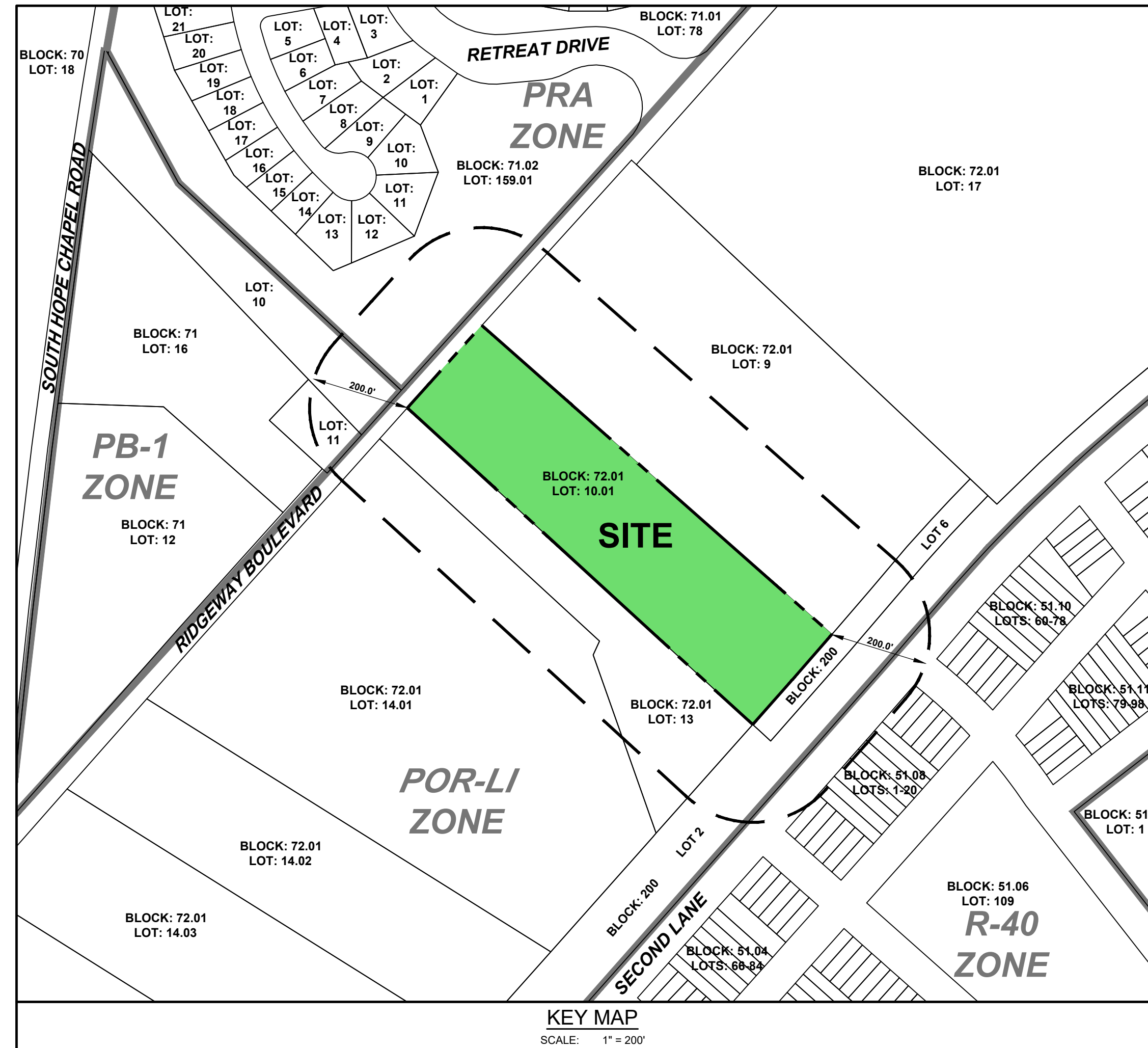


# PRELIMINARY & FINAL MAJOR SITE PLAN

## FOR TAX BLOCK 72.01 - LOT 10.01 TOWNSHIP OF MANCHESTER OCEAN COUNTY NEW JERSEY



KEY MAP  
SCALE: 1" = 200'

SHEET INDEX	
Sheet No.	Description
1	COVER SHEET
2	DEMOLITION PLAN
3	SITE PLAN
4	GRADING PLAN
5	STORM DRAINAGE PLAN
6	UTILITY PLAN
7	TRAFFIC SIGNAGE & STRIPING PLAN
8	LIGHTING PLAN
9	LANDSCAPE PLAN
10	LANDSCAPE DETAILS
11	CONSTRUCTION DETAILS - SITE
12	CONSTRUCTION DETAILS - STORMWATER
13	CONSTRUCTION DETAILS - UTILITY
14	STORMWATER MAINTENANCE PLAN
15	DRAINAGE AREA MAP

SUPPLEMENTAL DRAWINGS	
No. of Sheets	Description

**LAND USE ZONE**

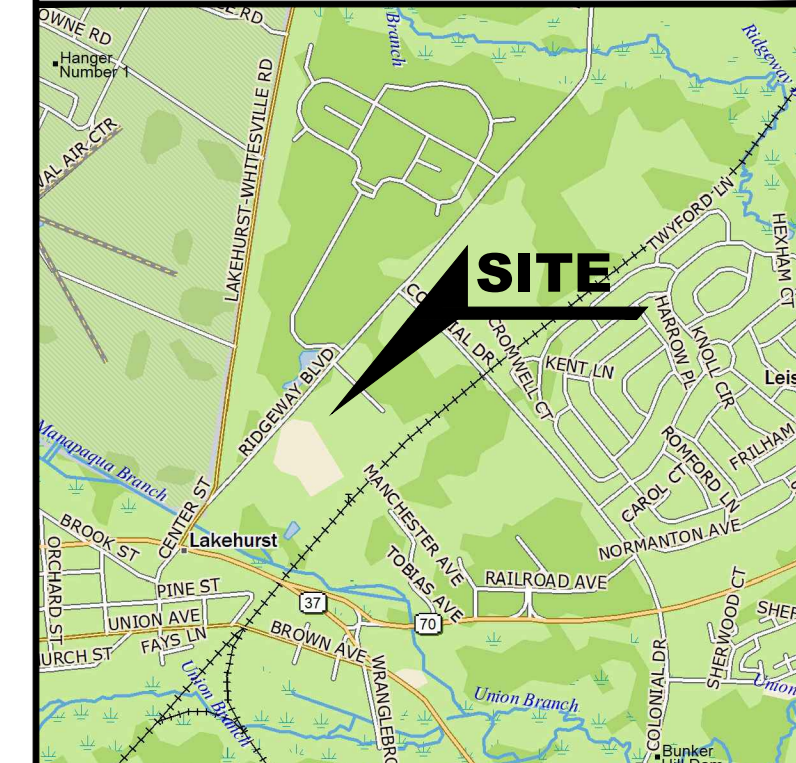
PB-1	PINELANDS BUSINESS
POR-LI	PINELANDS OFFICE, RESEARCH & LIGHT INDUSTRIAL
PRA	PINELANDS RURAL AGRICULTURE - 1
R-40	RESIDENTIAL - 40,000 SF

