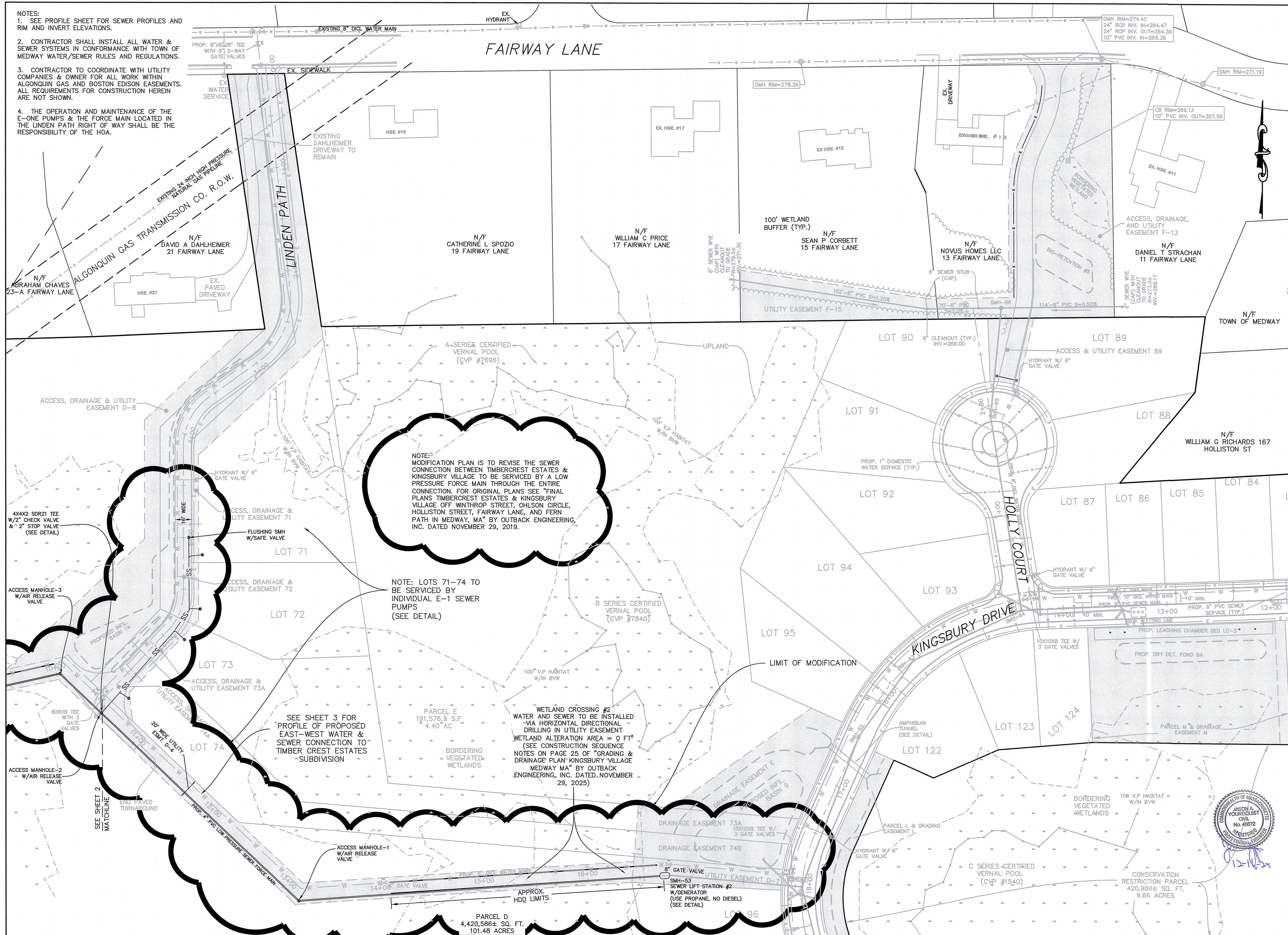


4. THE OPERATION AND MAINTENANCE OF THE E-ONE PUMPS & THE FORCE MAIN LOCATED IN THE LINDEN PATH RIGHT OF WAY SHALL BE THE RESPONSIBILITY OF THE HOA.



I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.



12-16-25
DATE PROFESSIONAL LAND SURVEYOR

APPROVED SUBJECT TO TERMS AND
CONDITIONS OF A COMPREHENSIVE
PERMIT PER ZONING BOARD OF APPEALS
DECISION, AS AUTHORIZED BY CHAPTER
40B OF THE MASSACHUSETTS GENERAL
LAWS, SECTIONS 20-23.

DATE: _____

MEDWAY ZONING BOARD OF APPEALS

THIS PLAN IS SUBJECT TO A
COVENANT TO BE RECORDED HEREWITH

I CERTIFY THAT 20 DAYS HAVE ELAPSED SINCE ZONING BOARD APPROVAL, AND THAT NO APPEAL HAS BEEN FILED AT THIS OFFICE.

TOWN CLERK—TOWN OF MEDWAY

REVISIONS		
NO.	DATE	DESCRIPTION
1.	12/2/2025	PER TETRA TECH COMMENT:
2.	12/16/2025	PER TETRA TECH COMMENT:

SEWER CONNECTION
MODIFICATION PLAN

"KINGSBURY VILLAGE"
IN
MEDWAY
MASSACHUSETTS



165 EAST GROVE STREET
MIDDLEBOROUGH, MA 02346
TEL: (508)-946-9231
FAX: (508)-947-8873
www.outback-eng.com

DATE: NOVEMBER 10, 2025

DRAWN BY: JJS	CHECKED BY: JA
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SCALE: 1"=40'	SHEET 1 OF 6
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0' 40' 80' 120'

	[REDACTED]	[REDACTED]	[REDACTED]
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OE-2765

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.



