

R FIFTY GREEN HOMES, LLC

505 Williams Street, Rockwall, Texas 75087

ROCKWALL SOLAR VILLAGE

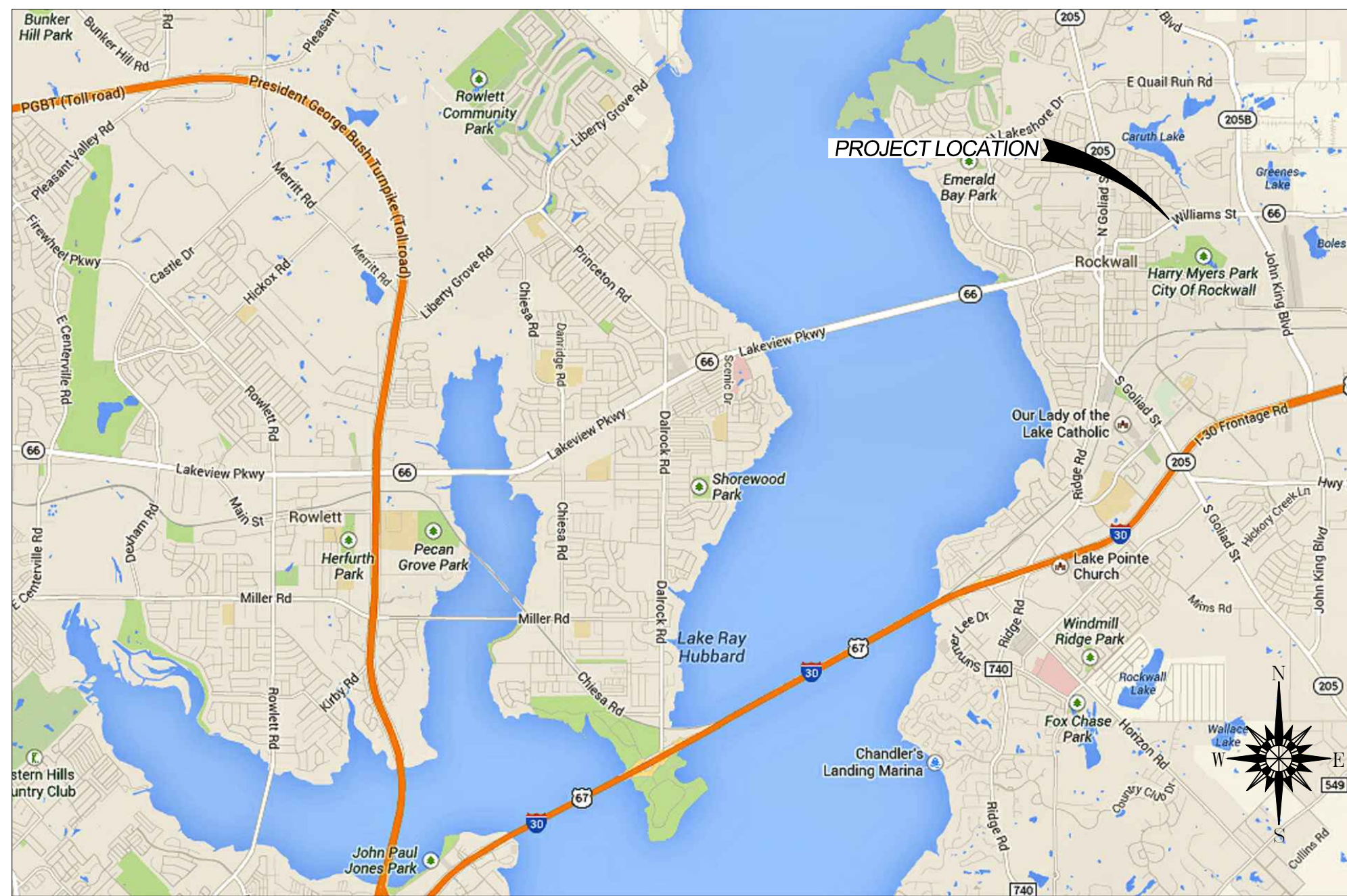
937 WILLIAMS STREET
ROCKWALL TEXAS

LIST OF DRAWINGS

- COVER SHEET
- 1 OVERALL SITE PLAN
- 2 DEMOLITION & EROSION CONTROL PLAN w/ DETAILS
- 3 GRADING AND PAVEMENT PLAN w/ DETAILS
- 4 SANITARY SEWER PLAN & PROFILE
- 5 WATER SYSTEM PLAN w/ DETAILS
- 6 STORM SEWER PLAN & PROFILE
- 7 MISCELLANEOUS DETAILS
- 8 TxDOT DETAILS #1 - PRECAST BASE
- 9 TxDOT DETAILS #2 - PRECAST AREA ZONE DRAIN
- 10 TxDOT DETAILS #3 - SAFETY END TREATMENT
- 11 TxDOT DETAILS #4 - TRAFFIC CONTROL PLAN
- 12 DRAINAGE AREA MAP & CALCULATIONS
- 13 AS-BUILT SURVEYED SITE PLAN

KEY MAP

1"=1 MILE



September 2022

GENERAL NOTES

Construction shall comply with the adopted 3rd Edition of the North Central Texas Council of Governments (NCTCOG) Standard Specifications for Public Works Construction dated January 1998, or as amended by the City of Rockwall via Special Revisions, or as shown otherwise on the Drawings.

Site Preparation - The below noted site preparation items are to be in place, inspected and approved by the City, prior to the start of any clearing, grubbing or grading operations.

1. Protected trees which are designated to remain on site - are to be identified, tagged and banded with bright orange or red bands.
2. Protected trees which are designated to be removed from the site are to be identified tagged and banded with blue bands or blue paint markings.
3. Tree identification tags - are to consist of metal tags which have the tree identification number stenciled or stamped or engraved on the tag. The numbers used to identify the protected trees shall correspond to the tree identification number noted on the approved treescape plans.

4. Protected Tree - Barrier Fencing:
Chain link barrier fencing - shall be placed around the drip lines of the individual protected trees or groups of protected trees, which are designated to remain at the site if they are located within 10-feet of any cut/fill grading location.
Plastic mesh barrier fencing - shall be placed around the drip lines of individual protected trees or groups of protected trees, which are located over 10-feet or more outside a cut/fill grading location.
5. Silt fence along with construction entrance and any other designated erosion BMP's must be installed and inspected. No silt fencing may be installed at the site until the trees have been identified, banded, tagged, fenced and inspected by the City.
6. Portable toilet facilities must be on site and verified.
7. Trash receptacle must be on site and verified.
8. Construction Site Working Hours and Noise Control Signage - Sign installed at the site and verified.

City of Rockwall Project No. P2013-032
Civil 360 Project No. DEV003-13 & DEV003-22



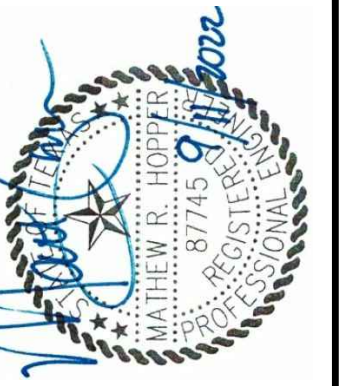
Texas Registered Engineering Firm No. 15119

8553 N Beach Street
Suite 186
Keller, Texas 76244
(214) 773-2966

To the best of our knowledge, CIVIL 360, PLLC hereby states that this plan is as-built. The information provided is based on surveying coordinated by CIVIL 360 and performed on 4/10/2017.

Elevation/survey data provided by Texas Heritage Surveying, LLC. City Benchmark: Monument R003 (Old style monument - below grade 6") Monument located on the south R.O.W. line of Highway 66, set in line with sign poles, east of Caruth Lane and west of FM 1141 in front of J.W. Williams Middle School. ELEV=529.226

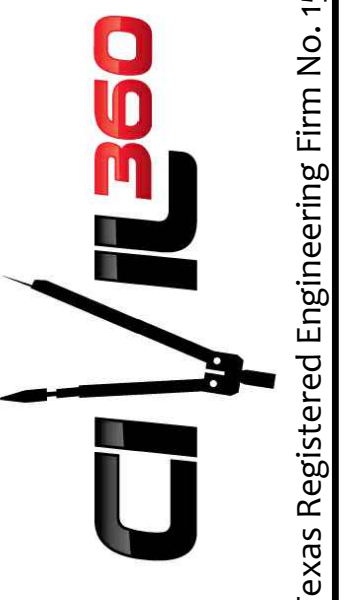




DATE: September, 2022
 DESIGNED BY: MRH
 DRAWN BY: MRH
 CHECKED BY: MRH

TO THE BEST OF OUR KNOWLEDGE, CIVIL ENGINEER MATTHEW R. HOOTY, LICENSE NO. 67745, HAS PREPARED THIS PLAN AS-BUILT. THE INFORMATION PROVIDED IS BASED ON SURVEYING CONDUCTED BY CIVIL 360 AND CONDUCTED ON 4/10/2017.

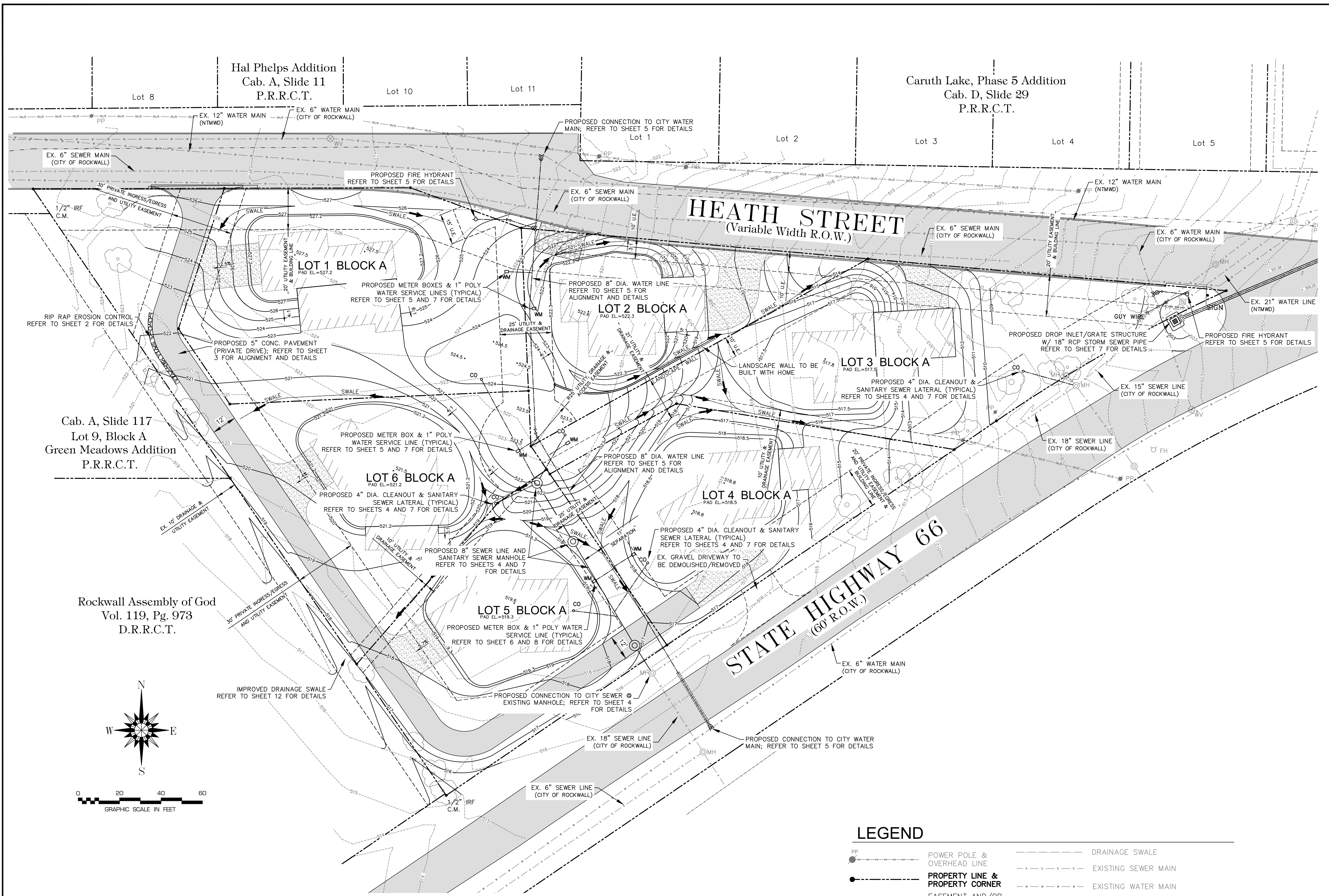
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ROCKWALL SOLAR VILLAGE
 for
 R FIFTY GREEN HOMES, LLC
OVERALL SITE PLAN

PROJECT NO.
 DEV003-13
 DRAWING NO.
1 of 13

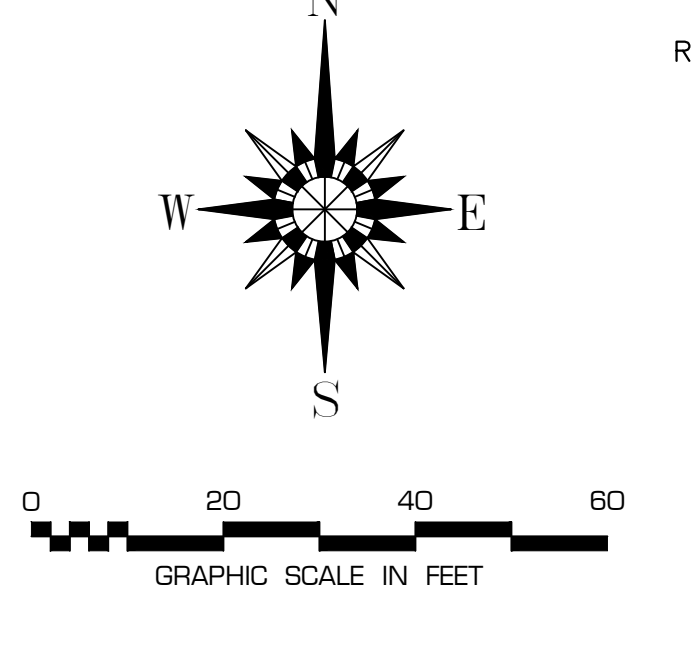
RECORD DRAWINGS



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LEGEND

- PP ——— POWER POLE & OVERHEAD LINE
- PROPERTY LINE & PROPERTY CORNER
- EASEMENT AND/OR BUILDING LINE
- AS-BUILT CONTOUR LINE & ELEVATION
- DRAINAGE SWALE
- EXISTING SEWER MAIN
- EXISTING WATER MAIN
- SILT FENCE
- FH ○ WV ○ MH EXISTING FIRE HYDRANT, WATER VALVE AND SEWER MANHOLE
- ○ ○ EXISTING TREE TO REMAIN

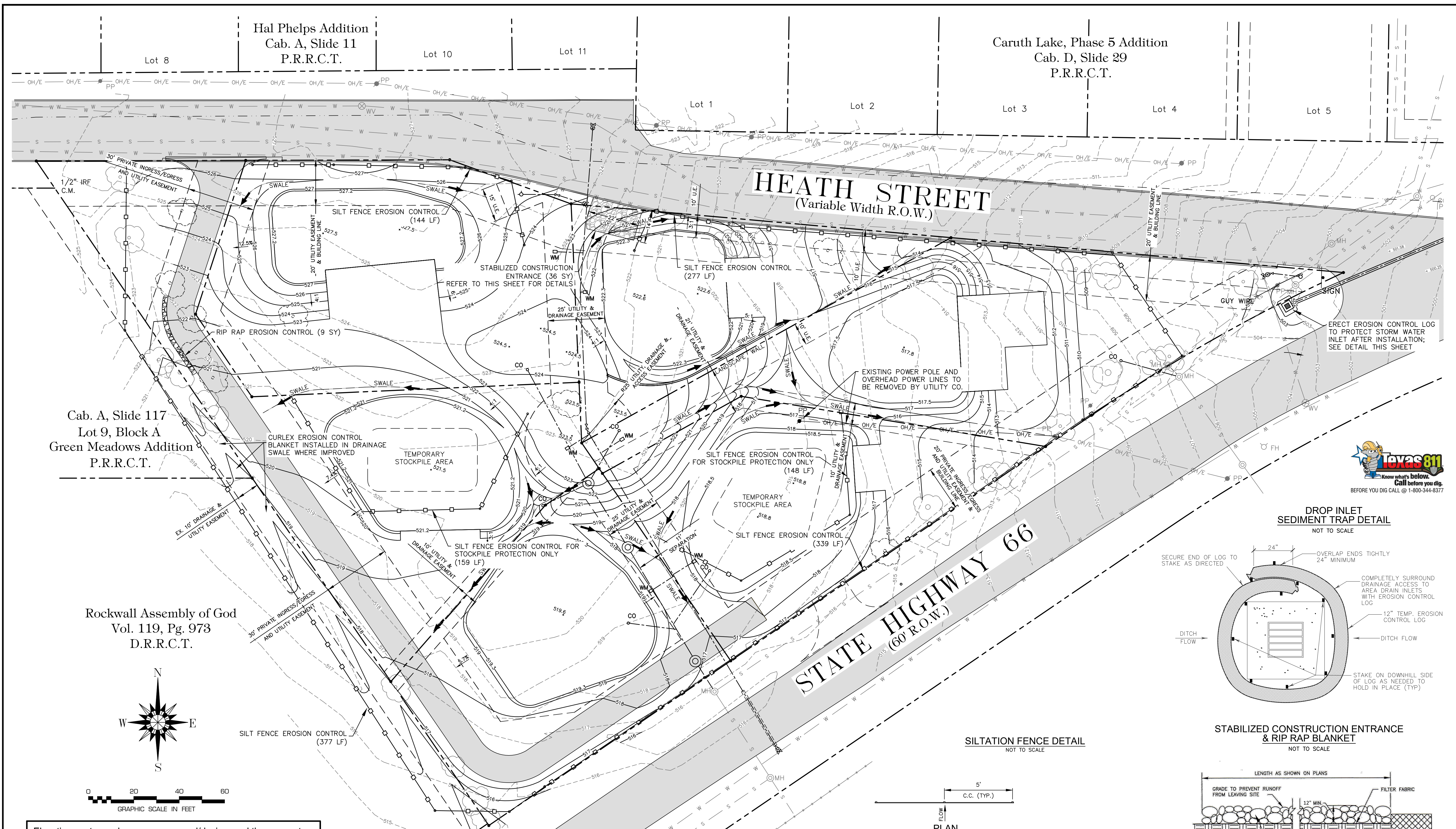


Cab. A, Slide 117
 Lot 9, Block A
 Green Meadows Addition
 P.R.R.C.T.

Rockwall Assembly of God
 Vol. 119, Pg. 973
 D.R.R.C.T.

Hal Phelps Addition
 Cab. A, Slide 11
 P.R.R.C.T.

Caruth Lake, Phase 5 Addition
 Cab. D, Slide 29
 P.R.R.C.T.

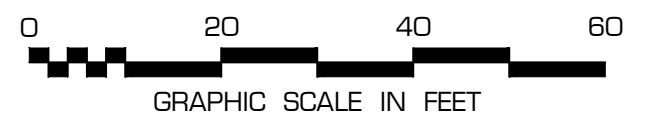
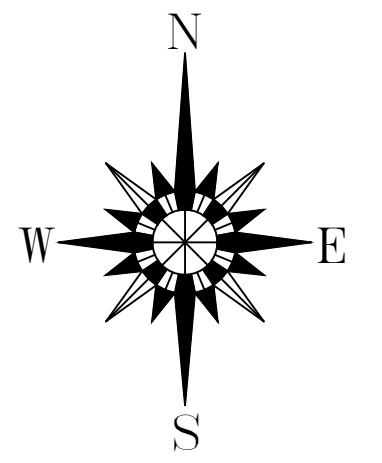


Hal Phelps Addition
Cab. A, Slide 11
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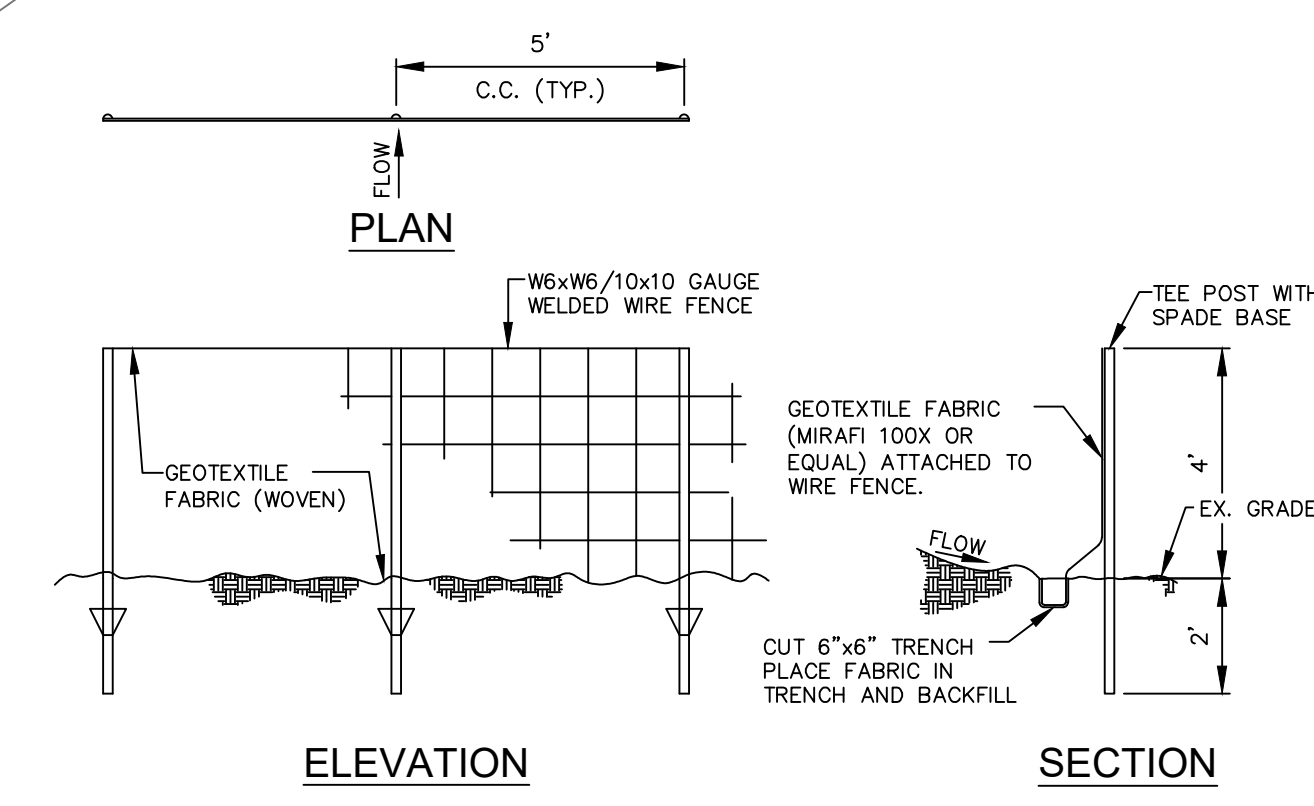
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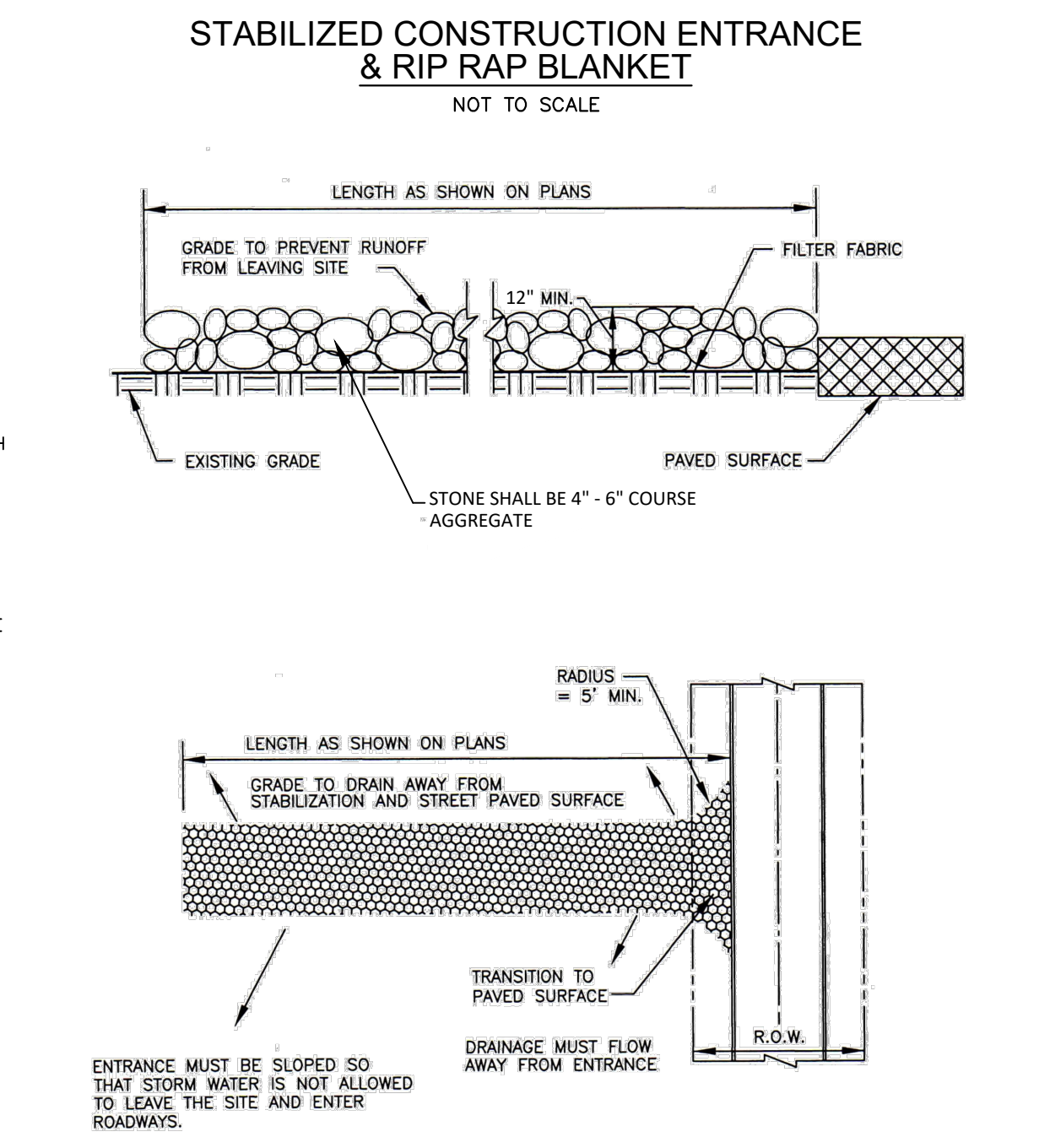
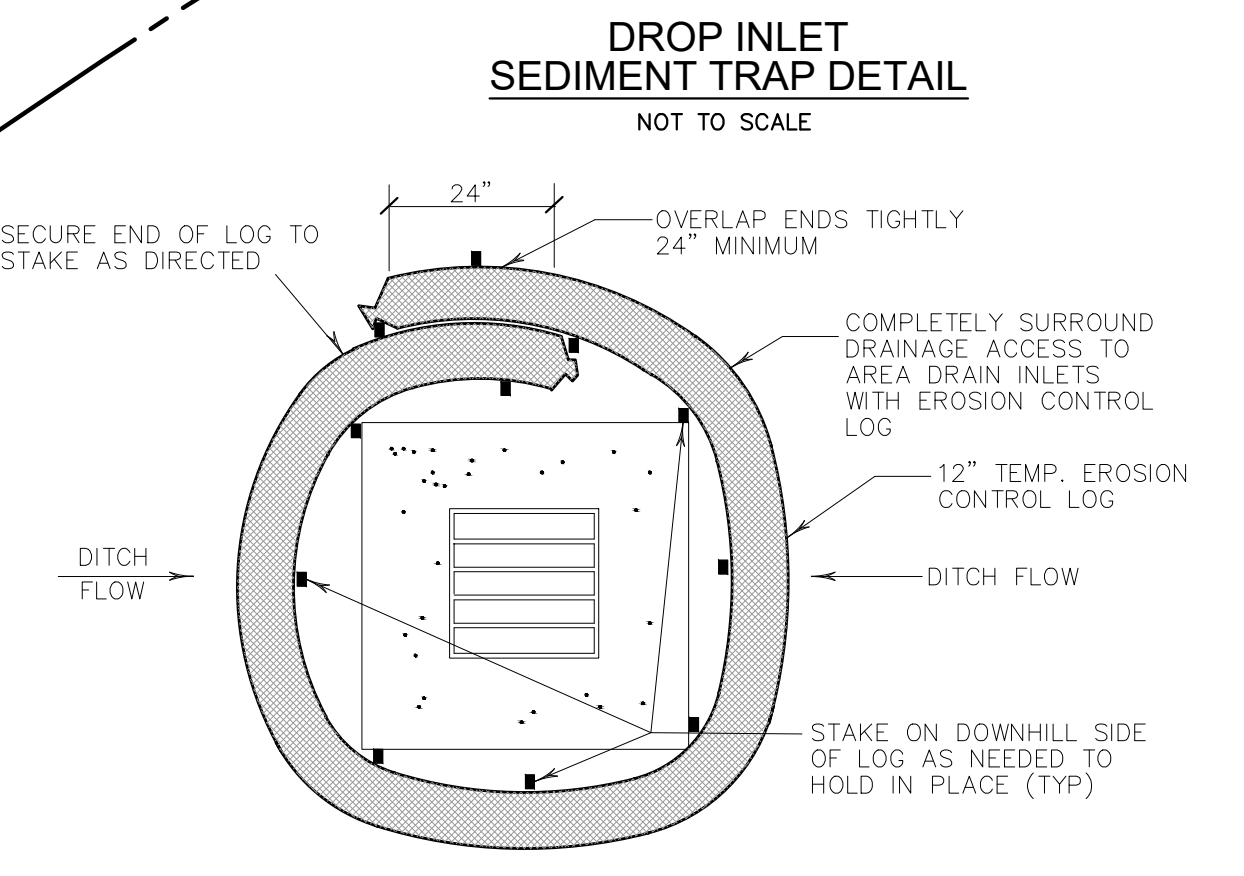
- PP — POWER POLE & OVERHEAD LINE
- s — s — EXISTING SEWER MAIN
- w — w — EXISTING WATER MAIN
- 519 — AS-BUILT CONTOUR LINE & ELEVATION
- — DRAINAGE SWALE
- — EXISTING TREE TO REMAIN
- — EXISTING TREE TO BE REMOVED
- — PROPERTY LINE & PROPERTY CORNER
- — EASEMENT AND/OR BUILDING LINE
- — SILT FENCE
- FH, WV, MH — EXISTING FIRE HYDRANT, WATER VALVE AND SEWER MANHOLE