**GENERAL NOTES**

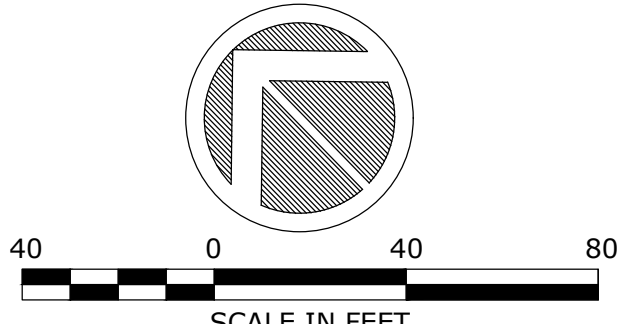
- PROPERTY IS KNOWN AS BLOCK 72.01 - LOT 10.01 AS SHOWN ON THE MANCHESTER TOWNSHIP TAX MAP SHEET 5.
- OUTBOUND & TOPOGRAPHIC INFORMATION TAKEN FROM A MAP ENTITLED TOPOGRAPHIC SURVEY FOR TAX BLOCK 72.01 - TAX LOT 10.01 TOWNSHIP OF MANCHESTER, OCEAN COUNTY, NEW JERSEY, AS PREPARED BY PROFESSIONAL DESIGN SERVICES, L.L.C., DATED JULY 2, 2023.
- THE PROPERTY IS CURRENTLY LOCATED WITHIN THE PB ZONE AND CONTAINS APPROXIMATELY 5.17 ACRES.
- IT IS ASSUMED THAT THERE ARE NO FRESHWATER WETLANDS LOCATED ON OR WITHIN 300 FEET OF THE PROPERTY.
- IT IS PROPOSED TO CONSTRUCT AN OFFICE BUILDING AND CONTRACTOR WAREHOUSE.
- WATER SERVICE WILL BE PROVIDED BY PUBLIC WATER.
- SEWAGE SERVICE WILL BE PROVIDED PUBLIC SEWER.
- ALL UTILITIES (ELECTRIC, TELEPHONE, ETC.) TO BE PROVIDED UNDERGROUND. THE CONTRACTOR MUST VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- THE SIGHT TRIANGLE EASEMENTS ARE SUBJECT TO RESTRICTIONS CONTAINED WITHIN THE OCEAN COUNTY LAND USE REGULATIONS.
- SOLID WASTE IS TO BE PICKED UP BY A PRIVATE GARBAGE HAULER. THE REFUSE AREA SHALL CONTAIN AN AREA FOR THE COLLECTION OF RECYCLABLE MATERIALS.
- MAINTENANCE OF THE STORMWATER SYSTEM SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER AND SUBJECT TO INSPECTION BY THE TOWNSHIP OF MANCHESTER.
- ALL TRAFFIC CONTROL SIGNAGE INCLUDING PAVEMENT MARKINGS WILL BE PROVIDED IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
- ALL DISTURBED AREAS WILL BE VEGETATIVELY STABILIZED IN ACCORDANCE WITH THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN UPON COMPLETION OF THE GRADING ACTIVITIES.
- EXISTING CONDITIONS AND DIMENSIONS TO BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- ALL CONSTRUCTION TO BE IN CONFORMANCE WITH APPLICABLE CODES, ORDINANCES AND MANUFACTURER'S REQUIREMENTS.
- TRAFFIC DIRECTION ARROWS, FIRE LANE MARKINGS, ETC. SHALL BE IN CONFORMANCE WITH MANCHESTER TOWNSHIP FIRE PREVENTION BUREAU AND TOWNSHIP ENGINEERING DEPARTMENT REQUIREMENTS.
- THE OWNER OR HIS/HER REPRESENTATIVE, IS TO DESIGNATE AN INDIVIDUAL RESPONSIBLE FOR CONSTRUCTION SITE SAFETY DURING THE COURSE OF SITE IMPROVEMENTS PURSUANT TO NJAC 5:23-2.21(a) OF THE NJ UNIFORM CONSTRUCTION CODE AND CFR 1926.32(f) (OSHA COMPETENT PERSON). PROFESSIONAL DESIGN SERVICES, L.L.C. ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION SITE SAFETY.
- ALL HANDICAPPED PARKING SPACES SHALL BE CONSTRUCTED TO MEET ADA REQUIREMENTS.
- NO PHASING OF SITE IMPROVEMENTS IS PROPOSED.
- 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 RELATIVE 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.
- CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF SITE PLAN DOCUMENTS AND ARCHITECTURAL DESIGN FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, GREASE TRAP REQUIREMENTS, DETAILS, DOOR ACCESS AND EXTERIOR GRADING. THE UTILITY SERVICE SIZES ARE TO BE DETERMINED BY THE ARCHITECT. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES/SERVICES WITH THE INDIVIDUAL COMPANIES, TO AVOID CONFLICTS AND ENSURE PROPER DEPTHS ARE ACHIEVED. THE JURISDICTION UTILITY REQUIREMENTS SHALL ALSO BE MET, AS WELL AS COORDINATING THE UTILITY TIE-IN CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE CONFLICT EXISTS WITH THESE SITE PLANS, ENGINEER IS TO BE NOTIFIED PRIOR TO CONSTRUCTION TO RESOLVE SAME.
- 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.
- THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT 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.
- PAVEMENT SHALL BE SAW CUT IN STRAIGHT LINES TO THE FULL DEPTH OF THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS SHALL BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS WILL NOT BE PERMITTED.
- IN CASE OF DISCREPANCIES BETWEEN PLANS OR RELATIVE TO OTHER PLANS, THE SITE PLAN WILL TAKE PRECEDENCE. IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY CONFLICTS.
- 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.
- THERE IS NO NATURAL OR MAN-MADE WATERCOURSE TRAVERSING THE SITE.

**OWNER / APPLICANT**

2486 RIDGEWAY LLC  
2486 RIDGEWAY BOULEVARD  
MANCHESTER, NEW JERSEY, 08759



KEY MAP  
SCALE: 1" = 2000'



No.	DATE	DESCRIPTION	BY

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**PRELIMINARY & FINAL MAJOR SITE PLANS**

**COVER SHEET**

FOR  
**TAX BLOCK 72.01**  
**TAX LOT 10.01**

TOWNSHIP OF MANCHESTER  
OCEAN COUNTY NEW JERSEY

SCALE: AS SHOWN JOB NUMBER: 322334  
DRAWN BY: KNL DATE: MARCH 6, 2024  
DESIGN/CALC'D BY: IMB SHEET: 1  
CHECKED BY: WAS 15

