

# GENERAL NOTES

- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY REGULATIONS. ALL CONSTRUCTION SHALL BE COMPLETED FOLLOWING CURRENT CITY STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
- CONTRACTOR WILL BE REQUIRED TO PROVIDE NOTICE TO UTILITY COMPANIES A MINIMUM OF SEVENTY-TWO (72) HOURS PRIOR TO ANY EXCAVATION, AS FOLLOWS:

KANSAS ONE-CALL 687-2470

THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:

AT&T	1-800-246-8464
BLACK HILLS ENERGY (GAS)	1-800-694-8989
CITY OF WICHITA WATER & SEWER	1-316-219-3921
CITY OF WICHITA STORMWATER	1-316-268-4090
CITY OF WICHITA TRAFFIC	1-316-268-4034
COX COMMUNICATIONS	1-888-249-3530
KANSAS GAS SERVICE	1-888-482-4950
EVERGY	1-800-544-4857

- UTILITY SERVICE LINES, POLES, ETC. ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR OR UNLESS THE PLANS SPECIFICALLY IDENTIFY A UTILITY TO BE ADJUSTED BY ITS OWNER DURING CONSTRUCTION. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.
- RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE AND SITE LOCATION. LOCATIONS, IN THE OPINION OF THE ENGINEER, THAT WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED. ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN WILL REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WILL REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.
- TREES AND SHRUBS IN PUBLIC RIGHT-OF-WAY WHICH ARE IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR WITH THE CITY ENGINEER'S APPROVAL. TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE SAVED AND PROTECTED FROM DAMAGE.
- THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY ABUTTING THE CONSTRUCTION OF THIS PROJECT A MINIMUM OF TEN (10) DAYS NOTICE PRIOR TO START OF CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.
- THE ENGINEERING DIVISION SHALL FIELD LOCATE WATER VALVES ONE TIME DURING CONSTRUCTION WHEN REQUESTED BY THE CONTRACTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PRESERVE SUCH FIELD LOCATIONS DURING THE CONSTRUCTION PROCESS. WATER VALVES, VALVE BOXES OR FIRE HYDRANTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY CONTRACTOR AT HIS OWN EXPENSE. VALVE BOXES AND WATER METERS WITHIN THE PROJECT LIMITS SHALL BE ADJUSTED TO MATCH FIELD GRADES BY THE CONTRACTOR.
- IF TRAFFIC WILL BE IMPACTED BY CONSTRUCTION, A TRAFFIC CONTROL PLAN MUST BE SUBMITTED AND APPROVED BY THE CITY TRAFFIC ENGINEER AT [traffic@wichita.gov](mailto:traffic@wichita.gov) BEFORE CONSTRUCTION CAN BEGIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL MEASURES TO FACILITATE CONSTRUCTION. ALL CONSTRUCTION ZONE MARKINGS AND SIGNAGE SHALL CONFORM TO THE LATEST VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS PUBLISHED BY THE US DEPT. OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION. ALL COSTS ASSOCIATED WITH CONSTRUCTION MARKINGS AND SIGNAGE SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- ALL AREAS DISTURBED DURING CONSTRUCTION THAT WILL NOT BE UNDER PROPOSED PAVEMENT SHALL BE SEEDED AND MULCHED. COST SHALL BE CONSIDERED SUBSIDIARY TO PROJECT SEEDING.
- CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH OPEN OVERNIGHT AND WEEKENDS TO LESS THAN 50 FEET.
- EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS COMPANIES AND IS EITHER FROM COMPANY UTILITY DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE PLAN LOCATIONS SHOWN ARE NOT GUARANTEED. ADDITIONAL EXISTING UTILITIES MAY ALSO BE ENCOUNTERED.
- A PORTION OF EXCESS EXCAVATED MATERIAL SHALL BE MOUNDED AROUND MANHOLES WHICH EXTEND MORE THAN ONE (1) FOOT ABOVE THE EXISTING GROUND. SUCH MOUND SHALL BE CONSTRUCTED WITH NEW DEVELOPMENT A SIX (6) FOOT DIAMETER FLAT TOP WITH 4 TO 1 SIDE SLOPES DOWN TO THE ORIGINAL GROUND. THE ELEVATION OF THE FLAT TOP OF THE MOUND SHALL BE 0.4 FOOT BELOW THE TOP OF THE MANHOLE.
- CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL MANHOLE COVERS.
- ALL STUBS AND PLUGGED PIPES SHALL BE LOCATED WITH GREEN PLASTIC TAPE IN THE SAME MANNER AS RISERS.
- CONNECTING TO EXISTING MANHOLES: PRIOR TO LAYING SEWER LINES USING EXISTING STUBS IN EXISTING MANHOLES, THE CONTRACTOR SHALL EXPOSE AND VERIFY THE ELEVATION, GRADE AND ALIGNMENT OF EXISTING STUBS AND NOTIFY THE ENGINEER OF ANY DEVIATION FROM THE PLANS. WHERE CONNECTION TO AN EXISTING MANHOLE THAT DOES NOT HAVE AN EXISTING STUB OR THE STUB IS UNUSABLE DUE TO ELEVATION GRADE OR ALIGNMENT, THE CONTRACTOR SHALL BORE CUT INTO EXISTING MANHOLE WALL TO MAKE CONNECTION USING APPROVED WATER STOP GASKET, AND RESHAPE THE EXISTING MANHOLE INVERT TO PROVIDE SMOOTH FLOW. THE COST TO CONNECTING TO EXISTING MANHOLES IS INCIDENTAL TO THE PROJECT.
- THE CONTRACTOR SHALL PREVENT ANY CONSTRUCTION DEBRIS FROM ENTERING THE EXISTING SANITARY SEWER DURING CONSTRUCTION.
- ALL TRAFFIC CONTROL DEVICES IN THE WORK ZONE (INCLUDING MARKINGS AND SIGNS) AND THEIR INSTALLATION AND MAINTENANCE SHALL COMPLY WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL TRAFFIC CONTROL DEVICES IN THE TRAVELED WAY OR CLEAR ZONE SHALL BE CRASHWORTHY (NCHRP REPORT 350 OR MASH COMPLIANT). <http://safety.fhwa.dot.gov/roadwaydept/policy/guide/road/hardware/wzd>
- ALL CONSTRUCTION EQUIPMENT, INCLUDING VEHICLES, MATERIALS, AND DEBRIS, SHALL BE STORED OUTSIDE OF THE CLEAR ZONE. WHERE THIS CANNOT BE ACHIEVED THE CONTRACTOR SHALL PLACE APPROPRIATE SIGNS, OBJECT IDENTIFIERS, AND/OR BARRICADES IN COMPLIANCE WITH MUTCD.
- EXCEPT WHEN REQUIRED FOR SAFETY, TRAFFIC CONTROL SHALL NOT BLOCK ANY LANES OR SIDEWALKS WHEN WORK IS NOT BEING PERFORMED.
- SAND BACKFILL: IF SUITABLE SAND MATERIAL IS FOUND ON SITE FOR BACKFILL, CONTRACTOR MAY BE ALLOWED TO USE ON SITE MATERIAL AT THE DISCRETION OF THE PROJECT ENGINEER. IF THE PROJECT ENGINEER DETERMINES ON-SITE MATERIAL IS NOT SUITABLE, THEN CONTRACTOR MUST HAUL IN FILL SAND. IN THE EVENT NOT ENOUGH SUITABLE MATERIAL FOR BACKFILL IS FOUND ON-SITE, THE BALANCE SHALL BE PROVIDED BY CONTRACTOR.
- DEVELOPER FOR THIS PROJECT IS:  
PERFECTION SIGNATURE PROPERTIES, LLC  
443 N MAIZE RD  
WICHITA, KS 67212  
SCOTT LEHNER/JASON RONK  
316.729.1900

# SANITARY SEWER

TO SERVE

# COURTYARDS AT THE MOORINGS

**Inspector: Daniel Swinging**  
**Contractor: Nowak Construction**  
**Company: City of Wichita**  
**Submitted By: Steven Lowe**  
**Notes: SS changes on sheets 6, 7, & 10.**

PROJECT NO. 468-2022-024794

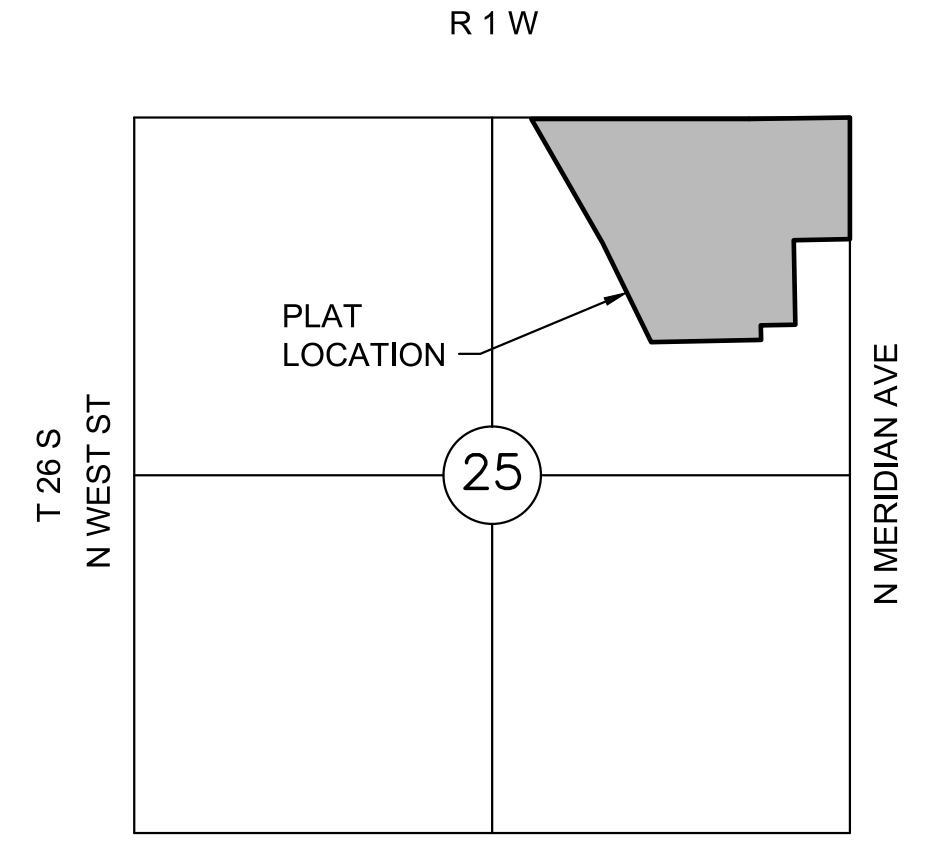
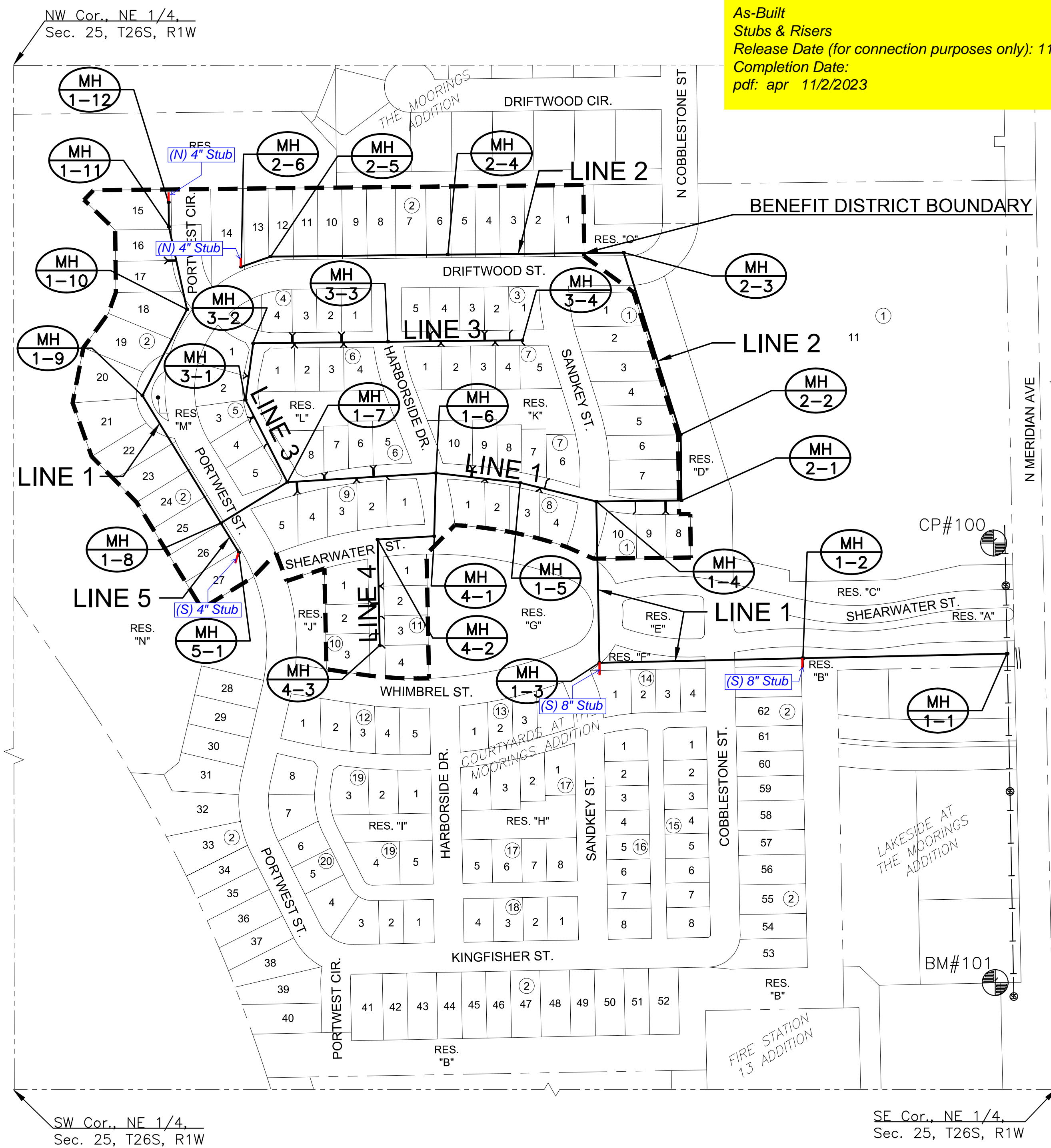
THE CITY OF WICHITA, KANSAS  
GARY JANZEN, P.E. - CITY ENGINEER

ORG CODE 47266822

MUNIS NO. E2070



**As-Built**  
**Stubs & Risers**  
**Release Date (for connection purposes only): 11/01/2023**  
**Completion Date:**  
**pdf: apr 11/2/2023**



## VICINITY MAP

No Scale

## INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
01	TITLE SHEET
02-04	SAN DETAILS
05-07	LINE 1
08-09	LINE 2
10	LINE 3
11	LINE 4 & LINE 5
12	SERVICE LINES
13-14	BUBBLE MAP & TABLE
15-19	BMP SHEETS
20-23	FINAL PLAT

## BENCHMARKS

CP100  
N:1714419.007 E:1638538.082 EL:1328.839  
PK-NAIL

CP101  
N:1713560.118 E:1638541.17 EL:1329.886  
CHISELED "X"

BM 101  
N:1713560.118 E:1638541.17 EL:1329.886(88)  
CHISELED "X"

## DATUM

The Horizontal Datum is based on the Kansas Coordinate System of 1983, NAD83(2011), EPOCH:2010.0000, South Zone. Coordinates shown have been modified to the ground using a combined adjustment factor of 1.0001200144. State Plane coordinates can be calculated by multiplying the shown values by 0.99988.

