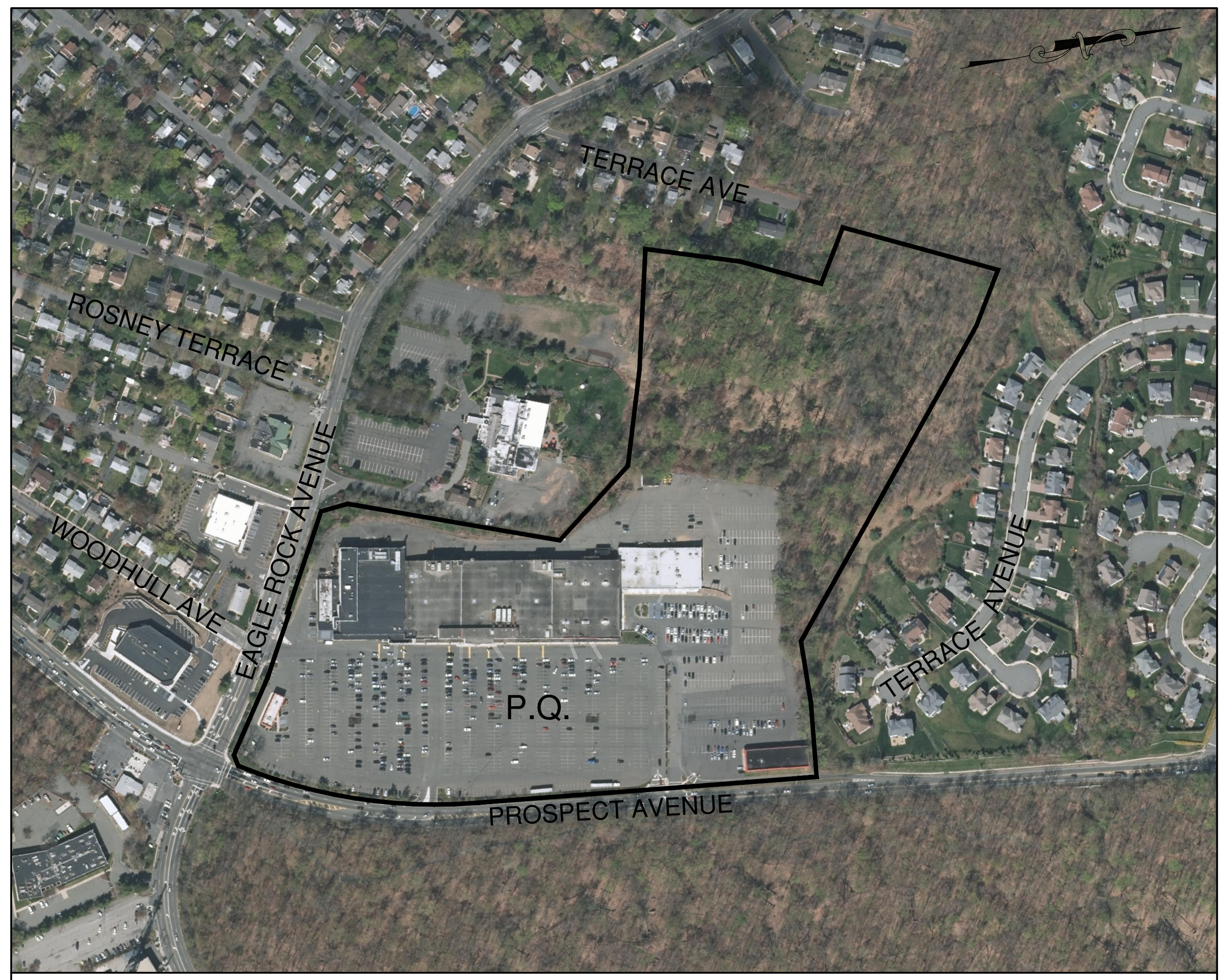
PRELIMINARY AND FINAL MAJOR SITE PLAN

PREPARED FOR

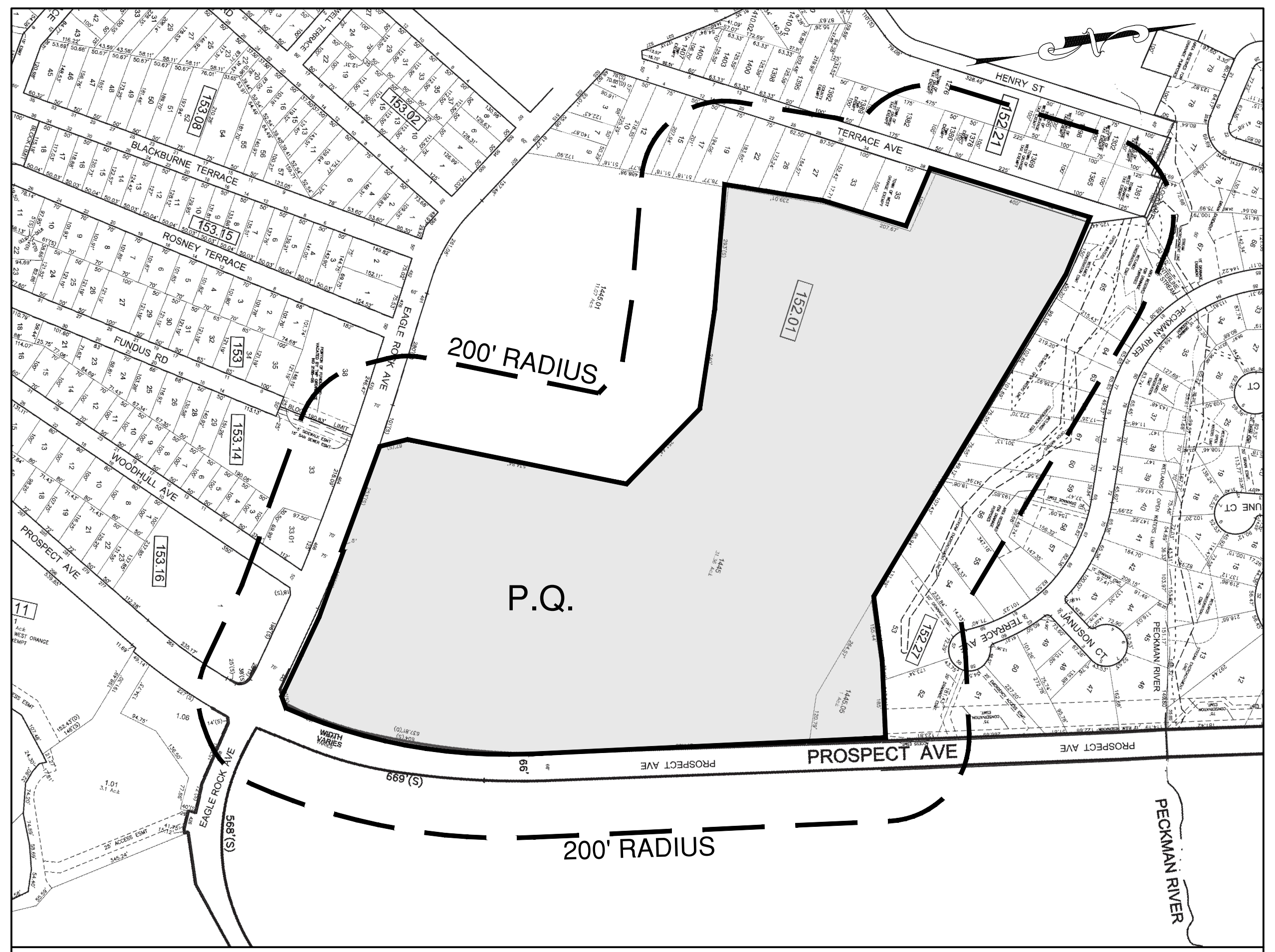
WEST ORANGE PLAZA

BLOCK 152.01 LOT 1445 & LOT 1445.05
235 PROSPECT AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY



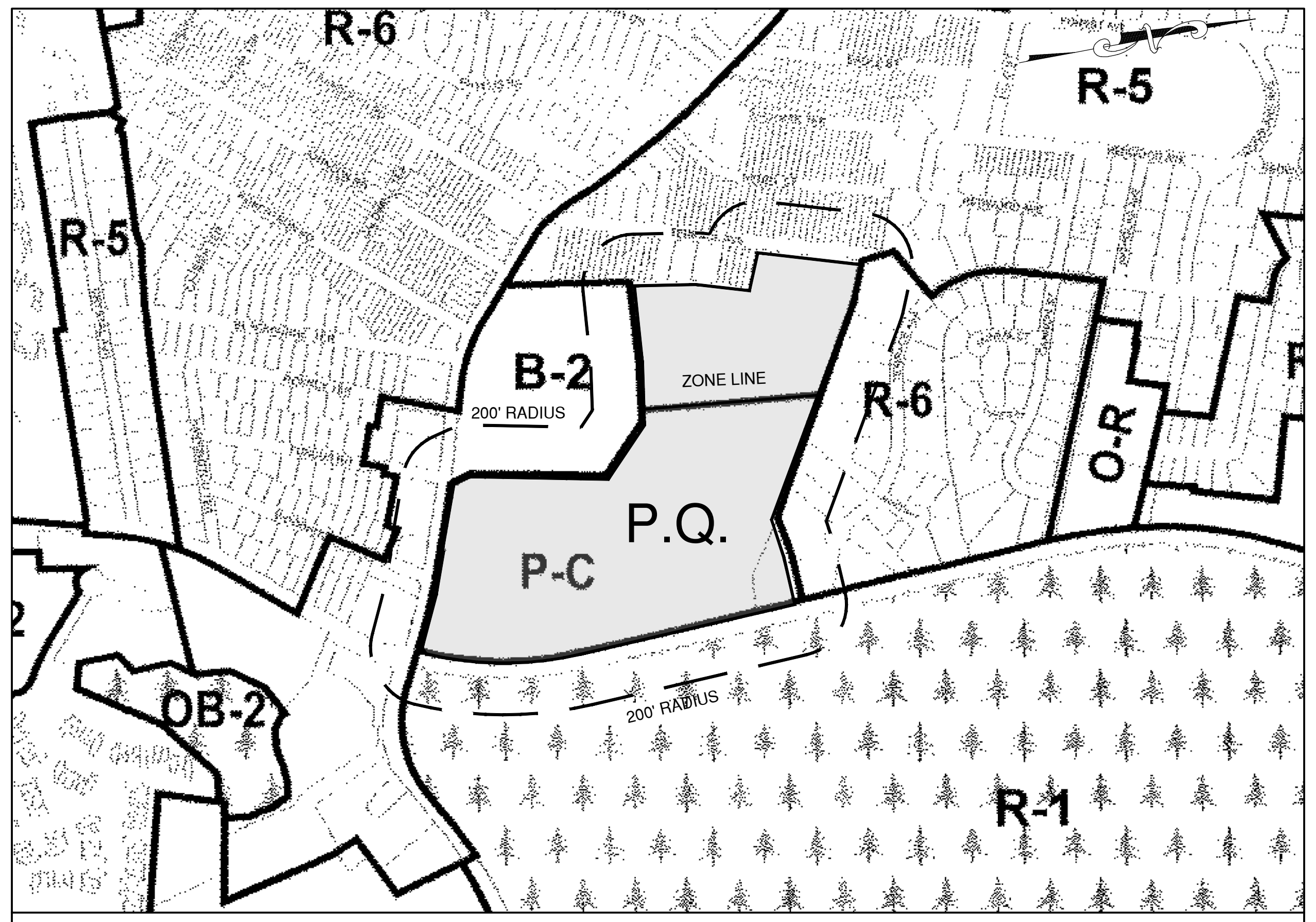
AERIAL PHOTOGRAPHY — SCALE 1" = 300'

MAP REFERENCES:
TAKEN FROM NJGIN WAREHOUSE 2015



TAX MAP WITH 200' RADIUS — SCALE 1" = 300'

MAP REFERENCES:
TAX MAPS # 79, 73, 74, 78, 84



ZONING MAP — SCALE 1" = 500'

MAP REFERENCES:
TOWNSHIP OF WEST ORANGE ZONING MAP, LAST AMENDED 2006

SITE DATA CHART

OWNER & APPLICANT: WEST ORANGE PLAZA, A NEW JERSEY PARTNERSHIP
P.O. BOX 326
PLAINFIELD, NJ 07061

PROPERTY: LOT 1445 & 1445.05 BLOCK 152.01
AREA = 32.67± ACRES

ZONE: P-C § 25-3.1 P-C DISTRICT (FRONT) R-5 (REAR-UNDEVELOPED & NO DEVELOPMENT PROPOSED)
(ZONING INFORMATION FROM THE TOWNSHIP OF WEST ORANGE ZONING ORDINANCE)

EXISTING USE: SHOPPING CENTER

PROPOSED USE: SHOPPING CENTER

LOT SIZE REQUIREMENTS

DESCRIPTION	CODE (P-C)	EXISTING	PROPOSED	COMPLIANCE
§25-7.1 BULK STANDARDS TABLE OF DISTRICT REGULATIONS				
MAX. HEIGHT	2 1/2 STORIES/ 35'			
"MAIN BUILDING"		46.3 FT.	46.3 FT.	EXISTING NON-CONFORMING
"VERIZON"		18.6 FT.	18.6 FT.	YES
"MAVIS"		18.1 FT.	18.1 FT.	YES
"A"			35.0 FT.	YES
"B"			35.0 FT.	YES
"C"			28.0 FT.	YES
"D"			35.0 FT.	YES
MIN. LOT AREA	8 ACRES	32.67 ACRES	NO CHANGE	YES
MIN. FRONT YARD	300 FT.			
"MAIN BUILDING"		372.3 FT.	372.3 FT.	YES
"VERIZON"		113.8 FT.	113.8 FT.	EXISTING NON-CONFORMING
"MAVIS"		31.3 FT.	31.3 FT.	EXISTING NON-CONFORMING
"A"		N/A	268.3 FT.	NO *
"B"		N/A	135.9 FT.	NO *
"C"		N/A	65.4 FT.	NO *
"D"		N/A	72.0 FT.	NO *
MIN. SIDE FRONT YARD-CORNER	100 FT.			
"MAIN"		53.9 FT.	53.9 FT.	EXISTING NON-CONFORMING
"VERIZON"		43.4 FT.	43.4 FT.	EXISTING NON-CONFORMING
"D"		N/A	68.6 FT.	NO*
MIN. SIDE YARD	75' + 75' 100' RESIDNECE			
"A"		N/A	50.7 FT.	NO *
"B"		N/A	60.0 FT.	NO *
"MAVIS"		10.1 FT.	10.1 FT.	EXISTING NON-CONFORMING
MIN. REAR YARD	75' 100' RESIDENCE	52.5 FT.	52.5 FT. 39.6 FT.$^{(3)}$	EXISTING NON-CONFORMING NO *
MAX. BUILDING COVERAGE	20%	12.54%	15.14%	YES
MAX. LOT COVERAGE	75%	60.33%	56.54%	YES
MIN. SPACING BETWEEN BUILDINGS	150 FT.	182.0 FT. (MAIN - VERIZON)		
"MAIN BUILDING" - "A"			90.3 FT.	NO *
"A" - "B"			38.0 FT.	NO *
"B" - "MAVIS"			54.2 FT.	NO *
PARKING AND LOADING REQUIREMENTS				
MIN. NUMBER OF TREES WITHIN PARKING AREA	1 TREE PER 10 SPACES (125 TREES)	N/A	125	YES
PARKING AREA SETBACK (§25-8.1)	5 FT.	-	2 FT.	NO *
PARKING IN MIN. FRONT OR SIDE YARD	NOT ALLOWED	YES	YES	EXISTING NON-CONFORMING
MIN. REQUIRED PARKING	1,476 SPACES	1,555 SPACES	1,202 SPACES	NO *
MIN. REQUIRED PARKING (ADA)	21 SPACES	27 SPACES	27 SPACES (INCLUDES 11 VAN)	YES
STALL SIZE	9' X 18'	9' X 18'	9' X 18' $^{(1)}$	YES
AISLE WIDTH	24 FT.	24 FT.	24 FT.	YES
SIDEWALK WIDTH BETWEEN PARKING AND BUILDING	5 FT.	5 FT.	5 FT.	YES
MIN. NUMBER OF LOADING SPACES	34 SPACES	7 SPACES	12 SPACES	NO *
LOADING SPACE SIZE	10' X 40'	10' X 40'	10' X 40'	YES
LOCATION OF LOADING AREAS/BAYS	INSIDE STRUCTURE	OUTSIDE	OUTSIDE	NO *
LIGHTING				
MIN. ILLUMINATION PEDESTRIAN WALKWAYS	0.9 FC	-	0.9 FC	YES
MIN. ILLUMINATION PARKING AREAS	1.5 FC	-	0.0 FC	NO *
MAX. LIGHT POLE HEIGHT	18 FT.	-	25 FT.	NO *
MAX. FOOTCANDLES AT PROPERTY LINES				
RESIDENTIAL	0.3 F.C.	-	0.3 F.C.	YES
OTHER	0.5 F.C.	-	0.3 F.C.	YES
RETAINING WALLS				
MAX. RETAINING WALL HEIGHT	4 FT.	-	13.5 FT.	NO *
OTHER REQUIREMENTS				
ACCESSORY USE IN FRONT YARD (§25-8.1.A.)	NOT ALLOWED	NO	YES (DRIVE THRU)	NO *
DRIVE-UP WINDOW WITHIN YARD SETBACK (§25-11.14.I.)	NOT ALLOWED	NO	YES	NO *
LANDSCAPED BUFFER ADJACENT TO RESIDENTIAL ZONE	50 FT.	10.1 FT.	10.1 FT.	EXISTING NON-CONFORMING

SQUARE FOOTAGE BY BUILDING:$^{(4)}$

MAIN BUILDING	287,791	(EXCLUDES 550 SF OF FUTURE LOADING DOCK AREA)
VERIZON	2,011	
MAVIS	7,646	
A	15,794	
B	8,055	
C	8,400	
D	5,502	
TOTAL	335,199	

PARKING SPACE CALCULATIONS:

$^{(2)}$ RETAIL (1 SPACE PER 250 SF):

MAIN BUILDING	169,131 SF	/250SF	= 676.5 SPACES
VERIZON	2,011 SF	/250SF	= 8.0 SPACES
A,B,C,D	24,528 SF	/250SF	= 98.1 SPACES
		SUBTOTAL:	= 782.6 SPACES

$^{(2)}$ RESTAURANT (1 SPACE PER 45 SF):

MAIN BUILDING	6,715 SF	/45SF	= 149.2 SPACES
A,B,C,D	13,223	/45SF	= 293.8 SPACES
		SUBTOTAL:	= 443.0 SPACES

MEDICAL USE (1 SPACE PER 150 SF);

MAVIS	7,646 SF	/150	= 51.0 SPACES

STORAGE (1 SPACE PER 600 SF);

MAIN BUILDING	106,784 SF	/600	= 178.0 SPACES

OFFICE SPACE (1 SPACE PER 250 SF);

MEZZANINE	5,161 SF	/250	= 20.6 SPACES

TOTAL: 1,475.2 SPACES

LOADING SPACE CALCULATIONS:
(1 LOADING SPACE PER 10,000 SF)

335,199 SF / 10,000SF = 33.52 SPACES

BUILDING COVERAGE CALCULATION:

MAIN BUILDING	168,000 SF
VERIZON	2,011 SF
MAVIS	7,646 SF
A	15,794 SF
B	8,055 SF
C	8,400 SF
D	5,502 SF
TOTAL:	215,408 SF

215,408 SF / 1,423,105 SF = 15.14%

ADA PARKING CALCULATION:
1,156 SPACES PROPOSED

ADA REQUIRED FOR OVER 1000 SPACES:
20 + 1 FOR EACH 100 OVER 1,000
= 21 ADA SPACES REQUIRED

ELECTRIC VEHICLE PARKING REQUIREMENT:
4% OF TOTAL PARKING
AND 5% OF EV MUST BE ADA ACCESSIBLE
=1,156 x 0.04 = 47 EV SPACES REQUIRED

48 EV SPACES (3 ADA) PROPOSED

*(EV PARKING COUNTS AS DOUBLE UP TO 10% OF TOTAL PARKING)
1,156 + 48 EV CREDIT = **1,204 TOTAL SPACES**

* VARIANCE REQUESTED

(1) 36 SPACES ARE DESIGNATED AS COMPACT SPACES (8' X 15'.) THIS REPRESENTS 3.0% OF ALL SPACES, LESS THAN THE 25% MAXIMUM ALLOWED.

(2) RESTAURANT AREA BASED ON 35% OF THE AREA FOR PROPOSED BUILDINGS A,B,C, & D, PLUS THE EXISTING RESTAURANT SPACE. DIFFERENCE IS CALCULATED AS RETAIL SPACE.

(3) ONLY REQUIRED FOR POTENTIAL FUTURE LOADING SPACES

(4) BUILDING SQUARE FOOTAGES TAKEN FROM MONTORO ARCHITECTURAL GROUP PLANS DATES 02/08/2023

PUBLIC UTILITY LIST

ELECTRIC & GAS

Public Service Electric & Gas Company
Manager - Corporate Properties
80 Park Plaza, T6B
Newark, NJ 07102

WATER

New Jersey American Water Company
167 John F. Kennedy Parkway
Short Hills. NJ 07078

CABLE TV

Comcast Cablevision
800 Rahway Avenue
Union, NJ 07083

TELEPHONE

Verizon
1 Verizon Way
Basking Ridge, New Jersey 07920-1025

SEWER

Township of West Orange
Municipal Building
66 Main Street
West Orange, NJ 07052

LIST OF DRAWINGS

SHEET NO.	NAME	PREPARED BY
SP-1	TITLE SHEET	PETRY ENGINEERING
SP-2	OVERALL LAYOUT PLAN	PETRY ENGINEERING
SP-3	DEMOLITION PLAN	PETRY ENGINEERING
SP-4	DETAILED LAYOUT PLAN	PETRY ENGINEERING
SP-5	GRADING PLAN	PETRY ENGINEERING
SP-6	DRAINAGE PLAN	PETRY ENGINEERING
SP-7	UTILITY PLAN	PETRY ENGINEERING
LD-1	ADDITIONAL INFORMATION (LOADING DOCKS)	PETRY ENGINEERING
SP-8	LIGHTING PLAN	PETRY ENGINEERING
SP-8A	LIGHTING DETAILS	PETRY ENGINEERING
SP-9	SOIL EROSION AND SEDIMENT CONTROL PLAN	PETRY ENGINEERING
SP-9A	SLIP RAMP REMOVAL AND CONSTRUCTION PLAN	PETRY ENGINEERING
SP-10	STORM SEWER PROFILES	PETRY ENGINEERING
SP-11	STORM SEWER PROFILES	PETRY ENGINEERING
SP-12	STORM AND SANITARY SEWER PROFILES	PETRY ENGINEERING
SP-13	CONSTRUCTION NOTES	PETRY ENGINEERING
SP-14	CONSTRUCTION DETAILS	PETRY ENGINEERING
SP-15	CONSTRUCTION DETAILS	PETRY ENGINEERING
SP-16	RETAINING WALL DETAILS	PETRY ENGINEERING
SP-17	RETAINING WALL DETAILS	PETRY ENGINEERING
SP-18	TARGET PICK UP SIGN DETAILS	PETRY ENGINEERING
TM-1	WB-67 TRUCK TURNING MOVEMENTS	PETRY ENGINEERING
TM-2	WB-67 TRUCK TURNING MOVEMENTS TARGET LOADING DOCKS	PETRY ENGINEERING
TM-3	SU-40 TRUCK TURNING MOVEMENTS	PETRY ENGINEERING
TM-4	FIRE TRUCK TURNING MOVEMENTS	PETRY ENGINEERING
TM-5	REFUSE TRUCK TURNING MOVEMENTS	PETRY ENGINEERING
VL-101	ALTA/ACSM LAND SURVEY	LANGAN ENGINEERING
PB-0	PROPOSED SITE DEVELOPMENT PLAN	THE MONTORO ARCHITECTURAL GROUP
PB-1.1	PROPOSED FLOOR PLAN - BUILDING 'A'	THE MONTORO ARCHITECTURAL GROUP
PB-1.2	PROPOSED REAR ELEVATION BLDG. 'A'	THE MONTORO ARCHITECTURAL GROUP
PB-2	PROPOSED FLOOR PLAN - BUILDING 'B'	THE MONTORO ARCHITECTURAL GROUP
PB-3	PROPOSED PLAN - BUILDING 'C'	THE MONTORO ARCHITECTURAL GROUP
PB-3.1	PROPOSED ELEVATIONS - BUILDING 'C'	THE MONTORO ARCHITECTURAL GROUP
PB-3.2	PROPOSED ELEVATIONS - BUILDING 'C'	THE MONTORO ARCHITECTURAL GROUP
PB-4	PROPOSED FLOOR PLAN - BUILDING 'D'	THE MONTORO ARCHITECTURAL GROUP
PB-5	PROPOSED FLOOR PLAN - BUILDING '1M-D'	THE MONTORO ARCHITECTURAL GROUP
PB-5.1	PROPOSED FLOOR PLAN - BUILDING '1L1-A'	THE MONTORO ARCHITECTURAL GROUP
PB-5.2	PROPOSED FLOOR PLAN - BUILDING '1L1-B&C'	THE MONTORO ARCHITECTURAL GROUP
PB-6	PROPOSED PYLON & MONUMENT SIGNS	THE MONTORO ARCHITECTURAL GROUP
PB-7	PROPOSED PLAN - BUILDING 'B-5'	THE MONTORO ARCHITECTURAL GROUP
PB-7.1	PROPOSED ELEVATIONS - BUILDING 'B-5'	THE MONTORO ARCHITECTURAL GROUP
PB-7.2	PROPOSED ELEVATIONS - BUILDING 'B-5'	THE MONTORO ARCHITECTURAL GROUP
L-1	PLANTING REMOVALS	MKW + ASSOCIATES
L-2	PLANTING PLAN - CANOPY	MKW + ASSOCIATES
L-3	PLANTING PLAN - UNDERSTORY 1 OF 3	MKW + ASSOCIATES
L-4	PLANTING PLAN - UNDERSTORY 2 OF 3	MKW + ASSOCIATES
L-5	PLANTING PLAN - UNDERSTORY 3 OF 3	MKW + ASSOCIATES
L-6	PEDESTRIAN PAVING AT BUILDING C	MKW + ASSOCIATES
L-7	PEDESTRIAN PAVING AT BUILDING A & B	MKW + ASSOCIATES
L-8	PEDESTRIAN PAVING AT BUILDING D	MKW + ASSOCIATES

NOTE:

1. THE STORMWATER MAINTENANCE MANUAL AND ANY FUTURE REVISIONS SHALL BE RECORDED UPON THE DEED OF RECORD FOR EACH PROPERTY ON WHICH THE MAINTENANCE DESCRIBED IN THE MAINTENANCE PLAN MUST BE UNDERTAKEN. PRIOR TO RECORDING, THE FORM OF THE DEED MUST BE REVIEWED AND APPROVED BY THE PLANNING BOARD ATTORNEY AND ZONING BOARD ENGINEER.

LIST OF APPROVALS REQUIRED:

1. WEST ORANGE PLANNING BOARD
2. ESSEX COUNTY SITE PLAN APPROVAL
3. HEP SCD SOIL EROSION AND SEDIMENT CONTROL
4. NJDEP – TREATMENT WORKS APPROVAL (TWA)
5. NJDEP – WATER EXTENSION PERMIT (BSDW)

APPROVALS
WEST ORANGE TOWNSHIP

APPROVED AS A SITE PLAN BY THE TOWNSHIP OF WEST ORANGE PLANNING BOARD ON

DATE

PLANNING BOARD CHAIRPERSON — DATE

PLANNING BOARD SECRETARY — DATE

TOWNSHIP ENGINEER — DATE

CAUTION: IF THIS DOCUMENT DOES NOT CONTAIN A RAISED IMPRESSION SEAL OF THE UNDERSIGNED PROFESSIONAL, IT IS NOT AN AUTHORIZED ORIGINAL DOCUMENT.

200' PROPERTY OWNERS LIST

Town	Block	Lot	Qualifier	Location	Owner	Owner Address	Owner City/State	Owner Zip
West Orange Township	111	1.06		438 EAGLE ROCK AVENUE	YOUSSEF INC,	270 PROSPECT AVENUE	WEST ORANGE, NJ	07052
West Orange Township	150	1		PROSPECT & EAGLE ROCK AVE	COUNTY OF ESSEX	115 CLIFTON AVENUE	NEWARK N J	07114
West Orange Township	152.01	12		4 TERRACE AVENUE	DAVENPORT, STEVEN & ALLYSON	4 TERRACE AVENUE	WEST ORANGE, N.J.	07052
West Orange Township	152.01	15		12 TERRACE AVENUE	VOLPE, ANGELA M. ESTATE OF	12 TERRACE AVE.	WEST ORANGE, N.J.	07052
West Orange Township	152.01	17		14-16 TERRACE AVENUE	LUGO, LOUIS, LETICIA & VALLEJO, C.	14 TERRACE AVE	WEST ORANGE, NJ	07052
West Orange Township	152.01	19		20 TERRACE AVENUE	VOLPE, THERESA A. & JOSEPH	184 KINNELON ROAD	KINNELON, NJ	07405
West Orange Township	152.01	22		22 TERRACE AVENUE	ALBIETZ, JACQUELYN & PETER M.	22 TERRACE AVE	WEST ORANGE, NJ	07052
West Orange Township	152.01	26		26 TERRACE AVENUE	MATHEWS, NICHOLAS ADAM	26 TERRACE AVENUE	WEST ORANGE,NJ	07052
West Orange Township	152.01	27		28 TERRACE AVENUE	DE FRANCO, W. MARGERITE	28 TERRACE AVENUE	WEST ORANGE, N.J.	07052
West Orange Township	152.01	33		34 TERRACE AVENUE	TEDESCO, FRANK A	34 TERRACE AVE	WEST ORANGE, NJ	07052
West Orange Township	152.01	35		TERRACE AVENUE	TOWNSHIP OF WEST ORANGE	66 MAIN ST	WEST ORANGE, N.J.	07052
West Orange Township	152.01	1445		EAGLE ROCK & PROSPECT AVE	WEST ORANGE PLAZA,	P.O. BOX 326	PLAINFIELD,NJ	07061
West Orange Township	152.01	1445.01		481 EAGLE ROCK AVENUE	MAYFAIR FARMS HOLDING CORP.	481 EAGLE ROCK AVENUE	WEST ORANGE, NEW JERSEY	07052
West Orange Township	152.01	1445.05		189 PROSPECT AVENUE	WEST ORANGE PLAZA	195 COLUMBIA TPK #100	FLORHAM PARK, NJ	07932
West Orange Township	152.21	1276		HENRY STREET	TOWNSHIP OF WEST ORANGE	66 MAIN ST	WEST ORANGE, N.J.	07052
West Orange Township	152.21	1296		HENRY STREET	TOWNSHIP OF WEST ORANGE	66 MAIN ST	WEST ORANGE, N.J.	07052
West Orange Township	152.21	1298		HENRY STREET	TOWNSHIP OF WEST ORANGE	66 MAIN ST	WEST ORANGE, N.J.	07052
West Orange Township	152.21	1302		HENRY STREET	TOWNSHIP OF WEST ORANGE	66 MAIN ST	WEST ORANGE, N.J.	07052
West Orange Township	152.21	1305		HENRY STREET	TOWNSHIP OF WEST ORANGE	66 MAIN ST	WEST ORANGE, N.J.	07052
West Orange Township	152.21	1361		TERRACE AVENUE	TOWNSHIP OF WEST ORANGE	66 MAIN ST	WEST ORANGE, N.J.	07052
West Orange Township	152.21	1365		TERRACE AVENUE	LANDO, TALI	45 MULLARKEY DRIVE	WEST ORANGE, N.J.	07052
West Orange Township	152.21	1369		TERRACE AVENUE	TOWNSHIP OF WEST ORANGE	66 MAIN ST	WEST ORANGE, N.J.	07052
West Orange Township	152.21	1378		TERRACE AVENUE	TOWNSHIP OF WEST ORANGE	66 MAIN ST	WEST ORANGE, N.J.	07052
West Orange Township	152.21	1380		TERRACE AVENUE	TOWNSHIP OF WEST ORANGE	66 MAIN ST	WEST ORANGE, N.J.	07052
West Orange Township	152.21	1382		TERRACE AVENUE	TOWNSHIP OF WEST ORANGE	66 MAIN ST	WEST ORANGE, N.J.	07052
West Orange Township	152.27	51		58 TERRACE AVENUE	STANISLAUS, GREGORY K. & RUTH	58 TERRACE AVE	WEST ORANGE, NJ	07052
West Orange Township	152.27	52		56 TERRACE AVENUE	SINGH, SURINDER & NEELAM S.	56 TERRACE AVENUE	WEST ORANGE, NJ	07052
West Orange Township	152.27	53		57 TERRACE AVENUE	ORPHANIDIS, NELLY RODRIGUEZ TR	57 TERRACE AVE	WEST ORANGE, NJ	07052
West Orange Township	152.27	54		59 TERRACE AVENUE	NARAINE,CHRI/JOAN,RALPH,CAROLYN,NIC	59 TERRACE AVE	WEST ORANGE,NJ	07052
West Orange Township	152.27	55		61 TERRACE AVENUE	HAFNER, CHARLES	61 TERRACE AVE	WEST ORANGE, NJ	07052
West Orange Township	152.27	56		63 TERRACE AVENUE	SEABROOKS-KELLEY, MANITA	63 TERRACE AVENUE	WEST ORANGE, NJ	07052
West Orange Township	152.27	57		65 TERRACE AVENUE	PALACIOS, RICHARD & MYRA	65 TERRACE AVE	WEST ORANGE, NJ	07052
West Orange Township	152.27	58		67 TERRACE AVENUE	ROTHSEID, WILLIAM & CINDY	67 TERRACE AVE	WEST ORANGE, NJ	07052
West Orange Township	152.27	59		69 TERRACE AVENUE	DEGEN, BENNETT C & MICHELLE	69 TERRACE AVENUE	WEST ORANGE, NJ	07052
West Orange Township	152.27	60		71 TERRACE AVENUE	REGINO, MARCELO & MYRNA	71 TERRACE AVE.	WEST ORANGE, NJ	07052
West Orange Township	152.27	61		73 TERRACE AVENUE	XIONG, FEI &LIU,YUNXIAN	73 TERRACE AVE.	WEST ORANGE, NJ	07052
West Orange Township	152.27	62		75 TERRACE AVENUE	PATEL, NARESH & VARSHA	75 TERRACE AVE	WEST ORANGE, NJ	07052
West Orange Township	152.27	63		77 TERRACE AVENUE	FUSMAN, BENJAMIN & ARDEN	77 TERRACE AVE	WEST ORANGE, NJ	07052
West Orange Township	152.27	64		79 TERRACE AVENUE	HUGHES, ALBERT C. & ROSEMARY	79 TERRACE AVENUE	WEST ORANGE, NJ	07052
West Orange Township	152.27	65		81 TERRACE AVENUE	MOSKOVITZ, MARTIN J & BONI	81 TERRACE AVE.	WEST ORANGE, NJ	07052
West Orange Township	152.27	67		83 TERRACE AVENUE	SEID, ERIC & COURTNEY REINISH	83 TERRACE AVE	WEST ORANGE, NJ	07052
West Orange Township	152.27	77		17 REDWOOD AVENUE	GBAYISOMORE, AKINGBOJU & CARMEN	17 REDWOOD AVENUE	WEST ORANGE, NJ	07052
West Orange Township	153	38		470 EAGLE ROCK AVENUE	ZG REAL ESTATE LLC,	235 MAIN ST,#296	MADISON, NJ	07940
West Orange Township	153.14	3		7 WOODHULL AVENUE	CONDOS, JAMES & KOCHELL, CHRISTINE	7 WOODHULL AVE	WEST ORANGE, NJ	07052
West Orange Township	153.14	33		464 EAGLE ROCK AVENUE	SL 469 EAGLE ROCK AVE LLC	788 MORRIS TPKE	SHORT HILLS, NJ	07078
West Orange Township	153.14	33.01		456 EAGLE ROCK AVENUE	456 KIMS LLC	456 EAGLE ROCK AVENUE	WEST ORANGE, NJ	07052
West Orange Township	153.16	1		265 PROSPECT AVENUE	WEST0RANGE LLC % ECOVA MS363	PO BOX 2440	SPOKANE, WA	99210

REVISION	DESCRIPTION	DATE	BY
3	REVISED PER ENGINEER'S COMMENTS	05/04/2023	JMP
2	REVISED PER NEW ARCHITECTURAL DRAWINGS	03/03/2023	JMP
1	SHIFT BUILDING C TO THE NORTH	06/15/2021	JMP

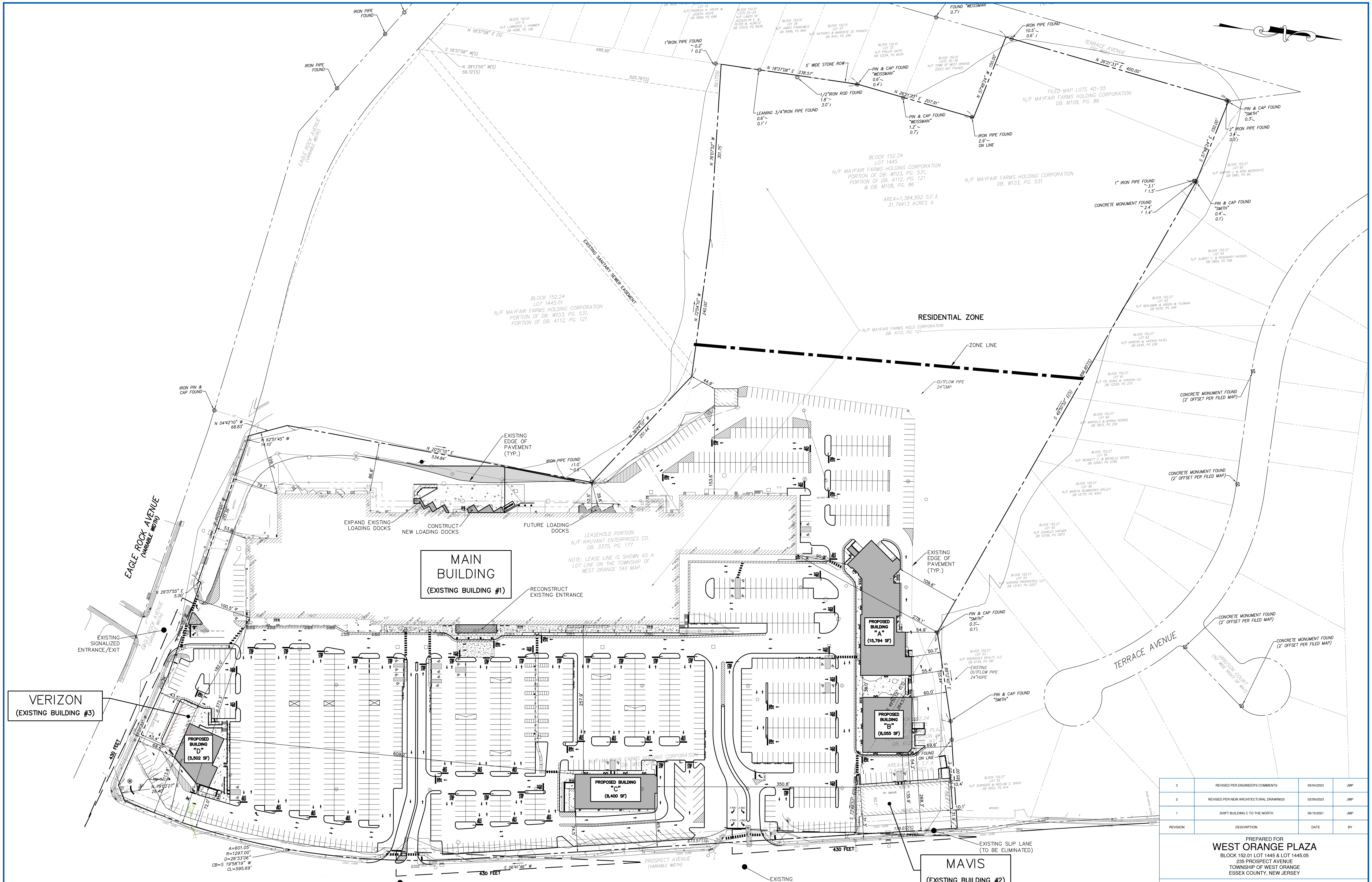
PREPARED FOR
WEST ORANGE PLAZA
BLOCK 152.01 LOT 1445 & LOT 1445.05
235 PROSPECT AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY

TITLE SHEET

PETRY
ENGINEERING, LLC
DIVISION OF CONSUMER AFFAIRS LICENSE NUMBER 24GA28155900
155 PASSAIC AVENUE • FAIRFIELD • NEW JERSEY • 07004
TEL. (973) 227-7004 FAX (973) 227-7074

J. MICHAEL PETRY-PE,PP,RA
NJ PROFESSIONAL ENGINEER LIC. No. 36662 DATED: 12/9/2020

Designer: JMP
Draftsman: SPD
Checked By: JMP
Project No.: 18-0078
Scale: AS SHOWN
Sheet: SP-1


MAIN BUILDING
(EXISTING BUILDING #1)
VERIZON
(EXISTING BUILDING #3)
MAVIS
(EXISTING BUILDING #2)
PROPOSED BUILDING "A" (15,794 SF)
PROPOSED BUILDING "B" (8,055 SF)
PROPOSED BUILDING "C" (8,400 SF)
PROPOSED BUILDING "D" (5,502 SF)
RESIDENTIAL ZONE
ZONE LINE
EAGLE ROCK AVENUE (VARIABLE WIDTH)
PROSPECT AVENUE (VARIABLE WIDTH)
TERRACE AVENUE
EXISTING SANITARY SEWER EASEMENT
BLOCK 152.24 LOT 1445 N/F MAYFAIR FARMS HOLDING CORPORATION PORTION OF DB. W103, PG. 531, PORTION OF DB. A112, PG. 121 & DB. M108, PG. 86
AREA=1,384,952 S.F.± 31.79413 ACRES ±
BLOCK 152.24 LOT 1445.01 N/F MAYFAIR FARMS HOLDING CORPORATION PORTION OF DB. W103, PG. 531, PORTION OF DB. A112, PG. 121
LEASEHOLD PORTION N/F KRUVANT ENTERPRISES CO. DB. 3375, PG. 177
NOTE: LEASE LINE IS SHOWN AS A LOT LINE ON THE TOWNSHIP OF WEST ORANGE TAX MAP.
EXISTING EDGE OF PAVEMENT (TYP.)
EXPAND EXISTING LOADING DOCKS
CONSTRUCT NEW LOADING DOCKS
FUTURE LOADING DOCKS
RECONSTRUCT EXISTING ENTRANCE
EXISTING SIGNALIZED ENTRANCE/EXIT
EXISTING UNSIGNALIZED ENTRANCE/EXIT
EXISTING SLIP LANE (TO BE ELIMINATED)
EXISTING OUTFLOW PIPE 24"HDPE
OUTFLOW PIPE 24"CMP
430 FEET
IRON PIPE FOUND
PIN & CAP FOUND "SMITH"
PIN & CAP FOUND "WEISSMAN"
CONCRETE MONUMENT FOUND (2' OFFSET PER FILED MAP)
FILED MAP LOTS 40-55 N/F MAYFAIR FARMS HOLDING CORPORATION DB. M108, PG. 86
N/F MAYFAIR FARMS HOLDING CORPORATION DB. W103, PG. 531
A=601.05' R=1297.00' D=26°33'06" CB=S 19°58'19" W CL=595.69'
GRAPHIC SCALE
60 0 30 60 120 240
(IN FEET)
1 inch = 60 ft.

REFERENCES:

1. BOUNDARY INFORMATION TAKEN FROM A CERTAIN MAP ENTITLED "ALTA/ACSM LAND TITLE SURVEY WEST ORANGE PLAZA BLOCK NO. 152.01, LOT NO. 1445 & 1445.05, TOWNSHIP OF WEST ORANGE" PREPARED BY LANGAN AND DATED JANUARY 12, 2016.
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4. SUPPLEMENTAL BOUNDARY INFORMATION ALONG EAGLE ROCK AVENUE FIELD SURVEYED ON 05/04/2023 BY PETRY ENGINEERING

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REVISION	DESCRIPTION	DATE	BY
3	REVISED PER ENGINEER'S COMMENTS	05/04/2023	JMP
2	REVISED PER NEW ARCHITECTURAL DRAWINGS	02/09/2023	JMP
1	SHIFT BUILDING C TO THE NORTH	06/15/2021	JMP

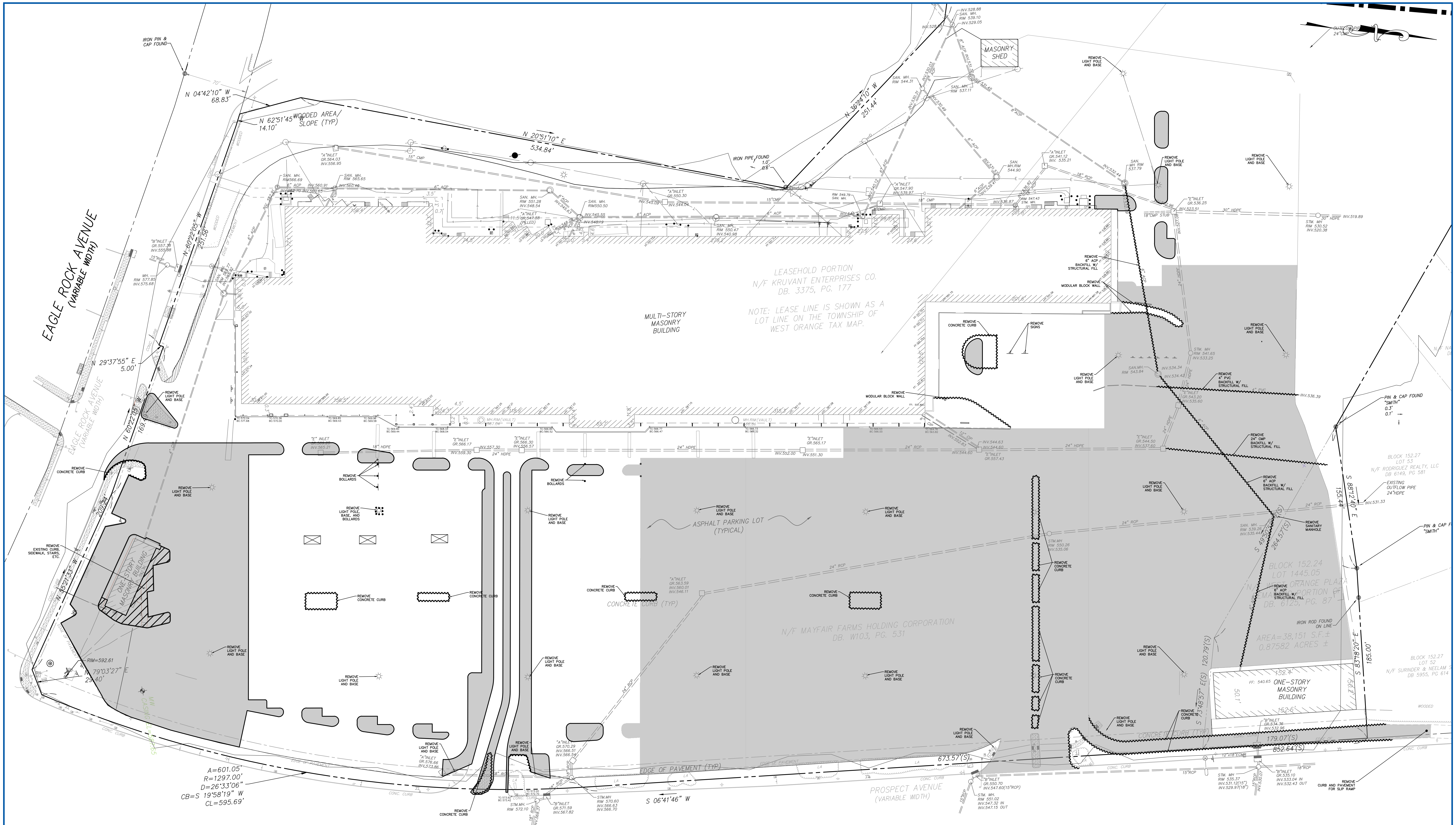
PREPARED FOR
WEST ORANGE PLAZA
BLOCK 152.01 LOT 1445 & LOT 1445.05
235 PROSPECT AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY

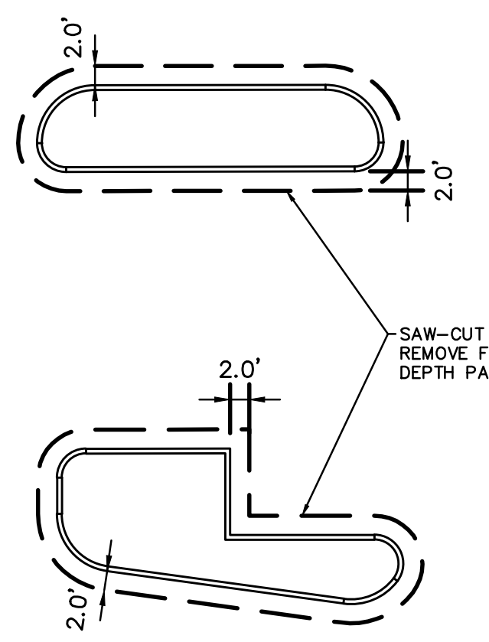
OVERALL LAYOUT PLAN

PETRY ENGINEERING, LLC
DIVISION OF CONSUMER AFFAIRS LICENSE NUMBER 24GA28155900
155 PASSAIC AVENUE • FAIRFIELD • NEW JERSEY • 07004
TEL. (973) 227-7004 FAX (973) 227-7074

Designer: JMP
Draftsman: SPD
Checked By: JMP
Project No.: 18-0078
Scale: 1"=60'
Sheet: SP-2

J. MICHAEL PETRY-PE,PP,RA
NJ PROFESSIONAL ENGINEER LIC. No. 36662 DATED: 12/9/2020

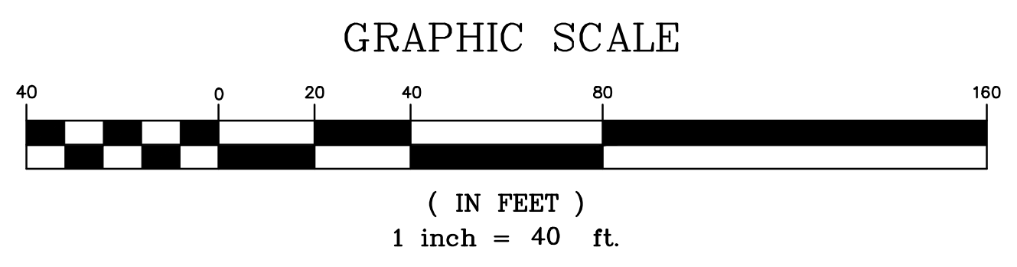

EAGLE ROCK AVENUE
(VARIABLE WIDTH)
IRON PIN & CAP FOUND
70'
N 04°42'10" W
68.83'
N 62°51'45" W
14.10'
WOODED AREA/
SLOPE (TYP)
N 20°51'10" E
534.84'
IRON PIPE FOUND
1.0'
0.6'
N 36°24'10" W
251.44'
N 60°22'05" W
251.56'
N 29°37'55" E
5.00'
N 60°22'05" W
169.
N 55°21'33" W
209.24'
N 79°03'27" E
29.40'
RIM=592.61
A=601.05'
R=1297.00'
D=26°33'06"
CB=S 19°58'19" W
CL=595.69'
S 06°41'46" W
673.57'(S)
179.07'(S)
852.64'(S)
S 73°48'57" E(S)
120.79'(S)
S 49°50'52" E(S)
264.57'(S)
S 88°12'40" E
155.44'
S 83°18'20" E
185.00'
"A"INLET
GR.564.03
INV.556.95
15" CMP
SAN. MH.
RIM566.69
SAN. MH.
RIM 565.65
6" ACP
INV.560.91
INV.560.40
"B"INLET
GR.557.38
INV.555.88
15"RCP
MH.
RIM 577.85
INV.575.68
MULTI-STORY
MASONRY
BUILDING
LEASEHOLD PORTION
N/F KRUVANT ENTERPRISES CO.
DB. 3375, PG. 177
NOTE: LEASE LINE IS SHOWN AS A
LOT LINE ON THE TOWNSHIP OF
WEST ORANGE TAX MAP.
SAN. MH.
RIM 551.28
INV.548.54
"A"INLET
GR.547.88
(FILLED)
SAN. MH.
RIM550.50
"A"INLET
GR.550.30
SAN. MH.
RIM 550.47
INV.540.98
"A"INLET
GR.547.90
INV.539.97
18" CMP
SAN. MH.
RIM 544.31
SAN. MH.
RIM 537.11
SAN. MH.
RIM 539.10
MASONRY
SHED
"A"INLET
GR.541.12
INV. 535.21
SAN.
MH.RIM
544.90
18" RCP
SAN.
MH RIM
537.79
"E"INLET
GR.536.25
INV.523.51
30" HDPE
18"CMP STUB
STM. MH
RIM 530.52
INV.520.38
INV.519.89
OUTFLOW PIPE
24"CMP
MH.RIM (VAULT)
567.04
MH.RIM (VAULT)
566.86
"E" INLET
INV.565.21
18" HDPE
"E"INLET
GR.566.17
INV.559.30
INV.557.30
"E"INLET
GR.566.30
INV.556.57
24" HDPE
"E"INLET
GR.565.17
INV.552.00
INV.551.30
24" RCP
INV.544.63
INV.544.60
"E"INLET
GR.557.43
"E"INLET
GR.544.50
INV.537.60
"E"INLET
GR.543.20
INV.535.60
STM. MH
RIM 541.65
INV.533.25
SAN.MH.
RIM 543.84
INV.534.34
INV.534.42
4" PVC
INV.536.39
PIN & CAP FOUND
"SMITH"
0.3'
0.1'
BLOCK 152.27
LOT 53
N/F RODRIGUEZ REALTY, LLC
DB 6149, PG 581
EXISTING
OUTFLOW PIPE
24"HDPE
INV.531.33
PIN & CAP FOUND
"SMITH"
SAN. MH.
RIM 539.26
INV.535.44
BLOCK 152.24
LOT 1445.05
N/F WEST ORANGE PLAZA
REMAINING PORTION OF
DB. 6125, PG. 87
IRON ROD FOUND
ON LINE
AREA=38,151 S.F.±
0.87582 ACRES ±
BLOCK 152.27
LOT 52
N/F SURINDER & NEELAM S
DB 5955, PG 614
WOODED
FF: 540.65
ONE-STORY
MASONRY
BUILDING
152.4'
152.6'
50.1'
50.2'
ONE-STORY
MASONRY BUILDING
ASPHALT PARKING LOT
(TYPICAL)
CONCRETE CURB (TYP)
N/F MAYFAIR FARMS HOLDING CORPORATION
DB. W103, PG. 531
"A"INLET
GR.563.59
INV.560.01
INV.546.11
STM.MH
RIM 550.26
INV.535.06
EDGE OF PAVEMENT (TYP)
CONC. CURB
"A"INLET
GR.576.66
INV.573.86
"A"INLET
GR.570.29
INV.566.51
INV.566.54
STM.MH.
RIM 572.10
"B"INLET
GR.571.59
INV.567.82
STM.MH
RIM 570.60
INV.566.63
INV.566.70
"B"INLET
GR.550.70
INV.547.60(15"RCP)
STM. MH.
RIM 551.02
INV.547.32 IN
INV.547.15 OUT
"B"INLET
GR.534.36
INV.532.96
12"x18"ECMP
15"RCP
18"RCP
STM. MH
RIM 535.37
INV.531.12(15")
INV.529.97(18")
"B"INLET
GR.535.10
INV.533.04 IN
INV.532.43 OUT
MW
CASING EL=587.65
REMOVE LIGHT POLE AND BASE
REMOVE CONCRETE CURB
REMOVE EXISTING CURB, SIDEWALK, STAIRS, ETC.
REMOVE BOLLARDS
REMOVE LIGHT POLE, BASE, AND BOLLARDS
REMOVE MODULAR BLOCK WALL
REMOVE SIGNS
REMOVE 6" ACP BACKFILL W/ STRUCTURAL FILL
REMOVE 4" PVC BACKFILL W/ STRUCTURAL FILL
REMOVE 24" CMP BACKFILL W/ STRUCTURAL FILL
REMOVE SANITARY MANHOLE
REMOVE CURB AND PAVEMENT FOR SLIP RAMP
PROSPECT AVENUE
(VARIABLE WIDTH)


2.0'
2.0'
2.0'
2.0'
SAW-CUT AND
REMOVE FULL
DEPTH PAVEMENT

PAVEMENT REMOVAL FOR PROPOSED LANDSCAPE ISLANDS

SCALE N.T.S.

▨ REMOVE PAVEMENT TO SUBGRADE


GRAPHIC SCALE
40
0
20
40
80
160

(IN FEET)
1 inch = 40 ft.