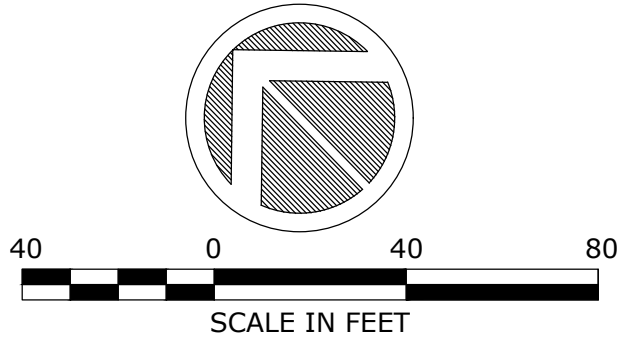
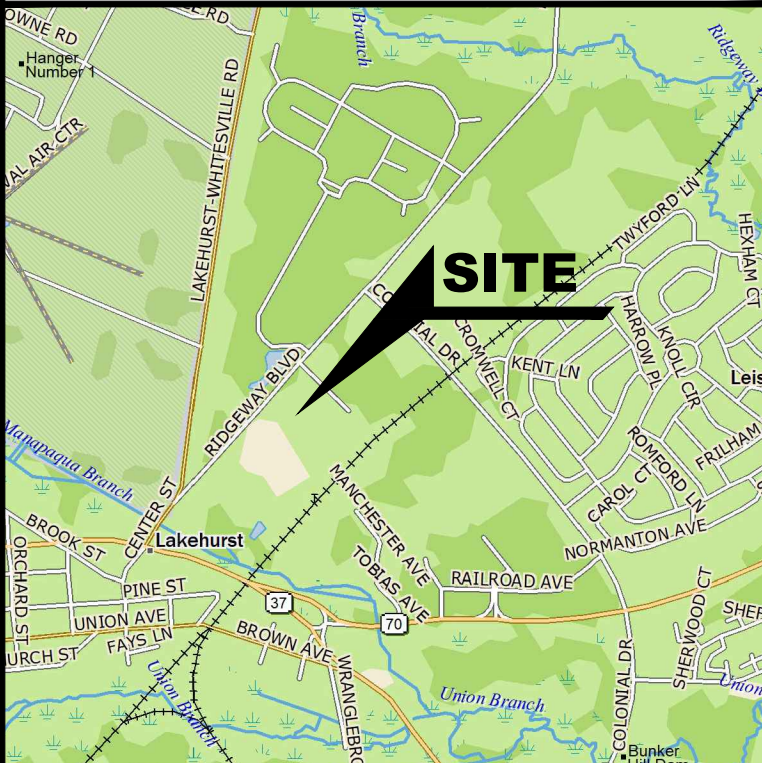
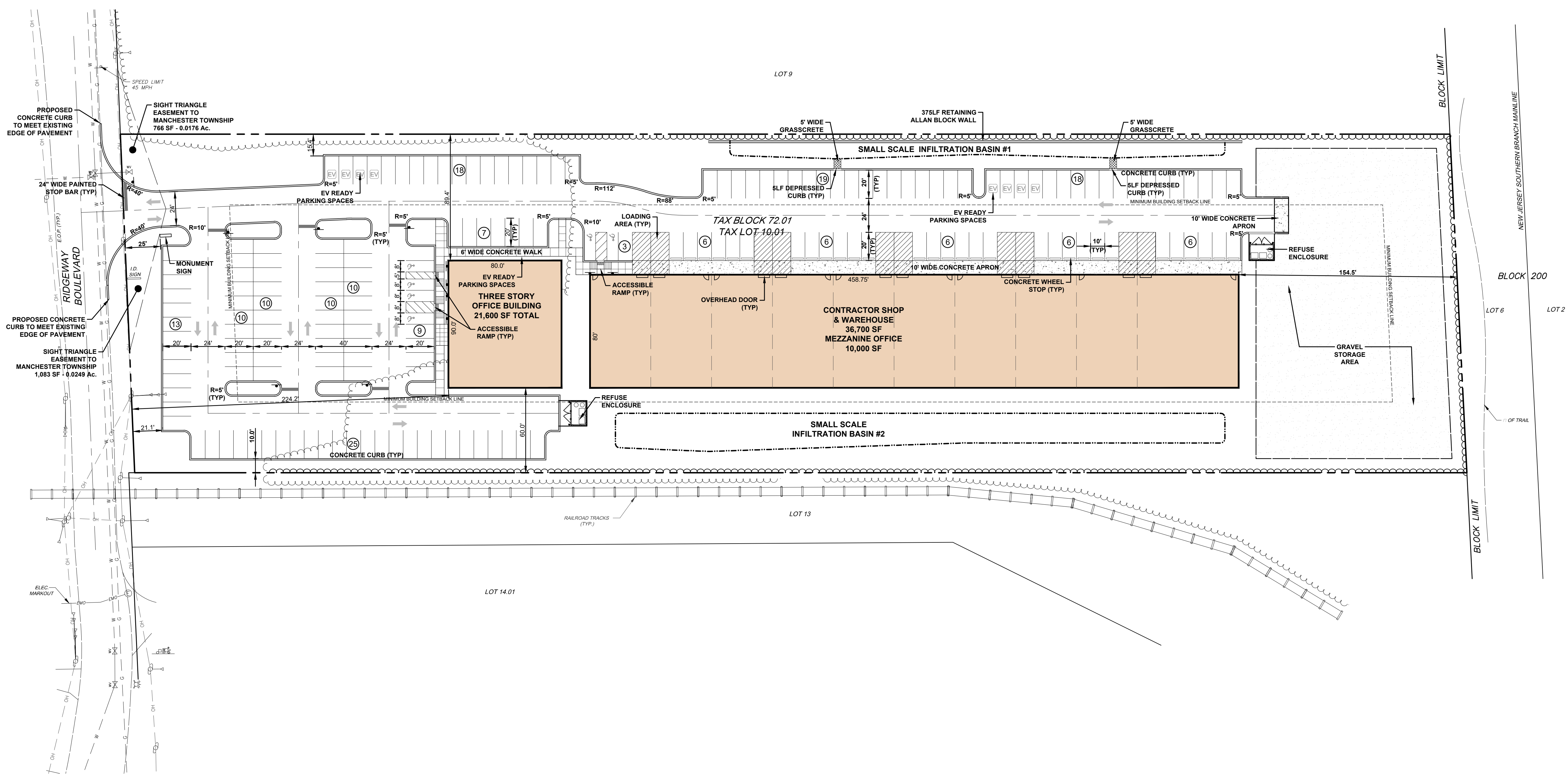
KRISTIN 3/7/24  
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APPROVED BY:  
**THE MANCHESTER TOWNSHIP  
PLANNING BOARD**

BOARD CHAIRMAN	DATE
BOARD SECRETARY	DATE
BOARD ENGINEER	DATE



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**PRELIMINARY & FINAL MAJOR SITE PLANS**

**SITE PLAN**  
 FOR  
**TAX BLOCK 72.01**  
**TAX LOT 10.01**  
 TOWNSHIP OF MANCHESTER  
 OCEAN COUNTY NEW JERSEY  
 SCALE: 1" = 40' JOB NUMBER: 322334  
 DRAWN BY: KNL DATE: MARCH 6, 2024  
 DESIGN/CALC'D BY: IMB SHEET: 3  
 CHECKED BY: WAS 15

Land Use	Parking Calculations			
	Units	Parking Required	Required	Provided
Office	21,600	1/200 SF	108	108
Warehouse	36,700	1/1,500 SF	24	24
Warehouse Mezzanine Office	10,000	1/200 SF	50	50
EV Ready Space Credit	8		8	8
		<b>Total</b>	<b>182</b>	<b>190</b>

	REQUIRED	PROPOSED
<b>MINIMUM LOT AREA</b>	3 ACRES	5.17 ACRES
<b>MINIMUM LOT FRONTAGE</b>	200 FT	239.57 FT
<b>MINIMUM LOT WIDTH</b>	200 FT	239.57 FT
<b>IMPROVABLE LOT AREA</b>	40,000 SF	>40,000 SF
<b>PRINCIPAL BUILDING:</b>		
MINIMUM FRONT YARD SETBACK	75 FT	224.2 FT
MINIMUM REAR YARD SETBACK	50 FT	154.5 FT
MINIMUM SIDE YARD SETBACK	50 FT	60.0 FT
<b>ACCESSORY BUILDING:</b>		
MINIMUM REAR YARD SETBACK	20 FT	N/A
MINIMUM SIDE YARD SETBACK	20 FT	N/A
MAXIMUM SITE IMPROVEMENT RATIO	0.2	0.2
MAXIMUM BUILDING COVERAGE	20%	19.5%
MAXIMUM LOT COVERAGE	65%	58.8%
MAXIMUM BUILDING HEIGHT	40 FT	40 FT
MINIMUM FLOOR AREA	4,000 SF	>4,000 SF