All elevations shown are based on the NAVD 88 vertical datum, Geoid12b.

## NOTE

All Control Points shown have elevations established using standard surveying procedures and can be used as temporary benchmarks. When using a Control point as a temporary benchmark, it is recommended that cross-checks be made to other control points or benchmarks to confirm elevations prior to use.



# SANITARY SEWER PLANS FOR COURTYARDS AT THE MOORINGS PHASE 1

## TITLE SHEET

PROJECT NO.	468-2022-024794	
DATE	JAN 2023	
SCALE	1"=150'	
DESIGNED	DRAWN	CHECKED
DFL	LM	SPE
NO.	REVISION	DATE
SHEET NO.	01 OF 23	



Construction Engineering Division  
 1801 S. McLean Blvd., Suite B  
 Wichita KS, 67213  
 (316) 268-4027

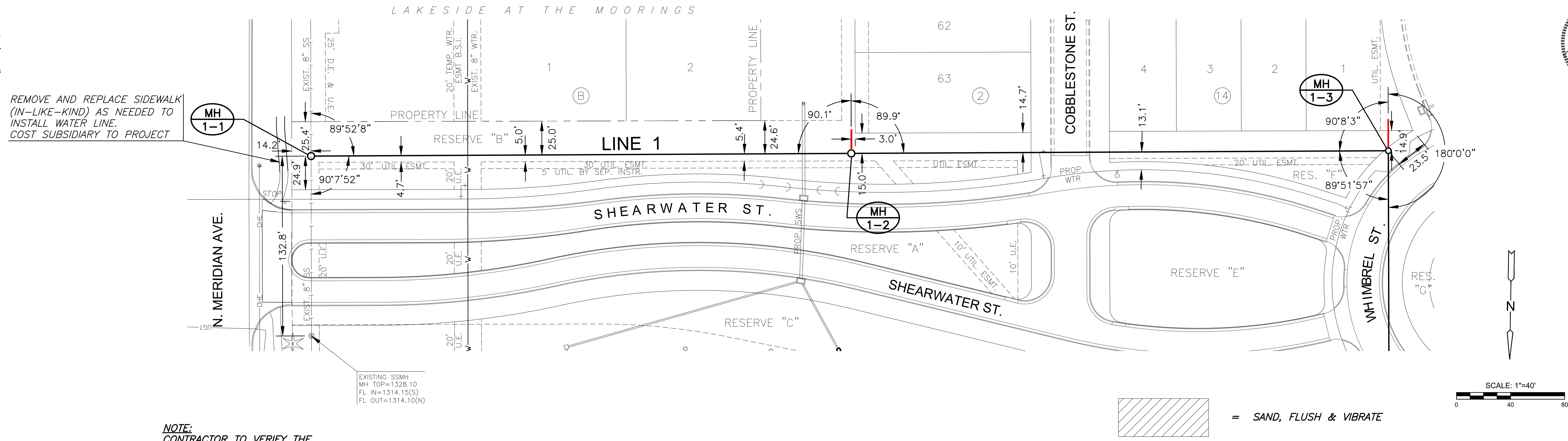
## Sanitary Sewer Riser Table

**Project Name:** WDS Collector\_ WDS Ph 1\_SWD 494\_SS Ph 1\_St & SW Imp Part A\_St & SW Im  
**Project Location:** south of 53rd Street North, west of Meridian Avenue  
**Project No:** 468-2022-024794  
**MUNIS No:** E2070  
**Contractor:** Nowak Construction Co., Inc.  
**Inspector:** Daniel Swinger

Riser No.	Line No.	Station	Distance from Main to Riser (Lt./Rt.)	Distance from		Comment
				Upstream MH	Downstream MH	
1	1	22+15.94	25.6 Rt.	55	95	
2	1	22+23.68	12.6 Lt.	43	107	
3	1	22+25.92	14.2 Lt.	33	117	
4	1	22+65.05	21.2 Rt.	7	143	MH Connection
5	1	22+65.05	23.0 Rt.	159	5	MH Connection
6	1	23+32.80	11.0 Lt.	100	64	
7	1	23+35.05	11.4 Lt.	89	75	
8	1	23+59.78	24.2 Rt.	78	86	
9	1	23+62.04	23.2 Rt.	63	101	
10	1	25+26.76	12.4 Lt.	190	99	
11	1	25+51.14	23.8 Rt.	172	117	
12	1	25+53.39	23.2 Rt.	162	127	
13	1	25+84.95	12.4 Lt.	142	147	
14	1	25+87.20	13.0 Lt.	130	159	
15	1	26+47.66	16.8 Rt.	79	210	
16	1	26+49.91	16.2 Rt.	64	225	
17	1	27+01.88	26.2 Lt.	34	255	
18	1	27+04.13	29.2 Lt.	142	9	
19	1	31+66.35	31.4 Lt.	9	272	MH Connection
20	1	31+66.35	29.2 Lt.	184	2	MH Connection
21	1	34+52.49	20.6 Lt.	74	89	
22	1	34+54.77	21.6 Lt.	62	101	
23	2	10+76.31	27.4 Rt.	93	69	
24	2	11+34.31	27.2 Rt.	36	126	
25	2	11+36.56	28.4 Rt.	22	140	
26	3	10+84.28	13.6 Lt.	101	75	
27	3	11+42.31	13.0 Lt.	47	129	
28	3	11+44.56	12.6 Lt.	32	144	
29	3	12+25.96	10.6 Lt.	70	36	
30	3	12+28.21	10.6 Lt.	56	50	MH Connection
31	3	13+67.50	20.8 Lt.	189	71	
32	3	13+69.75	20.6 Lt.	178	82	
33	3	13+71.40	16.4 Rt.	187	73	
34	3	13+73.75	14.8 Rt.	173	87	
35	3	14+63.50	22.8 Lt.	98	162	
36	3	14+65.75	20.6 Lt.	83	177	
37	3	14+67.40	13.0 Rt.	92	168	
38	3	14+69.65	12.6 Rt.	78	182	

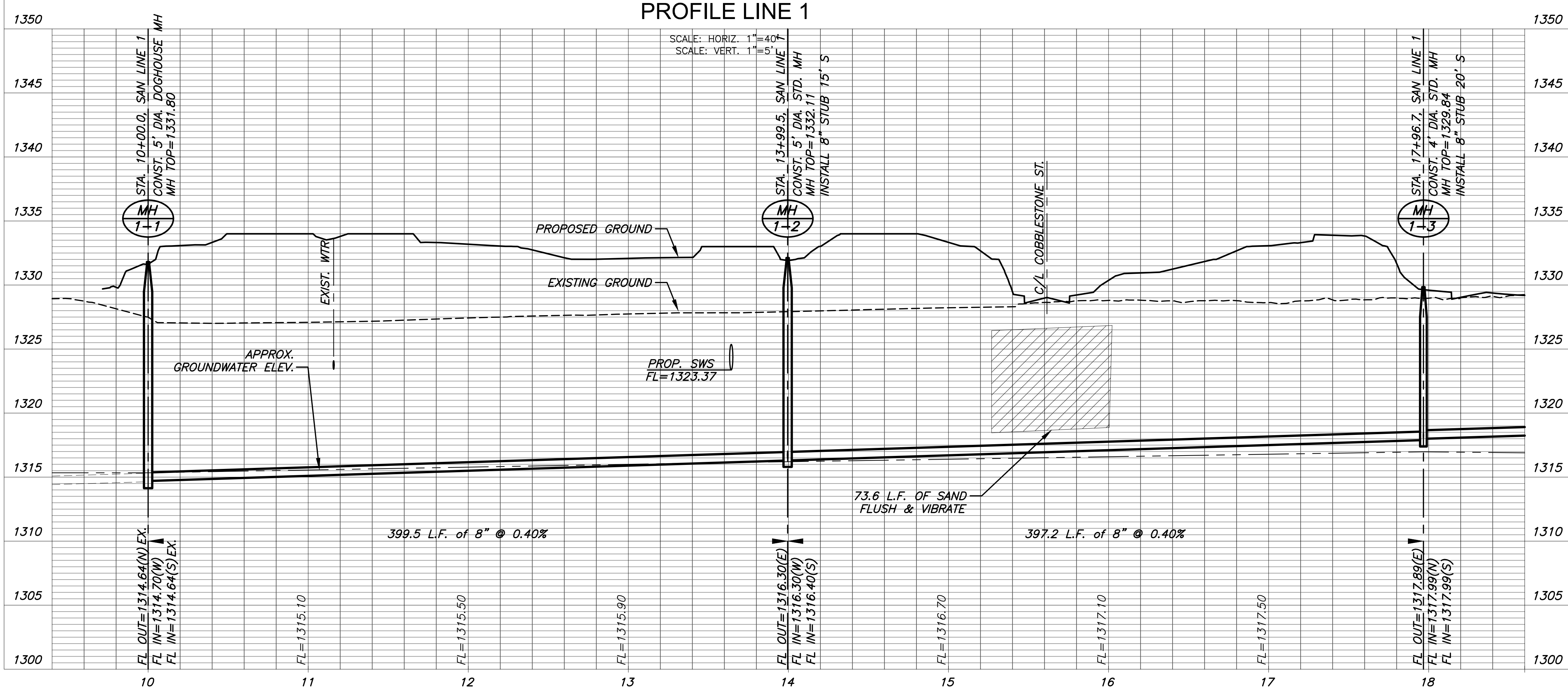


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**NOTE:**  
 CONTRACTOR TO VERIFY THE DEPTH AND LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

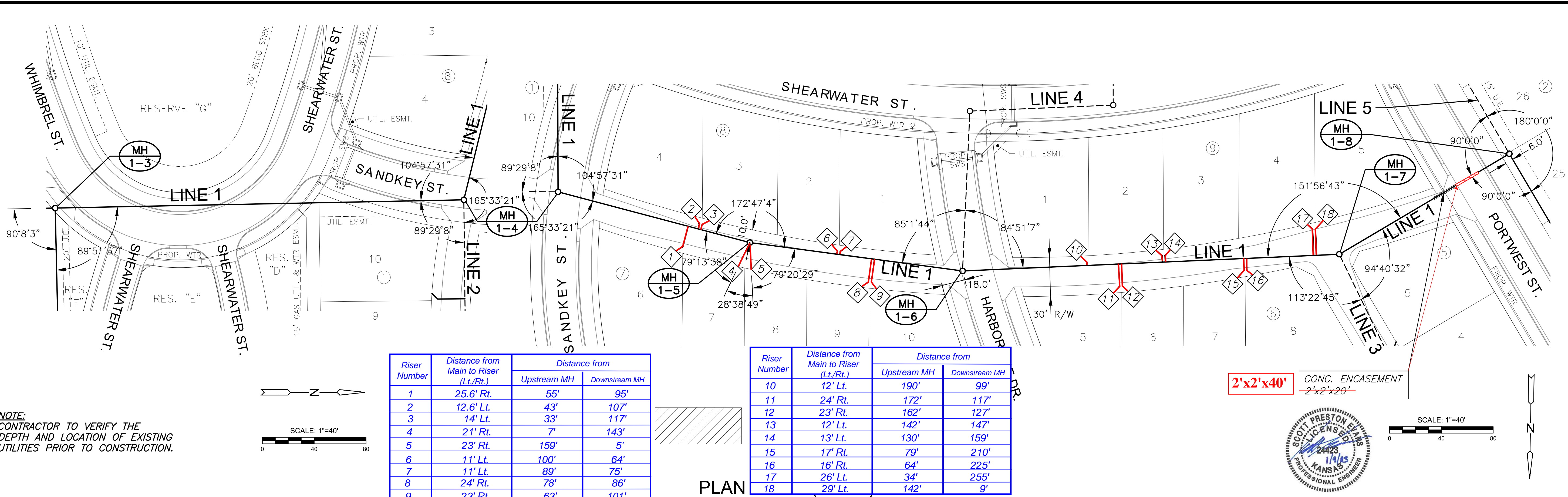
**PLAN LINE 1  
 PROFILE LINE 1**



SANITARY SEWER PLANS FOR  
**COURTYARDS AT THE MOORINGS**  
 PHASE 1

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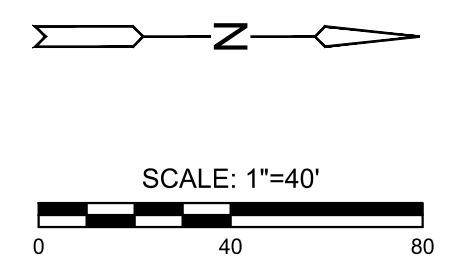
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DATE	JAN 2023	
SCALE	1"=40'	
DESIGNED	DRAWN	CHECKED
DFL	LM	SPE
NO.	REVISION	DATE
SHEET NO. 05 OF 23		