REFERENCES:

1. BOUNDARY INFORMATION TAKEN FROM A CERTAIN MAP ENTITLED "ALTA/ACSM LAND TITLE SURVEY WEST ORANGE PLAZA BLOCK NO. 152.01, LOT NO. 1445 & 1445.05, TOWNSHIP OF WEST ORANGE" PREPARED BY LANGAN AND DATED JANUARY 12, 2016.
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2	REVISED PER NEW ARCHITECTURAL DRAWINGS	03/03/2023	JMP
1	SHIFT BUILDING C TO THE NORTH	06/15/2021	JMP

PREPARED FOR

WEST ORANGE PLAZA

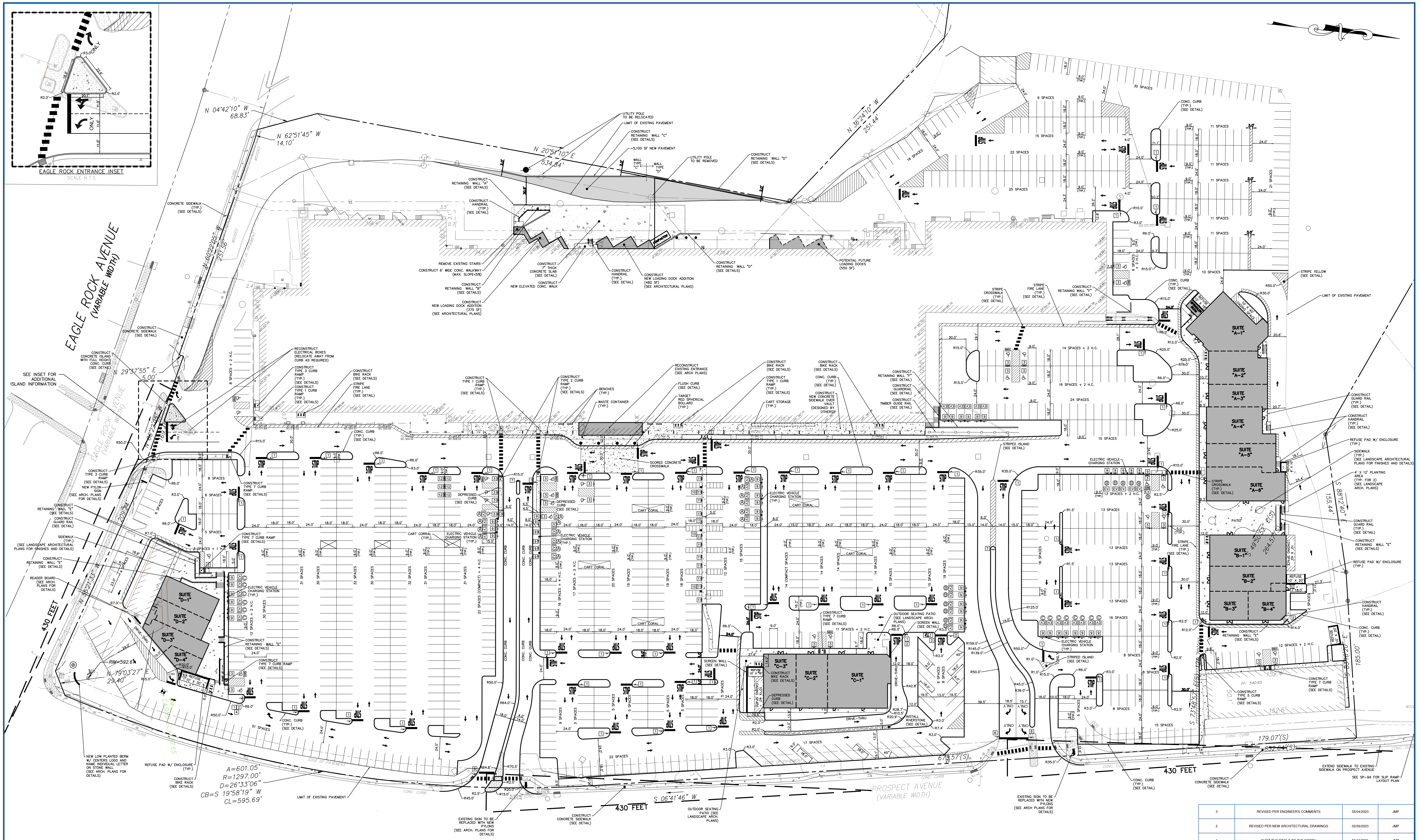
BLOCK 152.01 LOT 1445 & LOT 1445.05
235 PROSPECT AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY

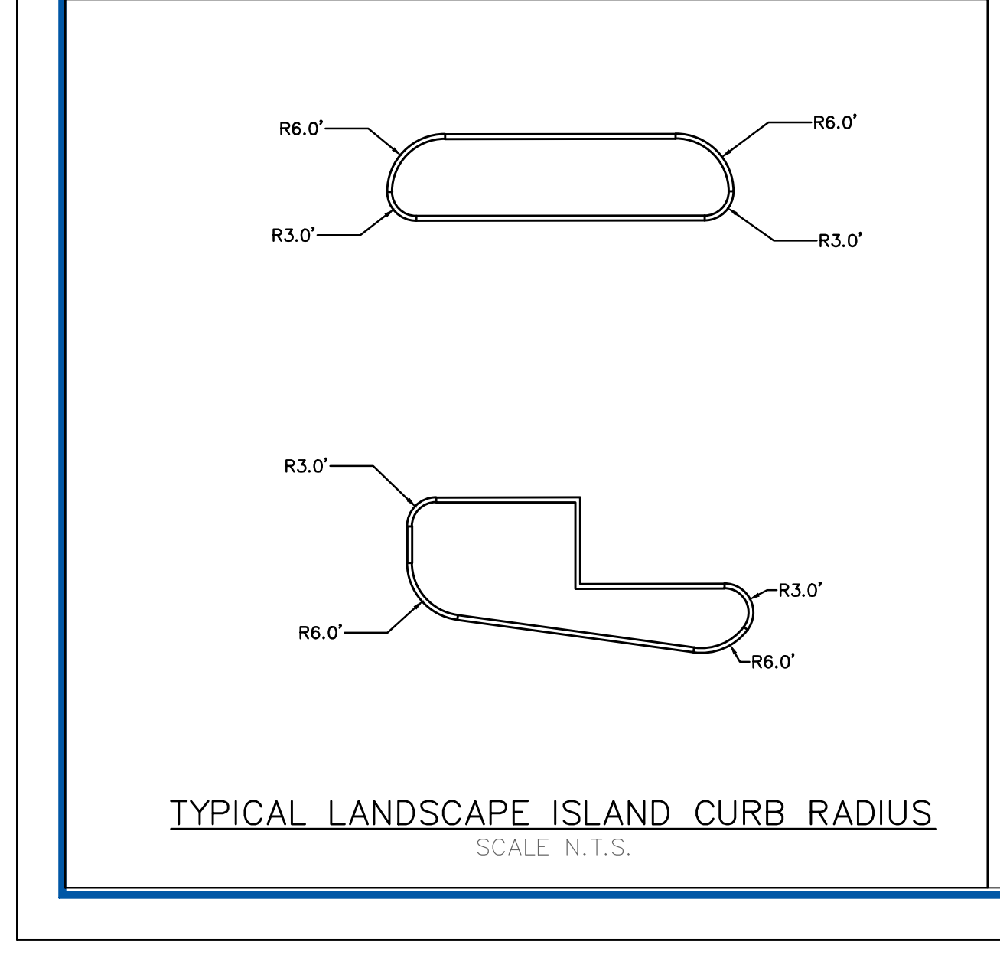
DEMOLITION PLAN

PETRY
ENGINEERING , LLC
DIVISION OF CONSUMER AFFAIRS LICENSE NUMBER 24GA28155900
155 PASSAIC AVENUE • FAIRFIELD • NEW JERSEY • 07004
TEL. (973) 227-7004 FAX (973) 227-7074

Designer: JMP
Draftsman: SPD
Checked By: JMP
Project No.: 18-0078
Scale: 1"=40'
Sheet:
SP-3

J. MICHAEL PETRY-PE,PP,RA
NJ PROFESSIONAL ENGINEER LIC. No. 36662
DATED: 12/9/2020


EAGLE ROCK ENTRANCE INSET
SCALE N.T.S.
ONLY
EAGLE ROCK AVENUE
(VARIABLE WIDTH)
PROSPECT AVENUE
(VARIABLE WIDTH)
N 04°42'10" W 68.83'
N 62°51'45" W 14.10'
N 20°51'10" E 534.84'
N 36°24'10" W 251.44'
N 29°37'55" E 5.00'
N 79°03'27" E 29.40'
S 06°41'46" W
430 FEET
A=601.05'
R=1297.00'
D=26°33'06"
CB=S 19°58'19" W
CL=595.69'
179.07'(S)
SUITE "A-1"
SUITE "A-2"
SUITE "A-3"
SUITE "A-4"
SUITE "A-5"
SUITE "A-6"
SUITE "B-1"
SUITE "B-2"
SUITE "B-3"
SUITE "B-4"
SUITE "C-1"
SUITE "C-2"
SUITE "C-3"
SUITE "D-1"
SUITE "D-2"
SUITE "D-3"
SUITE "D-4"
STOP
DRIVE-THRU
CART CORRAL
ELECTRIC VEHICLE CHARGING STATION (TYP.)
CONSTRUCT RETAINING WALL "A" (SEE DETAILS)
CONSTRUCT RETAINING WALL "B" (SEE DETAILS)
CONSTRUCT RETAINING WALL "C" (SEE DETAILS)
CONSTRUCT RETAINING WALL "D" (SEE DETAILS)
CONSTRUCT RETAINING WALL "E" (SEE DETAILS)
CONSTRUCT RETAINING WALL "F" (SEE DETAILS)
UTILITY POLE TO BE RELOCATED
UTILITY POLE TO BE REMOVED
LIMIT OF EXISTING PAVEMENT
±5,100 SF NEW PAVEMENT
REMOVE EXISTING STAIRS
CONSTRUCT 6' WIDE CONC. WALKWAY (MAX. SLOPE<5%)
NEW LOADING DOCK ADDITION (375 SF) (SEE ARCHITECTURAL PLANS)
NEW LOADING DOCK ADDITION (482 SF) (SEE ARCHITECTURAL PLANS)
POTENTIAL FUTURE LOADING DOCKS (550 SF)
NEW ELEVATED CONC. WALK
CONCRETE SIDEWALK (TYP.) (SEE DETAILS)
SEE INSET FOR ADDITIONAL ISLAND INFORMATION
RECONSTRUCT EXISTING ENTRANCE (SEE ARCH PLANS)
TARGET RED SPHERICAL BOLLARD (TYP.)
BENCHES (TYP.)
WASTE CONTAINER (TYP.)
SCORED CONCRETE CROSSWALK
OUTDOOR SEATING PATIO (SEE LANDSCAPE ARCH. PLANS)
REFUSE PAD W/ ENCLOSURE (TYP.)
NEW LOW PLANTED BERM W/ CENTERS LOGO AND NAME INDIVIDUAL LETTER ON STONE WALL (SEE ARCH. PLANS FOR DETAILS)
EXISTING SIGN TO BE REPLACED WITH NEW PYLONS (SEE ARCH. PLANS FOR DETAILS)
CONSTRUCT CONCRETE SIDEWALK (SEE DETAIL)
OUTDOOR SEATING PATIO (SEE LANDSCAPE ARCH. PLANS)
EXTEND SIDEWALK TO EXISTING SIDEWALK ON PROSPECT AVENUE
SEE SP-9A FOR SLIP RAMP LAYOUT PLAN
STRIPE YELLOW (SEE DETAIL)
30 SPACES
25 SPACES
22 SPACES
51 SPACES
17 SPACES
15 SPACES



TYPICAL LANDSCAPE ISLAND CURB RADIUS
SCALE N.T.S.

SIGN LEGEND

1	R1–1	STOP SIGN
2	R5–1	DO NOT ENTER
3	R7–8 &8B	HANDICAP PARKING
4	R3–1	NO RIGHT TURN
5	R3–5	LEFT TURN ONLY
6	R(NJ)3–8B	LEFT/RIGHT ONLY
7	W6–1	DIVIDED LANES
8	R3–2	NO LEFT TURN
9		ELECTRIC VEHICLE PARKING ONLY
10		TARGET BEACON (SEE SP–17)
11		TARGET SPACE SIGN PANEL (SEE SP–17)
12		WHOLE FOODS PICKUP AREA (SEE SP–16)

NOTES:

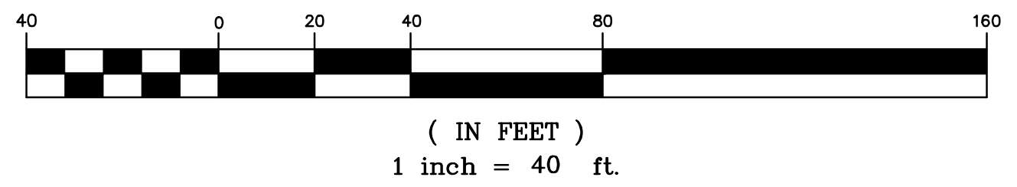
1. ELECTRIC VEHICLE CHARGING STATIONS SHALL BE CHARGEPOINT CT4000 LEVEL 2 COMMERCIAL DUAL CHARGING STATIONS, OR APPROVED EQUIVALENT.
2. ELECTRICAL WIRING FOR E.V. CHARGING STATIONS TO BE DESIGNED BY A LICENSED PROFESSIONAL.

EV INSTALLATION SCHEDULE*:

Ⓐ 16 EV STATIONS INSTALLED BEFORE C.O.
Ⓑ 12 EV STATIONS INSTALLED WITHIN 3 YEARS OF C.O.
Ⓒ 14 EV STATIONS INSTALLED WITHIN 6 YEARS OF C.O.

*EV INSTALLATION SCHEDULE IS SUBJECT TO CHANGE AS PARKING LAYOUT IS FINALIZED.

GRAPHIC SCALE


40
0
20
40
80
160

(IN FEET)
1 inch = 40 ft.

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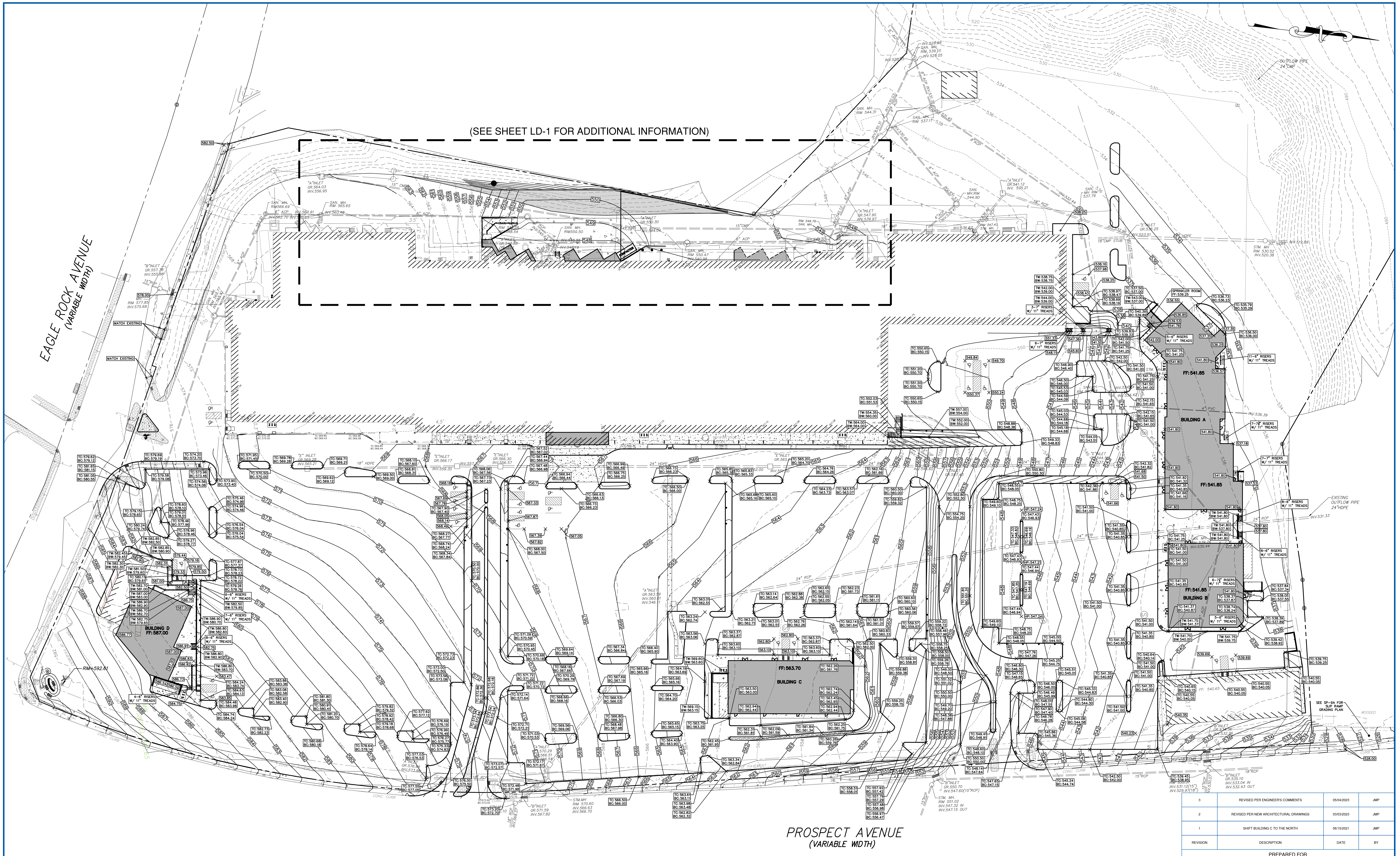
PREPARED FOR
WEST ORANGE PLAZA
BLOCK 152.01 LOT 1445 & LOT 1445.05
235 PROSPECT AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY

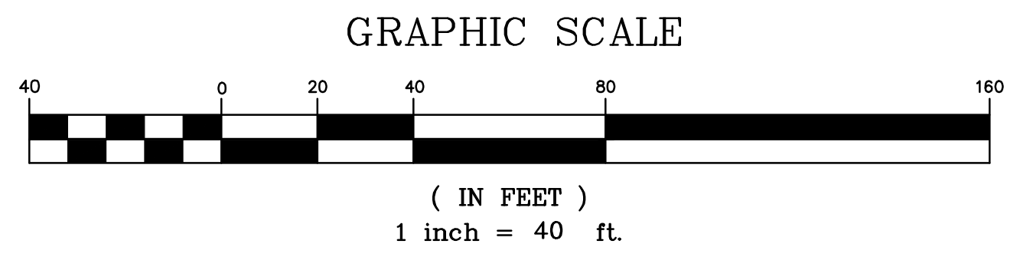
DETAILED LAYOUT PLAN

PETRY
ENGINEERING, LLC
DIVISION OF CONSUMER AFFAIRS LICENSE NUMBER 24GA28155900
155 PASSAIC AVENUE • FAIRFIELD • NEW JERSEY • 07004
TEL. (973) 227-7004 FAX (973) 227-7074

J. MICHAEL PETRY-PE,PP,RA
NJ PROFESSIONAL ENGINEER LIC. No. 36662 DATED:

Designer: JMP
Draftsman: SPD
Checked By: JMP
Project No.: 18-0078
Scale: 1"=40'
Sheet:
SP-4


(SEE SHEET LD-1 FOR ADDITIONAL INFORMATION)
EAGLE ROCK AVENUE
(VARIABLE WIDTH)
PROSPECT AVENUE
(VARIABLE WIDTH)
BUILDING A
FF: 541.85
BUILDING B
FF: 541.85
BUILDING C
FF: 563.70
BUILDING D
FF: 587.00
SPRINKLER ROOM
FF: 539.25
MATCH EXISTING
OUTFLOW PIPE
24"CMP
EXISTING
OUTFLOW PIPE
24"HDPE
SEE SP-9A FOR
SLIP RAMP
GRADING PLAN
"B"INLET
GR.535.10
INV.533.04 IN
INV.532.43 OUT
TC: 539.45
BC: 538.95
528.00
CONC. CURB
EDGE OF PAVEMENT
18"RCP
RIM=592.81
INV.547.32 IN
INV.547.15 OUT


GRAPHIC SCALE
40
0
20
40
80
160
(IN FEET)
1 inch = 40 ft.

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REVISION	DESCRIPTION	DATE	BY

PREPARED FOR
WEST ORANGE PLAZA
BLOCK 152.01 LOT 1445 & LOT 1445.05
235 PROSPECT AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY

GRADING PLAN

PETRY
ENGINEERING, LLC
DIVISION OF CONSUMER AFFAIRS LICENSE NUMBER 24GA28155900
155 PASSAIC AVENUE • FAIRFIELD • NEW JERSEY • 07004
TEL. (973) 227-7004 FAX (973) 227-7074

J. MICHAEL PETRY-PE,PP,RA
NJ PROFESSIONAL ENGINEER LIC. No. 36662 DATED: 12/9/2020

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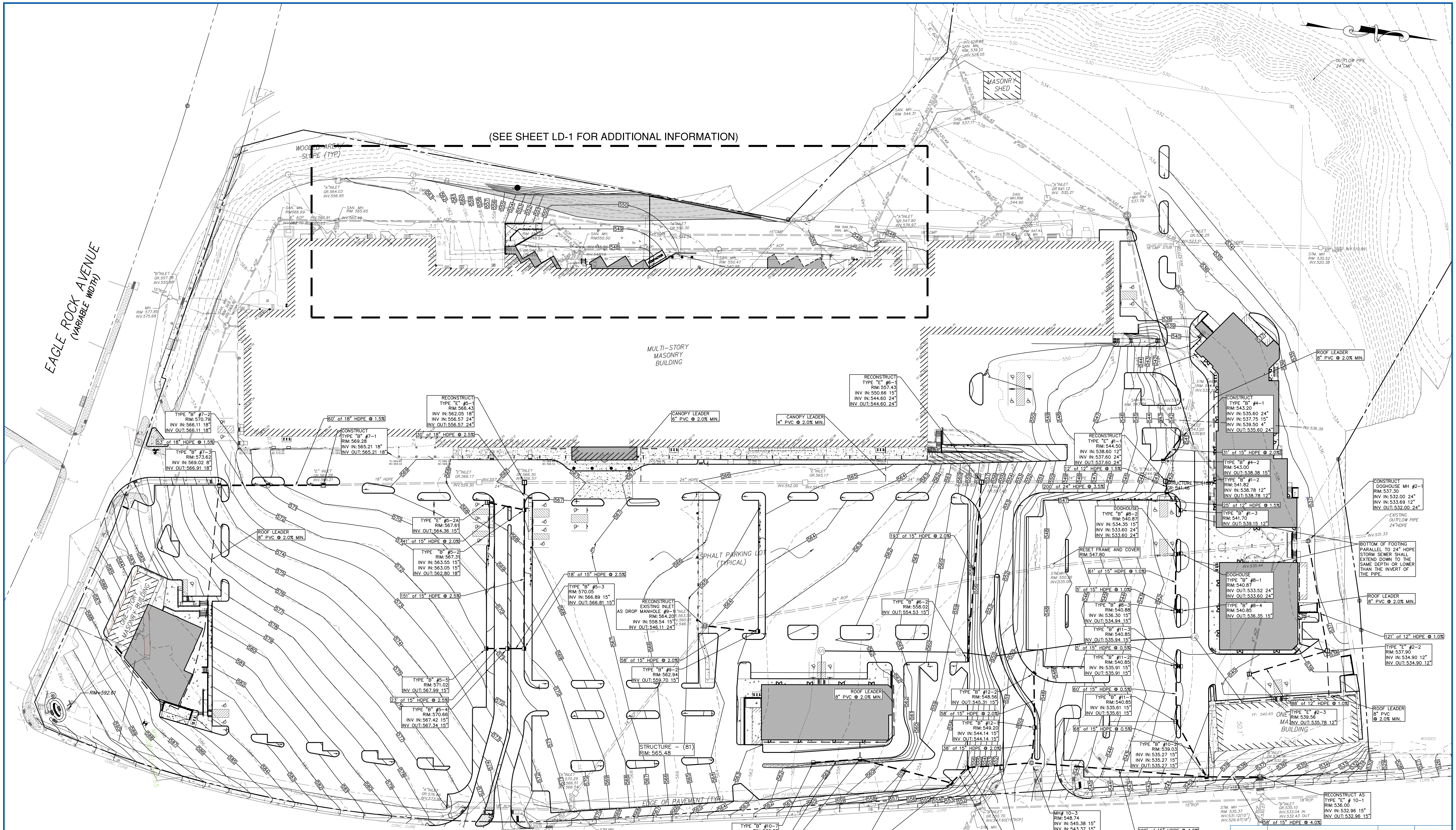
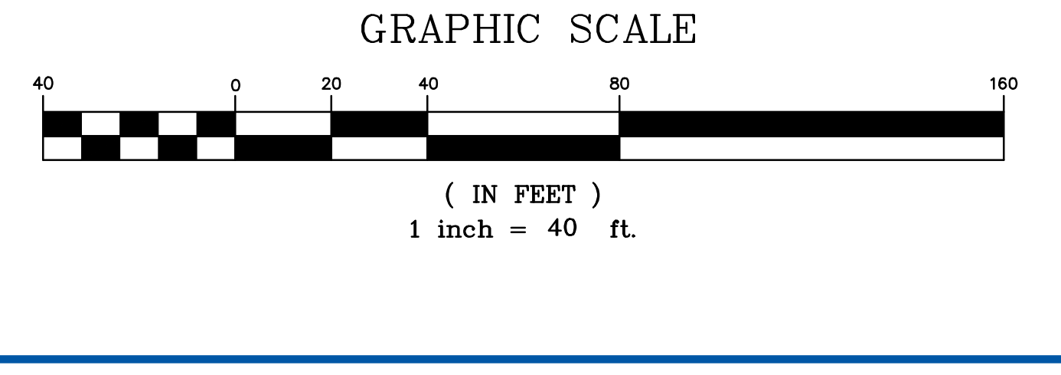
Scale: 1"=40'
Sheet:
SP-5


(SEE SHEET LD-1 FOR ADDITIONAL INFORMATION)
EAGLE ROCK AVENUE
(VARIABLE WIDTH)
MASONRY SHED
WOODED AREA SLOPE (TYP)
MULTI-STORY MASONRY BUILDING
ONE-STORY MASONRY BUILDING
ASPHALT PARKING LOT (TYPICAL)
EDGE OF PAVEMENT (TYP.)
CONC. CURB
OUTFLOW PIPE 24"CMP
RIM=592.61
TYPE "B" #7-2 RIM: 570.79 INV IN: 566.11 18" INV OUT: 566.11 18"
53' of 18" HDPE @ 1.5%
TYPE "B" #7-3 RIM: 573.62 INV IN: 569.02 8" INV OUT: 566.91 18"
60' of 18" HDPE @ 1.5%
CONSTRUCT TYPE "B" #7-1 RIM: 569.28 INV IN: 565.21 18" INV OUT: 565.21 18"
RECONSTRUCT TYPE "E" #5-1 RIM: 566.43 INV IN: 562.05 18" INV IN: 556.57 24" INV OUT: 556.57 24"
30' of 18" HDPE @ 2.5%
CANOPY LEADER 6" PVC @ 2.0% MIN.
CANOPY LEADER 4" PVC @ 2.0% MIN.
RECONSTRUCT TYPE "E" #6-1 RIM: 557.43 INV IN: 550.66 15" INV IN: 544.60 24" INV OUT: 544.60 24"
ROOF LEADER 8" PVC @ 2.0% MIN.
TYPE "E" #5-2A RIM: 567.61 INV OUT: 564.36 15"
41' of 15" HDPE @ 2.0%
TYPE "B" #5-2 RIM: 567.31 INV IN: 563.55 15" INV IN: 563.05 15" INV OUT: 562.80 18"
151' of 15" HDPE @ 2.5%
18' of 15" HDPE @ 2.5%
TYPE "B" #5-3 RIM: 570.05 INV IN: 566.89 15" INV OUT: 566.81 15"
RECONSTRUCT EXISTING INLET AS DROP MANHOLE #9-1 RIM: 564.20 INV IN: 558.54 15" INV OUT: 546.11 24"
58' of 15" HDPE @ 2.0%
TYPE "B" #9-2 RIM: 562.94 INV OUT: 559.70 15"
TYPE "B" #5-5 RIM: 571.02 INV OUT: 567.99 15"
23' of 15" HDPE @ 2.5%
TYPE "B" #5-4 RIM: 570.66 INV IN: 567.42 15" INV OUT: 567.34 15"
STRUCTURE – (81) RIM: 565.48
TYPE "B" #6-2 RIM: 558.02 INV OUT: 554.53 15"
193' of 15" HDPE @ 2.0%
RECONSTRUCT TYPE "E" #1-1 RIM: 544.50 INV IN: 538.60 12" INV IN: 537.60 24" INV OUT: 537.60 24"
12' of 12" HDPE @ 1.5%
200' of 24" HDPE @ 3.5%
STRUCTURE – (169) GR: 541.46
DOGHOUSE TYPE "B" #8-2 RIM: 540.87 INV IN: 534.35 15" INV IN: 533.60 24" INV OUT: 533.60 24"
RESET FRAME AND COVER RIM: 547.80
61' of 15" HDPE @ 1.0%
5' of 15" HDPE @ 1.0%
TYPE "B" #8-3 RIM: 540.88 INV IN: 536.30 15" INV OUT: 534.94 15"
TYPE "B" #11-3 RIM: 540.85 INV OUT: 535.94 15"
5' of 15" HDPE @ 0.5%
TYPE "B" #11-2 RIM: 540.85 INV IN: 535.91 15" INV OUT: 535.91 15"
60' of 15" HDPE @ 0.5%
TYPE "B" #11-1 RIM: 540.85 INV IN: 535.61 15" INV OUT: 535.61 15"
68' of 15" HDPE @ 0.5%
TYPE "B" #12-2 RIM: 548.56 INV OUT: 545.31 15"
58' of 15" HDPE @ 2.0%
TYPE "B" #12-1 RIM: 549.20 INV IN: 544.14 15" INV OUT: 544.14 15"
38' of 15" HDPE @ 2.0%
TYPE "B" #10-2 RIM: 539.03 INV IN: 535.27 15" INV IN: 535.27 15" INV OUT: 535.27 15"
CONSTRUCT TYPE "B" #4-1 RIM: 543.20 INV IN: 535.60 24" INV IN: 537.75 15" INV IN: 539.50 4" INV OUT: 535.60 24"
31' of 15" HDPE @ 2.0%
TYPE "B" #4-2 RIM: 543.00 INV OUT: 538.38 15"
TYPE "B" #1-2 RIM: 541.82 INV IN: 538.78 12" INV OUT: 538.78 12"
25' of 12" HDPE @ 1.5%
TYPE "B" #1-3 RIM: 541.70 INV OUT: 539.15 12"
CONSTRUCT DOGHOUSE MH #2-1 RIM: 537.30 INV IN: 532.00 24" INV IN: 533.69 12" INV OUT: 532.00 24"
EXISTING OUTFLOW PIPE 24"HDPE
BOTTOM OF FOOTING PARALLEL TO 24" HDPE STORM SEWER SHALL EXTEND DOWN TO THE SAME DEPTH OR LOWER THAN THE INVERT OF THE PIPE.
DOGHOUSE TYPE "B" #8-1 RIM: 540.87 INV OUT: 533.52 24" INV OUT: 533.60 24"
TYPE "B" #8-4 RIM: 540.85 INV OUT: 536.35 15"
121' of 12" HDPE @ 1.0%
TYPE "E" #2-2 RIM: 537.90 INV IN: 534.90 12" INV OUT: 534.90 12"
88' of 12" HDPE @ 1.0%
TYPE "E" #2-3 RIM: 539.56 INV OUT: 535.78 12"
ROOF LEADER 8" PVC @ 2.0% MIN.
TYPE "B" #10-7 RIM: 562.27 INV OUT: 559.33 15"
51' of 15" HDPE @ 1.0%
TYPE "B" #10-6 RIM: 562.01 INV IN: 558.82 15" INV IN: 559.67 8" INV OUT: 557.71 15"
102' of 15" HDPE @ 4.0%
TYPE "B" #10-5 RIM: 557.07 INV IN: 553.63 15" INV OUT: 553.63 15"
MH# 10-3 RIM: 548.74 INV IN: 545.38 15" INV IN: 543.37 15" INV OUT: 542.89 15"
70' of 15" HDPE @ 4.0%
TYPE "B" #10-4 RIM: 556.55 INV IN: 552.67 15" INV OUT: 548.18 15"
24' of 15" HDPE @ 4.0%
190' of 15" HDPE @ 4.0%
RECONSTRUCT AS TYPE "E" # 10-1 RIM: 536.00 INV IN: 532.96 15" INV OUT: 532.96 15"
58' of 15" HDPE @ 4.0%
STM. MH RIM 535.37 INV.531.12(15") INV.529.97(18")
"B"INLET GR.535.10 INV.533.04 IN INV.532.43 OUT
18"RCP


GRAPHIC SCALE
40
0
20
40
80
160
(IN FEET)
1 inch = 40 ft.

REFERENCES:

1. BOUNDARY INFORMATION TAKEN FROM A CERTAIN MAP ENTITLED "ALTA/ACSM LAND TITLE SURVEY WEST ORANGE PLAZA BLOCK NO. 152.01, LOT NO. 1445 & 1445.05, TOWNSHIP OF WEST ORANGE" PREPARED BY LANGAN AND DATED JANUARY 12, 2016.
2. TOPOGRAPHIC INFORMATION TAKEN FROM A CERTAIN MAP ENTITLED "BOUNDARY AND TOPOGRAPHIC SURVEY OF WEST ORANGE PLAZA PROSPECT AVENUE AND EAGLE ROCK AVENUE LOTS 1445 AND 1445.05 BLOCK 152.24 TOWNSHIP OF WEST ORANGE ESSEX COUNTY NEW JERSEY" PREPARED BY MCCUMSEY – PETRY, P.C. DATED 12/19/1995
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3	REVISED PER ENGINEER'S COMMENTS	05/04/2023	JMP
2	REVISED PER NEW ARCHITECTURAL DRAWINGS	03/03/2023	JMP
1	SHIFT BUILDING C TO THE NORTH	06/15/2021	JMP
REVISION	DESCRIPTION	DATE	BY

PREPARED FOR

WEST ORANGE PLAZA

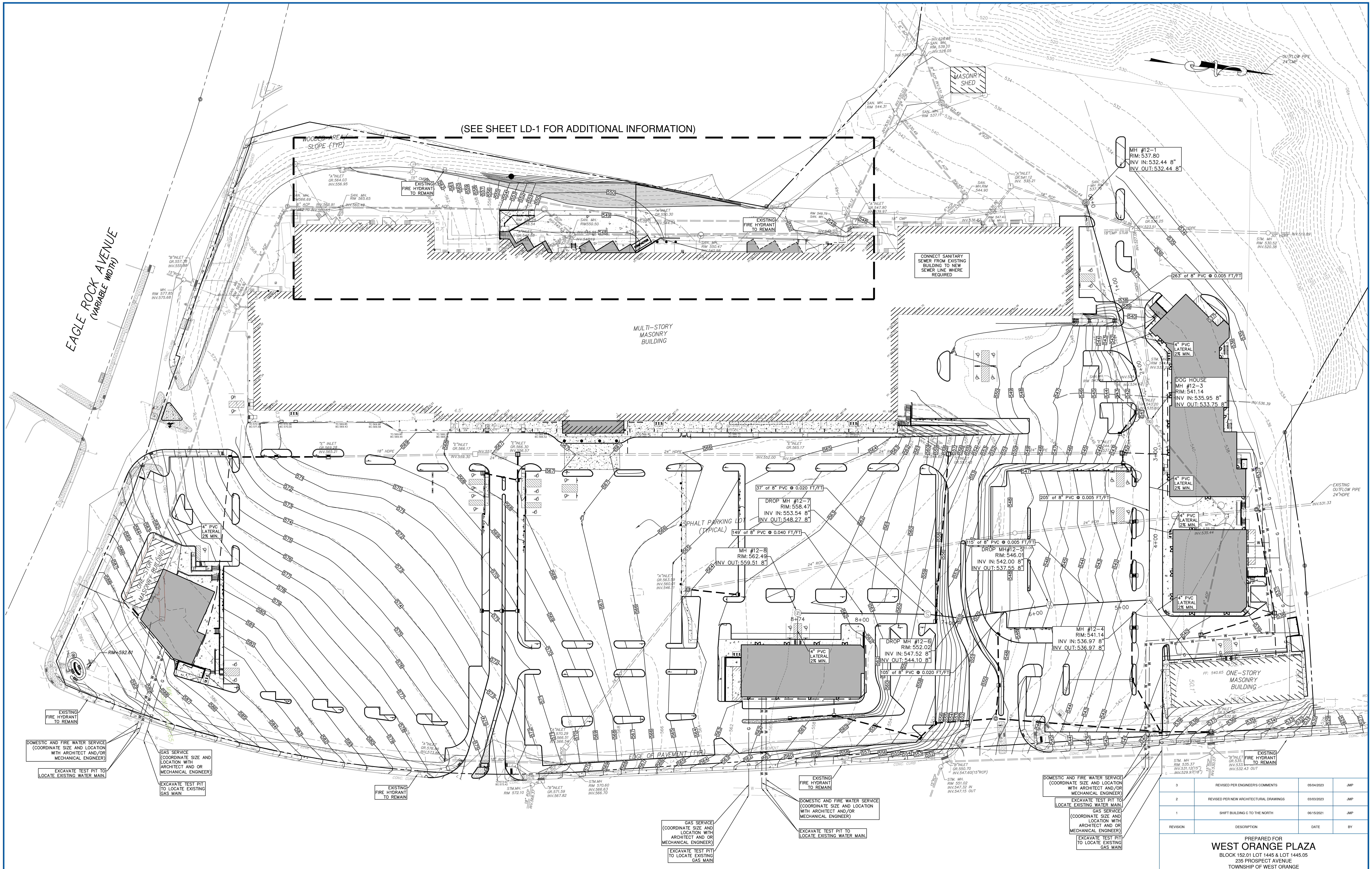
BLOCK 152.01 LOT 1445 & LOT 1445.05
235 PROSPECT AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY

DRAINAGE PLAN

PETRY ENGINEERING, LLC
DIVISION OF CONSUMER AFFAIRS LICENSE NUMBER 24GA28155900
155 PASSAIC AVENUE • FAIRFIELD • NEW JERSEY • 07004
TEL. (973) 227-7004 FAX (973) 227-7074

Designer: JMP
Draftsman: SPD
Checked By: JMP
Project No.: 18-0078
Scale: 1"=40'
Sheet: SP-6

J. MICHAEL PETRY-PE,PP,RA
NJ PROFESSIONAL ENGINEER LIC. No. 36662 DATED: 12/9/2020


(SEE SHEET LD-1 FOR ADDITIONAL INFORMATION)
EAGLE ROCK AVENUE (VARIABLE WIDTH)
WOODED AREA SLOPE (TYP)
MASONRY SHED
MULTI-STORY MASONRY BUILDING
ONE-STORY MASONRY BUILDING
ASPHALT PARKING LOT (TYPICAL)
EDGE OF PAVEMENT (TYP)
CONNECT SANITARY SEWER FROM EXISTING BUILDING TO NEW SEWER LINE WHERE REQUIRED
EXISTING FIRE HYDRANT TO REMAIN
MH #12-1 RIM: 537.80 INV IN: 532.44 8" INV OUT: 532.44 8"
263' of 8" PVC @ 0.005 FT/FT
DOG HOUSE MH #12-3 RIM: 541.14 INV IN: 535.95 8" INV OUT: 533.75 8"
4" PVC LATERAL 2% MIN.
205' of 8" PVC @ 0.005 FT/FT
37' of 8" PVC @ 0.020 FT/FT
DROP MH #12-7 RIM: 558.47 INV IN: 553.54 8" INV OUT: 548.27 8"
149' of 8" PVC @ 0.040 FT/FT
MH #12-8 RIM: 562.49 INV OUT: 559.51 8"
115' of 8" PVC @ 0.005 FT/FT
DROP MH #12-5 RIM: 546.01 INV IN: 542.00 8" INV OUT: 537.55 8"
MH #12-4 RIM: 541.14 INV IN: 536.97 8" INV OUT: 536.97 8"
DROP MH #12-6 RIM: 552.02 INV IN: 547.52 8" INV OUT: 544.10 8"
105' of 8" PVC @ 0.020 FT/FT
8+74
8+00
7+00
6+00
5+00
4+00
3+00
2+00
1+00
RIM=592.81
OUTFLOW PIPE 24" CMP
EXISTING OUTFLOW PIPE 24" HDPE
STM. MH RIM 535.37 INV.531.12(15") INV.529.97(18")
"B"INLET GR.535.1 INV.532.43 OUT
15"RCP
12"x18"ECMP
CONC. CURB
DOMESTIC AND FIRE WATER SERVICE (COORDINATE SIZE AND LOCATION WITH ARCHITECT AND/OR MECHANICAL ENGINEER)
EXCAVATE TEST PIT TO LOCATE EXISTING WATER MAIN.
GAS SERVICE (COORDINATE SIZE AND LOCATION WITH ARCHITECT AND OR MECHANICAL ENGINEER)
EXCAVATE TEST PIT TO LOCATE EXISTING GAS MAIN

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

REFERENCES:

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2	REVISED PER NEW ARCHITECTURAL DRAWINGS	03/03/2023	JMP
1	SHIFT BUILDING C TO THE NORTH	06/15/2021	JMP

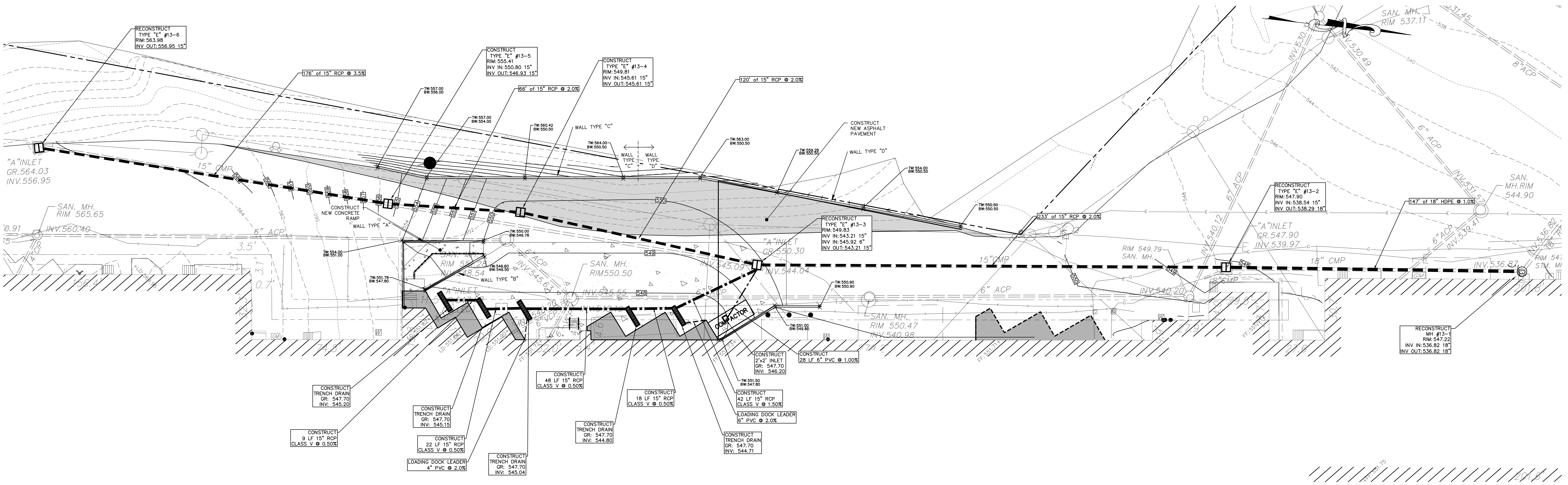
PREPARED FOR
WEST ORANGE PLAZA
BLOCK 152.01 LOT 1445 & LOT 1445.05
235 PROSPECT AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY

UTILITY PLAN

PETRY
ENGINEERING , LLC
DIVISION OF CONSUMER AFFAIRS LICENSE NUMBER 24GA28155900
155 PASSAIC AVENUE • FAIRFIELD • NEW JERSEY • 07004
TEL. (973) 227-7004 FAX (973) 227-7074

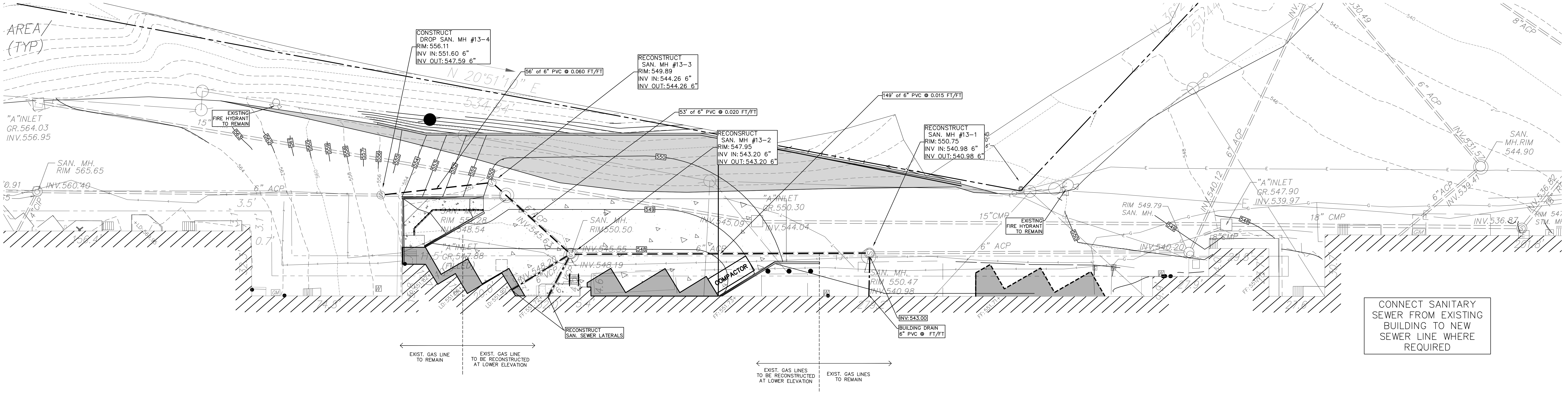
Designer: JMP
Draftsman: SPD
Checked By: JMP
Project No.: 18-0078
Scale: 1"=40'
Sheet: SP-7

J. MICHAEL PETRY-PE,PP,RA
NJ PROFESSIONAL ENGINEER LIC. No. 36662 DATED: 12/9/2020


RECONSTRUCT
TYPE "E" #13-6
RIM: 563.98
INV OUT: 556.95 15"
176' of 15" RCP @ 3.5%
CONSTRUCT
TYPE "E" #13-5
RIM: 555.41
INV IN: 550.80 15"
INV OUT: 546.93 15"
66' of 15" RCP @ 2.0%
CONSTRUCT
TYPE "E" #13-4
RIM: 549.81
INV IN: 545.61 15"
INV OUT: 545.61 15"
TW: 557.00
BW: 556.00
TW: 557.00
BW: 554.00
TW: 560.42
BW: 550.50
WALL TYPE "C"
TW: 564.00
BW: 550.50
WALL TYPE "C"
WALL TYPE "D"
120' of 15" RCP @ 2.0%
TW: 563.00
BW: 550.50
CONSTRUCT
NEW ASPHALT
PAVEMENT
TW: 559.28
BW: 550.50
WALL TYPE "D"
TW: 554.00
BW: 550.50
TW: 550.50
BW: 550.50
233' of 15" RCP @ 2.0%
RECONSTRUCT
TYPE "E" #13-3
RIM: 549.83
INV IN: 543.21 15"
INV IN: 545.92 6"
INV OUT: 543.21 15"
RECONSTRUCT
TYPE "E" #13-2
RIM: 547.90
INV IN: 538.54 15"
INV OUT: 538.29 18"
147' of 18" HDPE @ 1.0%
SAN. MH.RIM 544.90
RECONSTRUCT
MH #13-1
RIM: 547.22
INV IN: 536.82 18"
INV OUT: 536.82 18"
"A"INLET GR.564.03 INV.556.95
15" CMP
SAN. MH. RIM 565.65
INV.560.40
6" ACP
CONSTRUCT
NEW CONCRETE
RAMP
WALL TYPE "A"
TW: 554.00
BW: 551.00
TW: 550.00
BW: 549.78
TW: 549.60
BW: 549.50
WALL TYPE "B"
TW: 551.78
BW: 547.80
SAN. MH. RIM 550.50
"A"INLET GR.550.30
INV.545.09
INV.544.04
15"CMP
6" ACP
RIM 549.79 SAN. MH.
"A"INLET GR.547.90 INV.539.97
18" CMP
INV.540.20
INV.536.87
COMPACTOR
TW: 550.90
BW: 550.90
TW: 551.00
BW: 549.80
TW: 551.50
BW: 547.80
CONSTRUCT
2'x2' INLET
GR: 547.70
INV: 546.20
CONSTRUCT
28 LF 6" PVC @ 1.00%
CONSTRUCT
TRENCH DRAIN
GR: 547.70
INV: 545.20
CONSTRUCT
9 LF 15" RCP
CLASS V @ 0.50%
CONSTRUCT
TRENCH DRAIN
GR: 547.70
INV: 545.15
CONSTRUCT
22 LF 15" RCP
CLASS V @ 0.50%
LOADING DOCK LEADER
4" PVC @ 2.0%
CONSTRUCT
TRENCH DRAIN
GR: 547.70
INV: 545.04
CONSTRUCT
48 LF 15" RCP
CLASS V @ 0.50%
CONSTRUCT
18 LF 15" RCP
CLASS V @ 0.50%
CONSTRUCT
TRENCH DRAIN
GR: 547.70
INV: 544.80
CONSTRUCT
42 LF 15" RCP
CLASS V @ 1.50%
LOADING DOCK LEADER
6" PVC @ 2.0%
CONSTRUCT
TRENCH DRAIN
GR: 547.70
INV: 544.71
LD: 551.82±
LD: 551.66±
LD: 551.90±
FF: 551.72±
FF: 551.73±

GRADING AND DRAINAGE - LOADING DOCKS

SCALE: 1"=20'


AREA (TYP)
CONSTRUCT
DROP SAN. MH #13-4
RIM: 556.11
INV IN: 551.60 6"
INV OUT: 547.59 6"
56' of 6" PVC @ 0.060 FT/FT
N 20°51'10" E
534.84'
RECONSTRUCT
SAN. MH #13-3
RIM: 549.89
INV IN: 544.26 6"
INV OUT: 544.26 6"
149' of 6" PVC @ 0.015 FT/FT
53' of 6" PVC @ 0.020 FT/FT
RECONSRUCT
SAN. MH #13-2
RIM: 547.95
INV IN: 543.20 6"
INV OUT: 543.20 6"
RECONSTRUCT
SAN. MH #13-1
RIM: 550.75
INV IN: 540.98 6"
INV OUT: 540.98 6"
EXISTING
FIRE HYDRANT
TO REMAIN
"A"INLET GR.564.03 INV.556.95
SAN. MH. RIM 565.65
INV.560.40
SAN. MH. RIM 550.50
INV.545.55
INV.548.19
"A"INLET GR.550.30
INV.545.09
INV.544.04
SAN. MH. RIM 550.47 INV.540.98
COMPACTOR
EXISTING
FIRE HYDRANT
TO REMAIN
RIM 549.79 SAN. MH.
"A"INLET GR.547.90 INV.539.97
18" CMP
INV.536.87
RECONSTRUCT
SAN. SEWER LATERALS
INV: 543.00
BUILDING DRAIN
6" PVC @ FT/FT
EXIST. GAS LINE
TO REMAIN
EXIST. GAS LINE
TO BE RECONSTRUCTED
AT LOWER ELEVATION
EXIST. GAS LINES
TO BE RECONSTRUCTED
AT LOWER ELEVATION
EXIST. GAS LINES
TO REMAIN
CONNECT SANITARY
SEWER FROM EXISTING
BUILDING TO NEW
SEWER LINE WHERE
REQUIRED

SANITARY SEWER - LOADING DOCKS

SCALE: 1"=20'

REFERENCES:

1. BOUNDARY INFORMATION TAKEN FROM A CERTAIN MAP ENTITLED "ALTA/ACSM LAND TITLE SURVEY WEST ORANGE PLAZA BLOCK NO. 152.01, LOT NO. 1445 & 1445.05, TOWNSHIP OF WEST ORANGE" PREPARED BY LANGAN AND DATED JANUARY 12, 2016.

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GRAPHIC SCALE

20
0
10
20
40
80

(IN FEET)
1 inch = 20 ft.

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REVISION	DESCRIPTION	DATE	BY

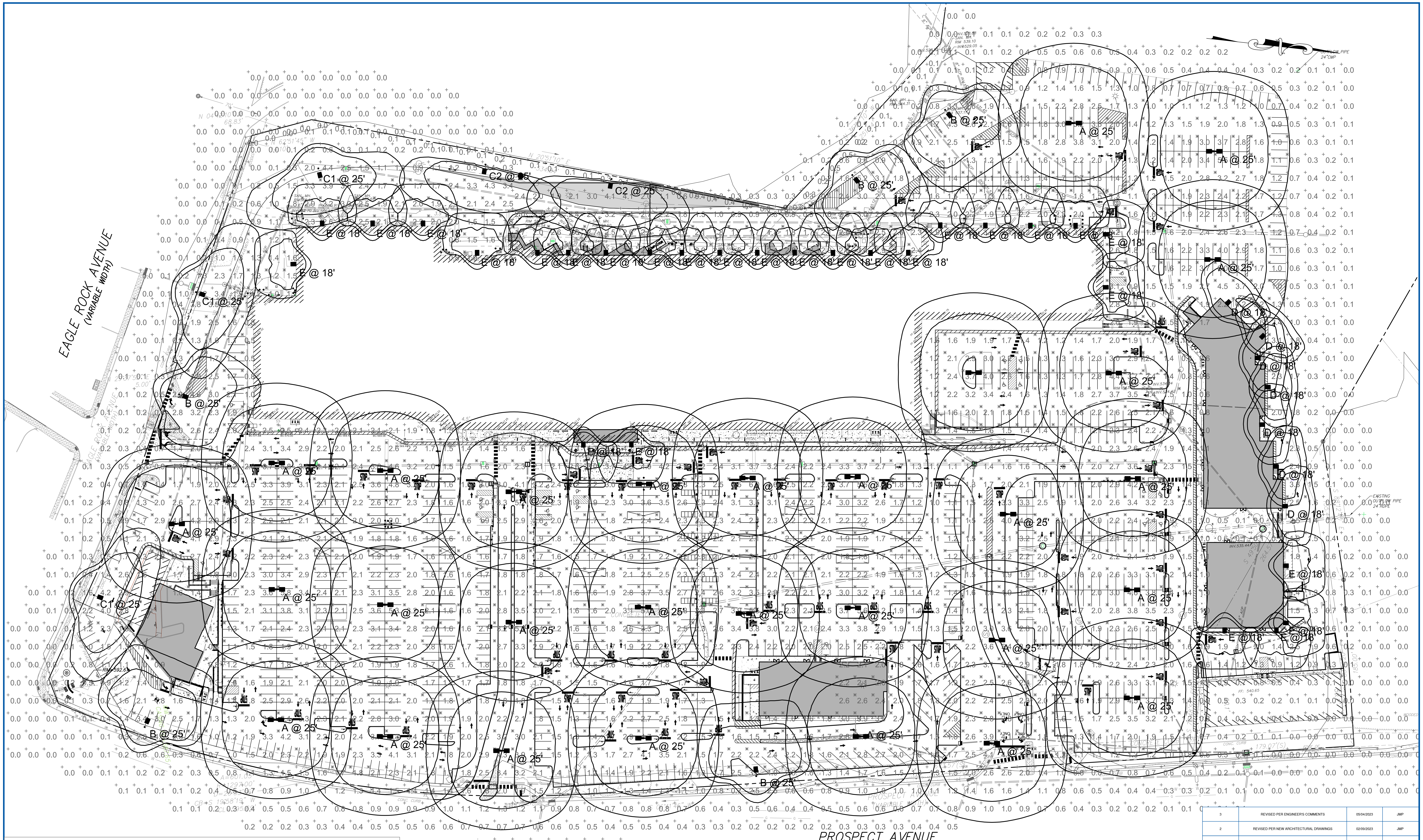
PREPARED FOR
WEST ORANGE PLAZA
BLOCK 152.01 LOT 1445 & LOT 1445.05
235 PROSPECT AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY

ADDITIONAL INFORMATION (LOADING DOCKS)

PETRY
ENGINEERING, LLC
DIVISION OF CONSUMER AFFAIRS LICENSE NUMBER 24GA28155900
155 PASSAIC AVENUE • FAIRFIELD • NEW JERSEY • 07004
TEL. (973) 227-7004 FAX (973) 227-7074

Designer: JMP
Draftsman: DJK
Checked By: JMP
Project No.: 18-0078
Scale: 1"=20'
Sheet:
LD-1

J. MICHAEL PETRY-PE,PP,RA
NJ PROFESSIONAL ENGINEER LIC. No. 36662
DATED: 03/03/2023



Schedule

Symbol	Label	Quantity	Manufacturer	Catalog Number	Lumens Per Lamp	Light Loss Factor	Wattage	Temperature
■	A	29	U.S. ARCHITECTURAL LIGHTING	RZR–G–PLED–VSQ–W–120LED–525mA–NW–PG13	211	0.85	384	4,000 K
■	B	5	U.S. ARCHITECTURAL LIGHTING	RZR–G–PLED–IV–FT–120LED–525mA–NW–PG13	193	0.85	192	4,000 K
■	C1	3	U.S. ARCHITECTURAL LIGHTING	RZR–G–PLED–III–W–120LED–525mA–NW–PG13	198	0.85	192	4,000 K
■	D	7	U.S. ARCHITECTURAL LIGHTING	RZR–WM2–III–40PLED–525mA–NW–PG13	176	0.85	65.4	4,000 K
■	E	28	U.S. ARCHITECTURAL LIGHTING	RZR–WM2–IV–FT–40PLED–525mA––NW–PG13	162	0.85	65.6	4,000 K
■	C2	2	U.S. ARCHITECTURAL LIGHTING	RZR–G–PLED–III–W–120LED–525mA–NW–HS–PG13	165	0.85	192	4,000 K

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
OVERALL @ GRADE	+	1.6 fc	6.0 fc	0.0 fc	N/A	N/A
PARKING @ GRADE	✳	2.1 fc	6.0 fc	0.3 fc	20.0:1	7.0:1
REAR LOADING AREA @ GRADE	✳	2.4 fc	3.2 fc	1.7 fc	1.9:1	1.4:1
OVERALL 2 @ GRADE	+	0.9 fc	4.4 fc	0.0 fc	N/A	N/A
REAR DRIVEWAY @ GRADE	✳	2.0 fc	4.3 fc	0.8 fc	5.4:1	2.5:1
REAR PROPERTY LINE	+	0.2 fc	0.8 fc	0.0 fc	N/A	N/A

LIGHTING NOTES:

1. THE PROPOSED LIGHTING SHALL BE SET ON A DUSK TO DAWN TIMER.
2. ALL PROPOSED FIXTURES AND THEIR RESPECTIVE POLES SHALL BE BLACK.
3. ANY DEVIATION FROM THE SPECIFIED LIGHTING FIXTURES SHALL BE SUBMITTED IN WRITING TO PETRY ENGINEERING, LLC ALONG WITH THE ACCOMPANYING POINT BY POINT ANALYSIS.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

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CAUTION: IF THIS DOCUMENT DOES NOT CONTAIN A RAISED IMPRESSION SEAL OF THE UNDERSIGNED PROFESSIONAL, IT IS NOT AN AUTHORIZED ORIGINAL DOCUMENT.