KRISTIN 3/7/24  
 P:\PROJECTS\322334 - 322334\_S03 SITE PLAN >

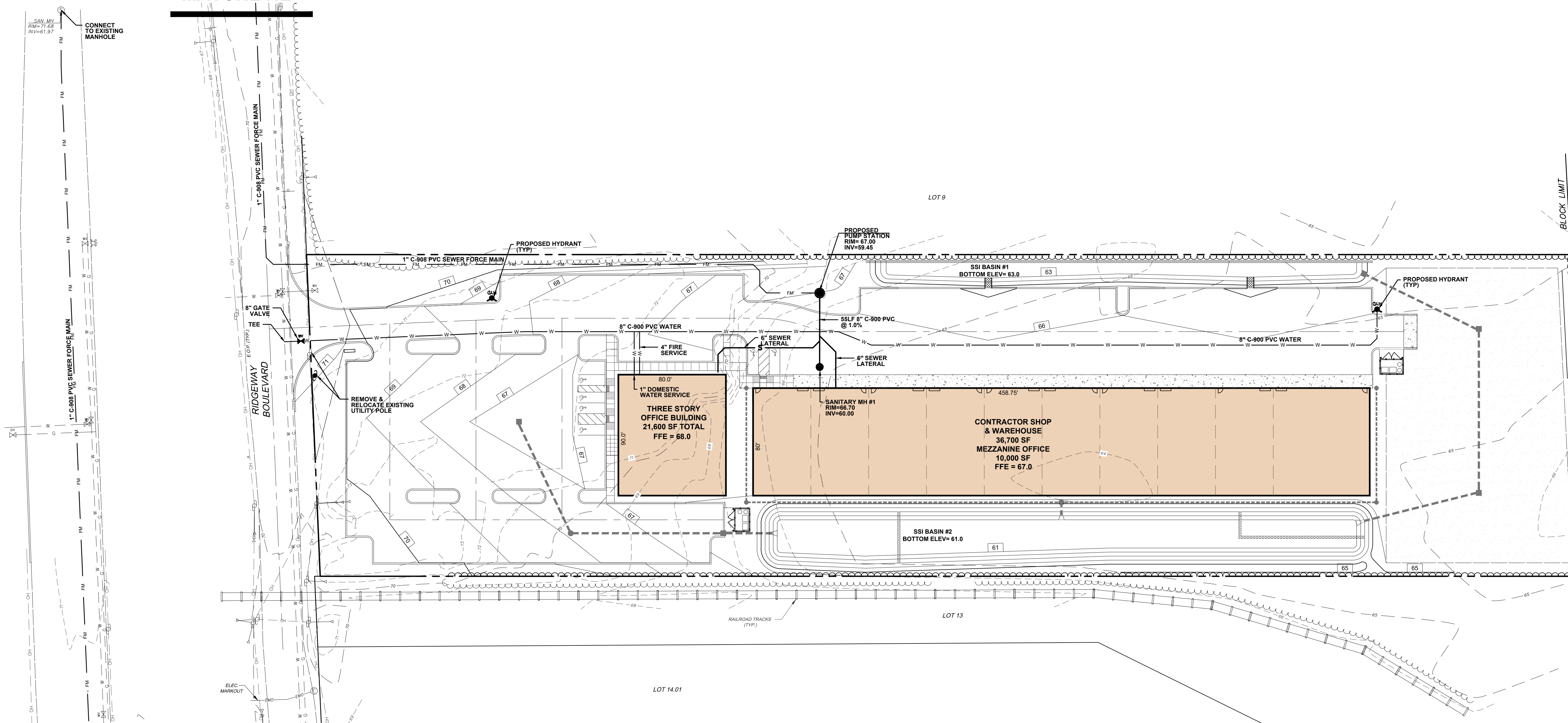




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KRISTIN 3/7/24  
 PROJECT: 232334 - 322334 - 506 UTILITY PLAN

MATCHLINE



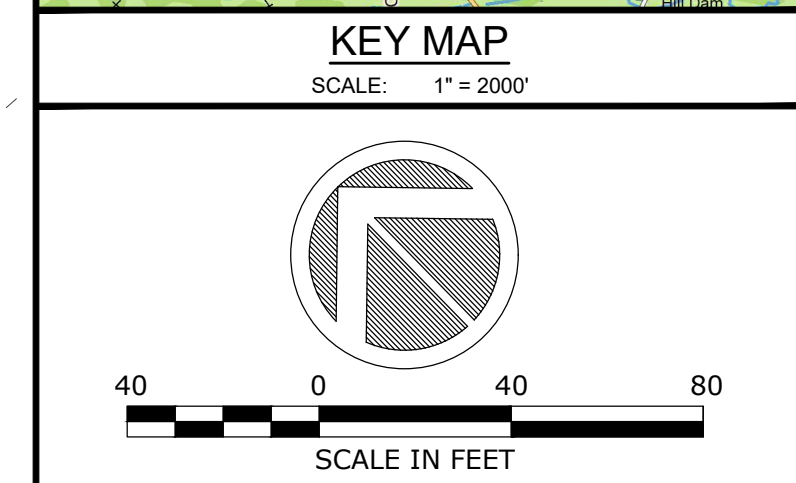
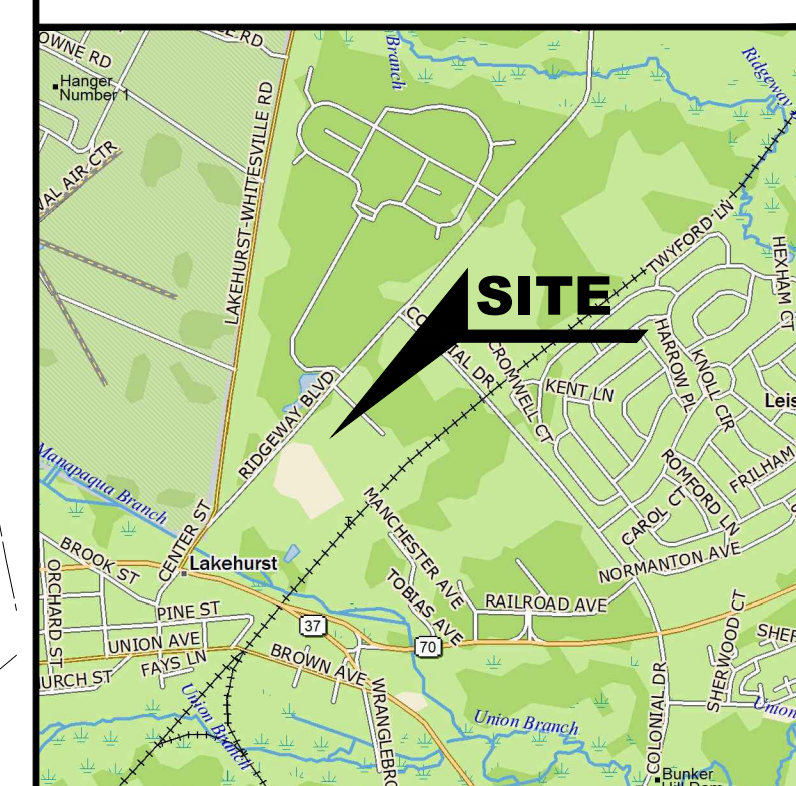
MATCHLINE

**GENERAL UTILITY NOTES:**

- THRUST BLOCKS ARE TO BE PROVIDED AT ALL WATER MAINS, BENDS AND FITTINGS.
- 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, MATCH THE CROWN OF THE SEWER MAINS AND THE LATERALS.
- PROVIDE 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, 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 3'-0" MINIMUM COVER OVER PVC SEWER MAINS PROVIDE 3'-0" MINIMUM COVER OVER SEWER LATERALS.
- ALL SANITARY SEWER SHALL BE P.V.C. 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.
- PROVIDE 4'-0" MINIMUM COVER OVER WATER MAINS. COVER MAY BE LESSENNED TO 3'-9" WITH APPROVAL E OF M.T.D.O.U. TO CROSS OVER OTHER UTILITIES. WATER MAINS TO CROSS OVER STORM DRAINAGE PIPES EXCEPT WHERE INDICATED IN THE PROFILES TO CROSS UNDER, OR APPROVED BY M.T.D.O.U. WHERE THE WATER MAIN MUST CROSS UNDER THE STORM DRAINAGE, A MINIMUM CLEARANCE OF 6" MUST BE MAINTAINED.
- 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 1,000 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.
- CONNECTIONS TO EXISTING WATER MAINS AND THE ADDITION OF VALVES TO EXISTING WATER MAINS SHALL BE MADE WITHOUT THE LOSS OF WATER SERVICE TO MANCHESTER TOWNSHIP WATER UTILITY (MTWA) CUSTOMERS. WHERE A SECTION OF EXISTING WATER MAIN CANNOT BE ISOLATED WITHOUT DISRUPTING WATER SERVICE TO MTWA CUSTOMERS, CONNECTIONS TO THE EXISTING WATER MAINS WILL BE MADE BY WET TAPPING THE ACTIVE MAINS AND VALVES ADDED TO THE EXISTING MAINS WILL BE ADDED BY INSERTION INTO THE ACTIVE MAINS.
- WATER MAINS SHALL BE CONSTRUCTED 5 FEET FROM CURBS. 4 FOOT OFFSETS WILL BE PERMITTED WHERE CURBS BEND AT ROADWAYS.
- THE PROPOSED GAS MAINS SHALL BE LOCATED ON THE OPPOSITE SIDE OF THE ROADWAY FROM THE WATER MAINS. THE GAS MAINS SHOULD BE PARALLEL TO AND WITHIN 4 FEET OF THE CURBS TO PROVIDE ADEQUATE CLEARANCE FOR FUTURE EXCAVATIONS TO THE SANITARY SEWER MAINS, WHICH GENERALLY FOLLOW THE CENTERLINES OF THE ROADS.
- THE PUBLIC WATER SUPPLY SHALL NOT BE UTILIZED FOR LAWN AND LANDSCAPE IRRIGATION. ALL LAWN AND LANDSCAPE IRRIGATION MUST BE SUPPLIED BY EACH PROPERTY OWNER'S PRIVATE WELL.
- IRRIGATION FOR LANDSCAPING TO BE PROVIDED BY PRIVATE WELL. THE WELL WILL PUMP LESS THAN 100,000 GALLONS PER MONTH AND A WATER DIVERSION AND ALLOCATION PERMIT WILL NOT BE REQUIRED FROM NJDEP.

