



Autumndale - Road Phasing			
Phase #	Road Name	Start Station	End Station
Phase 1	Tuliptree Lane	10+71.42	12+64.55
	Box Elder Way	18+67.35	21+39.28
Phase 2	Inkberry Drive	25+87.48	41+19.96
	Box Elder Way	14+40.39	18+67.35
Phase 3	Inkberry Drive	19+13.35	25+87.48
	Box Elder Way	10+00.00	14+40.39



APPROVED
 Phasing Plan
 SUSSEX COUNTY
 PLANNING & ZONING COMMISSION
 10/24/23
 1 sheet

APPROVED
 Scott Voth
 OCT 24 2023
 Sussex County
 Engineering Department

PHASES

- DELDOT - 5.22 ACRES (+/-)
- PUMP STATION PHASE - 0.21 ACERS (+/-)
- STORMWATER OUTFALL - 8.72 ACRES (+/-)
- PHASE 1 - 17.39 ACRES (+/-)
SINGLE FAMILY LOTS 1-25, 64-78 = 40 LOTS
1,998± L.F. ROADWAY
- PHASE 2 - 7.89 ACRES (+/-)
SINGLE FAMILY LOTS 26-36, 59-63, 79-87, 100-104 = 30 LOTS
1,101± L.F. ROADWAY
- PHASE 3 - 11.56 ACRES (+/-)
SINGLE FAMILY LOTS 37-58, 88-99 = 34 LOTS
1,354± L.F. ROADWAY
- PHASE 4 - 0.61 ACERS (+/-)
AMENITY BATHHOUSE AND POOL

PHASING NOTES

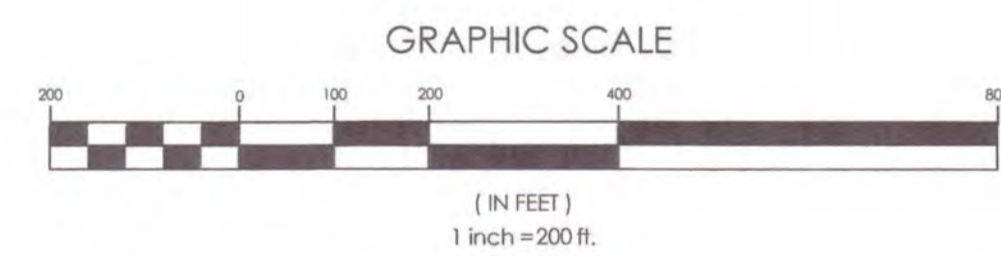
- PORTIONS OF PHASES WILL OVERLAP WHEN PARTIAL OR TEMPORARY IMPROVEMENTS ARE MADE FOR CONNECTION PURPOSES AND FINAL BUILD OUT IS IN A FUTURE PHASE.
- CONTRACTOR/OWNER/DEVELOPER SHALL ALERT THE ENGINEER IMMEDIATELY IF ISSUES WITH THE PHASING PLAN ARE FOUND IN THE FIELD.
- VARIATIONS FROM THE PHASING PLAN SHALL BE COORDINATED WITH THE ENGINEER AND ALL IMPACTED AGENCIES.
- SCD WRITTEN APPROVAL OF PHASING VARIATIONS AND PLAN REVISIONS IS REQUIRED PRIOR TO IMPLEMENTATION.
- NO MORE THAN 20 ACRES SHALL BE DISTURBED AT ANY TIME.
- MATERIAL EXCAVATED FROM STORMWATER PONDS MAY BE STOCK PILED WITHIN FUTURE PHASES FOR FILL IN THOSE PHASES. NO MORE THAN 20 ACRES MAY BE DISTURBED AT ANY TIME.
- PORTIONS OF PHASES MAY HAVE INTERMITTENT PERIODS OF OVERLAP. NO MORE THAN 20 ACRES MAY BE DISTURBED AT ANY TIME.
- PHASING PLAN SUBJECT TO CHANGE, PLEASE REFER TO LATEST RECORDED PHASING PLAN.

SUSSEX COUNTY PLANNING & ZONING CONDITIONS OF APPROVAL (AMENITIES)

J. AMENITIES INCLUDING A POOL AND POOL HOUSE SHALL BE CONSTRUCTED AND OPEN TO USE BY THE RESIDENTS OF THIS DEVELOPMENT ON OR BEFORE THE ISSUANCE OF THE 65TH RESIDENTIAL BUILDING PERMIT. THERE SHALL ALSO BE ADDITIONAL PARKING INSTALLED AT THE POOL AREA BEYOND WHAT WAS SHOWN ON THE PRELIMINARY SITE PLAN. THE FINAL SITE PLAN SHALL CONTAIN DETAILS AS TO THE SIZE AND LOCATION OF THESE AMENITIES, AND THE ADDITIONAL PARKING AREAS.

SITE DATA:

- OWNER: HOLLYVILLE BUYER, LLC
20184 PHILLIPS STREET
REHOBOTH BEACH, DE 19971
- DEVELOPER: SCHELL BROTHERS, LLC
20184 PHILLIPS STREET
REHOBOTH BEACH, DE 19971
PHONE: (302) 778-9468
CONTACT: TIM GREEN
- ENGINEER/
LAND PLANNER: SOLUTIONS IPEM, LLC
303 NORTH BEDFORD STREET
GEORGETOWN, DE 19947
PHONE: (302) 297-9215
CONTACT: JIM ERIKSEN, PE
- TAX MAP 234-10.00-14.00
AREA: 73.91 ± ACRES
- SUBDIVISION NUMBER: 2021-04
- SUSSEX COUNTY AGREEMENT # 1169
- WATER SUPPLY: ARTESIAN WATER COMPANY, INC.
- SANITARY SEWER: ARTESIAN WASTEWATER MANAGEMENT, INC.



solutions
 Integrated Planning
 Engineering & Management, LLC

303 North Bedford Street
 Georgetown, DE 19947
 T. 302.297.9215

3003 Merritt Mill Road
 Salisbury, MD 21804
 T. 410.572.8803

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NO.	DATE	DESCRIPTION
1	11/17/2022	ADDRESSED SCD, SCE, & ARTESIAN COMMENTS
2	1/11/2023	ADDRESSED SCE COMMENTS
3	1/18/2023	ADDRESSED ARTESIAN SEWER COMMENTS
4	1/20/2023	ADDRESSED SCD COMMENTS
5	3/17/2023	ADDRESSED DNREC WPCO COMMENTS
6	9/21/2023	REV. ADDED AT JACK AND BORE

PHASING PLAN
 for
AUTUMNDALE
 SUSSEX COUNTY, DELAWARE
 Prepared for: HOLLYVILLE BUYER, LLC

Date:	7-12-2022
Job Number:	G19087
Scale:	1"=200'
Drawn By:	EDT
Designed By:	JFR
Approved By:	JRE

Sheet No.: **65**

File Name:
 G19087-Phasing-Color.dwg

CONFORMED COPY
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 RECORDER OF DEEDS Alexandra Reed Baker
 Sussex County
 Consideration: \$0.00



SEWER PLAN SHEETS

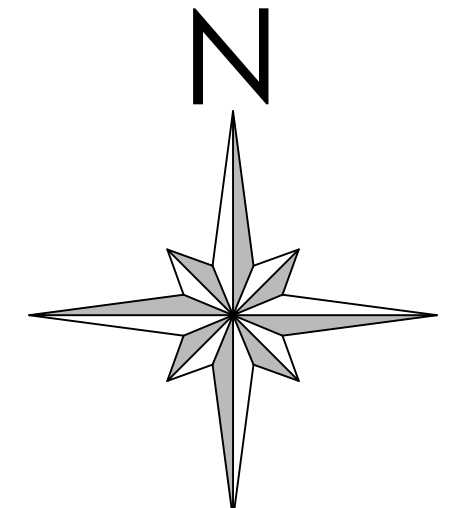
- 24 - SANITARY SEWER INDEX
- 25 - SANITARY SEWER PLAN A
- 26 - SANITARY SEWER PLAN B
- 27 - SANITARY SEWER PLAN C
- 28 - SANITARY SEWER PLAN D
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- 30 - SANITARY SEWER PROFILES 1
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- 33 - SANITARY SEWER DETAILS 1
- 34 - SANITARY SEWER DETAILS 2
- 35 - PUMPSTATION SITE PLAN
- 36 - PUMPSTATION DETAILS 1
- 37 - PUMPSTATION DETAILS 2
- E-1 - PUMP STATION SITE PLAN & LEGEND
- E-2 - S.E.C DIAGRAM & DETAIL
- E-3 - DETAILS, DIAGRAM & SCHEDULE

SITE DATA:

OWNER: HOLLYVILLE BUYER, LLC
20184 PHILLIPS STREET
REHOBOTH BEACH, DE 19971

APPLICANT/
DEVELOPER: SCHELL BROTHERS, LLC
20184 PHILLIPS STREET
REHOBOTH BEACH, DE 19971
PHONE: 302.778.9668
CONTACT: TIM GREEN

ENGINEER: SOLUTIONS IPEM
303 NORTH BEDFORD STREET
GEORGETOWN, DE 19947
PHONE: 302.297.9215
CONTACT: JIM ERIKSEN, PE



PUMP STATION DESIGN FLOW

Community	Homes	Amenities	Total EDUs
AUTUMNDALE	104	2	106
NORWOOD FARMS	34	2	36
TOTAL	138	4	142

- TAX MAP: 234-10.00-14.00
SITE AREA = 73.905 ± ACRES
- PROPOSED USE: AR-1 CLUSTER SUBDIVISION
104 SINGLE FAMILY LOTS
- EXISTING ZONING: AR-1
- FLOOD ZONE: THE PROPERTY IS LOCATED WITHIN FLOOD ZONE A (SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD) AND FLOOD ZONE X, (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN). PER FIRM MAP NUMBER 10005C0340K, MAP REVISED MARCH 16, 2015.
- WATER SUPPLY: ARTESIAN WATER COMPANY, INC.
- SANITARY SEWER: ARTESIAN WASTEWATER MANAGEMENT, INC.
- TOPOGRAPHY AND BOUNDARY SHOWN HEREIN ARE AS PROVIDED BY SOLUTIONS IPEM LLC.

NOTES:

1. THE SANITARY SEWER AND FORCE MAIN SHALL CONFORM TO THE ARTESIAN WASTEWATER MANAGEMENT, INC. STANDARDS AND SPECIFICATIONS AND COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
2. ARTESIAN WASTEWATER MANAGEMENT, INC. WILL OWN, OPERATE, AND MAINTAIN THE ON-SITE COMMUNITY WASTEWATER TREATMENT SYSTEM. THE ON-SITE COMMUNITY WASTEWATER PLAN WILL BE OPERATED UNDER THE PUBLIC SERVICE COMMISSION.
3. AN AGREEMENT FOR OPERATION AND MAINTENANCE OF THE ON-SITE COMMUNITY WASTEWATER SYSTEM MUST BE MAINTAINED IN ACCORDANCE WITH DNREC REQUIREMENTS. TOTAL NUMBER OF LATERALS ASSOCIATED WITH THESE PLANS IS 105 (INCLUDING AMENITY AREA).
4. ALL PVC GRAVITY-FED SANITARY SEWER PIPES SHALL BE GREEN SDR-26.
5. FORCE MAIN SHALL BE PVC C900 GREEN PIPE.
6. CONTRACTOR TO COORDINATE CONSTRUCTION SEQUENCING WITH ARTESIAN TO AVOID SERVICE INTERRUPTIONS AS PRACTICABLE.
7. POOL BACKWASH WILL NOT BE ALLOWED TO TIE INTO THE SEWER SYSTEM. CARTRIDGE SYSTEM SHALL BE UTILIZED.

SANITARY SEWER STRUCTURE CHART

NAME	RIM ELEV(FT)	INVERT-IN ELEV(FT) (1)	INVERT-IN ELEV(FT) (2)	INVERT-OUT ELEV(FT)
PS-1	32.01	15.74	N/A	N/A
SS-A1	30.31	16.24	16.24	16.07
SS-A2	29.90	16.47	N/A	16.42
SS-A3	30.15	16.86	N/A	16.81
SS-A4	30.26	17.25	N/A	17.20
SS-A5	30.57	18.50	N/A	18.45
SS-A6	30.98	19.75	N/A	19.70
SS-A7	31.66	20.48	20.48	20.43
SS-A8	31.14	N/A	N/A	23.56
SS-B1	30.35	17.26	N/A	17.21
SS-B2	30.93	19.65	N/A	19.60
SS-B3	30.27	20.90	N/A	20.85
SS-B4	30.56	22.04	N/A	21.99
SS-B5	30.71	23.16	23.16	23.11
SS-B6	30.88	N/A	N/A	25.88
SS-C1	31.18	21.30	21.30	21.25
SS-C2	30.16	N/A	N/A	24.56
SS-D1	30.01	23.53	N/A	23.48
SS-D2	29.97	N/A	N/A	24.97
SS-E1	32.50	22.28	N/A	22.23

SANITARY SEWER PIPE TABLE

NAME	SIZE (IN)	MATERIAL	LENGTH (FT)	SLOPE (%)	UP INVERT (FT)	DOWN INVERT (FT)
SS-PA1	10	Ductile Iron	82.90	0.40	16.07	15.74
SS-PA2	8	PVC - SDR 26	61.17	0.30	16.42	16.24
SS-PA3	8	PVC - SDR 26	114.79	0.30	16.81	16.47
SS-PA4	8	PVC - SDR 26	113.01	0.30	17.20	16.86
SS-PA5	8	PVC - SDR 26	400.00	0.30	18.45	17.25
SS-PA6	8	PVC - SDR 26	400.00	0.30	19.70	18.50
SS-PA7	8	PVC - SDR 26	224.86	0.30	20.43	19.75
SS-PA8	8	PVC - SDR 26	102.64	3.00	23.56	20.48
SS-PB1	8	PVC - SDR 26	32.50	3.00	17.21	16.24
SS-PB2	8	PVC - SDR 26	269.71	0.87	19.60	17.26
SS-PB3	8	PVC - SDR 26	400.00	0.30	20.85	19.65
SS-PB4	8	PVC - SDR 26	344.39	0.30	21.99	20.90
SS-PB5	8	PVC - SDR 26	355.36	0.30	23.11	22.04
SS-PB6	8	PVC - SDR 26	138.69	1.96	25.88	23.16
SS-PC1	8	PVC - SDR 26	252.74	0.30	21.25	20.48
SS-PC2	8	PVC - SDR 26	400.00	0.82	24.56	21.30
SS-PD1	8	PVC - SDR 26	48.95	0.46	23.48	23.16
SS-PD2	8	PVC - SDR 26	359.71	0.40	24.97	23.53
SS-PE1	8	PVC - SDR 26	308.88	0.30	22.23	21.30

REVISIONS

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5	3/17/2023	ADDRESSED DNREC WPCP COMMENTS
6	3/31/2023	ARV ADDED AT JACK AND BORE

SANITARY SEWER INDEX

for
AUTUMNDALE
SUSSEX COUNTY, DELAWARE
Prepared for: HOLLYVILLE BUYER, LLC

Date: 7-12-2022
Job Number: G19087
Scale: 1" = 200'
Drawn By: JPR
Designed By: JRE
Approved By: JRE

