

COTTAGES OF VENICE

WATER AND SEWER RECORD DRAWING

RECORD DRAWINGS
February 16, 2024
APPROVED

DEVELOPER:

MPS DEVELOPMENT AND CONSTRUCTION, LLC
333 SOUTH TAMiami TRAIL, SUITE 205
VENICE, FL. 34285

OWNER:

KEENELAND LLC
333 SOUTH TAMiami TRAIL, SUITE 205
VENICE, FL. 34285

CIVIL ENGINEER

PROFESSIONAL ENGINEERING RESOURCES, INC.
10225 ULMERTON ROAD, SUITE 4D
LARGO, FL. 33771 (727) 408-5207

SURVEYOR

STRAYER
742 SHAMROCK BLVD.
VENICE, FL. 34293 (941) 497-1290

LANDSCAPE ARCHITECT

HAZELTINE NURSERIES, INC.
P.O. BOX 236
VENICE, FL. 34292 (941) 485-1272

LEGAL DESCRIPTION :

TRACT 3, OF THE UNRECORDED PLAT OF KENT ACRES, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE WEST 304 FEET OF THE EAST 945 FEET OF THE NORTH 726 FEET OF THAT PART OF SECTION 9, TOWNSHIP 39 SOUTH, RANGE 19 EAST, SARASOTA COUNTY, FLORIDA LYING SOUTH OF THE EXISTING R/W OF VENICE AVENUE EAST; SUBJECT TO AN EASEMENT FOR INGRESS AND EGRESS OVER THE SOUTH 15 FEET THEREOF, RESERVED IN THAT CERTAIN DEED RECORDED IN O.R. BOOK 499, PAGE 562, OF THE PUBLIC RECORDS OF SARASOTA COUNTY, FLORIDA.



LOCATION MAP

SECTION 9 TOWNSHIP 39S RANGE 19E

NOTE:

- 1. A SARASOTA COUNTY RIGHT OF WAY USE PERMIT IS REQUIRED FOR WORK CONDUCTED IN THE EAST VENICE AVE. RIGHT OF WAY.

CITY OF VENICE NOTES

- 1. ALL UTILITIES, WHETHER PUBLIC OR PRIVATE, SHALL MEET CITY OF VENICE STANDARDS.
- 2. CONTACT PUBLIC WORKS SOLID WASTE DIVISION (941-486-2422) FOR APPROVAL OF DUMPSTER LOCATION AND LAYOUT PRIOR TO CONSTRUCTION.

UTILITIES

TECO PEOPLES GAS
702 NORTH FRANKLIN STREET
P.O. BOX 2562
TAMPA, FL.
33601-2562

FLORIDA POWER & LIGHT
CONSTRUCTION SERVICES
5657 SOUTH MCINTOSH ROAD
SARASOTA, FL. 34230

WATER AND SEWER
CITY OF VENICE
401 WEST VENICE AVE.
VENICE, FL. 34285

VERIZON ENGINEERING
1701 RINGLING BOULEVARD
SARASOTA, FL. 34230

COMCAST CABLEVISION OF WEST FLORIDA, INC.
5205 FRUITVILLE ROAD
SARASOTA, FL. 34232

NO. DATE BY

1 8-9-21 SAG
2 2-14-23 SAG

REVISIONS

ADDED SHEET 24A AS PER COUNTY COMMENTS.
CONVERT TO RECORD DRAWING

PARCEL ID NO. = 0412080003
PROPERTY ADDRESS = 1775 EAST VENICE AVE., VENICE FL. 34292

SITE AREA

SITE AREA = 5.06 AC±

PERCENT AND ACREAGE OF IMPERVIOUS/PERVIDIUS AREA

PERVIDIUS = 1.66 AC± 32.81 %
IMPERVIDIUS = 1.82 AC± 35.97 %
POND = 1.58 AC± 31.22 %
TOTAL = 5.06 AC± 100 %

INFRASTRUCTURE IMPROVEMENTS:

LINEAR FEET OF POTABLE WATER SERVICE = 1,098 FT
LINEAR FEET OF POTABLE WATER MAIN = 1,329 FT
LINEAR FEET OF SANITARY SEWER LATERAL = 947 FT
LINEAR FEET OF GRAVITY MAIN = 973 FT
LINEAR FEET OF FORCE MAIN = 0 FT
NUMBER OF MANHOLES = 6 UNITS

CITY OF VENICE TO PROVIDE WATER, SEWER AND SOLID WASTE SERVICES TO THE PROJECT.

NOTES:

- 1. TREE REMOVAL PERMIT MUST BE OBTAINED FROM THE CITY OF VENICE.
- 2. *POST-DEVELOPMENT RUNOFF DOES NOT EXCEED PRE-DEVELOPMENT RUNOFF VOLUME OR RATE FOR A 24 HOUR, 25-YEAR STORM EVENT*.
- 3. ALL FIRE SERVICE BACKFLOW ASSEMBLIES SHALL BE INSTALLED BY A CERTIFIED CONTRACTOR WITH A CLASS I, II, OR V CERTIFICATE OF COMPETENCY ISSUED BY THE STATE FIRE MARSHALL AS PER F.S. 633.521
- 4. CONSTRUCTION SITE INFORMATION MUST BE POSTED WITH 24-HOUR CONTACT INFORMATION
- 5. PUBLIC IMPROVEMENTS ARE THE 8" WATERMAIN, 12" WATERMAIN, AND 8" GRAVITY SEWER MAIN.
- 6. PRIVATE IMPROVEMENTS ARE ON-SITE DETENTION PONDS, STORM DRAINAGE SYSTEM PARKING, LANDSCAPING AND IRRIGATION.
- 7. ALL ON-SITE IMPROVEMENTS SHALL BE CONSTRUCTED TO MEET THE LATEST VERSION OF THE CITY OF VENICE STANDARD DETAILS.
- 8. ELEVATIONS ARE BASED ON N.A.V.D. 1988

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PAUL V. SHERMA, STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 35628
THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY PAUL V. SHERMA, P.E. ON THE DATE ADJACENT TO THE SEAL USING A SHA AUTHENTICATION CODE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPIES. 10-18-20.
APPROVED
PAUL V. SHERMA, REG. NO. 35628

PEER
PROFESSIONAL ENGINEERING RESOURCES, INC.
CIVIL ENGINEERS, PLANNERS, PERMIT EXPEDITORS
CERTIFICATE OF AUTHORIZATION NUMBER: 4401

AS-BUILT NO.	DESCRIPTION	REFERENCE POINT	DISTANCE	REFERENCE POINT	DISTANCE	ELEVATION	SEE PLANS FOR AS-BUILT INVERTS
1	SANITARY MANHOLE	A	28.27	B	15.89	13.50-RIM	SEE PLANS FOR AS-BUILT INVERTS
2	SANITARY MANHOLE	C	48.51	D	15.00	13.91-RIM	SEE PLANS FOR AS-BUILT INVERTS
3	SANITARY MANHOLE	E	62.49	F	34.72	14.23-RIM	SEE PLANS FOR AS-BUILT INVERTS
4	SANITARY MANHOLE	G	11.06	H	48.86	14.00-RIM	SEE PLANS FOR AS-BUILT INVERTS
5	SANITARY MANHOLE	I	66.41	J	14.61	14.30-RIM	SEE PLANS FOR AS-BUILT INVERTS
6	SANITARY MANHOLE	K	35.50	L	57.62	14.31-RIM	SEE PLANS FOR AS-BUILT INVERTS
7	CLEANOUT	D	61.36	E	163.66	12.22-INV.	
8	CLEANOUT	D	82.31	E	142.45	12.20-INV.	
9	CLEANOUT	D	109.14	E	117.41	12.45-INV.	
10	CLEANOUT	D	142.24	E	89.21	12.04-INV.	
11	CLEANOUT	D	158.91	F	76.93	12.04-INV.	
12	CLEANOUT	D	184.35	E	63.03	11.83-INV.	
13	CLEANOUT	E	97.32	F	61.70	12.22-INV.	
14	CLEANOUT	E	119.90	F	76.93	12.04-INV.	
15	CLEANOUT	E	143.19	F	96.18	12.36-INV.	
16	CLEANOUT	E	175.45	F	125.85	12.51-INV.	
17	CLEANOUT	L	97.24	M	77.12	12.52-INV.	
18	CLEANOUT	L	72.84	M	52.93	12.45-INV.	
19	CLEANOUT	L	49.84	M	29.71	12.53-INV.	
20	CLEANOUT	L	46.96	M	35.17	11.47-INV.	
21	CLEANOUT	G	160.54	J	32.63	11.98-INV.	
22	CLEANOUT	G	137.40	J	55.62	12.26-INV.	
23	CLEANOUT	G	111.85	J	81.82	12.12-INV.	
24	CLEANOUT	G	86.13	J	108.53	12.19-INV.	
25	CLEANOUT	G	63.03	J	133.50	12.32-INV.	
26	CLEANOUT	G	41.90	J	106.49	12.09-INV.	
27	CLEANOUT	G	29.60	I	80.76	12.22-INV.	
28	CLEANOUT	G	36.50	I	54.71	12.45-INV.	
29	CLEANOUT	G	54.59	I	31.56	12.50-INV.	
30	CLEANOUT	G	79.92	I	10.31	12.52-INV.	
31	CLEANOUT	L	50.14	M	77.26	12.43-INV.	
32	CLEANOUT	L	73.03	M	88.32	12.45-INV.	
33	CLEANOUT	L	97.63	M	105.02	12.19-INV.	
34	CLEANOUT	E	165.82	F	112.15	12.08-INV.	
35	CLEANOUT	E	131.60	F	77.93	12.46-INV.	
36	CLEANOUT	E	105.91	F	52.24	12.59-INV.	
37	CLEANOUT	E	79.85	F	26.21	12.45-INV.	
38	CLEANOUT	D	183.97	E	25.44	11.85-INV.	
39	CLEANOUT	D	158.53	E	51.24	12.29-INV.	
40	CLEANOUT	D	141.21	E	68.86	12.37-INV.	
41	CLEANOUT	D	108.15	E	102.70	12.63-INV.	
42	CLEANOUT	D	82.91	E	128.94	12.79-INV.	
43	CLEANOUT	D	59.44	E	154.75	12.58-INV.	

SWING TIE REFERENCE POINTS
A = AS-BUILT DRAINAGE INLET
B = AS-BUILT C/L END MES
C = AS-BUILT C/L FPL TRANSFORMER PAD
D = AS-BUILT DRAINAGE INLET
E = AS-BUILT C/L FPL TRANSFORMER PAD
F = AS-BUILT DRAINAGE INLET
G = AS-BUILT STORM MANHOLE
H = AS-BUILT C/L FPL TRANSFORMER PAD
I = AS-BUILT DRAINAGE INLET
J = AS-BUILT C/L FPL TRANSFORMER PAD
K = AS-BUILT DRAINAGE INLET
L = AS-BUILT C/L FPL TRANSFORMER PAD
M = AS-BUILT C/L FPL TRANSFORMER PAD
N = AS-BUILT C/L FPL TRANSFORMER PAD

AS-BUILT LEGEND
ASB = AS-BUILT
T.O.B.F. = TOP OF BOTTOM FLANGE
T.O.N. = TOP OF NUT
T.O.P. = TOP OF PIPE
N/A = NOT APPLICABLE
INV. = INVERT
LF = LINEAR FEET

[A] = SWING TIE AS-BUILT REFERENCE POINT
[X] = SWING TIE AS-BUILT POINT

SEWER AS-BUILT DATA PROVIDED BY:
FLORIDA ENGINEERING & SURVEYING, LLC
631 N. TAMiami TRAIL
NOKOMIS, FLORIDA 34275
TEL: (941) 485-3100
FAX: (941) 485-3107
www.flengineeringandsurveying.com
CA #30375 LB #8024

I HEREBY CERTIFY THAT THE SURVEY SHOWN HEREON WAS PREPARED UNDER MY DIRECT SUPERVISION AND IS IN ACCORDANCE WITH THE STANDARDS OF PRACTICE FOR SURVEYS, CHAPTER SJ-17, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES. SURVEY SHOWN HEREON "NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER," THE DIGITAL SIGNATURE AND SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JUSTIN D. GARNER, PSM #6896 ON MAY 17, 2023.

RECORD DRAWINGS
February 16, 2024
APPROVED

SURVEYORS NOTES:

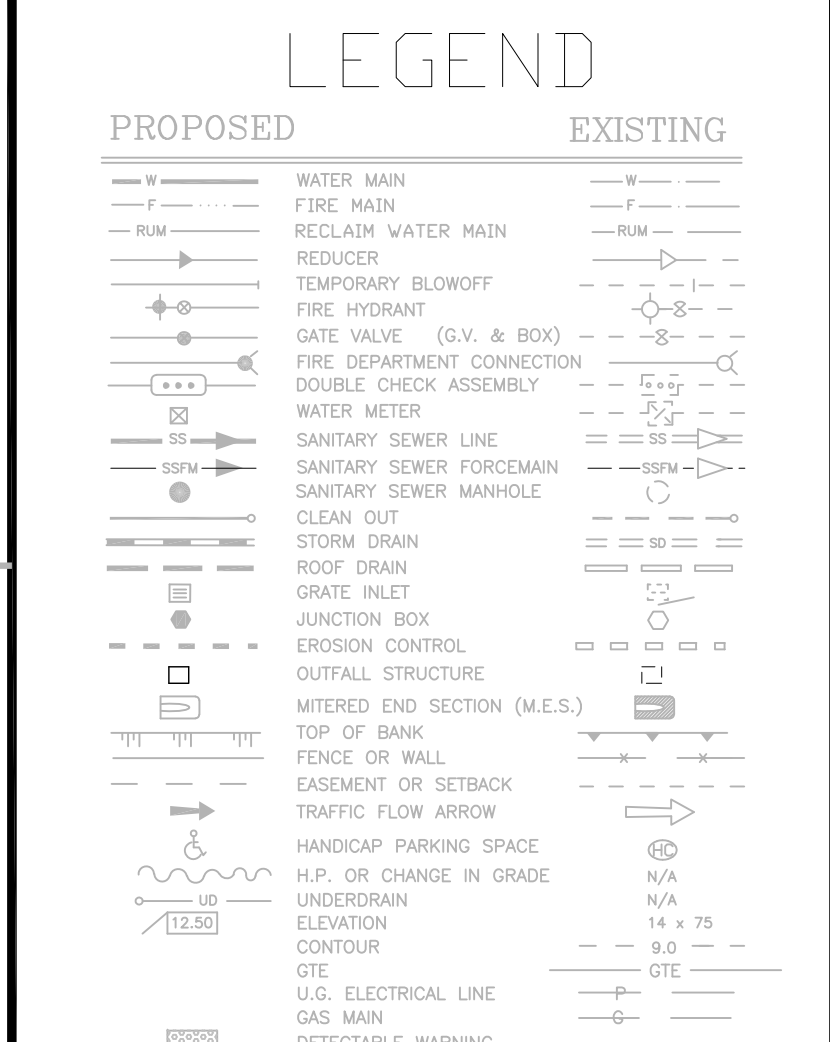
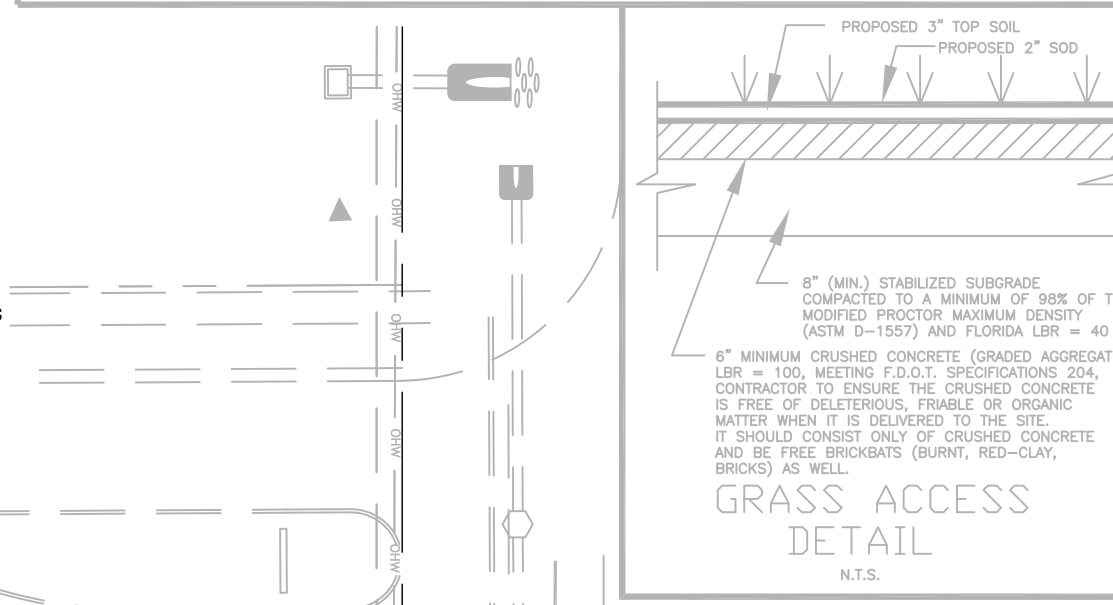
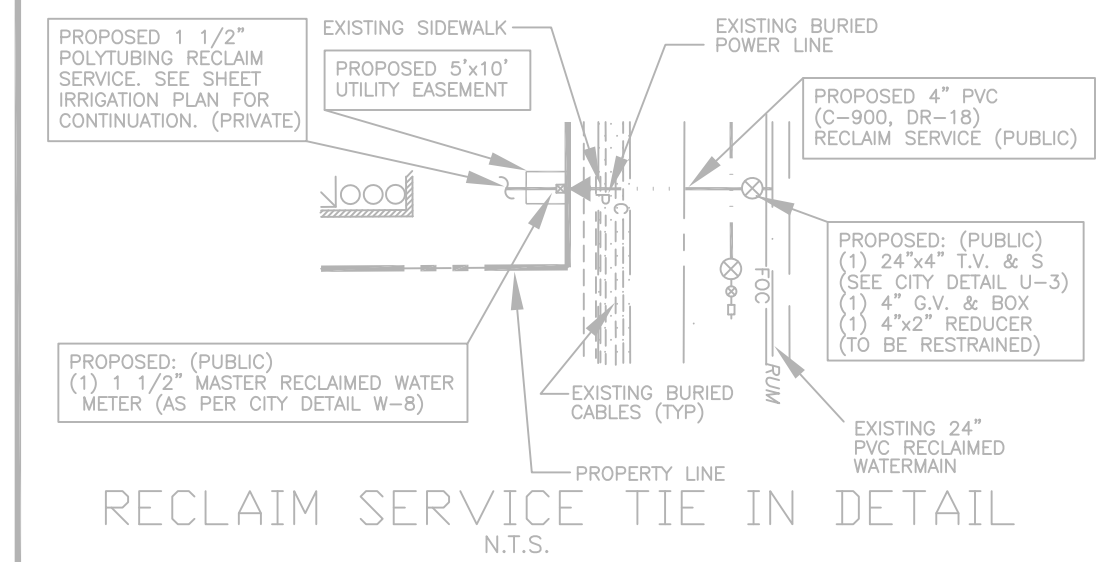
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ALL ELEVATIONS SHOWN HEREON BASED ON AND REFERENCED TO NAVD. 1988.

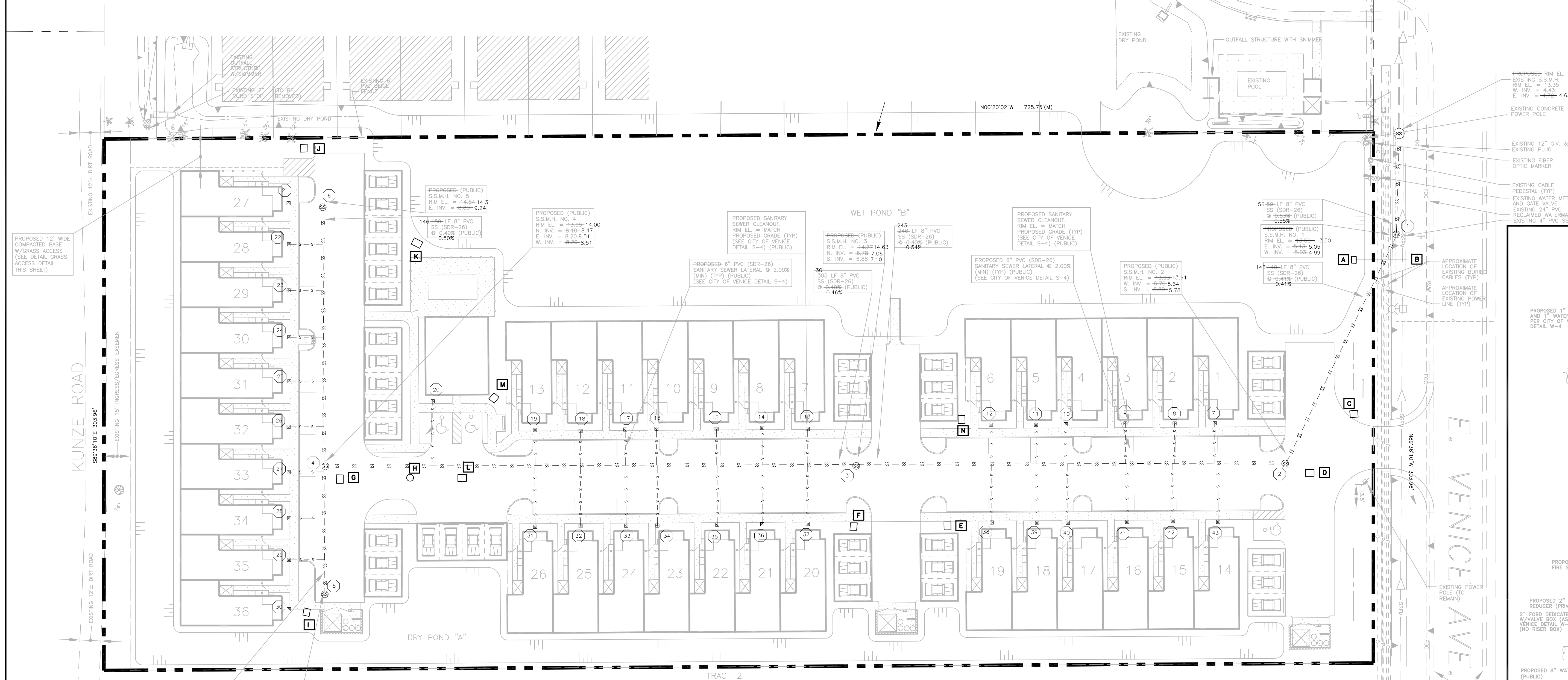
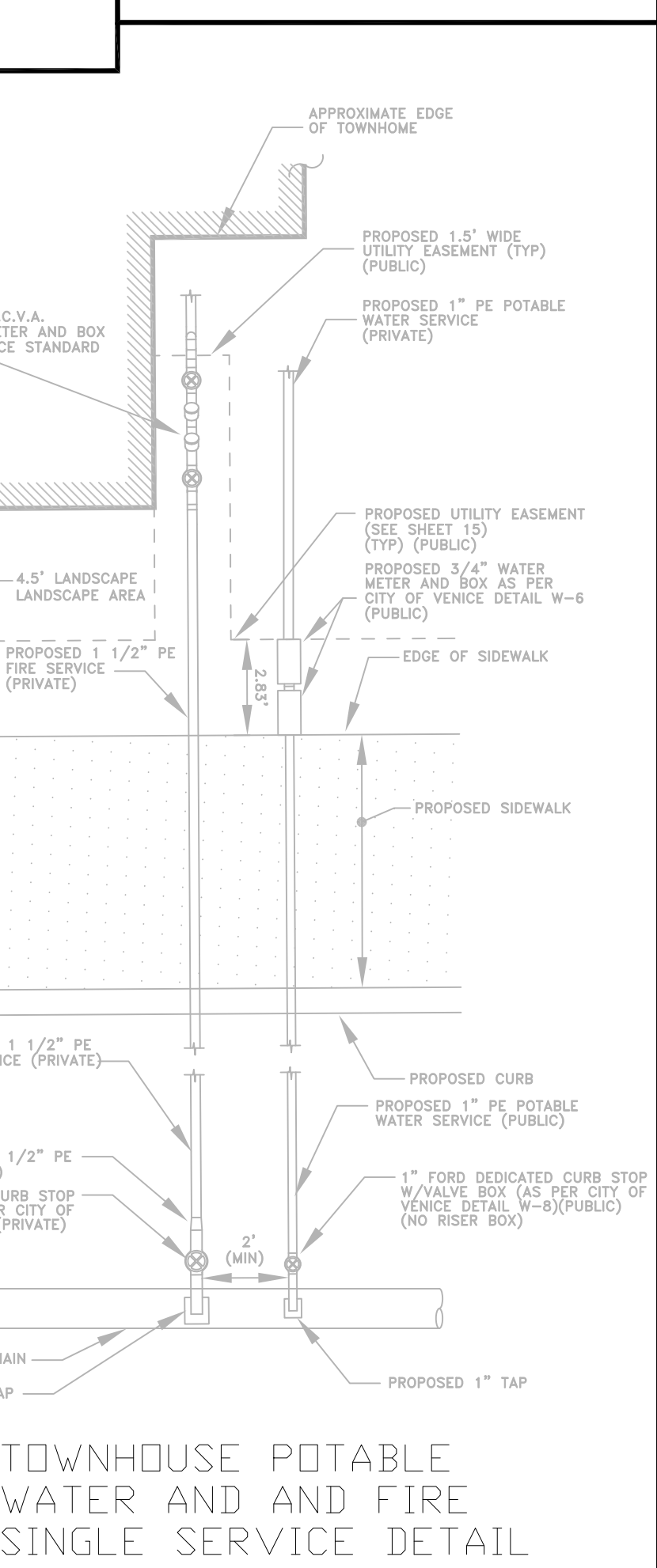
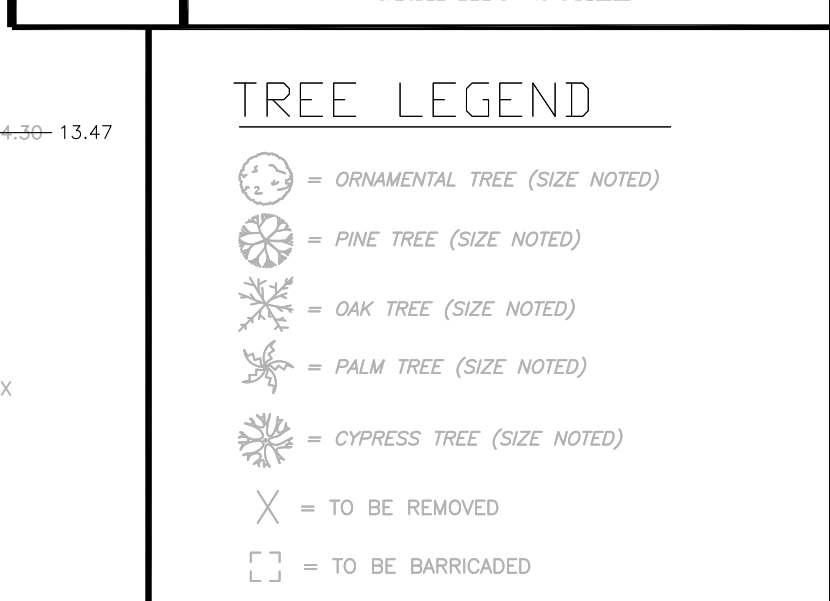
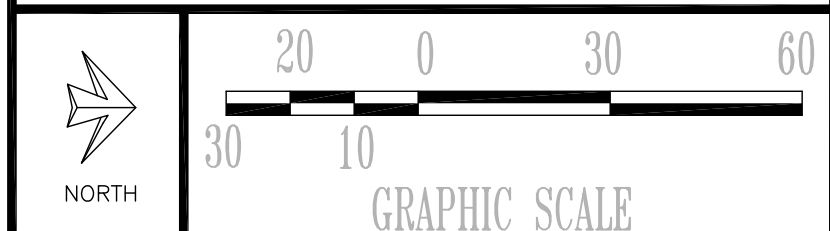
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FILE NO. 21-09-260, LAST FIELD DATE: 02/3/2023

REVISION: 2/14/2023, ADD TIE IN INVERT, JDG
REVISION: 2/20/2023, REVISE MANHOLES 1 & 2 AND EXISTING MANHOLE INVERTS, JDG
REVISION: 5/16/2023, MANHOLE 1 AND EXISTING MANHOLE RAISED, REVISED RIM ELEVATIONS, JDG



CONTRACTOR TO CALL "SUNSHINE 811" AT 811 OR 1-800-432-4770, 48 HRS. PRIOR TO ANY CLEARING OR CONSTRUCTION FOR EXISTING UTILITY LOCATIONS.