**UTILITY LEGEND**

EXISTING WATER LINE	— W — W —
PROPOSED WATER LINE	— W — W —
EXISTING WATER VALVE	⊘
PROPOSED WATER VALVE	⊘
EXISTING FIRE HYDRANT	⊘
PROPOSED FIRE HYDRANT	⊘
PROPOSED CORPORATION STOP	⊘
PROPOSED WATER METER	⊘
PROPOSED SANITARY FORCE MAIN	— FM — FM —
PROPOSED SANITARY MAIN	— S —
PROPOSED SANITARY LATERAL	— S —
PROPOSED SANITARY MANHOLE	●
PROPOSED SANITARY CLEAN-OUT	●



No.	DATE	DESCRIPTION	BY

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PRELIMINARY & FINAL MAJOR SITE PLANS

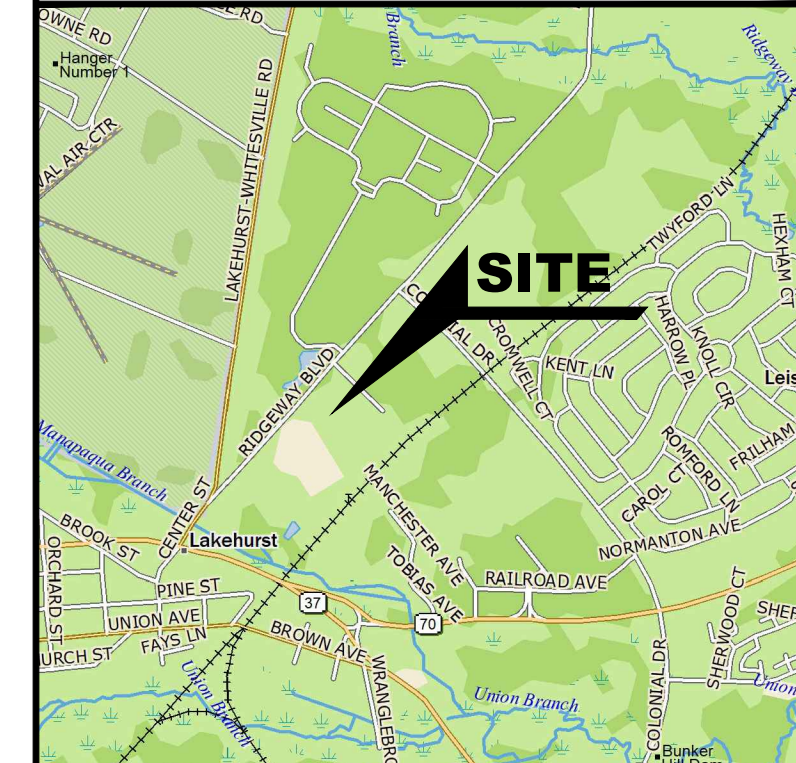
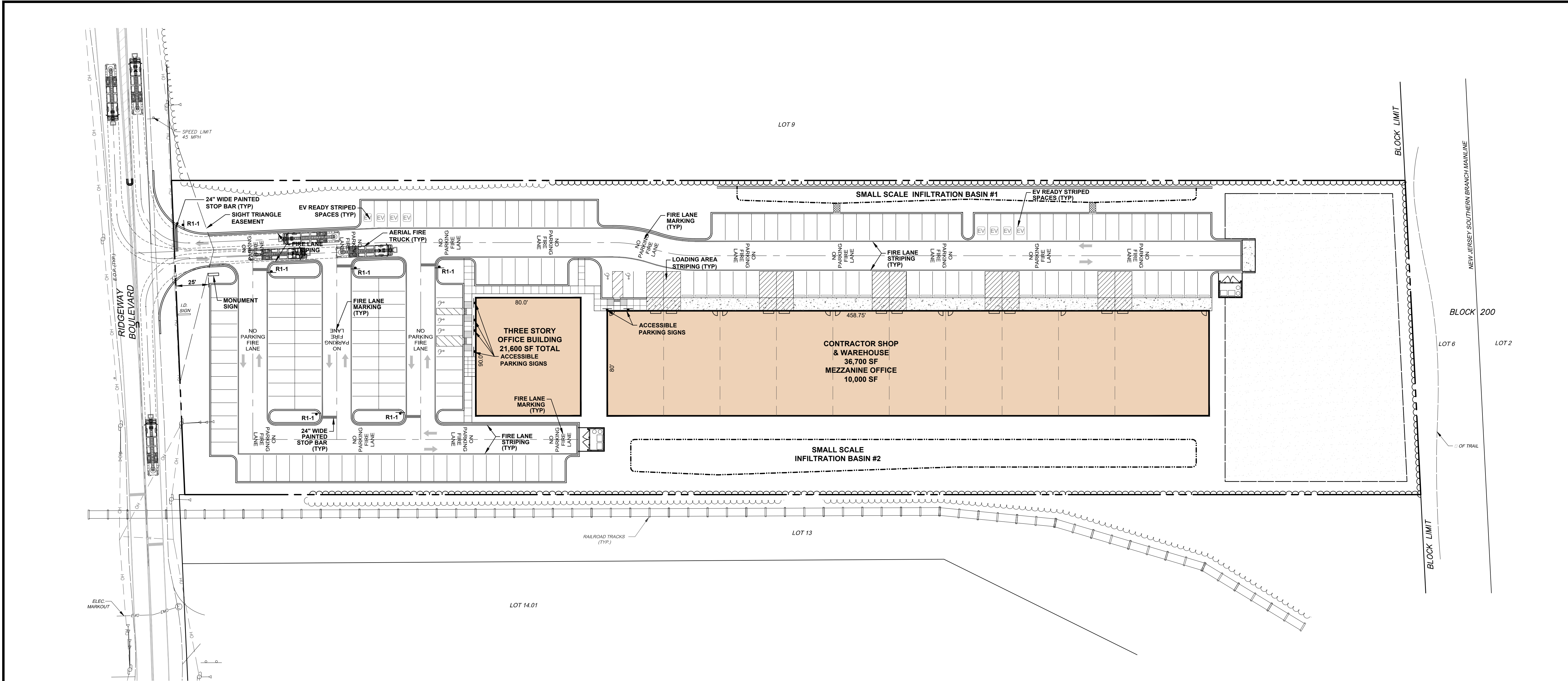
**UTILITY PLAN**

FOR  
**TAX BLOCK 72.01**  
**TAX LOT 10.01**

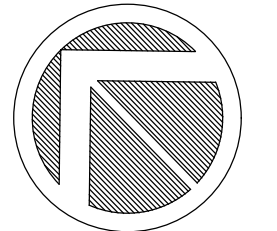
TOWNSHIP OF MANCHESTER  
 OCEAN COUNTY NEW JERSEY

SCALE: 1" = 40' JOB NUMBER: 322334  
 DRAWN BY: KNL DATE: MARCH 6, 2024  
 DESIGN/CALC'D BY: IMB SHEET: 6  
 CHECKED BY: WAS 15

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**KEY MAP**  
SCALE: 1" = 200'