Sheet No.: 24

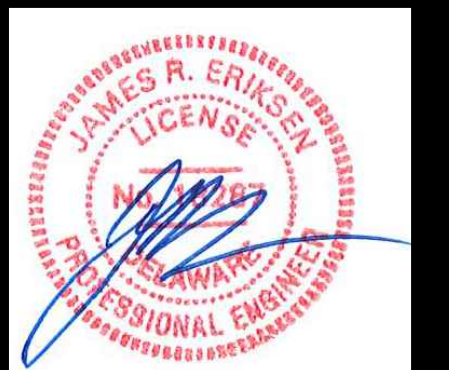
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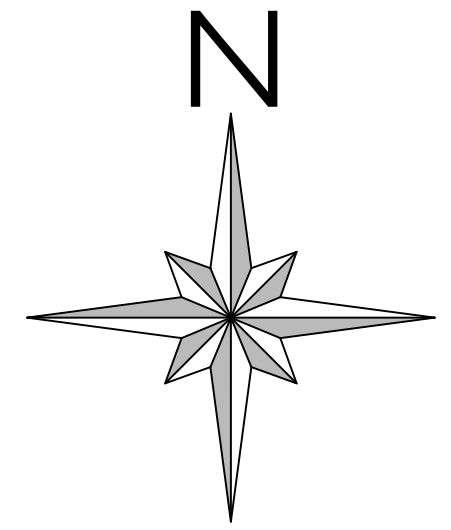
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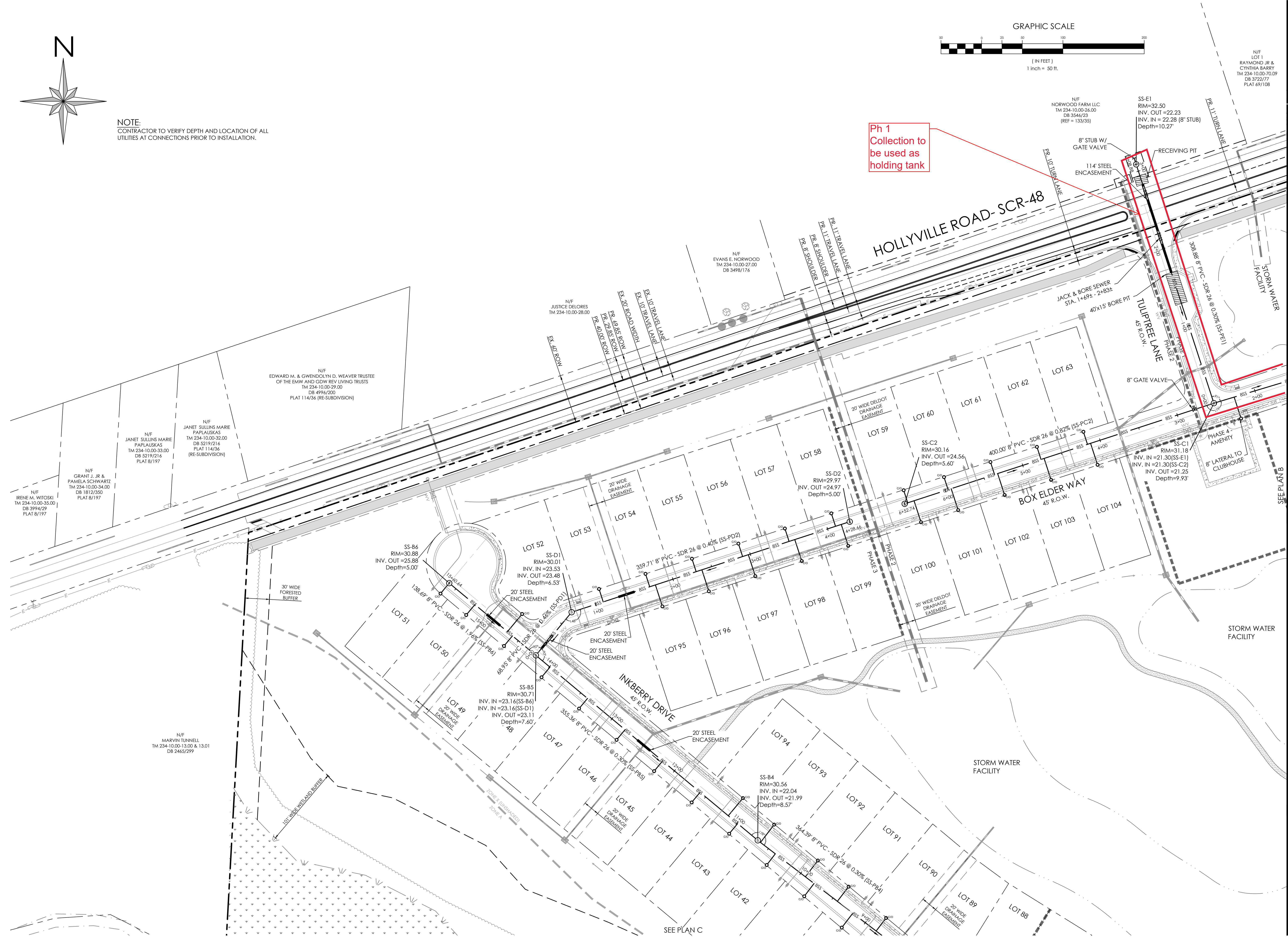
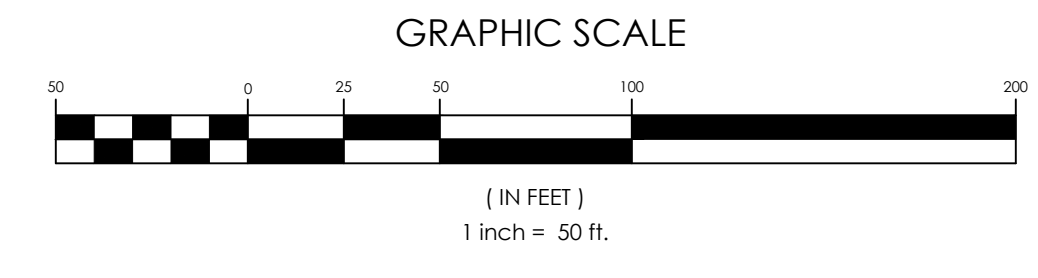
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Date: 3/31/2023



NOTE:
CONTRACTOR TO VERIFY DEPTH AND LOCATION OF ALL UTILITIES AT CONNECTIONS PRIOR TO INSTALLATION.



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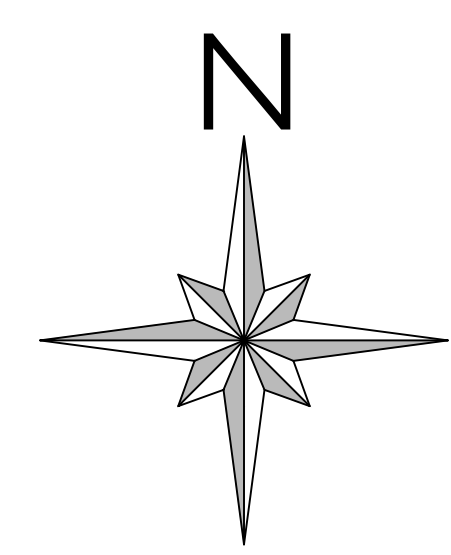
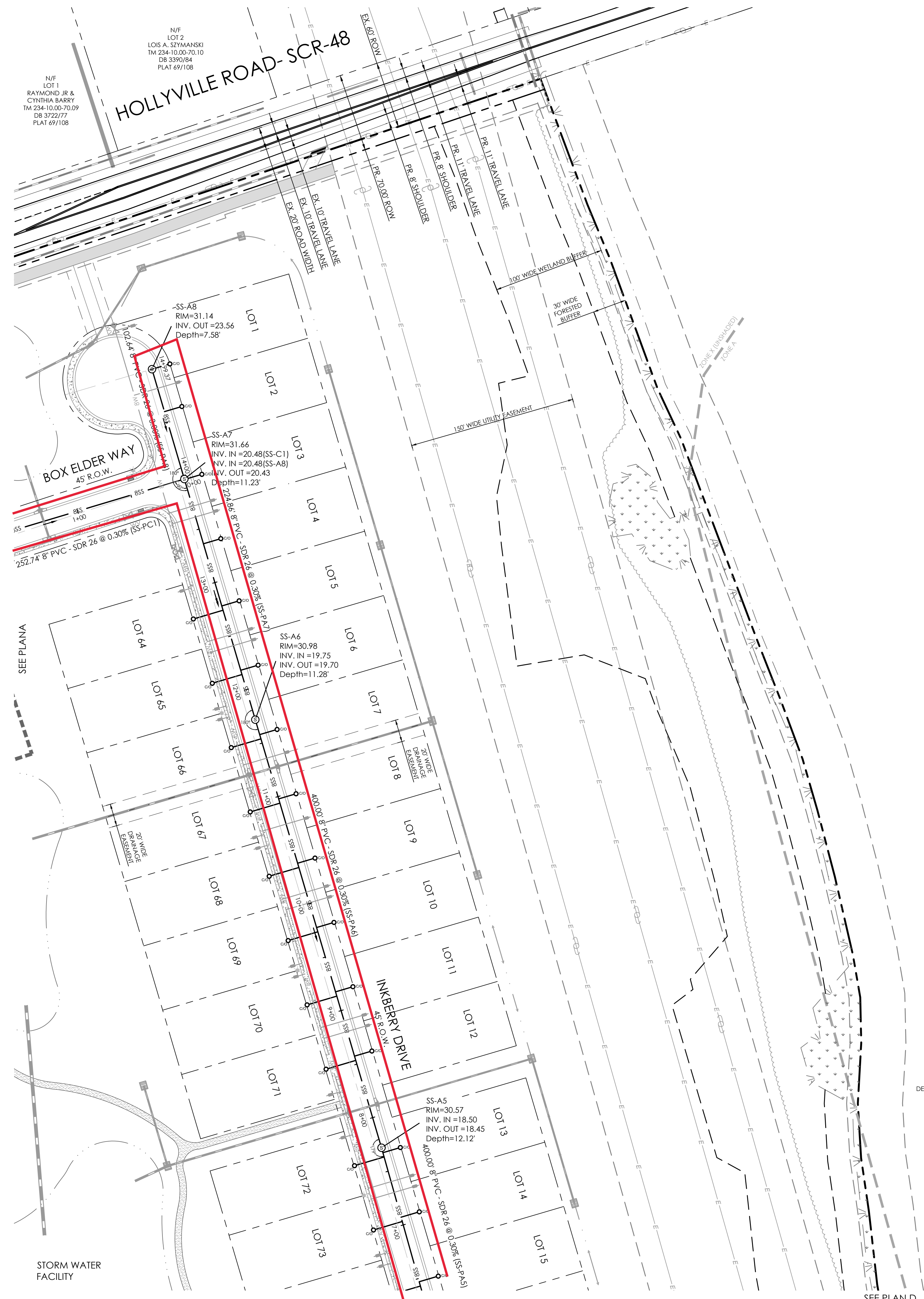
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6	3/31/2023	ARV ADDED AT JACK AND BORE

SANITARY SEWER PLAN A
for
AUTUMNDALE
SUSSEX COUNTY, DELAWARE
Prepared for: HOLLYVILLE BUYER, LLC

Date:	7-12-2022
Job Number:	G19087
Scale:	1"=50'
Drawn By:	EDT
Designed By:	JPR
Approved By:	JRE

Sheet No.: 25

File Name: G19087-Sewer.dwg



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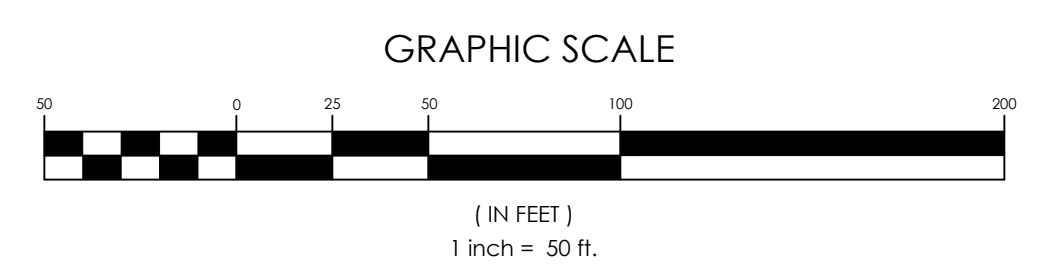
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6	3/31/2023	ARV ADDED AT JACK AND BORE

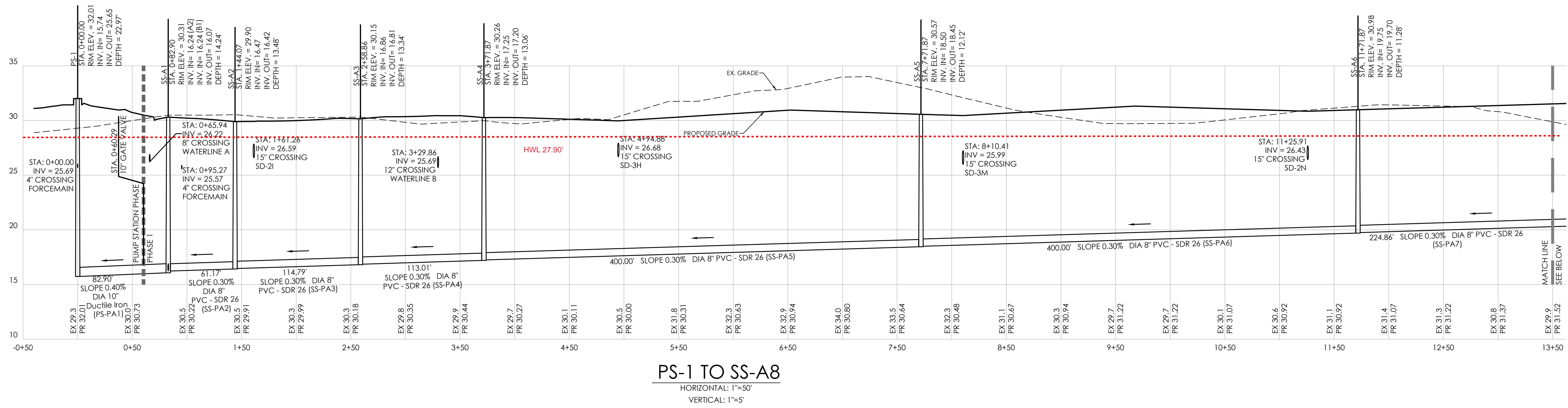
SANITARY SEWER PLAN B
 for
AUTUMNDALE
 SUSSEX COUNTY, DELAWARE
 Prepared for: HOLLYVILLE BUYER, LLC

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Job Number:	G19087
Scale:	1"=50'
Drawn By:	EDT
Designed By:	JPR
Approved By:	JRE

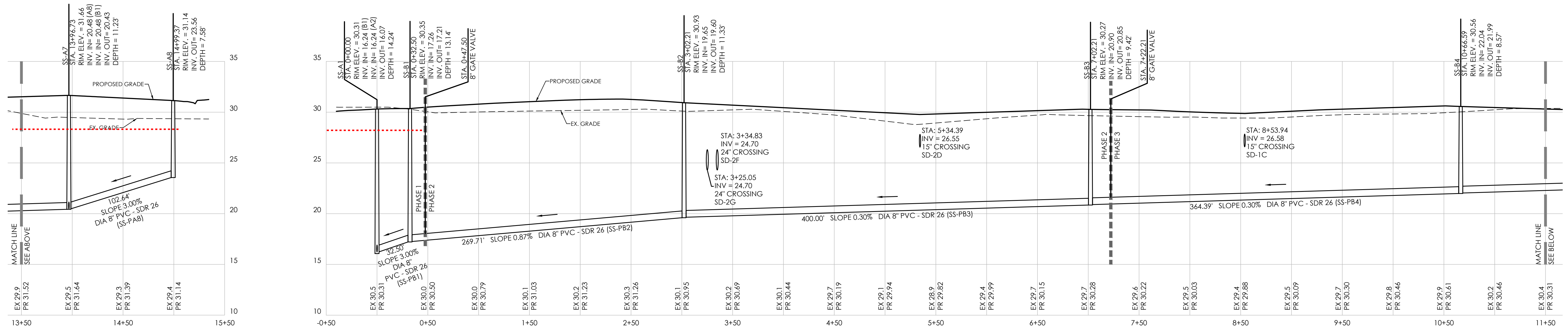
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NOTE:
 CONTRACTOR TO VERIFY DEPTH AND LOCATION OF ALL UTILITIES AT CONNECTIONS PRIOR TO INSTALLATION.





