at one location point randomly selected, or as indicated by the SAWS Inspector and/or the test administrator, per each 12-inch loose lift per 400 linear feet at a minimum. This project will not be accepted and finalized by SAWS without this requirement being met and verified by providing
- 13. A copy of all testing reports shall be forwarded to SAWS Construction Inspection Division.

1. Prior to tie-ins, any shutdowns of existing mains of any size must be coordinated with the SAWS Construction Inspection Division at least one week in advance of the shutdown. The Contractor must also provide a sequence of work as related to the tie-ins; this is at no additional cost to SAWS or the project and it is the responsibility of the Contractor to sequence the work

- For water mains 12" or higher: SAWS Emergency Operations Center (210) 233-2014
- 2. Asbestos Cement (AC) pipe, also known as transite pipe which is known to contain asbestos containing material (ACM), may be located within the project limits. Special waste management procedures and health and safety requirements will be applicable when removal and/or disturbance of this pipe occurs. Such work is to be made under Special Specification Item No. 3000, "Special Specification for Handling Asbestos Cement Pipe".
- 3. Valve removal: Where the contractor is to abandon a water main, the control valve located on the abandoning branch will be removed and replaced with a cap/plug. (NSPI)
- 4. Suitable anchorage/thrust blocking or joint restraint shall be provided at all of the following main locations: dead ends, plugs, caps, tees, crosses, valves, and bends, in accordance with the Standard Drawings DD-839 Series and Item No. 839, in the SAWS Standard Specifications for Construction.
- 5. All valves shall read "open right".
- 6. PRVs Required: Contractor to verify that no portion of the tract is below ground elevation of 605 feet where the static pressure will normally exceed 80 PSI. At all such locations where the ground level is below 605 feet, the Developer or Builder shall install at each lot, on the customer's side of the meter, an approved type pressure regulator in conformance with the Plumbing Code of the City of San Antonio. No dual services allowed for any lot(s) if *PRV is/are required for such lot(s), only single service connections shall be allowed. *Note: A pressure regulator is also known as a pressure reducing valve (PRV).
- 7. Pipe Disinfection with Dry HTH for Projects less than 800 linear feet. (Item No. 847.3): Mains shall be disinfected with dry HTH where shown in the contract documents or as directed by the Inspector, and shall not exceed a total length of 800 feet. This
- of disinfection will also be followed for main repairs. The Contractor shall utilize all appropriate safety measure to protect his personnel during disinfection operations.
- All irrigation services within residential areas are required to have backflow prevention devices. ■ All commercial backflow prevention devices must be approved by SAWS prior to installation.
- 9. Final connection to the existing water main shall not be made until the water main has been pressure tested, chlorinated, and SAWS has released the main for tie-in and use.



LOCATION MAP

N.T.S.

OWNER/DEVELOPER: SOUTHSTAR AT VERANO, LLC 1118 VINTAGE WAY NEW BRAUNFELS, TEXAS 78132

INDEX SHEET NO. DESCRIPTION WATER DISTRIBUTION COVER SHEET WATER DISTRIBUTION PLAN (1 OF 4) WATER DISTRIBUTION PLAN (2 OF4) WATER DISTRIBUTION PLAN (3 OF4) WATER DISTRIBUTION PLAN (4 OF4)

Phone #: (210) 979-8444 • Fax #: (210) 979-8441 TBPE Firm #: 9513 • TBPLS Firm #: 10122300 SAWS PRESSURE ZONE 790 DEVELOPER'S NAME: SOUTHSTAR AT VERANO, LLC DEVELOPER'S ADDRESS: 1118 VINTAGE WAY ZIP: 78132 CITY: NEW BRAUNFELS TOTAL ACREAGE: 45.40 ACRES PHONE#: SAWS BLOCK MAP#: 148538 TOTAL EDU'S: 172 TOTAL LINEAR FOOTAGE OF PIPE: 6,930 LF ~ 8" C-900 PLAT NO.: 21-11800453 SAWS JOB#: 21-1193

SHEET 7.0

BLOCK 10

N.C.B. 18088

OPEN SPACE

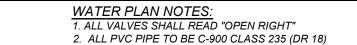
SHALL BE CALCULATED BY SAWS APPROVED PROGRAMS. THERE WILL BE NO SEPARATE PAY ITEM FOR RETAINER GLANDS AND OTHER JOINT RESTRAINING HARNESS AND GASKETS, BUT SHALL BE SUBSIDIARY TO THE UNIT COST PER LINEAL FOOT OF PIPE INSTALLED. FIRE FLOW NOTE: N AN EFFORT TO MEET THE CITY OF SAN ANTONIO'S FIRE FLOW REQUIREMENTS FOR THE PROPOSED RESIDENTIAL DEVELOPMENT, THE PUBLIC WATER MAIN SYSTEM HAS BEEN DESIGNED FOR A MINIMUM FIRE FLOW DEMAND OF 1.500 GPM AT 25 PSI RESIDUAL PRESSURE. THE FIRE FLOW REQUIREMENTS FOR INDIVIDUAL STRUCTURES WILL BE REVIEWED DURING THE BUILDING PERMIT PROCESS IN ACCORDANCE WITH THE PROCEDURES SET FORTH BY THE CITY OF SAN

ANTONIO DIRECTOR OF DEVELOPMENT SERVICES DEPARTMENT AND THE SAN ANTONIO FIRE

DEPARTMENT FIRE MARSHAL.

CONTRACTOR TO VERIFY THAT NO PORTION OF THE TRACT IS BELOW GROUND ELEVATION OF 605 FEET WHERE THE STATIC PRESSURE WILL NORMALLY EXCEED 80 PSI. AT ALL SUCH LOCATIONS WHERE THE GROUND LEVEL IS BELOW 605 FEET, THE DEVELOPER OR BUILDER SHALL INSTALL AT EACH LOT, ON THE CUSTOMER'S SIDE OF THE METER, AN APPROVED TYPE PRESSURE REGULATOR IN CONFORMANCE WITH THE PLUMBING CODE OF THE CITY OF SAN ANTONIO. NO DUAL SERVICES ALLOWED FOR ANY LOT(S) IF *PRV IS / ARE REQUIRED FOR SUCH LOT(S), ONLY SINGLE SERVICE CONNECTIONS SHALL BE ALLOWED. WATER SERVICES WHERE PRV'S REQUIRED ARE DESIGNATED BY AN ASTERISK (*).

*NOTE: A PRESSURE REGULATOR IS ALSO KNOWN AS A PRESSURE REDUCING VALVE(PRV)



– BLOCK 10

IABLE WIDTH AĊCESS, OPEN `

SPACE, ELECTRIC, GAS, TELEPHONE. CABLE TV, WATER, SANITARY SEWER, DRAINAGE & LANDSCAPE EASEMENT

<u>SAWS NOTE:</u>
"SAWS REQUIRES GCPs AND COUNTER PERMIT TO USE LEAD FREE (<0.25% LEAD) FIRE

SAWS STANDARD NOTE:
ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL BE IN ACCORDANCE WITH THE SAN ANTONIO WATER SYSTEM (SAWS) STANDARD SPECIFICATIONS.

LEGEND

PROPOSED WATER MAIN PROPOSED 3/4" WATER SERVICE WITH 5/8" METER & BOX PROPOSED WATER 3/4" IRRIGATION SERVICE WITH 3/4" METER & BOX

PROPOSED FIRE HYDRANT PROPOSED WATER VALVE

EXISTING WATER MAIN

PROPOSED SANITARY SEWER MAIN PROPOSED SANITARY SEWER MANHOLE = ----PROPOSED ELECTRIC, GAS, TELEPHONE = E.G.T.TV.E

& CABLE TV EASEMENT PROPOSED VEHICULAR NON-ACCESS EASEMENT PROPOSED CLEAR VISION EASEMENT

EXISTING FIRE HYDRANT EXISTING WATER VALVE

EXISTING SANITARY SEWER MAIN EXISTING SANITARY SEWER MANHOLE

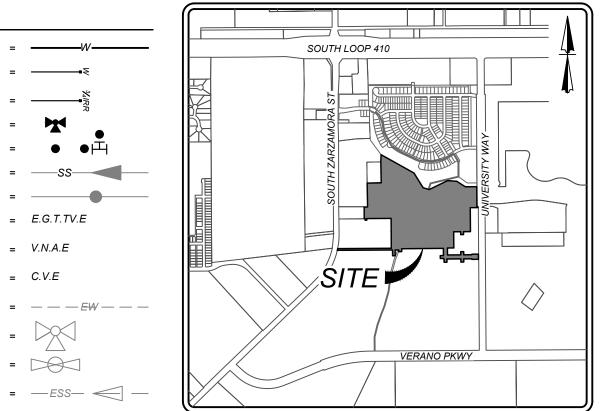
EXISTING OVERHEAD ELECTRIC = -OHE------OHE--W/POWER POLE EXISTING GUY WIRE/OVERHEAD ELECTRIC