APPROVED SUBJECT TO TERMS AND
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TOWN CLERK—TOWN OF MEDWAY

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SEWER CONNECTION
MODIFICATION PLAN

*"TIMBER CREST
ESTATES
&
KINGSBURY VILLAGE"
IN
MEDWAY
MASSACHUSETTS*



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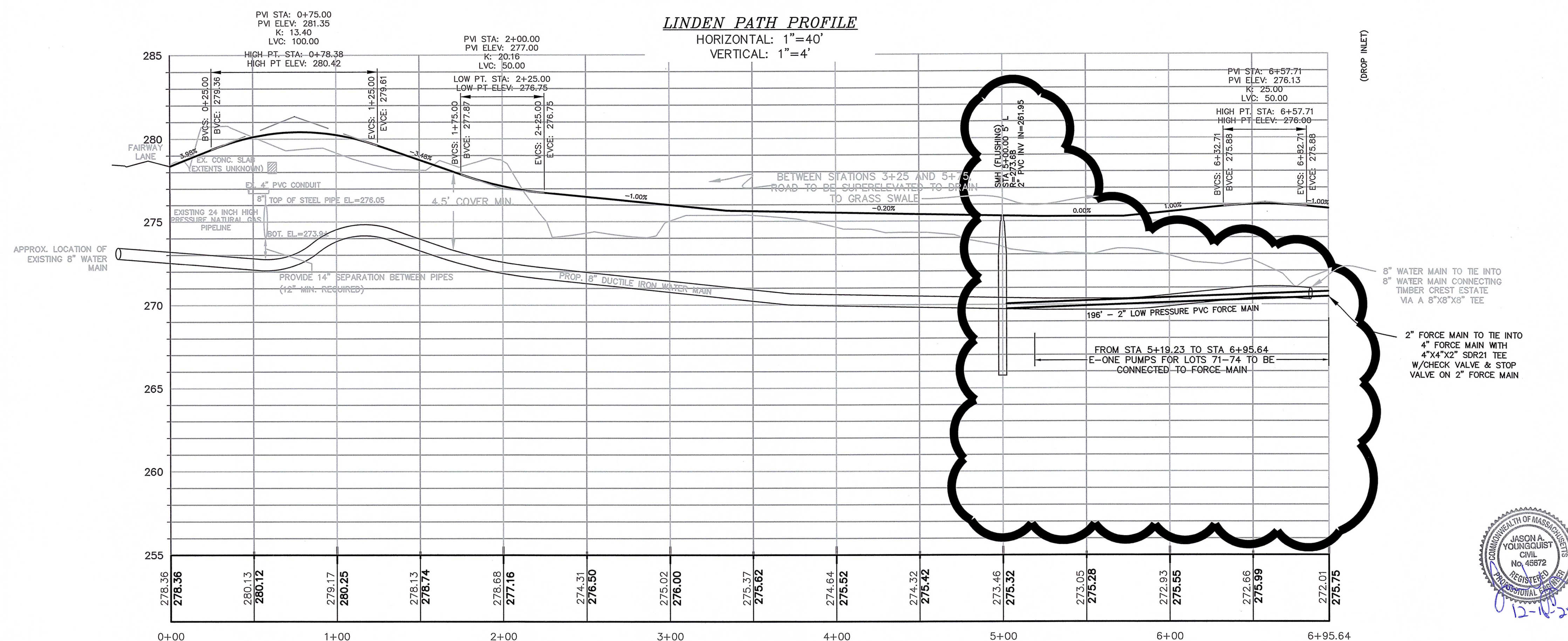
DATE: NOVEMBER 10, 2025

DATE: NOVEMBER 10, 2023	
DRAWN BY: JJS	CHECKED BY: JAY

SCALE: 1"=40'	SHEET 4 OF 6
---------------	--------------

0'	40'	80'	120'
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OE-2765



DYNAMIC HEAD CALCULATION

AMOUNT OF HEAD REQUIRED = (INVERT INTO SMH-37) - (ELEVATION OF INTERIOR BOTTOM OF LIFT STATION)
= 272.04 - 254.07 = 17.97'

FRICTION LOSS

USE A 4" SCH. 40 FORCE MAIN
TRY PUMPING AT ± 120 GPM
EQUIVALENT PIPE LENGTH FOR 90° BEND = 5.5'
EQUIVALENT PIPE LENGTH FOR 45° BEND = 2.5'
TOTAL LENGTH OF PIPE = 1446' + 3(2.5') + 2(5.5') = 1464.5'
FRICTION LOSS PER 100' OF PIPE = 0.88
TOTAL LOSS DUE TO FRICTION = (14.64')(0.88)
= 12.88'