Riser Number	Distance from Main to Riser (Lt./Rt.)	Distance from	
		Upstream MH	Downstream MH
1	25.6' Rt.	55'	95'
2	12.6' Lt.	43'	107'
3	14' Lt.	33'	117'
4	21' Rt.	7'	143'
5	23' Rt.	159'	5'
6	11' Lt.	100'	64'
7	11' Lt.	89'	75'
8	24' Rt.	78'	86'
9	23' Rt.	63'	101'

Riser Number	Distance from Main to Riser (Lt./Rt.)	Distance from	
		Upstream MH	Downstream MH
10	12' Lt.	190'	99'
11	24' Rt.	172'	117'
12	23' Rt.	162'	127'
13	12' Lt.	142'	147'
14	13' Lt.	130'	159'
15	17' Rt.	79'	210'
16	16' Rt.	64'	225'
17	26' Lt.	34'	255'
18	29' Lt.	142'	9'

**NOTE:**  
CONTRACTOR TO VERIFY THE DEPTH AND LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

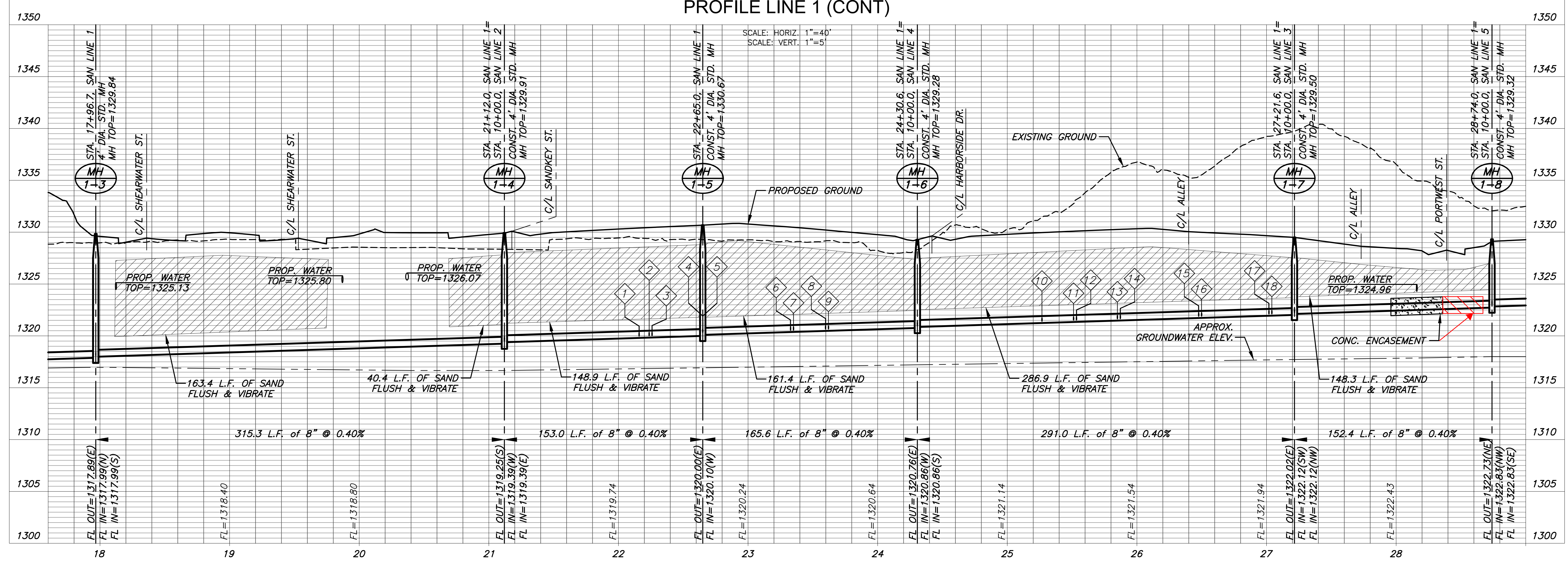


**2'x2'x40'** CONC. ENCASEMENT  
-2'x2'x20'-



SCALE: 1"=40'

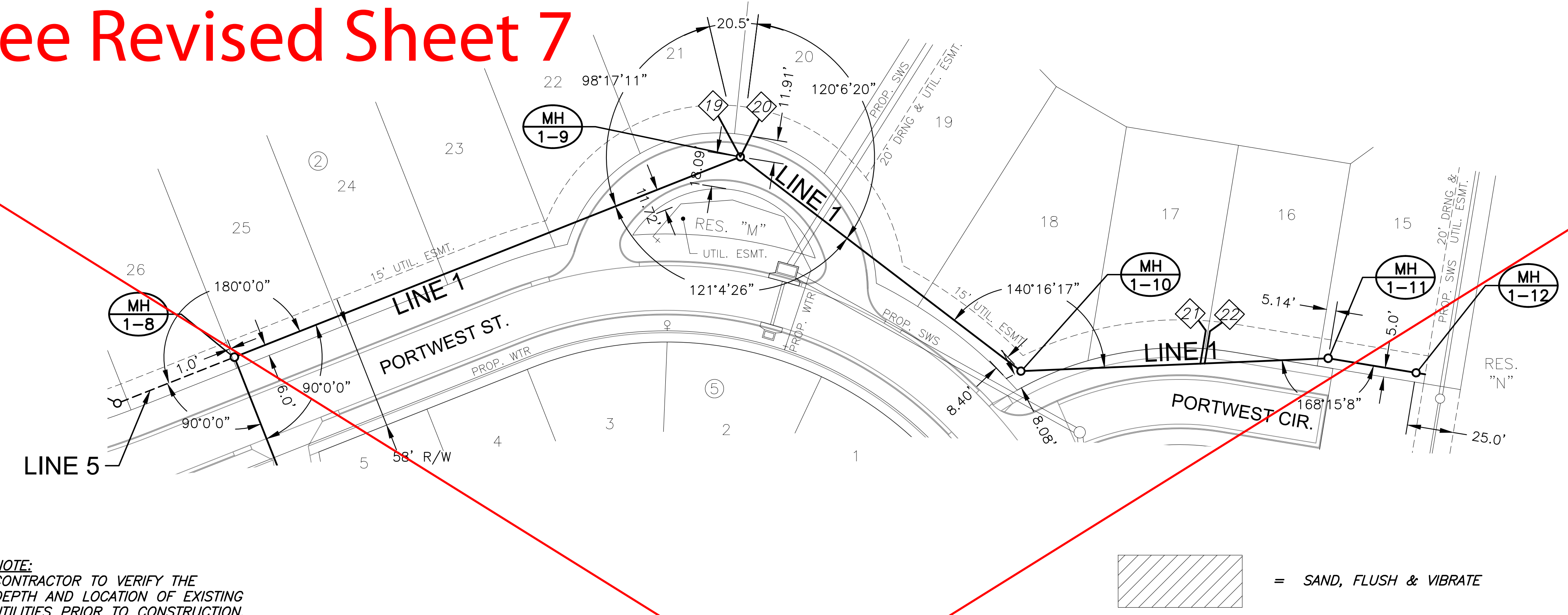
**PLAN**  
PROFILE LINE 1 (CONT)



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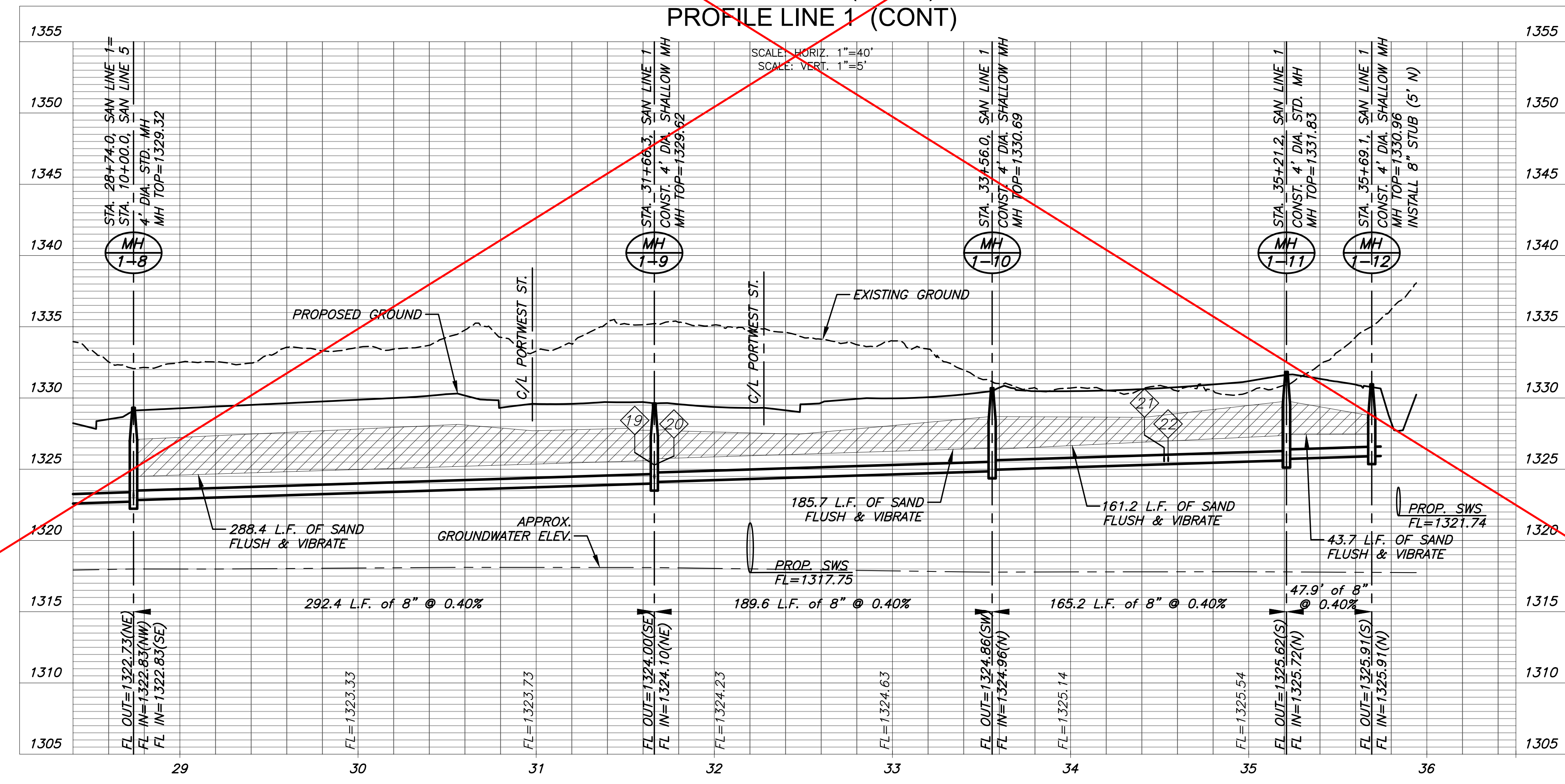
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DATE	JAN 2023
SCALE	1"=40'
DESIGNED	DFL
DRAWN	LM
CHECKED	DFL
NO.	REVISION DATE
SHEET NO. 06 OF 23	

See Revised Sheet 7



NOTE:  
CONTRACTOR TO VERIFY THE  
DEPTH AND LOCATION OF EXISTING  
UTILITIES PRIOR TO CONSTRUCTION.

PLAN LINE 1 (CONT)  
PROFILE LINE 1 (CONT)



SANITARY SEWER PLANS FOR  
**COURTYARDS AT THE MOORINGS**  
 PHASE 1

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**SAN LINE 1 (CONT. 2)**

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CHECKED	SPE

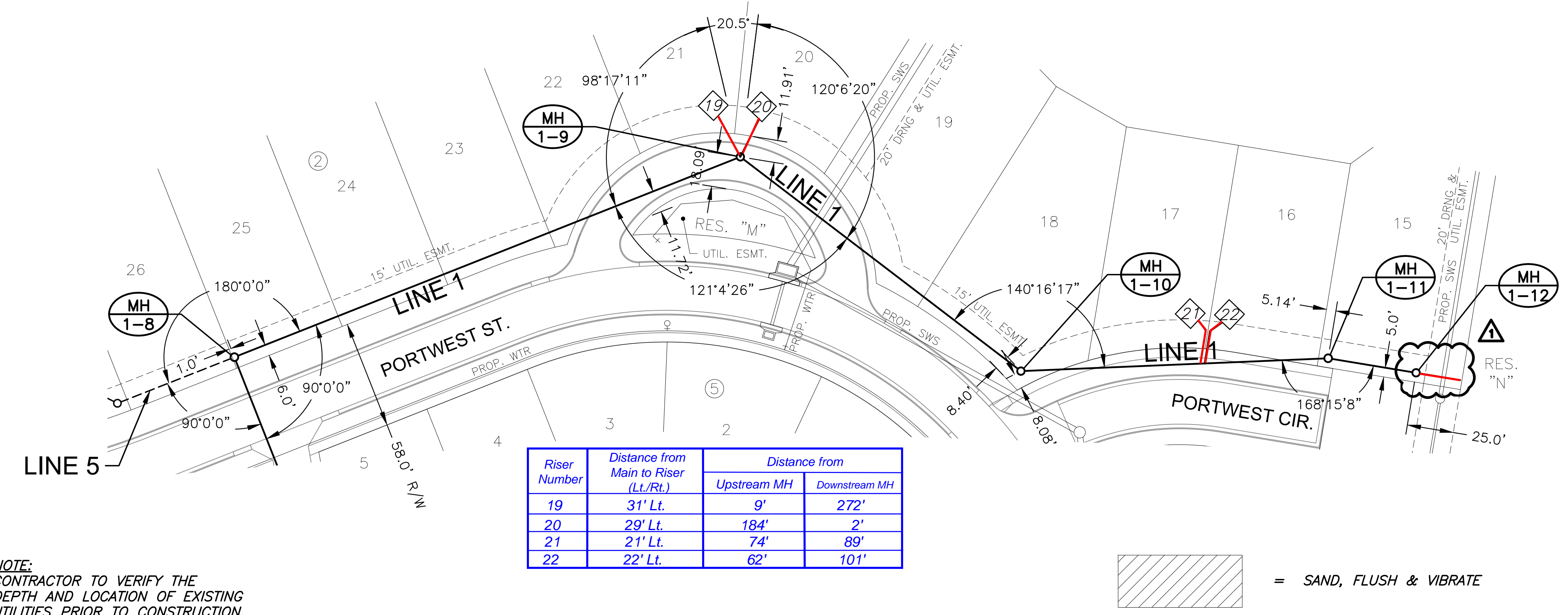
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SHEET NO. 07 OF 23