GENERAL NOTES - EROSION CONTROL

- STABILIZE WITH HYDROMULCH MIXTURE ALL AREAS OUTSIDE OF LEVEL BUILDING PAD CORRESPONDING TO THE FOLLOWING PLANTING SEASONS.
- TYPE I: BERMUDA GRASS, HULLED 50 LBS/ACRE, APRIL THRU JUNE
- TYPE II: ANNUAL RYE GRASS — 40 LBS/ACRE, SEPTEMBER THRU MARCH
- TYPE III: BERMUDE GRASS, UNHULLED — 50 LBS/ACRE, JANUARY THRU MARCH/JULY THRU AUGUST
- REFER TO SPECIFICATIONS FOR ADDITIONAL SEEDING/HYDROMULCHING REQUIREMENTS



- SILTATION FENCE NOTES:**
- ADDITIONAL SILTATION CONTROL MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.
 - SILTATION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL ADEQUATE VEGETATIVE GROWTH ENSURES NO FURTHER EROSION OF THE SOIL.
 - SILTATION FENCES SHALL BE INSPECTED PERIODICALLY FOR DAMAGE AND FOR THE AMOUNT OF SEDIMENTATION WHICH HAS ACCUMULATED. REMOVAL OF SEDIMENT WILL BE REQUIRED WHEN IT REACHES ONE HALF (1/2) THE HEIGHT OF THE SILTATION FENCE.
 - ATTACHMENT OF WELDED WIRE FENCE AND GEOTEXTILE FABRIC SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.



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CHECKED BY: MRH

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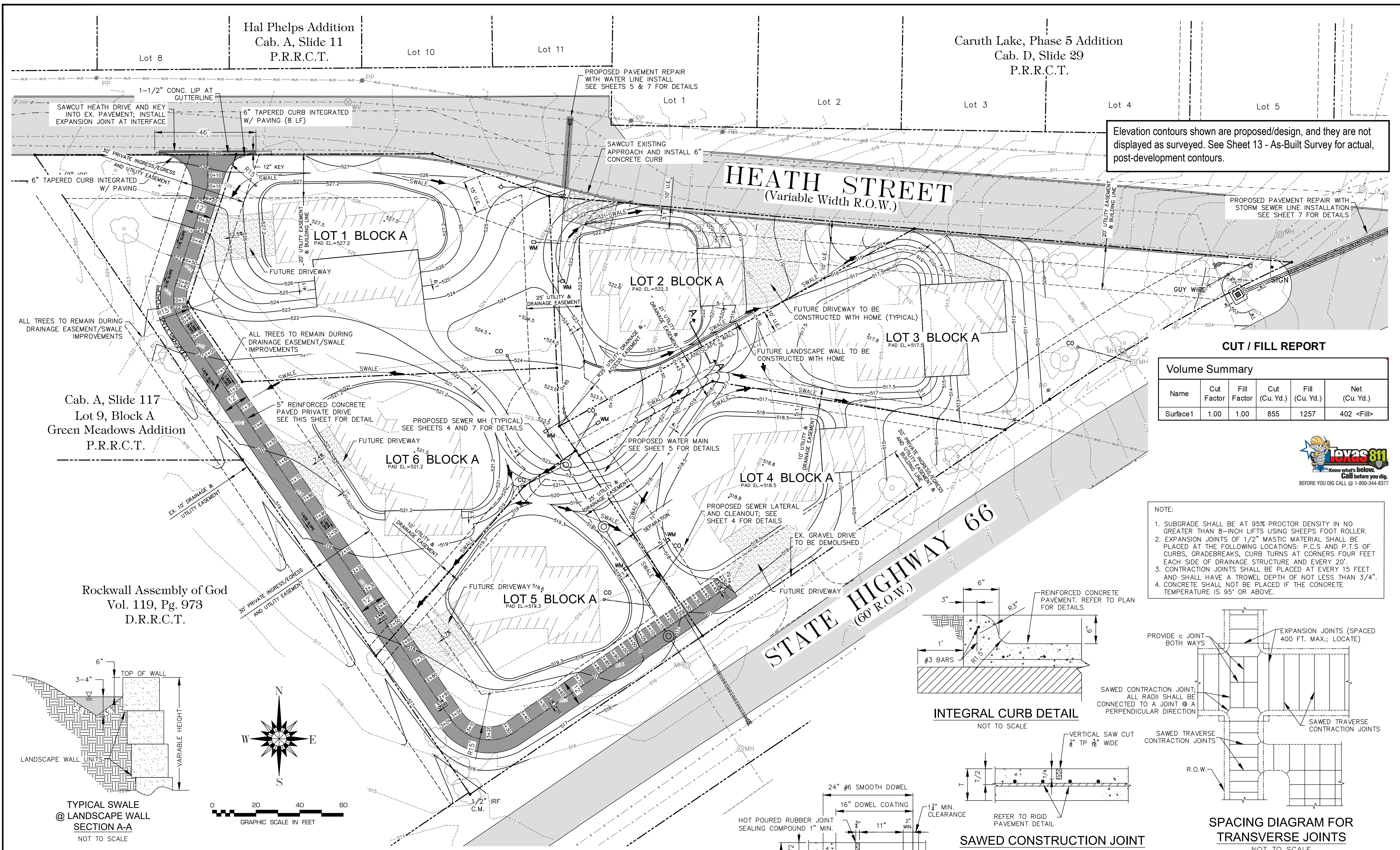
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Rockwall Solar Village
for R FIFTY GREEN HOMES, LLC
**DEMOLITION & EROSION CONTROL
PLAN w/ DETAILS**

PROJECT NO.
DEV003-13
DRAWING NO.
2 of 13

RECORD DRAWINGS



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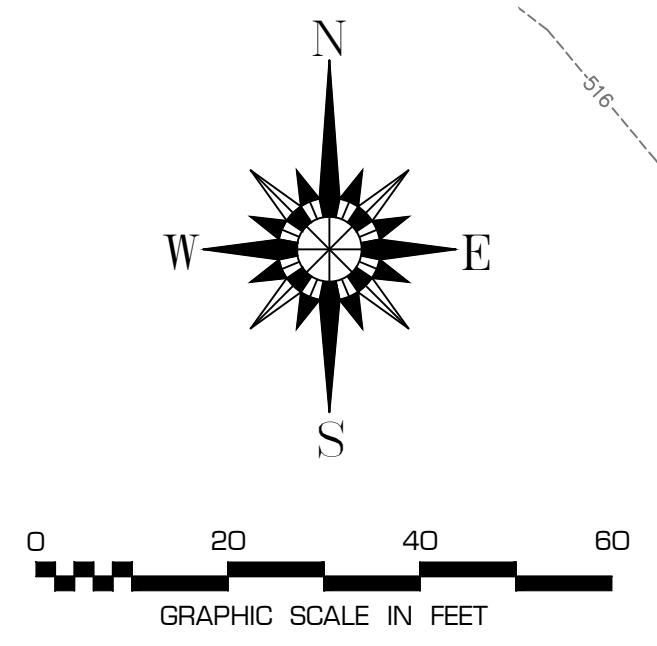
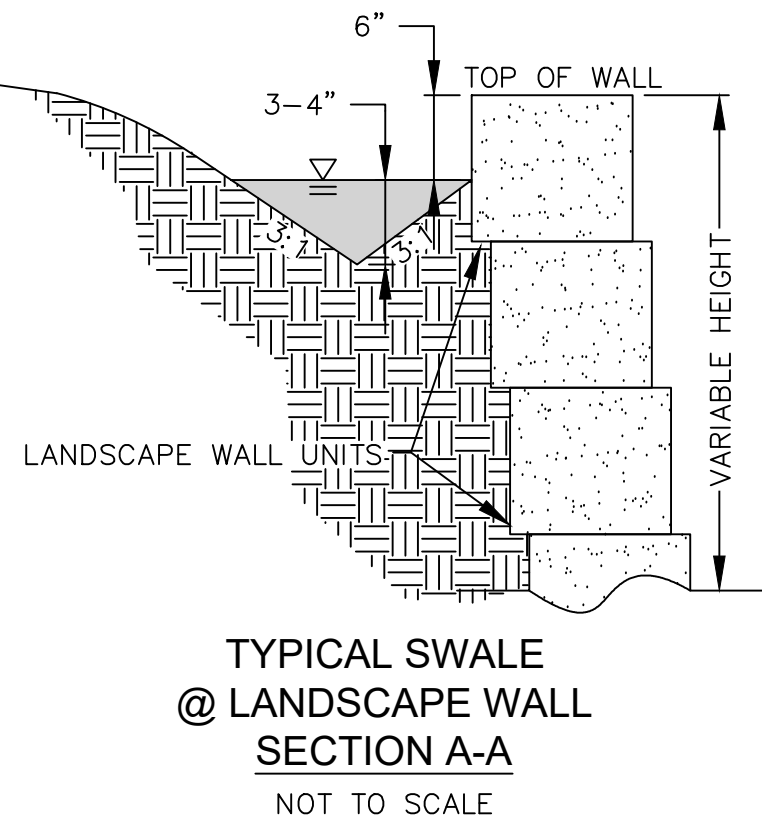
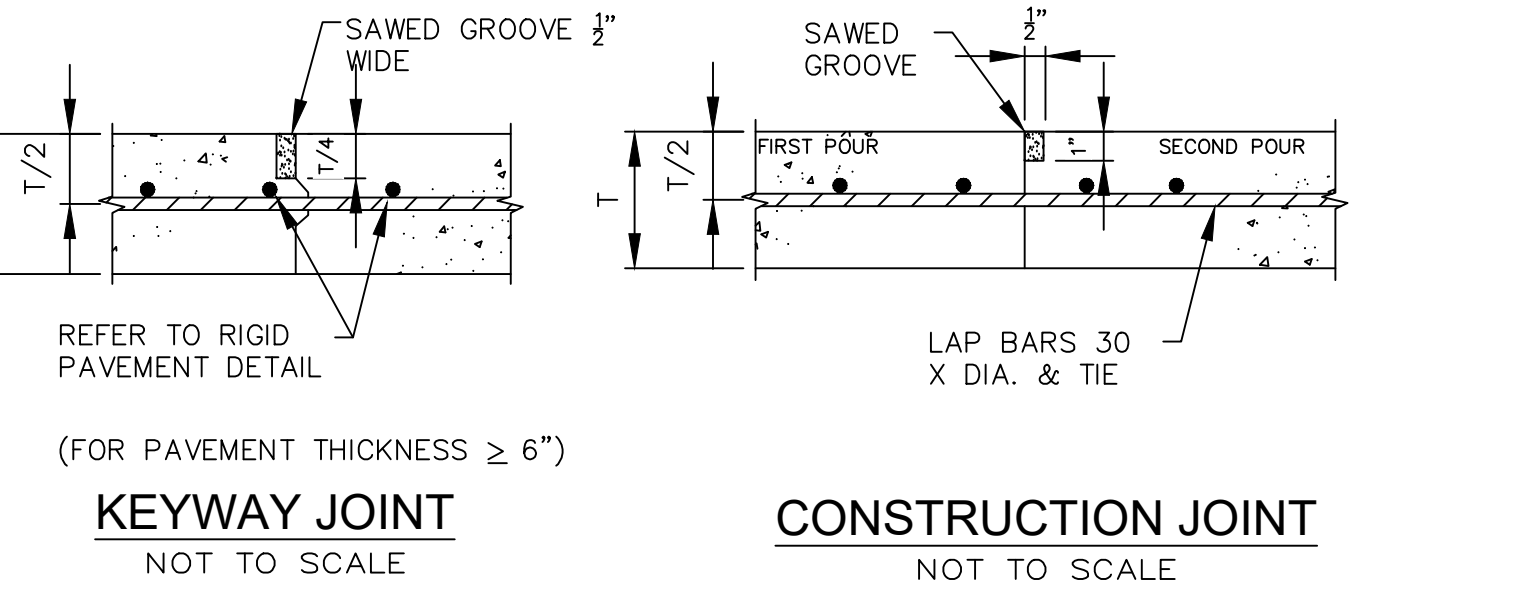
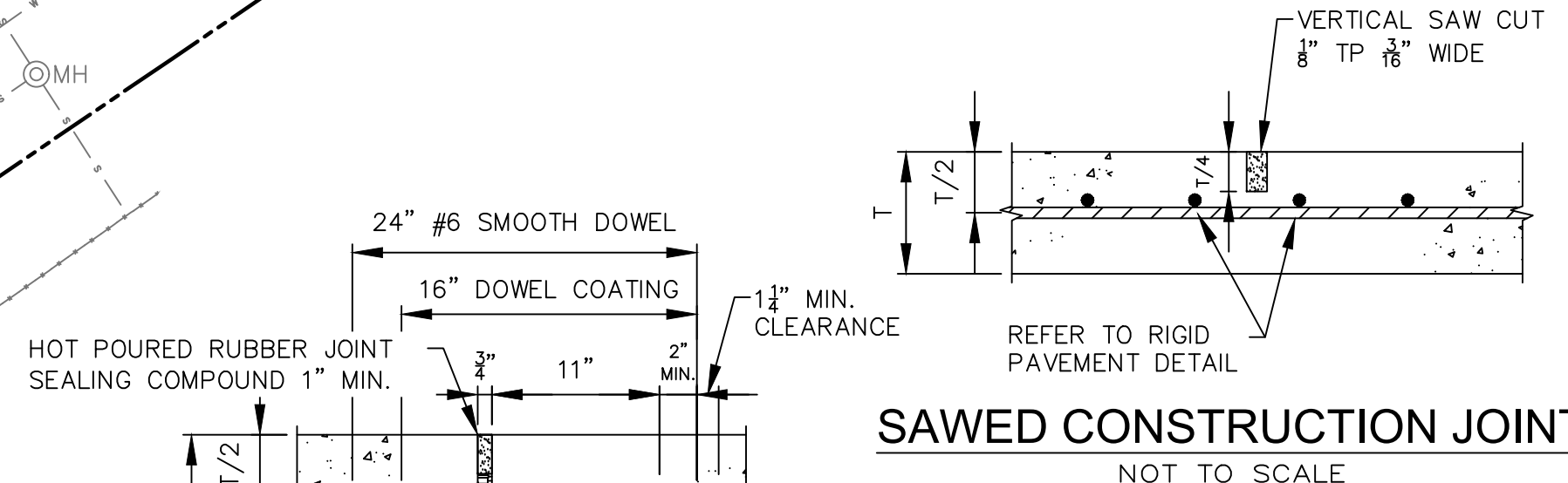
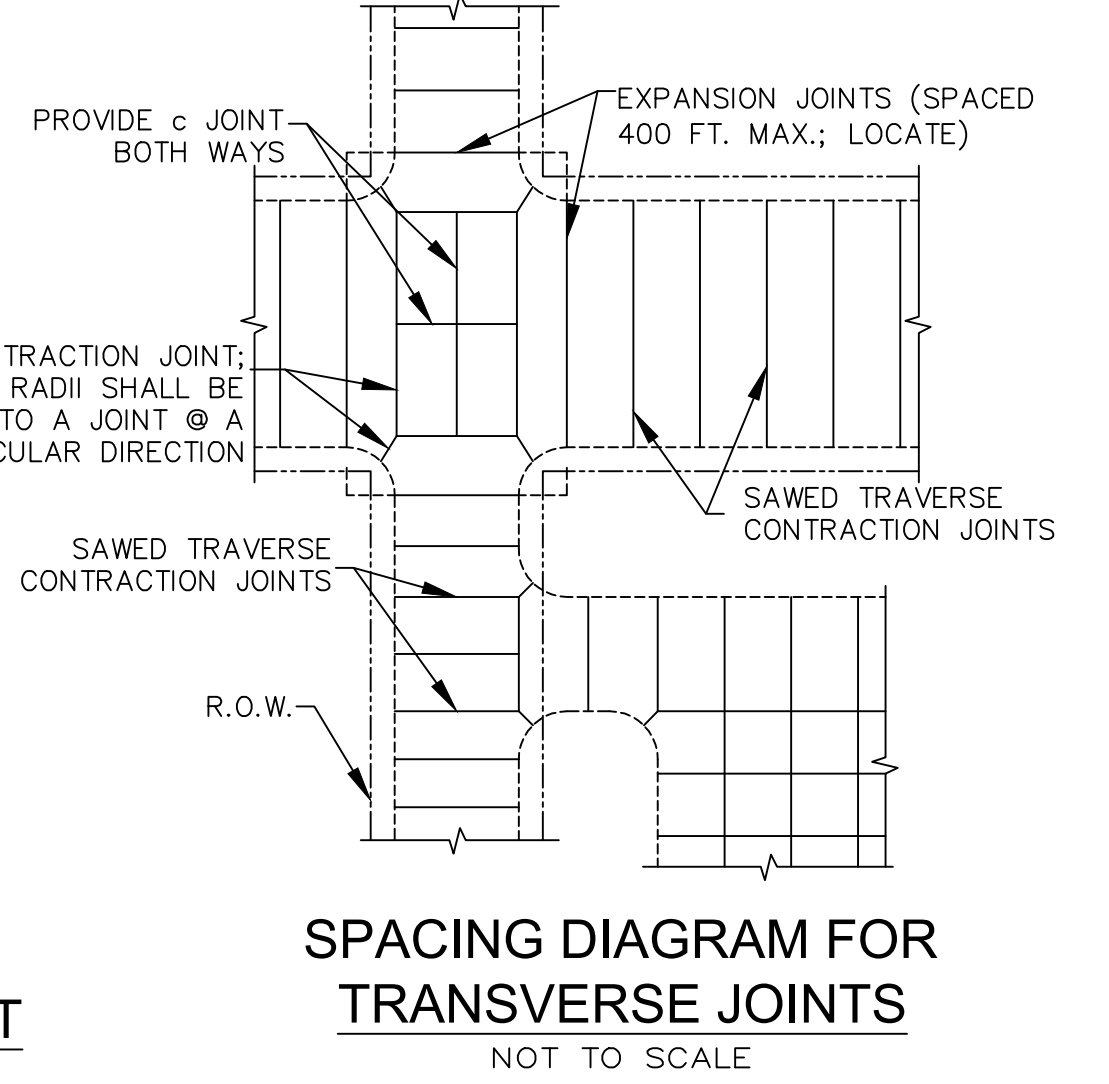
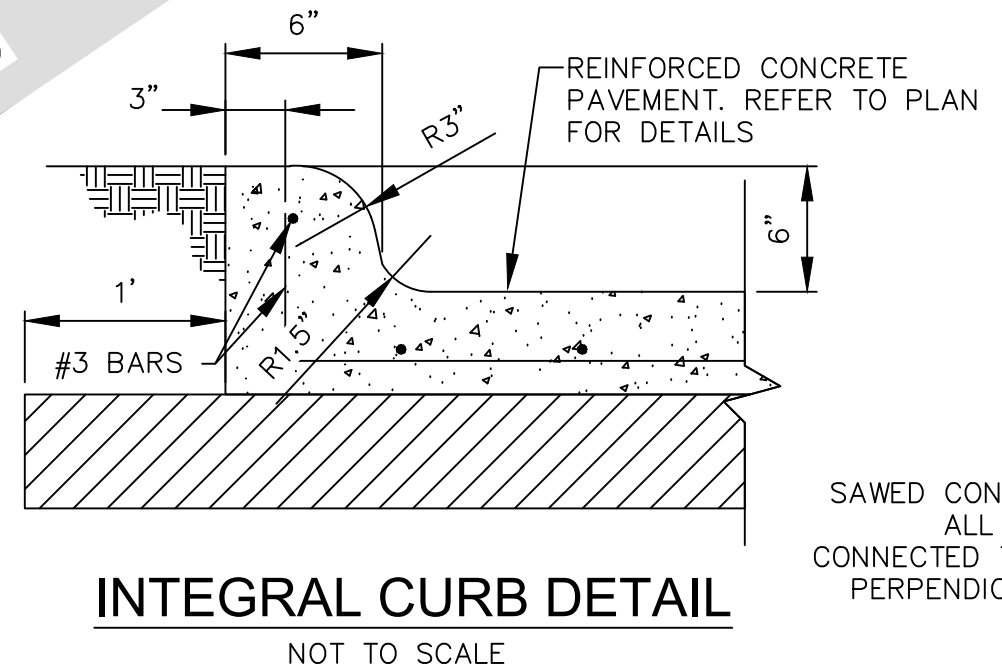
CUT / FILL REPORT

Volume Summary

Name	Cut Factor	Fill Factor	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu. Yd.)
Surface1	1.00	1.00	855	1257	402 <Fill>

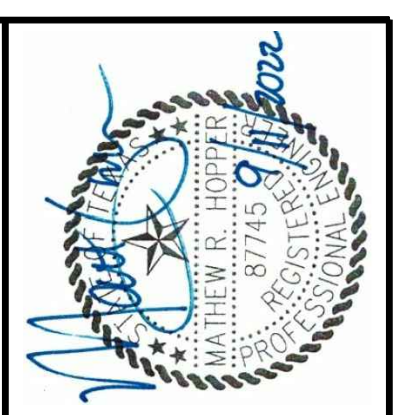
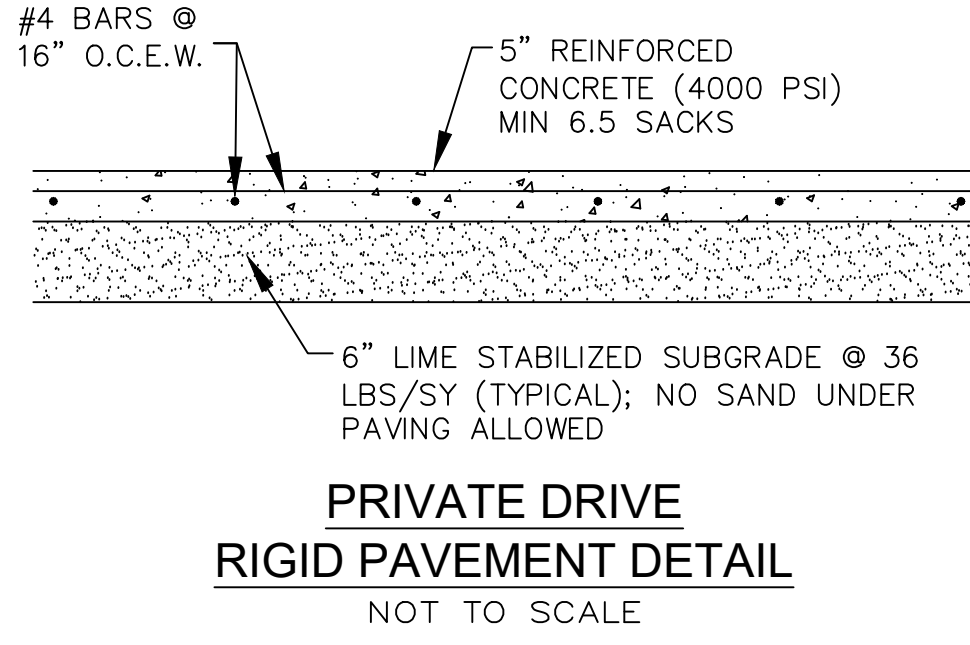


- NOTE:
- SUBGRADE SHALL BE AT 95% PROCTOR DENSITY IN NO GREATER THAN 8-INCH LIFTS USING SHEEPS FOOT ROLLER.
 - EXPANSION JOINTS OF 1/2" MASTIC MATERIAL SHALL BE PLACED AT THE FOLLOWING LOCATIONS: P.C.S AND P.T.S OF CURBS, GRADEBREAKS, CURB TURNS AT CORNERS FOUR FEET EACH SIDE OF DRAINAGE STRUCTURE AND EVERY 20'.
 - CONTRACTION JOINTS SHALL BE PLACED AT EVERY 15 FEET AND SHALL HAVE A TROWEL DEPTH OF NOT LESS THAN 3/4".
 - CONCRETE SHALL NOT BE PLACED IF THE CONCRETE TEMPERATURE IS 95' OR ABOVE.