CLIENT:
MPS DEVELOPMENT AND CONSTRUCTION, LLC
333 S. TAMiami TRAIL, SUITE 205
VENICE, FL. 34285

PROJECT NAME: SEC. 9 TWP. 39S RNG. 19E
COTTAGES OF VENICE
AS-BUILT SANITARY SEWER PLAN
WATER AND SANITARY SEWER PLAN

PROJECT NUMBER	NO.	DATE	BY	REVISIONS
18-2382				
SCALE				
1" = 30'				

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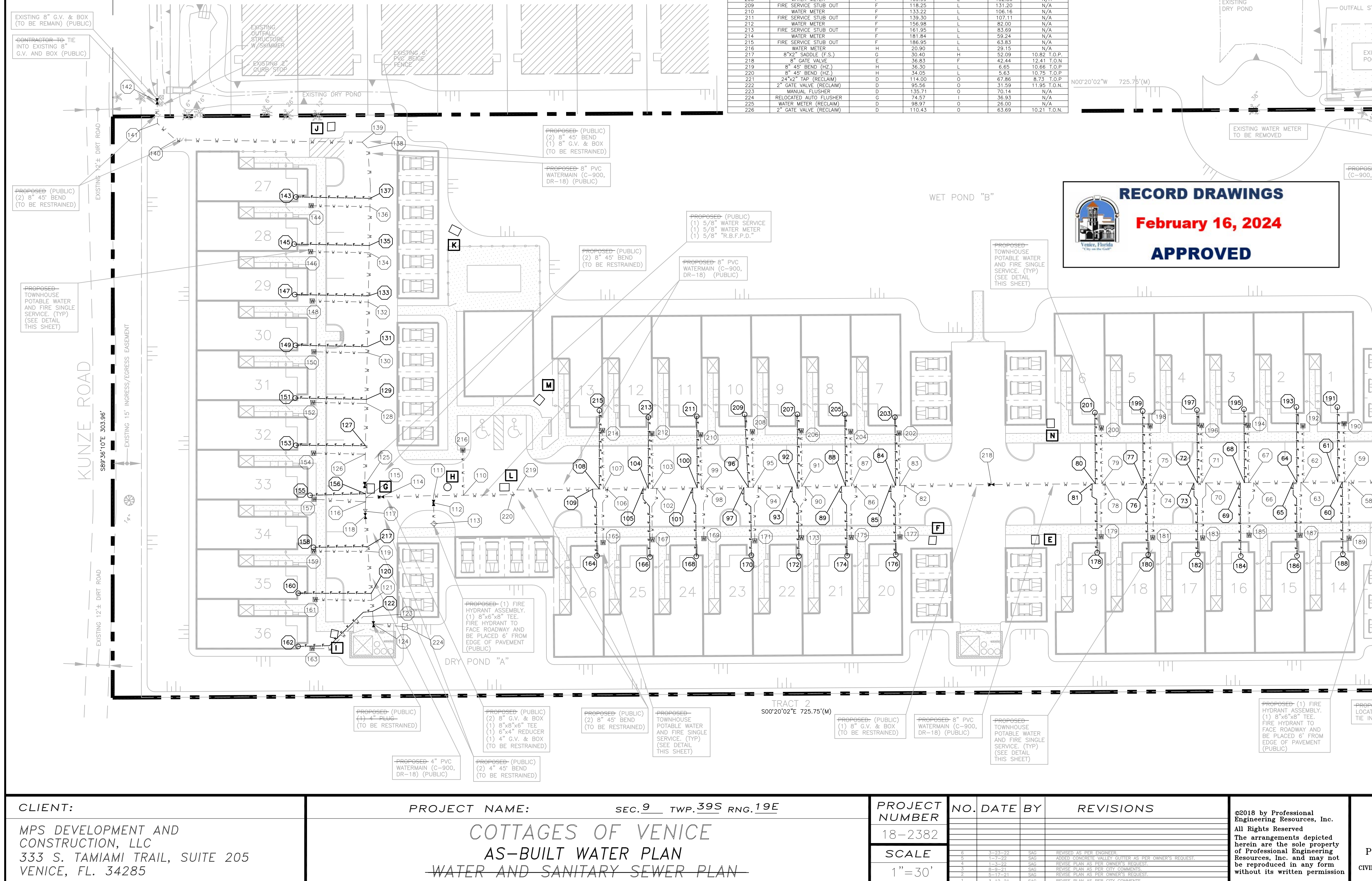
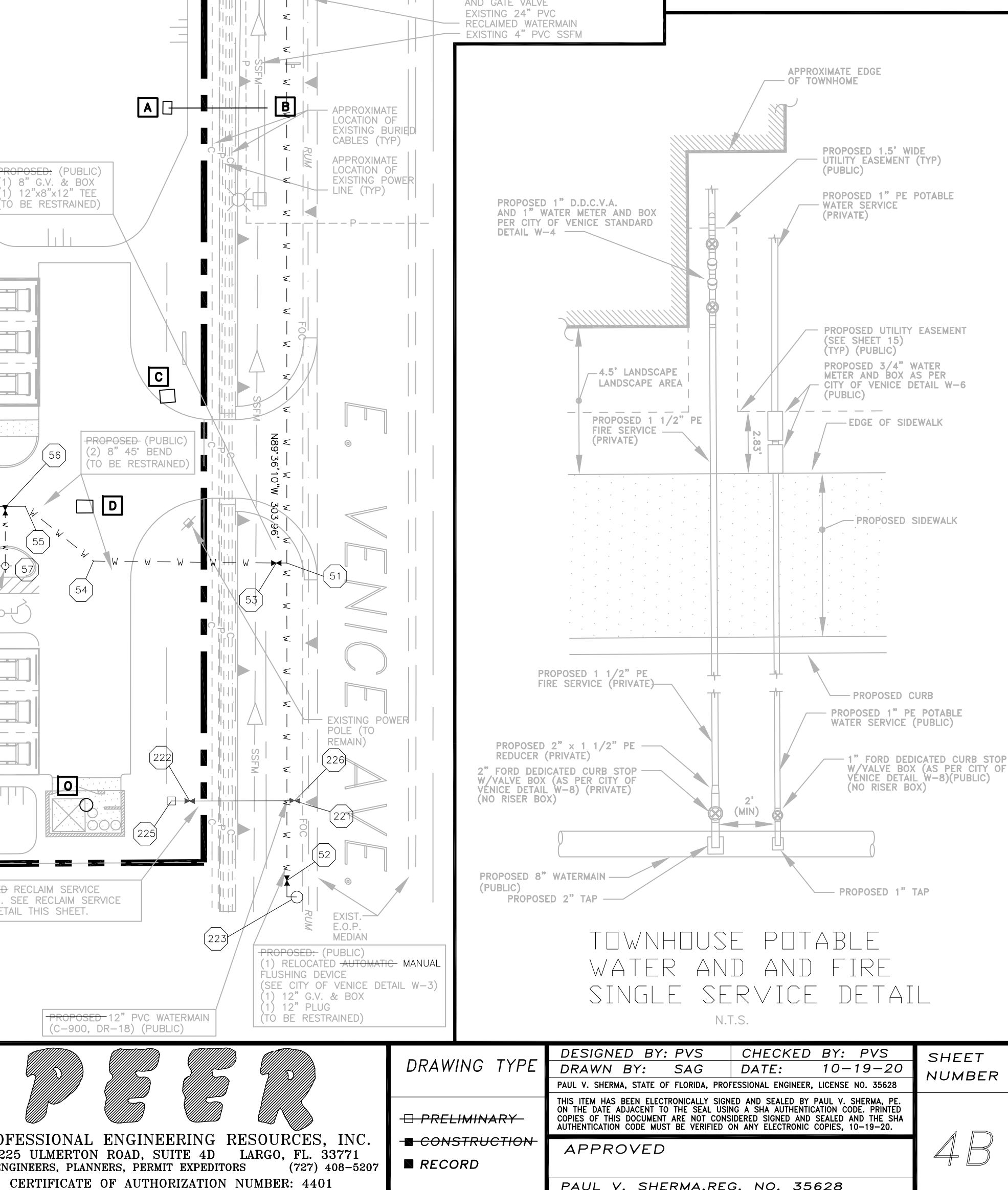
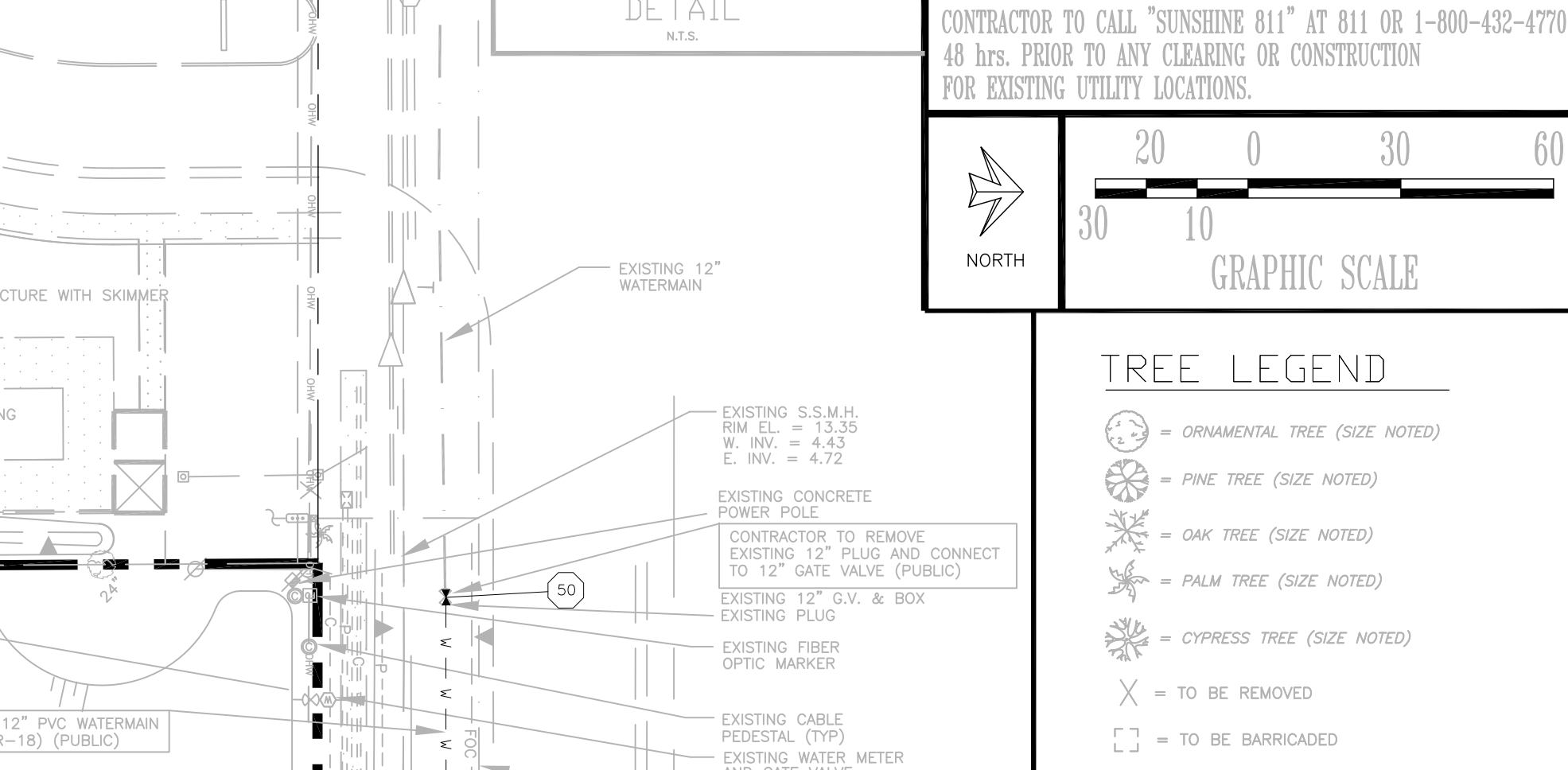
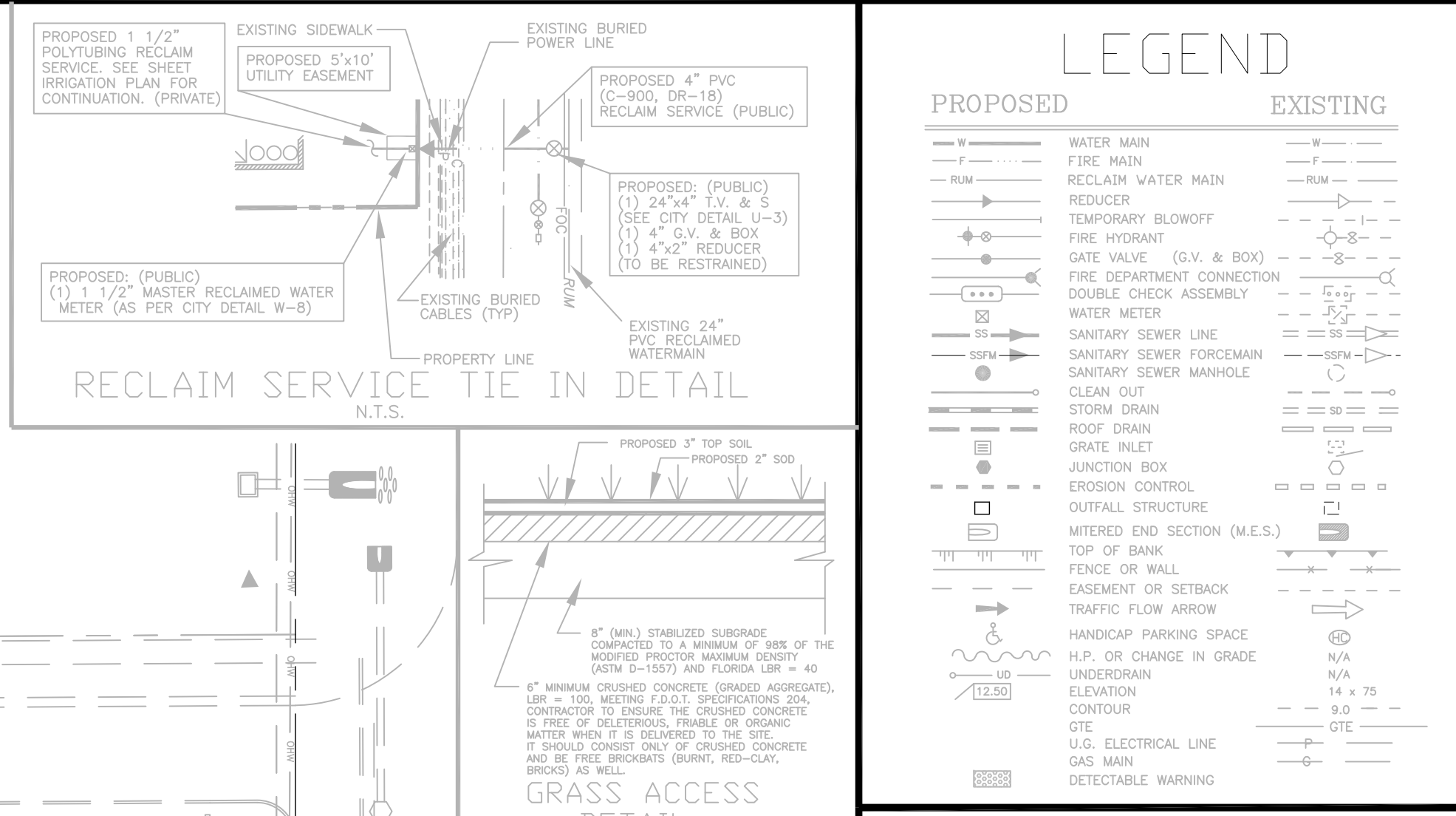
PEER
PROFESSIONAL ENGINEERING RESOURCES, INC.
10225 ULMERTON ROAD, SUITE 40 LARGO, FL 33771
CIVIL ENGINEERS, PLANNERS, PERMIT EXPEDITORS (727) 488-5207
CERTIFICATE OF AUTHORIZATION NUMBER: 4401

DRAWING TYPE: PRELIMINARY, CONSTRUCTION, RECORD
DESIGNED BY: PVS
DRAWN BY: SAG
CHECKED BY: PVS
DATE: 10-19-20
SHEET NUMBER: 4A
PAUL V. SHERMA, REG. NO. 35628

AS-BUILT DATA TABLE: Columns include AS-BUILT NO., DESCRIPTION, REFERENCE POINT, DISTANCE, ELEVATION. Rows 50-110.