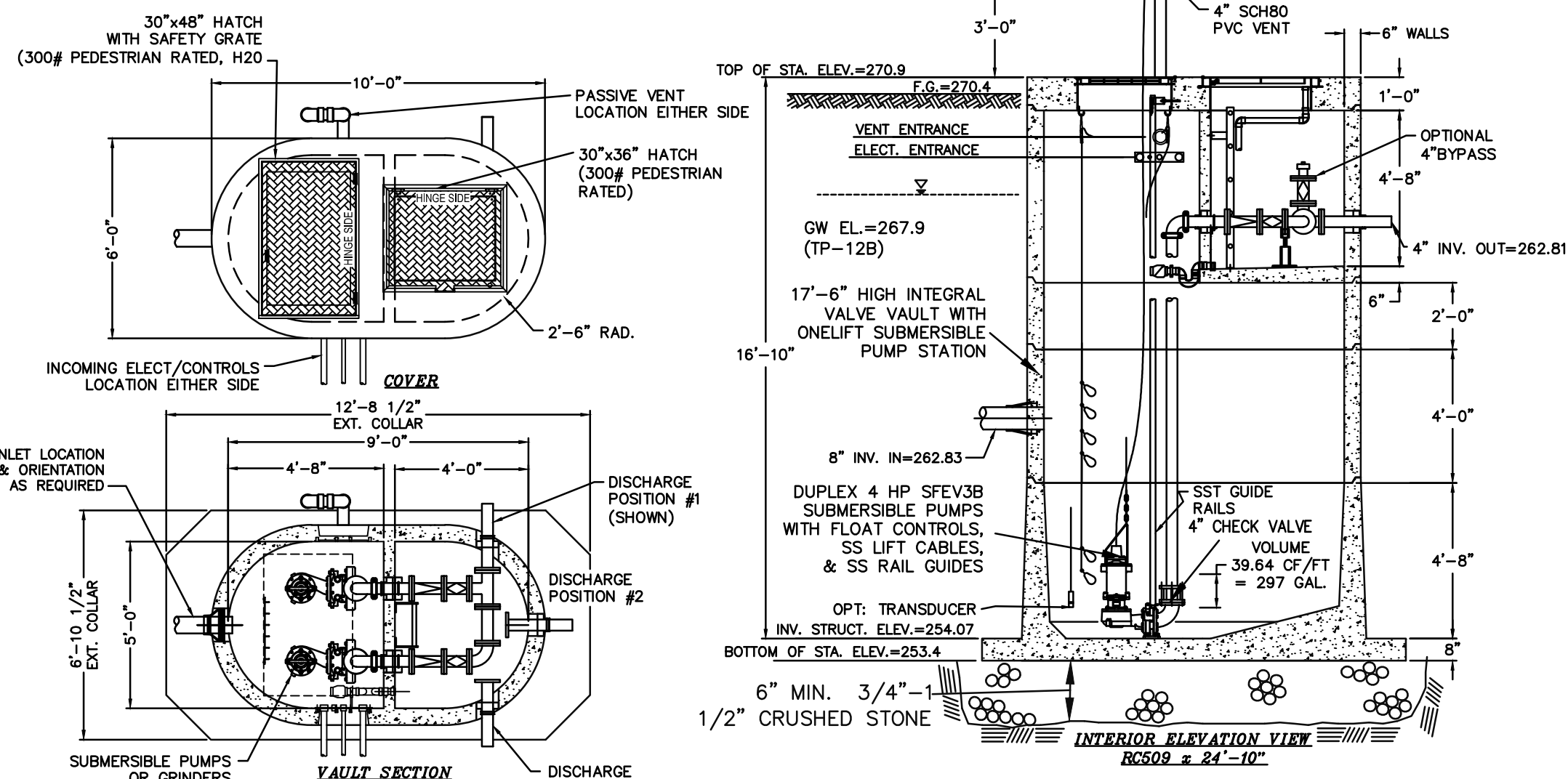
TOTAL DYNAMIC HEAD = 12.88' + 17.97' = 30.85'

BUOYANCY CALCULATIONS (LIFT STATION 2)

- MAX. GROUNDWATER ELEV. = 267.9 (TP-12B)
PROPOSED TANK BOTTOM ELEV.= 254.07
1. BUOYANCY FORCE ON EMPTY TANK:
VOLUME DISPLACED = 81.25 FT² X (267.9 - 254.1)
= 1121 C.F.
WT. OF DISPLACED WATER = 1121 C.F. X 62.4 #/C.F.
= 69950 # ↑
2. WEIGHT OF EMPTY TANK:
WT. OF EMPTY TANK = 69000 # ↓
3. WEIGHT OF SOIL ATOP BASE:
VOLUME = 24.3' DEEP X 29 FT² = 705 C.F.
WEIGHT = 705 C.F. X 120 #/C.F. = 84564 # ↓
- 3a. BUOYANCY FORCE OF SOIL ATOP SLAB:
VOLUME = (268.0-254.1') DEEP X 29 FT² = 403 C.F.
WEIGHT = 403 C.F. X 62.4 #/C.F. = 25153 # ↑
SUM OF FORCES: 84564 ↓ - 25153 ↑ = 59411 ↓ #
4. SUM OF FORCES:
F.S. = (69000 # + 59411 #) ÷ 69950 # = 1.83 FACTOR OF SAFETY
WT. OF TANK + SOIL IS GREATER THAN WT. OF DISPLACED WATER
∴ OK

APPROX. WEIGHTS:

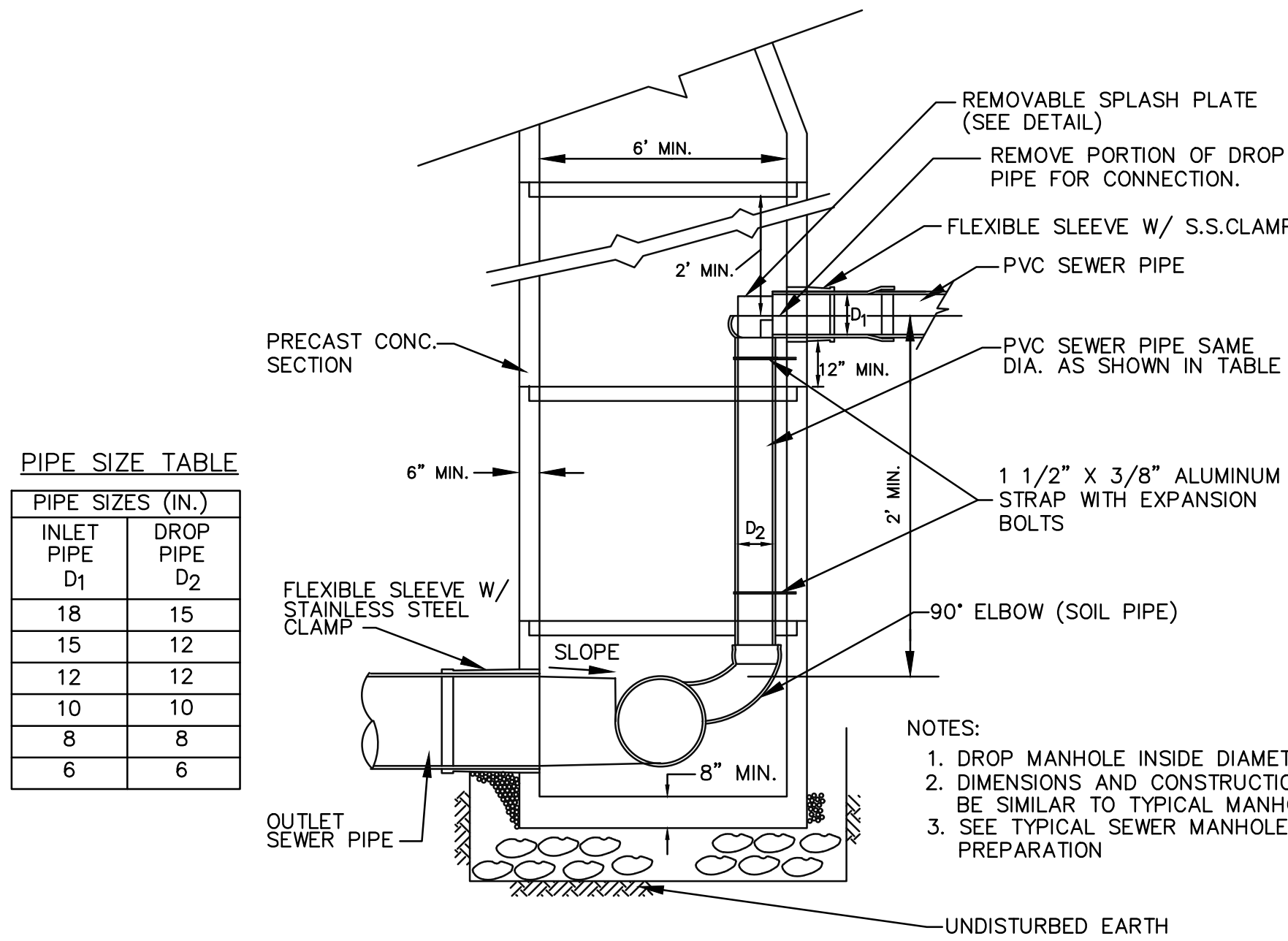
- BASE SECTION W/FLOAT COLLAR & FILLETS = 11.0 TONS
- TOP SLAB & VALVE VAULT ARE FACTORY SEALED, AND SHIP AS 1 PIECE = 9.5 TONS
- 2° RISER SECTION = 2.0 TONS
- 4° RISER SECTION = 4.0 TONS