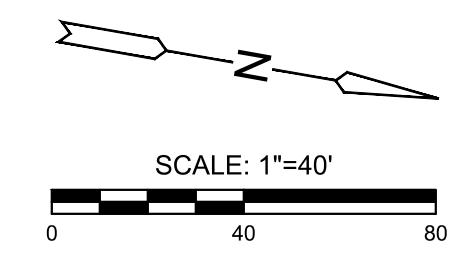
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PLOTTED: Friday, April 28, 2023 @ 01:47PM

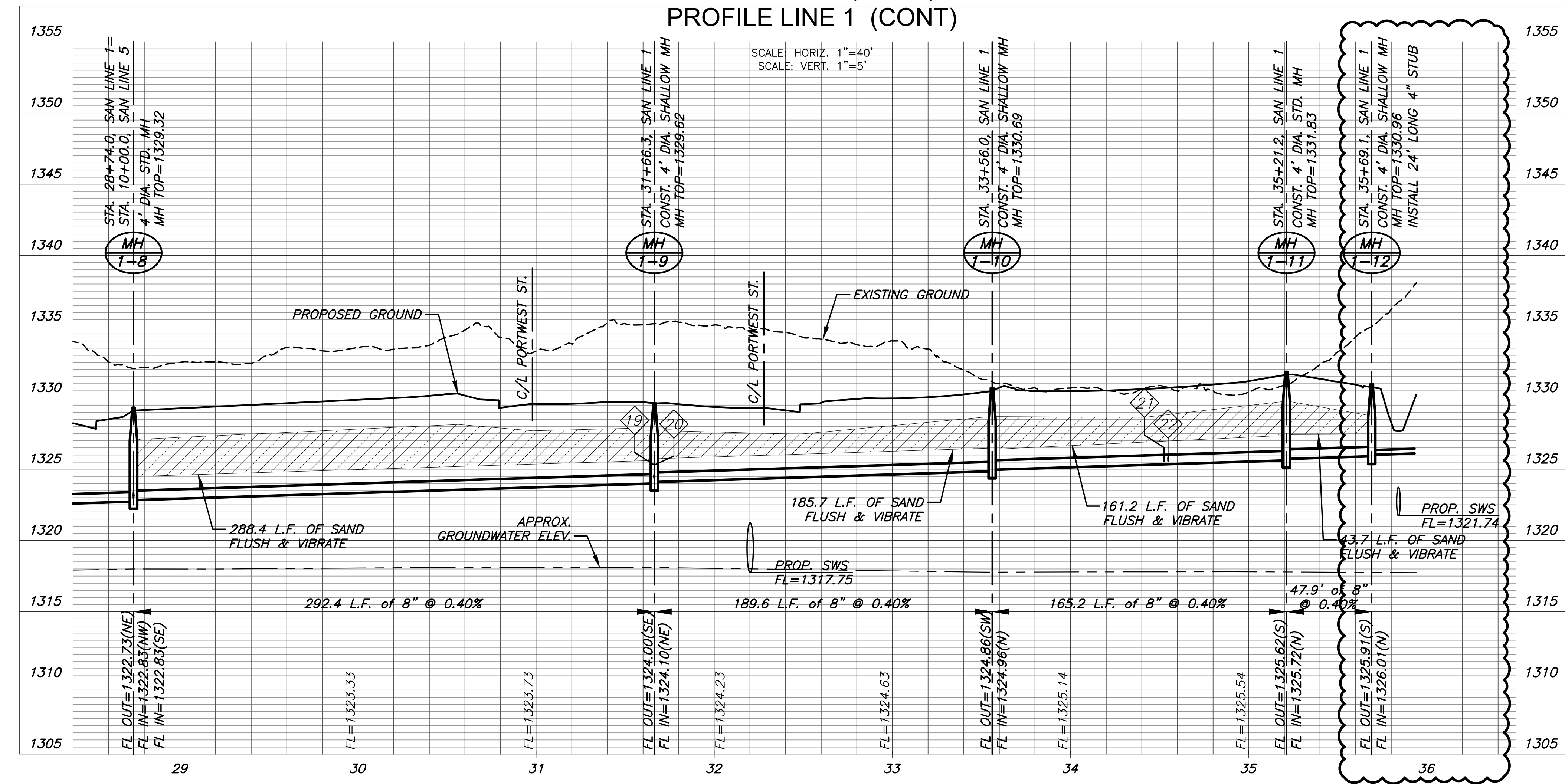
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NOTE:  
CONTRACTOR TO VERIFY THE DEPTH AND LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.



PLAN LINE 1 (CONT)  
PROFILE LINE 1 (CONT)



SANITARY SEWER PLANS FOR  
**COURTYARDS AT THE MOORINGS**  
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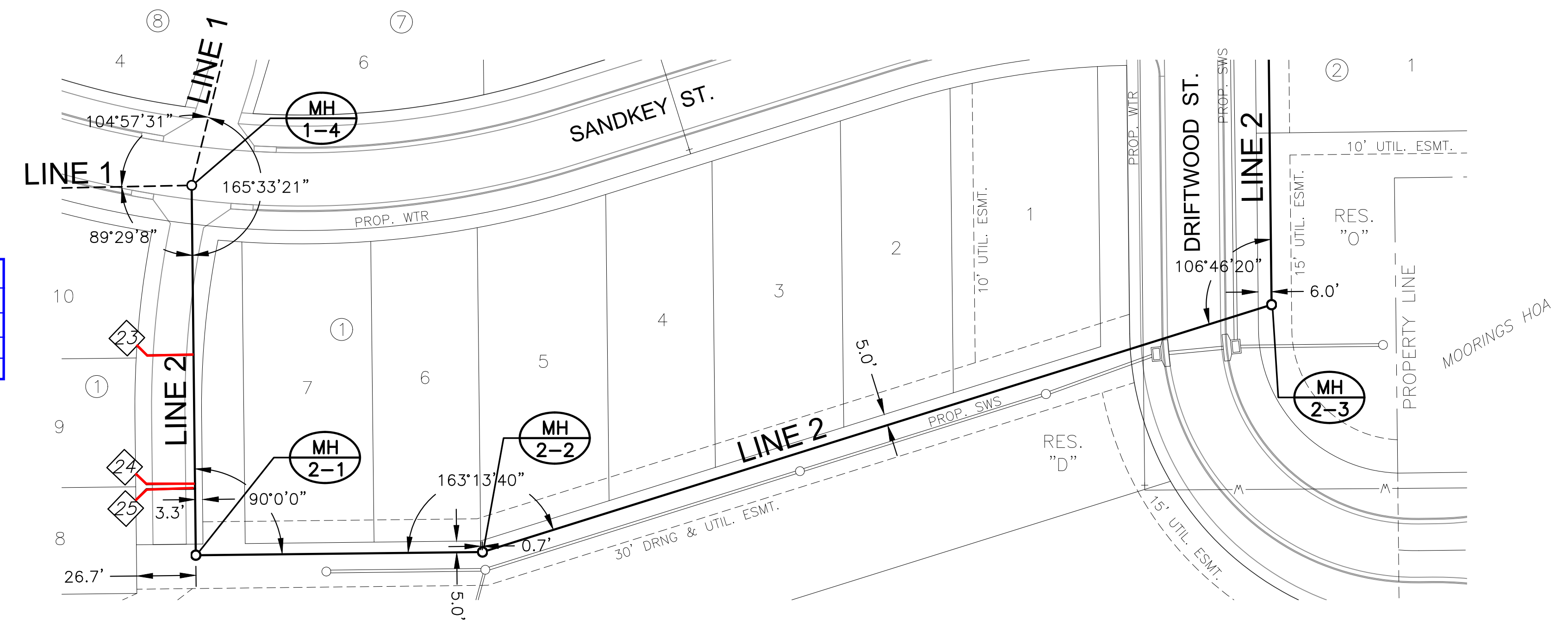
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CHECKED	SPE
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EXTENDED STUB	04/28/23
REVISION	
DATE	

SHEET NO.  
07 OF 23

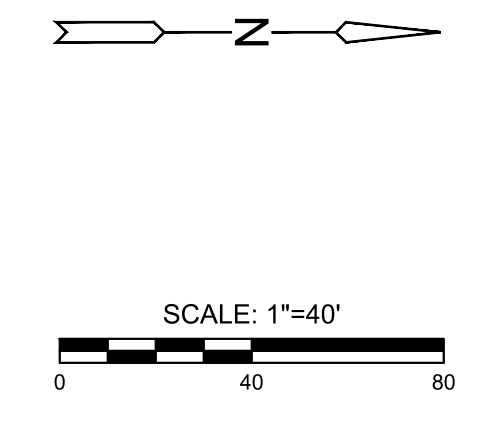
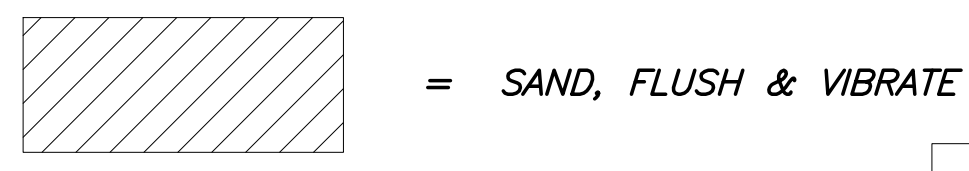
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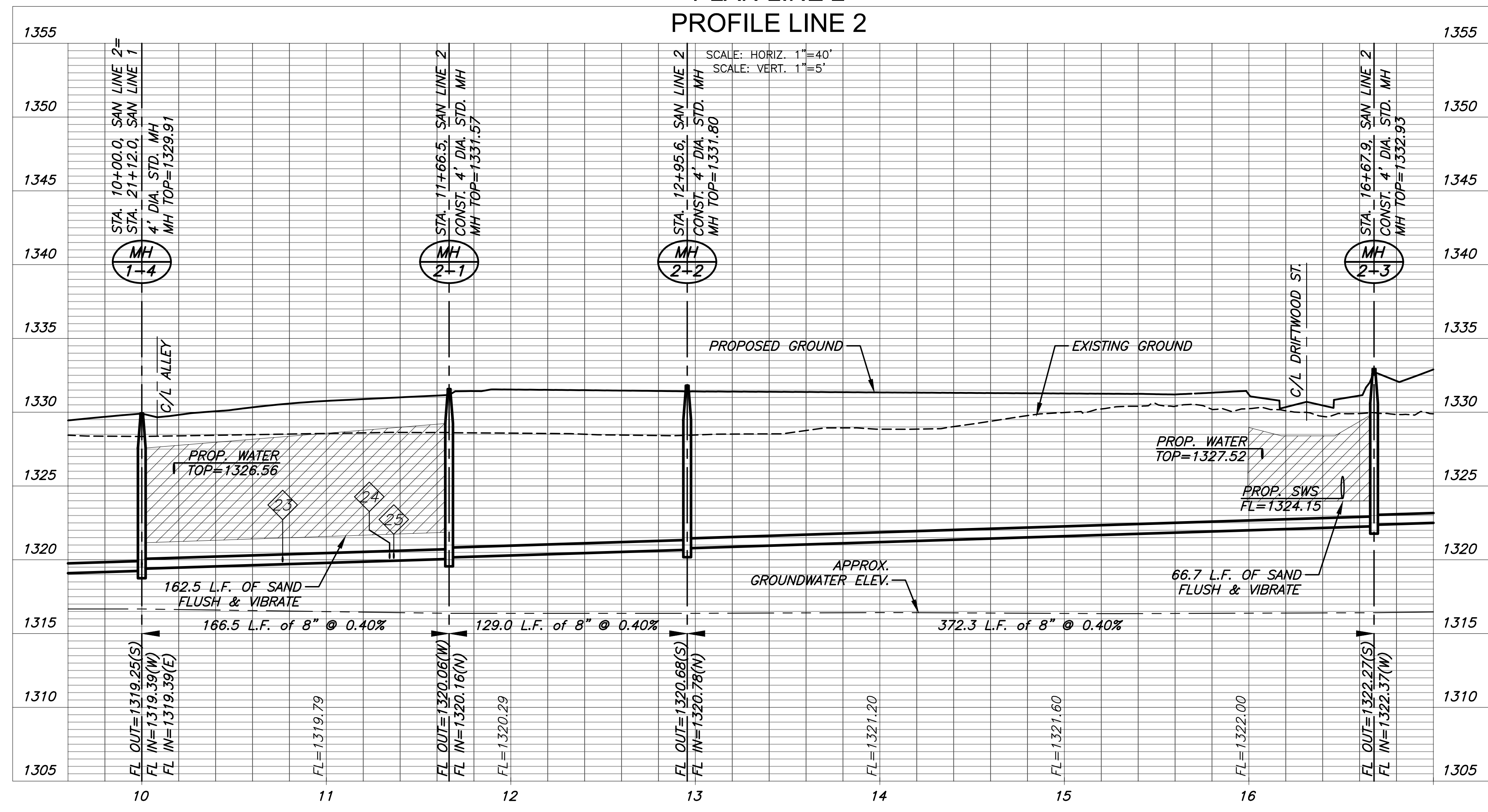
Riser Number	Distance from Main to Riser (L/R)	Distance from	
		Upstream MH	Downstream MH
23	27' Rt.	93'	69'
24	27' Rt.	36'	126'
25	28' Rt.	22'	140'