= ------5

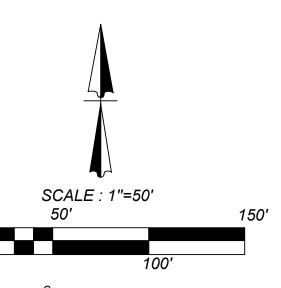
= C.V.E

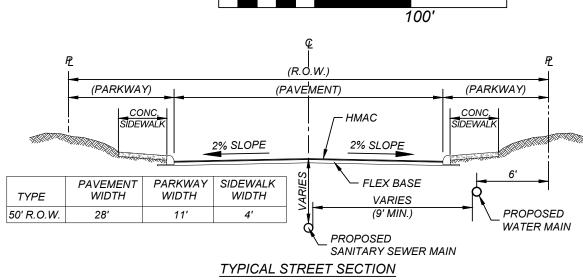
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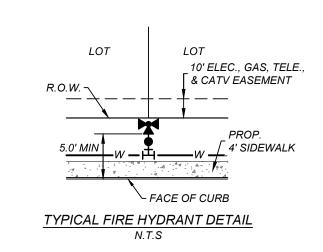
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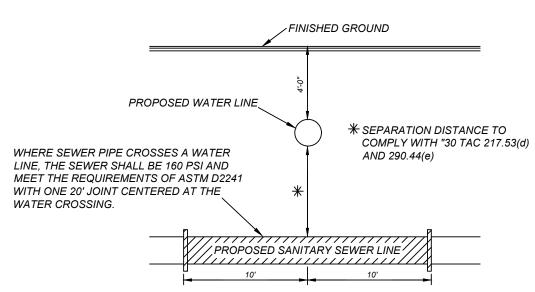


LOCATION MAP N.T.S.

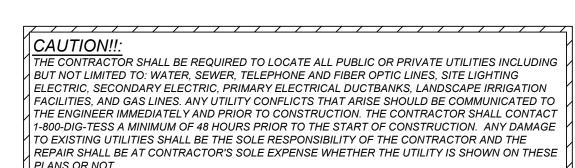


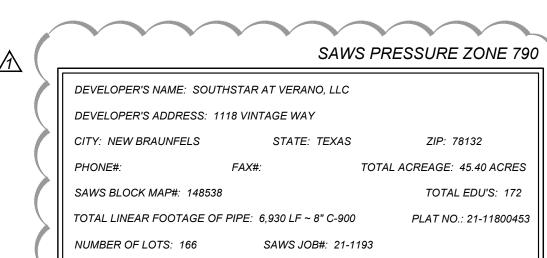






TYPICAL SANITARY SEWER/WATER CROSSING DETAIL





21-11800453 JOB NO. 391-10-06 DATE: SEPTEMBER 2021 DRAWN:SC CHECKED:OE

SHEET NUMBER:

2 - 1" COPPER TUBING, CUT AS REQUIRED 2 - 1 1/4" THD. SOLID CAPS, THR. 1 - 8" 1/32 BEND, M.J. 2 - 1" COMP. x 1 1/4" COUPLING, CURB STOP C-900 PVC CONTRACTOR SHALL PROVIDE A 2" JUMPER CONNECTION TO LOAD NEW MAIN

1 - 8" x 6" ANCHOR TEE, M.J. 1 - 6" GATE VALVE, M.J. 1 - 6" VALVE BOX, COMPLETE - 6" 1/4 ANCHOR BEND, M.J. - STANDARD FIRE HYDRANT 6" DI PIPE, CUT AS REQUIRED <10' E.G.T.TV.E ¬ SEE S.A.W.S. STD. DETAIL DD-834-01

1 - 8" 1/32 BEND, M.J.

1 - 8" 1/32 BEND, M.J.

VIDA SAN ANTONIO PHASE 1B (PLAT NUMBER 20-11800077)

1% AC ULTIMATE FLOODPLAIN PER FLOOD

STUDY PREPARED BY KFW ENGINEERS

N.C.B. 18088

BLOCK 10

OPEN SPACE

32

1 - 8" 1/32 BEND, M.J.

BLOCK 10 N.C.B. 18088 OPEN SPACE

600

MALOU MILL

- 8" 1/32 BEND, M.J.

C-900 PVC

1 - 8" 1/32 BEND, M.J.

` 10' E.G.T.T¦V.E -

10' E.G.T.TV.E

1 - 8" 1/32 BEND, M.J.

VARIABLE WIDTH ACCESS, OPEN

SPACE, ELECTRIC, GAS, TELEPHONE,

CABLE TV, WATER, SANITARY SEWER.

DRAINAGE & LANDSCAPE EASEMENT

1% AC EFFECTIVE FLOODPLAIN PER PANEL #48029C0560F

OFF-LOT 20' x 10' SANITARY SEWER

 \downarrow EASEMENT (ENTIRE EASEMENT TO

UNPLATTED -SOUTHSTAR AT VERANO

DEVELOPER, LLC REMAINING PORTION OF CALLED 293.27 ACRES DOCUMENT NUMBER 20200290004 <u>O.P.R.</u>

CONTRACTOR TO TIE NEW 8" PVC MAIN TO EXISTING 8" PVC PIPE AFTER CHLORINATION

INSTALL FOR CHLORINATION INJECTION

2 - 1" CORPORATION STOP, C.C. x I.P

1 - 2" BLOWOFF (TEMP.) ASSEMBLY

SEE SAWS STD. DETAIL DD-844-01

AND ACCEPTANCE BY S.A.W.S.

(SAWS JOB # DSP-12744)

1 - 8" SOLID SLEEVE, MJ

EXPIRE UPON INCORPORATION INTO PLATTED PUBLIC STREET R.O.W.)

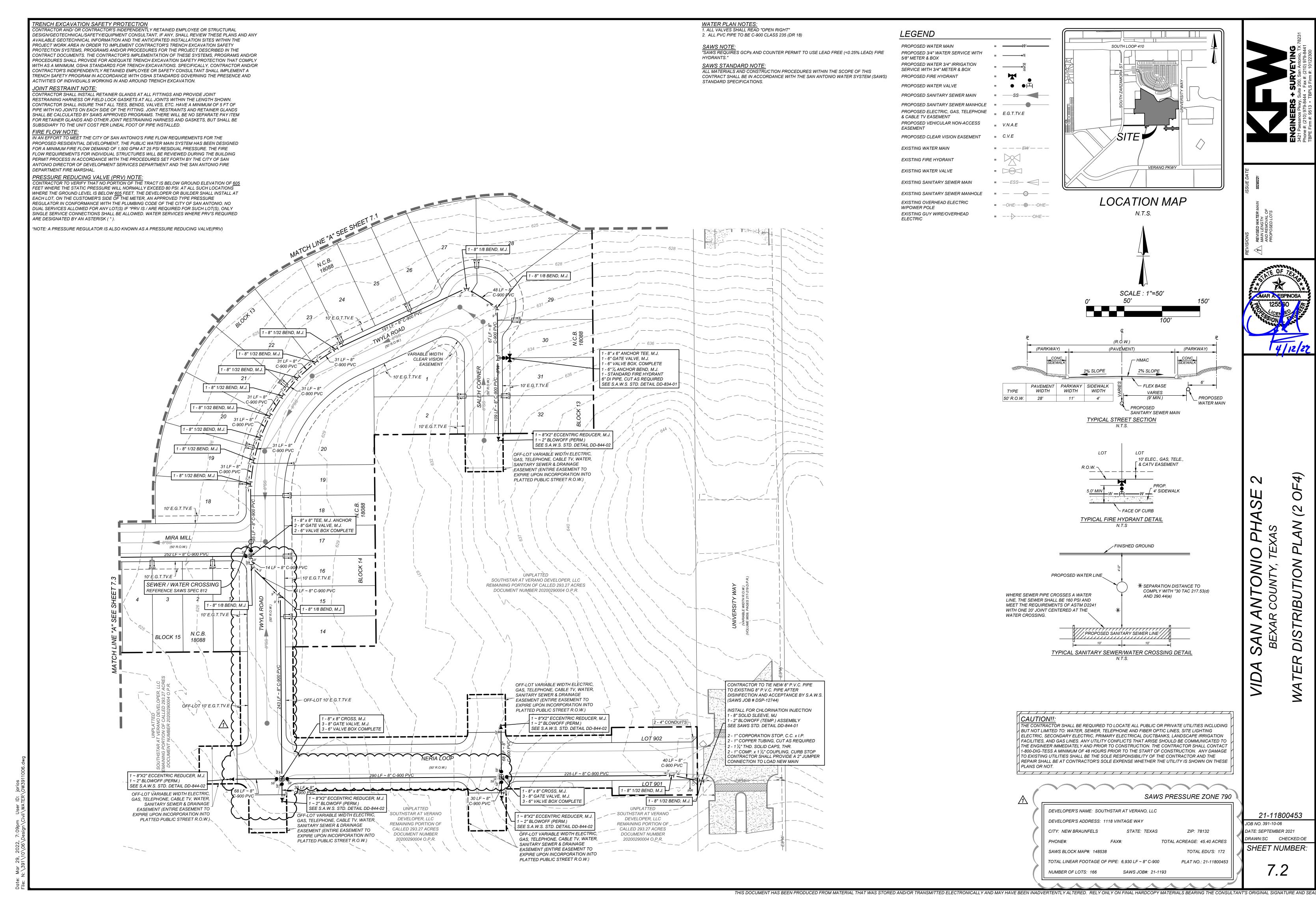
1 - 8" 1/32 BEND, M.J.