LIFT STATION #2

NOTES FOR LIFT STATION 2:

- PUMP CORDS NOT SHOWN FOR CLARITY.
- CONTRACTOR TO PROVIDE ALL EQUIPMENT, MATERIALS & LABOR NECESSARY FOR COMPLETE INSTALLATION OF LIFT STATIONS (SEE HAYES PUMP, INC. BUDGET QUOTATION LETTERS DATED NOVEMBER 12, 2018 FOR SPECIFICATIONS.), INCLUDING ELECTRIC CONTROL PANELS AND BACKUP GENERATORS. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR REVIEW BY DESIGN ENGINEER & MEDWAY DPW PRIOR TO ORDERING AND INSTALLATION, AND AS-BUILT DRAWINGS PRIOR TO PLACING STATIONS IN SERVICE.
- PRIOR TO RELEASE OF ANY BUILDING PERMITS FOR INDIVIDUAL LOTS, CONTRACTOR SHALL PROVIDE THE OWNER & TOWN DPW WITH A CLEAR WELL TEST REPORT AND AS-BUILT DRAWINGS FOR ALL PUMP STATIONS NEEDED TO SERVE PROPOSED BUILDING LOTS. OWNER SHALL PROVIDE A COPY OF A CONTRACT FOR EMERGENCY AND ROUTINE MAINTENANCE SERVICES DESIGNATING WHO IS RESPONSIBLE FOR SUCH SERVICES AND RELATED CONTACT INFORMATION. (REFER TO SEWER LIFT STATIONS SPEC SHEETS & STANDARD OPERATING GUIDELINE TIMBER CREST ESTATES & KINGSBURY VILLAGE DATED NOVEMBER 29, 2019.)