**NOTE:**  
CONTRACTOR TO VERIFY THE DEPTH AND LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.



**PLAN LINE 2  
PROFILE LINE 2**



SANITARY SEWER PLANS FOR  
**COURTYARDS AT THE MOORINGS**  
 PHASE 1

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DESIGNED	DFL
DRAWN	LM
CHECKED	SPE

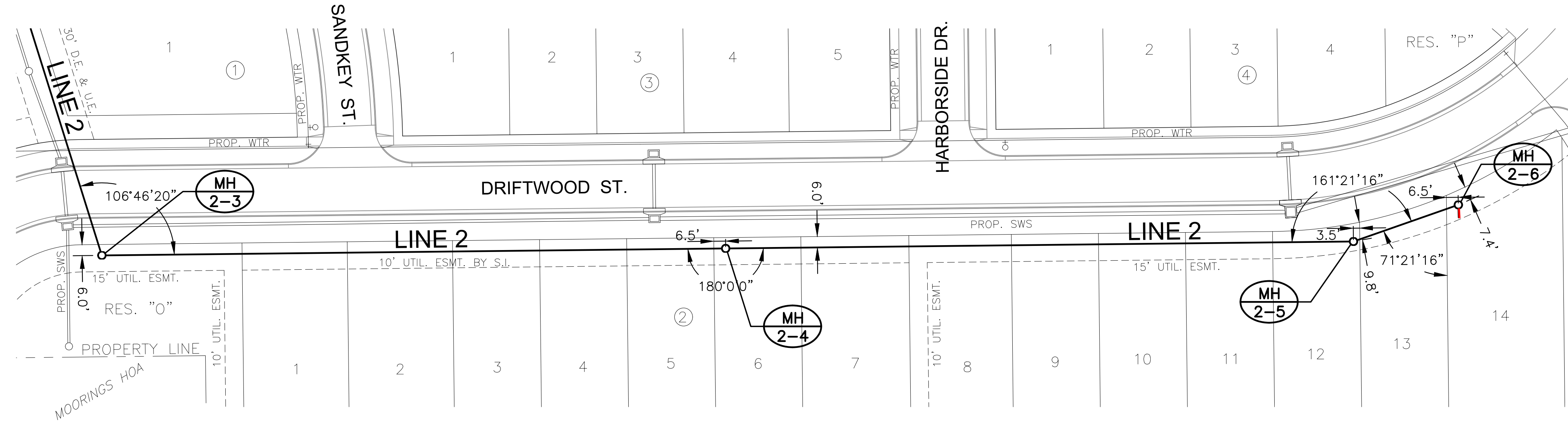
NO.	REVISION	DATE

SHEET NO.  
**08 OF 23**

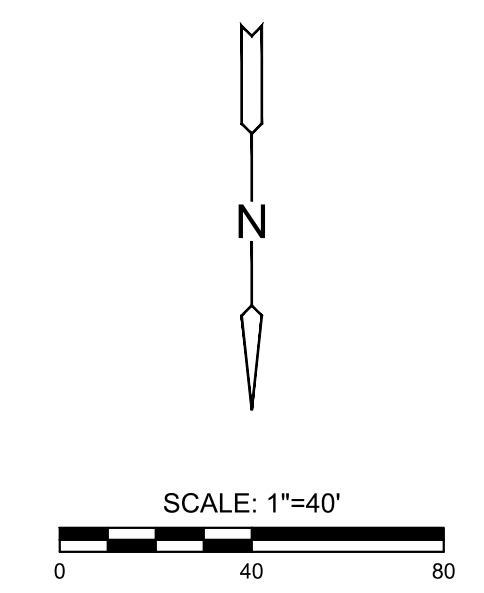
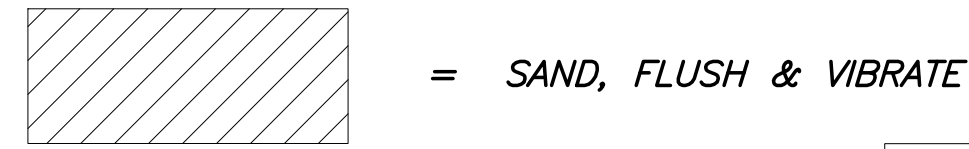
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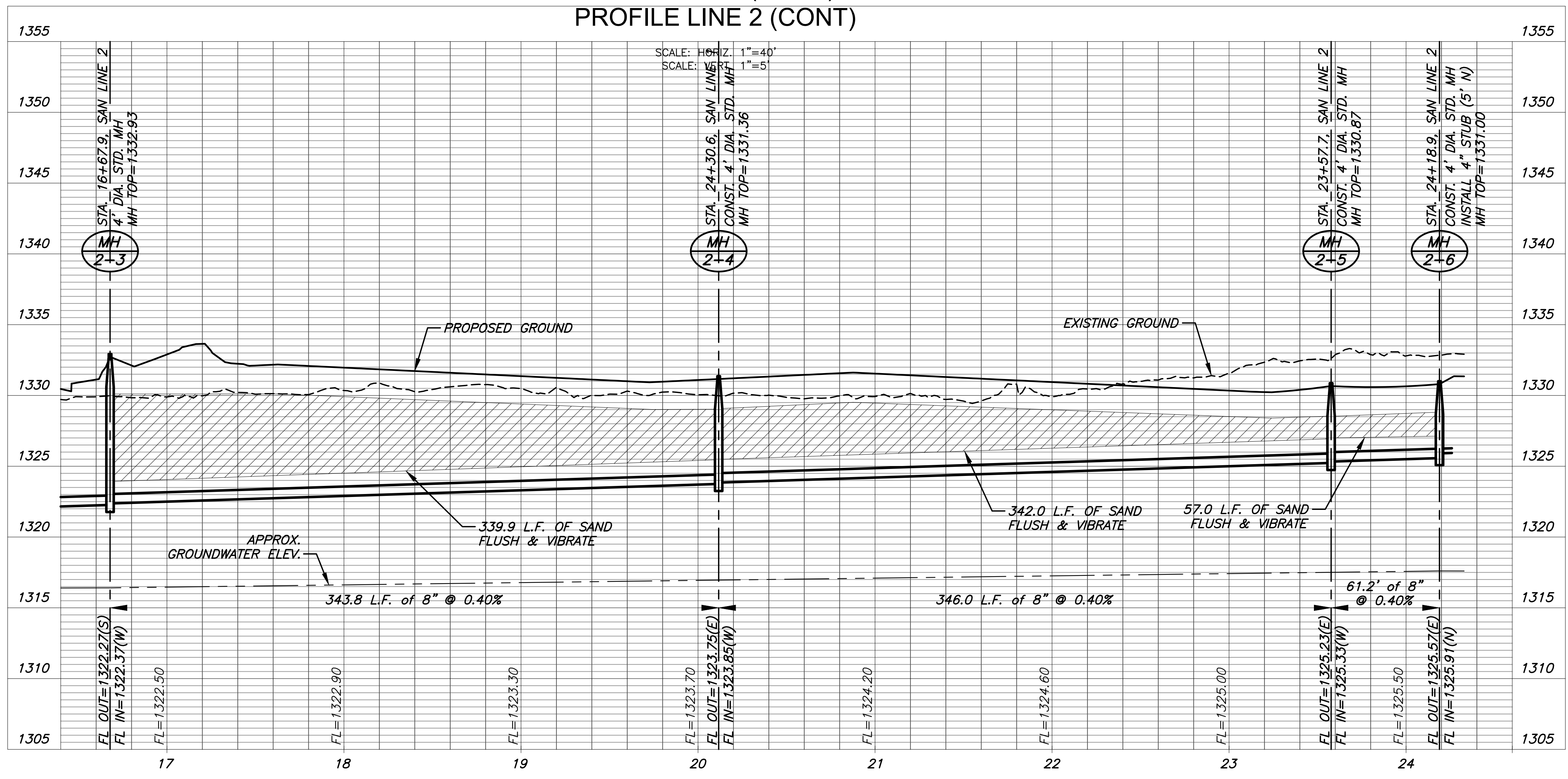
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**NOTE:**  
CONTRACTOR TO VERIFY THE DEPTH AND LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.



PLAN LINE 2 (CONT)  
PROFILE LINE 2 (CONT)



SANITARY SEWER PLANS FOR  
**COURTYARDS AT THE MOORINGS**  
PHASE 1

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**SAN LINE 2 (CONT.)**

PROJECT NO.	468-2022-024794
DATE	JAN 2023
SCALE	1"=40'
DESIGNED	DFL
DRAWN	LM
CHECKED	SPE

NO.	REVISION	DATE



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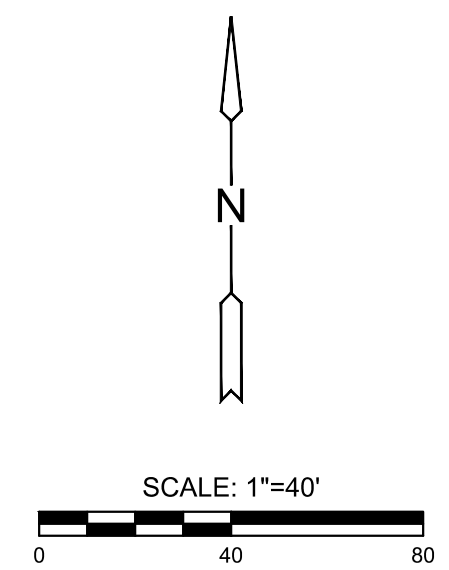
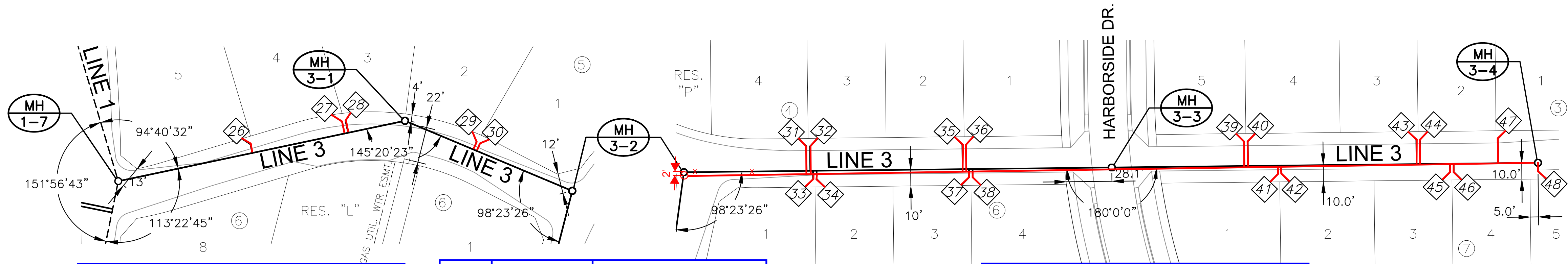
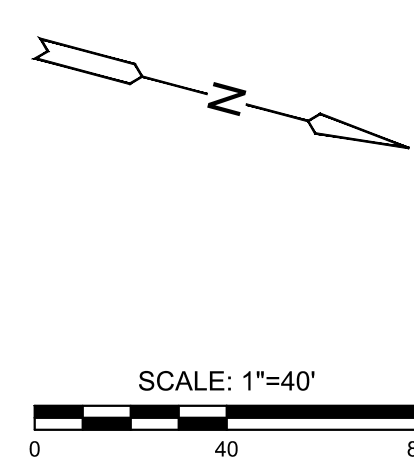
**SAN LINE 3**

PROJECT NO.	468-2022-024794
DATE	JAN 2023
SCALE	1"=40'
DESIGNED	DFL
DRAWN	LM
CHECKED	SPE

NO.	REVISION	DATE

PLOTED: Friday, January 06, 2023 @ 08:37PM

J:\PROJECTS\2022\10\10\427\_PERFECTION\_COURTYARDS AT MOORINGS\10\10\427 CAD\SH1\121427-05-2205.DWG



= SAND, FLUSH & VIBRATE

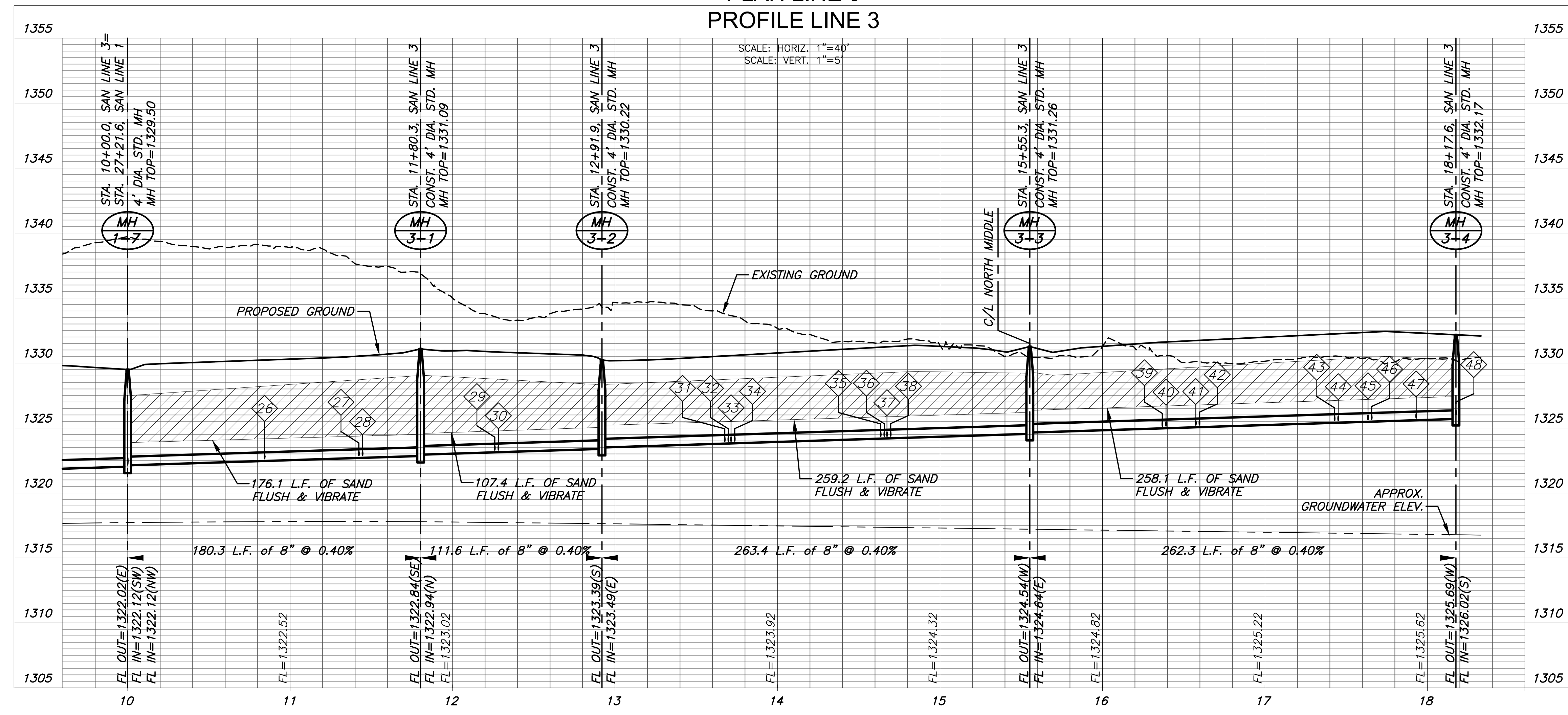
Riser Number	Distance from Main to Riser (Lt./Rt.)	Distance from	
		Upstream MH	Downstream MH
26	14' Lt.	101'	75'
27	13' Lt.	47'	129'
28	13' Lt.	32'	144'
29	11' Lt.	70'	36'
30	11' Lt.	56'	50'
31	21' Lt.	189'	71'
32	21' Lt.	178'	82'
33	16' Rt.	187'	73'
34	15' Rt.	173'	87'