62 LF ~ 8"

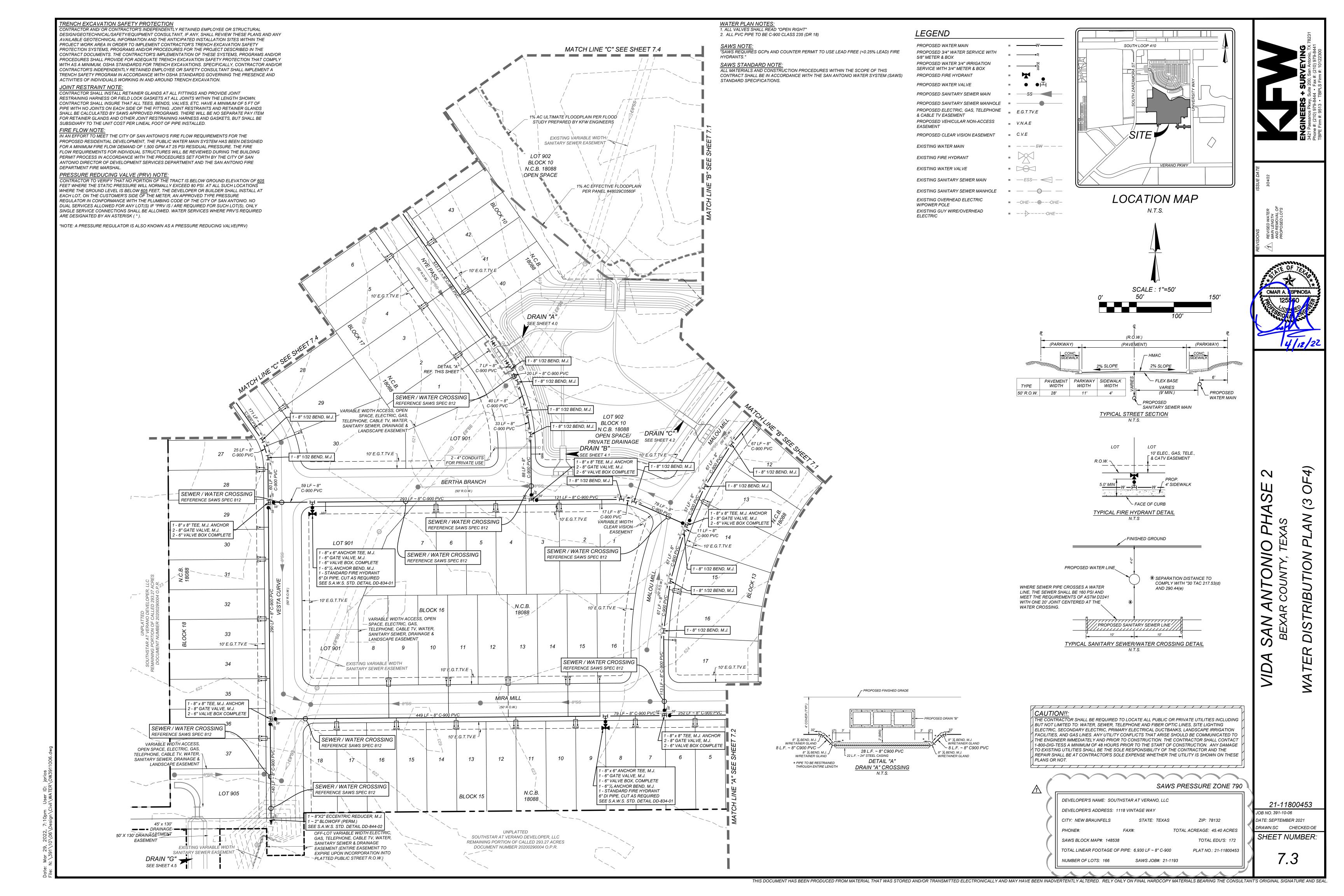
_C-900 PVC

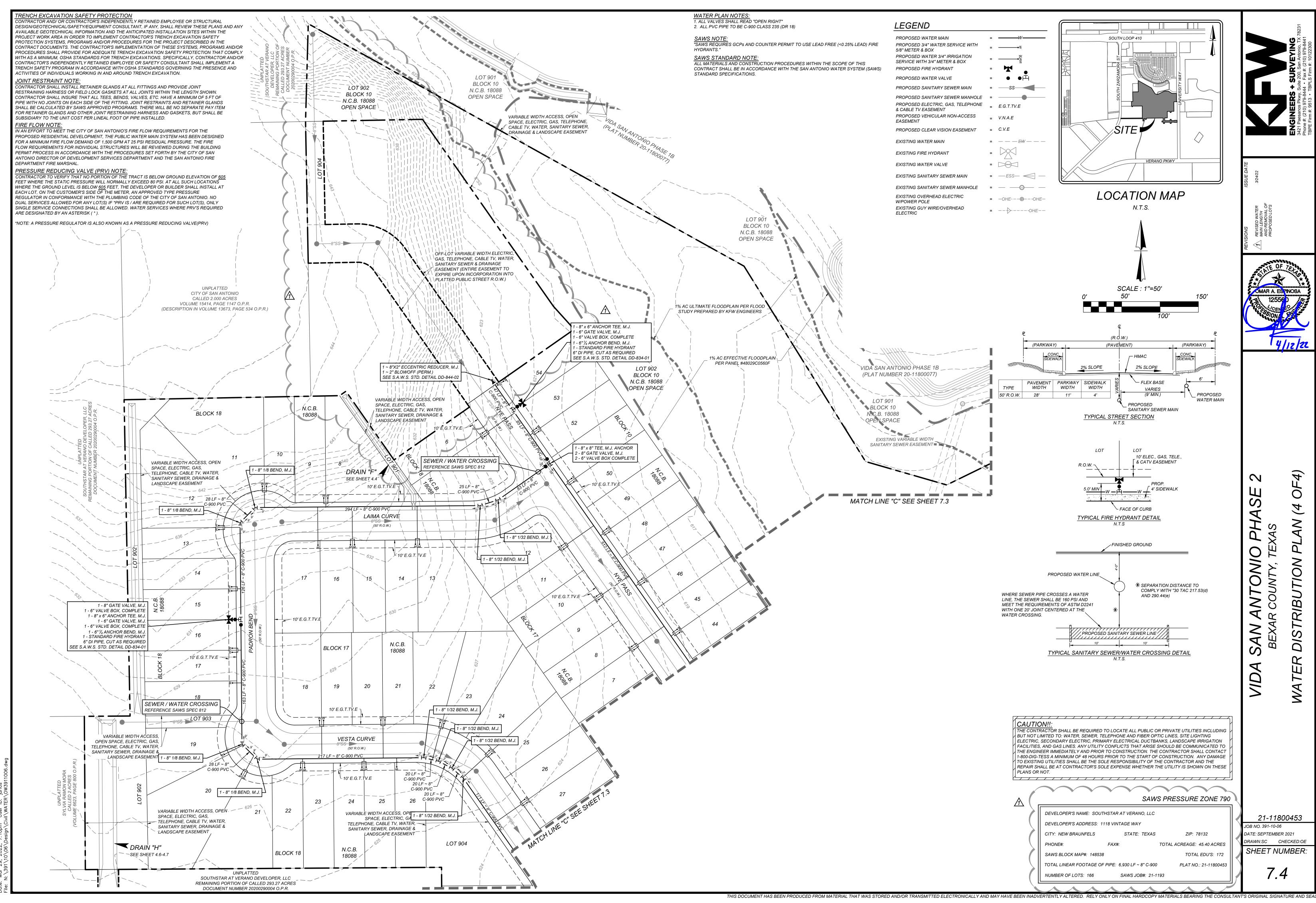
1 - 8" 1/32 BEND, M.J.

THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL



21-11800453 JOB NO. 391-10-06 DATE: SEPTEMBER 2021 DRAWN:SC CHECKED:OE SHEET NUMBER:





21-11800453

DRAWN:SC CHECKED:OE

MAINTENANCE AND INSPECTION:

- 1. CONTRACTOR SHOULD LIMIT CONSTRUCTION ACTIVITIES TO ONLY THOSE AREAS SHOWN TO BE DISTURBED ON THIS PLAN. IF ADDITIONAL VEGETATED AREAS ARE DISTURBED, THEY SHOULD BE PROTECTED WITH APPROPRIATE BEST MANAGEMENT PRACTICES UNTIL THE AREAS HAVE BEEN STABILIZED AS PER THE SPECIFICATIONS OF THE SWPPP. THE AREAS OF THIS ADDITIONAL SOIL DISTURBANCE AND THE MEASURES USED SHOULD BE SHOWN ON THE SITE PLAN AND NOTED WITHIN THE MODIFICATIONS SECTION WITH THE SIGNATURE AND DATE OF THE RESPONSIBLE PARTY.
- 2. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND INSPECTION OF BMP'S AS PER THE SPECIFICATIONS OF THE SWPPP. THE CONTRACTOR MAY MODIFY THE CONTROLS AS NECESSARY TO PREVENT SEDIMENT RUNOFF. THESE MODIFICATIONS SHOULD BE SHOWN AND THE SITE PLAN AND NOTED WITHIN THE MODIFICATIONS SECTION WITH THE SIGNATURE AND DATE OF THE RESPONSIBLE PARTY.
- 3. LOCATION OF CONSTRUCTION ENTRANCE/EXIT, CONCRETE WASHOUT PIT, AND EQUIPMENT AND STORAGE ARE TO BE FIELD DETERMINED. LOCATIONS SHALL BE UPDATED ON THIS PLAN.

COORDINATION NOTE:

1% AC ULTIMATE FLOODPLAIN PER FLOOD STUDY PREPARED BY KFW ENGINEERS

BLOCK 10

PRE-CONSTRUCTION SILT FENCE

POST-CONSTRUCTION SILT FENCE

- 1. CONTACT TIME WARNER TO COORDINATE CABLE TV SERVICE. (210) 244-0500
- 2. CONDUIT FOR ELECTRICAL SERVICE. CONFIRM REQUIREMENTS AND COORDINATE WITH CPS FOR INSPECTION. (210) 353-2246.
- 3. CONTACT AT&T TO COORDINATE TELEPHONE SERVICE. 1-800-449-7928.
- 4. CONTRACTOR TO COORDINATE WITH CPS PRIOR TO CONSTRUCTION TO PLAN ELECTRIC
- 5. CONTRACTOR TO COORDINATE WITH SAWS TO PLAN WATER AND SANITARY SEWER
- 6. CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION.

INSTALLATION:

1% AC EFFECTIVE FLOODPLAIN

PER PANEL #48029C0560F

CONSTRUCTION EQUIPMENT AND

- 1. ALL OPERATORS SHALL SUBMIT A NOTICE OF INTENT (NOI) AT LEAST 48 HOURS IN ADVANCE AND ALL BEST MANAGEMENT PRACTICES (BMP'S) SHALL BE IN PLACE PRIOR TO STARTING CONSTRUCTION ACTIVITIES.
- 2. CONTRACTOR TO ENSURE THAT STRUCTURAL BMP'S ARE INSTALLED WITHIN THE LIMITS OF THE SITE BOUNDARY.

3. CONTRACTOR MAY INSTALL THE BEST MANAGEMENT PRACTICES IN PHASES THAT

- COINCIDE WITH THE DISTURBANCE OF UP GRADIENT AREAS. THIS PHASING SHOULD BE NOTED WITHIN THE MODIFICATIONS SECTION WITH THE SIGNATURE AND DATE OF THE RESPONSIBLE PARTY.
 - 4. CONTRACTOR TO VERIFY SUFFICIENT VEGETATION IN AREAS DENOTED AS VEGETATED FILTER STRIP. IF INSUFFICIENT VEGETATION EXISTS, CONTRACTOR SHALL IMPLEMENT A DIFFERENT BEST MANAGEMENT PRACTICE AND WILL SHOW IT ON THIS PLAN WITH NOTATION IN THE MODIFICATIONS SECTION WITH THE SIGNATURE AND DATE OF THE RESPONSIBLE PARTY.

NATURAL VEGETATIVE BUFFER

ROCK BERM

CONSTRUCTION

OUTHSTAR AT VERANO DEVELOPER, LLC

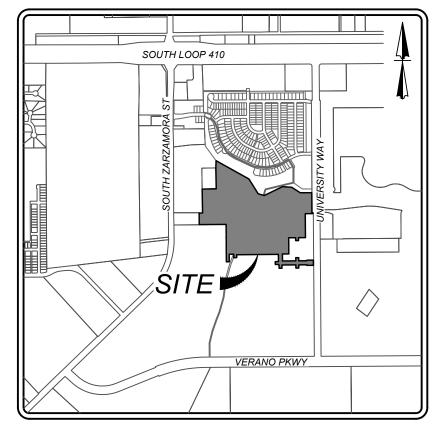
REMAINING PORTION OF CALLED 293.27 ACRES DOCUMENT NUMBER 20200290004 O.P.R.

PROJECT COMPLETION:

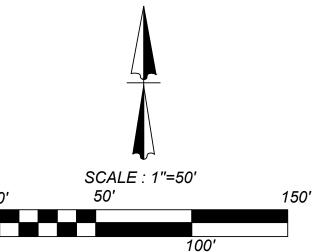
- 1. ALL DISTURBED AREAS ARES NOT COVERED BY IMPERVIOUS COVER ARE TO BE STABILIZED PER THE SWPPP AND PROJECT SPECIFICATIONS PRIOR TO REMOVAL OF ANY BMP'S AND/OR PRIOR TO FILING A NOTICE OF TERMINATION (NOT).
- 2. BEST MANAGEMENT PRACTICES MAY BE REMOVED IN PHASES IF ALL UPGRADIENT AREAS HAVE BEEN STABILIZED PER SWPPP AND PROJECT SPECIFICATIONS. THIS PHASING SHOULD BE NOTED WITHIN THE MODIFICATIONS SECTION WITH THE SIGNATURE AND DATE OF THE RESPONSIBLE PARTY.

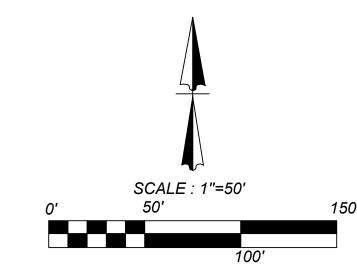
3. CONTRACTOR TO ENSURE THEY HAVE MET ALL REQUIREMENTS OF THE SWPPP BEFORE FILING A NOTICE OF TERMINATION (NOT).

