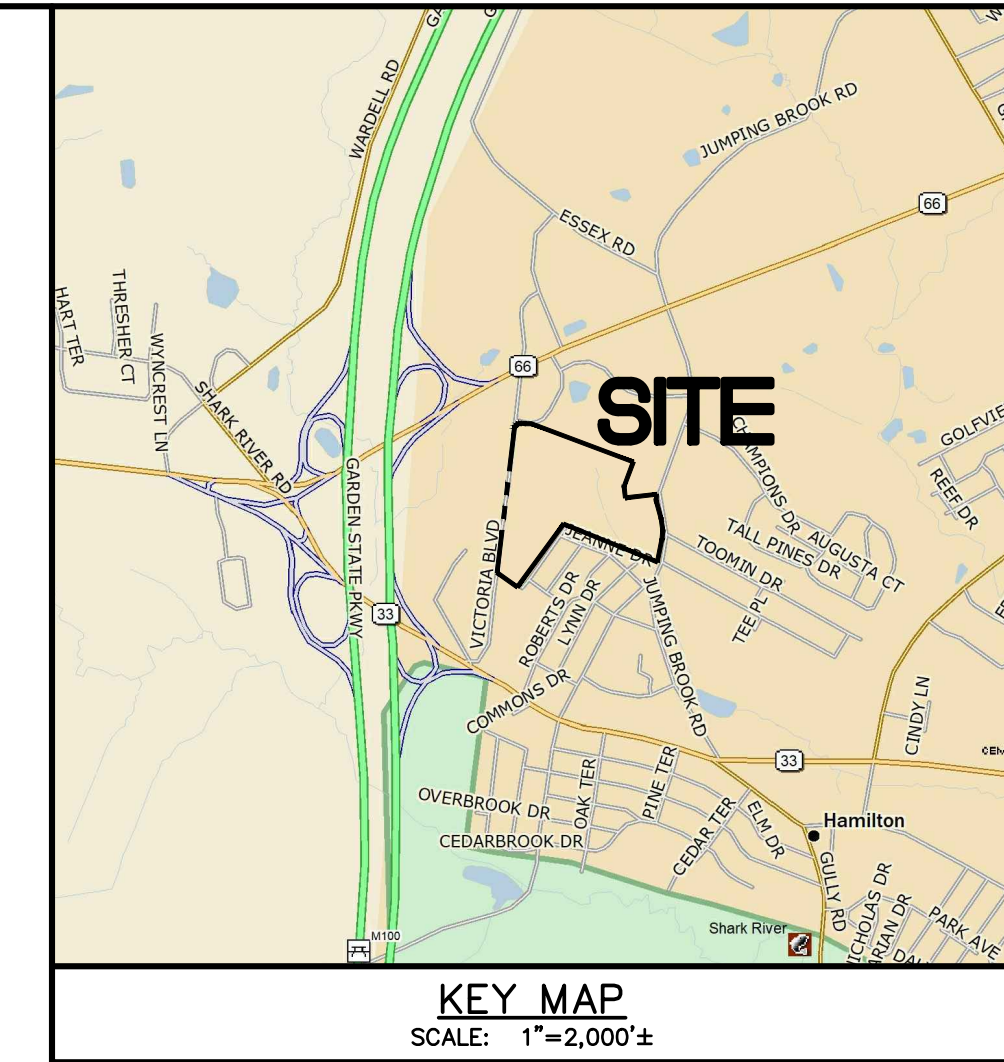
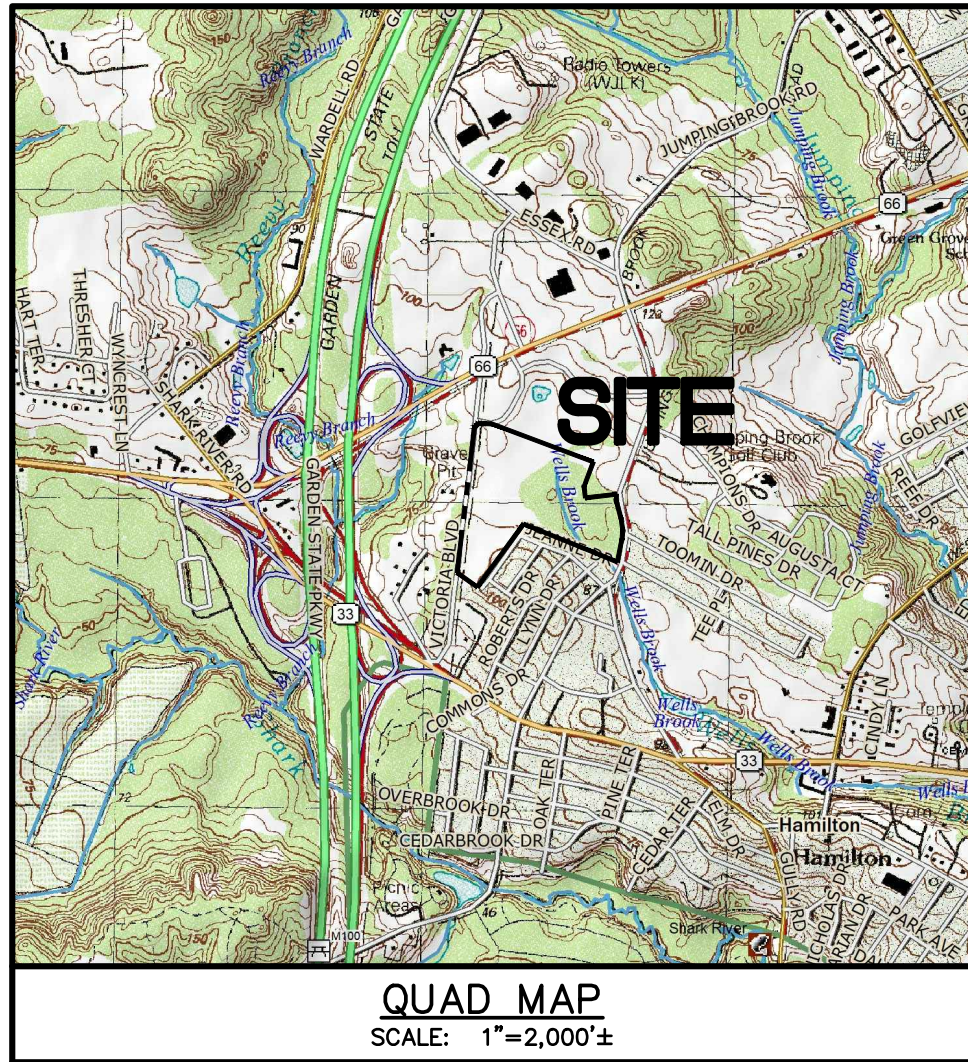
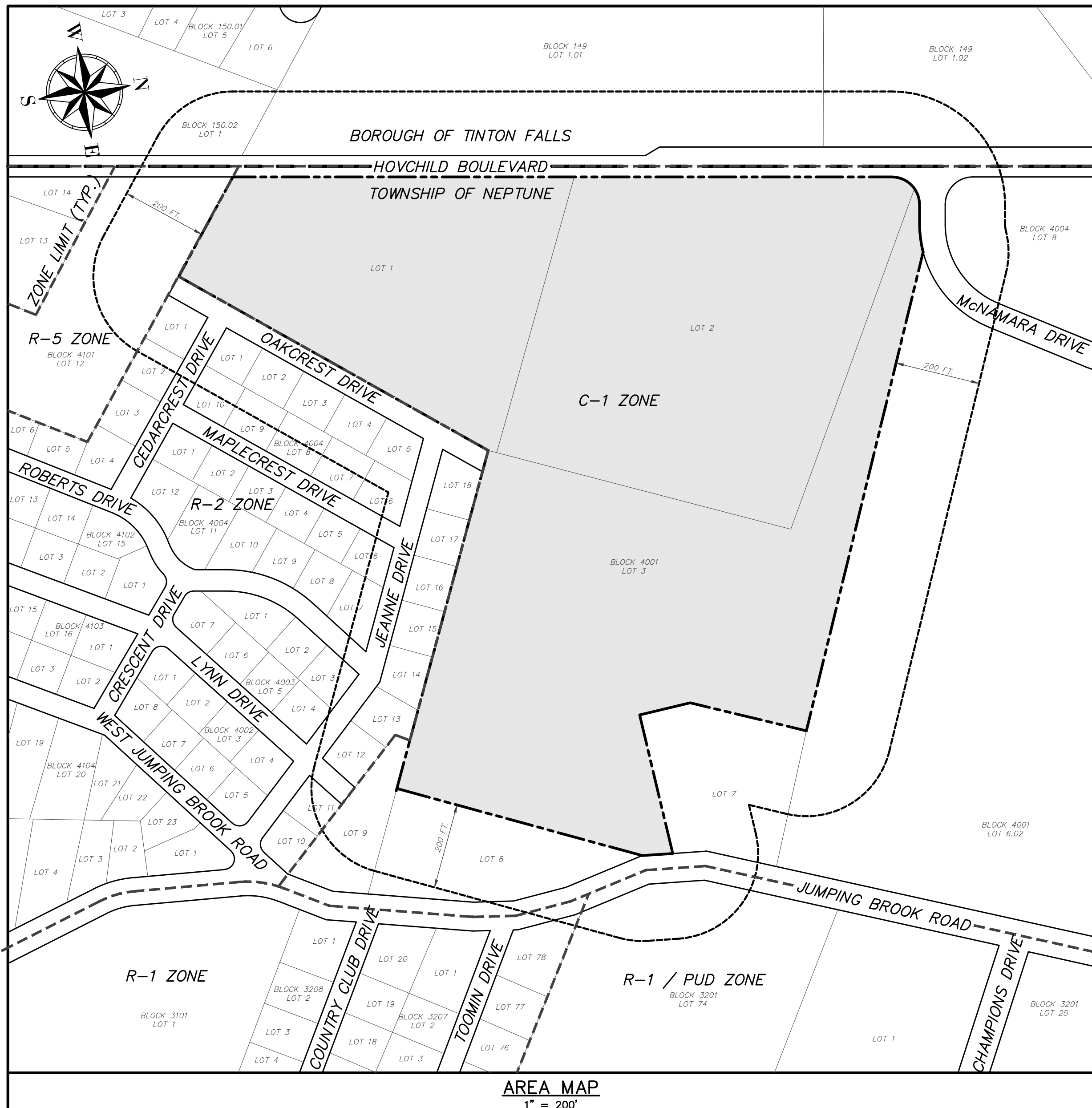


PRELIMINARY AND FINAL MAJOR SUBDIVISION FOR VICTORIA GARDENS BLOCK 4001 - LOTS 1, 2 AND 3 TOWNSHIP OF NEPTUNE MONMOUTH COUNTY NEW JERSEY



PROPERTY OWNERS LIST WITHIN 200 FT.



- GENERAL NOTES:**
1. PROPERTY KNOWN AS BLOCK 4001, LOTS 1, 2, & 3 AS SHOWN ON SHEET 41 OF THE NEPTUNE TOWNSHIP TAX MAPS.
 2. BOUNDARY AND TOPOGRAPHIC INFORMATION TAKEN FROM A PLAN ENTITLED "WETLANDS PLAN LOTS 1, 2, 3 & 8, BLOCK 4001, LOTS 13 & 14, BLOCK 4101 SITUATED IN NEPTUNE TOWNSHIP, MONMOUTH COUNTY, N.J." PREPARED BY FWH ASSOCIATES, P.A. DATED SEPTEMBER 17, 2012 AND LAST REVISED ON NOVEMBER 18, 2019.
 3. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON N.A.V.D. 1988 DATUM.
 4. THE SITE IS LOCATED WITHIN THE C-1 DISTRICT
 5. IT IS PROPOSED TO CONSTRUCT 101 TOWNHOUSE UNITS WITH A RECREATION FACILITY IN ACCORDANCE WITH A SETTLEMENT AGREEMENT.
 6. EXISTING CONDITIONS AND DIMENSIONS TO BE CONFIRMED BY CONTRACTOR PRIOR TO CONSTRUCTION.
 7. ALL CONSTRUCTION TO BE IN CONFORMANCE WITH APPLICABLE CODES AND/OR ORDINANCES.
 8. FRESHWATER WETLANDS ARE SHOWN PURSUANT TO A MAP PREPARED BY FWH ASSOCIATES.
 9. ANY EXISTING IMPROVEMENTS ON SITE TO BE DEMOLISHED AND DISPOSED OF SHALL BE IN ACCORDANCE WITH APPLICABLE REGULATIONS.
 10. TRASH AND RECYCLABLE COLLECTION TO BE PROVIDED BY PRIVATE HAULER.
 11. ANY PROPOSED SIGNAGE SHALL SATISFY CRITERIA AS OUTLINED IN THE NEPTUNE TOWNSHIP LAND USE REGULATIONS.
 12. THE OWNER OR HIS REPRESENTATIVE, IS TO DESIGNATE AN INDIVIDUAL RESPONSIBLE FOR CONSTRUCTION SITE SAFETY DURING THE COURSE OF SITE IMPROVEMENTS PURSUANT TO N.J.A.C. 5:23-2.21(e) OF THE N.J. UNIFORM CONSTRUCTION CODE AND CFR 1926.32(f) (OSHA COMPETENT PERSON). PROPERTY DEVELOPMENT SERVICES, INC., ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION SITE SAFETY.
 13. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATION OR THE RELATIVES CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.
 14. ALL FILL, COMPACTION AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION SHALL BE AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND SHALL BE COORDINATED WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS.
 15. THE CONTRACTOR SHALL COMPLY WITH THE LATEST OSHA STANDARDS AND REGULATIONS, OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES.
 16. CONTRACTOR SHALL BE REQUIRED TO SECURE ALL NECESSARY PERMITS AND APPROVALS FOR ALL OFF-SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. CONTRACTOR SHALL SUPPLY A COPY OF APPROVALS TO ENGINEER AND OWNER PRIOR TO INITIATING WORK.
 17. ROADWAYS, RECREATION BUILDING & AREAS AND STORMWATER BASINS ARE TO BE OWNED AND MAINTAINED BY HOMEOWNERS ASSOCIATION.

OWNER / APPLICANT
HOVSON'S INC.
4000 ROUTE 66
TINTON FALLS
NEW JERSEY 07753-7300

INDEX OF DRAWINGS	
SHEET #	DRAWING TITLE
1	COVER SHEET
2	OVERALL DEVELOPMENT PLAN
3	TEST PIT PLAN
4	VEHICLE CIRCULATION PLAN
5	OVERALL GRADING PLAN
6 - 7	GRADING PLANS
8 - 9	STORM DRAINAGE PLANS
10 - 11	UTILITY PLANS
12 - 14	PROFILES & RAIN GARDEN SECTIONS
15	LIGHTING PLAN
16	LANDSCAPE PLAN
17	LANDSCAPING DETAILS
18 - 21	CONSTRUCTION DETAILS
22	PRE DEVELOPED DRAINAGE AREA MAP
23	POST DEVELOPED DRAINAGE AREA MAP
24	COLLECTION SYSTEM DRAINAGE AREA MAP
25 - 31	SOIL EROSION & SEDIMENT CONTROL PLANS

SUPPLEMENTAL DRAWINGS	
SHEET #	DRAWING TITLE
1	FINAL PLAT
1	BOUNDARY & TOPOGRAPHIC SURVEY

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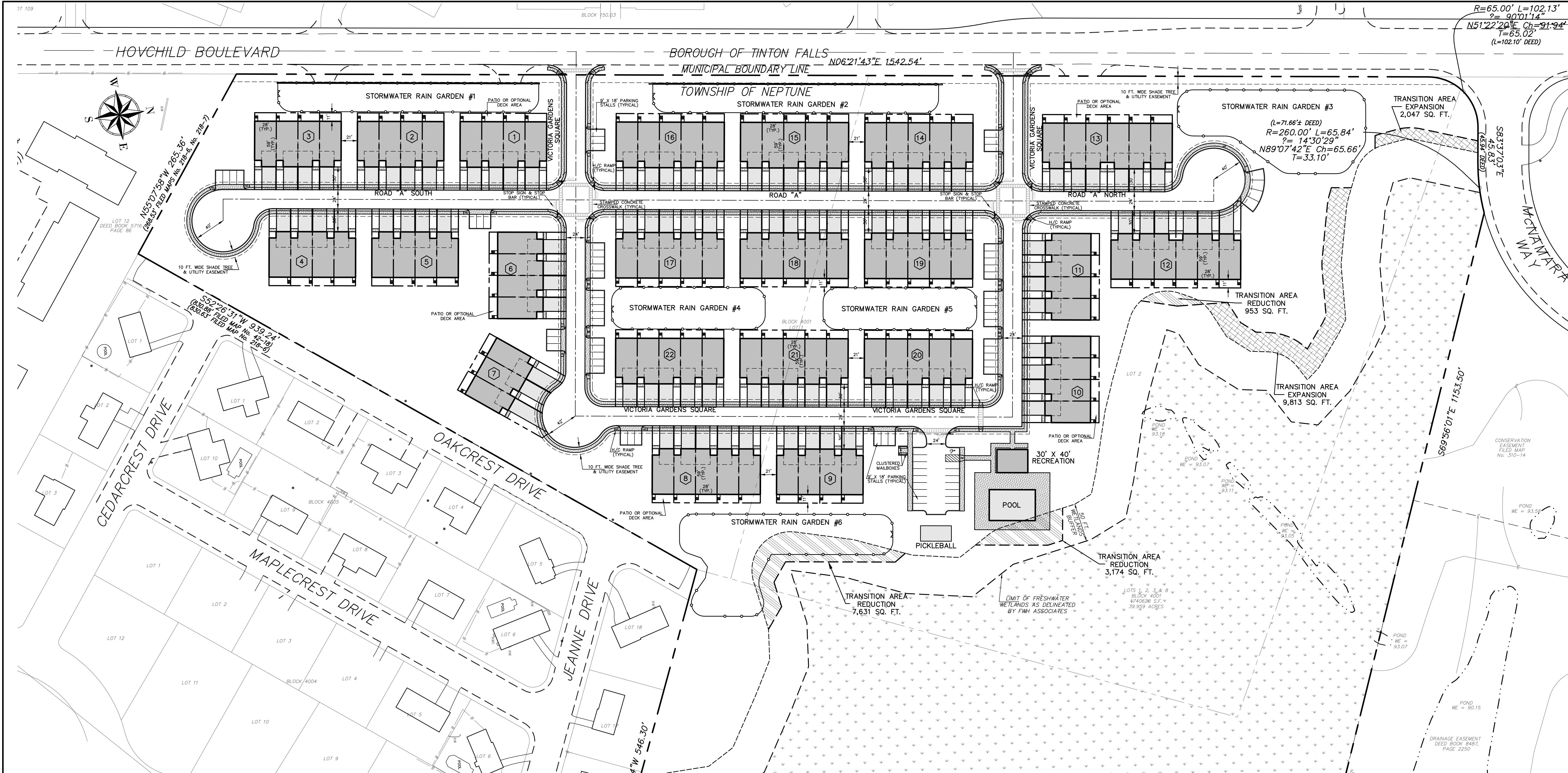
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NEW JERSEY STATE BOARD OF P.E. & L.S.
CERTIFICATE OF AUTHORIZATION NO. 24GA28125400
WILLIAM A. STEVENS, P.E., P.P.
PROFESSIONAL ENGINEER, NEW JERSEY LIC. #39915
PROFESSIONAL PLANNER, NEW JERSEY LIC. #5394

PRELIMINARY & FINAL MAJOR SUBDIVISION
COVER SHEET
VICTORIA GARDENS
BLOCK 4001 - LOTS 1, 2 & 3
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY NEW JERSEY

SCALE: AS SHOWN	DATE: MAY 25, 2021	JOB NUMBER: 321644	SHEET 1
DRAWN BY: SDG	DESIGNED BY: IMB	CHECKED BY: WAS	31

I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THESE PLANS AND REPORTS HAVE BEEN DESIGNED IN CONFORMANCE WITH THE RESIDENTIAL SITE IMPROVEMENT STANDARDS N.J.A.C. 5:21.

Graham J. MacFarlane
GRAHAM J. MACFARLANE, P.E. NJ LIC # 37110

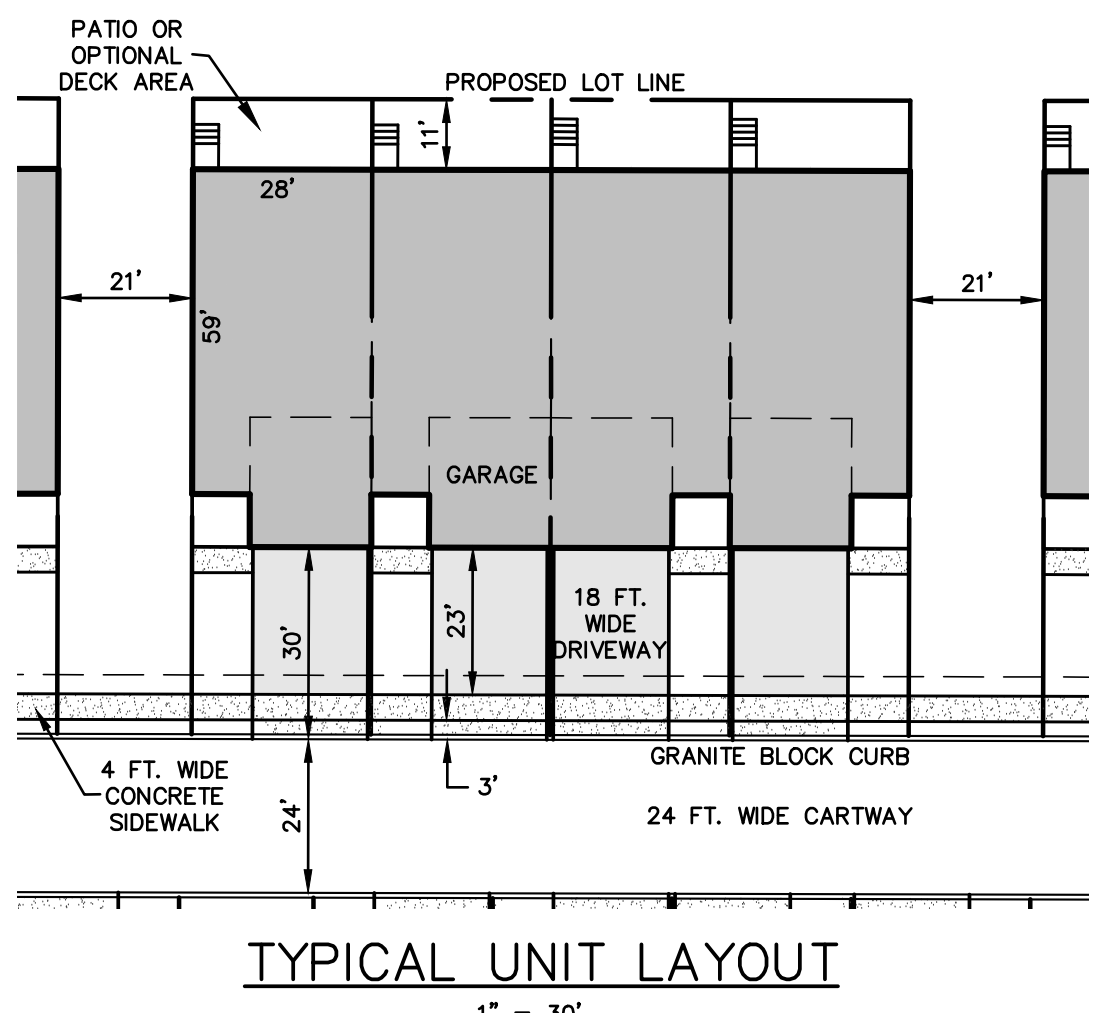
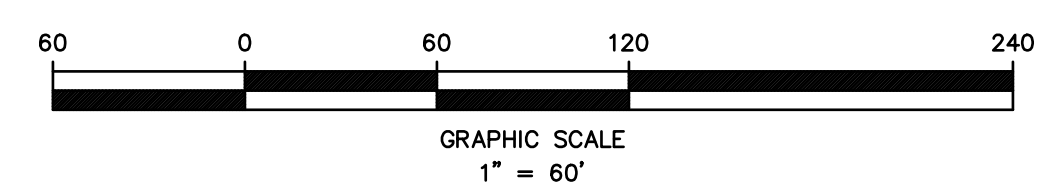


ZONING REQUIREMENTS (C-1 DISTRICT)

	REQUIRED	PROVIDED
MINIMUM LOT AREA	2.5 ACRES	37 ACRES
MAXIMUM DENSITY	3.4 D.U. PER ACRE	2.7 D.U. PER ACRE
MAXIMUM FLOOR AREA RATIO	0.6	0.1
MINIMUM LOT WIDTH	500 FT.	1,640 FT.
MINIMUM LOT FRONTAGE	500 FT.	1,540 FT.
MINIMUM LOT DEPTH	600 FT.	1,510 FT.
MINIMUM FRONT YARD SETBACK	50 FT.	60 FT.
MINIMUM SIDE YARD SETBACK	30 FT.	50 FT.
MINIMUM COMBINED SIDE YARD SETBACK	60 FT.	100 FT.
MINIMUM REAR YARD SETBACK	40 FT.	50 FT.
MAXIMUM PERCENT LOT COVERAGE	30%	10.6%
MAXIMUM PERCENT TOTAL LOT COVERAGE	65%	28%
MAXIMUM NUMBER OF STORIES	2	2
MAXIMUM BUILDING HEIGHT	40 FT.	26 FT.
MINIMUM IMPROVABLE AREA	84,900 SQ. FT.	764,000 SQ. FT.
MINIMUM IMPROVABLE AREA DIAMETER CIRCLE	189 FT.	290 FT.

LEGEND

EXISTING EDGE OF PAVEMENT	=====
EXISTING CURB	=====
EXISTING DEPRESSED CURB	=====
PROPOSED CURB	=====
PROPOSED DEPRESSED CURB	=====
EXISTING WOODLINE	~~~~~
PROPOSED WOODLINE	~~~~~
PROPOSED PAINTED STOP BAR	=====
PROPOSED HANDICAP RAMP	=====
PROPOSED OVERHEAD DOOR	=====
PROPOSED BUILDING I.D. SIGN	=====
PROPOSED STOP BAR	=====
PROPOSED 4" PAINTED YELLOW LINE	=====
PROPOSED RETAINING WALL	=====
PROPOSED FENCE	=====
FRESHWATER WETLANDS	=====



Parking Calculations

Land Use	Units	Parking Required	Parking	
			Required	Provided
Townhouse				
One Bedroom	0	1.8 per Unit	0	
Two Bedroom	101	2.3 per Unit	232	
Recreation	1200 SF	None	0	
Total			232	377

Notes:
Parking is provided with garage & driveway space per unit plus 74 additional spaces

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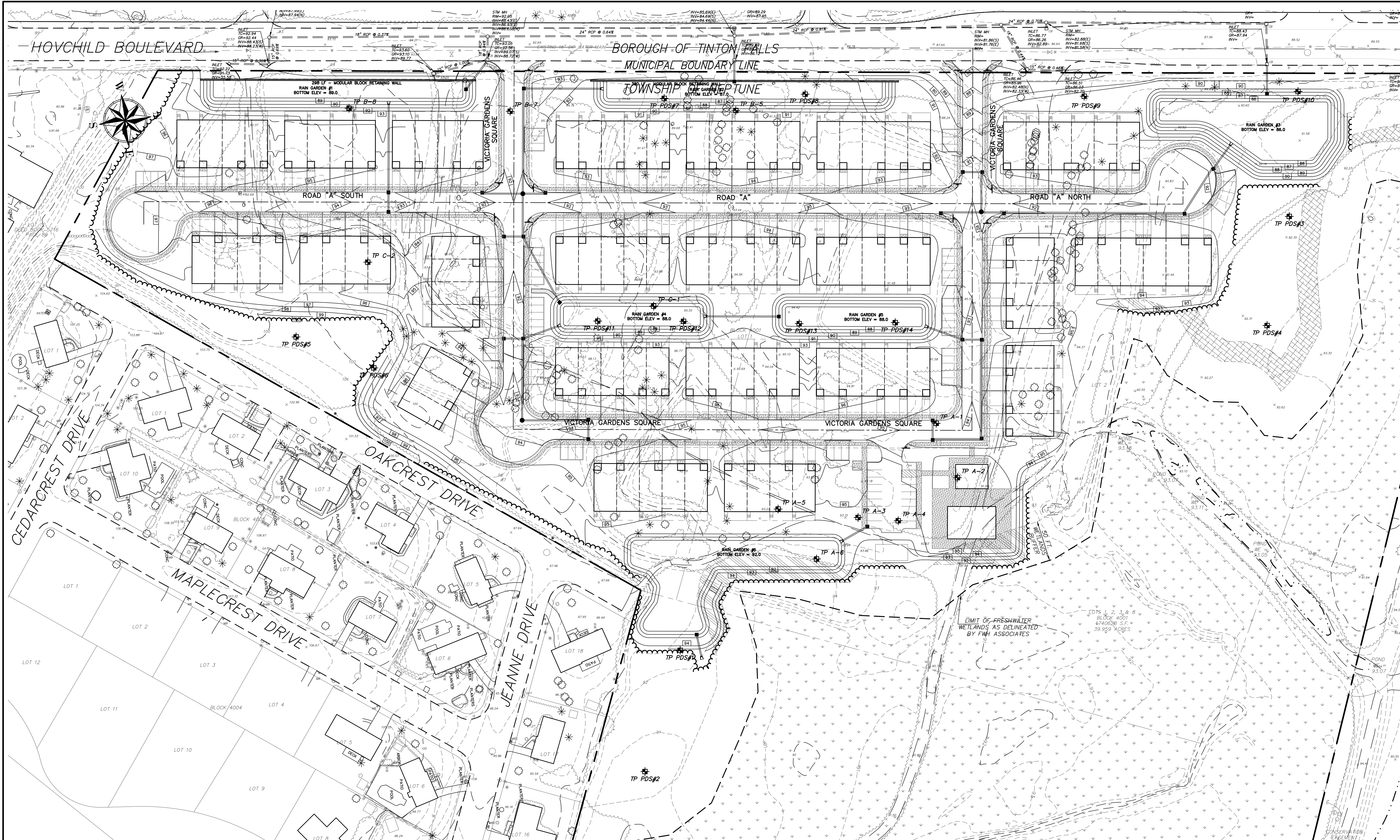
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PRELIMINARY & FINAL MAJOR SUBDIVISION
OVERALL DEVELOPMENT PLAN
VICTORIA GARDENS
BLOCK 4001 - LOTS 1, 2 & 3
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY NEW JERSEY

SCALE: 1" = 60'	DATE: MAY 25, 2021	JOB NUMBER: 321644	SHEET 2
DRAWN BY: SDG	DESIGNED BY: IMB	CHECKED BY: WAS	31



LEGEND

- EXISTING EDGE OF PAVEMENT
- EXISTING CURB
- EXISTING DEPRESSED CURB
- PROPOSED CURB
- PROPOSED DEPRESSED CURB
- EXISTING WOODLINE
- PROPOSED WOODLINE
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING INLET
- PROPOSED INLET
- EXISTING MANHOLE
- PROPOSED MANHOLE
- PROPOSED GATE VALVE

TEST PIT LOGS (BY OTHERS)

TEST PIT #A-1 - ELEV = 92.7

- 0 - 3" 10 YR TOPSOIL
- 3 - 45" 10 YR 5/6 YELLOWISH BROWN SAND
- 45 - 72" 10 YR 7/8 YELLOW SAND
- 72 - 84" 10 YR 6/1 GRAY SAND
- 84 - 85" 10 YR 8/1 WHITE SAND, SATURATED @ 76"
- ESTIMATED SHWT @ 45" - ELEV = 89.0
- GROUNDWATER ENCOUNTERED @ 76"

TEST PIT #A-3 - ELEV = 93.2

- 0 - 3" 10 YR TOPSOIL
- 3 - 40" 10 YR 2/2 VERY DARK BROWN SAND
- 40 - 52" 10 YR 7/6 YELLOW SAND
- 52 - 91" 10 YR 6/2 LIGHT BROWNISH GRAY SAND, SATURATED @ 81"
- 91 - 98" 10 YR 7/8 YELLOW SAND WITH 15% GRAVEL
- ESTIMATED SHWT @ 48" - ELEV = 89.2
- GROUNDWATER ENCOUNTERED @ 81"

TEST PIT #A-4 - ELEV = 93.0

- 0 - 3" 10 YR TOPSOIL
- 3 - 43" 10 YR 4/4 DARK YELLOWISH BROWN SAND
- 43 - 73" 10 YR 7/8 YELLOW SAND
- 73 - 82" 10 YR VERY PALE BROWN SAND, SATURATED @ 73"
- ESTIMATED SHWT @ 43" - ELEV = 89.5
- GROUNDWATER ENCOUNTERED @ 73"

TEST PIT LOGS (BY PDS)

TEST PIT #A-5 - ELEV = 93.2

- 0 - 3" 10 YR TOPSOIL
- 3 - 25" 10 YR 7/6 YELLOW SAND
- 25 - 47" 10 YR 8/3 VERY PALE BROWN SAND
- 47 - 84" 10 YR 7/8 YELLOW SAND, SATURATED @ 79"
- ESTIMATED SHWT @ 47" - ELEV = 89.0
- GROUNDWATER ENCOUNTERED @ 79"

TEST PIT #A-6 - ELEV = 93.5

- 0 - 3" 10 YR TOPSOIL
- 3 - 40" 10 YR 6/6 BROWNISH YELLOW LOAMY SAND
- 40 - 48" 10 YR 4/4 DARK YELLOWISH BROWN SAND
- 48 - 85" 10 YR 5/4 YELLOWISH BROWN SAND, SATURATED @ 81"
- 85 - 96" 10 YR 8/8 YELLOW SAND WITH 15% GRAVEL, SATURATED
- ESTIMATED SHWT @ 48" - ELEV = 89.5
- GROUNDWATER ENCOUNTERED @ 79"

TEST PIT #C-1 - ELEV = 94.9

- 0 - 4" 10 YR TOPSOIL
- 4 - 64" 10 YR 6/6 BROWNISH YELLOW LOAMY SAND
- 64 - 108" 10 YR 7/6 YELLOW SAND
- 108 - 134" 10 YR 7/2 LIGHT GRAY SAND
- 134 - 157" 10 YR VERY PALE BROWN SAND, SATURATED @ 73"
- ESTIMATED SHWT @ 157" - < 81.9
- NO GROUNDWATER ENCOUNTERED

TEST PIT LOGS (BY PDS)

TEST PIT #C-2 - ELEV = 92.6

- 0 - 2" ORGANIC LAYER
- 2 - 11" 10 YR 5/3 LOAMY SAND
- 11 - 36" 2 SY 8/6 LOAMY SAND
- 36 - 58" 2.5 YR 8/1 LOAMY SAND
- 58 - 89" 2.5 YR 7/6 LOAMY SAND
- 89 - 109" 2.5 YR 8/4 LOAMY SAND
- 109 - 120" 10 YR 6/3 SAND
- ESTIMATED SHWT @ 36" - ELEV = 89.7
- GROUNDWATER ENCOUNTERED @ 66"

TEST PIT #C-3 - ELEV = 92.7

- 0 - 2" ORGANIC LAYER
- 2 - 14" 10 YR 5/3 LOAMY SAND
- 14 - 20" 10 YR 7/6 LOAMY SAND
- 20 - 26" 10 YR 8/6 SANDY LOAM
- 26 - 48" 10 YR 7/4 LOAMY SAND
- 48 - 120" GLEY1 8/N
- ESTIMATED SHWT @ 26" - ELEV = 88.5
- GROUNDWATER ENCOUNTERED @ 64"

TEST PIT #C-4 - ELEV = 90.6

- 0 - 2" ORGANIC LAYER
- 2 - 14" 10 YR 5/3 LOAMY SAND
- 14 - 20" 10 YR 7/6 LOAMY SAND
- 20 - 26" 10 YR 8/6 SANDY LOAM
- 26 - 48" 10 YR 7/4 LOAMY SAND
- 48 - 120" GLEY1 8/N
- ESTIMATED SHWT @ 26" - ELEV = 88.5
- GROUNDWATER ENCOUNTERED @ 64"

TEST PIT LOGS (BY PDS)

TEST PIT PDS#1 - ELEV = 92.7

- 0 - 2" ORGANIC LAYER
- 2 - 11" 10 YR 5/3 LOAMY SAND
- 11 - 36" 2 SY 8/6 LOAMY SAND
- 36 - 58" 2.5 YR 8/1 LOAMY SAND
- 58 - 89" 2.5 YR 7/6 LOAMY SAND
- 89 - 109" 2.5 YR 8/4 LOAMY SAND
- 109 - 120" 10 YR 6/3 SAND
- ESTIMATED SHWT @ 36" - ELEV = 89.7
- GROUNDWATER ENCOUNTERED @ 66"

TEST PIT PDS#2 - ELEV = 90.6

- 0 - 2" ORGANIC LAYER
- 2 - 14" 10 YR 5/3 LOAMY SAND
- 14 - 20" 10 YR 7/6 LOAMY SAND
- 20 - 26" 10 YR 8/6 SANDY LOAM
- 26 - 48" 10 YR 7/4 LOAMY SAND
- 48 - 120" GLEY1 8/N
- ESTIMATED SHWT @ 26" - ELEV = 88.5
- GROUNDWATER ENCOUNTERED @ 64"

TEST PIT PDS#3 - ELEV = 91.5

- 0 - 4" 10 YR 5/3 LOAMY SAND
- 4 - 14" 10 YR 7/4 LOAMY SAND
- 14 - 32" 10 YR 8/1 LOAMY SAND
- 32 - 48" 2.5 YR 7/3 LOAMY SAND
- 48 - 92" 10 YR 6/8 SAND
- 92 - 112" 2.5 YR 8/1 LOAMY SAND
- 112 - 120" GLEY1 8/N
- W/ 10YR 8/8 MOTTLES
- ESTIMATED SHWT @ 14" - ELEV = 83.8
- GROUNDWATER ENCOUNTERED @ 34"

TEST PIT LOGS (BY PDS)

TEST PIT PDS#4 - ELEV = 91.5

- 0 - 7" 10 YR 5/3 LOAMY SAND
- 7 - 26" 10 YR 7/4 LOAMY SAND
- 26 - 39" 10 YR 8/8 LOAMY SAND
- 39 - 47" 10 YR 8/6 8/8 6/8 LOAMY SAND
- 47 - 72" 10 YR 6/8 SAND
- 72 - 94" 10 YR 8/8 5/8 7/1 LOAMY SAND
- 94 - 112" 10 YR 7/6 8/8 6/8 SANDY LOAM
- 112 - 120" 10 YR 7/6 8/8 6/8 LOAMY SAND
- ESTIMATED SHWT @ 14" - ELEV = 83.8
- NO GROUNDWATER ENCOUNTERED

TEST PIT PDS#5 - ELEV = 100.5

- 0 - 7" 10 YR 5/3 LOAMY SAND
- 7 - 26" 10 YR 7/4 LOAMY SAND
- 26 - 39" 10 YR 8/8 LOAMY SAND
- 39 - 47" 10 YR 8/6 8/8 6/8 LOAMY SAND
- 47 - 72" 10 YR 6/8 SAND
- 72 - 94" 10 YR 8/8 5/8 7/1 LOAMY SAND
- 94 - 112" 10 YR 7/6 8/8 6/8 SANDY LOAM
- 112 - 120" 10 YR 7/6 8/8 6/8 LOAMY SAND
- ESTIMATED SHWT @ 14" - ELEV = 91.2
- NO GROUNDWATER ENCOUNTERED

TEST PIT LOGS (BY PDS)

TEST PIT PDS#6 - ELEV = 100.5

- 0 - 7" 10 YR 5/3 LOAMY SAND
- 7 - 26" 10 YR 7/4 LOAMY SAND
- 26 - 39" 10 YR 8/8 LOAMY SAND
- 39 - 47" 10 YR 8/6 8/8 6/8 LOAMY SAND
- 47 - 72" 10 YR 6/8 SAND
- 72 - 94" 10 YR 8/8 5/8 7/1 LOAMY SAND
- 94 - 112" 10 YR 7/6 8/8 6/8 SANDY LOAM
- 112 - 120" 10 YR 7/6 8/8 6/8 LOAMY SAND
- ESTIMATED SHWT @ 14" - ELEV = 91.2
- NO GROUNDWATER ENCOUNTERED

TEST PIT PDS#7 - ELEV = 92.5

- 0 - 5" 10 YR 5/3 LOAMY SAND
- 5 - 20" 10 YR 7/4 LOAMY SAND
- 20 - 48" 10 YR 8/1 LOAMY SAND
- 48 - 96" 10 YR 8/1 8/8 6/2 LOAMY SAND
- 96 - 110" 10 YR 7/4 8/8 SAND
- 110 - 120" GLEY1 8/N
- ESTIMATED SHWT @ 110" - ELEV = 83.4
- NO GROUNDWATER ENCOUNTERED

TEST PIT LOGS (BY PDS)

TEST PIT PDS#8 - ELEV = 91.5

- 0 - 6" 10 YR 5/3 LOAMY SAND
- 6 - 23" 10 YR 7/4 LOAMY SAND
- 23 - 50" 10 YR 8/1 LOAMY SAND
- 48 - 96" 10 YR 8/1 8/8 6/2 LOAMY SAND
- 99 - 104" 10 YR 7/4 8/8 6/2 SAND
- 104 - 120" GLEY1 8/N
- ESTIMATED SHWT @ 104" - ELEV = 82.9
- GROUNDWATER ENCOUNTERED (SEEPAGE @ 60")

TEST PIT PDS#9 - ELEV = 87.8

- 0 - 8" 10 YR 5/3 LOAMY SAND
- 8 - 26" 10 YR 7/4 LOAMY SAND
- 26 - 45" 10 YR 8/8 SAND
- 45 - 77" 10 YR 8/1 8/8 6/2 LOAMY SAND
- 77 - 112" 10 YR 8/1 LOAMY SAND
- 112 - 120" 10 YR 8/1 SAND
- ESTIMATED SHWT @ 45" - ELEV = 83.8
- GROUNDWATER ENCOUNTERED (SEEPAGE @ 45")

TEST PIT LOGS (BY PDS)

TEST PIT PDS#10 - ELEV = 91.5

- 0 - 6" 10 YR 5/3 LOAMY SAND
- 6 - 30" 10 YR 7/4 LOAMY SAND
- 30 - 39" 10 YR 8/1 8/8 5/8 LOAMY SAND
- 39 - 69" 10 YR 6/8 SAND
- 69 - 120" 10 YR 8/4 LOAMY SAND
- ESTIMATED SHWT @ 82" - ELEV = 83.7
- GROUNDWATER ENCOUNTERED (SEEPAGE @ 100")

TEST PIT LOGS (BY PDS)

TEST PIT PDS#11 - ELEV = 91.5

- 0 - 3" 10 YR TOPSOIL
- 3 - 25" 10 YR 7/6 YELLOW SAND
- 25 - 47" 10 YR 8/3 VERY PALE BROWN SAND
- 47 - 84" 10 YR 7/8 YELLOW SAND, SATURATED @ 79"
- ESTIMATED SHWT @ 47" - ELEV = 89.0
- GROUNDWATER ENCOUNTERED @ 79"

TEST PIT LOGS (BY PDS)

TEST PIT PDS#12 - ELEV = 94.5

- 0 - 3" ORGANIC LAYER
- 3 - 24" 10 YR 7/6 LOAMY SAND
- 24 - 60" VARIES - POSSIBLE FILL AREA
- 60 - 93" 10 YR 8/1 6/2 8/8 LOAMY SAND
- 93 - 97" 10 YR 7/8 SANDY LOAM
- 97 - 120" 10 YR 7/1 SAND
- ESTIMATED SHWT @ 93" - ELEV = 86.8
- GROUNDWATER ENCOUNTERED @ 100"

TEST PIT LOGS (BY PDS)

TEST PIT PDS#13 - ELEV = 95.5

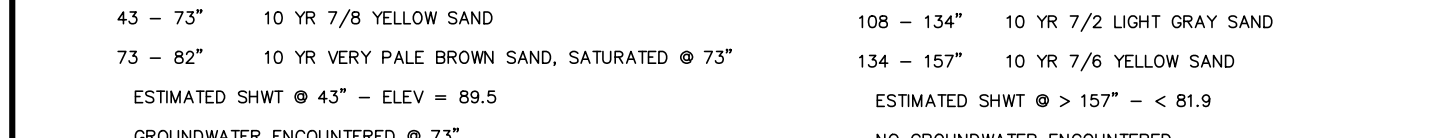
- 0 - 3" 10 YR 5/3 LOAMY SAND
- 3 - 13" 10 YR 8/8 LOAMY SAND
- 13 - 39" 10 YR 3/2 SANDY LOAM
- 39 - 76" 10 YR 8/3 6/8 6/2 LOAMY SAND
- 76 - 120" 10 YR 8/1 6/8 6/2 LOAMY SAND
- ESTIMATED SHWT @ GREATER THAN 120" - ELEV < 85.5
- NO GROUNDWATER ENCOUNTERED

TEST PIT LOGS (BY PDS)

TEST PIT PDS#14 - ELEV = 91.5

- 0 - 14" 10 YR 5/3 LOAMY SAND
- 14 - 39" 10 YR 7/4 LOAMY SAND
- 39 - 63" 10 YR 8/1 LOAMY SAND
- 63 - 71" 10 YR 8/8 SAND
- 71 - 80" 10 YR 8/8 SAND
- 80 - 120" 10 YR 8/4 LOAMY SAND
- ESTIMATED SHWT @ 39" - ELEV = 85.5
- GROUNDWATER ENCOUNTERED @ 80"

TEST PITS PDS 1 THRU PDS 14 WERE WITNESSED BY PROFESSIONAL DESIGN SERVICES ON APRIL 23, 2021.