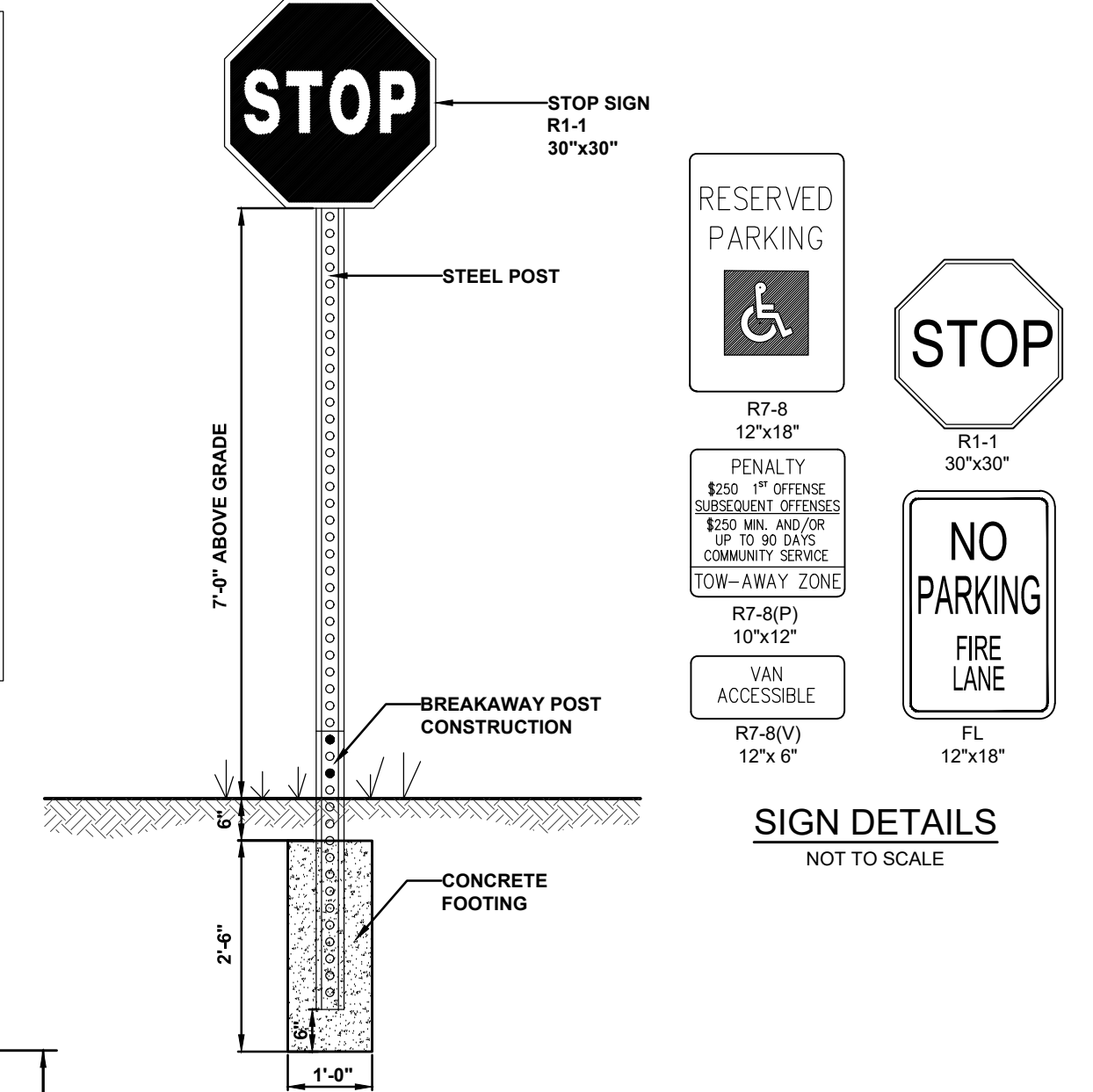
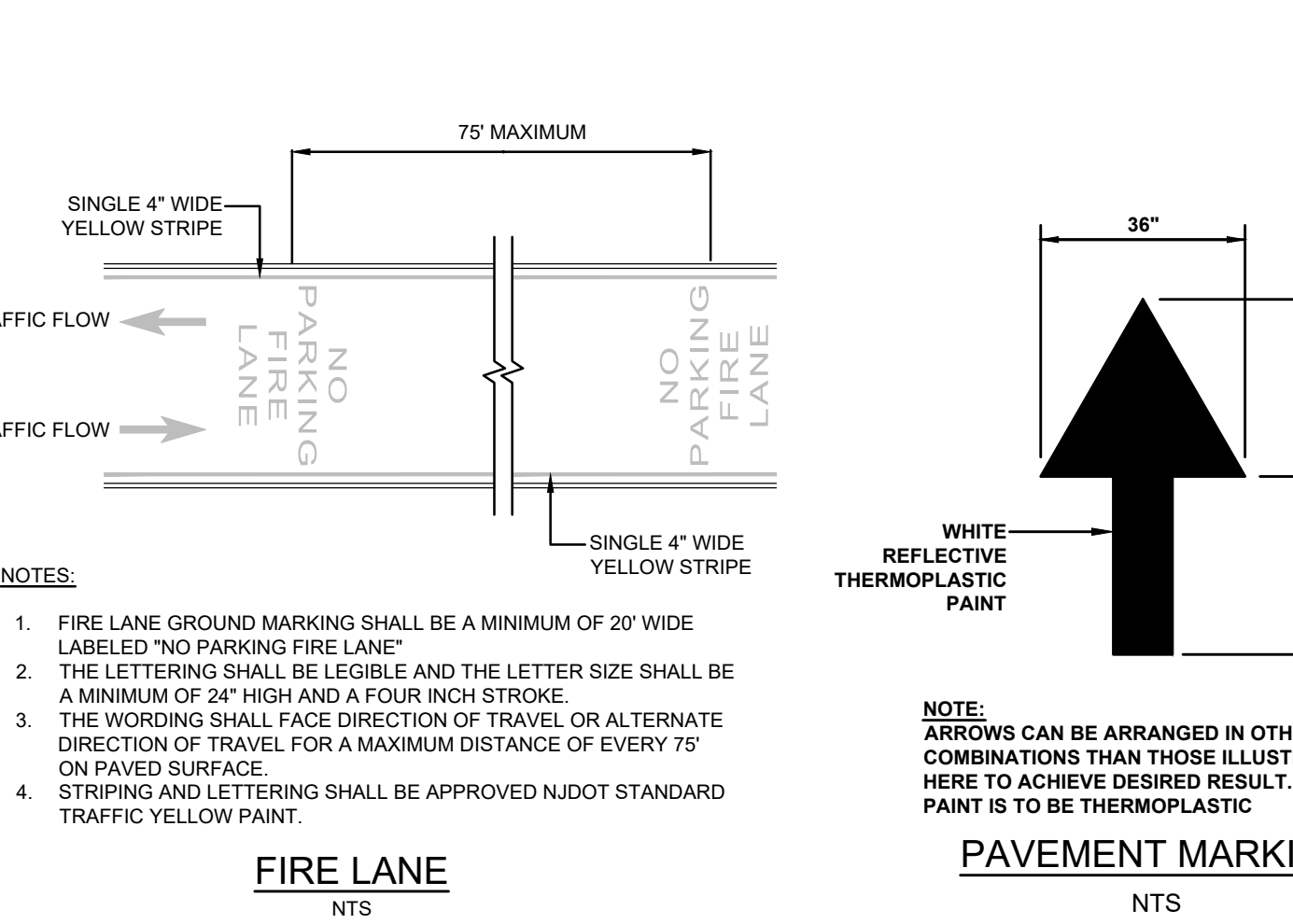