AS-BUILT DATA TABLE: Columns include AS-BUILT NO., DESCRIPTION, REFERENCE POINT, DISTANCE, ELEVATION. Rows 111-174.

AS-BUILT DATA TABLE: Columns include AS-BUILT NO., DESCRIPTION, REFERENCE POINT, DISTANCE, ELEVATION. Rows 175-225.



FLORIDA ENGINEERING & SURVEYING, LLC CA #30375 LB #8024

631 N. TAMiami TRAIL NOKOMIS, FLORIDA 34275 TEL: (941) 485-3100 FAX: (941) 485-3107 www.flengineeringandsurveying.com

I HEREBY CERTIFY THAT THE SURVEY SHOWN HEREON WAS PREPARED UNDER MY DIRECT SUPERVISION AND IS IN ACCORDANCE WITH THE STANDARDS OF PRACTICE FOR SURVEYS, CHAPTER 54-17, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES. SURVEY SHOWN HEREON "NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER", THE DIGITAL SIGNATURE AND SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JUSTIN G. GARNER, PSM #6896 ON DECEMBER 4, 2023.

SURVEYORS NOTES: THIS IS NOT A BOUNDARY SURVEY. AS-BUILT DATA SHOWN IN BOLD, ALL OTHER INFORMATION IS PROPOSED OR EXISTING, PROVIDED BY PEER (PROFESSIONAL ENGINEERING RESOURCES, INC.)

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FILE NO. 21-09-260, LAST FIELD DATE: 9/11/2023

REVISION: 5/8/2023, PER CITY COMMENTS, JGD

REVISION: 7/31/2023, PER CITY COMMENTS, JGD

REVISION: 8/11/2023, ENGINEER COMMENTS, JGD

REVISION: 12/4/2023, FIELD CHANGES, JGD

RECORD DRAWINGS February 16, 2024 APPROVED [Signature]

CLIENT: MPS DEVELOPMENT AND CONSTRUCTION, LLC 333 S. TAMiami TRAIL, SUITE 205 VENICE, FL. 34285

PROJECT NAME: SEC. 9 TWP. 39S RNG. 19E COTTAGES OF VENICE AS-BUILT WATER PLAN WATER AND SANITARY SEWER PLAN

PROJECT NUMBER: 18-2382 NO. DATE BY REVISIONS SCALE: 1" = 30'

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PEER PROFESSIONAL ENGINEERING RESOURCES, INC. 10225 ULMERTOWN ROAD, SUITE 4D LARGO, FL 33771 CIVIL ENGINEERS, PLANNERS, PERMIT EXPEDITORS (727) 408-5207 CERTIFICATE OF AUTHORIZATION NUMBER: 4401

DRAWING TYPE: PRELIMINARY CONSTRUCTION RECORD DESIGNED BY: PVS CHECKED BY: PVS DRAWN BY: SAG DATE: 10-19-20 PAUL V. SHERMA, STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 35488 THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY PAUL V. SHERMA, REG. NO. 35488 ON THE DATE ADJACENT TO THE SEAL USING A SHA AUTHENTICATION CODE. PRINTED COPIES OF THIS DRAWING ARE NOT CONSIDERED VALID UNLESS THE SHA AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPIES, 10-19-20 APPROVED [Signature] SHEET NUMBER: 4B

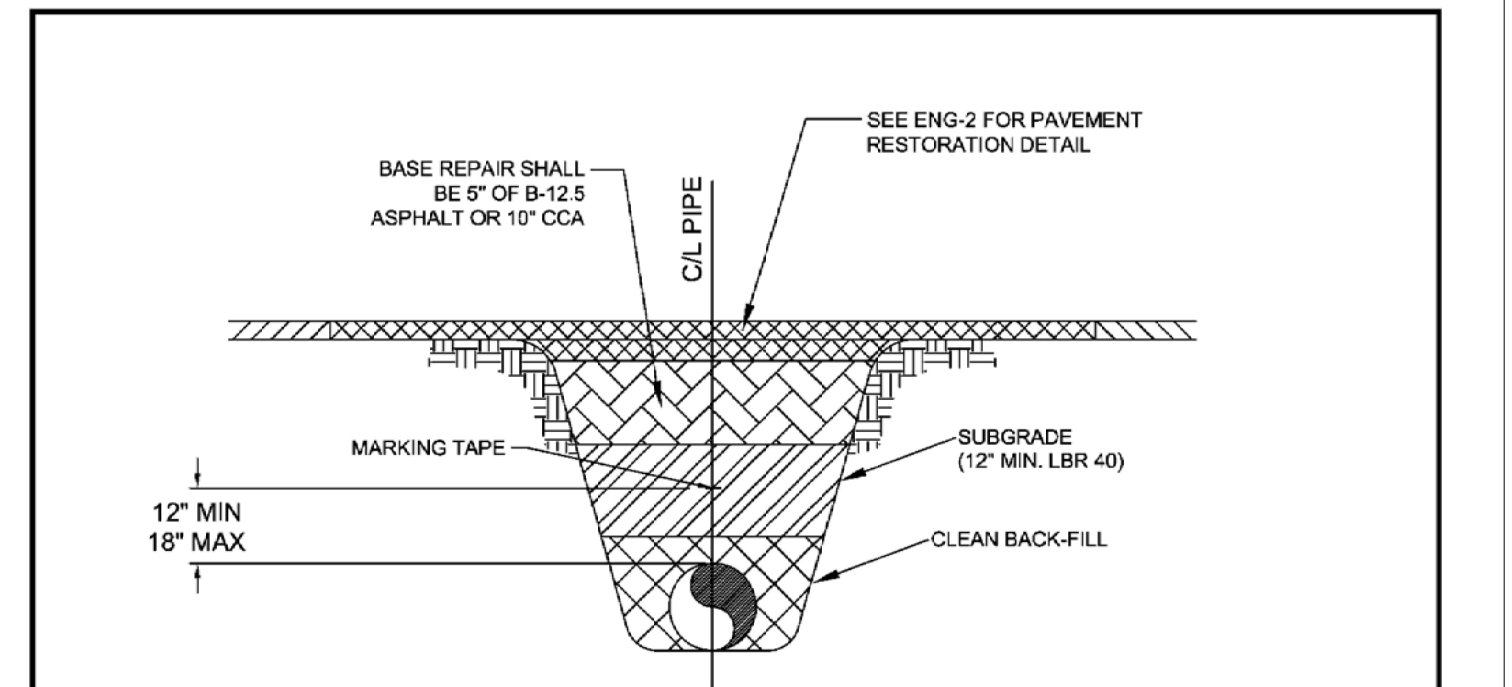
- 1) ALL PIPE FITTINGS SHALL BE COMPACT DUCTILE IRON.
- 2) ALL APPLICATIONS (RAW, POTABLE, REUSE, SEWER) SHALL BE FUSION BONDED EPOXY COATED INSIDE AND OUT.
- 3) ALL FITTINGS SHALL MEET ENGR/ASME/ANSI/ASTM/ISO STANDARDS.

PIPE FITTINGS
N.T.S.

SERVICE	COLOR	MATERIAL/CLASS
POTABLE WATER MAIN	BLUE	AWWA C900 PVC / DR 18
RAW WATER MAIN	WHITE	FUSIBLE C900 PVC / DR 18
REUSE MAIN (MIN. 4" DIAMETER)	PURPLE	HDPE PPI PE 4710 / DR 11 (DUCTILE IRON PIPE S2E)
WATER SERVICE	BLUE	PE (POLYTUBING) / DR 9
REUSE SERVICE	PURPLE	PE (POLYTUBING) / DR 9
GRAVITY SEWER MAIN (MIN. 8" DIAMETER)	GREEN	ASTM D3034 / SDR 26 FUSIBLE PVC / SDR 26
SEWER LATERAL (MIN. 8" DIAMETER)	GREEN	ASTM D3034 / SDR 26 / SCH 40 PVC

PIPE MATERIAL SCHEDULE
N.T.S.

SERVICE	COLOR	MATERIAL/CLASS
POTABLE WATER MAIN	BLUE	AWWA C900 PVC / DR 18
RAW WATER MAIN	WHITE	FUSIBLE C900 PVC / DR 18
REUSE MAIN (MIN. 4" DIAMETER)	PURPLE	HDPE PPI PE 4710 / DR 11 (DUCTILE IRON PIPE S2E)
WATER SERVICE	BLUE	PE (POLYTUBING) / DR 9
REUSE SERVICE	PURPLE	PE (POLYTUBING) / DR 9
GRAVITY SEWER MAIN (MIN. 8" DIAMETER)	GREEN	ASTM D3034 / SDR 26 FUSIBLE PVC / SDR 26
SEWER LATERAL (MIN. 8" DIAMETER)	GREEN	ASTM D3034 / SDR 26 / SCH 40 PVC



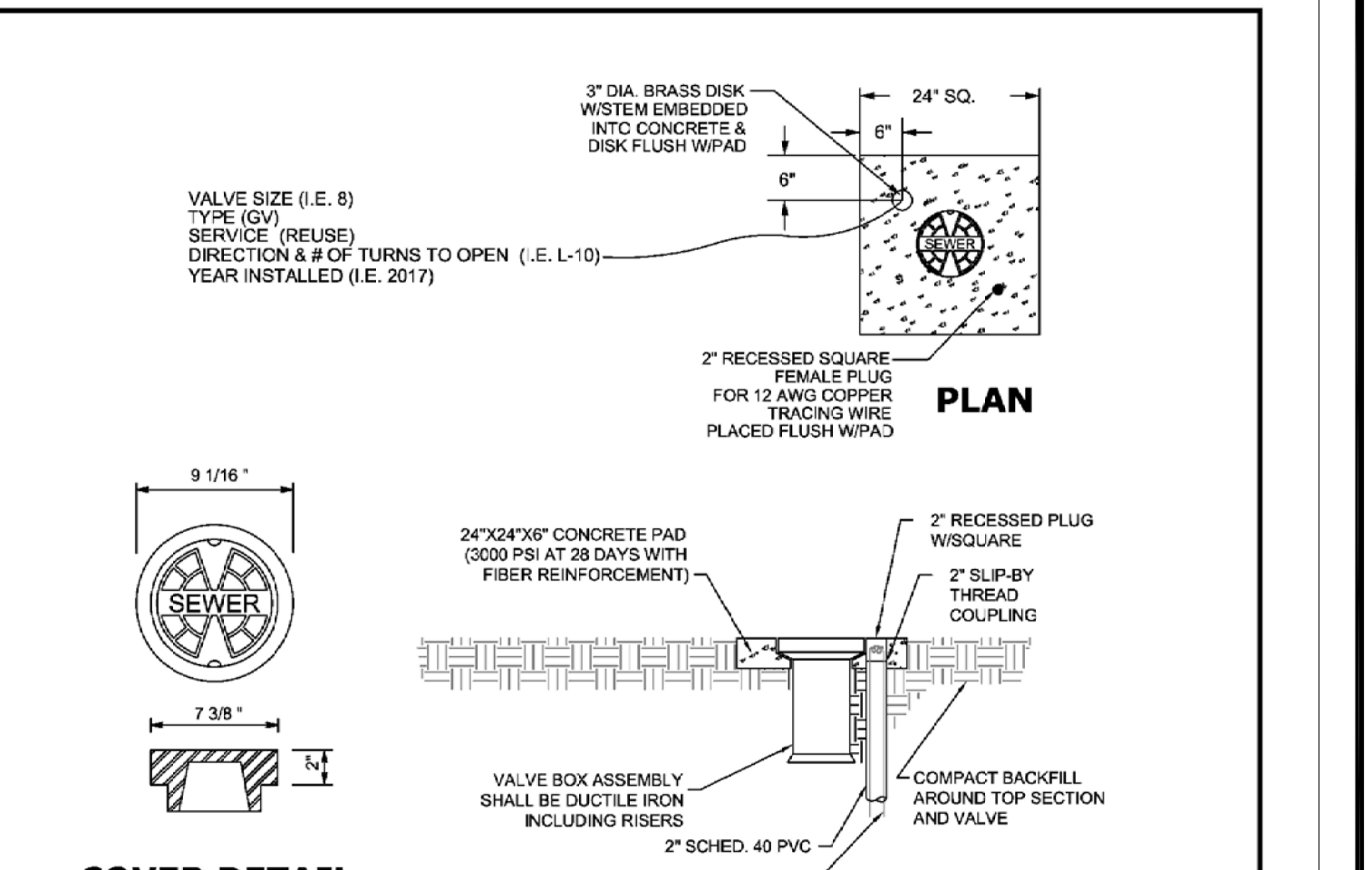
MARKING TAPE AND MESSAGES

PIPE	TAPE COLOR	MESSAGE
PVC STORM WATER	WHITE	CAUTION STORM WATER OR STORM DRAIN BELOW
POTABLE WATER MAIN	BLUE	CAUTION POTABLE WATER MAIN BELOW
REUSE WATER MAIN	PURPLE	CAUTION REUSE WATER MAIN BELOW
SEWER FORCE MAIN	GREEN	CAUTION SEWER FORCE MAIN BELOW
SEWER & SERVICE LATERALS	GREEN	CAUTION SEWER MAIN BELOW

- 1) COPPERHEAD TRACING WIRE #12 AWG OR EQUAL SHALL BE ATTACHED TO TOP OF PIPE AT 20' INTERVALS ON ALL RECLAIMED WATER, FORCE, OR POTABLE WATER MAINS. IT SHALL BE COLOR CODED TO REFLECT WHAT THE PIPE CARRIES. (BLUE = WATER, GREEN = SEWER, PURPLE = REUSE)
- 2) MINIMUM COVER SHALL BE 36" FROM TOP OF PIPE TO FINISHED GRADE. MAXIMUM COVER SHALL BE 42" FROM FINISHED GRADE UNLESS OTHERWISE APPROVED.
- 3) INSTALLATION OF PIPE SHALL BE IN CONFORMANCE WITH MANUFACTURERS RECOMMENDATIONS.
- 4) PAVEMENT RESTORATION SHALL CONFORM WITH DETAIL ENG-2 OF THESE CITY STANDARDS.
- 5) CONFLICTS - UTILIZE 45° BENDS WITH SEPARATION AS PER CITY DETAILS.
- 6) ALL UTILITIES (PUBLIC & PRIVATE) THAT CROSS A DITCH/SWALE SHALL BE 36" MIN. BELOW THE ACTUAL DESIGN BOTTOM OF CONVEYANCE.
- 7) MARKING TAPE SHALL BE 3" WIDE (MIN) DETECTIBLE UNDERGROUND WARNING TAPE. INSTALL CENTERED DIRECTLY OVER THE PIPE.
- 8) SEE S-6 FOR GRAVITY SEWER PIPE TRENCH DETAIL.