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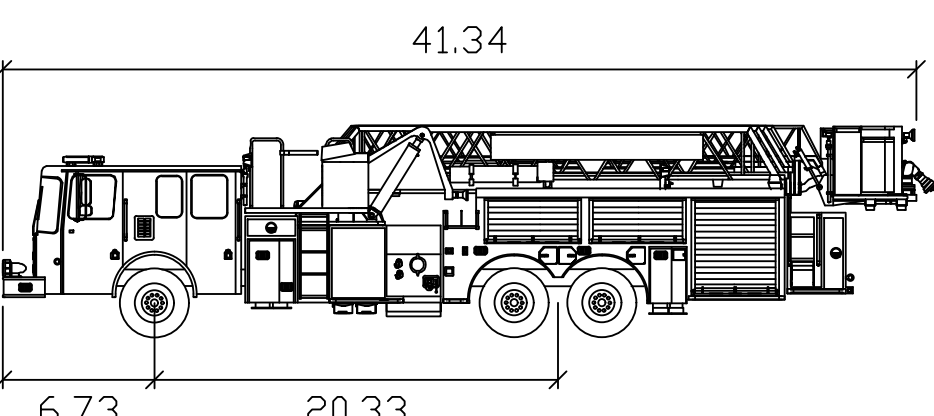
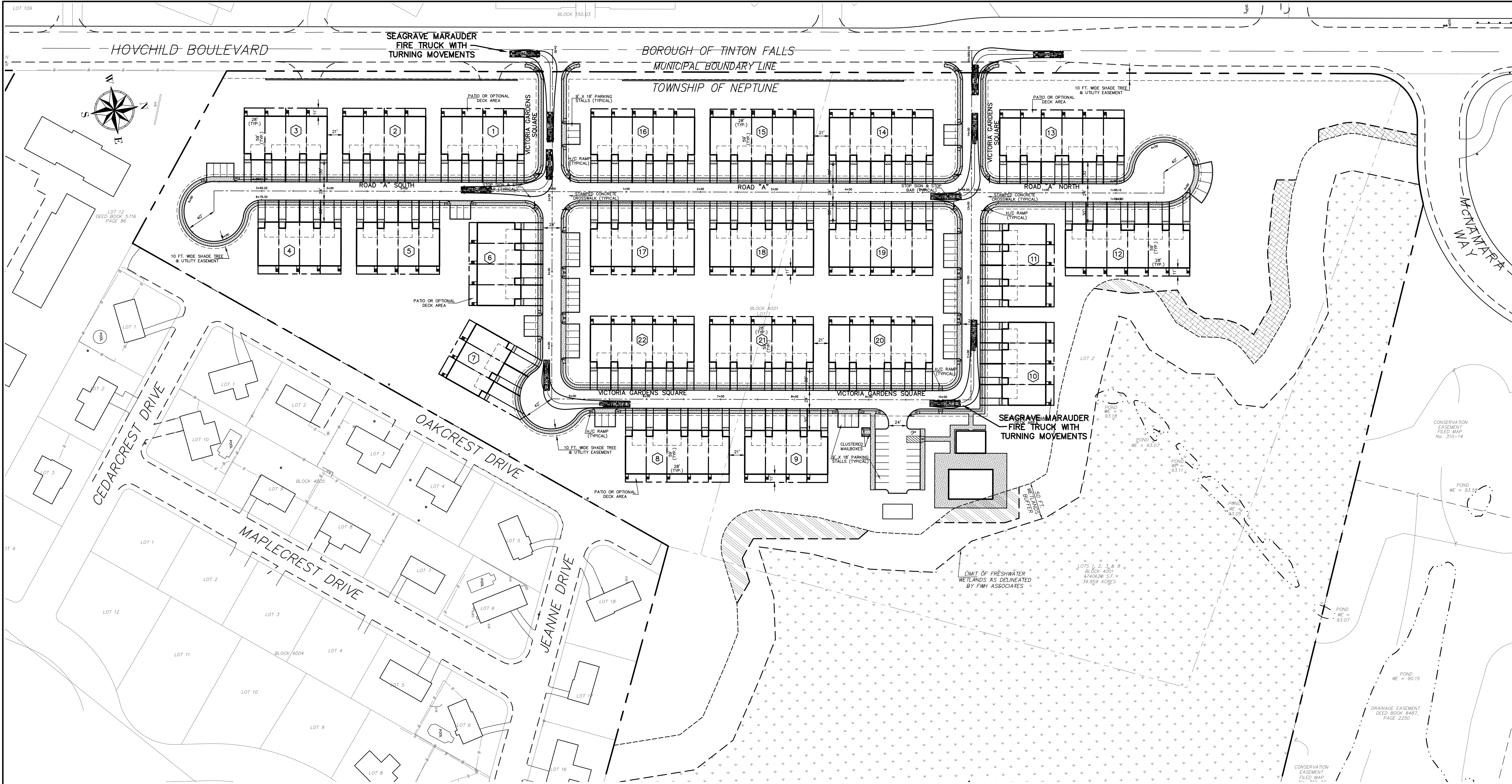
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 NEW JERSEY STATE BOARD OF P.E. & L.S.
 CERTIFICATE OF AUTHORIZATION NO. 24GA28125400

PRELIMINARY & FINAL MAJOR SUBDIVISION
TEST PIT PLAN
VICTORIA GARDENS
 BLOCK 4001 - LOTS 1, 2 & 3
 TOWNSHIP OF NEPTUNE
 MONMOUTH COUNTY NEW JERSEY

SCALE: 1" = 60'
 DATE: MAY 25, 2021
 JOB NUMBER: 321644
 SHEET: 3

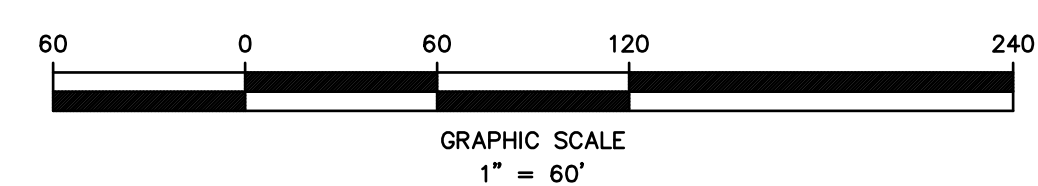
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WILLIAM A. STEVENS, P.E., P.P.
 PROFESSIONAL ENGINEER, NEW JERSEY LIC. #39115
 PROFESSIONAL PLANNER, NEW JERSEY LIC. #3794



75' Tower Ladder Seagrave Marauder

	feet
Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 40.4



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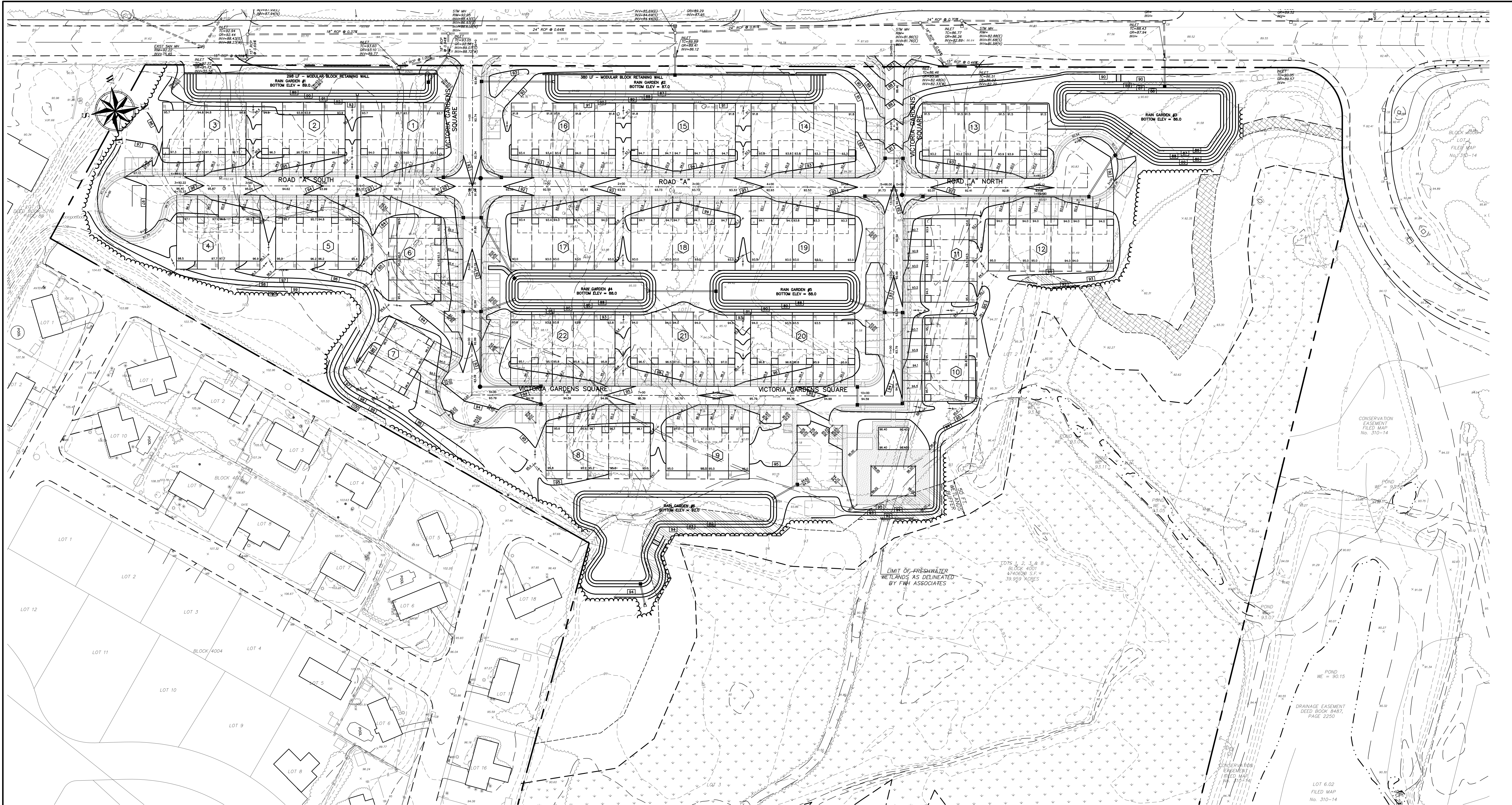
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PROFESSIONAL PLANNER, NEW JERSEY LIC. #5394

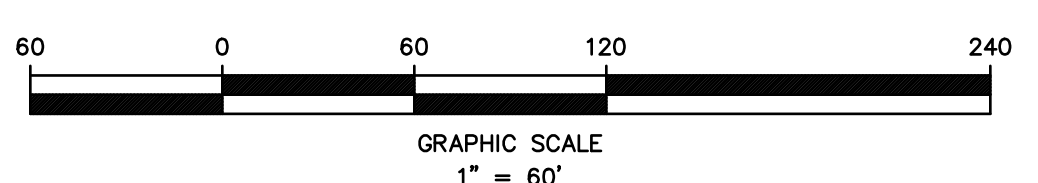
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VEHICLE CIRCULATION PLAN
VICTORIA GARDENS
BLOCK 4001 - LOTS 1, 2 & 3
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY NEW JERSEY

SCALE: 1" = 60'	DATE: MAY 25, 2021	JOB NUMBER: 321644	SHEET 4
DRAWN BY: SDC	DESIGNED BY: IMB	CHECKED BY: WAS	31



LEGEND

EXISTING EDGE OF PAVEMENT	
EXISTING CURB	
EXISTING DEPRESSED CURB	
PROPOSED CURB	
PROPOSED DEPRESSED CURB	
EXISTING WOODLINE	
PROPOSED WOODLINE	
EXISTING SPOT ELEVATION	
PROPOSED SPOT ELEVATION	
EXISTING CONTOUR	
PROPOSED CONTOUR	
EXISTING INLET	
PROPOSED INLET	
EXISTING MANHOLE	
PROPOSED MANHOLE	
PROPOSED GATE VALVE	



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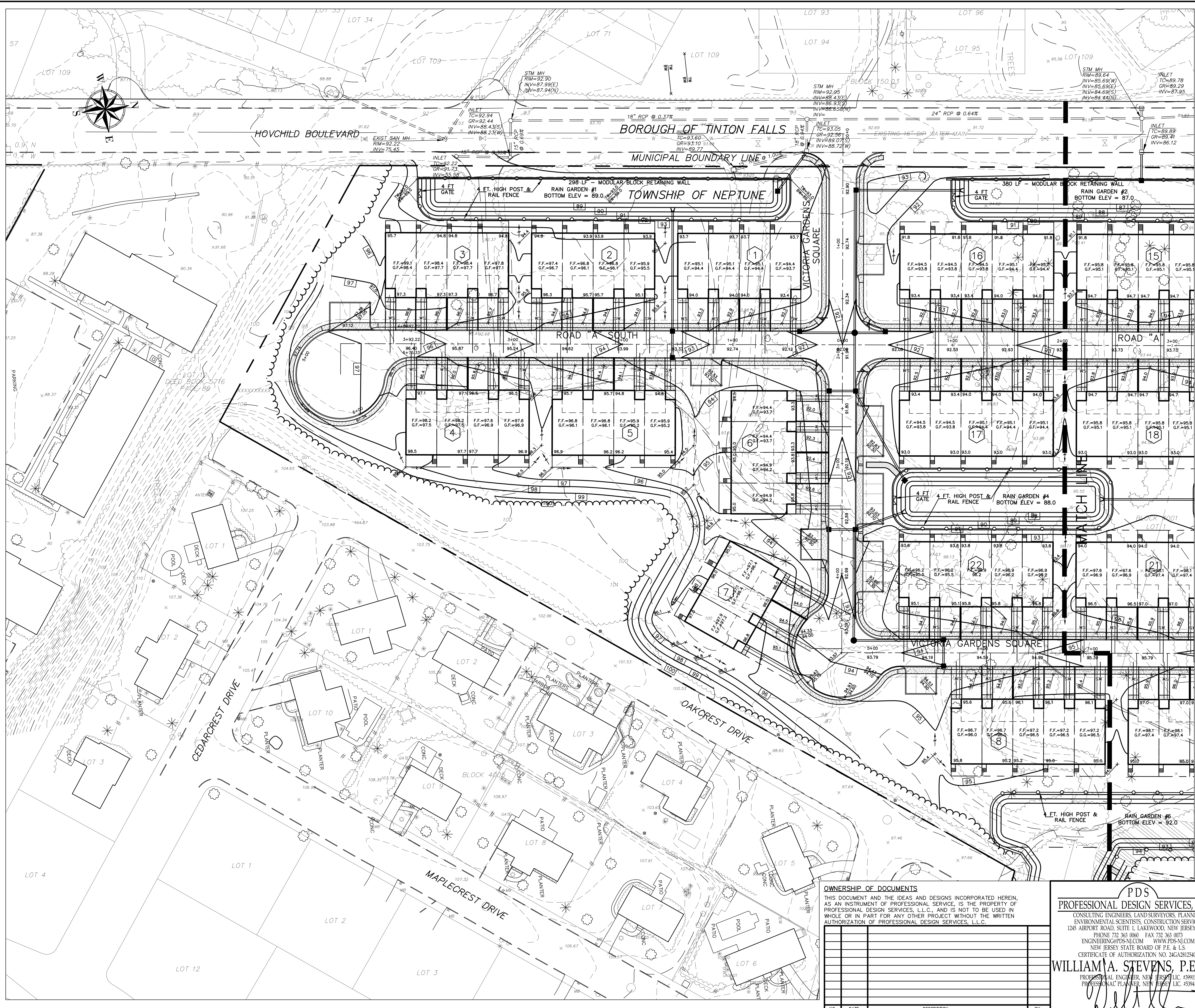
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PROFESSIONAL PLANNER, NEW JERSEY LIC. #5394

PRELIMINARY & FINAL MAJOR SUBDIVISION
OVERALL GRADING PLAN
VICTORIA GARDENS
BLOCK 4001 - LOTS 1, 2 & 3
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY NEW JERSEY

SCALE: 1" = 60'	DATE: MAY 25, 2021	JOB NUMBER: 321644	SHEET 5
DRAWN BY: SDG	DESIGNED BY: IMB	CHECKED BY: WAS	31

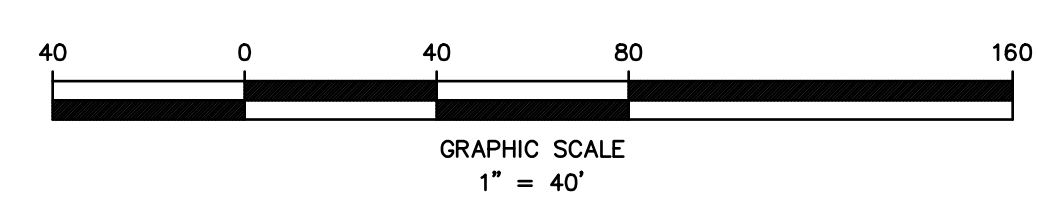


LEGEND

- EXISTING EDGE OF PAVEMENT
- EXISTING CURB
- EXISTING DEPRESSED CURB
- PROPOSED CURB
- PROPOSED DEPRESSED CURB
- EXISTING WOODLINE
- PROPOSED WOODLINE
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING INLET
- PROPOSED INLET
- EXISTING MANHOLE
- PROPOSED MANHOLE
- PROPOSED GATE VALVE

RETAINING WALL NOTES

PROJECT ENGINEER SHALL CERTIFY THAT A FAILURE OF THE STRUCTURAL RETAINING WALLS WILL HAVE NO ADVERSE IMPACT ON ANY ADJOINING PROPERTY OR PUBLIC RIGHT OF WAY.
 RETAINING WALLS ARE TO BE MAINTAINED BY THE OWNER OF THE PROPERTY.
 A LICENSED STRUCTURAL OR CIVIL ENGINEER, AT THE COST OF THE APPLICANT, SHALL INSPECT THE CONSTRUCTION OF ALL STRUCTURAL RETAINING WALLS, AND A SIGNED AND SEALED CERTIFICATION THAT THE WALL HAS BEEN PROPERLY CONSTRUCTED SHALL BE SUBMITTED TO THE CONSTRUCTION OFFICIAL UPON COMPLETION OF THE WALL.



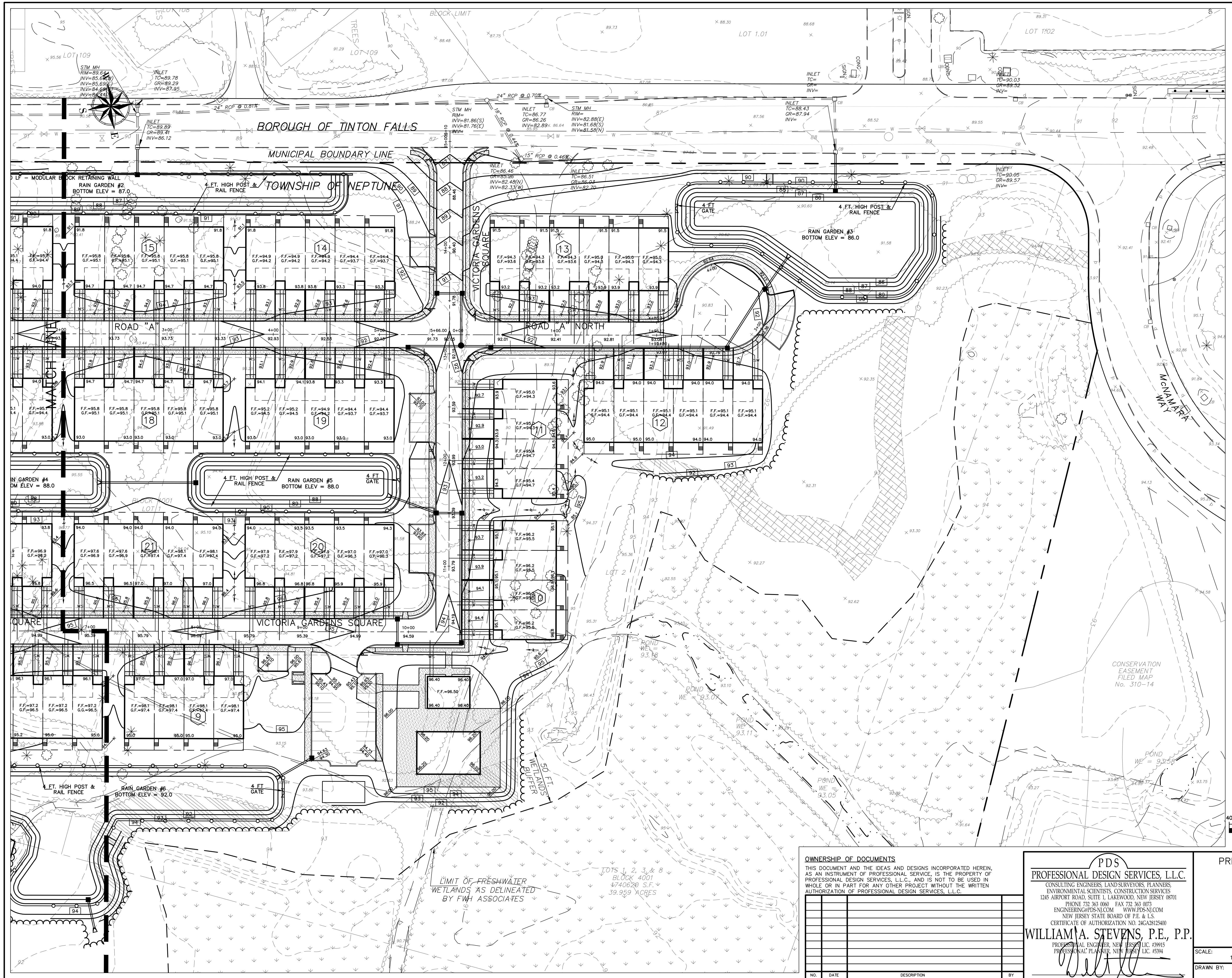
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PRELIMINARY & FINAL MAJOR SUBDIVISION
GRADING PLAN
VICTORIA GARDENS
 BLOCK 4001 - LOTS 1, 2 & 3
 TOWNSHIP OF NEPTUNE
 MONMOUTH COUNTY NEW JERSEY

SCALE: 1" = 40'	DATE: MAY 25, 2021	JOB NUMBER: 321644	SHEET 6
DRAWN BY: SDG	DESIGNED BY: IMB	CHECKED BY: WAS	31



LEGEND

- EXISTING EDGE OF PAVEMENT
- EXISTING CURB
- EXISTING DEPRESSED CURB
- PROPOSED CURB
- PROPOSED DEPRESSED CURB
- EXISTING WOODLINE
- PROPOSED WOODLINE
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING INLET
- PROPOSED INLET
- EXISTING MANHOLE
- PROPOSED MANHOLE
- PROPOSED GATE VALVE

GRAPHIC SCALE
1" = 40'

PRELIMINARY & FINAL MAJOR SUBDIVISION
GRADING PLAN
VICTORIA GARDENS
BLOCK 4001 – LOTS 1, 2 & 3
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY NEW JERSEY

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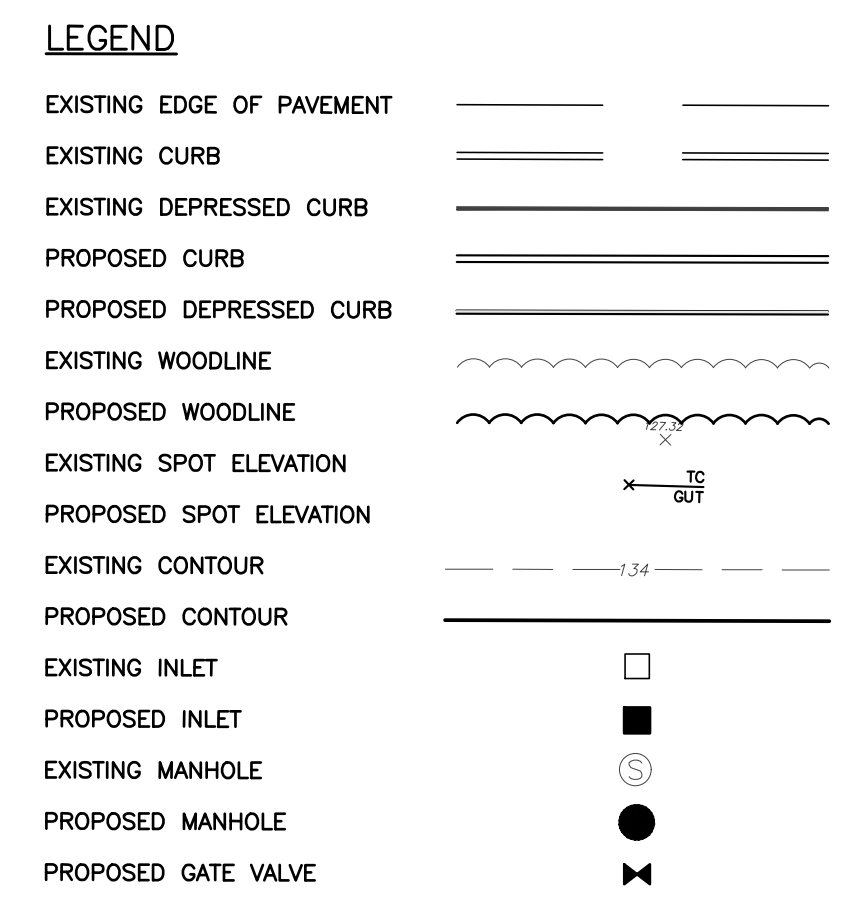
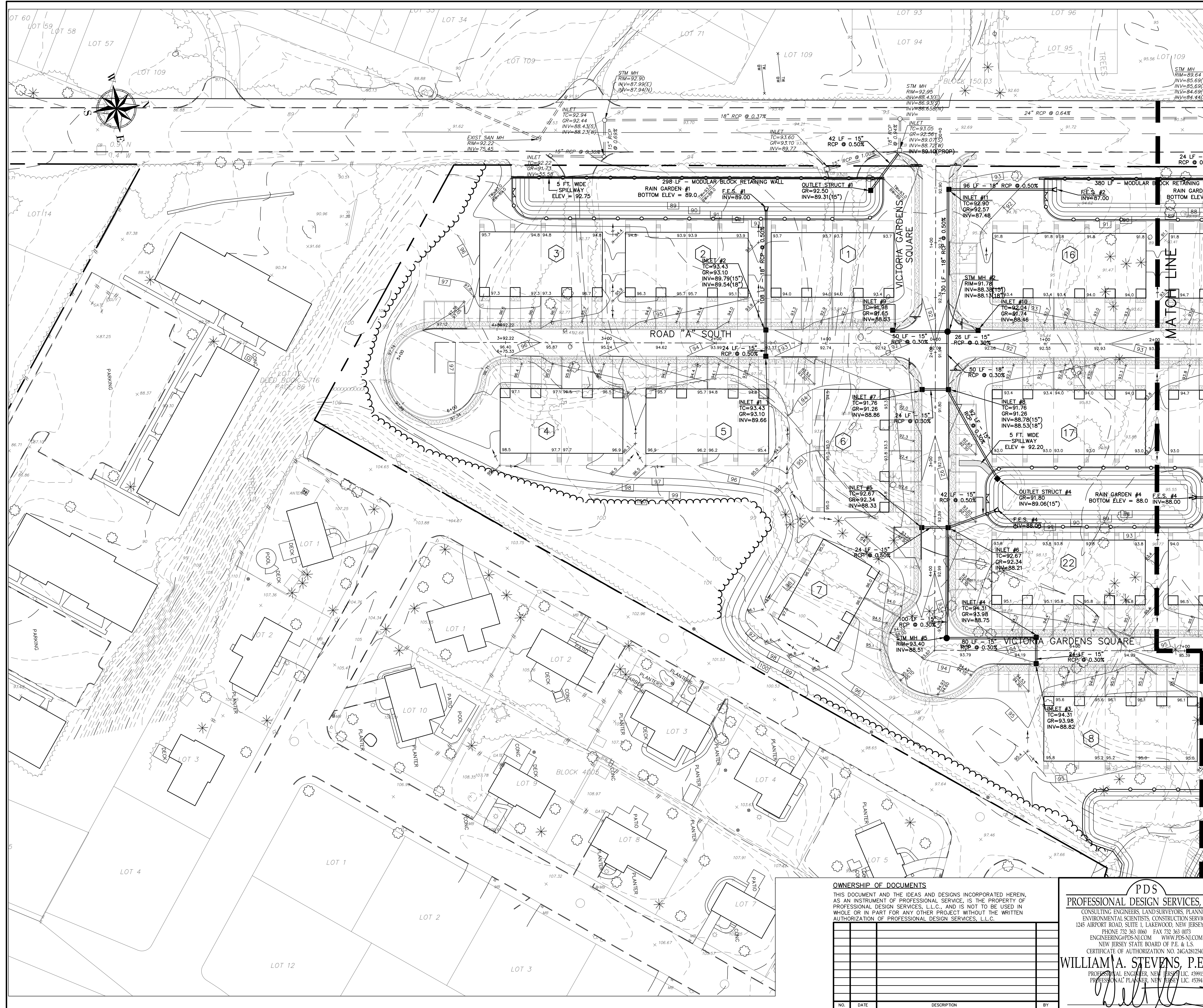
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NO.	DATE	DESCRIPTION	BY

SCALE:	DATE:	JOB NUMBER:	SHEET
1" = 40'	MAY 25, 2021	321644	7
DRAWN BY:	DESIGNED BY:	CHECKED BY:	31
SDC	IMB	WAS	

LIMIT OF FRESHWATER
WETLANDS AS DELINEATED
BY FWH ASSOCIATES

LOTS 1, 2, 3, & 8
BLOCK 4001
4740628 S.F.
39.959 ACRES



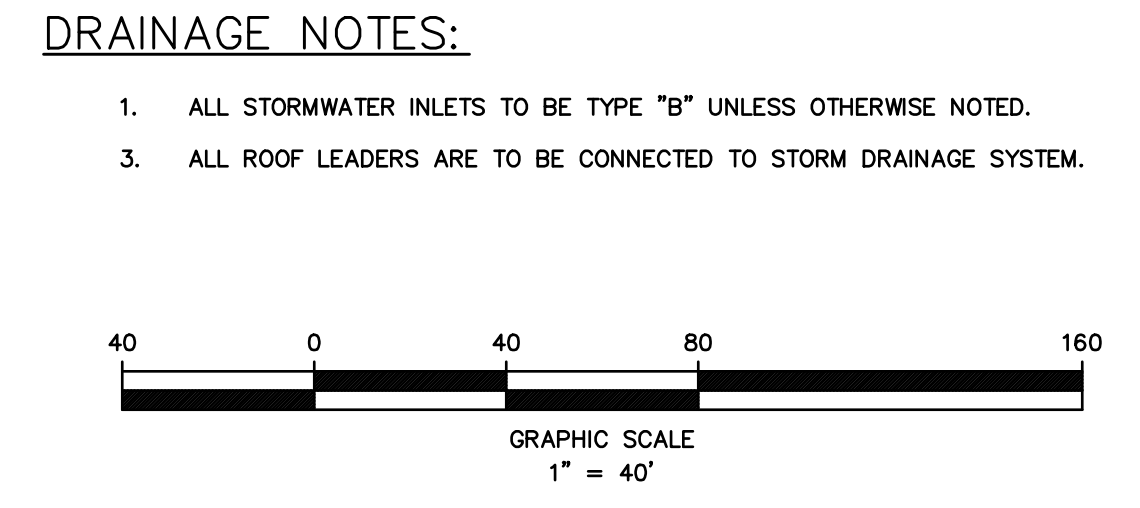
STORMWATER SYSTEM MAINTENANCE:
 ALL MAINTENANCE FOR EACH STORMWATER MANAGEMENT SYSTEM WILL BE THE RESPONSIBILITY OF THE PROPERTY OWNER AFTER CONSTRUCTION IS COMPLETED.

THE FOLLOWING IS A SUMMARY OF THE REQUIRED MAINTENANCE ACTIVITIES:

TASK	SCHEDULE
INFILTRATION SYSTEMS	
DEBRIS REMOVAL	BI-ANNUALLY
INSPECTION & REPAIR (AS NECESSARY) OF STRUCTURES	ANNUALLY
TILLING OF BASIN BOTTOM	ANNUALLY
COLLECTION SYSTEMS	
DEBRIS REMOVAL & CLEANING	BI-ANNUALLY
INSPECTION & REPAIR (AS NECESSARY) OF STRUCTURES	ANNUALLY

THE DRAINAGE SYSTEM SHALL BE CLEANED BY THE APPLICANT UPON COMPLETION OF SITE IMPROVEMENTS.

TILLING AND/OR REPLACEMENT OF THE BASIN BOTTOM SHALL BE DONE WHEN THE CALCULATED PERMEABILITY RATES ARE NOT ACHIEVED.



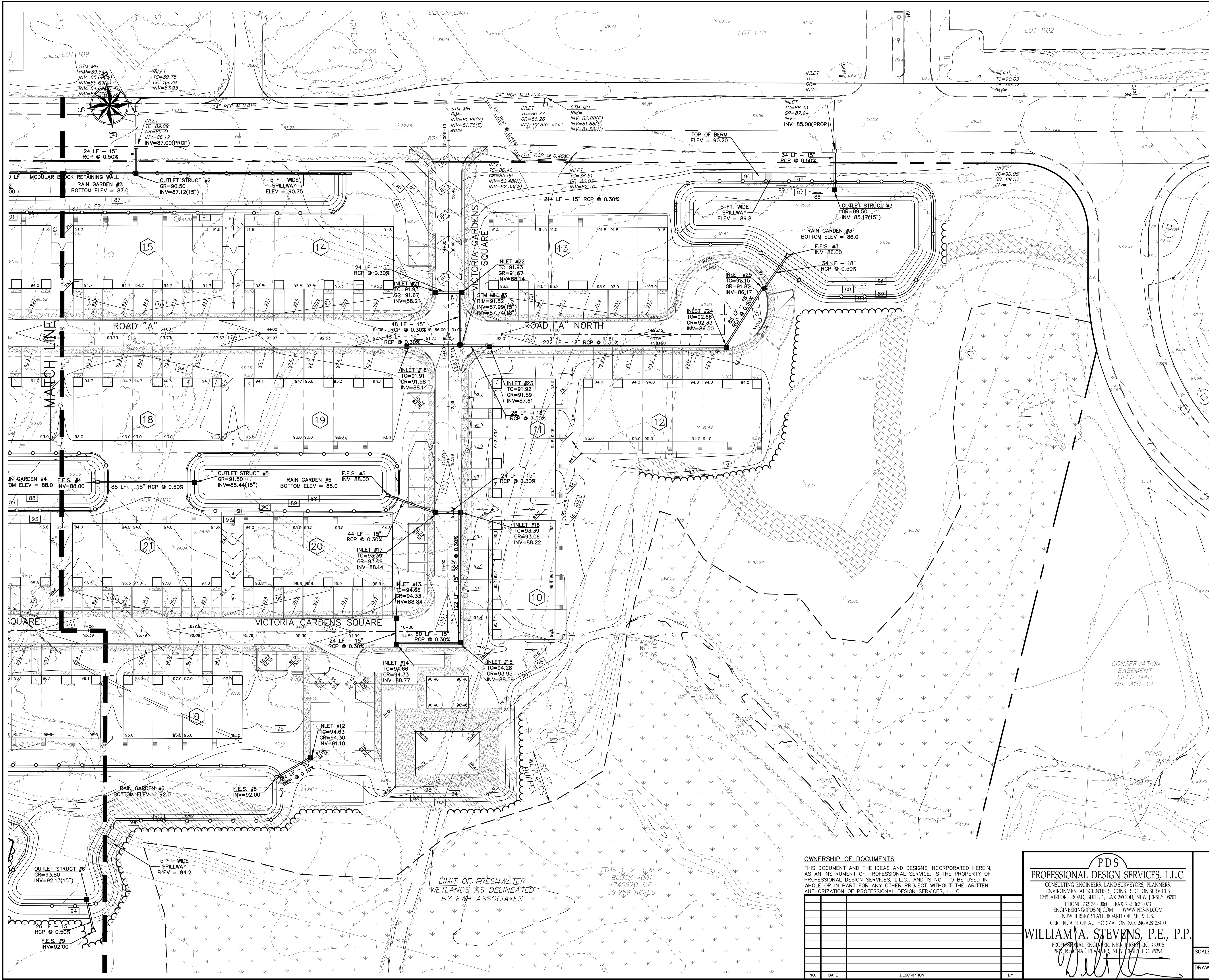
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PRELIMINARY & FINAL MAJOR SUBDIVISION
STORM DRAINAGE PLAN
VICTORIA GARDENS
 BLOCK 4001 - LOTS 1, 2 & 3
 TOWNSHIP OF NEPTUNE
 MONMOUTH COUNTY NEW JERSEY

SCALE: 1" = 40'	DATE: MAY 25, 2021	JOB NUMBER: 321644	SHEET 8
DRAWN BY: SDG	DESIGNED BY: IMB	CHECKED BY: WAS	31



LEGEND

- EXISTING EDGE OF PAVEMENT
- EXISTING CURB
- EXISTING DEPRESSED CURB
- PROPOSED CURB
- PROPOSED DEPRESSED CURB
- EXISTING WOODLINE
- PROPOSED WOODLINE
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING INLET
- PROPOSED INLET
- EXISTING MANHOLE
- PROPOSED MANHOLE
- PROPOSED GATE VALVE

GRAPHIC SCALE
1" = 40'

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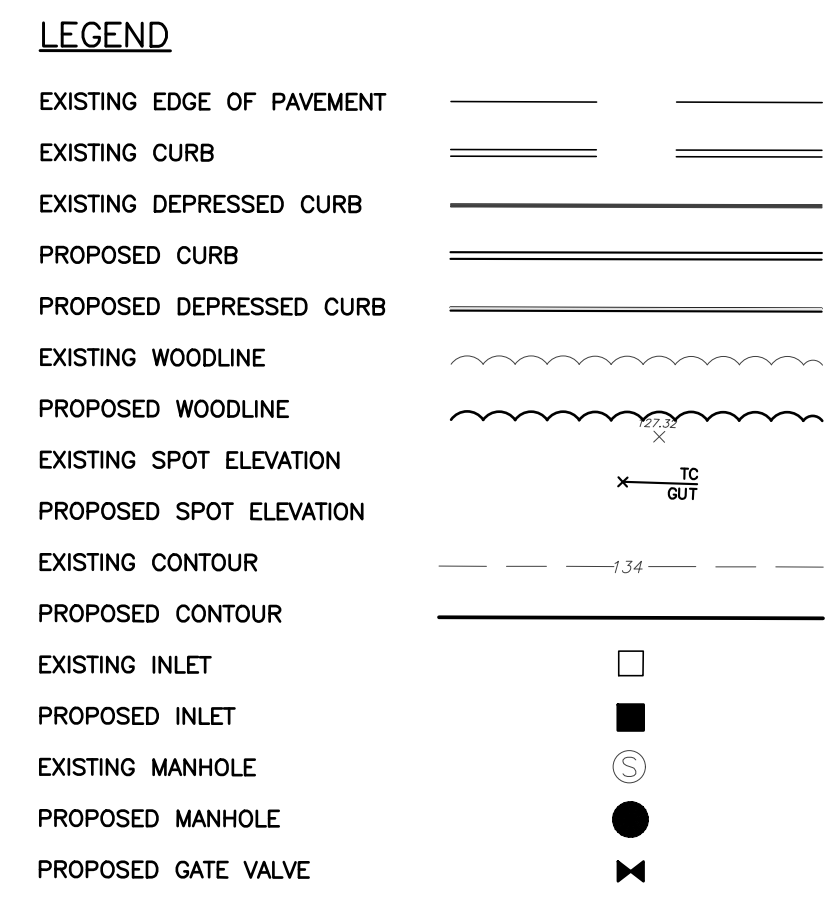
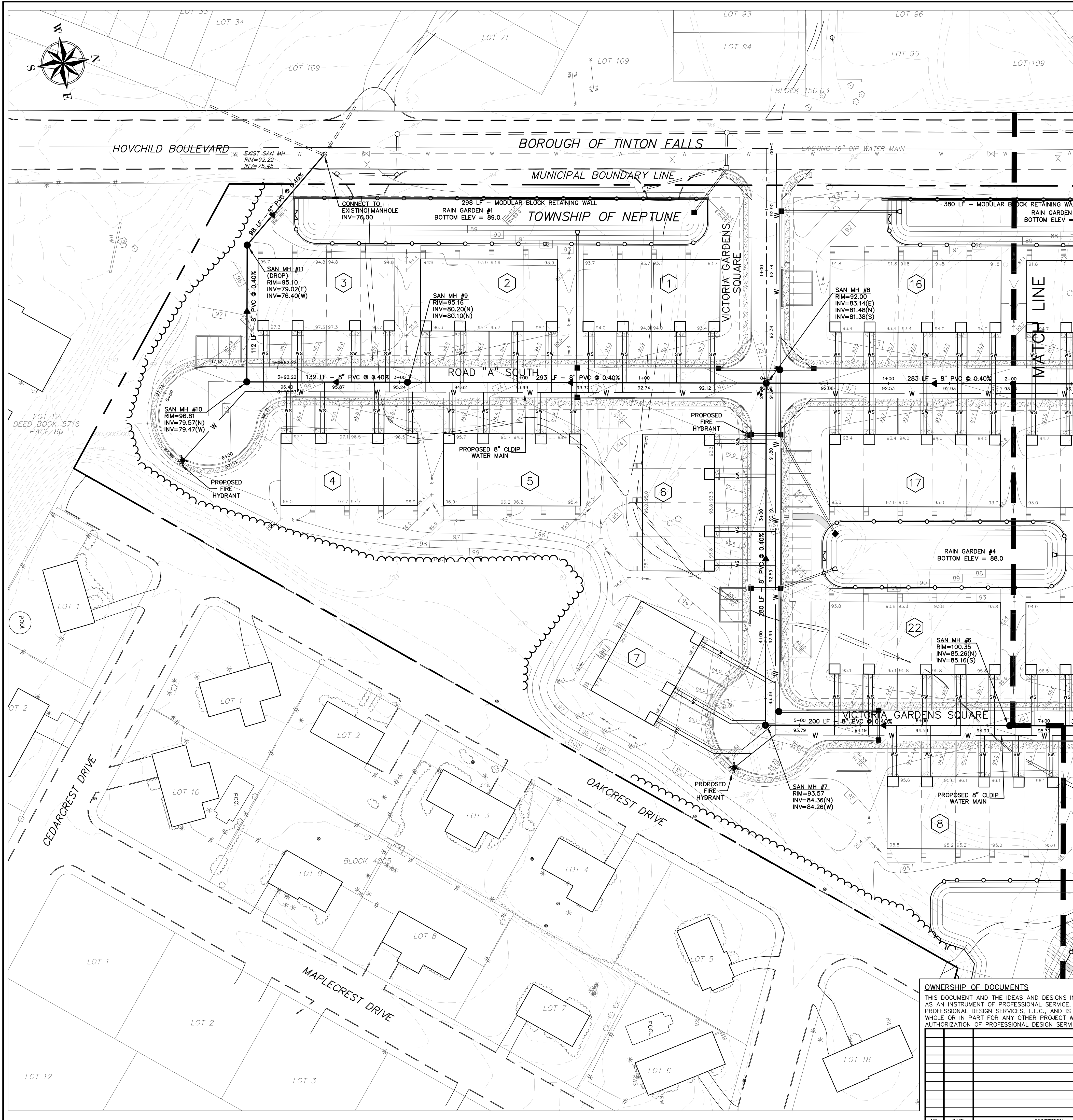
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PRELIMINARY & FINAL MAJOR SUBDIVISION
STORM DRAINAGE PLAN
VICTORIA GARDENS
 BLOCK 4001 - LOTS 1, 2 & 3
 TOWNSHIP OF NEPTUNE
 MONMOUTH COUNTY NEW JERSEY

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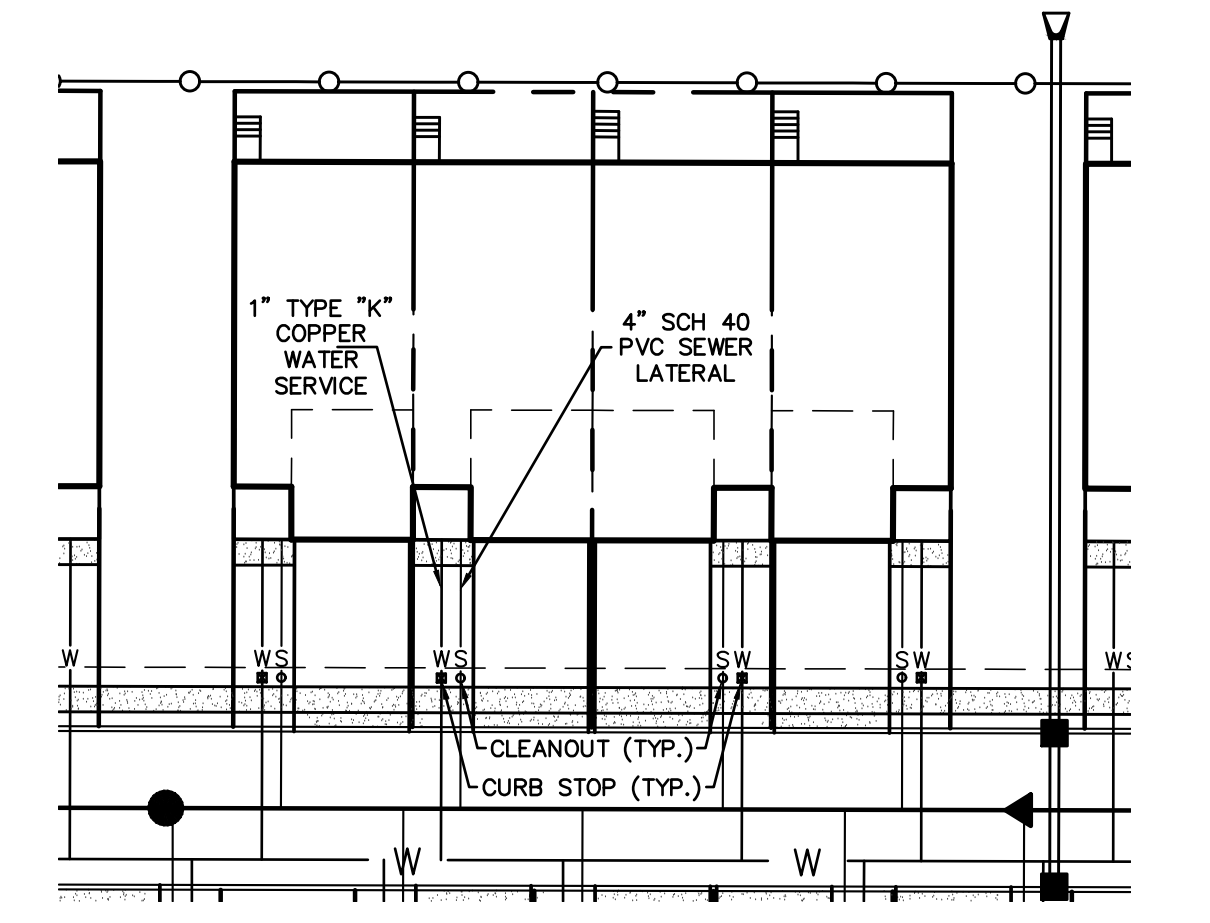
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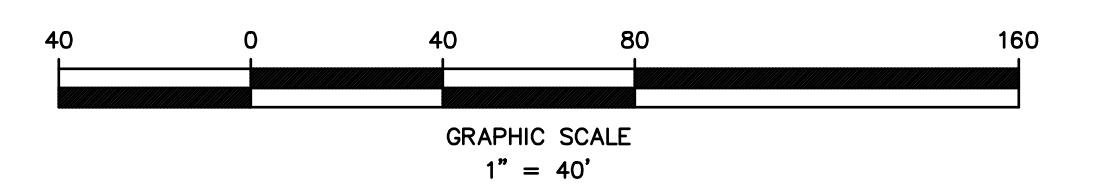


GENERAL UTILITY NOTES

- THRUST BLOCKS ARE TO BE PROVIDED AT ALL WATER MAINS, BENDS, FITTINGS AND REDUCERS.
- FIRE HYDRANTS MUST BE SUPPLIED BY A MINIMUM OF 6" WATER LINES.
- ALL SANITARY LATERALS SHALL BE INSTALLED WITH A MINIMUM SLOPE OF 1/4" PER FOOT.
- AT THE SANITARY LATERAL WYE OR TEE-WYE, MATCH THE CROWN OF THE SEWER MAINS AND LATERALS.
- PROVIDE A TEN FOOT (10') MINIMUM HORIZONTAL SEPARATION BETWEEN SEWER MAINS AND WATER MAINS. IF SUCH LATERAL SEPARATION IS NOT POSSIBLE, THE PIPES SHALL BE IN SEPARATE TRENCHES WITH THE SEWER AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN. WHERE SEPARATION IS NOT MAINTAINED BETWEEN THE WATER AND SEWER MAINS OR THE SEWER MAIN IS ABOVE THE WATER MAIN, INSTALL THE SEWER WITH DUCTILE IRON PIPE WITH WATER TIGHT JOINTS THAT ARE A DISTANCE OF AT LEAST 10 FEET ON EITHER SIDE OF THE WATER MAIN.
- UTILITY CROSSING REQUIREMENTS:
 - IF A SEWER MAIN CROSSES LESS THAN 6 INCHES ABOVE THE WATER MAIN, SUPPORT THE SEWER MAIN WITH A CONCRETE CRADLE.
 - IF A WATER MAIN CROSSES LESS THAN 6 INCHES ABOVE THE SEWER MAIN, SUPPORT THE WATER MAIN WITH A CONCRETE CRADLE.
 - IF OTHER PIPING OR UTILITIES CROSS LESS THAN 18 INCHES ABOVE THE SEWER, SUPPORT THE TOP PIPING OR UTILITIES WITH CONCRETE CRADLES.
 - IF OTHER PIPING OR UTILITIES CROSS LESS THAN 6 INCHES ABOVE THE WATER, SUPPORT THE TOP PIPING OR UTILITIES WITH CONCRETE CRADLES.
 - IF A WATER OR SEWER MAIN CROSSES LESS THAN 6 INCHES ABOVE OTHER PIPING OR UTILITIES, SUPPORT THE WATER OR SEWER MAIN WITH A CONCRETE CRADLE.
- PROVIDE 4'-0" MINIMUM OVER SEWER MAINS.
PROVIDE 3'-0" MINIMUM OVER SEWER LATERALS.
- ALL SANITARY SEWER SHALL BE PVC OR DUCTILE IRON PIPE CLASS 52 CONFORMING TO ASTM D-3034; SDR-35 WITH PUSH ON JOINTS UNLESS OTHERWISE NOTED.
- ALL WATER MAINS SHALL BE CLASS 52, CEMENT LINED DUCTILE IRON PIPE, RATED AT 150 PSI MINIMUM. PIPE JOINTS SHALL BE OF PUSH-ON TYPE OR MECHANICAL JOINT TYPE.
- ALL WATER SERVICES AND PLUMBING SHALL CONFORM WITH THE PLUMBING SUBCODE NJAC 5:23-3.15.
- ALL WATER VALVES SHALL BE RESILIENT WEDGE TYPE IN ACCORDANCE WITH THE AMERICAN WATER WORKS ASSOCIATION STANDARD SPECIFICATION C-509.
- VALVES SHALL BE PLACED ON WATER DISTRIBUTION MAINS NOT MORE THAN 1000 FEET APART.
- ALL DEAD END WATER MAINS SHALL BE TERMINATED WITH A FIRE HYDRANT.
- WATER MAIN FITTINGS TO BE USED WHEREVER JOINT DEFLECTION EXCEEDS MANUFACTURERS SPECIFICATIONS.
- CONTRACTOR SHALL USE MEGALUGS ON ALL MECHANICAL JOINT FITTINGS.
- CONTRACTOR SHALL BE ALLOWED TO USE MECHANICAL JOINT HYDRANT TEES WITH ROTATING GLANDS, AS EQUAL TO THE FIRE HYDRANT ASSEMBLY CONNECTIONS SHOWN IN THE CONSTRUCTION DETAILS.
- THE WATER FLOW FOR FIRE PROTECTION AND EXTINGUISHMENT SHALL MEET OR EXCEED THE RECOMMENDATION CALCULATED UNDER THE ISO STANDARDS.
- A KNOX BOX SHALL BE MAINTAINED AND INSTALLED ON ALL STRUCTURES.
- ALL HYDRANTS ARE TO BE MAINTAINED BY THE PROPERTY OWNER.
- ALL FIRE SUPPRESSION SYSTEMS AND BACKFLOW PREVENTERS SHALL BE PLACED WITHIN EACH INDIVIDUAL BUILDING.