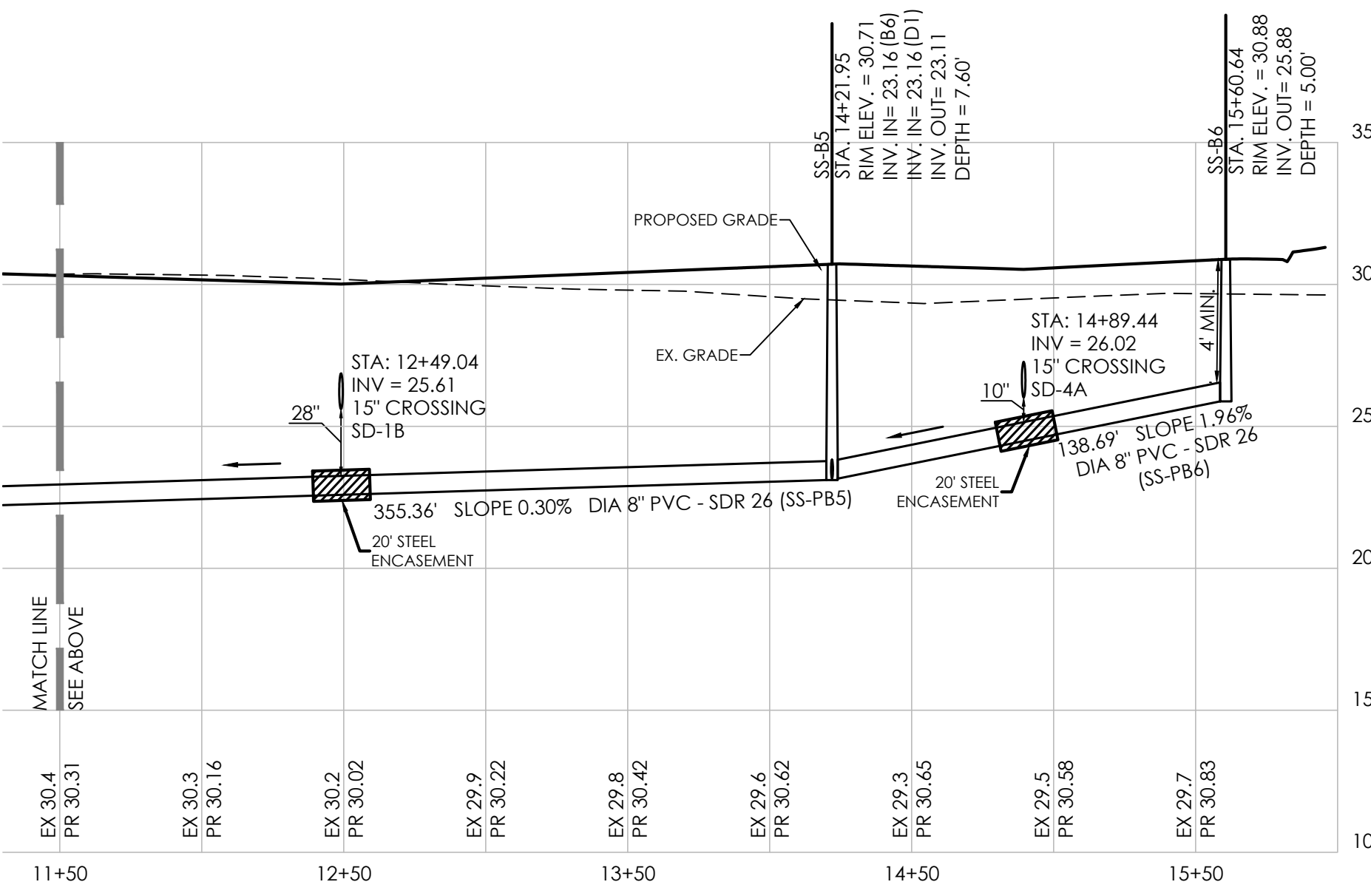
PS-1 TO SS-A8
 HORIZONTAL: 1"=50'
 VERTICAL: 1"=5'



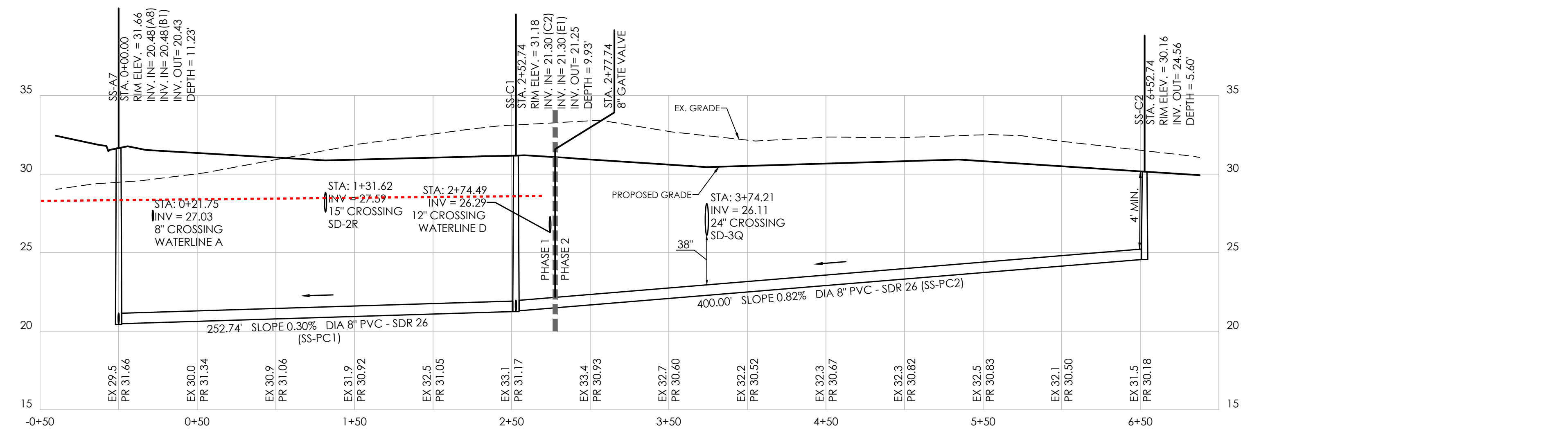
PS-1 TO SS-A8 (CONTINUED)
 HORIZONTAL: 1"=50'
 VERTICAL: 1"=5'

SS-A1 TO SS-B6
 HORIZONTAL: 1"=50'
 VERTICAL: 1"=5'

- NOTES:**
- ALL PVC GRAVITY-FED SANITARY SEWER PIPE SHALL BE GREEN SDR 26 PVC UNLESS OTHERWISE NOTED
 - ALL FORCE MAINS SHALL BE C900 PVC GREEN PIPE.
 - SEWERS CROSSING WATER MAINS SHALL BE LAID OUT TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18" BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER. THE CROSSING SHALL BE ARRANGED SO THE SEWER JOINTS WILL BE EQUIDISTANT, AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS. CONCRETE ENCASEMENT SHALL BE REQUIRED WHEN IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION.
 - ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE SEWER PIPE. WHEN IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION CONCRETE ENCASEMENT SHALL BE REQUIRED TO BE INSTALLED IN MINIMUM OF 5' ON EITHER SIDE OF THE CROSSING POINT ON THE LOWEST UTILITY.



SS-A1 TO SS-B6 (CONTINUED)
 HORIZONTAL: 1"=50'
 VERTICAL: 1"=5'



SS-A7 TO SS-C2
 HORIZONTAL: 1"=50'
 VERTICAL: 1"=5'



Date: 3/31/2023

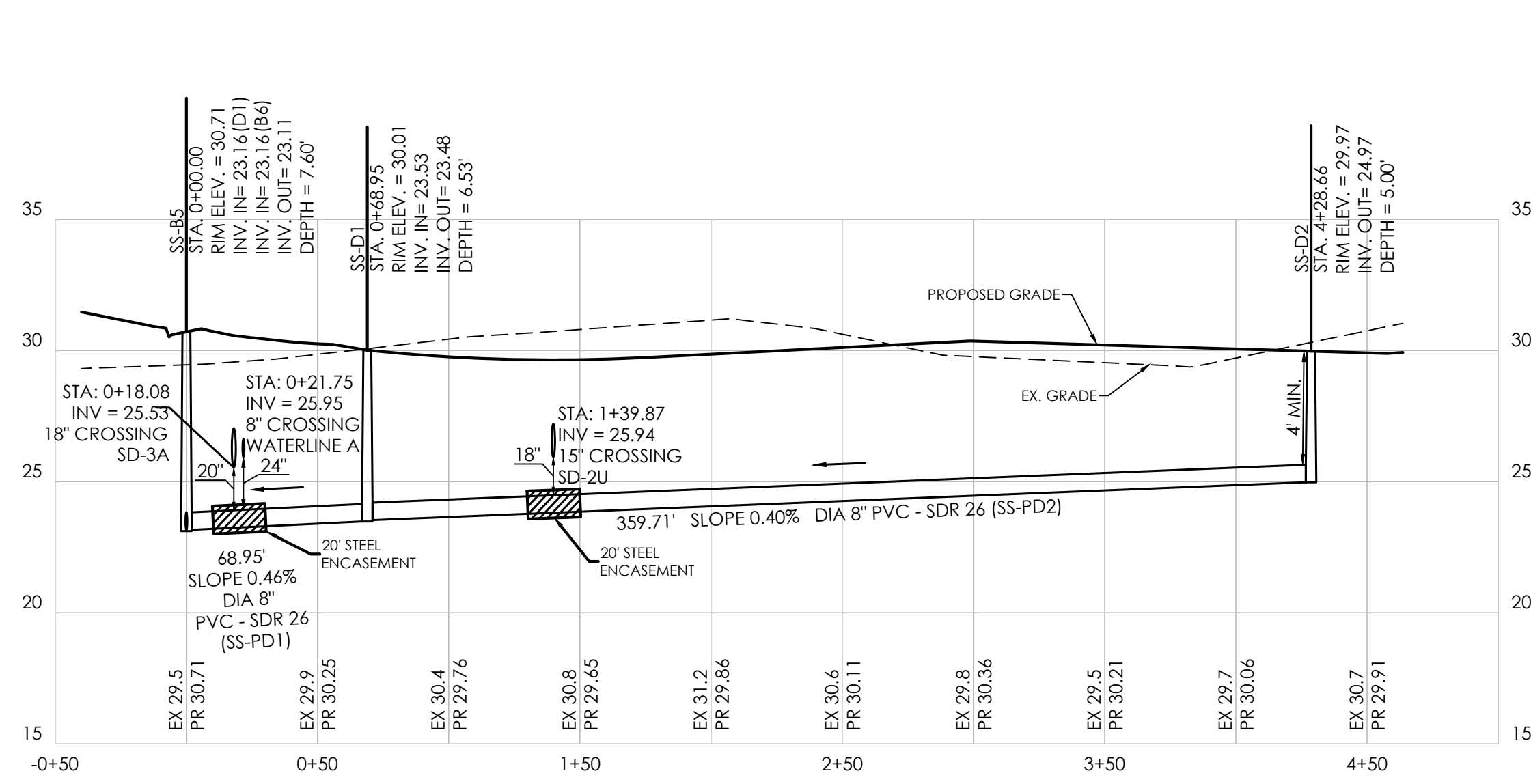
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SANITARY SEWER PROFILES 1