Riser Number	Distance from Main to Riser (Lt./Rt.)	Distance from	
		Upstream MH	Downstream MH
35	23' Lt.	98'	162'
36	21' Lt.	83'	177'
37	13' Rt.	92'	168'
38	13' Rt.	78'	182'
39	21' Lt.	184'	74'
40	20' Lt.	171'	87'
41	15' Rt.	165'	93'
42	14' Rt.	149'	109'
43	21' Lt.	83'	175'

Riser Number	Distance from Main to Riser (Lt./Rt.)	Distance from	
		Upstream MH	Downstream MH
44	21' Lt.	69'	189'
45	14' Rt.	59'	199'
46	13' Rt.	46'	212'
47	22' Lt.	20'	238'
48	13' Rt.	@ end of line 3	7'

**NOTE:**  
CONTRACTOR TO VERIFY THE DEPTH AND LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

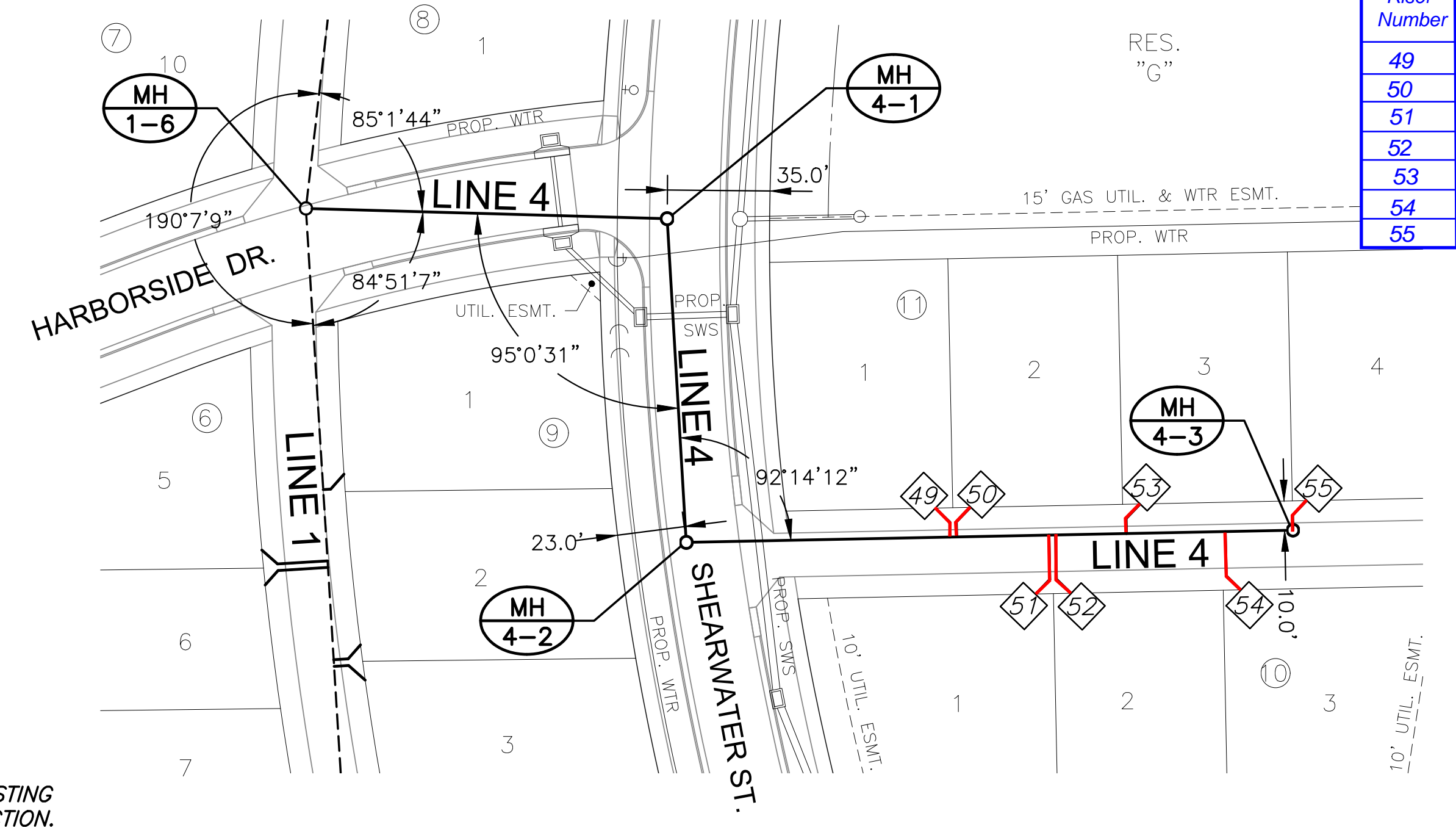
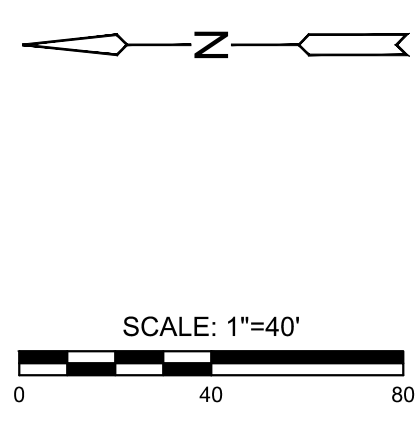
**PLAN LINE 3**  
**PROFILE LINE 3**



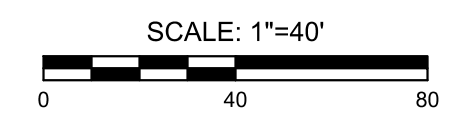
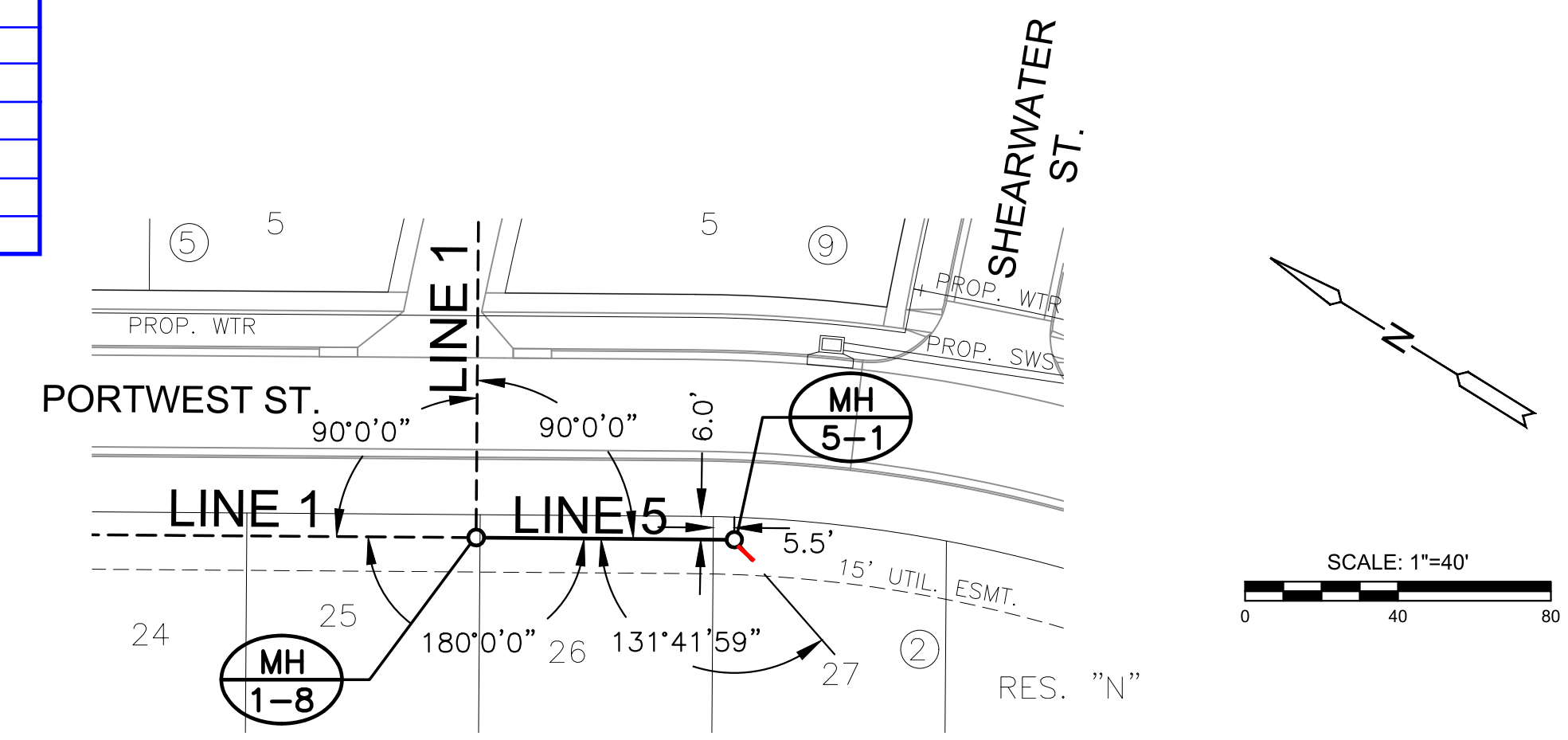
SCALE: HORIZ. 1"=40'  
SCALE: VERT. 1"=5'

APPROX. GROUNDWATER ELEV.

J:\PROJECTS\2022\12\10\10427\_PERFECTION\_COURTYARDS AT MOORINGS\DWG 2\10427 CAD\SHOTS\05 CIVIL\SANPH12\1247-05-2208.DWG  
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 PLOTTED: Friday, January 06, 2023 @ 08:38PM



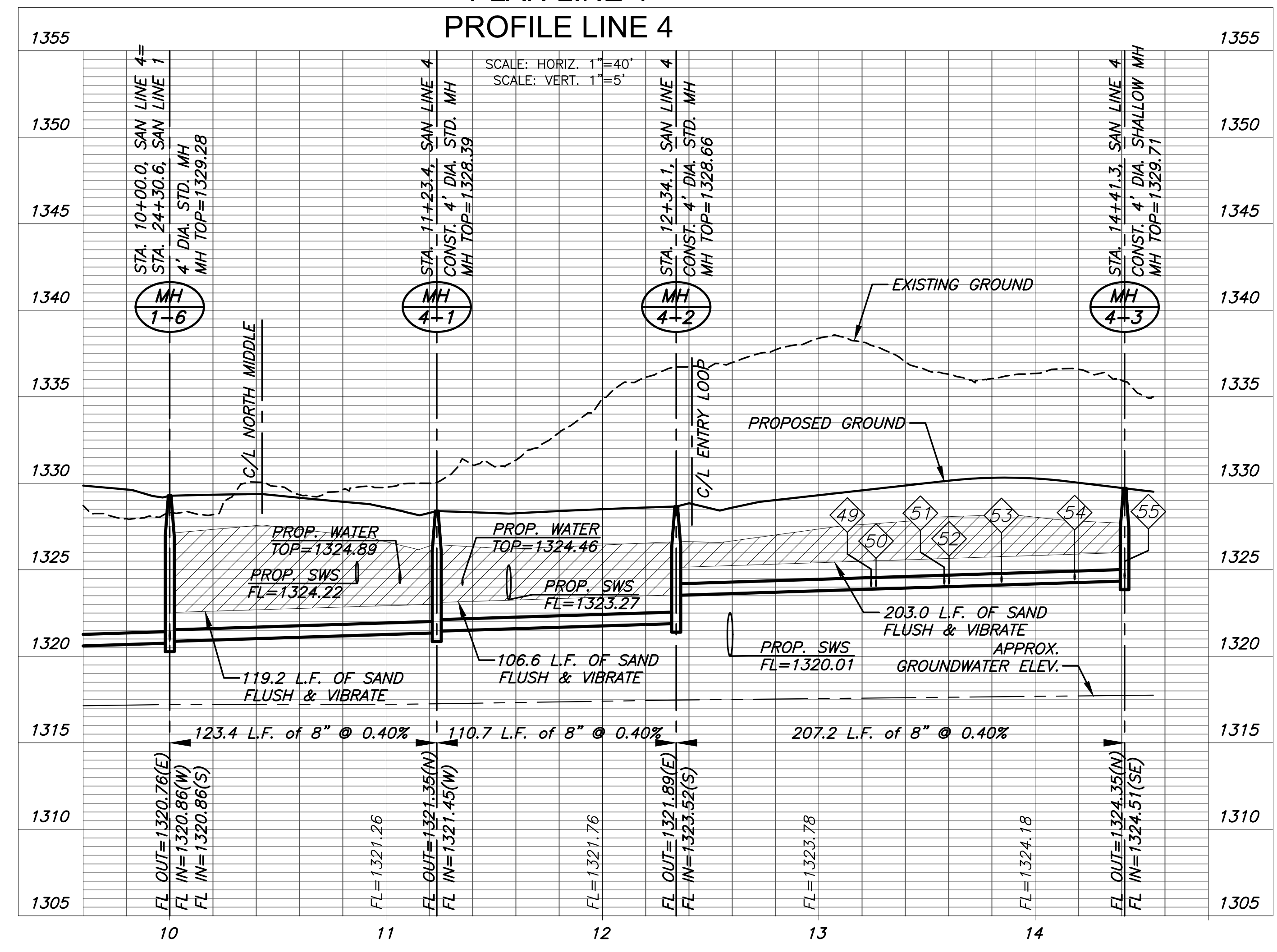
Riser Number	Distance from Main to Riser (Lt./Rt.)	Distance from	
		Upstream MH	Downstream MH
49	12' Lt.	121'	80'
50	11' Lt.	104'	97'
51	22' Rt.	86'	115'
52	22' Rt.	70'	131'
53	11' Lt.	51'	150'
54	19' Rt.	11'	190'
55	12' Lt.	@ end of connection	6'