LEGEND

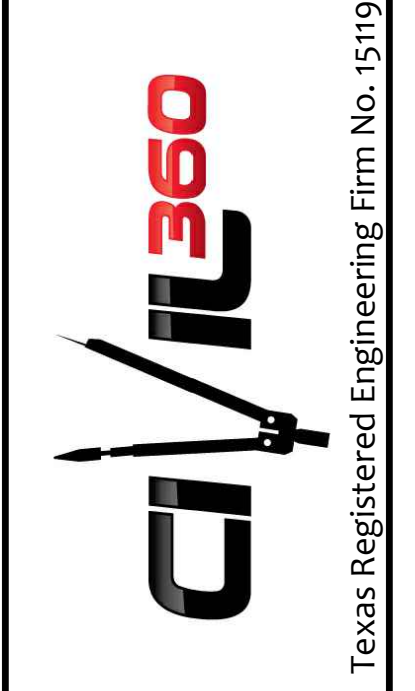
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- EXISTING TREE TO REMAIN



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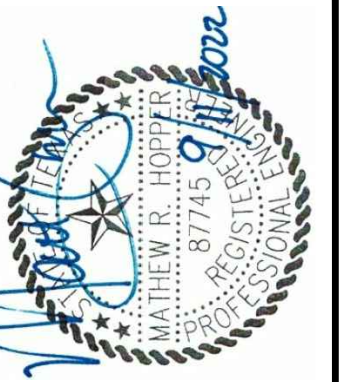


ROCKWALL SOLAR VILLAGE
for
R FIFTY GREEN HOMES, LLC
**GRADING & PAVEMENT PLAN
w/ DETAILS**

PROJECT NO.
DEV003-13

DRAWING NO.
3 of 13

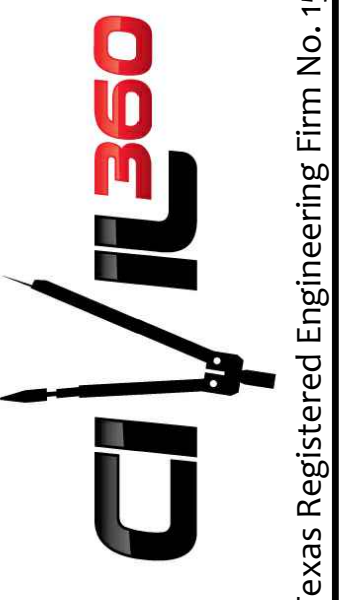
RECORD DRAWINGS



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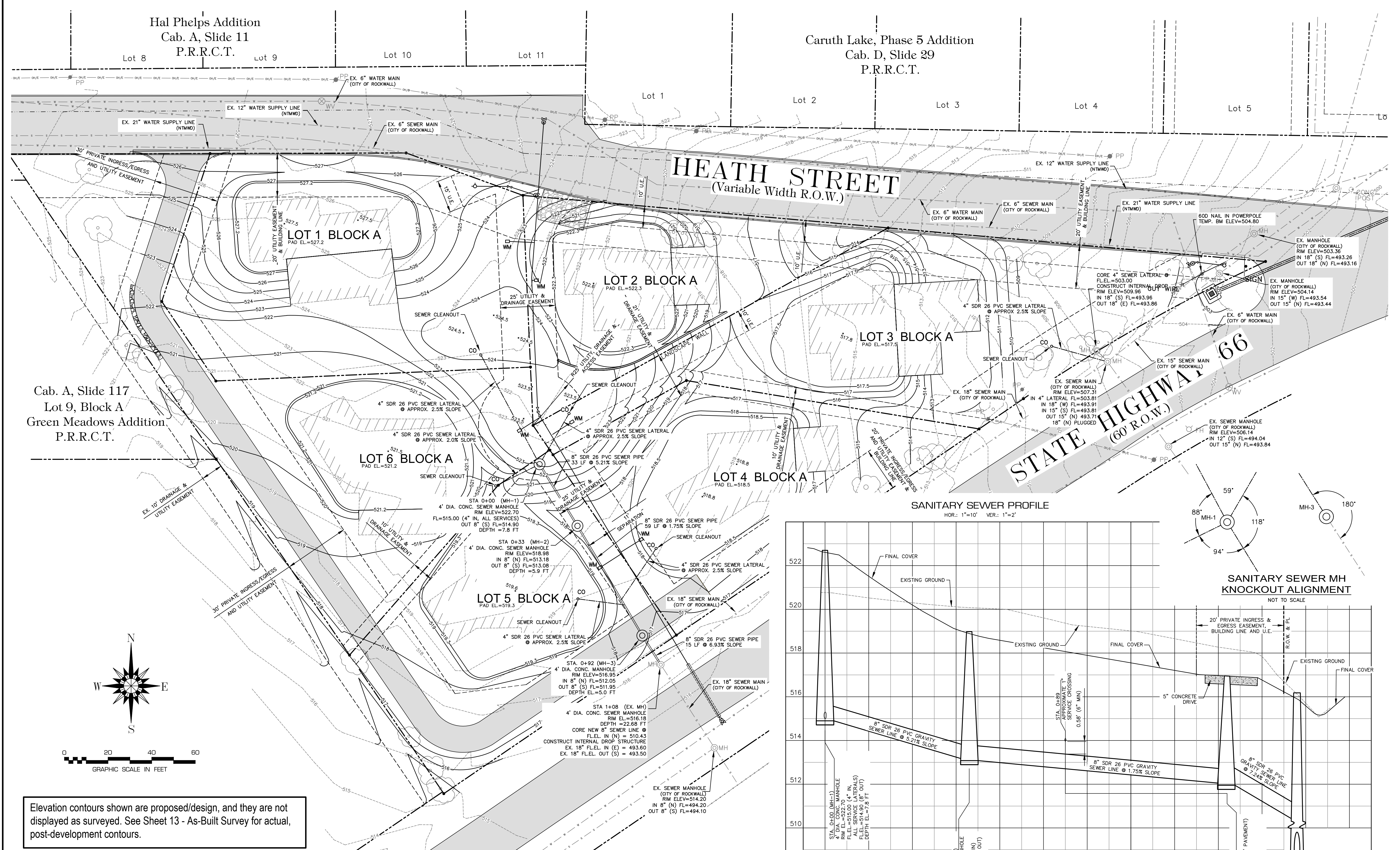


ROCKWALL SOLAR VILLAGE
 for
 R FIFTY GREEN HOMES, LLC
SANITARY SEWER PLAN & PROFILE

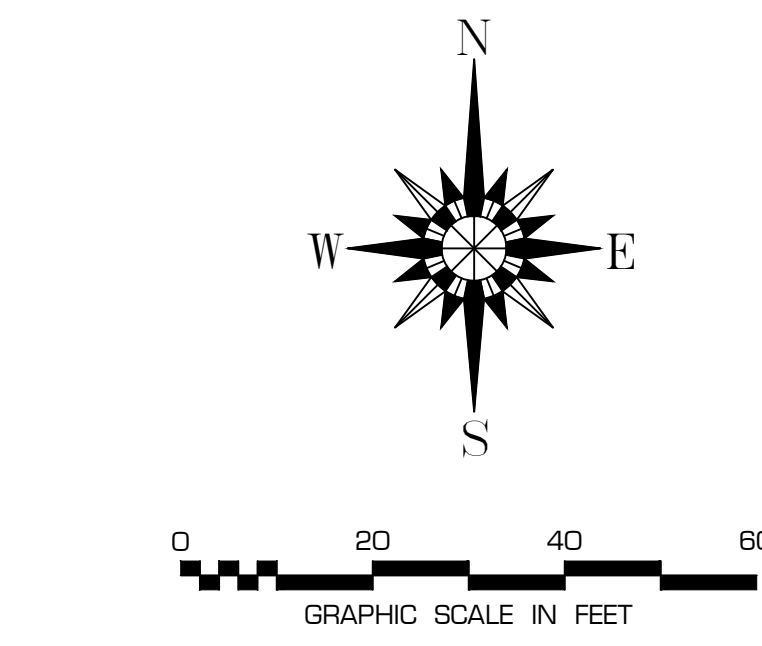
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DEV003-13

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4 of 13

RECORD DRAWINGS



Cab. A, Slide 117
 Lot 9, Block A
 Green Meadows Addition
 P.R.R.C.T.



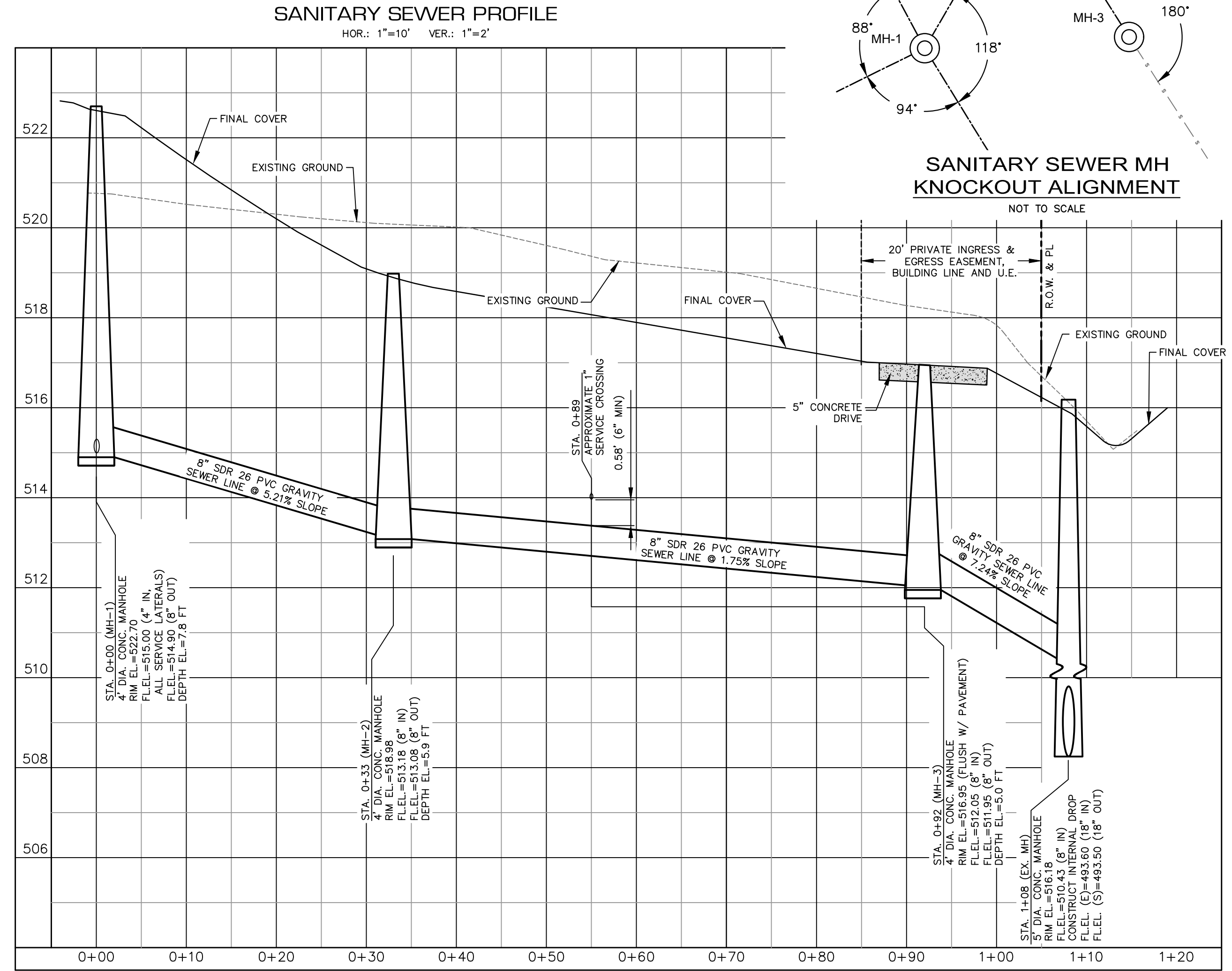
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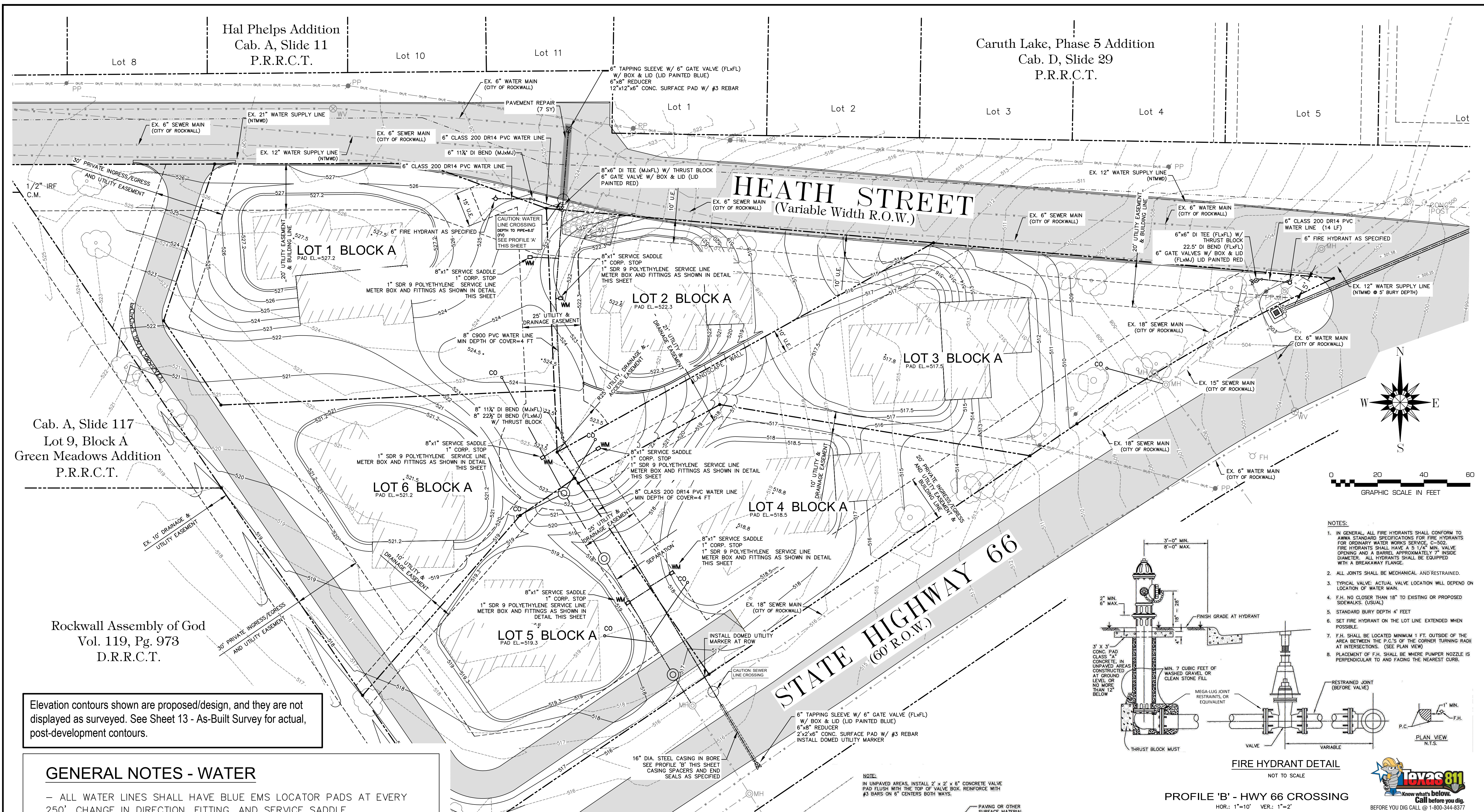
GENERAL NOTES - SEWER

- SANITARY SEWER LINES SHALL HAVE GREEN EMS LOCATOR PADS AT EVERY MANHOLE, CLEANOUT AND SERVICE
- SEE SHEET 8 FOR MANHOLE DETAILS; ALL LIDS SHALL BE BOLT-DOWN AND GASKETED
- NO TREES SHALL BE PLANTED WITHIN 5' OF ANY PUBLIC UTILITIES
- RAVON EPOXY COATING, OR EQUAL, SHALL BE INSTALLED IN ALL NEW MANHOLES AND IN EXISTING MANHOLES BEING MODIFIED.



SANITARY SEWER PROFILE
 HOR: 1"=10' VER: 1"=2'

SANITARY SEWER MH KNOCKOUT ALIGNMENT
 NOT TO SCALE



Hal Phelps Addition
Cab. A, Slide 11
P.R.R.C.T.

Caruth Lake, Phase 5 Addition
Cab. D, Slide 29
P.R.R.C.T.

Cab. A, Slide 117
Lot 9, Block A
Green Meadows Addition
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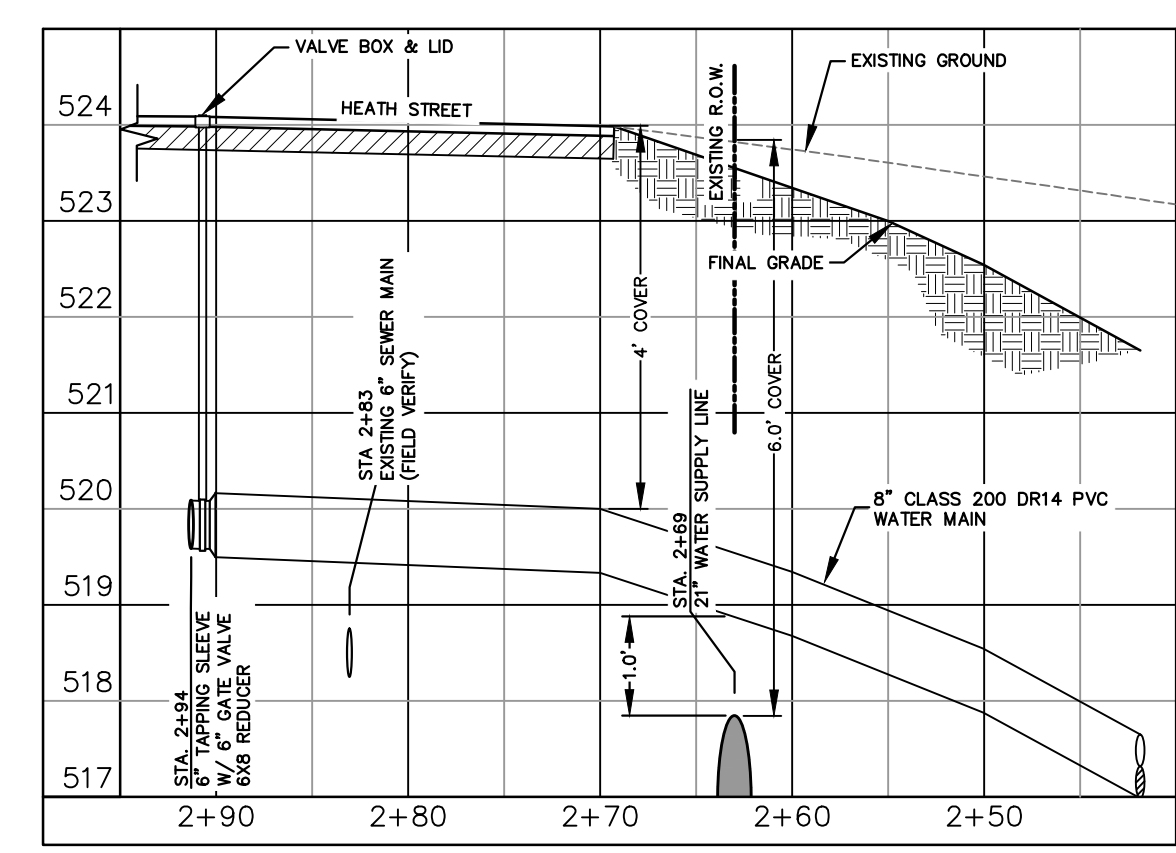
GENERAL NOTES - WATER

- ALL WATER LINES SHALL HAVE BLUE EMS LOCATOR PADS AT EVERY 250', CHANGE IN DIRECTION, FITTING, AND SERVICE SADDLE
- NO TREES SHALL BE PLANTED WITHIN 5' OF ANY PUBLIC UTILITIES
- VALVE EXTENSIONS SHALL BE STAINLESS STEEL
- WATER LINE SHALL BE CLASS 200, DR 14

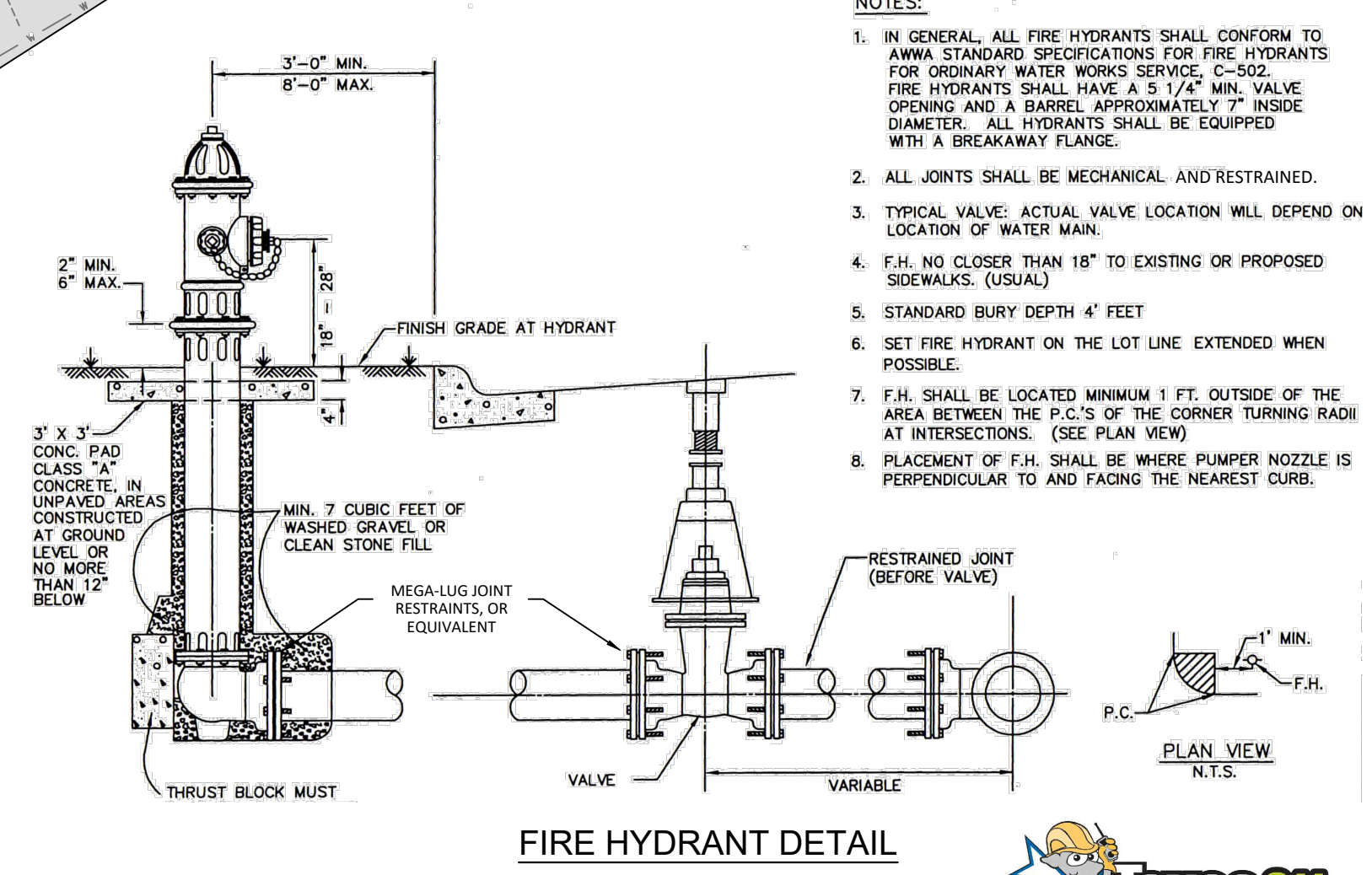
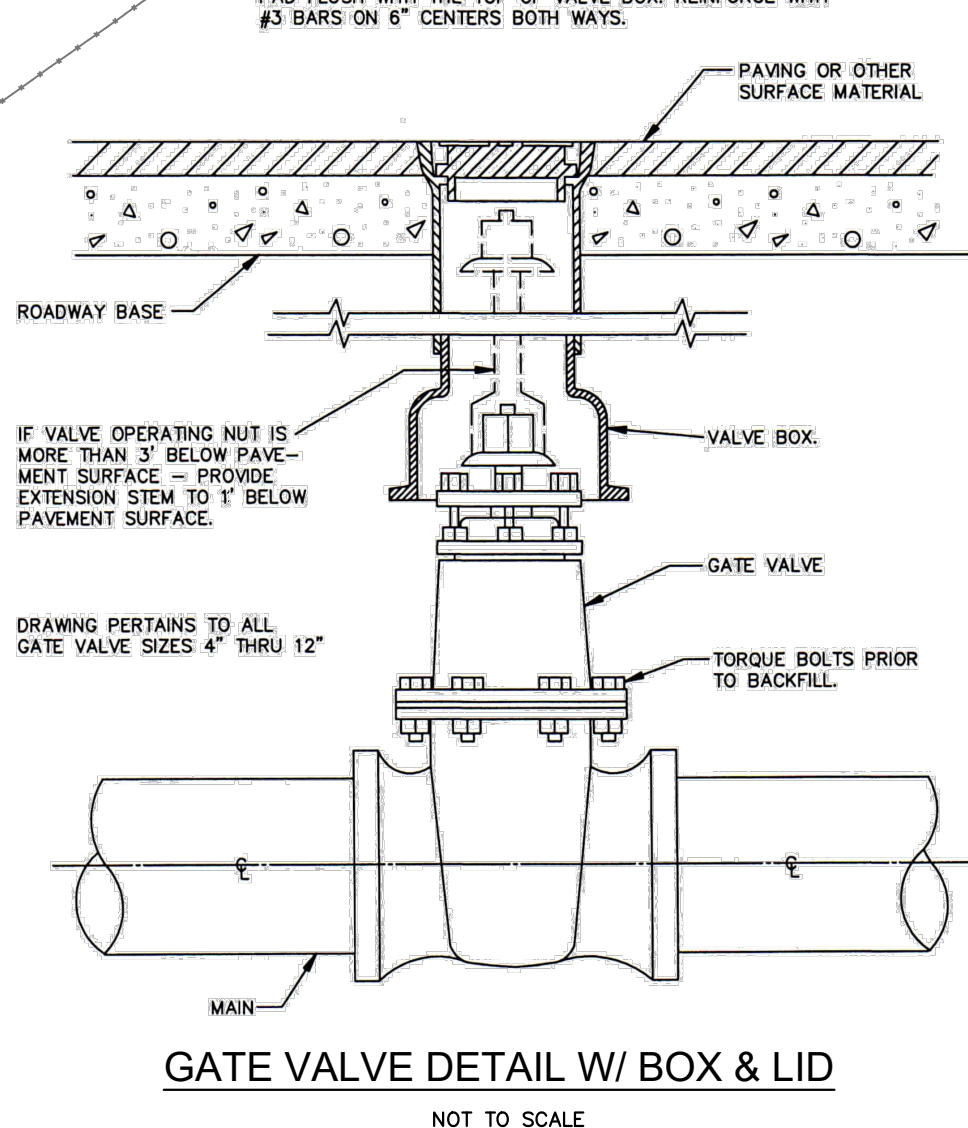
LEGEND

PP	POWER POLE & OVERHEAD LINE	---	DRAINAGE SWALE
●	PROPERTY LINE & PROPERTY CORNER	- - - -	EXISTING SEWER MAIN
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---	AS-BUILT CONTOUR LINE & ELEVATION	---	SILT FENCE
○	EXISTING FIRE HYDRANT, WATER VALVE AND SEWER MANHOLE	○	EXISTING TREE TO REMAIN