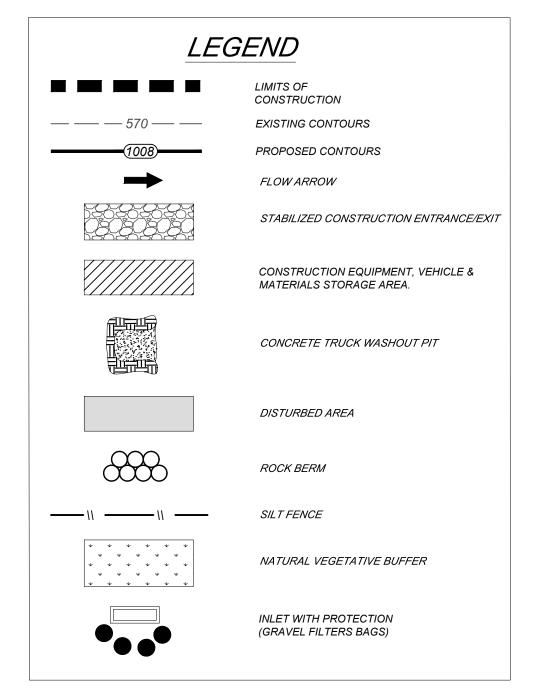
- 1. THIS EXHIBIT IS TO BE USED FOR THE PURPOSES OF STORMWATER POLLUTION PREVENTION ONLY. ALL OTHER CIVIL ENGINEERING INFORMATION SHOULD BE OBTAINED FROM THE APPROPRIATE CONSTRUCTION DOCUMENTS.
- 2. THE PURPOSE OF THE SIGNATURE AND SEAL OF THE ENGINEER ON THIS DOCUMENT IS TO DEMONSTRATE COMPLIANCE WITH THE TPDES STORMWATER POLLUTION PREVENTION PLAN REGULATIONS ONLY.
- 3. ALL OWNERS/OPERATORS ARE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH THE STORMWATER POLLUTION PREVENTION PLAN AND COMPLYING WITH THE REGULATIONS CONTAINED WITHIN IT.





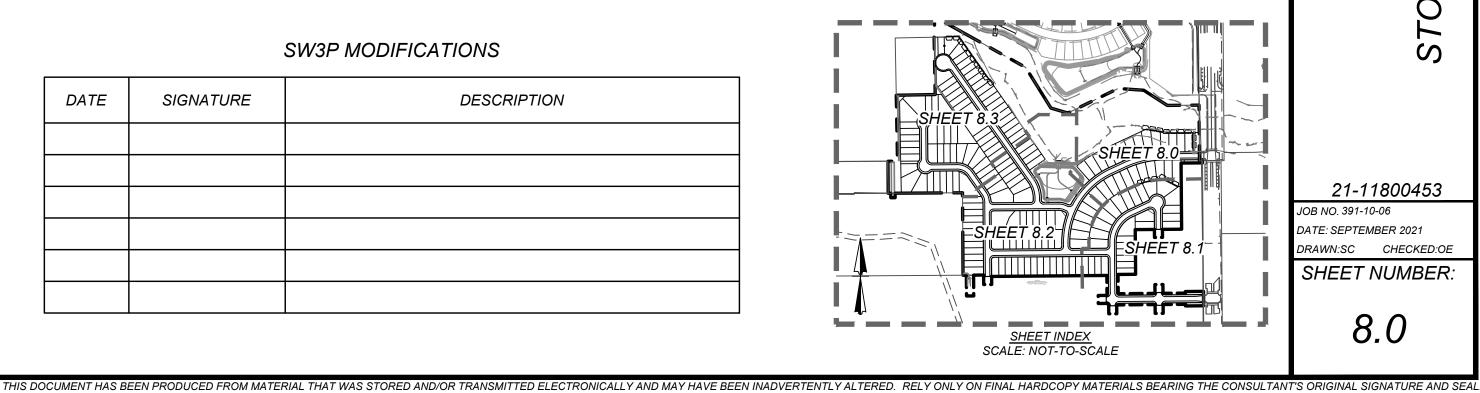






SW3P MODIFICATIONS

DATE	SIGNATURE	DESCRIPTION



21-11800453 JOB NO. 391-10-06 DATE: SEPTEMBER 2021 SHEET NUMBER:

SW3P MODIFICATIONS

DATE	SIGNATURE	DESCRIPTION

MAINTENANCE AND INSPECTION:

- 1. CONTRACTOR SHOULD LIMIT CONSTRUCTION ACTIVITIES TO ONLY THOSE AREAS SHOWN TO BE DISTURBED ON THIS PLAN. IF ADDITIONAL VEGETATED AREAS ARE DISTURBED, THEY SHOULD BE PROTECTED WITH APPROPRIATE BEST MANAGEMENT PRACTICES UNTIL THE AREAS HAVE BEEN STABILIZED AS PER THE SPECIFICATIONS OF THE SWPPP. THE AREAS OF THIS ADDITIONAL SOIL DISTURBANCE AND THE MEASURES USED SHOULD BE SHOWN ON THE SITE PLAN AND NOTED WITHIN THE MODIFICATIONS SECTION WITH THE SIGNATURE AND DATE OF THE
- 2. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND INSPECTION OF BMP'S AS PER THE SPECIFICATIONS OF THE SWPPP. THE CONTRACTOR MAY MODIFY THE CONTROLS AS NECESSARY TO PREVENT SEDIMENT RUNOFF. THESE MODIFICATIONS SHOULD BE SHOWN AND THE SITE PLAN AND NOTED WITHIN THE MODIFICATIONS SECTION WITH THE SIGNATURE AND DATE OF THE RESPONSIBLE PARTY.
- 3. LOCATION OF CONSTRUCTION ENTRANCE/EXIT, CONCRETE WASHOUT PIT, AND EQUIPMENT AND STORAGE ARE TO BE FIELD DETERMINED. LOCATIONS SHALL BE UPDATED ON THIS PLAN.

COORDINATION NOTE:

- 1. CONTACT TIME WARNER TO COORDINATE CABLE TV SERVICE. (210) 244-0500
- 2. CONDUIT FOR ELECTRICAL SERVICE. CONFIRM REQUIREMENTS AND COORDINATE WITH CPS FOR INSPECTION. (210) 353-2246.
- 3. CONTACT AT&T TO COORDINATE TELEPHONE SERVICE. 1-800-449-7928.
- 4. CONTRACTOR TO COORDINATE WITH CPS PRIOR TO CONSTRUCTION TO PLAN ELECTRIC
- 5. CONTRACTOR TO COORDINATE WITH SAWS TO PLAN WATER AND SANITARY SEWER SERVICES (210) 704-7297
- 6. CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION.

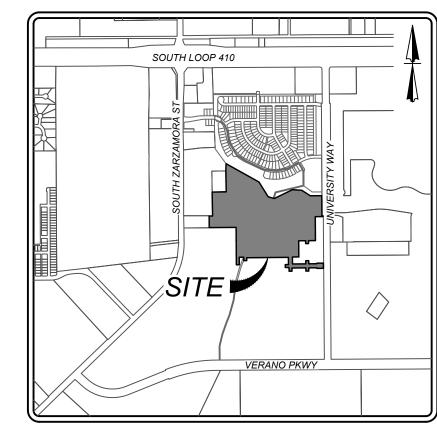
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- 3. CONTRACTOR TO ENSURE THEY HAVE MET ALL

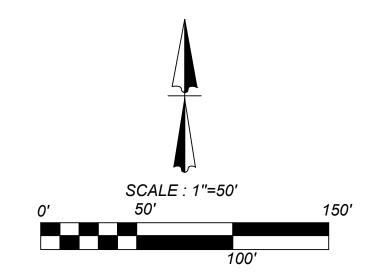
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INSTALLATION:

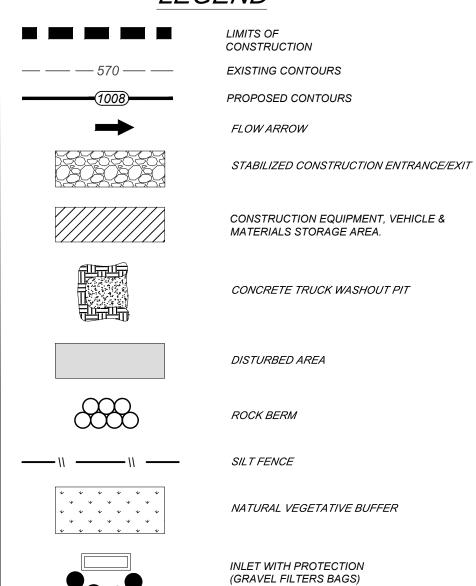
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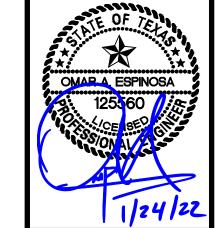
LOCATION MAP