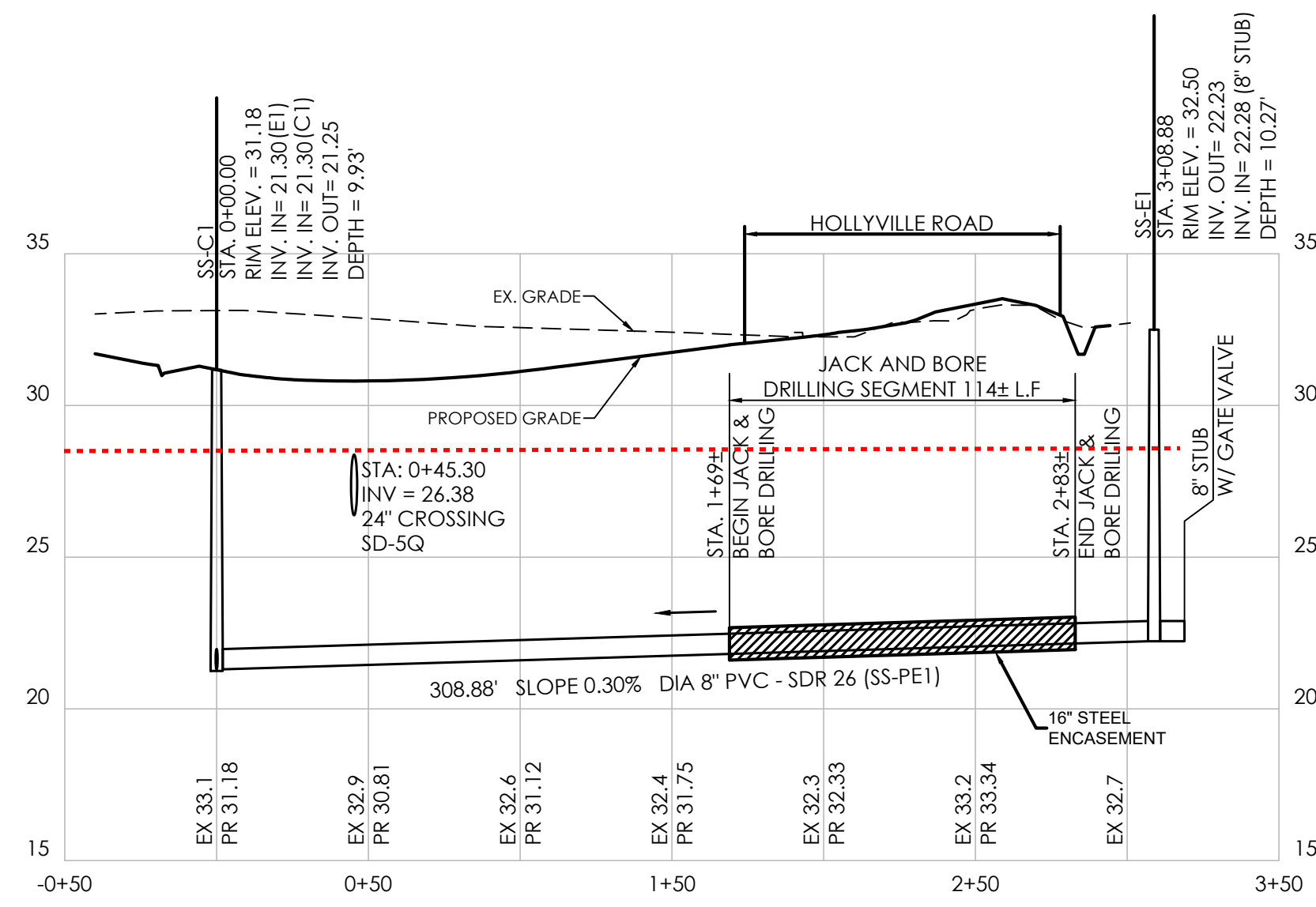
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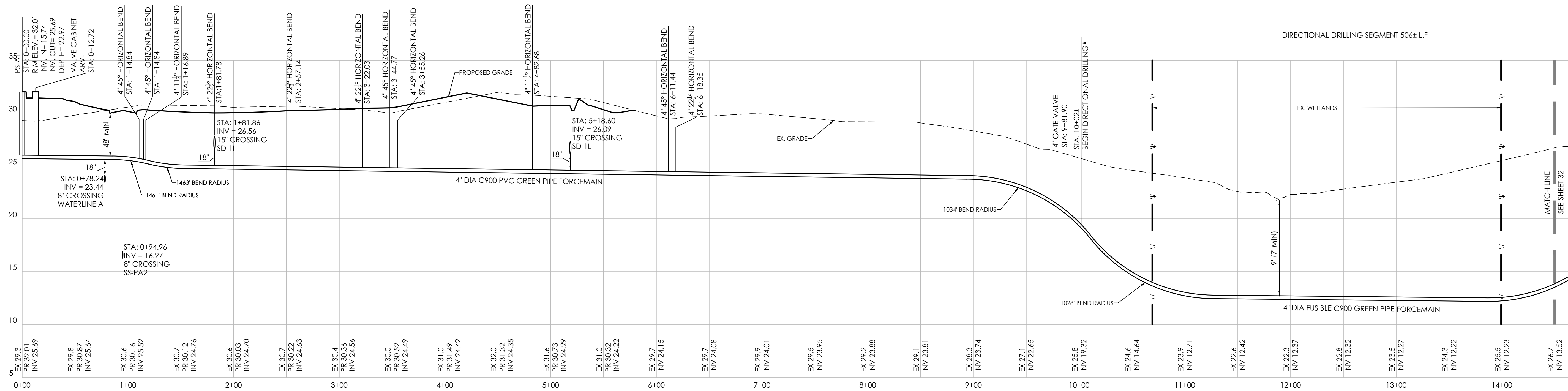
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 VERTICAL: 1"=5'



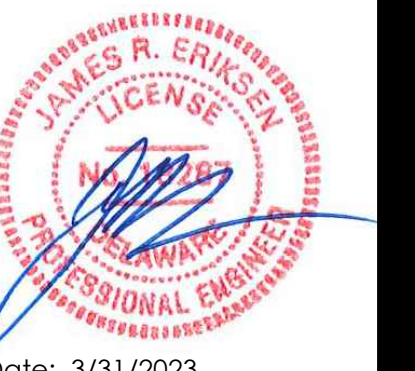
SS-C2 TO SS-E1
 HORIZONTAL: 1"=50'
 VERTICAL: 1"=5'



FORCEMAIN
 HORIZONTAL: 1"=50'
 VERTICAL: 1"=5'

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SANITARY SEWER PROFILES 2

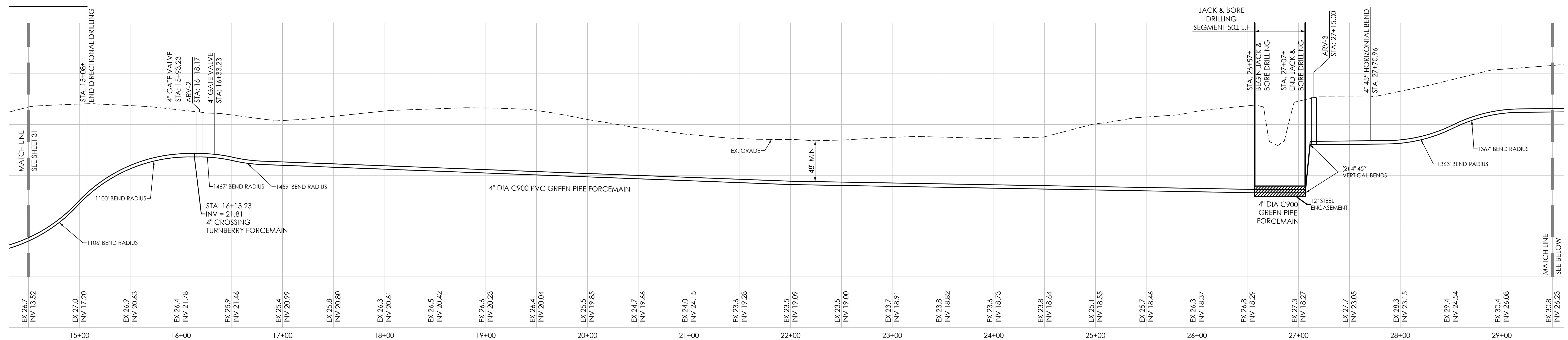
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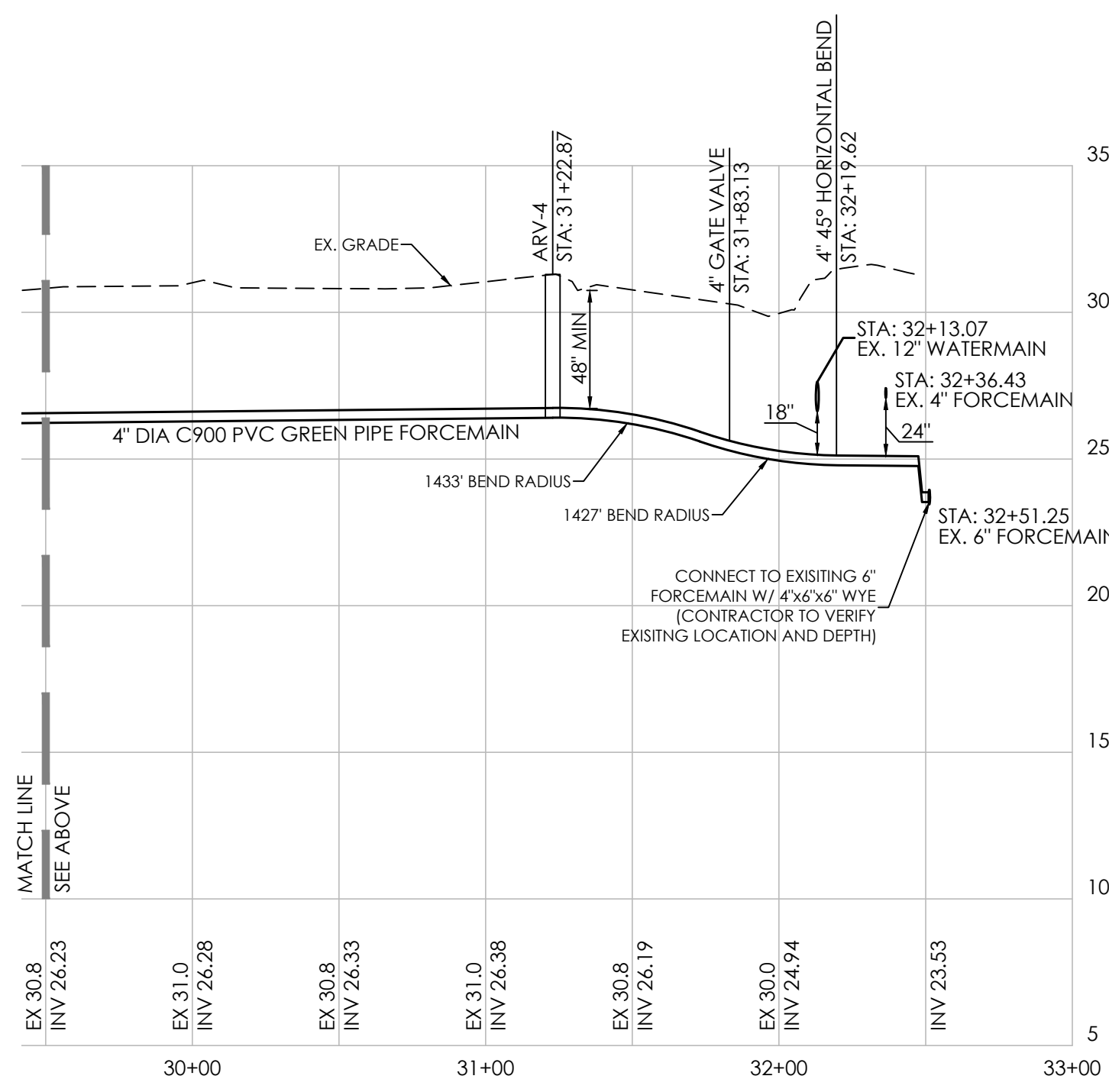
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FORCEMAIN (CONTNUED)
 HORIZONTAL: 1"=50'
 VERTICAL: 1"=5'



FORCEMAIN (CONTNUED)
 HORIZONTAL: 1"=50'
 VERTICAL: 1"=5'