PRESSURE PIPE TRENCH DETAIL
N.T.S.

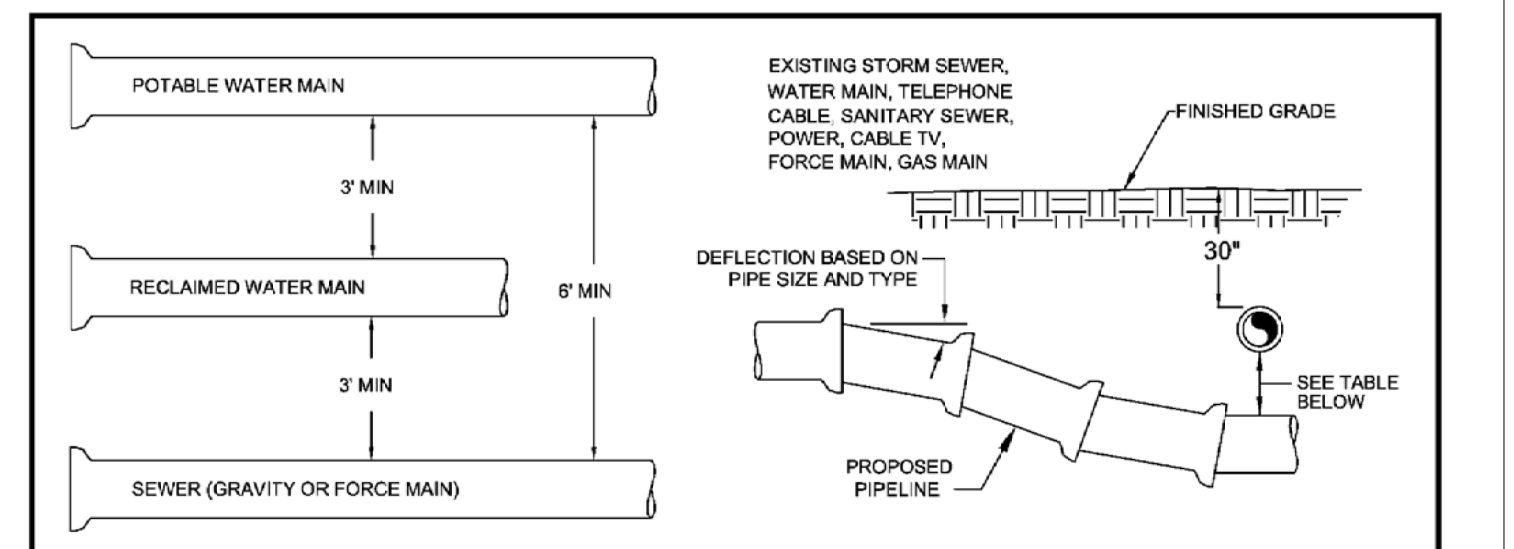
CITY OF VENICE ENGINEERING DEPARTMENT 401 WEST VENICE AVE. VENICE FL 34285 (941) 486-2626 FAX (941) 480-3031	UTILITIES - GENERAL	DATE JAN 2021
	UTILITY PIPE TRENCH	SHEET NO. U-1



- COVER DETAIL**
APPROPRIATE SERVICE TYPE SHALL BE INDICATED (WATER, SEWER, REUSE, OR FIRE)
- 1) PAVED AREAS: SET CONCRETE PAD AND COVER FLUSH WITH FINISHED PAVEMENT SURFACE.
 - 2) UNPAVED AREAS: SET PAD AND COVER 1 INCH ABOVE FINISHED GRADE.
 - 3) VALVES LOCATED IN DITCH AND OVER 4" DEPTH (LINE) MUST USE TRENCH ADAPTER VALVE BOX (AMERICAN FLOW CONTROL).
 - 4) COPPERHEAD TRACING WIRE #12 AWG OR EQUAL SHALL BE USED. IT SHALL BE COLOR CODED TO REFLECT WHAT THE PIPE CARRIES (BLUE = WATER, GREEN = SEWER, PURPLE = REUSE). CONTINUITY TEST SHALL BE PERFORMED ON ALL TRACER WIRES.
 - 5) PRE-CAST PADS MAY BE USED WITH CITY APPROVAL.
 - 6) FOR CURBED ROADWAYS: CURB SHALL BE ETCHED WITH THE LETTER "V" DIRECTLY PERPENDICULAR TO THE VALVE BOX.
 - 7) VALVE BOX COVERS SHALL BE PAINTED BLUE FOR POTABLE WATER, PURPLE FOR REUSE WATER, AND GREEN FOR SEWER.

VALVE BOX DETAIL
N.T.S.

CITY OF VENICE ENGINEERING DEPARTMENT 401 WEST VENICE AVE. VENICE FL 34285 (941) 486-2626 FAX (941) 480-3031	UTILITIES - GENERAL	DATE JAN 2021
	VALVE BOX	SHEET NO. U-4



MINIMUM HORIZONTAL SEPARATION DISTANCES (FT)
(OUTSIDE OF PIPELINE TO OUTSIDE OF PIPELINE)

	WATER MAIN	FORCE MAIN	SANITARY SERVICE	REUSE MAIN	STORM WATER	OTHER UTILITIES (TELEPHONE, CABLE, ETC.)
WATER MAIN	3	6	3	3	3	3
FORCE MAIN	6	3	3	3	3	3
SANITARY SEWER	6	3	3	3	3	3
REUSE MAIN	3	3	3	3	3	3
STORM WATER	3	3	3	3	3	3
OTHER UTILITIES	3	3	3	3	3	3

MINIMUM VERTICAL SEPARATION DISTANCES (IN)
(OUTSIDE OF PIPELINE TO OUTSIDE OF PIPELINE)

	WATER MAIN	FORCE MAIN	SANITARY SERVICE	REUSE MAIN	STORM WATER	OTHER UTILITIES (TELEPHONE, CABLE, ETC.)
WATER MAIN	6	12	6	6	6	6
FORCE MAIN	12	6	6	6	6	6
SANITARY SEWER	12	6	6	6	6	6
REUSE MAIN	6	6	6	6	6	6
STORM WATER	6	6	6	6	6	6
OTHER UTILITIES	6	6	6	6	6	6

UTILITY CONFLICT & SEPARATION DETAIL
N.T.S.

CITY OF VENICE ENGINEERING DEPARTMENT 401 WEST VENICE AVE. VENICE FL 34285 (941) 486-2626 FAX (941) 480-3031	UTILITIES - GENERAL	DATE JAN 2021
	UTILITY CONFLICTS & SEPARATIONS	SHEET NO. U-5

MINIMUM LENGTH (FT) OF FORCE MAIN TO BE RESTRAINED ON EACH SIDE OF FITTING

FITTING	PIPE SIZE (INCHES)								
	4	6	8	10	12	16	18	20	24
45 BEND: H	6	9	12	14	16	21	23	25	29
VU	4	6	7	9	10	13	15	16	19
VD	12	20	26	32	37	48	53	28	68
22.5 BEND: H	3	4	6	7	8	10	11	12	14
VU	2	3	4	4	5	6	7	8	9
VD	7	10	13	15	18	23	26	28	33
11.25 BEND: H	2	2	3	3	4	5	5	6	7

MINIMUM LENGTH (FT) OF WATER OR REUSE MAIN TO BE RESTRAINED ON EACH SIDE OF FITTING

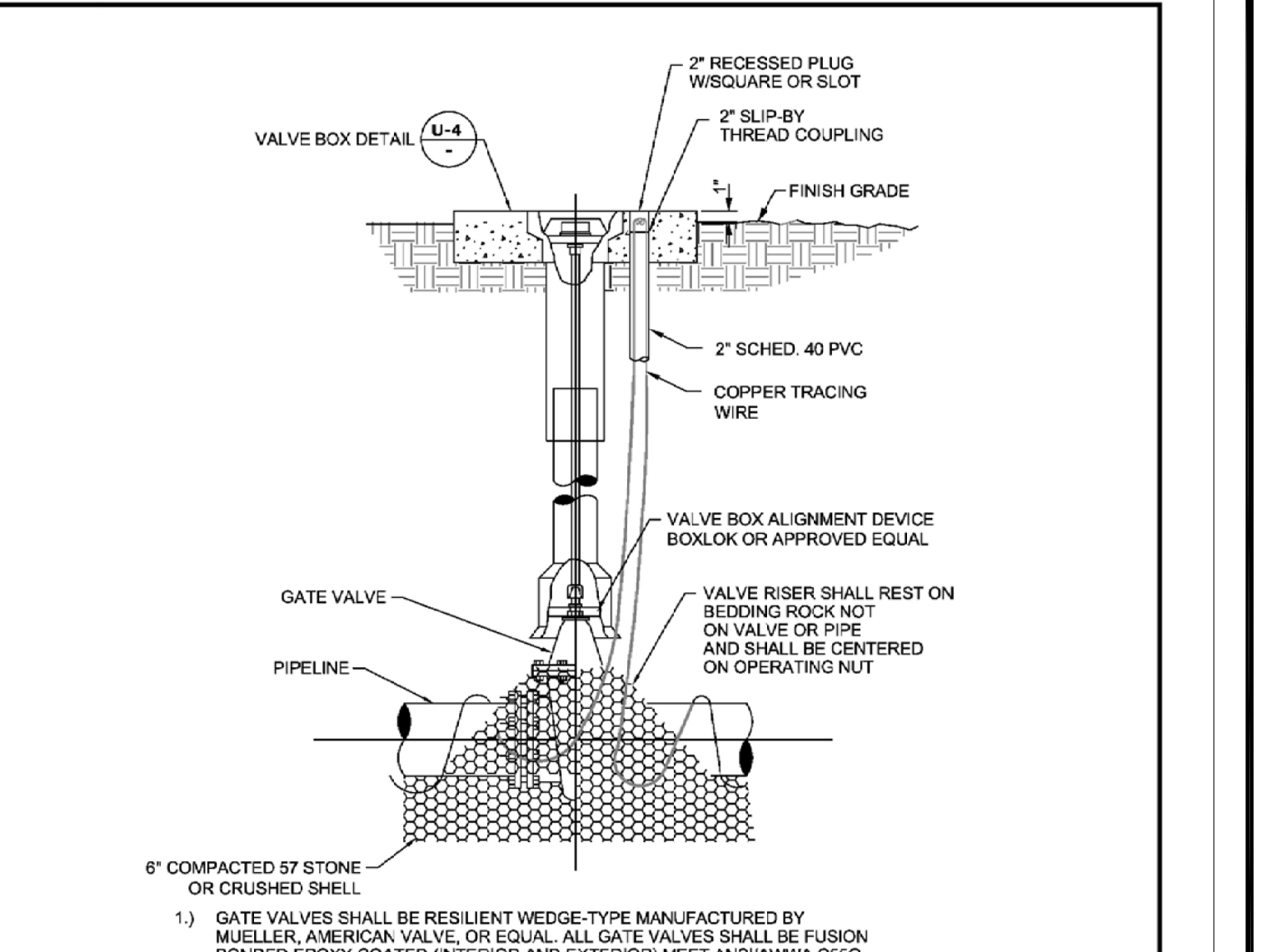
FITTING	PIPE SIZE (INCHES)								
	4	6	8	10	12	16	18	20	24
90 BEND: H	23	33	43	51	60	76	83	90	104
45 BEND: H	10	14	18	21	25	31	34	37	43
VU	6	8	11	13	16	20	22	24	28
VD	22	30	40	48	56	72	80	87	102
22.5 BEND: H	5	7	8	10	12	15	17	18	21
VU	3	4	5	6	7	10	11	12	14
VD	10	15	19	23	27	35	38	42	49
11.25 BEND: H	2	3	4	5	6	7	8	9	10
PLUGS:	52	73	96	115	136	174	193	211	246

ABBREVIATIONS: H-HORIZONTAL, VU-VERTICAL UP, VD-VERTICAL DOWN.

- 1) FOR TEE OR REDUCER FITTINGS SUBMIT RESTRAINED JOINT LENGTH CALCULATIONS TO CITY ENGINEER FOR REVIEW AND APPROVAL, USING THE ASSUMPTIONS LISTED ABOVE.
- 2) RESTRAINED JOINT LENGTH FOR WATER AND REUSE MAINS BASED ON TEST PRESSURE OF 150 PSI. RESTRAINED JOINT LENGTH FOR FORCE (SEWER) MAINS BASED ON TEST PRESSURE OF 100 PSI. CALCULATIONS WERE MADE USING EBAA IRON SOFTWARE (AVAILABLE AT WWW.EBAA.COM) AND THE FOLLOWING ASSUMPTIONS: GRANULAR MATERIAL (GM) SOIL TYPE, TRENCH TYPE 3, BURY DEPTH OF 3 FT, AND SAFETY FACTOR OF 2 TO 1. IF FIELD CONDITIONS DIFFER FROM ABOVE ASSUMPTIONS FOR SHALL PROVIDE CALCULATIONS BASED ON ACTUAL CONDITIONS.
- 3) RESTRAINED JOINT SHALL BE USED ON ALL JOINTS FROM ANY MAIN TEE TO ANY FIRE HYDRANT ASSEMBLY.
- 4) THRUST BLOCKS WILL NOT BE ACCEPTED, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
- 5) ALL HARDWARE SHALL BE 316 SS.