REVISION	DESCRIPTION	DATE	BY
3	REVISED PER ENGINEER'S COMMENTS	05/04/2023	JMP
2	REVISED PER NEW ARCHITECTURAL DRAWINGS	02/09/2023	JMP
1	SHIFT BUILDING C TO THE NORTH	06/15/2021	JMP

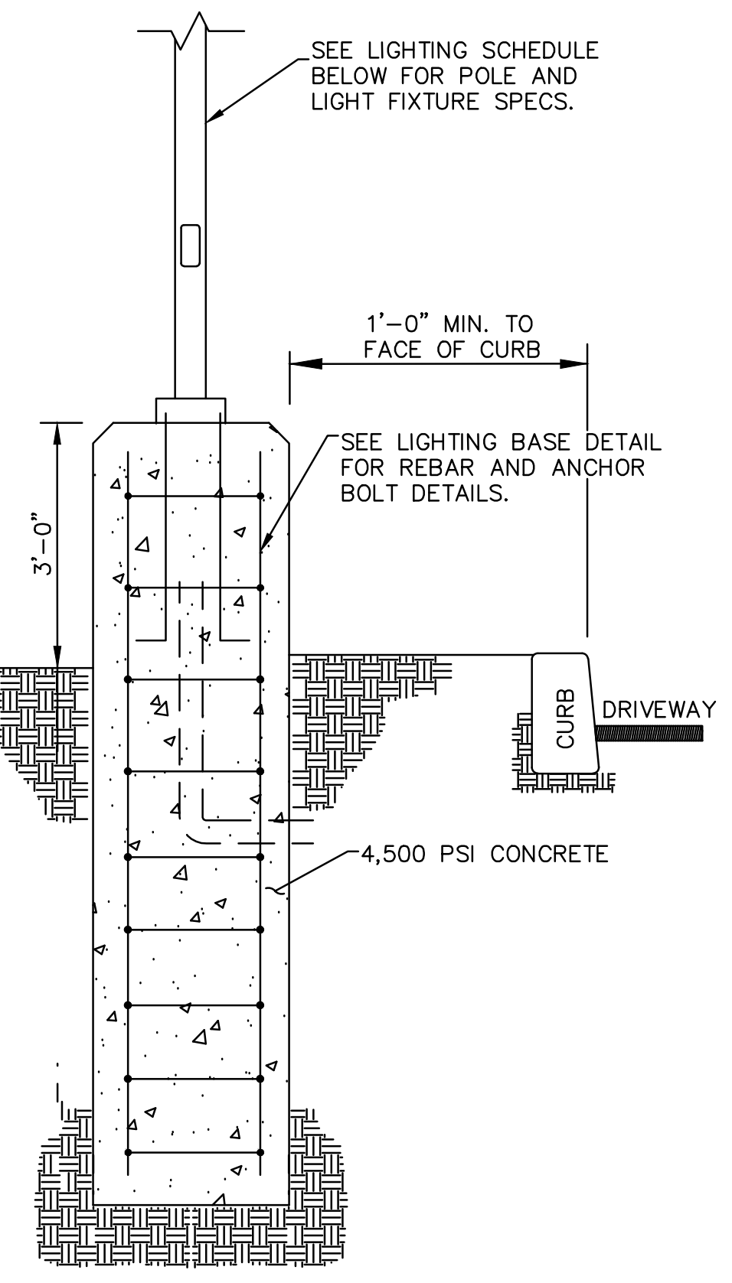
PREPARED FOR
WEST ORANGE PLAZA
BLOCK 152.01 LOT 1445 & LOT 1445.05
235 PROSPECT AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY

LIGHTING PLAN

PETRY
ENGINEERING , LLC
DIVISION OF CONSUMER AFFAIRS LICENSE NUMBER 24GA28155900
155 PASSAIC AVENUE • FAIRFIELD • NEW JERSEY • 07004
TEL. (973) 227-7004 FAX (973) 227-7074

Designer: JMP
Draftsman: SPD
Checked By: JMP
Project No.: 18-0078
Scale: 1"=40'
Sheet:
SP-8

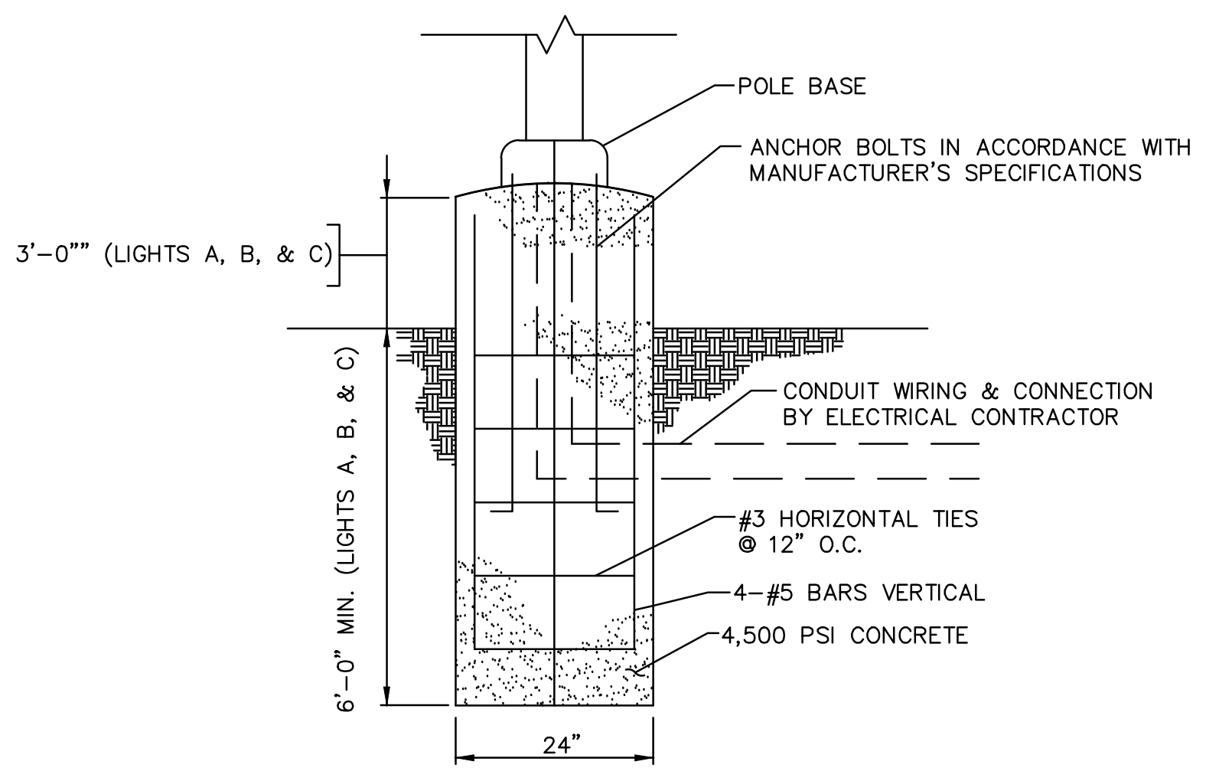
J. MICHAEL PETRY-PE,PP,RA
NJ PROFESSIONAL ENGINEER LIC. No. 36662 DATED: 12/9/2020



SEE LIGHTING SCHEDULE BELOW FOR POLE AND LIGHT FIXTURE SPECS.
1'–0" MIN. TO FACE OF CURB
3'–0"
SEE LIGHTING BASE DETAIL FOR REBAR AND ANCHOR BOLT DETAILS.
CURB
DRIVEWAY
4,500 PSI CONCRETE

PARKING AREA LIGHTING DETAIL

(CURB INTERACTION)
N.T.S.

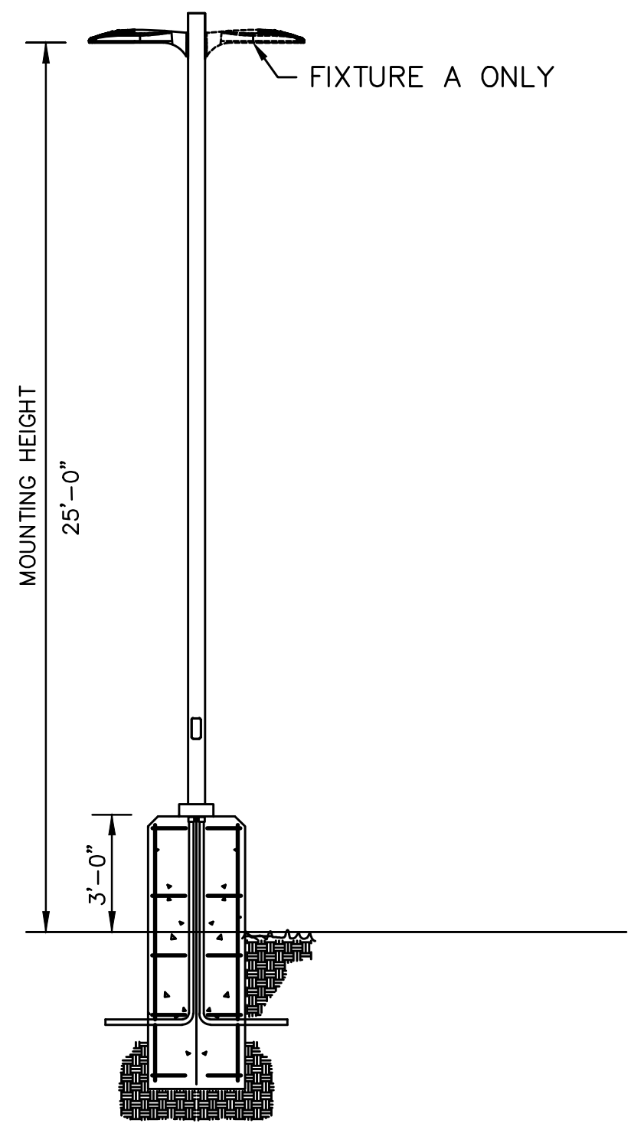


POLE BASE
ANCHOR BOLTS IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS
3'–0"" (LIGHTS A, B, & C)
CONDUIT WIRING & CONNECTION BY ELECTRICAL CONTRACTOR
6'–0" MIN. (LIGHTS A, B, & C)
#3 HORIZONTAL TIES @ 12" O.C.
4–#5 BARS VERTICAL
4,500 PSI CONCRETE
24"

LIGHTING BASE DETAIL

N.T.S.

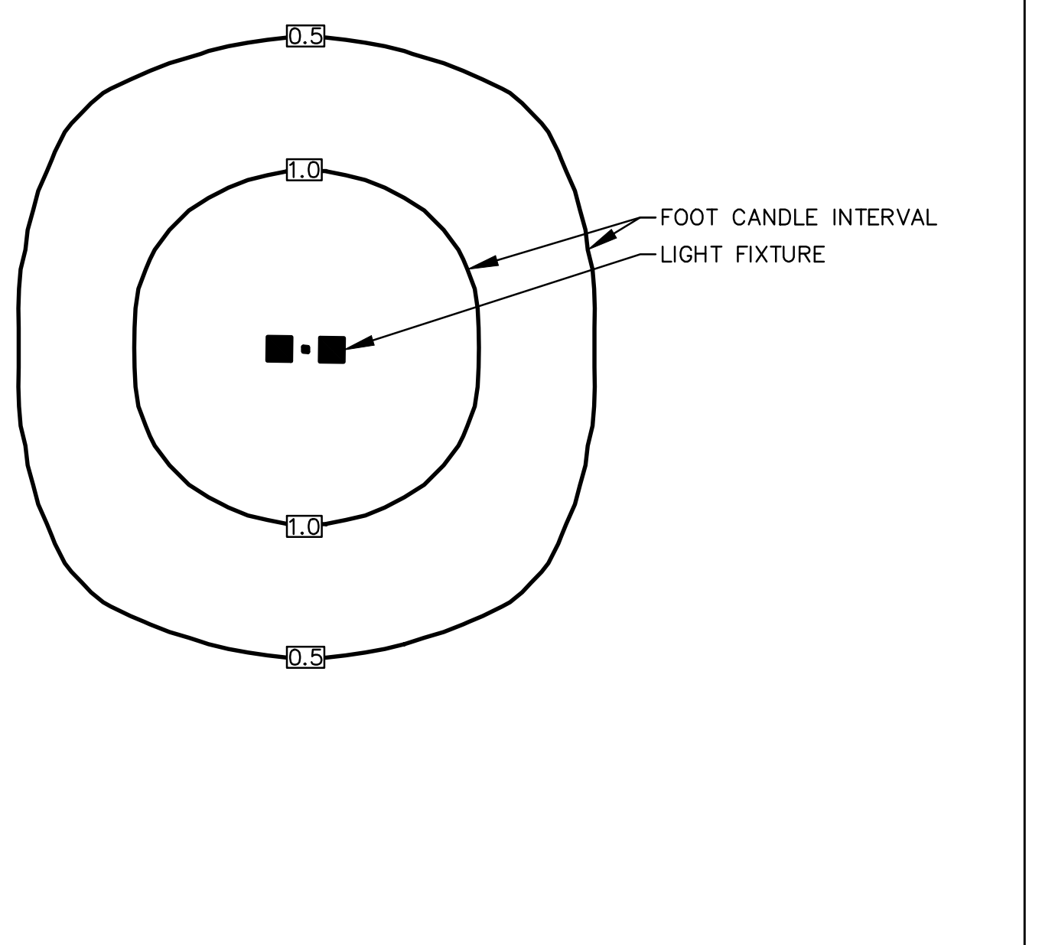
TYPES A, B, & C



FIXTURE A ONLY
MOUNTING HEIGHT
25'–0"
3'–0"

MOUNTING HEIGHT DIAGRAM

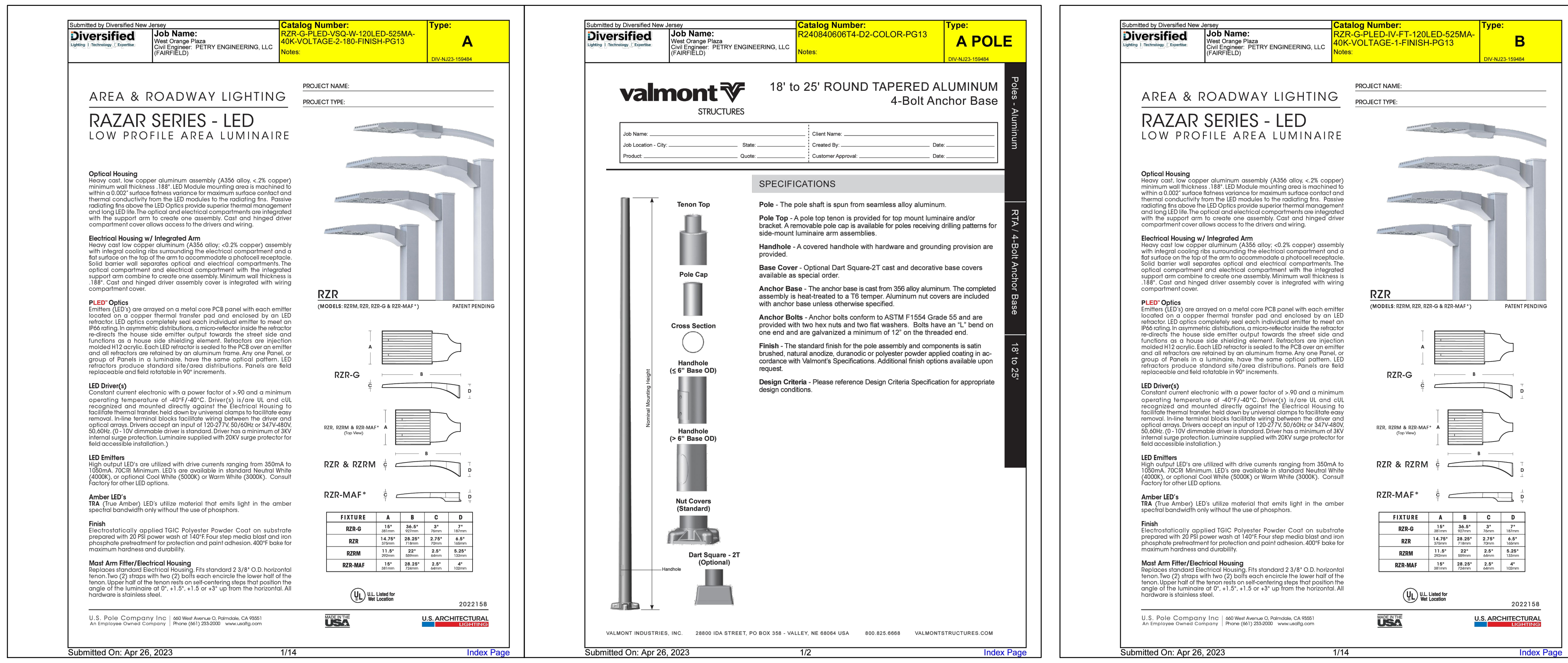
SCALE – N.T.S.



0.5
1.0
1.0
0.5
FOOT CANDLE INTERVAL
LIGHT FIXTURE

ISOLUX DIAGRAM

SCALE – N.T.S.



Submitted by Diversified New Jersey

Job Name:	Catalog Number:	Type:
West Orange Plaza Civil Engineer: PETRY ENGINEERING, LLC (FAIRFIELD)	RZR-G-PLED-VSQ-W-120LED-525MA-40K-VOLTAGE-2-180-FINISH-PG13 Notes:	A DIV-NJ23-159484

AREA & ROADWAY LIGHTING

RAZAR SERIES - LED

LOW PROFILE AREA LUMINAIRE

Submitted On: Apr 26, 2023 1/14 Index Page

Submitted by Diversified New Jersey

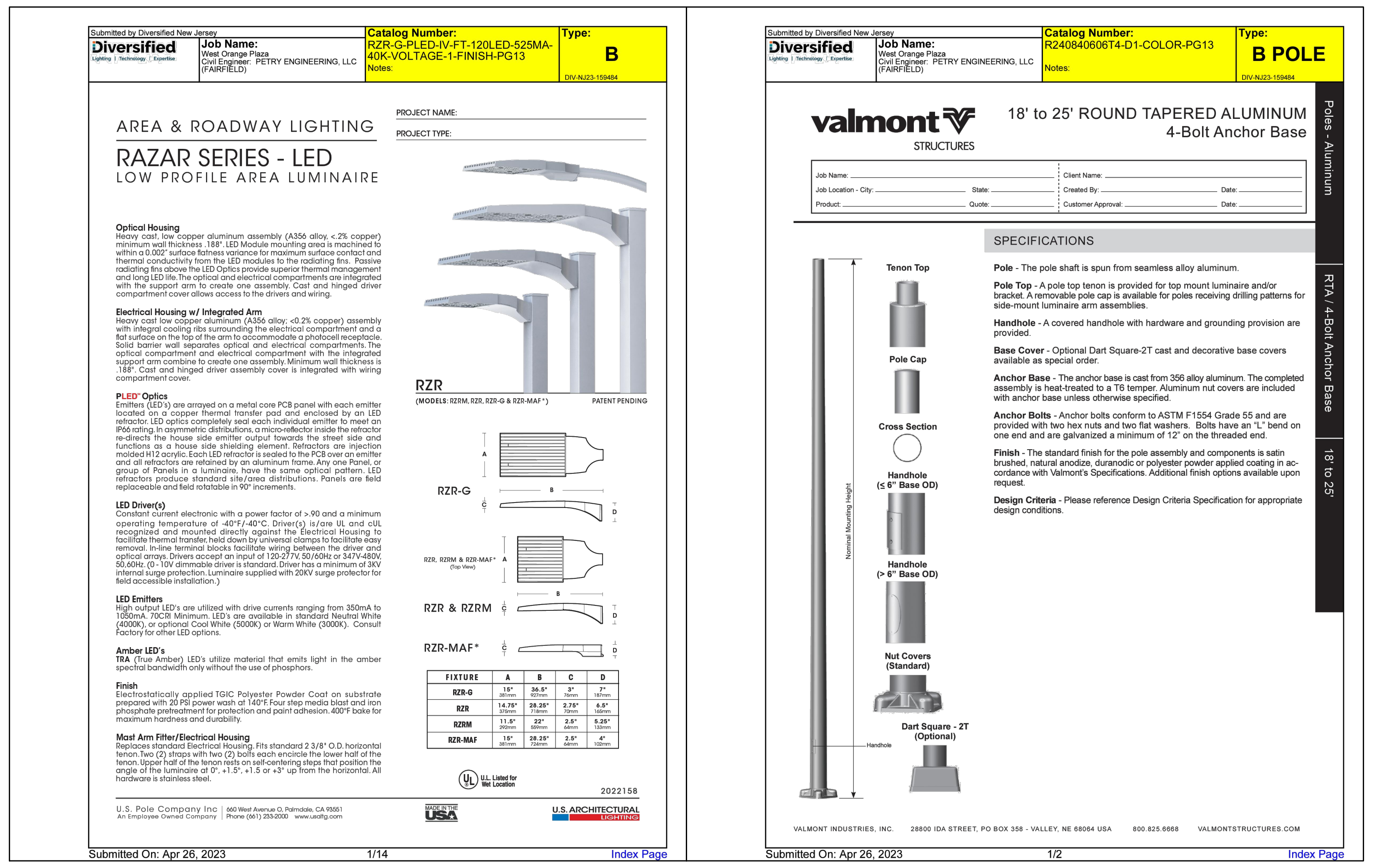
Job Name:	Catalog Number:	Type:
West Orange Plaza Civil Engineer: PETRY ENGINEERING, LLC (FAIRFIELD)	R240840606T4-D2-COLOR-PG13 Notes:	A POLE DIV-NJ23-159484

valmont STRUCTURES

18' to 25' ROUND TAPERED ALUMINUM
4-Bolt Anchor Base

Submitted On: Apr 26, 2023 1/2 Index Page

FIXTURE "A" AND POLE



Submitted by Diversified New Jersey

Job Name:	Catalog Number:	Type:
West Orange Plaza Civil Engineer: PETRY ENGINEERING, LLC (FAIRFIELD)	RZR-G-PLED-IV-FT-120LED-525MA-40K-VOLTAGE-1-FINISH-PG13 Notes:	B DIV-NJ23-159484

AREA & ROADWAY LIGHTING

RAZAR SERIES - LED

LOW PROFILE AREA LUMINAIRE

Submitted On: Apr 26, 2023 1/14 Index Page

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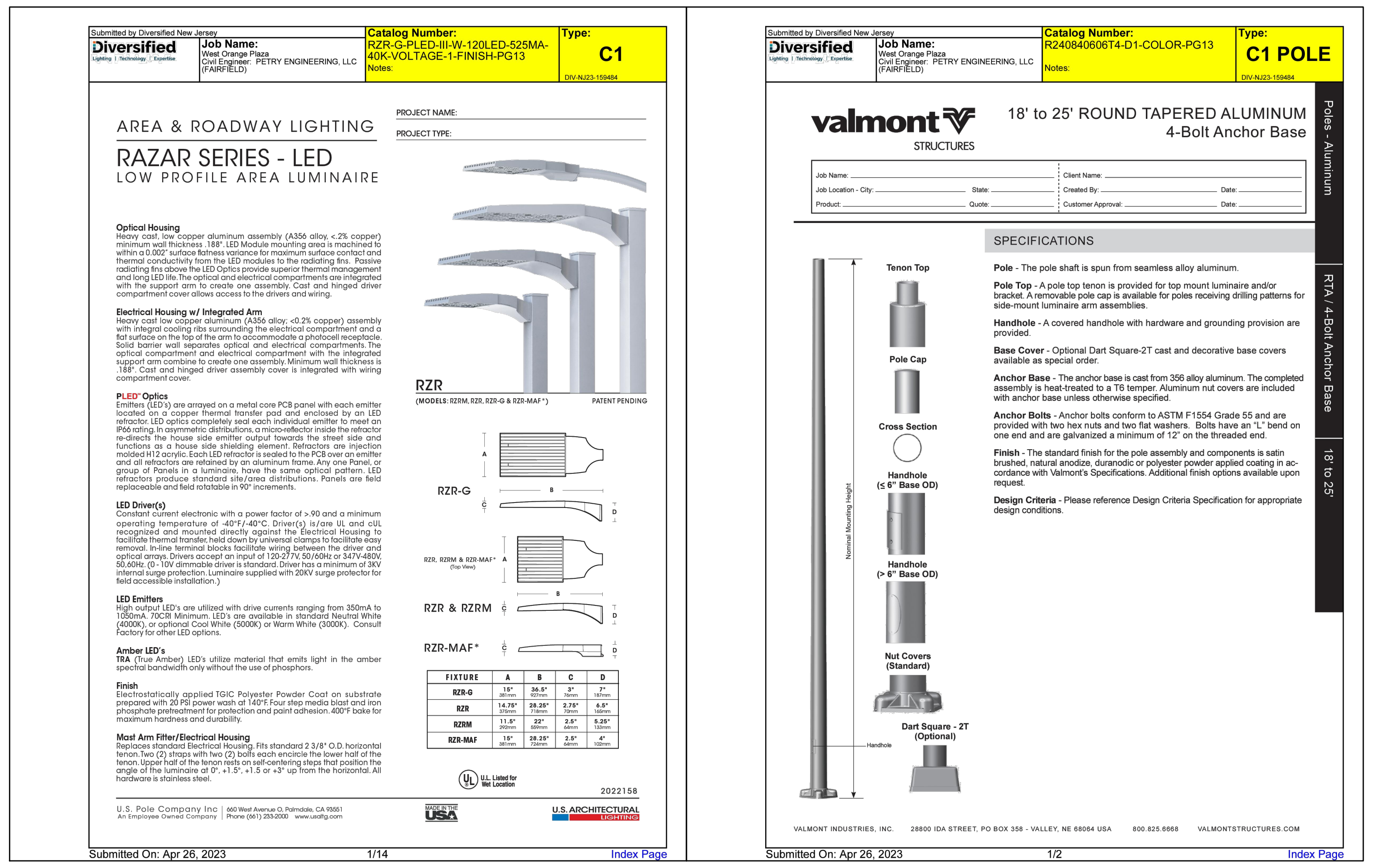
West Orange Plaza Civil Engineer: PETRY ENGINEERING, LLC (FAIRFIELD)	R240840606T4-D1-COLOR-PG13 Notes:	B POLE DIV-NJ23-159484

valmont STRUCTURES

18' to 25' ROUND TAPERED ALUMINUM
4-Bolt Anchor Base

Submitted On: Apr 26, 2023 1/2 Index Page

FIXTURE "B" AND POLE



Submitted by Diversified New Jersey

Job Name:	Catalog Number:	Type:
West Orange Plaza Civil Engineer: PETRY ENGINEERING, LLC (FAIRFIELD)	RZR-G-PLED-III-W-120LED-525MA-40K-VOLTAGE-1-FINISH-PG13 Notes:	C1 DIV-NJ23-159484

AREA & ROADWAY LIGHTING

RAZAR SERIES - LED

LOW PROFILE AREA LUMINAIRE

Submitted On: Apr 26, 2023 1/14 Index Page

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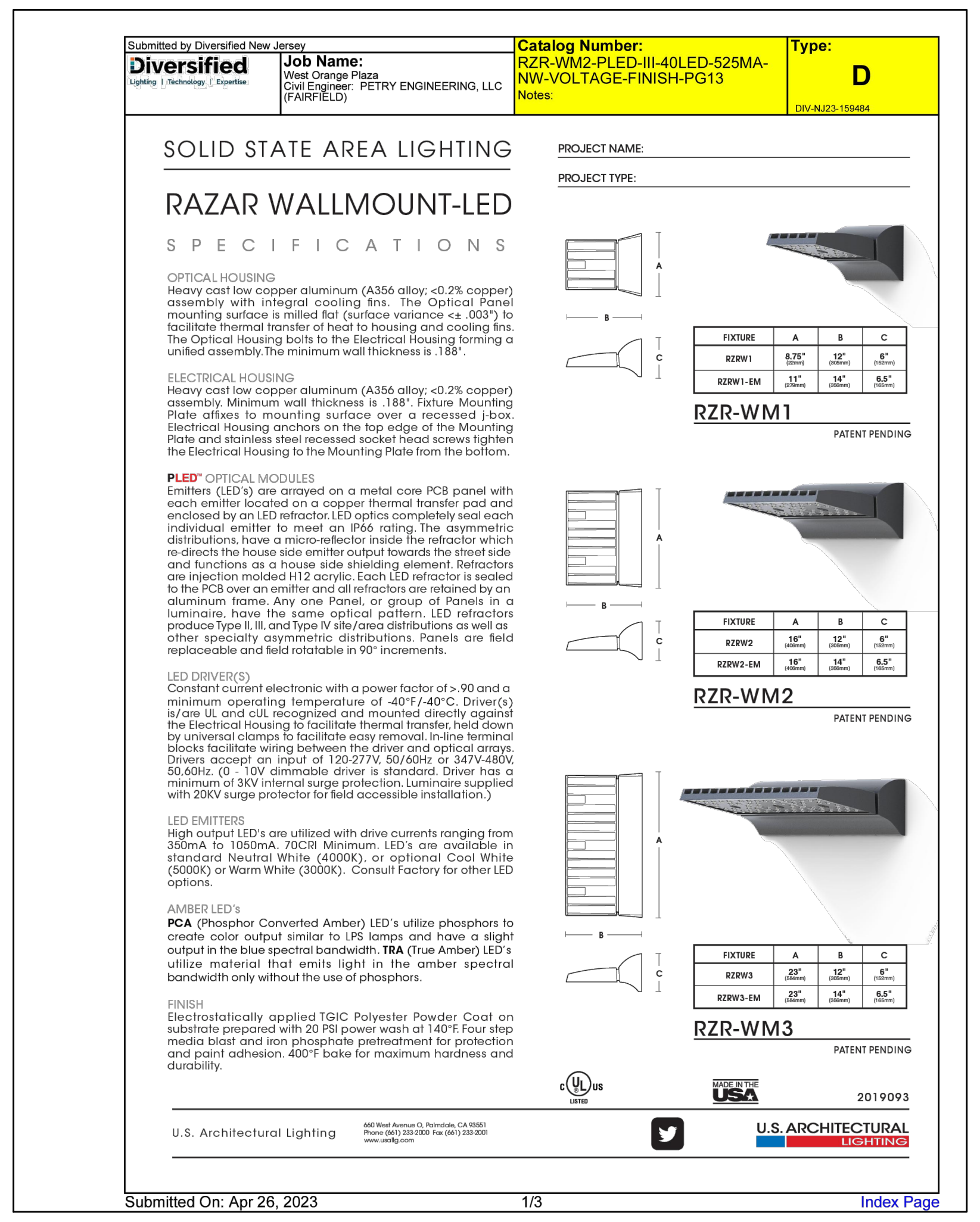
valmont STRUCTURES

18' to 25' ROUND TAPERED ALUMINUM
4-Bolt Anchor Base

Submitted On: Apr 26, 2023 1/2 Index Page

FIXTURE "C1" AND POLE



Submitted by Diversified New Jersey

Job Name:	Catalog Number:	Type:
West Orange Plaza Civil Engineer: PETRY ENGINEERING, LLC (FAIRFIELD)	RZR-WM2-PLED-III-40LED-525MA-NW-VOLTAGE-FINISH-PG13 Notes:	D DIV-NJ23-159484

SOLID STATE AREA LIGHTING

RAZAR WALLMOUNT-LED

SPECIFICATIONS

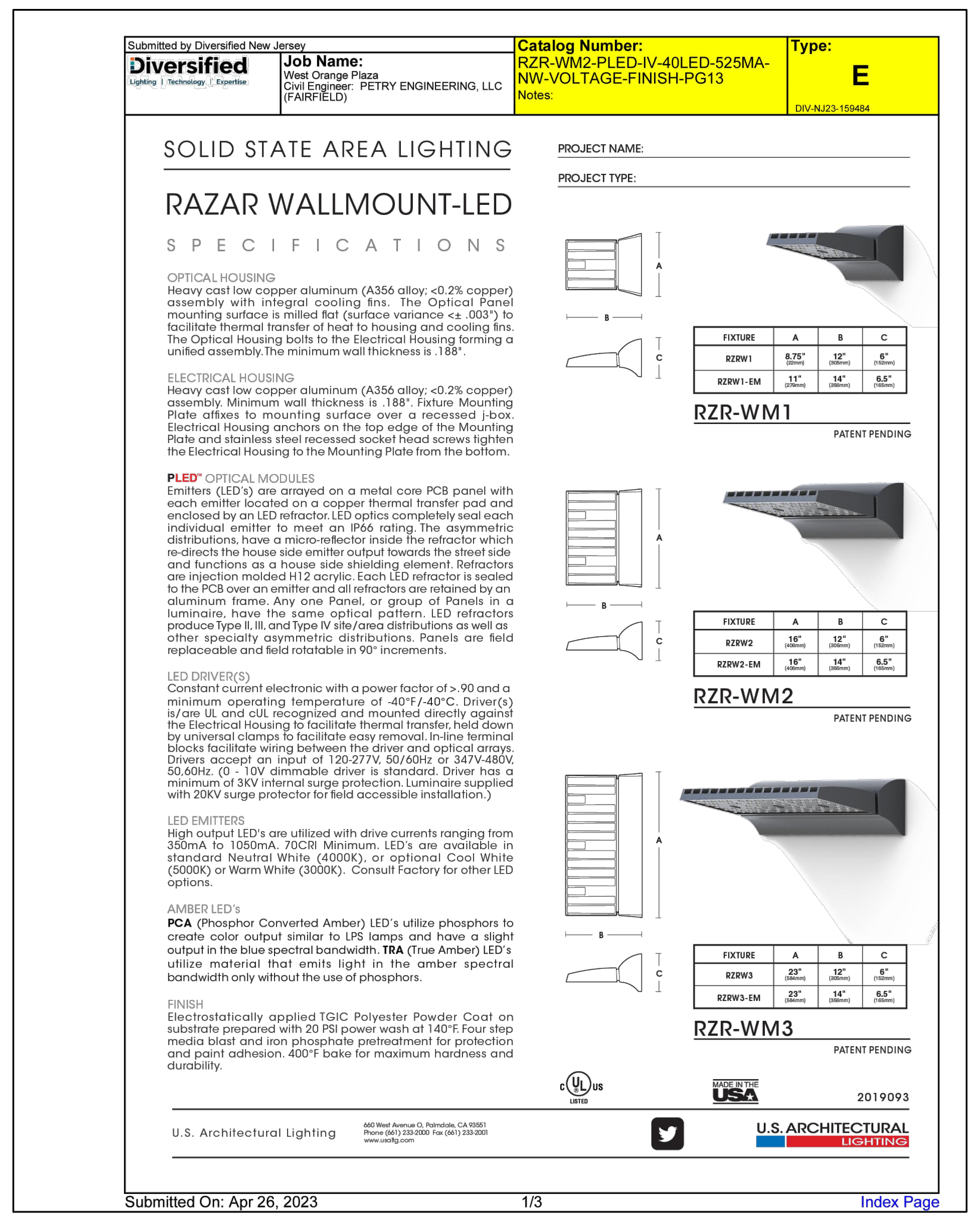
RZR-WM1

RZR-WM2

RZR-WM3

Submitted On: Apr 26, 2023 1/3 Index Page

FIXTURE "D"



Submitted by Diversified New Jersey

Job Name:	Catalog Number:	Type:
West Orange Plaza Civil Engineer: PETRY ENGINEERING, LLC (FAIRFIELD)	RZR-WM2-PLED-IV-40LED-525MA-NW-VOLTAGE-FINISH-PG13 Notes:	E DIV-NJ23-159484

SOLID STATE AREA LIGHTING

RAZAR WALLMOUNT-LED

SPECIFICATIONS

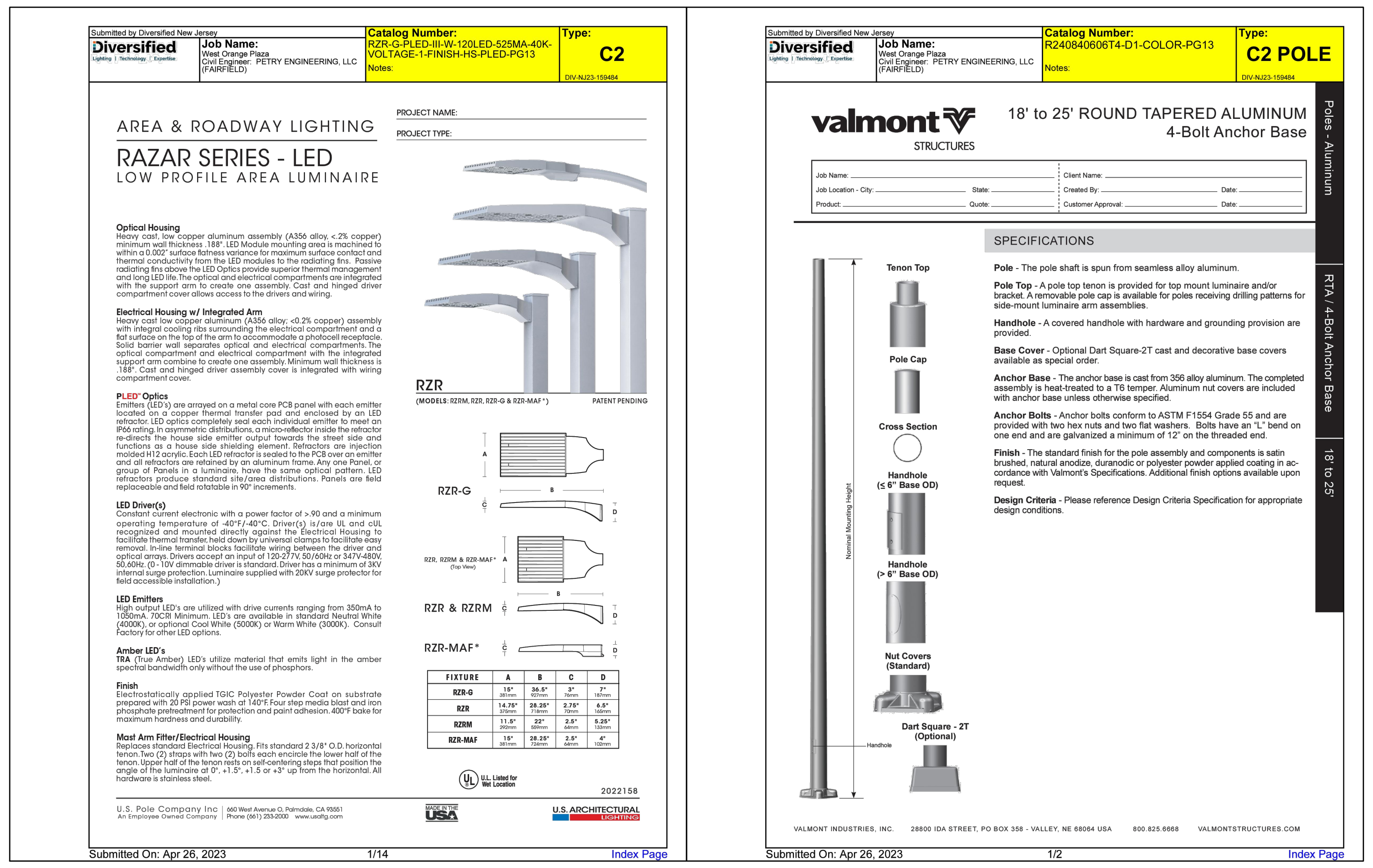
RZR-WM1

RZR-WM2

RZR-WM3

Submitted On: Apr 26, 2023 1/3 Index Page

FIXTURE "E"



Submitted by Diversified New Jersey

Job Name:	Catalog Number:	Type:
West Orange Plaza Civil Engineer: PETRY ENGINEERING, LLC (FAIRFIELD)	RZR-G-PLED-III-W-120LED-525MA-40K-VOLTAGE-1-FINISH-HS-PLED-PG13 Notes:	C2 DIV-NJ23-159484

AREA & ROADWAY LIGHTING

RAZAR SERIES - LED

LOW PROFILE AREA LUMINAIRE

Submitted On: Apr 26, 2023 1/14 Index Page

Submitted by Diversified New Jersey

Job Name:	Catalog Number:	Type:
West Orange Plaza Civil Engineer: PETRY ENGINEERING, LLC (FAIRFIELD)	R240840606T4-D1-COLOR-PG13 Notes:	C2 POLE DIV-NJ23-159484

valmont STRUCTURES

18' to 25' ROUND TAPERED ALUMINUM
4-Bolt Anchor Base

Submitted On: Apr 26, 2023 1/2 Index Page

FIXTURE "C" AND POLE

REVISION	DESCRIPTION	DATE	BY

PREPARED FOR
WEST ORANGE PLAZA
BLOCK 152.01 LOT 1445 & LOT 1445.05
235 PROSPECT AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY

LIGHTING DETAILS

PETRY ENGINEERING, LLC
DIVISION OF CONSUMER AFFAIRS LICENSE NUMBER 24GA28155900
155 PASSAIC AVENUE • FAIRFIELD • NEW JERSEY • 07004
TEL. (973) 227-7004 FAX (973) 227-7074

Designer: JMP
Draftsman: SPD
Checked By: JMP
Project No.: 18-0078
Scale: 1"=40'
Sheet: SP-8A

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J. MICHAEL PETRY-PE,PP,RA
NJ PROFESSIONAL ENGINEER LIC. No. 36662 DATED: 05/04/2023

REFERENCES:

1. BOUNDARY INFORMATION TAKEN FROM A CERTAIN MAP ENTITLED "ALTA/ACSM LAND TITLE SURVEY WEST ORANGE PLAZA BLOCK NO. 152.01, LOT NO. 1445 & 1445.05, TOWNSHIP OF WEST ORANGE" PREPARED BY LANGAN AND DATED JANUARY 12, 2016.
2. TOPOGRAPHIC INFORMATION TAKEN FROM A CERTAIN MAP ENTITLED "BOUNDARY AND TOPOGRAPHIC SURVEY OF WEST ORANGE PLAZA PROSPECT AVENUE AND EAGLE ROCK AVENUE LOTS 1445 AND 1445.05 BLOCK 152.24 TOWNSHIP OF WEST ORANGE ESSEX COUNTY NEW JERSEY" PREPARED BY MCCUMSEY – PETRY, P.C. DATED 12/19/1995
3. SUPPLEMENTAL TOPOGRAPHIC INFORMATION FIELD SURVEYED ON 12/18/2018 AND 05/09/2022 BY ZL LAND SURVEYING
4. SUPPLEMENTAL BOUNDARY INFORMATION ALONG EAGLE ROCK AVENUE FIELD SURVEYED ON 05/04/2023 BY PETRY ENGINEERING

BouC
BogBc
BogCc
URBONB
BouB
EAGLE ROCK AVENUE (VARIABLE WIDTH)
MULTI-STORY MASONRY BUILDING
WOODED AREA/SLOPE (TYP)
MASONRY SHED
ASPHALT PARKING LOT (TYPICAL)
CONCRETE CURB (TYP)
EDGE OF PAVEMENT (TYP)
BUILDING A
FF: 541.85
BUILDING B
FF: 541.85
BUILDING C
FF: 563.70
BUILDING D
FF: 587.00
ONE-STORY MASONRY BUILDING
FF: 540.65
RIM=592.61
EXISTING OUTFLOW PIPE 24"HDPE
SUPER SILT FENCE
OUTFLOW PIPE
PROSPECT AVENUE (VARIABLE WIDTH)
CONC. CURB

SOIL LEGEND

SOIL INFORMATION OBTAINED FROM WEB SOIL SURVEY, MAP PRINTED ON 04-24-2018

URBONB – URBAN LAND, BOONTON SUBSTRATUM, 0 TO 8 PERCENT SLOPES

BouC – BOONTON URBAN LAND, BOONTON SUBSTRATUM COMPLEX, 8 TO 15 PERCENT SLOPES

BogBc – BOONTON LOAM, 0 TO 8 PERCENT SLOPES, EXTREMELY STONY

BogCc – BOONTON LOAM, 8 TO 15 PERCENT SLOPES, EXTREMELY STONY

BouB – BOONTON URBAN LAND, BOONTON SUBSTRATUM COMPLEX 0 TO 8 PERCENT SLOPES

TEMPORARY STABILIZATION

SOILS EXPOSED OR STOCKPILED FOR A PERIOD OF GREATER THAN 14 DAYS, AND NOT UNDER ACTIVE CONSTRUCTION, SHALL BE SEEDED & HAY MULCHED AND STABILIZED WITH TEMPORARY VEGETATIVE COVER OR OTHER APPROVED.

1. STREETS, DRIVEWAYS AND PARKING AREAS NOT SCHEDULED FOR PAVING WITHIN THE ALLOTTED TIME FRAME SHALL BE STABILIZED USING PAVEMENT SUBBASE COURSE. THIS SUBBASE COURSE SHALL BE INSTALLED WITHIN 15 DAYS OF PRELIMINARY GRADING.
2. ALL AREAS NOT SCHEDULED FOR PAVING SHALL RECEIVE A TEMPORARY SEEDING IMMEDIATELY FOLLOWING FOLLOWING ROUGH GRADING.
3. APPLY FERTILIZER AT A RATE OF 500 LBS./ACRE OR 11 LBS./1,000 SF. OF 10-20-10 EQUIVALENT. APPLY LIMESTONE AT A RATE OF 2 TONS/ACRES.
4. WORK LIME AND FERTILIZER INTO THE SOIL TO A DEPTH OF 4 INCHES UNTIL UNIFORM.
5. TEMPORARY SEEDING WILL BE A MIX OF ANNUAL RYEGRASS OR PERENNIAL RYEGRASS AT A RATE OF 100 LBS./ACRE OR 1 LB./1,000 SF.
6. UN-ROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, TO BE APPLIED AT A RATE OF 1-1/2 TO 2 TONS/ACRE (70 TO 90 LBS./1,000 SF.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

PERMANENT STABILIZATION

1. ALL AREAS NOT SCHEDULED FOR CONSTRUCTION OR LANDSCAPING TO BE STABILIZED USING SEED MIXTURE NO. 13 CONSISTING OF HARD FESCUE AND/OR CHEWING FESCUE AT A RATE OF 175 LBS/ACRE (4 LBS/1,000 SF), STRONG CREEPING RED FESCUE PERENNIAL RYEGRASS & KENTUCKY BLUEGRASS (BLEND), BOTH AT A RATE OF 45 LBS/ACRE (1LB/1000 SF)
2. UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO SPREAD TOPSOIL AT A RATE OF 500 LBS./ACRE OR 11 LBS./1,000 SF OF 10-10-10 EQUIVALENT.
3. WORK LIME AND FERTILIZER INTO THE SOIL TO A DEPTH OF 4 INCHES UNTIL UNIFORM.
4. REMOVE ALL SURFACE DEBRIS AND STONES 2 INCHES OR LARGER.
5. UN-ROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, TO BE APPLIED AT A RATE OF 1-1/2 TO 2 TONS/ACRE (70 TO 90 LBS/1,000 SF.
6. INSPECT SEEDBED JUST BEFORE SEEDING IF TRAFFIC HAS LEFT THE SOIL COMPACTED. THE AREA MUST BE RE-TILLED AND FIRMED AS ABOVE.
7. A DEPTH OF 5 INCHES OF TOPSOIL IS REQUIRED FOR ALL SURFACES HAVING LAWN OR LANDSCAPING AS FINAL COVER.

SEQUENCE OF CONSTRUCTION

1. INSTALL SILT FENCE, INLET FILTERS, AND ANTI-TRACKING PADS
   (DURATION: APPROX. 1 WEEK)
2. SAWCUT AND REMOVE PARKING LOT
   (DURATION: APPROX. 4 WEEKS)
3. INSTALL NEW STORM SEWERS
   (DURATION: APPROX. 6 WEEKS)
4. INSTALL NEW SANITARY SEWER
   (DURATION: APPROX. 2 WEEKS)
5. CONSTRUCT NEW BUILDINGS
   (DURATION: APPROX. 12 MONTHS)
6. STABILIZE AND SEED ALL DISTURBED AREAS NOT SCHEDULED FOR PAVING
   (DURATION: APPROX. 1 WEEK)
7. PAVE PARKING LOT
   (DURATION: APPROX. 2 WEEKS)
8. REMOVE ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES.
   (DURATION: APPROX. 1 WEEKS)

SOIL EROSION AND SEDIMENT CONTROL NOTES

(To be included on the signed erosion control plan sheet)

1. All soil erosion and sediment control practices on this plan will be constructed in accordance with the **"New Jersey Standards for Soil Erosion and Sediment Control"** 7th Edition **last revised December 2017.** These measures will be installed prior to any major soil disturbance or in their proper sequence and maintained until permanent protection is established.

2. All soil to be exposed or stockpiled for a period of greater than 14 days, and not under active construction, will be temporarily seeded and hay mulched or otherwise provided with vegetative cover. This temporary cover shall be maintained until such time whereby permanent restabilization is established.

3. *Seeding Dates:* The following seeding dates are recommended to best establish permanent vegetative cover within most locations in the HEPSCD: Spring - 3/1-5/15 and Fall – 8/15 – 10/1

4. Sediment fences are to be properly trenched and maintained until permanent vegetative cover is established

5. All storm drainage inlets shall be protected by one of the practices accepted in the Standards, and protection shall remain until permanent stabilization has been established. Storm drainage outlet points shall be protected as required before they become functional.

6. Mulch materials shall be un-rotted small grain straw applied at the rate of 70 to 90 pounds per 1,000 square feet and anchored with a mulch anchoring tool, liquid mulch binders, or netting tie down. Other suitable materials may be used if approved by the Soil Conservation District.

7. All erosion control devices shall be periodically inspected, maintained and corrected by the contractor. Any damage incurred by erosion shall be rectified immediately.

8. The Hudson-Essex-Passaic Soil Conservation District will be notified in writing at least 48 hours prior to any soil disturbing activities. Fax - (862) 333-4507 OR email – INFORMATION@HEPSCD.ORG

9. **The applicant must obtain a District issued Report-of-Compliance prior to applying for the Certificate of Occupancy or Temporary Certificate of Occupancy from the respective municipality, NJ - DCA or any other controlling agency.** Contact the District at 862-333-4505 to request a Final Inspection, giving advanced notice upon completion of the restabilization measures. A performance deposit may be posted with the District when winter weather or snow cover prohibits the proper application of seed, mulch, fertilizer or hydro-seed.

10. Paved roadways must be kept clean at all times. Do not utilize a fire or garden hose to clean roads unless the runoff is directed to a properly designed and functioning sediment basin. Water pumped out of the excavated areas contains sediments that must be removed prior to discharging to receiving bodies of water using removable pumping stations, sump pits, portable sedimentation tanks and/or silt control bags.

11. All surfaces having lawn or landscaping as final cover are to be provided topsoil prior to re-seeding, sodding or planting. A depth of 5.0 inches, firmed in place, is **required**, as per the Standards for Topsoiling and Land Grading, last revised December 2017.

12. All plan revisions must be submitted to the District for proper review and approval.

13. A crushed stone wheel cleaning tracking-pad is to be installed at all site exits using 2 ½ -1" crushed angular stone (ASTM 2 or 3) to a minimum length of 50 feet and minimum depth of 6". All driveways must be provided with crushed stone until paving is complete.

14. Steep slopes incurring disturbance may require additional stabilization measures. These "special" measures shall be designed by the applicant's engineer and be approved by the Soil Conservation District.

15. **The Hudson-Essex-Passaic Soil Conservation District shall be notified, in writing, for the sale of any portion of the project or for the sale of individual lots. New owners' information shall be provided. Additional measures deemed necessary by District officials shall be implemented as conditions warrant.**

SOIL EROSION LEGEND

——— X ———	FILTER FABRIC FENCING (SEE DETAIL)
— · — · —	LIMIT OF DISTURBANCE
— — — —	SOIL BOUNDARY LINE
∞∞∞∞∞∞	STRAW BALE BARRIER
■	INLET FILTER
▨	ANTI-TRACKING PAD (SEE DETAIL)

TOTAL AREA OF DISTURBANCE:
391,000 SQ.FT. OR 8.976± AC.

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2	REVISED PER NEW ARCHITECTURAL DRAWINGS	03/03/2023	JMP
1	SHIFT BUILDING C TO THE NORTH	06/15/2021	JMP

PREPARED FOR
WEST ORANGE PLAZA
BLOCK 152.01 LOT 1445 & LOT 1445.05
235 PROSPECT AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY

SOIL EROSION AND SEDIMENT CONTROL PLAN

PETRY
ENGINEERING, LLC
DIVISION OF CONSUMER AFFAIRS LICENSE NUMBER 24GA28155900
155 PASSAIC AVENUE • FAIRFIELD • NEW JERSEY • 07004
TEL. (973) 227-7004 FAX (973) 227-7074

J. MICHAEL PETRY-PE,PP,RA
NJ PROFESSIONAL ENGINEER LIC. No. 36662 DATED: 12/9/2020

Designer: JMP
Draftsman: SPD
Checked By: JMP
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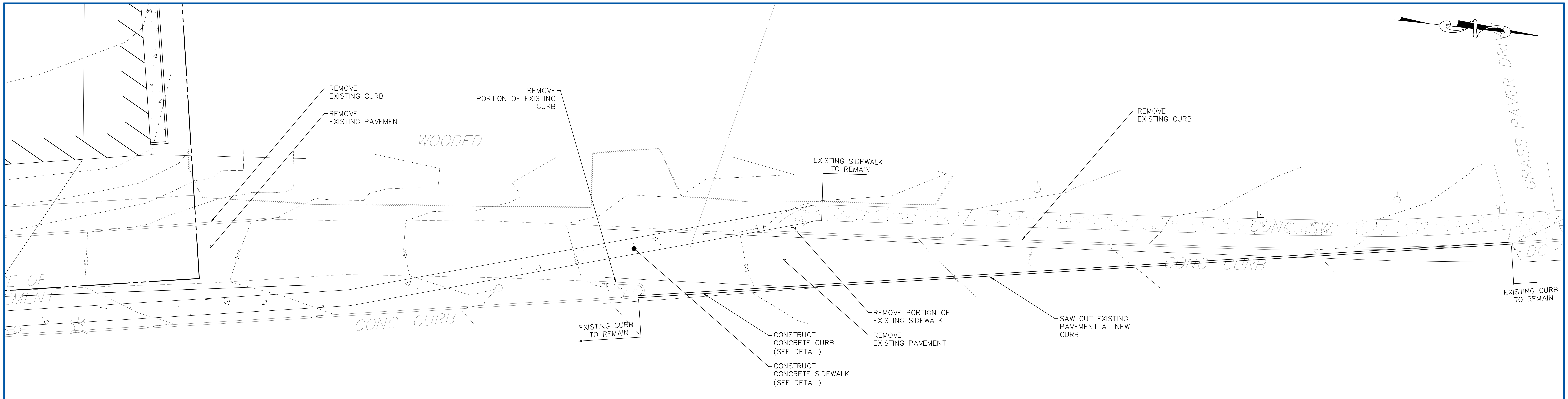
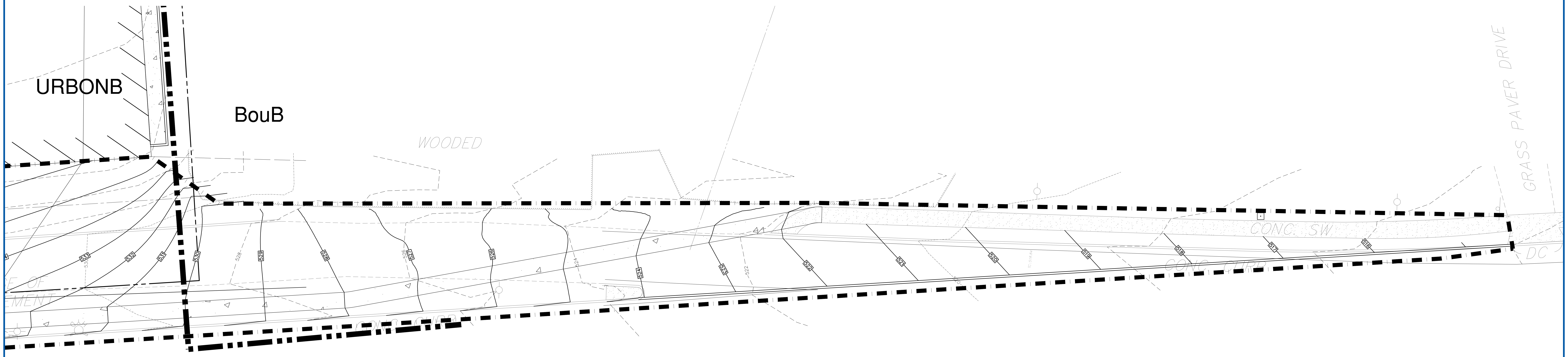

REMOVE
EXISTING CURB
REMOVE
EXISTING PAVEMENT
REMOVE
PORTION OF EXISTING
CURB
WOODED
EXISTING SIDEWALK
TO REMAIN
REMOVE
EXISTING CURB
GRASS PAVER DRIVE
CONC. SW
CONC. CURB
DC
EXISTING CURB
TO REMAIN
CONC. CURB
EXISTING CURB
TO REMAIN
CONSTRUCT
CONCRETE CURB
(SEE DETAIL)
CONSTRUCT
CONCRETE SIDEWALK
(SEE DETAIL)
REMOVE PORTION OF
EXISTING SIDEWALK
REMOVE
EXISTING PAVEMENT
SAW CUT EXISTING
PAVEMENT AT NEW
CURB

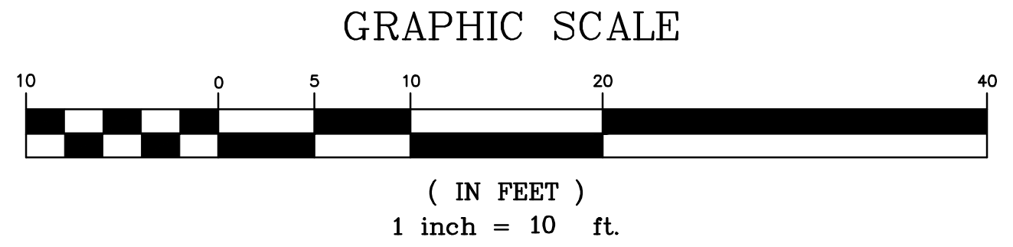
SLIP RAMP DETAIL LAYOUT

1" = 10'


URBONB
BouB
WOODED
GRASS PAVER DRIVE
CONC. SW
DC

SLIP RAMP GRADING AND SESC PLAN

1" = 10'


GRAPHIC SCALE
10
0
5
10
20
40
(IN FEET)
1 inch = 10 ft.