Date: 3/31/2023

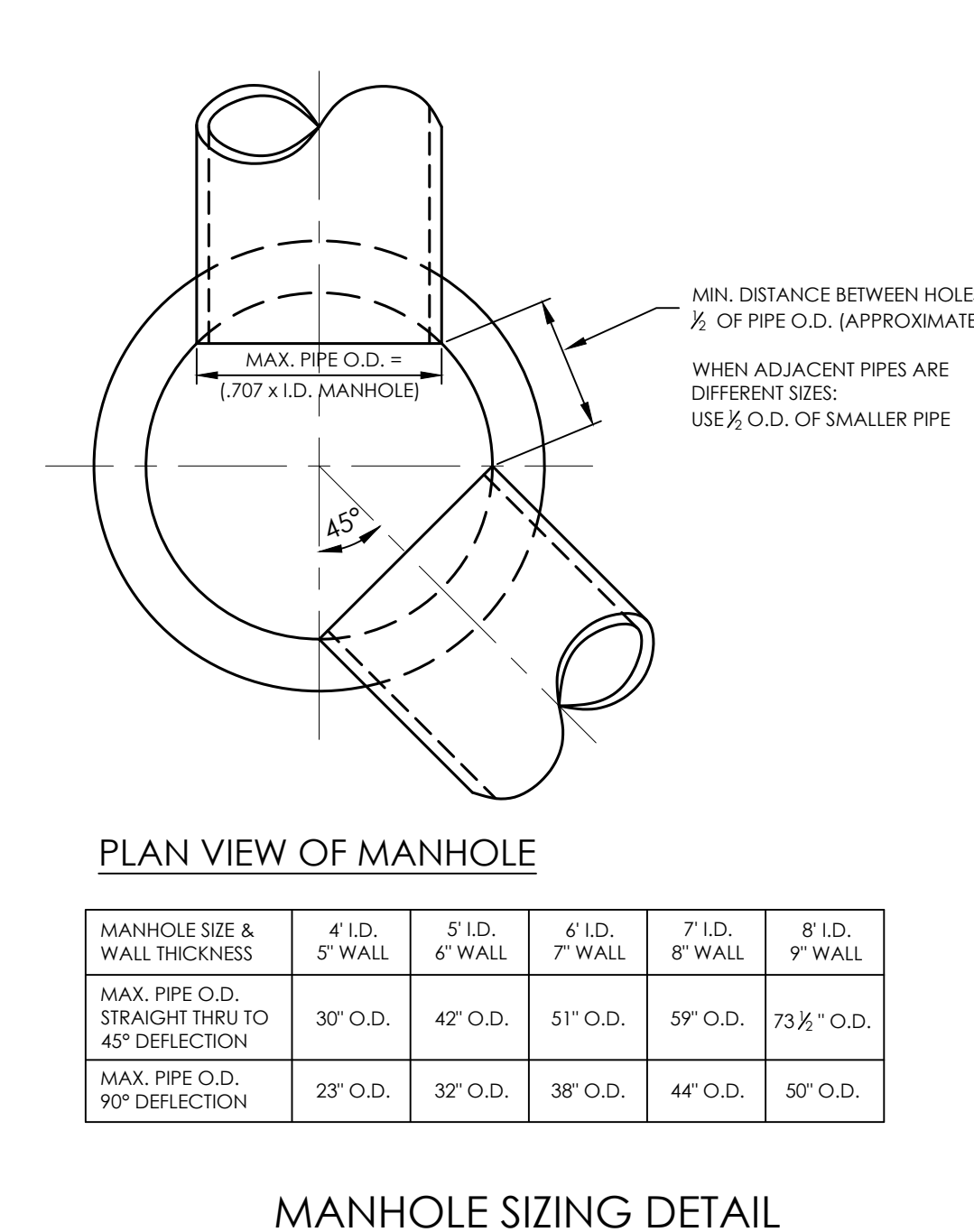
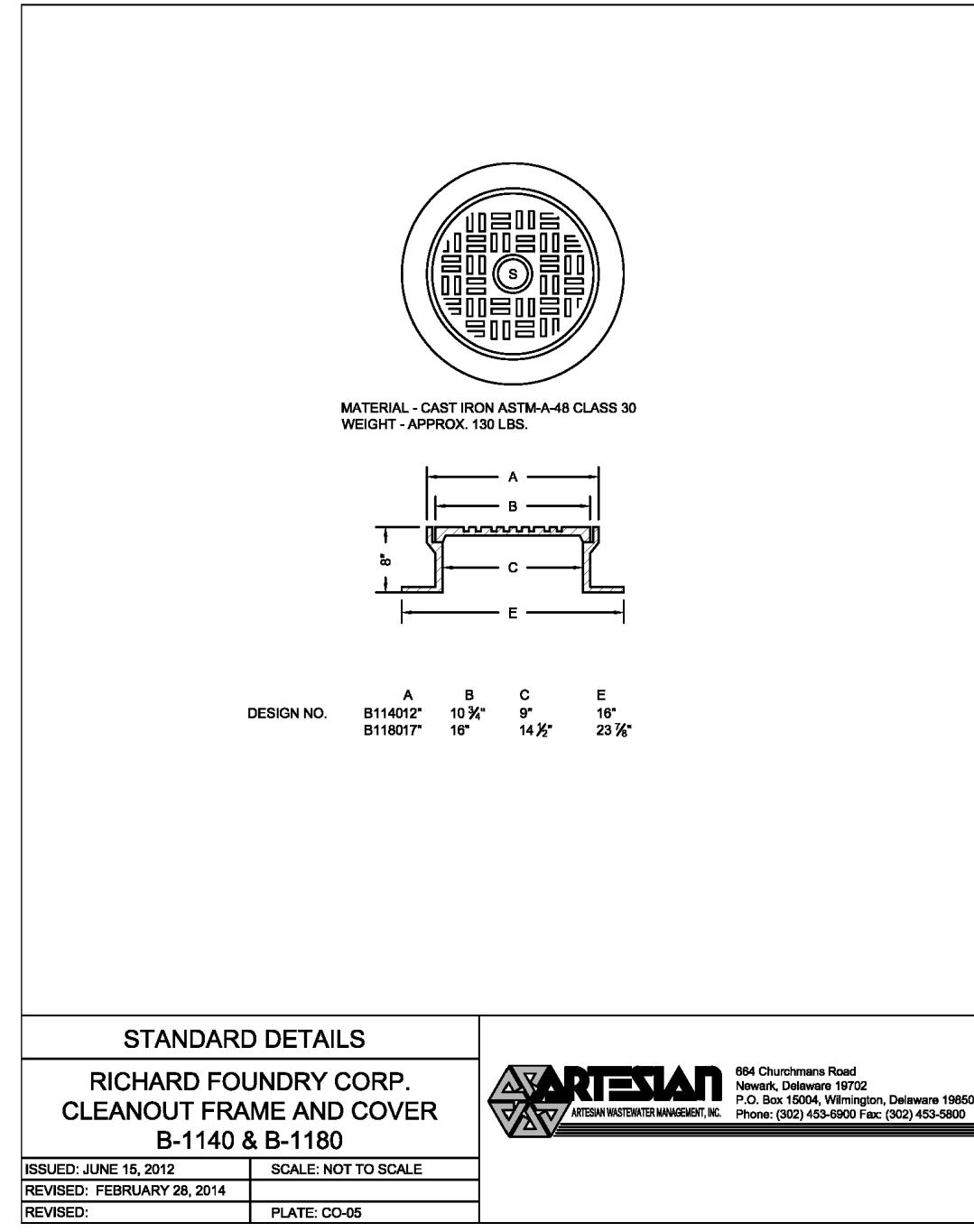
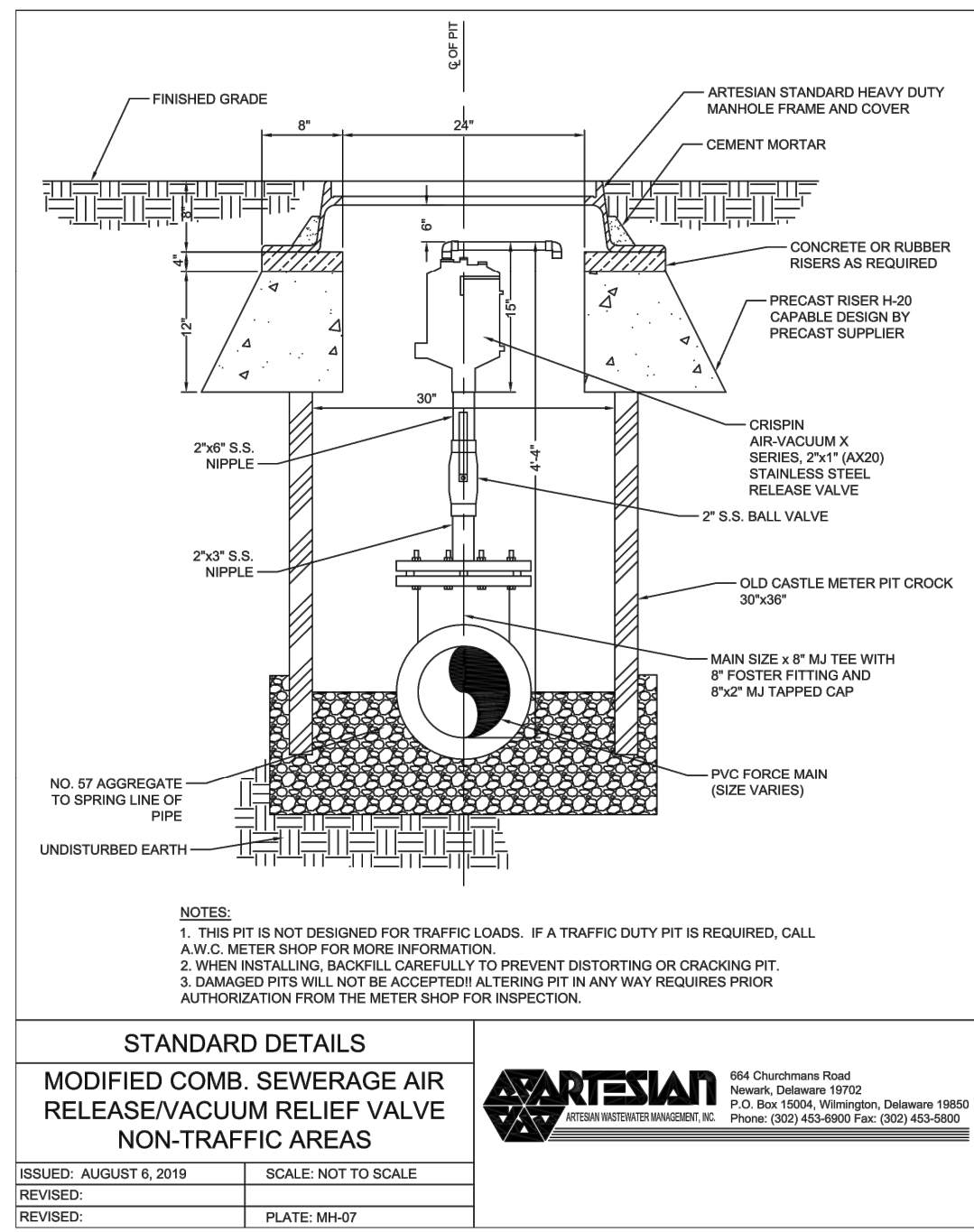
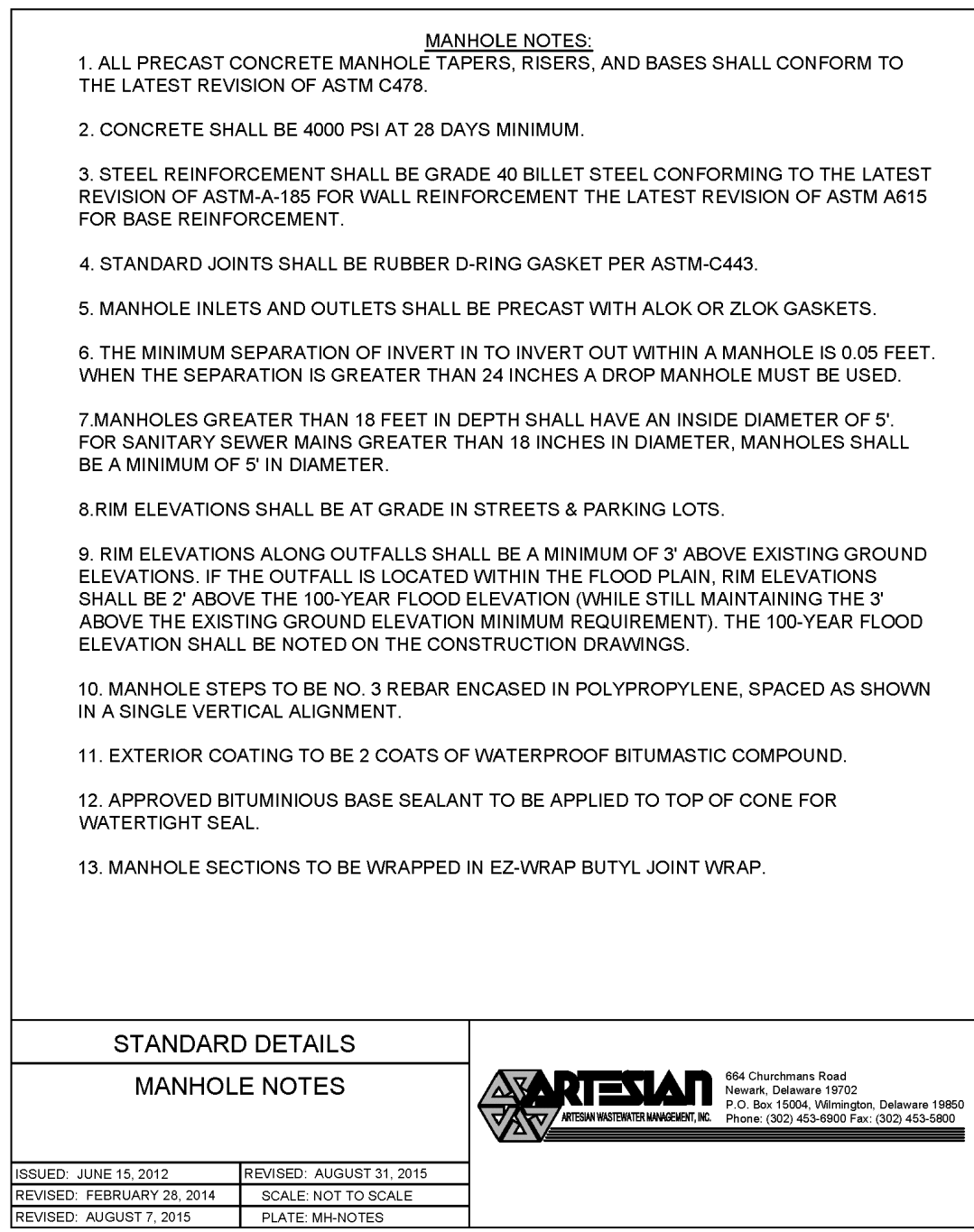
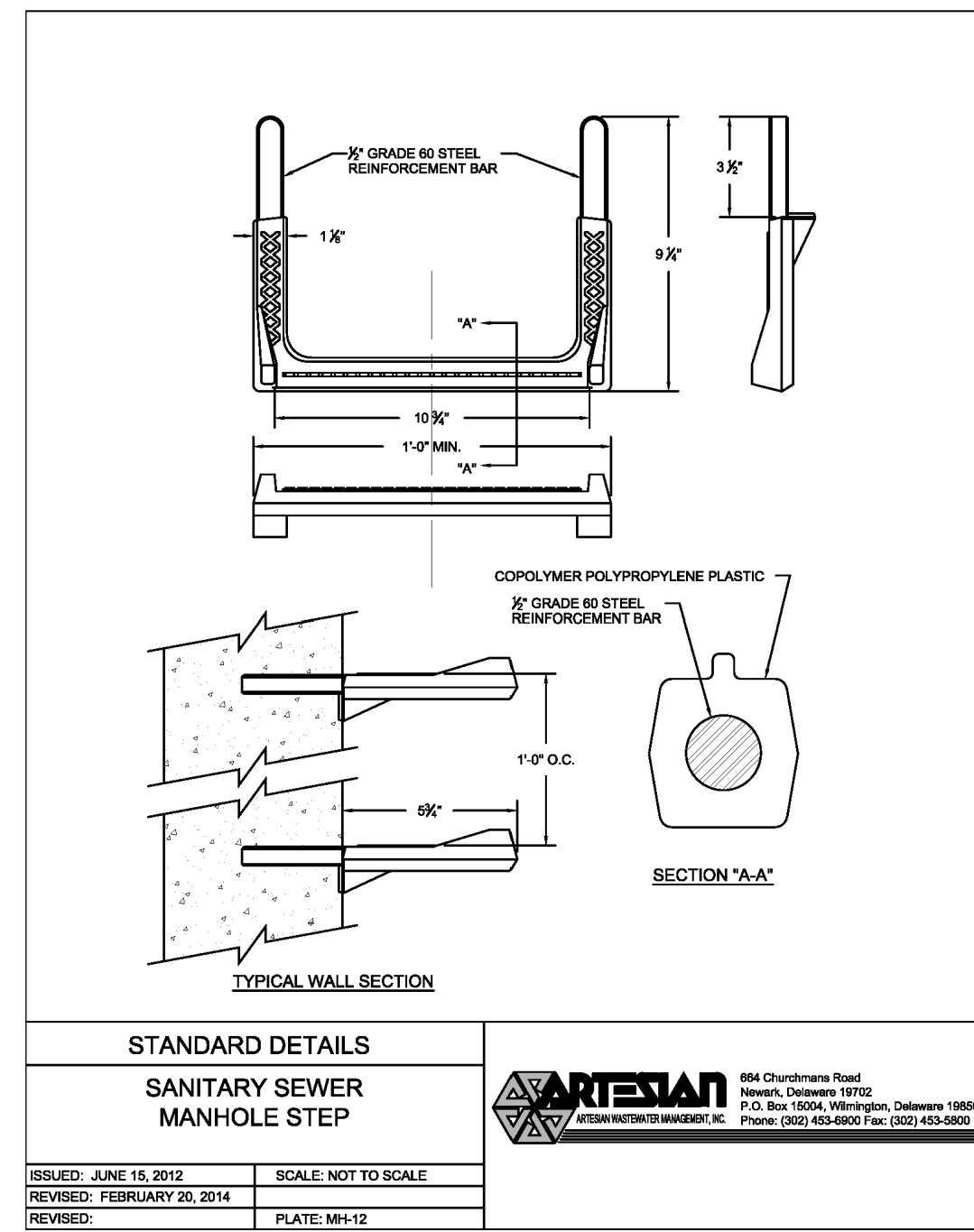
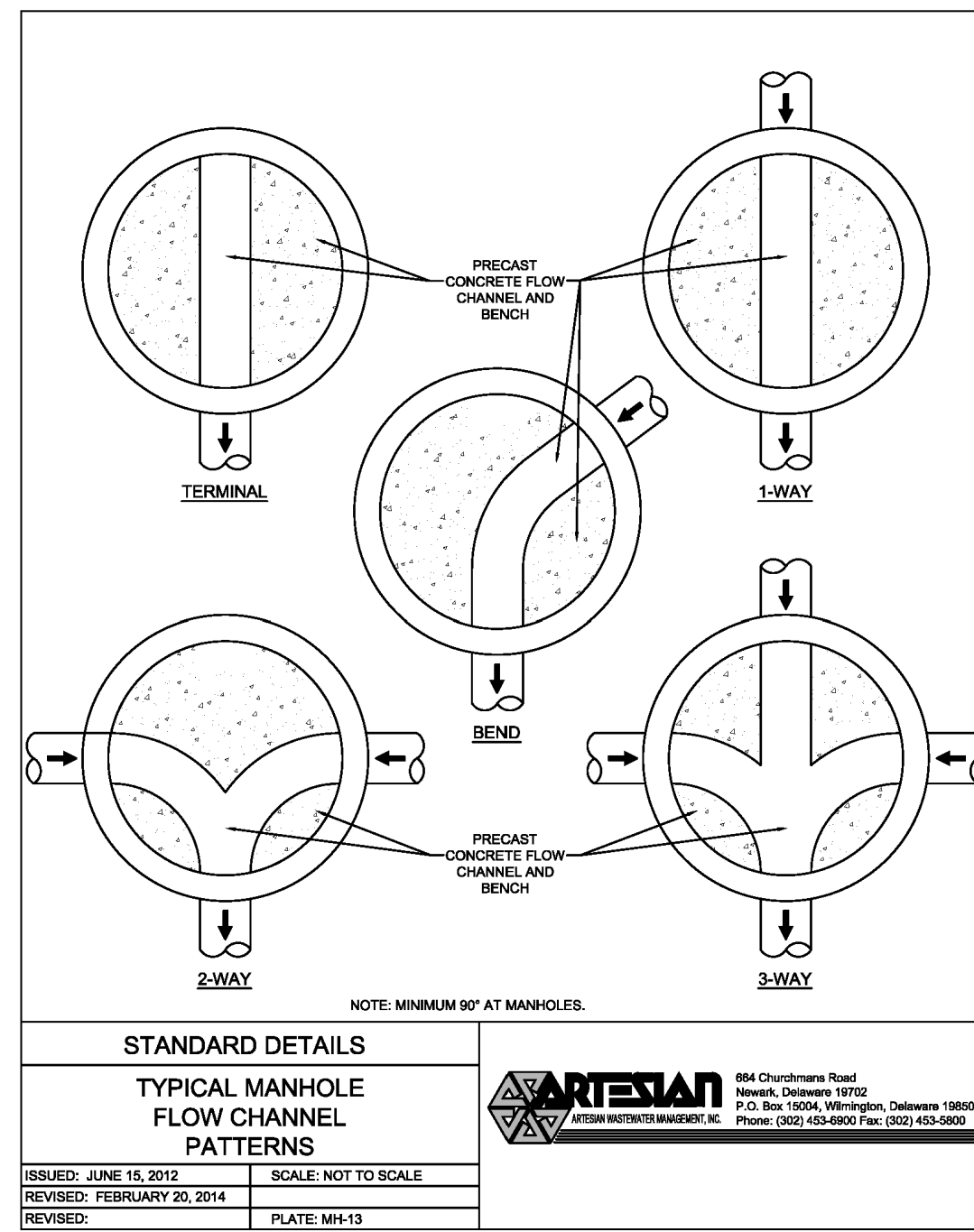
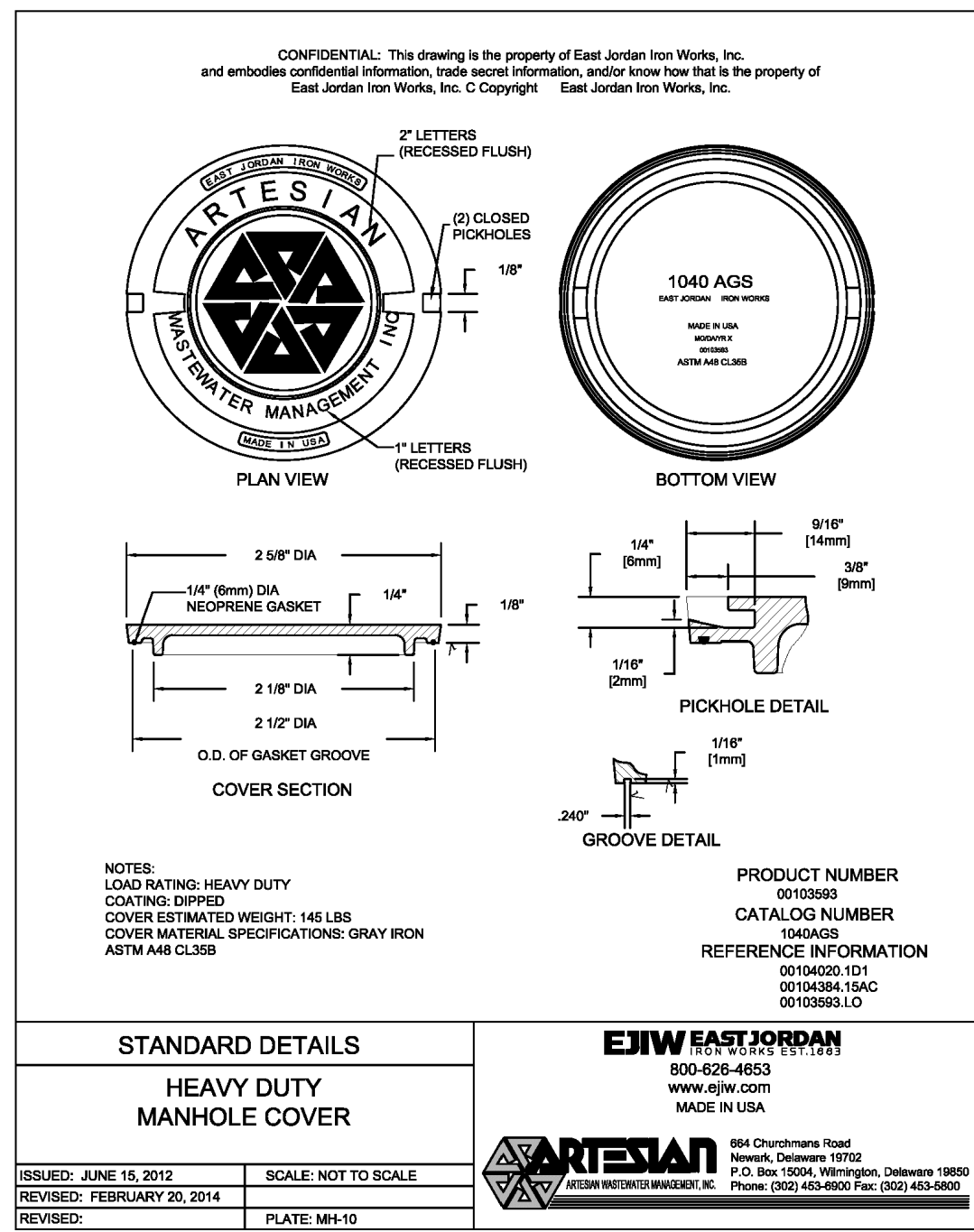
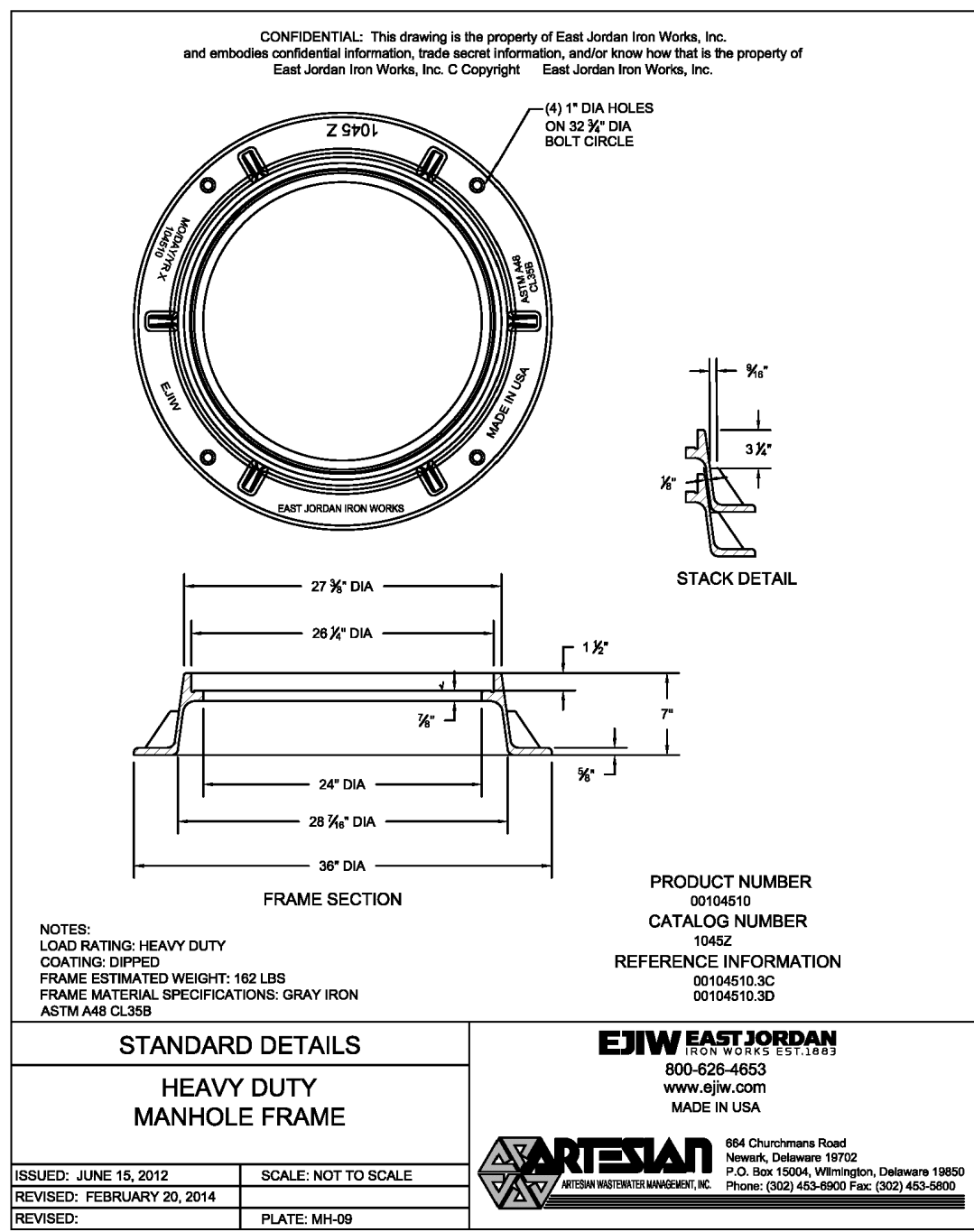
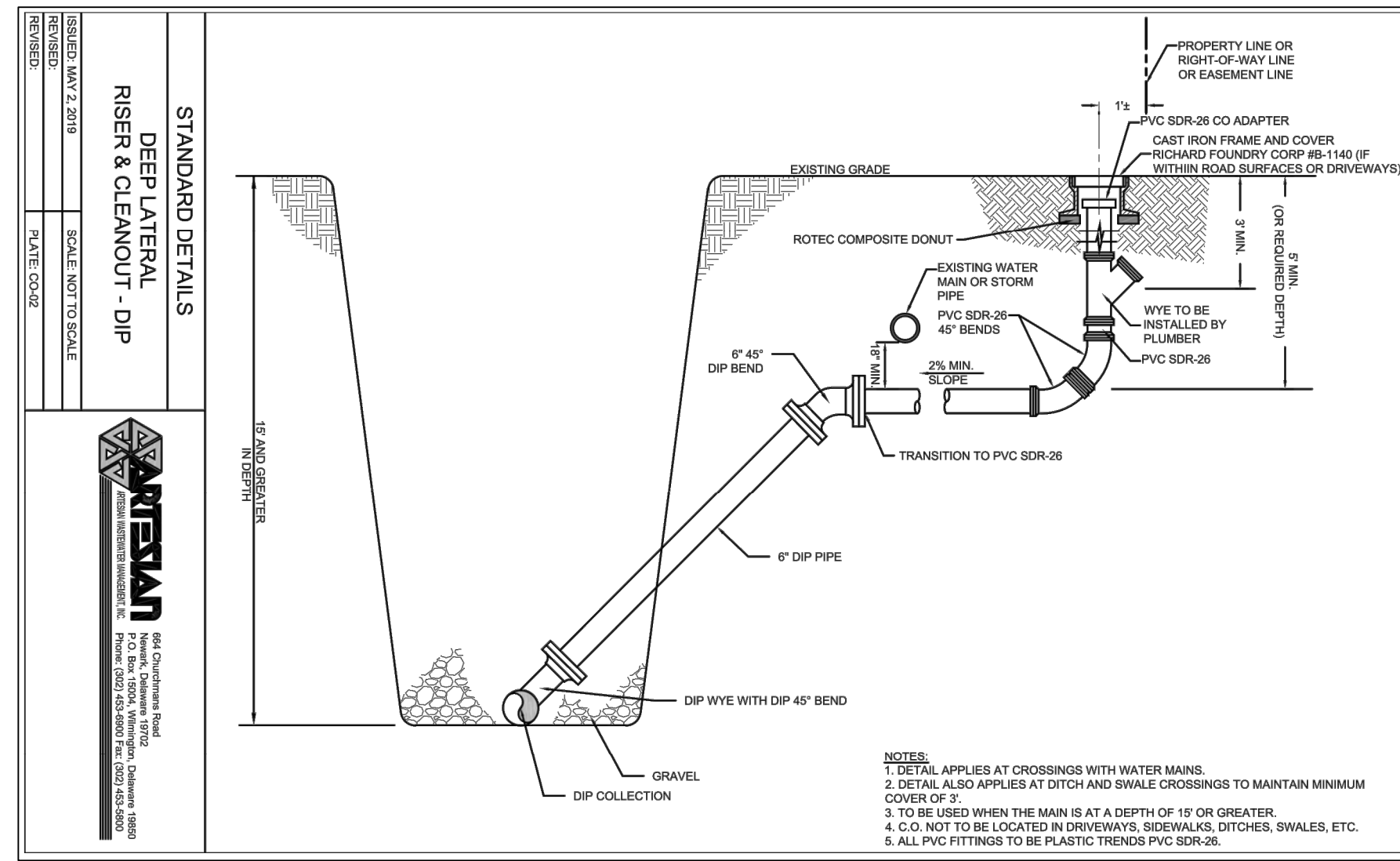