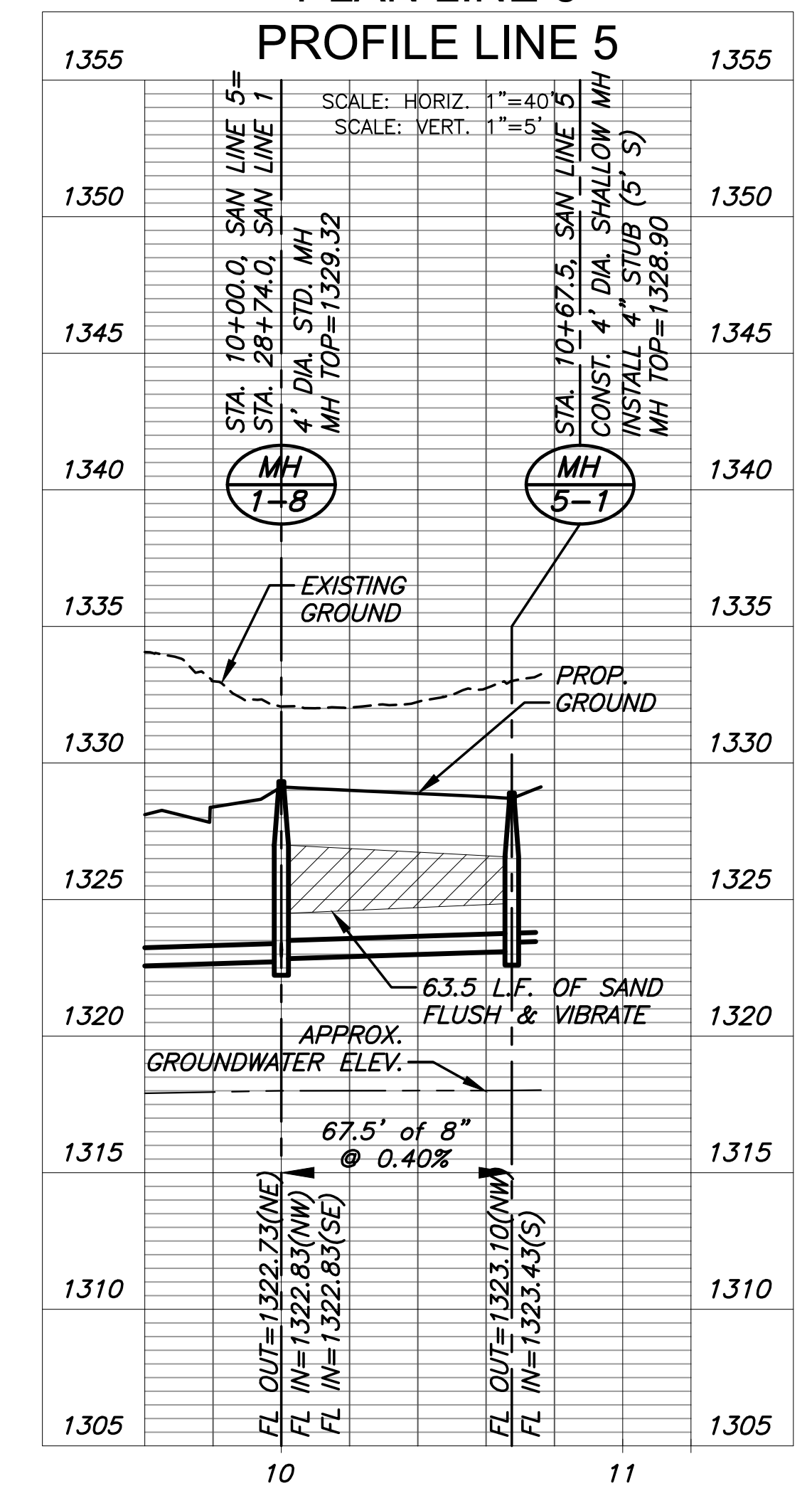
= SAND, FLUSH & VIBRATE

**NOTE:**  
 CONTRACTOR TO VERIFY THE DEPTH AND LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

**PLAN LINE 4**  
**PROFILE LINE 4**



**PLAN LINE 5**  
**PROFILE LINE 5**



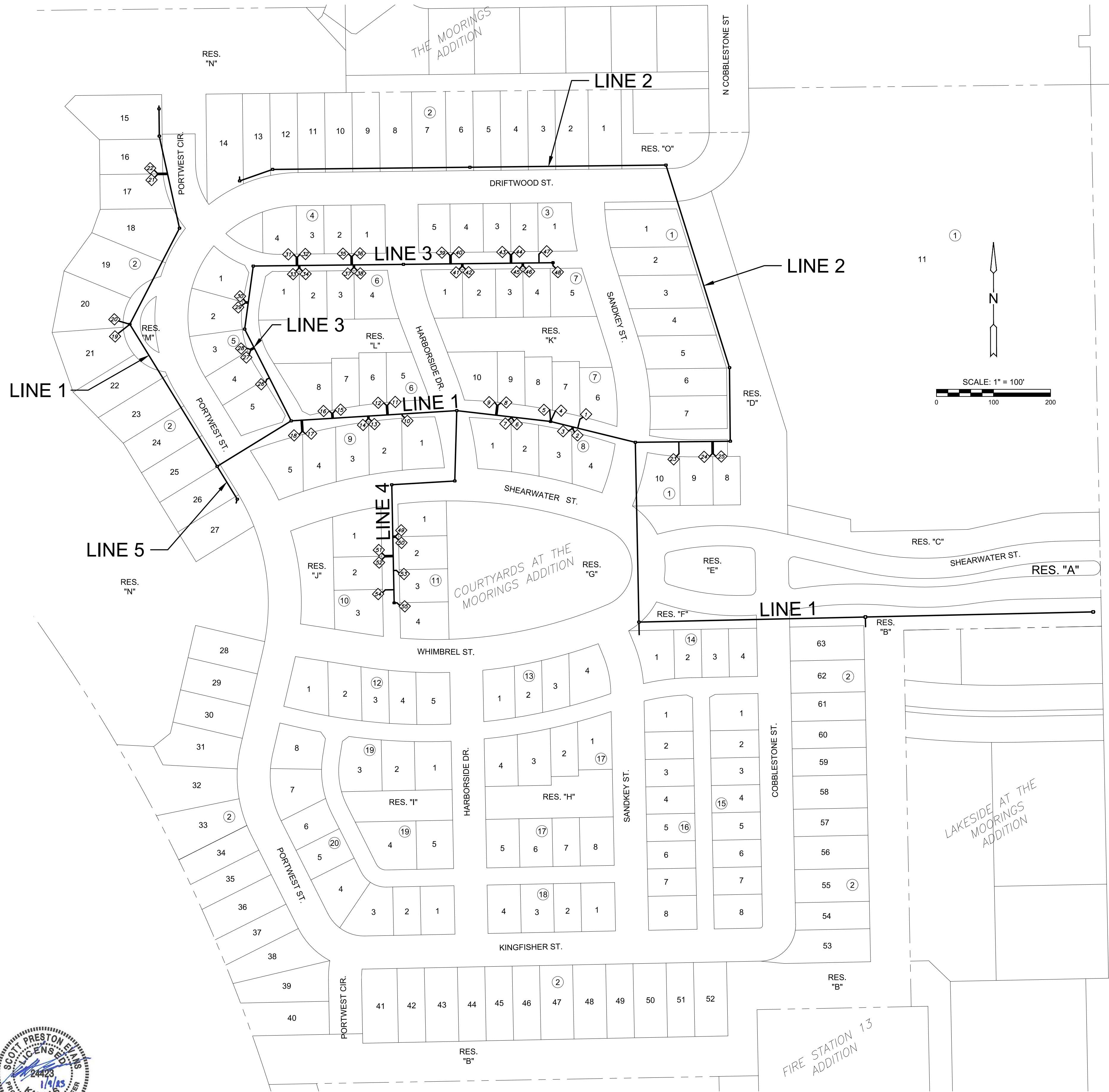
SANITARY SEWER PLANS FOR  
**COURTYARDS AT THE MOORINGS**  
 PHASE 1

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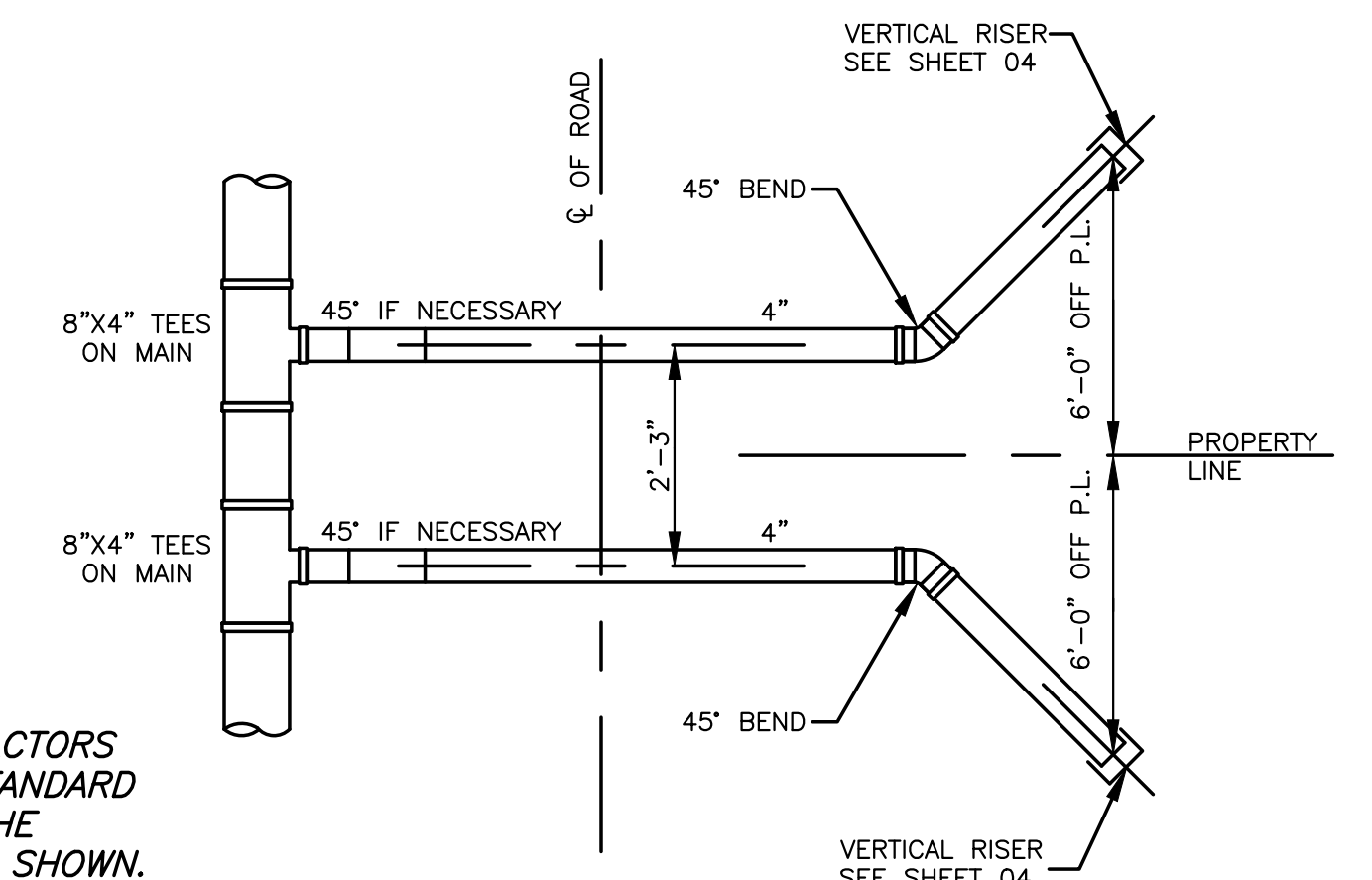
SAN LINE 4 & LINE 5	
PROJECT NO.	468-2022-024794
DATE	JAN 2023
SCALE	1"=40'
DESIGNED	DFL
DRAWN	LM
CHECKED	SPE
NO.	REVISION
DATE	
SHEET NO.	
11 OF 23	