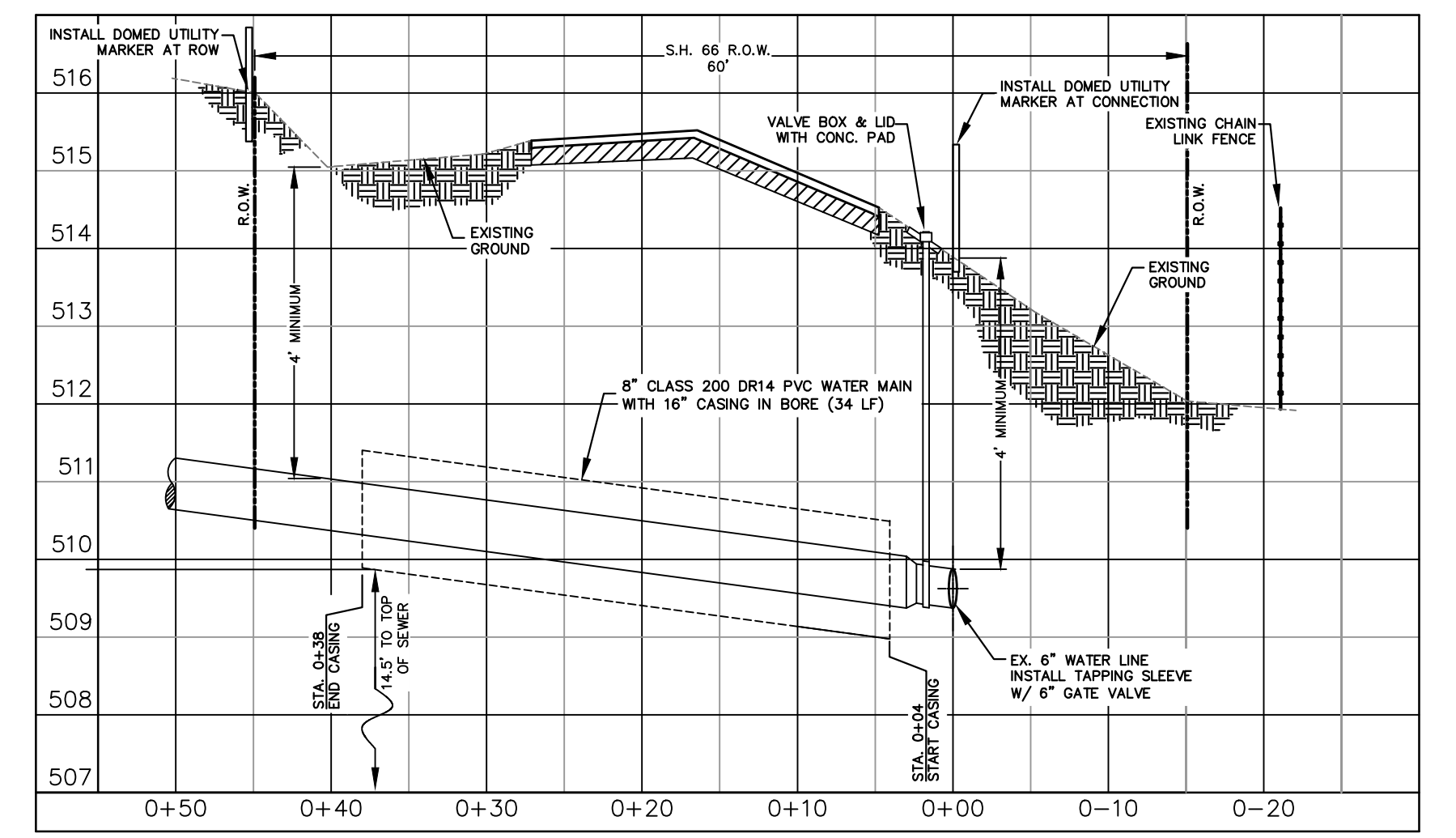
PROFILE 'A' - NTMWD 21" W.L. CROSSING
HOR.: 1"=10' VER.: 1"=2'



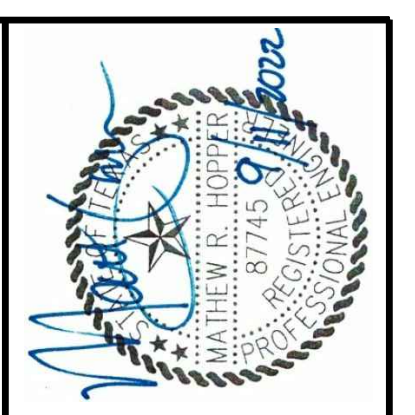
NOTE:
IN UNPAVED AREAS, INSTALL 2' x 2' x 6" CONCRETE VALVE PAD FLUSH WITH THE TOP OF VALVE BOX. REINFORCE WITH #3 BARS ON 6" CENTERS BOTH WAYS.



PROFILE 'B' - HWY 66 CROSSING
HOR.: 1"=10' VER.: 1"=2'



- NOTES:**
- IN GENERAL, ALL FIRE HYDRANTS SHALL CONFORM TO AWWA STANDARD SPECIFICATIONS FOR FIRE HYDRANTS FOR ORDINARY WATER WORKS SERVICE, C-502. FIRE HYDRANTS SHALL HAVE A 5 1/4" MIN. VALVE OPENING AND A BARREL APPROXIMATELY 7" INSIDE DIAMETER. ALL HYDRANTS SHALL BE EQUIPPED WITH A BREAKAWAY FLANGE.
 - ALL JOINTS SHALL BE MECHANICAL AND RESTRAINED.
 - TYPICAL VALVE: ACTUAL VALVE LOCATION WILL DEPEND ON LOCATION OF WATER MAIN.
 - F.H. NO CLOSER THAN 18" TO EXISTING OR PROPOSED SIDEWALKS: (USUAL).
 - STANDARD BURY DEPTH 4' FEET.
 - SET FIRE HYDRANT ON THE LOT LINE EXTENDED WHEN POSSIBLE.
 - F.H. SHALL BE LOCATED MINIMUM 1 FT. OUTSIDE OF THE AREA BETWEEN THE P.C.'S OF THE CORNER TURNING RADIUS AT INTERSECTIONS. (SEE PLAN VIEW).
 - PLACEMENT OF F.H. SHALL BE WHERE PUMPER NOZZLE IS PERPENDICULAR TO AND FACING THE NEAREST CURB.

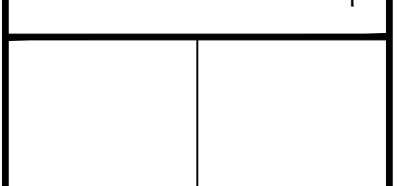


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ROCKWALL SOLAR VILLAGE
for
R FIFTY GREEN HOMES, LLC

WATER LAYOUT & DETAILS

PROJECT NO.
DEV003-13

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5 of 13

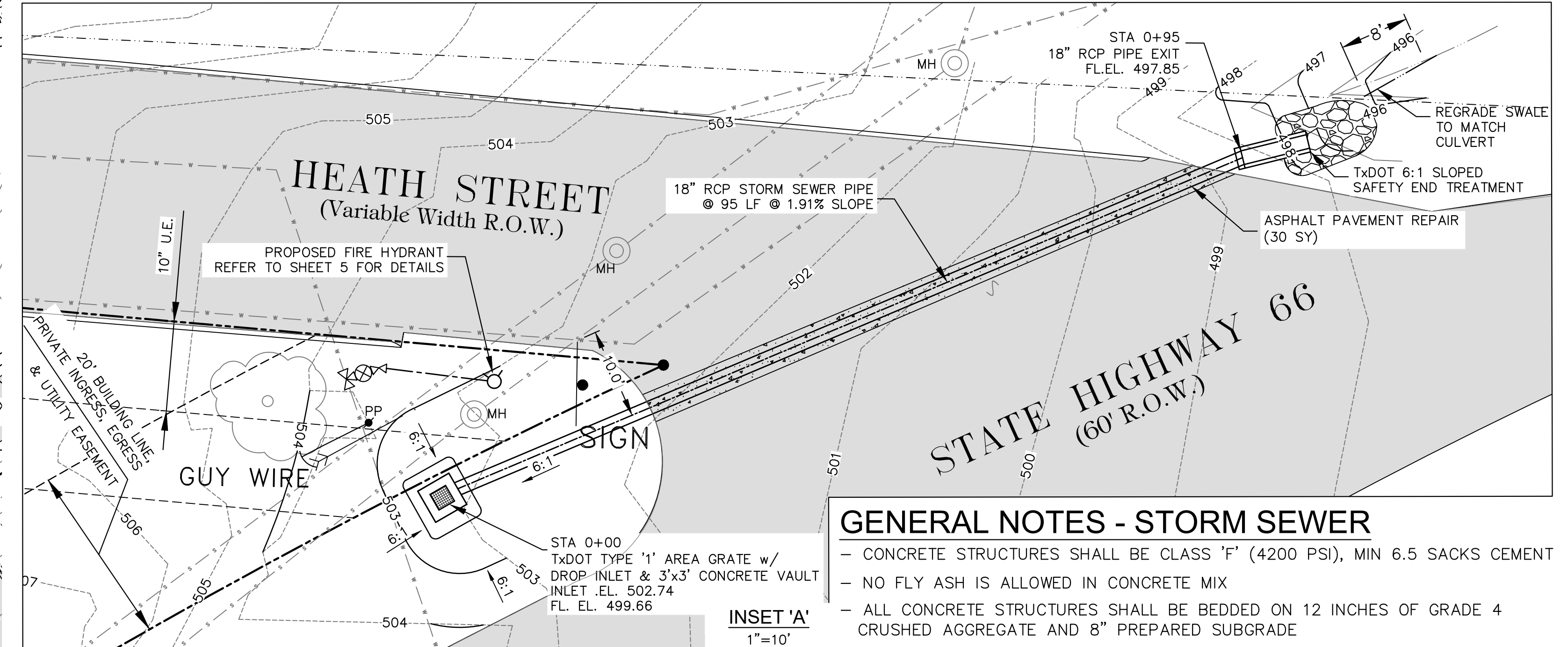
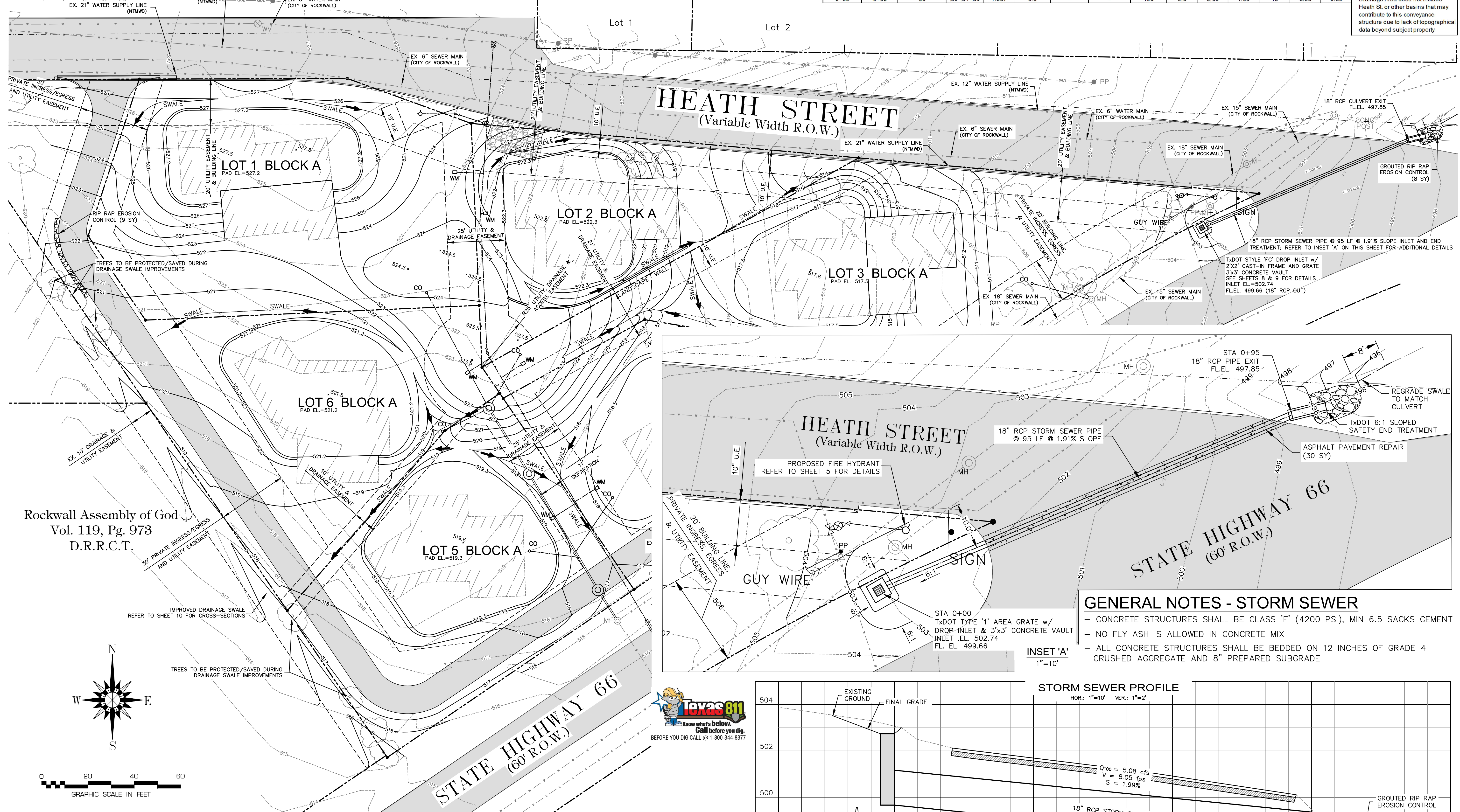
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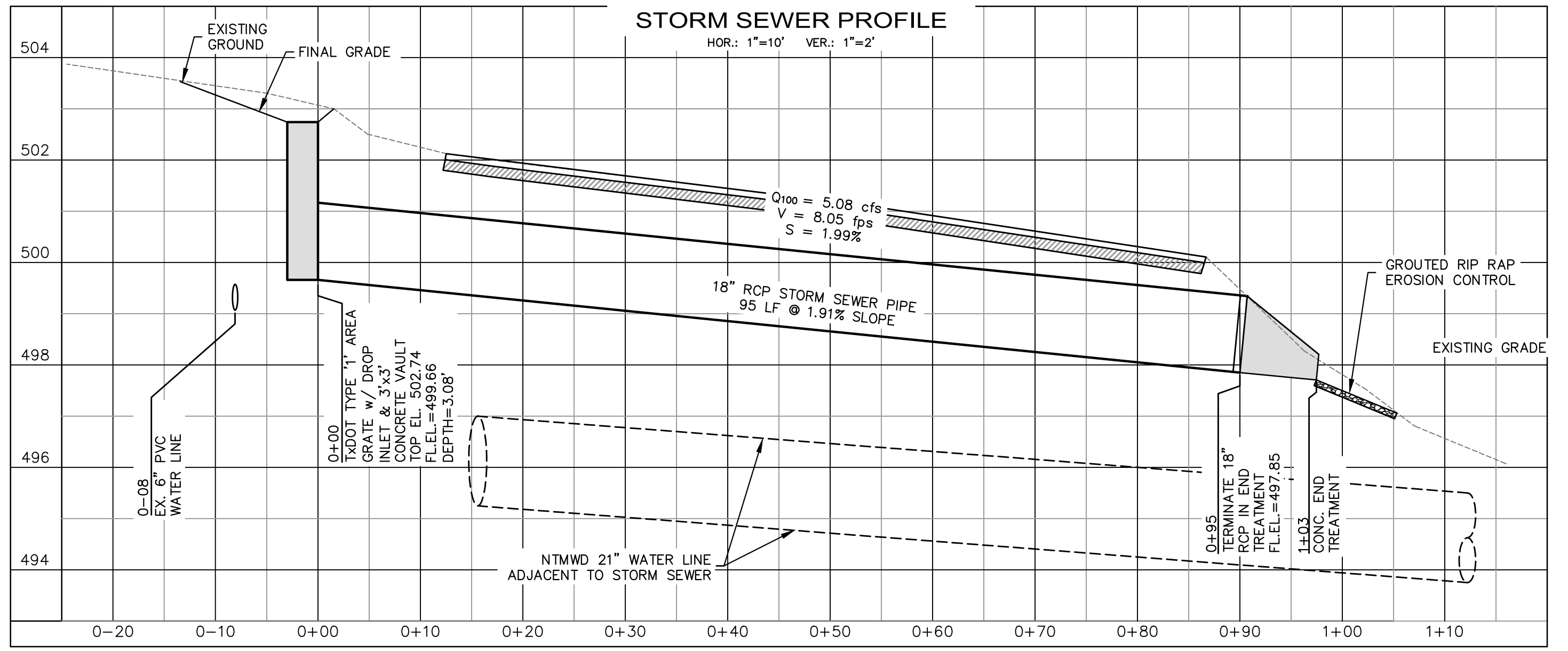
STORM SEWER CALCULATIONS

RUNOFF COLLECTION POINT Inlet or MH		Distance Between Collection Points (feet)	INCREMENTAL DRAINAGE AREA			Accumulated CA	Design Storm Frequency (years)	Intensity (inches/hr)	Runoff "Q" (cfs)	Slope (%)	Storm Sewer Pipe Size (inches)	Velocity (ft/sec)	Flow Time in Pipe (minutes)	Remarks
Upstream STA	Downstream m STA		Area No.	Drainage Area (acres)	Runoff Coefficient "C"									
0+00	0+99	99	B3+B4+B5	1.037	0.5	-	100	9.8	5.08	1.99	18	8.05	0.20	Drainage Area does not include Heath St or other basins that may contribute to this conveyance structure due to lack of topographical data beyond subject property



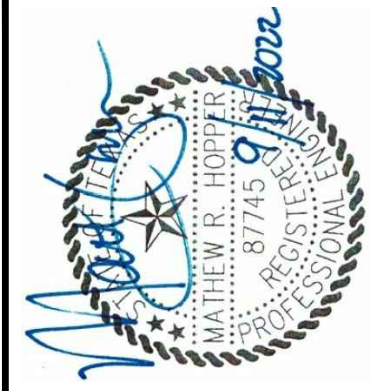
GENERAL NOTES - STORM SEWER

- CONCRETE STRUCTURES SHALL BE CLASS 'F' (4200 PSI), MIN 6.5 SACKS CEMENT
- NO FLY ASH IS ALLOWED IN CONCRETE MIX
- ALL CONCRETE STRUCTURES SHALL BE BEDDED ON 12 INCHES OF GRADE 4 CRUSHED AGGREGATE AND 8" PREPARED SUBGRADE



LEGEND

PP	POWER POLE & OVERHEAD LINE	---	DRAINAGE SWALE
---	PROPERTY LINE & PROPERTY CORNER	---	EXISTING SEWER MAIN
---	EASEMENT AND/OR BUILDING LINE	---	EXISTING WATER MAIN
---	AS-BUILT CONTOUR LINE & ELEVATION	---	SILT FENCE
○ FH	EXISTING FIRE HYDRANT	○ WV	EXISTING WATER VALVE
○ MH	EXISTING WATER MANHOLE	○	EXISTING TREE TO REMAIN



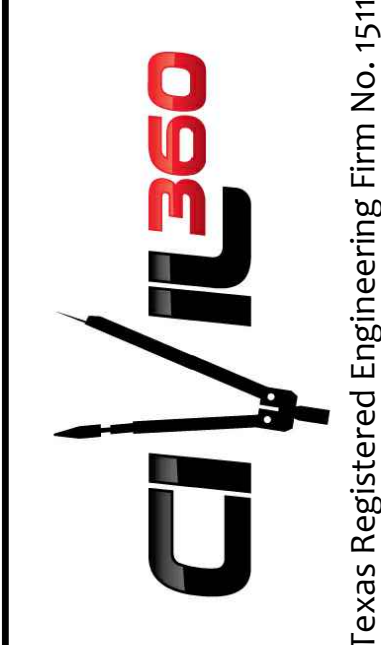
DATE: September, 2022
DESIGNED BY: MRH
DRAWN BY: MRH
CHECKED BY: MRH

REVISION

NO. DATE BY

TO THE BEST OF OUR KNOWLEDGE, CIVIL 360, PLLC HEREBY STATES THAT THIS PLAN IS AS-BUILT. THE INFORMATION PROVIDED IS BASED ON SURVEYING COORDINATED BY CIVIL 360 AND CONDUCTED ON 4/10/2017.