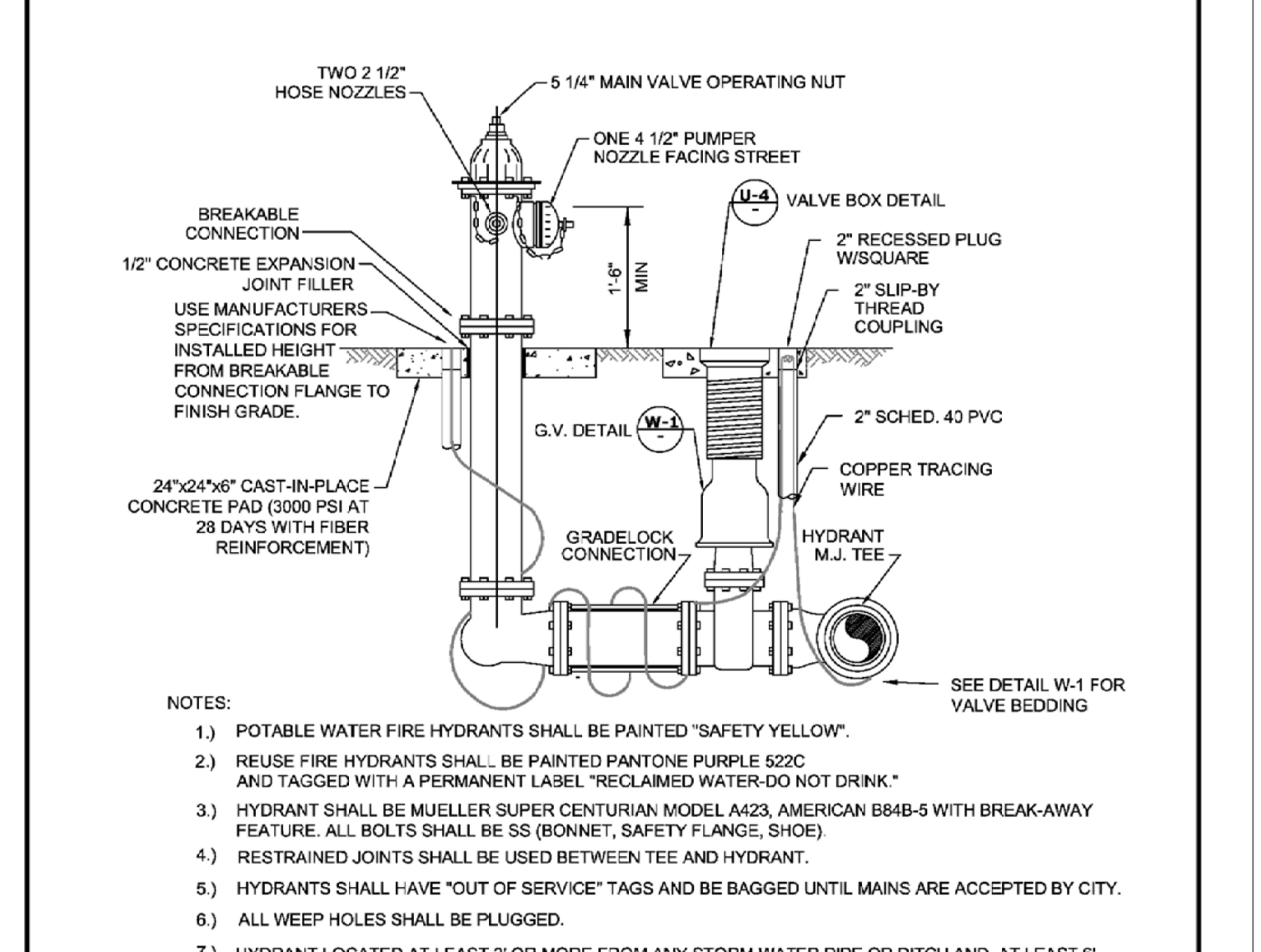
PRESSURE MAIN RESTRAINED JOINT TABLE
N.T.S.

CITY OF VENICE ENGINEERING DEPARTMENT 401 WEST VENICE AVE. VENICE FL 34285 (941) 486-2626 FAX (941) 480-3031	UTILITIES - GENERAL	DATE JAN 2021
	RESTRAINED JOINT TABLE	SHEET NO. U-7



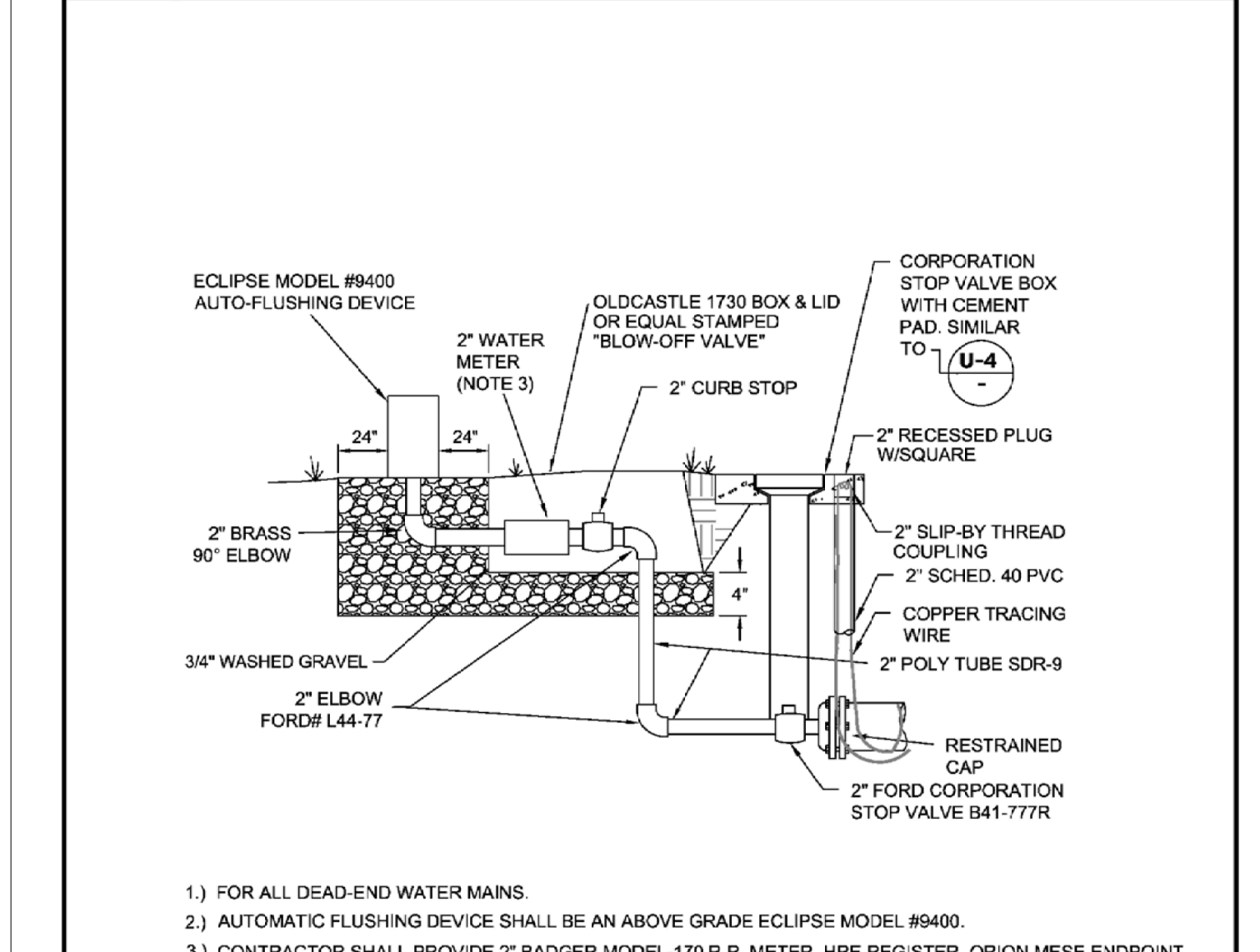
GATE VALVE DETAIL
(WATER AND REUSE ONLY)
N.T.S.

CITY OF VENICE ENGINEERING DEPARTMENT 401 WEST VENICE AVE. VENICE FL 34285 (941) 486-2626 FAX (941) 480-3031	UTILITIES - WATER	DATE JAN 2021
	GATE VALVE	SHEET NO. W-1



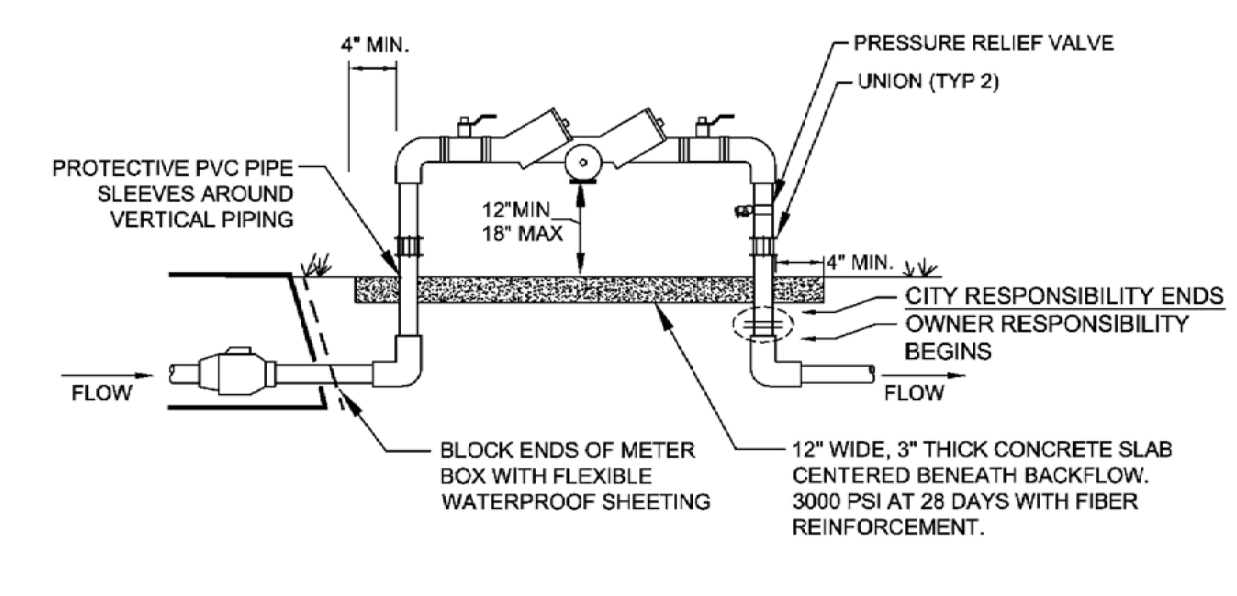
FIRE HYDRANT ASSEMBLY DETAIL
N.T.S.

CITY OF VENICE ENGINEERING DEPARTMENT 401 WEST VENICE AVE. VENICE FL 34285 (941) 486-2626 FAX (941) 480-3031	UTILITIES - WATER	DATE JAN 2021
	FIRE HYDRANT ASSEMBLY	SHEET NO. W-2



AUTOMATIC FLUSHING DEVICE DETAIL
N.T.S.

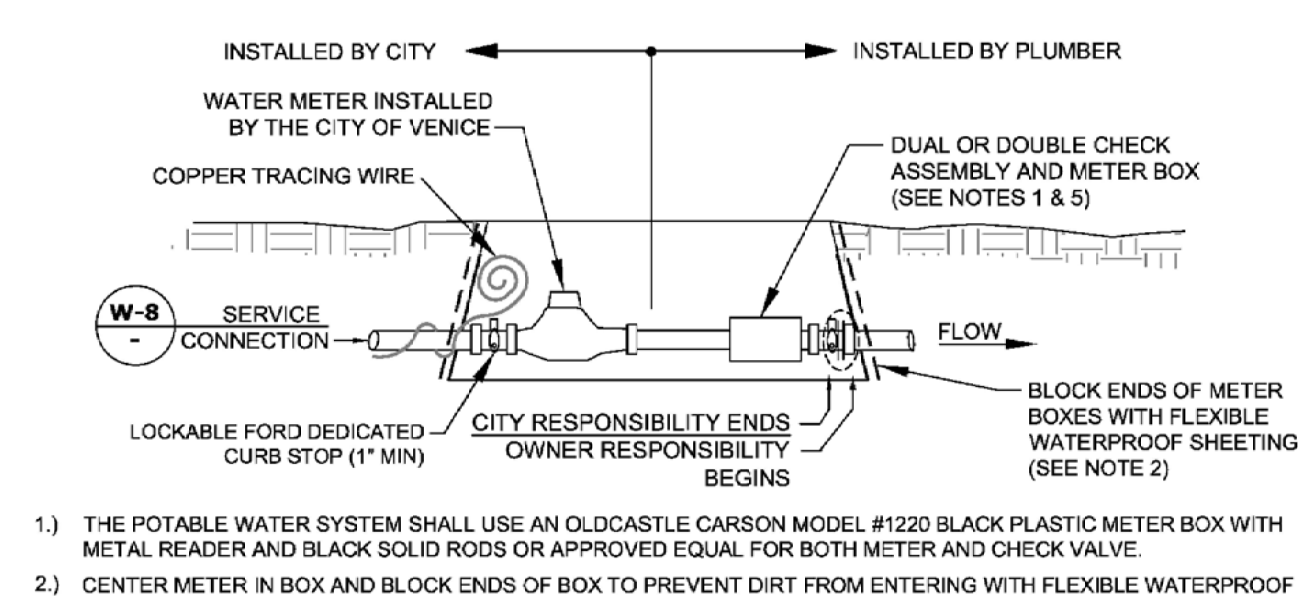
CITY OF VENICE ENGINEERING DEPARTMENT 401 WEST VENICE AVE. VENICE FL 34285 (941) 486-2626 FAX (941) 480-3031	UTILITIES - WATER	DATE JAN 2021
	AUTOMATIC FLUSHING DEVICE	SHEET NO. W-3



- 1.) BACKFLOW PREVENTION ASSEMBLY TYPE SHALL BE DETERMINED BY THE CITY OF VENICE UTILITIES DEPARTMENT'S MOST CURRENT CROSS-CONNECTION CONTROL PROGRAM.
- 2.) ALL BACKFLOW PREVENTION ASSEMBLIES SHALL BE APPROVED BY THE UNIVERSITY OF SOUTHERN CALIFORNIA FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH AND/OR ASSE 1013.
- 3.) ALL ABOVE GROUND PIPING SHALL BE RIGID COPPER.
- 4.) THE WATER METER AND BACKFLOW PREVENTER SHALL BE THE SAME SIZE.
- 5.) INSTALLED IMMEDIATELY AFTER THE UTILITY WATER METER, PER THE CROSS CONNECTION CONTROL MANUAL, UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY OF VENICE UTILITIES DIRECTOR AND WITH A SIGNED WAIVER AGREEMENT BY THE CUSTOMER.
- 6.) NO BRANCH OR TEE CONNECTIONS SHALL EXIST BETWEEN THE WATER METER AND BACKFLOW PREVENTER.
- 7.) ALL METER BOXES SHALL BE SET FLUSH WITH FINISHED GRADE.
- 8.) SHEETING SHALL BE A PVC TYPE MATERIAL WITH A MINIMUM OF 40 MIL THICKNESS.
- 9.) PROTECTIVE PIPE SLEEVES MAY BE PVC PIPE ONE SIZE LARGER THAN RISER OR OTHER CITY APPROVED MATERIAL.
- 10.) UNIONS ARE REQUIRED ON THE RISERS.
- 11.) PRESSURE RELIEF VALVE SHALL BE INSTALLED.
- 12.) LINE DOWNSTREAM OF METER AND PRIOR TO BACKFLOW SHALL BE POLYETHYLENE.
- 13.) NO PVC SMALLER THAN 4" DIAMETER SHALL BE INSTALLED ON CITY-OWNED UTILITIES.