PLOTED: Friday, January 06, 2023 @ 08:38PM

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SEWER SERVICE RISER TABLE					FOR INFORMATION ONLY		
NO.	TYPE	LOCATION			STATION	APPROXIMATE LENGTH	
		LOT NO.	BLOCK NO.	LINE NO.		VERTICAL (FT)	HORIZONTAL (FT)
1	4" TEE	6	7	1	22+15.94/RT	10.1'	23.2'
2	4" TEE	4	8	1	22+23.68/LT	10.1'	10.8'
3	4" TEE	3	8	1	22+25.92/LT	10.1'	10.8'
4	4" MH CONNECTION	7	7	1	22+65.05/RT	10.0'	20.6'
5	4" MH CONNECTION	8	7	1	22+65.05/RT	10.0'	20.6'
6	4" TEE	2	8	1	23+32.80/LT	9.7'	9.2'
7	4" TEE	1	8	1	23+35.05/LT	9.7'	9.2'
8	4" TEE	9	7	1	23+59.78/RT	9.4'	24.9'
9	4" TEE	10	7	1	23+62.04/RT	9.4'	24.9'
10	4" TEE	1	9	1	25+26.76/LT	8.2'	9.4'
11	4" TEE	5	6	1	25+51.14/RT	8.3'	24.3'
12	4" TEE	6	6	1	25+53.39/RT	8.3'	23.8'
13	4" TEE	2	9	1	25+84.95/LT	8.3'	11.3'
14	4" TEE	3	9	1	25+87.20/LT	8.3'	12.5'
15	4" TEE	7	6	1	26+47.66/RT	7.8'	17.5'
16	4" TEE	8	6	1	26+49.91/RT	7.8'	15.0'
17	4" TEE	4	9	1	27+01.88/LT	7.3'	25.8'
18	4" TEE	5	9	1	27+04.13/LT	7.3'	29.2'
19	4" MH CONNECTION	21	2	1	31+66.35/LT	5.0'	31.6'
20	4" MH CONNECTION	20	2	1	31+66.35/LT	5.0'	27.9'
21	4" TEE	17	2	1	34+52.49/LT	4.8'	25.7'
22	4" TEE	16	2	1	34+54.77/LT	4.8'	23.6'
23	4" TEE	10	1	2	10+76.31/RT	10.4'	27.3'
24	4" TEE	9	1	2	11+34.31/RT	10.5'	28.7'
25	4" TEE	8	1	2	11+36.56/RT	10.5'	28.7'
26	4" TEE	5	5	3	10+84.28/LT	7.3'	11.8'
27	4" TEE	4	5	3	11+42.31/LT	7.3'	15.2'
28	4" TEE	3	5	3	11+44.56/LT	7.3'	13.6'
29	4" TEE	2	5	3	12+25.96/LT	7.2'	12.0'
30	4" TEE	1	5	3	12+28.21/LT	7.2'	11.6'
31	4" TEE	4	4	3	13+67.50/LT	6.3'	22.0'
32	4" TEE	3	4	3	13+69.75/LT	6.3'	22.0'
33	4" TEE	1	6	3	13+71.40/RT	6.3'	12.0'
34	4" TEE	2	6	3	13+73.75/RT	6.3'	12.0'
35	4" TEE	2	4	3	14+63.50/LT	6.5'	22.0'
36	4" TEE	1	4	3	14+65.75/LT	6.5'	22.0'
37	4" TEE	3	6	3	14+67.40/RT	6.5'	12.0'
38	4" TEE	4	6	3	14+69.65/RT	6.5'	12.0'
39	4" TEE	5	3	3	16+36.90/LT	6.1'	22.0'
40	4" TEE	4	3	3	16+39.15/LT	6.1'	22.0'
41	4" TEE	1	7	3	16+57.47/RT	6.2'	12.0'
42	4" TEE	2	7	3	16+59.72/RT	6.2'	12.0'
43	4" TEE	3	3	3	17+42.90/LT	6.4'	22.0'
44	4" TEE	2	3	3	17+45.15/LT	6.4'	22.0'
45	4" TEE	3	7	3	17+63.47/RT	6.4'	12.0'
46	4" TEE	4	7	3	17+65.72/RT	6.4'	12.0'
47	4" TEE	1	3	3	17+93.15/LT	6.2'	22.0'
48	4" MH CONNECTION	5	7	3	18+17.60/RT	5.8'	12.0'
49	4" TEE	1	11	4	13+24.20/LT	5.3'	12.0'
50	4" TEE	2	11	4	13+26.46/LT	5.3'	12.0'
51	4" TEE	1	10	4	13+57.98/RT	5.6'	22.0'
52	4" TEE	2	10	4	13+60.23/RT	5.6'	22.0'
53	4" TEE	3	11	4	13+84.46/LT	5.7'	12.0'
54	4" TEE	3	10	4	14+18.23/RT	5.3'	22.0'
55	4" MH CONNECTION	4	11	4	14+41.33/LT	4.9'	12.0'



**NOTE:**  
IT SHALL BE THE CONTRACTORS OPTION TO PROVIDE A STANDARD CITY RISER IN LIEU OF THE ADDITIONAL 45° BEND AS SHOWN. THE VERTICAL RISER LOCATION MUST REMAIN AS DESIGNED.

PLAN DETAIL X-X



SANTITARY SEWER PLANS FOR  
**COURTYARDS AT THE MOORINGS**  
PHASE 1

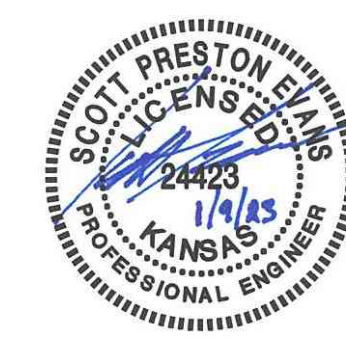
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**SERVICE LINES**

PROJECT NO.	468-2022-024794	
DATE	JAN 2023	
SCALE	1"=100'	
DESIGNED	DFL	
DRAWN	LM	
CHECKED	SPE	
NO.	REVISION	DATE

PLOTTED: Friday, January 06, 2023 @ 08:39PM

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# SANITARY SEWER PLANS FOR COURTYARDS AT THE MOORINGS PHASE 1

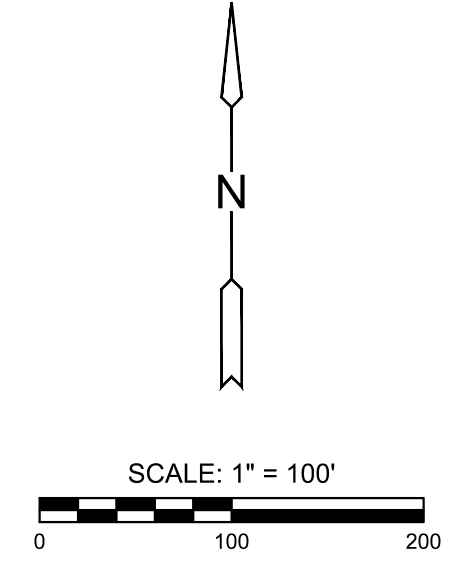
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### BUBBLE MAP

PROJECT NO.	468-2022-024794	
DATE	JAN 2023	
SCALE	1"=100'	
DESIGNED	DRAWN	CHECKED
DFL	LM	SPE

NO.	REVISION	DATE

SHEET NO.  
13 OF 23



PAVING POINTS			
Point #	Northing	Easting	Desc.
500	1714267.28	1638565.02	PI
501	1714265.39	1638470.08	PI
502	1714254.56	1638359.93	PI
503	1714248.76	1638218.66	PI
504	1714243.41	1638042.62	PI
505	1714253.09	1638031.08	PI
506	1714289.38	1638030.35	PI
507	1714299.33	1638042.54	PI
508	1714273.84	1638156.09	PI
509	1714275.44	1638386.62	PI
510	1714291.48	1638511.94	PI
511	1714292.53	1638564.51	PI
512	1714242.45	1637973.28	PI
513	1714232.27	1637963.84	PI
514	1714248.49	1637828.83	PI
515	1714251.24	1637819.78	PI
516	1714262.27	1637812.80	PI
517	1714296.68	1637813.25	PI
518	1714307.60	1637820.81	PI
519	1714315.45	1637963.30	PI
520	1714305.73	1637972.01	PI
521	1714228.04	1638578.43	PI
522	1714225.35	1638443.48	PI
523	1714217.54	1638353.71	PI
524	1714213.41	1638215.33	PI
525	1714205.63	1638032.03	PI
526	1714197.37	1637974.19	PI
527	1714214.52	1637818.51	PI
528	1714220.45	1637799.01	PI
529	1714169.79	1637750.28	PI
530	1714215.82	1637712.96	PI
531	1714347.57	1637710.31	PI
532	1714391.92	1637345.46	PI
533	1714387.72	1637315.54	PI
534	1714346.37	1637161.61	PI
535	1714344.72	1637157.32	PI
536	1714181.86	1637174.70	PI
537	1714163.47	1637293.61	PI
538	1714159.84	1637320.12	PI
539	1714156.85	1637350.19	PI
540	1714328.27	1638576.43	PI
541	1714326.97	1638511.23	PI
542	1714309.96	1638378.37	PI
543	1714308.48	1638163.87	PI
544	1714343.87	1638006.22	PI
545	1714339.00	1637800.50	PI
546	1714388.47	1637756.78	PI
547	1714411.61	1637703.52	PI
548	1714418.72	1637706.22	PI
549	1714398.21	1637760.47	PI
550	1714497.31	1637726.45	PI
551	1714482.26	1637782.83	PI
552	1714474.70	1637866.43	PI
553	1714475.33	1637923.70	PI

PAVING POINTS			
Point #	Northing	Easting	Desc.
554	1714505.33	1637923.36	PI
555	1714504.69	1637866.09	PI
556	1714512.10	1637786.54	PI
557	1714527.81	1637729.55	PI
558	1714660.98	1637713.22	PI
559	1714678.33	1637768.56	PI
560	1714818.12	1637724.73	PI
561	1714800.77	1637669.39	PI
562	1714805.67	1637667.88	PI
563	1714835.58	1637660.06	PI
564	1714920.48	1637649.82	PI
565	1714921.12	1637707.82	PI
566	1714922.46	1637828.62	PI
567	1714980.45	1637827.20	PI
568	1715043.86	1637961.43	PI
569	1714454.04	1637485.52	PI
570	1714455.37	1637427.10	PI
571	1714544.86	1637410.27	PI
572	1714543.85	1637470.42	PI
573	1714574.23	1637462.21	PI
574	1714574.70	1637401.27	PI
575	1714599.94	1637392.24	PI
576	1714620.76	1637446.37	PI
577	1714725.11	1637406.23	PI
578	1714704.29	1637352.10	PI
579	1714801.88	1637327.23	PI
580	1714802.53	1637385.72	PI
581	1714832.50	1637382.40	PI
582	1714831.85	1637324.32	PI
583	1714853.54	1637323.53	PI
584	1714854.18	1637381.52	PI
585	1714917.49	1637380.82	PI
586	1714916.84	1637322.82	PI
587	1714915.15	1637171.04	PI
588	1714973.15	1637170.39	PI
589	1714866.27	1637043.70	PI
590	1714917.06	1637013.98	PI
591	1714987.19	1636990.63	PI
592	1715041.07	1636990.03	PI
593	1715040.42	1636932.03	PI
594	1714986.54	1636932.63	PI
595	1714875.37	1636972.93	PI
596	1714844.78	1637022.76	PI
597	1714790.89	1636929.55	PI
598	1714756.18	1636921.93	PI
599	1714657.47	1636926.82	PI
600	1714623.70	1636937.84	PI
601	1714586.14	1636956.84	PI
602	1714616.52	1637006.25	PI
603	1714511.58	1637070.76	PI
604	1714485.50	1637086.79	PI
605	1714443.29	1637112.74	PI
606	1714412.92	1637063.33	PI
607	1714398.88	1637136.57	PI

PAVING POINTS			
Point #	Northing	Easting	Desc.
608	1714400.52	1637140.85	PI
609	1714535.25	1637142.69	PI
610	1714547.99	1637191.38	PI
611	1714554.79	1637177.62	PI
612	1714547.01	1637148.03	PI
613	1714560.17	1637140.66	PI
614	1714575.88	1637166.22	PI
615	1714649.28	1637121.10	PI
616	1714633.57	1637095.54	PI
617	1714755.19	1637074.90	PI
618	1714748.79	1637104.21	PI
619	1714791.26	1637113.48	PI
620	1714797.66	1637084.18	PI
621	1714810.74	1637076.87	PI
622	1714800.10	1637125.57	PI
623	1714799.78	1637137.85	PI
624	1714829.78	1637137.52	PI

SANITARY POINTS			
Point #	Northing	Easting	Desc.
2000	1714202.88	1638564.72	MH 1-1
2001	1714193.92	1638165.30	MH 1-2
2002	1714185.01	1637768.19	MH 1-3
2003	1714500.23	1637761.86	MH 1-4
2004	1714536.75	1637613.24	MH 1-5
2005	1714555.76	1637448.76	MH 1-6
2006	1714537.86	1637158.35	MH 1-7
2007	1714458.05	1637028.54	MH 1-8
2008	1714707.13	1636875.41	MH 1-9
2009	1714875.56	1636962.51	MH 1-10
2010	1715036.95	1636927.07	MH 1-11
2011	1715084.81	1636926.54	MH 1-12
2012	1714502.08	1637928.40	MH 2-1
2013	1714631.12	1637926.96	MH 2-2
2014	1714986.32	1637815.59	MH 2-3
2015	1714982.50	1637471.79	MH 2-4
2016	1714978.66	1637125.81	MH 2-5
2017	1714958.44	1637068.03	MH 2-6
2018	1714698.64	1637076.76	MH 3-1
2019	1714809.27	1637091.83	MH 3-2
2020	1714812.19	1637355.17	MH 3-3
2021	1714815.11	1637617.45	MH 3-4
2022	1714432.40	1637445.27	MH 4-1
2023	1714425.86	1637334.78	MH 4-2
2024	1714218.67	1637338.94	MH 4-3
2025	1714400.49	1637063.83	MH 5-1



SANITARY SEWER PLANS FOR  
**COURTYARDS AT THE MOORINGS**  
 PHASE 1

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**BUBBLE TABLE**

PROJECT NO.	468-2022-024794	
DATE	JAN 2023	
SCALE	NO SCALE	
DESIGNED	DRAWN	CHECKED
DFL	LM	SPE
NO.	REVISION	DATE

SHEET NO.