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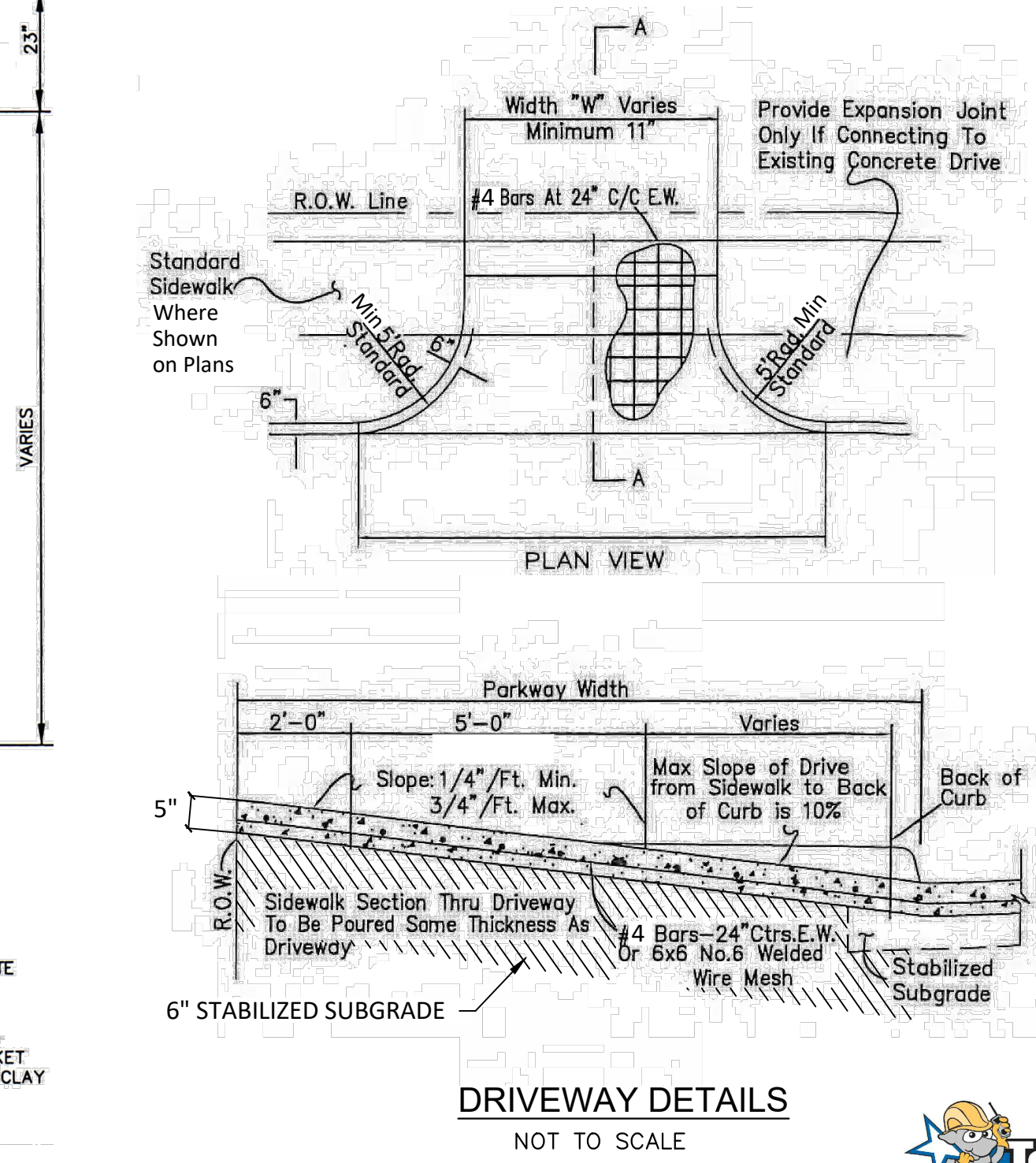
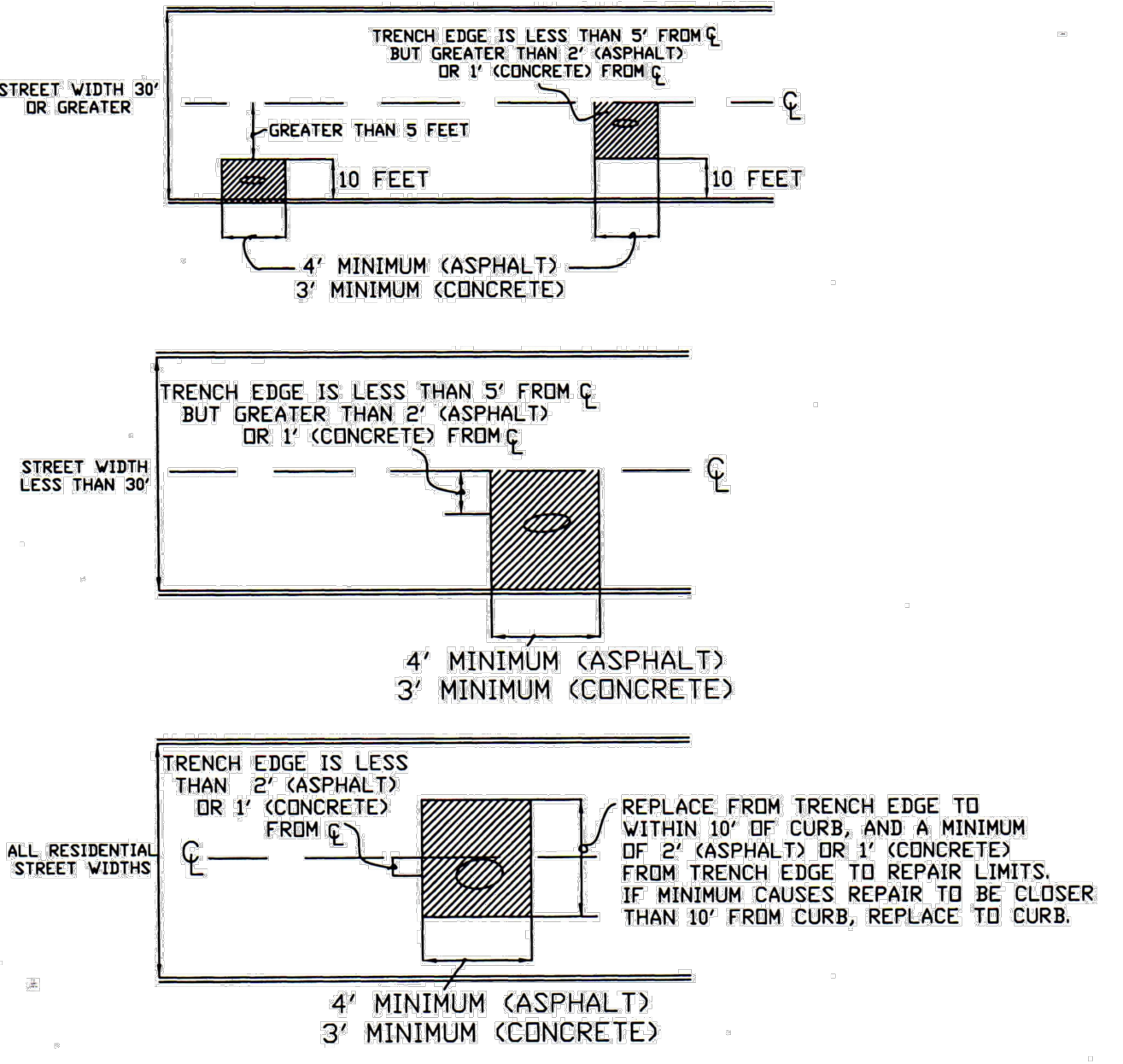
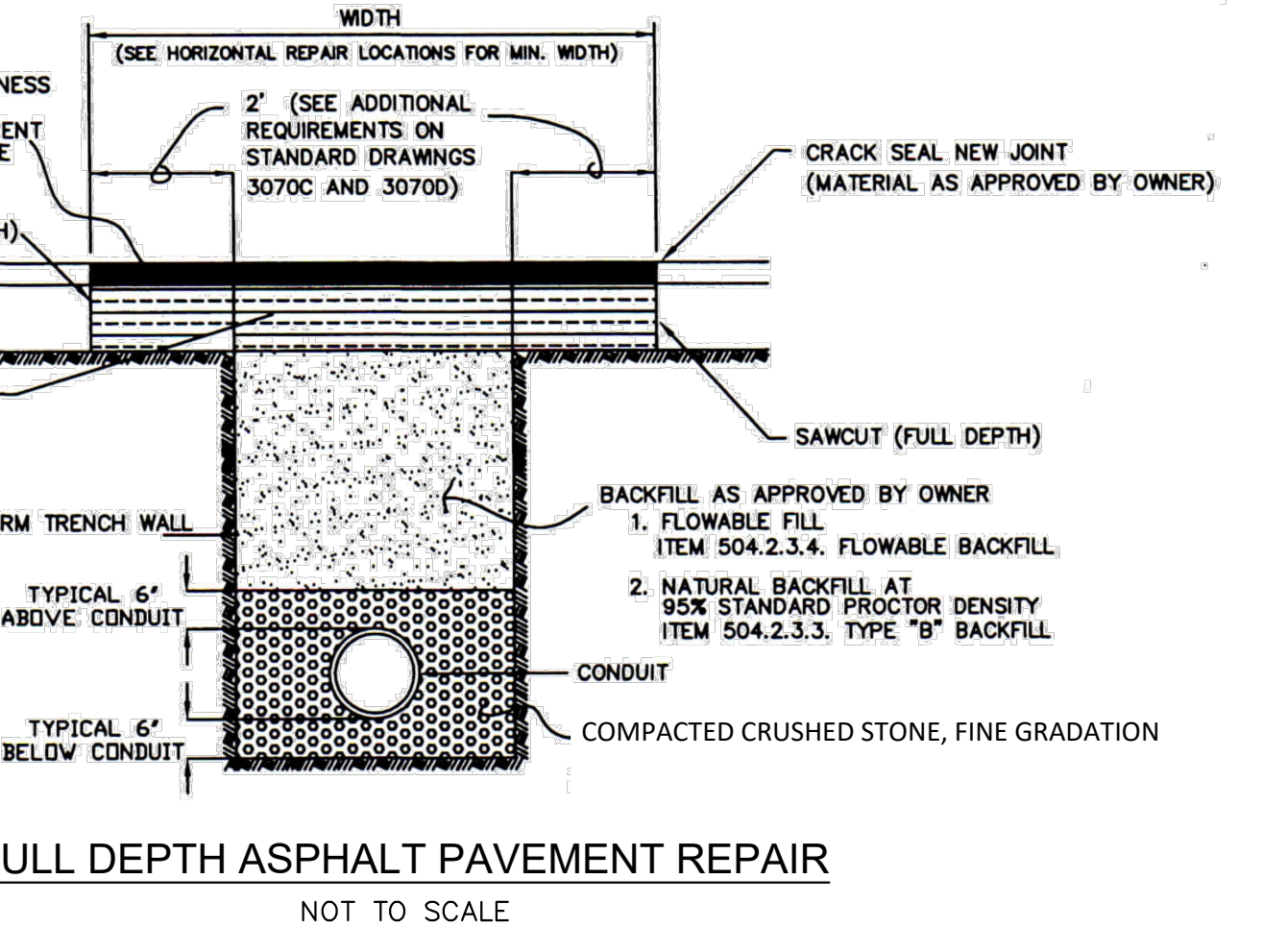
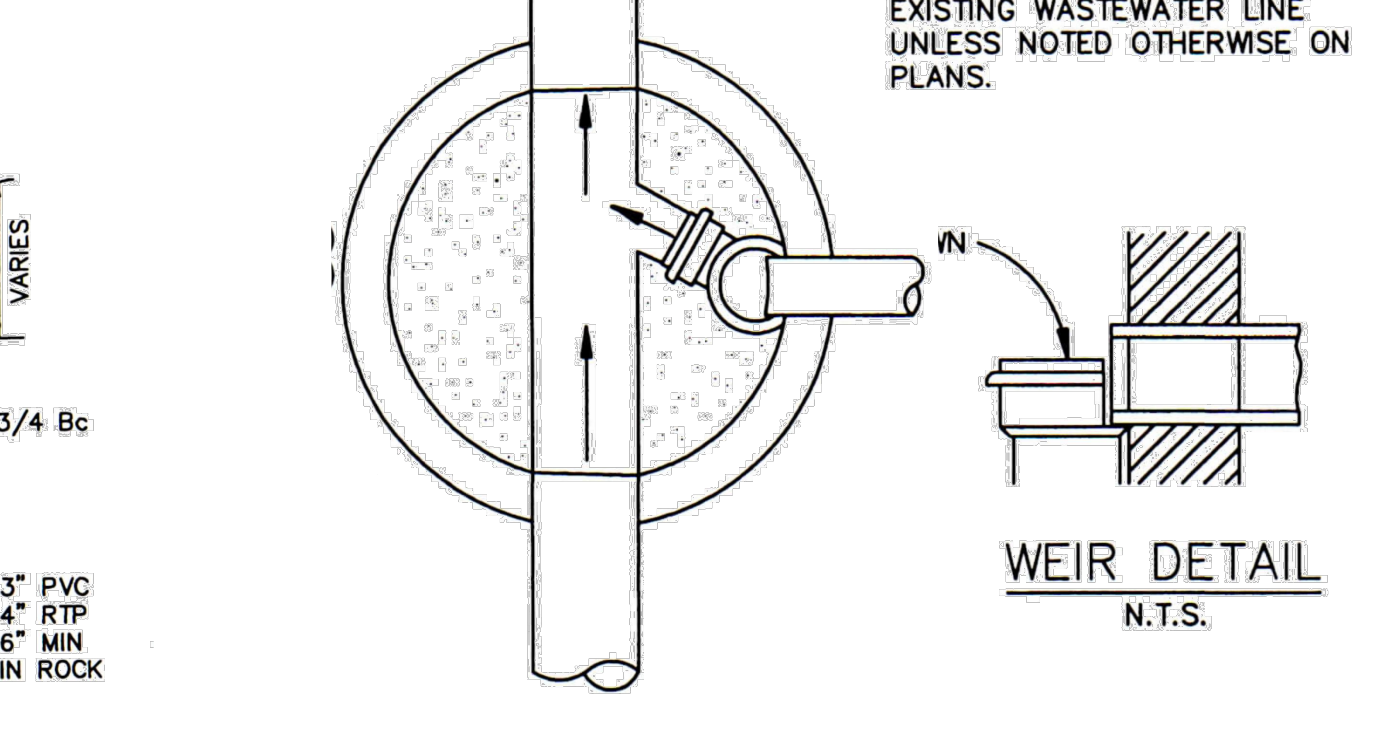
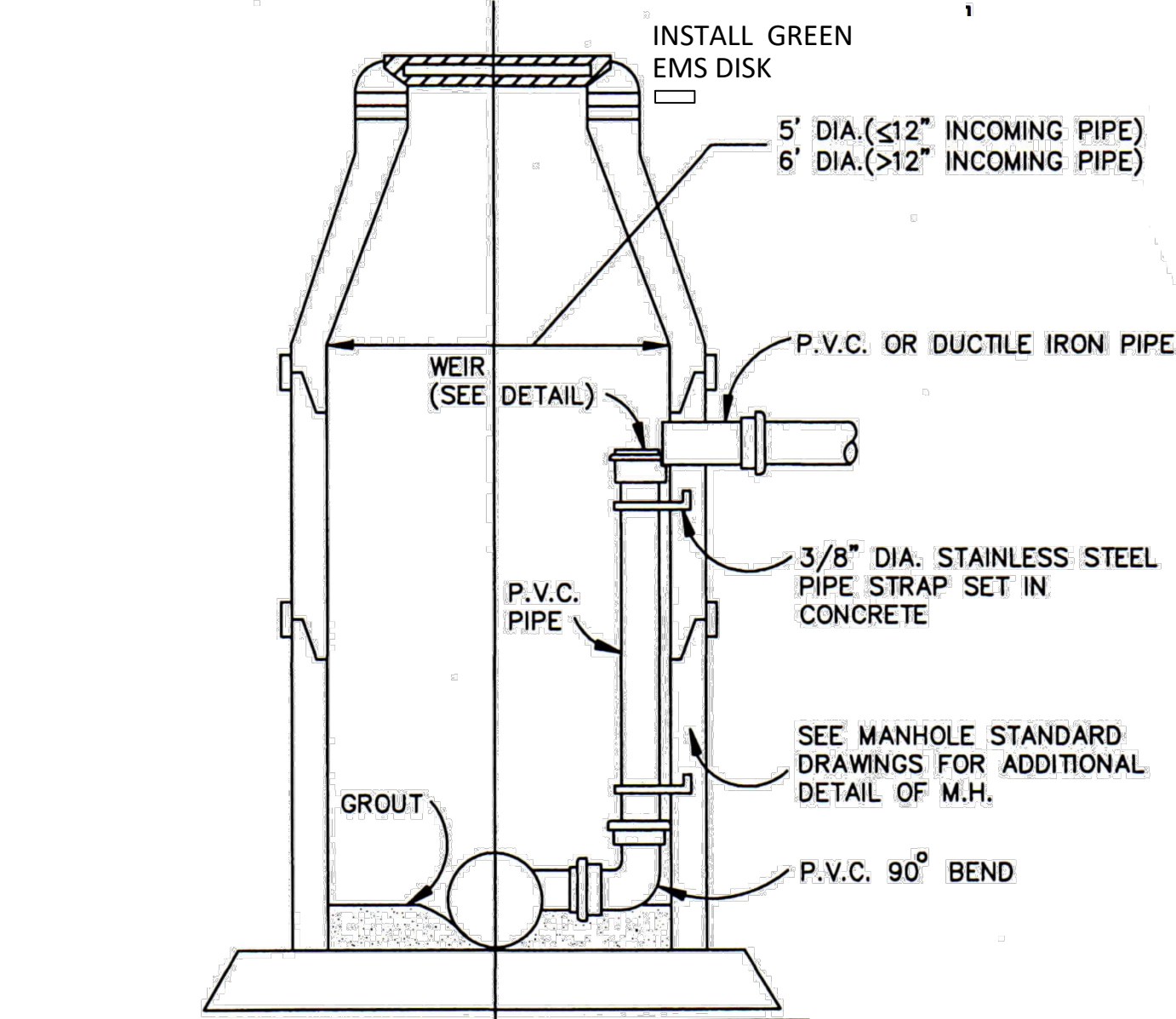
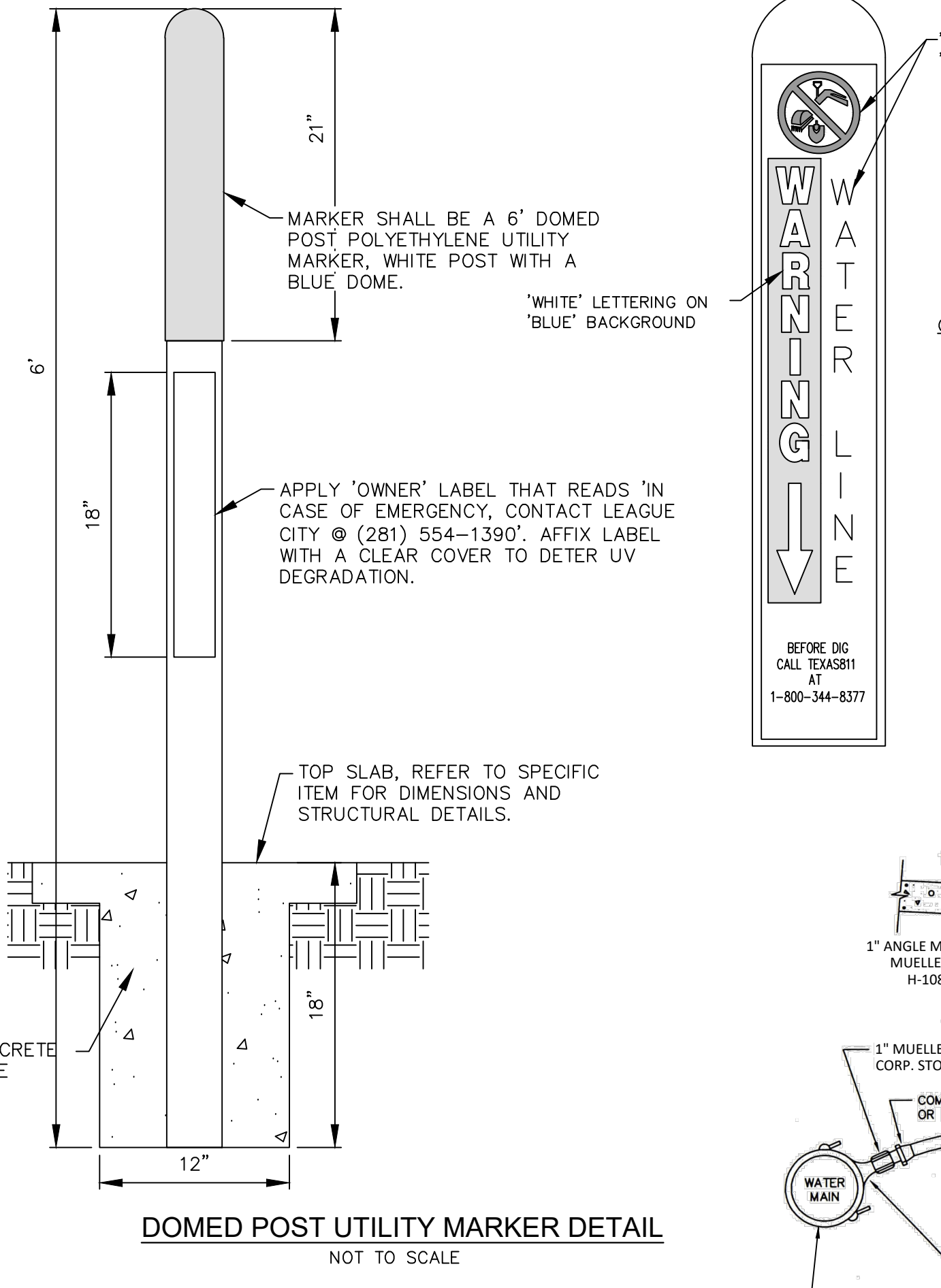
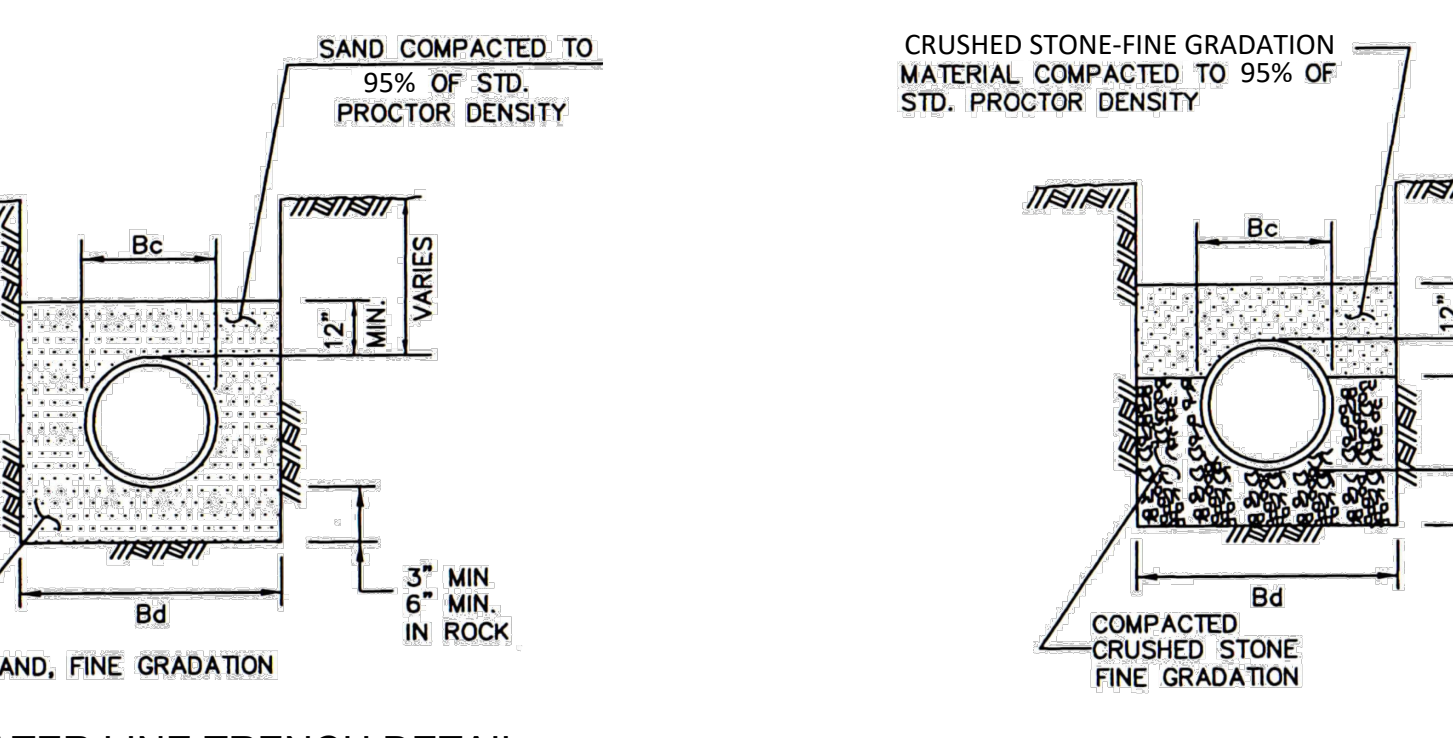
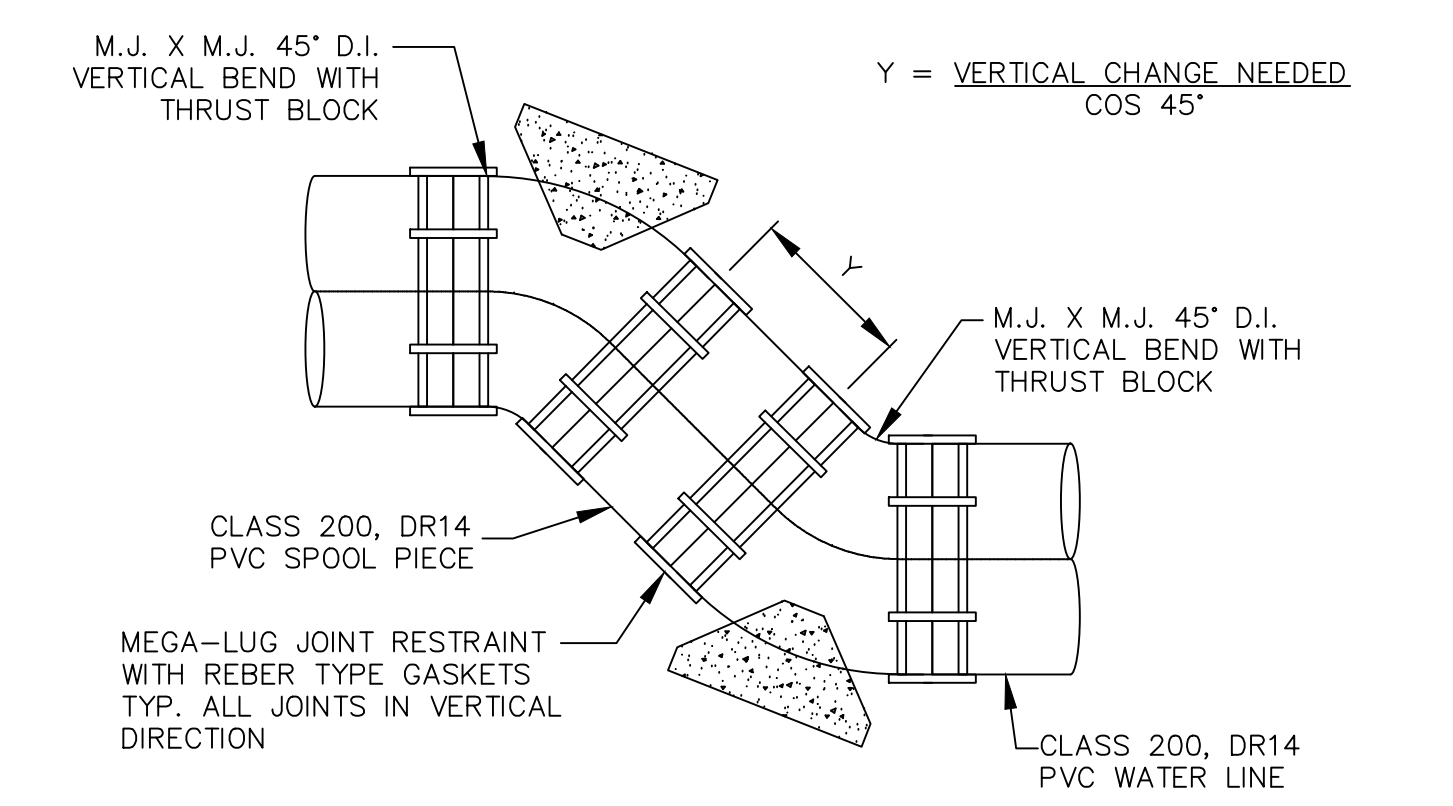
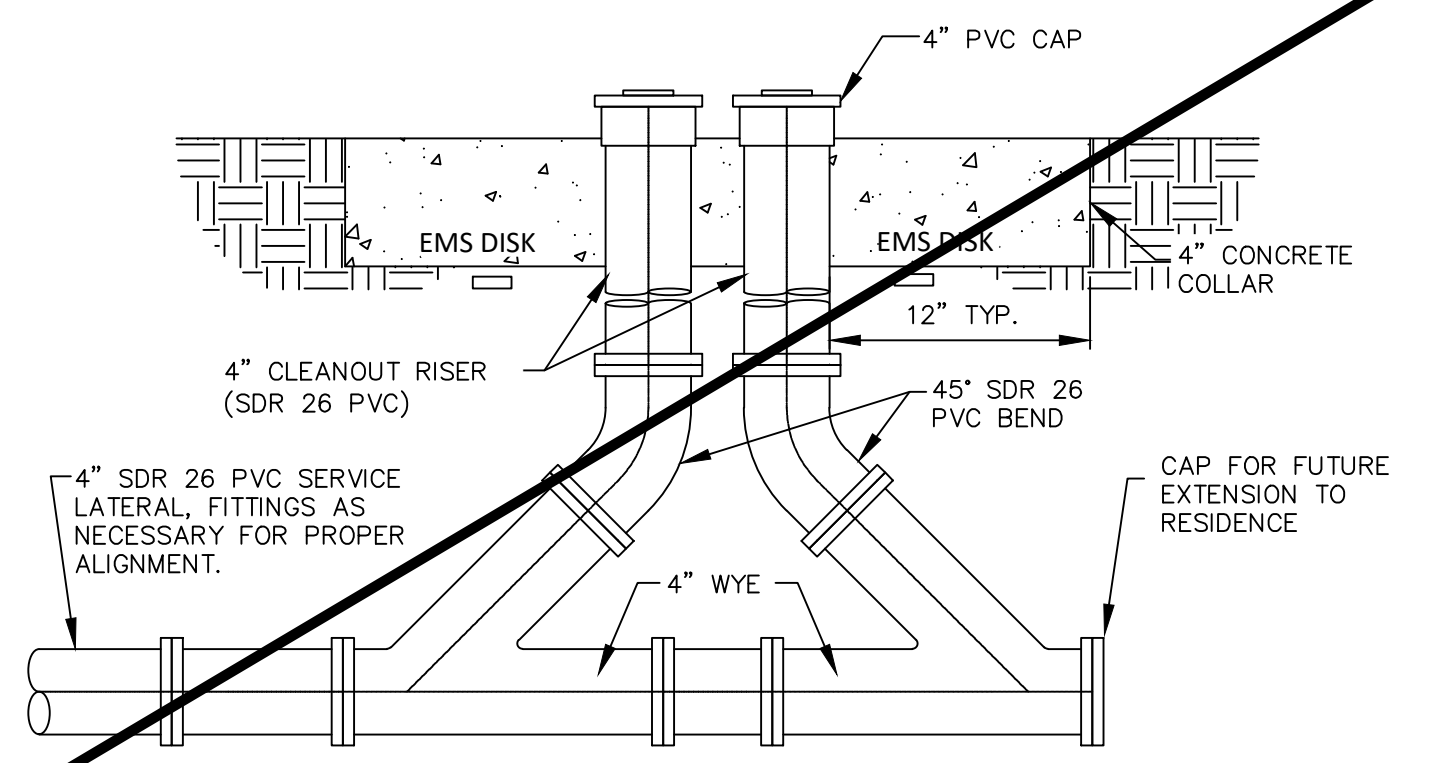
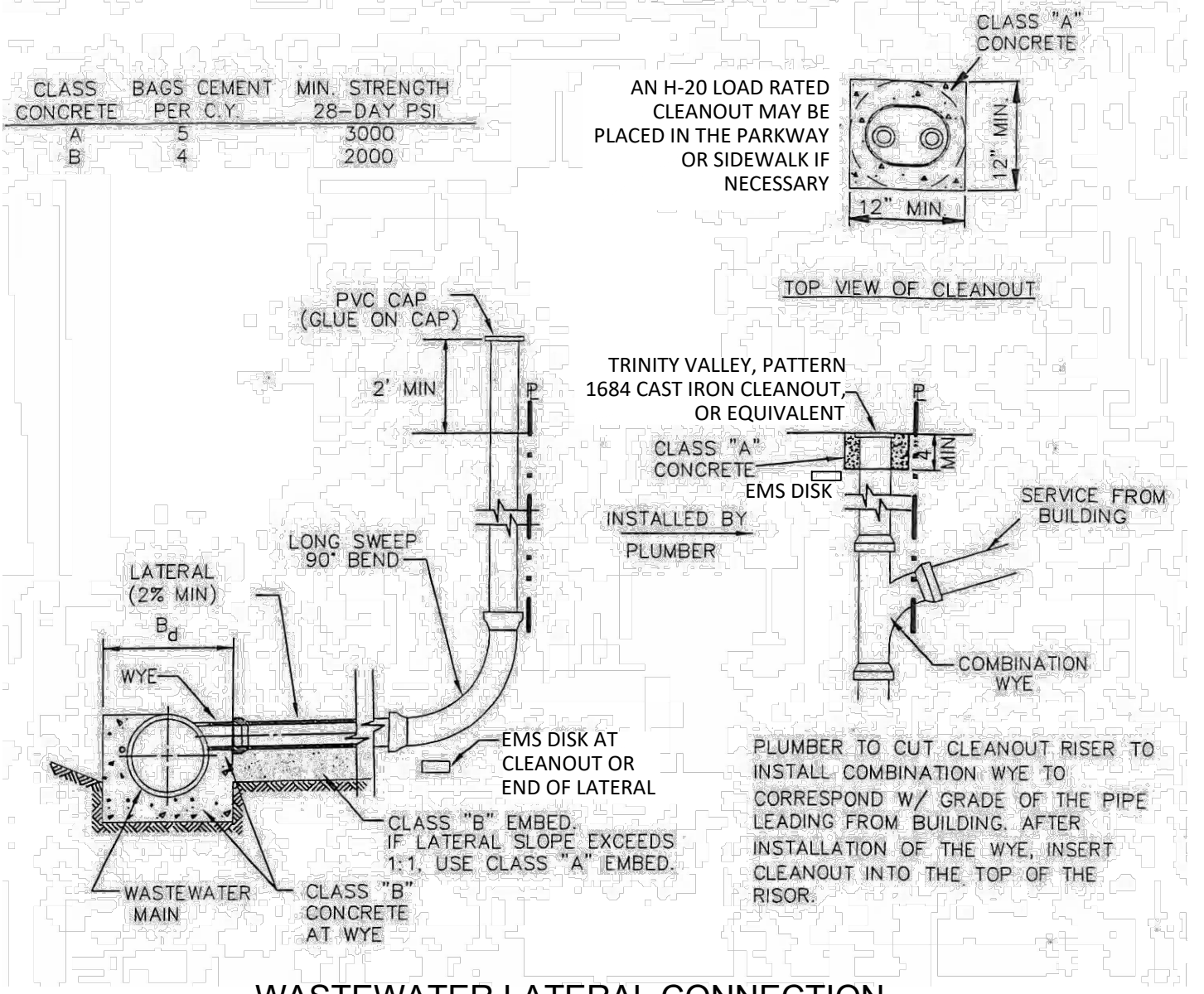
ROCKWALL SOLAR VILLAGE
for
R FIFTY GREEN HOMES, LLC