TYPICAL UNIT UTILITY SERVICE LAYOUT
1" = 30'



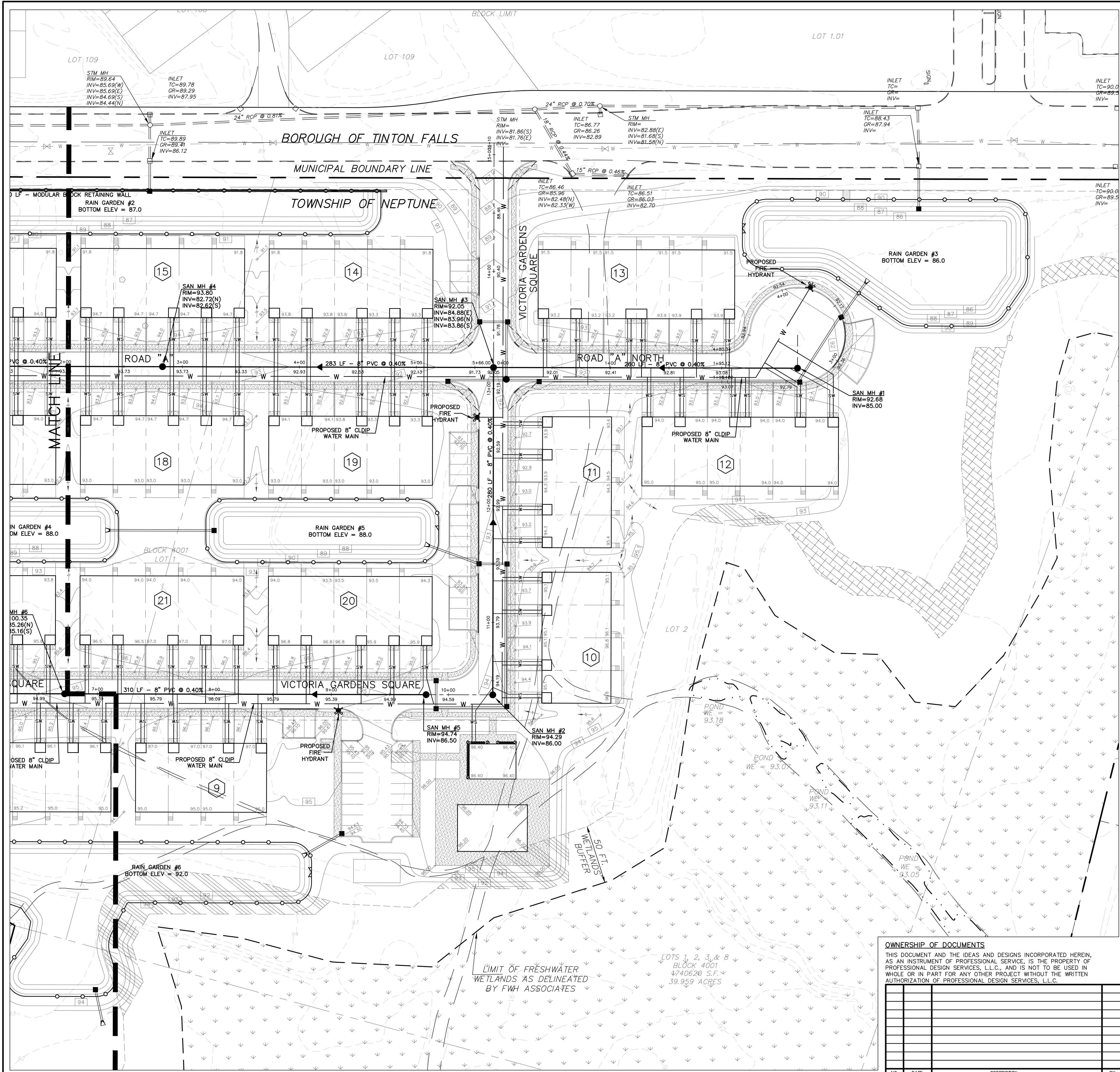
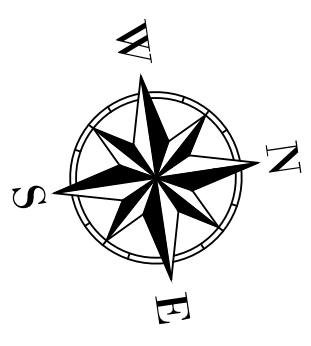
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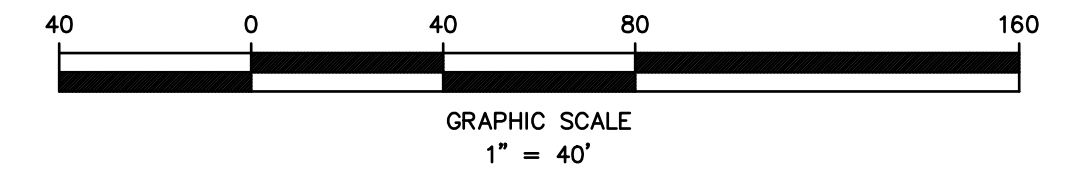
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UTILITY PLAN
VICTORIA GARDENS
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TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY NEW JERSEY

SCALE: 1" = 40'	DATE: MAY 25, 2021	JOB NUMBER: 321644	SHEET 10
DRAWN BY: SDG	DESIGNED BY: IMB	CHECKED BY: WAS	31



LEGEND

EXISTING EDGE OF PAVEMENT	---
EXISTING CURB	==
EXISTING DEPRESSED CURB	---
PROPOSED CURB	---
PROPOSED DEPRESSED CURB	---
EXISTING WOODLINE	~
PROPOSED WOODLINE	~
EXISTING SPOT ELEVATION	X
PROPOSED SPOT ELEVATION	X
EXISTING CONTOUR	---
PROPOSED CONTOUR	---
EXISTING INLET	□
PROPOSED INLET	■
EXISTING MANHOLE	○
PROPOSED MANHOLE	●
PROPOSED GATE VALVE	⊗



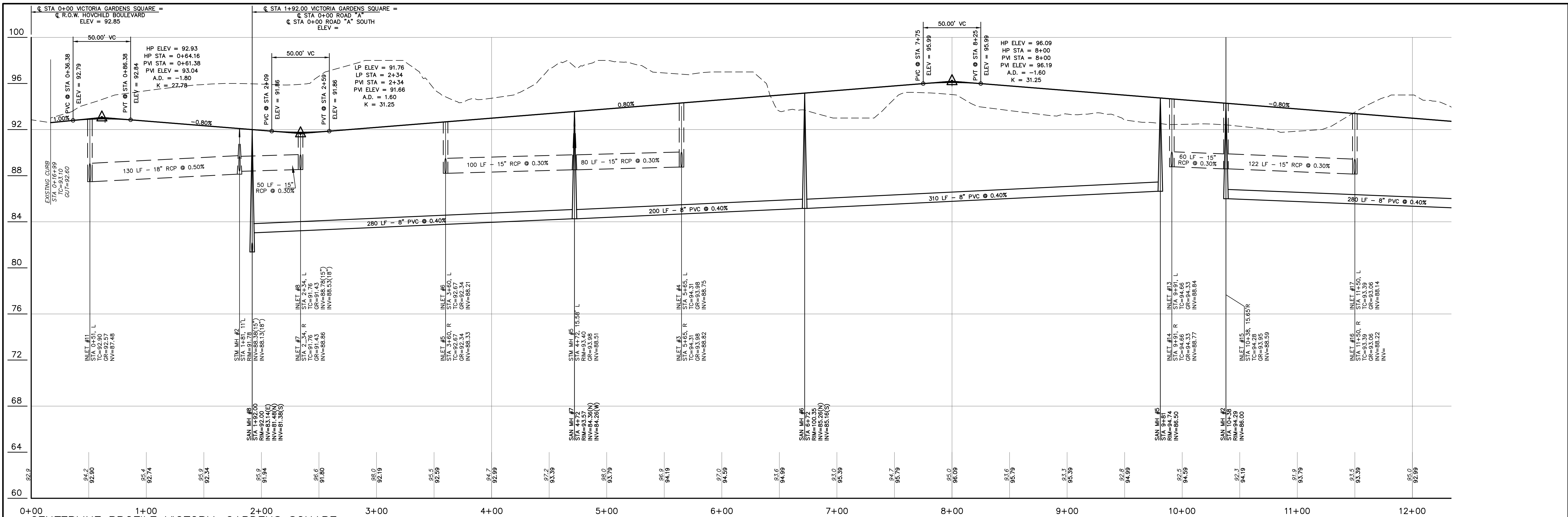
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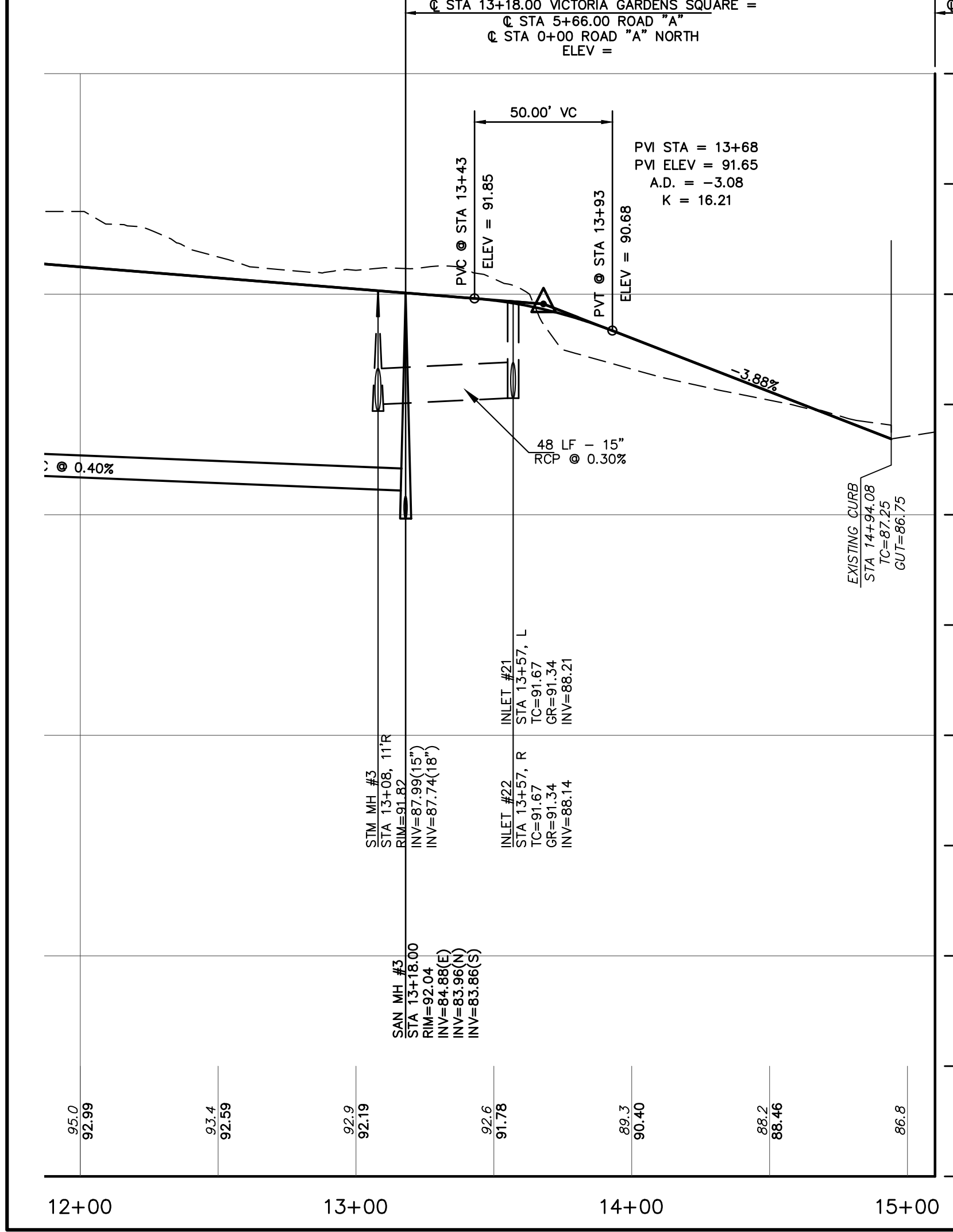
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 PROFESSIONAL PLANNER, NEW JERSEY LIC. #394

PRELIMINARY & FINAL MAJOR SUBDIVISION
UTILITY PLAN
VICTORIA GARDENS
 BLOCK 4001 - LOTS 1, 2 & 3
 TOWNSHIP OF NEPTUNE
 MONMOUTH COUNTY NEW JERSEY

SCALE: 1" = 40'	DATE: MAY 25, 2021	JOB NUMBER: 321644	SHEET 11
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CENTERLINE PROFILE VICTORIA GARDENS SQUARE



NO.	DATE	DESCRIPTION	BY

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CERTIFICATE OF AUTHORIZATION NO. 24G28125400

WILLIAM A. STEVENS, P.E., P.P.

PROFESSIONAL ENGINEER, NEW JERSEY LIC #39115
PROFESSIONAL PLANNER, NEW JERSEY LIC #3394

PRELIMINARY & FINAL MAJOR SUBDIVISION

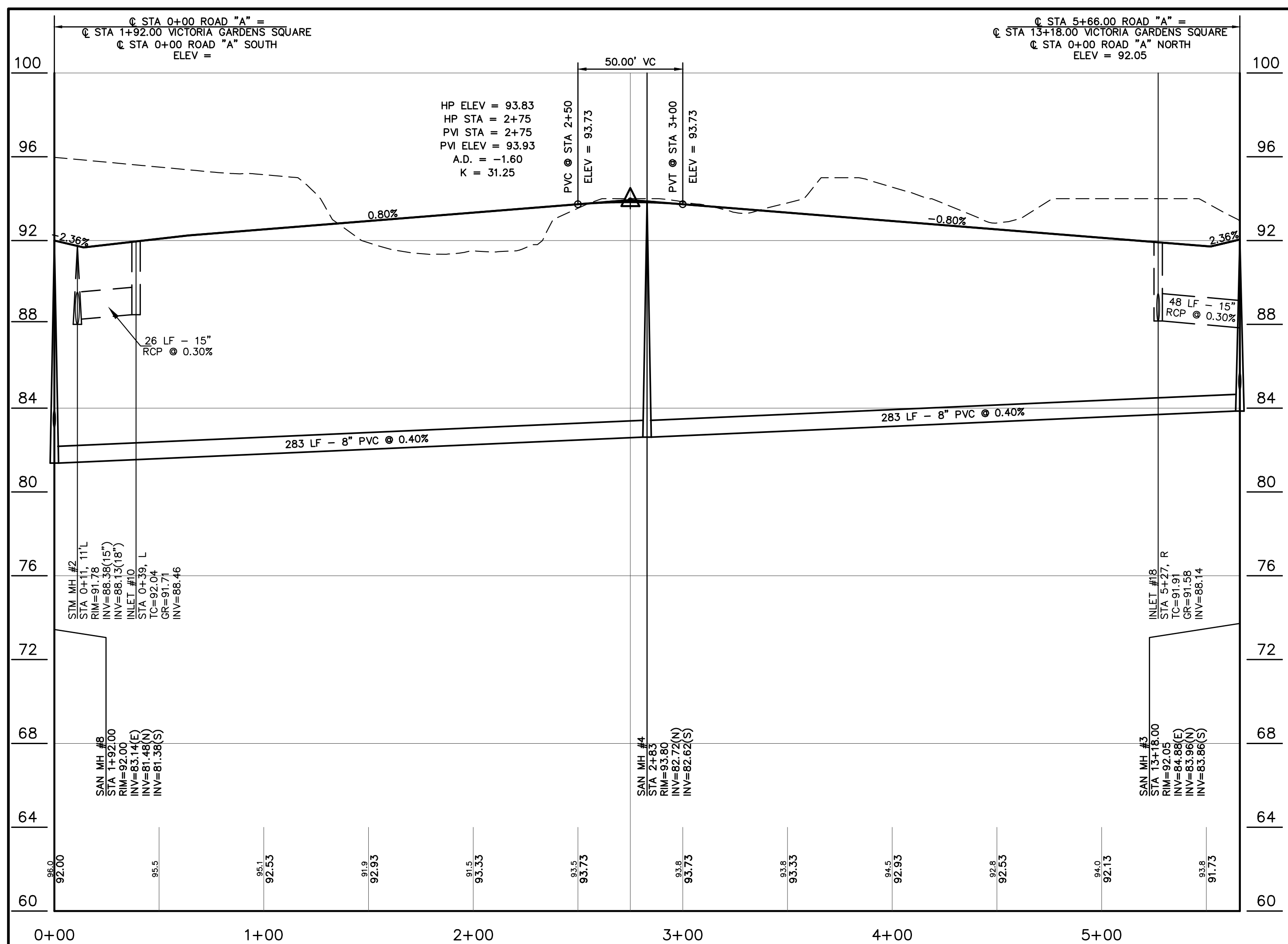
PROFILES

VICTORIA GARDENS

BLOCK 4001 - LOTS 1, 2 & 3

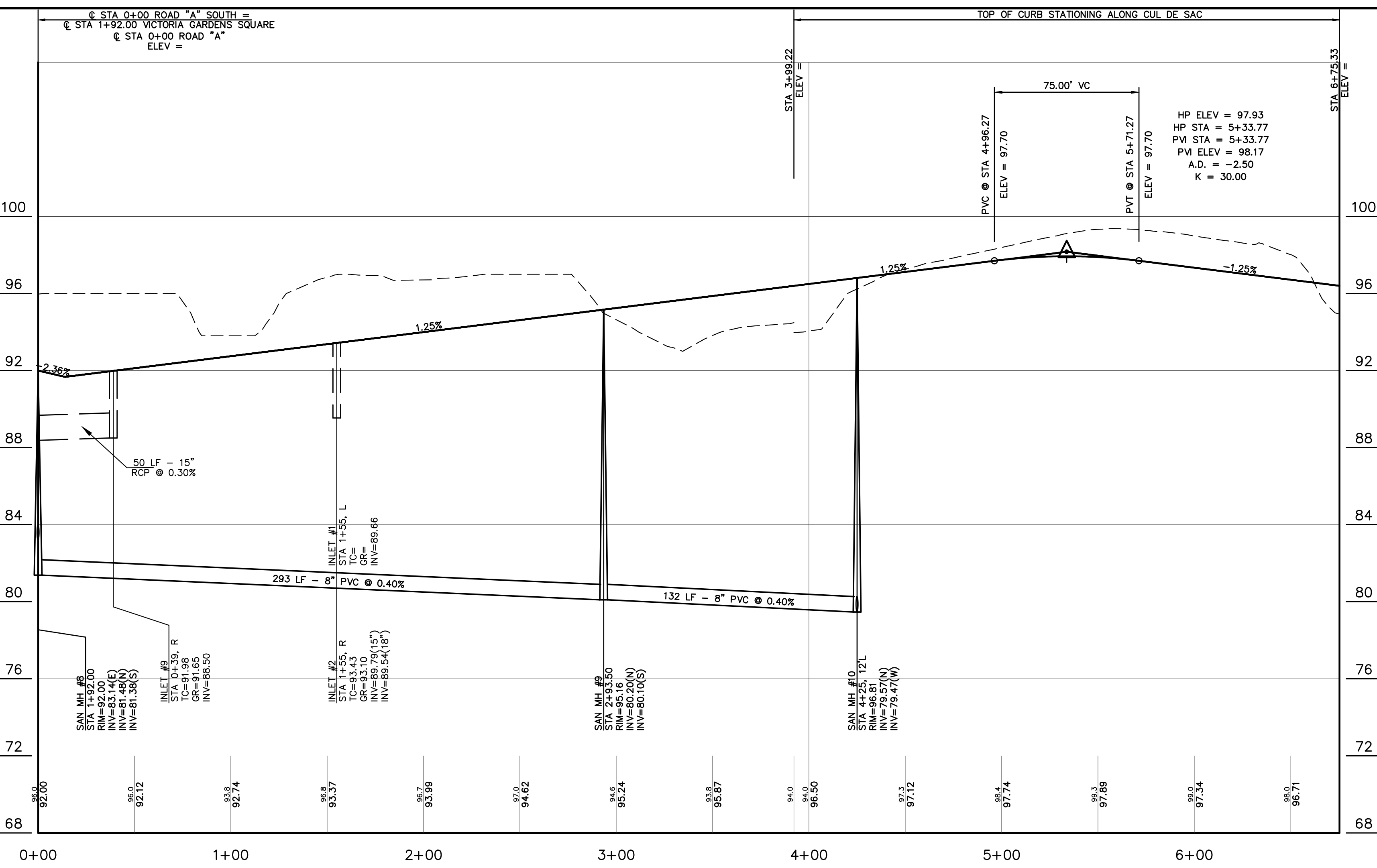
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY NEW JERSEY

SCALE: AS SHOWN	DATE: MAY 25, 2021	JOB NUMBER: 321644	SHEET 12
DRAWN BY: SDG	DESIGNED BY: IMB	CHECKED BY: WAS	31



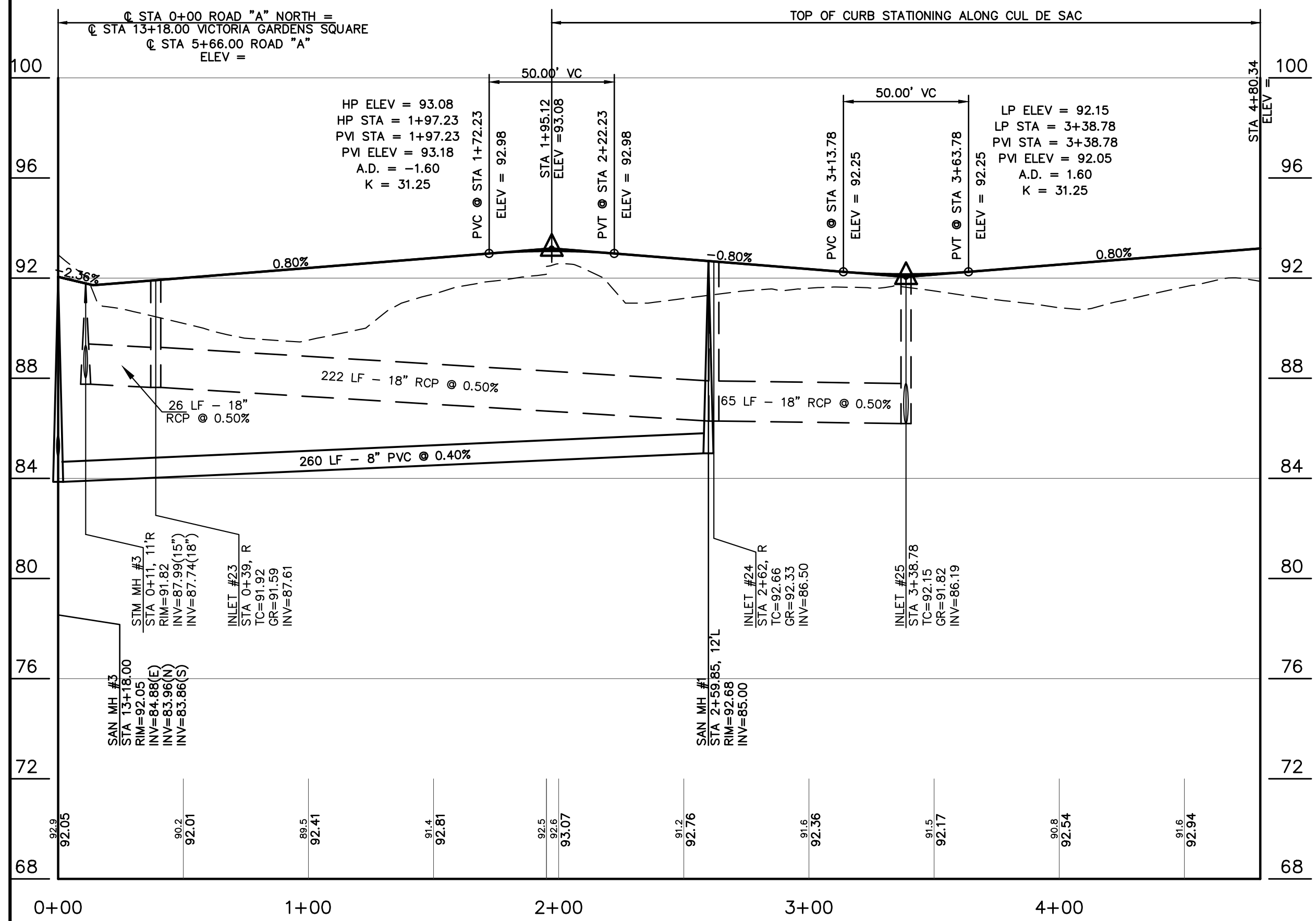
CENTERLINE PROFILE ROAD "A"

SCALE: 1" = 40' HORIZONTAL
1" = 4' VERTICAL



CENTERLINE PROFILE ROAD "A" SOUTH

SCALE: 1" = 40' HORIZONTAL
1" = 4' VERTICAL



CENTERLINE PROFILE ROAD "A" NORTH

SCALE: 1" = 40' HORIZONTAL
1" = 4' VERTICAL

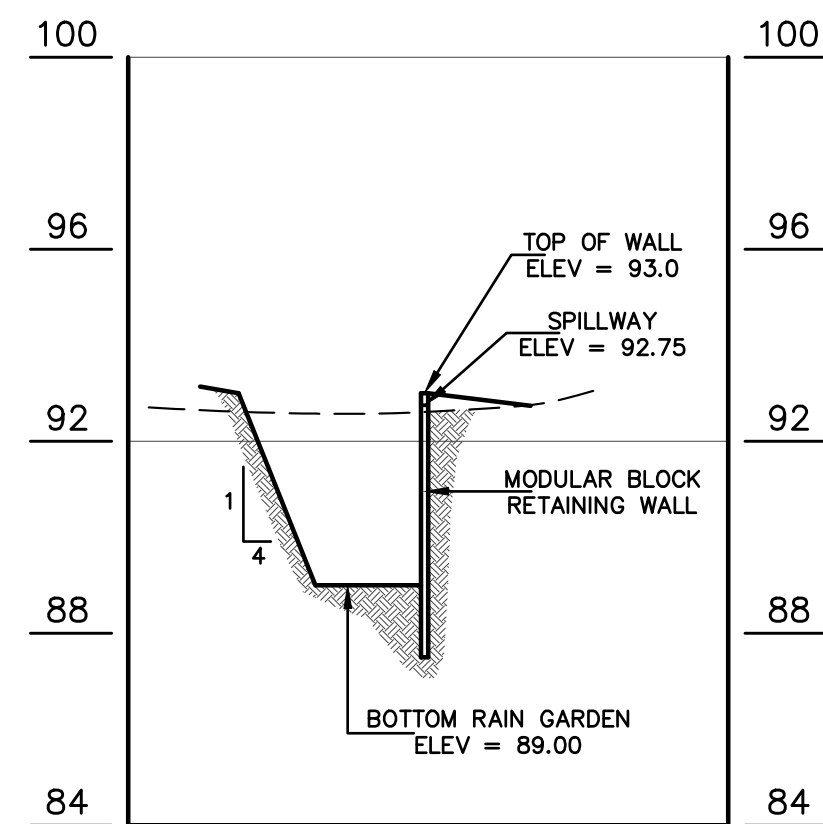
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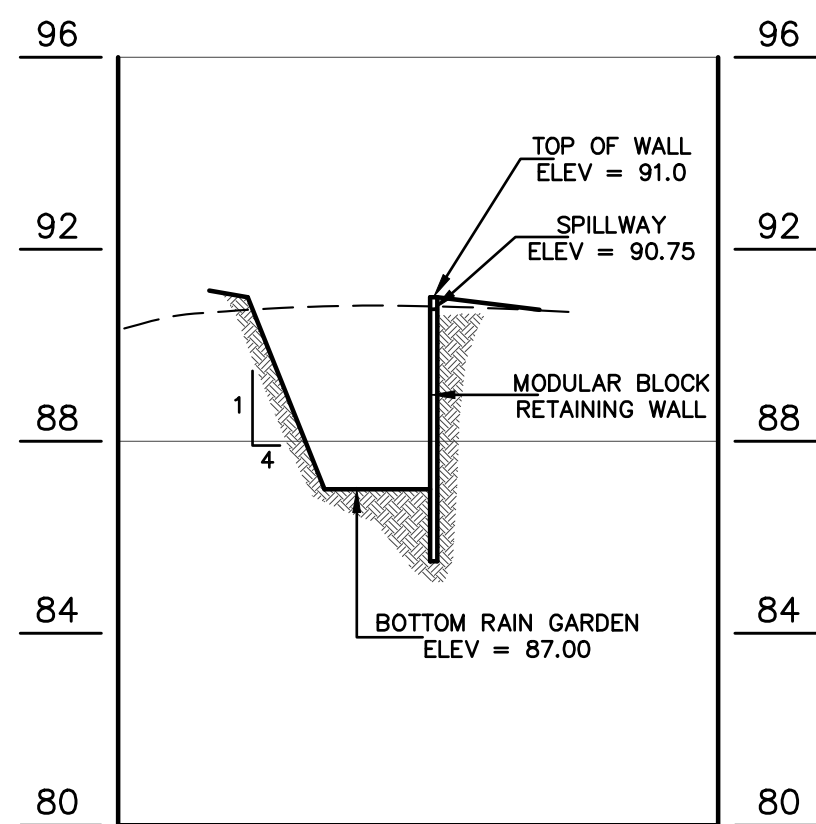
PRELIMINARY & FINAL MAJOR SUBDIVISION
PROFILES
VICTORIA GARDENS
 BLOCK 4001 - LOTS 1, 2 & 3
 TOWNSHIP OF NEPTUNE
 MONMOUTH COUNTY NEW JERSEY

SCALE: AS SHOWN DATE: MAY 25, 2021 JOB NUMBER: 321644 SHEET 13
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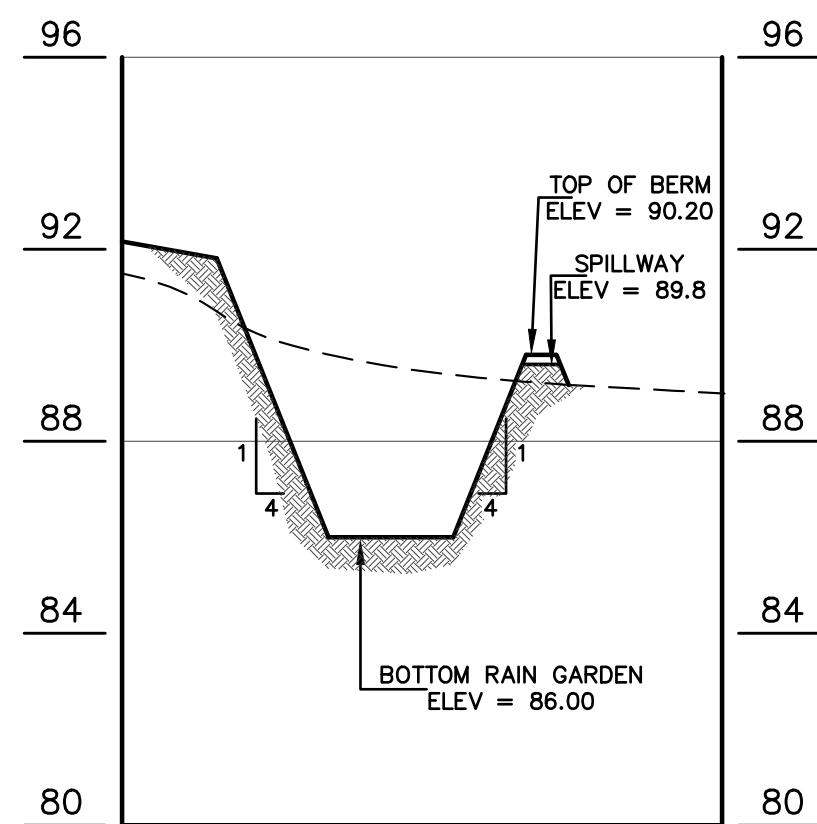
RAIN GARDEN #1 SECTION

SCALE: 1" = 40' HORIZONTAL
1" = 4' VERTICAL



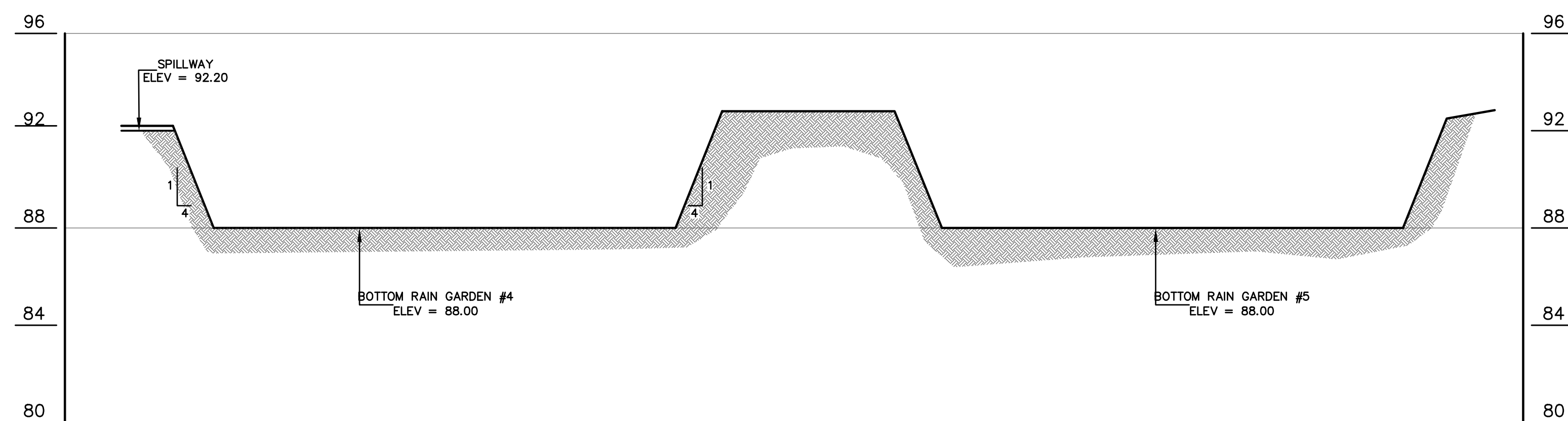
RAIN GARDEN #2 SECTION

SCALE: 1" = 40' HORIZONTAL
1" = 4' VERTICAL



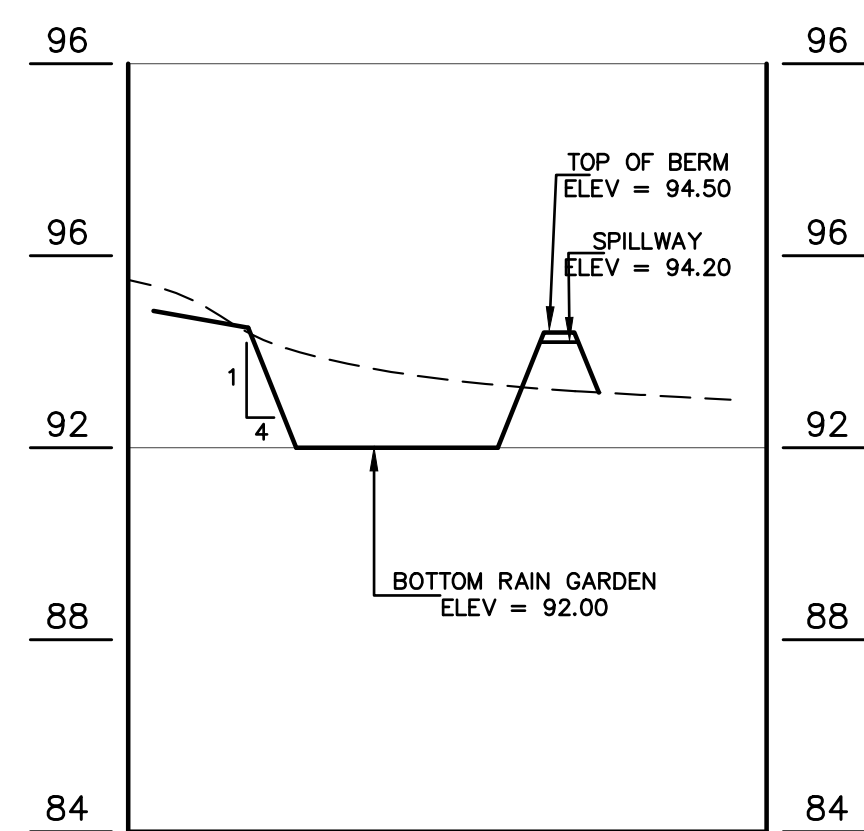
RAIN GARDEN #3 SECTION

SCALE: 1" = 40' HORIZONTAL
1" = 4' VERTICAL



RAIN GARDENS #4 & #5 SECTION

SCALE: 1" = 40' HORIZONTAL
1" = 4' VERTICAL



RAIN GARDEN #6 SECTION

SCALE: 1" = 40' HORIZONTAL
1" = 4' VERTICAL

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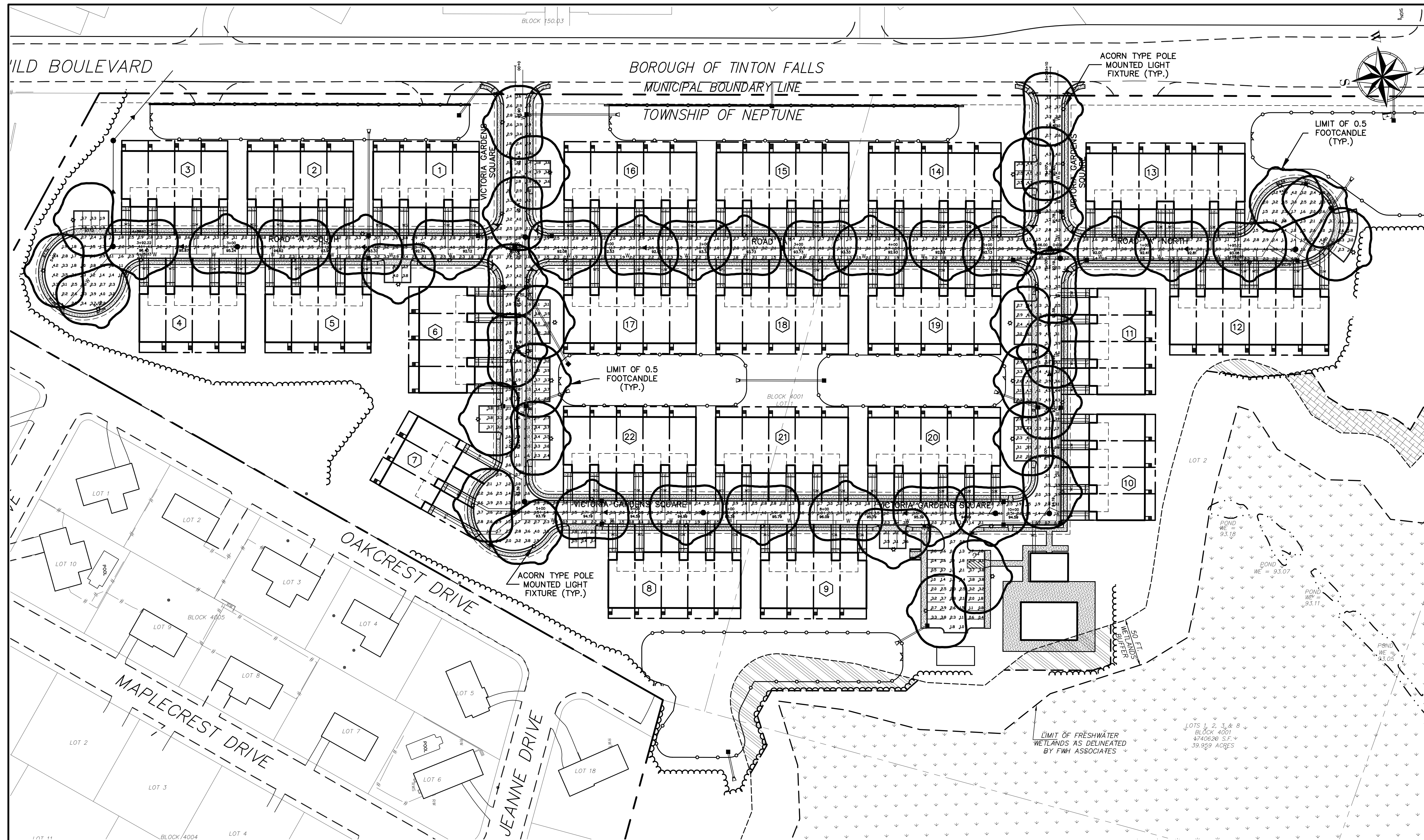
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PRELIMINARY & FINAL MAJOR SUBDIVISION
RAIN GARDEN SECTIONS
VICTORIA GARDENS
 BLOCK 4001 - LOTS 1, 2 & 3
 TOWNSHIP OF NEPTUNE
 MONMOUTH COUNTY NEW JERSEY

SCALE: AS SHOWN	DATE: MAY 25, 2021	JOB NUMBER: 321644	SHEET 14
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A850SRLED OLD TOWN SERIES

LED

EPB 1.21(8)	7 YEAR WARRANTY	Lumen Range 2,300/9 14,110	Life Span L70 MINIMUM 100,000 HOURS	UL LISTED ELECTRICAL	CLICK FOR FORFAQ'S	RATED IP68	JOB NAME
WEIGHT 43 LBS							FIXTURE TYPE
							MEMO

BUILD A PART NUMBER

ORDERING EXAMPLE: 2A-A850SRLED-5P-16L-40T5-MDL014-A-PEC-FHD/480PM/4212FPA/GFF/ECT

Mounting Config	Fixture	Filter	LED	CCT	Distribution Type	Driver	Lens	Option Control Receptacle	Option Control	Option Fuse	Option Pole	Option GFI	Option Term. Block	Option House Side Shield	Arm (See Note)	Pole (See Note)	Finish
-----------------	---------	--------	-----	-----	-------------------	--------	------	---------------------------	----------------	-------------	-------------	------------	--------------------	--------------------------	----------------	-----------------	--------

Mounting Configuration

Click here to view mounting configuration specification sheet.

- IW - Wall Mount, PE - Post Top, A - Arm Mount, AM - Arm Mount, PD - Pole Base

Specifications

The luminaire shall be 16" diameter and 40-1/2" tall. The luminaire shall be supplied with a cast aluminum finial and a solid, cast aluminum roof which includes optimized heat sinks to provide maximum life and performance for the LED light sources. The luminaire shall be sealed to the cast aluminum roof to provide a moisture-free and bug-free optics chamber for the LED light sources and rated IP68. The optional perforated brass decorative ring (PDR) is available in polished brass or painted finish. The 2-1/4" wide brass flange allowing light transfer through decorative openings. The optional CDR is a heavy cast aluminum ring with four cast metalizations finished in accent gold. Also available are custom metalizations that can be specified with a name, initial or logo. The Luminaire shall be UL listed in US and Canada.

Filter - Standard

The filter shall be heavy wall cast aluminum, 355 alloy for high tensile strength. It shall have an 8-1/2" inside diameter opening to attach to the 8" neck of the acorn globe. When ordered with a Greenberg aluminum pole, the filter shall be welded to the pole top or tenon for safety and to ensure the fixture will be plumb, secure and level over the life of the installation. The filter shall have a one-piece ring bug gasket to resist insect penetration into lamp assembly.

900 Series Utility Filter Option

The filter shall be heavy wall cast aluminum, 360 die cast alloy for high tensile strength. It shall have a 2-1/4" inside diameter opening to attach to the 8" neck of the acorn globe. It shall have a hinged, tool-less entry door that provides open access to all of the components. The 900 Series shall have an optional terminal block for ease of wiring, an optional 'Twist-Lock' Photocontrol receptacle, an optional single GFCI outlet for auxiliary power needs. The top mounted driver mounting plate shall be cast aluminum and provide tool-less removal from the housing using 2 finger latches. The filter shall have a one-piece ring gasket to resist insect penetration into lamp assembly.

Sternberg Lighting
ESTABLISHED 1923 / EMPLOYEE OWNED

800-821-3376
555 Lawrence Ave., Roseville, IL 60172
info@sternberglighting.com
www.sternberglighting.com

LIGHTING NOTES

THE USE OF HIGH PRESSURE SODIUM LIGHTS IS PROHIBITED FOR ALL FIXTURES.

ALL LIGHTING SHALL PROVIDE FOR NON-GLARE LIGHTS FOCUSED DOWNWARD.

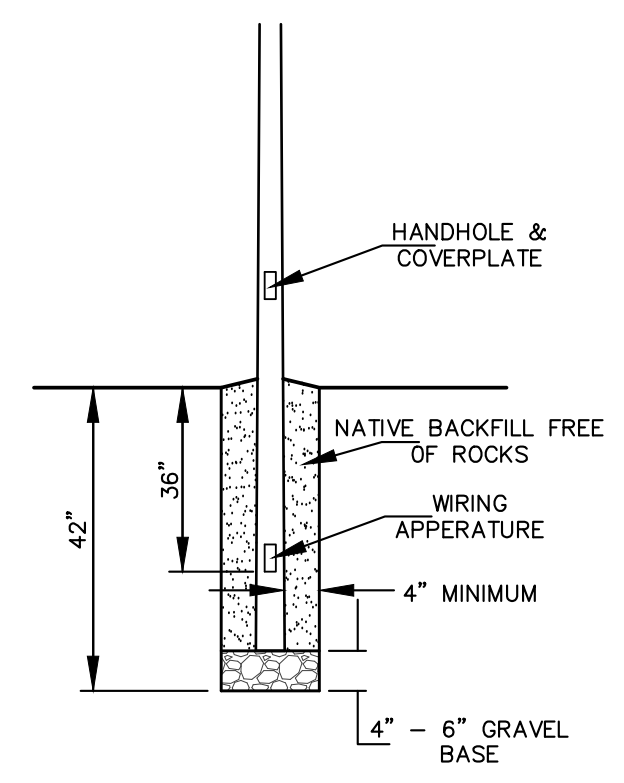
ALL LIGHTS WILL BE PROVIDED WITH HOUSE SIDE SHIELDS TO PREVENT LIGHT SPILLAGE ONTO ADJOINING PROPERTIES AND PROPOSED BUILDINGS.

SECTION 502.B.10

Lighting: Light fixtures attached to the exterior of a building shall be designed to be architecturally compatible with the style, materials, colors and details of such building and other lighting fixtures used on the site. Consideration shall also be given to the type of light source utilized and the light quality such produces. The type of light source used on buildings, signs, parking areas, pedestrian walkways and other areas of a site shall be the same or compatible. The use of low-pressure sodium or mercury vapor lighting either attached to buildings or to light the exterior of buildings shall be prohibited.

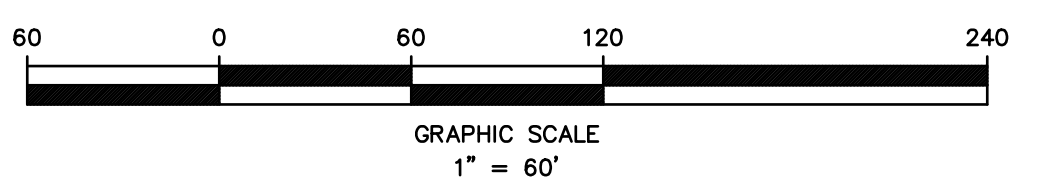
SECTION 502.B.10

Building-attached fixtures: Light fixtures attached to the exterior of a building shall be designed to be architecturally compatible with the style, materials, colors and details of such building and other lighting fixtures used on the site. Consideration shall also be given to the type of light source utilized and the light quality such produces. The type of light source used on buildings, signs, parking areas, pedestrian walkways and other areas of a site shall be the same or compatible. The use of high-pressure sodium lighting shall be prohibited for all fixtures.



DIRECT BURY LIGHT POLE
NTS

Symbol	Height	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	File name	Lumens Per Lamp	Light Loss Factor	Voltage	Efficiency	Polar Plot
⊙	16 FT.	54	Sternberg Lighting	A850SRLED-24L-40T4-MDL018-BLDC	A850SRLED OLD TOWN SERIES ACORN, Luxeon 50-50 LED, T4, Roc optic shield	Luxeon	1	A850SRLED-24L-40T4-MDL018-BLDCIES	7800	1	119	100%	



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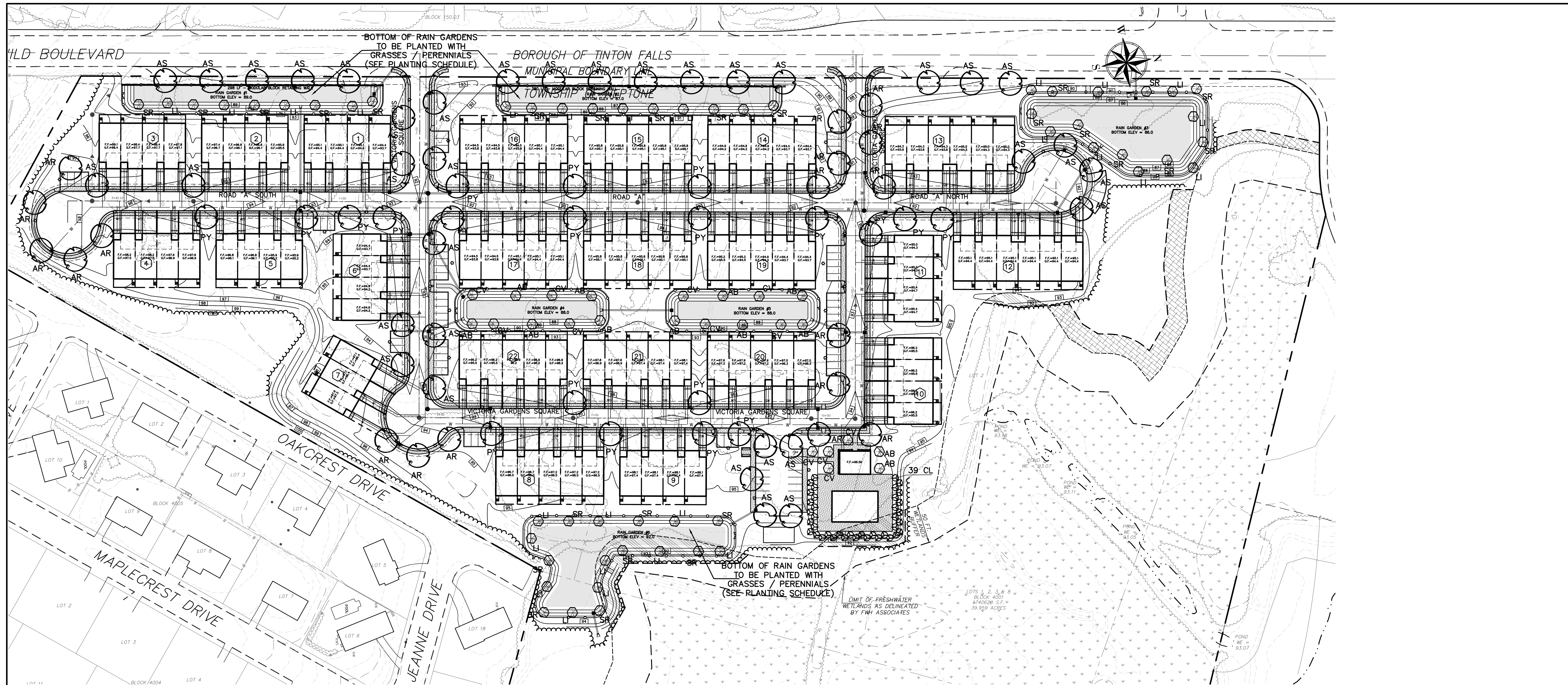
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WILLIAM A. STEVENS, P.E., P.P.
PROFESSIONAL ENGINEER, NEW JERSEY LIC. #39115
PROFESSIONAL PLANNER, NEW JERSEY LIC. #394

PRELIMINARY & FINAL MAJOR SUBDIVISION
LIGHTING PLAN
VICTORIA GARDENS
BLOCK 4001 - LOTS 1, 2 & 3
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY NEW JERSEY

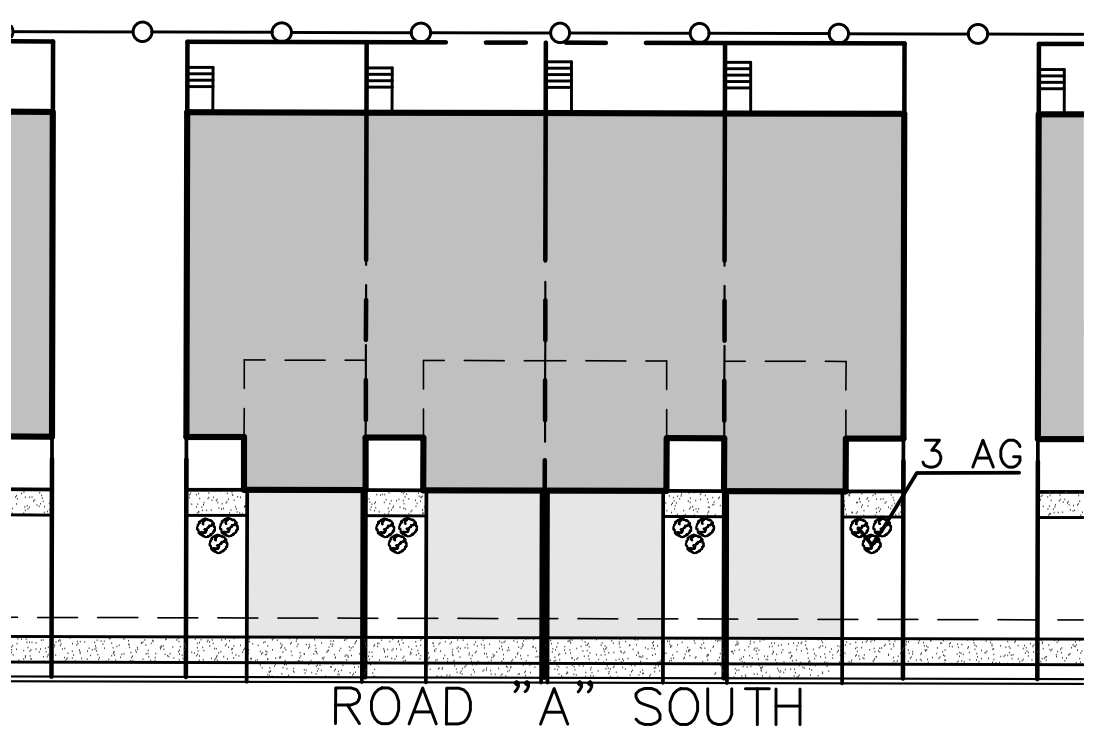
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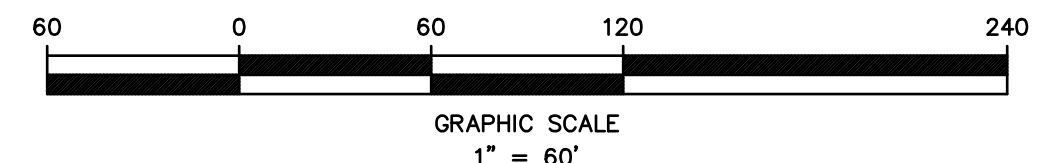
PLANTING SCHEDULE

BOTANICAL NAME	COMMON NAME	QUANTITY	CALIPER	NOTES
SHADE TREES				
AR Acer rubrum 'October Glory'	OCTOBER GLORY RED MAPLE	18	3" - 3 1/2"	B&B, LIMBED UP TO 7 FT., FALL DIG HAZARD--SPRING PLANTING ONLY
AS Acer saccharum 'Legacy'	GREEN MOUNTAIN SUGAR MAPLE	35	3" - 3 1/2"	B&B, LIMBED UP TO 7 FT.
PY Prunus x yedoensis 'Akebono'	AKEBONO YOSHINO CHERRY	20	3" - 3 1/2"	B&B, LIMBED UP TO 7 FT., FALL DIG HAZARD--SPRING PLANTING ONLY
ORNAMENTAL TREES				
AB Acer buergerianum 'Streetwise'	STREETWISE TRIDENT MAPLE	12	3" - 3 1/2"	B&B, SINGLE STEM, FALL DIG HAZARD--SPRING PLANTING ONLY
CV Crataegus viridis 'Winter King'	WINTER KING HAWTHORNE	12	3" - 3 1/2"	B&B, SINGLE STEM, FALL DIG HAZARD--SPRING PLANTING ONLY
LI Lagerstroemia indica	CREPE MYRTLE	27	3" - 3 1/2"	B&B, SINGLE STEM, FALL DIG HAZARD--SPRING PLANTING ONLY
SR Syringa reticulata 'Ivory Silk'	IVORY SILK JAPANESE LILAC	26	3" - 3 1/2"	B&B, SINGLE STEM
EVERGREEN TREES				
CL Cupressocyparis leylandii	LEYLAND CYPRESS	39	6" - 8"	B&B, FALL DIG HAZARD--SPRING PLANTING ONLY
SHRUBS				
AG Abelia x grandiflora 'Edward Goucher'	EDWARD GOUCHER ABELIA	303	30" - 36"	CAN
GRASSES / PERENNIALS				
CM Carex morrowii 'Aurea-variegata'	VARIEGATED JAPANESE SEDGE	15	15" - 18"	#1 CONT. - 18" ON CENTER
HS Hemerocallis 'Stella D'oro'	STELLA D'ORO DAYLILY	15	15" - 18"	#1 CONT. - 18" ON CENTER
IV Iris versicolor	BLUE FLAG	15	15" - 18"	#1 CONT. - 18" ON CENTER
JE Juncus effusus	SOFT RUSH	15	15" - 18"	#1 CONT. - 18" ON CENTER
LC Lobelia cardinalis	CARDINAL FLOWER	15	15" - 18"	#1 CONT. - 18" ON CENTER
RF Rudbeckia fulgida 'Goldstrum'	BLACK-EYED SUSAN	15	15" - 18"	#1 CONT. - 18" ON CENTER
SC Solidago 'Crown of Rays'	CROWN OR RAYS SOLIDAGO	15	15" - 18"	#1 CONT. - 18" ON CENTER

IN THE EVENT A DISCREPANCY OCCURS BETWEEN THE QUANTITIES SHOWN ABOVE AND WHAT IS GRAPHICALLY SHOWN ON THE PLANS, THE GRAPHICS SHALL TAKE PRECEDENCE.