BACKFLOW PREVENTION ASSEMBLY
 (RESIDENTIAL, NOT MASTER METERED)
 N.T.S.

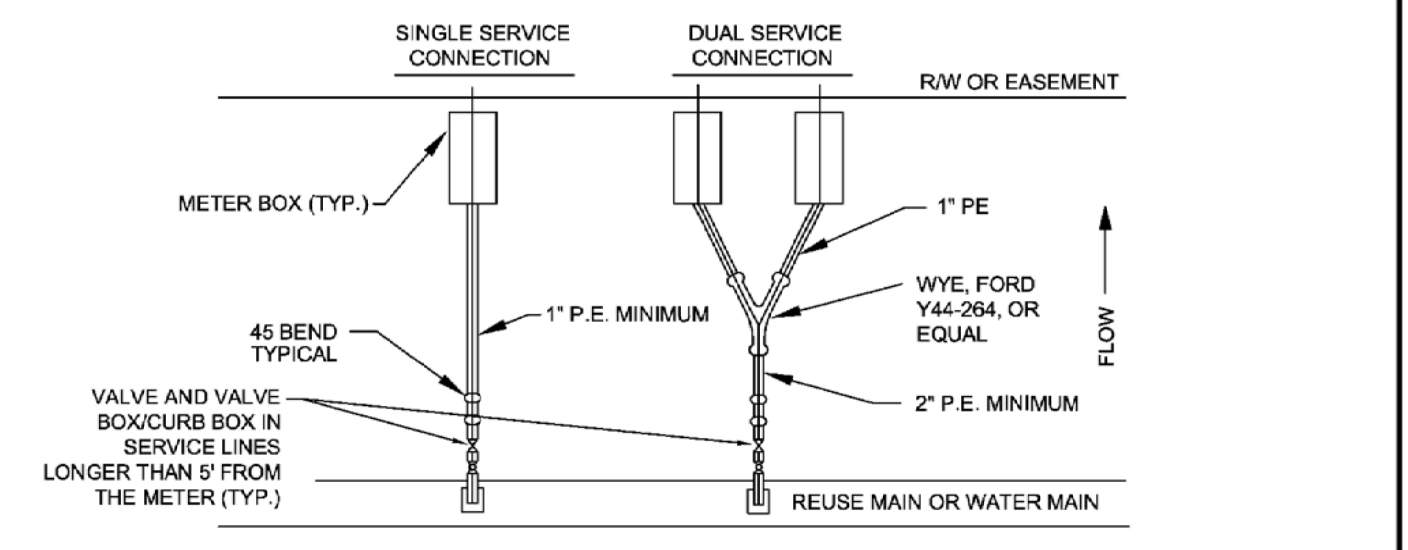
	CITY OF VENICE ENGINEERING DEPARTMENT	UTILITIES - WATER	DATE JAN 2021
	401 WEST VENICE AVE. VENICE FL 34285 (941) 486-2626 FAX (941) 480-3031	BACKFLOW ASSEMBLY (NO MASTER METER)	SHEET NO. W-5



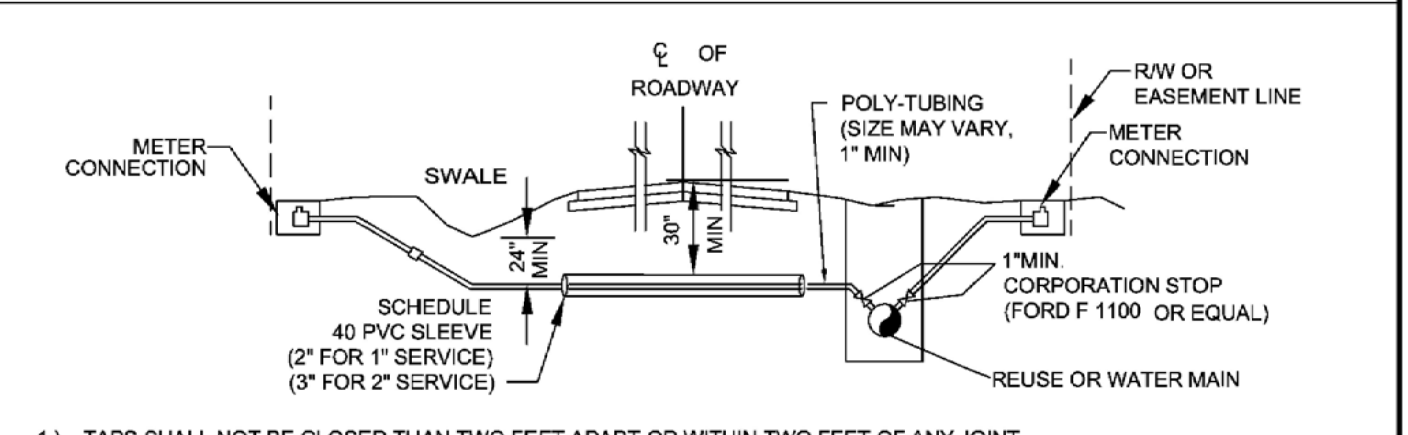
- 1.) THE POTABLE WATER SYSTEM SHALL USE AN OLDCASTLE CARSON MODEL #1220 BLACK PLASTIC METER BOX WITH METAL READER AND BLACK SOLID RODS OR APPROVED EQUAL FOR BOTH METER AND CHECK VALVE.
- 2.) CENTER METER IN BOX AND BLOCK ENDS OF BOX TO PREVENT DIRT FROM ENTERING WITH FLEXIBLE WATERPROOF SHEETING. SHEETING SHALL BE A PVC TYPE MATERIAL WITH MINIMUM 40 MIL THICKNESS.
- 3.) COPPERHEAD TRACING WIRE #12 AWG OR EQUAL SHALL BE USED AND COLOR CODED TO REFLECT WHAT THE PIPE CARRIES (BLUE = WATER).
- 4.) LOCKING CURB STOP MUST BE LOCATED JUST INSIDE BOX AND SHALL BE LOCKED IN THE CLOSED POSITION WITH A LOCK SUPPLIED BY THE UTILITIES DEPARTMENT AT THE TIME OF SERVICE LINE INSTALLATION. LOCK TO BE REMOVED BY THE UTILITIES DEPARTMENT ONLY AFTER STANDARD DETAIL REQUIREMENTS ARE MET. DEDICATED FIRE SERVICE CURB STOPS SHALL BE LOCKED IN THE OPEN POSITION BY THE UTILITIES DEPARTMENT AFTER STANDARD DETAIL REQUIREMENTS ARE MET. ALL CURB STOPS SHALL BE ORIENTED WITH THE OPERATING NUT ON TOP AND ACCESSIBLE FOR SERVICE BY A CURB STOP KEY.
- 5.) DUAL CHECK ASSEMBLY, WHEN REQUIRED BY THE CITY OF VENICE UTILITIES DEPARTMENT'S MOST CURRENT CROSS-CONNECTION CONTROL PROGRAM, SHALL BE INSTALLED BY A PLUMBER IMMEDIATELY AFTER THE WATER METER.
- 6.) RESIDENTIAL FIRE SERVICE SPRINKLERS INCORPORATED INTO DOMESTIC RESIDENTIAL PLUMBING SHALL BE SERVICED BY AN ELECTRONIC WATER METER MEETING NFPA STANDARDS FOR FLOW AND PRESSURE LOSS.
- 7.) THE ENGINEER OF RECORD SHALL SUBMIT METER SIZING CALCULATIONS BASED ON SERVICE DEMAND PER AWWA M22 AND SUBJECT TO APPROVAL BY THE UTILITIES DEPARTMENT.
- 8.) ALL METER BOXES SHALL BE SET FLUSH WITH FINISHED GRADE.
- 9.) NO PVC SMALLER THAN 4" DIAMETER SHALL BE INSTALLED ON CITY-OWNED UTILITIES.

RESIDENTIAL WATER & FIRE METER
 (RESIDENTIAL USE ONLY)
 N.T.S.

	CITY OF VENICE ENGINEERING DEPARTMENT	UTILITIES - WATER	DATE JAN 2021
	401 WEST VENICE AVE. VENICE FL 34285 (941) 486-2626 FAX (941) 480-3031	RESIDENTIAL WATER & FIRE METER	SHEET NO. W-6



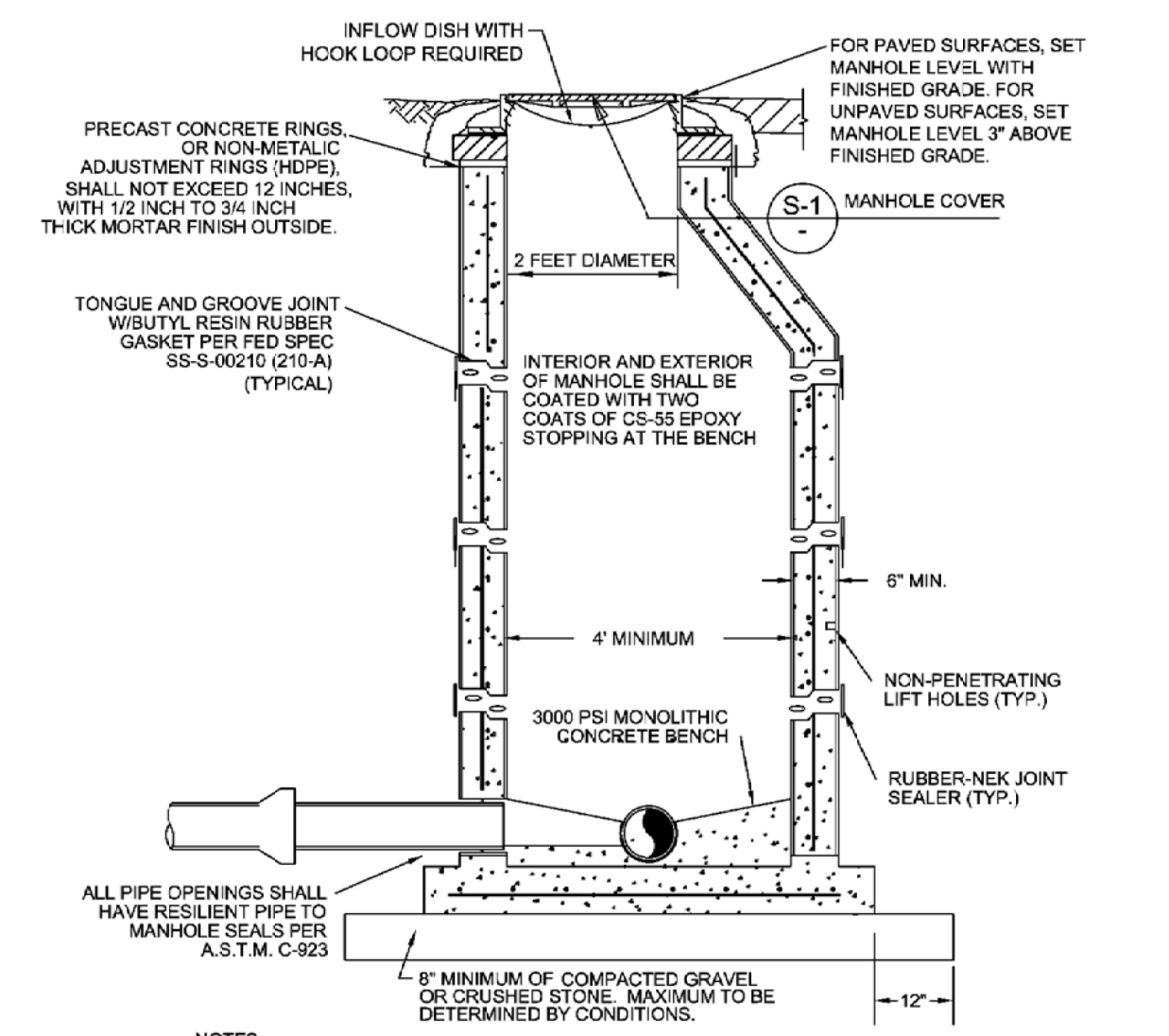
RESIDENTIAL METER CONNECTION DETAIL
 N.T.S.



- 1.) TAPS SHALL NOT BE CLOSER THAN TWO FEET APART OR WITHIN TWO FEET OF ANY JOINT.
- 2.) TAPS IN MULTIPLE GROUPS SHALL NOT BE MADE IN THE SAME LONGITUDINAL LINE OF THE PIPE BUT MUST BE STAGGERED VERTICALLY.
- 3.) TAPPING SADDLE SHALL BE EPOXY COATED, DUCTILE IRON BODY WITH SS 316 BAND(S) AND HARDWARE.
- 4.) BRASS FITTINGS AND BALL VALVES SHALL BE FORD F1100 OR EQUAL.
- 5.) CITY-APPROVED CURB BOXES SHALL BE USED ON THE CURB STOP AT THE MAIN, WHEN THE WATER SERVICE EXCEEDS 6" FROM THE METER, AND THE SERVICE IS 2" OR LESS IN DIAMETER.
- 6.) ALL SERVICES SHALL HAVE COPPER TRACING WIRE.
- 7.) ALL SLEEVE ENDS SHALL BE SEALED WITH FOAM SEAL.
- 8.) INSERT STIFFENERS WILL NOT BE ACCEPTABLE.
- 9.) ALL WATERWORKS BRASS MUST BE LEAD FREE.
- 10.) METER SIZE AND SERVICE LINE PIPING DOWNSTREAM OF METER SHALL BE MINIMALLY SIZED BASED ON FIXTURE CALCS AS DETERMINED BY THE EOR.
- 11.) FOR CURBED ROADWAYS: CURB SHALL BE ETCHED WITH THE LETTER "W" FOR WATER SERVICE AND "R" FOR REUSE SERVICE DIRECTLY PERPENDICULAR TO THE METER.