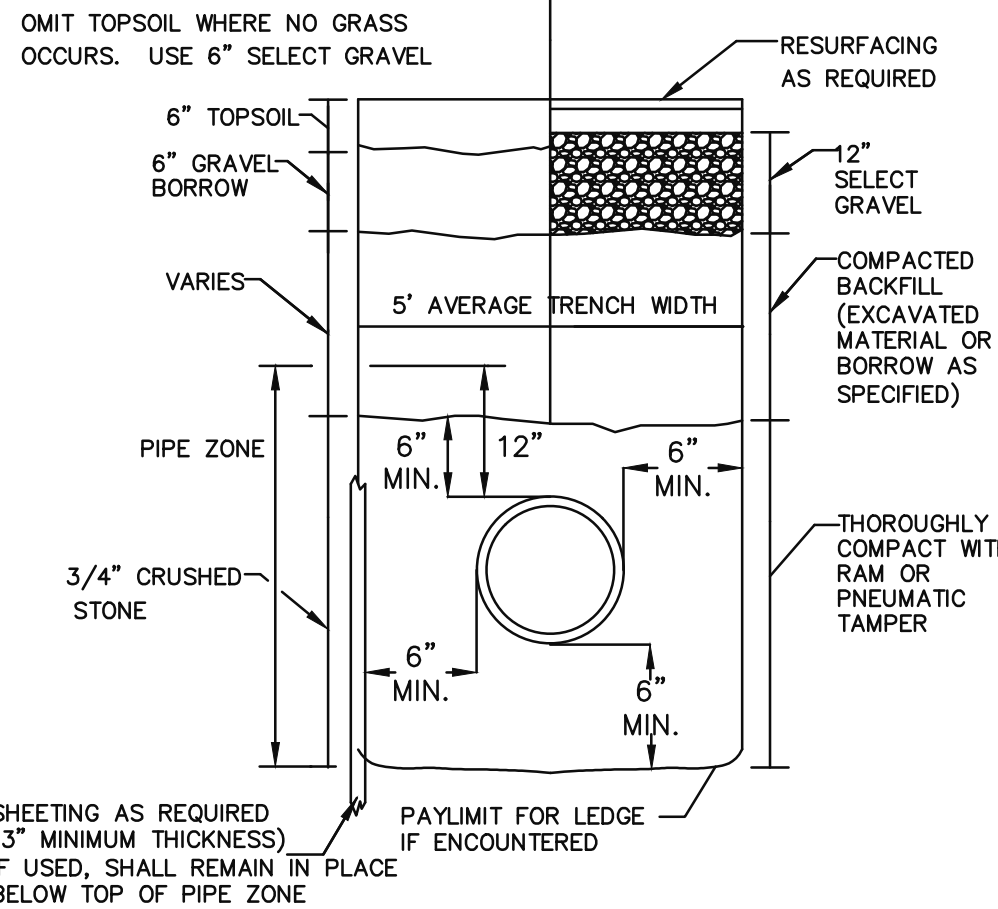
DROP SEWER MANHOLE INSIDE CONNECTION

NOT TO SCALE

PIPE SIZE TABLE

PIPE SIZES (IN.)	
INLET PIPE D1	DROP PIPE D2
18	15
15	12
12	12
10	10
8	8
6	6

SECTION UNDER GRASS | SECTION UNDER PAVEMENT

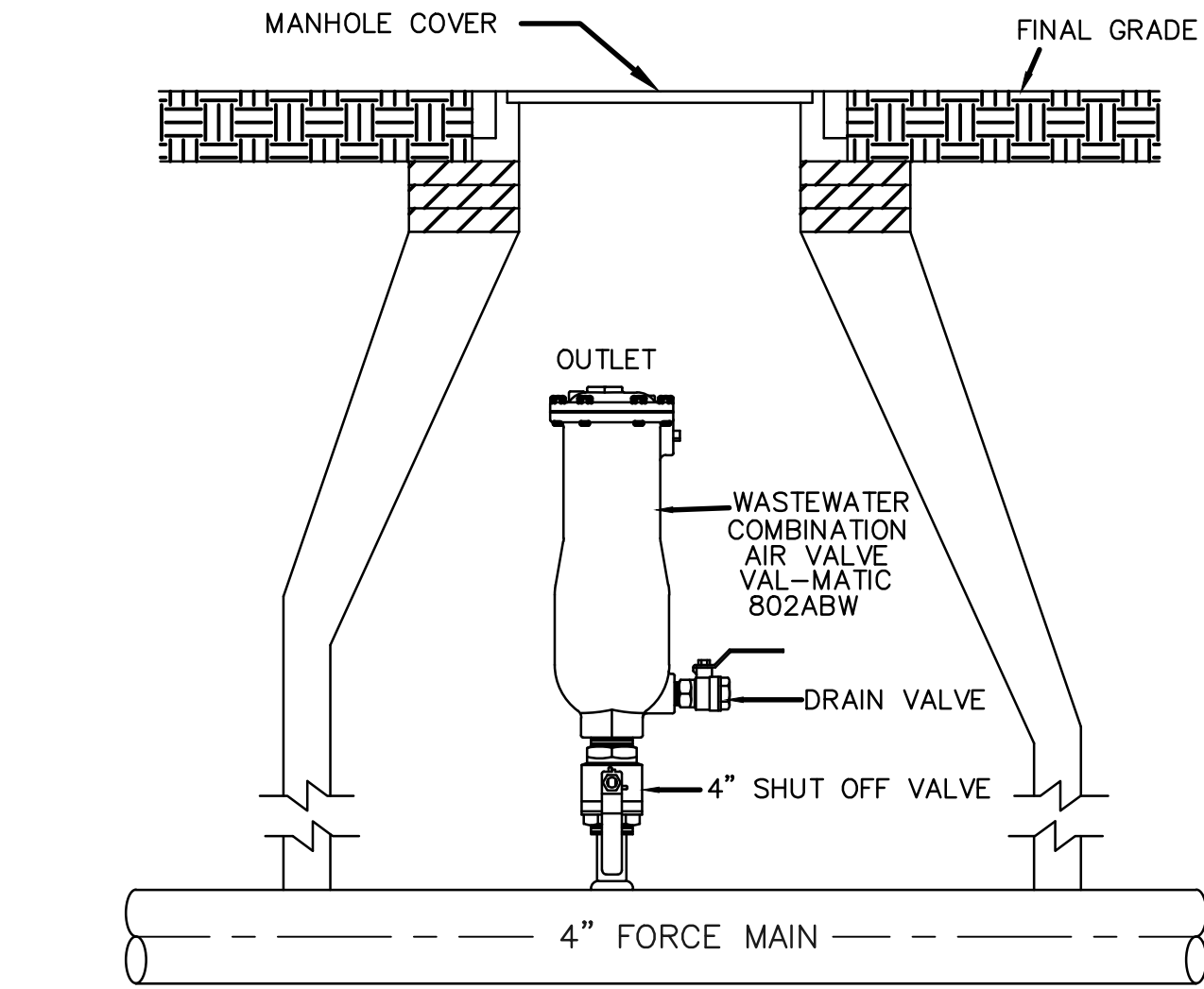


TYPICAL SEWER TRENCH DETAIL

NOT TO SCALE

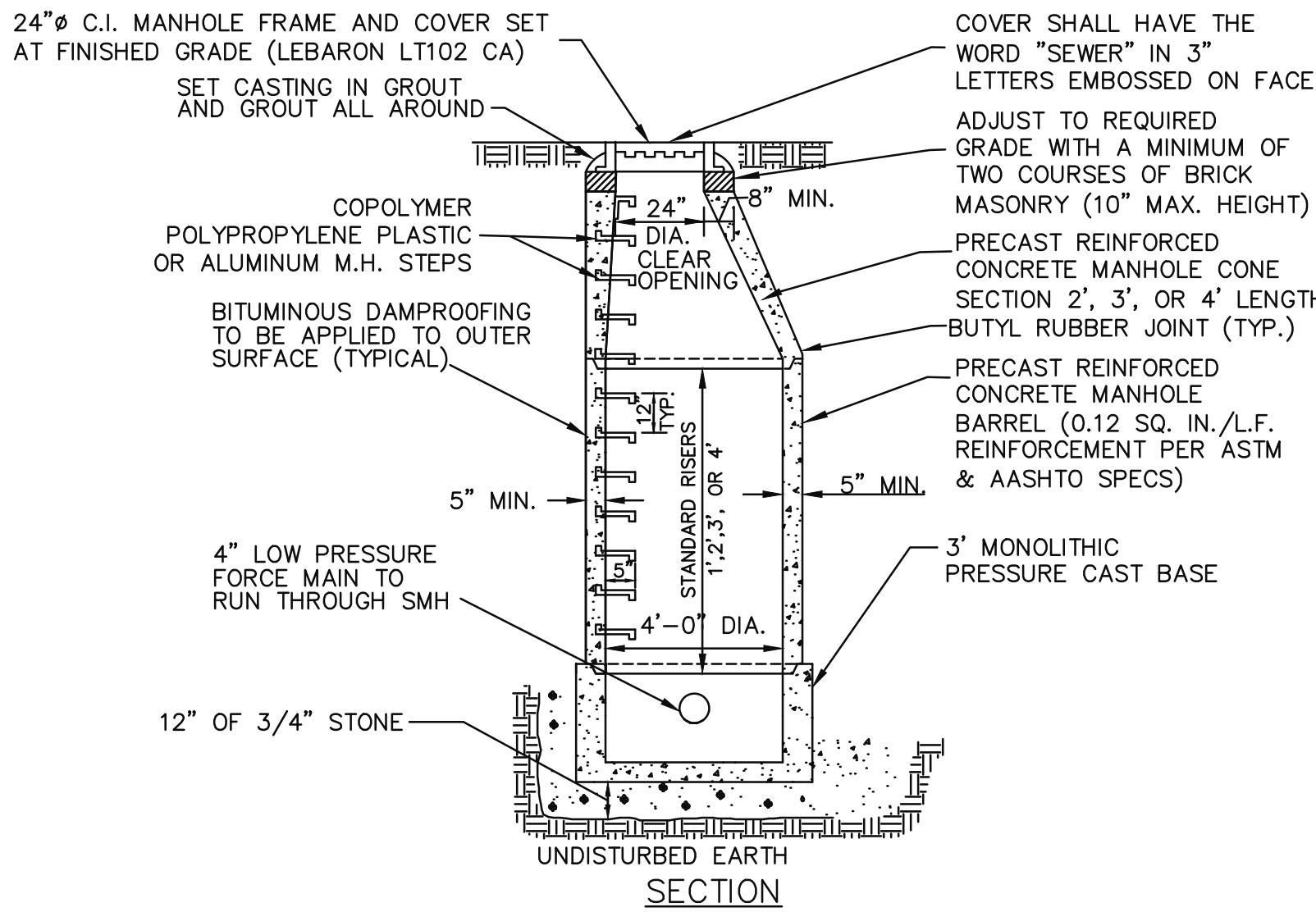
NOTES:

- INCLUDES HOUSE SERVICES
- EXISTING PAVEMENT SHALL BE SAW CUT BEFORE TRENCH EXCAVATION
- PAY WIDTH EQUALS 5 FEET



AIR RELEASE VALVE

NOT TO SCALE



ACCESS MANHOLE SECTION

NOT TO SCALE

LIFT Station # & Location	# of homes	Avg Flow(GPD) (170 GPD/home)	Peak flow (5X) (GPD)	GPH (peak hour)	GPM (peak hour)	Rim El.	8" Inv. In to Lift station	Inv. Out (of wet well)	FM length	Connecting inv. El.
#2	67	11390	56950	2373	40	270.89	262.83	(4") 262.81	*1446'	272.04

LIFT STATION DESIGN FLOW CALCULATIONS & ELEVATIONS

*NOTE: FROM LIFT STATION TO MANHOLE WITH GRAVITY SEWER

FOR REGISTRY USE ONLY

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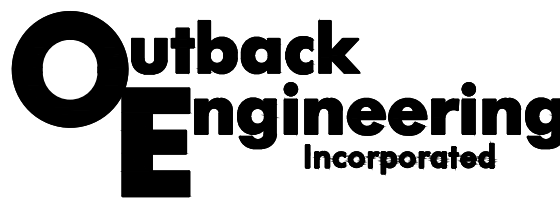
TOWN CLERK-TOWN OF MEDWAY