TYPICAL BUILDING LANDSCAPING DETAIL
1" = 30"



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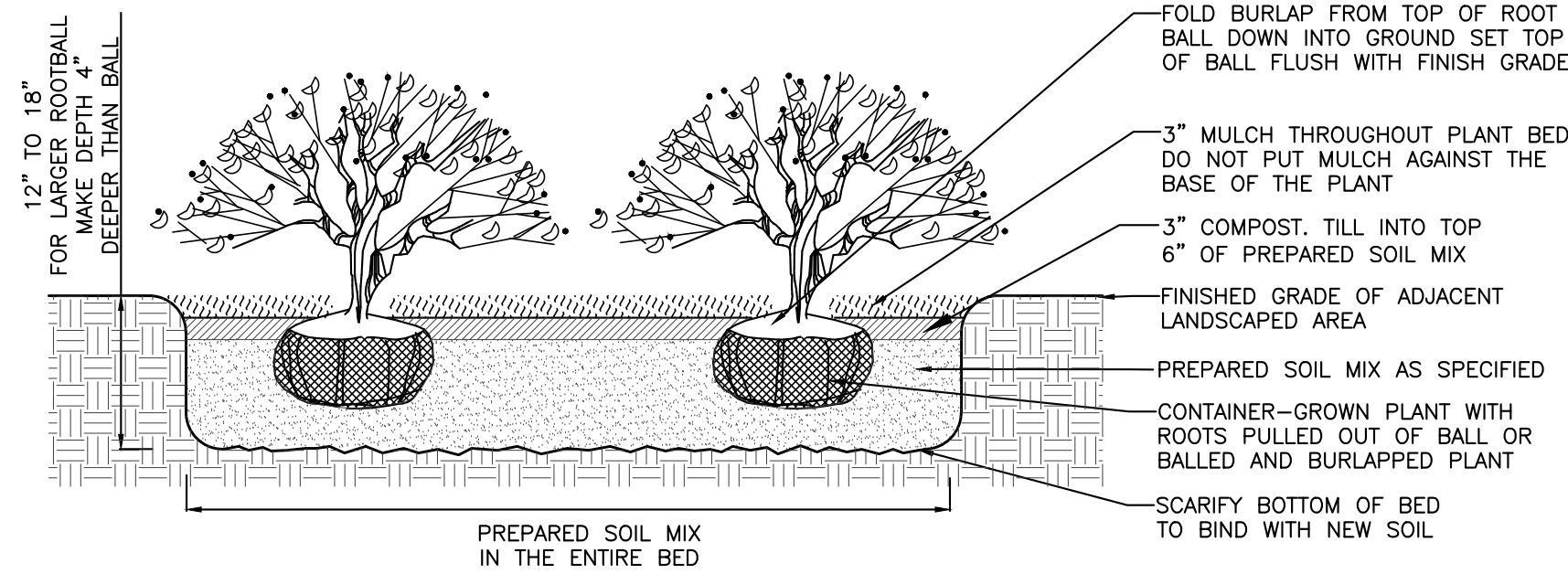
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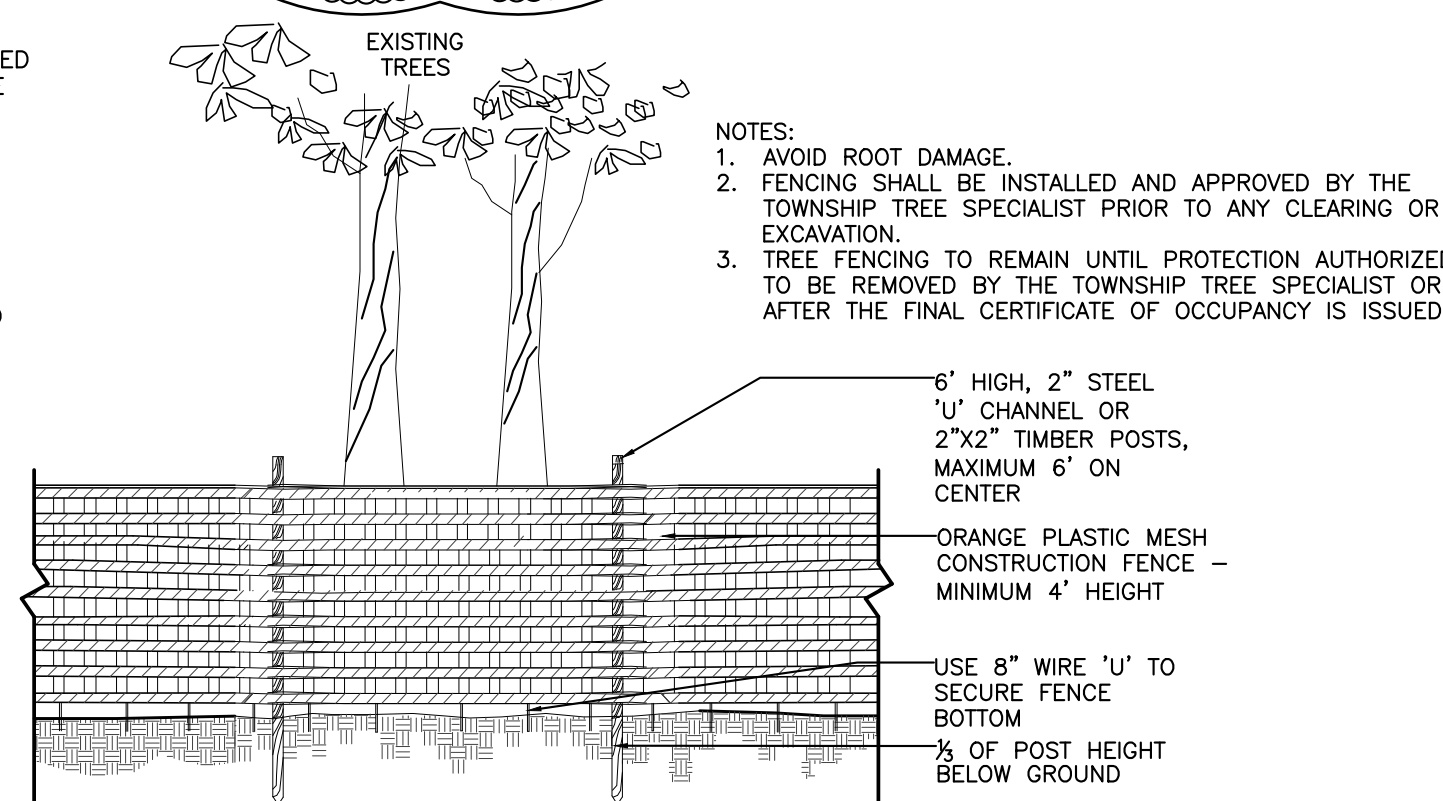
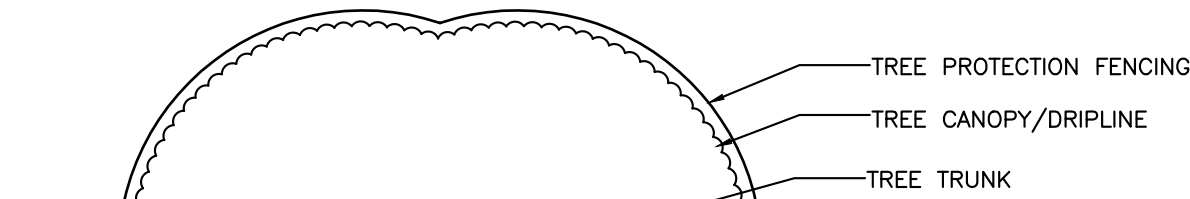
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LANDSCAPE PLAN
VICTORIA GARDENS
BLOCK 4001 - LOTS 1, 2 & 3
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY NEW JERSEY

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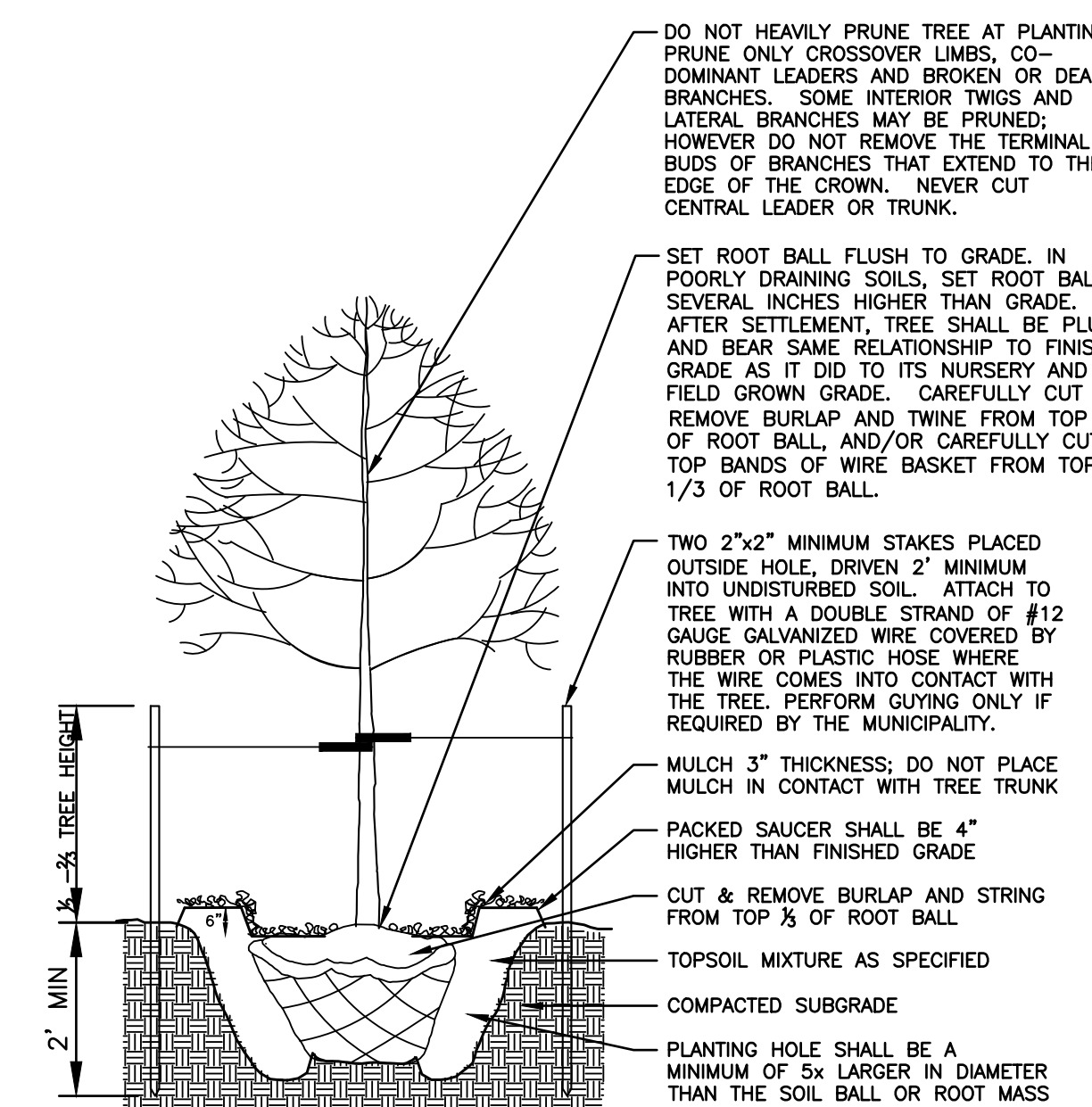


- NOTES:
1. PREPARED SOIL MIX: LOOSEN EXISTING SOIL IN ENTIRE PLANTING BED TO DEPTH SHOWN ON DETAIL. AMEND EXISTING SOIL AS REQUIRED TO PRODUCE A SATISFACTORY TOPSOIL OR SUPPLY WITH IMPORTED TOPSOIL TO RAISE GRADES AND MIX AS SPECIFIED
 2. ALL TREE BEDS SHALL PERCOLATE. NOTIFY ARCHITECT IF SUBSOIL CONDITIONS PREVENT WATER PERCOLATION.
 3. SHRUB SHALL BEAR SAME RELATION TO FINISH GRADE AS IT DID TO ITS NURSERY FIELD GROWN GRADE.
 3. FOR CONTAINER-GROWN SHRUBS, USE FINGER OR SMALL HAND TOOL TO PULL THE ROOTS OUT OF THE OUTER LAYER OF SOIL; THEN CUT OR PULL APART ANY ROOTS THAT CIRCULATE THE PERIMETER OF THE CONTAINER.

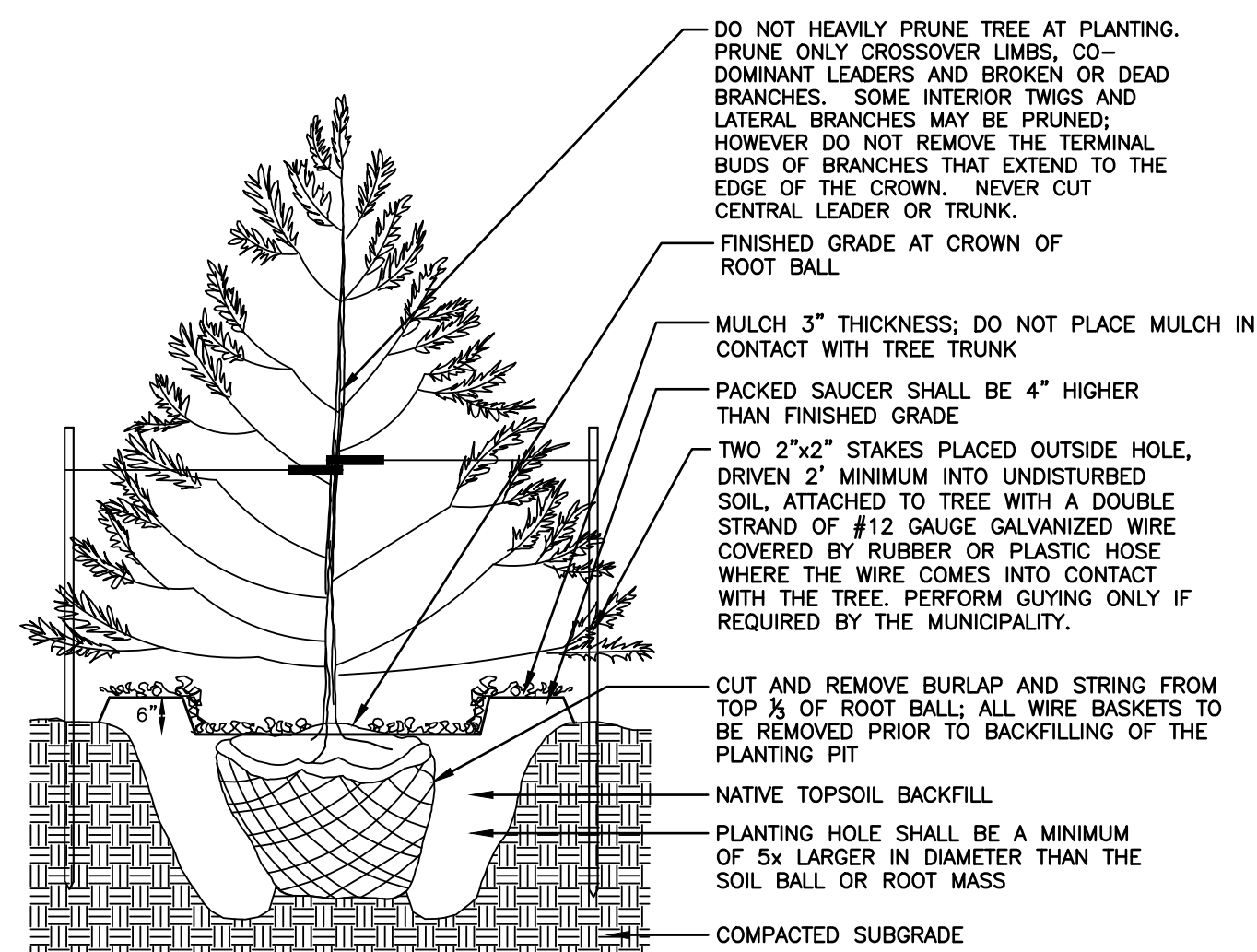
SHRUB PLANTING
NTS



TREE PROTECTION FENCING
NTS



TREE PLANTING
NTS



EVERGREEN TREE PLANTING
NTS

LANDSCAPE NOTES

1. GENERAL NOTES
- A. THIS PLAN SHALL BE UTILIZED FOR LANDSCAPE AND TREE SAVE USES ONLY. PLEASE REFER TO SITE PLANS FOR CONSTRUCTION OF SITE IMPROVEMENTS.
 - B. ALL TREES ARE DRAWN TO THEIR ANTICIPATED MATURE DRIPLINE.
 - C. CONTRACTOR SHALL EXAMINE DRAWINGS AND REQUEST A MARKOUT OF FIELD CONDITIONS FOR SPECIFIC LOCATIONS OF UTILITIES, STRUCTURES, ETC. NOTIFY THE ENGINEER IN WRITING IMMEDIATELY, IN REFERENCE TO DISCREPANCIES OR LOCATION CONFLICTS.
 - D. IN THE EVENT THAT PLANT QUANTITY DISCREPANCIES OR MATERIAL OMISSIONS OCCUR IN THE PLANTING SCHEDULE, THE PLAN SHALL SUPERSIDE.
 - E. ALL PLANTING MATERIAL AND METHODS SHALL MEET OR EXCEED THE REQUIREMENTS OF THE MUNICIPAL ORDINANCES OF THE TOWNSHIP OF NEPTUNE AND ANS 2-501 (CURRENT VERSION), "THE AMERICAN STANDARD FOR NURSERY STOCK," PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION. IN CONFLICTS BETWEEN A.N.L.A. AND MUNICIPAL STANDARDS, THE MUNICIPAL REQUIREMENTS SHALL SUPERSEDE.
 - F. ALL LANDSCAPING SHALL BE PLANTED SO AS TO NOT INTERFERE WITH UTILITY LINES, SIGHT TRIANGLES, UNDERGROUND UTILITIES, PUBLIC WALKWAYS OR OTHER EXISTING OR PROPOSED STRUCTURES. ALL PLANT MATERIAL PROPOSED WITHIN THE REQUIRED SIGHT DISTANCES OR SIGHT TRIANGLES ARE SELECTED SO AS TO NOT EXCEED A MATURE HEIGHT GREATER THAN 50' ABOVE THE ELEVATION OF THE ADJACENT ROADWAY. STREET TREES AND SHADE TREES PLANTED NEAR PEDESTRIAN OR VEHICULAR ACCESS, OR WITHIN REQUIRED SIGHT DISTANCES / SIGHT TRIANGLE EASEMENTS SHALL NOT BE BRANCHED ANY LOWER THAN 7' ABOVE GRADE, AND MUST BE APPROPRIATELY PRUNED. NO WOODY PLANTS, EXCEPT GROUNDCOVERS, ARE TO HAVE THEIR CENTERS CLOSER THAN 18" TO THE BRIM OF THE CURB. NO STREET TREES ARE TO BE PLANTED IN SIGHT TRIANGLES IN ACCORDANCE WITH THE TOWNSHIP OF NEPTUNE ORDINANCE.
2. PLANTING
- A. SOIL MUST BE FROST-FREE, FRIABLE AND NOT MUDDY AT THE TIME OF PLANTING.
 - B. BACKFILL MATERIAL FOR PLANTING PITS SHALL BE COMPOSED OF 90% TOPSOIL, AND UP TO 10% FULLY COMPOSTED ORGANIC LEAF MULL. TOPSOIL SHALL MEET NDOT 2007 STANDARD SPECIFICATIONS SECTION 917.01, AND MAY BE FROM ON-SITE OR IMPORTED SOURCES. SOIL SHALL CONTAIN NO ACIDIC MARL, NOR ANY LARGE STONES.
 - C. PLANTS SHALL BE SET TO ULTIMATE FINISHED GRADE SO THAT THEY WILL BE LEFT IN THE RELATIONSHIP TO THE SURROUNDING GROUND AS THEY HAD, PRIOR TO BEING DUG. IF EVIDENCE OF SATURATED SOILS IS ENCOUNTERED DURING EXCAVATION OF THE PLANTING PITS, UPON DIRECTION BY THE LANDSCAPE ARCHITECT, PLANTS SHALL BE SET SO THAT THEIR ROOT CROWNS ARE APPROXIMATELY THREE INCHES ABOVE THE FINAL GRADE, WITH TOPSOIL AND MULCH GENTLY MOUND TO AVOID EXCESSIVE DRYING AT THE SURFACE. UNDER NO CIRCUMSTANCES SHALL PLANTINGS AT RELATIVELY DRY LOCATIONS BE PERFORMED IN A MOUND MANNER.
 - D. THE CORD BINDING THE BALL OF ALL BALLED AND BURLAPPED (B&B) PLANTS SHALL BE CUT AND REMOVED, AND BURLAP ON THE UPPER 1/3 OF THE ROOT BALL SHALL BE REMOVED. PLANTS WITH SYNTHETIC NON-DEGRADABLE ROOT BALL WRAPS SHALL NOT BE ACCEPTABLE.
 - E. ALL WIRE BASKETS MUST BE REMOVED PRIOR TO PLANTING.
 - F. ALL PROPOSED TREES SHALL BE SET IN BEDS MULCHED TO THE LIMIT OF THEIR PLANTING PITS. EXCEPT AS NOTED ALL OTHER TYPES OF PLANTINGS SHALL BE SET IN CONTINUOUS, MASSES PLANTING BEDS, RATHER THAN ISOLATED INDIVIDUALS. ALL TREE AND SHRUB BEDS SHALL RECEIVE A 3" THICK APPLICATION OF A THOROUGHLY COMPOSTED ORGANIC MULCH FREE FROM ANY OBJECTIONABLE OR FOREIGN MATERIALS.
 - G. THE MULCH AT THE OUTER PERIMETER OF PLANTING PITS AND BEDS SHALL BE PREPARED SO THAT A 2" HIGH RIM TO RETAIN MOISTURE IS CONSTRUCTED. THE THICKNESS OF THE MULCH SHALL BE FEATHERED WITHIN 3" OF STEMS OR TRUNK, SO THAT NO MULCH IS IN DIRECT PHYSICAL CONTACT WITH THE PLANTS' BRANCHING OR TRUNKS. PLANTING OF GROUNDCOVERS MAY BE SUBSTITUTED FOR MULCH IN PARKING LOT ISLANDS.
 - H. TREES SHALL NOT BE GUYED, EXCEPT IF AND WHERE REQUIRED BY THE MUNICIPALITY; WHEREIN TREES GREATER THAN FIVE FEET IN HEIGHT MAY BE STAKED AND GUYED PER THE DETAILS.
3. PLANT MATERIAL
- A. NO PLANT SUBSTITUTION SHALL BE ALLOWED WITH REGARD TO SIZE, SPECIES, NAMED VARIETY OR CULTIVAR, WITHOUT PRIOR PERMISSION FROM THE TOWNSHIP TREE ENGINEER. ALL SUBSTITUTIONS SHALL BE SUBMITTED TO THE TOWNSHIP ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
 - B. ALL PLANTS SHALL BE DUG, PACKED, TRANSPORTED AND HANDLED WITH THE UTMOST CARE TO ENSURE ADEQUATE PROTECTION FROM INJURY DESICCATION.
 - C. ALL PLANTS SHALL BE FREE FROM DISEASE AND INFESTATION, AND ALL LEGALLY REQUIRED AGRICULTURAL CERTIFICATIONS.
 - D. ALL PLANTS SHALL BE PRUNED TO ENHANCE VIGOR PRIOR TO, OR UPON INSTALLATION, WHILE RETAINING NATURAL GROWTH HABIT OF THE PLANTS. THE CENTRAL LEADER SHALL NOT BE CUT; PLANTS PROVIDED IN THIS CONDITION SHALL NOT BE ACCEPTED. DAMAGED, BROKEN OR CONFLICTING BRANCHES SHALL BE PRUNED CLEANLY, FLUSH WITH THE MAIN TRUNK OR BRANCH.
 - E. ALL PLANTS SHALL BE NURSERY-GROWN AND TAGGED WITH A DURABLE LABEL INDICATING THE GENUS, SPECIES AND SPECIFIED VARIETY OR CULTIVAR.
4. MAINTENANCE
- A. ALL PLANTING SHALL BE WATERED AS NECESSARY FOR SOUND HORTICULTURAL PRACTICE DURING THE FIRST GROWING SEASON, TO ENSURE THEIR PROPER ESTABLISHMENT.
 - B. THE DEVELOPER SHALL BE REQUIRED TO REPLACE DEAD OR DYING PLANT MATERIAL FOR A PERIOD OF TWO (2) YEARS FROM THE DATE OF ISSUANCE OF A FINAL ZONING PERMIT FOR OCCUPANCY AND SHALL POST A MAINTENANCE GUARANTEE FOR SUCH PURSUANT TO ARTICLE X OF THE TOWNSHIP OF NEPTUNE LAND DEVELOPMENT ORDINANCE.
 - C. IN GENERAL, SHRUBS ARE TO BE PLANTED AT INTERVALS WHICH WILL ALLOW THEM TO FULLY DEVELOP INTO CONTINUOUS MASSES OF THE INDIVIDUAL SPECIES. SHEARING OR SHAPING IS ONLY REQUIRED OR DESIRABLE WHERE DEAD OR CONFLICTING BRANCHING DEVELOPS.
 - D. STAKING AND GUYING, IF AND WHERE USED, SHALL BE REMOVED AFTER THE FIRST GROWING SEASON, TO ENSURE UNENCUMBERED GROWTH.
 - E. A PERMANENT IRRIGATION SYSTEM SHALL BE INSTALLED TO ENSURE PROPER ESTABLISHMENT AND MAINTENANCE OF ALL PLANTINGS. THE APPLICANT SHOULD ADDRESS THE BOARD REGARDING THEIR PLANS TO PROVIDE IRRIGATION WATER TO THE SITE.
5. MISCELLANEOUS
- A. NO TOPSOIL SHALL BE REMOVED FROM THE SITE OR USED AS SPOIL. TOPSOIL MOVED DURING THE COURSE OF CONSTRUCTION SHALL BE REDISTRIBUTED SO AS TO PROVIDE AT LEAST FOUR (4) INCHES OF SPREAD COVER TO ALL SEEDING AND PLANTING AREAS OF THE SITE AND SHALL BE STABILIZED BY SEEDING OR PLANTING. IN THE EVENT THAT THE QUANTITY OF TOPSOIL AT THE SITE IS INSUFFICIENT TO PROVIDE FOUR (4) INCHES OF COVER FOR ALL SEEDING AND PLANTING AREAS, THE DEVELOPER SHALL PROVIDE SUCH A COVER. TOPSOIL SHALL BE APPROVED BY THE TOWNSHIP ENGINEER.
 - B. TOPSOIL SHALL BE PROVIDED ON ALL LAWN AND PLANTING AREAS. TOPSOIL SHALL EITHER BE EXISTING MATERIAL THAT HAS BEEN STRIPPED AND STOCKPILED FOR REUSE OR NEWLY FURNISHED MATERIAL.
 - C. STREET AND PARKING LOT TREES SHALL HAVE NO BRANCHES LOWER THAN 7' ABOVE GRADE.
 - D. ALL DEAD OR SEVERELY DECLINING PLANTS SHALL BE REPLANTED WITHIN THE NEXT GROWING SEASON DURING PERFORMANCE AND MAINTENANCE BOND PERIODS.
 - E. THE TREE PROTECTION FENCING SHALL BE INSTALLED AND APPROVED BY THE TOWNSHIP ENGINEER PRIOR TO ANY CLEARING OR EXCAVATION. TREE FENCING TO REMAIN UNTIL PROTECTION AUTHORIZED TO BE REMOVED BY THE TOWNSHIP ENGINEER OR AFTER THE FINAL CERTIFICATE OF OCCUPANCY IS ISSUED.
 - F. THE EXISTING SITE IS AN OPERATING LANDSCAPE NURSERY. THE LANDSCAPE PLAN IS INTENDED TO UTILIZE THE EXISTING NURSERY STOCK WHEREVER POSSIBLE.
 - G. THE LANDSCAPING INSTALLED IN THE VICINITY OF THE STRUCTURAL RETAINING WALL IS APPROPRIATE FOR THE LOCATION AND DOES NOT HAVE A ROOT SYSTEM THE WILL IMPAIR THE INTEGRITY OF THE RETAINING WALL.

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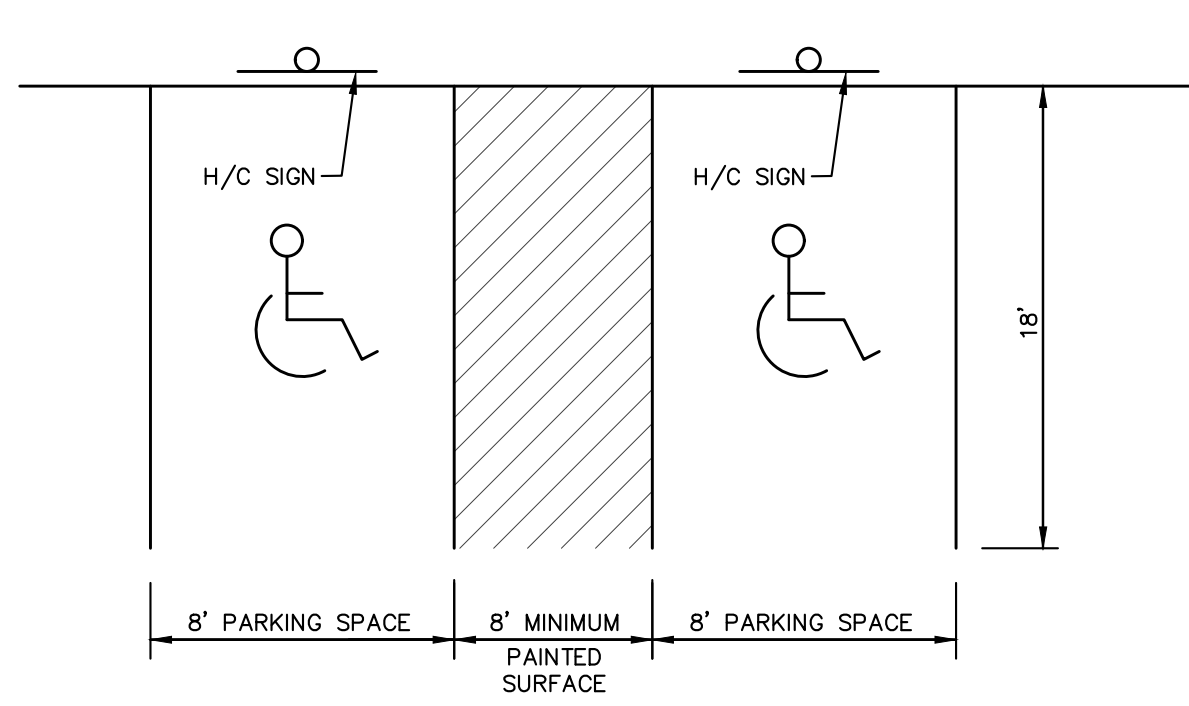
NO.	DATE	DESCRIPTION	BY

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NEW JERSEY STATE BOARD OF P.E. & L.S.
CERTIFICATE OF AUTHORIZATION NO. 246A28125400

WILLIAM A. STEVENS, P.E., P.P.
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PROFESSIONAL PLANNER, NEW JERSEY LIC. #3794

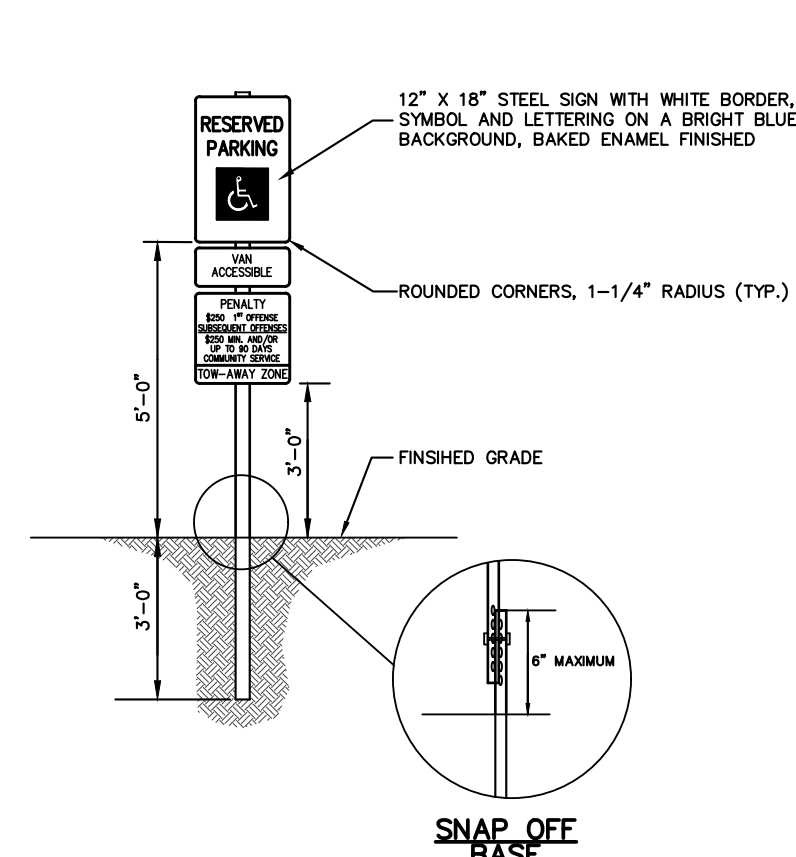
PRELIMINARY & FINAL MAJOR SUBDIVISION
LANDSCAPING DETAILS
VICTORIA GARDENS
BLOCK 4001 - LOTS 1, 2 & 3
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY NEW JERSEY

SCALE:	DATE:	JOB NUMBER:	SHEET
NOT TO SCALE	MAY 25, 2021	321644	17
DRAWN BY:	DESIGNED BY:	CHECKED BY:	
SDC	IMB	WAS	31

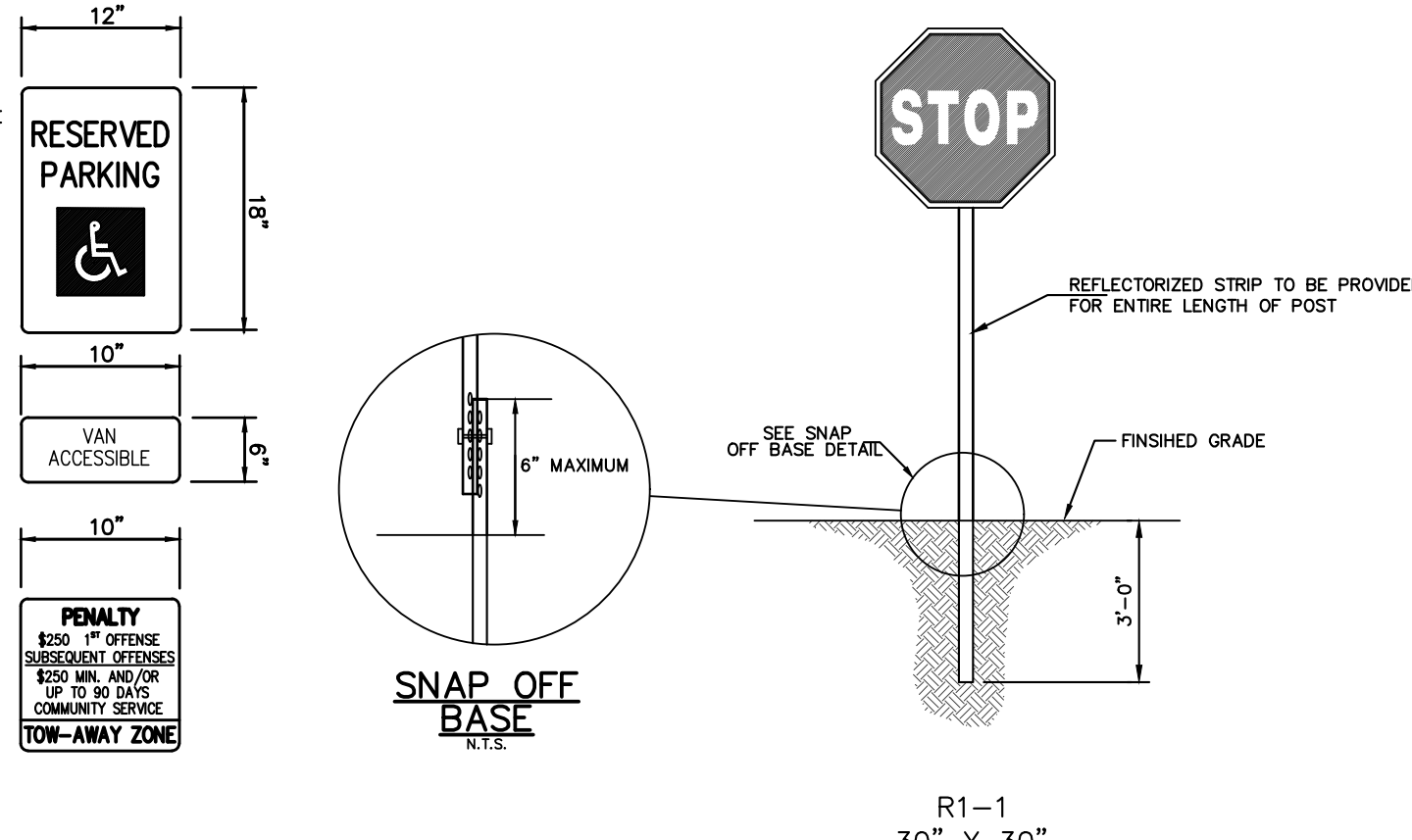


NOTE:
ALL HANDICAP SYMBOLS AND PARKING SPACE DIVIDERS SHALL BE PAINTED USING FOUR (4) INCH BLUE STRIPING.

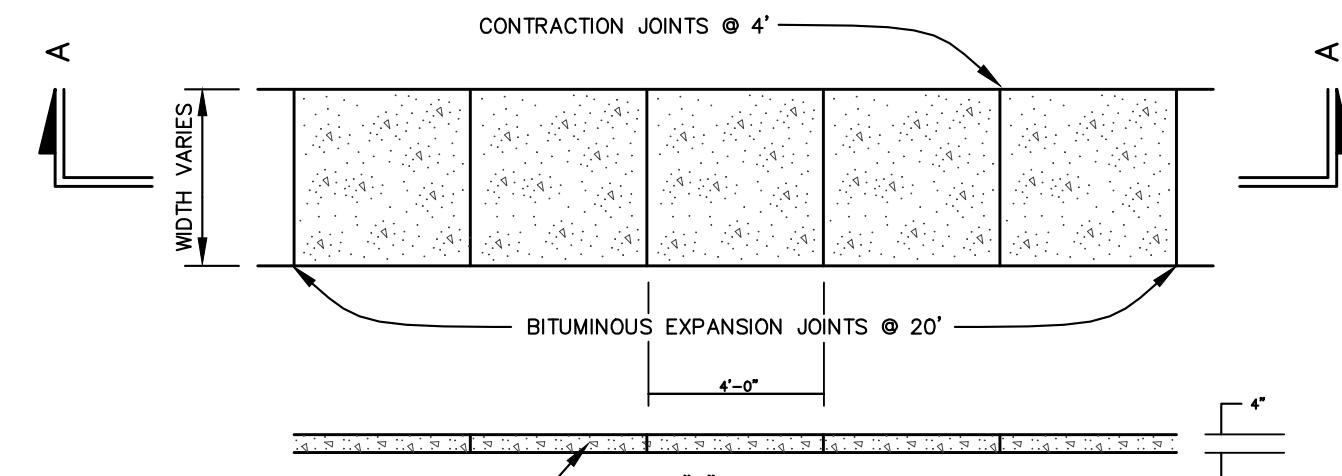
HANDICAP PARKING SPACE
N.T.S.



HANDICAPPED PARKING SPACE SIGN DETAIL
N.T.S.



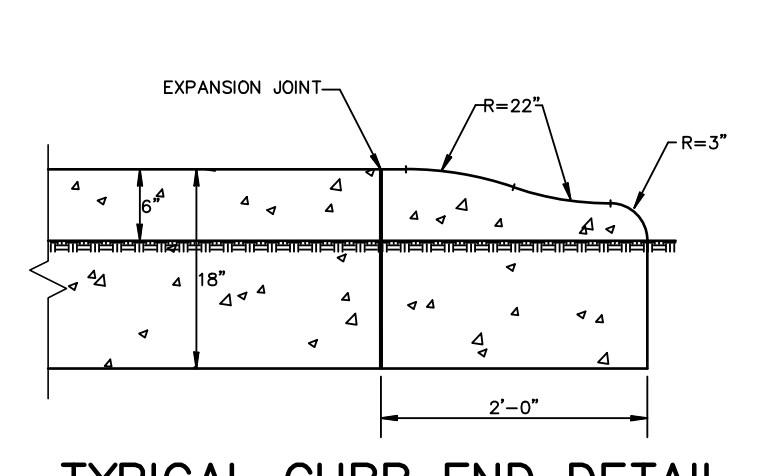
STOP
REFLECTORIZED STRIP TO BE PROVIDED FOR ENTIRE LENGTH OF POST
R1-1
30" X 30"
SIGN DETAILS
N.T.S.



SIDEWALK NOTES:
1. A PREFORMED, BITUMINOUS EXPANSION JOINT 1/2" THICK, 4" WIDE AND EXTENDING THE FULL WIDTH OF THE WALK, UNBROKEN, SHALL BE INSTALLED EVERY 20 FEET. CONTRACTION JOINTS SHALL BE INSTALLED EVERY 4 FEET THE FULL WALK WIDTH.
2. THERE SHALL BE A BROOM FINISH WITH THE EDGES FINISHED WITH A SUITABLE TOOL.
3. SIDEWALKS OF CONCRETE SHALL BE FOUR INCHES THICK EXCEPT AT POINTS OF VEHICULAR CROSSING WHERE THEY SHALL BE AT LEAST SIX INCHES THICK. AT VEHICULAR CROSSINGS, CONCRETE SIDEWALKS SHALL BE REINFORCED WITH WELDED WIRE FABRIC MESH OR AN EQUIVALENT.

SECTION "A-A"
SIDEWALK DETAIL
N.T.S.

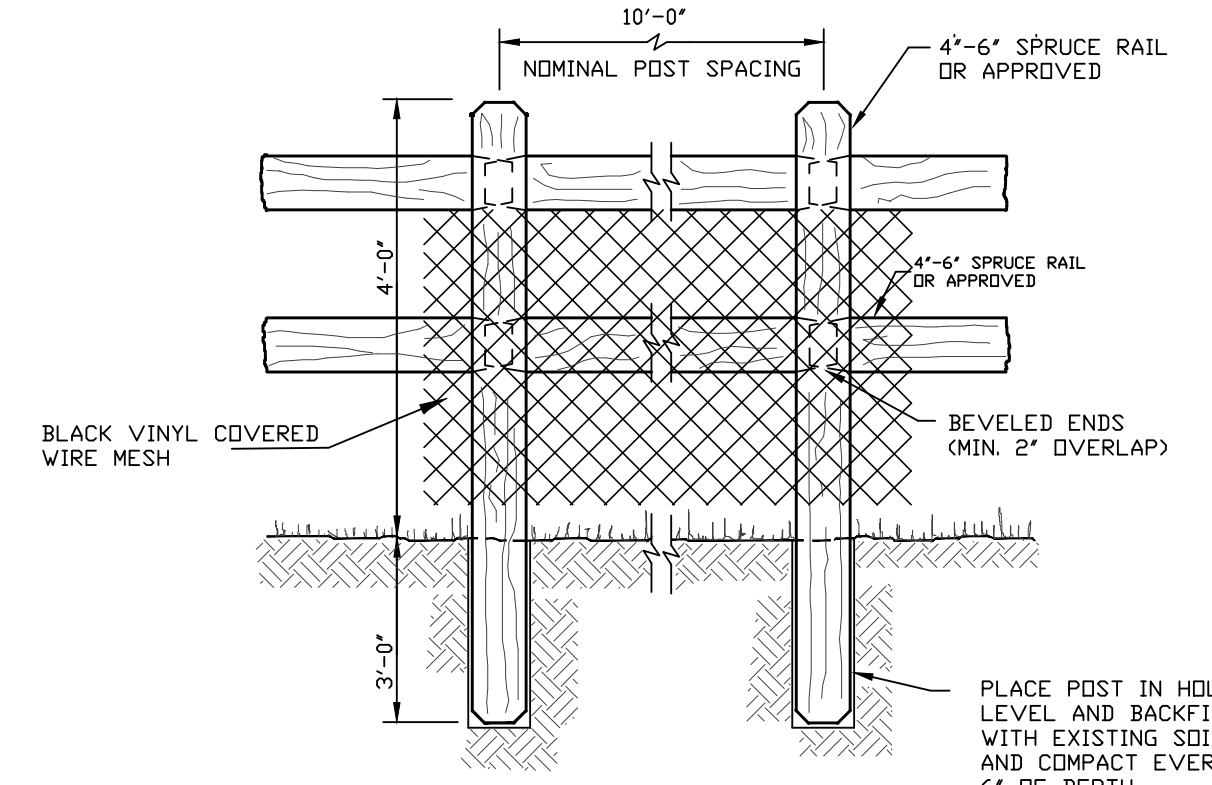
NOTES:
1. CONCRETE TO BE 4,500 P.S.I. @ 28 DAYS
2. PROVIDED PREFORMED BITUMINOUS FIBER EXPANSION JOINTS, 1/2" THICK AT 20'-0" (MAX.) INTERVALS. PROVIDE DUMMY JOINTS (FORMED) MIDWAY BETWEEN EXPANSION JOINTS



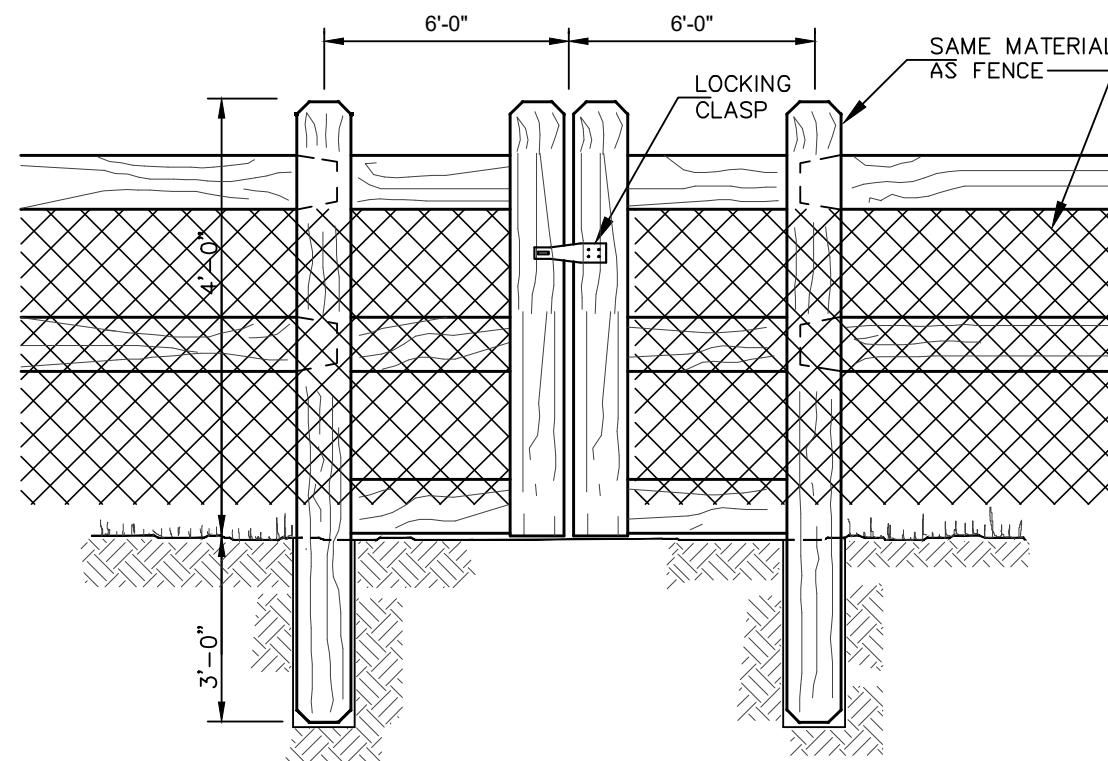
TYPICAL CURB END DETAIL
N.T.S.

- NOTES:**
1. GEGRID REINFORCING SHALL BE INSTALLED WHERE EXPOSED WALL HEIGHT EXCEEDS 4 FEET. GEGRID SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
 2. THE FINAL DESIGN OF THE WALL MUST BE PROVIDED PRIOR TO OBTAINING ANY CONSTRUCTION PERMITS.
 3. STRUCTURAL CALCULATIONS TO BE SUBMITTED FOR REVIEW AND APPROVAL.

8'-0"

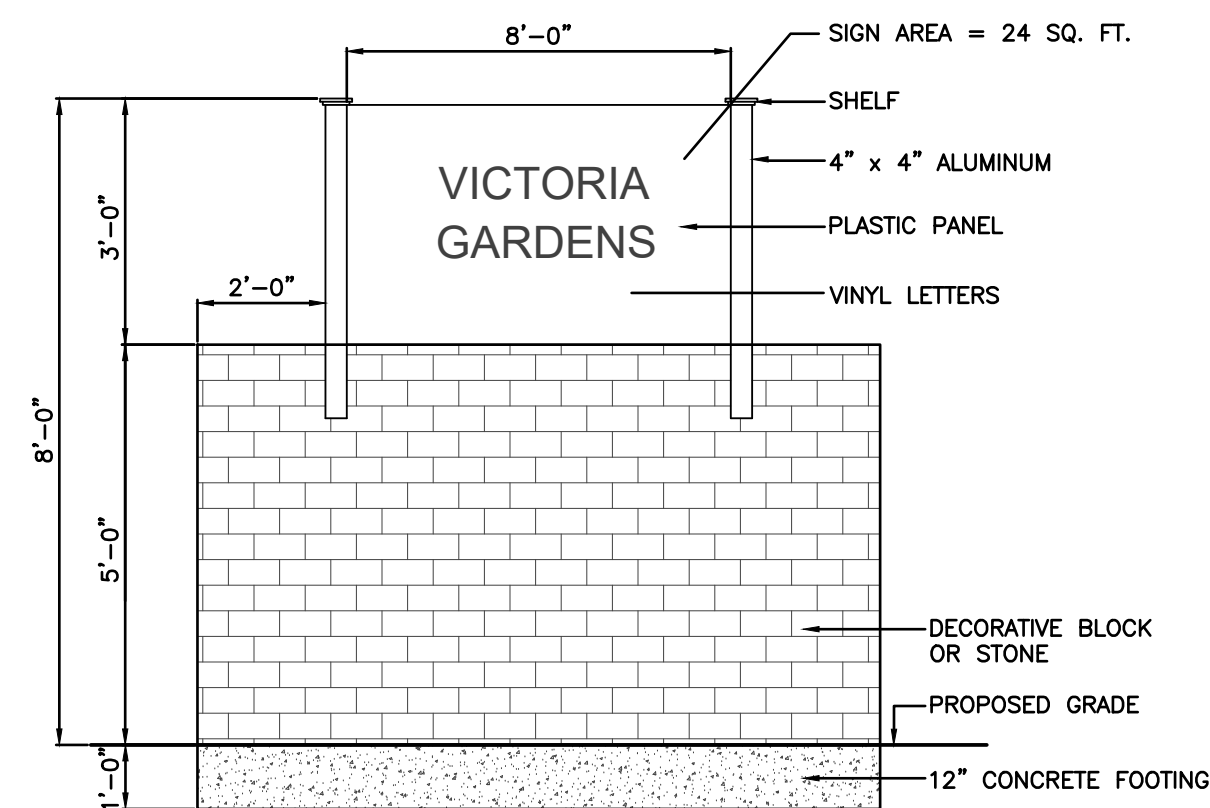


POST & RAIL FENCE



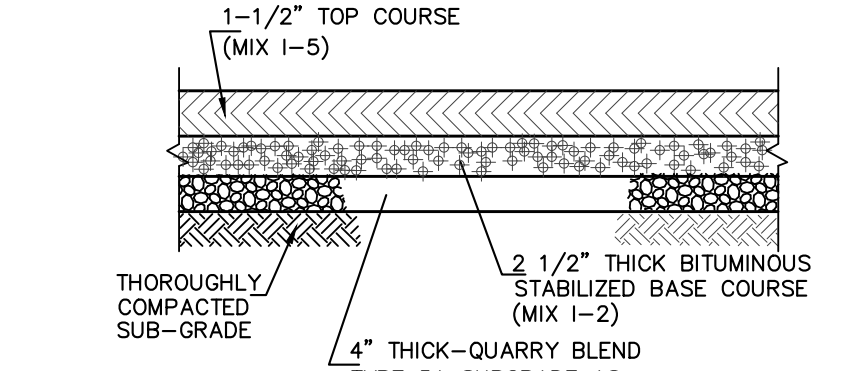
POST & RAIL GATE

POST & RAIL FENCE
N.T.S.