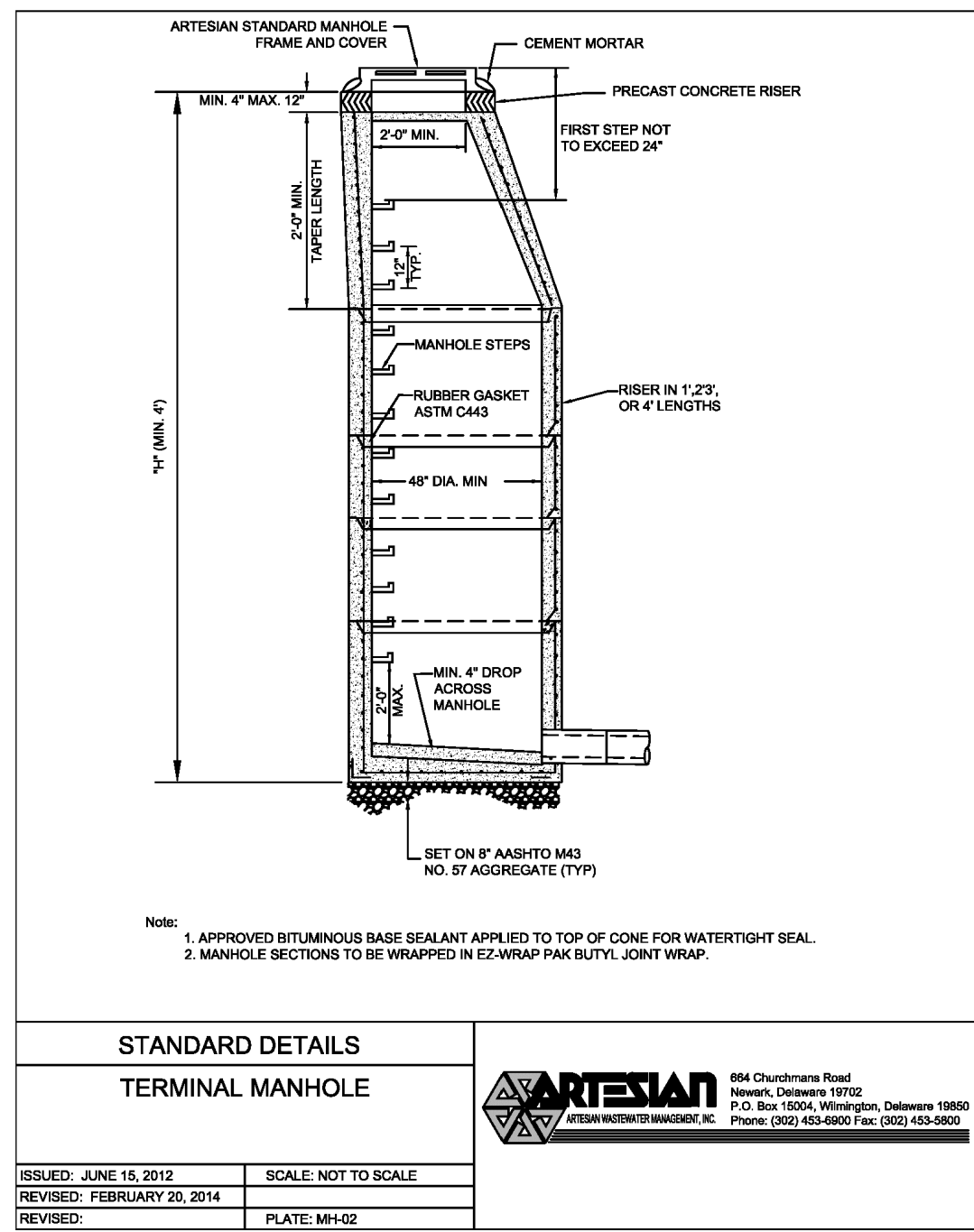
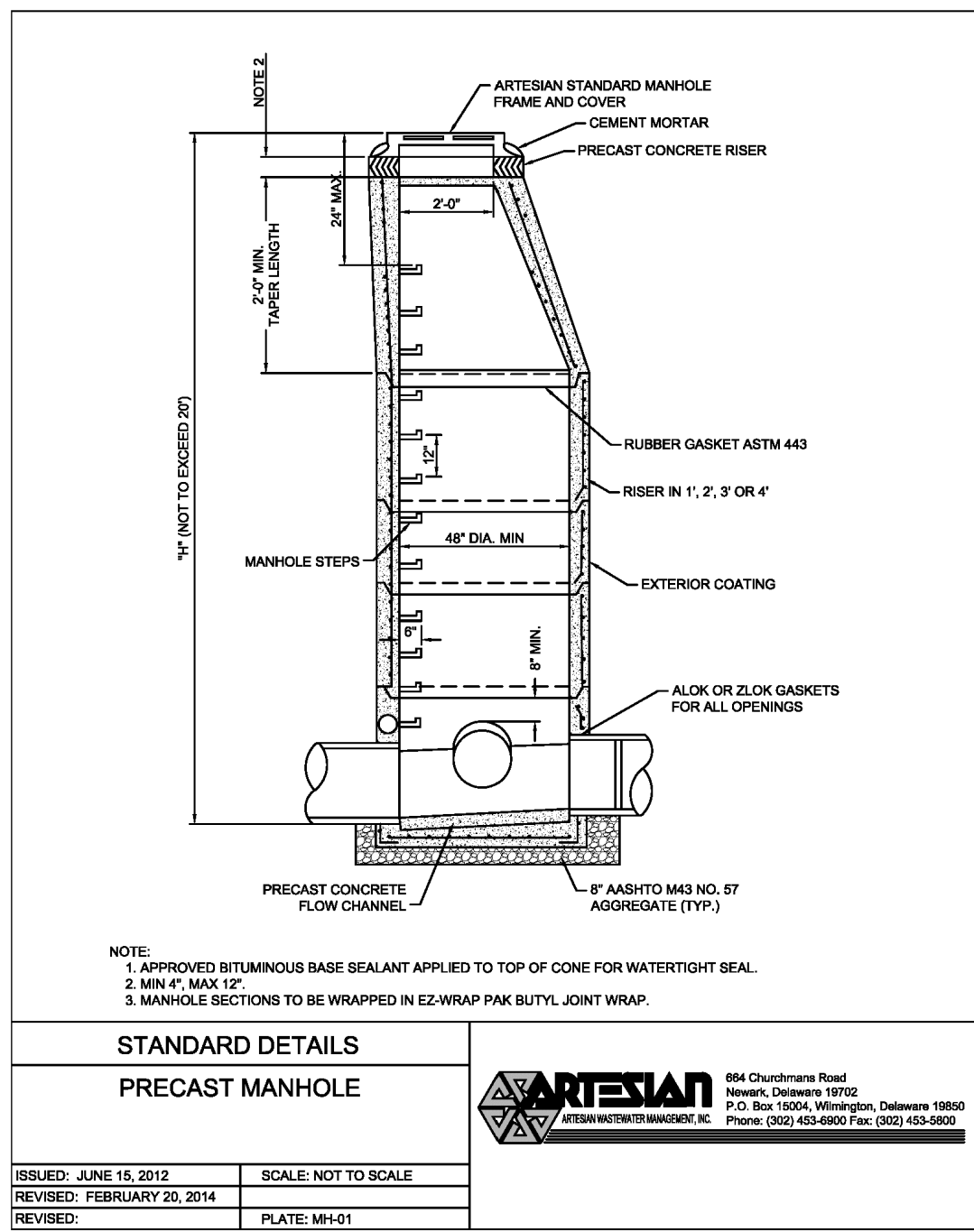
NO.	DATE	DESCRIPTION
1	11/7/2022	ADDRESSED SCD. SCE. & ARTESIAN COMMENTS
2	1/11/2023	ADDRESSED SCE COMMENTS
3	1/18/2023	ADDRESSED ARTESIAN SEWER COMMENTS
4	1/20/2023	ADDRESSED SCD COMMENTS
5	3/17/2023	ADDRESSED DNREC WPCC COMMENTS
6	3/31/2023	ARV ADDED AT JACK AND BORE