STORM SEWER PLAN & PROFILE

PROJECT NO.
DEV003-13

DRAWING NO.
6 of 13

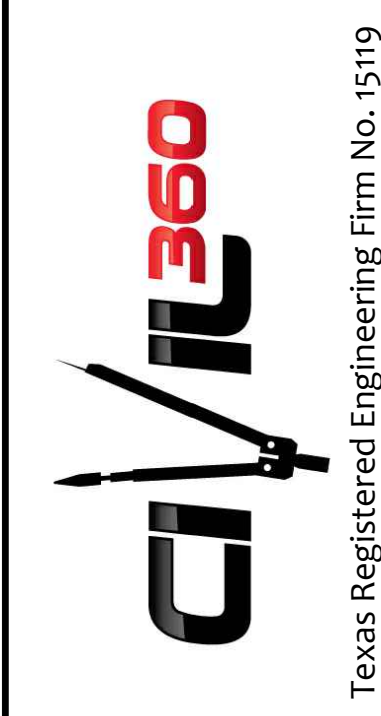
RECORD DRAWINGS



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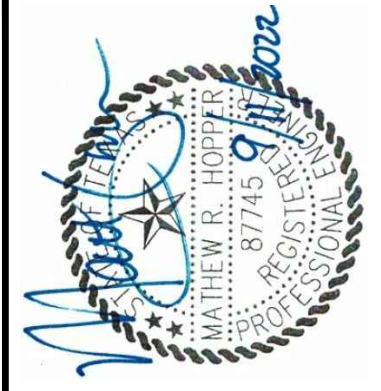


ROCKWALL SOLAR VILLAGE
 for
 R FIFTY GREEN HOMES, LLC

MISCELLANEOUS DETAILS

PROJECT NO. DEV003-13
 DRAWING NO. 7 of 13

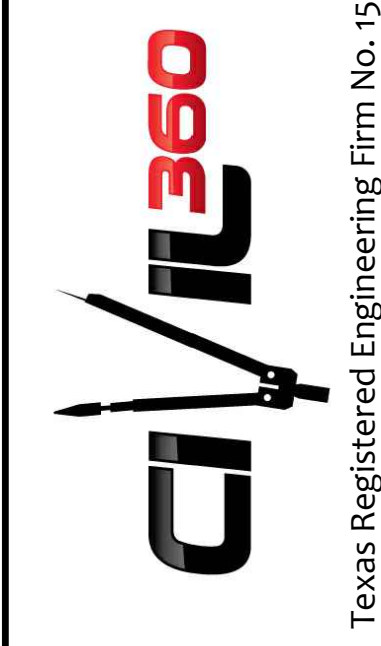




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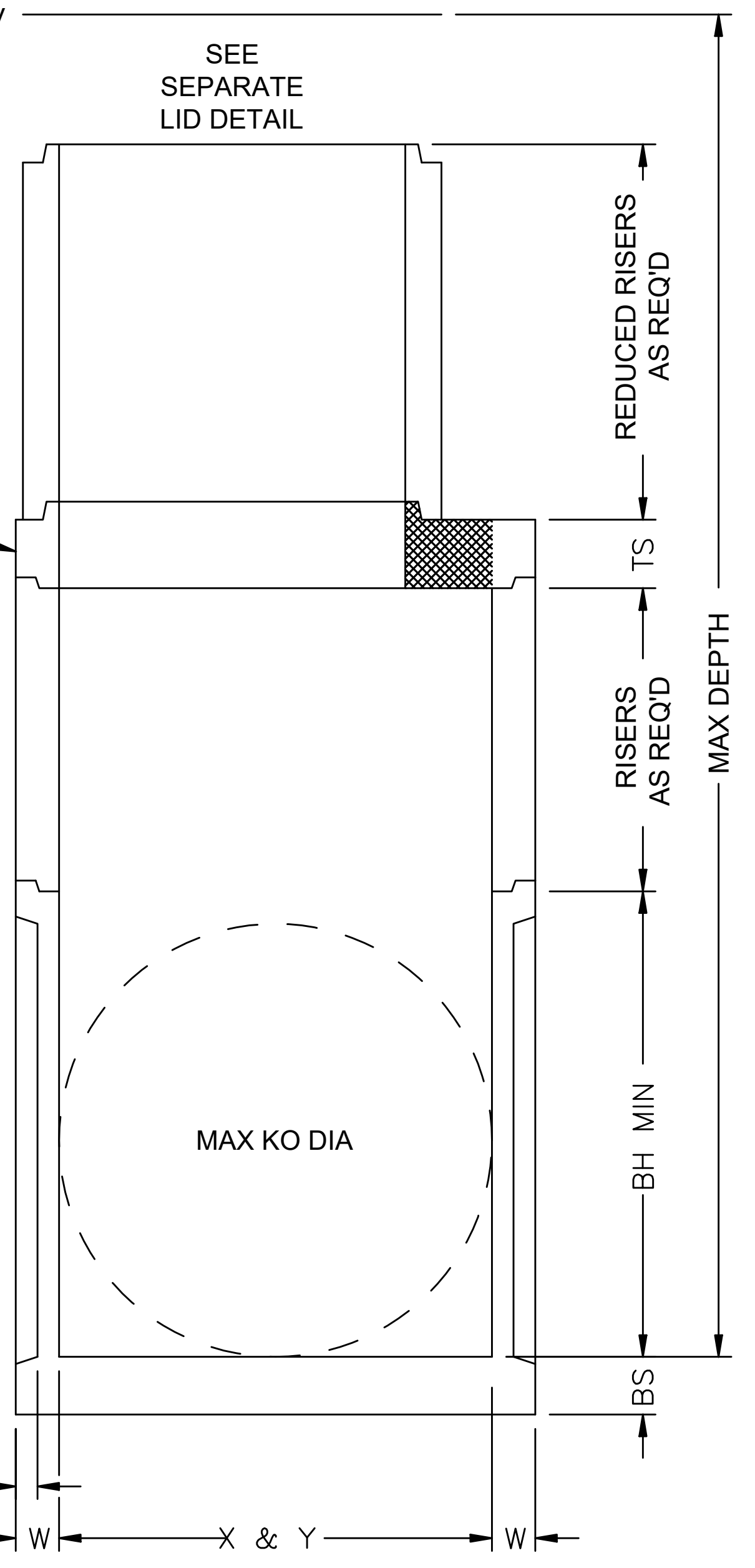
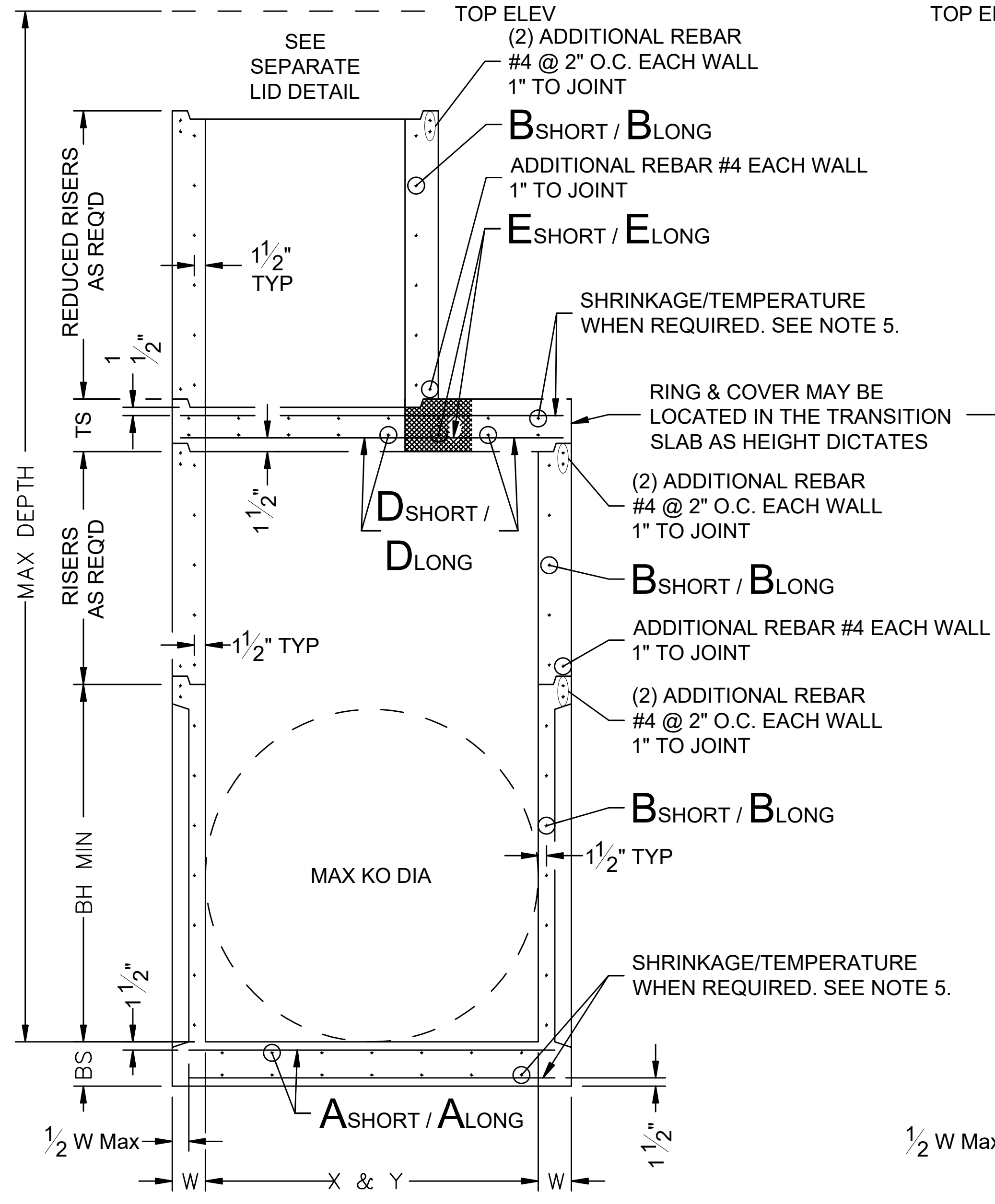
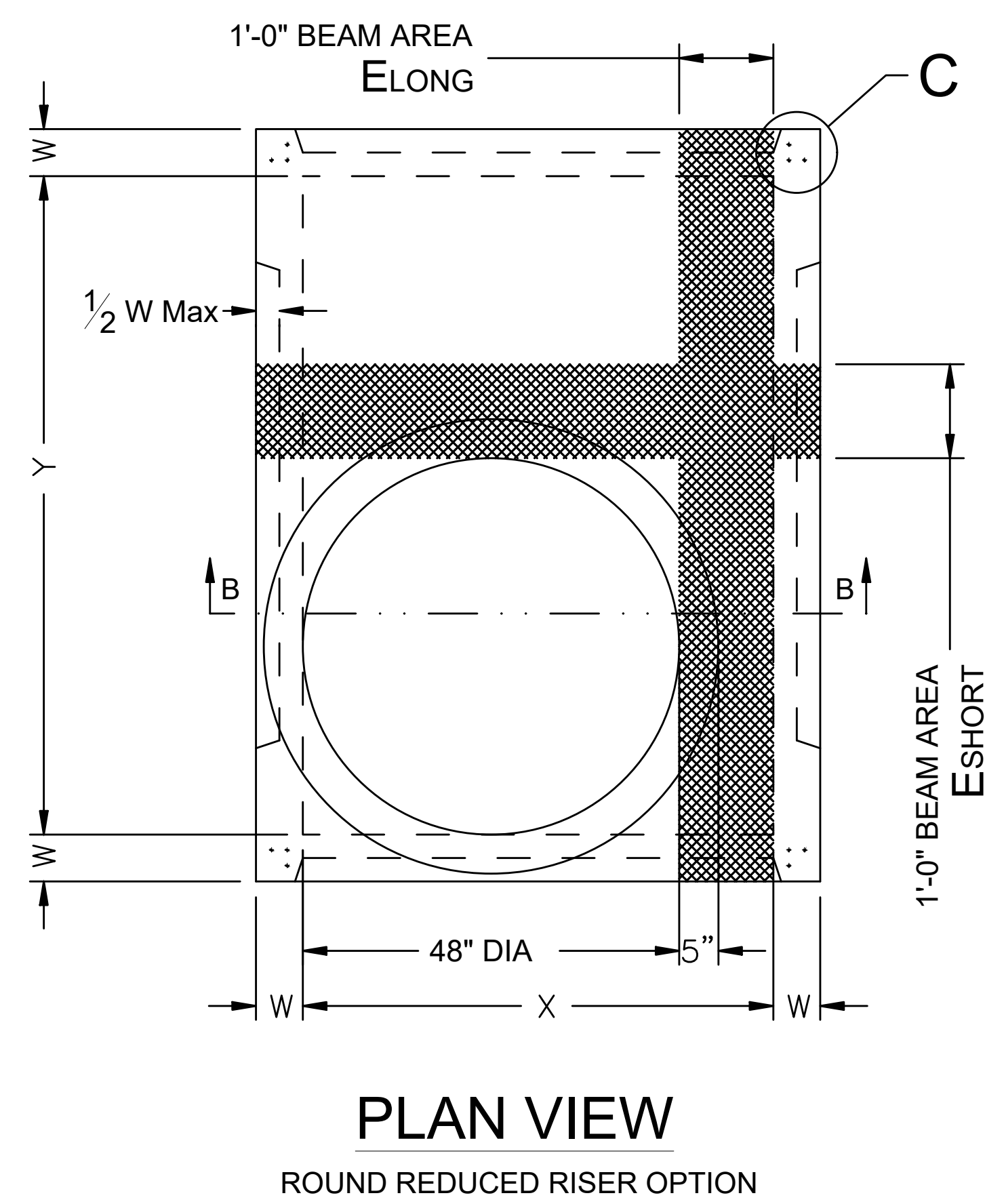
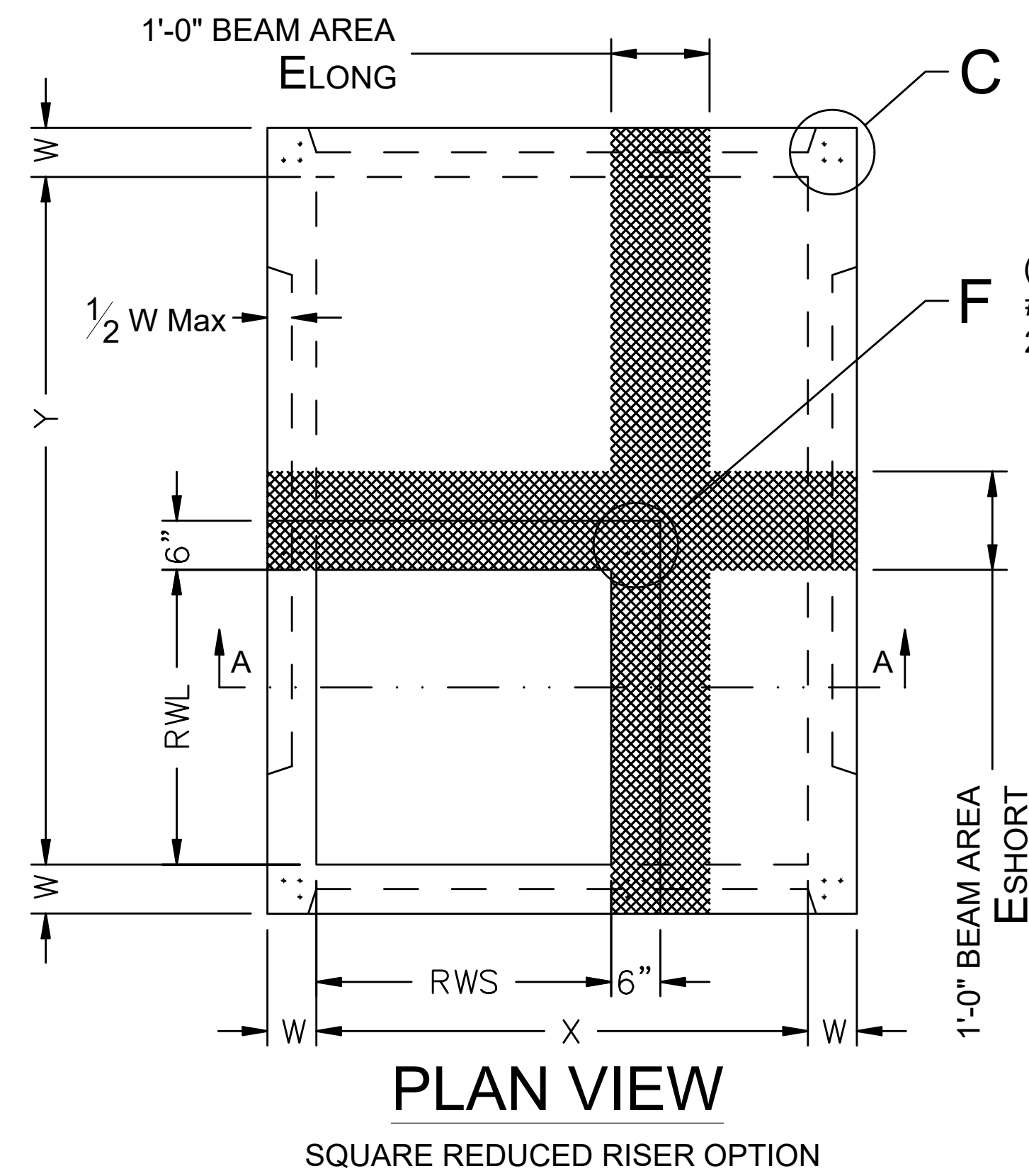
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ROCKWALL SOLAR VILLAGE
 for
 R FIFTY GREEN HOMES, LLC
 TxDOT DETAILS #1
 PRECAST BASE

PROJECT NO.
 DEV003-13
 DRAWING NO.
 8 of 13



GENERAL NOTES:

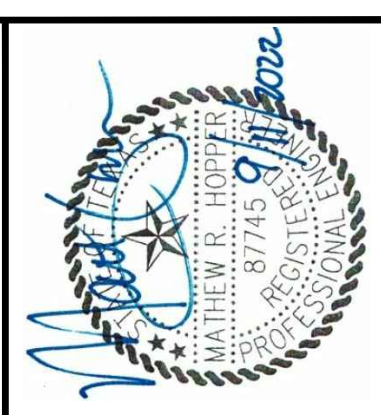
1. Designed according to ASTM C913.
2. Provide Class "H" concrete in accordance with Item 421 and having a minimum compressive strength of 5,000 psi.
3. Provide Grade 60 reinforcing steel or equivalent area of WWR.
4. Provide typical clear cover of 1 1/2" to reinforcing steel at interior or exterior walls.
5. Walls or slabs with a thickness of 8" or greater require shrinkage and temperature reinforcing steel.
6. No substitution is allowed for vertical and horizontal #4 bars in corners.
7. Manufacture base and risers to nearest 3" increment.
8. Inverts (benching) to be provided by Contractor.
9. Design tongue and groove joints for full closure on both shoulders. Minimum spigot depth is 3/4".
10. Seal tongue and groove joints with preformed or bulk mastic in conformance with Manufacturer's recommendations. Tongue and groove joints may be grouted no more than 1" between each section, or 1/2 the joint depth, whichever is greater.
11. Do not grout rubber gasket joints without Manufacturer's recommendation.
12. Provide lifting devices in conformance with Manufacturer's recommendations.
13. See TxDOT Standard Inlet and Manhole Program Guide for information not shown.

Size	To 15 Feet Top of Base Slab												To 25 Feet Top of Base Slab												Min Height	Max KO DIA***																	
	Base Slab				Base Unit or Riser Walls				Below Grade Slab				Transition Slab*				Base Slab				Base Unit or Riser Walls						Below Grade Slab				Transition Slab**												
XxY	Ashort	Along	As & Al	BS	Bshort	Blong	Bs & Bl	W	Dshort	Dlong	Ds & Dl	TS	RWS x RWL or ID	Eshort	Elong	Ashort	Along	As & Al	BS	Bshort	Blong	Bs & Bl	W	Dshort	Dlong	Ds & Dl	TS	RWS x RWL or ID	Eshort	Elong	BH MIN	KO DIA											
Feet	in ² /ft	in ² /ft	Inches	Inches	in ² /ft	in ² /ft	Inches	Inches	in ² /ft	in ² /ft	Inches	Inches	Feet**	in ² /ft	in ² /ft	in ² /ft	in ² /ft	Inches	Inches	in ² /ft	in ² /ft	Inches	Inches	in ² /ft	in ² /ft	Inches	Inches	Feet**	in ² /ft	in ² /ft	Feet	Inches											
3x3	0.20	0.20	4.25	6	0.19	0.19	4.25	6	0.37	0.37	7	9	N/A	N/A	N/A	0.29	0.29	4.25	6	0.37	0.37	7	9	N/A	N/A	N/A	0.47	0.47	4.25	6	0.38	0.38	4.25	6	0.41	0.41	7	9	N/A	N/A	N/A	4.5	48

Note: all temperature and shrinkage steel area = 0.11 in² /ft E.W.
 Maximum spacing of reinforcement is 8"
 * Note: detailed reinforcement is in addition to normal below grade slab requirements.
 ** Unless otherwise indicated.
 *** Thin wall panels (KO) are optional. Holes may be cast or cored to no more than maximum KO DIA at manufacturer's option. Where no penetration is required it is acceptable to provide a wall with no sectional reduction. Refer to manual for information.



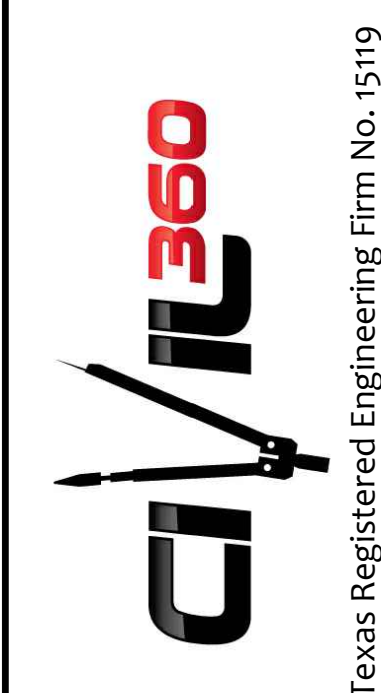
RECORD DRAWINGS



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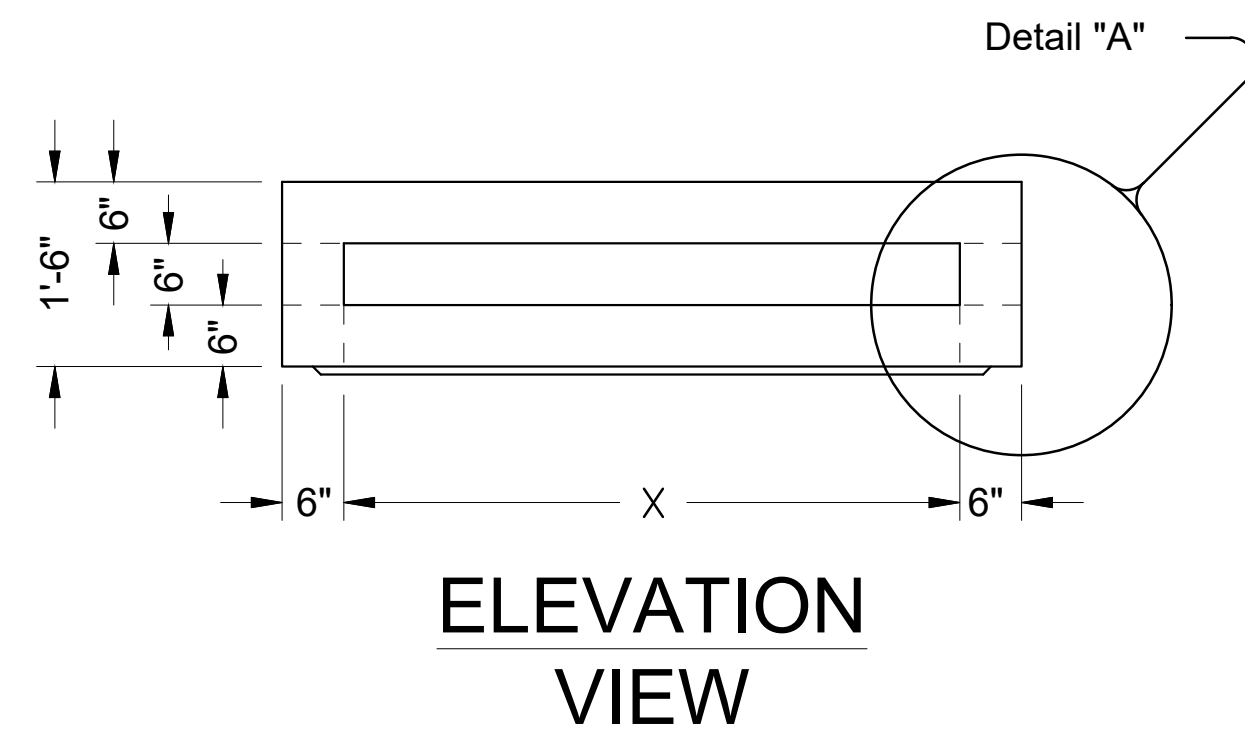
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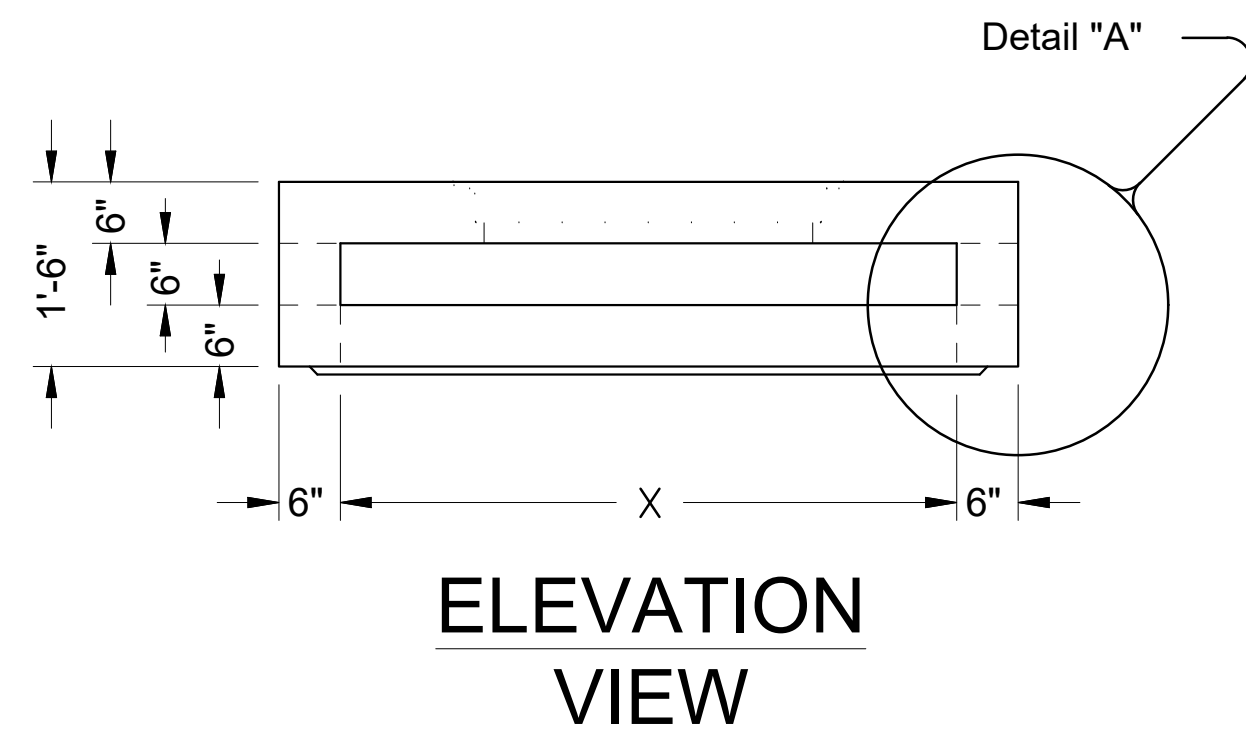
ROCKWALL SOLAR VILLAGE
 for R FIFTY GREEN HOMES, LLC
 TXDOT DETAILS #2
 PRECAST AREA ZONE DRAIN