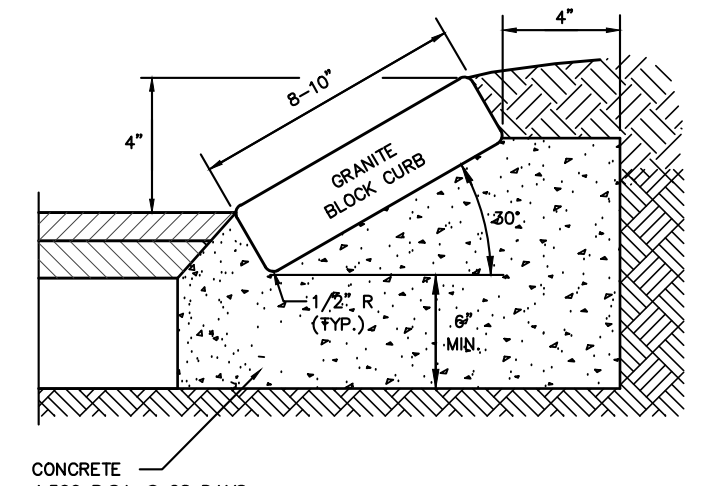


SITE IDENTIFICATION SIGN DETAIL

- SIGNS - SECTION 416**
1. EACH BUILDING WILL CONTAIN A RESIDENTIAL DIRECTORY NAMEPLATE SIGN INDICATING THE UNIT ADDRESS WHICH SHALL NOT EXCEED FIVE (5) INCHES.
 2. EACH BUILDING WILL CONTAIN TWO (2) WALL SIGNS IDENTIFYING THE NAME OR NUMBER OF THE MULTI-FAMILY STRUCTURE WITH A SIZE NOT TO EXCEED TWO (2) SQUARE FEET PER SIGN.
 3. A TYPE A FREE STANDING SIGN IS PROPOSED ALONG WAYSIDE ROAD TO SERVE AS A PROJECT IDENTIFICATION SIGN. MINIMUM TEN (10) FEET.

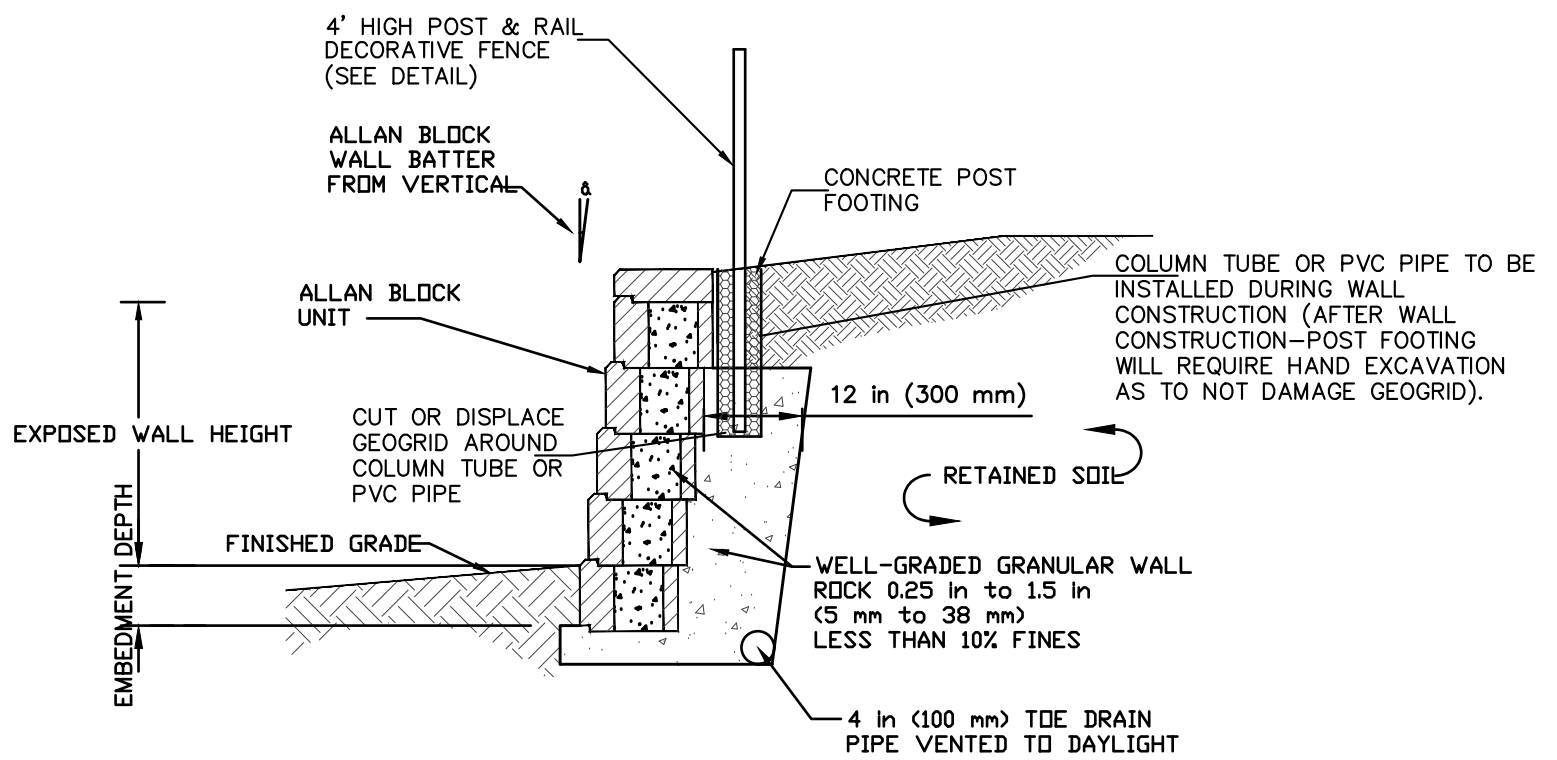


TYPICAL PAVEMENT SECTION (PARKING SPACES & DRIVE AISLES)

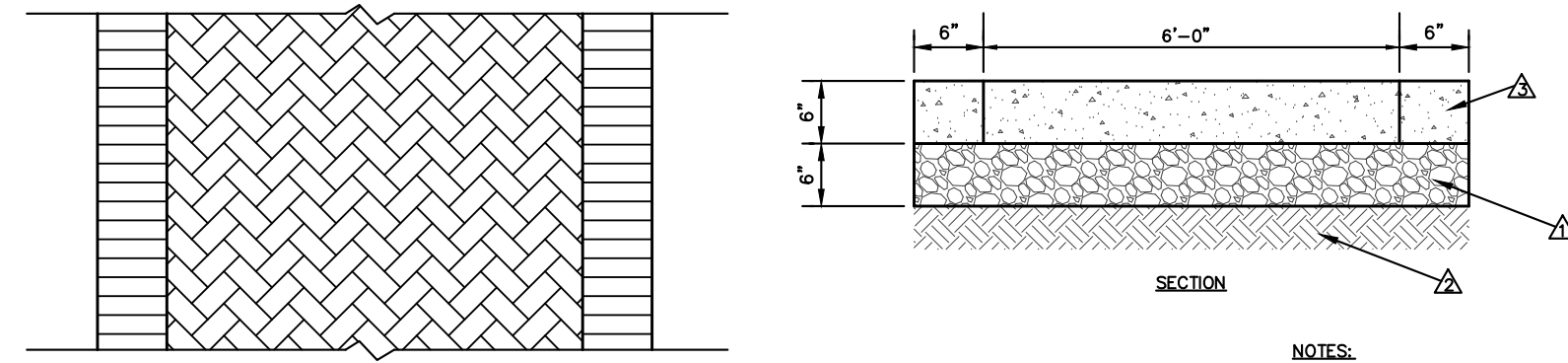


SLOPING GRANITE BLOCK CURB DETAIL
N.T.S.

- NOTE:**
1. EXPANSION JOINTS SHALL BE PROVIDED AT 20' INTERVALS WITH CONSTRUCTION JOINTS BEING PROVIDED AT 10' INTERVALS.
 2. TAPER CURB 10' EITHER SIDE OF STORM DRAINAGE INLETS TO MATCH GRATE & CURB PIECE.

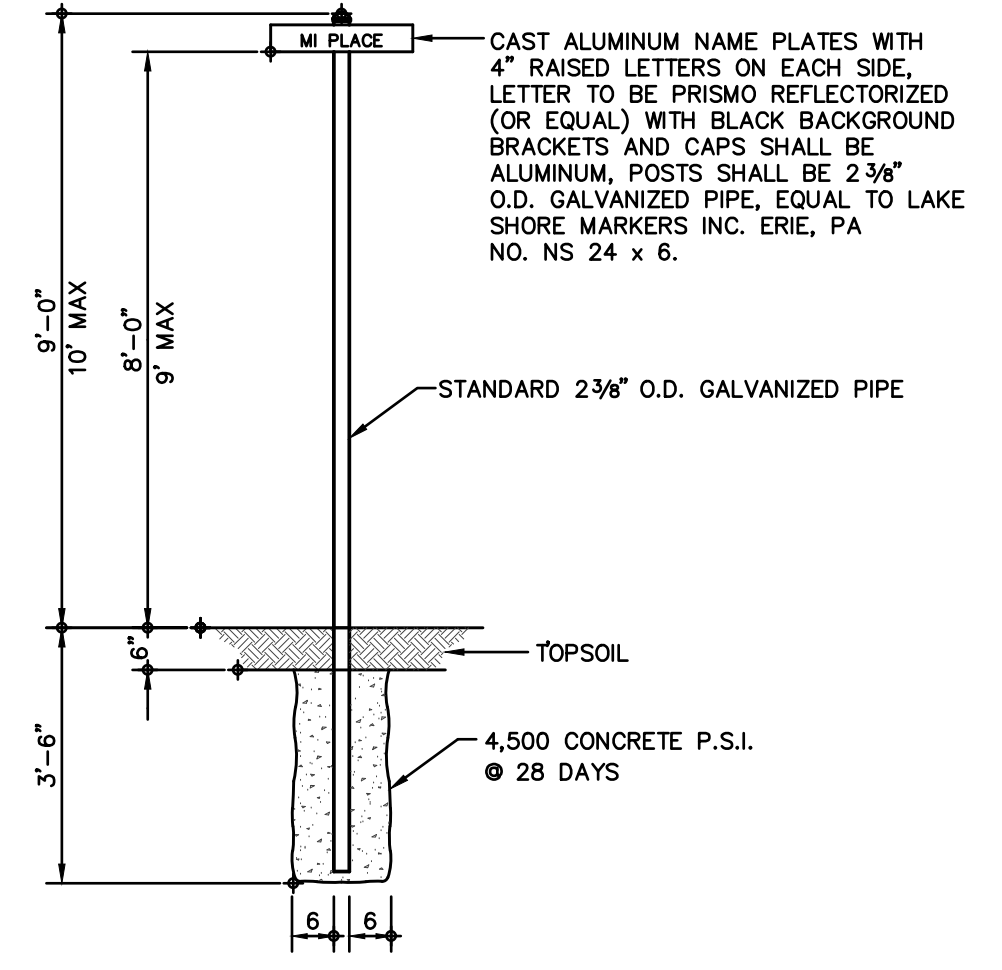


LANDSCAPE ALLAN BLOCK RETAINING WALL TYPICAL SECTION
N.T.S.



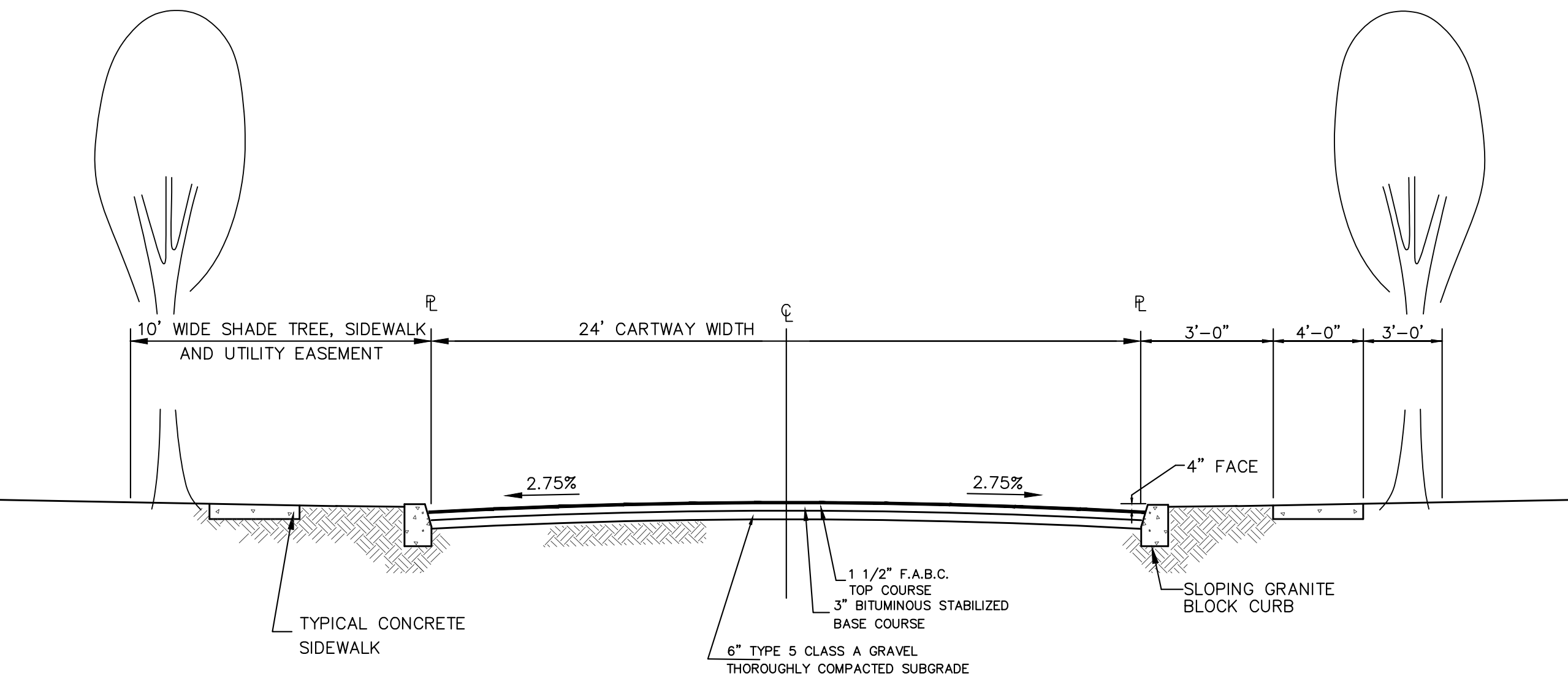
CROSSWALK STAMPED CONCRETE
(SEE SITE LAYOUT PLAN FOR LOCATION)

- NOTES:**
- ▲ 6" THK. TYPE 2 CL. B AGGREGATE BASE COMPACTED TO 95% DRY DENSITY.
 - ▲ SUBGRADE PREPARED AND COMPACTED TO 90% MIN. COMPACTION.
 - ▲ STAMPED P.C. CONC. 4000 P.S. DOUBLE SOLDIER COURSE, COLORED DARK RED.



TYPICAL STREET SIGN DETAIL

Street name signs. Street name signs shall be placed at all street intersections within or abutting the development. Street signs shall identify all cross streets at all intersections. The type, style and location of such signs shall be as approved by the Township Engineer.



TYPICAL ROAD SECTION
N.T.S.

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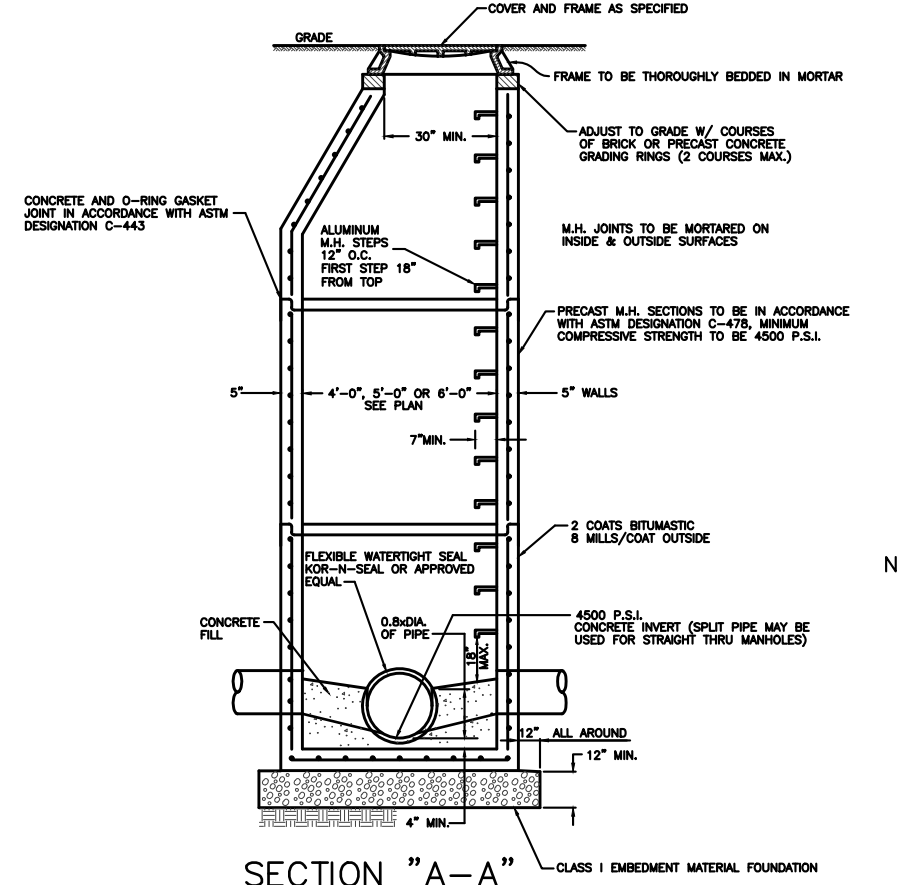
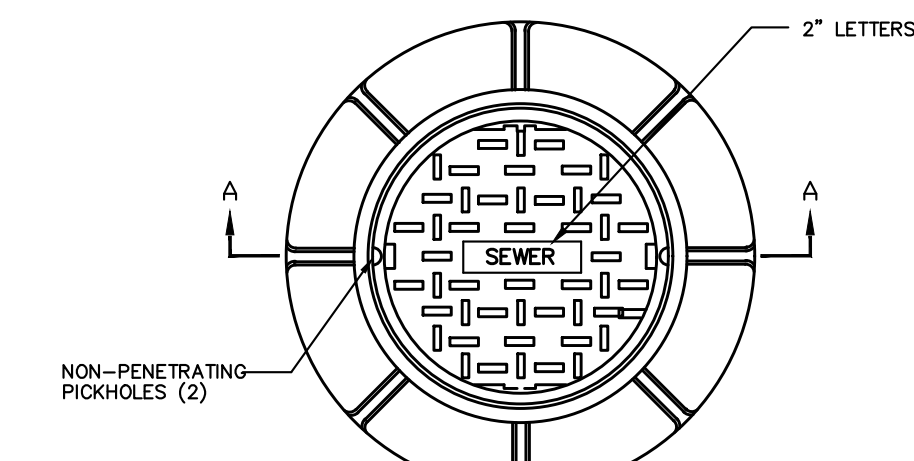
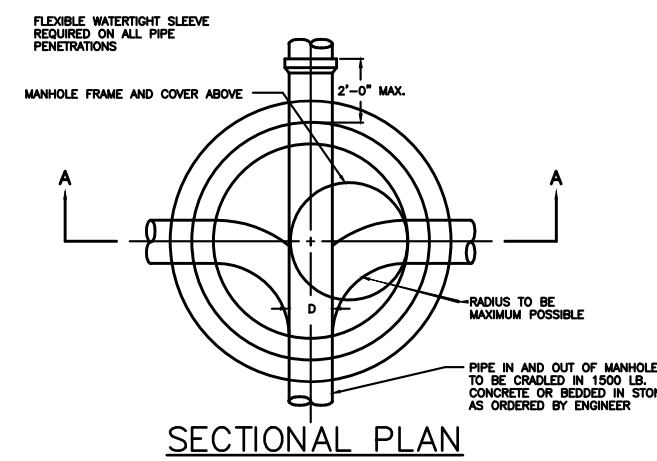
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NEW JERSEY STATE BOARD OF P.E. & L.S.
CERTIFICATE OF AUTHORIZATION NO. 24G28125400

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PRELIMINARY & FINAL MAJOR SUBDIVISION
CONSTRUCTION DETAILS
VICTORIA GARDENS
BLOCK 4001 - LOTS 1, 2 & 3
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY NEW JERSEY

SCALE:	NOT TO SCALE	DATE:	MAY 25, 2021	JOB NUMBER:	321644	SHEET	18
DRAWN BY:	SDC	DESIGNED BY:	IMB	CHECKED BY:	WAS		31

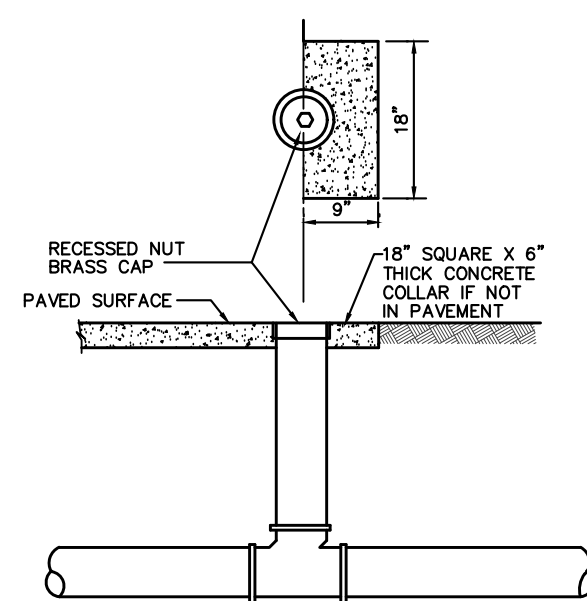


- NOTES:
- STANDARD MANHOLE FRAME AND COVER SHALL BE PATTERN N012028 AS MANUFACTURED BY THE CAMPBELL FOUNDRY CO. OR APPROVED EQUAL.
 - MANHOLE FRAME AND COVER TO BE HEAVY DUTY, CONFORMING TO A.S.T.M. SPECIFICATION A-48 CLASS 30-B WITH SHOP COAT OF ASPHALTIC PITCH.

STANDARD SANITARY MANHOLE
FRAME & COVER
NOT TO SCALE

COLUMNS	TABLE OF TRENCH WIDTHS			
	2	3	4	5
PIPE DIA.	SPEC. WIDTH	TO 1/4 POINT	TO 1/2 POINT	CONCRETE CRADLE
6-8"	2'-6"	3'-0"	3'-0" TO 4'-0"	OVER 4'-0"
10-12"	3'-0"	3'-6"	3'-6" TO 5'-0"	OVER 5'-0"
16-24"	3'-6"	4'-0"	4'-0" TO 5'-6"	OVER 5'-6"

- NOTES:
- ALL TRENCHES & EXCAVATIONS TO BE GIVEN THE STEEPEST SIDE SLOPE POSSIBLE.
 - IF THE WIDTH OF THE TRENCH AT OR BELOW THE OUTSIDE TOP OF THE PIPE EXCEEDS THE TRENCH WIDTH IN COLUMN 2, THE SPACE BETWEEN THE PIPE AND THE SIDE OF THE TRENCH OR SHEETING SHALL BE BACKFILLED WITH CLEAN WELL GRADED SAND OR SELECT MATERIAL 1-2 BEDDING TO THE 1/4 POINT OF THE PIPE. IF THE TRENCH WIDTH EXCEEDS THE WIDTH IN COLUMN 3, THE CLEAN WELL GRADED SAND OR SELECT MATERIAL 1-2 SHALL BE BROUGHT UP TO THE 1/2 POINT OF THE PIPE. IF THE TRENCH WIDTH EXCEEDS THE WIDTH IN COLUMN 4, THE CONTRACTOR SHALL PROVIDE A CLASS 'B' CONCRETE CRADLE INSTEAD OF CLEAN WELL GRADED SAND OR SELECT MATERIAL 1-2 BEDDING TO THE 1/2 POINT OF THE PIPE, 20" DIAMETER OR SMALLER.
 - COMPACTED BACKFILL SHALL BE AS A MINIMUM 90% OF THE MAXIMUM DRY DENSITY OF SOIL AS DETERMINED BY A.S.T.M. D-1557. (MODIFIED PROCTOR DENSITY.)
 - COMPACTION OF THE TOP 2 FEET OF THE TRENCH (SURFACE ZONE) UNDER AREAS TO BE PAVED SHALL ACHIEVE AS A MINIMUM 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY A.S.T.M. D-1557.
 - SUITABLE BACKFILL MATERIAL SHALL BE SELECT MATERIAL 1-2 (N.J.D.O.T.) WHEN ONSITE SUITABLE MATERIAL IS NOT AVAILABLE.
 - CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE O.S.H.A., OTHER GOVERNMENTAL AGENCIES AND/OR REGULATIONS HAVING JURISDICTION OVER TRENCH DEPTHS AND SIDE SLOPES.



- NOTES:
- AT LEAST ONE CLEANOUT MUST BE PROVIDED ON EACH LAYOUT.
 - A CLEANOUT WILL BE PROVIDED FOR EACH LATERAL BETWEEN THE CURB AND THE SIDEWALK.
 - IN GENERAL, OWNERSHIP AND MAINTENANCE OF LATERALS AND CLEANOUTS WILL BE THE RESPONSIBILITY OF THE PROPERTY OWNER.
 - THE LOCATION OF ALL CLEANOUTS MUST BE APPROVED BY THE TOWNSHIP PLUMBING DEPT.
 - ALL CLEANOUTS MUST BE PROTECTED WITH COB BOXES.
- STANDARD CLEANOUT**
N.T.S.

PRECAST STANDARD MANHOLE DETAIL

MANHOLE NOTES

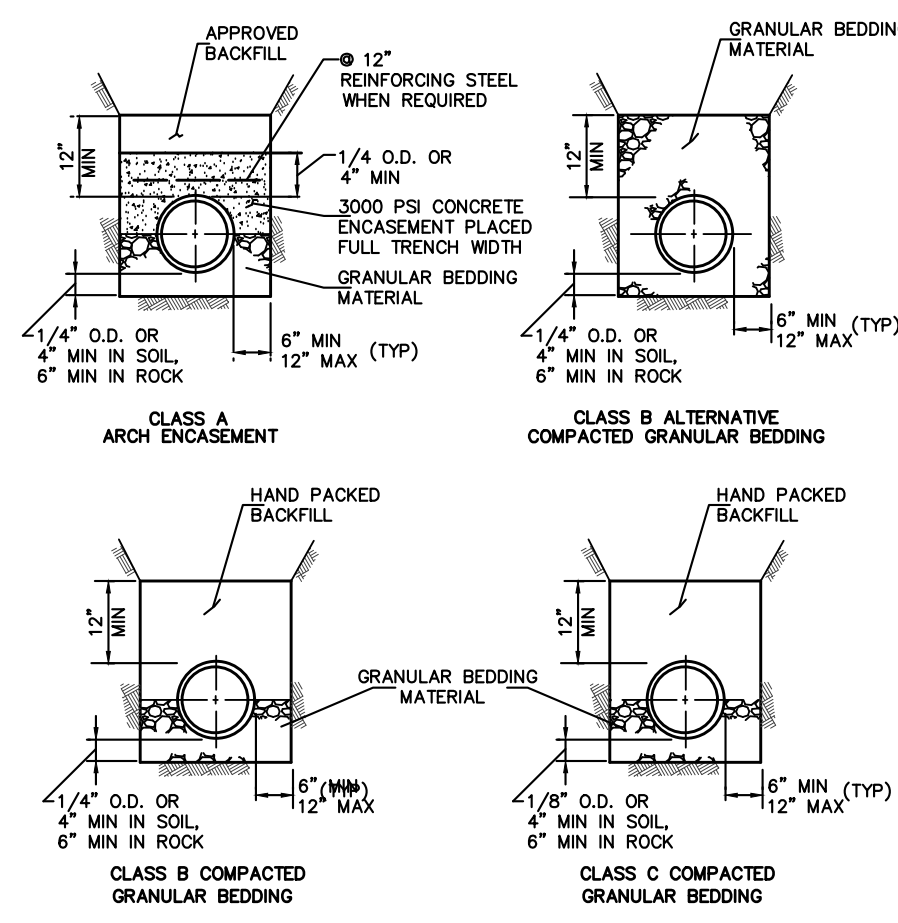
- PRECAST CONCRETE MANHOLE (ASTM C-478)
- WHERE TYPE 'B' AND 'C' BASES ARE USED A TAPER SECTION CONNECTING BASE SECTION AND RISER SHALL BE REQ'D AND SHALL HAVE A THICKNESS AS SHOWN. THE BASE SECTION AND RISER ALLOW FOR AT LEAST 6 FOOT MINIMUM VERTICAL CLEARANCE WHERE POSSIBLE.
 - BASES TO BE TYPE 'A' FOR SEWERS UNDER 24" DIA., TYPE 'B' FOR SEWERS 24" TO 36" DIA., AND TYPE 'C' FOR SEWERS 36" TO 48" DIA.

- MANHOLE STEPS
- ALUMINUM MANHOLE STEPS SHALL BE ALDGA 12653, ALLDY 6061-T6 DROPT FRONT DESIGN, OR APPROVED EQUAL.
 - THE PORTION TO BE IMBEDDED IN THE MANHOLE SHALL BE COATED WITH COLD TAR PITCH OR OTHER APPROVED MATERIAL AND SHALL BE IN ACCORDANCE WITH THE LATEST O.S.H.A. STANDARD.

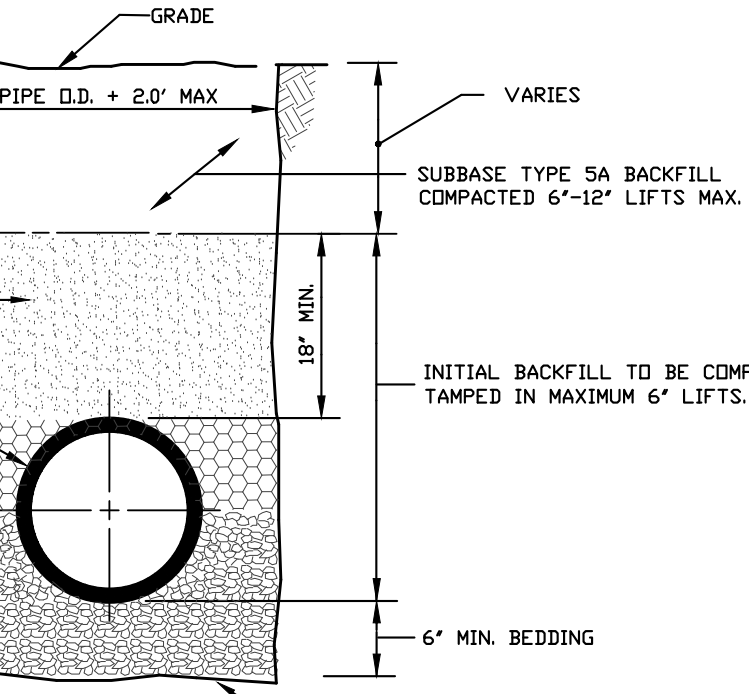
- WORK AT EXISTING MANHOLES
- AT THE DIRECTION OF THE ENGINEER, THE CONTRACTOR SHALL CUT INTO THE MANHOLE AND COMPLETE A CONNECTION USING A SUITABLE ADAPTOR AS REQ'D.
 - THE CONTRACTOR SHALL NOT INTERFERE WITH EXISTING SEWERAGE SERVICE DURING THE PERIOD OF CONSTRUCTION AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO KEEP DEBRIS OUT OF MANHOLE.

- GENERAL MANHOLE NOTES
- SEWER PIPE AT MANHOLES SHALL BE IMBEDDED IN CLASS 'B' CONCRETE UP TO THE FIRST JOINT OR TO FIRM BEDDING.
 - SHORTS SHALL BE USED AT MANHOLES (6" MIN).
 - EXTERIOR SURFACES SHALL BE PAINTED WITH TWO COATS OF 18 MIL TOTAL COAL TAR EPOXY C-2006(G) OR SSPC - PAINT 16.
 - ALL CONSTRUCTION SHALL MEET STANDARD SPECIFICATIONS, THE LATEST REVISIONS.
 - ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST D.S.H.A. STANDARD, WHERE POSSIBLE.
 - MINIMUM COMPRESSIVE STRENGTH OF CONCRETE FOR ALL SECTIONS OF MANHOLES SHALL BE 4000 PSI.
 - ALL MANHOLE JOINTS TO CONFORM TO A.S.T.M. SPECIFICATION C-361, AND GROUTED AND POINTED ON INSIDE AND OUTSIDE SURFACES.
 - MAXIMUM DISTANCE BETWEEN MANHOLES SHALL BE 400 FEET.
 - A MINIMUM DROP OF 0.10 FEET SHALL BE PROVIDED BETWEEN THE INFLUENT AND EFFLUENT INVERTS OF MANHOLES.
 - MANHOLES SIX FEET DEEP OR LESS SHALL BE CONSTRUCTED WITH PRE-CAST SLAB TOP INSTEAD OF CONE TOP.
 - WATER-TIGHT CONNECTIONS SHALL BE PROVIDED AT ALL PIPE OPENINGS UTILIZING RUBBER BOOTS, WEDGES OR SOME OTHER METHOD AS APPROVED BY THE ENGINEER.
 - FLAT SLAB MANHOLE COVERS SHALL BE DESIGNED FOR A MINIMUM H-20 HIGHWAY LOADING AND BE DESIGNED IN ACCORDANCE WITH A.S.T.M. C-478. MINIMUM SLAB THICKNESS SHALL BE IN ACCORDANCE WITH A.S.T.M. DESIGN CRITERIA.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING ADEQUATE BALLAST TO OFFSET FLUTATION FORCES ACTING ON MANHOLES INSTALLED IN WET AREAS.
 - MANHOLES IN EASEMENTS SHALL BE SET 6' ABOVE FINISHED GRADE AND SHALL HAVE LOCKING COVERS.
 - ALL MANHOLE WALLS, CHANNELS AND BENCHES MUST HAVE EPOXY COATING. EPOXY MUST BE SEQUAGUARD 62 OR APPROVED EQUAL. BENCHES MUST HAVE A NON-SLIP SURFACE.

TYPICAL TRENCH DETAILS



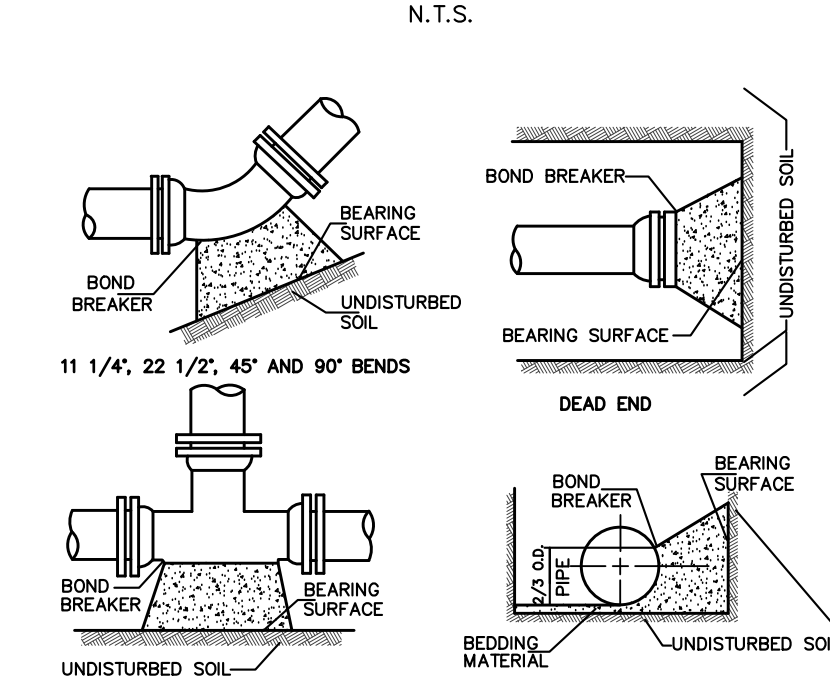
CLASS A ENCASEMENT
CLASS B ALTERNATIVE COMPACTED GRANULAR BEDDING
CLASS B COMPACTED GRANULAR BEDDING



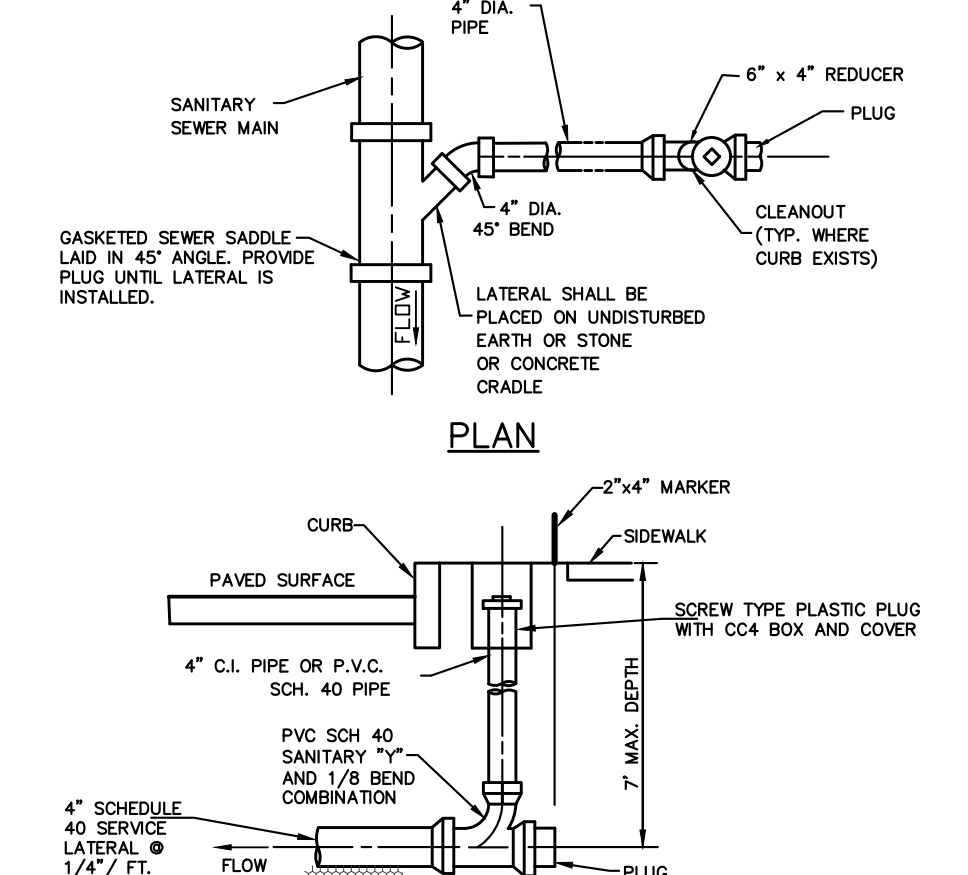
STANDARD PIPE BEDDING
FOR P.V.C. PIPE
N.T.S.

- NOTES:
- HYDRHAMMERS ARE NOT TO BE USED 3' OR LESS FROM TOP OF PIPE.
 - WHEEL LOADING SHALL NOT BE USED WITHIN (3) FEET OF PVC PIPE.

UNDERGROUND GATE VALVE DETAILS



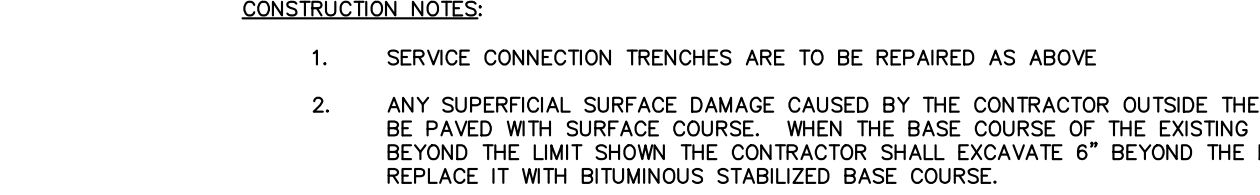
UNDERGROUND GATE VALVE DETAILS
N.T.S.



TYPICAL HOUSE SEWER CONNECTION
N.T.S.

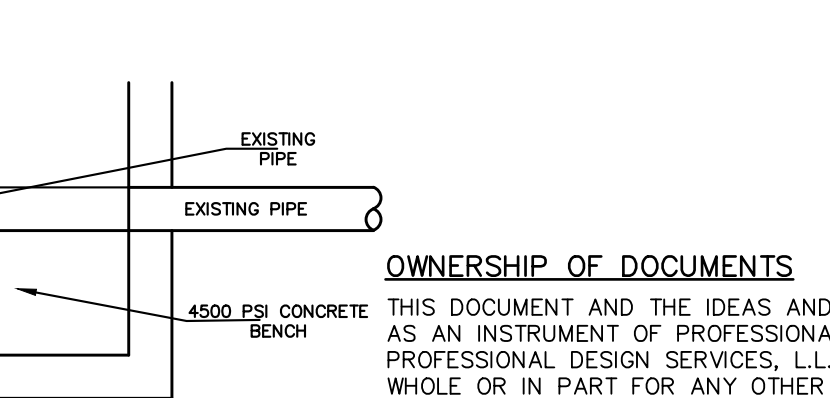
CC4 BOX & COVER FOR ALL CURB CLEANOUTS

N.T.S.



CONCRETE THRUST BLOCK DETAIL

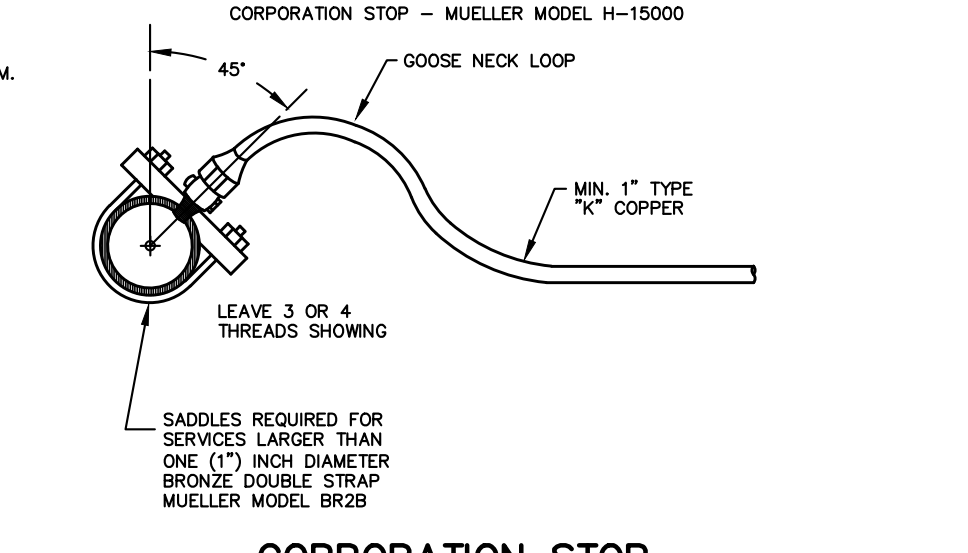
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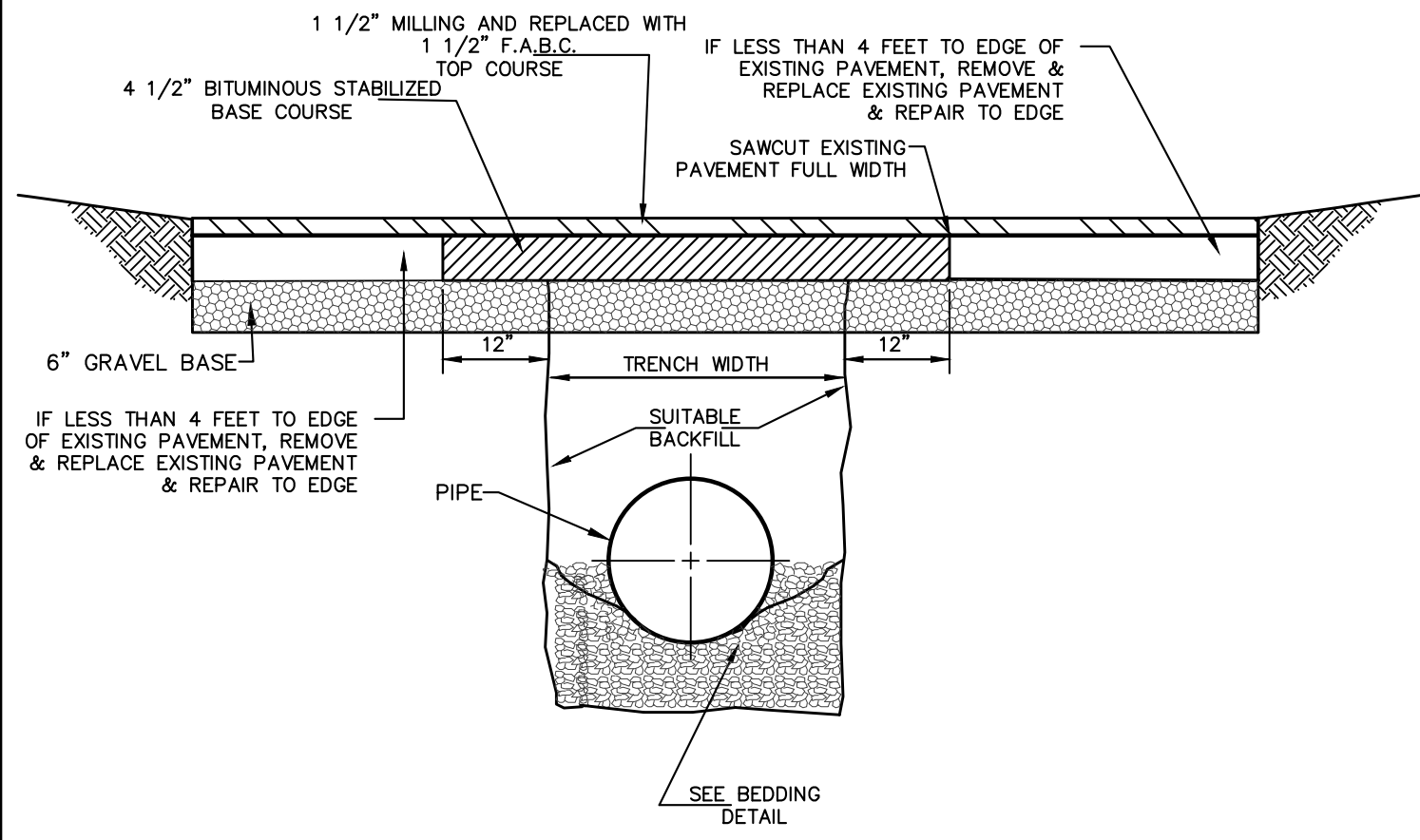
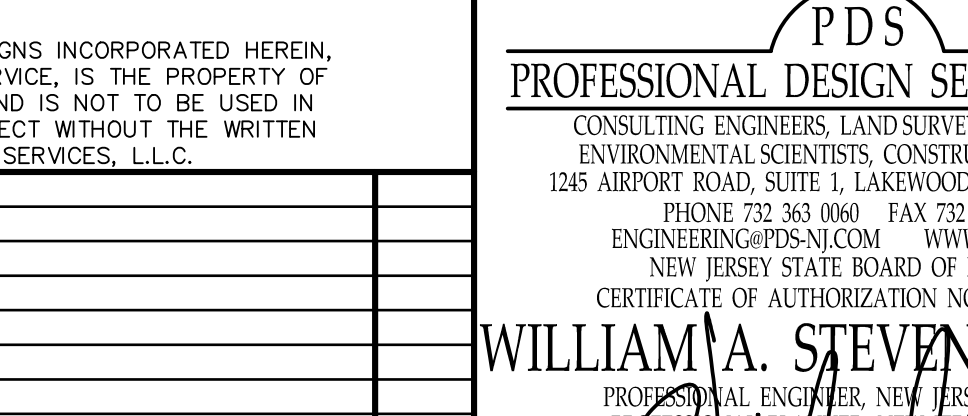
SECTION - CLEANOUT

N.T.S.

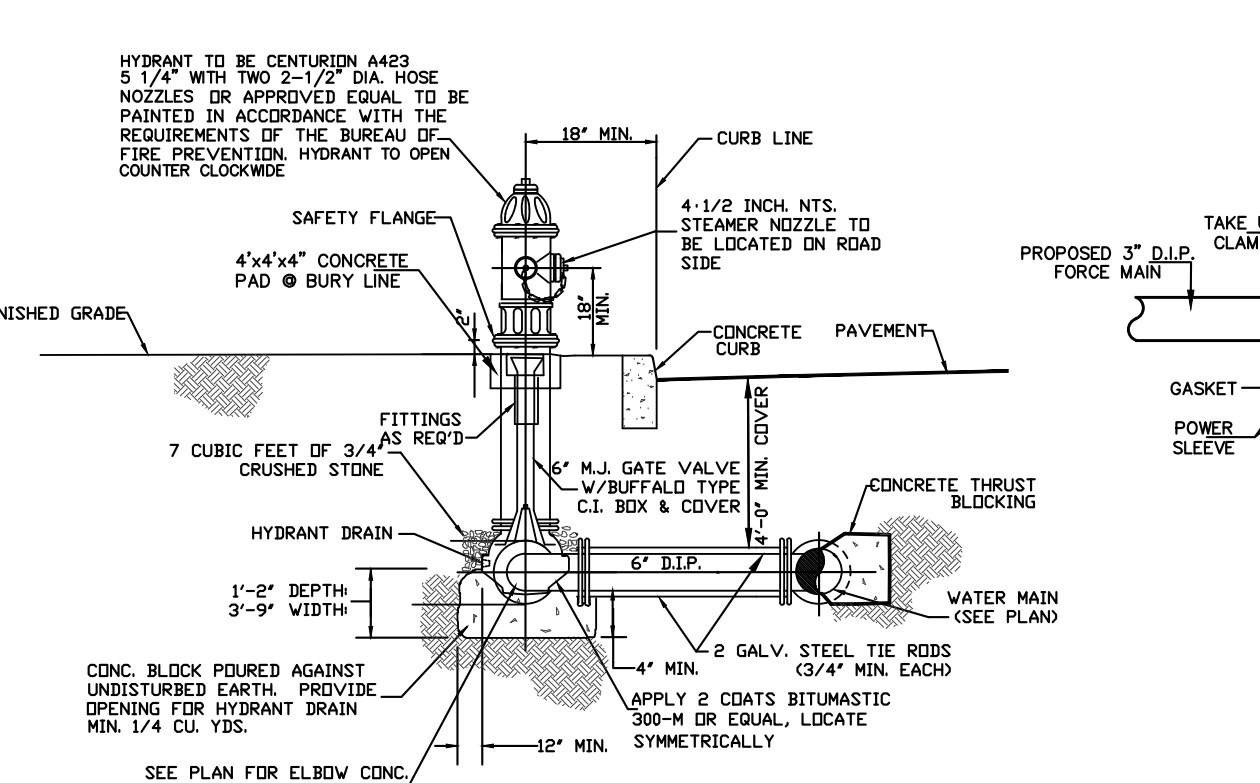


CORPORATION STOP

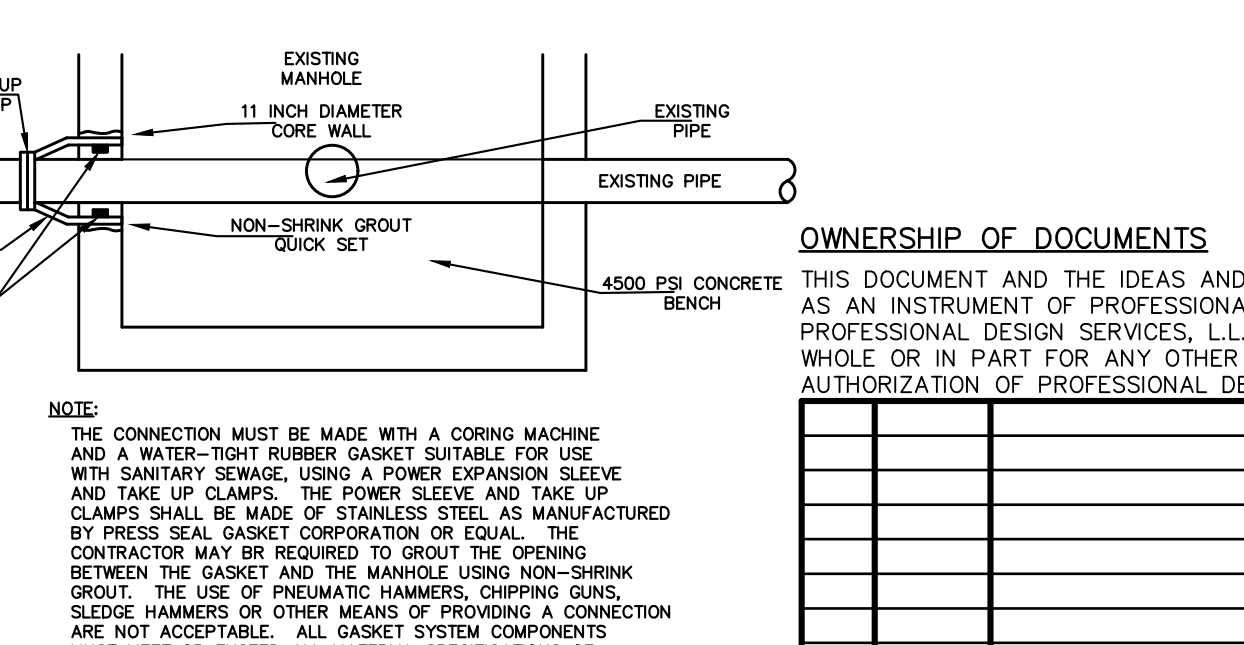
N.T.S.