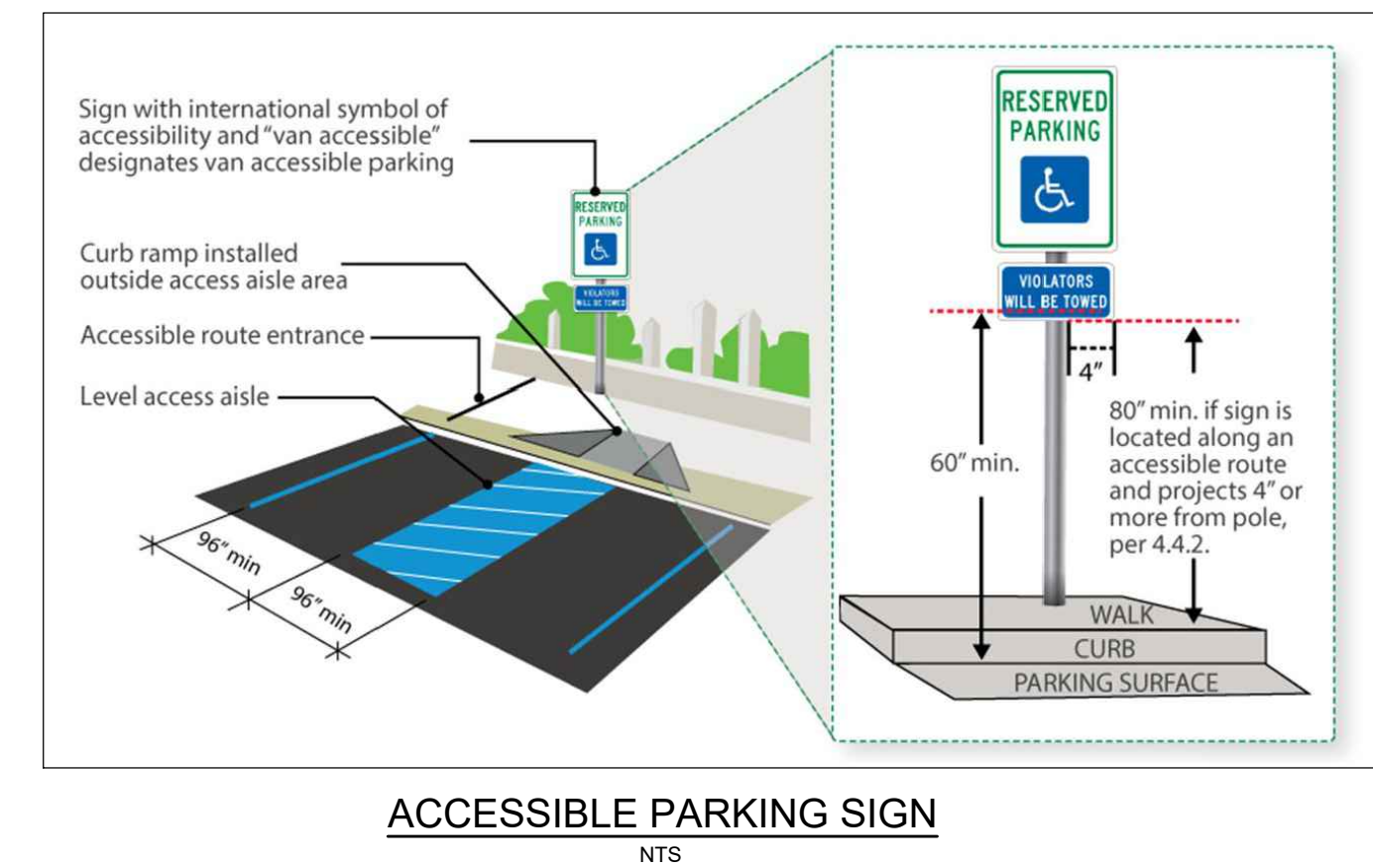
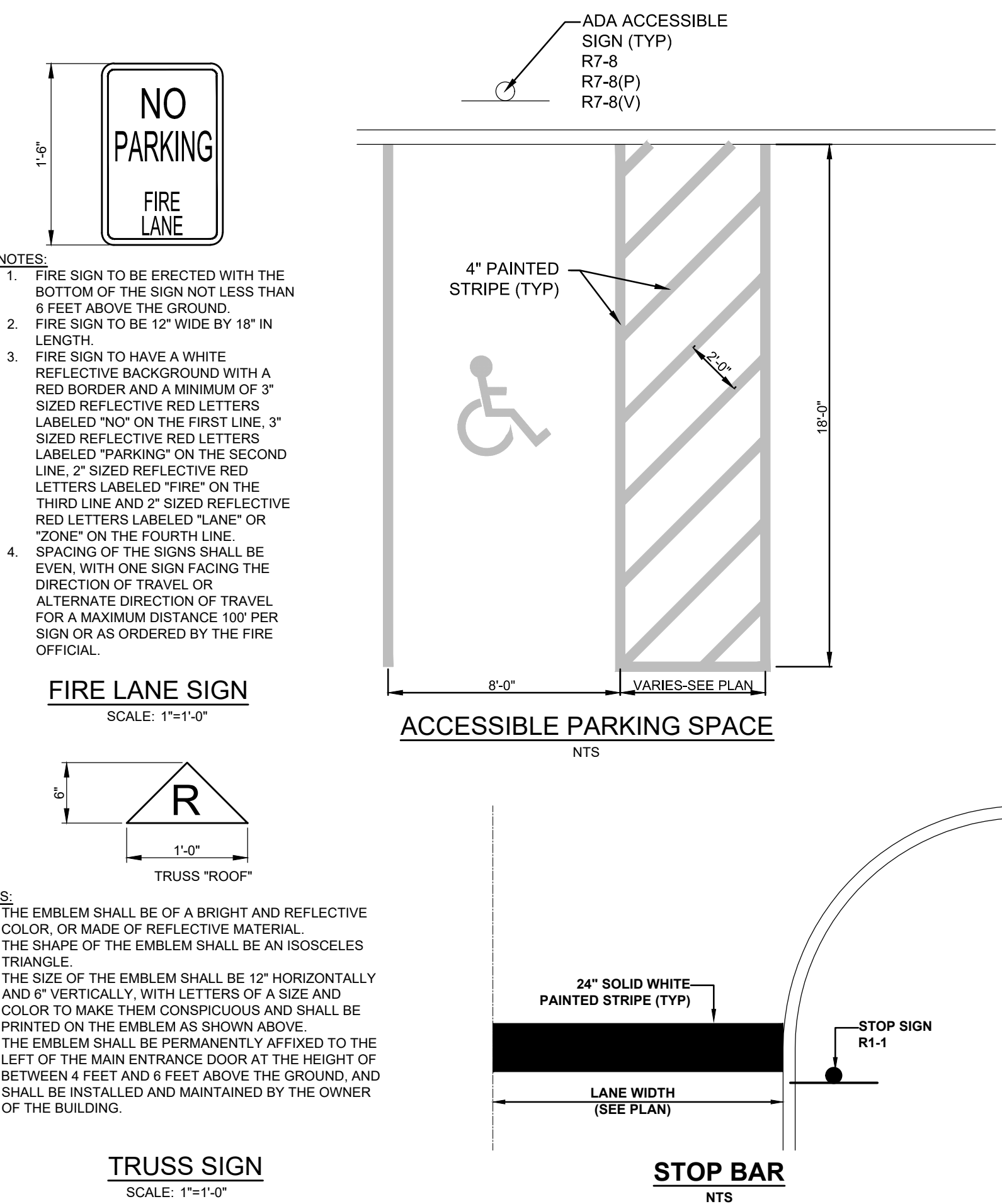