SANITARY SEWER PROFILES 3
 for
AUTUMNDALE
 SUSSEX COUNTY, DELAWARE
 Prepared for: HOLLYVILLE BUYER, LLC

Date:	7-12-2022
Job Number:	G19087
Scale:	AS NOTED
Drawn By:	EDT
Designed By:	JPR
Approved By:	JRE

Sheet No.:

- NOTES:**
- ALL PVC GRAVITY-FED SANITARY SEWER PIPE SHALL BE GREEN SDR 26 PVC UNLESS OTHERWISE NOTED
 - ALL FORCE MAINS SHALL BE C900 PVC GREEN PIPE.
 - SEWERS CROSSING WATER MAINS SHALL BE LAID OUT TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18" BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER. THE CROSSING SHALL BE ARRANGED SO THE SEWER JOINTS WILL BE EQUIDISTANT, AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS. CONCRETE ENCASEMENT SHALL BE REQUIRED WHEN IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION.
 - ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE SEWER PIPE. WHEN IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION CONCRETE ENCASEMENT SHALL BE REQUIRED TO BE INSTALLED IN MINIMUM OF 5' ON EITHER SIDE OF THE CROSSING POINT ON THE LOWEST UTILITY.



Date: 3/31/2023

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5	3/17/2023	ADDRESSED DNR/REC WPPCC COMMENTS
6	3/31/2023	ARV ADDED AT JACK AND BORE

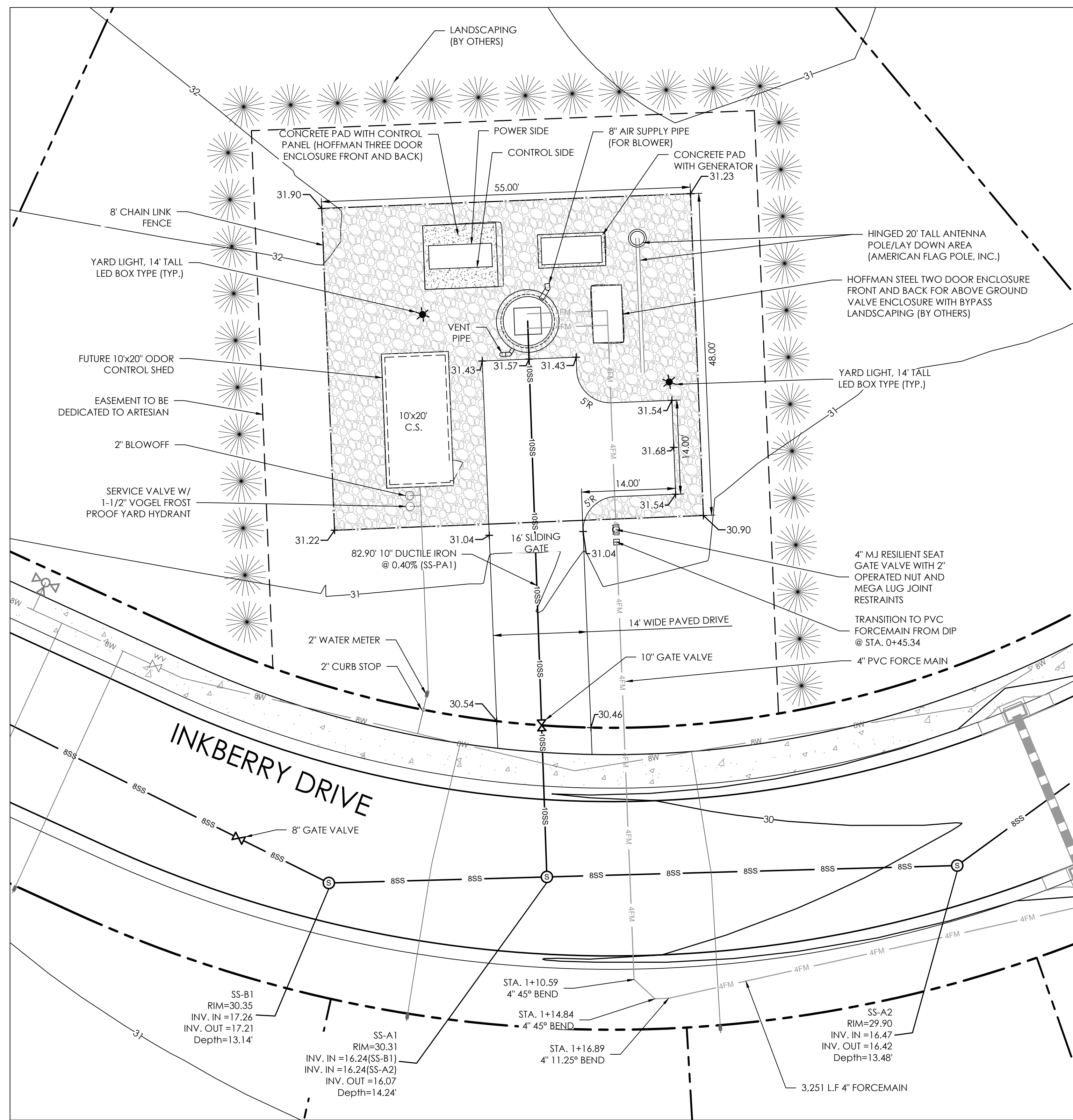
SANITARY SEWER DETAILS 1

for
AUTUMNDALE
SUSSEX COUNTY, DELAWARE
Prepared for: HOLLYVILLE BUYER, LLC

Date:	7-12-2022
Job Number:	G19087
Scale:	AS NOTED
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Designed By:	JPR
Approved By:	JRE

Sheet No.: 33

File Name:
G19087-Sewer-Details.dwg



SITE PLAN - PUMP STATION
SCALE: 1" = 10'

DESIGN FLOW

The pump station will serve 142 EDUs (See Pump Station Calculations, herein)

COLLECTION SYSTEM

The collection system will consist of 8" PVC SDR-26 & 10" diameter ductile iron pipe and associated manholes. All sewer materials and installation shall be per Artesian Wastewater Management Standards.

TRANSMISSION

The new 4" diameter PVC force main will be installed from the proposed pump station to an existing 6" force main along Franklin Roosevelt Lane.

Diameter = 4" PVC

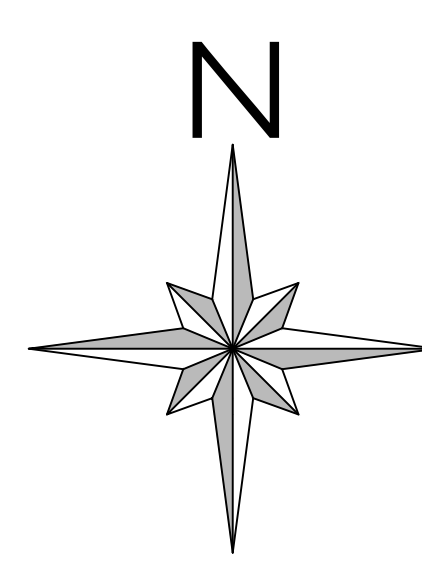
Design Flow = 94.7 gpm

Static Head = 22 feet

PUMP STATION CALCULATIONS

Community	Homes	Amenities	Total EDUs
AUTUMNDALE	104	2	106
NORWOOD FARMS	34	2	36
TOTAL	138	4	142

Number of EDU's	=	142
Base Flow (240 GPD/EDU)	=	34,080 GPD 23.67 GPM
Peak Factor (Per Equation)	=	4.0
Peak Flow	=	136,320 GPD 94.7 GPM
Volume = 2 min. x 94.7 GPM	=	189.4 GALLONS
8" Diameter, 0.51 ft Depth (192 GALLONS)		
PIPING	=	4" @ 2.42 FPS



NP 3069 SH 3~ Adaptive 272

Technical specification

Motor - General			
Motor number N3069.060 13-10-288-W 3.8hp	Phases 3~	Rated speed 3410 rpm	Rated power 3.8 hp
ATEX approved No	Number of poles 2	Rated current 11 A	Stator variant 6
Frequency 60 Hz	Rated voltage 240 V	Insulation class F	Type of Duty S1
Version code 060			

Motor - Technical			
Power factor - 1/2 Load 0.78	Motor efficiency - 1/2 Load 81.6%	Total moment of inertia 0.0878 lb ft ²	Starts per hour max. 15
Power factor - 3/4 Load 0.70	Motor efficiency - 3/4 Load 82.5%	Starting current, direct starting 67 A	
Power factor - 1/2 Load 0.57	Motor efficiency - 1/2 Load 81.1%	Starting current, star-delta 22.3 A	

NP 3069 SH 3~ Adaptive 272

Patented self-cleaning semi-open channel impeller, ideal for pumping in waste water applications. Modular based design with high adaptation grade.