MUNICIPAL TRENCH & PAVEMENT REPAIR



FIRE HYDRANT DETAIL



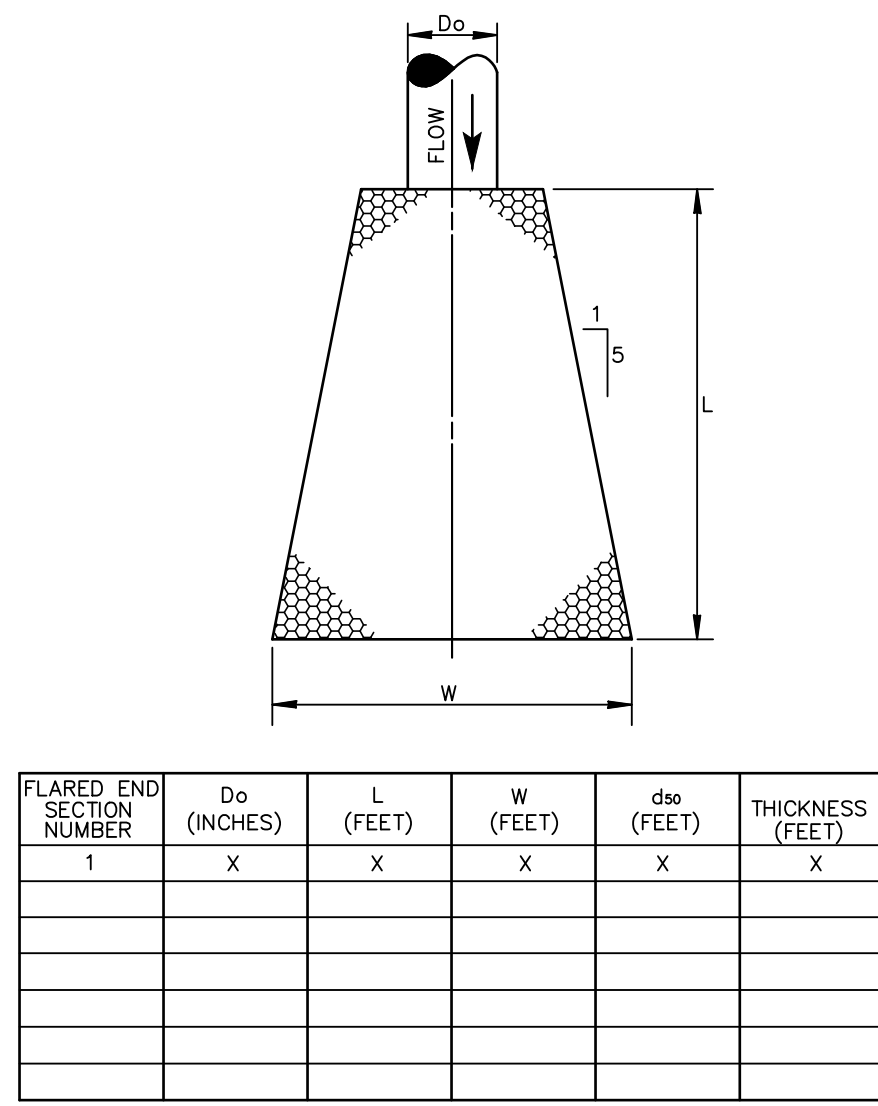
CONNECTION TO EXISTING MANHOLE

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NEW JERSEY STATE BOARD OF P.E. & L.S.
CERTIFICATE OF AUTHORIZATION NO. 24G28125400

WILLIAM A. STEVENS, P.E., P.P.
PROFESSIONAL ENGINEER, NEW JERSEY LIC. #3915
PROFESSIONAL PLANNER, NEW JERSEY LIC. #394

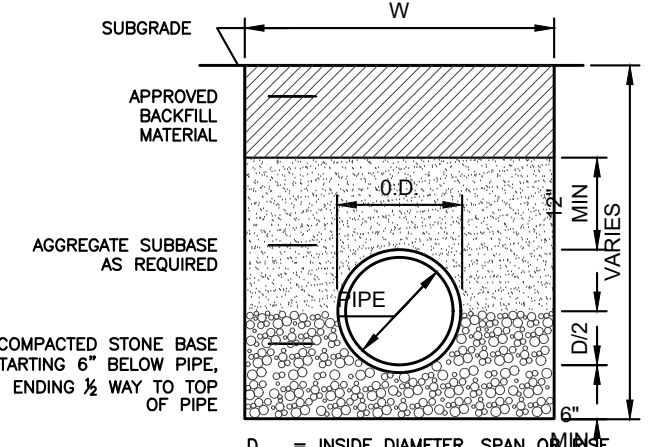
PRELIMINARY & FINAL MAJOR SUBDIVISION
CONSTRUCTION DETAILS
VICTORIA GARDENS
BLOCK 4001 - LOTS 1, 2 & 3
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY NEW JERSEY

SCALE:	DATE:	JOB NUMBER:	SHEET
NOT TO SCALE	MAY 25, 2021	321644	19
DRAWN BY:	DESIGNED BY:	CHECKED BY:	
SDC	IMB	WAS	31



FLARED END SECTION NUMBER	D0 (INCHES)	L (FEET)	W (FEET)	d50 (FEET)	THICKNESS (FEET)
1	X	X	X	X	X

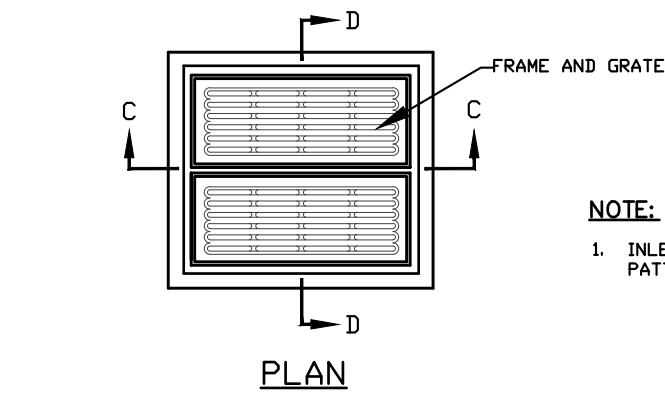
NOTE: THICKNESS OF d50 INCLUDES THE USE OF FILTER FABRIC
CONDUIT OUTLET PROTECTION
FLARED END SECTIONS
 N.T.S.



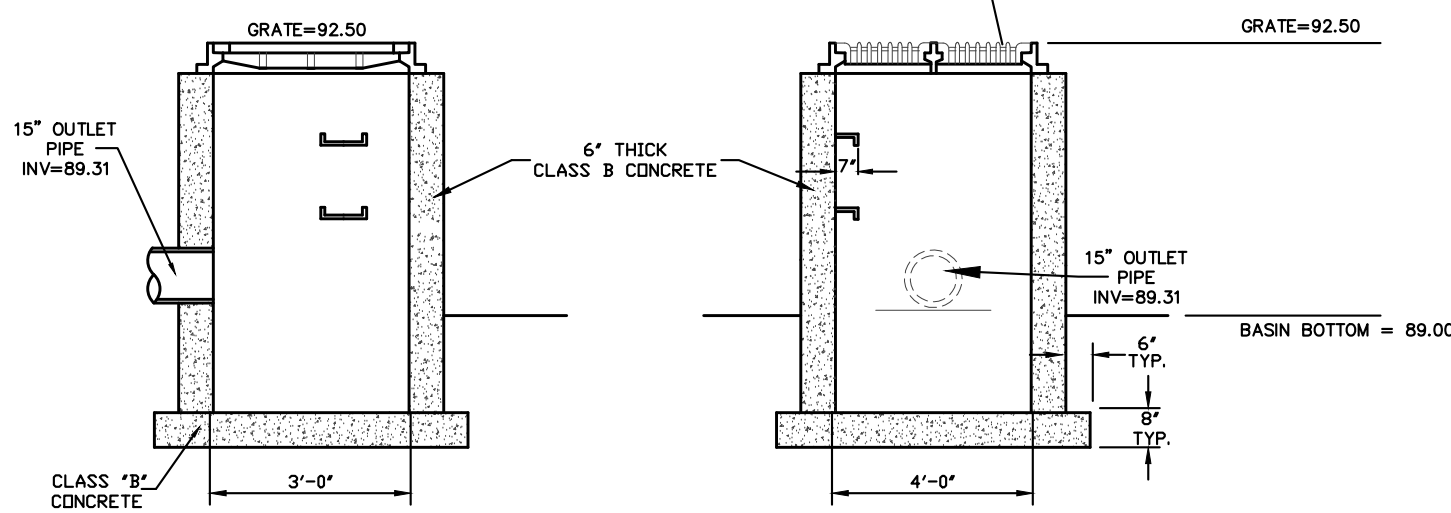
D = INSIDE DIAMETER, SPAN OR RISE
 OD = OUTSIDE DIAMETER, SPAN OR RISE
 MD = OUTSIDE DIAMETER, SPAN OR RISE AT BELL OR BEND
 W = MD + 2.5' FOR CONDUIT 48" OR LESS DIAMETER OR SPAN
 W = MD + 2.5' FOR CONDUIT GREATER THAN 48" DIAMETER OR SPAN

NOTE:
 1. FILL SECTION AREA MUST BE GRADED 2'-0" MINIMUM ABOVE TOP OF PIPE BEFORE EXCAVATING TRENCH.

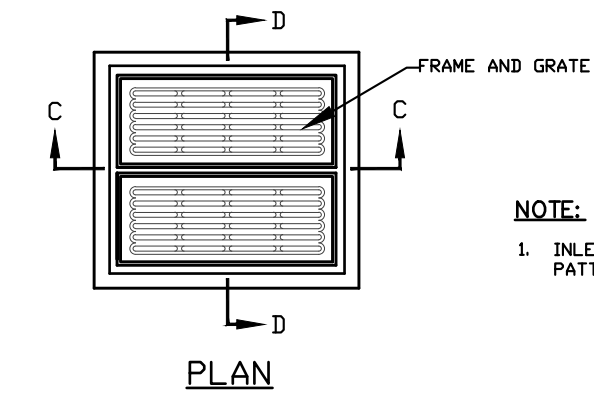
STORM PIPE BEDDING
 N.T.S.



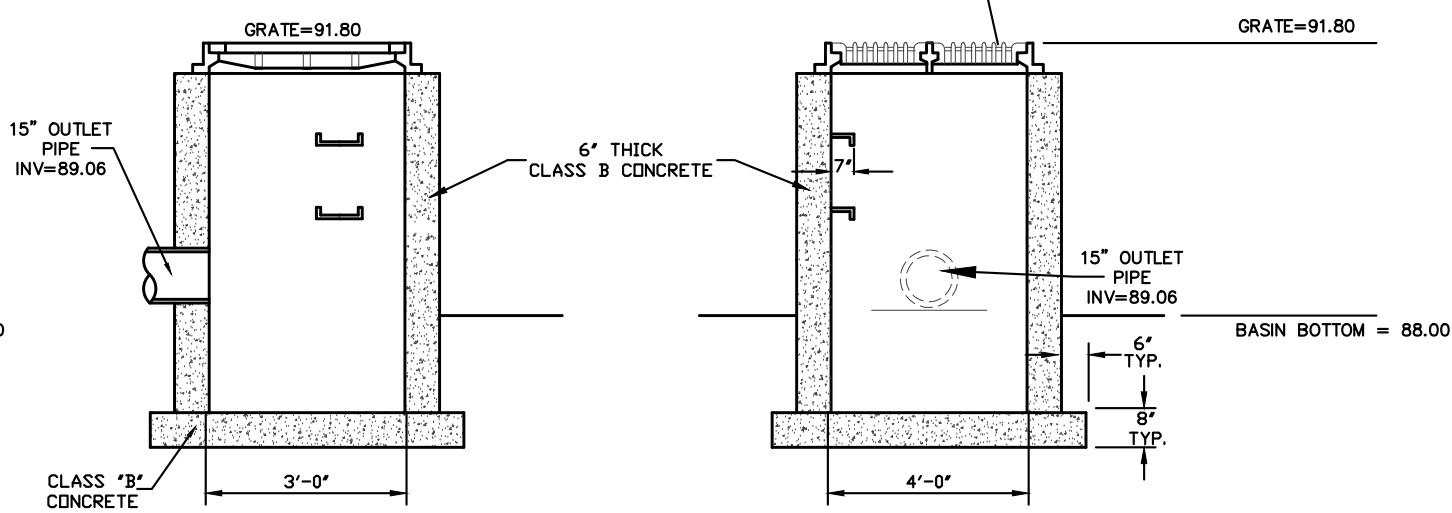
NOTE:
 1. INLET FRAME AND GRATES TO BE CAMPBELL FOUNDRY PATTERN NO. 3440 OR APPROVED EQUAL.



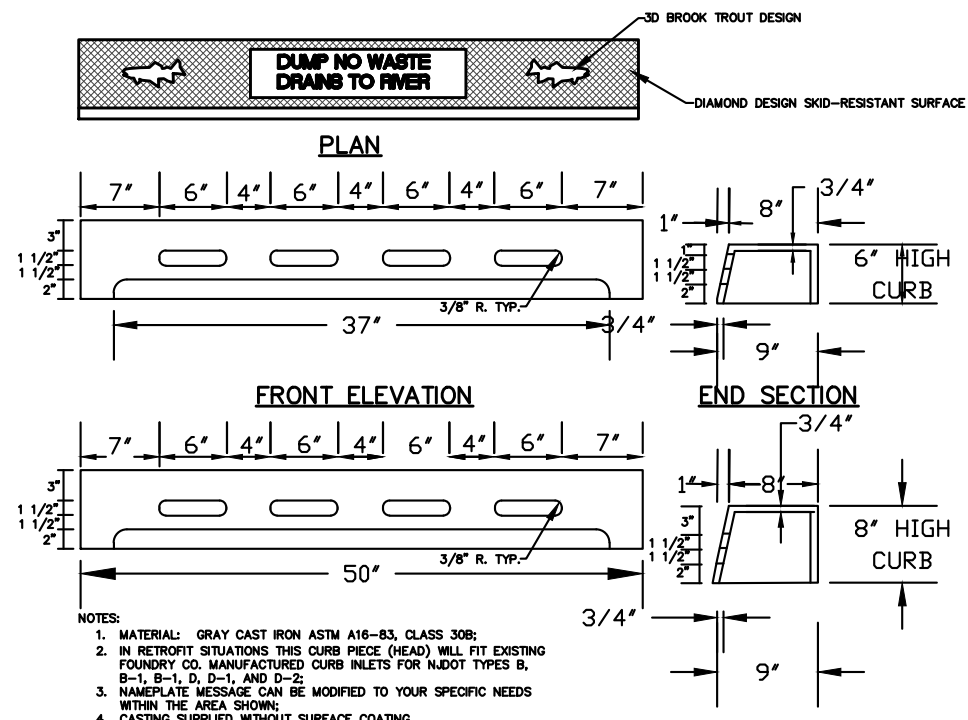
SECTION 'C-C'
OUTLET STRUCTURE #1 DETAIL



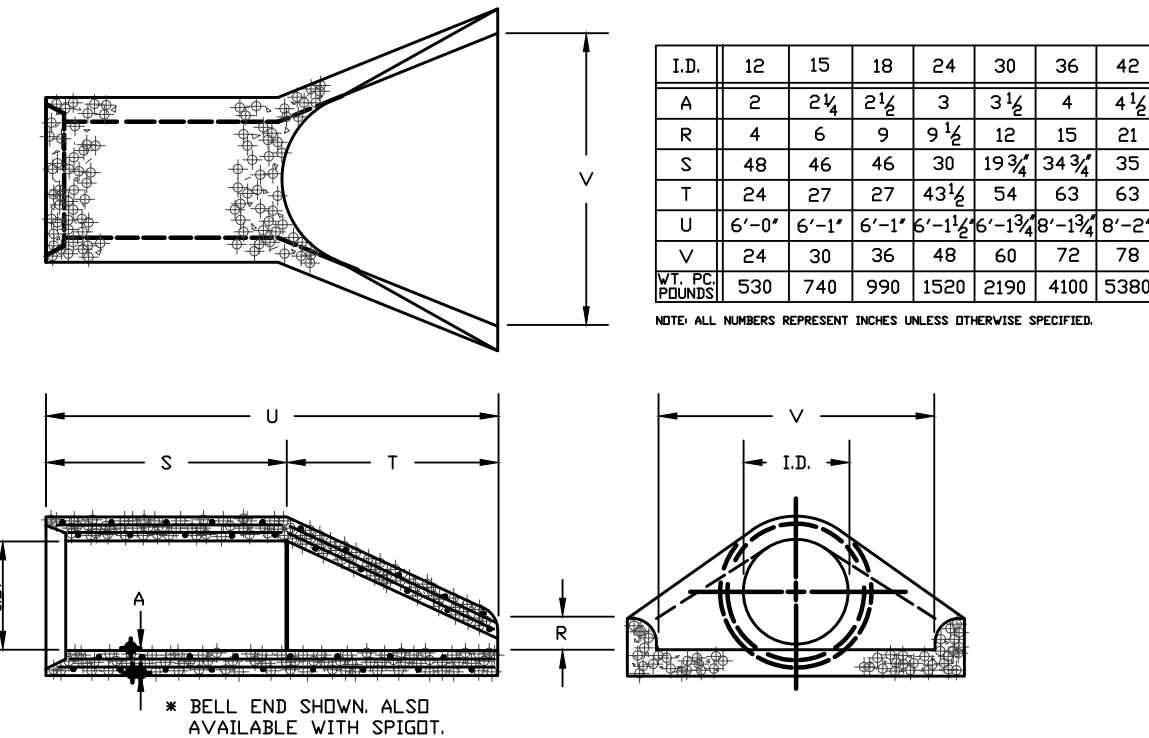
NOTE:
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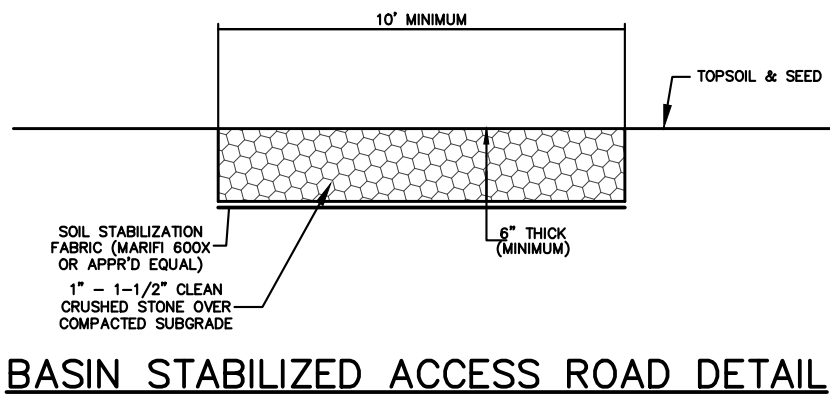
SECTION 'C-C'
OUTLET STRUCTURE #4 DETAIL



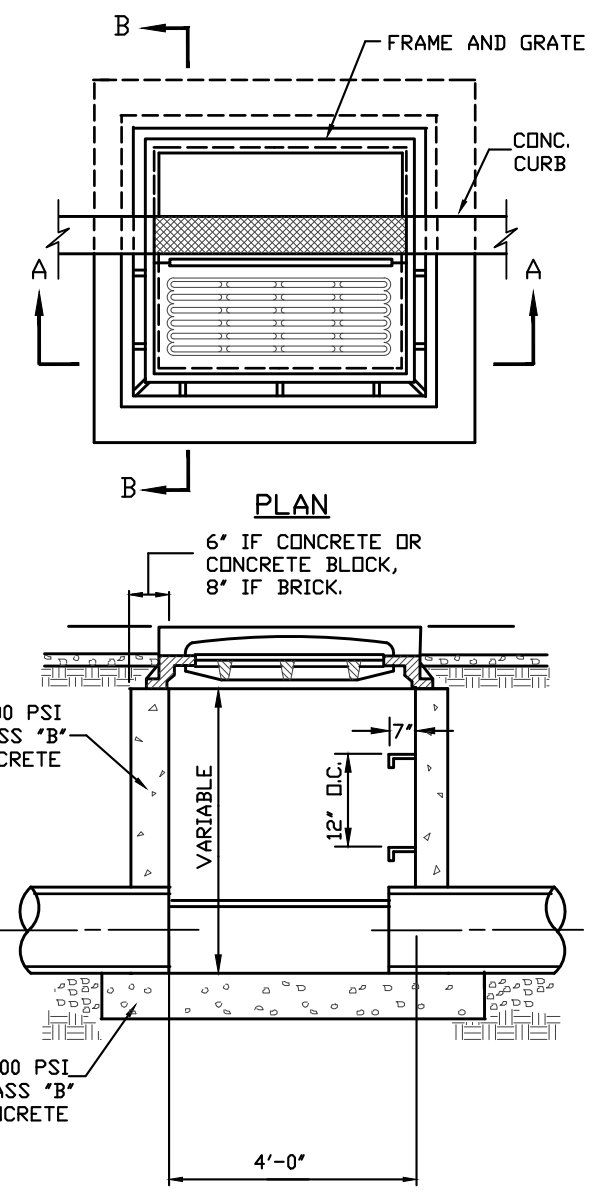
TYPE "N" INLET CURB PIECE
 N.T.S.



FLARED END SECTION
 N.T.S.

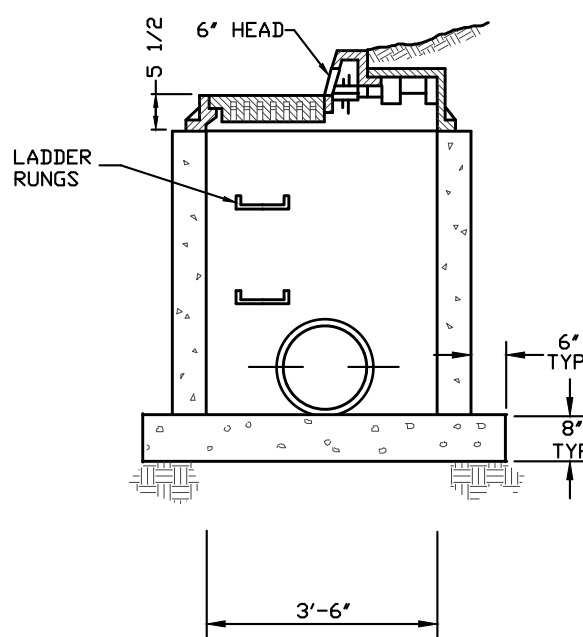


BASIN STABILIZED ACCESS ROAD DETAIL

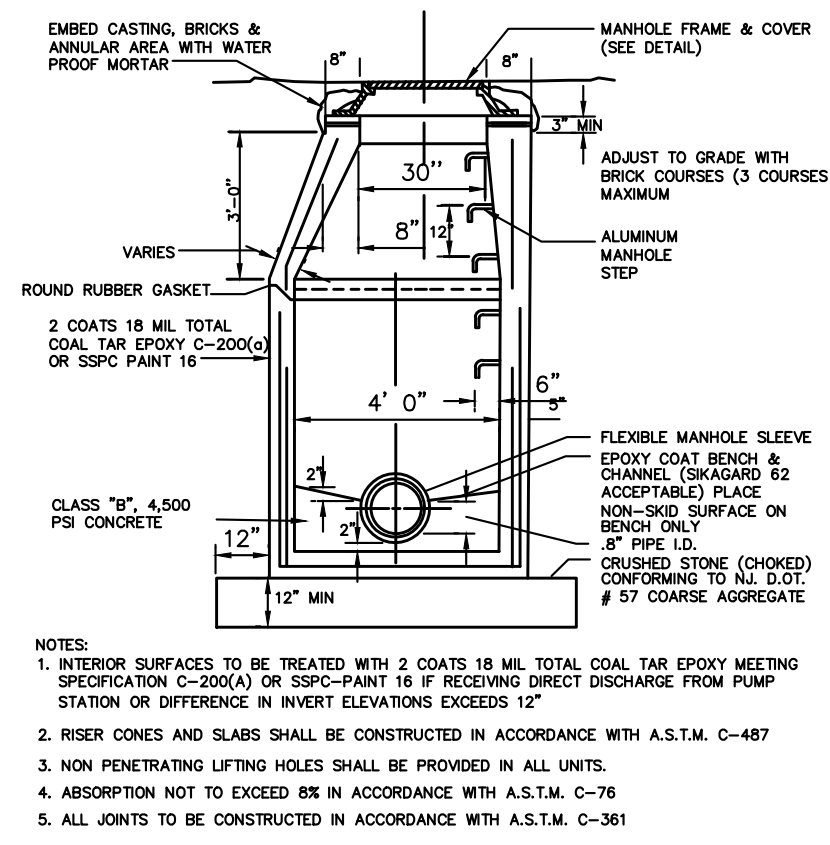


TYPE "B" INLET

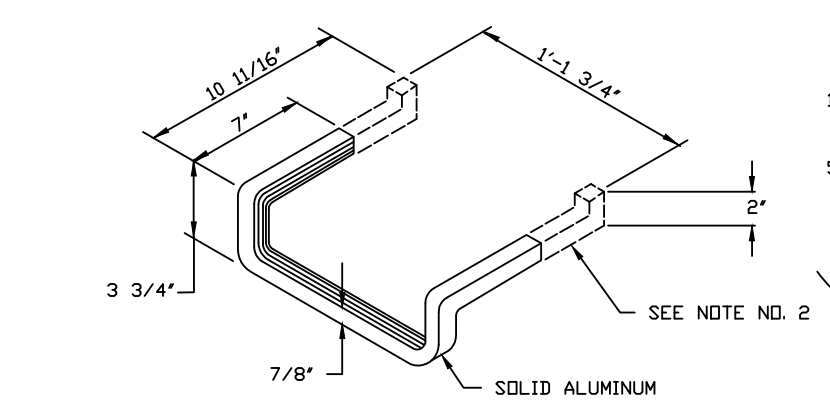
GENERAL NOTES:
 1. FOOTER TO BE N.J.D.D. CLASS "B" CONC.
 2. INVERT TO BE CLASS "B", 4,500 CONCRETE.
 3. IF WALL CONSTRUCTION IS OTHER THAN CONCRETE, THE WALLS SHALL BE PLASTERED BOTH INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT PLASTER.
 4. FRAME AND GRATE TO BE NO. 2548 AS MANUFACTURED BY CAMPBELL FOUNDRY CO., OR EQUAL. IF GRATE LIES WITHIN CARTWAY THE GRATE SHALL BE CAMPBELL FOUNDRY NO. 2617 BICYCLE GRATE OR APPROVED EQUAL.
 5. PROVIDE 7/8" DIA. ALUMINUM LADDER RUNGS, 12" D.C.
 6. ALL PRECAST STRUCTURES TO RECEIVE BITUMASTIC TAR COAT OUTSIDE ONLY.



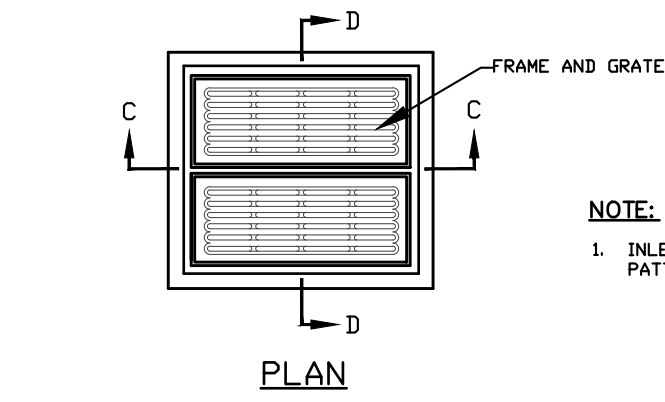
SECTION B-B



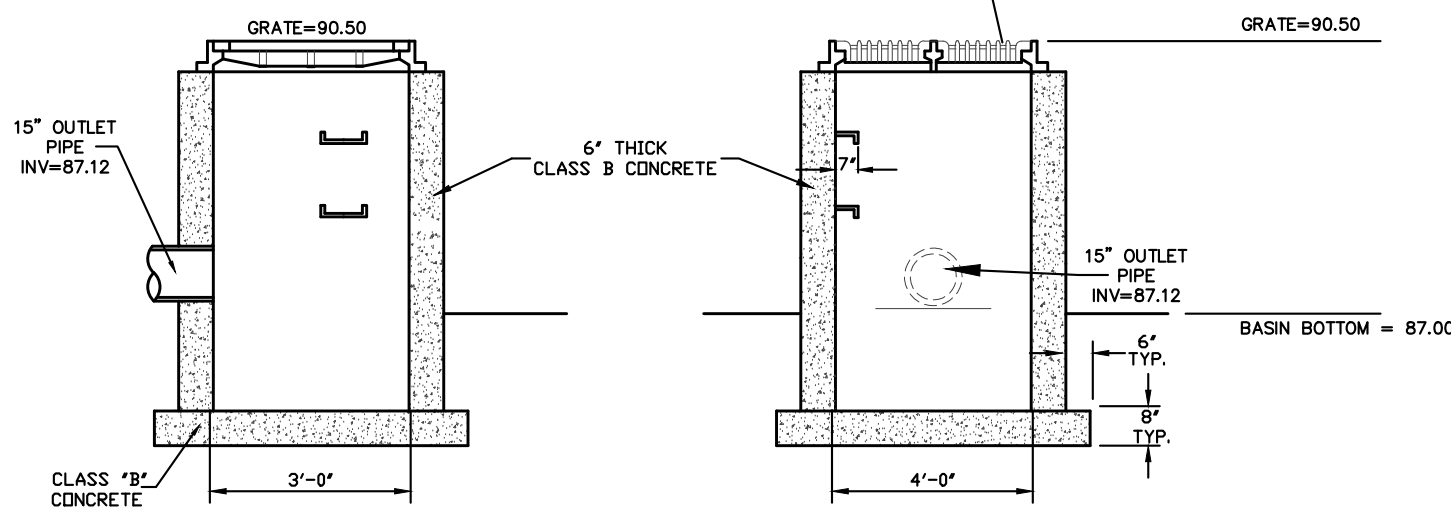
STORM DRAINAGE MANHOLE



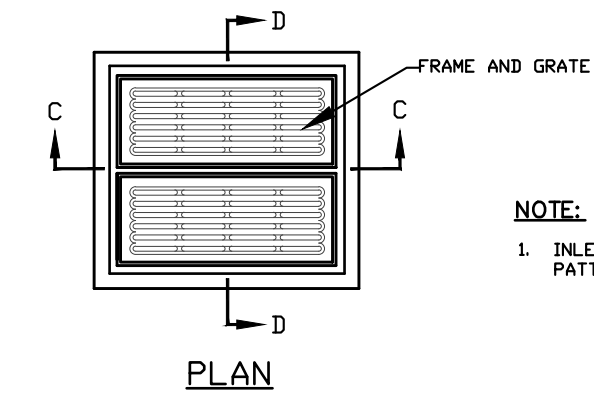
LADDER RUNG
 NOT TO SCALE



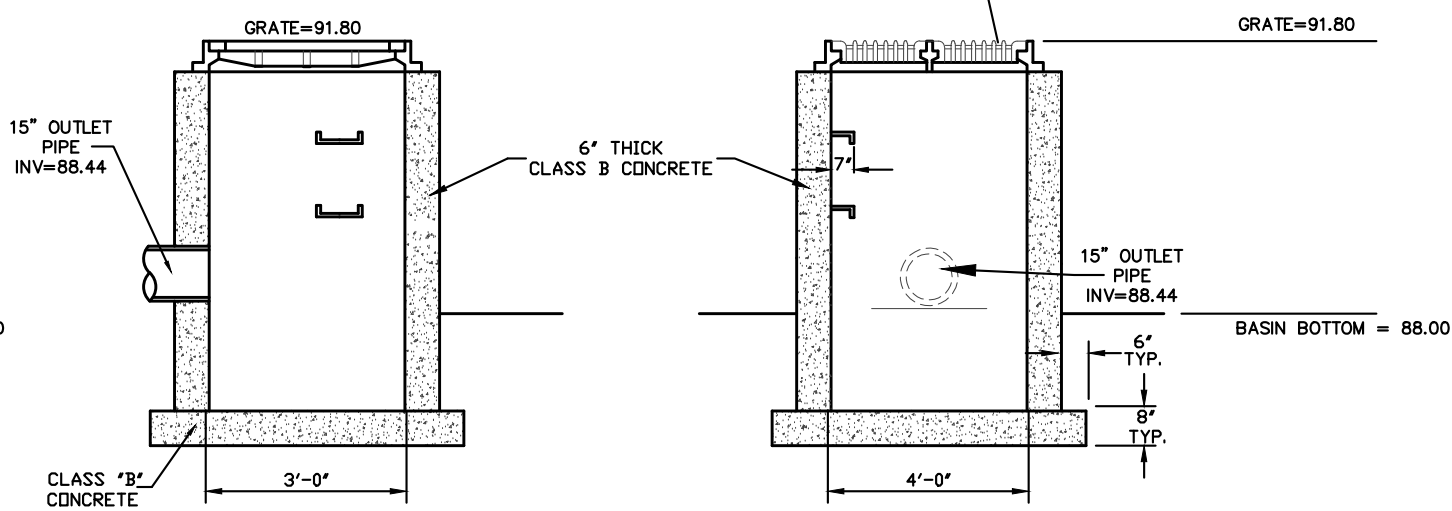
NOTE:
 1. INLET FRAME AND GRATES TO BE CAMPBELL FOUNDRY PATTERN NO. 3440 OR APPROVED EQUAL.



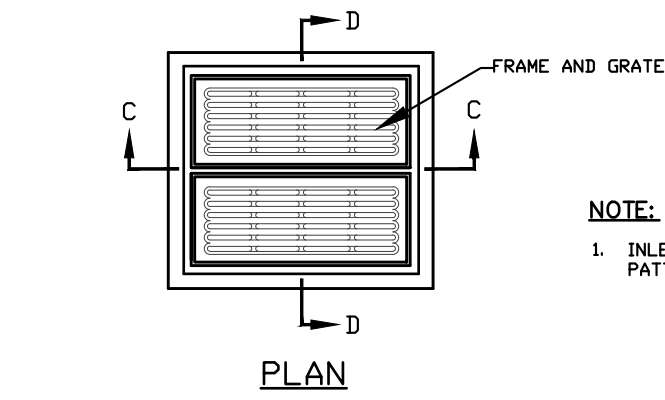
SECTION 'C-C'
OUTLET STRUCTURE #2 DETAIL



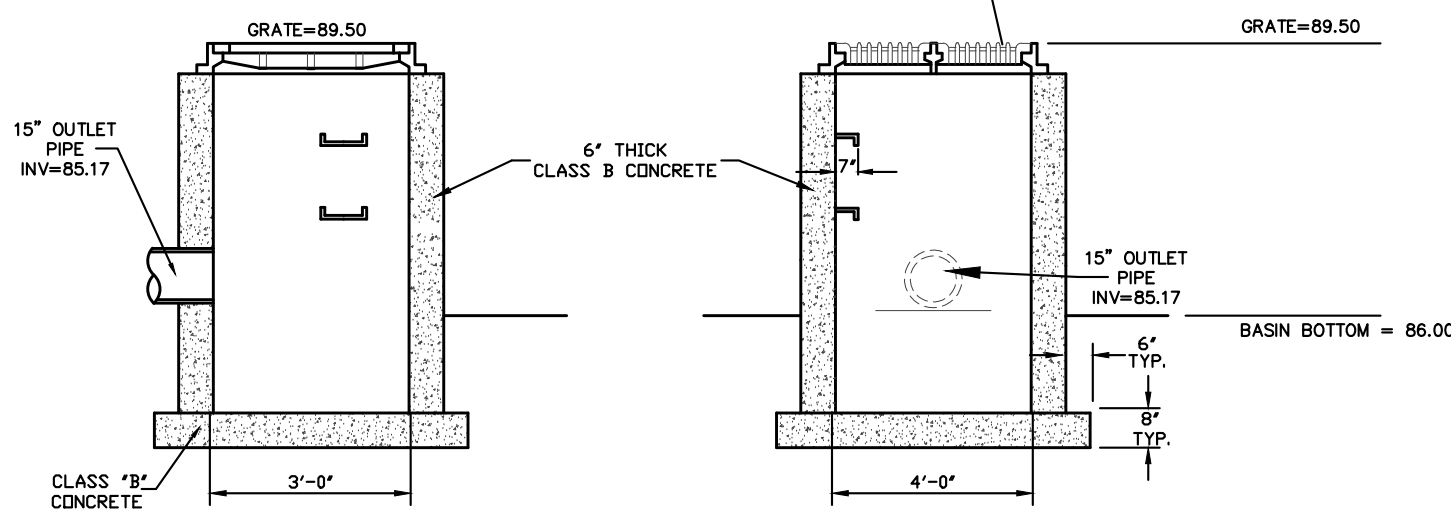
NOTE:
 1. INLET FRAME AND GRATES TO BE CAMPBELL FOUNDRY PATTERN NO. 3440 OR APPROVED EQUAL.



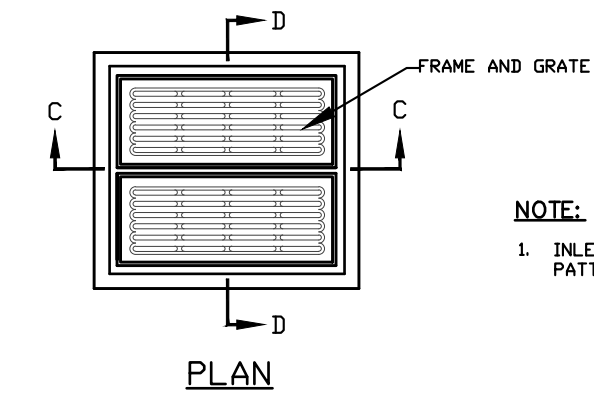
SECTION 'C-C'
OUTLET STRUCTURE #5 DETAIL



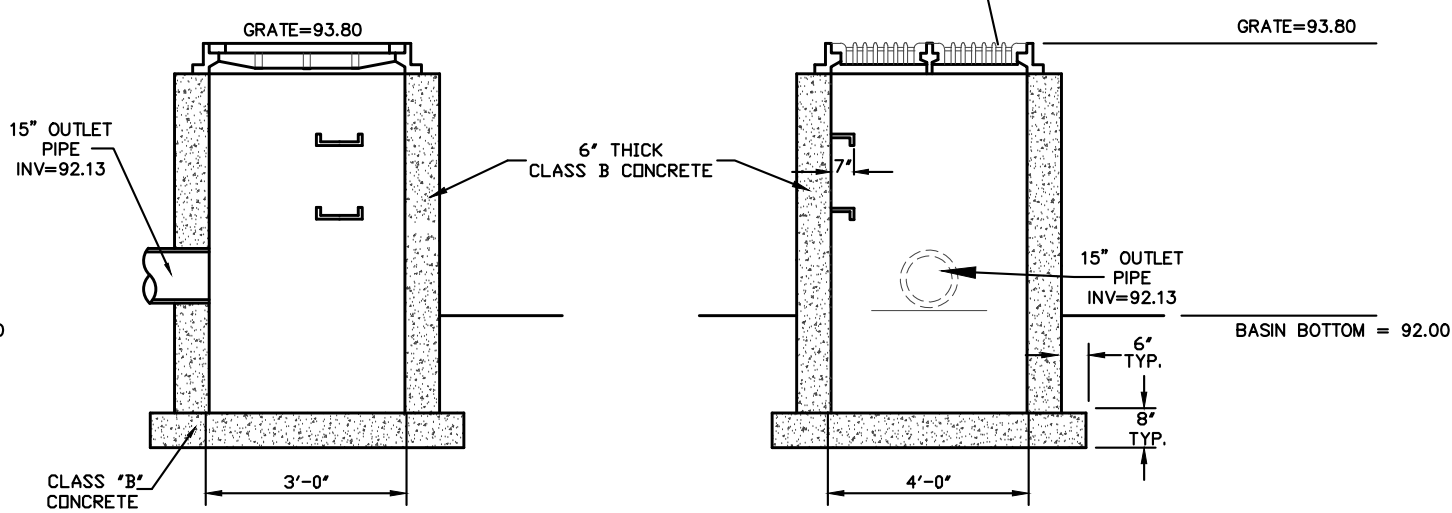
NOTE:
 1. INLET FRAME AND GRATES TO BE CAMPBELL FOUNDRY PATTERN NO. 3440 OR APPROVED EQUAL.



SECTION 'C-C'
OUTLET STRUCTURE #3 DETAIL



NOTE:
 1. INLET FRAME AND GRATES TO BE CAMPBELL FOUNDRY PATTERN NO. 3440 OR APPROVED EQUAL.



SECTION 'C-C'
OUTLET STRUCTURE #6 DETAIL

OWNERSHIP OF DOCUMENTS

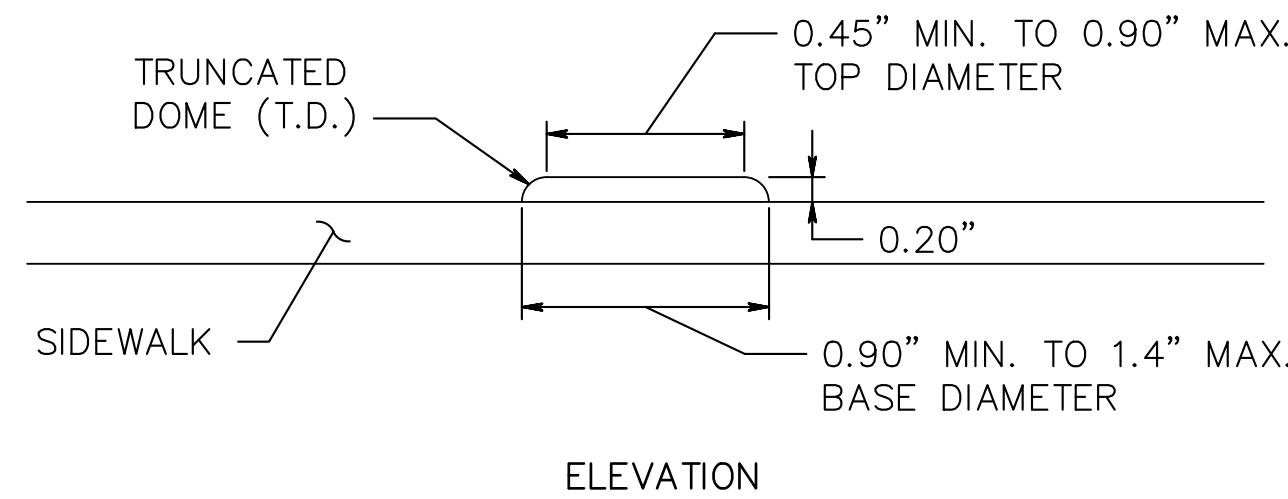
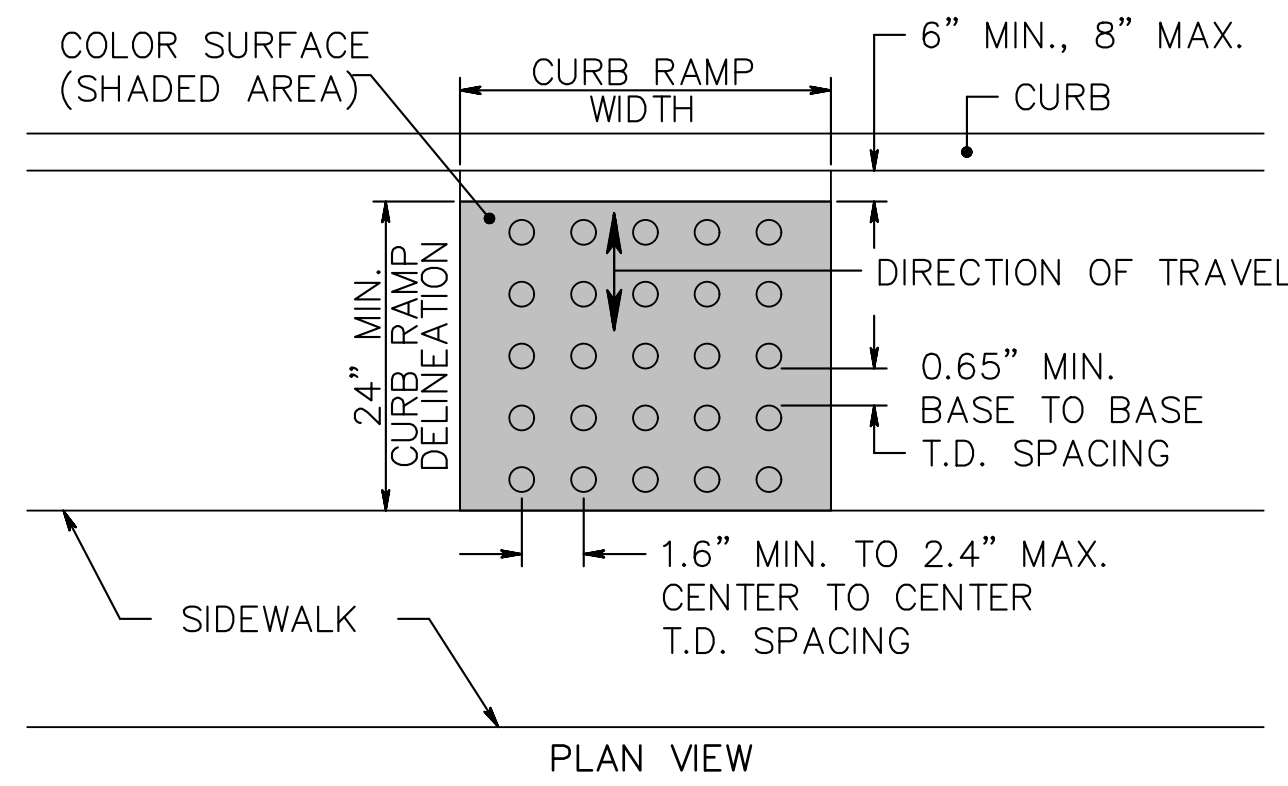
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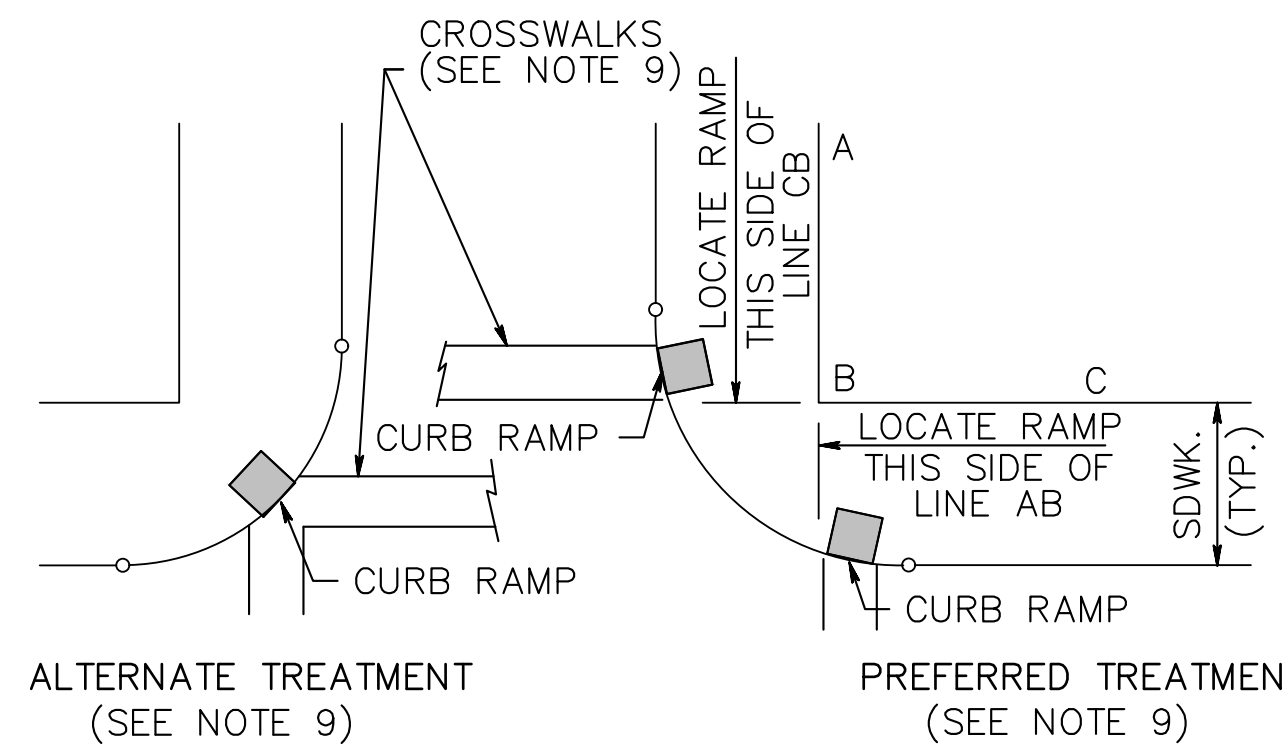
PRELIMINARY & FINAL MAJOR SUBDIVISION
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SCALE:	NOT TO SCALE	DATE:	MAY 25, 2021	JOB NUMBER:	321644	SHEET	20
DRAWN BY:	SDC	DESIGNED BY:	IMB	CHECKED BY:	WAS		31