SOIL EROSION LEGEND

- FILTER FABRIC FENCING (SEE DETAIL)
- LIMIT OF DISTURBANCE
- SOIL BOUNDARY LINE
- STRAW BALE BARRIER
- INLET FILTER
- ANTI-TRACKING PAD (SEE DETAIL)

REFERENCES:
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1	SHIFT BUILDING C TO THE NORTH	06/15/2021	JMP

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BLOCK 152.01 LOT 1445 & LOT 1445.05
235 PROSPECT AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY

SLIP RAMP REMOVAL AND CONSTRUCTION PLAN

PETRY
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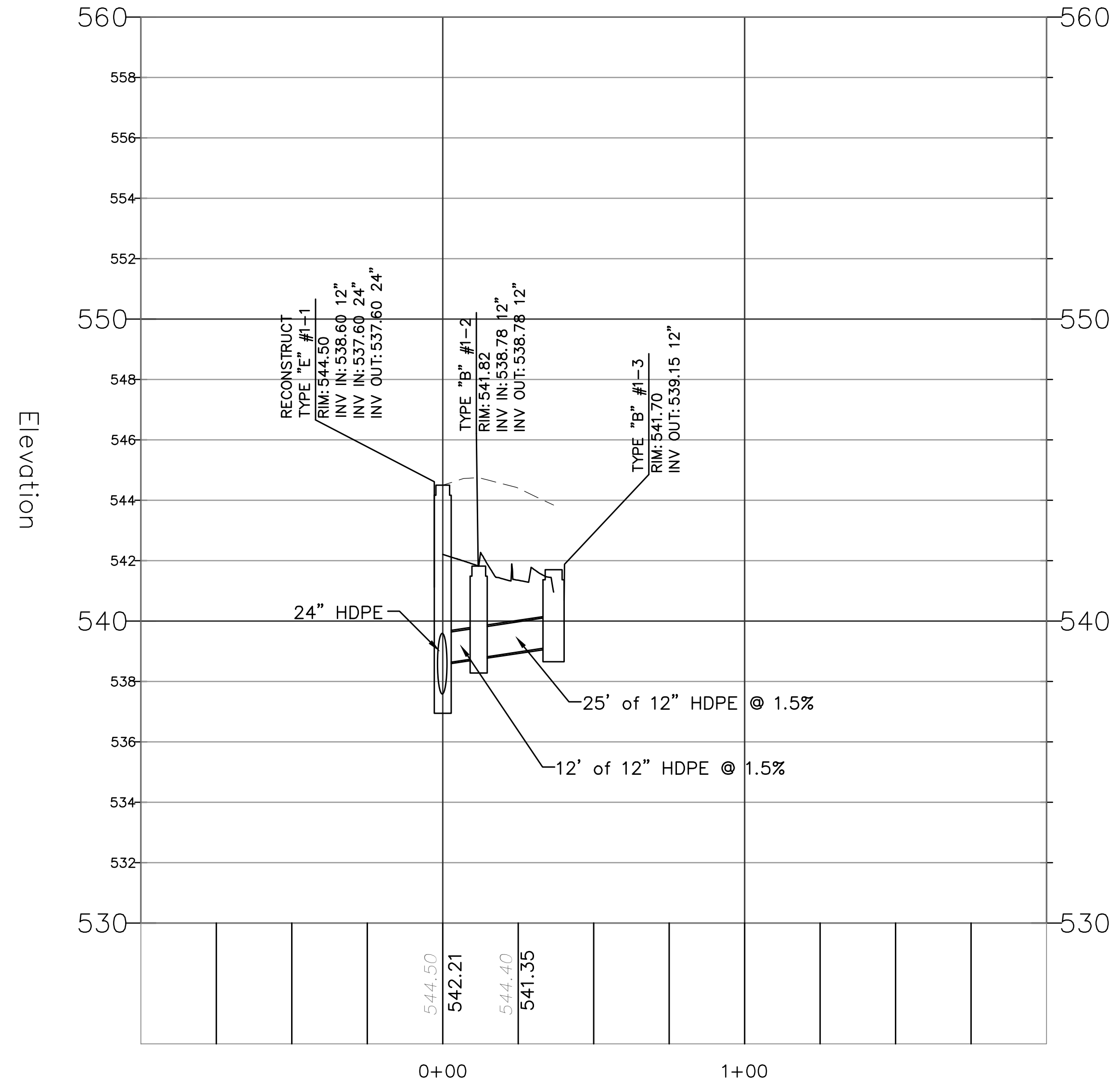
DIVISION OF CONSUMER AFFAIRS LICENSE NUMBER 24GA28155900
155 PASSAIC AVENUE • FAIRFIELD • NEW JERSEY • 07004
TEL. (973) 227-7004 FAX (973) 227-7074

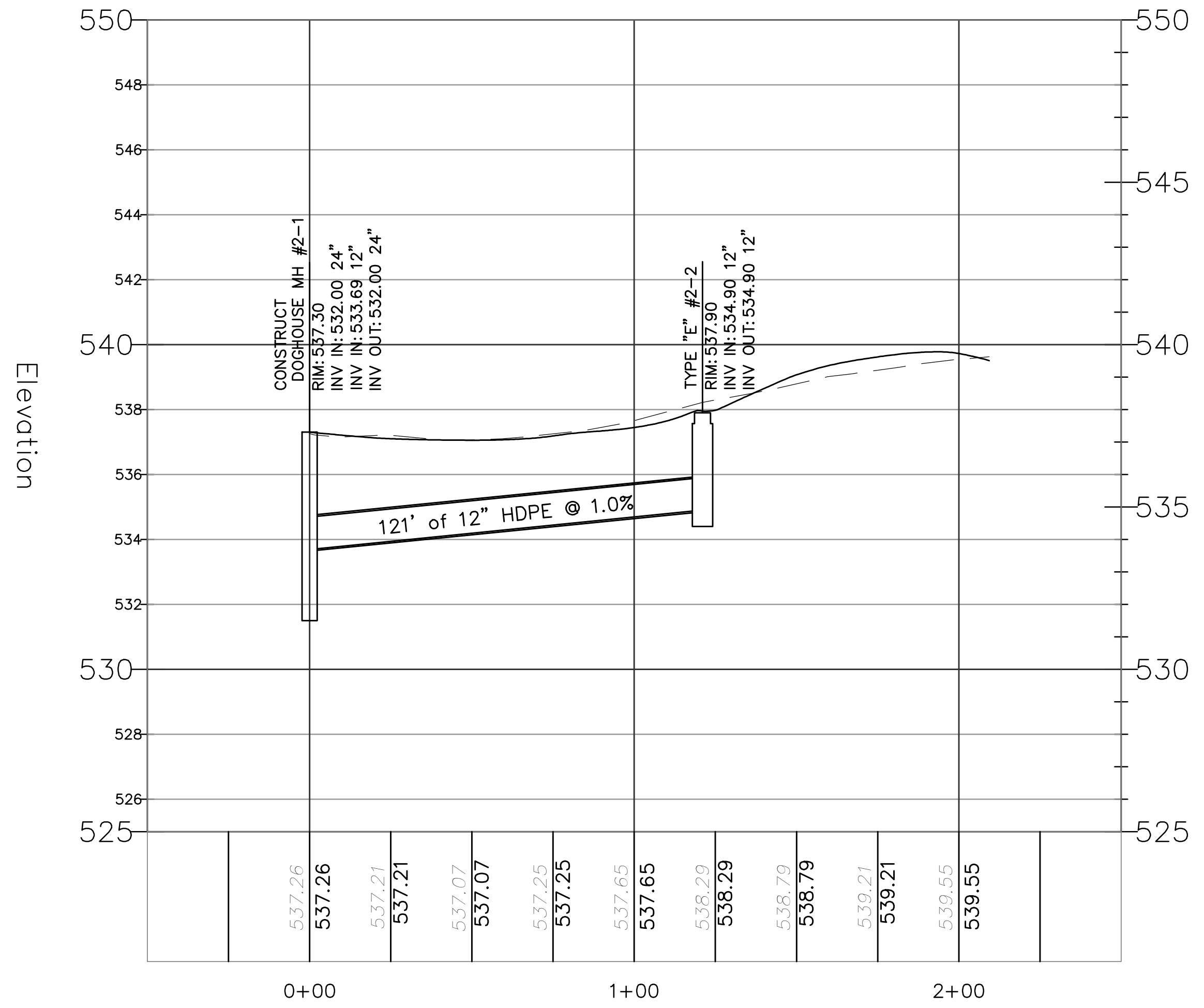
J. MICHAEL PETRY-PE,PP,RA
NJ PROFESSIONAL ENGINEER LIC. No. 36662 DATED: 05/21/2021

Designer: JMP
Draftsman: SPD
Checked By: JMP
Project No.: 18-0078
Scale: 1"=10'
Sheet: SP-9A

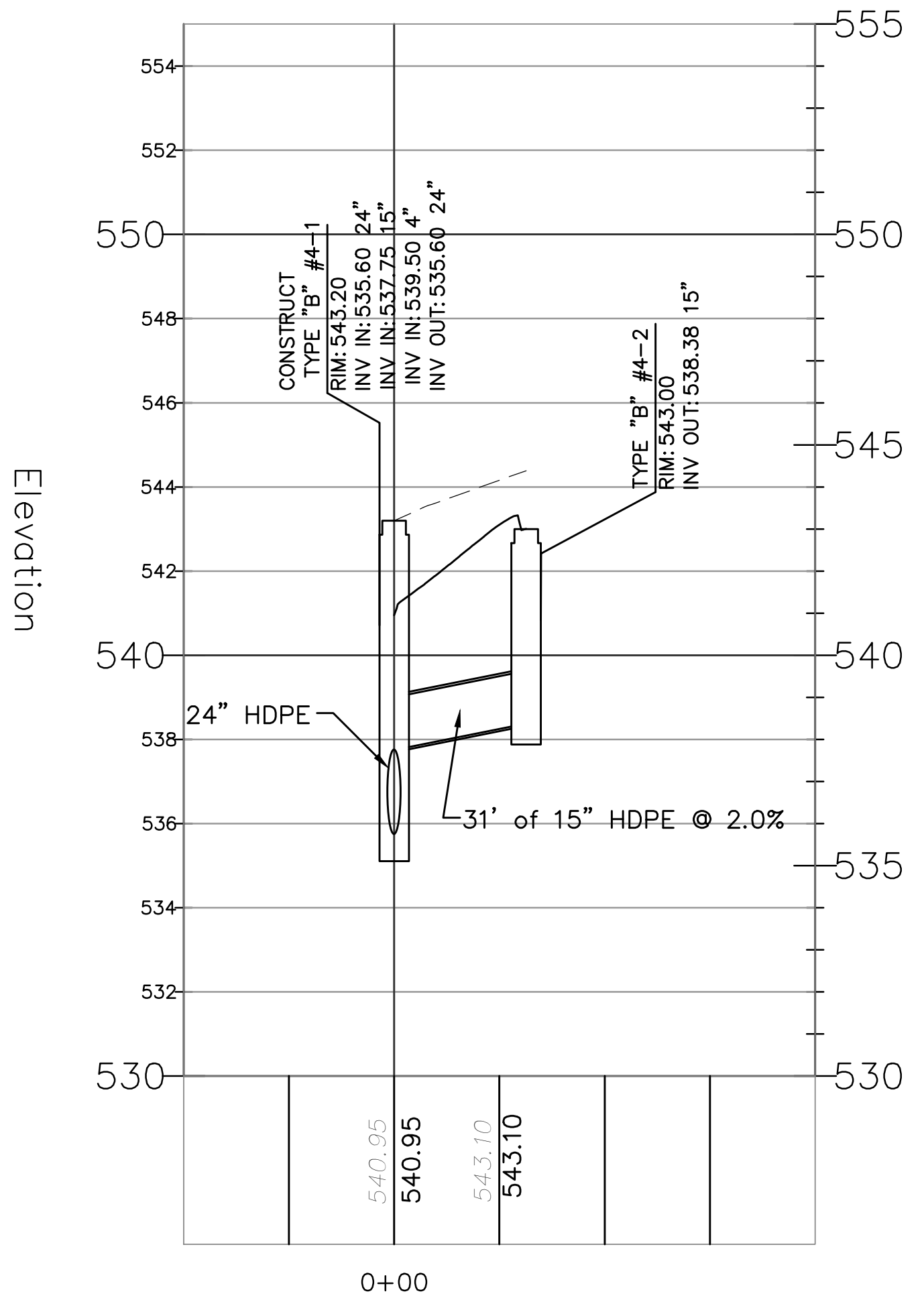
STORM SEWER NETWORK #1-1 PROFILE


RECONSTRUCT
TYPE "E" #1-1
RIM: 544.50
INV IN: 538.60 12"
INV IN: 537.60 24"
INV OUT: 537.60 24"
TYPE "B" #1-2
RIM: 541.82
INV IN: 538.78 12"
INV OUT: 538.78 12"
TYPE "B" #1-3
RIM: 541.70
INV OUT: 539.15 12"
24" HDPE
25' of 12" HDPE @ 1.5%
12' of 12" HDPE @ 1.5%
Elevation
560
550
540
530
544.50
542.21
544.40
541.35
0+00
1+00

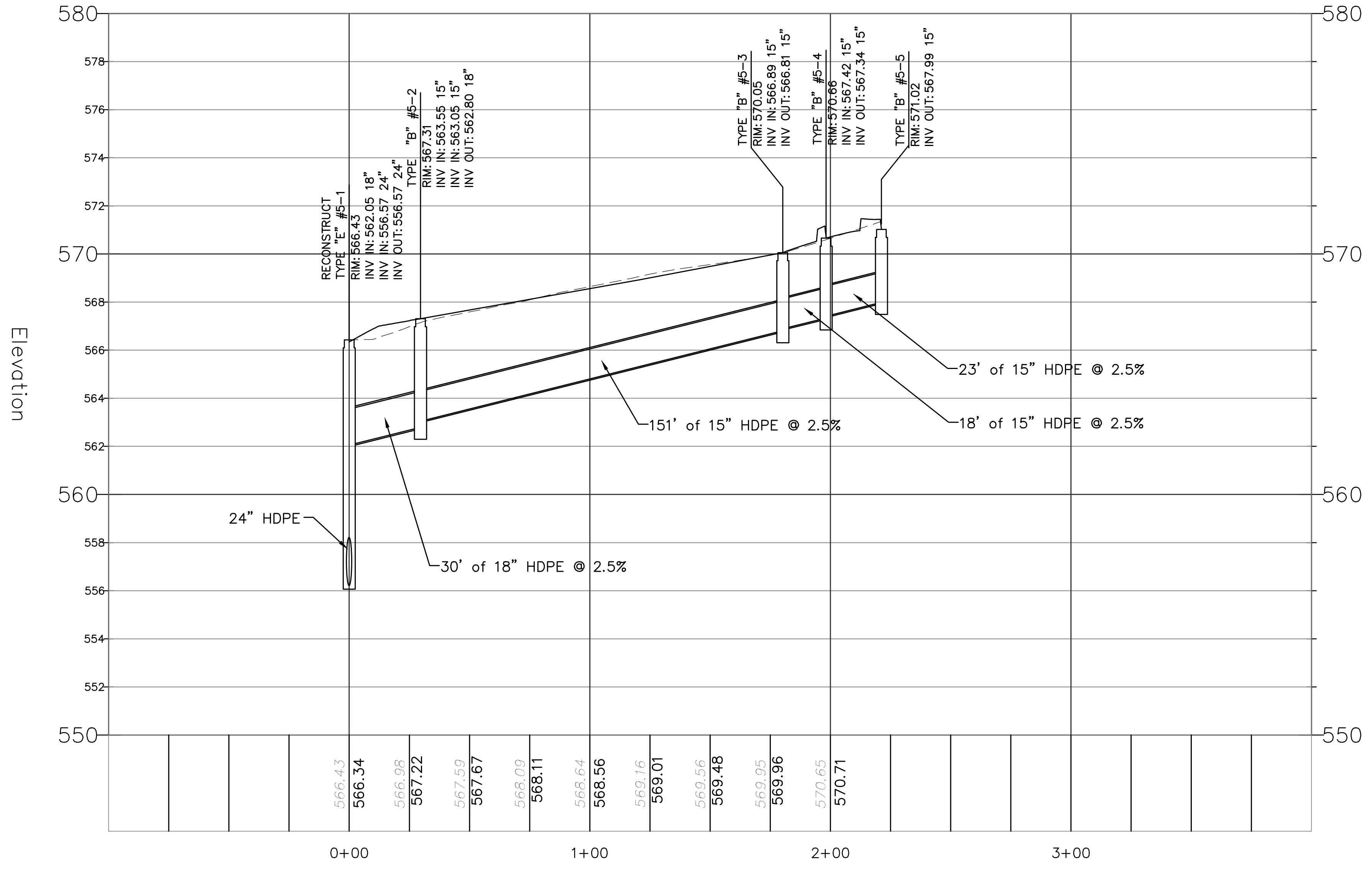
Storm Sewer Network #2 PROFILE


CONSTRUCT
DOGHOUSE MH #2-1
RIM: 537.30
INV IN: 532.00 24"
INV IN: 533.69 12"
INV OUT: 532.00 24"
TYPE "E" #2-2
RIM: 537.90
INV IN: 534.90 12"
INV OUT: 534.90 12"
121' of 12" HDPE @ 1.0%
Elevation
550
545
540
535
530
525
537.26
537.26
537.21
537.21
537.07
537.07
537.25
537.25
537.65
537.65
538.29
538.29
538.79
538.79
539.21
539.21
539.55
539.55
0+00
1+00
2+00

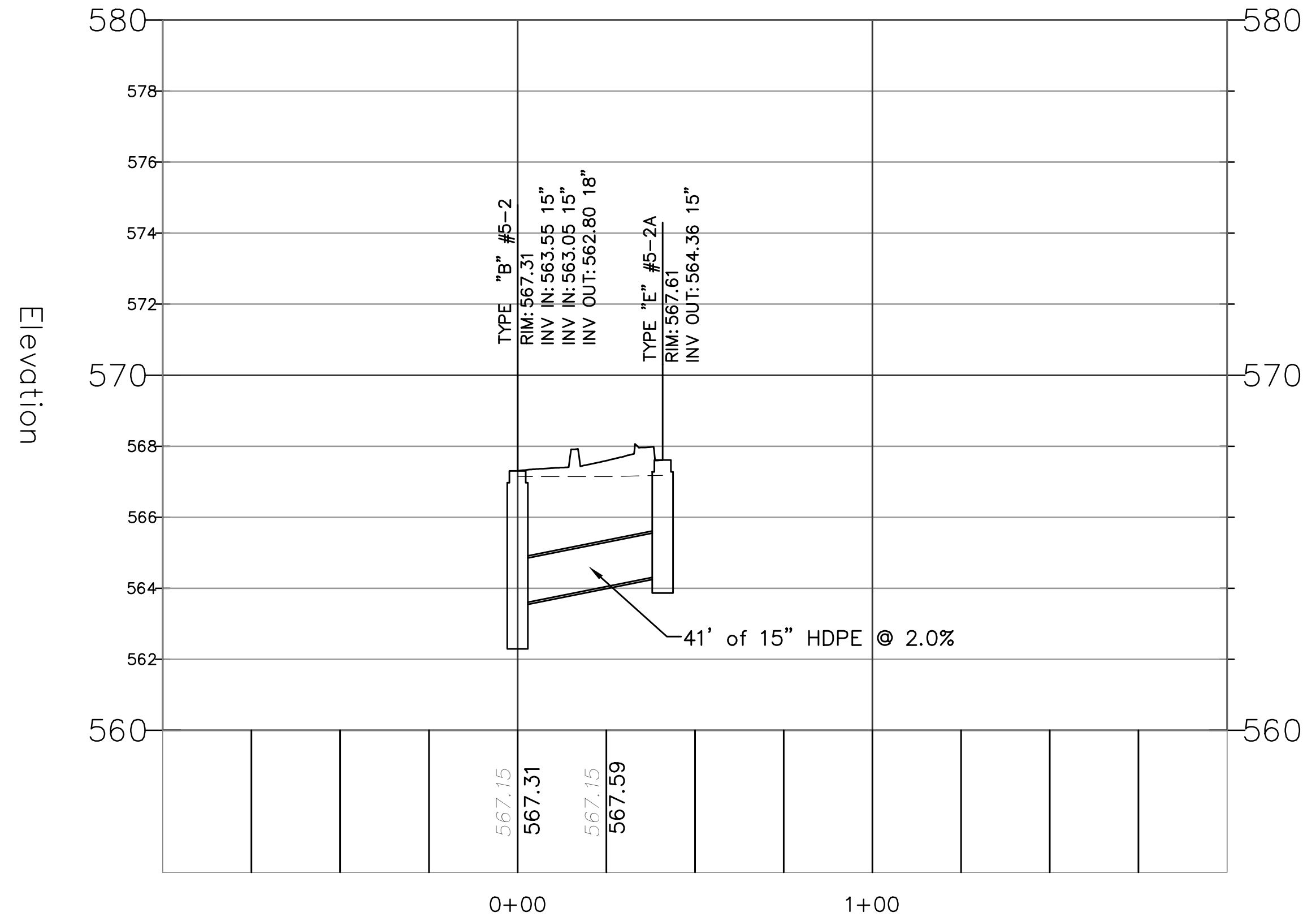
Storm Sewer Network #4 PROFILE


CONSTRUCT
TYPE "B" #4-1
RIM: 543.20
INV IN: 535.60 24"
INV IN: 537.75 15"
INV IN: 539.50 4"
INV OUT: 535.60 24"
TYPE "B" #4-2
RIM: 543.00
INV OUT: 538.38 15"
24" HDPE
31' of 15" HDPE @ 2.0%
Elevation
555
550
545
540
535
530
540.95
540.95
543.10
543.10
0+00

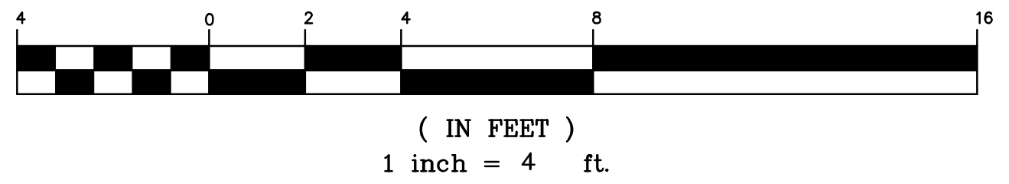
STORM SEWER NETWORK #5 PROFILE


RECONSTRUCT
TYPE "E" #5-1
RIM: 566.43
INV IN: 562.05 18"
INV IN: 556.57 24"
INV OUT: 556.57 24"
TYPE "B" #5-2
RIM: 567.31
INV IN: 563.55 15"
INV IN: 563.05 15"
INV OUT: 562.80 18"
TYPE "B" #5-3
RIM: 570.05
INV IN: 566.89 15"
INV OUT: 566.81 15"
TYPE "B" #5-4
RIM: 570.66
INV IN: 567.42 15"
INV OUT: 567.34 15"
TYPE "B" #5-5
RIM: 571.02
INV OUT: 567.99 15"
24" HDPE
30' of 18" HDPE @ 2.5%
151' of 15" HDPE @ 2.5%
23' of 15" HDPE @ 2.5%
18' of 15" HDPE @ 2.5%
Elevation
580
570
560
550
566.43
566.34
566.98
567.22
567.59
567.67
568.09
568.11
568.64
568.56
569.16
569.01
569.56
569.48
569.95
569.96
570.65
570.71
0+00
1+00
2+00
3+00

STORM SEWER NETWORK #5A PROFILE

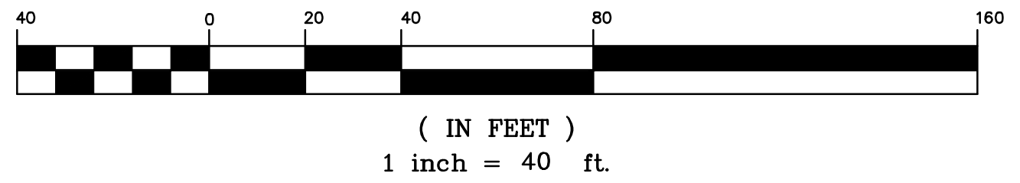

TYPE "B" #5-2
RIM: 567.31
INV IN: 563.55 15"
INV IN: 563.05 15"
INV OUT: 562.80 18"
TYPE "E" #5-2A
RIM: 567.61
INV OUT: 564.36 15"
41' of 15" HDPE @ 2.0%
Elevation
580
570
560
567.15
567.31
567.15
567.59
0+00
1+00

VERTICAL GRAPHIC SCALE



(IN FEET)
1 inch = 4 ft.

HORIZONTAL GRAPHIC SCALE


40
0
20
40
80
160

(IN FEET)
1 inch = 40 ft.

REVISION	DESCRIPTION	DATE	BY
3	REVISED PER ENGINEER'S COMMENTS	05/04/2023	JMP
2	REVISED PER NEW ARCHITECTURAL DRAWINGS	03/03/2023	JMP
1	SHIFT BUILDING C TO THE NORTH	06/15/2021	JMP

PREPARED FOR
WEST ORANGE PLAZA
BLOCK 152.01 LOT 1445 & LOT 1445.05
235 PROSPECT AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY

STORM SEWER PROFILES

PETRY
ENGINEERING, LLC
DIVISION OF CONSUMER AFFAIRS LICENSE NUMBER 24GA28155900
155 PASSAIC AVENUE • FAIRFIELD • NEW JERSEY • 07004
TEL. (973) 227-7004 FAX (973) 227-7074

Designer: JMP
Draftsman: SPD
Checked By: JMP
Project No.: 18-0078
Scale: 1" = 40' H
1" = 4' V
Sheet: SP-10

J. MICHAEL PETRY-PE,PP,RA
NJ PROFESSIONAL ENGINEER LIC. No. 36662 DATED: 12/9/2020

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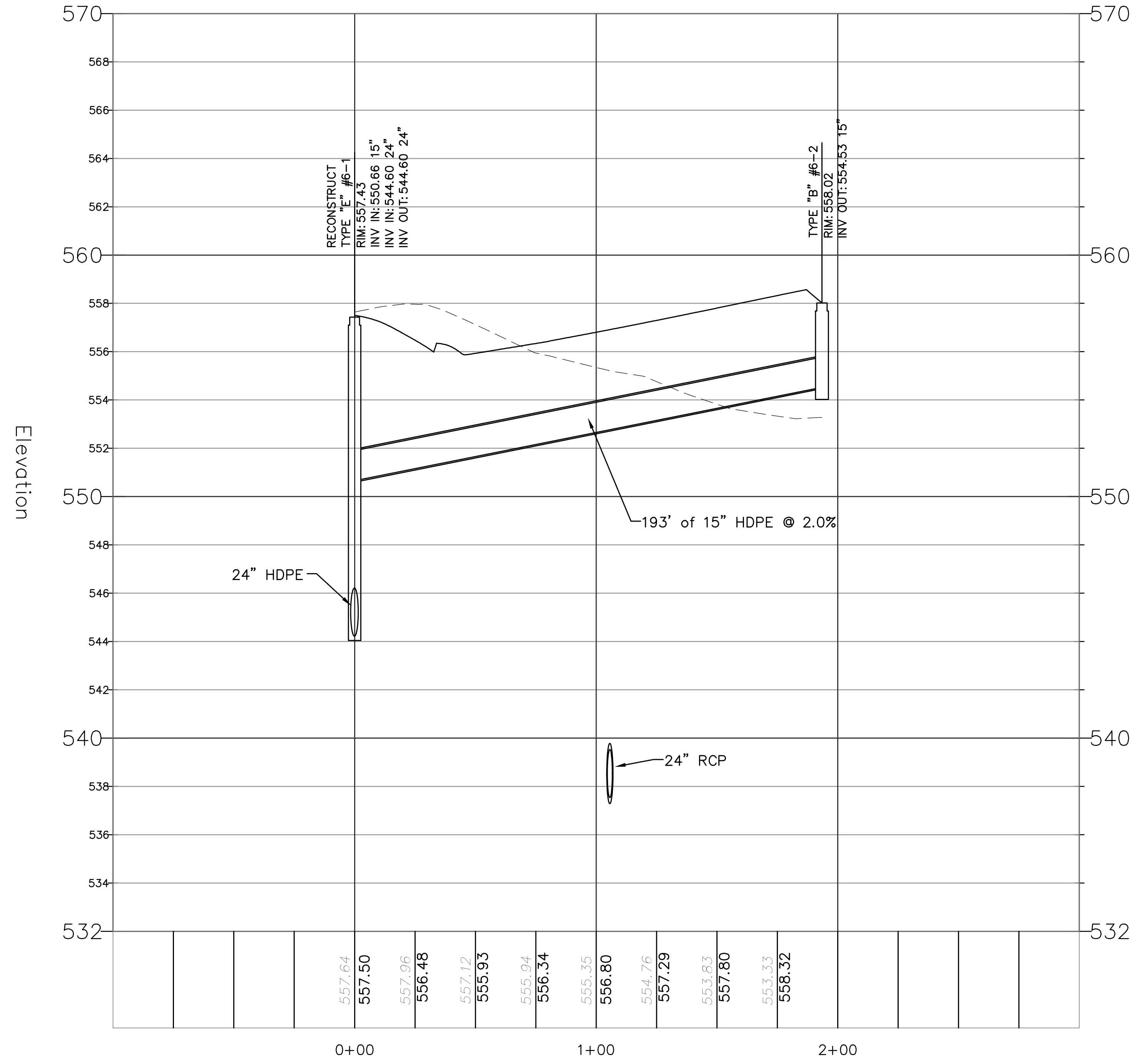
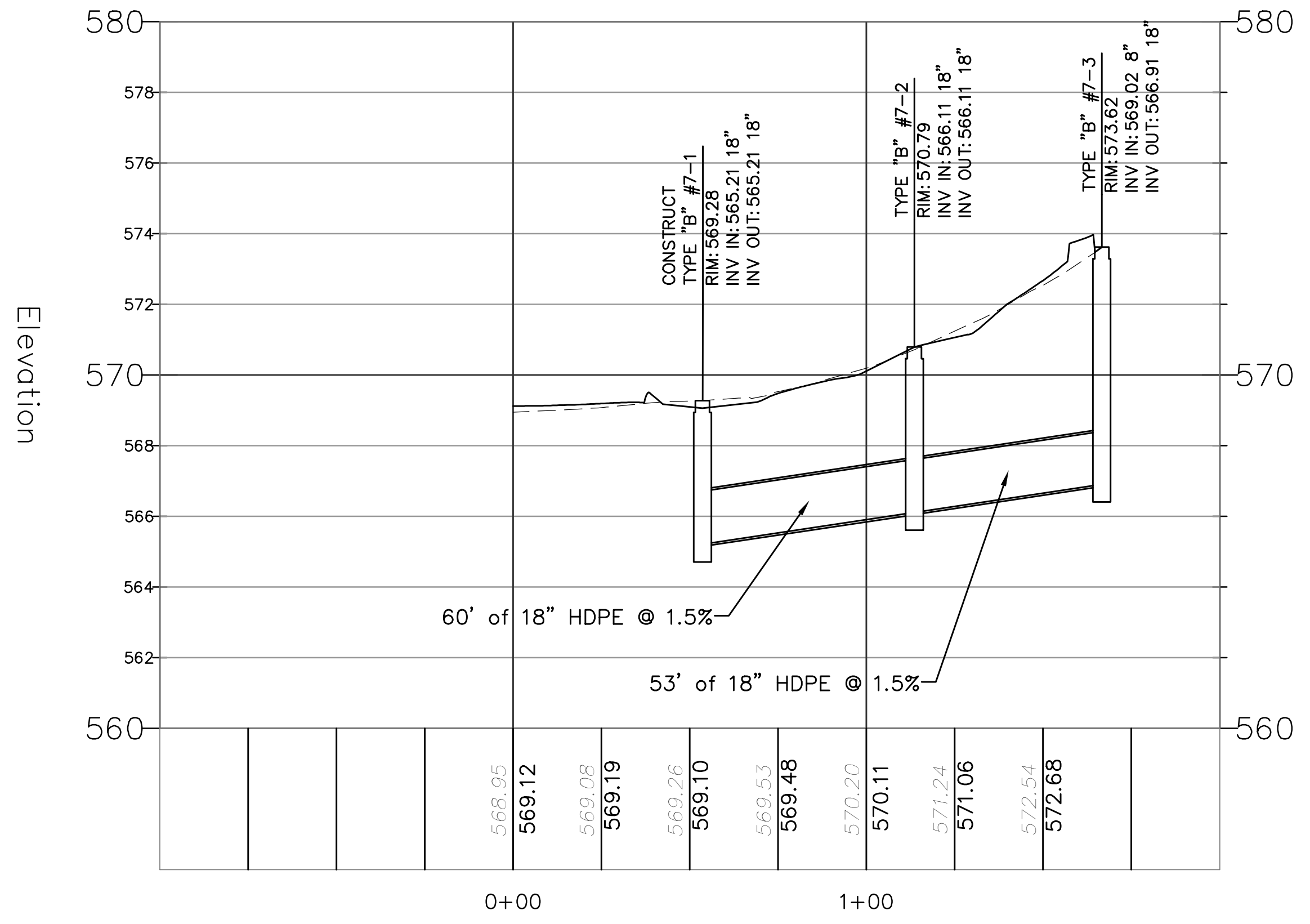
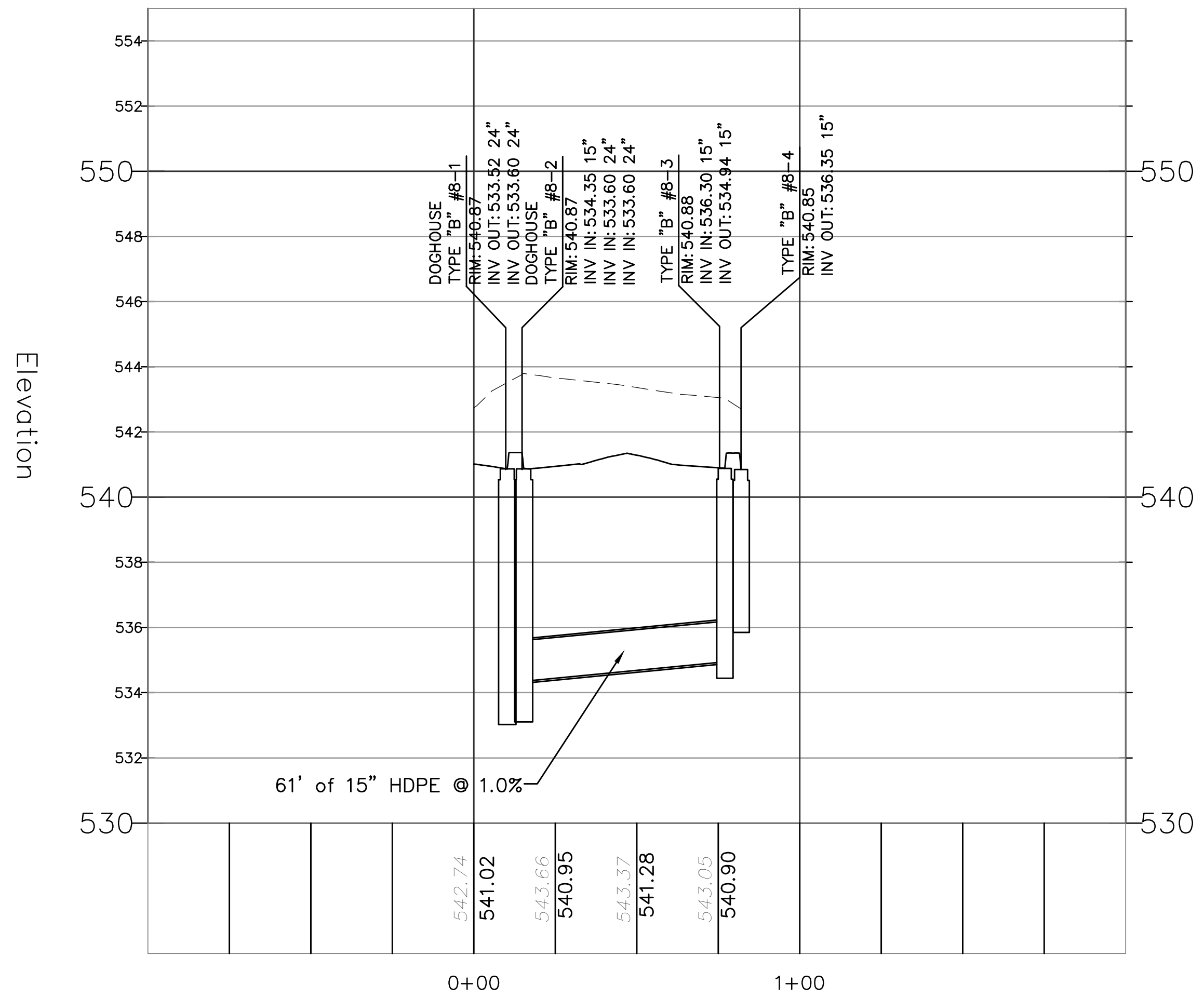
STORM SEWER NETWORK #6 PROFILE


RECONSTRUCT
TYPE "E" #6-1
RIM:557.43
INV IN:550.66 15"
INV IN:544.60 24"
INV OUT:544.60 24"
TYPE "B" #6-2
RIM:558.02
INV OUT:554.53 15"
193' of 15" HDPE @ 2.0%
24" HDPE
24" RCP
Elevation
570
560
550
540
532
557.64 557.50
557.96 556.48
557.12 555.93
555.94 556.34
555.35 556.80
554.76 557.29
553.83 557.80
553.33 558.32
0+00
1+00
2+00

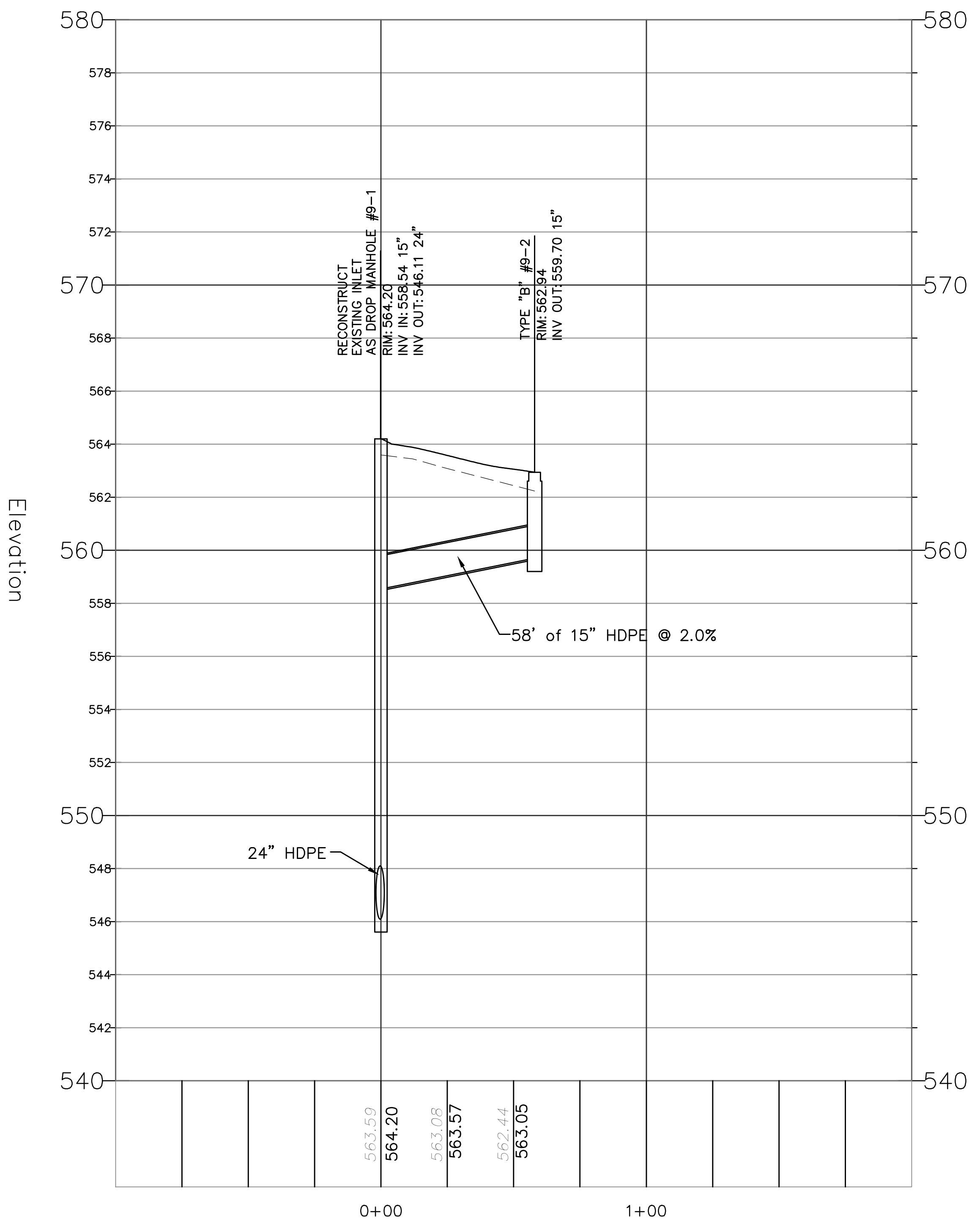
STORM SEWER NETWORK #7 PROFILE


CONSTRUCT
TYPE "B" #7-1
RIM:569.28
INV IN:565.21 18"
INV OUT:565.21 18"
TYPE "B" #7-2
RIM:570.79
INV IN:566.11 18"
INV OUT:566.11 18"
TYPE "B" #7-3
RIM:573.62
INV IN:569.02 8"
INV OUT:566.91 18"
60' of 18" HDPE @ 1.5%
53' of 18" HDPE @ 1.5%
Elevation
580
570
560
568.95 569.12
569.08 569.19
569.26 569.10
569.53 569.48
570.20 570.11
571.24 571.06
572.54 572.68
0+00
1+00

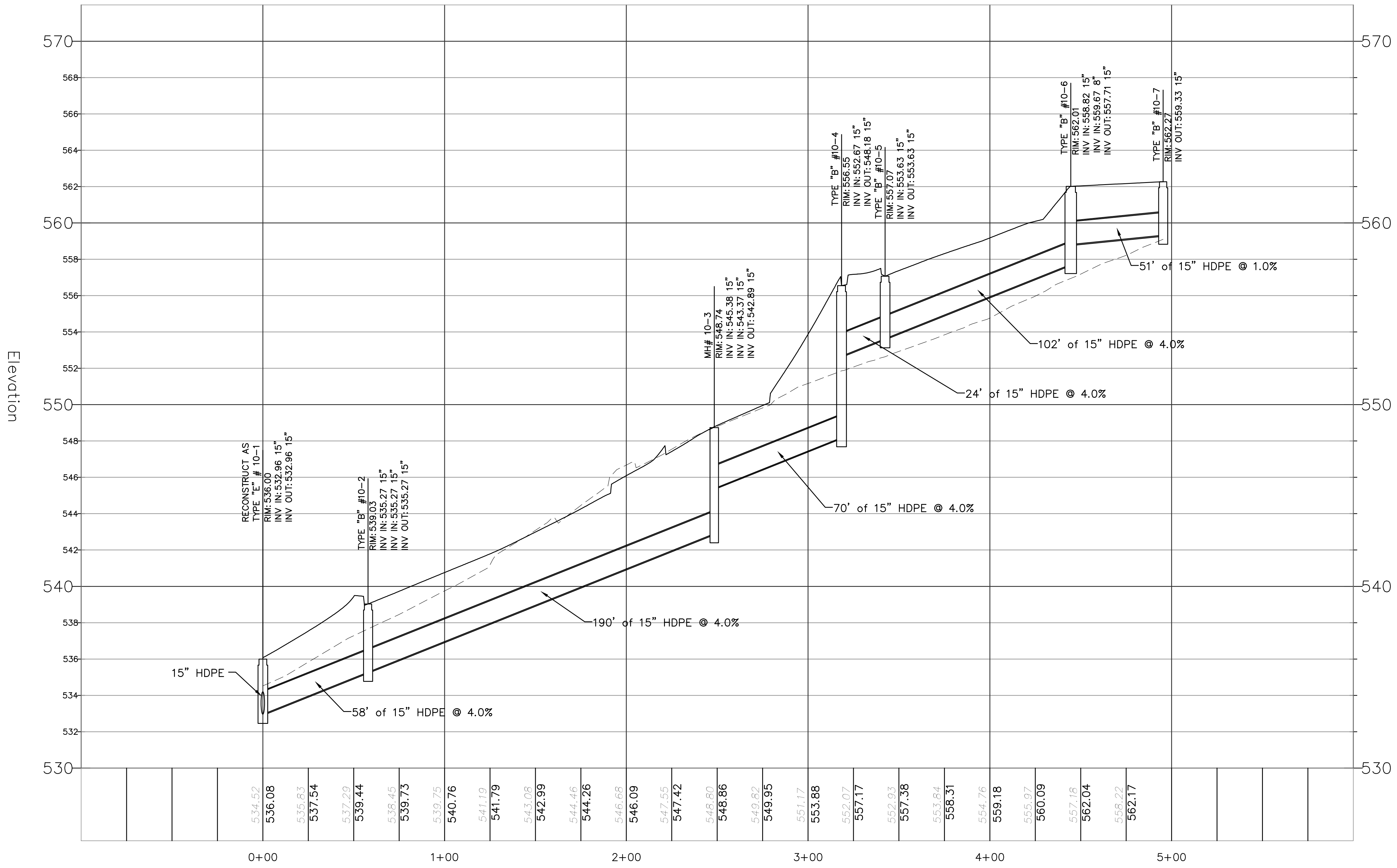
STORM SEWER NETWORK #8 PROFILE


DOGHOUSE
TYPE "B" #8-1
RIM:540.87
INV OUT:533.52 24"
INV OUT:533.60 24"
DOGHOUSE
TYPE "B" #8-2
RIM:540.87
INV IN:534.35 15"
INV IN:533.60 24"
INV IN:533.60 24"
TYPE "B" #8-3
RIM:540.88
INV IN:536.30 15"
INV OUT:534.94 15"
TYPE "B" #8-4
RIM:540.85
INV OUT:536.35 15"
61' of 15" HDPE @ 1.0%
Elevation
550
540
530
542.74 541.02
543.66 540.95
543.37 541.28
543.05 540.90
0+00
1+00

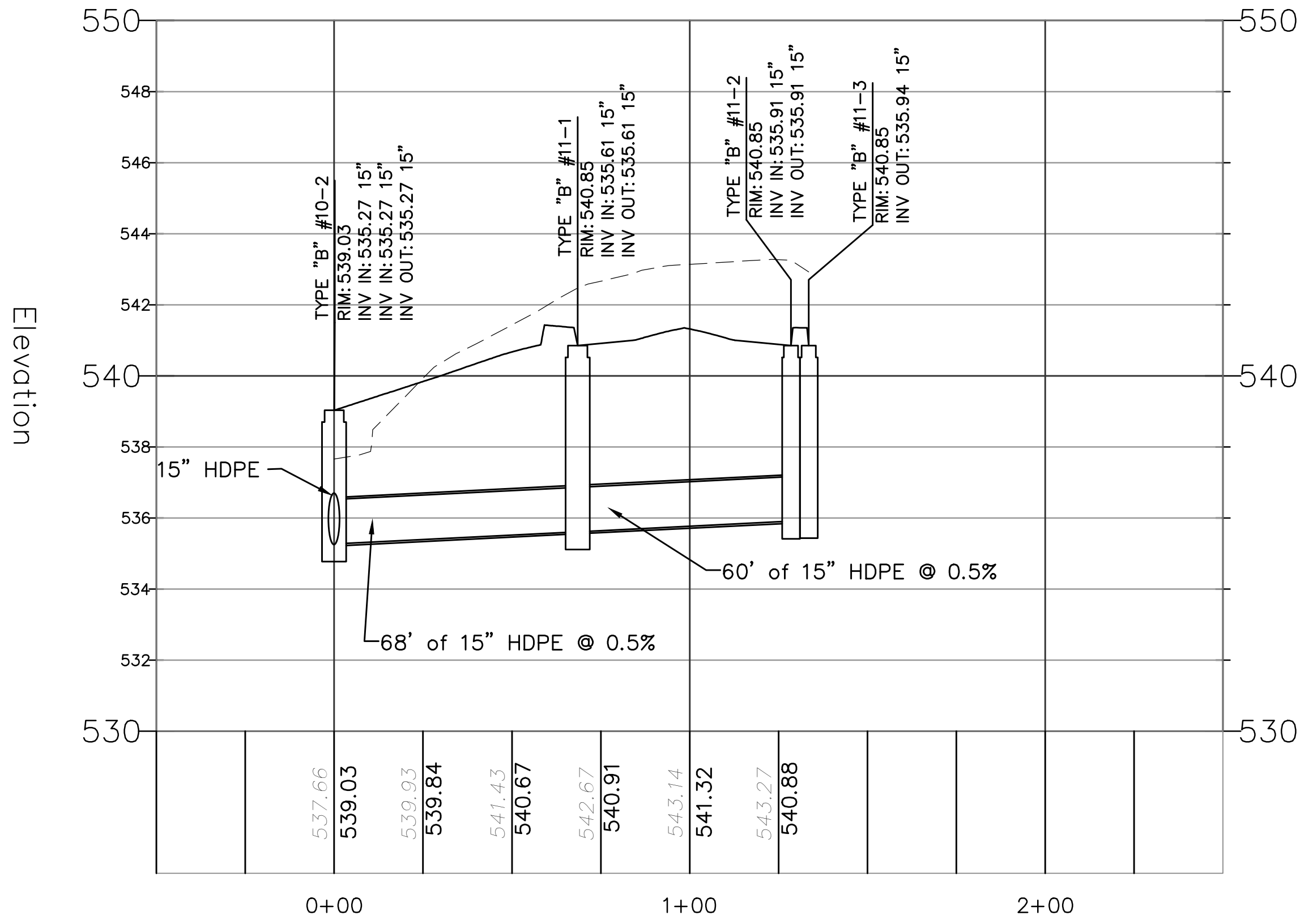
STORM SEWER NETWORK #9 PROFILE


RECONSTRUCT
EXISTING INLET
AS DROP MANHOLE #9-1
RIM:564.20
INV IN:558.54 15"
INV OUT:546.11 24"
TYPE "B" #9-2
RIM:562.94
INV OUT:559.70 15"
58' of 15" HDPE @ 2.0%
24" HDPE
Elevation
580
570
560
550
540
563.59 564.20
563.08 563.57
562.44 563.05
0+00
1+00

STORM SEWER NETWORK #10 PROFILE


RECONSTRUCT AS
TYPE "E" # 10-1
RIM:536.00
INV IN:532.96 15"
INV OUT:532.96 15"
TYPE "B" #10-2
RIM:539.03
INV IN:535.27 15"
INV IN:535.27 15"
INV OUT:535.27 15"
MH# 10-3
RIM:548.74
INV IN:545.38 15"
INV IN:543.37 15"
INV OUT:542.89 15"
TYPE "B" #10-4
RIM:556.55
INV IN:552.67 15"
INV OUT:548.18 15"
TYPE "B" #10-5
RIM:557.07
INV IN:553.63 15"
INV OUT:553.63 15"
TYPE "B" #10-6
RIM:562.01
INV IN:558.82 15"
INV IN:559.67 8"
INV OUT:557.71 15"
TYPE "B" #10-7
RIM:562.27
INV OUT:559.33 15"
15" HDPE
58' of 15" HDPE @ 4.0%
190' of 15" HDPE @ 4.0%
70' of 15" HDPE @ 4.0%
24' of 15" HDPE @ 4.0%
102' of 15" HDPE @ 4.0%
51' of 15" HDPE @ 1.0%
Elevation
570
560
550
540
530
534.52 536.08
535.83 537.54
537.29 539.44
538.45 539.73
539.75 540.76
541.19 541.79
543.08 542.99
544.46 544.26
546.68 546.09
547.55 547.42
548.80 548.86
549.82 549.95
551.17 553.88
552.07 557.17
552.93 557.38
553.84 558.31
554.76 559.18
555.97 560.09
557.18 562.04
558.22 562.17
0+00
1+00
2+00
3+00
4+00
5+00

STORM SEWER NETWORK #11 PROFILE


TYPE "B" #10-2
RIM:539.03
INV IN:535.27 15"
INV IN:535.27 15"
INV OUT:535.27 15"
TYPE "B" #11-1
RIM:540.85
INV IN:535.61 15"
INV OUT:535.61 15"
TYPE "B" #11-2
RIM:540.85
INV IN:535.91 15"
INV OUT:535.91 15"
TYPE "B" #11-3
RIM:540.85
INV OUT:535.94 15"
15" HDPE
68' of 15" HDPE @ 0.5%
60' of 15" HDPE @ 0.5%
Elevation
550
540
530
537.66 539.03
539.93 539.84
541.43 540.67
542.67 540.91
543.14 541.32
543.27 540.88
0+00
1+00
2+00

VERTICAL GRAPHIC SCALE

(IN FEET)
1 inch = 4 ft.

HORIZONTAL GRAPHIC SCALE

40
0
20
40
80
160

(IN FEET)
1 inch = 40 ft.

REVISION	DESCRIPTION	DATE	BY
3	REVISED PER ENGINEER'S COMMENTS	05/04/2023	JMP
2	REVISED PER NEW ARCHITECTURAL DRAWINGS	03/03/2023	JMP
1	SHIFT BUILDING C TO THE NORTH	06/15/2021	JMP

PREPARED FOR
WEST ORANGE PLAZA
BLOCK 152.01 LOT 1445 & LOT 1445.05
235 PROSPECT AVENUE
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Designer: JMP
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Scale: 1" = 40' H 1" = 4' V
Sheet: SP-11

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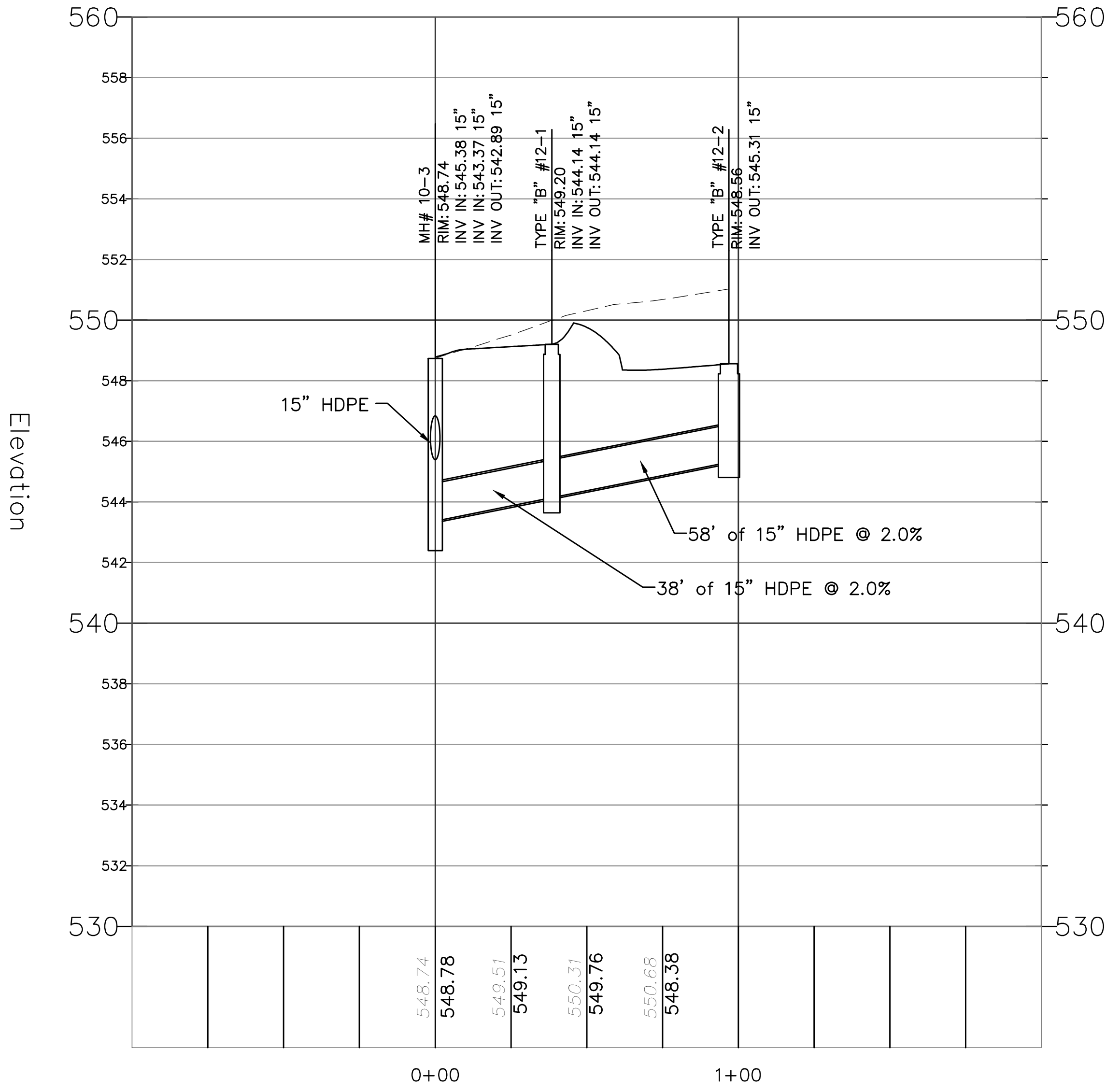
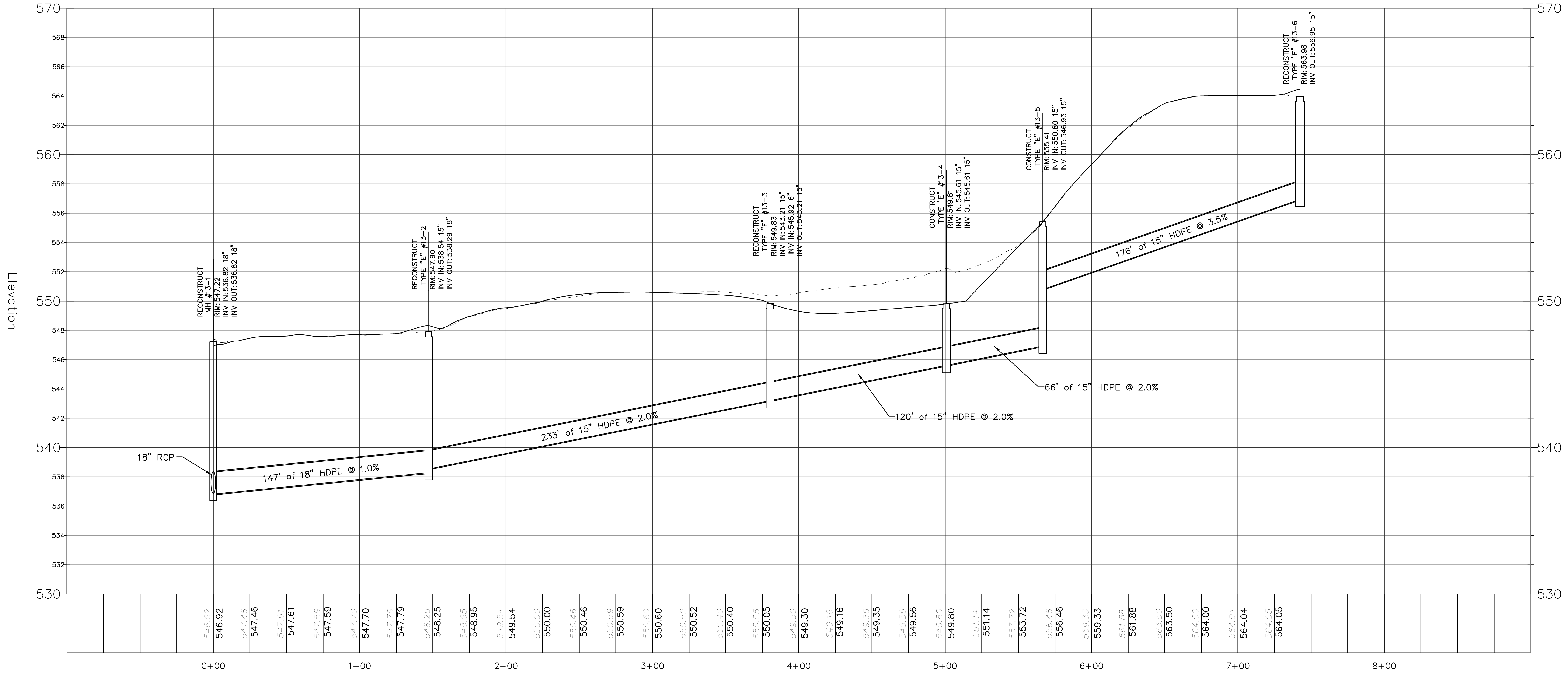
J. MICHAEL PETRY-PE,PP,RA
NJ PROFESSIONAL ENGINEER LIC. No. 36662 DATED: 12/9/2020

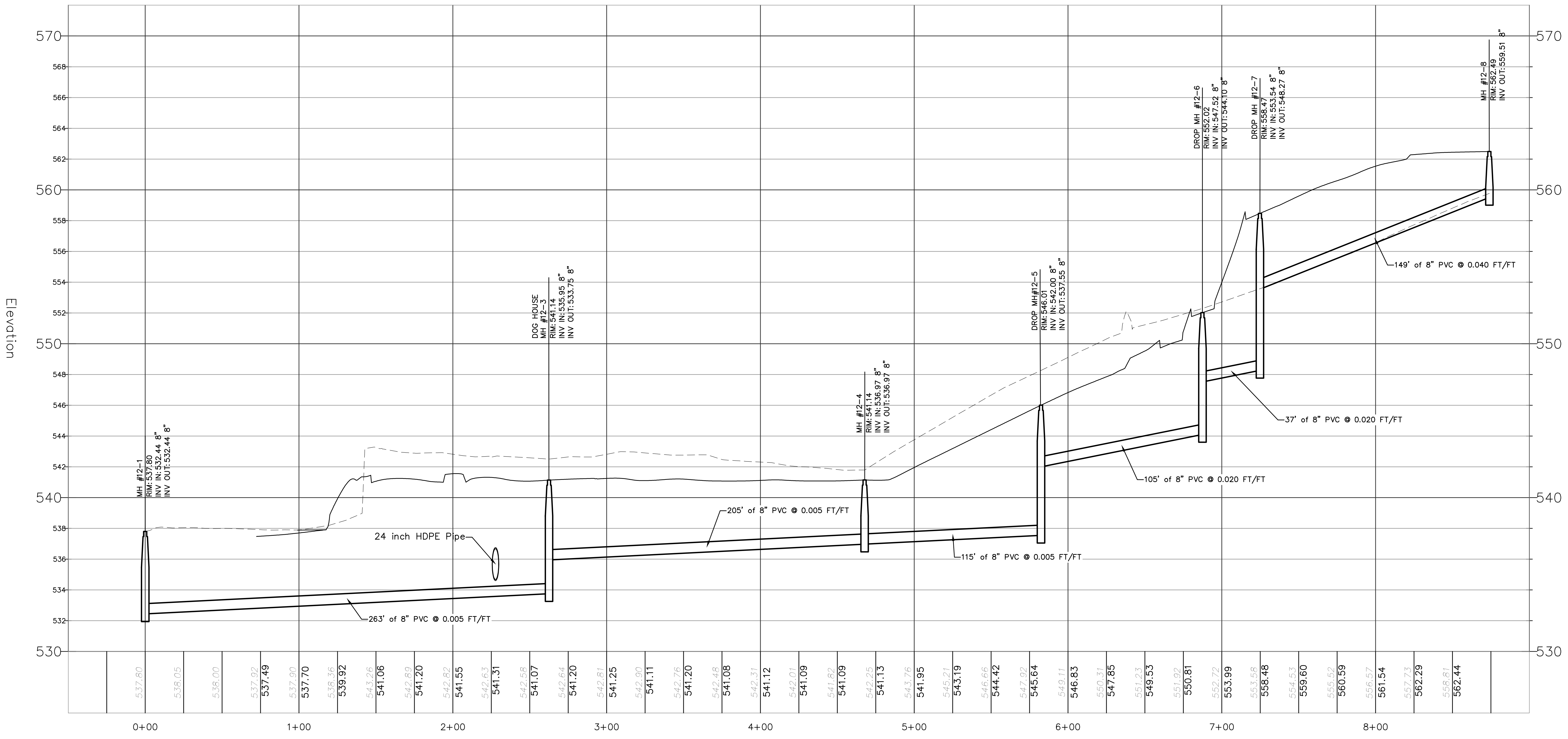
STORM SEWER NETWORK #12 PROFILE


Elevation
560
550
540
530
MH# 10-3
RIM: 548.74
INV IN: 545.38 15"
INV IN: 543.37 15"
INV OUT: 542.89 15"
TYPE "B" #12-1
RIM: 549.20
INV IN: 544.14 15"
INV OUT: 544.14 15"
TYPE "B" #12-2
RIM: 548.56
INV OUT: 545.31 15"
15" HDPE
58' of 15" HDPE @ 2.0%
38' of 15" HDPE @ 2.0%
548.78
549.13
549.76
548.38
0+00
1+00