PROJECT NO. DEV003-13
 DRAWING NO. 9 of 13

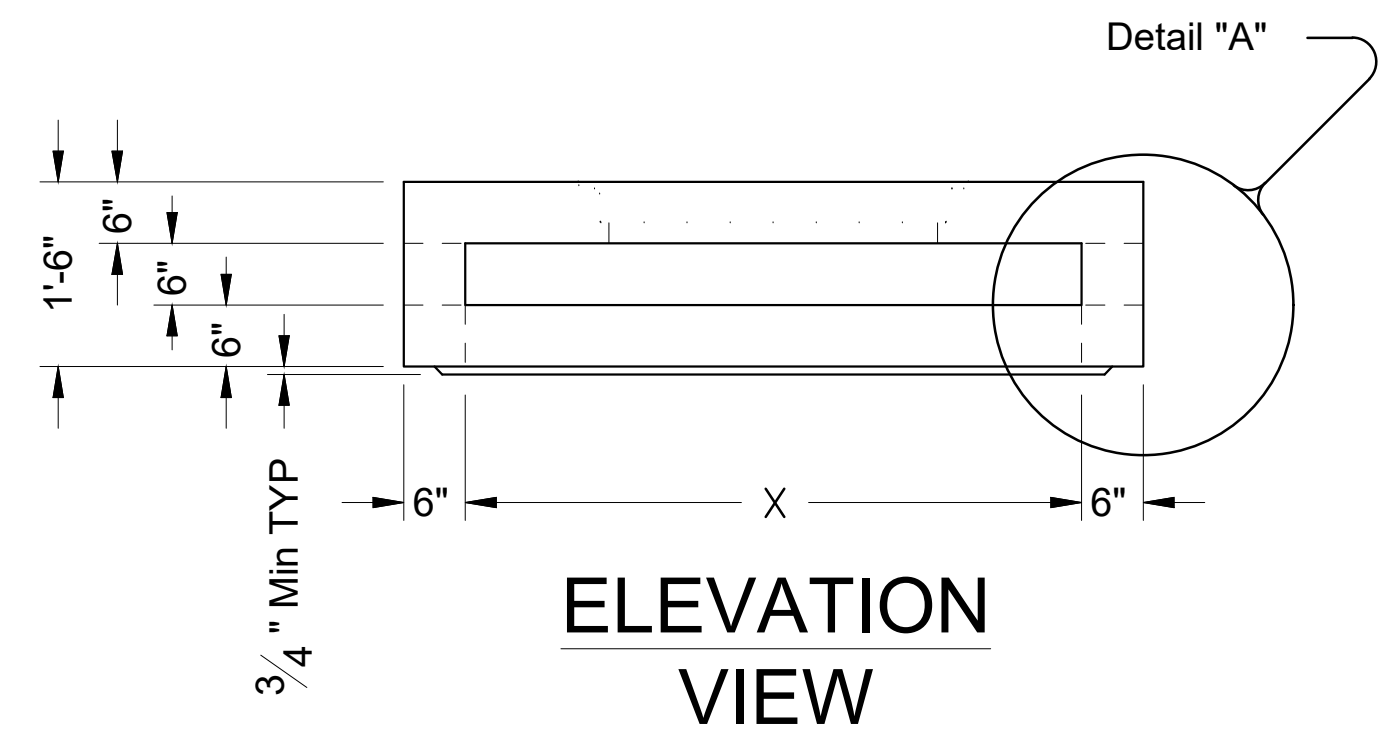
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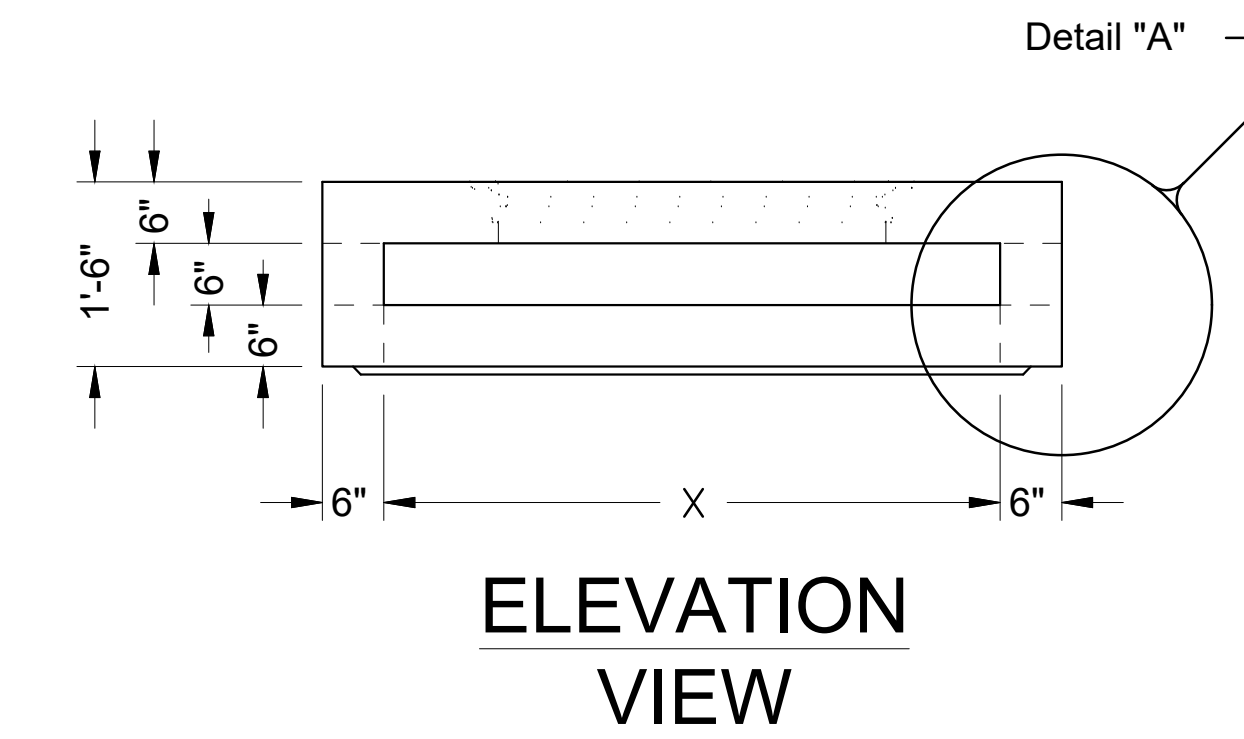
ELEVATION VIEW
STYLE 'SL'



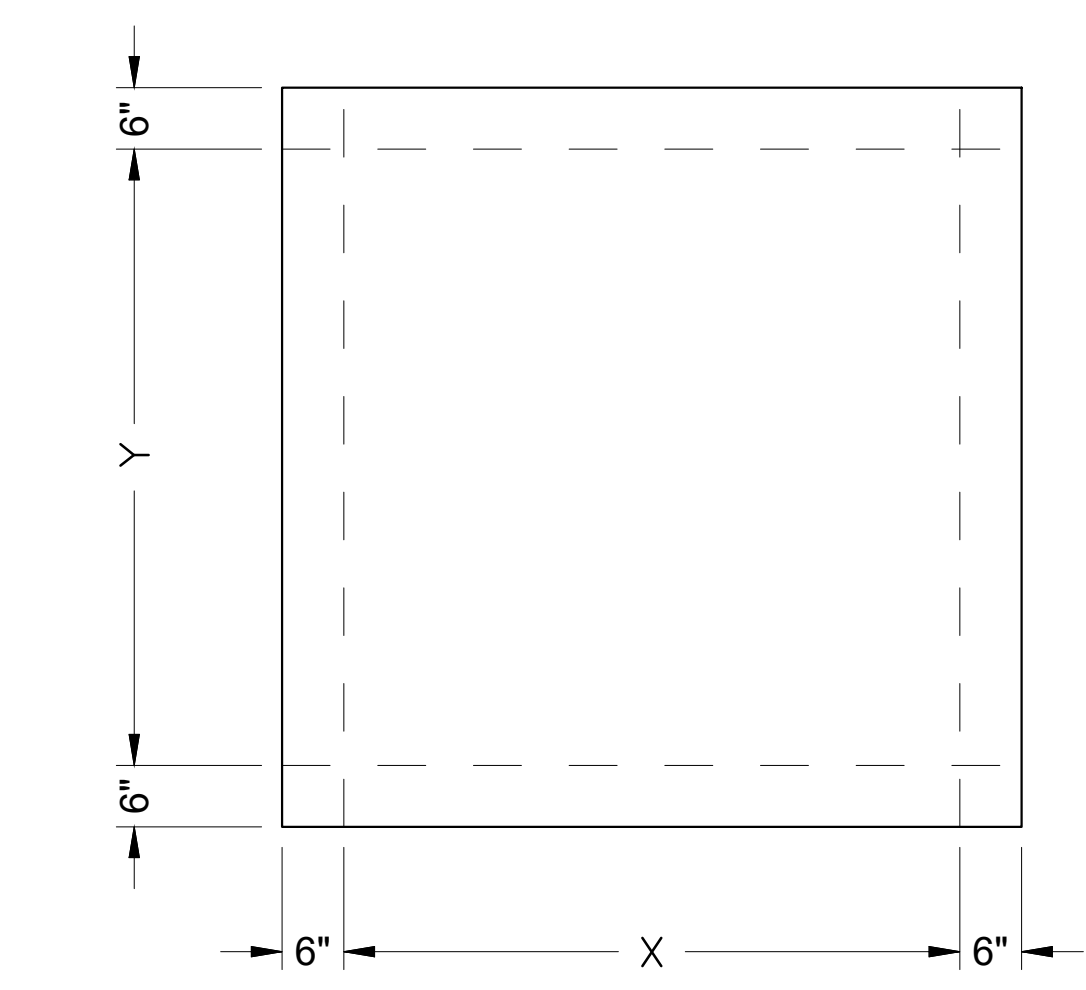
ELEVATION VIEW
STYLE 'RC'



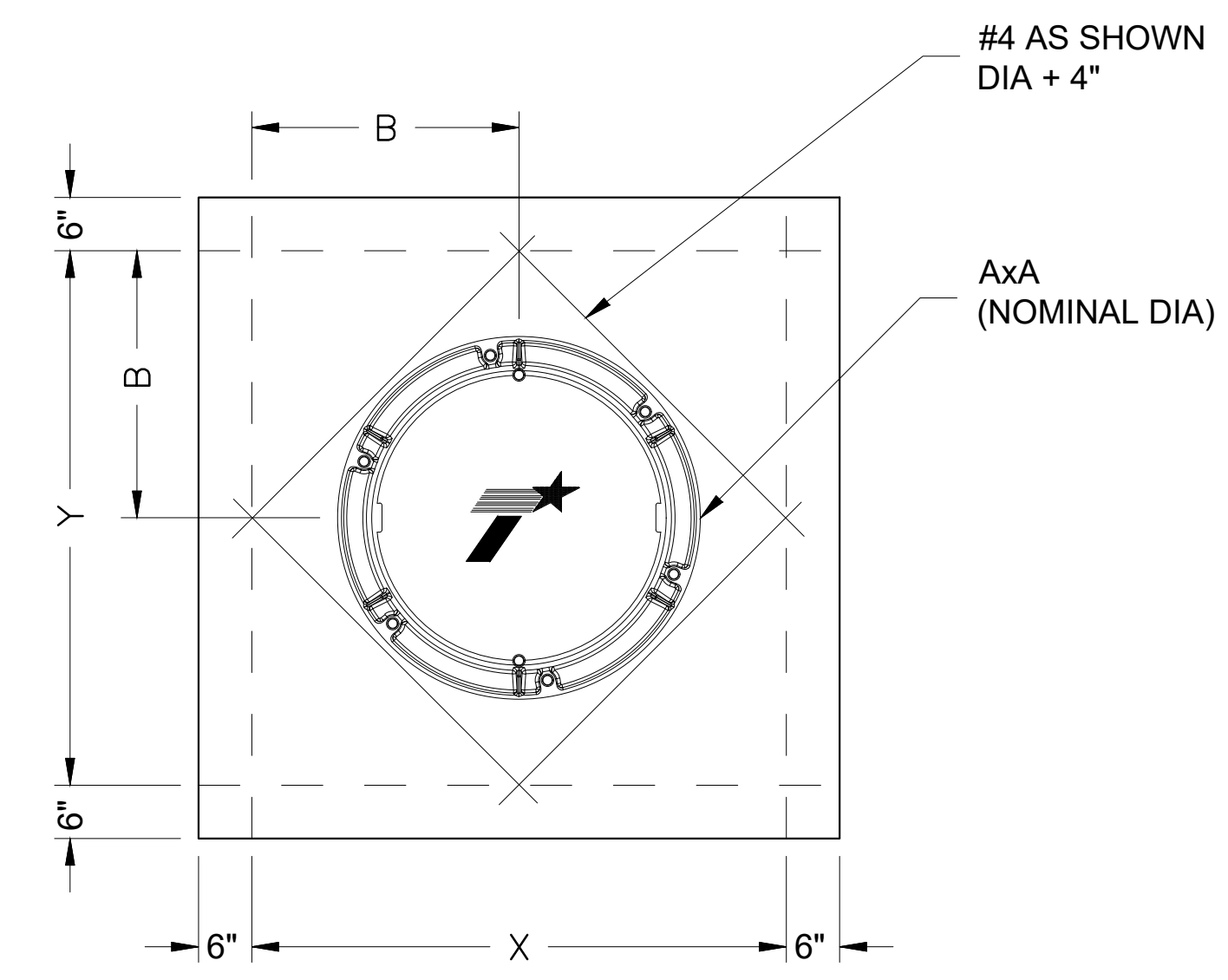
ELEVATION VIEW
STYLE 'RG'



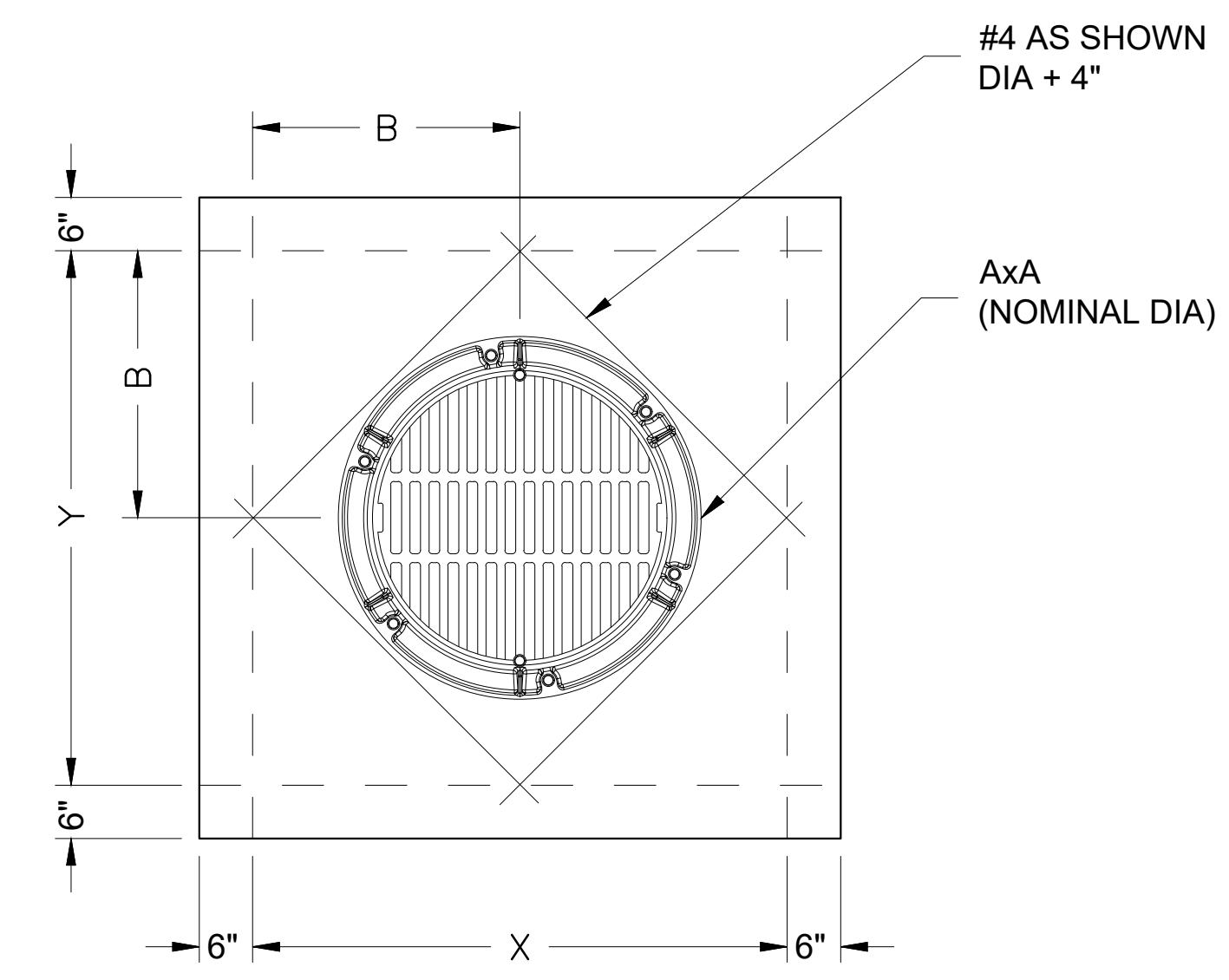
ELEVATION VIEW
STYLE 'FG'



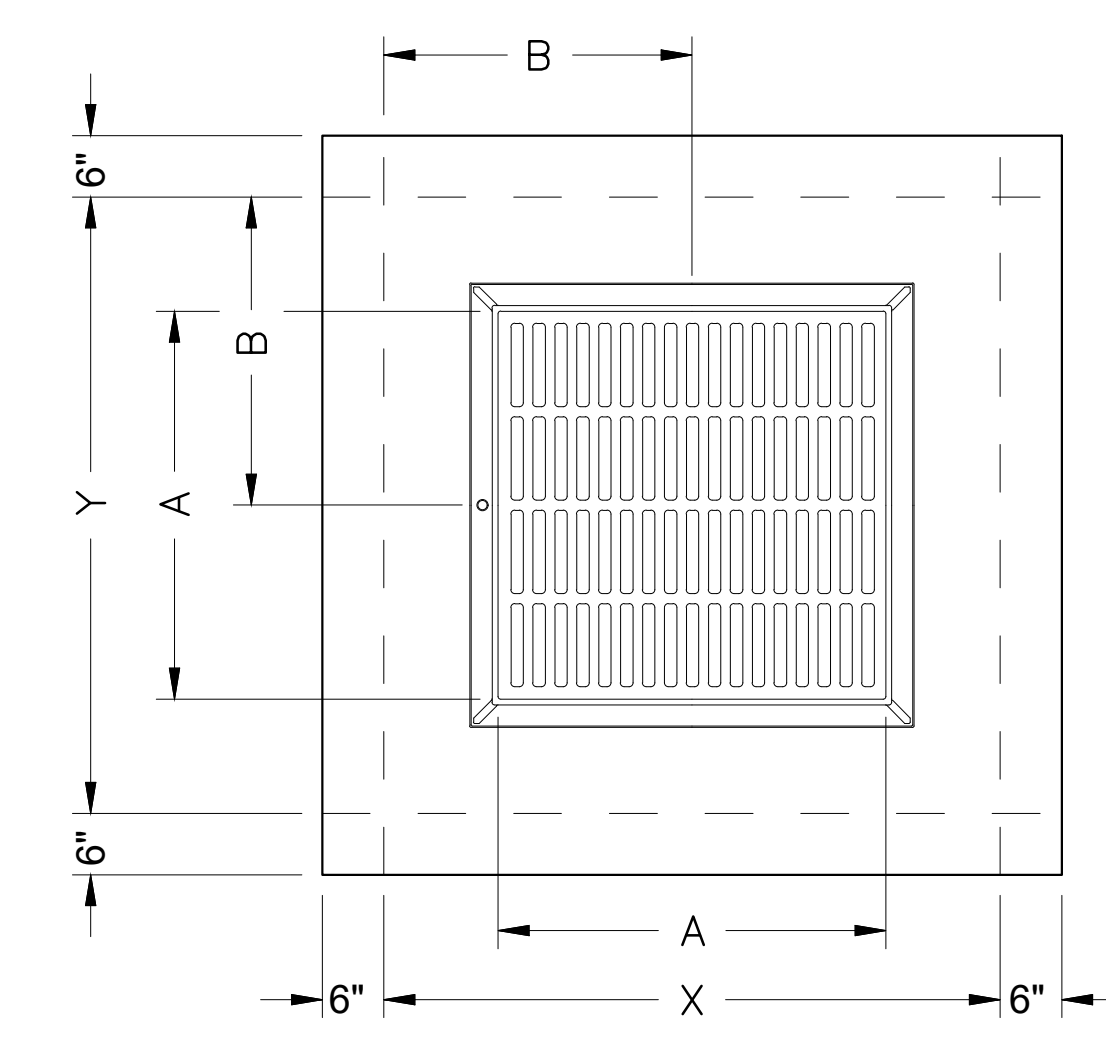
PLAN VIEW
NO OPENINGS
STYLE 'SL'



PLAN VIEW
32" DIA CAST-IN RING & COVER
STYLE 'RC'



PLAN VIEW
32" DIA CAST-IN RING & COVER
STYLE 'RG'



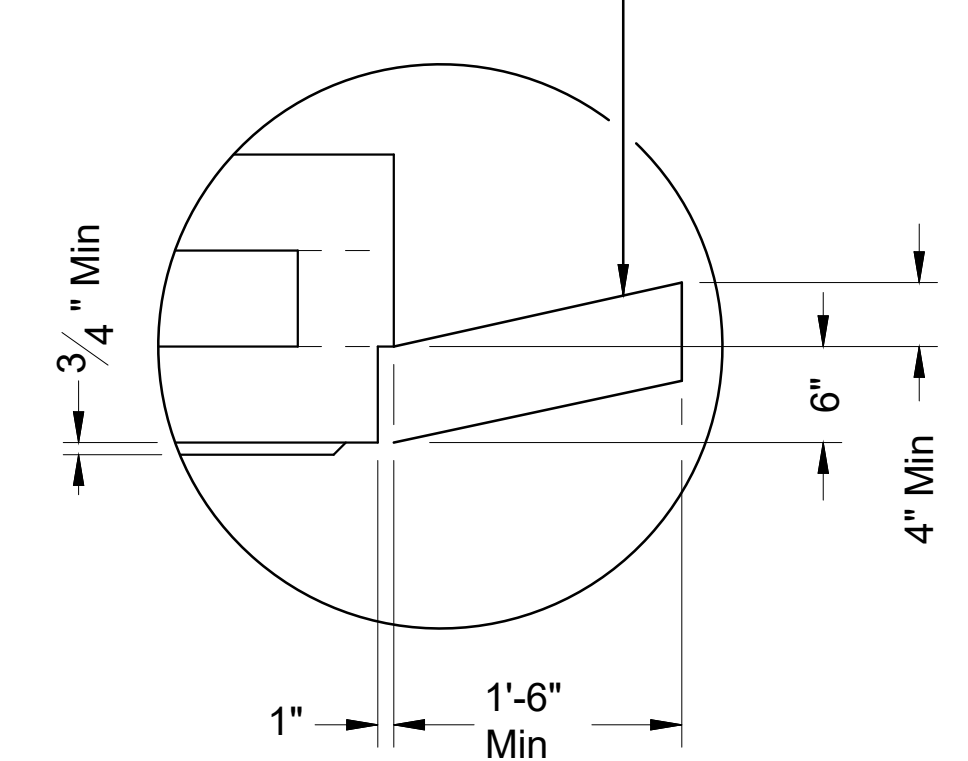
PLAN VIEW
CAST-IN FRAME & GRATE
STYLE 'FG'

Size	X x Y	A x A	B x B	Short Span Steel Area	Long Span Steel Area
3'x3'	3'x3'	2'x2'	1.5'x1.5'	0.37 in ² /ft	0.37 in ² /ft
3'x3'	3'x3'	32" Dia	1.5'x1.5'	0.37 in ² /ft	0.37 in ² /ft
4'x4'	4'x4'	3'x3'	2'x2'	0.34 in ² /ft	0.34 in ² /ft
4'x4'	4'x4'	4'x4'	2'x2'	0.34 in ² /ft	0.34 in ² /ft
4'x4'	4'x4'	32" Dia	2'x2'	0.34 in ² /ft	0.34 in ² /ft
5'x5'	5'x5'	3'x3'	2.5'x2.5'	0.43 in ² /ft	0.43 in ² /ft
5'x5'	5'x5'	4'x4'	2.5'x2.5'	0.43 in ² /ft	0.43 in ² /ft
5'x5'	5'x5'	32" Dia	2.5'x2.5'	0.68 in ² /ft	0.68 in ² /ft

GENERAL NOTES:

- Designed according to ASTM C913.
- PAZD is for use in ditches and medians outside of the clear zone. Precast Zone Drain is not intended for direct traffic and may not be placed in roadway.
- Provide Class "H" concrete in accordance with TxDOT Item 421 and having a minimum compressive strength of 5,000 psi.
- Provide Grade 60 reinforcing steel or equivalent area of WWR.
- Provide clear cover of 3/4" to reinforcing from bottom of slab for structural reinforcement, and 2" from top of slab for shrinkage and temperature reinforcement. Place short span reinforcing closest to surface.
- Walls or slabs with a thickness of 8" or greater require shrinkage and temperature reinforcing. See TxDOT standard PB for more information.
- No substitution is allowed for diagonal #4 bars around openings.
- Design tongue and groove joints for full closure on both shoulders. Minimum spigot depth is 3/4".
- Seal tongue and groove joints with preformed or bulk mastic in conformance with Manufacturer's recommendations. Tongue and groove joints may be grouted no more than 1" between each section, or 1/2 the joint depth, whichever is greater.
- Do not grout rubber gasket joints without Manufacturer's recommendation.
- Provide lifting devices in conformance with Manufacturer's recommendations.
- See TxDOT approved industry Cast Iron Product Standards for details of castings.
- See TxDOT Standard Inlet and Manhole Program Guide for information not shown.