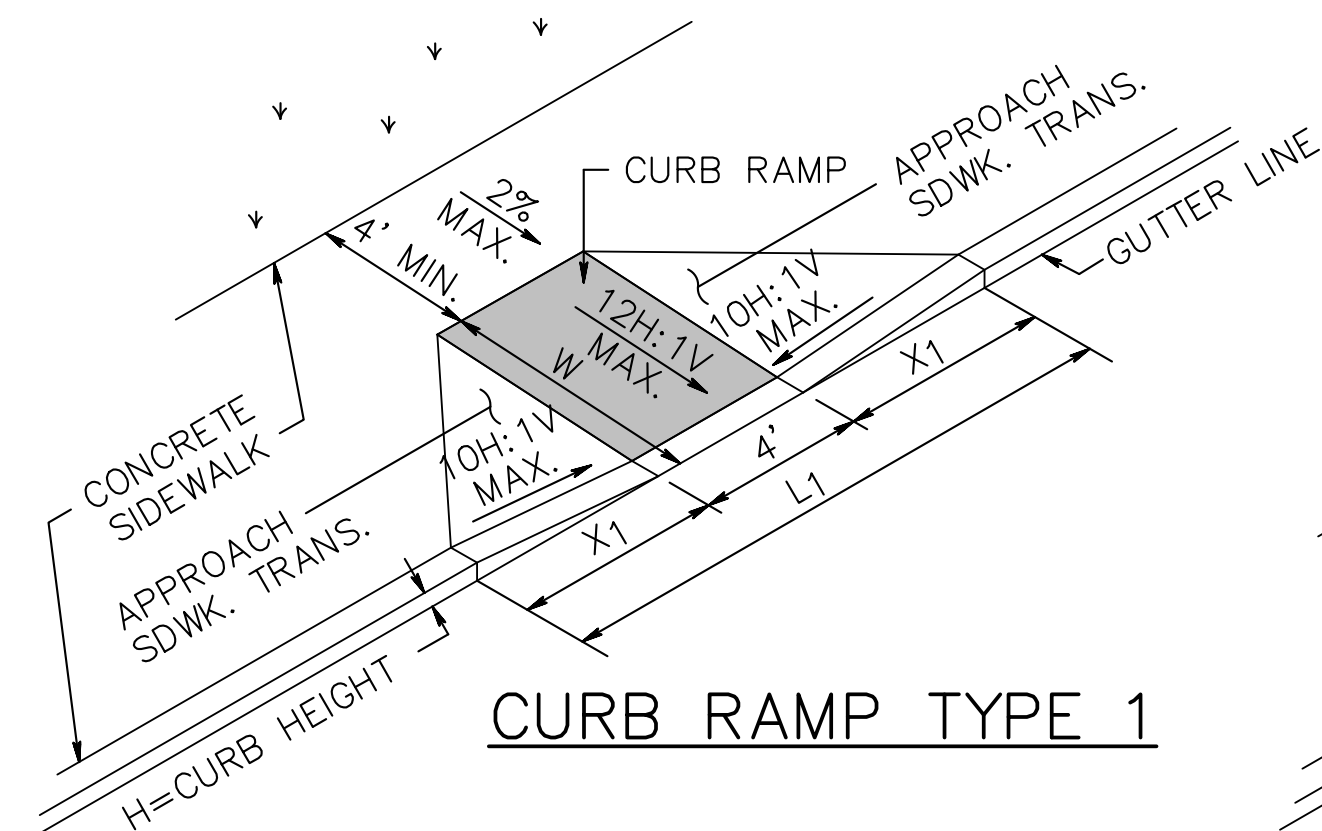


DETECTABLE WARNING SURFACE

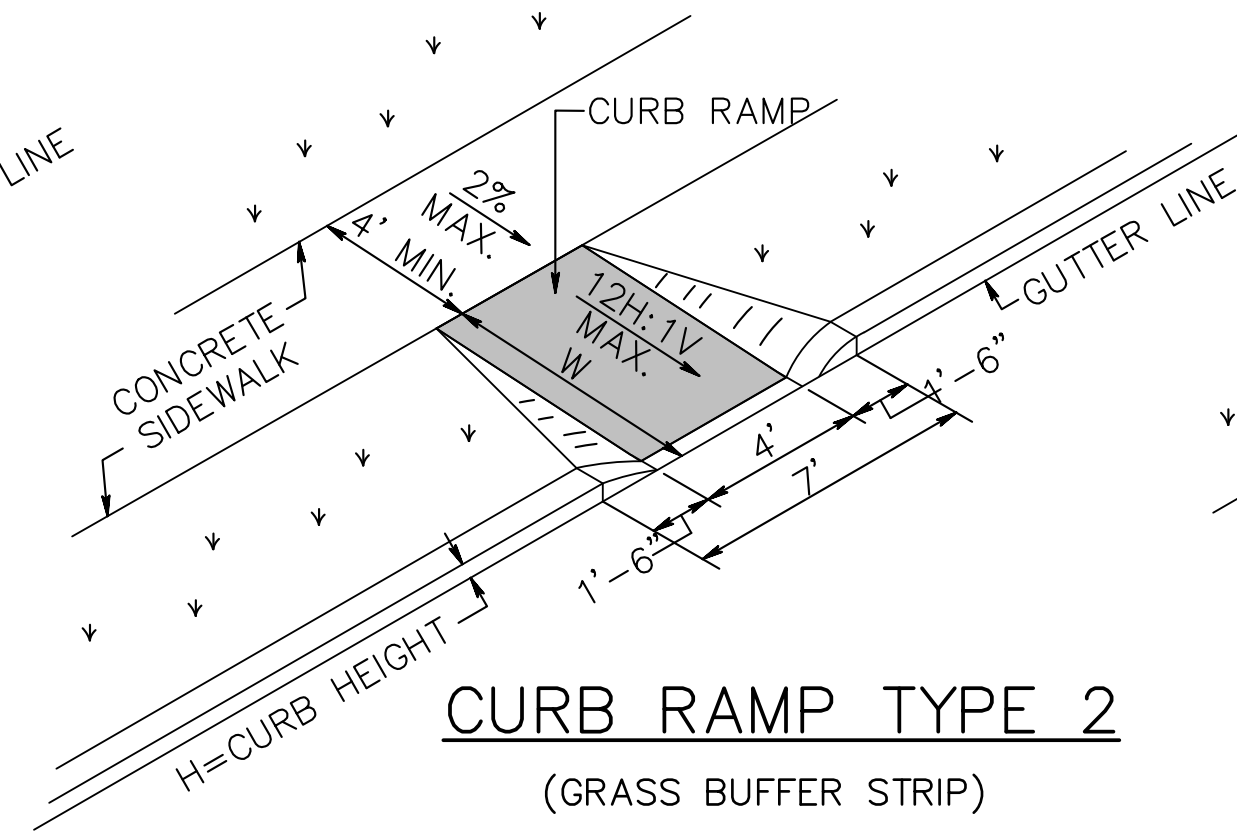
CD-606-1.1



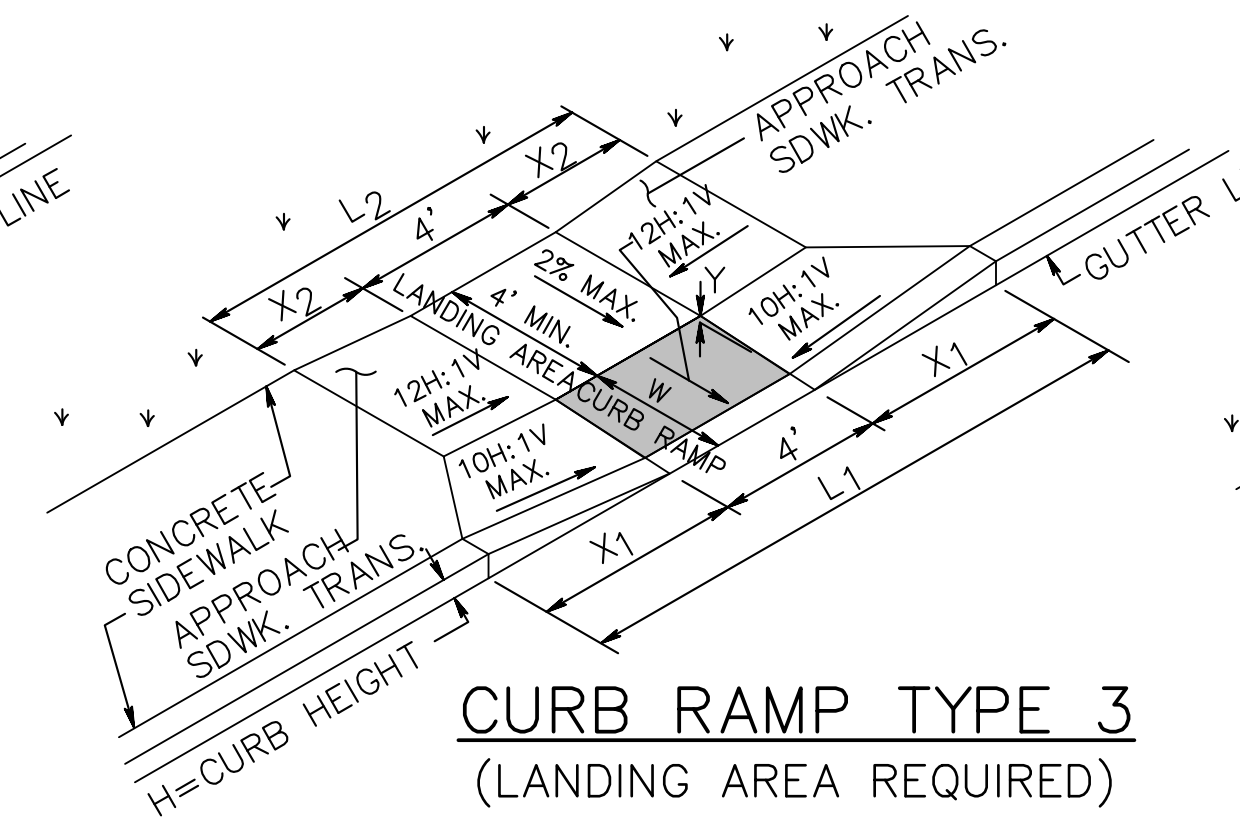
LOCATION OF CURB RAMP TYPES 1, 2, 3, 4 & 7 FOR CROSSING PARALLEL AND PERPENDICULAR TO HIGHWAY



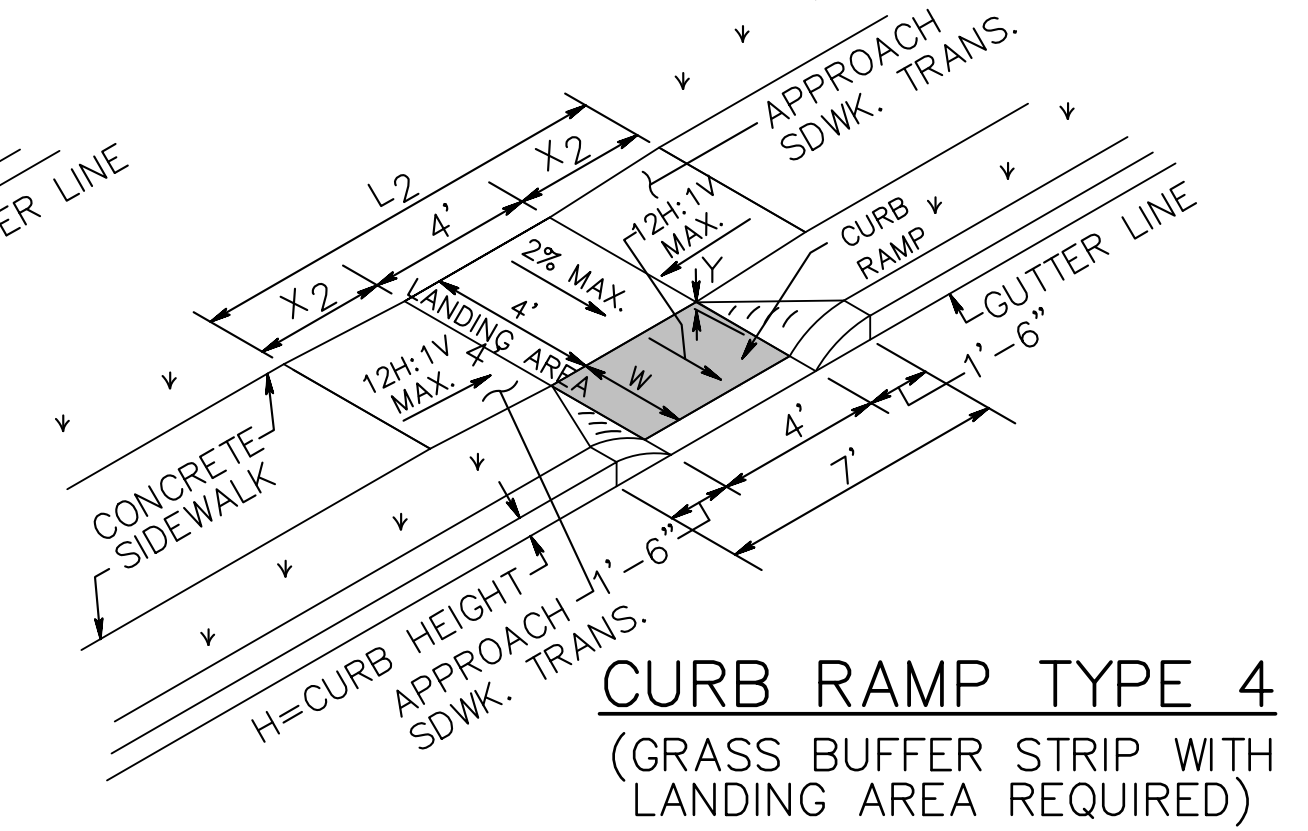
CURB RAMP TYPE 1



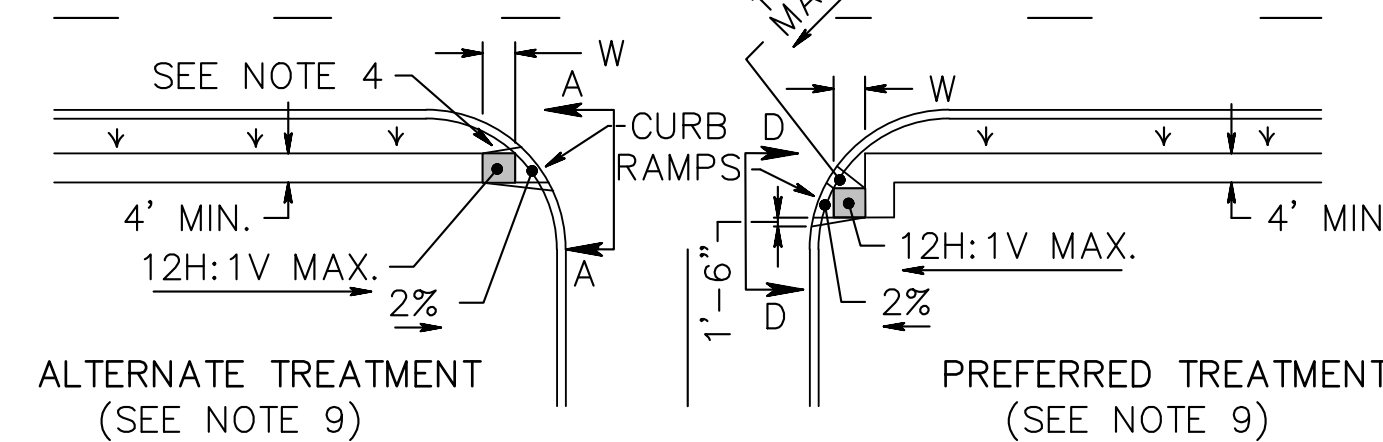
CURB RAMP TYPE 2 (GRASS BUFFER STRIP)



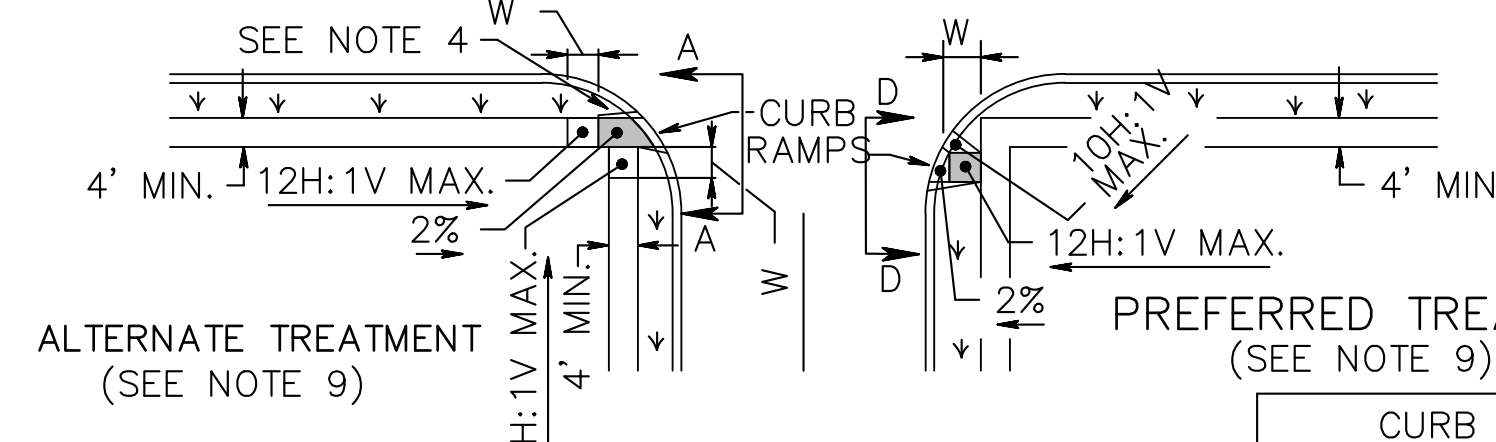
CURB RAMP TYPE 3 (LANDING AREA REQUIRED)



CURB RAMP TYPE 4 (GRASS BUFFER STRIP WITH LANDING AREA REQUIRED)

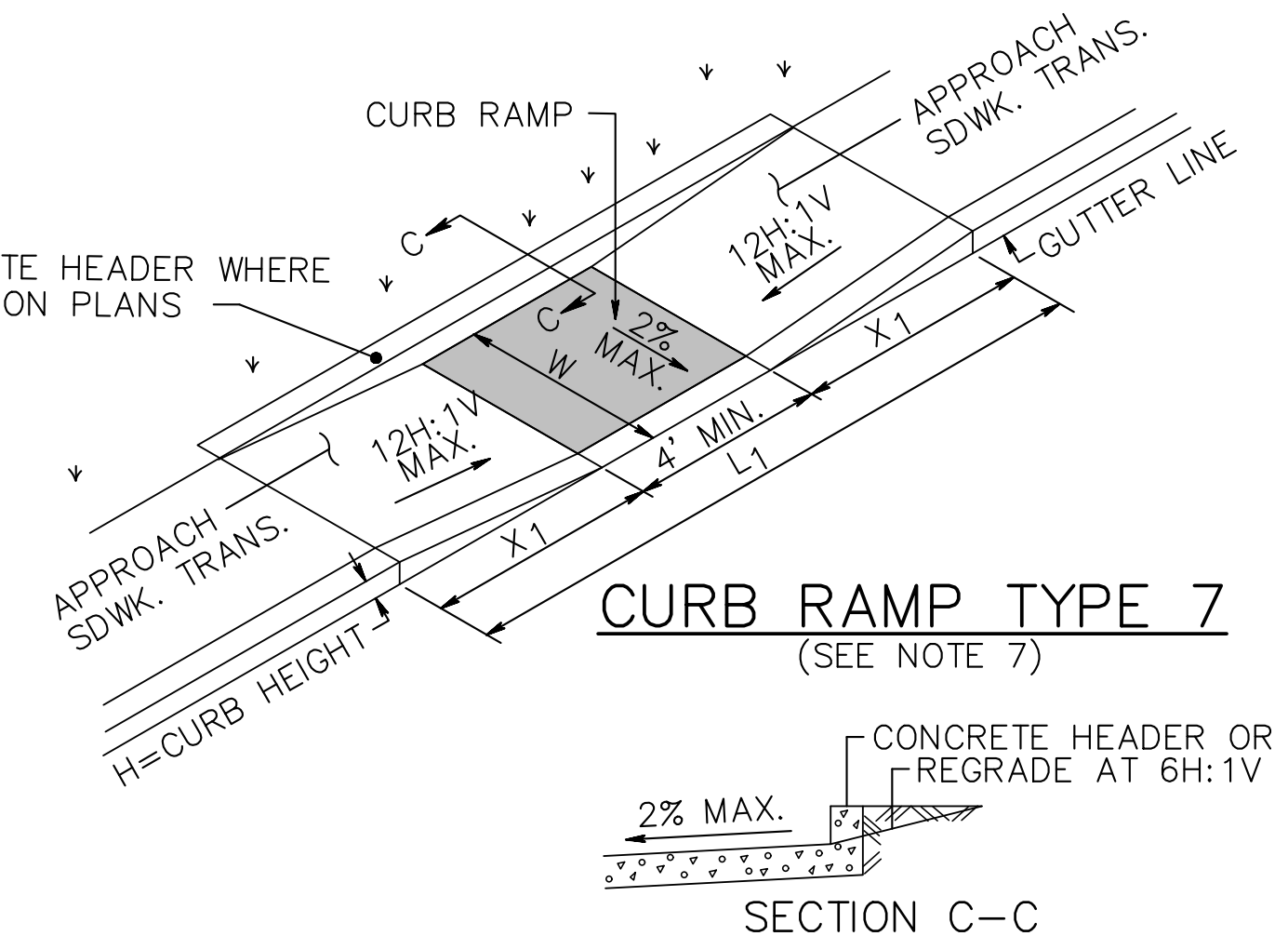


CURB RAMP TYPE 5 (CROSSING PARALLEL TO HIGHWAY ONLY)



CURB RAMP TYPE 6 (CROSSING PARALLEL TO HIGHWAY ONLY)

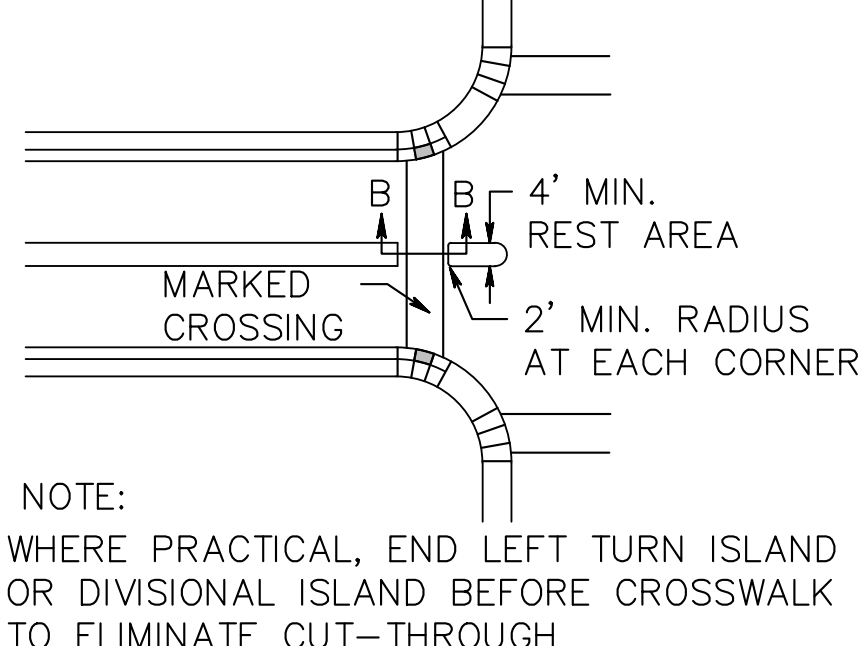
CURB RAMP TYPE 7			
W FEET	H INCHES	X1 FEET	L1 FEET
4 MIN.	3	3	11
6 MAX.	4	4	13
	5	5	15
	6	6	17
	7	7	19
	8	8	21
	9	9	23



CURB RAMP TYPE 7 (SEE NOTE 7)

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

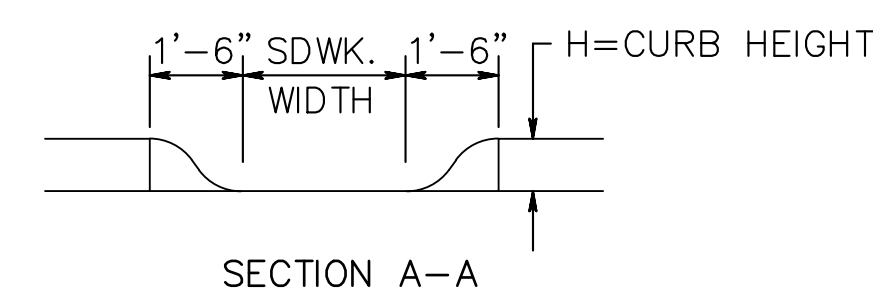
CURB RAMP TYPE 2, 5 OR 6	
H INCHES	W FEET
3	3
4	4
5	5
6	6
7	7
8	8
9	9



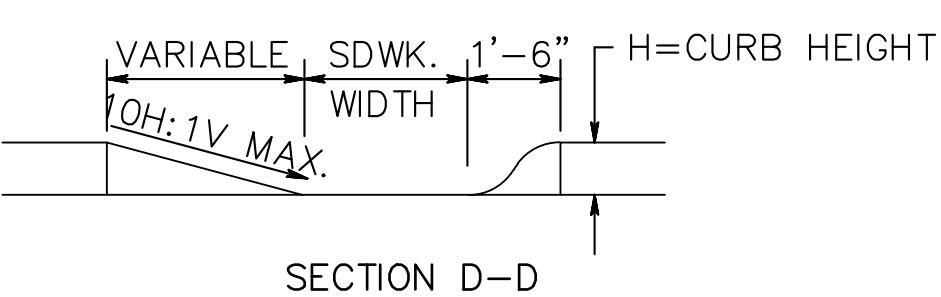
ISLAND WALKWAY OPENING AT INTERSECTIONS

GENERAL NOTES:

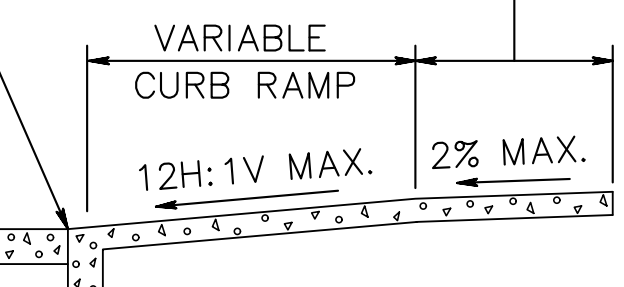
- LANDING AREA, APPROACH SIDEWALK TRANSITIONS, AND CURB RAMP SHALL BE KEPT CLEAR OF OBSTRUCTIONS.
- DIMENSIONS SHOWN IN TABLES ARE FOR RELATIVELY FLAT SIDEWALK AREAS. CARE SHOULD BE TAKEN WHEN DETERMINING CURB RAMP SIZE BASED ON CURB HEIGHT (H) WHERE ELEVATION OF CURB AND SIDEWALK VARY DRASTICALLY IN AREA OF PROPOSED CURB RAMP.
- CURB (DROPPED CURB) GUTTERLINE TO BE FLUSH WITH ROADWAY PAVEMENT A MINIMUM OF 4 FEET AT ALL CURB RAMP.
- FOR CURB RAMP TYPES 5 AND 6, IF A GRASS BUFFER DOES NOT EXIST, SLOPE CURB TO EQUAL SLOPE OF ADJACENT CURB RAMP.
- SIDEWALK AND CURB RAMP WITHIN AREA ENCLOSED BY HEAVY LINES TO BE PAID FOR AS CONCRETE SIDEWALK OF THE APPROPRIATE ADJACENT THICKNESS.
- CURB AND HEADER WITHIN AREA ENCLOSED BY HEAVY LINES TO BE PAID FOR AS VERTICAL CURB OR SLOPING CURB OF THE APPROPRIATE ADJACENT SIZE AND KIND.
- WHERE THE DISTANCE FROM THE GUTTER LINE TO THE OUTSIDE EDGE OF SIDEWALK IS 6 FEET OR LESS, CURB RAMP TYPE 7 SHOULD BE USED, INSTEAD OF CURB RAMP TYPE 1 THROUGH 4.
- CROSSWALKS AND STOP LINES MAY BE MARKED OR UNMARKED, SEE PLANS.
- PREFERRED AND ALTERNATE TREATMENTS SHOULD NOT BE INTERMIXED WITHIN THE SAME INTERSECTION.
- DIMENSIONS SHOWN IN TABLES ARE FOR 3 INCH TO 9 INCH CURB HEIGHTS. WHERE THE CURB HEIGHTS ARE OTHER THAN WHAT IS PROVIDED IN THE TABLES, THE DIMENSIONS OF THE RAMPS WILL HAVE TO BE CALCULATED BASED ON CROSS SLOPES SHOWN.



NOTE: CURB RAMP OPENING TO BE FLUSH WITH ROADWAY PAVEMENT (CURB RAMP TYPES 5 & 6).

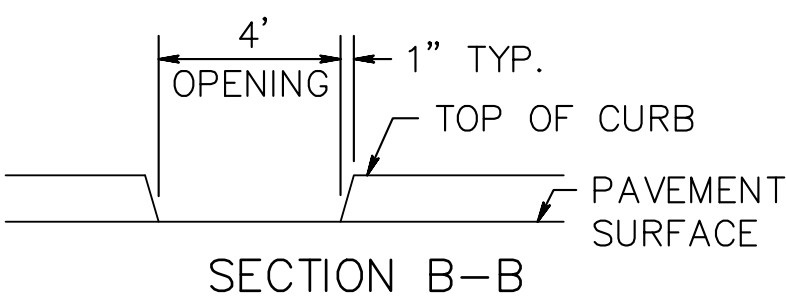


CURB TO BE FLUSH WITH ROADWAY PAVEMENT 4' MINIMUM SIDEWALK LANDING AREA WIDTH

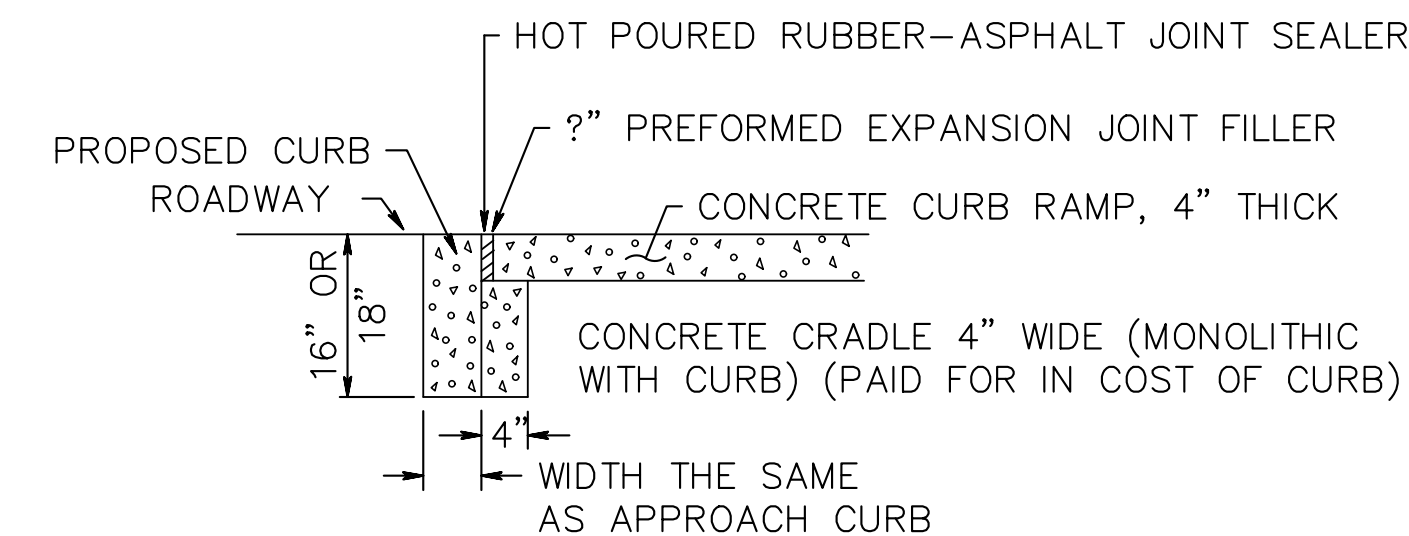


SECTION THROUGH CURB RAMPS 1 THROUGH 6

* TYPE 3 RAMP IS NOT APPLICABLE, USE TYPE 1. ** TYPE 4 RAMP IS NOT APPLICABLE, USE TYPE 2.



NOTE: 4' WIDE OPENING TO BE FLUSH WITH ROADWAY PAVEMENT



DROPPED CURB AND CRADLE

PUBLIC SIDEWALK CURB RAMP DETECTABLE WARNING SURFACE

N.T.S.
HMA = HOT MIX ASPHALT

OWNERSHIP OF DOCUMENTS

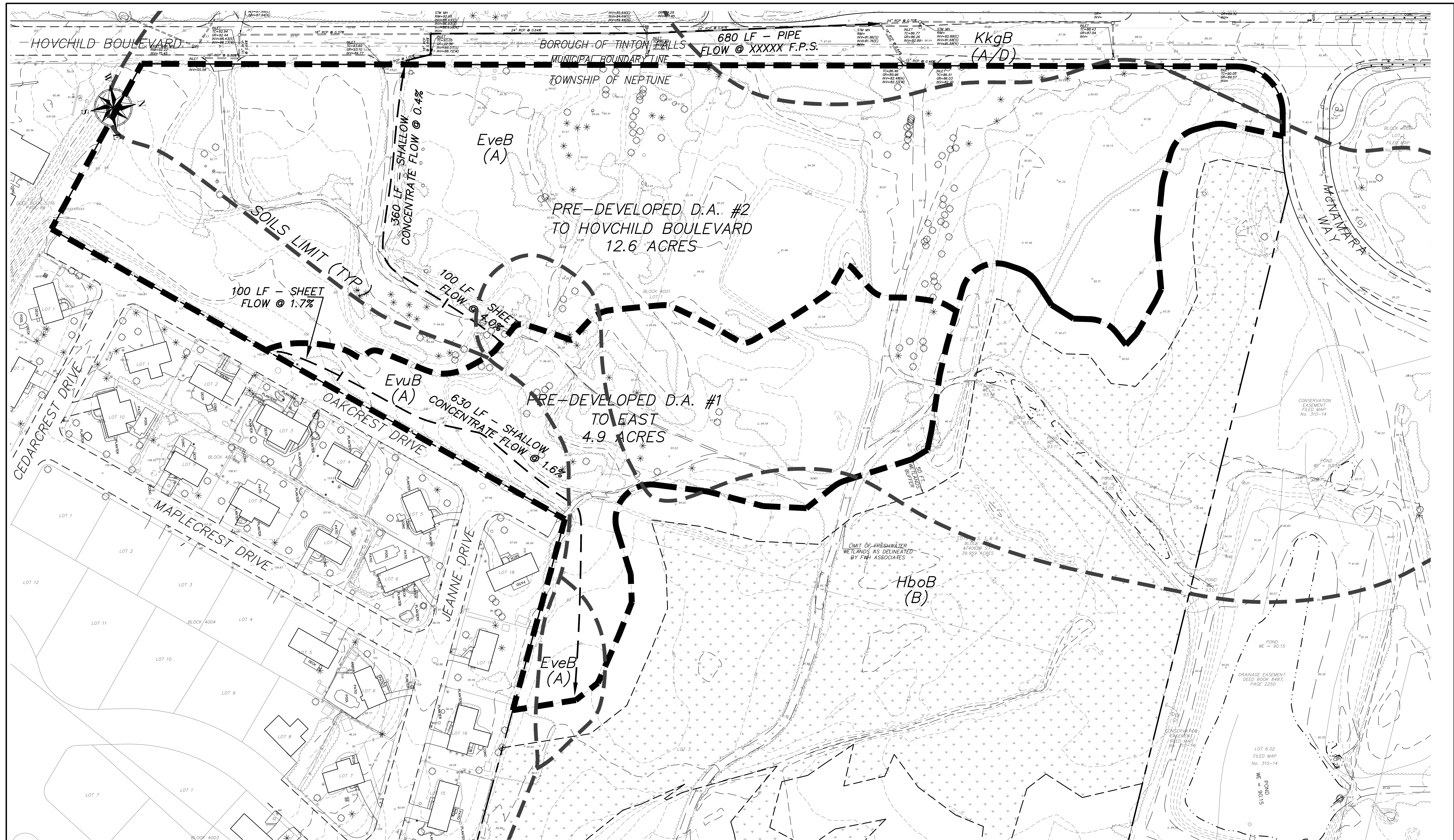
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PRELIMINARY & FINAL MAJOR SUBDIVISION
CONSTRUCTION DETAILS
VICTORIA GARDENS
BLOCK 4001 - LOTS 1, 2 & 3
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY NEW JERSEY

SCALE: NOT TO SCALE	DATE: MAY 25, 2021	JOB NUMBER: 321644	SHEET 21
DRAWN BY: SDG	DESIGNED BY: IMB	CHECKED BY: WAS	31



DRAINAGE AREA #1 - 4.9 ACRES

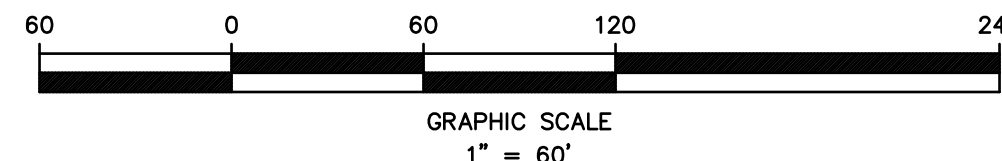
DRAINAGE AREA #2 - 12.6 ACRES

"A" SOILS		"B" SOILS		"A" SOILS		"B" SOILS		"A/D" SOILS	
IMPERVIOUS	0.04 ACRES	IMPERVIOUS	0	IMPERVIOUS	0.06	IMPERVIOUS	0	IMPERVIOUS	0.01 ACRES
WOODS	3.38 ACRES	WOODS	0.38 ACRES	WOODS	6.10 ACRES	WOODS	0.23 ACRES	WOODS	0.15 ACRES
LAWN	0.38 ACRES	LAWN	0.72 ACRES	LAWN	5.53 ACRES	LAWN	0.13 ACRES	LAWN	0.39 ACRES
TOTAL	3.80 ACRES	TOTAL	1.10 ACRES	TOTAL	11.69 ACRES	TOTAL	0.36 ACRES	TOTAL	0.55 ACRES

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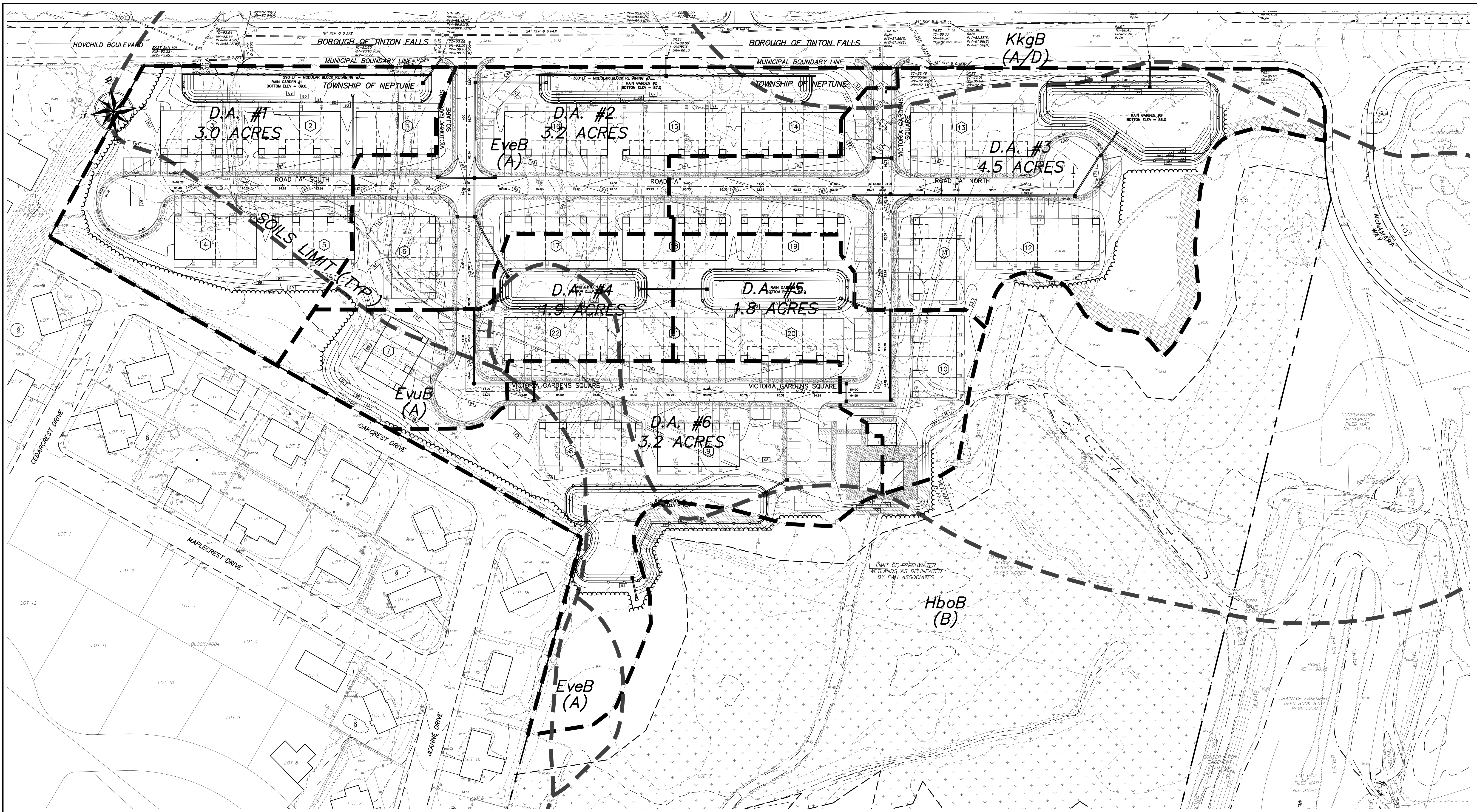


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CERTIFICATE OF AUTHORIZATION NO. 24G28125400

WILLIAM A. STEVENS, P.E., P.P.
PROFESSIONAL ENGINEER, NEW JERSEY LIC. #39115
PROFESSIONAL PLANNER, NEW JERSEY LIC. #3394

PRELIMINARY & FINAL MAJOR SUBDIVISION
PRE-DEVELOPED DRAINAGE AREA MAP
VICTORIA GARDENS
BLOCK 4001 - LOTS 1, 2 & 3
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY NEW JERSEY

SCALE: 1" = 60'	DATE: MAY 25, 2021	JOB NUMBER: 321644	SHEET 22
DRAWN BY: SDG	DESIGNED BY: IMB	CHECKED BY: WAS	31



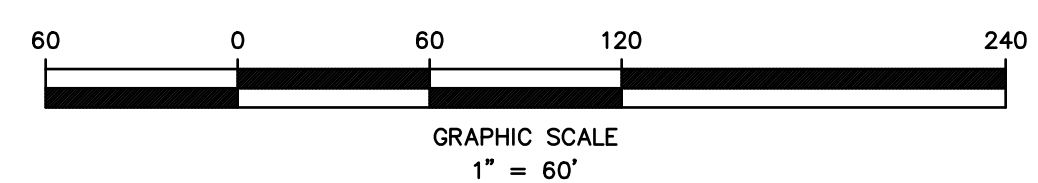
DRAINAGE AREA #1 - 7.7 ACRES (TO EAST)

"A" SOILS	"B" SOILS
IMPERVIOUS 2.32 ACRES	IMPERVIOUS 0.47 ACRES
WOODS 0.60 ACRES	WOODS 0 ACRES
LAWN 3.32 ACRES	LAWN 0.99 ACRES
TOTAL 6.24 ACRES	TOTAL 1.46 ACRES

DRAINAGE AREA #2 - 9.8 ACRES (TO HOVCHILD BOULEVARD)

"A" SOILS	"B" SOILS
IMPERVIOUS 4.20 ACRES	IMPERVIOUS 0
WOODS 0.27 ACRES	WOODS 0
LAWN 4.78 ACRES	LAWN 0
TOTAL 9.25 ACRES	TOTAL 0

"A/D" SOILS	"B" SOILS
IMPERVIOUS 0.05 ACRES	IMPERVIOUS 0
WOODS 0.02 ACRES	WOODS 0
LAWN 0.50 ACRES	LAWN 0
TOTAL 0.55 ACRES	TOTAL 0



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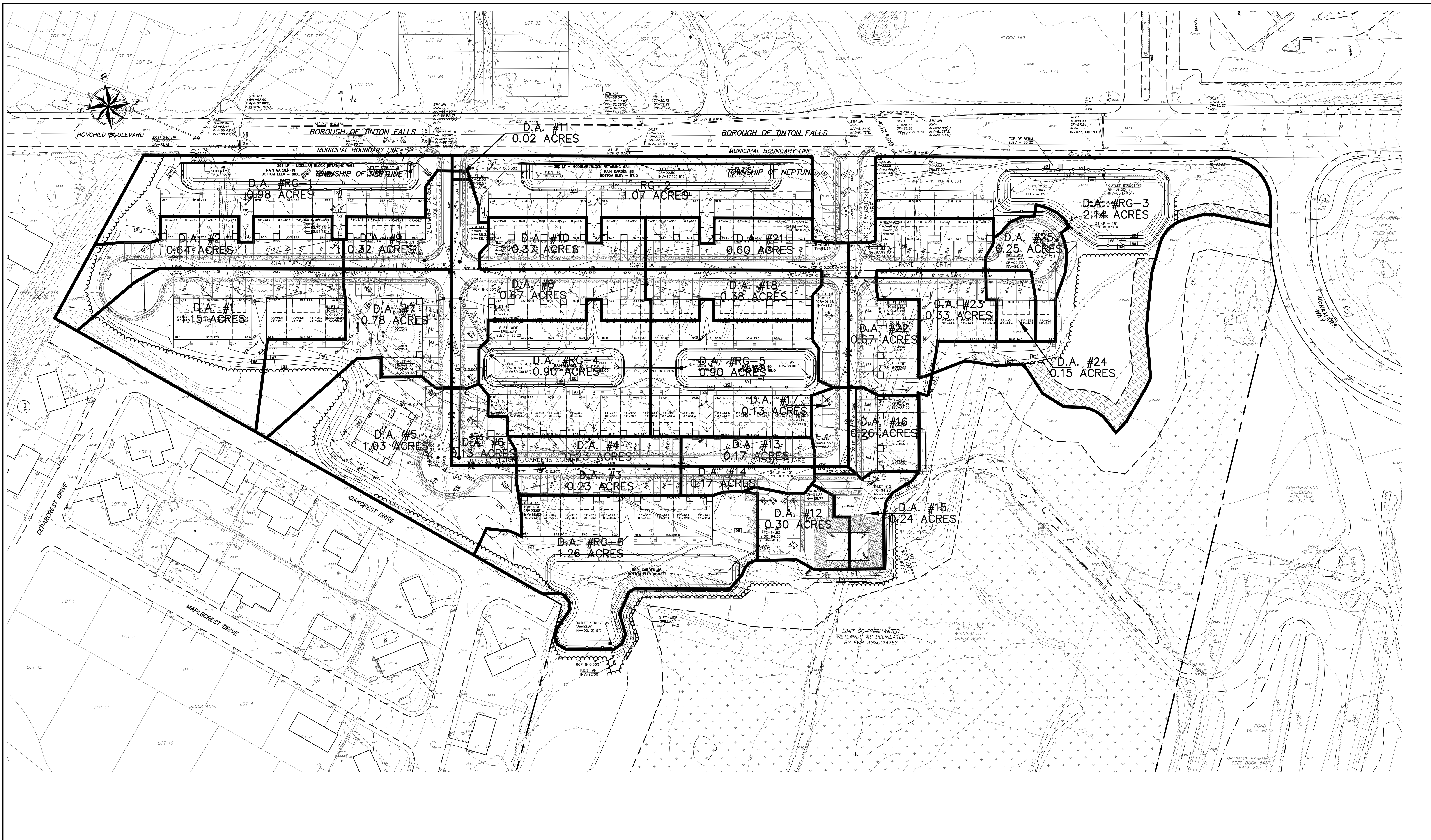
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PRELIMINARY & FINAL MAJOR SUBDIVISION
POST-DEVELOPED DRAINAGE AREA MAP
VICTORIA GARDENS
 BLOCK 4001 - LOTS 1, 2 & 3
 TOWNSHIP OF NEPTUNE
 MONMOUTH COUNTY NEW JERSEY

SCALE: 1" = 60'	DATE: MAY 25, 2021	JOB NUMBER: 321644	SHEET 23
DRAWN BY: SDG	DESIGNED BY: IMB	CHECKED BY: WAS	31



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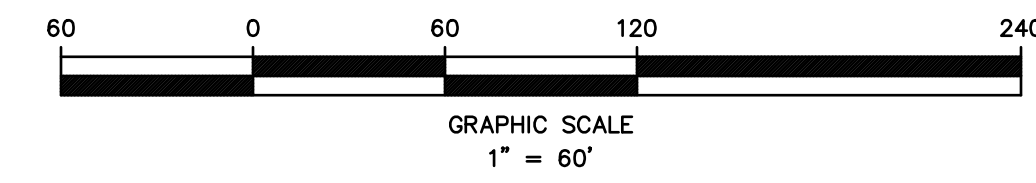
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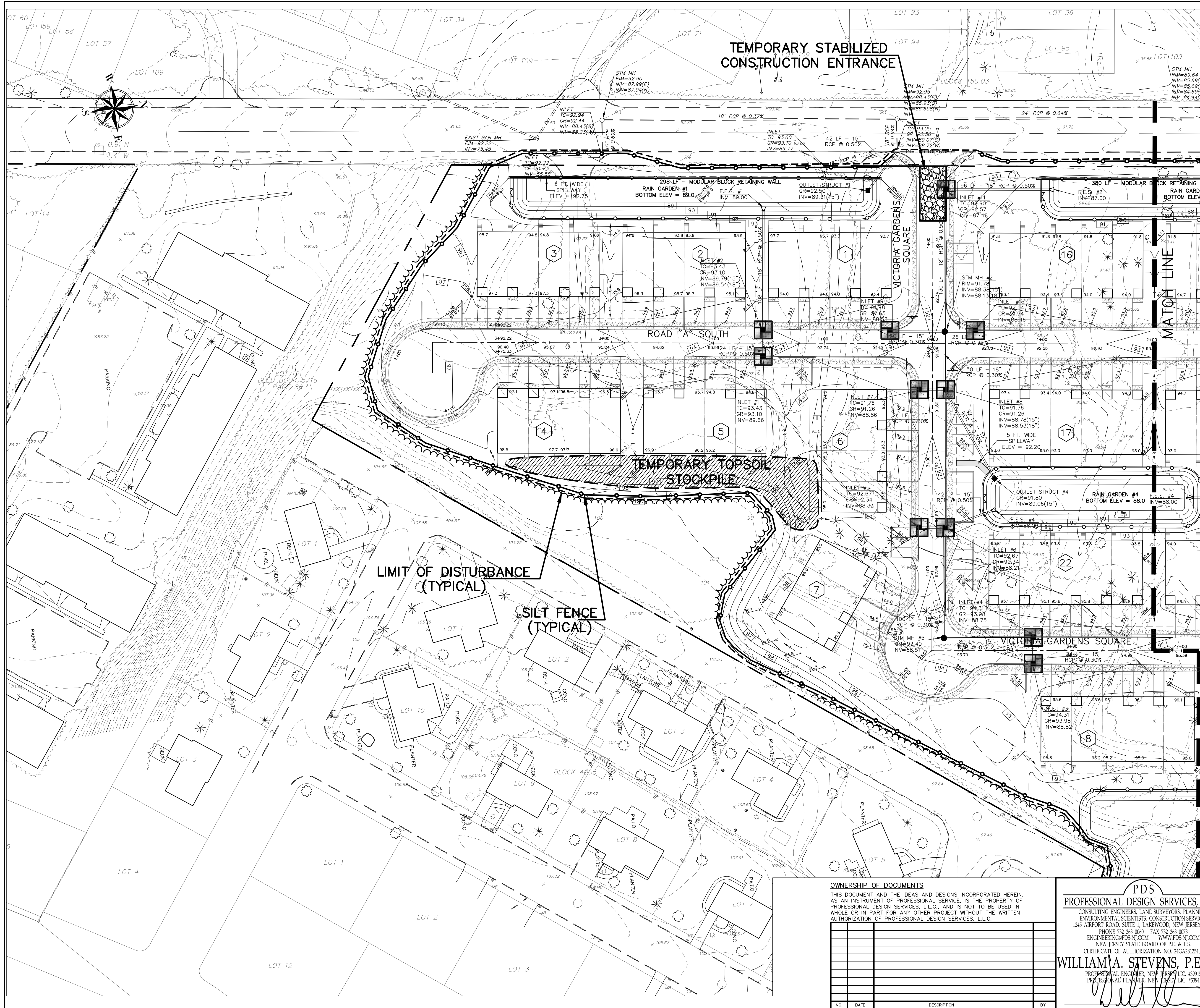
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PRELIMINARY & FINAL MAJOR SUBDIVISION
COLLECTION SYSTEM DRAINAGE AREA MAP
VICTORIA GARDENS
 BLOCK 4001 - LOTS 1, 2 & 3
 TOWNSHIP OF NEPTUNE
 MONMOUTH COUNTY NEW JERSEY

SCALE: 1" = 60'	DATE: MAY 25, 2021	JOB NUMBER: 321644	SHEET 24
DRAWN BY: SDG	DESIGNED BY: IMB	CHECKED BY: WAS	31





TOTAL AREA OF DISTURBANCE = 15.6 ACRES

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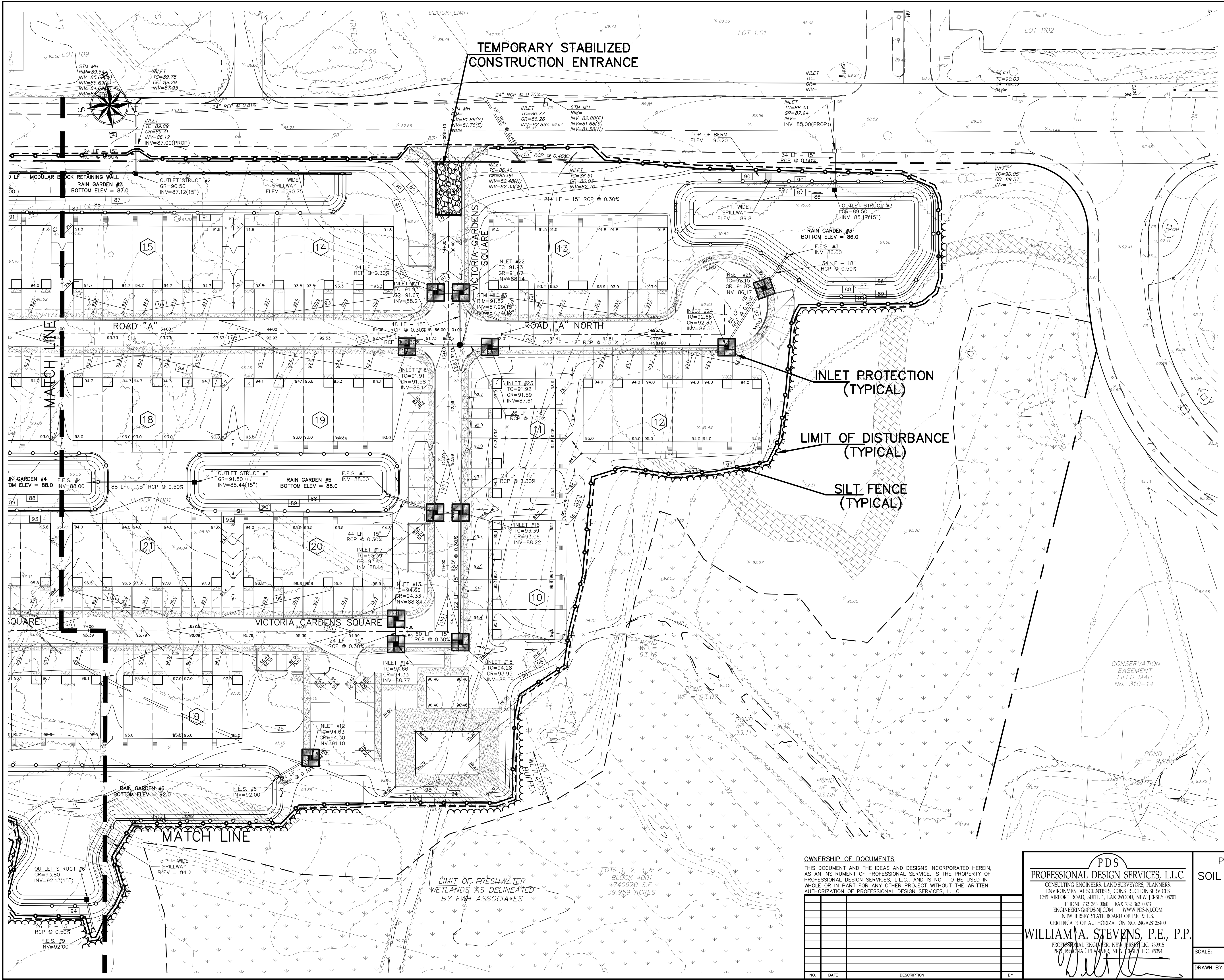
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PRELIMINARY & FINAL MAJOR SUBDIVISION
SOIL EROSION & SEDIMENT CONTROL PLAN
VICTORIA GARDENS
BLOCK 4001 - LOTS 1, 2 & 3
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY NEW JERSEY

SCALE: 1" = 40'	DATE: MAY 25, 2021	JOB NUMBER: 321644	SHEET 25
DRAWN BY: SDG	DESIGNED BY: IMB	CHECKED BY: WAS	31

TEMPORARY STABILIZED CONSTRUCTION ENTRANCE



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PRELIMINARY & FINAL MAJOR SUBDIVISION
SOIL EROSION & SEDIMENT CONTROL PLAN
VICTORIA GARDENS
 BLOCK 4001 - LOTS 1, 2 & 3
 TOWNSHIP OF NEPTUNE
 MONMOUTH COUNTY NEW JERSEY

SCALE: 1" = 40'	DATE: MAY 25, 2021	JOB NUMBER: 321644	SHEET 26
DRAWN BY: SDG	DESIGNED BY: IMB	CHECKED BY: WAS	31

LOTS 1, 2, 3, & 8
 BLOCK 4001
 474,062.0 S.F.
 39.959 ACRES

LIMIT OF FRESHWATER WETLANDS AS DELINEATED BY FWH ASSOCIATES

CONSERVATION EASEMENT FILED MAP No. 310-14

MATCH LINE

MATCH LINE

STANDARD FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

Definition

Establishment of permanent vegetative cover on exposed soils where perennial vegetation is needed for long-term protection.