REVISIONS

NO.	DATE	DESCRIPTION
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SEWER CONNECTION MODIFICATION PLAN

TIMBER CREST ESTATES & KINGSBURY VILLAGE IN MEDWAY MASSACHUSETTS

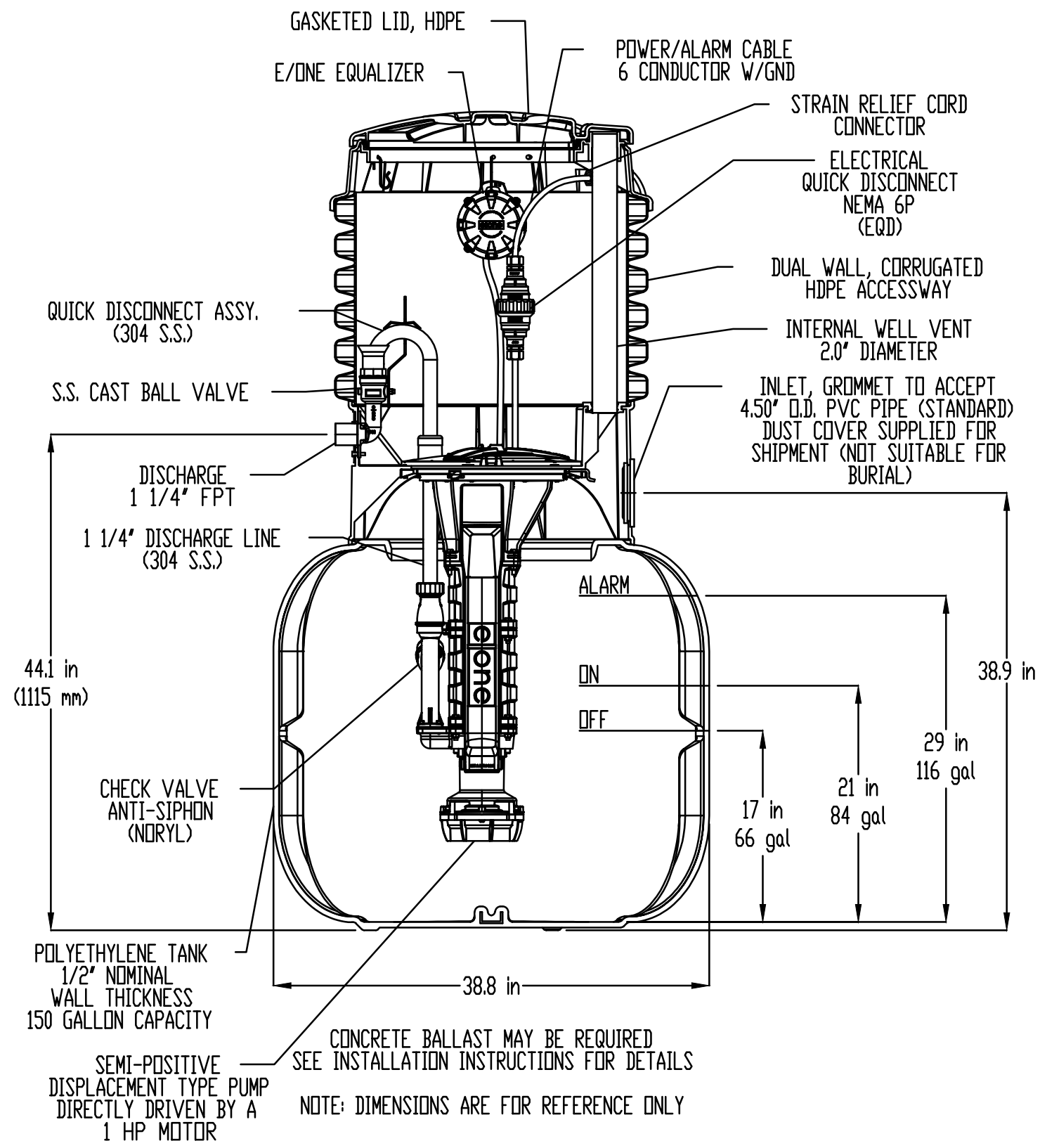


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DATE: NOVEMBER 10, 2025

DRAWN BY: JJS CHECKED BY: JAY
NOT TO SCALE SHEET 5 OF 6

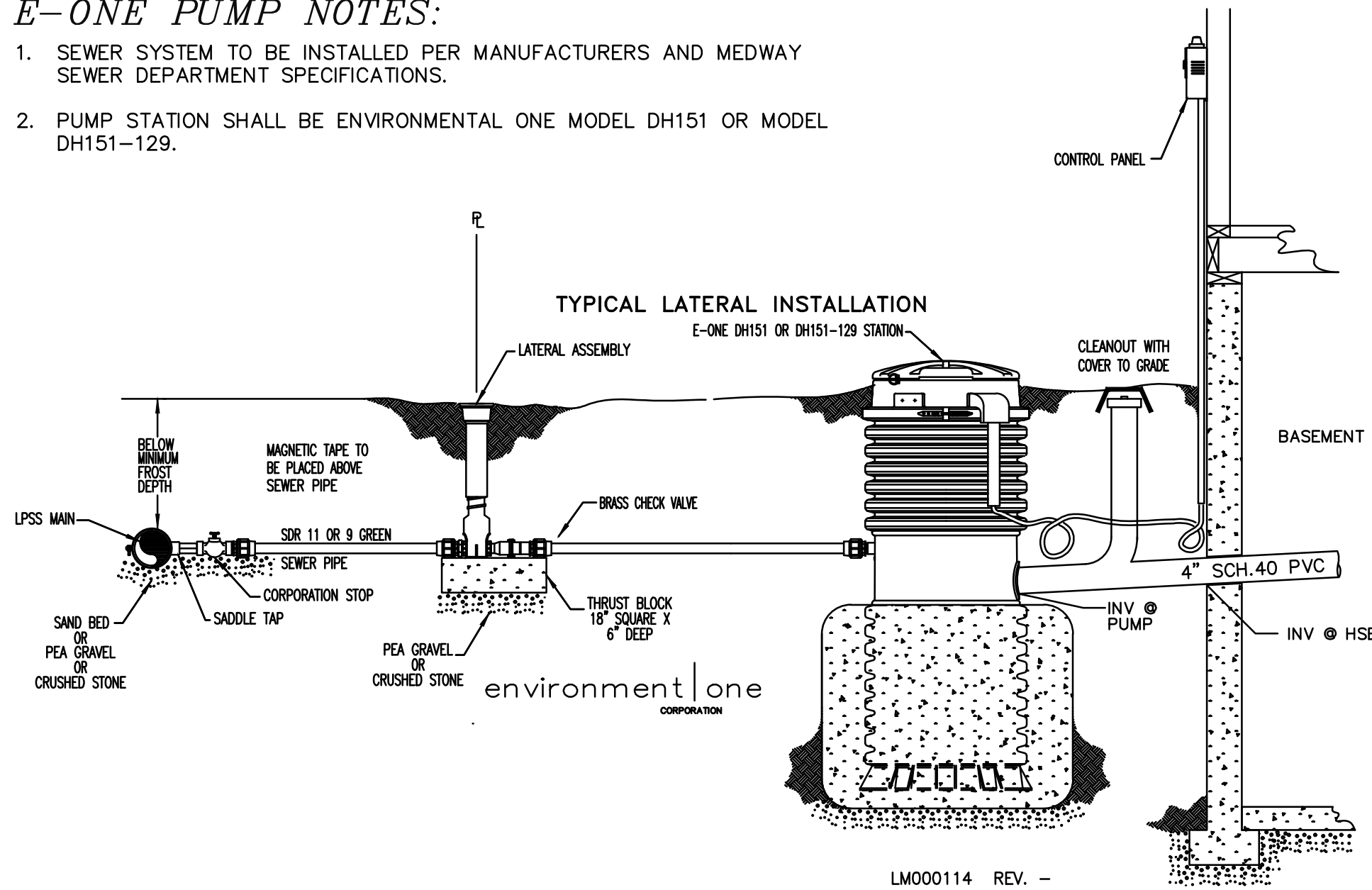
OE-2765



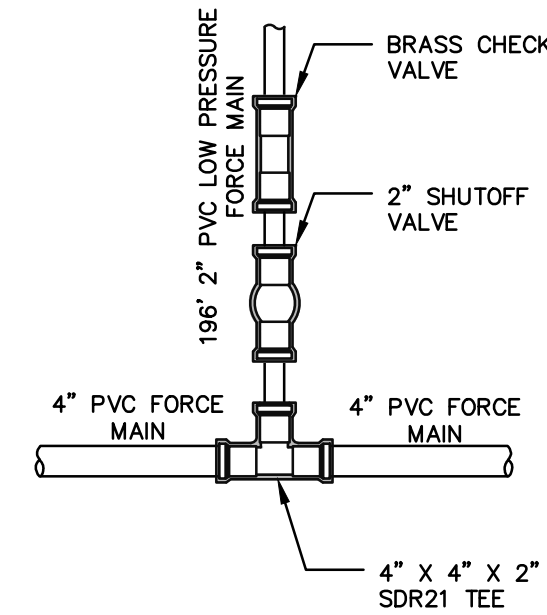
E-ONE DH151 PUMP STATION
NOT TO SCALE

E-ONE PUMP NOTES:

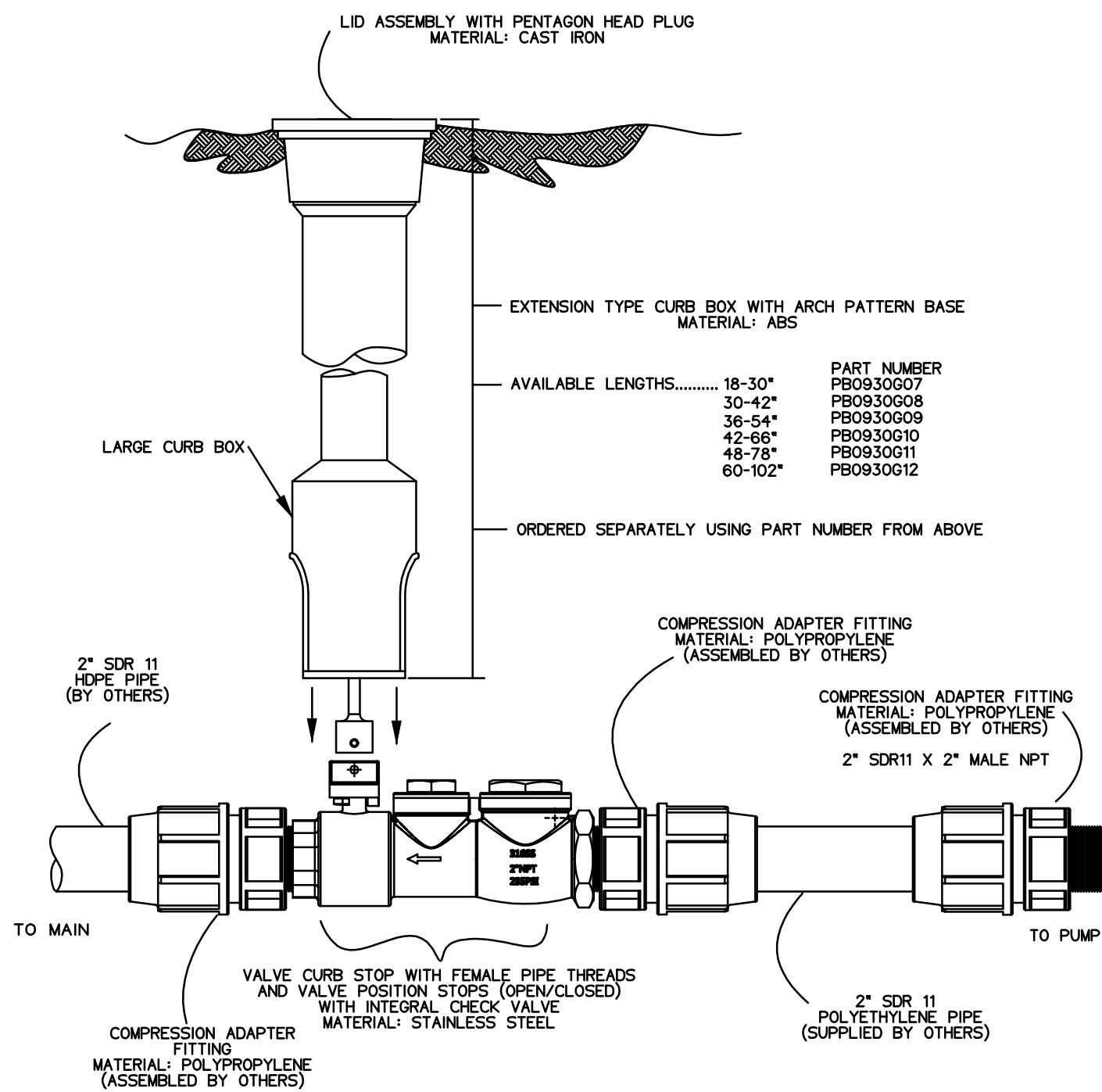
- SEWER SYSTEM TO BE INSTALLED PER MANUFACTURERS AND MEDWAY SEWER DEPARTMENT SPECIFICATIONS.
- PUMP STATION SHALL BE ENVIRONMENTAL ONE MODEL DH151 OR MODEL DH151-129.



LM000114 REV. -



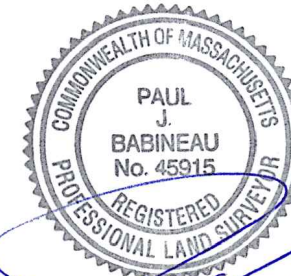
**LATERAL FROM MAIN TO E-ONE
STAINLESS STEEL ASSEMBLY
DETAIL**
NOT TO SCALE



STAINLESS STEEL LATERAL KIT
NOT TO SCALE

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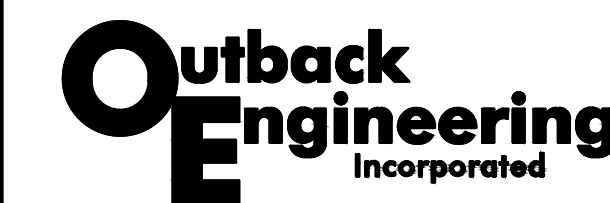
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**SEWER CONNECTION
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DRAWN BY: JJS CHECKED BY: JAY
NOT TO SCALE SHEET 6 OF 6

OE-2765