LEGEND



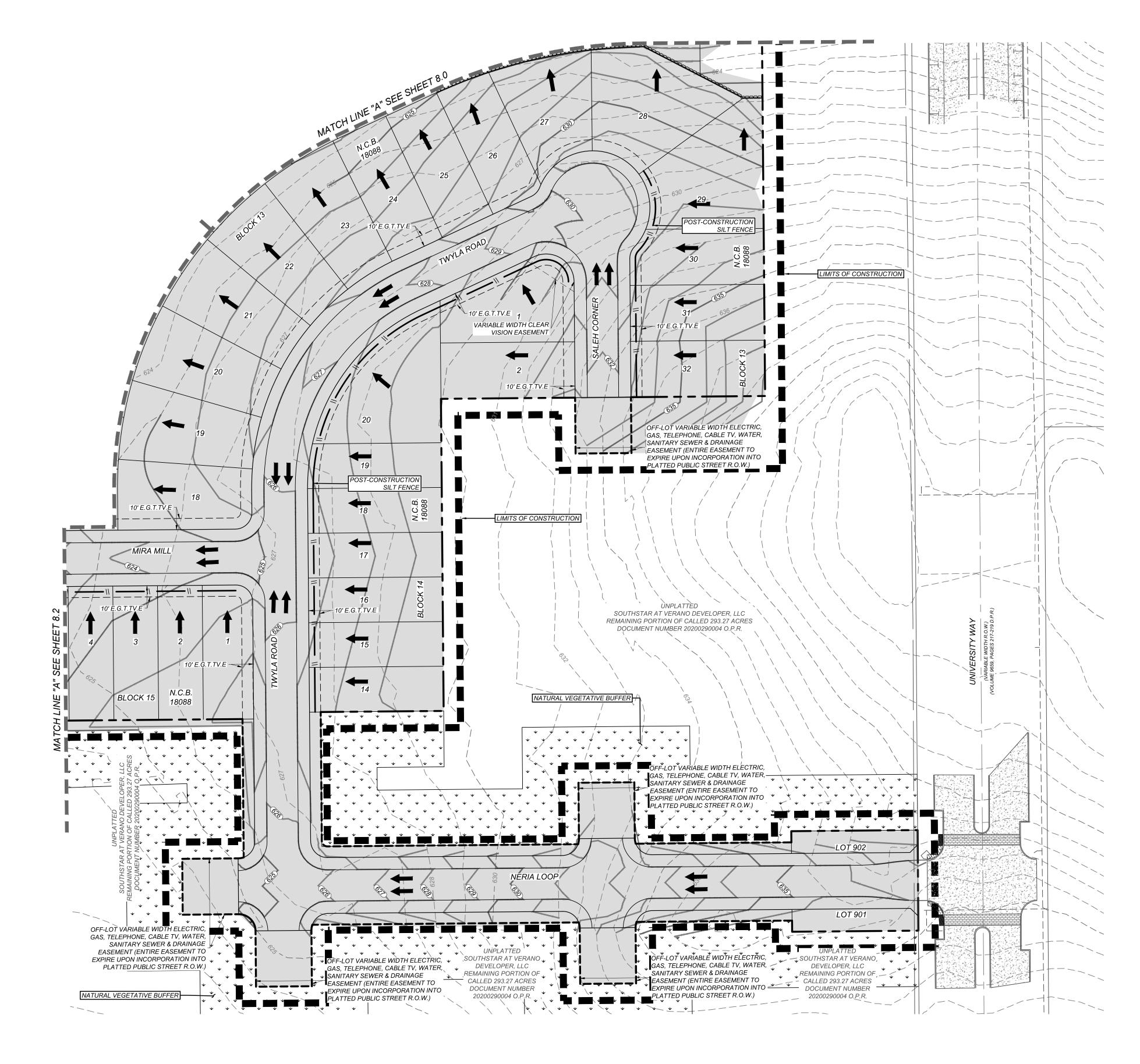
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REQUIREMENTS OF THE SWPPP BEFORE FILING A NOTICE OF TERMINATION (NOT).

GENERAL:

FROM THE APPROPRIATE CONSTRUCTION DOCUMENTS.

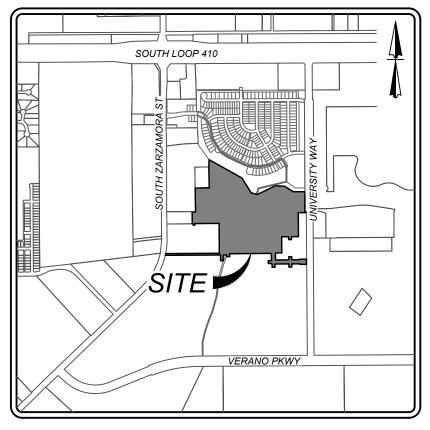
PREVENTION PLAN REGULATIONS ONLY.

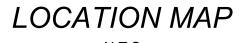
REGULATIONS CONTAINED WITHIN IT.

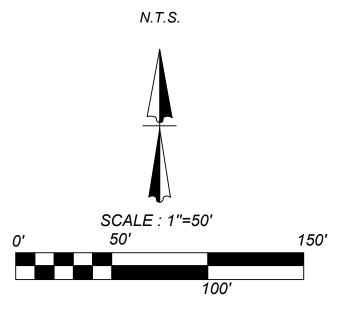
- THE LIMITS OF THE SITE BOUNDARY.
- OF THE RESPONSIBLE PARTY.
- RESPONSIBLE PARTY.

SHEET NUMBER:

MATCH LINE "D" SEE THIS SHEET







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MAINTENANCE AND INSPECTION:

- 1. CONTRACTOR SHOULD LIMIT CONSTRUCTION ACTIVITIES TO ONLY THOSE AREAS SHOWN TO BE DISTURBED ON THIS PLAN. IF ADDITIONAL VEGETATED AREAS ARE DISTURBED, THEY SHOULD BE PROTECTED WITH APPROPRIATE BEST MANAGEMENT PRACTICES UNTIL THE AREAS HAVE BEEN STABILIZED AS PER THE SPECIFICATIONS OF THE SWPPP. THE AREAS OF THIS ADDITIONAL SOIL DISTURBANCE AND THE MEASURES USED SHOULD BE SHOWN ON THE SITE PLAN AND NOTED WITHIN THE MODIFICATIONS SECTION WITH THE SIGNATURE AND DATE OF THE RESPONSIBLE PARTY.
- 2. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND INSPECTION OF BMP'S AS PER THE SPECIFICATIONS OF THE SWPPP. THE CONTRACTOR MAY MODIFY THE CONTROLS AS NECESSARY TO PREVENT SEDIMENT RUNOFF. THESE MODIFICATIONS SHOULD BE SHOWN AND THE SITE PLAN AND NOTED WITHIN THE MODIFICATIONS SECTION WITH THE SIGNATURE AND DATE OF THE RESPONSIBLE PARTY.
- 3. LOCATION OF CONSTRUCTION ENTRANCE/EXIT, CONCRETE WASHOUT PIT, AND EQUIPMENT AND STORAGE ARE TO BE FIELD DETERMINED. LOCATIONS SHALL BE UPDATED ON THIS PLAN.

COORDINATION NOTE:

- 1. CONTACT TIME WARNER TO COORDINATE CABLE TV SERVICE. (210) 244-0500
- CONDUIT FOR ELECTRICAL SERVICE. CONFIRM REQUIREMENTS AND COORDINATE WITH CPS FOR INSPECTION. (210) 353-2246.
- 3. CONTACT AT&T TO COORDINATE TELEPHONE SERVICE. 1-800-449-7928.

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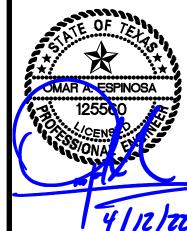
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SW3P MODIFICATIONS

DATE	SIGNATURE	DESCRIPTION

ENGINEERS + SURVEYING
3421 Paesanos Pkwy, Suite 200, San Antonio, TX 78
Phone #: (210) 979-8444 • Fax #: (210) 979-8441

A REVISED STATION & 3/24// ELEVATIONS OF DRAIN "G"