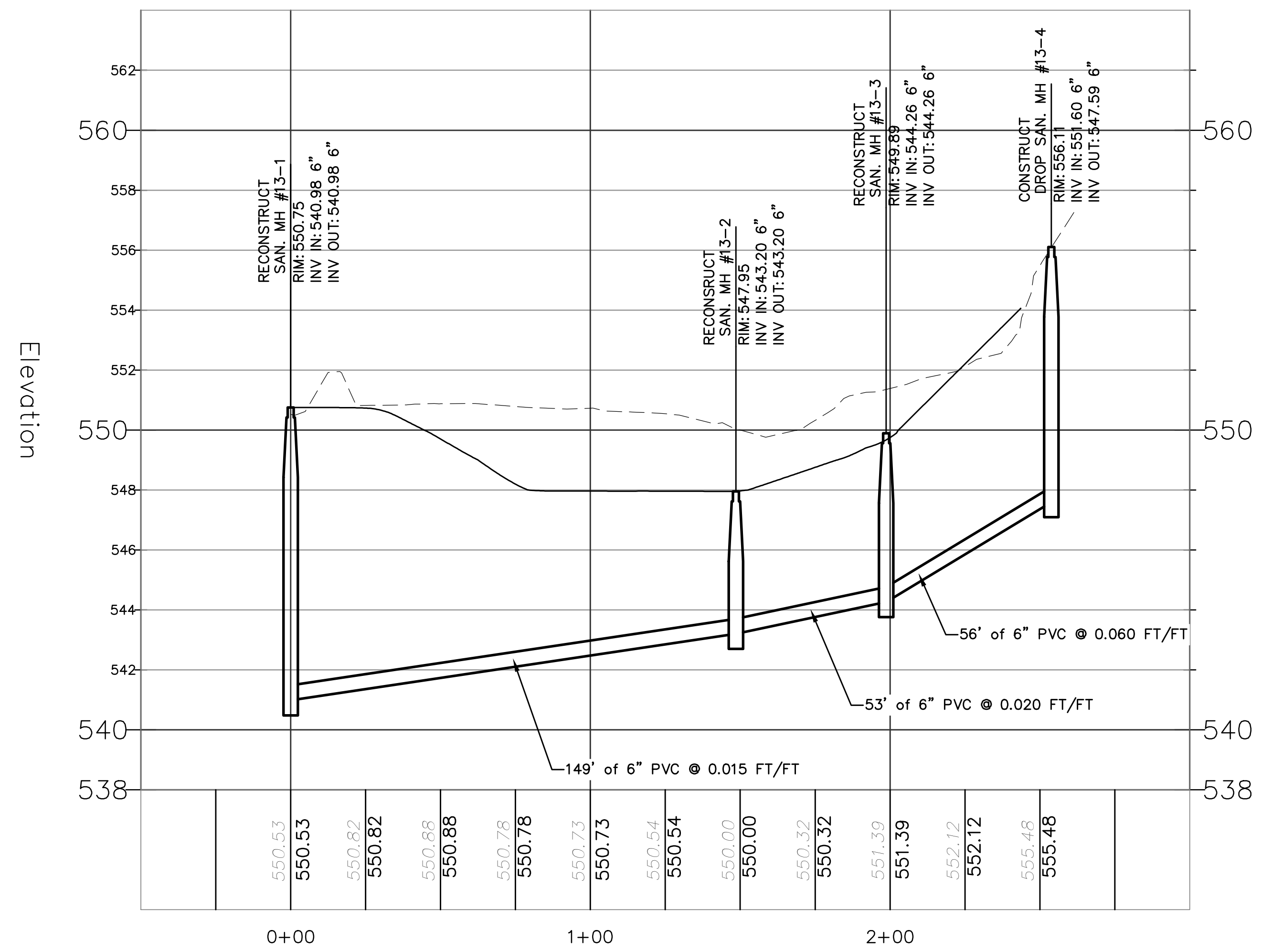
STORM SEWER NETWORK #13 PROFILE


Elevation
570
560
550
540
530
RECONSTRUCT
MH #13-1
RIM: 547.22
INV IN: 536.82 18"
INV OUT: 536.82 18"
RECONSTRUCT
TYPE "E" #13-2
RIM: 547.90
INV IN: 538.54 15"
INV OUT: 538.29 18"
RECONSTRUCT
TYPE "E" #13-3
RIM: 549.83
INV IN: 543.21 15"
INV IN: 545.92 6"
INV OUT: 543.21 15"
CONSTRUCT
TYPE "E" #13-4
RIM: 549.81
INV IN: 545.61 15"
INV OUT: 545.61 15"
CONSTRUCT
TYPE "E" #13-5
RIM: 555.41
INV IN: 550.80 15"
INV OUT: 546.93 15"
RECONSTRUCT
TYPE "E" #13-6
RIM: 563.98
INV OUT: 556.95 15"
18" RCP
147' of 18" HDPE @ 1.0%
233' of 15" HDPE @ 2.0%
120' of 15" HDPE @ 2.0%
66' of 15" HDPE @ 2.0%
176' of 15" HDPE @ 3.5%
0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00

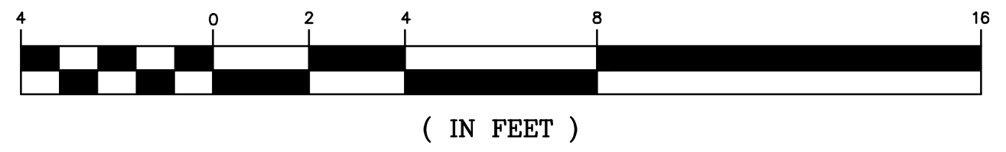
SANITARY SEWER NETWORK #12 PROFILE


Elevation
570
560
550
540
530
MH #12-1
RIM: 537.80
INV IN: 532.44 8"
INV OUT: 532.44 8"
DOG HOUSE
MH #12-3
RIM: 541.14
INV IN: 535.95 8"
INV OUT: 533.75 8"
MH #12-4
RIM: 541.14
INV IN: 536.97 8"
INV OUT: 536.97 8"
DROP MH#12-5
RIM: 546.01
INV IN: 542.00 8"
INV OUT: 537.55 8"
DROP MH #12-6
RIM: 552.02
INV IN: 547.52 8"
INV OUT: 544.10 8"
DROP MH #12-7
RIM: 558.47
INV IN: 553.54 8"
INV OUT: 548.27 8"
MH #12-8
RIM: 562.49
INV OUT: 559.51 8"
24 inch HDPE Pipe
263' of 8" PVC @ 0.005 FT/FT
205' of 8" PVC @ 0.005 FT/FT
115' of 8" PVC @ 0.005 FT/FT
105' of 8" PVC @ 0.020 FT/FT
37' of 8" PVC @ 0.020 FT/FT
149' of 8" PVC @ 0.040 FT/FT
0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00

SANITARY SEWER NETWORK #1–13 PROFILE

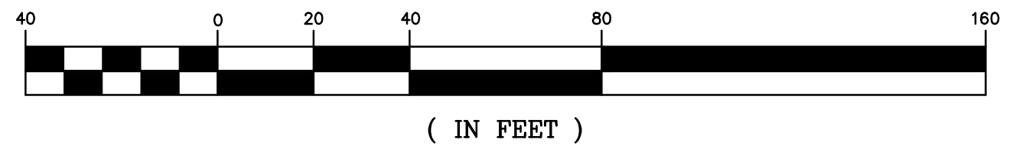

Elevation
562
560
550
540
538
RECONSTRUCT
SAN. MH #13-1
RIM: 550.75
INV IN: 540.98 6"
INV OUT: 540.98 6"
RECONSRUCT
SAN. MH #13-2
RIM: 547.95
INV IN: 543.20 6"
INV OUT: 543.20 6"
RECONSTRUCT
SAN. MH #13-3
RIM: 549.89
INV IN: 544.26 6"
INV OUT: 544.26 6"
CONSTRUCT
DROP SAN. MH #13-4
RIM: 556.11
INV IN: 551.60 6"
INV OUT: 547.59 6"
149' of 6" PVC @ 0.015 FT/FT
53' of 6" PVC @ 0.020 FT/FT
56' of 6" PVC @ 0.060 FT/FT
550.53
550.82
550.88
550.78
550.73
550.54
550.00
550.32
551.39
552.12
555.48
0+00
1+00
2+00

VERTICAL GRAPHIC SCALE



(IN FEET)
1 inch = 4 ft.

HORIZONTAL GRAPHIC SCALE


40
0
20
40
80
160

(IN FEET)
1 inch = 40 ft.

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STORM AND SANITARY SEWER PROFILES

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J. MICHAEL PETRY-PE,PP,RA
NJ PROFESSIONAL ENGINEER LIC. No. 36662 DATED: 12/9/2020

Designer: JMP
Draftsman: SPD
Checked By: JMP
Project No.: 18-0078
Scale: 1" = 40' H 1" = 4' V
Sheet:
SP-12

GENERAL NOTES:

1. ALL SITE IMPROVEMENTS TO BE PERFORMED IN ACCORDANCE WITH NJDOT SPECIFICATIONS (LATEST EDITION) UNLESS OTHER WISE NOTED.

2. THESE PLANS REPRESENT THE OVERALL SITE WORK IMPROVEMENTS REQUIRED FOR THE PROJECT CONSTRUCTION. THE CONTRACTOR SHALL FURNISH, INSTALL, TEST, AND COMPLETE ALL WORK TO THE SATISFACTION OF THE ENGINEER AND OWNER IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION. AS SUCH, THESE PLANS DO NOT COMPLETELY REPRESENT, NOR ARE THEY INTENDED TO REPRESENT, ALL SPECIFIC INSTRUCTIONS REQUIRED FOR SITE WORK CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING ALL IMPROVEMENTS DEPICTED ON THESE PLANS IN ACCORDANCE WITH ALL APPLICABLE RULES, REGULATIONS, AND LAWS IN EFFECT AT THE TIME OF CONSTRUCTION.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS NECESSARY FOR CONSTRUCTION IN ACCORDANCE WITH EXISTING LOCAL, COUNTY OR STATE REGULATIONS, OR ANY OTHER AGENCIES HAVING JURISDICTION IN THESE MATTERS.

4. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE THE LOCATION OF THE UTILITIES WITH THE UTILITY DEPARTMENTS PRIOR TO CONSTRUCTION.

5. THE DRAWINGS SHOW THE EXISTING CONDITIONS WHICH ARE LIKELY TO AFFECT THE PROSECUTION OF THE WORK INSOFAR AS THEY HAVE BEEN DETERMINED. THESE DRAWINGS SHOULD NOT BE USED FOR SCALING OF DIMENSIONS OR FOR DETERMINING RIGHT–OF–WAY AND PROPERTY LIMITS.

6. THE LOCATION OF EXISTING SUBSTRUCTURES AND UTILITIES SHOWN ON THIS PLAN ARE BASED ON FIELD OBSERVATIONS OF SURFACE EVIDENCE AND CERTAIN INFORMATION CONTAINED IN THE PUBLIC RECORD AND RECORD DATA PROVIDED BY THE OWNER. THIS PLAN IN NO WAY REPRESENTS A GUARANTEE, EXPRESS OR IMPLIED, TO THE ACCURACY OF THESE PLOTTED LOCATIONS. ADDITIONALLY, THESE PLANS MAKE NO GUARANTEE THAT UTILITIES AND OTHER SUBSURFACE STRUCTURES ARE THE ONLY SUBSURFACE STRUCTURES.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING PROPER BRACING OF EXISTING UTILITIES AS MAY BE REQUIRED TO PREVENT DAMAGE DUE TO CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL ARRANGE FOR PROPER BRACING OF ALL EXISTING UTILITIES, UTILITY POLES, AND OTHER STRUCTURES WITHIN THE VICINITY OF THE WORK WHICH MAY BE AFFECTED BY HIS OPERATIONS. ALL COST ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN THE VARIOUS UNIT PRICES BID FOR THE CONTRACT WORK.

8. THE COORDINATION OF THE LOCATION OR RELOCATION, WHERE REQUIRED, OF TELEPHONE, ELECTRIC, GAS, WATER,AND ETC. IS THE RESPONSIBILITY OF THE CONTRACTOR, AND THE SAME SHALL BE COORDINATED TO ENSURE COMPLETION WITHIN THE TIME PERMITTED.

9. THE CONTRACTOR SHOULD NOTIFY THE UNDERSIGNED PROFESSIONAL IMMEDIATELY IF ANY FIELD CONDITIONS ENCOUNTERED DIFFER MATERIALLY FROM THOSE REPRESENTED HEREON AND OR IF SUCH CONDITIONS IN THE CONTRACTOR'S OPINION WOULD OR COULD RENDER THE DESIGNS SHOWN HEREON INAPPROPRIATE OR INEFFECTIVE.

10. EXCESS EXCAVATED MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR. THE CONTRACTOR SHALL MAKE ARRANGEMENTS TO DISPOSE OF THE MATERIAL AT A SUITABLE LOCATION. DISPOSAL OF ALL MATERIAL, GRADING AND RESTORING THE DISPOSAL SITES, AND OBTAINING ANY PERMITS SHALL BE PERFORMED AT THE SOLE COST OF THE CONTRACTOR.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXCAVATING IN ADVANCE OF PIPEWORK TO DETERMINE THE EXACT LOCATION, SIZE, TYPE, AND DEPTH OF EXISTING UTILITY NOTED ON THE DRAWINGS PRIOR TO CONSTRUCTION. EXCEPT FOR THE EXCAVATION OF TEST PITS AS NOTED ON THE DRAWINGS OR WHEN DIRECTED BY THE ENGINEER, NO ADDITIONAL PAYMENT SHALL BE MADE FOR THIS WORK BUT SHALL BE INCLUDED IN THE VARIOUS UNIT PRICES BID FOR THE CONTRACT WORK.

12. THE CONTRACTOR SHALL SUPPLY AND ERECT NECESSARY WARNING SIGNS AND PROPER TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION, AND IN COMPLIANCE WITH THE REQUIREMENTS OF THE WEST ORANGE POLICE DEPARTMENT. THE CONTRACTOR SHALL FURNISH FLAGMEN AS MAY BE REQUIRED TO MAINTAIN TRAFFIC. THE CONTRACTOR SHALL CONTACT THE POLICE DEPARTMENT PRIOR TO STARTING ANY WORK AND NOTIFY THEM OF HIS PROPOSED OPERATIONS.

13. THE CONTRACTOR SHALL BACKFILL AND PAVE ANY OPEN TRENCH AT THE END OF EACH DAY AND SHALL TAKE ANY NECESSARY PRECAUTION TO PROVIDE A SAFE AND ACCESSIBLE WORK AREA FOR VEHICULAR AND PEDESTRIAN TRAFFIC.

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING VEHICLE ACCESS TO ALL DRIVEWAYS, BUILDING ENTRANCES, AND SIDE STREETS ALONG THE CONSTRUCTION ROUTE TO THE MAXIMUM EXTENT PRACTICABLE.

15. ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS, AND WALKWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FEDERAL AMERICANS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER IS MORE STRINGENT.)

16. THE CONTRACTOR SHALL BRACE AND SUPPORT ALL EXISTING CURB IN THE IMMEDIATE VICINITY OF THE CONSTRUCTION WORK. PLANKS SHALL BE PLACED OVER CURBS TO PREVENT DAMAGE BY THE CONTRACTOR'S EQUIPMENT. ANY CURB WHICH IS DAMAGED, DISTURBED, OR REMOVED IN AREAS OTHER THAN WHERE THE PIPELINE CROSSES EXISTING CURBING, AS SHOWN ON THE DRAWINGS, SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE. CURB SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS ON THE DRAWINGS.

17. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE STATE OF NJ WORKERS HEALTH AND SAFETY ACT (N.J.A.C. 12:110 ET. SEQ.) AS AMENDED AND THE UNITED STATES OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) (29 CFR 1910), AS AMENDED WITH REGARD TO WORKER AND JOB SITE SAFETY.

18. THE CONTRACTOR SHALL CONTRACT WITH THE (TOWNSHIP OF WEST ORANGE) TO PROVIDE UNIFORMED POLICE FLAGMEN AS NECESSARY FOR WORK CONDUCTED WITHIN ROADWAYS.

19. SELECT FILL SHALL BE EITHER CLASS I OR II SOIL.

DEMO NOTES:

1. DISCONNECTION OF EXISTING UTILITY SERVICES SHALL BE COORDINATED WITH THE OWNER AND IN ACCORDANCE WITH THE REGULATIONS OF THE UTILITY AUTHORITY CONCERNED. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH WRITTEN CONFIRMATION FROM UTILITY COMPANIES THAT ALL SERVICE TO THE SITE HAS BEEN TERMINATED PRIOR TO CAPPING, ABANDONMENT, OR REMOVAL OF ANY SUCH UTILITIES.

2. EXISTING BUILDINGS, STRUCTURES, CURBS, UTILITIES, SIGNS, LANDSCAPING, AND ANY OTHER IMPROVEMENTS NOT DESIGNATED FOR DEMOLITION SHALL BE PROTECTED FROM DAMAGE. SHOULD DAMAGES OCCUR, THE OWNER SHALL BE NOTIFIED IMMEDIATELY, AND REPAIRS SHALL BE MADE TO MATCH EXISTING CONDITIONS AT THE CONTRACTOR'S EXPENSE.

3. ALL CONCRETE, CMU, PAVER, AND BRICK MATERIAL DESIGNATED FOR DEMOLITION SHALL BE COMPLETELY REMOVED FROM THE SITE. INCLUDING, BUT NOT LIMITED TO, SLABS, FLOORS, BARRIERS, CURBS, AND SIDEWALKS.

4. WALLS, BEAMS, COLUMNS, FLOOR, SLABS, PAVEMENTS, RAMPS, FOOTINGS, AND ALL OTHER BUILDING COMPONENTS OR APPURTENANCES DESIGNATED FOR REMOVAL SHALL BE COMPLETELY REMOVED FROM THE SITE. THE RESULTING DEPRESSIONS SHALL BE FILLED AND COMPACTED AS DIRECTED, USING ONLY SUITABLE MATERIAL FROM ON–SITE MATERIAL OR APPROVED MATERIAL FROM OFF–SITE. NO DEBRIS FROM DEMOLITION OR OTHER UNSUITABLE MATERIAL SHALL BE USED. IN SPECIAL CASES, DEEP–SEATED CONCRETE OR MASONRY STRUCTURES WHICH SHALL NOT INTERFERE WITH SUBSEQUENT CONSTRUCTION MAY REMAIN IN PLACE IF SO APPROVED BY THE OWNER'S ENGINEER.

5. FOLLOWING THE DEMOLITION AND REMOVAL OF ALL IMPROVEMENTS SO DESIGNATED, THE DISTURBED AREA SHALL BE GRADED, AS DIRECTED BY THE OWNER'S ENGINEER, SO THAT THE RESULTING LANDFORM SHALL NOT ALLOW FOR PONDING OR THE FORMATION OF GULLIES RESULTING FROM STORMWATER RUN–OFF.

6. CONTRACTOR SHALL SECURE ALL PERMITS REQUIRED FOR WORK. IN ADDITION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF ALL MATERIAL.

7. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE REMOVAL OF ANY EXISTING SITE LIGHTING WITH THE APPROPRIATE UTILITY COMPANY. LIGHT POLES SHALL BE REMOVED AND DISPOSED OF AS REQUIRED.

UTILITY NOTES:

1. EXCESS EXCAVATED MATERIAL WILL BE DISPOSED OF BY THE CONTRACTOR. THE CONTRACTOR WILL MAKE ARRANGEMENTS TO DISPOSE OF THE MATERIAL AT A SUITABLE LOCATION. DISPOSAL OF ALL MATERIAL, GRADING AND RESTORING THE DISPOSAL SITES, AND OBTAINING ANY PERMIT WILL BE PERFORMED AT THE SOLE COST OF THE CONTRACTOR.

2. THE MAXIMUM ALLOWABLE JOINT DEFLECTION FOR DUCTILE IRON PIPE SHALL BE IN ACCORDANCE WITH THE PIPE MANUFACTURER'S RECOMMENDATIONS AND AWWA STANDARDS.

3. PROVIDE A MINIMUM VERTICAL CLEARANCE OF 18 INCHES BETWEEN WATER LINES AND UTILITIES OR OBSTRUCTIONS, UNLESS OTHERWISE SHOWN.

4. ALL FITTINGS ARE TO BE MECHANICAL JOINT WITH RETAINER GLANDS. HOWEVER, SOME FITTINGS SHALL REQUIRE THE INSTALLATION OF THRUST BLOCKS AS SHOWN IN THE DRAWINGS. PROVIDE CONCRETE THRUST BLOCKS IN ACCORDANCE WITH DETAILS OR AS NOTED THE DRAWINGS, OR AS REQUIRED BY SPECIFIC SOIL CONDITIONS ENCOUNTERED. TYPICAL THRUST BLOCK REACTION DETAILS SHOWN ON THE DRAWINGS ARE MINIMUM REQUIREMENTS. WHERE GALVANIZED RODS ARE TO BE USED FOR ANCHORINGS FITTINGS OR VALVES, THE COST OF SUCH MATERIALS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR DUCTILE IRON FITTINGS AND GATE VALVES.

5. NOTIFY THE ENGINEER, WATER, AND FIRE DEPARTMENTS 48 HOURS PRIOR TO MAKING CONNECTIONS TO EXISTING WATER MAINS.

6. THE CONTRACTOR SHALL INSTALL TEMPORARY AIR RELEASE TAPS, AND SAMPLING TAPS WITH COPPER SAMPLING PIPE FOR TESTING AND DISINFECTION AS NEEDED OR AS REQUIRED BY THE ENGINEER. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE THE SAMPLING PIPE AND CLOSE OFF THE TAP AT THE MAIN AFTER COMPLETION OF ALL TESTING AND WHEN APPROVED BY THE ENGINEER. THE FURNISHING, INSTALLATION, AND REMOVAL OF TAPS AND PIPE SHALL BE INCLUDED IN UNIT PRICE BID FOR TESTING AND DISINFECTION.

7. THE GENERAL LOCATION OF FIRE HYDRANTS AND CURB BOXES ARE SHOWN ON THE DRAWINGS. HYDRANTS AND CURB BOXES SHALL BE LOCATED IN THE FIELD BY THE WATER DEPARTMENT PRIOR TO CONSTRUCTING THE WATER MAIN, DUE TO FUTURE ROAD RECONSTRUCTION WHICH SHALL RESULT IN THE RELOCATION OF EXISTING CURB AND CHANGES IN THE GRADE. THE WATER DEPARTMENT SHALL PROVIDE THE FINISHED GRADE ELEVATION FOR SETTING THE HYDRANT AND VALVE BOX.

8. ANY EXISTING FIRE HYDRANTS TO BE REMOVED SHALL BE DELIVERED TO THE WATER DEPARTMENT YARD.

9. THE APPROXIMATE LOCATION OF WATER SERVICE CONNECTIONS IS SHOWN IN THE DRAWINGS; THE EXACT LOCATION SHALL BE DETERMINED IN THE FIELD BY OWNER.

10. CONSTRUCTION AND TRANSFER OF SERVICES SHALL ONLY BE PERFORMED AFTER THE MAIN HAS BEEN TESTED AND DISINFECTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. THIS INCLUDES THE INSTALLATION OF SERVICE CORPORATIONS.

11. THE CONTRACTOR SHALL REFER TO ARCHITECTURAL AND/OR MEP DRAWINGS FOR ACTUAL LOCATIONS OF ALL UTILITY ENTRANCES, INCLUDING BUT NOT LIMITED TO DOMESTIC WATER SERVICE, FIRE WATER SERVICE, GAS, SANITARY, ELECTRIC, AND ETC.

12. THE MINIMUM EARTH COVER OVER ALL NEW WATER MAINS SHALL BE 4 FEET UNLESS OTHERWISE INDICATED ON DRAWINGS. THE PIPE SHALL BE DUCTILE IRON, CEMENT LINED WITH RESTRAINED PUSH–ON JOINTS UNLESS OTHERWISE INDICATED. PIPE CLASSIFICATION FOR THE WATER MAINS SHALL BE CLASS 52. ALL FITTINGS SHALL BE DUCTILE IRON CEMENTS–LINED WITH MECHANICAL JOINTS, WITH RETAINER GLANDS CLASS 350 UNLESS OTHERWISE INDICATED ON DRAWINGS OR REQUIRED BY THE ENGINEER. ALL PIPE AND FITTINGS SHALL BE POLYETHYLENE ENCLOSED.

13. THE MINIMUM EARTH COVER OVER ALL OTHER UTILITIES IS TO BE 2' FEET UNLESS OTHERWISE INDICATED ON DRAWINGS.

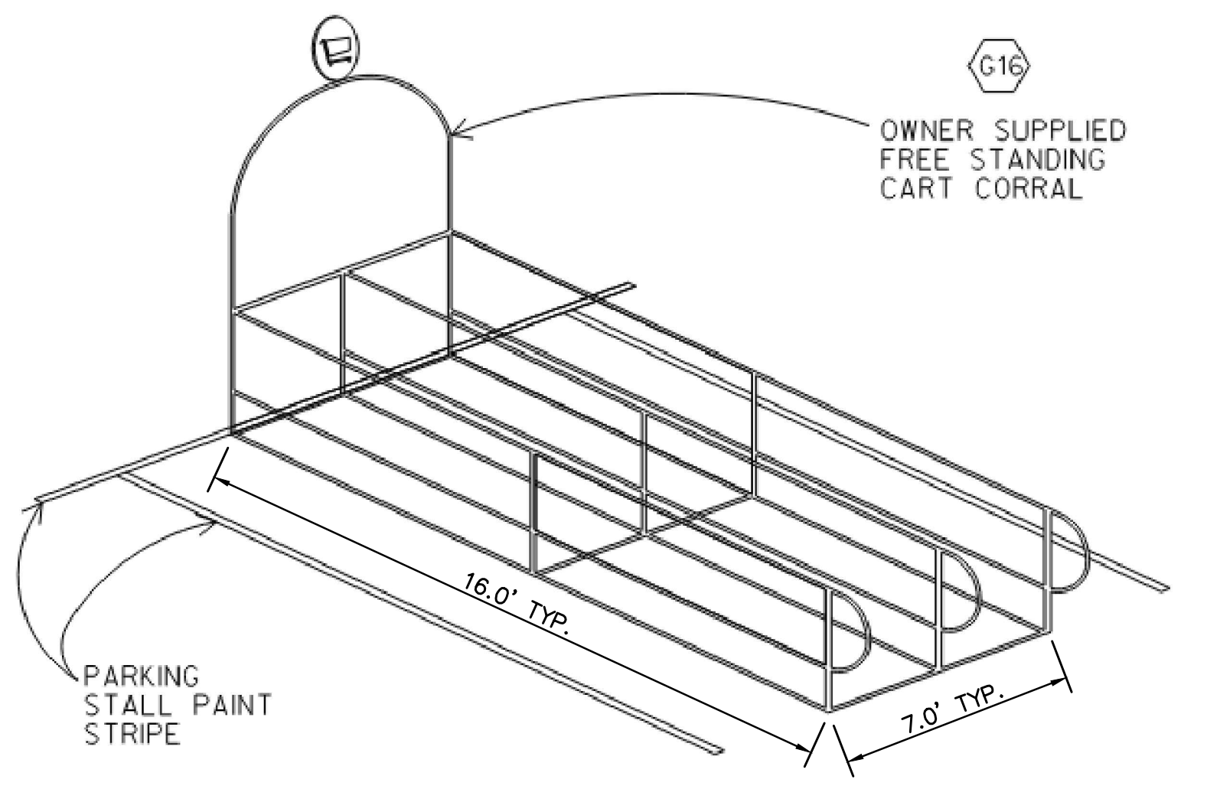
14. WHERE EXISTING MAINS ARE TO BE ABANDONED IN PLACE, ALL OPENINGS FROM CUT PORTIONS SHALL BE COMPLETELY SEALED WITH NON–SHRINK QUICK–SETTING CEMENT, AS APPROVED BY THE ENGINEER. DO NOT BACKFILL UNTIL THE CEMENT IS CURED.

15. INSTALLATION OF NEW COPPER SERVICES SHALL BE PERFORMED BY OPEN TRENCH EXCAVATION IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS. THE EMPLOYMENT OF ALTERNATIVE METHODS SHALL NOT BE PERMITTED.

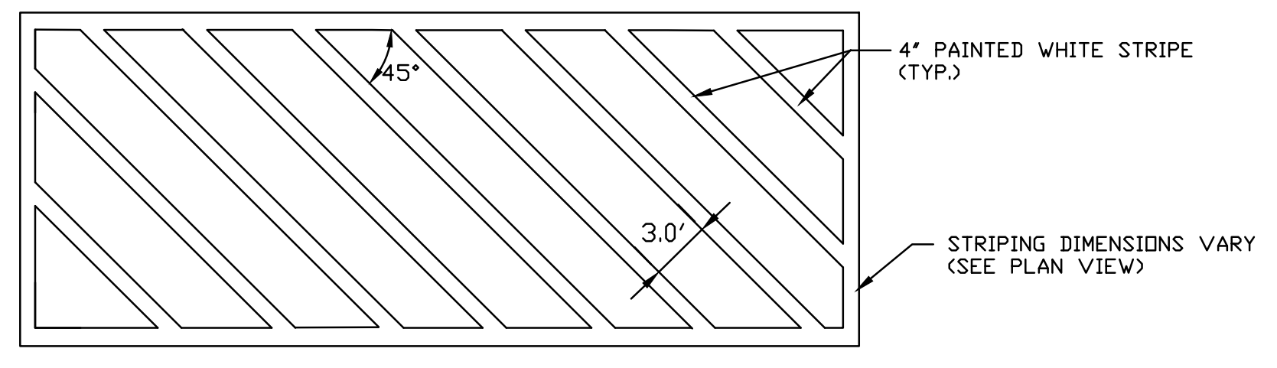
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING PROPER BRACING OF EXISTING UTILITIES AS MAY BE REQUIRED TO PREVENT DAMAGE DUE TO CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL ARRANGE FOR PROPER BRACING OF ALL EXISTING UTILITIES, UTILITY POLES, AND OTHER STRUCTURES WITHIN THE VICINITY OF THE WORK WHICH MAY BE AFFECTED BY THEIR OPERATIONS. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN THE VARIOUS UNIT PRICES BID FOR THE CONTRACT WORK.

17. WORK PERFORMED ON COUNTY ROADS SHALL BE LIMITED TO THE HOURS OF 9:00 A.M. TO 4:00 P.M. UNLESS OTHERWISE PERMITTED BY THE COUNTY.

18. ALL UTILITIES TO BE ABANDONED SHALL BE ABANDONED IN THE STREET ACCORDING TO ALL APPLICABLE CODES.

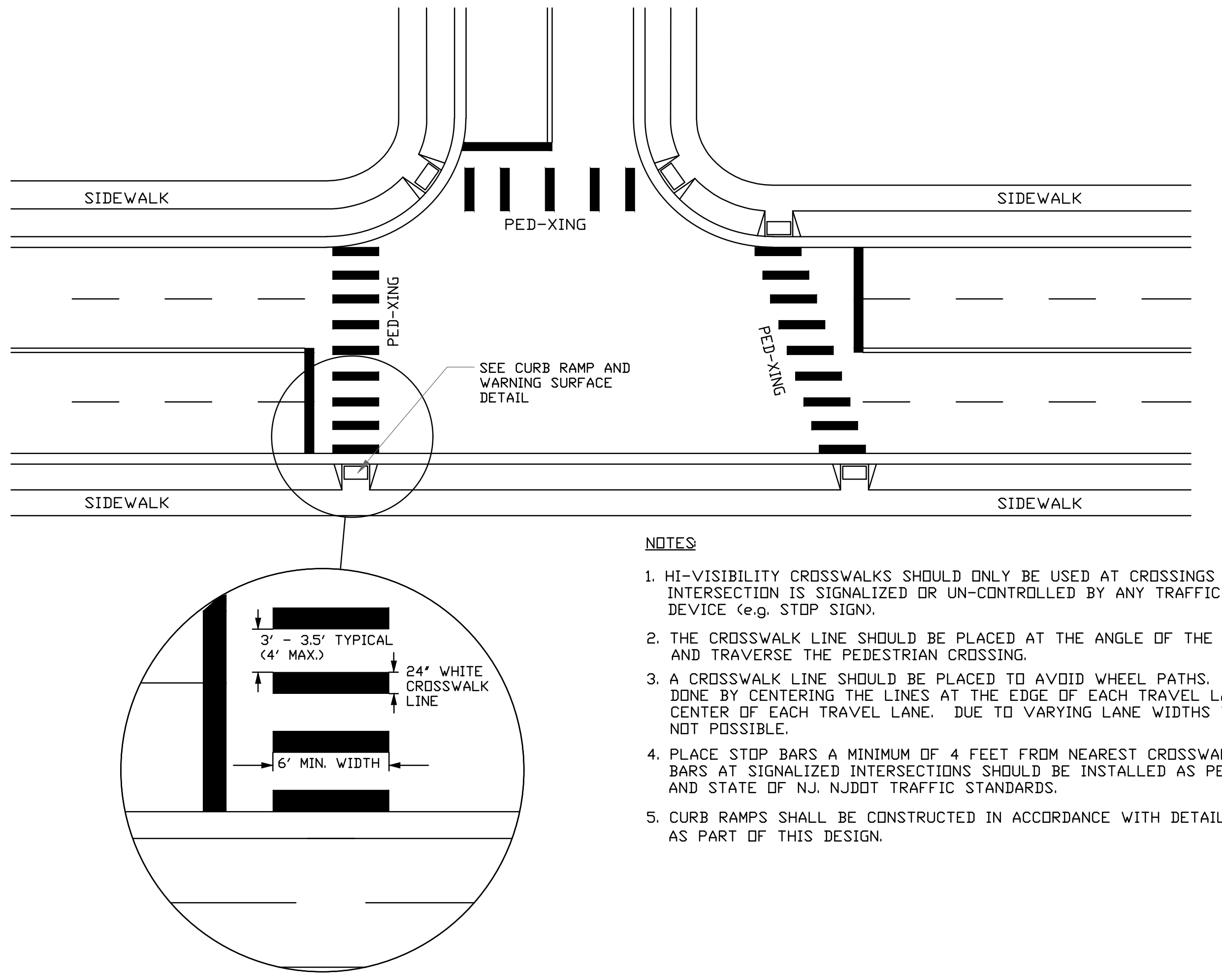

G16
OWNER SUPPLIED FREE STANDING CART CORRAL
PARKING STALL PAINT STRIPE
16.0' TYP.
7.0' TYP.

CART CORAL DETAIL
SCALE – N.T.S.


45°
3.0'
4" PAINTED WHITE STRIPE (TYP.)
STRIPING DIMENSIONS VARY (SEE PLAN VIEW)

NOTE:
1. PAVEMENT MARKINGS AND STRIPING SHALL BE LONG LIFE THERMOPLASTIC.

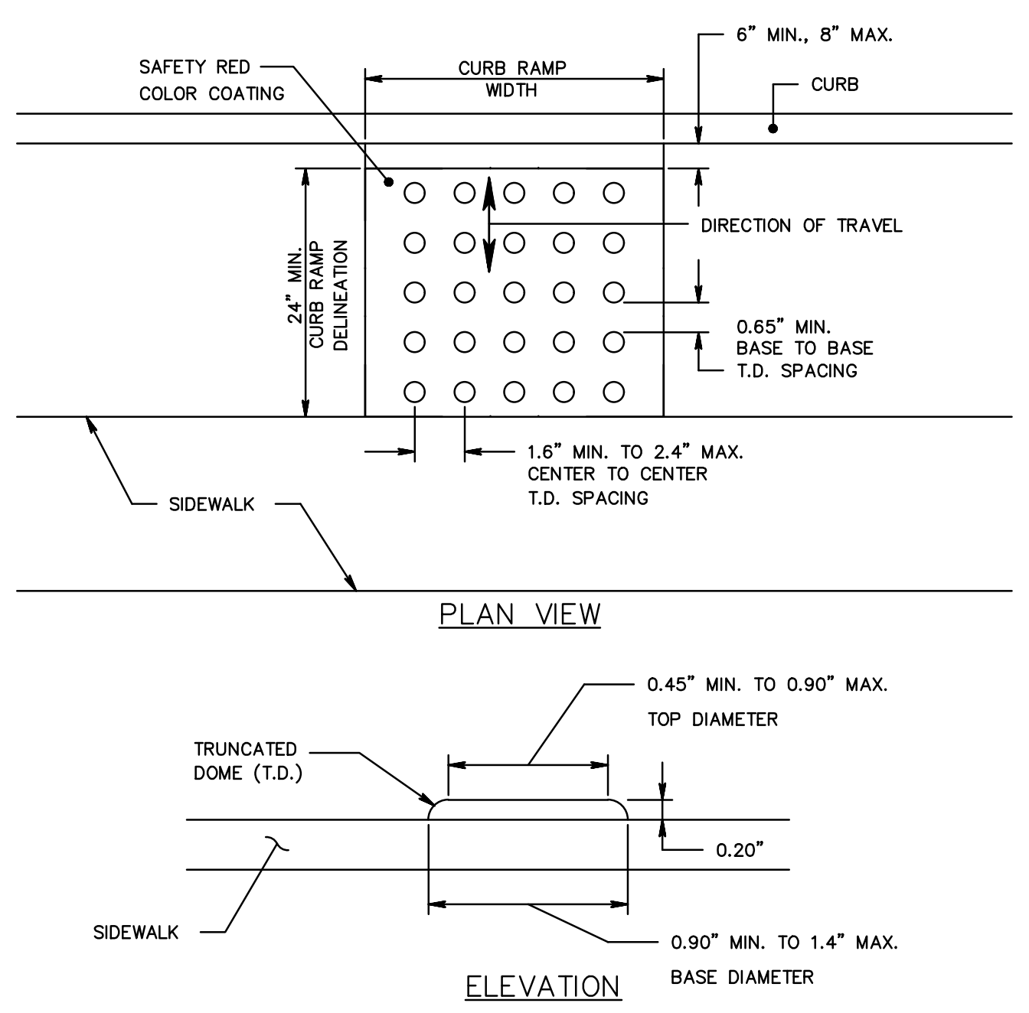
TYPICAL PAVEMENT MARKINGS FOR STRIPED ISLANDS
SCALE – N.T.S.



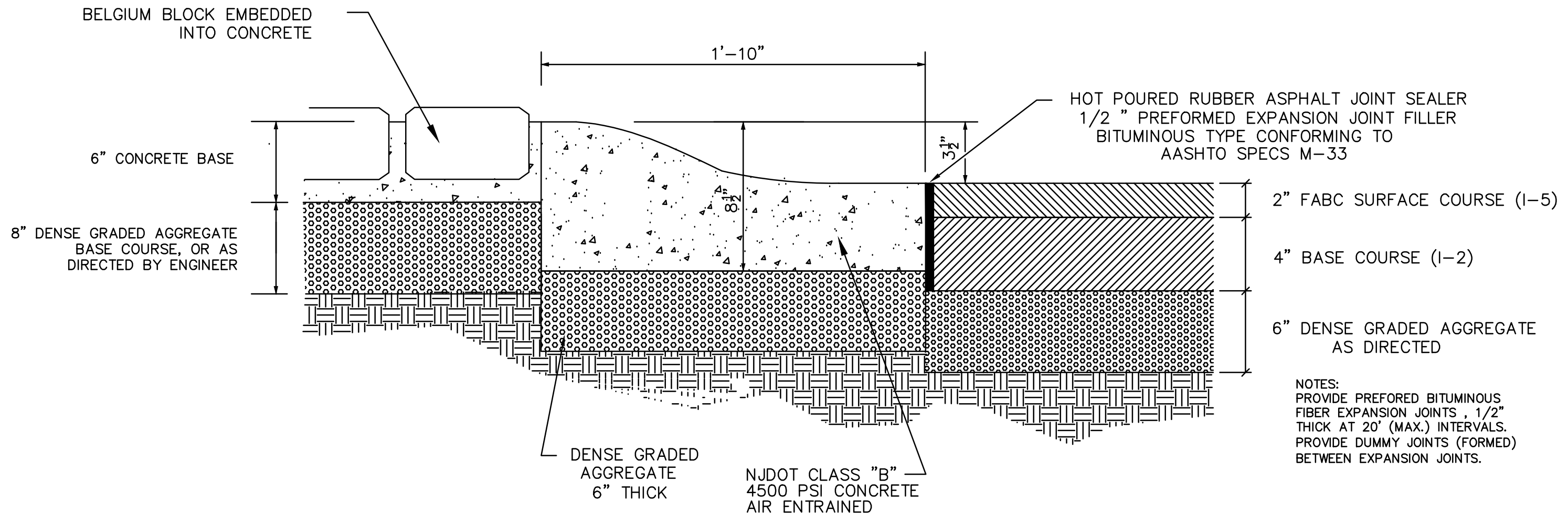
NOTES:

1. HI-VISIBILITY CROSSWALKS SHOULD ONLY BE USED AT CROSSINGS WHERE THE INTERSECTION IS SIGNALIZED OR UN-CONTROLLED BY ANY TRAFFIC CONTROL DEVICE (e.g. STOP SIGN).
2. THE CROSSWALK LINE SHOULD BE PLACED AT THE ANGLE OF THE TRAVEL LANES AND TRAVERSE THE PEDESTRIAN CROSSING.
3. A CROSSWALK LINE SHOULD BE PLACED TO AVOID WHEEL PATHS. THIS IS IDEALLY DONE BY CENTERING THE LINES AT THE EDGE OF EACH TRAVEL LANE AND IN THE CENTER OF EACH TRAVEL LANE. DUE TO VARYING LANE WIDTHS THIS IS SOMETIMES NOT POSSIBLE.
4. PLACE STOP BARS A MINIMUM OF 4 FEET FROM NEAREST CROSSWALK LINE. STOP BARS AT SIGNALIZED INTERSECTIONS SHOULD BE INSTALLED AS PER ALL FEDERAL M.U.T.C.D. AND STATE OF NJ. NJDOT TRAFFIC STANDARDS.
5. CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAILS SHOWN/PROVIDED AS PART OF THIS DESIGN.

TYPICAL HI–VISIBILITY CROSSWALK PAVEMENT MARKINGS
SCALE N.T.S.


6" MIN., 8" MAX.
SAFETY RED COLOR COATING
CURB RAMP WIDTH
CURB
DIRECTION OF TRAVEL
24" MIN. CURB RAMP DELINEATION
0.65" MIN. BASE TO BASE T.D. SPACING
1.6" MIN. TO 2.4" MAX. CENTER TO CENTER T.D. SPACING
SIDEWALK
PLAN VIEW
0.45" MIN. TO 0.90" MAX. TOP DIAMETER
TRUNCATED DOME (T.D.)
0.20"
SIDEWALK
0.90" MIN. TO 1.4" MAX. BASE DIAMETER
ELEVATION

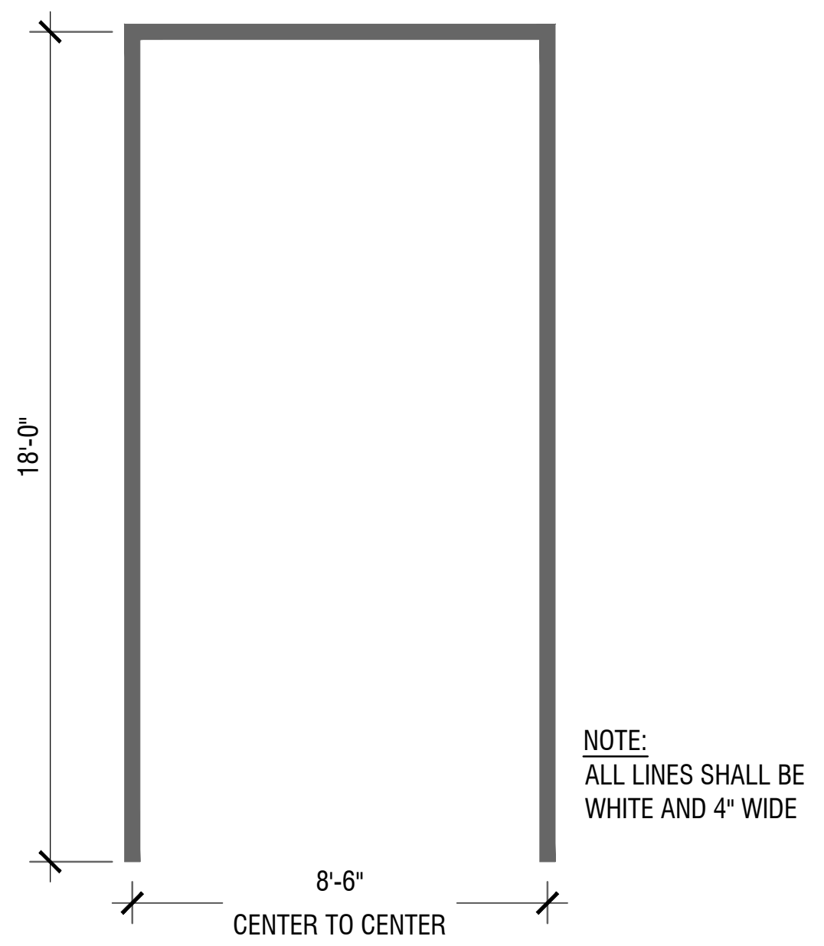
DETECTABLE WARNING SURFACE
SCALE N.T.S.


BELGIUM BLOCK EMBEDDED INTO CONCRETE
1'–10"
6" CONCRETE BASE
8" DENSE GRADED AGGREGATE BASE COURSE, OR AS DIRECTED BY ENGINEER
8½"
3½"
HOT POURED RUBBER ASPHALT JOINT SEALER 1/2 " PREFORMED EXPANSION JOINT FILLER BITUMINOUS TYPE CONFORMING TO AASHTO SPECS M–33
2" FABC SURFACE COURSE (I–5)
4" BASE COURSE (I–2)
6" DENSE GRADED AGGREGATE AS DIRECTED
DENSE GRADED AGGREGATE 6" THICK
NJDOT CLASS "B" 4500 PSI CONCRETE AIR ENTRAINED

NOTES:
PROVIDE PREFORED BITUMINOUS FIBER EXPANSION JOINTS , 1/2" THICK AT 20' (MAX.) INTERVALS. PROVIDE DUMMY JOINTS (FORMED) BETWEEN EXPANSION JOINTS.

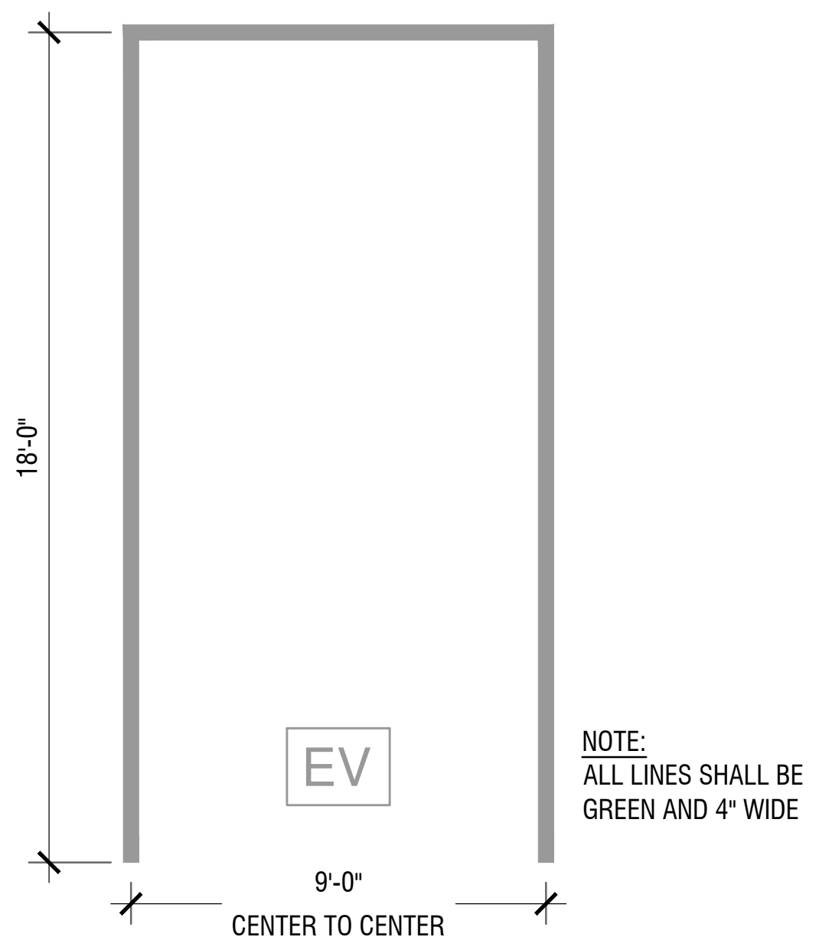
CONCRETE MOUNTABLE CURB – FULL DEPTH PAVEMENT – BELGIUM BLOCK ISLAND

SCALE N.T.S.



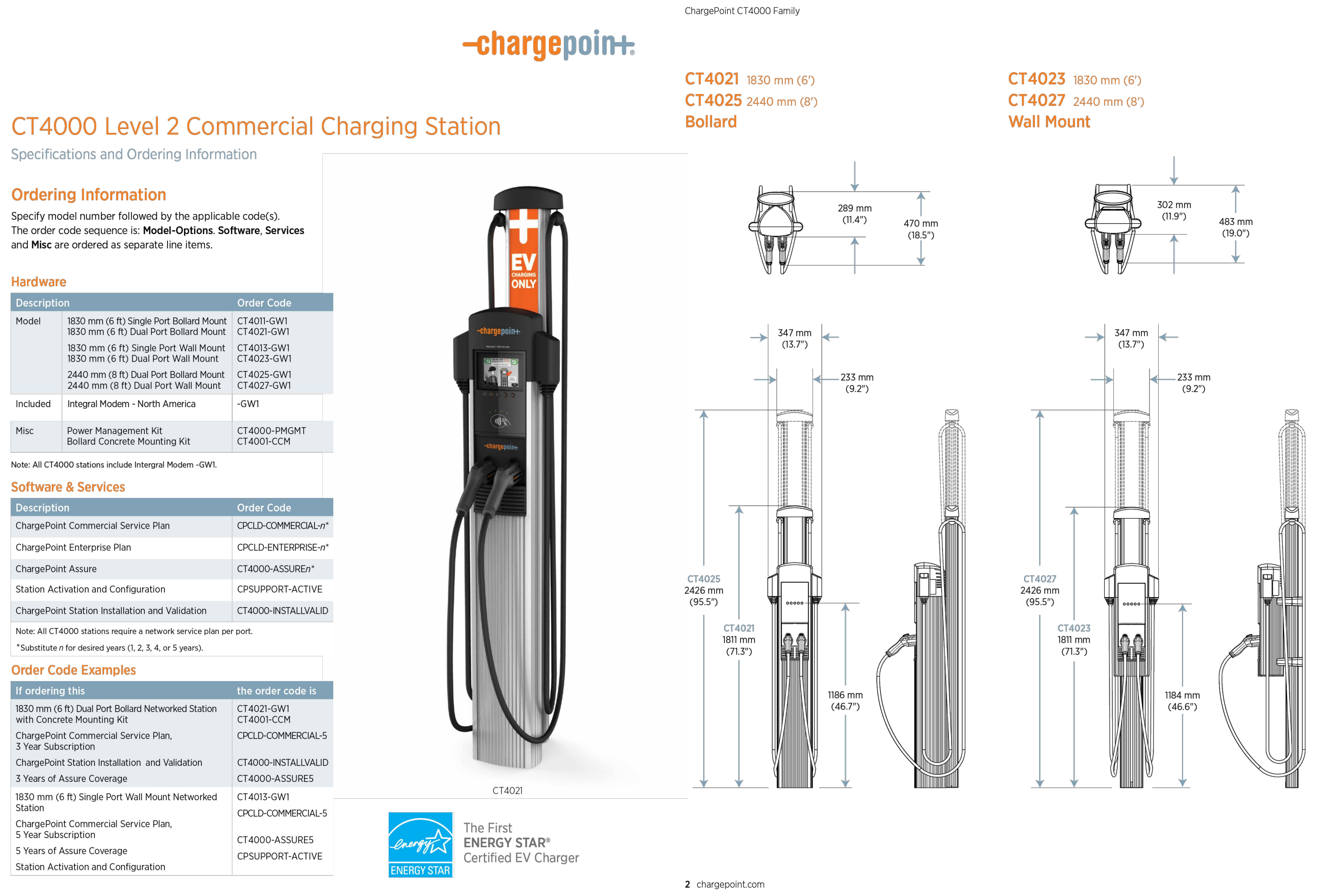
NOTE:
ALL LINES SHALL BE WHITE AND 4" WIDE

TYPICAL PARKING SPACE DIMENSIONS
NOT TO SCALE



NOTE:
ALL LINES SHALL BE GREEN AND 4" WIDE

TYPICAL EV PARKING SPACE DIMENSIONS
NOT TO SCALE



ChargePoint CT4000 Family

CT4000 Level 2 Commercial Charging Station

Specifications and Ordering Information

Ordering Information

Specify model number followed by the applicable code(s). The order code sequence is: **Model-Options**. **Software**, **Services** and **Misc** are ordered as separate line items.

Hardware

Description		Order Code
Model	1830 mm (6 ft) Single Port Bollard Mount 1830 mm (6 ft) Dual Port Bollard Mount 1830 mm (6 ft) Single Port Wall Mount 1830 mm (6 ft) Dual Port Wall Mount 2440 mm (8 ft) Dual Port Bollard Mount 2440 mm (8 ft) Dual Port Wall Mount	CT4011-GW1 CT4021-GW1 CT4013-GW1 CT4023-GW1 CT4025-GW1 CT4027-GW1
Included	Integral Modem - North America	-GW1
Misc	Power Management Kit Bollard Concrete Mounting Kit	CT4000-PMGMT CT4001-CCM

Note: All CT4000 stations include Intergral Modem -GW1.

Software & Services

Description	Order Code
ChargePoint Commercial Service Plan	CPCLD-COMMERCIAL-*n**
ChargePoint Enterprise Plan	CPCLD-ENTERPRISE-*n**
ChargePoint Assure	CT4000-ASSURE*n**
Station Activation and Configuration	CPSUPPORT-ACTIVE
ChargePoint Station Installation and Validation	CT4000-INSTALLVALID

Note: All CT4000 stations require a network service plan per port.
*Substitute *n* for desired years (1, 2, 3, 4, or 5 years).

Order Code Examples

If ordering this	the order code is
1830 mm (6 ft) Dual Port Bollard Networked Station with Concrete Mounting Kit	CT4021-GW1 CT4001-CCM
ChargePoint Commercial Service Plan, 3 Year Subscription	CPCLD-COMMERCIAL-5
ChargePoint Station Installation and Validation	CT4000-INSTALLVALID
3 Years of Assure Coverage	CT4000-ASSURE5
1830 mm (6 ft) Single Port Wall Mount Networked Station	CT4013-GW1
ChargePoint Commercial Service Plan, 5 Year Subscription	CPCLD-COMMERCIAL-5
5 Years of Assure Coverage	CT4000-ASSURE5
Station Activation and Configuration	CPSUPPORT-ACTIVE

The First ENERGY STAR® Certified EV Charger

2 chargepoint.com

CHARGEPORT E.V. DUAL CHARGER
SCALE – N.T.S.

REVISION	DESCRIPTION	DATE	BY
3	REVISED PER ENGINEER'S COMMENTS	05/04/2023	JMP
2	REVISED PER NEW ARCHITECTURAL DRAWINGS	03/03/2023	JMP
1	SHIFT BUILDING C TO THE NORTH	06/15/2021	JMP

PREPARED FOR
WEST ORANGE PLAZA
BLOCK 152.01 LOT 1445 & LOT 1445.06
235 PROSPECT AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY

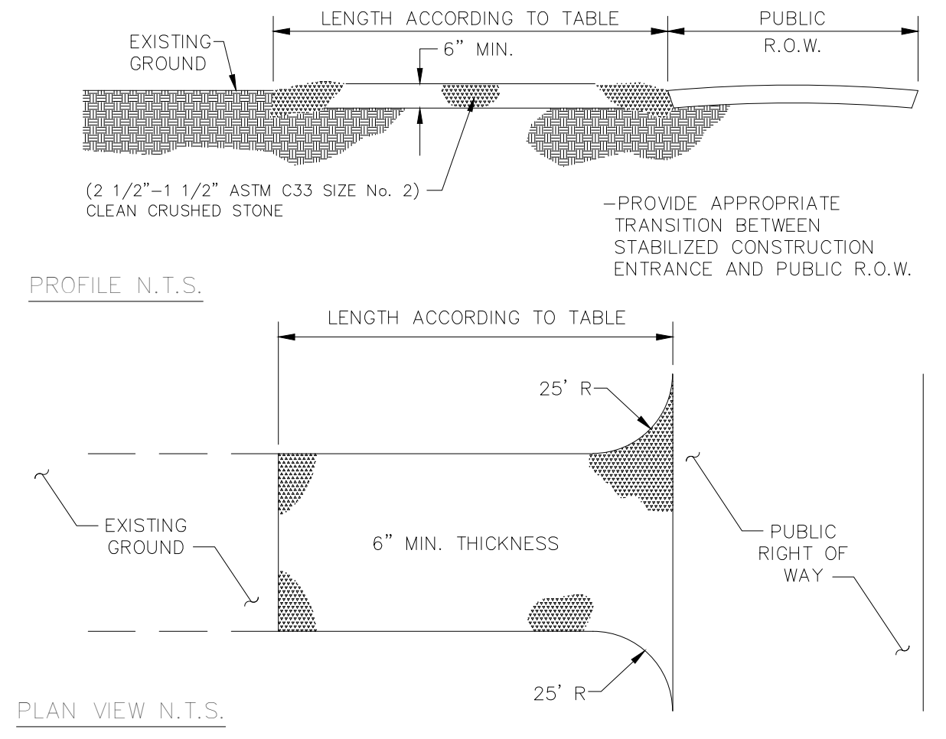
CONSTRUCTION NOTES

PETRY ENGINEERING , LLC
DIVISION OF CONSUMER AFFAIRS LICENSE NUMBER 24GA28155900
155 PASSAIC AVENUE • FAIRFIELD • NEW JERSEY • 07004
TEL. (973) 227-7004 FAX (973) 227-7074

Designer: JMP
Draftsman: SPD
Checked By: JMP
Project No.: 18-0078
Scale: 1"=40'
Sheet: SP-13

CAUTION: IF THIS DOCUMENT DOES NOT CONTAIN A RAISED IMPRESSION SEAL OF THE UNDERSIGNED PROFESSIONAL, IT IS NOT AN AUTHORIZED ORIGINAL DOCUMENT.