Technical specification

Configuration

Motor number
N3069.060 13-10-288-W
3.8hp
Impeller diameter
126 mm

Installation type
P - Semi permanent, Wet
Discharge diameter
2 1/2 inch

Pump Information

Impeller diameter
126 mm
Discharge diameter
2 1/2 inch
Inlet diameter
100 mm

Materials

Impeller
Hard-iron™
Stator housing material
Grey cast iron

Maximum operating speed
3410 rpm
Number of blades
2

Max. fluid temperature
40 °C

Project
Block

G19087 - Autumndale
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Created by
Edwin Tucci

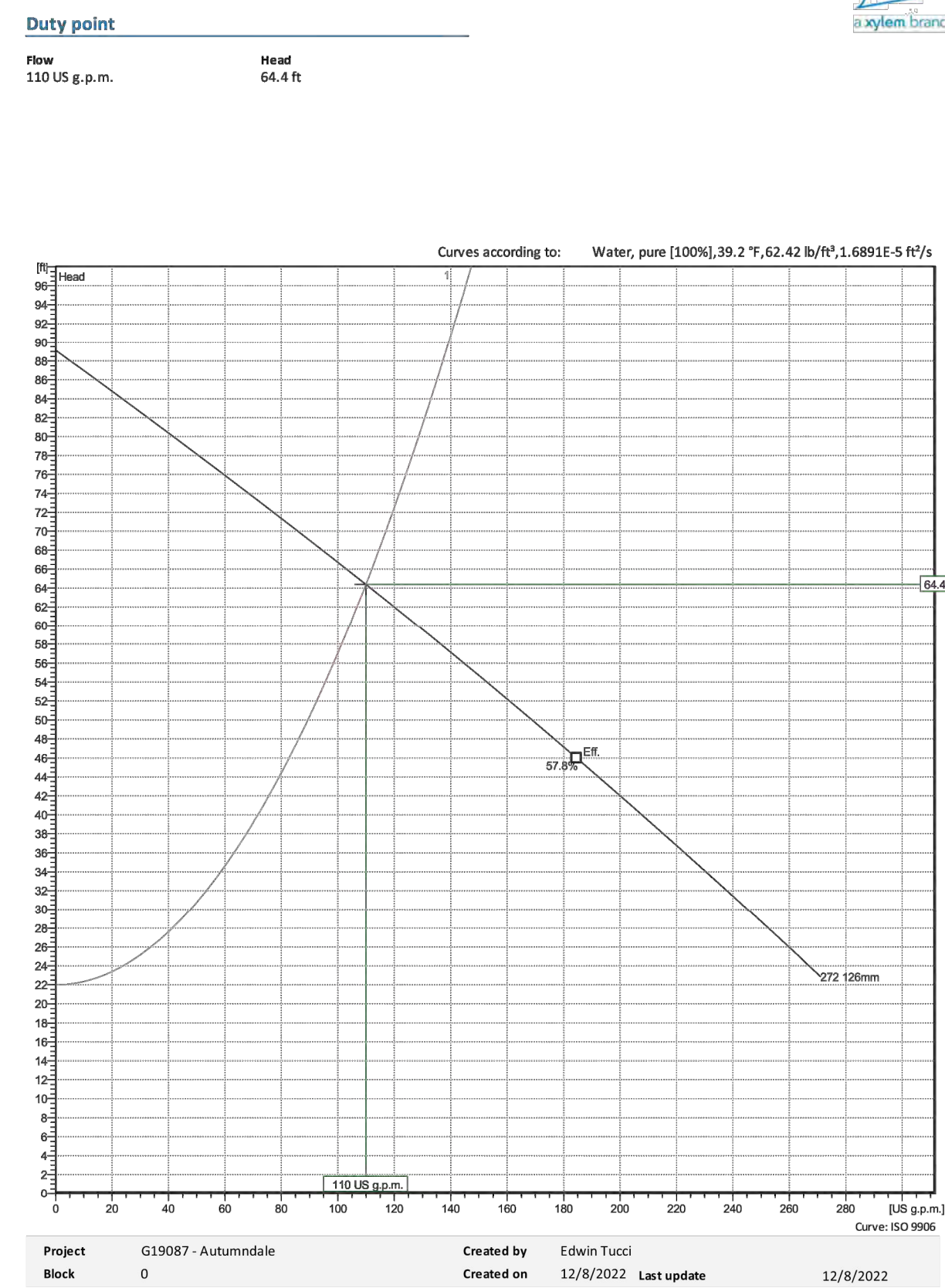
Created on
12/8/2022

Last update
12/8/2022

PUMP SPECIFICATIONS

NP 3069 SH 3~ Adaptive 272

Performance curve



Friction loss calculation

Type	Ø (inch)	7 or L	Qty.	v (ft/s)	k (inch)	ΔH (ft)
Force Main - Metal / Ductile iron cement lining PN 16 / DN 100 (118x44 mm) / Used piping / Old Pipes						
Pipe length	4.016	64 ft	1	2.406	0.04724	0.7081
Discharge Connection	4.016	0.3	1	2.406		0.02699
Elbows	4.016	1.5	5	2.406		0.1348
Non-return valves	4.016	0.3	1	2.406		0.08097
T-piece	4.016	0.4	1	2.406		0.03599
VALVE	4.016	0.3	1	2.406		0.02699
Total Friction head						1.014
Force Main - Plastic / PVC PN 16 / DN 100 (110x8,2 mm) / Used piping / Old Pipes						
Pipe length	3.685	2660 ft	1	2.858	0.001575	24.38
Elbows	3.685	5.1	17	2.858		0.6471
T-piece	3.685	0.4	1	2.858		0.05075
VALVE	3.685	1.2	4	2.858		0.1522
Total Friction head						25.23
Force Main - Plastic / PVC PN 16 / DN 100 (110x8,2 mm) / Used piping / Old Pipes						
Pipe length	3.685	506 ft	1	2.858	0.001575	4.638
Total Friction head						4.638
Force Main - Plastic / PVC PN 16 / DN 150 (160x11,9 mm) / Used piping / Old Pipes						
Pipe length	5.362	330 ft	1	1.35	0.001575	0.489
Discharge Connection	5.362	0.3	1	1.35		0.00649
Elbows	5.362	1.2	4	1.35		0.03396
T-piece	5.362	0.4	1	1.35		0.01132
VALVE	5.362	0.6	2	1.35		0.01698
Total Friction head						0.5598
Friction loss head						31.81 ft
Total static head						22 ft
Total head						53.81 ft

SYSTEM CURVE

HEAD CALCULATIONS



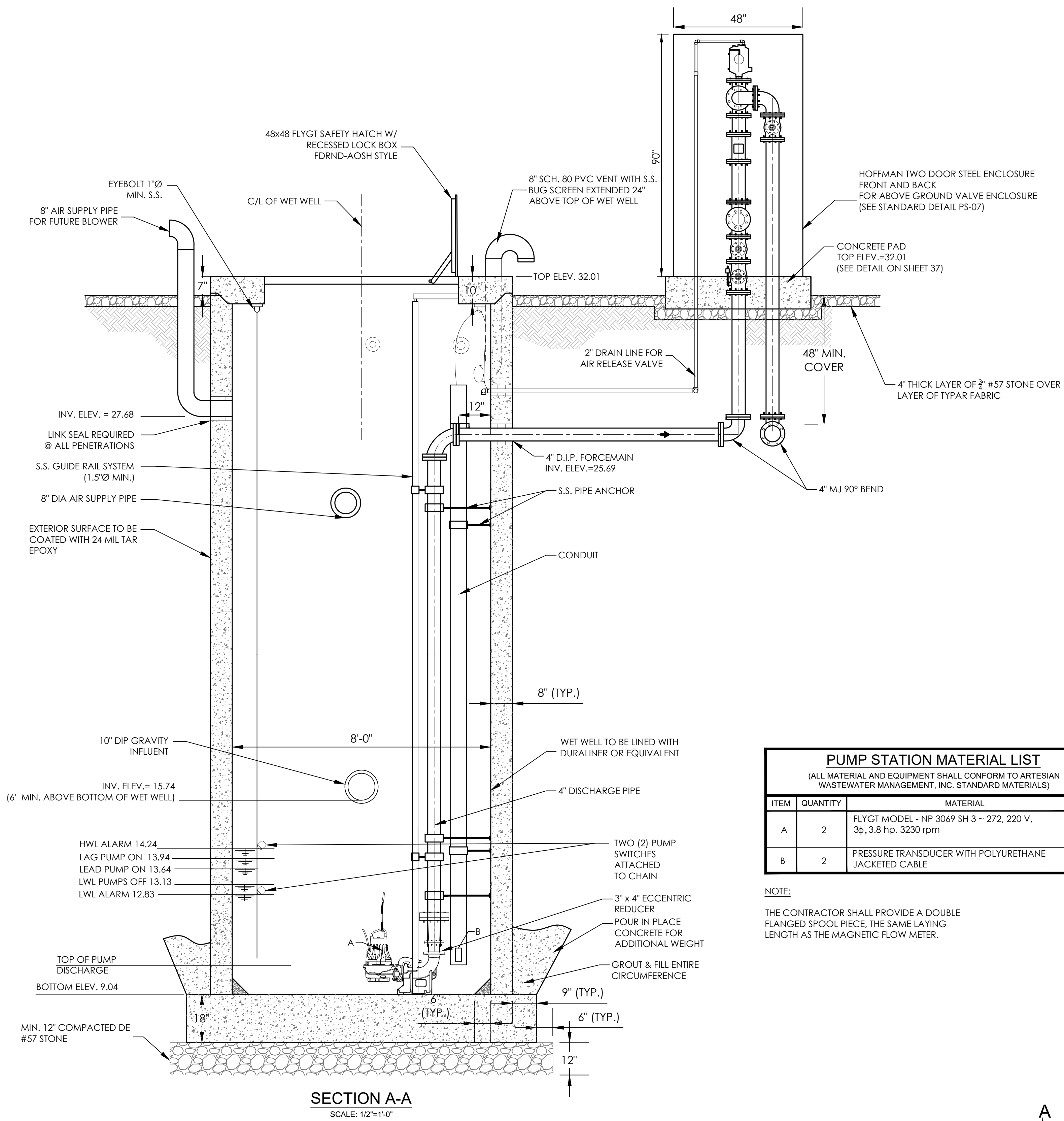
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PUMP STATION SITE PLAN
for
AUTUMNDALE
SUSSEX COUNTY, DELAWARE
Prepared for: HOLLYVILLE BUYER, LLC

Date:	7-12-2022
Job Number:	G19087
Scale:	AS NOTED
Drawn By:	EDT
Designed By:	JPR
Approved By:	JRE

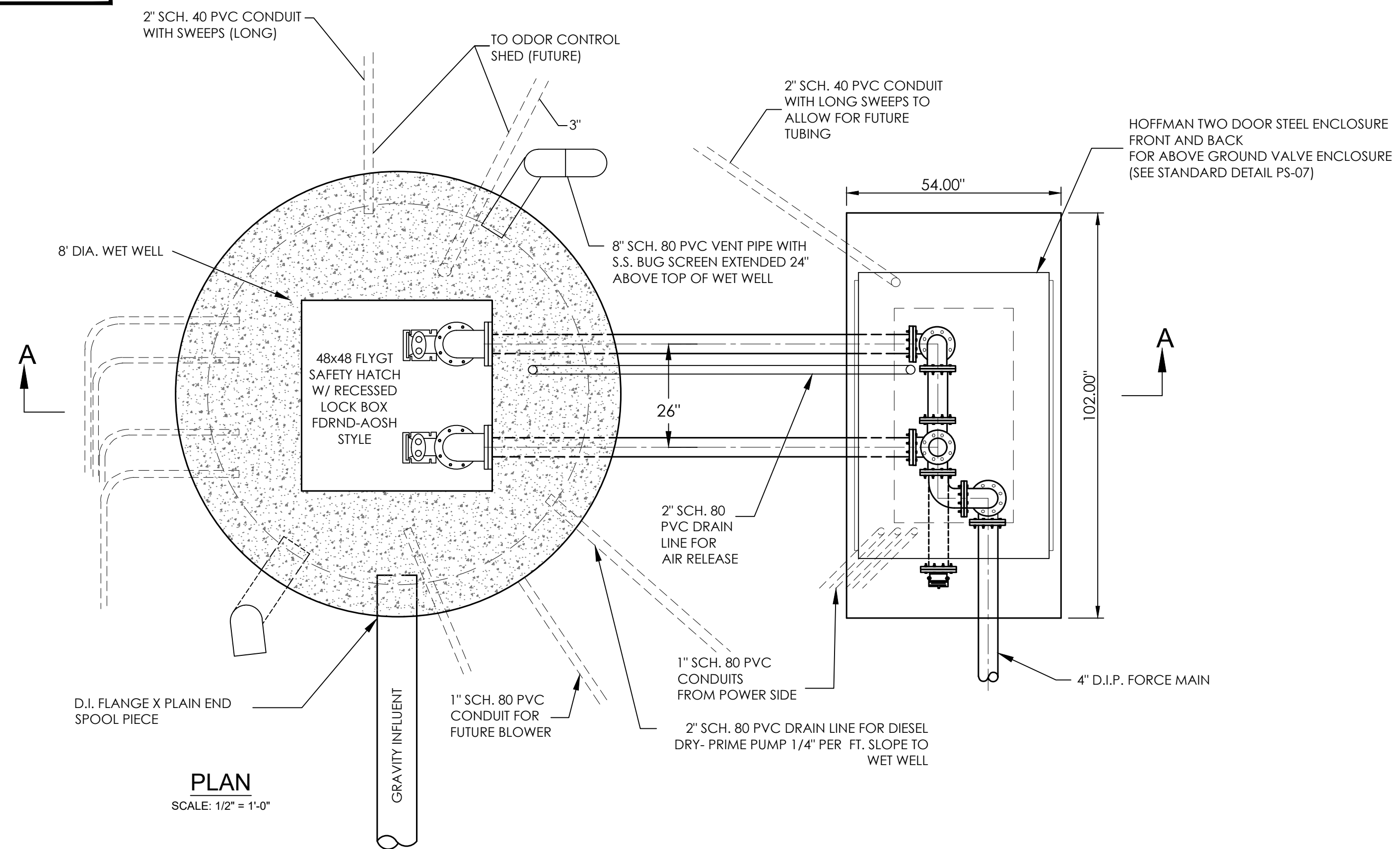
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SECTION A-A
SCALE: 1/2" = 1'-0"

PUMP STATION MATERIAL LIST		
(ALL MATERIAL AND EQUIPMENT SHALL CONFORM TO ARTESIAN WASTEWATER MANAGEMENT, INC. STANDARD MATERIALS)		
ITEM	QUANTITY	MATERIAL
A	2	FLYGT MODEL - NP 3069 SH 3 - 272, 220 V, 3φ, 3.8 hp, 3230 rpm
B	2	PRESSURE TRANSDUCER WITH POLYURETHANE JACKETED CABLE

NOTE:
THE CONTRACTOR SHALL PROVIDE A DOUBLE FLANGED SPOOL PIECE, THE SAME LAYING LENGTH AS THE MAGNETIC FLOW METER.



PLAN
SCALE: 1/2" = 1'-0"



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PUMP STATION DETAILS 1
for
AUTUMNDALE
SUSSEX COUNTY, DELAWARE
Prepared for: HOLLYVILLE BUYER, LLC

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