BEXAR COUNTY, TEXAS

21-11800453

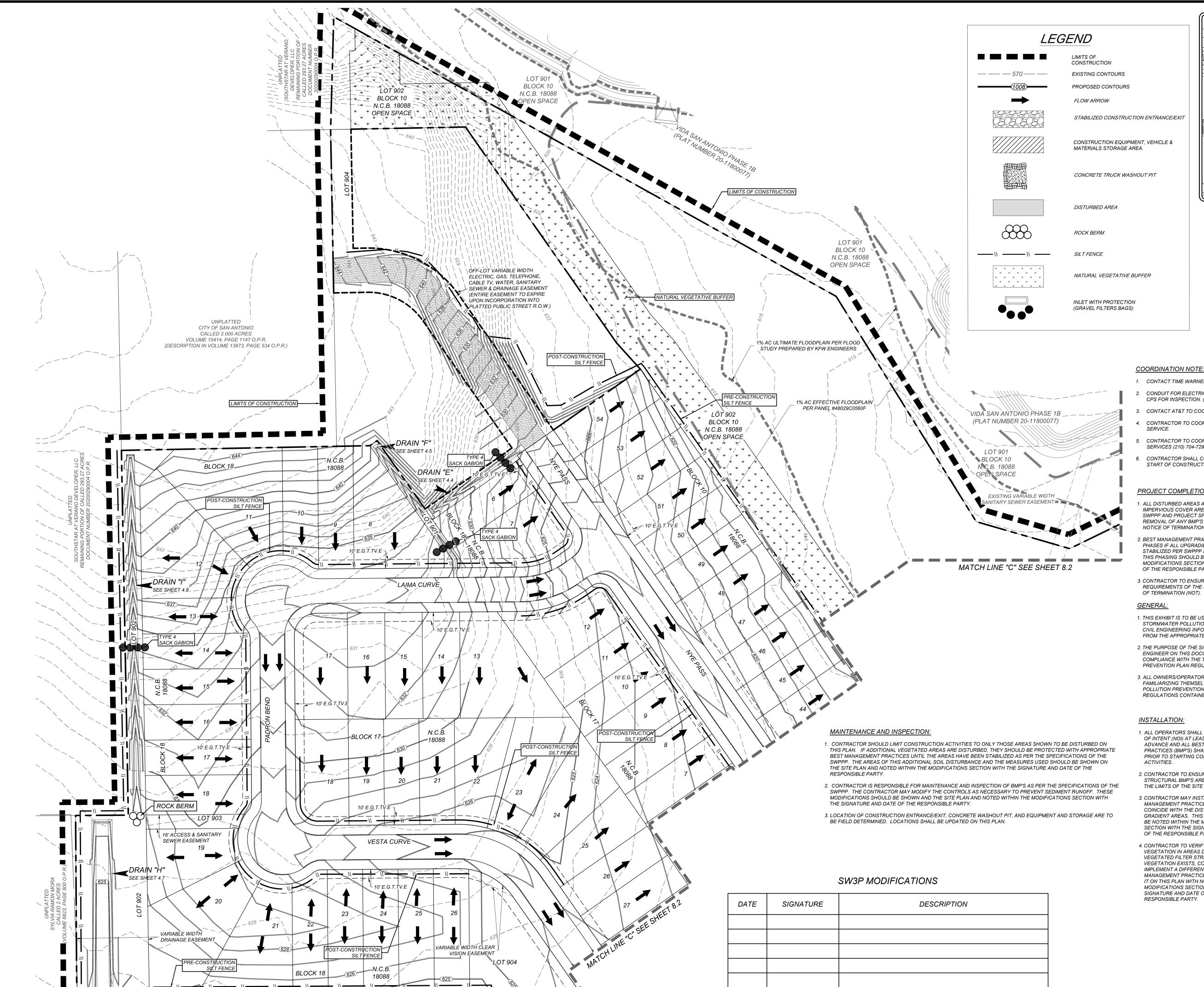
JOB NO. 391-10-06

DATE: SEPTEMBER 2021

DRAWN:SC CHECKED:OE

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SHEET NUMBER:



UNPLATTED SOUTHSTAR AT VERANO DEVELOPER, LLC REMAINING PORTION OF CALLED 293.27 ACRES

DOCUMENT NUMBER 20200290004 O.P.R.

ROCK BERM





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SOUTH LOOP 410

VERANO PKWY

LOCATION MAP

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JOB NO. 391-10-06 DATE: SEPTEMBER 2021 DRAWN:SC CHECKED:OE SHEET NUMBER:

(1) Silt fence material should be polypropylene, polyethylene or polyamide woven or nonwoven fabric. The fabric width should be 36 inches, with a minimum unit weight of 4.5 oz/yd, mullen burst strength exceeding 190 lb/in2, ultraviolet stability exceeding 70%, and minimum apparent opening size of U.S. Sieve No.

(2) Fence posts should be made of hot rolled steel, at least 4 feet long with Tee or Ybar cross section, surface painted or galvanized, minimum nominal weight 1.25 lb/fl2, and Brindell hardness exceeding 140. (3) Woven wire backing to support the fabric should be galvanized 2" x 4" welded wire, 12

(1) Steel posts, which support the silt fence, should be installed on a slight angle toward the anticipated runoff source. Post must be embedded a minimum of 1- foot deep and spaced not more than 8 feet on center. Where water concentrates, the maximum spacing (2) Lay out fencing down-slope of disturbed area, following the contour as closely as

MAX. 6' SPACING MIN. (3) The toe of the silt fence should be trenched in with a spade or mechanical trencher, so that the down- slope face of the trench is flat and perpendicular to the line of flow. Where fence cannot be trenched in (e.g., pavement or rock outcrop), weight fabric flap with 3 inches of pea gravel on uphill side to prevent flow from seeping under fence. (4) The trench must be a minimum of 6 inches deep and 6 inches wide to allow for the silt fence fabric to be laid in the ground and backfilled with compacted material. (5) Silt fence should be securely fastened to each steel support post or to woven wire,

> securely fastened where ends of fabric meet. (6) Silt fence should be removed when the site is completely stabilized so as not to block or impede stone flow or drainage.

revegetated. The fence itself should be disposed of in an approved landfill.

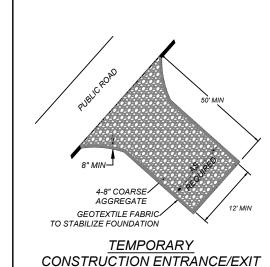
Inspection and Maintenance Guidelines: (1) Inspect all fencing weekly, and after any rainfall.

(2) Remove sediment when buildup reaches 6 inches. (3) Replace any torn fabric or install a second line of fencing parallel to the torn section. (4) Replace or repair any sections crushed or collapsed in the course of construction activity. If a section of fence is obstructing vehicular access, consider relocating it to a spot where it will provide equal protection, but will not obstruct vehicles. A triangular filter dike may be preferable to a silt fence at common vehicle access points. (5) When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of the silt fence should be

FABRIC CROSS-SECTION OF A CONSTRUCTION ENTRANCE/EXIT

(1) The aggregate should consist of 4 to 8 inch washed stone over a stable foundation as specified in the plan. PUBLIC ROAD (2) The aggregate should be placed with a minimum thickness of 8 inches. (3) The geotextile fabric should be designed specifically for use as a soil filtration media with an approximate weight of 6 oz/yd2, a mullen burst rating of 140 lb/in2, and an equivalent opening size greater than a number

(4) If a washing facility is required, a level area with a minimum of 4 inch diameter washed stone or commercial rack should be included in the plans. Divert wastewater to a sediment trap or basin.



Installation: (North Carolina, 1993) (1) Avoid curves on public roads and steep slopes. Remove vegetation and other objectionable material from the foundation area. Grade crown foundation for positive drainage. (2) The minimum width of the entrance/exit should be 12 feet or the full width of exit roadway, whichever is greater. (3) The construction entrance should be at least 50 feet long.

(4) If the slope toward the road exceeds 2%, construct a ridge, 6 to 8 inches high with 3:1 (H:V) side slopes, across the foundation approximately 15 feet from the entrance to divert runoff away from the public road. (5) Place geotextile fabric and grade foundation to improve stability, especially where wet conditions are anticipated. (6) Place stone to dimensions and grade shown on plans. Leave surface smooth and slope for drainage. (7) Divert all surface runoff and drainage from the stone pad to a sediment trap or basin. (8) Install pipe under pad as needed to maintain proper public road drainage.

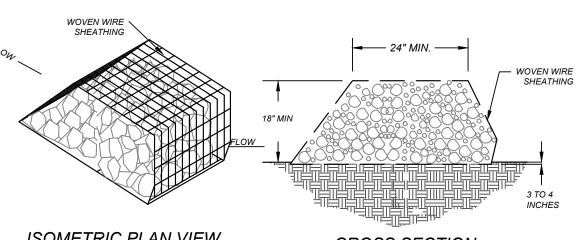
Inspection and Maintenance Guidelines:

(1) The entrance should be maintained in a condition, which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair andlor cleanout of any measures used to trap sediment. (2) All sediment spilled, dropped, washed or tracked onto public rights-of-way should be removed immediately by contractor.

(3) When necessary, wheels should be cleaned to remove sediment prior to entrance onto public right-of-way. (4) When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin.

(5) All sediment should be prevented from entering any storm drain, ditch or water course by using approved methods.

STABILIZED CONSTRUCTION ENTRANCE / EXIT



(1) The berm structure should be. secured with a woven wire sheathing having maximum opening of 1 inch and a minimum wire diameter of 20 gauge galvanized and should be secured with shoat rings. (2) Clean, open graded 3- to 5-inch diameter rock should be used, except in areas where high velocities or large volumes of flow are expected, where 5- to 8-inch diameter rocks may be used.