Purpose

To permanently stabilize the soil, ensuring conservation of soil and water, and to enhance the environment.

Water Quality Enhancement

Slows the over-land movement of stormwater runoff, increases infiltration and retains soil and nutrients on site, protecting streams or other stormwater conveyances.

Where Applicable

On exposed soils that have a potential for causing off-site environmental damage.

Methods and Materials

- 1. Site Preparation
A. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring.
B. Immediately prior to seeding and topsoil application, the subsoil shall be evaluated for compaction in accordance with the Standard for Land Grading.
C. Topsoil should be handled only when it is dry enough to work without damaging the soil structure.
D. Install needed erosion control practices or facilities such as diversions, grade-stabilization structures, channel stabilization measures, sediment basins, and waterways.

Standards for Soil Erosion and Sediment Control in New Jersey January 2014
a disc, spring-tooth harrow, or other suitable equipment. The final harrowing or disking operation should be on the general contour. Continue tillage until a reasonable uniform seedbed is prepared.

C. High acid producing soil. Soils having a pH of 4 or less or containing iron sulfide shall be covered with a minimum of 12 inches of soil having a pH of 5 or more before initiating seedbed preparation. See Standard for Management of High Acid-Producing Soils for specific requirements.

3. Seeding
A. Select a mixture from Table 4-3 or use a mixture recommended by Rutgers Cooperative Extension or Natural Resources Conservation Service which is approved by the Soil Conservation District. Seed germination shall have been tested within 12 months of the planting date. No seed shall be accepted with a germination test date more than 12 months old unless retested.

- 1. Seeding rates specified are required when a report of compliance is requested prior to actual establishment of permanent vegetation.
2. Warm-season mixtures are grasses and legumes which maximize growth at high temperatures, generally 85°F and above.
3. Cool-season mixtures are grasses and legumes which maximize growth at temperatures below 85°F.
B. Conventional Seeding is performed by applying seed uniformly by hand, cyclone (centrifugal) seeder, drop seeder, drill or cultipacker seeder.
C. After seeding, firming the soil with a corrugated roller will assure good seed-to-soil contact, restore capillarity, and improve seedling emergence.

4. Mulching
Mulching is required on all seeding. Mulch will protect against erosion before grass is established and will promote faster and earlier establishment. The existence of vegetation sufficient to control soil erosion shall be deemed compliance with this mulching requirement.

A. Straw or Hay. Unrotted small grain straw, hay free of seeds, to be applied at the rate of 1-1/2 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch-binder (tackifying or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper-blowers must not grind the mulch. Hay mulch is not recommended for establishing fine turf or lawns due to the presence of weed seed.

Application - Spread mulch uniformly by hand or mechanically so that at least 85% of the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 square feet sections and distribute 70 to 90 pounds within each section.

Anchoring shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs.

- 1. Peg and Twine. Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions.
2. Mulch Nettings. Staple paper, jute, cotton, or plastic nettings to the soil surface. Use a degradable netting in areas to be mowed.
3. Crimper (mulch anchoring couler tool) - A tractor-drawn implement, somewhat like a disc harrow, especially designed to push or cut some of the broadcast long fiber mulch 3 to 4 inches into the soil so as to anchor it and leave part standing upright.

4. Liquid Mulch-Binders - May be used to anchor salt hay, hay or straw mulch.

- a. Applications should be heavier at edges where wind may catch the mulch, in valleys, and at crests of banks. The remainder of the area should be uniform in appearance.
b. Use one of the following:
(1) Organic and Vegetable Based Binders - Naturally occurring, powder-based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membraned networks of insoluble polymers.
(2) Synthetic Binders - High polymer synthetic emulsion, miscible with water when diluted and, following application of mulch, drying and curing, shall no longer be soluble or dispersible in water.

Note: All names given above are registered trade names. This does not constitute a recommendation of these products to the exclusion of other products.

B. Wood-fiber or paper-fiber mulch - shall be made from wood, plant fibers or paper containing no

growth or germination inhibiting materials, used at the rate of 1,500 pounds per acre (or as recommended by the product manufacturer) and may be applied by a hydroseeder. Mulch shall not be mixed in the tank with seed. Use is limited to flatter slopes and during optimum seeding periods in spring and fall.

C. Pelletized mulch - compressed and extruded paper and/or wood fiber product, which may contain co-polymers, tackifiers, fertilizers, and coloring agents. The dry pellets, when applied to a seeded area and watered, form a mulch mat. Pelletized mulch shall be applied in accordance with the manufacturer's recommendations. Mulch may be applied by hand or mechanical spreader at the rate of 60-75 lbs/1,000 square feet and activated with 0.2 to 0.4 inches of water.

5. Irrigation (where feasible)
If soil moisture is deficient supply new seeding with adequate water (a minimum of 1/4 inch applied up to twice a day until vegetation is well established). This is especially true when seedings are made in abnormally dry or hot weather or on droughty sites.

6. Topdressing
Since soil organic matter content and slow release nitrogen fertilizer (water insoluble) are prescribed in Section 2A - Seedbed Preparation in this Standard, no follow-up of topdressing is mandatory. An exception may be made where gross nitrogen deficiency exists in the soil to the extent that turf failure may develop. In that instance, topdress with 10-10-10 or equivalent at 300 pounds per acre or 7 pounds per 1,000 square feet every 3 to 5 weeks until the gross nitrogen deficiency in the turf is ameliorated.

7. Establishing Permanent Vegetative Stabilization
The quality of permanent vegetation rests with the contractor. The timing of seeding, preparing the seedbed, applying nutrients, mulch and other management are essential. The seed application rates in Table 4-3 are required when a Report of Compliance is requested prior to actual establishment of permanent vegetation. Up to 50% reduction in application rates may be used when permanent vegetation is established prior to requesting a Report of Compliance from the district. These rates apply to all methods of seeding. Establishing permanent vegetation means 80% vegetative cover (of the seeded species) and mowed once. Note this designation of mowed once does not guarantee the permanency of the turf should other maintenance factors be neglected or otherwise mismanaged.

TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

Definition

Establishment of temporary vegetative cover on soils exposed for periods of two to 6 months which are not being graded, not under active construction or not scheduled for permanent seeding within 60 days.

Purpose

To temporarily stabilize the soil and reduce damage from wind and water erosion until permanent stabilization is accomplished.

Water Quality Enhancement

Provides temporary protection against the impacts of wind and rain, slows the over land movement of stormwater runoff, increases infiltration and retains soil and nutrients on site, protecting streams or other stormwater conveyances.

Where Applicable

On exposed soils that have the potential for causing off-site environmental damage.

Methods and Materials

- 1. Site Preparation
A. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring.
B. Install needed erosion control practices or facilities such as diversions, grade stabilization structures, channel stabilization measures, sediment basins, and waterways.
C. Immediately prior to seeding, the surface should be scarified 6" to 12" where there has been soil compaction. This practice is permissible only where there is no danger to underground utilities (cables, irrigation systems, etc.).

2. Seedbed Preparation
A. Apply ground limestone and fertilizer according to soil test recommendations such as offered by Rutgers Co-operative Extension. Soil sample mailers are available from the local Rutgers Cooperative Extension offices. Fertilizer shall be applied at the rate of 500 pounds per acre or 11 pounds per 1,000 square feet of 10-20-10 or equivalent with 50% water insoluble nitrogen unless a soil test indicates otherwise. Calcium carbonate is the equivalent and standard for measuring the ability of liming materials to neutralize soil acidity and supply calcium and magnesium to grasses and legumes. LIMING RATES SHALL BE ESTABLISHED VIA SOIL TESTING.

B. Work lime and fertilizer into the soil as nearly as practical to a depth of 4 inches with a disc, springtooth harrow, or other suitable equipment. The final harrowing or disking operation should

be on the general contour. Continue tillage until a reasonable uniform seedbed is prepared.

C. Inspect seedbed just before seeding. If traffic has left the soil compacted, the area must be retilled in accordance with the above.

D. Soils high in sulfides or having a pH of 4 or less refer to Standard for Management of High Acid Producing Soils, pg. 1-1.

3. Seeding
A. Select seed from recommendations in Table 7-2.

TABLE 7-2

TEMPORARY VEGETATIVE STABILIZATION GRASSES, SEEDING RATES, DATES AND DEPTH

Table with 7 columns: SEED SELECTIONS, SEEDING RATE (pounds), OPTIMUM SEEDING DATE (Based on Plant Hardiness Zone), and OPTIMUM SEED DEPTH (inches). Rows include 1. Perennial ryegrass, 2. Spring oats, 3. Winter Barley, 4. Annual ryegrass, 5. Winter Cereal Rye, 6. Pearl millet, 7. Millet (German or Hungarian).

- 1 Seeding rate for warm season grass, selections 5 - 7 shall be adjusted to reflect the amount of Pure Line Seed (PLS) as determined by a germination test result.
2 May be planted throughout summer if soil moisture is adequate or seeded area can be irrigated.
3 Plant Hardiness Zone (see figure 7-1, pg. 7-4.)
4 Twice the depth for sandy soils

B. Conventional Seeding. Apply seed uniformly by hand, cyclone (centrifugal) seeder, drop seeder, drill or cultipacker seeder. Except for drilled, hydroseeded or cultipacked seedings, seed shall be incorporated into the soil, to a depth of 1/4 to 1/2 inch, by raking or dragging. Depth of seed placement may be 1/4 inch deeper on coarse textured soil.

C. Hydroseeding is a broadcast seeding method usually involving a truck or trailer mounted tank, with an agitation system and hydraulic pump for mixing seed, water and fertilizer and spraying the mix onto the prepared seedbed. Mulch shall not be included in the tank with seed. Short fibered mulch may be applied with a hydroseeder following seeding. (also see Section IV Mulching) Hydroseeding is not a preferred seeding method because seed and fertilizer are applied to the surface and not incorporated into the soil. Poor seed to soil contact occurs reducing seed germination and growth. Hydroseeding may be used for areas too steep for conventional equipment to traverse or too obstructed with rocks, stumps, etc.

D. After seeding, firming the soil with a corrugated roller will assure good seed-to-soil contact, restore capillarity, and improve seedling emergence. This is the preferred method. When performed on the contour, sheet erosion will be minimized and water conservation on site will be maximized.

4. Mulching

Mulching is required on all seeding. Mulch will insure against erosion before grass is established and will promote faster and earlier establishment. The existence of vegetation sufficient to control soil erosion shall be deemed compliance with this mulching requirement.

A. Straw or Hay. Unrotted small grain straw, hay free of seeds, applied at the rate of 1-1/2 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch-binder (tackifying or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper-blowers must not grind the mulch. Hay mulch is not recommended for establishing fine turf or lawns due to the presence of weed seed.

Application. Spread mulch uniformly by hand or mechanically so that approximately 95% of the soil surface will be covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 square feet sections and distribute 70 to 90 pounds within each section.

Anchoring shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs.

- 1. Peg and Twine. Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions.
2. Mulch Nettings. Staple paper, jute, cotton, or plastic nettings to the soil surface. Use a degradable netting in areas to be mowed.

3. Crimper (mulch anchoring tool). A tractor-drawn implement, somewhat like a disc harrow, especially designed to push or cut some of the broadcast long fiber mulch 3 to 4 inches into the soil so as to anchor it and leave part standing upright. This technique is limited to areas traversable by a tractor, which must operate on the contour of slopes. Straw mulch rate must be 3 tons per acre. No tackifying or adhesive agent is required.

4. Liquid Mulch-Binders - May be used to anchor hay or straw mulch.
a. Applications should be heavier at edges where wind may catch the mulch, in valleys, and at crests of banks. The remainder of the area should be uniform in appearance.

- b. Use one of the following:
(1) Organic and Vegetable Based Binders - Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membraned networks of insoluble polymers.
(2) Synthetic Binders - High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water.

Note: All names given above are registered trade names. This does not constitute a recommendation of these products to the exclusion of other products.

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PRELIMINARY & FINAL MAJOR SUBDIVISION SOIL EROSION & SEDIMENT CONTROL DETAILS & NOTES VICTORIA GARDENS BLOCK 4001 - LOTS 1, 2 & 3 TOWNSHIP OF NEPTUNE MONMOUTH COUNTY NEW JERSEY. SCALE: NOT TO SCALE DATE: MAY 25, 2021 JOB NUMBER: 321644 SHEET 27 DRAWN BY: SDG DESIGNED BY: IMB CHECKED BY: WAS 31

**STANDARD
FOR
STABILIZATION WITH MULCH ONLY**

Definition

Stabilizing exposed soils with non-vegetative materials exposed for periods longer than 14 days

Purpose

To protect exposed soil surfaces from erosion damage and to reduce offsite environmental damage.

Water Quality Enhancement

Provides temporary mechanical protection against wind or rainfall induced soil erosion until permanent vegetative cover may be established.

Where Applicable

This practice is applicable to areas subject to erosion, where the season and other conditions may not be suitable for growing an erosion-resistant cover or where stabilization is needed for a short period until more suitable protection can be applied.

Methods and Materials

1. Site Preparation

- A. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with Standards for Land Grading
- B. Install needed erosion control practices or facilities such as diversions, grade stabilization structures, channel stabilization measures, sediment basins, and waterways. See Standards 11 through 42.

2. Protective Materials

- A. Unrotted small-grain straw, at 2.0 to 2.5 tons per acre, is spread uniformly at 90 to 115 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. The approved rates above have been met when the mulch covers the ground completely upon visual inspection, i.e. the soil cannot be seen below the mulch.
- C. Synthetic or organic soil stabilizers may be used under suitable conditions and in quantities as recommended by the manufacturer.
- D. Wood-fiber or paper-fiber mulch at the rate of 1,500 pounds per acre (or according to the manufacturer's requirements) may be applied by a hydroseducer.
- E. Mulch netting, such as paper jute, excelsior, cotton, or plastic, may be used.
- F. Woodchips applied uniformly to a minimum depth of 2 inches may be used. Woodchips will not be used on areas where flowing water could wash them into an inlet and plug it.

5-1

[Return to TOC](#)

SEED MIXTURE ²	PLANTING RATE ³	PLANTING DATES.										MAINTENANCE LEVEL ⁴	REMARKS	
		O = Optimal Planting period A = Acceptable Planting period												
		PLANT HARDINESS ZONES (see Figure 4-1)												
		Zone 5b, 6a			Zone 6b			Zone 7a, 7b						
BANKS	1000 sq. ft.	3/15-5/31	6/1-7/31	8/1-10/1	3/1-4/30	5/1-8/14	8/15-10/15	2/1-4/30	5/1-8/14	8/15-10/30				
WARM SEASON SEED MIXTURES														
4. Switchgrass Big Bluestem Little Bluestem Sand lovegrass Coastal panicgrass	10 5 5 4 10	.25 .10 .10 .10 .25	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	O	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C-D	Native warm-season mixture.
COOL SEASON SEED MIXTURES	130	3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A	A ⁵	O	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		General low-maintenance mixture.
7. Strong Creeping red fescue Kentucky bluegrass Perennial ryegrass or Redtop plus White clover	130 50 20 10 5	3 1 .5 .25 .10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A	A ⁵	O	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	B-D	Suitable waterway mix Canada bluegrass more drought tolerant. Use Redtop for increased drought-tolerance.
8. Tall fescue (turf-type) or Strong Creeping red fescue or Perennial ryegrass Flatpea	30 30 30 25	.7 .7 .7 .60	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	O	A ⁶	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	B-D	Tall fescue best selected for droughty conditions. Use Creeping red fescue in heavy shade. Use Flatpea to suppress woody vegetation.
9. Deertongue Redtop Wild rye (Elymus) Switchgrass	20 2 15 25	.45 .05 .35 .60	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	O	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C-D	Native wet mix.
10. Tall fescue (turf-type) Perennial ryegrass or White clover (see note at right)	265 20 40 5	6 5 .25 .10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	O	A ⁵	A ⁵	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C-D	White clover can be excluded on lawn sites.
11. Kentucky Bluegrass Turf-type Tall fescue	45 45 22	.45 1 .5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A	A ⁵	O	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C-D	Filter strip use for nutrient uptake.
12. Turf-type Tall fescue (Blend of 3 cultivars)	350	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A	A ⁵	O	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C-D	Use in a managed filter strip for nutrient uptake.
13. Hard Fescue and/or Chewings fescue and/or Strong creeping red fescue Perennial ryegrass Ky. bluegrass (blend)	175 45 45	4 1 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A	A ⁵	O	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A-C	General lawn/recreation.
14. Tall fescue Ky. bluegrass (blend) Perennial ryegrass (blend)	265 20 20	6 0.50 0.50	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A	A ⁵	O	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A-B	Athletic field/3 cultivar mix of Kentucky Bluegrass.
15. Hard fescue Chewings fescue Strong Creeping red fescue Perennial ryegrass	130 45 45 10	3 1 1 .25	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A	A ⁵	O	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C-D	Low-maintenance fine fescue lawn mix.
16. Rough bluegrass Strong Creeping red fescue	90 130	2.0 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A	A ⁵	O	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C-D	Moist shade.

NOTE:

PERMANENT SEED MIXTURE TO BE #4 OR #10 DEPENDING ON SEASON. OTHER COOL SEASON MIXTURES MAY BE SUBSTITUTED UPON APPROVAL BY FREEHOLD SOIL CONSERVATION DISTRICT.

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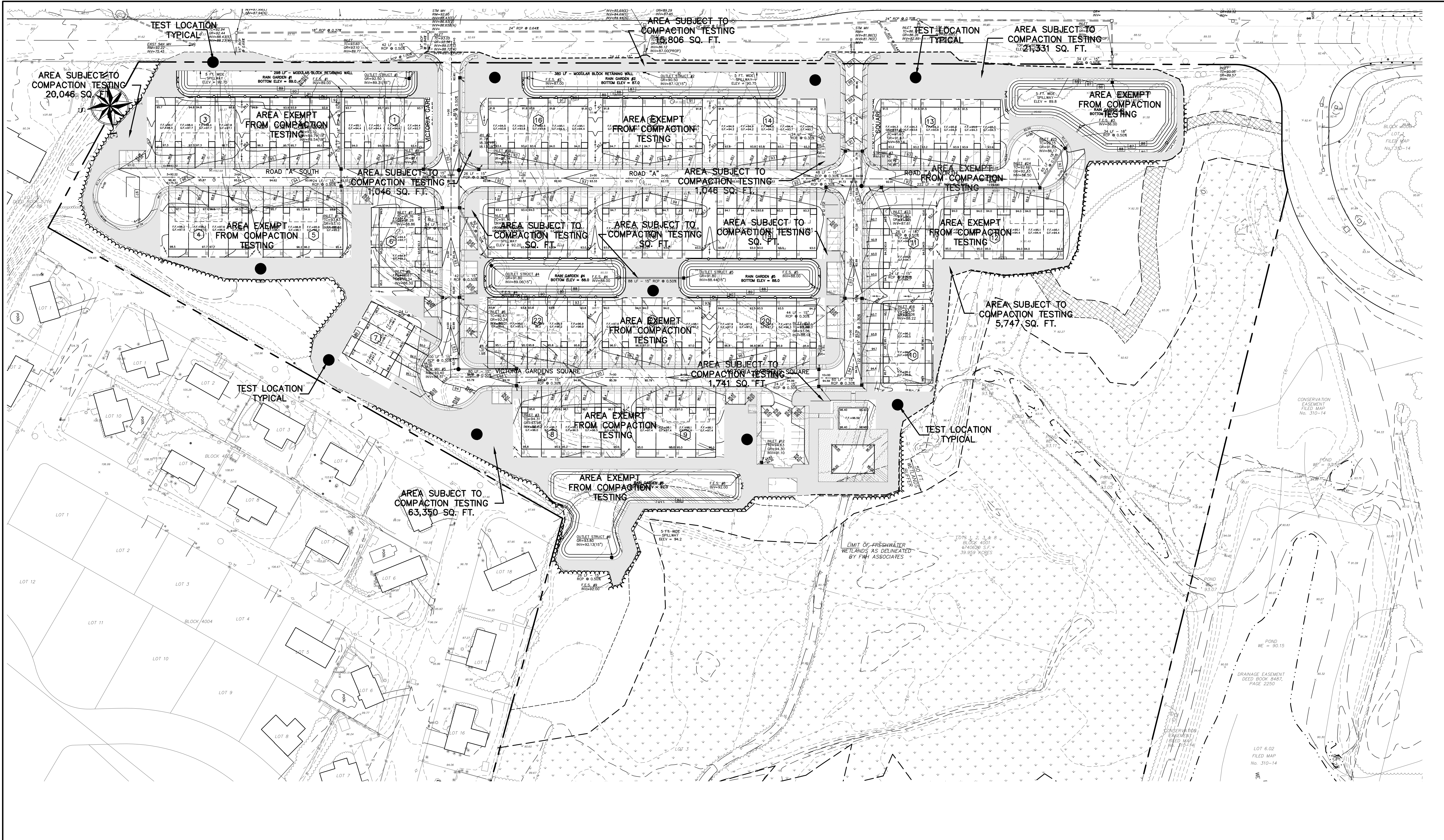
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**PRELIMINARY & FINAL MAJOR SUBDIVISION
SOIL EROSION & SEDIMENT CONTROL
DETAILS & NOTES
VICTORIA GARDENS**
 BLOCK 4001 - LOTS 1, 2 & 3
 TOWNSHIP OF NEPTUNE
 MONMOUTH COUNTY NEW JERSEY

SCALE: NOT TO SCALE	DATE: MAY 25, 2021	JOB NUMBER: 321644	SHEET 28
DRAWN BY: SDC	DESIGNED BY: IMB	CHECKED BY: WAS	31



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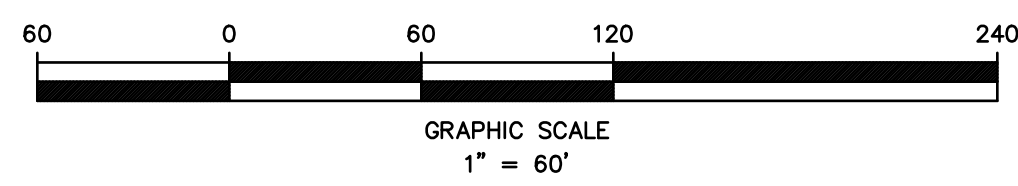
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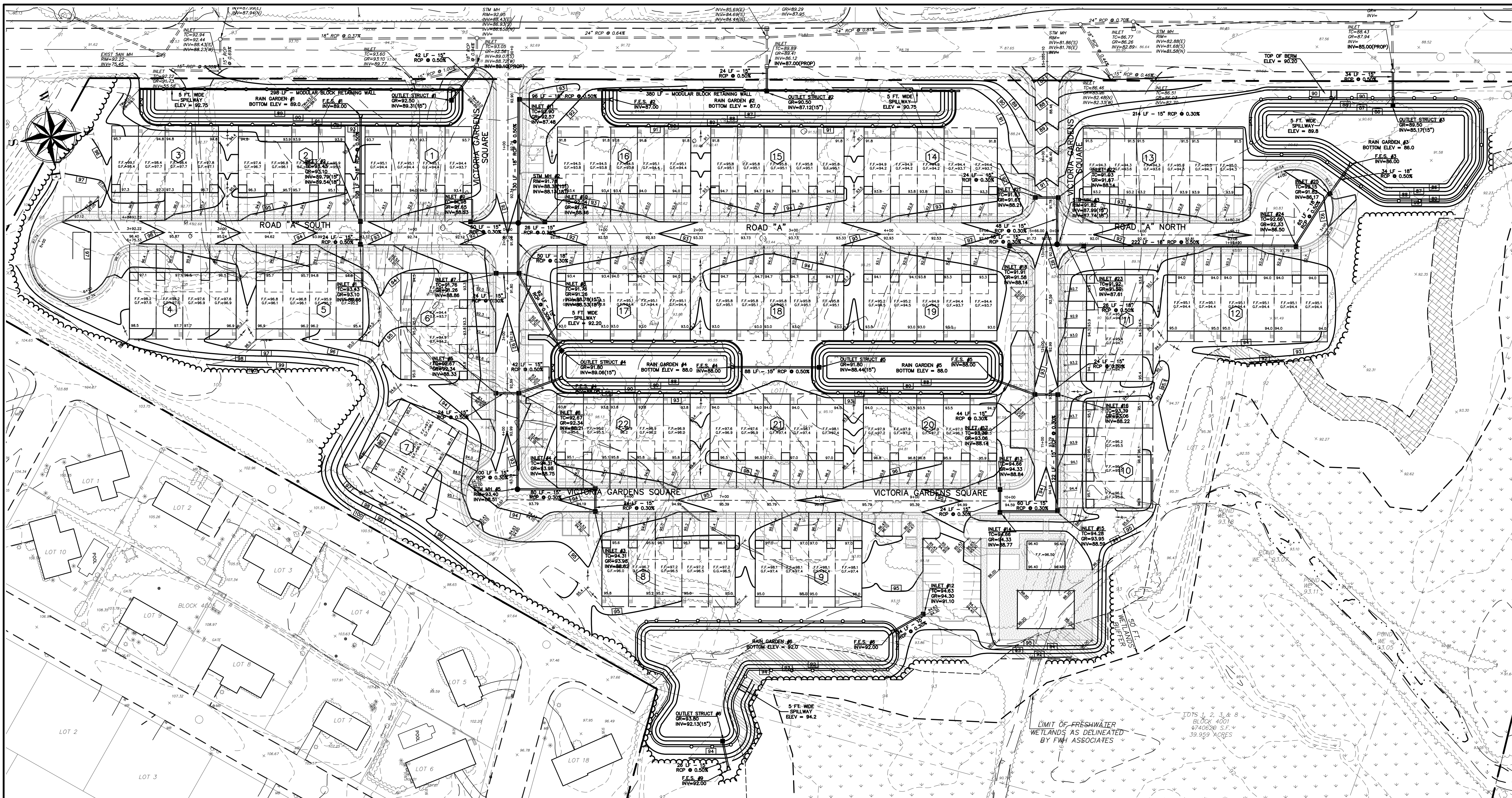
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(Signature)

PRELIMINARY & FINAL MAJOR SUBDIVISION
SOIL RESTORATION PLAN
VICTORIA GARDENS
 BLOCK 4001 – LOTS 1, 2 & 3
 TOWNSHIP OF NEPTUNE
 MONMOUTH COUNTY NEW JERSEY



SCALE: 1" = 60'	DATE: MAY 25, 2021	JOB NUMBER: 321644	SHEET 30
DRAWN BY: SDG	DESIGNED BY: IMB	CHECKED BY: WAS	31



MAINTENANCE PLAN CONSIDERATIONS

ACCESS:
 ALL STORMWATER MANAGEMENT MEASURES COMPONENTS MUST BE READILY ACCESSIBLE FOR INSPECTION AND MAINTENANCE. THEREFORE, ACCESS MUST BE PROVIDED TO THE ENTIRE STORMWATER MEASURE VIA ROADWAYS AND PATHS. TREES, SHRUBS, AND UNDERBRUSH MUST BE PRUNED OR TRIMMED AS NECESSARY TO MAINTAIN THIS ACCESS. THIS INCLUDES PATHWAYS THROUGH THE VEGETATION ALONG PERMANENT POOL PERIMETERS, INCLUDING AQUATIC BENCHES, TO ALLOW FOR THE INSPECTION AND CONTROL OF MOSQUITO BREEDING.

INSPECTION AND MAINTENANCE EASEMENTS CONNECTED TO THE STREET OR RIGHT-OF-WAY SHOULD BE PROVIDED AROUND THE ENTIRE FACILITY. THE EXACT LIMITS OF THE EASEMENTS AND RIGHTS-OF-WAY SHOULD BE SPECIFIED ON THE PROJECT PLANS AND INCLUDED IN THE MAINTENANCE PLAN. ACCESS ROADS AND GATES SHOULD BE WIDE ENOUGH TO ALLOW PASSAGE OF NECESSARY MAINTENANCE VEHICLES AND EQUIPMENT, INCLUDING TRUCKS, BACKHOES, GRASS MOWERS, AND MOSQUITO CONTROL EQUIPMENT. IN GENERAL, A MINIMUM ACCESS ROADWAY WIDTH OF 12 FEET INSIDE A MINIMUM RIGHT-OF-WAY WIDTH OF 15 FEET IS RECOMMENDED. TO FACILITATE ENTRY, A CURB SHOULD BE PROVIDED WHERE AN ACCESS ROAD MEETS A CURBED ROADWAY.

A CURBED ROADWAY:
 TO ALLOW SAFE MOVEMENT OF MAINTENANCE VEHICLES, ACCESS RAMPS SHOULD BE PROVIDED TO THE SHORELINE OR BOTTOM OF ALL FACILITIES WITH SIDE SLOPES GREATER THAN 3 FEET IN HEIGHT. ACCESS RAMPS SHOULD NOT EXCEED 10 PERCENT IN GRADE AND SHOULD BE SUITABLY STABILIZED TO PREVENT DAMAGE BY VEHICLES AND EQUIPMENT. TURNAROUNDS SHOULD BE PROVIDED WHERE BACKING UP IS DIFFICULT OR DANGEROUS. TO EXPEDITE OVERALL MAINTENANCE, VEHICLE AND EQUIPMENT STAGING AREAS SHOULD BE PROVIDED AT OR NEAR EACH FACILITY SITE.

TRAINING OF MAINTENANCE PERSONNEL:
 DEPENDING ON THE SIZE, CHARACTER, COMPONENTS, AND LOCATION OF A STORMWATER MANAGEMENT MEASURE, MAINTENANCE PERSONNEL MAY REQUIRE SPECIALIZED TRAINING TO ENSURE THAT THE MEASURE IS MAINTAINED IN A MANNER CONSISTENT WITH ITS FUNCTION. SUCH TRAINING MAY ADDRESS SPECIALIZED INSPECTION OR MAINTENANCE TASKS AND/OR THE OPERATION OF SPECIALIZED MAINTENANCE EQUIPMENT.

DISPOSAL:
 COLLECTION AND DISPOSAL OF SEDIMENT, DEBRIS, AND TRASH FROM STORMWATER MANAGEMENT MEASURES MUST COMPLY WITH LOCAL, STATE, AND FEDERAL WASTE HANDLING AND DISPOSAL REGULATIONS. ALL COLLECTED MATERIAL MUST BE SENT TO APPROPRIATE DISPOSAL/RECYCLING FACILITIES.

AESTHETICS:
 THE SAFETY, NEEDS AND AESTHETIC PREFERENCES OF THE ADJACENT COMMUNITY CAN HELP DETERMINE THE TYPE, AMOUNT, AND FREQUENCY OF NECESSARY MAINTENANCE.

EMERGENCY MAINTENANCE:
 EMERGENCY MAINTENANCE AND REPAIRS MUST BE PERFORMED IN A TIMELY MANNER.

SAFETY:
 DEVELOPMENT OF A STORMWATER MANAGEMENT MEASURE DESIGN AND THE INSPECTION AND MAINTENANCE MUST INCLUDE CONSIDERATIONS FOR THE SAFETY OF INSPECTION AND MAINTENANCE PERSONNEL WHO WILL BE WORKING IN OR NEAR THE MEASURE.

MAINTENANCE NOTES

REQUIRED MAINTENANCE PLAN PROCEDURES:

- COPIES OF THE MAINTENANCE PLAN MUST BE PROVIDED TO THE OWNER AND OPERATOR OF THE STORMWATER MANAGEMENT MEASURE AND TO ALL REVIEWING AGENCIES. A COPY SHOULD ALSO BE PROVIDED TO THE LOCAL MOSQUITO CONTROL OR EXTERMINATION COMMISSION UPON REQUEST.
- THE TITLE AND DATE OF THE MAINTENANCE PLAN AND THE NAME AND/OR TITLE AND ADDRESS OF THE PERSON WITH OVERALL MAINTENANCE RESPONSIBILITY MUST BE RECORDED ON THE DEED OF THE PROPERTY ON WHICH THE STORMWATER MANAGEMENT MEASURE IS LOCATED. ANY CHANGE IN THE NAME OR TITLE MUST ALSO BE RECORDED ON THE DEED, PARTICULARLY IF THERE IS A CHANGE OF PROPERTY OWNERSHIP.
- THE MAINTENANCE PLAN MUST BE EVALUATED FOR EFFECTIVENESS AT LEAST ANNUALLY AND MUST BE REVISED AS NEEDED.
- A DETAILED, WRITTEN LOG OF ALL PREVENTATIVE AND CORRECTIVE MAINTENANCE PERFORMED AT THE STORMWATER MANAGEMENT MEASURE MUST BE KEPT, INCLUDING A RECORD OF ALL INSPECTIONS AND COPIES OF MAINTENANCE WORK ORDERS.
- THE PERSON WITH OVERALL MAINTENANCE RESPONSIBILITY MUST MAKE THE MAINTENANCE PLAN, LOGS, AND OTHER RECORDS AVAILABLE FOR REVIEW UPON REQUEST FROM A PUBLIC ENTITY WITH JURISDICTION OVER ACTIVITIES AT THE SITE.

REQUIRED MAINTENANCE PLAN COMMENTS:

- ENTRusted RESPONSIBLE FOR OVERALL MAINTENANCE OF THE STORMWATER MANAGEMENT MEASURE:
 HOMEOWNERS ASSOCIATION
- SCHEDULE OF MAINTENANCE INSPECTIONS AND MAINTENANCE TASKS:
EXTENDED DETENTION BASIN:
 A. GENERAL MAINTENANCE:
 ALL EXTENDED DETENTION BASIN COMPONENTS EXPECTED TO RECEIVE AND/OR TRAP DEBRIS AND SEDIMENT MUST BE INSPECTED FOR CLOGGING AND EXCESSIVE DEBRIS AND SEDIMENT ACCUMULATION AT LEAST FOUR TIMES ANNUALLY AS WELL AS AFTER EVERY STORM EXCEEDING 1 INCH OF RAINFALL. SUCH COMPONENTS MAY INCLUDE BOTTOMS, RIPRAP OR GABION APRONS, AND INFLOW POINTS. THIS APPLIES TO BOTH SURFACE AND SUBSURFACE INFILTRATION BASINS. SEDIMENT REMOVAL SHOULD TAKE PLACE WHEN THE BASIN IS THOROUGHLY DRY. DISPOSAL OF DEBRIS AND TRASH SHOULD BE DONE AT SUITABLE DISPOSAL/RECYCLING SITES AND IN COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL WASTE REGULATIONS.
 B. VEGETATED AREAS:
 MOWING AND/OR TRIMMING OF VEGETATION MUST BE PERFORMED ON A REGULAR SCHEDULE BASED ON SPECIFIC SITE CONDITIONS. GRASS SHOULD BE MOWED AT LEAST ONCE A MONTH DURING THE GROWING SEASON. VEGETATED AREAS MUST ALSO BE INSPECTED AT LEAST ANNUALLY FOR EROSION AND SCOUR. VEGETATED AREAS SHOULD ALSO BE INSPECTED AT LEAST ANNUALLY FOR UNWANTED GROWTH, WHICH SHOULD BE REMOVED WITH MINIMUM DISRUPTION TO THE BOTTOM SURFACE AND REMAINING VEGETATION. WHEN ESTABLISHING OR RESTORING VEGETATION, BIWEEKLY INSPECTIONS OF VEGETATION HEALTH SHOULD BE PERFORMED DURING THE FIRST GROWING SEASON OR UNTIL THE VEGETATION IS ESTABLISHED. ONCE ESTABLISHED, INSPECTIONS OF VEGETATION HEALTH, DENSITY AND DIVERSITY SHOULD BE PERFORMED AT LEAST TWICE ANNUALLY DURING BOTH THE GROWING AND NON-GROWING SEASONS. THE VEGETATIVE COVER SHOULD BE MAINTAINED AT 85% IF VEGETATION HAS GREATER THAN 50% DAMAGE. THE AREA SHOULD BE REESTABLISHED IN ACCORDANCE WITH THE ORIGINAL SPECIFICATIONS AND THE INSPECTION REQUIREMENTS PRESENTED ABOVE. ALL USE OF FERTILIZERS, MECHANICAL TREATMENTS, PESTICIDES AND OTHER MEANS TO ASSURE OPTIMUM VEGETATION HEALTH SHALL NOT COMPROMISE THE INTENDED PURPOSE OF THE EXTENDED DETENTION BASIN. ALL VEGETATION DEFICIENCIES SHOULD BE ADDRESSED WITHOUT THE USE OF FERTILIZERS AND PESTICIDES WHENEVER POSSIBLE.
 C. STRUCTURAL COMPONENTS:
 ALL STRUCTURAL COMPONENTS MUST BE INSPECTED FOR CRACKING, SUBSIDENCE, SPALLING, EROSION, AND DETERIORATION AT LEAST ANNUALLY.
 D. OTHER MAINTENANCE CRITERIA:
 THE OPERATION AND MAINTENANCE PLAN MUST INDICATE THE APPROXIMATE TIME THAT THE SYSTEM WOULD NORMALLY TAKE TO COMPLETELY DRAIN THE STORMWATER QUALITY DESIGN STORM RUNOFF VOLUME. THIS NORMAL DRAIN TIME SHOULD THEN BE USED TO EVALUATE THE SYSTEM'S ACTUAL PERFORMANCE. IF SIGNIFICANT INCREASES OR DECREASES IN THE DRAIN TIME ARE OBSERVED, THE SYSTEM'S OUTLET STRUCTURE, UNDERDRAIN SYSTEM, AND BOTH GROUNDWATER AND TAILWATER LEVELS MUST BE EVALUATED AND APPROPRIATE MEASURES TAKEN TO COMPLY WITH THE MAXIMUM DRAIN TIME REQUIREMENTS AND MAINTAIN THE PROPER FUNCTIONING OF THE BASIN.

- GENERAL MAINTENANCE:**
 ALL INFILTRATION BASIN COMPONENTS EXPECTED TO RECEIVE AND/OR TRAP DEBRIS AND SEDIMENT MUST BE INSPECTED FOR CLOGGING AND EXCESSIVE DEBRIS AND SEDIMENT ACCUMULATION AT LEAST FOUR TIMES ANNUALLY AS WELL AS AFTER EVERY STORM EXCEEDING 1 INCH OF RAINFALL. SUCH COMPONENTS MAY INCLUDE BOTTOMS, RIPRAP OR GABION APRONS, AND INFLOW POINTS. THIS APPLIES TO BOTH SURFACE AND SUBSURFACE INFILTRATION BASINS. SEDIMENT REMOVAL SHOULD TAKE PLACE WHEN THE BASIN IS THOROUGHLY DRY. DISPOSAL OF DEBRIS & TRASH SHOULD BE DONE AT SUITABLE DISPOSAL/RECYCLING SITES AND IN COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL WASTE REGULATIONS. STUDIES HAVE SHOWN THAT READILY VISIBLE STORMWATER MANAGEMENT FACILITIES LIKE INFILTRATION BASINS RECEIVE MORE FREQUENT AND THOROUGH MAINTENANCE THAN THOSE IN LESS VISIBLE, MORE REMOTE LOCATIONS. READILY VISIBLE FACILITIES CAN ALSO BE INSPECTED FASTER AND MORE EASILY BY MAINTENANCE AND MOSQUITO CONTROL PERSONNEL.
- VEGETATED AREAS:**
 MOWING AND/OR TRIMMING OF VEGETATION MUST BE PERFORMED ON A REGULAR SCHEDULE BASED ON SPECIFIC SITE CONDITIONS. GRASS SHOULD BE MOWED AT LEAST ONCE A MONTH DURING THE GROWING SEASON. VEGETATED AREAS MUST ALSO BE INSPECTED AT LEAST ANNUALLY FOR EROSION AND SCOUR. THE STRUCTURE MUST BE INSPECTED FOR UNWANTED TREE GROWTH AT LEAST ONCE A YEAR. WHEN ESTABLISHING OR RESTORING VEGETATION, BIWEEKLY INSPECTIONS OF VEGETATION HEALTH SHOULD BE PERFORMED DURING THE FIRST GROWING SEASON OR UNTIL THE VEGETATION IS ESTABLISHED. ONCE ESTABLISHED, INSPECTIONS OF VEGETATION HEALTH, DENSITY AND DIVERSITY SHOULD BE PERFORMED AT LEAST TWICE ANNUALLY DURING BOTH THE GROWING AND NON-GROWING SEASONS. IF VEGETATION HAS GREATER THAN 50% DAMAGE, THE AREA SHOULD BE REESTABLISHED IN ACCORDANCE WITH THE ORIGINAL SPECIFICATIONS AND THE INSPECTION REQUIREMENTS PRESENTED ABOVE. ALL USE OF FERTILIZERS, MECHANICAL TREATMENTS, PESTICIDES AND OTHER MEANS TO ASSURE OPTIMUM VEGETATION HEALTH MUST NOT COMPROMISE THE INTENDED PURPOSE OF THE INFILTRATION SYSTEM. ALL VEGETATION DEFICIENCIES SHOULD BE ADDRESSED WITHOUT THE USE OF FERTILIZERS AND PESTICIDES WHENEVER POSSIBLE. ALL VEGETATED AREAS SHOULD BE INSPECTED AT LEAST ANNUALLY FOR UNWANTED GROWTH, WHICH SHOULD BE REMOVED WITH MINIMUM DISRUPTION TO THE REMAINING VEGETATION AND BASIN SUBSOIL.
- STRUCTURAL COMPONENTS:**
 ALL STRUCTURAL COMPONENTS MUST BE INSPECTED FOR CRACKING, SUBSIDENCE, SPALLING, EROSION AND DETERIORATION AT LEAST ANNUALLY.
- OTHER MAINTENANCE CRITERIA:**
 THE OPERATION AND MAINTENANCE PLAN MUST INDICATE THE APPROXIMATE TIME THAT THE BASIN WOULD NORMALLY TAKE TO DRAIN THE STORMWATER QUALITY DESIGN STORM RUNOFF VOLUME. BELOW THE GROUND SURFACE THIS NORMAL DRAIN OR DRAWDOWN TIME SHOULD THEN BE USED TO EVALUATE THE BASIN'S ACTUAL PERFORMANCE. IF SIGNIFICANT INCREASES OR DECREASES IN THE DRAIN TIME ARE OBSERVED, THE BASIN'S BOTTOM SURFACE, SUBSOIL AND BOTH GROUNDWATER AND TAILWATER LEVELS MUST BE EVALUATED AND APPROPRIATE MEASURES TAKEN TO COMPLY WITH THE MAXIMUM DRAIN TIME REQUIREMENTS AND MAINTAIN THE PROPER FUNCTIONING OF THE BASIN. THIS APPLIES TO BOTH SURFACE INFILTRATION BASINS. THE BOTTOM SAND LAYER IN A SURFACE INFILTRATION BASIN SHOULD BE INSPECTED AT LEAST MONTHLY AS WELL AS AFTER EVERY STORM EXCEEDING ONE INCH OF RAINFALL. THE PERMEABILITY RATE OF THE SOIL BELOW THE BASIN MAY ALSO BE RETESTED PERIODICALLY. IF THE WATER FALLS TO 72 HOURS AFTER THE END OF THE STORM, CORRECTIVE MEASURES MUST BE TAKEN. ANNUAL TILLING BY LIGHT EQUIPMENT CAN ASSIST IN MAINTAINING INFILTRATION CAPACITY AND BREAK UP CLOGGED SURFACES.

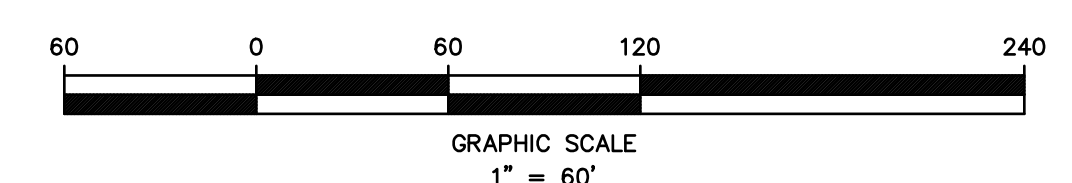
PROBLEMS FOUND DURING MAINTENANCE INSPECTIONS SHALL BE CORRECTED. THESE INCLUDE THE RESTORATION OF ERODED AREAS, REPAIR OR REPLACEMENT OF STORMWATER MANAGEMENT MEASURE COMPONENTS, RESTORATION OF VEGETATION, AND REPAIR OR REPLACEMENT OF NON-VEGETATED LININGS.

4. THE EQUIPMENT NECESSARY TO PERFORM THE MAINTENANCE TASKS ARE AS FOLLOWS:

- A. LAWN MOWING EQUIPMENT
- B. GAS POWERED TRIMMERS
- C. GAS POWERED BLOWERS
- D. RAKES
- E. SHOVELS
- F. PICKS
- G. WHEEL BARROWS
- H. GAS POWERED HEDGE TRIMMERS
- I. CHAIN SAW
- J. FERTILIZER/PESTICIDE APPLICATION
- K. WASTER RECEPTACLES
- L. MAINTENANCE VEHICLES

5. COST ESTIMATE OF THE INSPECTION AND MAINTENANCE TASKS:

ITEM	EST. ANNUAL COST
1. INSPECT BASIN, REMOVE AND DISPOSE OF SILT & DEBRIS 4 TIMES PER YEAR.	\$800
2. MOW & BAG GRASS CLIPPINGS MONTHLY DURING GROWING SEASON 7 TIMES PER YEAR.	\$700
3. INSPECT BOTTOM SAND LAYER AFTER EVERY STORM EVENT EXCEEDING 1 INCH OF RAINFALL 3 TIMES PER YEAR.	\$450
4. INSPECT & MAINTAIN FENCE & BASIN ACCESS DRIVE 2 TIMES PER YEAR.	\$300
5. DEEP TILL & RE-GRADE SAND BOTTOM ONCE EVERY 5 YEARS (\$1,000)	\$200
TOTAL ANNUAL MAINTENANCE COST	\$2,450



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**PRELIMINARY & FINAL MAJOR SUBDIVISION
 SOIL EROSION & SEDIMENT CONTROL
 STORMWATER MAINTENANCE PLAN
 VICTORIA GARDENS**

BLOCK 4001 - LOTS 1, 2 & 3
 TOWNSHIP OF NEPTUNE
 MONMOUTH COUNTY NEW JERSEY

SCALE: 1" = 60'
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