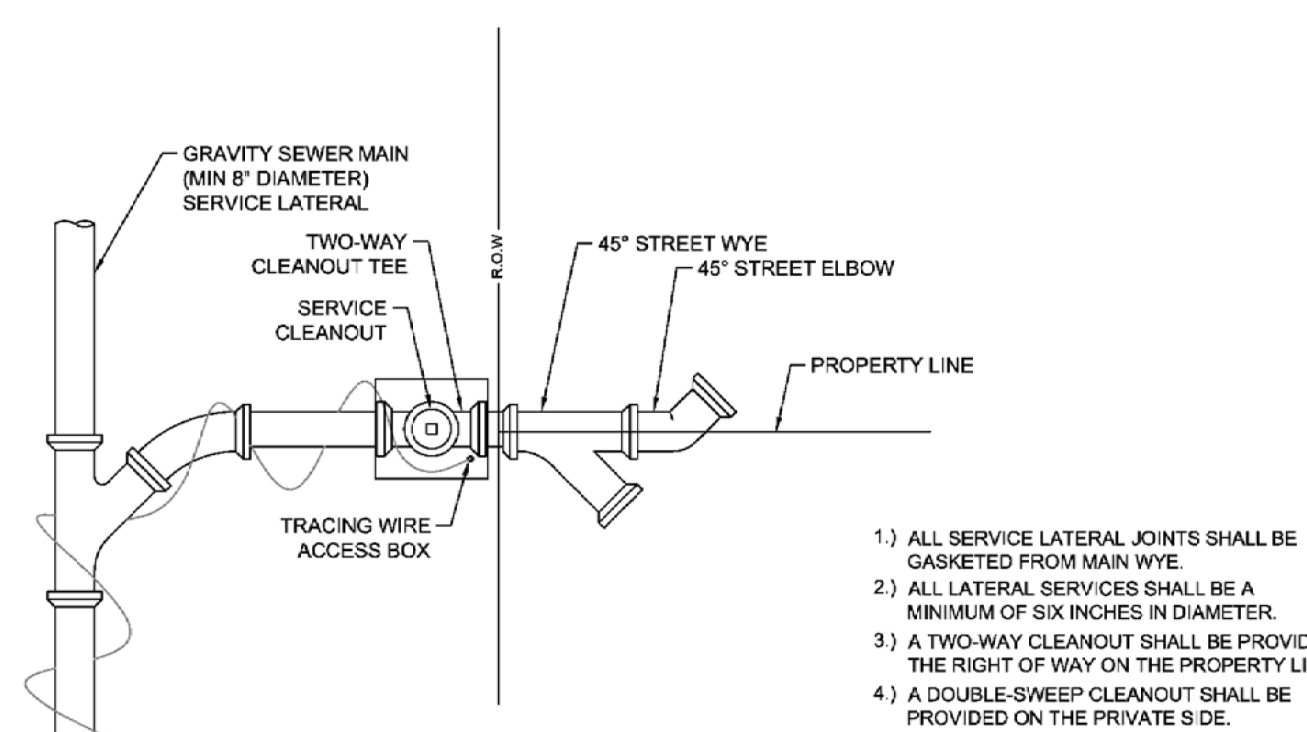
WATER & REUSE SERVICE CONNECTION
 N.T.S.

	CITY OF VENICE ENGINEERING DEPARTMENT	UTILITIES - WATER	DATE JAN 2021
	401 WEST VENICE AVE. VENICE FL 34285 (941) 486-2626 FAX (941) 480-3031	RESIDENTIAL METER & SERVICE CONNECTION	SHEET NO. W-8

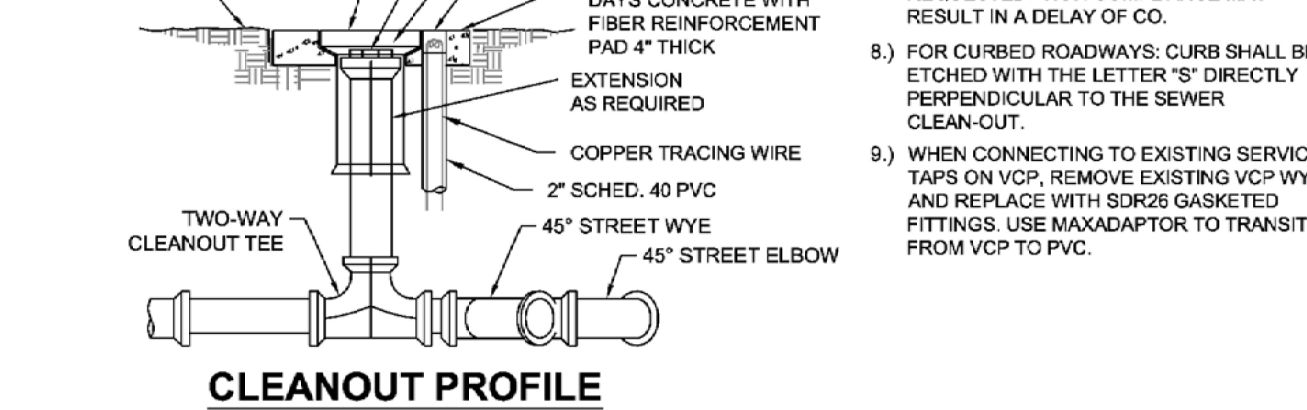


SANITARY SEWER MANHOLE DETAIL
 N.T.S.

	CITY OF VENICE ENGINEERING DEPARTMENT	UTILITIES - SEWER	DATE JAN 2021
	401 WEST VENICE AVE. VENICE FL 34285 (941) 486-2626 FAX (941) 480-3031	SANITARY SEWER MANHOLE	SHEET NO. S-2



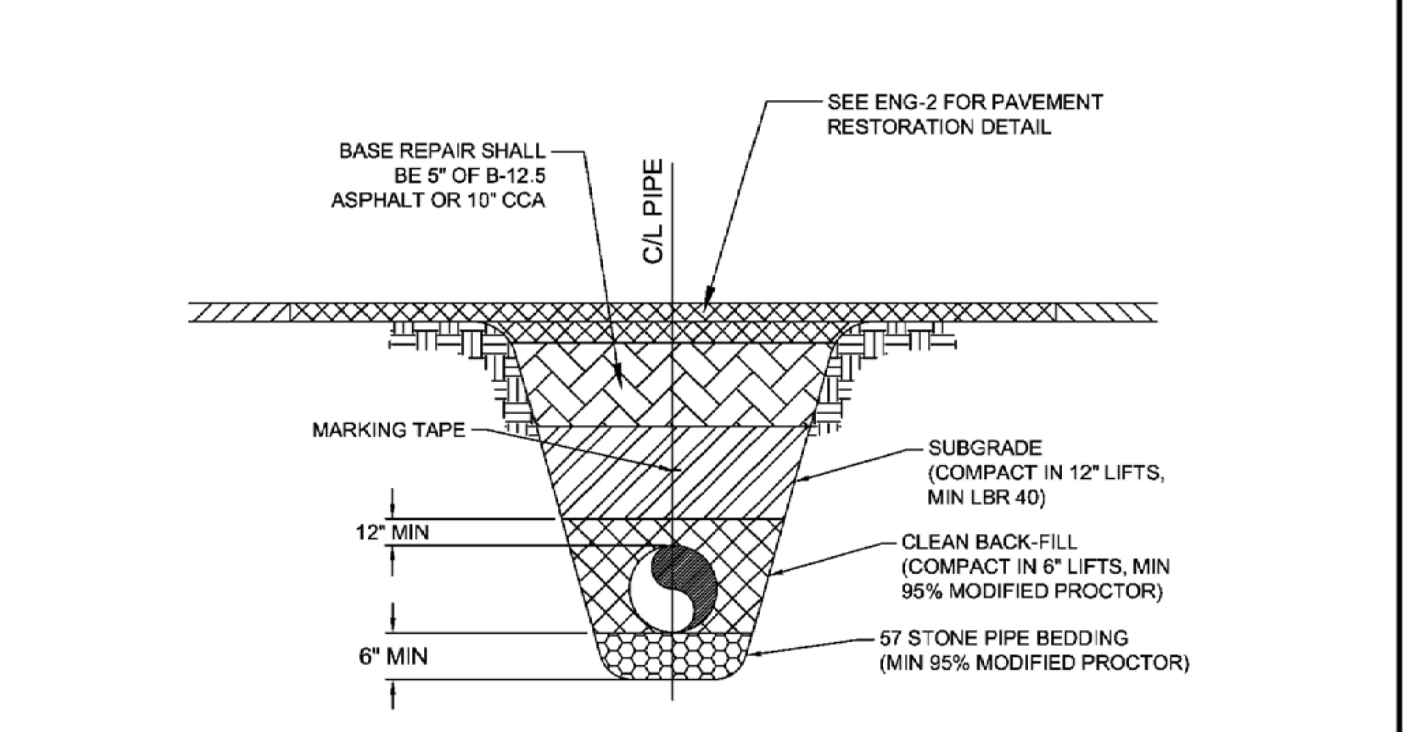
CLEANOUT PLAN



CLEANOUT PROFILE

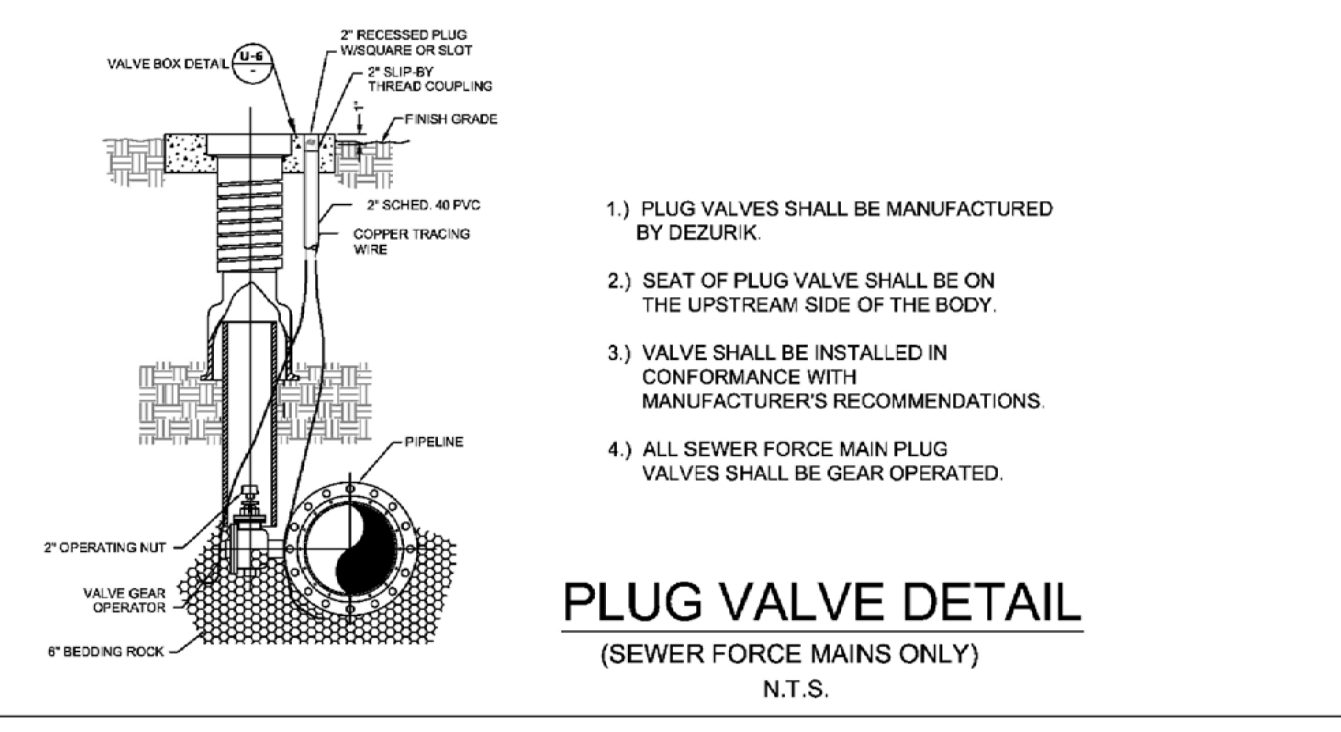
**SANITARY SEWER SERVICE &
CLEANOUT DETAIL**
 N.T.S.

	CITY OF VENICE ENGINEERING DEPARTMENT	UTILITIES - SEWER	DATE JAN 2021
	401 WEST VENICE AVE. VENICE FL 34285 (941) 486-2626 FAX (941) 480-3031	SEWER SERVICE & CLEANOUT	SHEET NO. S-4

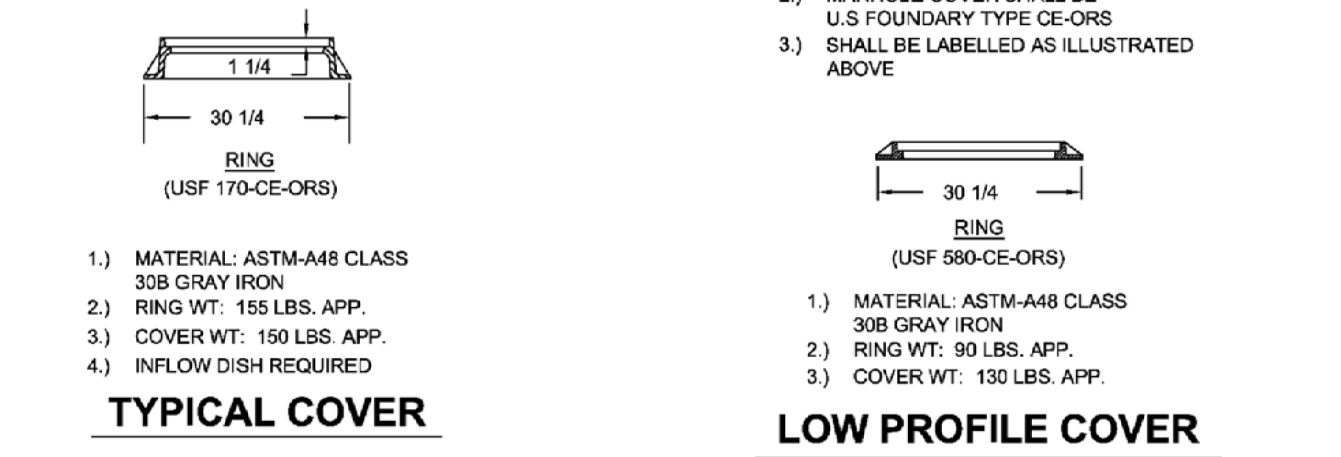


SEWER PIPE TRENCH DETAIL
 N.T.S.

	CITY OF VENICE ENGINEERING DEPARTMENT	UTILITIES - GENERAL	DATE JAN 2021
	401 WEST VENICE AVE. VENICE FL 34285 (941) 486-2626 FAX (941) 480-3031	SEWER PIPE TRENCH	SHEET NO. S-6



PLUG VALVE DETAIL
 (SEWER FORCE MAINS ONLY)
 N.T.S.



MANHOLE COVERS DETAIL
 (ALL UNITS IN INCHES)
 N.T.S.

	CITY OF VENICE ENGINEERING DEPARTMENT	UTILITIES - SEWER	DATE JAN 2021
	401 WEST VENICE AVE. VENICE FL 34285 (941) 486-2626 FAX (941) 480-3031	PLUG VALVE & MANHOLE COVERS	SHEET NO. S-1