(1) Lay out the woven wire sheathing perpendicular to the flow line. The sheathing should be 20 gauge woven wire mesh with 1 inch openings. (2) Berm should have a top width of 2 feet minimum with side slopes being 2:1 (H:V) or flatter.

(4) Wrap the wire sheathing around the rock and secure with tie wire so that the ends of the sheathing overlap at least 2 inches, airl the berm retains its shape when walked upon. (6) The ends of the berm should be tied into existing upslope grade and the berm should be buried in a

Inspection and Maintenance Guidelines: (1) Inspection should be made weekly and after each rainfall by the responsible party. For installations

in streambeds, additional daily inspections should be made. (2) Remove sediment and other debris when buildup reaches 6 inches and dispose of the accumulated

ISOMETRIC PLAN VIEW CROSS SECTION

(3) Place the rock along the sheathing as shown in the diagram Figure 1-28), to a height not less than

(5) Berm should be built along the contour at zero percent grade or as near as possible. trench approximately 3 to 4 inches deep to prevent failure of the control.

silt in an approved manner that will not cause any additional siltation. (3) Repair any loose wire sheathing. (4) The berm should be reshaped as needed during inspection. (5) The berm should be replaced when the structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc. (6) The rock berm should be left in place until all upstream areas are stabilized and accumulated silt

ROCK BERM

TYPE 4 SACK GABIONS Galvanized Steel Wire Mesh with Filter Fabric Of Flow SECTION A-A SECTION B-B PLAN VIEW

TYPE 4 SACK GABIONS

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GENERAL NOTES:

 THE TOP OF THE SACK GABIONS SHOULD BE LEVEL AND ORIENTED PERPENDICULAR TO THE DIRECTION OF FLOW. FILTER FABRIC MATERIAL SHALL BE FASTENED TO WOVEN WIRE SUPPORT.

SPECIFICATIONS: RESISTANT TO ULTRAVIOLET LIGHT. FABRIC SHOULD BE NON-WOVEN GEOTEXTILE WITH MINIMUM WEIGHT OF 3.5 OUNCES PER SQUARE YARD, MINIMUM MULLEN BURST STRENGTH OF 200 POUNDS PER SQUARE INCH AND A FLOW THRU RATE OF 120 GALLONS PER MINUTE PER SQUARE FOOT OF

STONE SIZE: ± 4 "-8" OPEN GRADED CRUSHED LIMESTONE. INSPECT WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR

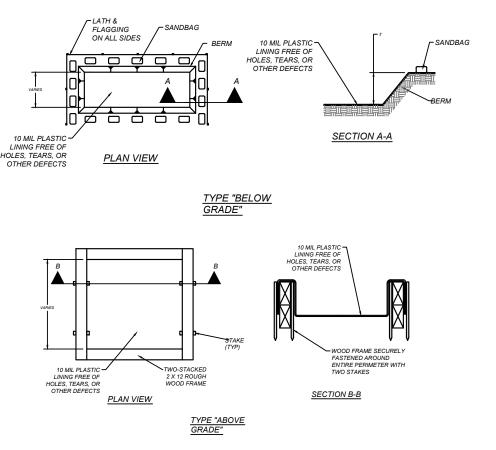
OR REPLACE AS NEEDED. WHEN SILT REACHES A DEPTH OF 50% OR MORE ABOVE NATURAL GROUND, SILT SHALL BE REMOVED AND DISPOSED IN AN APPROVED MANNER THAT WILL NOT CONTRIBUTE TO RESILTATION.

CONTAMINATED SEDIMENT MUST BE REMOVED AND DISPOSED OF OFF-SITE IN ACCORDANCE WITH APPLICABLE REGULATIONS.

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gauge minimum. possible. The fence should be sited so that the maximum drainage area is $\frac{1}{2}$ acre/i 00 feet COMPACTED EARTH -OR ROCK BACKFILL which is in turn attached to the steel fence post. There should be a 3-foot overlap, ISOMETRIC PLAN VIEW

SILT FENCE

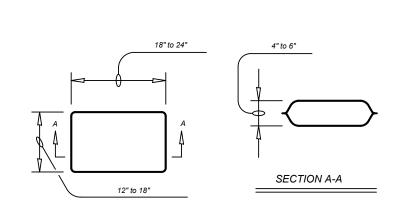


GENERAL NOTES:

DETAIL ABOVE ILLUSTRATES MINIMUM DIMENSIONS. PIT CAN BE INCREASED IN SIZE DEPENDING ON EXPECTED FREQUENCY OF USE. WASHOUT PIT SHALL BE LOCATED IN AN AREA EASILY ACCESSIBLE TO WASHOUT PIT SHALL NOT BE LOCATED IN AREAS SUBJECT TO INUNDATION

FROM STORM WATER RUNOFF AND AT LEAST 50 FEET FROM SENSITIVE FEATURES, STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS.

CONCRETE TRUCK WASHOUT PIT

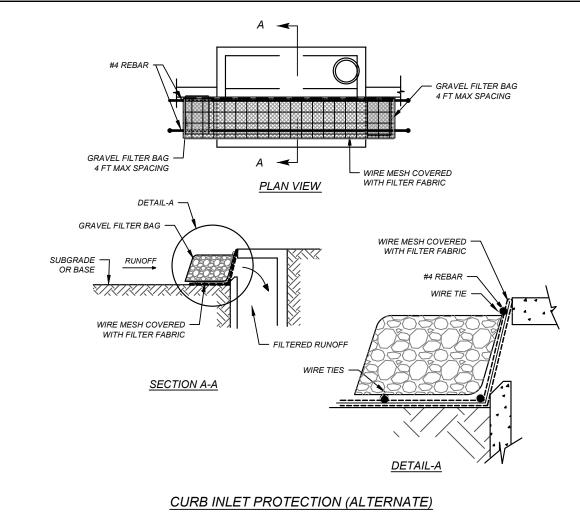


GENERAL NOTES:

THE FILTER BAG MATERIAL SHALL BE MADE OF POLYPROPYLENE, POLYETHYLENE OR POLYAMIDE WOVEN FABRIC, MIN UNIT WEIGHT OF 4 OUNCES/SY, MULLEN BURST STRENGTH EXCEEDING 300 PSI AND ULTRAVIOLET STABILITY EXCEEDING 70%.

THE FILTER BAG SHALL BE FILLED WITH CLEAN, MEDIUM TO COARSE GRAVEL (0.31 TO 0.75 INCH DIAMETER).

GRAVEL FILTER BAG DETAIL



<u>PLAN VIEW</u> SOD PLACED IN CHECKER BOARD PATTERN SECTION A-A CHANNEL TO BE STABILIZED WITH SOD PLACED IN A CHECKER BOARD PATTERN TON THE CHANNEL BOTTOM AND ON THE SIDES UP TO 1/3 THE DEPTH OF

TYPICAL CONSTRUCTION STAGING AREA

ackslash FILTERED RUNOFF

SECTION A-A

ALL STORM DRAINAGE SYSTEMS INLETS SHOULD FILTER RUNOFF BEFORE THE WATER IS DISCHARGED INTO STREAMS OR ONTO ADJACENT PROPERTIES,

IF NO ADDITIONAL DOWNSTREAM TREATMENT EXISTS, THE MAXIMUM DRAINAGE AREA TRIBUTARY TO AN AREA DRAIN INSTALLED WITH A GRAVEL FILTER SHOULD BE ONE ACRE.

ALL CURB INLET GRAVEL FILTERS SHOULD BE INSPECTED AND REPAIRED

AFTER EACH RUNOFF EVENT. SEDIMENT SHOULD BE REMOVED WHEN
MATERIAL IS WITHIN THREE INCHES OF THE TOP OF THE CONCRETE BLOCKS

PERIODICALLY, THE GRAVEL SHOULD BE RAKED TO INCREASE INFILTRATION AND

CURB INLET PROTECTION GRAVEL FILTER BAGS

 ${\it UNLESS\ TREATMENT\ IS\ PROVIDED\ ELSEWHERE.}$

FILTERING OF RUNOFF WATERS.

GENERAL NOTES:

CONSTRUCTION

EQUIPMENT & VEHICLE STORAGE AND MAINTENANCE AREA

CONSTRUCTION

AND WASTE MATERIAL

STORAGE

AREA

FIELD

SILT FENCE

FLOW ARROWS

OFFICE

CHANNEL LINING