Construct cast-in-place reinforced concrete apron when shown elsewhere in plans. Use Class "A" concrete. Apron is subsidiary to PAZD. Apron is 1'-6" Min width around precast zone drain.



DETAIL "A"

(Reinforcing not shown for clarity)
 When an apron is to be cast around PAZD, use detail above to create an apron ledge on all 4 sides.

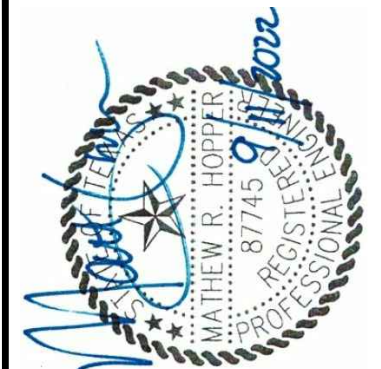
Texas Department of Transportation Bridge Division Standard

PRECAST AREA ZONE DRAIN

TYPE PAZD

FILE: prest08.dgn	DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT
©TXDOT August 2013	CONT	SECT	JOB	HIGHWAY
REVISIONS		DIST	COUNTY	SHEET NO.

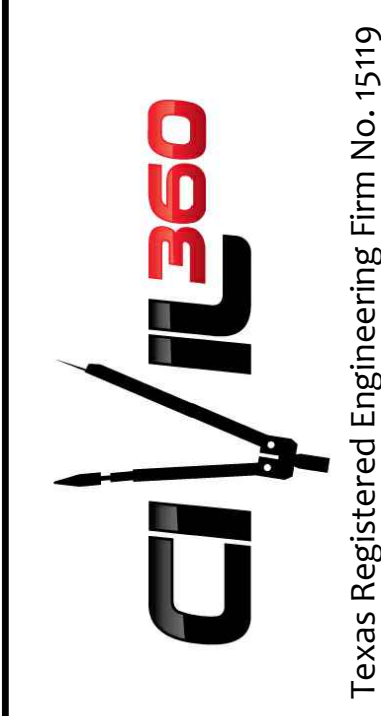




DATE: September, 2022
 DESIGNED BY: MRH
 DRAWN BY: MRH
 CHECKED BY: MRH

NO. DATE BY REVISION
 TO THE BEST OF OUR KNOWLEDGE, CIVIL ENGINEER MATTHEW R. HOOT, LICENSE NO. 87745, HAS PREPARED THIS PLAN AS-BUILT. THE INFORMATION PROVIDED IS BASED ON SURVEYING CONDUCTED BY CIVIL 360 AND CONDUCTED ON 4/10/2017.

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ROCKWALL SOLAR VILLAGE
 for FIFTY GREEN HOMES, LLC
**DRAINAGE AREA MAP
 and CALCULATIONS**

PROJECT NO.
 DEV003-13

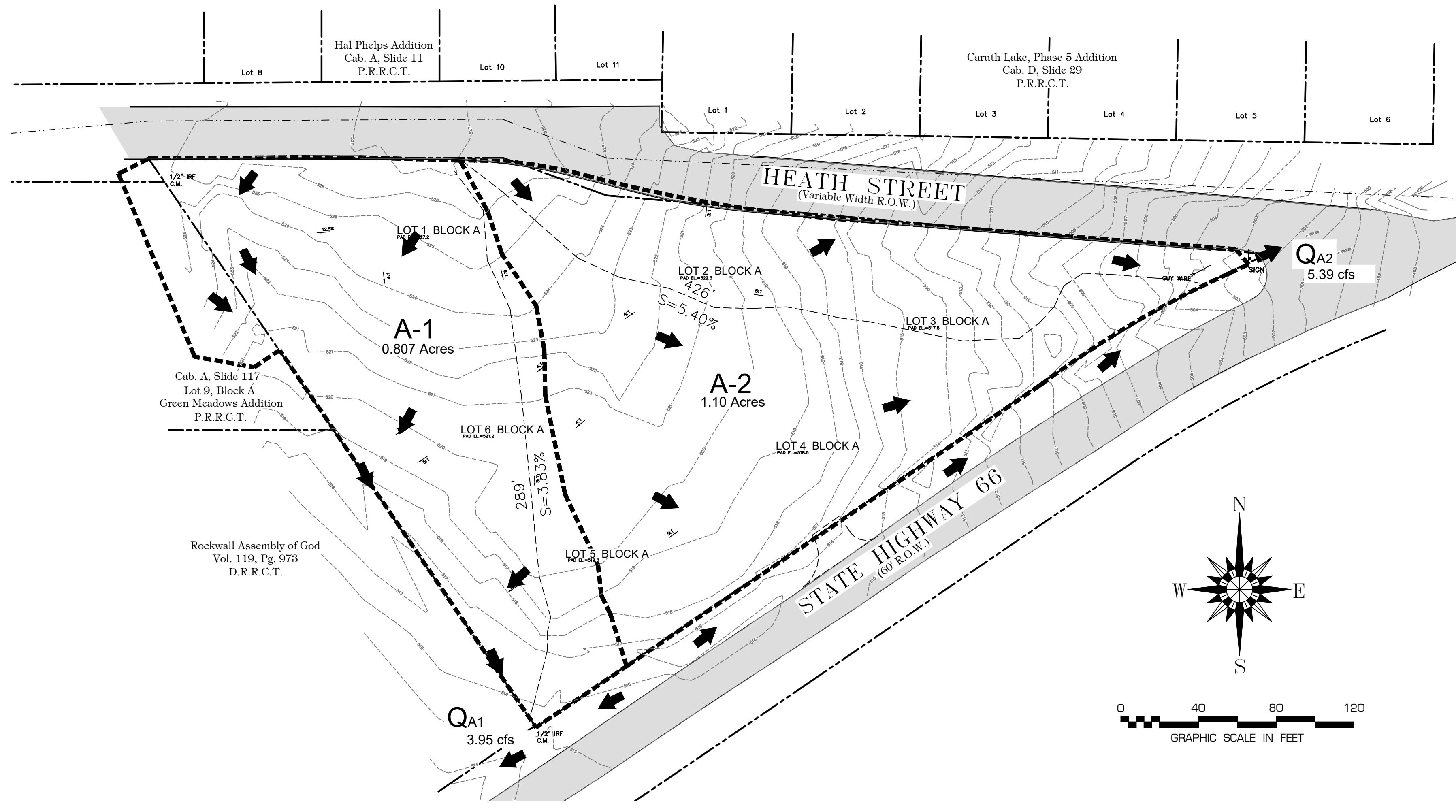
DRAWING NO.
12 of 13

RECORD DRAWINGS

DRAINAGE AREA CALCULATIONS
 Pre-Development

Design Storm Frequency (yrs)	AREA RUNOFF Q = C I A					
	Drainage Area ID	Time of Conc. (min) Tc	Intensity (in/hr) I	Runoff Coefficient C	Area (acres) A	Flow (cfs) Q
5	A-1	10	6.1	0.50	0.807	2.46
	A-2	10	6.1	0.50	1.100	3.36
10	A-1	10	7.1	0.50	0.807	2.86
	A-2	10	7.1	0.50	1.100	3.91
25	A-1	10	9	0.50	0.807	3.63
	A-2	10	9	0.50	1.100	4.95
100	A-1	10	9.8	0.50	0.807	3.95
	A-2	10	9.8	0.50	1.100	5.39

Type or Area Land Use	Adopted Runoff Coefficient
Parks or Open Areas	0.35
Single Family Residential	0.50
Duplex	0.70
School	0.75
Apartments	0.80
Townhouse	0.80
Churches	0.90
Industrial	0.90
Commercial Business	0.90
Mercantile District	0.90
Retail	0.90
Major/Minor Arterials (ROW)	0.90

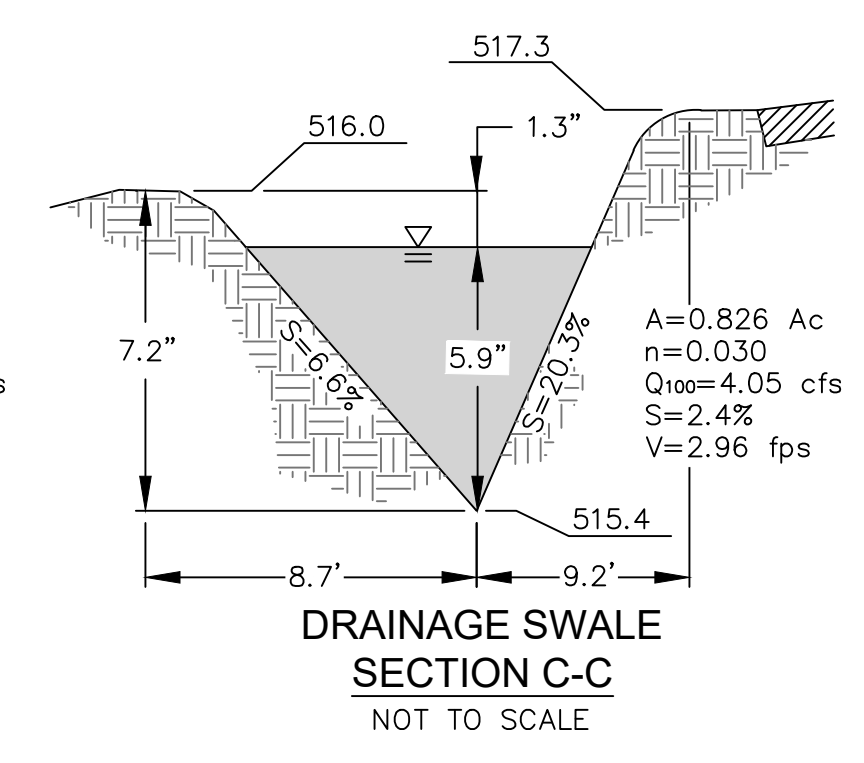
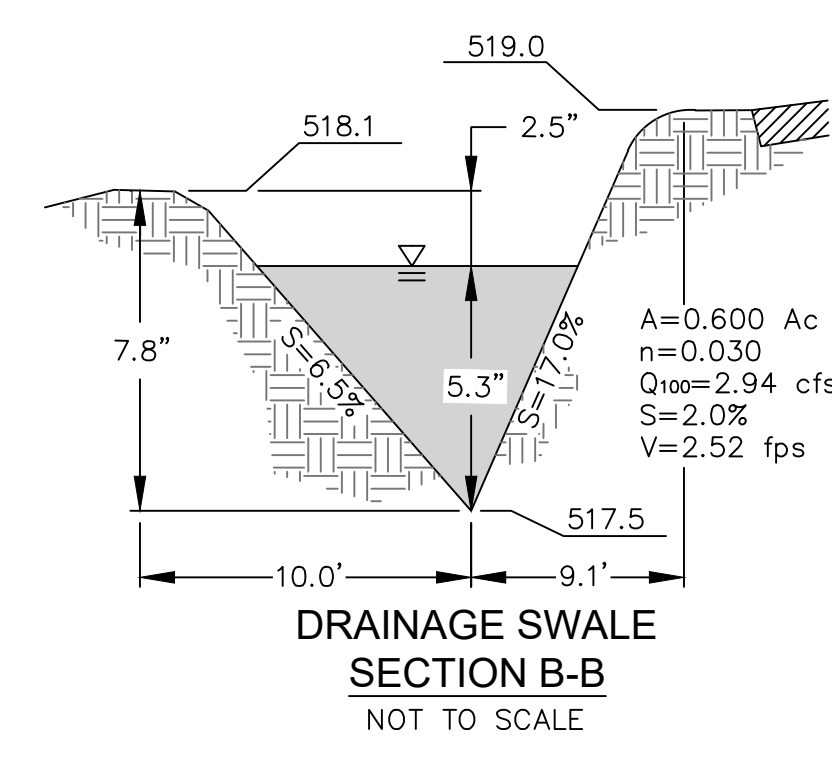
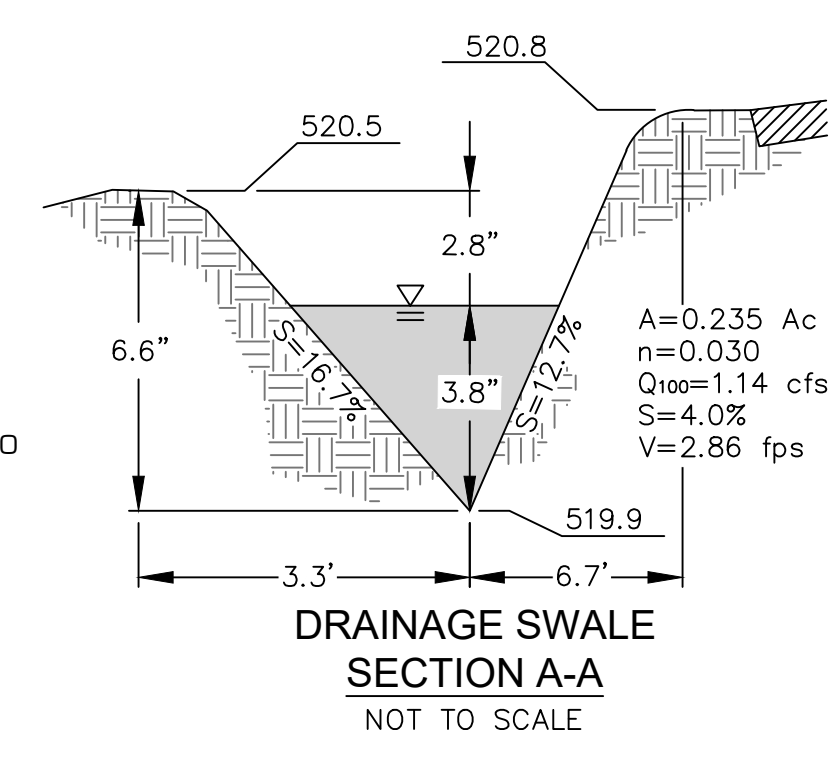
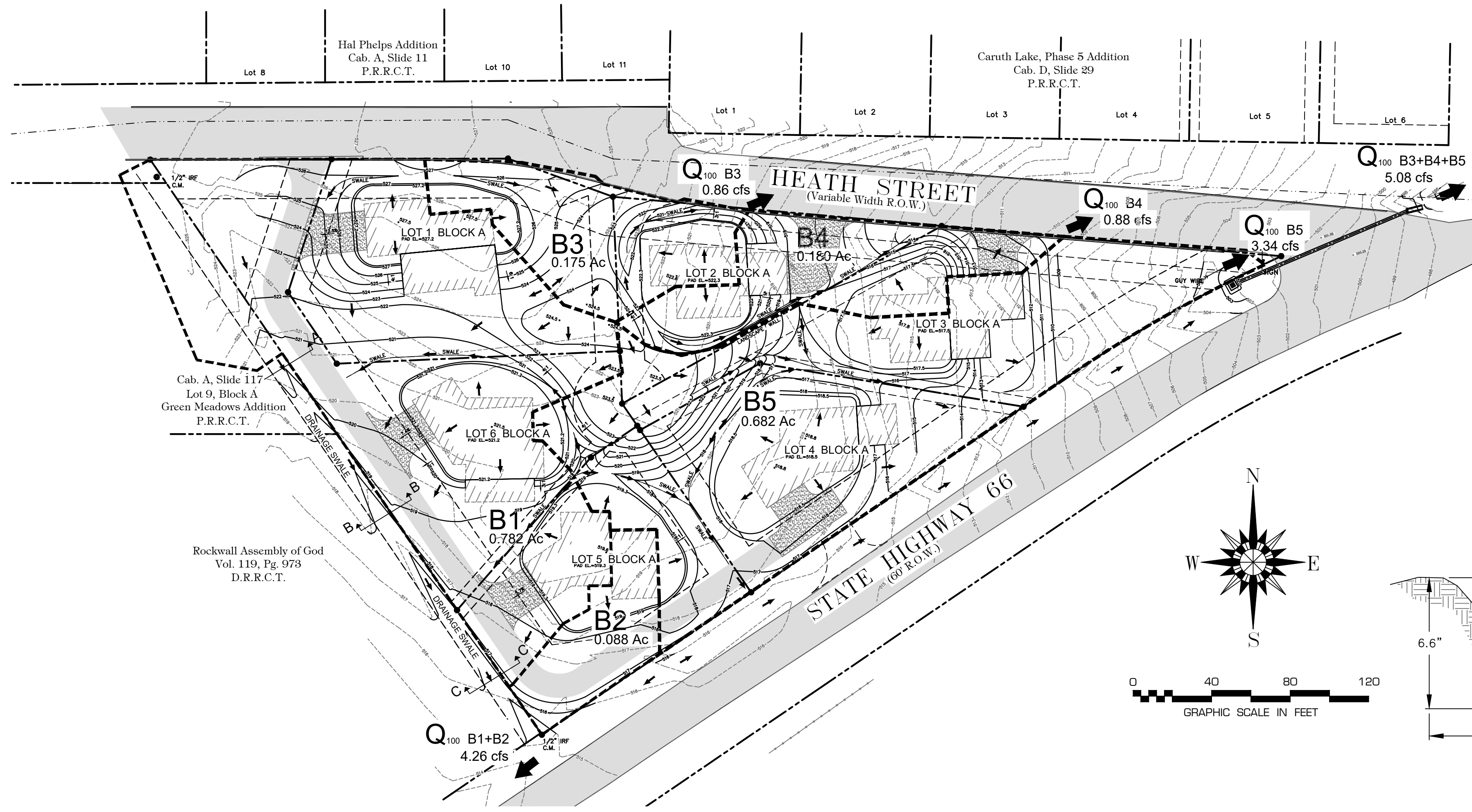


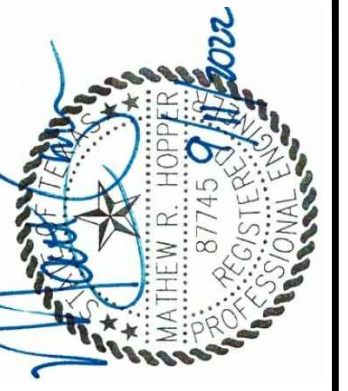
LEGEND

- PP POWER POLE & OVERHEAD LINE
- PROPERTY LINE & PROPERTY CORNER
- EASEMENT AND/OR BUILDING LINE
- AS-BUILT CONTOUR LINE & ELEVATION
- DRAINAGE SWALE
- EXISTING SEWER MAIN
- EXISTING WATER MAIN
- SILT FENCE
- EXISTING FIRE HYDRANT, WATER VALVE AND SEWER MANHOLE

DRAINAGE AREA CALCULATIONS
 Post-Development

Design Storm Frequency (yrs)	AREA RUNOFF Q = C I A					
	Drainage Area ID	Time of Conc. (min) Tc	Intensity (in/hr) I	Runoff Coefficient C	Area (acres) A	Flow (cfs) Q
5	B1	10	6.1	0.50	0.782	2.39
	B2				0.088	0.27
	B3				0.175	0.53
	B4				0.180	0.55
	B5				0.682	2.08
10	B1	10	7.1	0.50	0.782	2.78
	B2				0.088	0.31
	B3				0.175	0.62
	B4				0.180	0.64
	B5				0.682	2.42
25	B1	10	9	0.50	0.782	3.52
	B2				0.088	0.40
	B3				0.175	0.79
	B4				0.180	0.81
	B5				0.682	3.07
100	B1	10	9.8	0.50	0.782	3.83
	B2				0.088	0.43
	B3				0.175	0.86
	B4				0.180	0.88
	B5				0.682	3.34
Q Total						4.26
Q₁₀₀ B1+B2						4.26 cfs
Q₁₀₀ B3						0.86 cfs
Q₁₀₀ B4						0.88 cfs
Q₁₀₀ B5						3.34 cfs
Q₁₀₀ B3+B4+B5						5.08 cfs

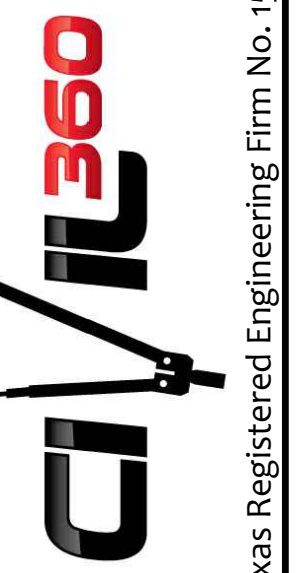




DATE: September, 2022
 DESIGNED BY: MRH
 DRAWN BY: MRH
 CHECKED BY: MRH

REVISION
 No. DATE BY
 TO THE BEST OF OUR KNOWLEDGE, CIVIL ENGINEER MATTHEW R. HINES, LICENSE NO. 97745, HAS REVIEWED THIS PLAN AND HAS FOUND IT TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE TEXAS PROFESSIONAL ENGINEERING ACT. THIS INFORMATION IS PROVIDED AS IS AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE OF ANY KIND. THE INFORMATION PROVIDED IS BASED ON SURVEYING CONDUCTED BY CIVIL 360 AND CONDUCTED ON 4/10/2017.

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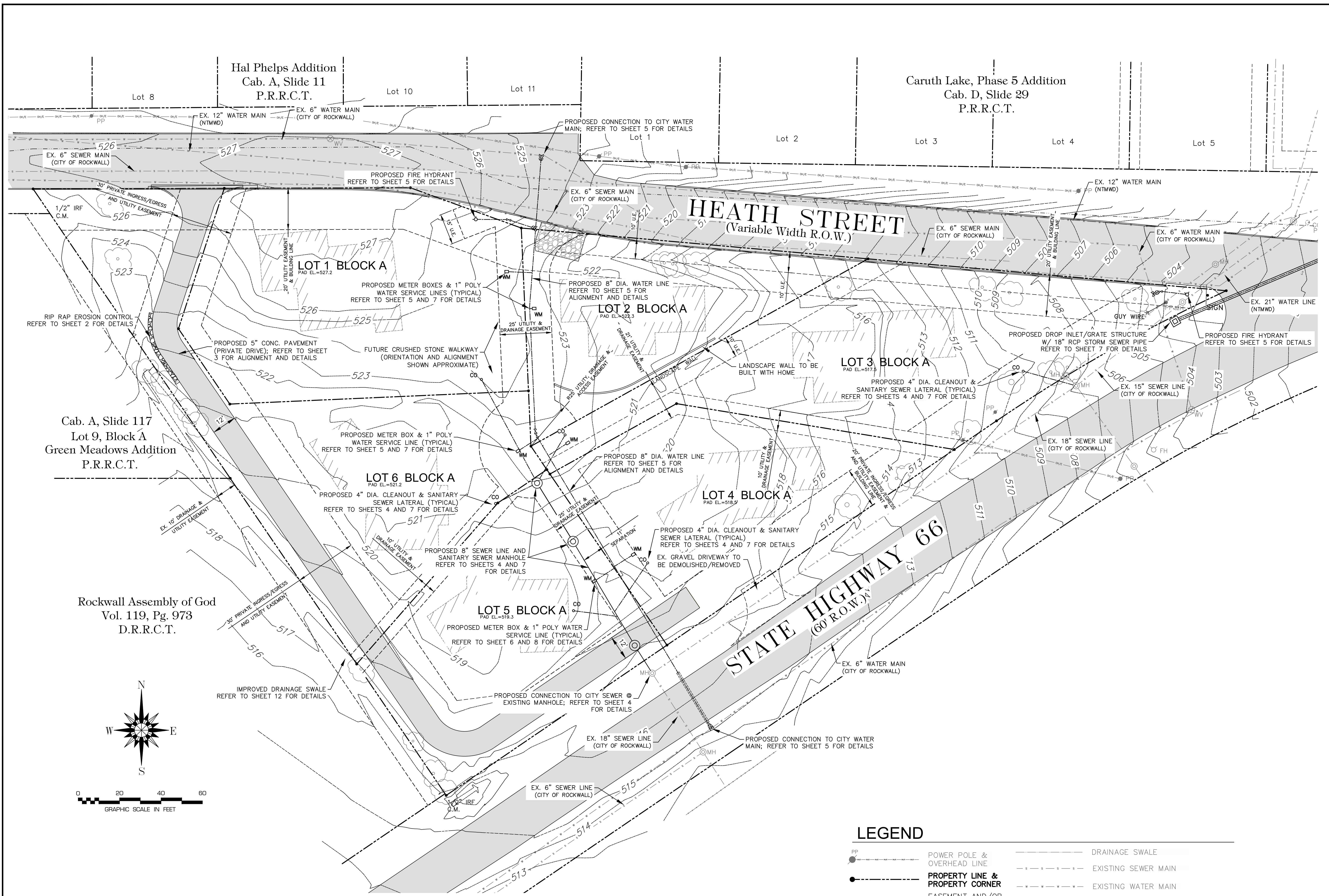
Texas Registered Engineering Firm No. 15119

ROCKWALL SOLAR VILLAGE
 for
 R FIFTY GREEN HOMES, LLC
 AS-BUILT SURVEYED
 SITE PLAN

PROJECT NO.
 DEV003-13

DRAWING NO.
 13 of 13

RECORD DRAWINGS

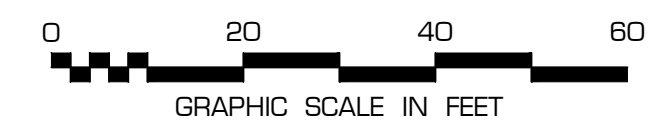
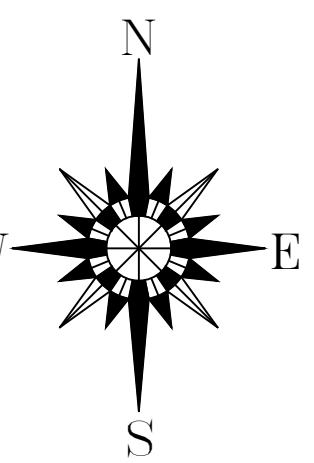


Hal Phelps Addition
 Cab. A, Slide 11
 P.R.R.C.T.

Caruth Lake, Phase 5 Addition
 Cab. D, Slide 29
 P.R.R.C.T.

Cab. A, Slide 117
 Lot 9, Block A
 Green Meadows Addition
 P.R.R.C.T.

Rockwall Assembly of God
 Vol. 119, Pg. 973
 D.R.R.C.T.



Elevation contours shown are as-surveyed by Heritage Surveying, LLC, dated 4-10-2017.

LEGEND

- PP POWER POLE & OVERHEAD LINE
- PROPERTY LINE & PROPERTY CORNER
- EASEMENT AND/OR BUILDING LINE
- AS-BUILT CONTOUR LINE & ELEVATION
- 519
- DRAINAGE SWALE
- EXISTING SEWER MAIN
- EXISTING WATER MAIN
- SILT FENCE
- EXISTING FIRE HYDRANT, WATER VALVE AND SEWER MANHOLE
- EXISTING TREE TO REMAIN