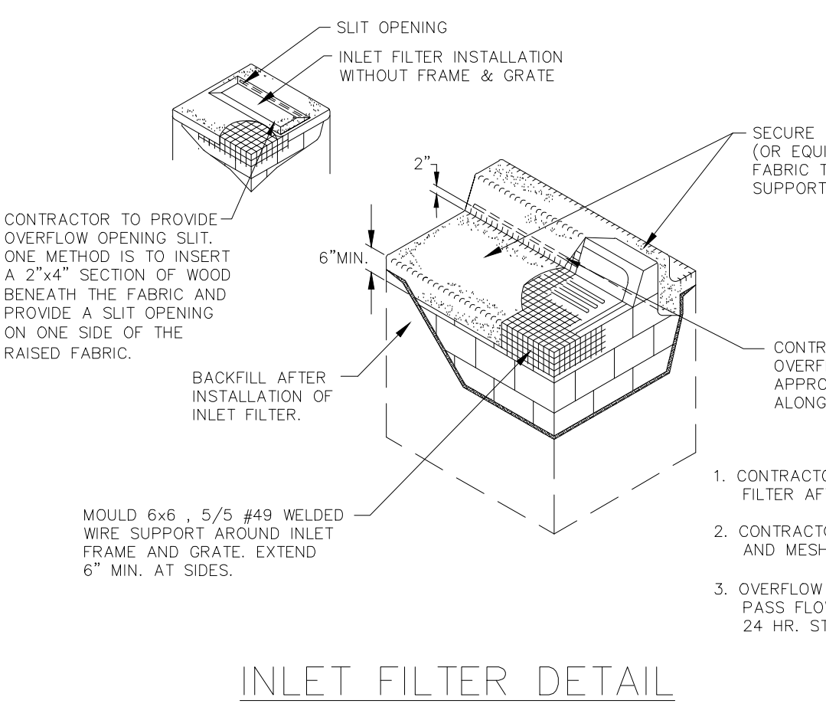
J. MICHAEL PETRY-PE,PP,RA
NJ PROFESSIONAL ENGINEER LIC. No. 36662
DATED: 12/9/2020


EXISTING GROUND
LENGTH ACCORDING TO TABLE
PUBLIC R.O.W.
6" MIN.
(2 1/2"-1 1/2" ASTM C33 SIZE No. 2) CLEAN CRUSHED STONE
-PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND PUBLIC R.O.W.
PROFILE N.T.S.
LENGTH ACCORDING TO TABLE
25' R
EXISTING GROUND
6" MIN. THICKNESS
PUBLIC RIGHT OF WAY
25' R
PLAN VIEW N.T.S.

LENGTH OF CONSTRUCTION EXIT TABLE

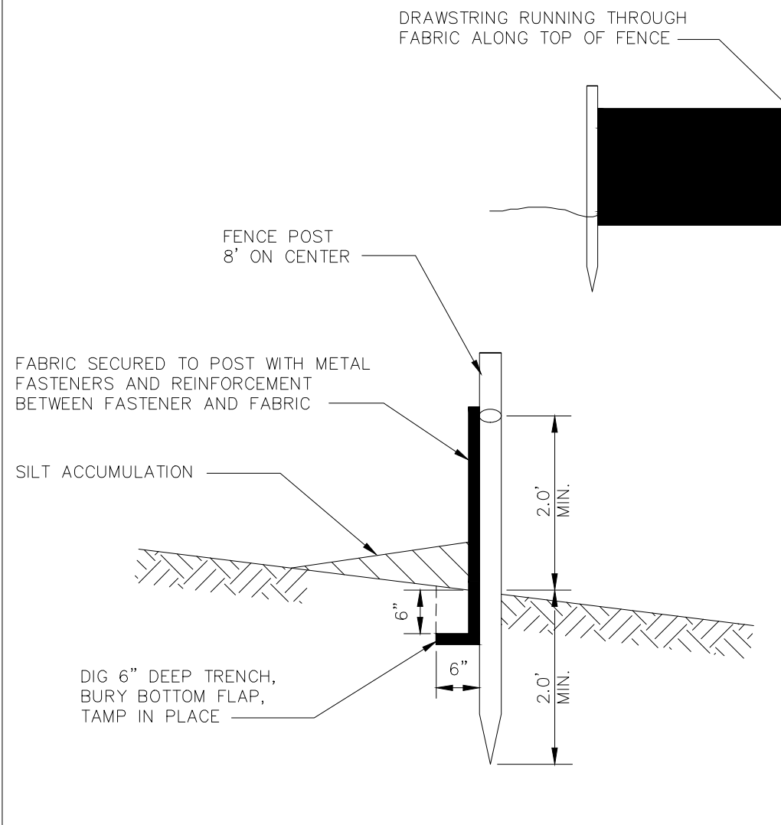
PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIRED	
	COURSE GRAINED SOILS	FINE GRAINED SOILS
0 TO 2%	50 FT.	100 FT.
2 TO 5%	100 FT.	200 FT.
> 5%	ENTIRE SURFACE STABILIZED WITH FABC BASE COURSE	

ANTI-TRACKING PAD DETAIL
SCALE N.T.S.


SLIT OPENING
INLET FILTER INSTALLATION WITHOUT FRAME & GRATE
SECURE "MIRAFI 100X (OR EQUIVALENT) FILTER FABRIC TO WELDED WIRE SUPPORT.
2"
6"MIN.
CONTRACTOR TO PROVIDE OVERFLOW OPENING SLIT. ONE METHOD IS TO INSERT A 2"x4" SECTION OF WOOD BENEATH THE FABRIC AND PROVIDE A SLIT OPENING ON ONE SIDE OF THE RAISED FABRIC.
BACKFILL AFTER INSTALLATION OF INLET FILTER.
CONTRACTOR TO PROVIDE OVERFLOW OPENING SLIT APPROX. 2" ABOVE GRATE ALONG CURB PIECE.
MOULD 6x6 , 5/5 #49 WELDED WIRE SUPPORT AROUND INLET FRAME AND GRATE. EXTEND 6" MIN. AT SIDES.

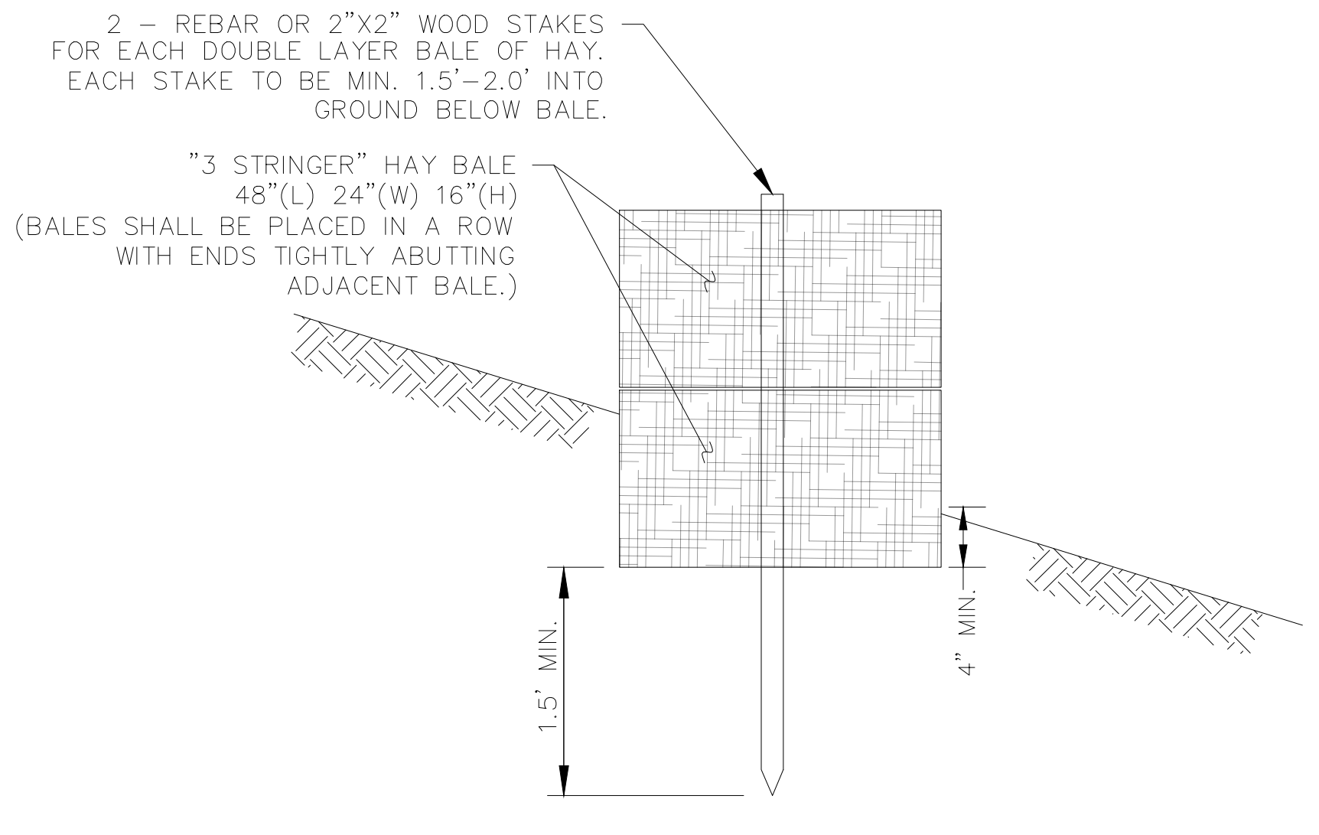
1. CONTRACTOR IS TO CLEAN INLET FILTER AFTER EVERY STORM.
2. CONTRACTOR IS TO REMOVE FABRIC AND MESH JUST PRIOR TO PAVING.
3. OVERFLOW OPENING SHALL SAFELY PASS FLOWS GREATER THAN 1 YR./24 HR. STORM.

INLET FILTER DETAIL
SCALE N.T.S.

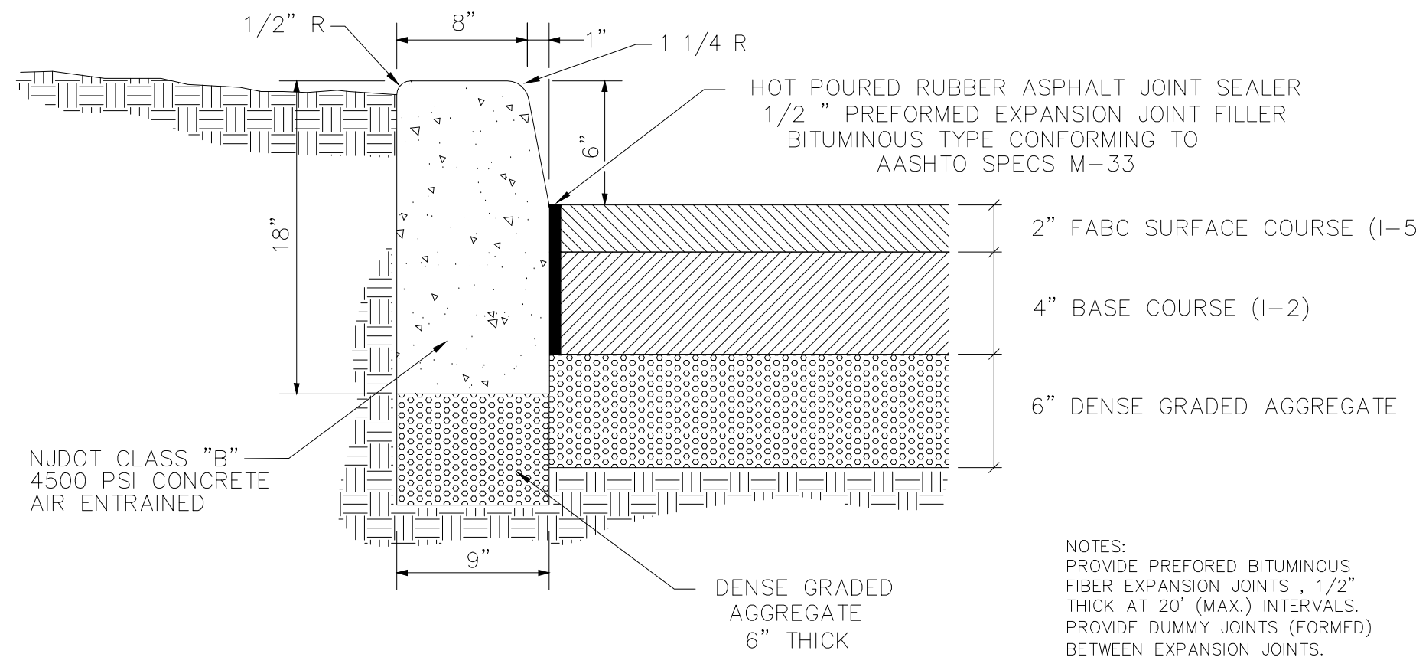

DRAWSTRING RUNNING THROUGH FABRIC ALONG TOP OF FENCE
FENCE POST 8' ON CENTER
FABRIC SECURED TO POST WITH METAL FASTENERS AND REINFORCEMENT BETWEEN FASTENER AND FABRIC
SILT ACCUMULATION
2.0' MIN.
6"
6"
2.0' MIN.
DIG 6" DEEP TRENCH, BURY BOTTOM FLAP, TAMP IN PLACE

1. FENCE POSTS SHALL BE SPACED 8 FEET CENTER-TO-CENTER OR CLOSER. THEY SHALL EXTEND AT LEAST 2 FEET INTO THE GROUND AND EXTEND AT LEAST 2 FEET ABOVE GROUND (FIG. 25-2). POSTS SHALL BE CONSTRUCTED OF HARDWOOD WITH A MINIMUM DIAMETER THICKNESS OF 1.5 INCHES.
2. A METAL FENCE WITH 6 INCH OR SMALLER OPENINGS AND AT LEAST 2 FEET HIGH MAY BE UTILIZED, FASTENED TO THE FENCE POSTS, TO PROVIDE REINFORCEMENT AND SUPPORT TO THE GEOTEXTILE FABRIC WHERE SPACE FOR OTHER PRACTICES IS LIMITED AND HEAVY SEDIMENT LOADING IS EXPECTED.
3. A GEOTEXTILE FABRIC RECOMMENDED FOR SUCH USE BY THE MANUFACTURER, SHALL BE BURIED AT LEAST 6 INCHES DEEP IN THE GROUND. THE FABRIC SHALL EXTEND AT LEAST 2 FEET ABOVE THE GROUND. THE FABRIC MUST BE SECURELY FASTENED TO THE POSTS USING A SYSTEM CONSISTING OF METAL FASTENERS (NAILS OR STAPLES) AND A HIGH STRENGTH REINFORCEMENT MATERIAL (NYLON WEBBING, GROMMETS, WASHERS ETC.) PLACED BETWEEN THE FASTENER AND THE GEOTEXTILE FABRIC. THE FASTENING SYSTEM SHALL RESIST TEARING AWAY FROM THE POST. THE FABRIC SHALL INCORPORATE A DRAWSTRING IN THE TOP PORTION OF THE FENCE FOR ADDED STRENGTH.

SILT FENCE DETAIL
SCALE N.T.S.

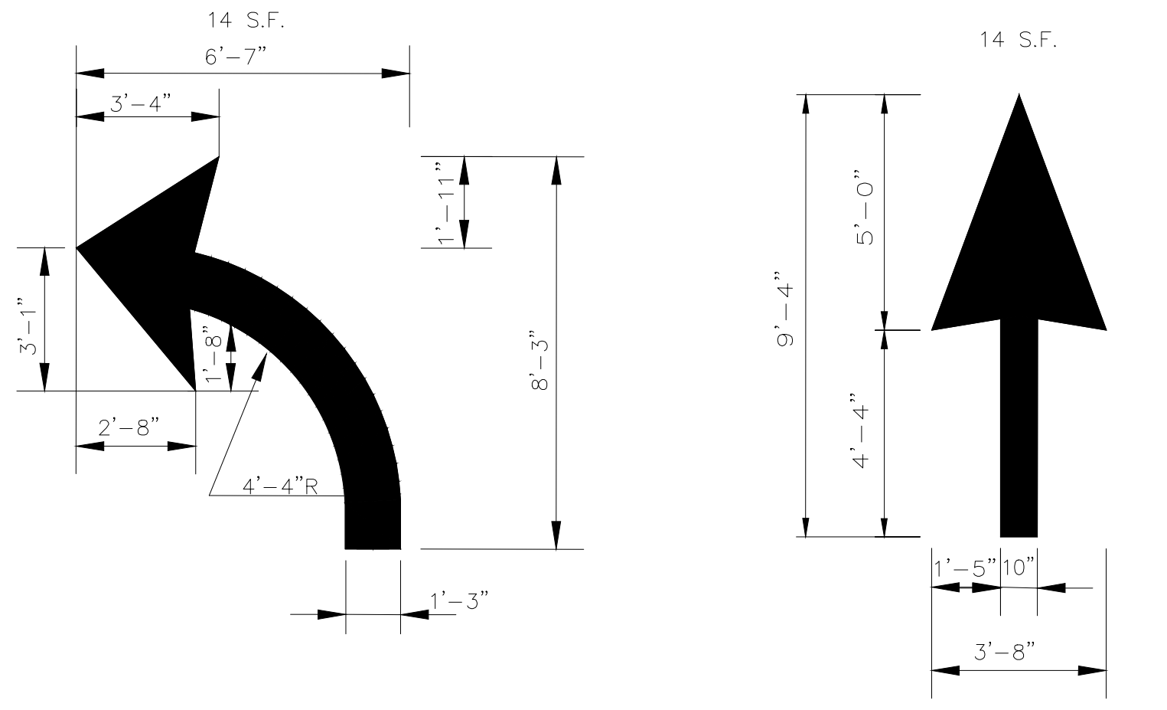

2 - REBAR OR 2"X2" WOOD STAKES FOR EACH DOUBLE LAYER BALE OF HAY. EACH STAKE TO BE MIN. 1.5'-2.0' INTO GROUND BELOW BALE.
"3 STRINGER" HAY BALE 48"(L) 24"(W) 16"(H) (BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING ADJACENT BALE.)
1.5' MIN.
4" MIN.

STRAW BALE BARRIER DETAIL
SCALE N.T.S.

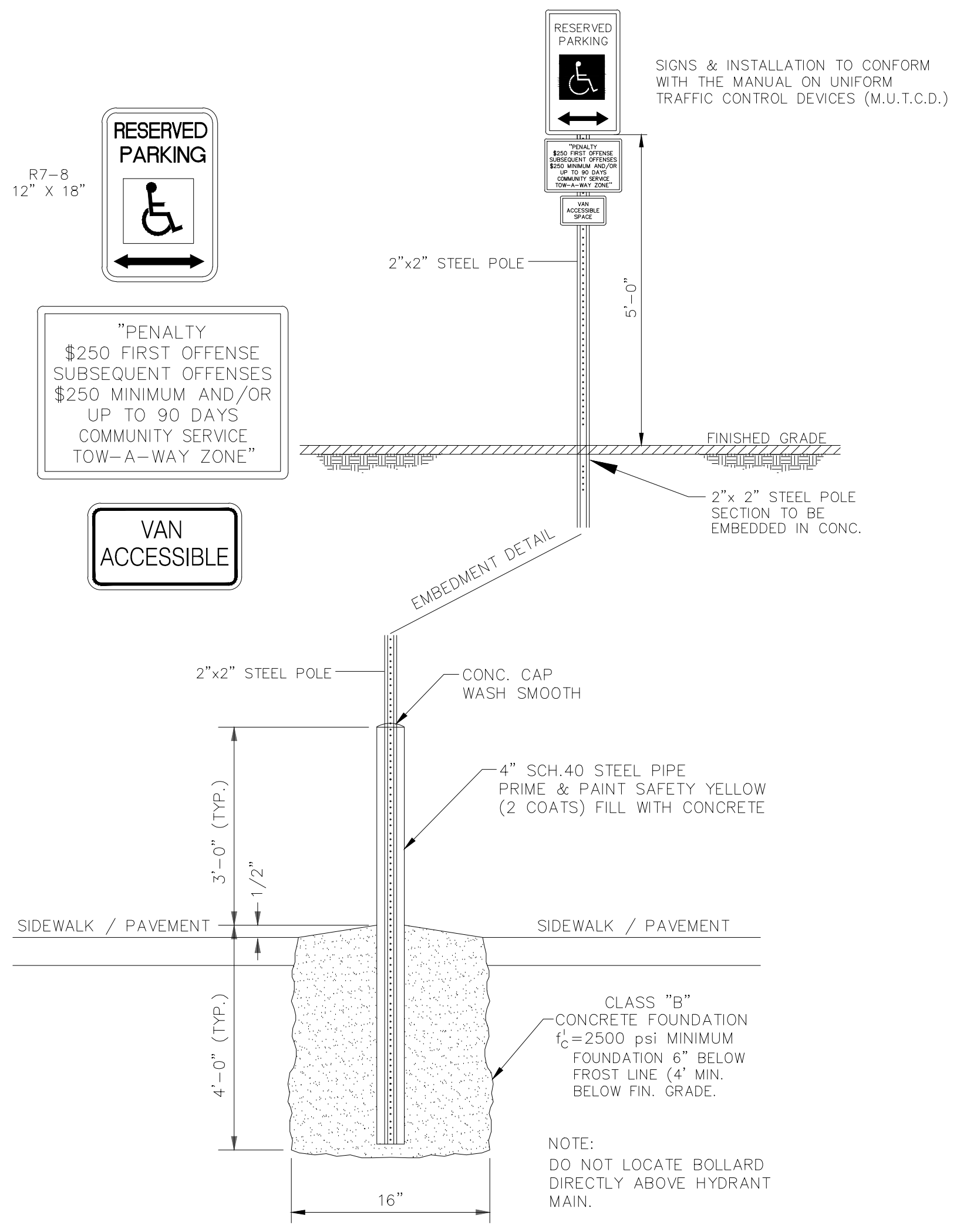

1/2" R
8"
1"
1 1/4 R
HOT POURED RUBBER ASPHALT JOINT SEALER 1/2 " PREFORMED EXPANSION JOINT FILLER BITUMINOUS TYPE CONFORMING TO AASHTO SPECS M-33
6"
18"
2" FABC SURFACE COURSE (I-5)
4" BASE COURSE (I-2)
6" DENSE GRADED AGGREGATE
NJDOT CLASS "B" 4500 PSI CONCRETE AIR ENTRAINED
9"
DENSE GRADED AGGREGATE 6" THICK

NOTES:
PROVIDE PREFORED BITUMINOUS FIBER EXPANSION JOINTS , 1/2" THICK AT 20' (MAX.) INTERVALS. PROVIDE DUMMY JOINTS (FORMED) BETWEEN EXPANSION JOINTS.

CONCRETE CURB AND FULL DEPTH PAVEMENT
SCALE N.T.S.

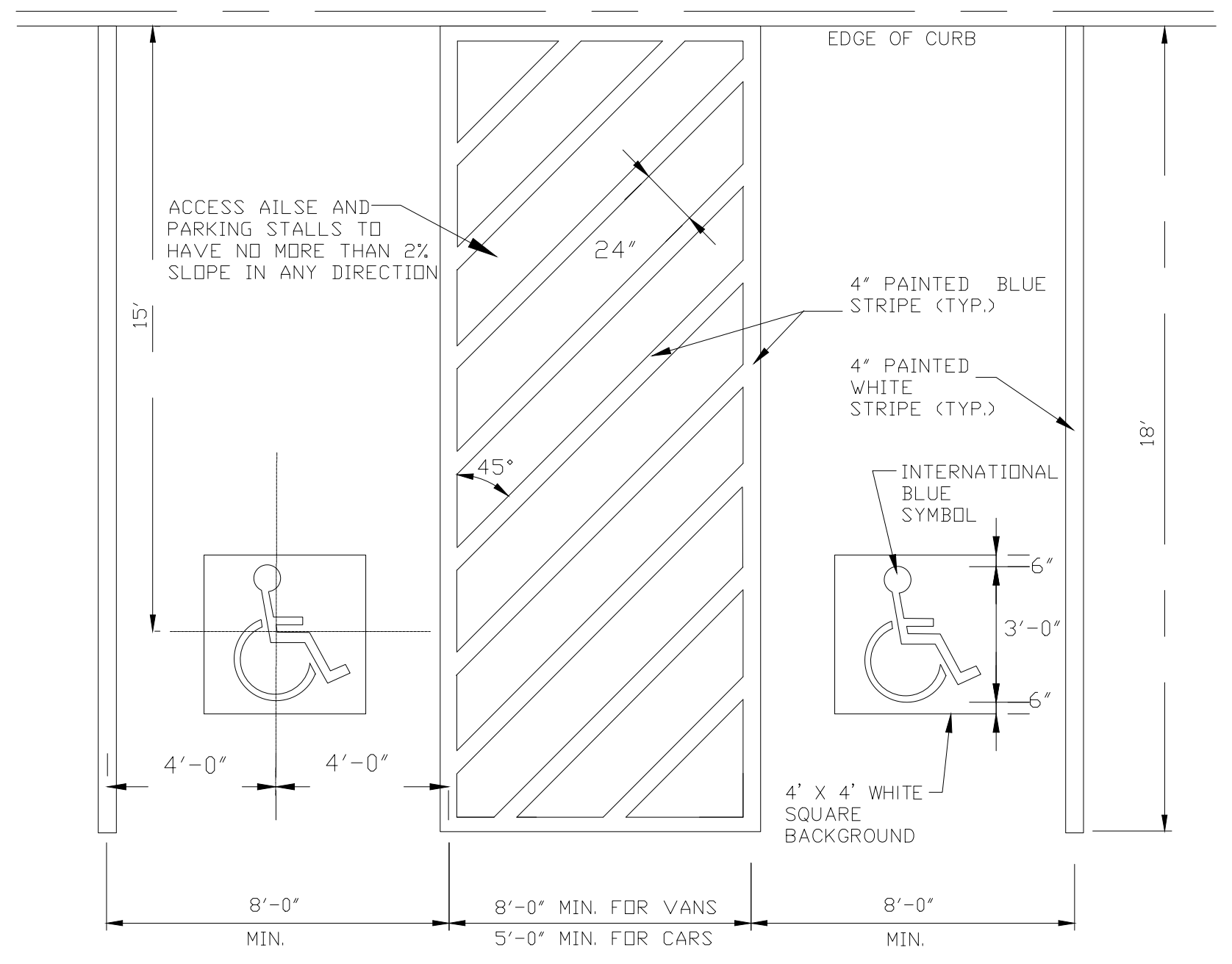

14 S.F.
6'-7"
3'-4"
1'-11"
3'-1"
1'-8"
8'-3"
2'-8"
4'-4"R
1'-3"
14 S.F.
9'-4"
5'-0"
4'-4"
1'-5"
10"
3'-8"

TYPICAL PAVEMENT MARKINGS DETAIL
SCALE - N.T.S.


R7-8 12" X 18"
RESERVED PARKING
"PENALTY $250 FIRST OFFENSE SUBSEQUENT OFFENSES $250 MINIMUM AND/OR UP TO 90 DAYS COMMUNITY SERVICE TOW-A-WAY ZONE"
VAN ACCESSIBLE
RESERVED PARKING
VAN ACCESSIBLE SPACE
SIGNS & INSTALLATION TO CONFORM WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.)
2"x2" STEEL POLE
5'-0"
FINISHED GRADE
2"x 2" STEEL POLE SECTION TO BE EMBEDDED IN CONC.
EMBEDMENT DETAIL
2"x2" STEEL POLE
CONC. CAP WASH SMOOTH
4" SCH.40 STEEL PIPE PRIME & PAINT SAFETY YELLOW (2 COATS) FILL WITH CONCRETE
3'-0" (TYP.)
1/2"
SIDEWALK / PAVEMENT
SIDEWALK / PAVEMENT
4'-0" (TYP.)
CLASS "B" CONCRETE FOUNDATION f'c=2500 psi MINIMUM FOUNDATION 6" BELOW FROST LINE (4' MIN. BELOW FIN. GRADE.
16"

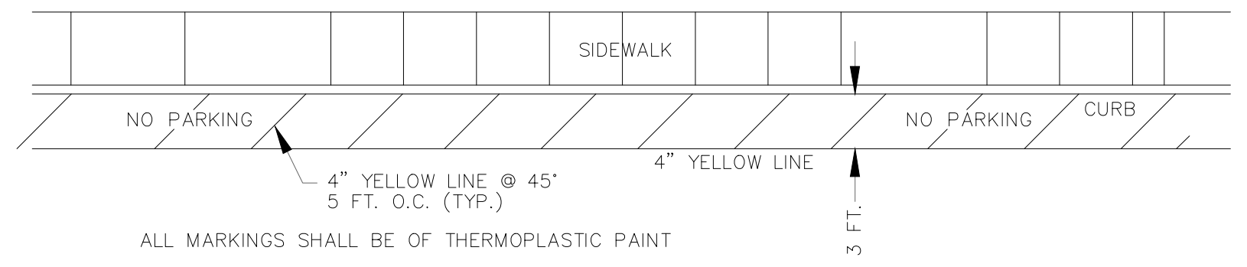
NOTE:
DO NOT LOCATE BOLLARD DIRECTLY ABOVE HYDRANT MAIN.

PIPE BOLLARD DETAIL FOR HC SIGNS
SCALE - N.T.S.


EDGE OF CURB
ACCESS AILSE AND PARKING STALLS TO HAVE NO MORE THAN 2% SLOPE IN ANY DIRECTION
15'
24"
4" PAINTED BLUE STRIPE (TYP.)
4" PAINTED WHITE STRIPE (TYP.)
18'
45°
INTERNATIONAL BLUE SYMBOL
6"
3'-0"
6"
4'-0"
4'-0"
4' X 4' WHITE SQUARE BACKGROUND
8'-0" MIN.
8'-0" MIN. FOR VANS
5'-0" MIN. FOR CARS
8'-0" MIN.

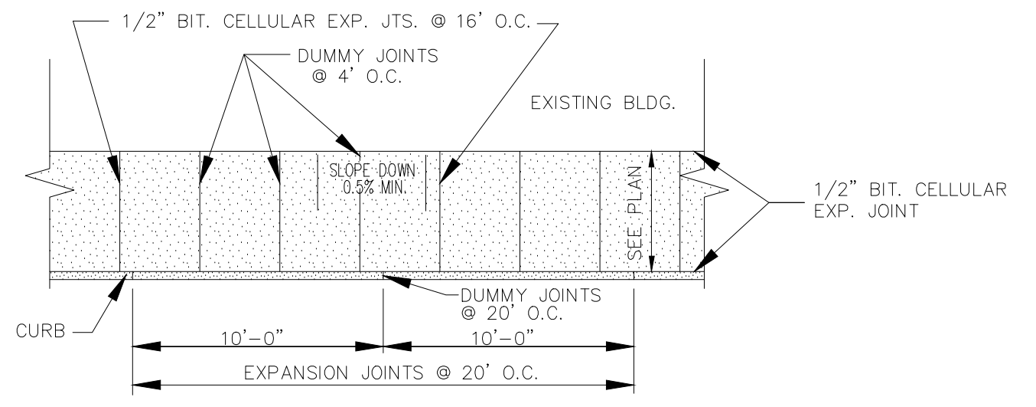
NOTE:
1. STRIPING AND CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND MUNICIPAL CODES AND SPECIFICATIONS.
2. ALL PAVEMENT MARKINGS AND STRIPING SHALL BE LONG LIFE THERMOPLASTIC.

HANDICAP PARKING DIMENSIONS
SCALE - N.T.S.

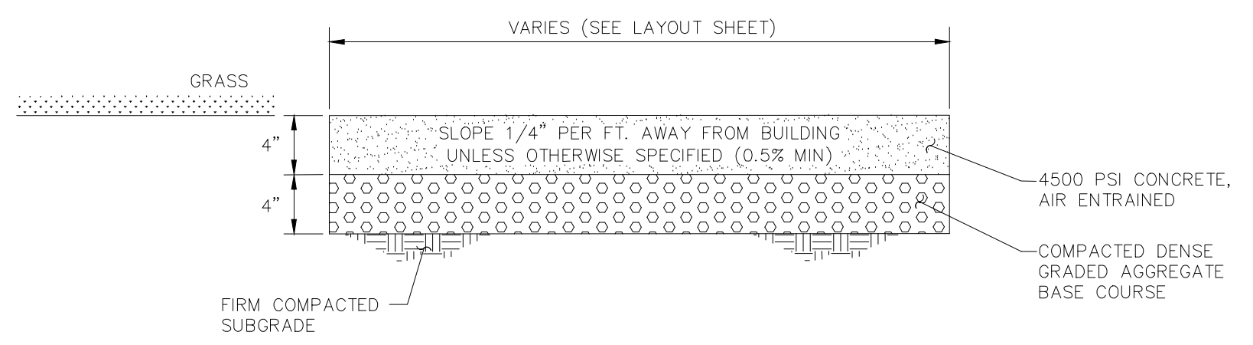

SIDEWALK
NO PARKING
NO PARKING
CURB
4" YELLOW LINE @ 45° 5 FT. O.C. (TYP.)
4" YELLOW LINE
3 FT.

ALL MARKINGS SHALL BE OF THERMOPLASTIC PAINT

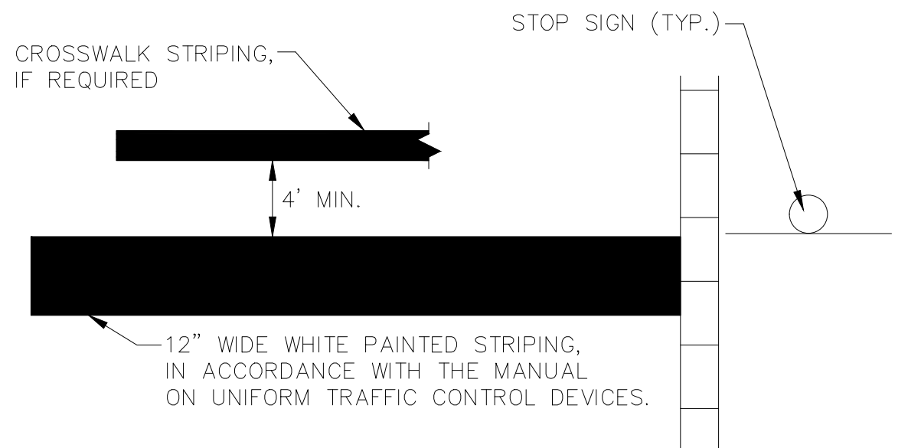
FIRE LANE PARKING
SCALE - N.T.S.


1/2" BIT. CELLULAR EXP. JTS. @ 16' O.C.
DUMMY JOINTS @ 4' O.C.
EXISTING BLDG.
SLOPE DOWN 0.5% MIN.
SEE PLAN
1/2" BIT. CELLULAR EXP. JOINT
CURB
DUMMY JOINTS @ 20' O.C.
10'-0"
10'-0"
EXPANSION JOINTS @ 20' O.C.

CONCRETE SIDEWALK PLAN
SCALE - N.T.S.

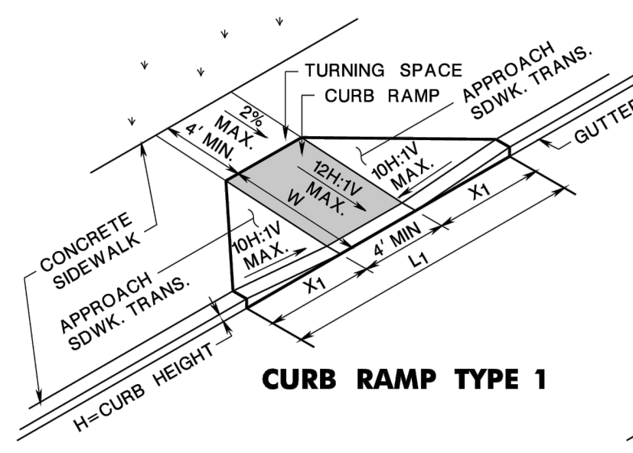

VARIES (SEE LAYOUT SHEET)
GRASS
4"
4"
SLOPE 1/4" PER FT. AWAY FROM BUILDING UNLESS OTHERWISE SPECIFIED (0.5% MIN)
4500 PSI CONCRETE, AIR ENTRAINED
COMPACTED DENSE GRADED AGGREGATE BASE COURSE
FIRM COMPACTED SUBGRADE

CONCRETE SIDEWALK SECTION
SCALE - N.T.S.

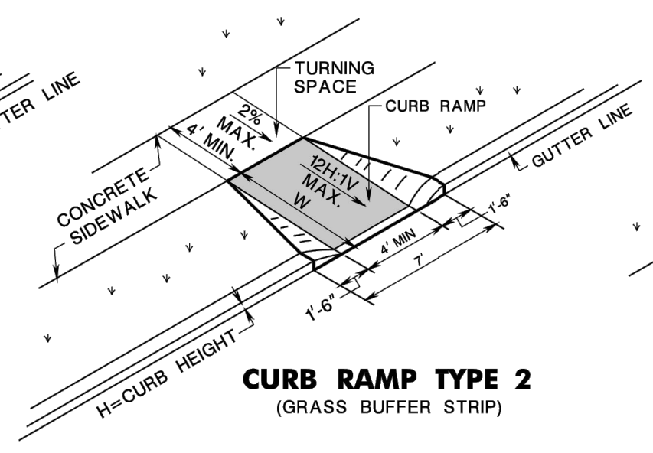

CROSSWALK STRIPING, IF REQUIRED
STOP SIGN (TYP.)
4' MIN.
12" WIDE WHITE PAINTED STRIPING, IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

NOTE:
STOP LINES SHOULD ORDINARILY BE PLACED 4 FEET IN ADVANCE OF AND PARALLEL TO THE NEAREST CROSSWALK LINE. IN THE ABSENCE OF A MARKED CROSSWALK, THE "STOP" LINE SHOULD BE PLACED AT THE DESIRED STOPPING POINT, IN NO CASE MORE THAN 300 FEET OR LESS THAN 4 FEET FROM THE NEAREST EDGE OF THE INTERSECTING ROADWAY

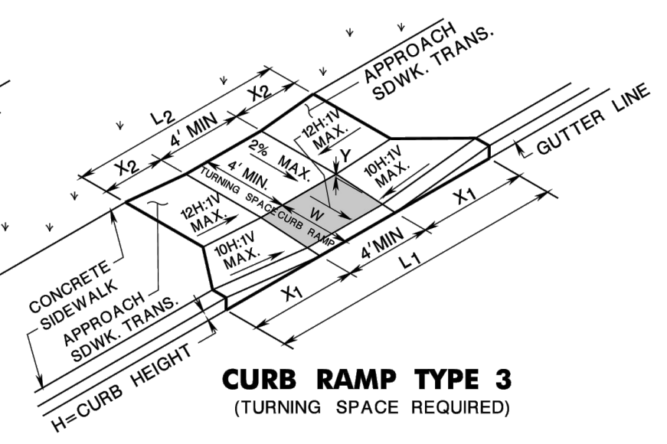
"STOP BAR" DETAIL
SCALE N.T.S.


TURNING SPACE
CURB RAMP
APPROACH SDWK. TRANS.
GUTTER LINE
2% MAX.
4' MIN.
12H:1V MAX.
W
10H:1V MAX.
X1
CONCRETE SIDEWALK
10H:1V MAX.
4' MIN
L1
X1
APPROACH SDWK. TRANS.
H=CURB HEIGHT

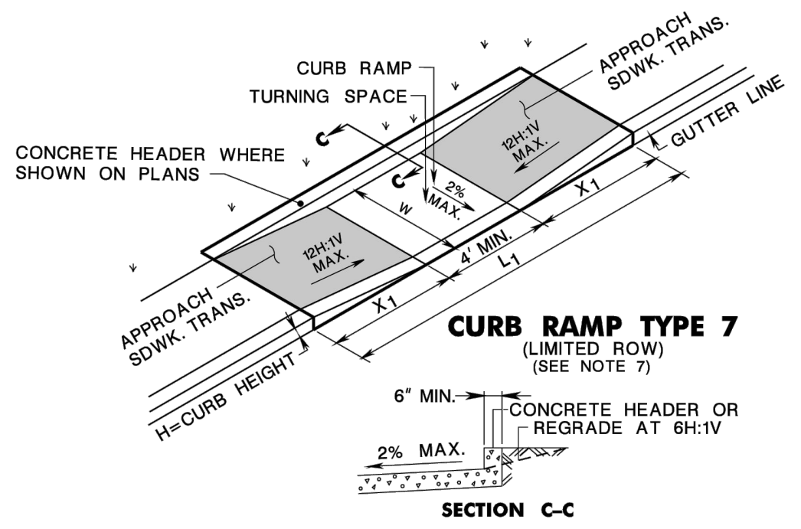
CURB RAMP TYPE 1


TURNING SPACE
CURB RAMP
GUTTER LINE
2% MAX.
4' MIN.
12H:1V MAX.
W
CONCRETE SIDEWALK
1'-6"
4' MIN
7'
1'-6"
H=CURB HEIGHT

CURB RAMP TYPE 2
(GRASS BUFFER STRIP)


L2
4' MIN
X2
APPROACH SDWK. TRANS.
X2
12H:1V MAX.
2% MAX.
4' MIN.
10H:1V MAX.
Y
GUTTER LINE
12H:1V MAX.
TURNING SPACE
CURB RAMP
W
10H:1V MAX.
4'MIN
X1
L1
X1
CONCRETE SIDEWALK
APPROACH SDWK. TRANS.
H=CURB HEIGHT

CURB RAMP TYPE 3
(TURNING SPACE REQUIRED)


CURB RAMP
TURNING SPACE
APPROACH SDWK. TRANS.
GUTTER LINE
CONCRETE HEADER WHERE SHOWN ON PLANS
C
C
12H:1V MAX.
2% MAX.
W
X1
12H:1V MAX.
4' MIN.
L1
X1
APPROACH SDWK. TRANS.
H=CURB HEIGHT
6" MIN.
CONCRETE HEADER OR REGRADE AT 6H:1V
2% MAX.
SECTION C-C

CURB RAMP TYPE 7
(LIMITED ROW)
(SEE NOTE 7)

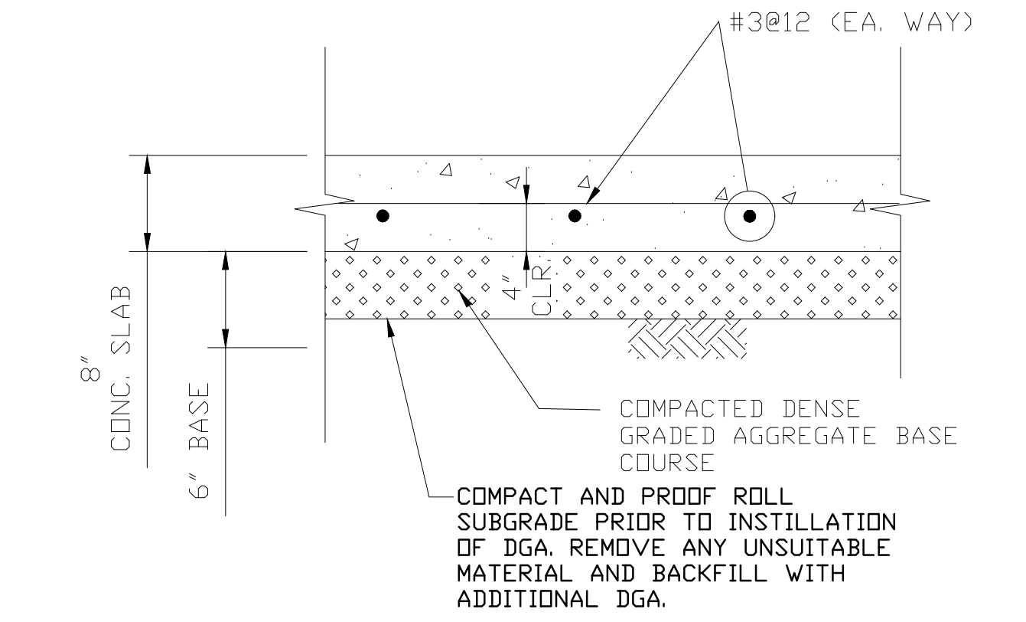
CURB RAMP TYPE 3						
W FEET	**H INCHES**	**X1 FEET**	**L1 FEET**	**Y INCHES**	**X2 FEET**	**L2 FEET**
2.5	3	2.5	9	2.5	0.5	5
	4	3.3	10.6	2.5	1.5	7
	5	4.2	12.4	2.5	2.5	9
	6	5.0	14.0	2.5	3.5	11
	7	5.8	15.6	2.5	4.5	13
	8	6.7	17.4	2.5	5.5	15
	9	7.5	19.0	2.5	6.5	17
3.0	3	*	*	*	*	*
	4	3.3	10.6	3.0	1	6
	5	4.2	12.4	3.0	2	8
	6	5.0	14.0	3.0	3	10
	7	5.8	15.6	3.0	4	12
	8	6.7	17.4	3.0	5	14
	9	7.5	19.0	3.0	6	16
3.5	3	*	*	*	*	*
	4	3.3	10.6	3.5	0.5	5
	5	4.2	12.4	3.5	1.5	7
	6	5.0	14.0	3.5	2.5	9
	7	5.8	15.6	3.5	3.5	11
	8	6.7	17.4	3.5	4.5	13
	9	7.5	19.0	3.5	5.5	15
4.0	3	*	*	*	*	*
	4	*	*	*	*	*
	5	4.2	12.4	4.0	1	6
	6	5.0	14.0	4.0	2	8
	7	5.8	15.6	4.0	3	10
	8	6.7	17.4	4.0	4	12
	9	7.5	19.0	4.0	5	14

WARNING: DIMENSIONS SHOWN IN CURB RAMP TABLES ARE BASED ON A ZERO PERCENT GUTTER PROFILE. THEREFORE, DIMENSIONS SHOWN MAY INCREASE OR DECREASE BASED ON DIRECTION AND PERCENT OF GUTTER PROFILE.

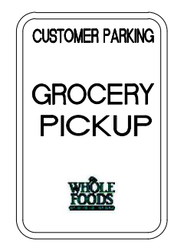
CURB RAMP TYPE 1			
H INCHES	**X1 FEET**	**L1 FEET**	**W FEET**
3	2.5	9.0	3
4	3.3	10.6	4
5	4.2	12.4	5
6	5.0	14.0	6
7	5.8	15.6	7
8	6.7	17.4	8
9	7.5	19.0	9

CURB RAMP TYPE 2, 5 OR 6	
H INCHES	**W FEET**
3	3
4	4
5	5
6	6
7	7
8	8
9	9

CURB RAMP TYPE 7			
W FEET	**H INCHES**	**X1 FEET**	**L1 FEET**
4 MIN. MIN 5' WITH HEADER	3	3	10
	4	4	12
	5	5	14
	6	6	16
	7	7	18
	8	8	20
	9	9	22

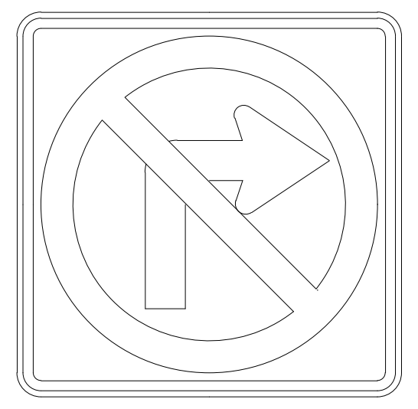

#3@12 (EA. WAY)
8" CONC. SLAB
6" BASE
4" CLR.
COMPACTED DENSE GRADED AGGREGATE BASE COURSE
COMPACT AND PROOF ROLL SUBGRADE PRIOR TO INSTILLATION OF DGA. REMOVE ANY UNSUITABLE MATERIAL AND BACKFILL WITH ADDITIONAL DGA.

7" THICK CONCRETE SLAB DETAIL
SCALE - N.T.S.

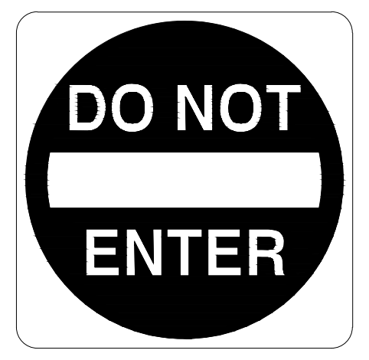

CUSTOMER PARKING
GROCERY PICKUP
WHOLE FOODS

12"x18"

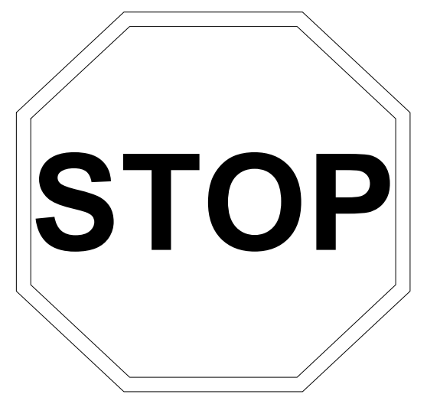
WHOLE FOODS GROCERY PICKUP
N.T.S.



R3-1
N.T.S.

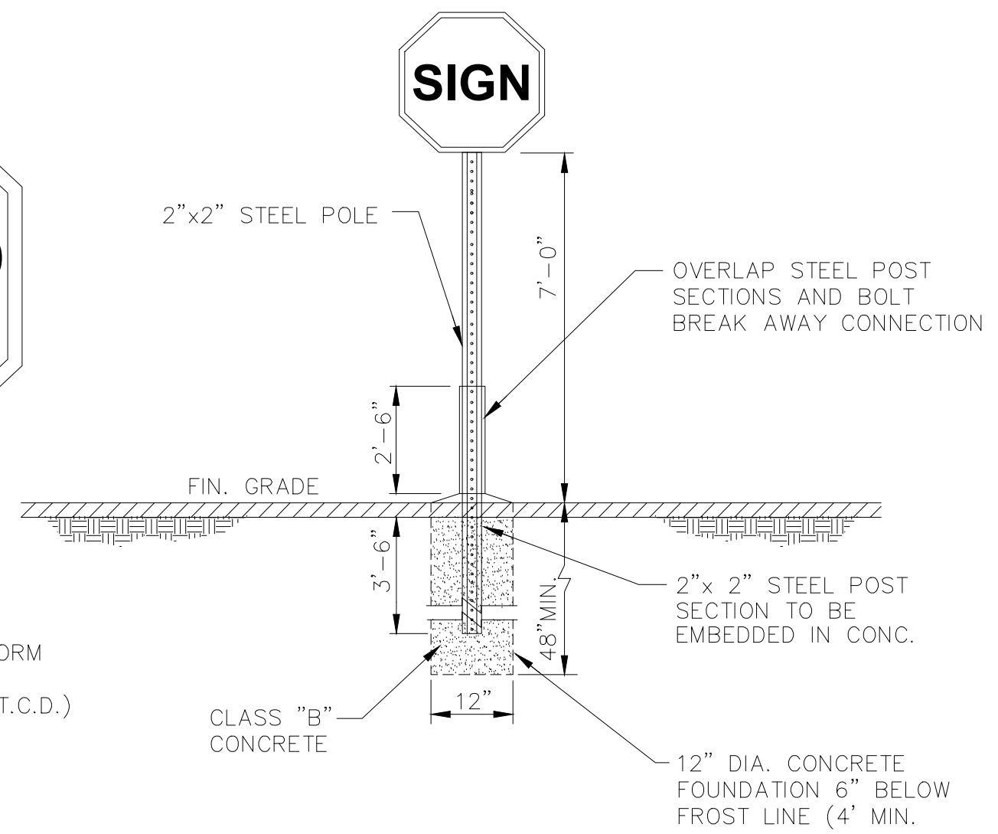

DO NOT ENTER

30"x30"
R5-1
N.T.S.

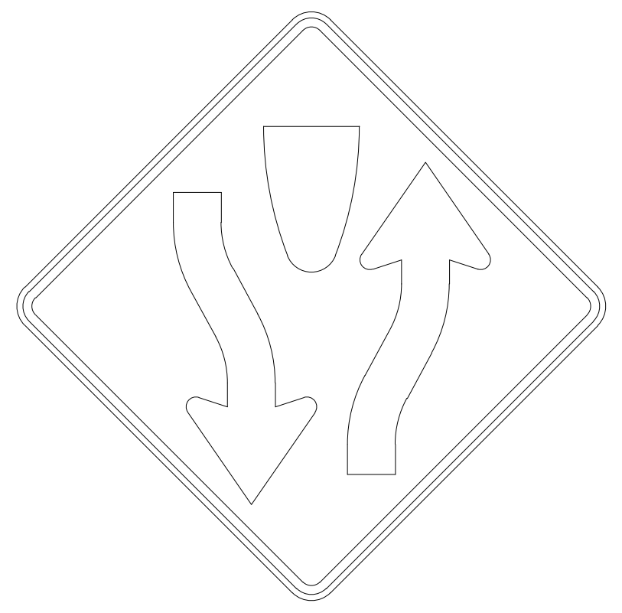


R1-1
30" X 30"

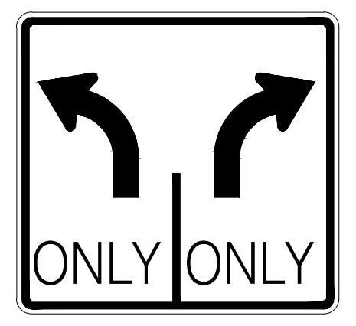
SIGNS & INSTALLATION TO CONFORM WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.)


SIGN
2"x2" STEEL POLE
7'-0"
OVERLAP STEEL POST SECTIONS AND BOLT BREAK AWAY CONNECTION
2'-6"
FIN. GRADE
3'-6"
48"MIN.
2"x 2" STEEL POST SECTION TO BE EMBEDDED IN CONC.
CLASS "B" CONCRETE
12"
12" DIA. CONCRETE FOUNDATION 6" BELOW FROST LINE (4' MIN. BELOW FIN. GRADE.

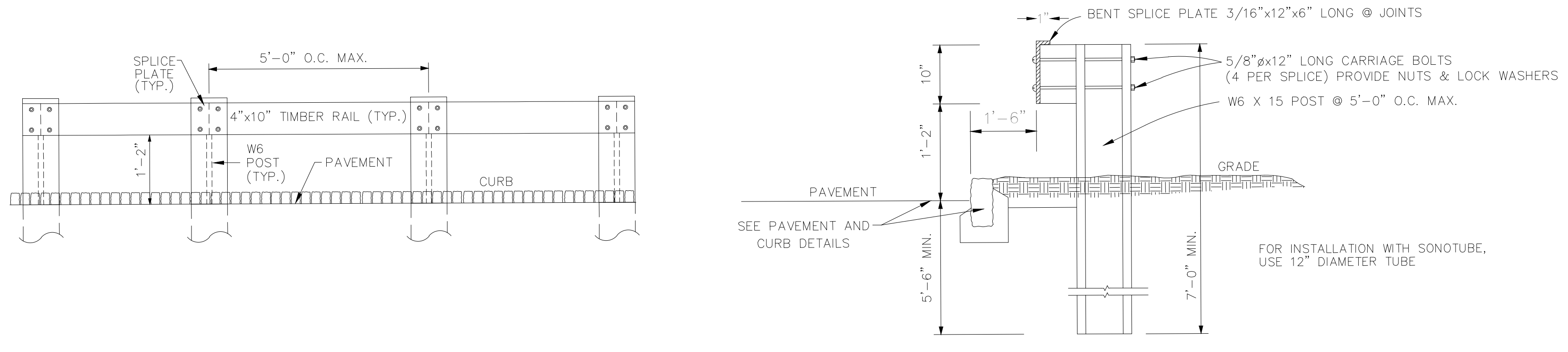
TYPICAL SIGN DETAIL
SCALE N.T.S.



W6-1
N.T.S.



30"x30"
R(NJ)3-8B
N.T.S.


SPLICE PLATE (TYP.)
5'-0" O.C. MAX.
4"x10" TIMBER RAIL (TYP.)
1'-2"
W6 POST (TYP.)
PAVEMENT
CURB
1"
BENT SPLICE PLATE 3/16"x12"x6" LONG @ JOINTS
5/8"øx12" LONG CARRIAGE BOLTS (4 PER SPLICE) PROVIDE NUTS & LOCK WASHERS
W6 X 15 POST @ 5'-0" O.C. MAX.
10"
1'-6"
1'-2"
GRADE
PAVEMENT
SEE PAVEMENT AND CURB DETAILS
5'-6" MIN.
7'-0" MIN.
FOR INSTALLATION WITH SONOTUBE, USE 12" DIAMETER TUBE

TIMBER GUIDE RAIL DETAIL
SCALE - N.T.S.

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REVISION	DESCRIPTION	DATE	BY
3	REVISED PER ENGINEER'S COMMENTS	05/04/2023	JMP
2	REVISED PER NEW ARCHITECTURAL DRAWINGS	03/03/2023	JMP
1	SHIFT BUILDING C TO THE NORTH	06/15/2021	JMP

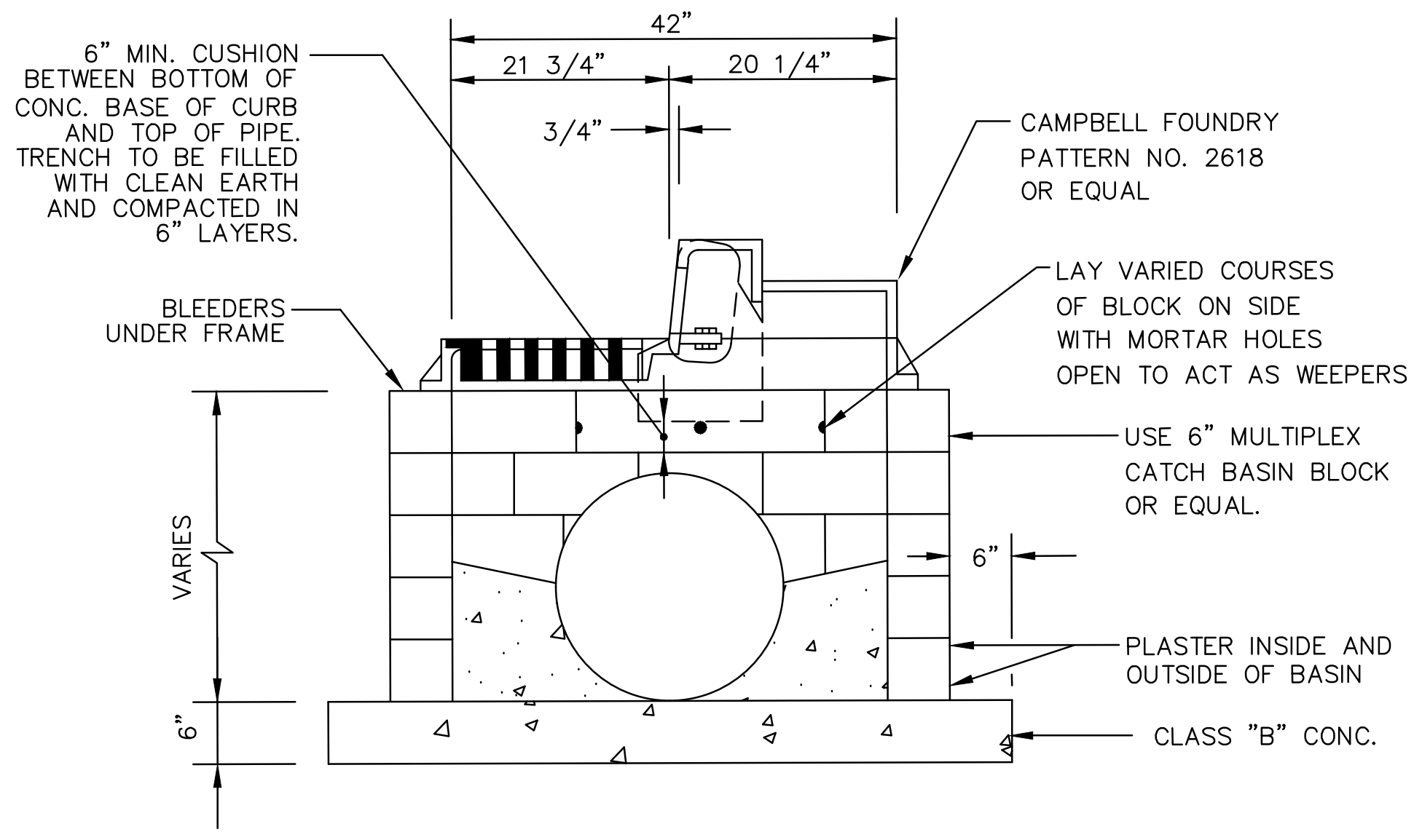
PREPARED FOR
WEST ORANGE PLAZA
BLOCK 152.01 LOT 1445 & LOT 1445.05
235 PROSPECT AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY

CONSTRUCTION DETAILS

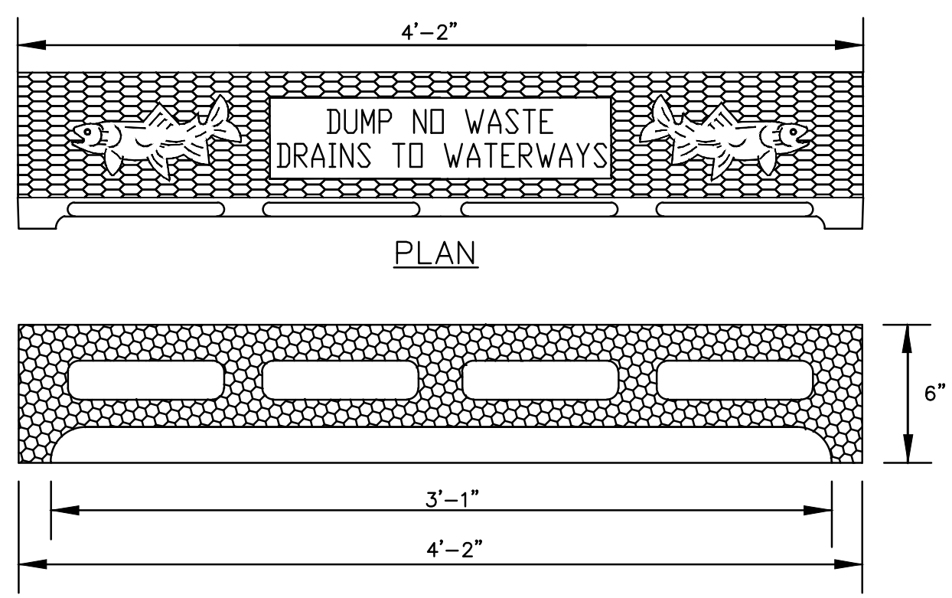
PETRY
ENGINEERING, LLC
DIVISION OF CONSUMER AFFAIRS LICENSE NUMBER 24GA28155900
155 PASSAIC AVENUE • FAIRFIELD • NEW JERSEY • 07004
TEL. (973) 227-7004 FAX (973) 227-7074

J. MICHAEL PETRY-PE,PP,RA
NJ PROFESSIONAL ENGINEER LIC. No. 36662
DATED: 12/9/2020

Designer: JMP
Draftsman: SPD
Checked By: JMP
Project No.: 18-0078
Scale: AS SHOWN
Sheet:
SP-14

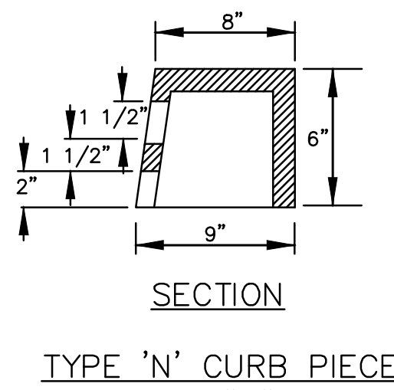

42"
21 3/4"
20 1/4"
3/4"
6" MIN. CUSHION BETWEEN BOTTOM OF CONC. BASE OF CURB AND TOP OF PIPE. TRENCH TO BE FILLED WITH CLEAN EARTH AND COMPACTED IN 6" LAYERS.
CAMPBELL FOUNDRY PATTERN NO. 2618 OR EQUAL
BLEEDERS UNDER FRAME
LAY VARIED COURSES OF BLOCK ON SIDE WITH MORTAR HOLES OPEN TO ACT AS WEEPERS
USE 6" MULTIPLEX CATCH BASIN BLOCK OR EQUAL.
VARIES
6"
PLASTER INSIDE AND OUTSIDE OF BASIN
6"
CLASS "B" CONC.

TYPE 'B' INLET DETAIL
(SCALE – N.T.S.)


4'-2"
DUMP NO WASTE DRAINS TO WATERWAYS
6"
3'-1"
4'-2"

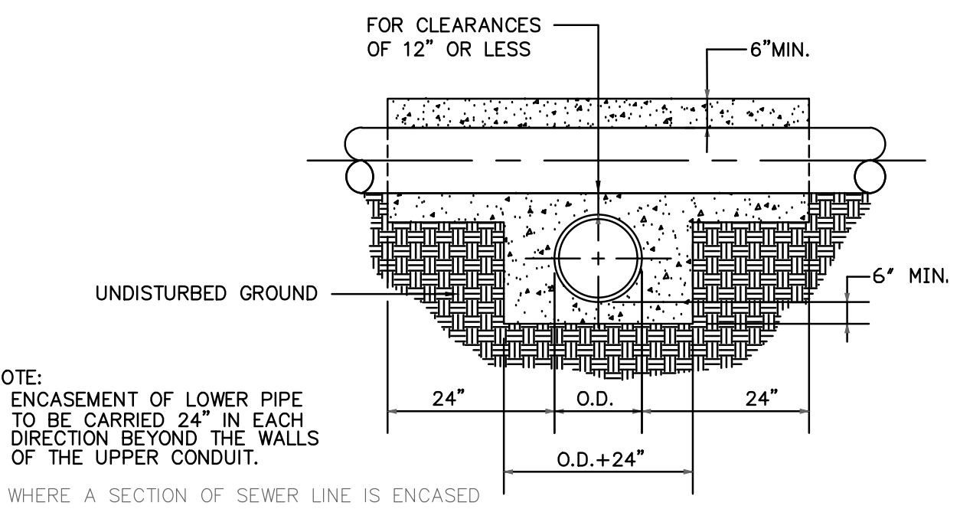
PLAN

ELEVATION


8"
1 1/2"
1 1/2"
2"
6"
9"

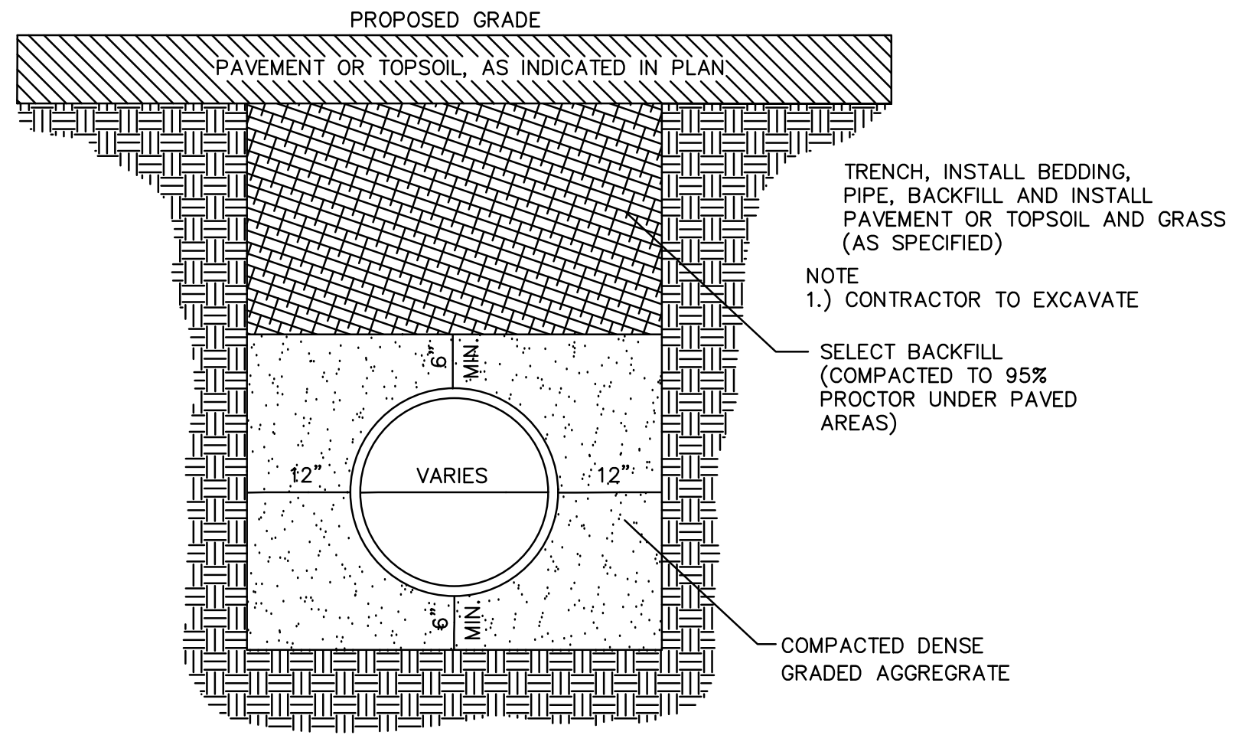
SECTION

TYPE 'N' CURB PIECE FOR TYPE "B" INLET
N.T.S.

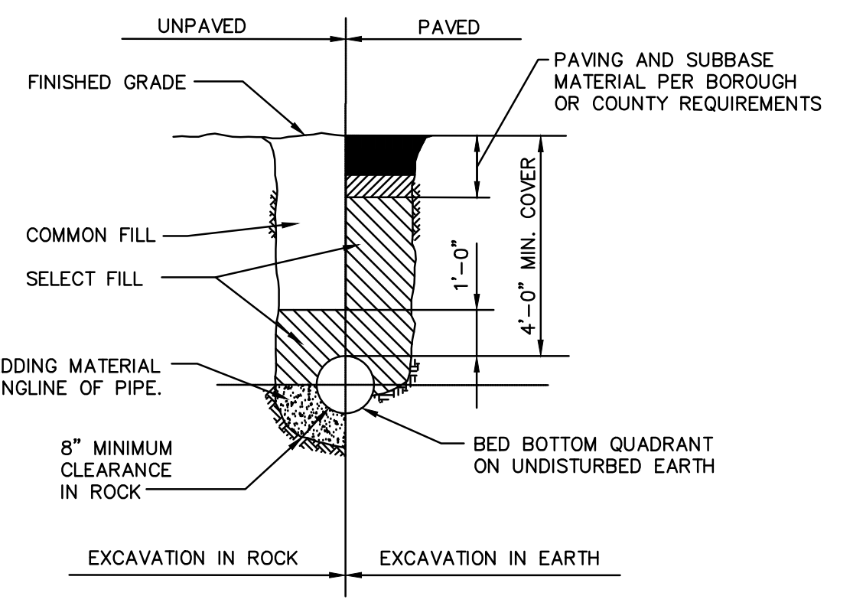

FOR CLEARANCES OF 12" OR LESS
6"MIN.
UNDISTURBED GROUND
6" MIN.
24"
O.D.
24"
O.D.+24"

NOTE:
1. ENCASEMENT OF LOWER PIPE TO BE CARRIED 24" IN EACH DIRECTION BEYOND THE WALLS OF THE UPPER CONDUIT.
2. WHERE A SECTION OF SEWER LINE IS ENCASED IN CONCRETE, REPLACE THE SECTION OF PVC PIPE WITH DIP AT THE CROSSING. FLEXIBLE FERNCO ADAPTORS OR EQUAL SHALL BE USED TO TRANSITION BETWEEN PVC AND DIP PIPES.

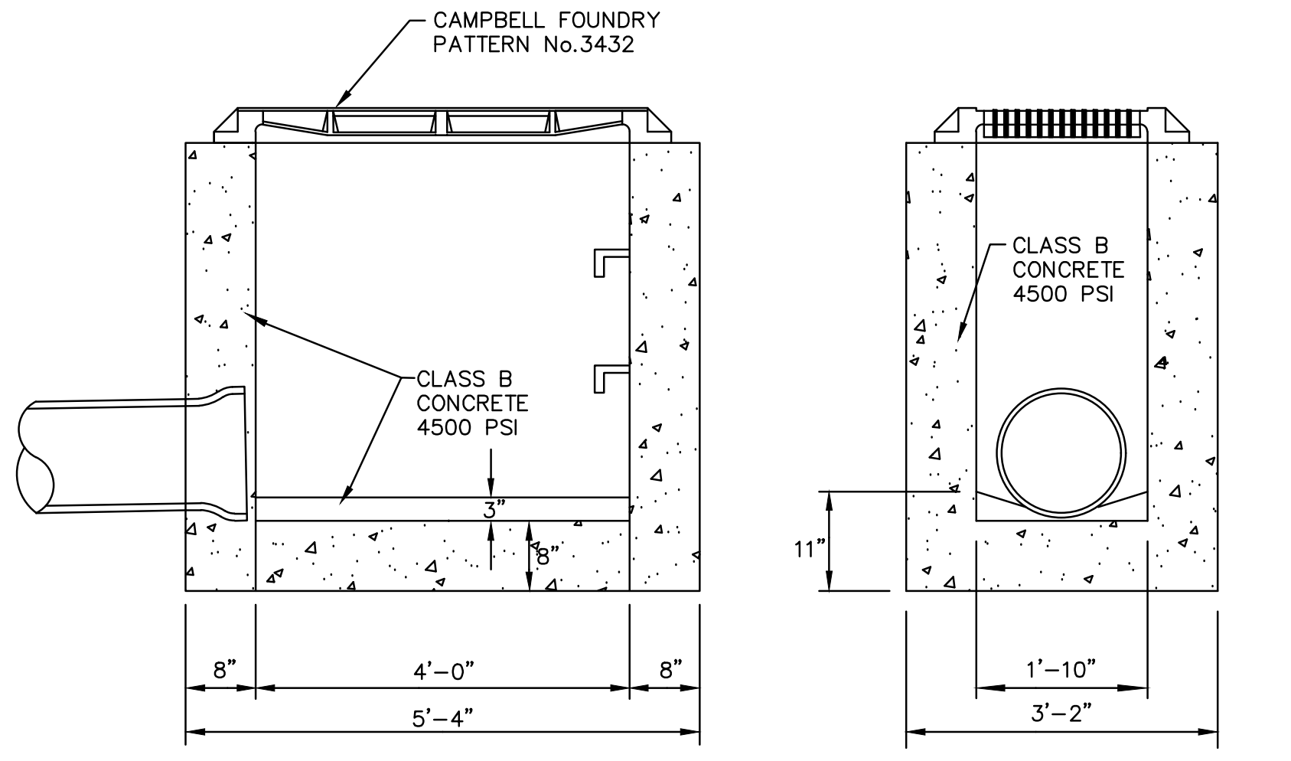
UTILITY CROSSING
SCALE – N.T.S.


PROPOSED GRADE
PAVEMENT OR TOPSOIL, AS INDICATED IN PLAN
TRENCH, INSTALL BEDDING, PIPE, BACKFILL AND INSTALL PAVEMENT OR TOPSOIL AND GRASS (AS SPECIFIED)
NOTE
1.) CONTRACTOR TO EXCAVATE
SELECT BACKFILL (COMPACTED TO 95% PROCTOR UNDER PAVED AREAS)
6" MIN.
12"
VARIES
12"
6" MIN.
COMPACTED DENSE GRADED AGGREGRATE

STORM SEWER PIPE TRENCH DETAIL
(SCALE – N.T.S)


UNPAVED
PAVED
FINISHED GRADE
PAVING AND SUBBASE MATERIAL PER BOROUGH OR COUNTY REQUIREMENTS
COMMON FILL
SELECT FILL
1'-0"
4'-0" MIN. COVER
PIPE BEDDING MATERIAL TO SPRINGLINE OF PIPE.
8" MINIMUM CLEARANCE IN ROCK
BED BOTTOM QUADRANT ON UNDISTURBED EARTH
EXCAVATION IN ROCK
EXCAVATION IN EARTH

TYPICAL TRENCH DETAIL FOR UTILITIES
SCALE – N.T.S.


CAMPBELL FOUNDRY PATTERN No.3432
CLASS B CONCRETE 4500 PSI
CLASS B CONCRETE 4500 PSI
8"
4'-0"
8"
5'-4"
11"
1'-10"
3'-2"

TYPE 'A' INLET DETAIL
(NOT TO SCALE)

GENERAL NOTES

1. INLETS MAY BE CONSTRUCTED OF BRICK, CONCRETE, CONCRETE BLOCK OR PRECAST CONCRETE. WALLS SHALL BE 8 INCHES THICK IF BRICK AND 6 INCHES THICK IF CONCRETE, CONCRETE BLOCK OR PRECAST CONCRETE. INLET FOUNDATIONS AND INVERTS SHALL BE CLASS B CONCRETE.
2. CORBELLING OF INLET WALLS WILL BE PERMITTED AT THE RATE OF 1/2 INCH PER 8 INCHES OF HEIGHT; MAXIMUM CORBEL 6 INCHES PER WALL.
3. EXCEPT FOR INLETS TYPE A AND C, FOUNDATIONS AND INVERTS SHALL BE CONSTRUCTED IN TWO STAGES, AND THE BOTTOM OF THE FOOTINGS SHALL BE 8 INCHES BELOW THE OUTER WALL OF THE LOWEST PIPE IN THE INLET.
4. WHEN THE DEPTH OF AN INLET THAT IS NOT PRECAST EXCEEDS 10 FEET AS MEASURED FROM TOP OF GRATE TO INVERT, WALLS BELOW A DEPTH OF 8 FEET SHALL BE 12 INCHES THICK AND THE DEPTH OF FOUNDATION INCREASED TO 12 INCHES. WHEN ROCK IS ENCOUNTERED, THE DEPTH OF THE FOUNDATION SHALL NOT BE INCREASED.
5. INLET FOUNDATIONS WHICH ARE PRECAST SHALL BE PLACED ON A 6 INCH THICK BED OF COMPACTED COARSE AGGREGATE SIZE NO. 57. THE COARSE AGGREGATE SHALL EXTEND 6 INCHES BEYOND THE HORIZONTAL LIMITS OF THE INLET FOUNDATION.
6. CASTINGS FOR PRECAST INLETS SHALL BE ADJUSTED TO GRADE WITH COURSES OF BRICK, AS REQUIRED, 12 INCHES MAXIMUM.
7. WHEN THE DEPTH OF A PRECAST INLET EXCEEDS 10 FEET AS MEASURED FROM TOP OF GRATE TO INVERT, THE FOUNDATION SHALL BE INCREASED TO 12 INCHES. WHEN ROCK IS ENCOUNTERED, THE DEPTH OF THE FOUNDATION SHALL NOT BE INCREASED.
8. MINIMUM WALL REINFORCEMENT FOR PRECAST INLETS TYPES A, B, C, E, D–1, D–2 AND B MODIFIED:

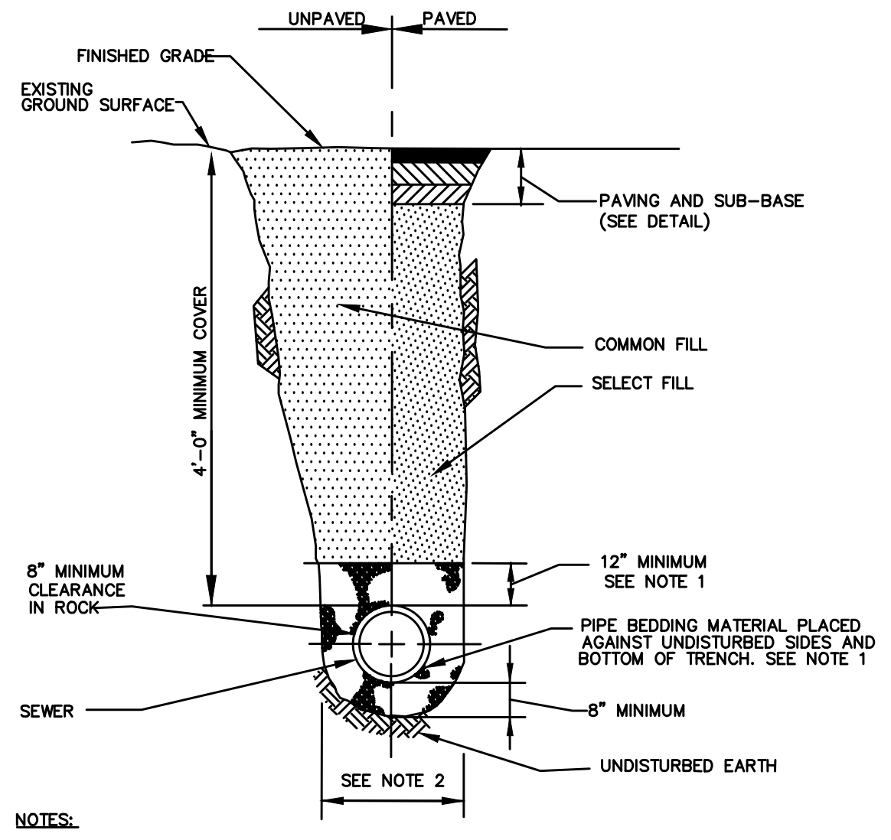
DEPTH BELOW TOP OF GRATE	HORIZONTAL REINF.	VERTICAL REINF.
0' TO 10'–0"	#13 @ 10" C.C.	#13 @ 18" C.C.
10'–1" TO 15'–0"	#13 @ 8" C.C.	#13 @ 18" C.C.
15'–1" TO 20'–0"	#13 @ 6" C.C.	#13 @ 18" C.C.

REINFORCING SHOWN FOR PRECAST INLETS IS THE MINIMUM REQUIRED. ADDITIONAL REINFORCING FOR HANDLING IS THE RESPONSIBILITY OF THE CONTRACTOR.

ALTERNATE REINFORCEMENT

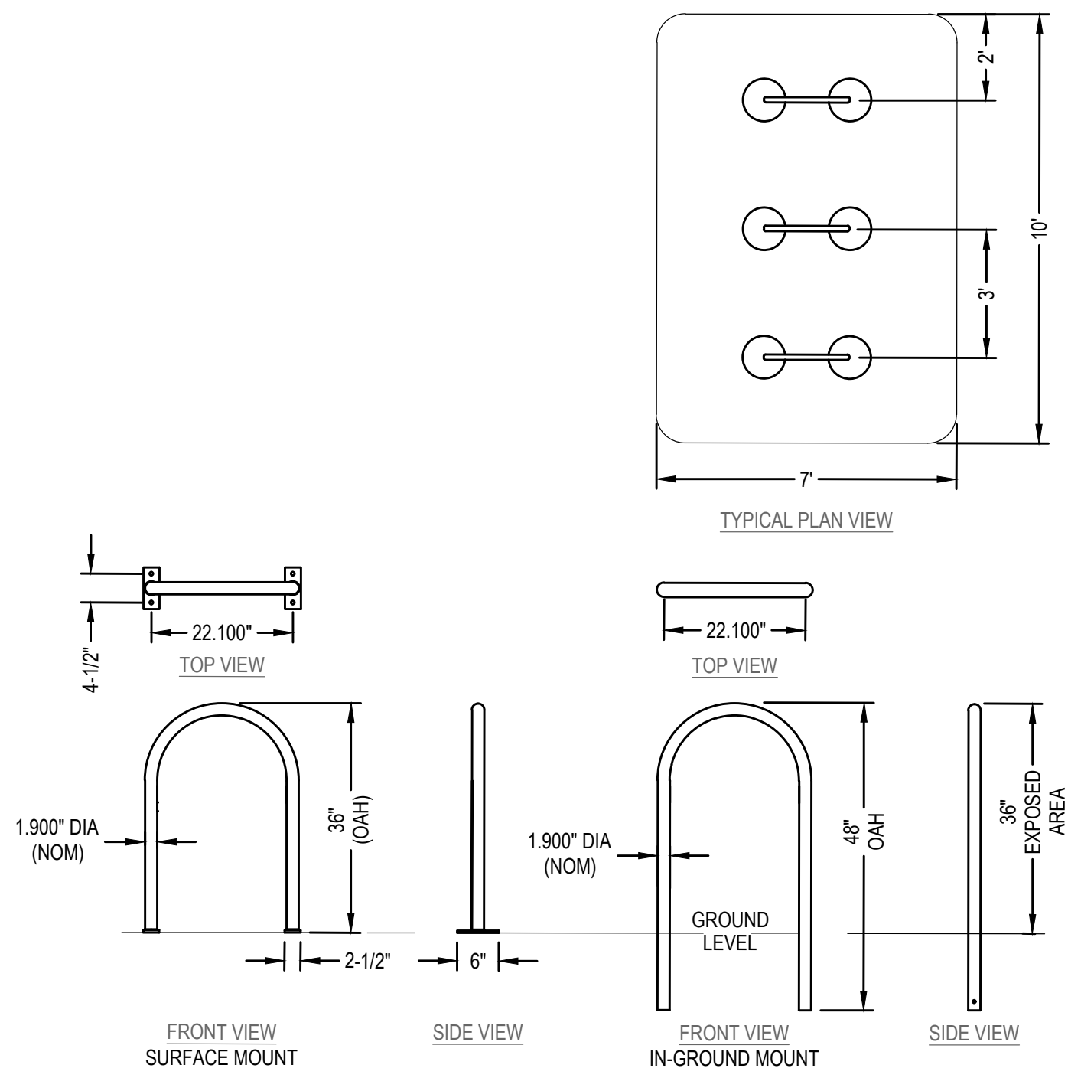
DEPTH BELOW TOP OF GRATE	
0' TO 10'–0"	WWF 3 x 6 W6 WIRES SPACED AT 3" TO RUN HORIZONTAL IN ALL CASES.
10'–1" TO 15'–0"	WWF 3 x 6 W6 ADD #10 BAR @ 18" HORIZONTAL.
15'1" TO 20'0"	WWF 3 x 6 W6 ADD #10 BAR @ 9" HORIZONTAL OR ADD #13 BAR AT 15" HORIZONTAL.

9. ALL INLETS AND MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND ITS AMENDMENTS.
10. FOR CAST IRON CLASS 30B ONLY. ANY OTHER CLASS OF CAST IRON OR TYPE OF MATERIAL MUST BE ON THE BUREAU OF MATERIALS APPROVED PRODUCTS LIST OR NEW TECHNOLOGYS AND PRODUCTS APPROVED PRODUCTS LIST.

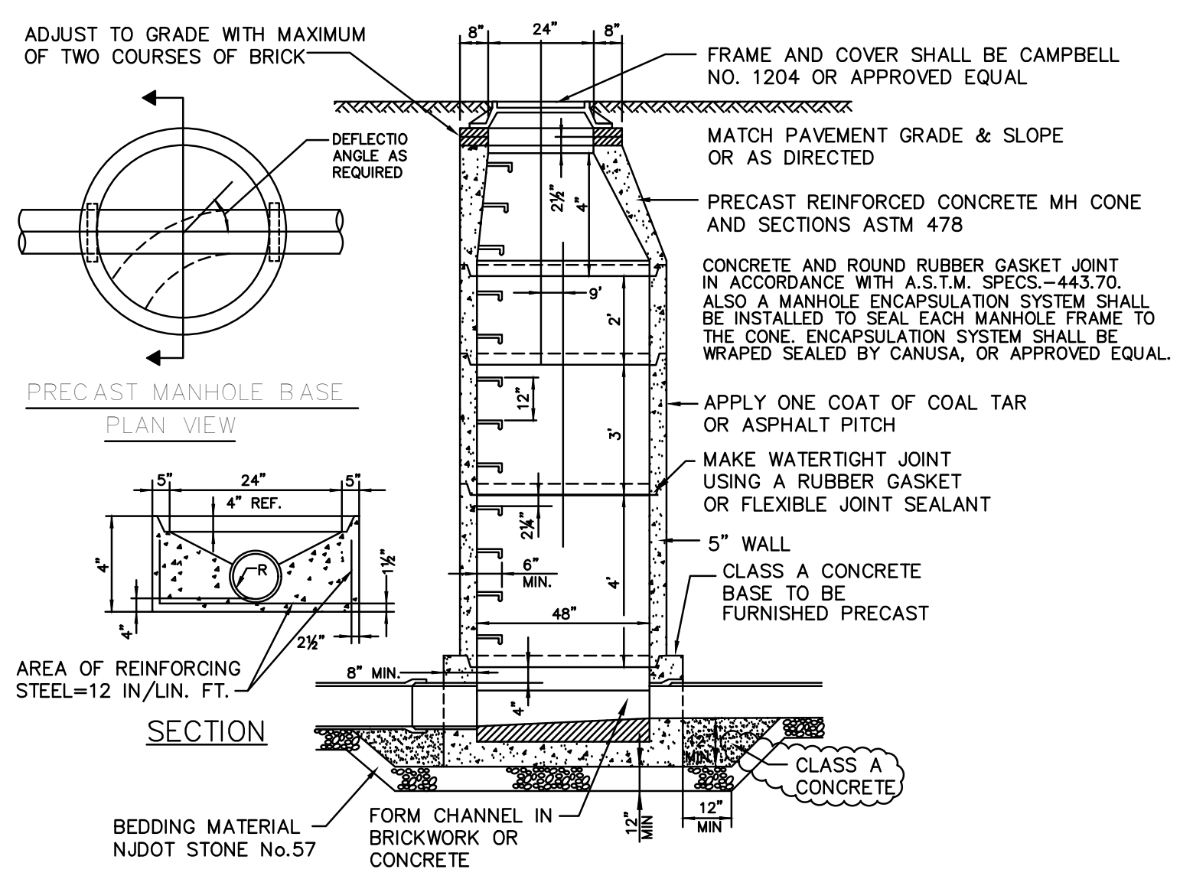

UNPAVED
PAVED
FINISHED GRADE
EXISTING GROUND SURFACE
PAVING AND SUB-BASE (SEE DETAIL)
4'-0" MINIMUM COVER
COMMON FILL
SELECT FILL
8" MINIMUM CLEARANCE IN ROCK
12" MINIMUM SEE NOTE 1
PIPE BEDDING MATERIAL PLACED AGAINST UNDISTURBED SIDES AND BOTTOM OF TRENCH. SEE NOTE 1
SEWER
8" MINIMUM
UNDISTURBED EARTH
SEE NOTE 2

NOTES:
1. FOR PIPES OTHER THAN PVC, SELECT FILL MAY BE USED FROM MID-DIAMETER OF PIPE TO 12" ABOVE TOP OF PIPE.
2. PIPE TRENCH WIDTH SHALL BE PIPE OD +2'–0" MAXIMUM FOR PIPES 12" AND LARGER, FOR PIPES LESS THAN 12", TOTAL PIPE TRENCH WIDTH SHALL BE 3'–0".
3. TRENCHES LOCATED ON ROAD SHOULDER SHALL BE TREATED THE SAME AS STREET EXCEPT FOR PAVING.
4. PROVIDE AT LEAST ONE IMPERVIOUS DAM IN GRAVEL BEDDING BETWEEN EACH MANHOLE OR EVERY 300 FT. WHICHEVER IS LESS.

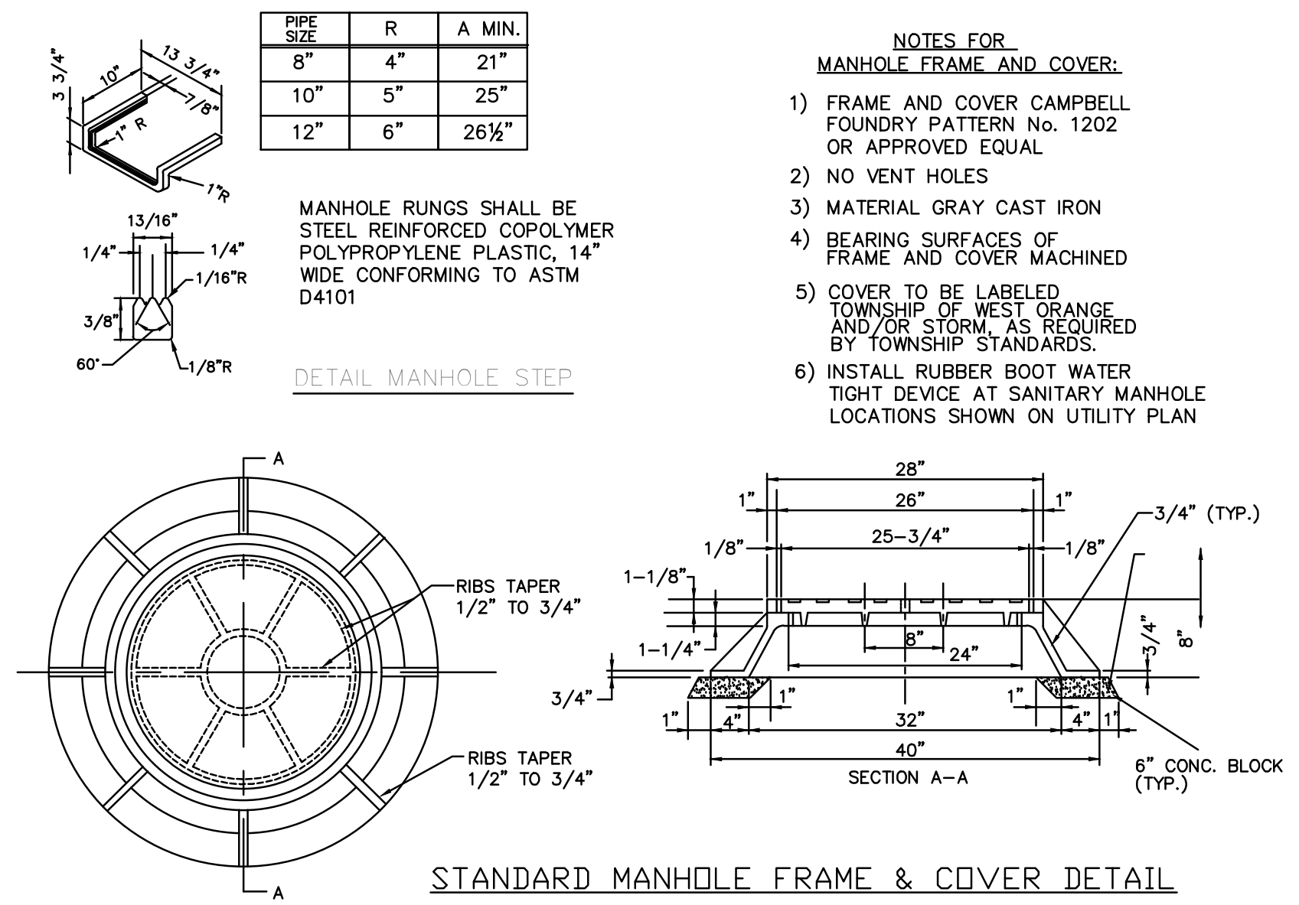
TYPICAL TRENCH DETAIL FOR 4" OR 8"
PVC SDR–35 SEWER PIPE
N.T.S.


2'
3'
10'
7'
TYPICAL PLAN VIEW
4-1/2"
22.100"
TOP VIEW
22.100"
TOP VIEW
1.900" DIA (NOM)
36" (OAH)
2-1/2"
6"
1.900" DIA (NOM)
GROUND LEVEL
48" OAH
36" EXPOSED AREA
FRONT VIEW
SURFACE MOUNT
SIDE VIEW
FRONT VIEW
IN-GROUND MOUNT
SIDE VIEW

BICYCLE RACK DETAIL
SCALE – N.T.S.


ADJUST TO GRADE WITH MAXIMUM OF TWO COURSES OF BRICK
DEFLECTIO ANGLE AS REQUIRED
PRECAST MANHOLE BASE
PLAN VIEW
8"
24"
8"
FRAME AND COVER SHALL BE CAMPBELL NO. 1204 OR APPROVED EQUAL
MATCH PAVEMENT GRADE & SLOPE OR AS DIRECTED
PRECAST REINFORCED CONCRETE MH CONE AND SECTIONS ASTM 478
CONCRETE AND ROUND RUBBER GASKET JOINT IN ACCORDANCE WITH A.S.T.M. SPECS.–443.70. ALSO A MANHOLE ENCAPSULATION SYSTEM SHALL BE INSTALLED TO SEAL EACH MANHOLE FRAME TO THE CONE. ENCAPSULATION SYSTEM SHALL BE WRAPED SEALED BY CANUSA, OR APPROVED EQUAL.
2½"
4"
9'
2'
12"
3'
APPLY ONE COAT OF COAL TAR OR ASPHALT PITCH
MAKE WATERTIGHT JOINT USING A RUBBER GASKET OR FLEXIBLE JOINT SEALANT
5" WALL
2¼"
6" MIN.
4'
48"
CLASS A CONCRETE BASE TO BE FURNISHED PRECAST
5"
24"
5"
4" REF.
R
4"
1½"
4"
2½"
AREA OF REINFORCING STEEL=12 IN/LIN. FT.
SECTION
8" MIN.
4"
CLASS A CONCRETE
BEDDING MATERIAL NJDOT STONE No.57
FORM CHANNEL IN BRICKWORK OR CONCRETE
12" MIN
12" MIN

48" PRECAST CONCRETE MANHOLE
SCALE – NOT TO SCALE


3 3/4"
10"
13 3/4"
7/8"
1" R
1"R
13/16"
1/4"
1/4"
1/16"R
3/8"
60°
1/8"R
A
RIBS TAPER 1/2" TO 3/4"
RIBS TAPER 1/2" TO 3/4"
A
28"
26"
1"
1"
25–3/4"
1/8"
1/8"
3/4" (TYP.)
1–1/8"
1–1/4"
8"
24"
3/4"
8"
3/4"
1"
1"
1"
4"
32"
4"
1"
40"
SECTION A–A
6" CONC. BLOCK (TYP.)

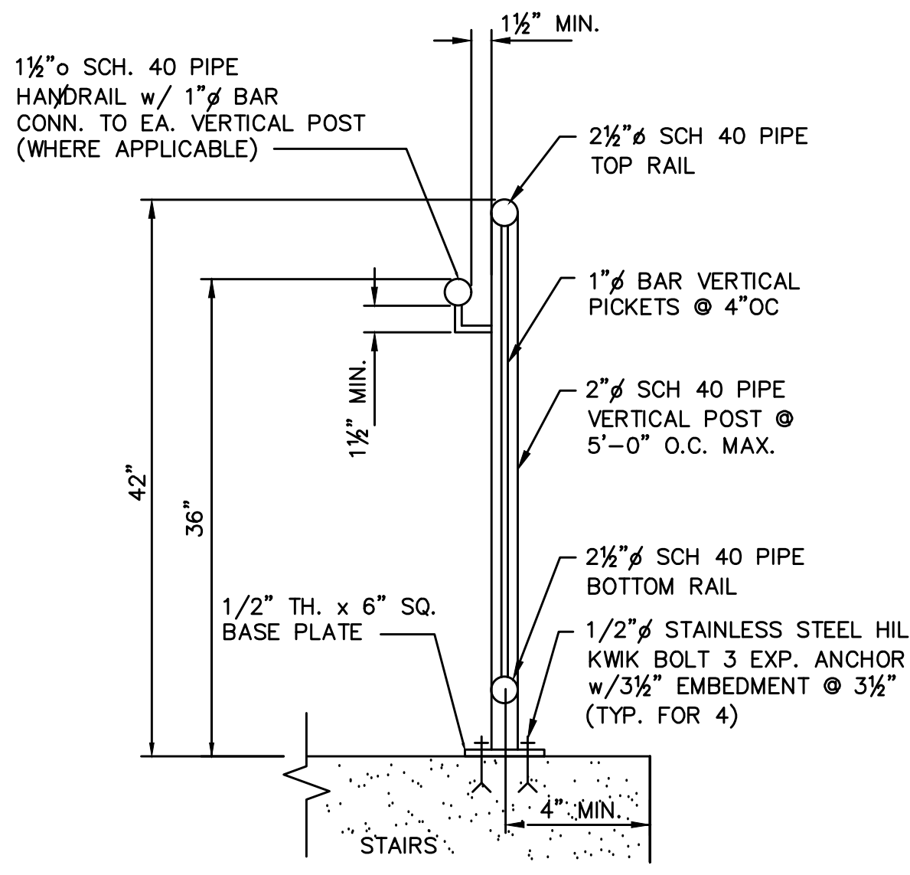
PIPE SIZE	R	A MIN.
8"	4"	21"
10"	5"	25"
12"	6"	26½"

MANHOLE RUNGS SHALL BE STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC, 14" WIDE CONFORMING TO ASTM D4101

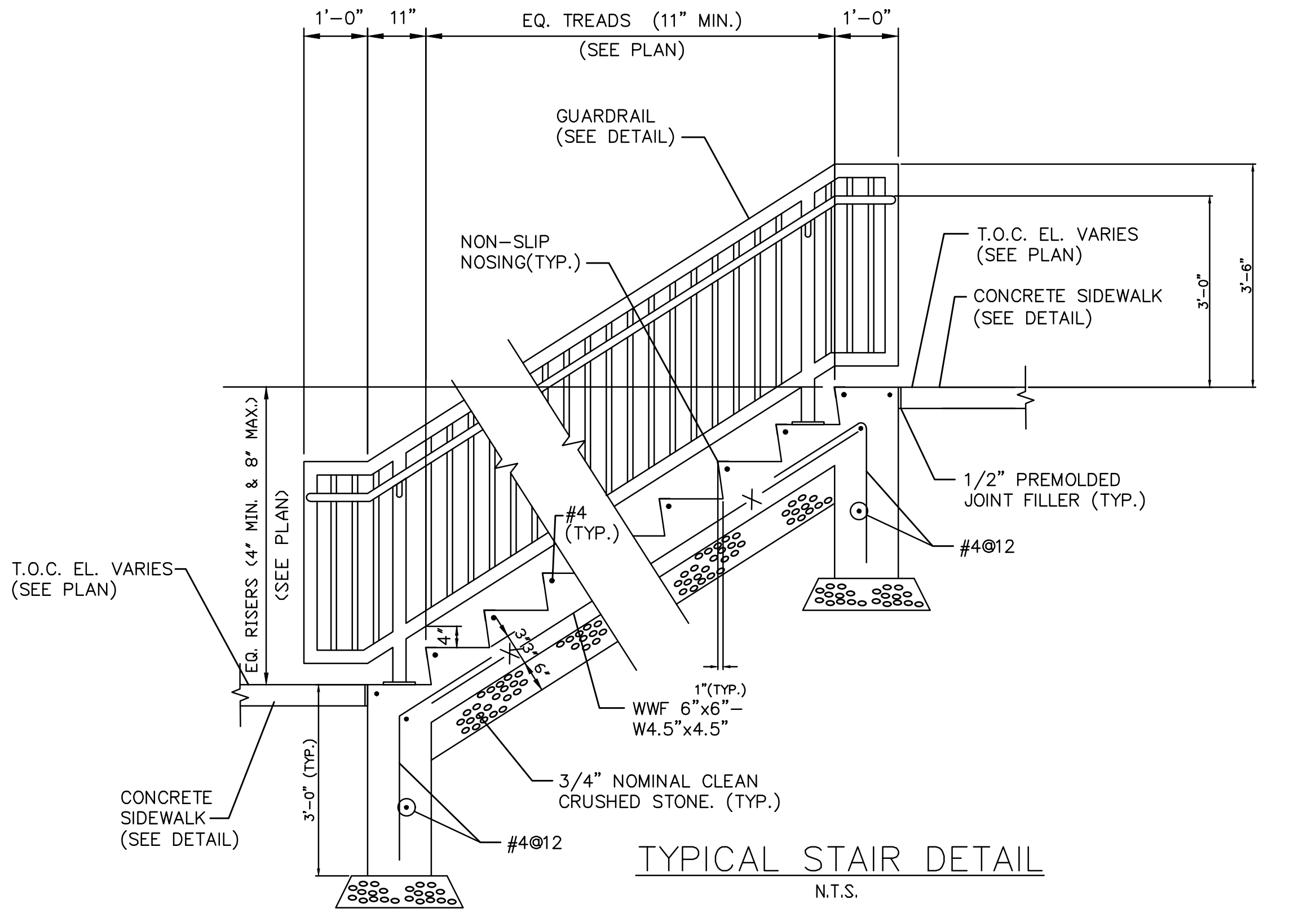
DETAIL MANHOLE STEP

NOTES FOR MANHOLE FRAME AND COVER:
1) FRAME AND COVER CAMPBELL FOUNDRY PATTERN No. 1202 OR APPROVED EQUAL
2) NO VENT HOLES
3) MATERIAL GRAY CAST IRON
4) BEARING SURFACES OF FRAME AND COVER MACHINED
5) COVER TO BE LABELED TOWNSHIP OF WEST ORANGE AND/OR STORM, AS REQUIRED BY TOWNSHIP STANDARDS.
6) INSTALL RUBBER BOOT WATER TIGHT DEVICE AT SANITARY MANHOLE LOCATIONS SHOWN ON UTILITY PLAN

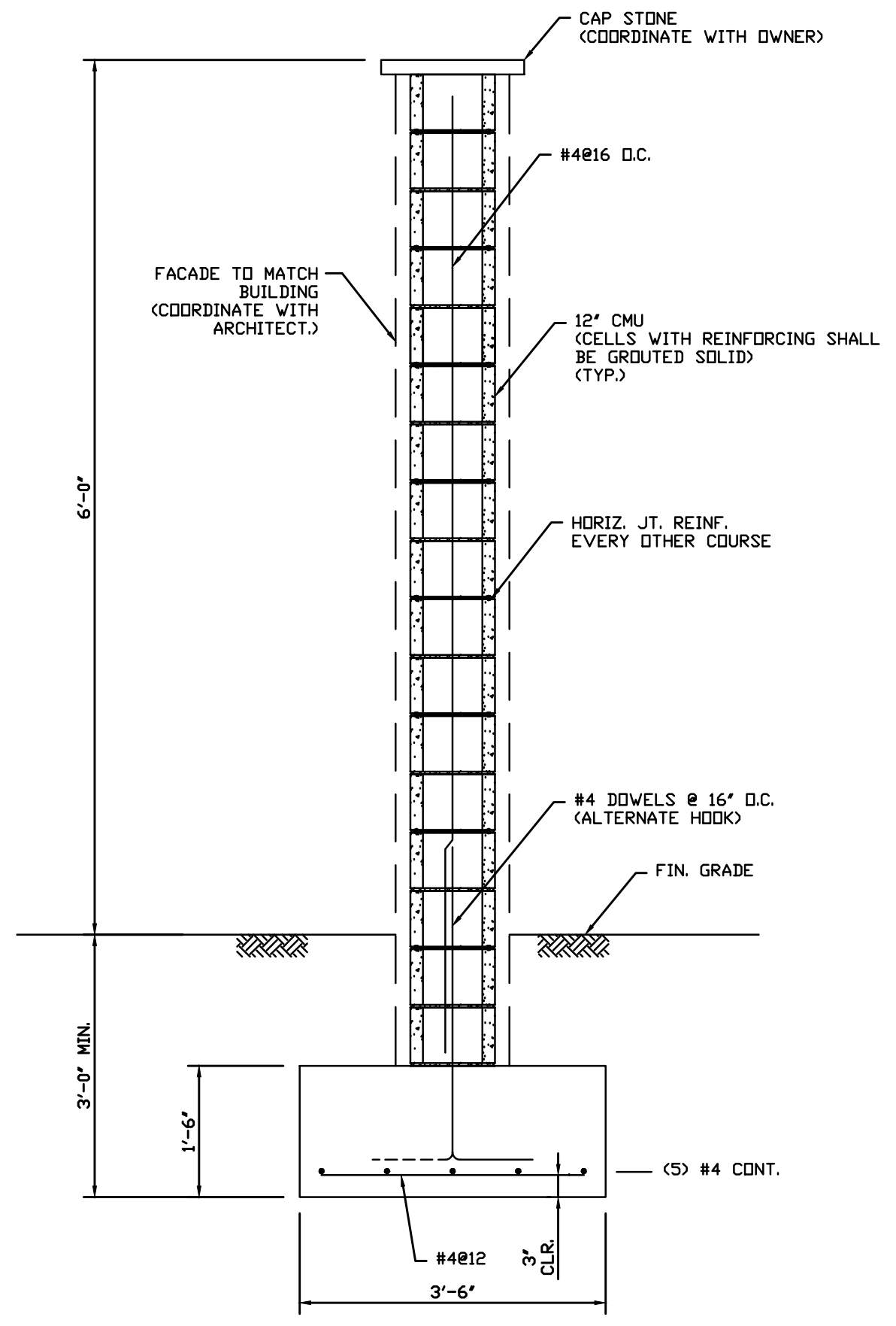
STANDARD MANHOLE FRAME & COVER DETAIL
SCALE – NOT TO SCALE


1½" MIN.
1½"o SCH. 40 PIPE HANDRAIL w/ 1"ø BAR CONN. TO EA. VERTICAL POST (WHERE APPLICABLE)
2½"ø SCH 40 PIPE TOP RAIL
1"ø BAR VERTICAL PICKETS @ 4"OC
2"ø SCH 40 PIPE VERTICAL POST @ 5'–0" O.C. MAX.
1½" MIN.
42"
36"
2½"ø SCH 40 PIPE BOTTOM RAIL
1/2" TH. x 6" SQ. BASE PLATE
1/2"ø STAINLESS STEEL HILTI KWIK BOLT 3 EXP. ANCHOR w/3½" EMBEDMENT @ 3½" O.C. EW (TYP. FOR 4)
4" MIN.
STAIRS

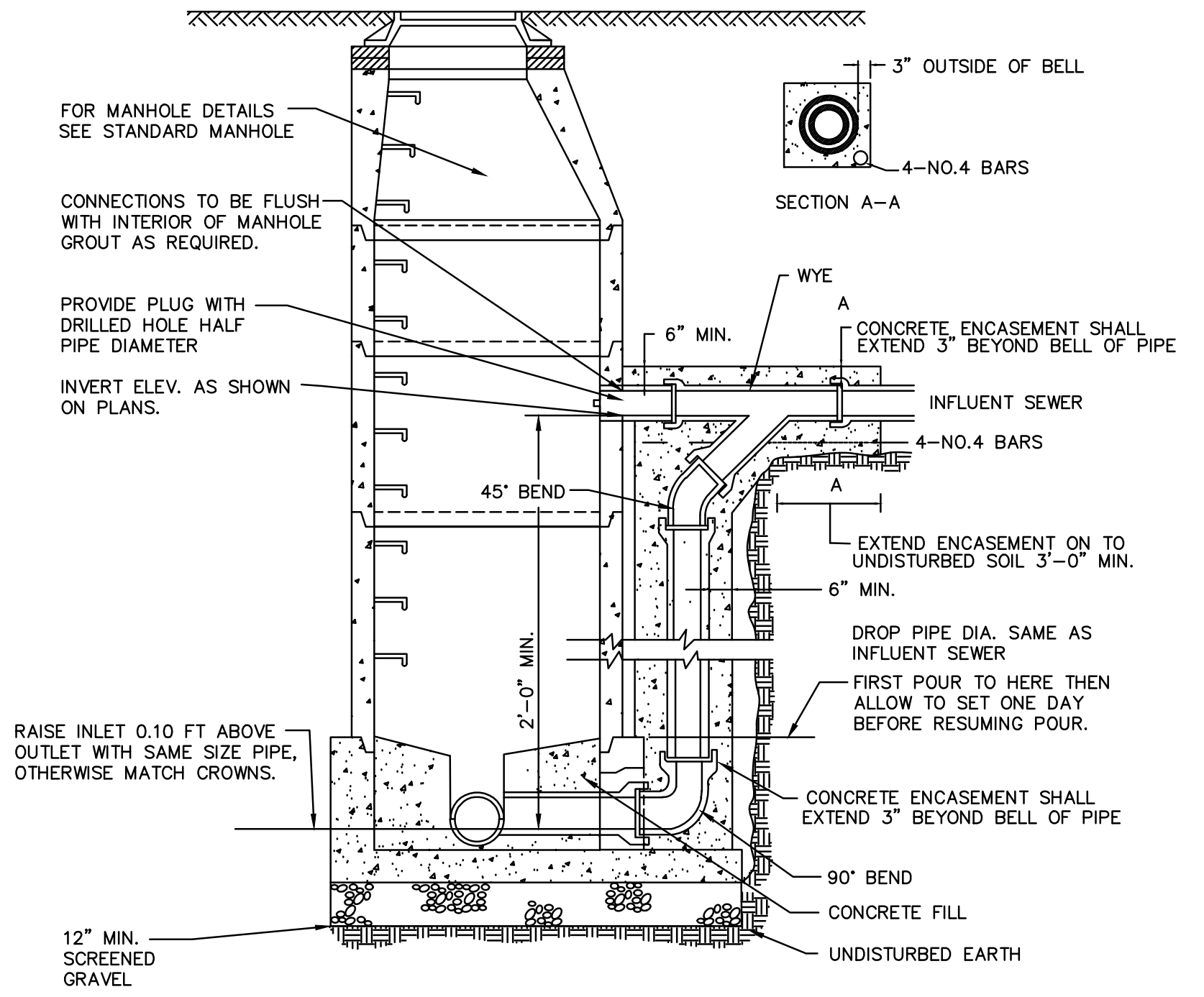
TYPICAL GUARDRAIL DETAIL
N.T.S.


1'–0"
11"
EQ. TREADS (11" MIN.)
(SEE PLAN)
1'–0"
GUARDRAIL (SEE DETAIL)
NON–SLIP NOSING(TYP.)
T.O.C. EL. VARIES (SEE PLAN)
CONCRETE SIDEWALK (SEE DETAIL)
3'–0"
3'–6"
EQ. RISERS (4" MIN. & 8" MAX.) (SEE PLAN)
1/2" PREMOLDED JOINT FILLER (TYP.)
#4 (TYP.)
#4@12
T.O.C. EL. VARIES (SEE PLAN)
4"
3"
6"
1"(TYP.)
WWF 6"x6"– W4.5"x4.5"
CONCRETE SIDEWALK (SEE DETAIL)
3'–0" (TYP.)
3/4" NOMINAL CLEAN CRUSHED STONE. (TYP.)
#4@12

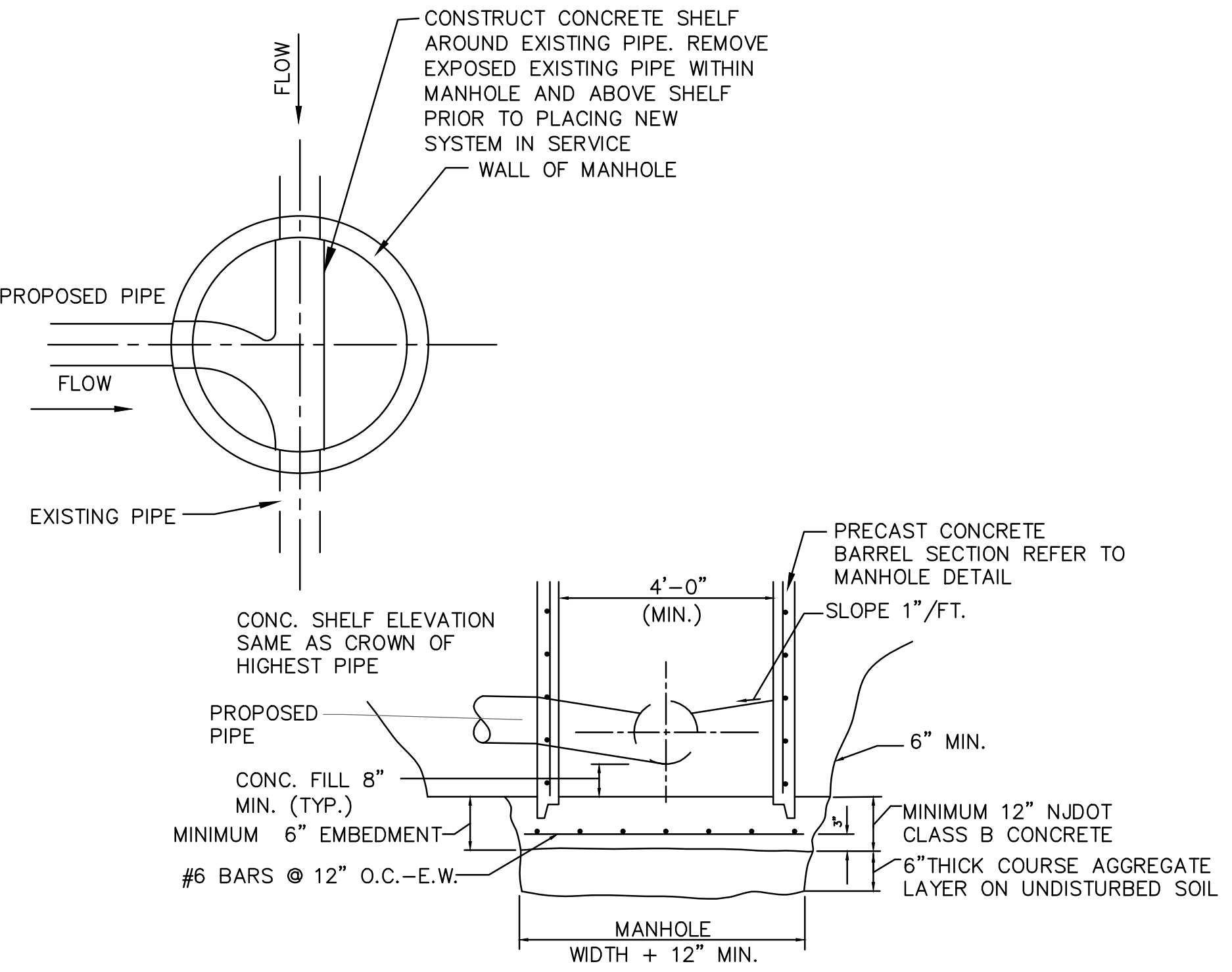
TYPICAL STAIR DETAIL
N.T.S.


CAP STONE (COORDINATE WITH OWNER)
#4@16 O.C.
FACADE TO MATCH BUILDING (COORDINATE WITH ARCHITECT.)
12" CMU (CELLS WITH REINFORCING SHALL BE GROUTED SOLID) (TYP.)
6'–0"
HORIZ. JT. REINF. EVERY OTHER COURSE
#4 DOWELS @ 16" O.C. (ALTERNATE HOOK)
FIN. GRADE
3'–0" MIN.
1'–6"
(5) #4 CONT.
#4@12
3" CLR.
3'–6"

SCREEN WALL DETAIL
SCALE – N.T.S.

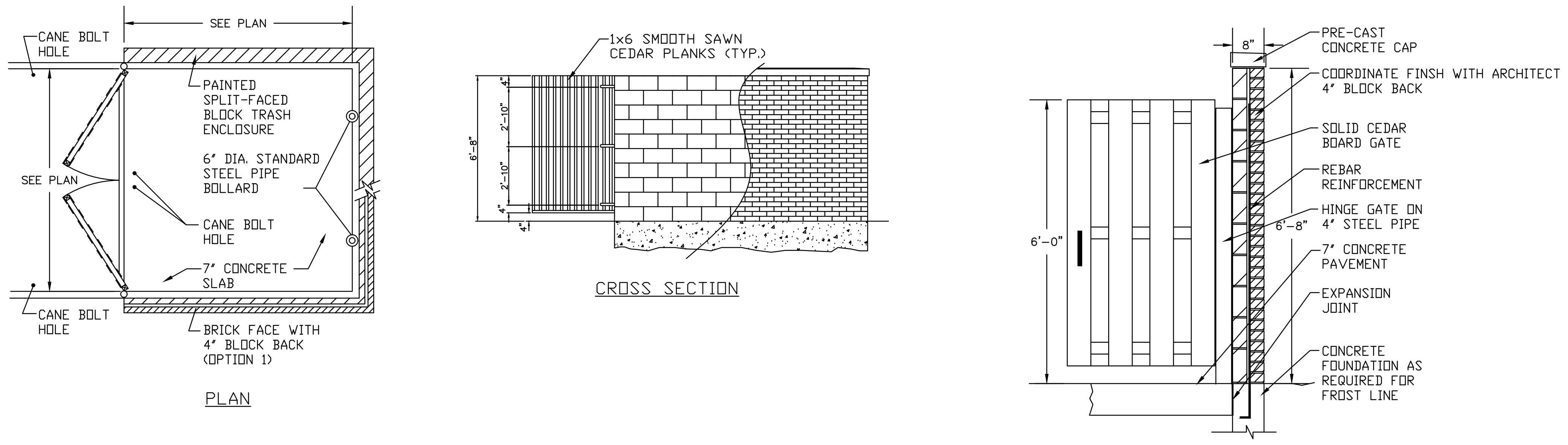

3" OUTSIDE OF BELL
4–NO.4 BARS
SECTION A–A
FOR MANHOLE DETAILS SEE STANDARD MANHOLE
CONNECTIONS TO BE FLUSH WITH INTERIOR OF MANHOLE GROUT AS REQUIRED.
WYE
A
PROVIDE PLUG WITH DRILLED HOLE HALF PIPE DIAMETER
6" MIN.
CONCRETE ENCASEMENT SHALL EXTEND 3" BEYOND BELL OF PIPE
INVERT ELEV. AS SHOWN ON PLANS.
INFLUENT SEWER
4–NO.4 BARS
45° BEND
A
EXTEND ENCASEMENT ON TO UNDISTURBED SOIL 3'–0" MIN.
6" MIN.
DROP PIPE DIA. SAME AS INFLUENT SEWER
2'–0" MIN.
FIRST POUR TO HERE THEN ALLOW TO SET ONE DAY BEFORE RESUMING POUR.
RAISE INLET 0.10 FT ABOVE OUTLET WITH SAME SIZE PIPE, OTHERWISE MATCH CROWNS.
CONCRETE ENCASEMENT SHALL EXTEND 3" BEYOND BELL OF PIPE
90° BEND
CONCRETE FILL
12" MIN. SCREENED GRAVEL
UNDISTURBED EARTH

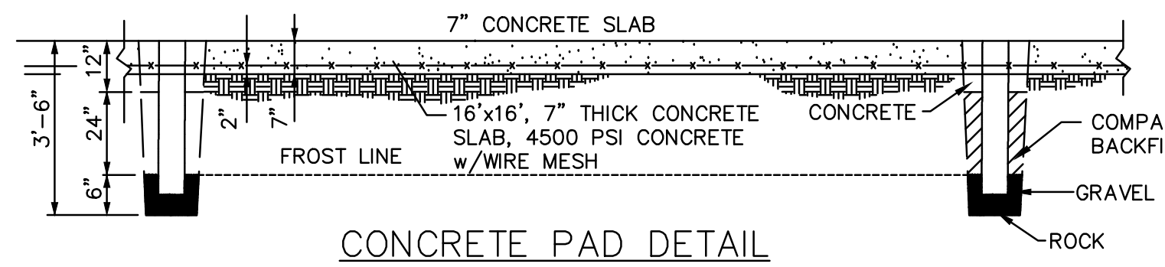
SANITARY SEWER DROP MANHOLE DETAIL
SCALE – NOT TO SCALE


FLOW
CONSTRUCT CONCRETE SHELF AROUND EXISTING PIPE. REMOVE EXPOSED EXISTING PIPE WITHIN MANHOLE AND ABOVE SHELF PRIOR TO PLACING NEW SYSTEM IN SERVICE
WALL OF MANHOLE
PROPOSED PIPE
FLOW
EXISTING PIPE
PRECAST CONCRETE BARREL SECTION REFER TO MANHOLE DETAIL
4'–0" (MIN.)
SLOPE 1"/FT.
CONC. SHELF ELEVATION SAME AS CROWN OF HIGHEST PIPE
PROPOSED PIPE
6" MIN.
CONC. FILL 8" MIN. (TYP.)
MINIMUM 6" EMBEDMENT
3"
MINIMUM 12" NJDOT CLASS B CONCRETE
#6 BARS @ 12" O.C.–E.W.
6"THICK COURSE AGGREGATE LAYER ON UNDISTURBED SOIL
MANHOLE WIDTH + 12" MIN.

CONSTRUCTION NOTES:
1. SEE PRECAST STANDARD MANHOLE DETAIL FOR TYPICAL INSTALLATION.
2. PRECAST MANHOLE SECTION TO BE IN ACCORDANCE WITH ASTM DESIGNATION C–478

DOGHOUSE STRUCTURE
SCALE N.T.S.


CANE BOLT HOLE
SEE PLAN
PAINTED SPLIT-FACED BLOCK TRASH ENCLOSURE
SEE PLAN
6" DIA. STANDARD STEEL PIPE BOLLARD
CANE BOLT HOLE
7" CONCRETE SLAB
CANE BOLT HOLE
BRICK FACE WITH 4" BLOCK BACK (OPTION 1)
PLAN
1x6 SMOOTH SAWN CEDAR PLANKS (TYP.)
6'–8"
4"
2'–10"
2'–10"
4"
4"
CROSS SECTION
8"
PRE-CAST CONCRETE CAP
COORDINATE FINSH WITH ARCHITECT 4" BLOCK BACK
SOLID CEDAR BOARD GATE
REBAR REINFORCEMENT
6'–0"
6'–8"
HINGE GATE ON 4" STEEL PIPE
7" CONCRETE PAVEMENT
EXPANSION JOINT
CONCRETE FOUNDATION AS REQUIRED FOR FROST LINE
SECTION


7" CONCRETE SLAB
12"
3'–6"
24"
6"
2"
7"
16'x16', 7" THICK CONCRETE SLAB, 4500 PSI CONCRETE w/WIRE MESH
FROST LINE
CONCRETE
COMPACTED BACKFILL
GRAVEL
ROCK

CONCRETE PAD DETAIL
SCALE N.T.S.

TRASH ENCLOSURE DETAILS
N.T.S.

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REVISION	DESCRIPTION	DATE	BY
3	REVISED PER ENGINEER'S COMMENTS	05/04/2023	JMP
2	REVISED PER NEW ARCHITECTURAL DRAWINGS	03/03/2023	JMP
1	SHIFT BUILDING C TO THE NORTH	06/15/2021	JMP

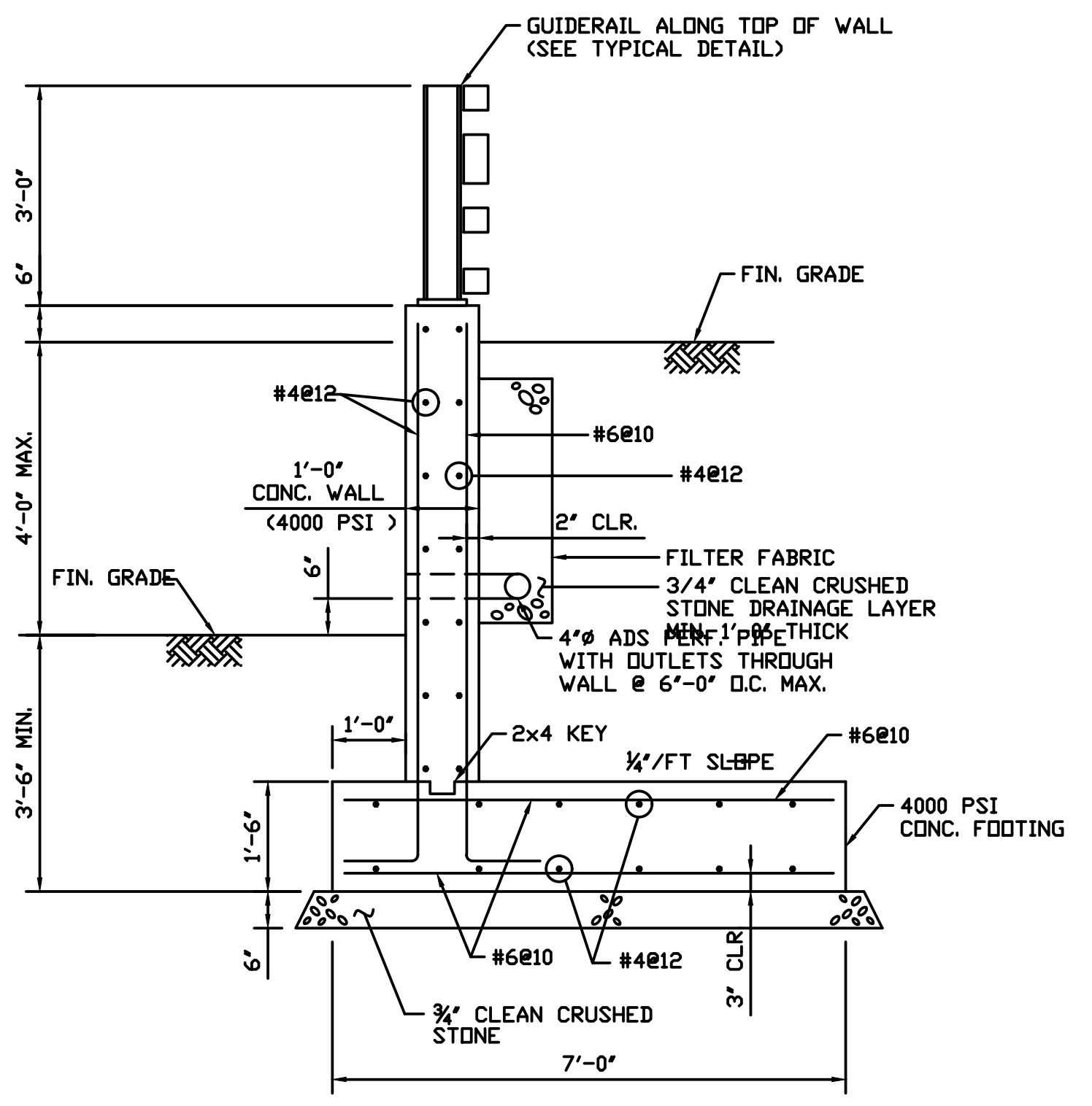
PREPARED FOR
WEST ORANGE PLAZA
BLOCK 152.01 LOT 1445 & LOT 1445.05
235 PROSPECT AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY

CONSTRUCTION DETAILS

PETRY
ENGINEERING, LLC
DIVISION OF CONSUMER AFFAIRS LICENSE NUMBER 24GA28155900
155 PASSAIC AVENUE • FAIRFIELD • NEW JERSEY • 07004
TEL. (973) 227-7004 FAX (973) 227-7074

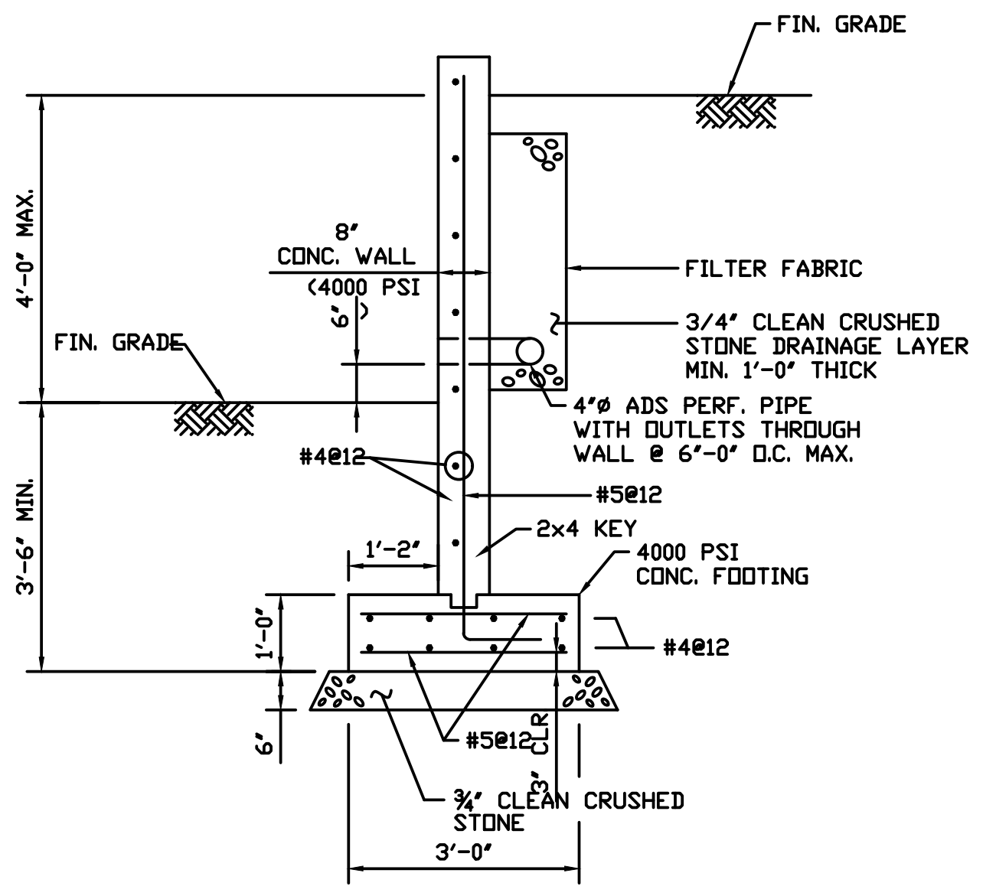
J. MICHAEL PETRY-PE,PP,RA
NJ PROFESSIONAL ENGINEER LIC. No. 36662 DATED: 12/9/2020

Designer: JMP
Draftsman: SPD
Checked By: JMP
Project No.: 18-0078
Scale: AS SHOWN
Sheet:
SP-15


GUIDERAIL ALONG TOP OF WALL (SEE TYPICAL DETAIL)
FIN. GRADE
#4@12
#6@10
1'-0" CONC. WALL (4000 PSI)
2" CLR.
FILTER FABRIC
3/4" CLEAN CRUSHED STONE DRAINAGE LAYER MIN. 1'-0" THICK
4"Ø ADS PERF. PIPE WITH OUTLETS THROUGH WALL @ 6'-0" O.C. MAX.
2x4 KEY
¼"/FT SLOPE
4000 PSI CONC. FOOTING
¾" CLEAN CRUSHED STONE
7'-0"
3'-0"
4'-0" MAX.
3'-6" MIN.
6'-0"
2'-0" MAX.
FIN. GRADE
#6@12
3" CLR.

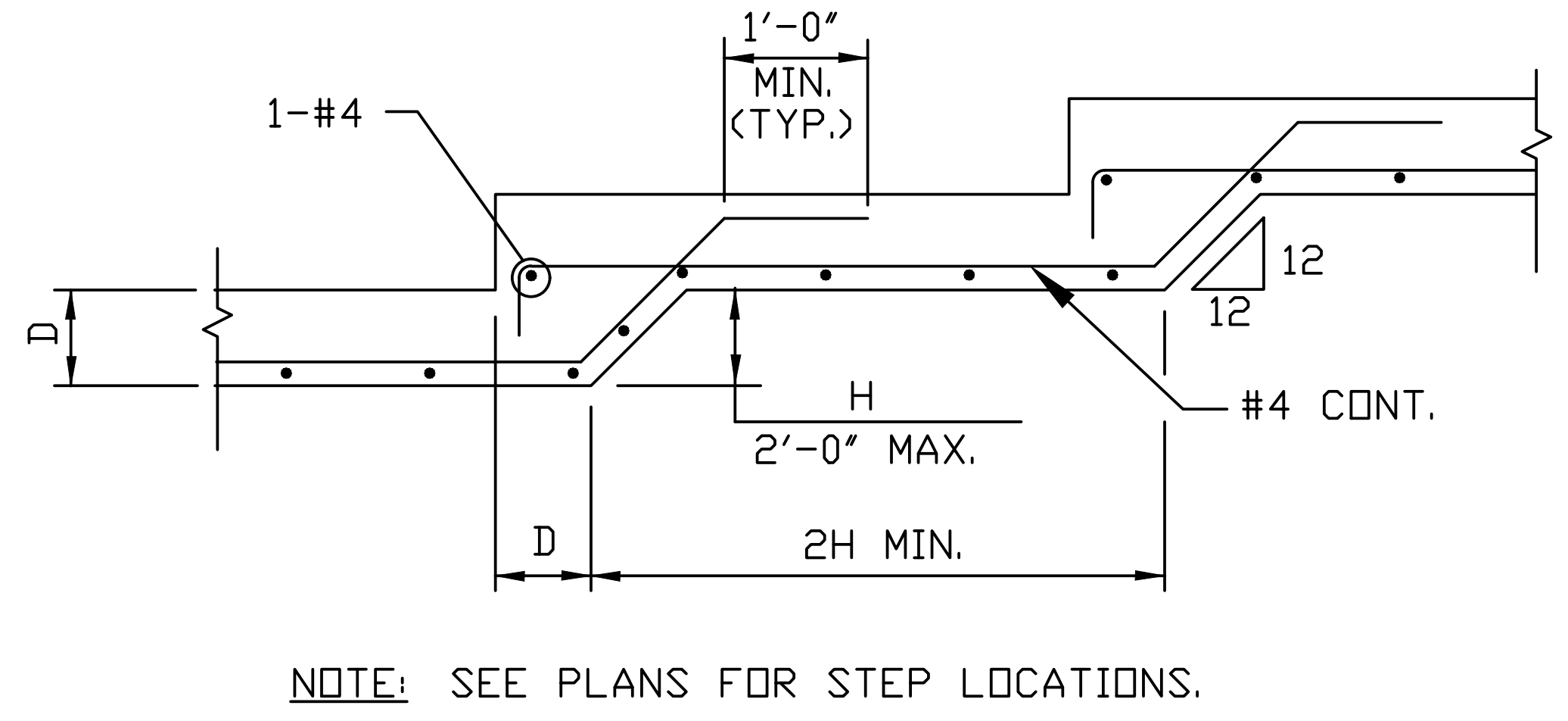
WALL TYPE "A" DETAIL

SCALE – N.T.S.


FIN. GRADE
8" CONC. WALL (4000 PSI)
FILTER FABRIC
3/4" CLEAN CRUSHED STONE DRAINAGE LAYER MIN. 1'-0" THICK
4"Ø ADS PERF. PIPE WITH OUTLETS THROUGH WALL @ 6'-0" O.C. MAX.
#4@12
#5@12
2x4 KEY
4000 PSI CONC. FOOTING
¾" CLEAN CRUSHED STONE
3'-0"
4'-0" MAX.
3'-6" MIN.

WALL TYPE "B" DETAIL

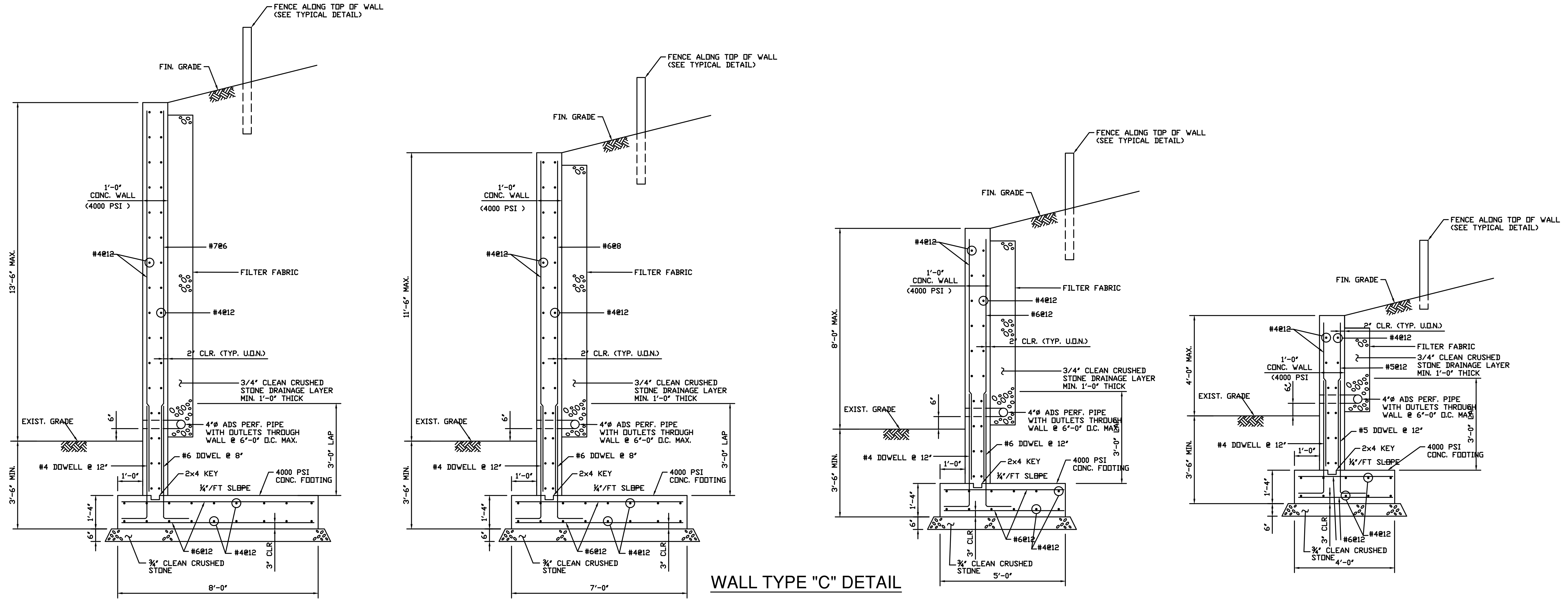
SCALE – N.T.S.


1'-0" MIN. (TYP.)
1-#4
#4 CONT.
H
2'-0" MAX.
D
2H MIN.
12
12

NOTE: SEE PLANS FOR STEP LOCATIONS.

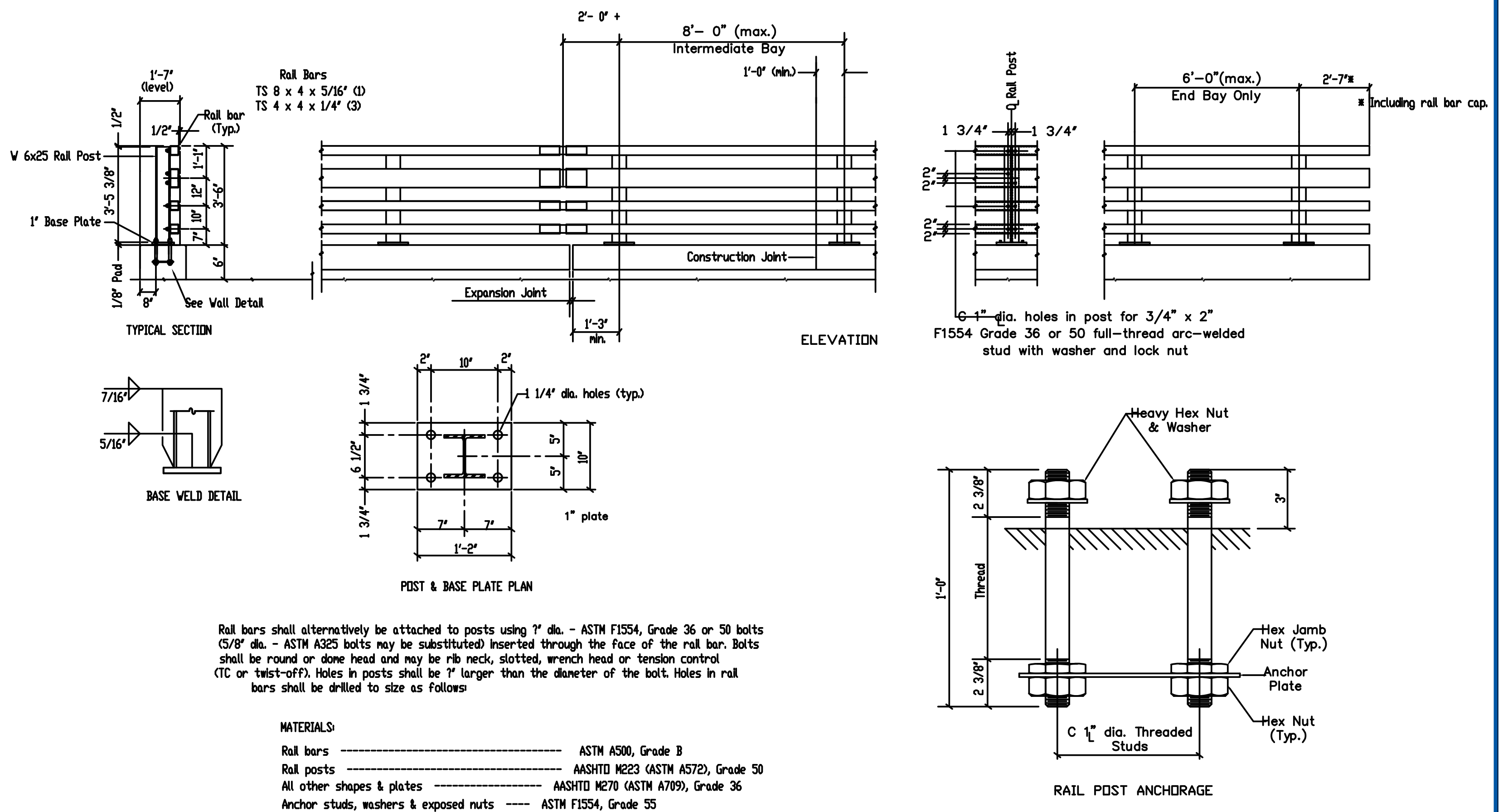
TYPICAL STEPPED WALL FOOTING DETAIL

SCALE – N.T.S.


FENCE ALONG TOP OF WALL (SEE TYPICAL DETAIL)
FIN. GRADE
1'-0" CONC. WALL (4000 PSI)
#4@12
#7@6
#6@8
FILTER FABRIC
2" CLR. (TYP. U.O.N.)
3/4" CLEAN CRUSHED STONE DRAINAGE LAYER MIN. 1'-0" THICK
4"Ø ADS PERF. PIPE WITH OUTLETS THROUGH WALL @ 6'-0" O.C. MAX.
EXIST. GRADE
#4 DOWELL @ 12"
#6 DOWEL @ 8"
#5 DOWEL @ 12"
2x4 KEY
¼"/FT SLOPE
4000 PSI CONC. FOOTING
¾" CLEAN CRUSHED STONE
#6@12
#5@12
3'-0" LAP
13'-6" MAX.
11'-6" MAX.
8'-0" MAX.
4'-0" MAX.
3'-6" MIN.
8'-0"
7'-0"
5'-0"
4'-0"
3" CLR.

WALL TYPE "C" DETAIL

SCALE – N.T.S.


Rail Bars TS 8 x 4 x 5/16" (2) TS 4 x 4 x 1/4" (3)
W 6x25 Rail Post
1" Base Plate
See Wall Detail
TYPICAL SECTION
8'-0" (max.) Intermediate Bay
Construction Joint
Expansion Joint
ELEVATION
6'-0"(max.) End Bay Only
Including rail bar cap.
Rail Post
1 3/4"
F1554 Grade 36 or 50 full-thread arc-welded stud with washer and lock nut
BASE WELD DETAIL
1 1/4" dia. holes (typ)
1" plate
POST & BASE PLATE PLAN
Heavy Hex Nut & Washer
Hex Jamb Nut (Typ.)
Anchor Plate
Hex Nut (Typ.)
Threaded Studs
RAIL POST ANCHORAGE

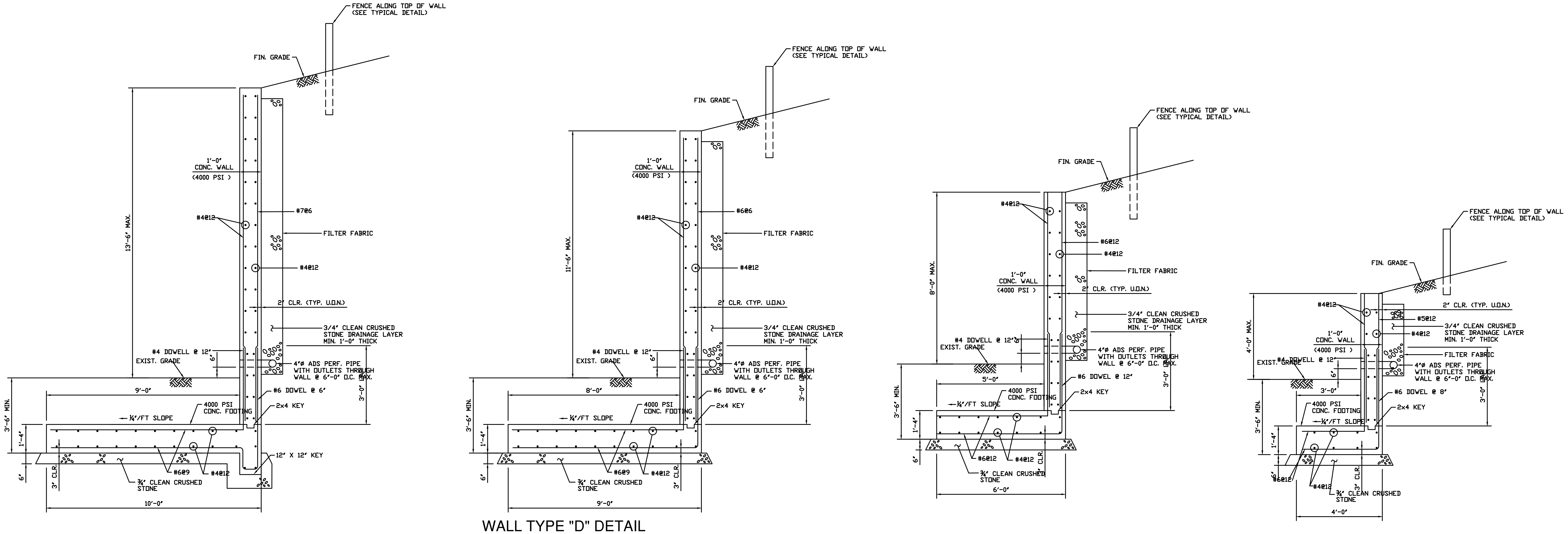
Rail bars shall alternatively be attached to posts using ?" dia. - ASTM F1554, Grade 36 or 50 bolts (5/8" dia. - ASTM A325 bolts may be substituted) inserted through the face of the rail bar. Bolts shall be round or dome head and may be rib neck, slotted, wrench head or tension control (TC or twist-off). Holes in posts shall be ?" larger than the diameter of the bolt. Holes in rail bars shall be drilled to size as follows:

MATERIALS:

Rail bars ------------------------------------ ASTM A500, Grade B
Rail posts ------------------------------------ AASHTO M223 (ASTM A572), Grade 50
All other shapes & plates ----------------- AASHTO M270 (ASTM A709), Grade 36
Anchor studs, washers & exposed nuts ---- ASTM F1554, Grade 55
All other bolts & nuts (unless noted) ------ ASTM F1554, Grade 36 or 50

TYPICAL GUIDERAIL DETAIL ALONG TOP OF WALL

SCALE – N.T.S.


FENCE ALONG TOP OF WALL (SEE TYPICAL DETAIL)
FIN. GRADE
1'-0" CONC. WALL (4000 PSI)
#4@12
#7@6
#6@6
#6@12
#5@12
FILTER FABRIC
2" CLR. (TYP. U.O.N.)
3/4" CLEAN CRUSHED STONE DRAINAGE LAYER MIN. 1'-0" THICK
4"Ø ADS PERF. PIPE WITH OUTLETS THROUGH WALL @ 6'-0" O.C. MAX.
#4 DOWELL @ 12"
EXIST. GRADE
#6 DOWEL @ 6"
#6 DOWEL @ 12"
#6 DOWEL @ 8"
2x4 KEY
12" X 12" KEY
4000 PSI CONC. FOOTING
¼"/FT SLOPE
¾" CLEAN CRUSHED STONE
#6@9
9'-0"
8'-0"
5'-0"
3'-0"
10'-0"
6'-0"
4'-0"
13'-6" MAX.
11'-6" MAX.
8'-0" MAX.
4'-0" MAX.
3'-6" MIN.
3" CLR.

WALL TYPE "D" DETAIL

SCALE – N.T.S.

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REVISION	DESCRIPTION	DATE	BY
3	REVISED PER ENGINEER'S COMMENTS	05/04/2023	JMP
2	REVISED PER NEW ARCHITECTURAL DRAWINGS	03/03/2023	JMP
1	SHIFT BUILDING C TO THE NORTH	06/15/2021	JMP

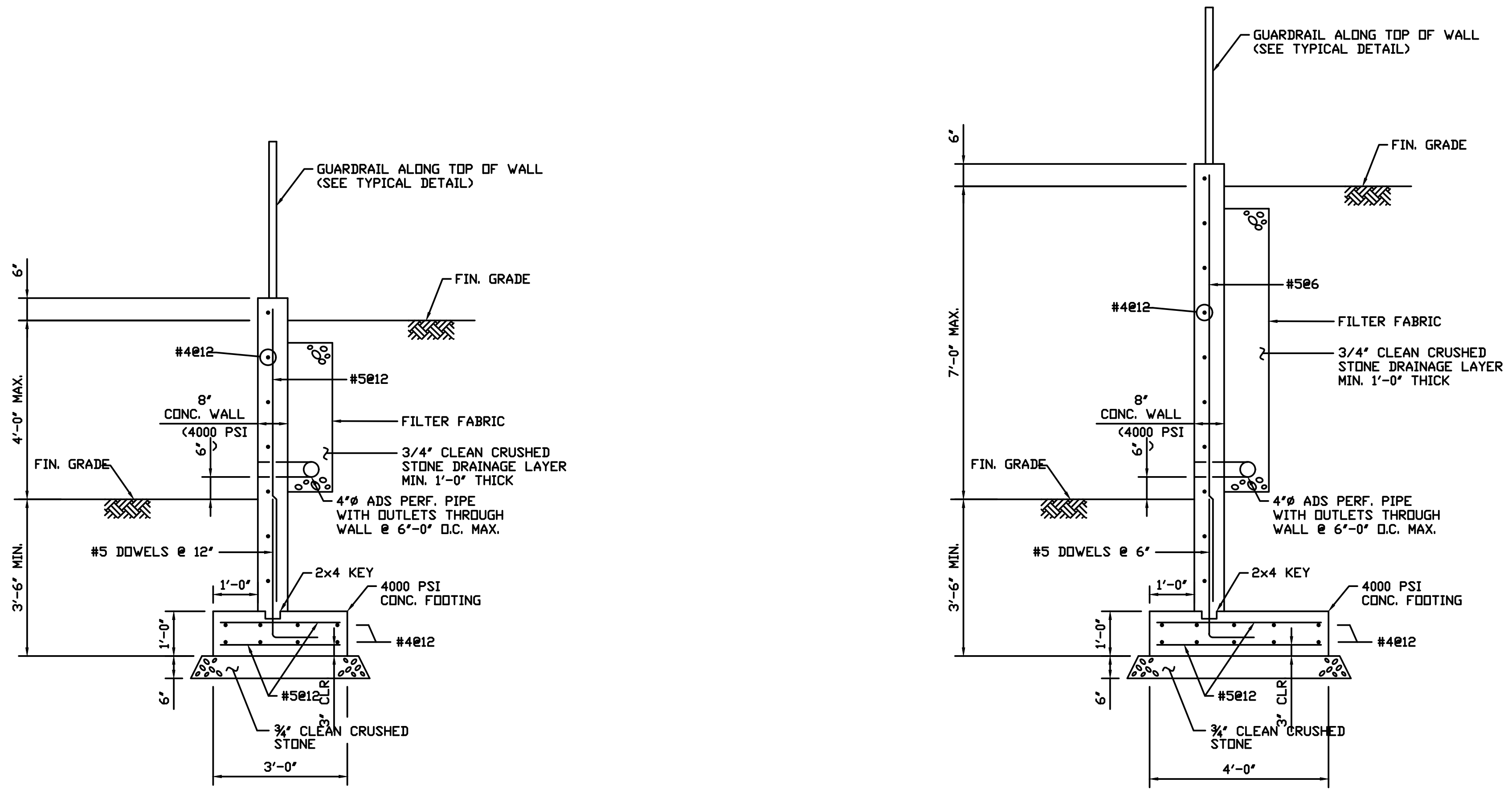
PREPARED FOR
WEST ORANGE PLAZA
BLOCK 152.01 LOT 1445 & LOT 1445.05
235 PROSPECT AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY

RETAINING WALL DETAILS

PETRY
ENGINEERING , LLC
DIVISION OF CONSUMER AFFAIRS LICENSE NUMBER 24GA28155900
155 PASSAIC AVENUE • FAIRFIELD • NEW JERSEY • 07004
TEL. (973) 227-7004 FAX (973) 227-7074

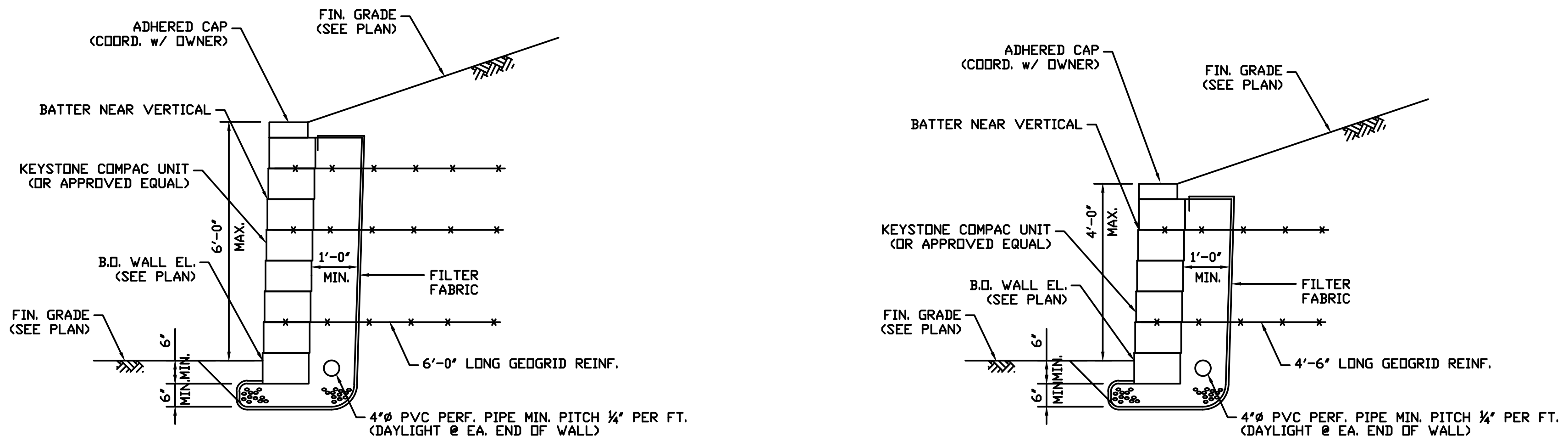
J. MICHAEL PETRY-PE,PP,RA
NJ PROFESSIONAL ENGINEER LIC. No. 36662 DATED: 12/9/2020

Designer: JMP
Draftsman: DJK
Checked By: JMP
Project No.: 18-0078
Scale: AS SHOWN
Sheet: SP-16


GUARDRAIL ALONG TOP OF WALL
(SEE TYPICAL DETAIL)
6"
FIN. GRADE
#4@12
#5@12
4'-0" MAX.
8"
CONC. WALL
(4000 PSI)
6"
FILTER FABRIC
3/4" CLEAN CRUSHED
STONE DRAINAGE LAYER
MIN. 1'-0" THICK
FIN. GRADE
4"Ø ADS PERF. PIPE
WITH OUTLETS THROUGH
WALL @ 6'-0" O.C. MAX.
#5 DOWELS @ 12"
3'-6" MIN.
2x4 KEY
1'-0"
4000 PSI
CONC. FOOTING
1'-0"
#4@12
6"
#5@12
3" CLR
¾" CLEAN CRUSHED
STONE
3'-0"
GUARDRAIL ALONG TOP OF WALL
(SEE TYPICAL DETAIL)
6"
FIN. GRADE
#5@6
#4@12
7'-0" MAX.
FILTER FABRIC
3/4" CLEAN CRUSHED
STONE DRAINAGE LAYER
MIN. 1'-0" THICK
8"
CONC. WALL
(4000 PSI)
6"
FIN. GRADE
4"Ø ADS PERF. PIPE
WITH OUTLETS THROUGH
WALL @ 6'-0" O.C. MAX.
#5 DOWELS @ 6"
3'-6" MIN.
2x4 KEY
1'-0"
4000 PSI
CONC. FOOTING
1'-0"
#4@12
6"
#5@12
3" CLR
¾" CLEAN CRUSHED
STONE
4'-0"

WALL TYPE "E" DETAIL

SCALE – N.T.S.


ADHERED CAP
(COORD. w/ OWNER)
FIN. GRADE
(SEE PLAN)
BATTER NEAR VERTICAL
KEYSTONE COMPAC UNIT
(OR APPROVED EQUAL)
6'-0" MAX.
B.O. WALL EL.
(SEE PLAN)
1'-0" MIN.
FILTER
FABRIC
FIN. GRADE
(SEE PLAN)
6" MIN.
6" MIN.
6'-0" LONG GEOGRID REINF.
4"Ø PVC PERF. PIPE MIN. PITCH ¼" PER FT.
(DAYLIGHT @ EA. END OF WALL)
ADHERED CAP
(COORD. w/ OWNER)
FIN. GRADE
(SEE PLAN)
BATTER NEAR VERTICAL
4'-0" MAX.
KEYSTONE COMPAC UNIT
(OR APPROVED EQUAL)
1'-0" MIN.
B.O. WALL EL.
(SEE PLAN)
FILTER
FABRIC
FIN. GRADE
(SEE PLAN)
6" MIN.
6" MIN.
4'-6" LONG GEOGRID REINF.
4"Ø PVC PERF. PIPE MIN. PITCH ¼" PER FT.
(DAYLIGHT @ EA. END OF WALL)

WALL TYPE "F" DETAIL

SCALE – N.T.S.

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REVISION	DESCRIPTION	DATE	BY

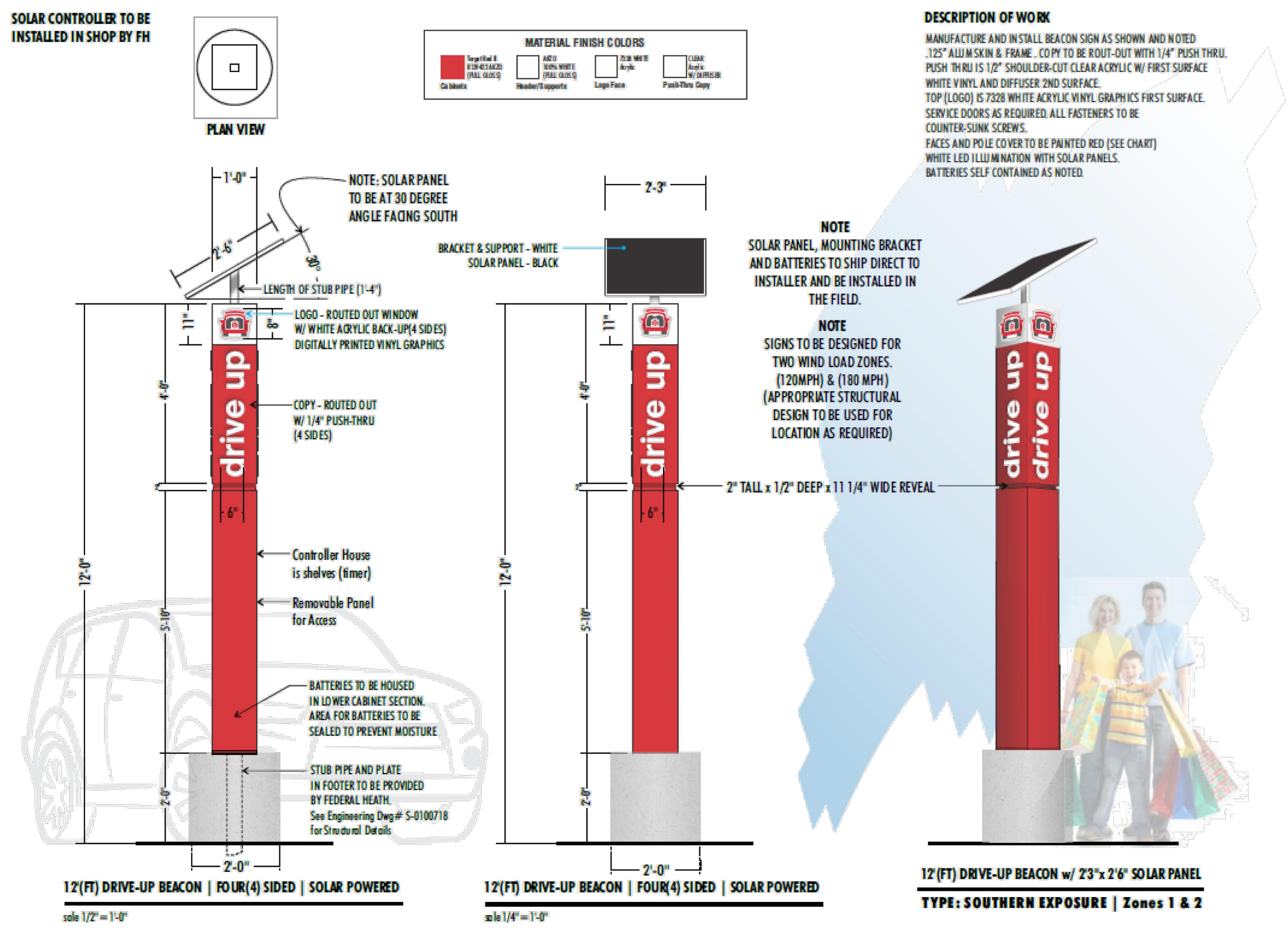
PREPARED FOR
WEST ORANGE PLAZA
BLOCK 152.01 LOT 1445 & LOT 1445.05
235 PROSPECT AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY

RETAINING WALL DETAILS

PETRY
ENGINEERING , LLC
DIVISION OF CONSUMER AFFAIRS LICENSE NUMBER 24GA28155900
155 PASSAIC AVENUE • FAIRFIELD • NEW JERSEY • 07004
TEL. (973) 227-7004 FAX (973) 227-7074

Designer: JMP
Draftsman: DJK
Checked By: JMP
Project No.: 18-0078
Scale: AS SHOWN
Sheet:
SP-17

J. MICHAEL PETRY-PE,PP,RA
NJ PROFESSIONAL ENGINEER LIC. No. 36662
DATED: 05/04/2023


SOLAR CONTROLLER TO BE INSTALLED IN SHOP BY FH
PLAN VIEW
MATERIAL FINISH COLORS
Cabinets
Header/Supports
Logo Face
Push-Thru Copy
1'-0"
2'-6"
30°
NOTE: SOLAR PANEL TO BE AT 30 DEGREE ANGLE FACING SOUTH
LENGTH OF STUB PIPE (1'-4")
LOGO - ROUTED OUT WINDOW W/ WHITE ACRYLIC BACK-UP(4 SIDES) DIGITALLY PRINTED VINYL GRAPHICS
COPY - ROUTED OUT W/ 1/4" PUSH-THRU (4 SIDES)
drive up
11"
8"
4'-0"
6"
12'-0"
5'-10"
2'-0"
Controller House is shelves (timer)
Removable Panel for Access
BATTERIES TO BE HOUSED IN LOWER CABINET SECTION. AREA FOR BATTERIES TO BE SEALED TO PREVENT MOISTURE
STUB PIPE AND PLATE IN FOOTER TO BE PROVIDED BY FEDERAL HEATH. See Engineering Dwg# S-0100718 for Structural Details
2'-3"
BRACKET & SUPPORT - WHITE
SOLAR PANEL - BLACK
2" TALL x 1/2" DEEP x 11 1/4" WIDE REVEAL

12'(FT) DRIVE-UP BEACON | FOUR(4) SIDED | SOLAR POWERED
sale 1/2" = 1'-0"

12'(FT) DRIVE-UP BEACON | FOUR(4) SIDED | SOLAR POWERED
sale 1/4" = 1'-0"

12'(FT) DRIVE-UP BEACON w/ 2'3"x 2'6" SOLAR PANEL
TYPE: SOUTHERN EXPOSURE | Zones 1 & 2

DESCRIPTION OF WORK

MANUFACTURE AND INSTALL BEACON SIGN AS SHOWN AND NOTED .125" ALUM SKIN & FRAME. COPY TO BE ROUT-OUT WITH 1/4" PUSH THRU. PUSH THRU IS 1/2" SHOULDER-CUT CLEAR ACRYLIC W/ FIRST SURFACE WHITE VINYL AND DIFFUSER 2ND SURFACE.
TOP (LOGO) IS 7328 WHITE ACRYLIC VINYL GRAPHICS FIRST SURFACE.
SERVICE DOORS AS REQUIRED. ALL FASTENERS TO BE COUNTER-SUNK SCREWS.
FACES AND POLE COVER TO BE PAINTED RED (SEE CHART)
WHITE LED ILLUMINATION WITH SOLAR PANELS.
BATTERIES SELF CONTAINED AS NOTED.

NOTE

SOLAR PANEL, MOUNTING BRACKET AND BATTERIES TO SHIP DIRECT TO INSTALLER AND BE INSTALLED IN THE FIELD.

NOTE

SIGNS TO BE DESIGNED FOR TWO WIND LOAD ZONES. (120MPH) & (180 MPH) (APPROPRIATE STRUCTURAL DESIGN TO BE USED FOR LOCATION AS REQUIRED)

FEDERAL HEATH
VISUAL COMMUNICATIONS
www.FederalHeath.com
12704 Dupont Cir.
Tampa, FL 34626
(813) 855-4415 (800) 284-3284
Fax (813) 854-3037

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Revisions:
1
2
3
4
5
6

Account Rep: BOYD HIPPENSTIEL
Project Manager: CHRISTINE FEENEY
Drawn By: JOE KNESTRICK
Project / Location:
target
1234 MAIN STREET
ANYWHERE, USA 00000

Client Approval/Date:
Landlord Approval/Date:

This original drawing is provided as part of a planned project and is not to be exhibited, copied or reproduced without the written permission of Federal Heath Sign Company LLC or its authorized agent. © FHSC
Colors Depicted In This Rendering May Not Match Actual Material Finishes. Refer To Product Samples For Exact Color Match.

Job Number: 23-28134-10
Date: JANUARY 24 2018
Sheet Number: 1 of 1
Design Number: 23-28134-10

CRITERIA NOTES

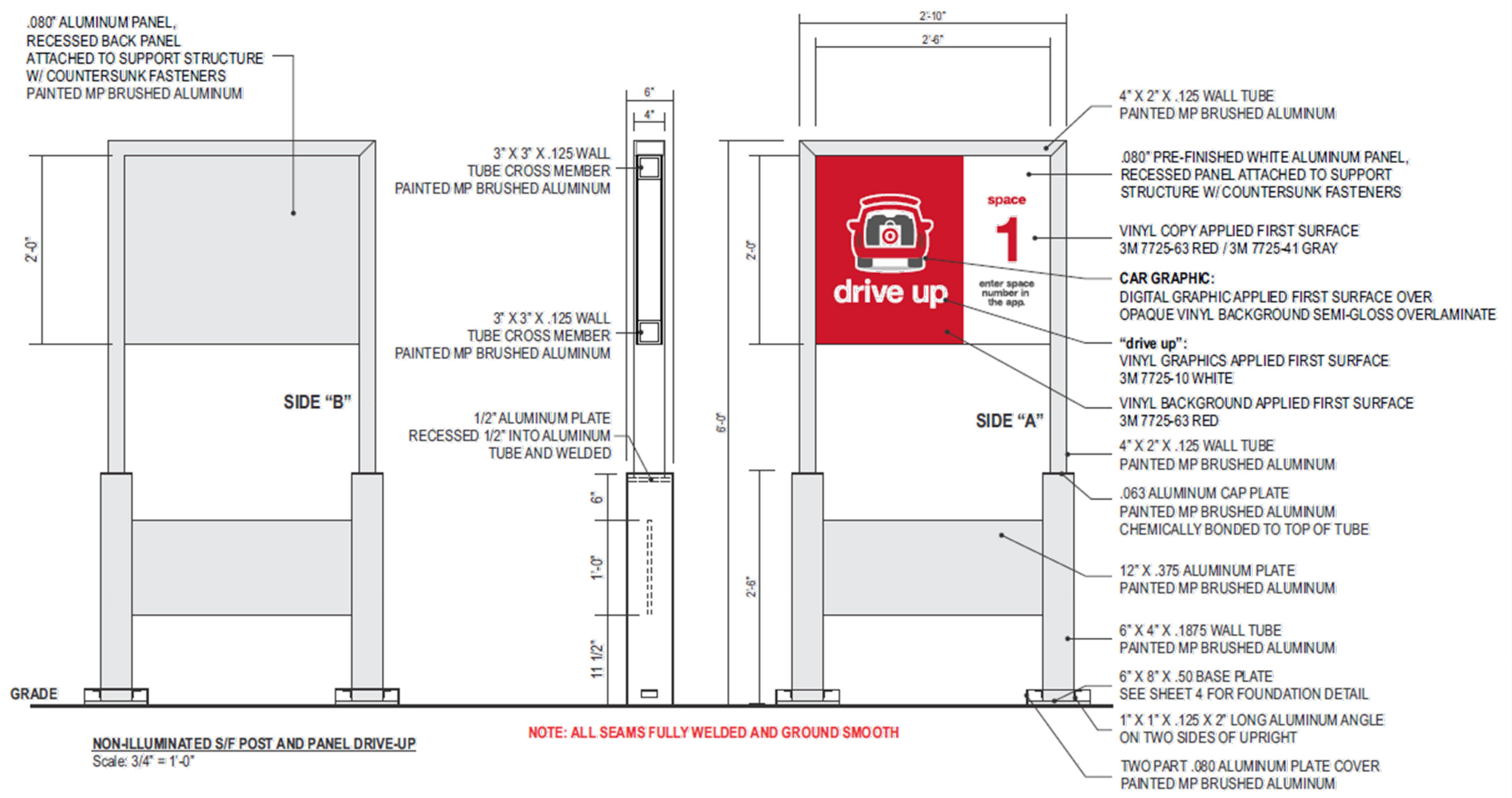
DRIVE UP BEACON

A. At most sites a minimum of one Beacon will be installed. The exceptions include, but not limited to:
    1. In a parking structure.
    2. When not allowed by AHJ
    3. When not allowed by the Developer
B. A second beacon may be added per Target's direction.
C. Coordinate with your structural engineer the structural footing requirements for the sign. Coordinate the structural footing with the Civil Engineer.

DRIVE UP
BEACON

DUP-A18
UPDATED
2021-02

NOT FOR CONSTRUCTION


.080" ALUMINUM PANEL, RECESSED BACK PANEL ATTACHED TO SUPPORT STRUCTURE W/ COUNTERSUNK FASTENERS PAINTED MP BRUSHED ALUMINUM
2'-0"
SIDE "B"
GRADE
6"
4"
3" X 3" X .125 WALL TUBE CROSS MEMBER PAINTED MP BRUSHED ALUMINUM
3" X 3" X .125 WALL TUBE CROSS MEMBER PAINTED MP BRUSHED ALUMINUM
1/2" ALUMINUM PLATE RECESSED 1/2" INTO ALUMINUM TUBE AND WELDED
6"
1'-0"
11 1/2"
2'-10"
2'-6"
6'-0"
2'-0"
2'-6"
drive up
space
1
enter space number in the app.
SIDE "A"
4" X 2" X .125 WALL TUBE PAINTED MP BRUSHED ALUMINUM
.080" PRE-FINISHED WHITE ALUMINUM PANEL, RECESSED PANEL ATTACHED TO SUPPORT STRUCTURE W/ COUNTERSUNK FASTENERS
VINYL COPY APPLIED FIRST SURFACE 3M 7725-63 RED / 3M 7725-41 GRAY
CAR GRAPHIC: DIGITAL GRAPHIC APPLIED FIRST SURFACE OVER OPAQUE VINYL BACKGROUND SEMI-GLOSS OVERLAMINATE
"drive up": VINYL GRAPHICS APPLIED FIRST SURFACE 3M 7725-10 WHITE
VINYL BACKGROUND APPLIED FIRST SURFACE 3M 7725-63 RED
4" X 2" X .125 WALL TUBE PAINTED MP BRUSHED ALUMINUM
.063 ALUMINUM CAP PLATE PAINTED MP BRUSHED ALUMINUM CHEMICALLY BONDED TO TOP OF TUBE
12" X .375 ALUMINUM PLATE PAINTED MP BRUSHED ALUMINUM
6" X 4" X .1875 WALL TUBE PAINTED MP BRUSHED ALUMINUM
6" X 8" X .50 BASE PLATE SEE SHEET 4 FOR FOUNDATION DETAIL
1" X 1" X .125 X 2" LONG ALUMINUM ANGLE ON TWO SIDES OF UPRIGHT
TWO PART .080 ALUMINUM PLATE COVER PAINTED MP BRUSHED ALUMINUM

NON-ILLUMINATED S/F POST AND PANEL DRIVE-UP
Scale: 3/4" = 1'-0"

NOTE: ALL SEAMS FULLY WELDED AND GROUND SMOOTH

CRITERIA NOTES

Drive Up Signage

A. The 7'-0" high sign option has been removed and should not be used. The preferred standard height of the sign should be 6'-0". If the 6'-0" high sign is not approved by the AHJ, a smaller 5'-0" high sign can also be used. See sheet DUP-A22 for sign footer options.
B. The drive up signs are required to be centered in each drive up stall.
C. Most Drive Up configurations will dictate the use of the double sided sign. The drive up spaces should be numbers with "Odd" numbers on one side of the parking aisle and the "EVEN" numbers on the other side. See sheet DUP-A21 for single sided sign option.

6'-0" HIGH –
5 SQ FT SIGN
(Double Sided)

DUP-A20
UPDATED
2021-06

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1	REVISED PER ENGINEER'S COMMENTS	05/04/2023	JMP
REVISION	DESCRIPTION	DATE	BY

PREPARED FOR
WEST ORANGE PLAZA
BLOCK 152.01 LOT 1445 & LOT 1445.05
235 PROSPECT AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY

TARGET PICK UP SIGN DETAILS

PETRY
ENGINEERING, LLC
DIVISION OF CONSUMER AFFAIRS LICENSE NUMBER 24GA28155900
155 PASSAIC AVENUE • FAIRFIELD • NEW JERSEY • 07004
TEL. (973) 227-7004 FAX (973) 227-7074

J. MICHAEL PETRY-PE,PP,RA
NJ PROFESSIONAL ENGINEER LIC. No. 36662 DATED: 03/03/2023

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Draftsman: SPD
Checked By: JMP
Project No.: 18-0078
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