40 0 40 80  
SCALE IN FEET

**FIRE PROTECTION NOTES**

- ADDRESS SIGNAGE DENOTING THE PROPOSED LOCATIONS SHALL BE ERRECTED AT THE ENTRANCES ON WHITESVILLE ROAD AND THE ENTRANCES ON RIDGEWAY ROAD. THE ADDRESS IDENTIFICATION SHALL BE LEGIBLE AND PLACED IN A POSITION THAT IS VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. ADDRESS IDENTIFICATION CHARACTERS SHALL CONTRAST WITH THEIR BACKGROUND. ADDRESS NUMBERS SHALL BE ARABIC NUMBERS OR ALPHABETICAL LETTERS. NUMBERS SHALL NOT BE SPELLED OUT. EACH CHARACTER SHALL BE NOT LESS THAN 4 INCHES HIGH WITH A MINIMUM STROKE WIDTH OF 1/8 INCH.
- GROUND FIRE LANE MARKING NOTED, AND SIGNAGE, SHALL BE INSTALLED IN ACCORDANCE WITH TOWNSHIP OF MANCHESTER CODE CHAPTER 179.
- AN EMERGENCY KEY LOCK BOX SHALL BE INSTALLED ON EACH PROPOSED BUILDING, IN ACCORDANCE WITH TOWNSHIP OF MANCHESTER CODE CHAPTER 179, AT A LOCATION TO BE DETERMINED BY THE FIRE OFFICIAL.
- ANY REQUIRED FIRE SUPPRESSION SYSTEM PLANS FOR THE PROPOSED BUILDINGS SHALL BE SUBMITTED AFTER ALL REQUIREMENTS NOTED BY UCC OFFICIALS ARE MET. ONCE RECEIVED, WE SHALL REVIEW AND ADD OR CORRECT LOCATIONS FOR FIRE HYDRANTS TO MEET THE CORRECT DISTANCE TO ANY FIRE DEPARTMENT CONNECTIONS.
- ALL GAS AND ELECTRIC METERS SHALL BE LABELED ON ALL PROPOSED BUILDINGS.
- LIGHTWEIGHT TRUSS SIGNS, IF APPLICABLE, SHALL BE PERMANENTLY AFFIXED TO THE LEFT OF THE MAIN ENTRANCE DOOR OF EACH PROPOSED BUILDING AT A HEIGHT BETWEEN FOUR AND SIX FEET ABOVE THE GROUND. THE EMBLEM SHALL BE OF A BRIGHT AND REFLECTIVE COLOR OR MADE OF REFLECTIVE MATERIAL. THE SHAPE OF THE EMBLEM SHALL BE AN ISOSCELES TRIANGLE AND THE SIZE SHALL BE 12 INCHES HORIZONTALLY BY SIX INCHES VERTICALLY. THE FOLLOWING LETTERS, OF A SIZE AND COLOR TO MAKE THEM CONSPICUOUS, SHALL BE PRINTED ON THE EMBLEM: "F" TO SIGNIFY A FLOOR WITH TRUSS CONSTRUCTION; "R" TO SIGNIFY A ROOD WITH TRUSS CONSTRUCTION; OR "FR" TO SIGNIFY BOTH A FLOOR AND ROOD WITH TRUSS CONSTRUCTION.
- DURING CONSTRUCTION THE DEVELOPER OR CONTRACTOR SHALL COMPLY WITH NJ UFC CHAPTER 33 FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION, IN PARTICULAR, BUT NOT LIMITED TO, FIRE ACCESS TO THE SITES UNDER CONSTRUCTION, HOT WORK OPERATIONS, APPROVED SMOKING AREA, FLAMMABLE GASES, TEMPORARY HEATING EQUIPMENT, FLAMMABLE AND COMBUSTIBLE LIQUIDS, WATER SUPPLY, AND ANY OTHER PRECAUTIONS AGAINST FIRE REQUIRED BY THE FIRE OFFICIAL.
- THE HYDRANTS WITHIN THE COMPLEX SHALL COMPLY WITH THE MANCHESTER TOWNSHIP MUA SPECIFICATIONS FOR INSTALLATION.
  - FIRE HYDRANT PAINTING SCHEDULE: CAP AND BONNETS ARE TO BE PAINTED BASED ON FLOWS AS FOLLOWS:
 

FLOW	COLOR
0-500 GPM	RED
500-1000 GPM	ORANGE
1000-1500 GPM	GREEN
OVER 1500 GPM	BLUE
  - FIRE HYDRANTS LOCATED ON 'DRY WATER' SYSTEMS SHALL BE PAINTED BLACK.
  - FIRE HYDRANT BARRELS ARE TO BE PAINTED SILVER.



- GENERAL TRAFFIC NOTES**
- THE DESIGN AND PLACEMENT OF ALL TRAFFIC SIGNS AND STRIPING SHALL MEET THE REQUIREMENTS SPECIFIED IN THE LATEST "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" (MUTCD) PUBLISHED BY THE US DEPARTMENT OF TRANSPORTATION AND ADOPTED BY THE NEW JERSEY DEPARTMENT OF TRANSPORTATION.
  - GROUND FIRE LANE MARKINGS SHALL COMPLY WITH THE MANCHESTER TOWNSHIPS CODE. FIRE LANE SHALL BE GROUND MARKED EVERY SEVENTY FIVE (75) FEET ALTERNATING DIRECTION OF TRAVEL WITHIN A FOUR INCH YELLOW BORDER.
  - FIRE LANE SIGNS SHALL BE INSTALLED AS SHOWN, ALTERNATING DIRECTION OF TRAVEL EVERY SEVENTY FIVE (75) FEET.
  - TURNING RADI SHOWN ON THIS PLAN WERE GENERATED BY AUTOTURN PRO, USING A ROSENBAUER COBRA 101" AERIAL LADDER TRUCK TEMPLATE.
  - STOP LINES, GORE LINES, CROSSWALKS, PAVEMENT SYMBOLS AND WORDS, YIELD MARKINGS, AND 2" LONG DASHED WHITE LINES SHALL BE THERMOPLASTIC, ALL OTHERS SHALL BE EPOXY RESIN.

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**PRELIMINARY & FINAL MAJOR SITE PLANS  
TRAFFIC SIGNAGE &  
STRIPING PLAN**

FOR  
**TAX BLOCK 72.01  
TAX LOT 10.01**

TOWNSHIP OF MANCHESTER  
OCEAN COUNTY NEW JERSEY

SCALE: 1" = 40' JOB NUMBER: 322334  
DRAWN BY: KNL DATE: MARCH 6, 2024  
DESIGN/CALC'D BY: IMB SHEET: 7  
CHECKED BY: WAS 15

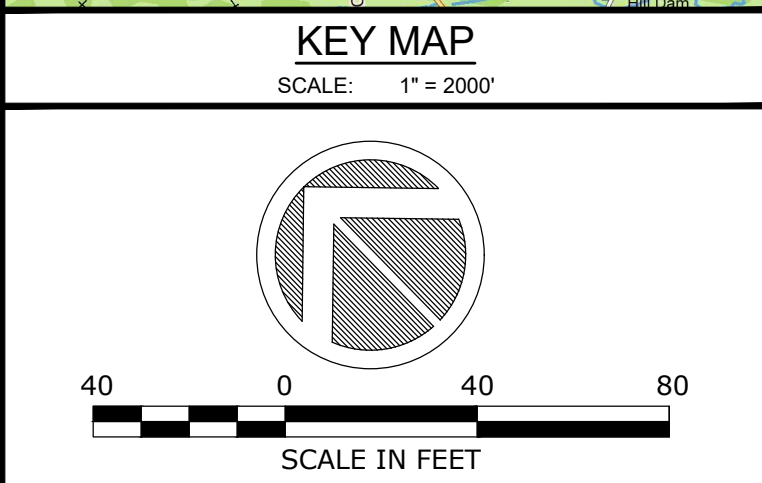
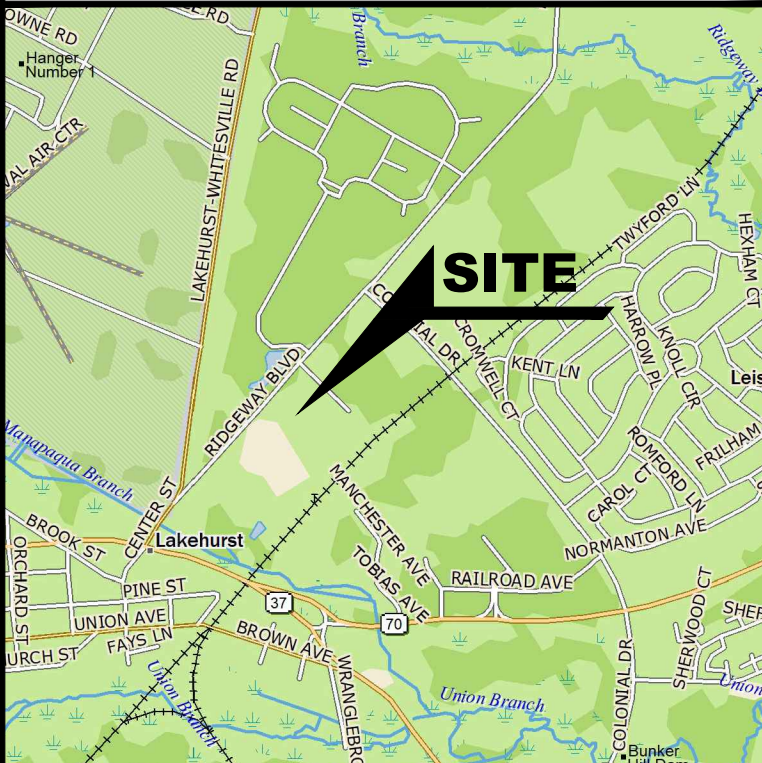
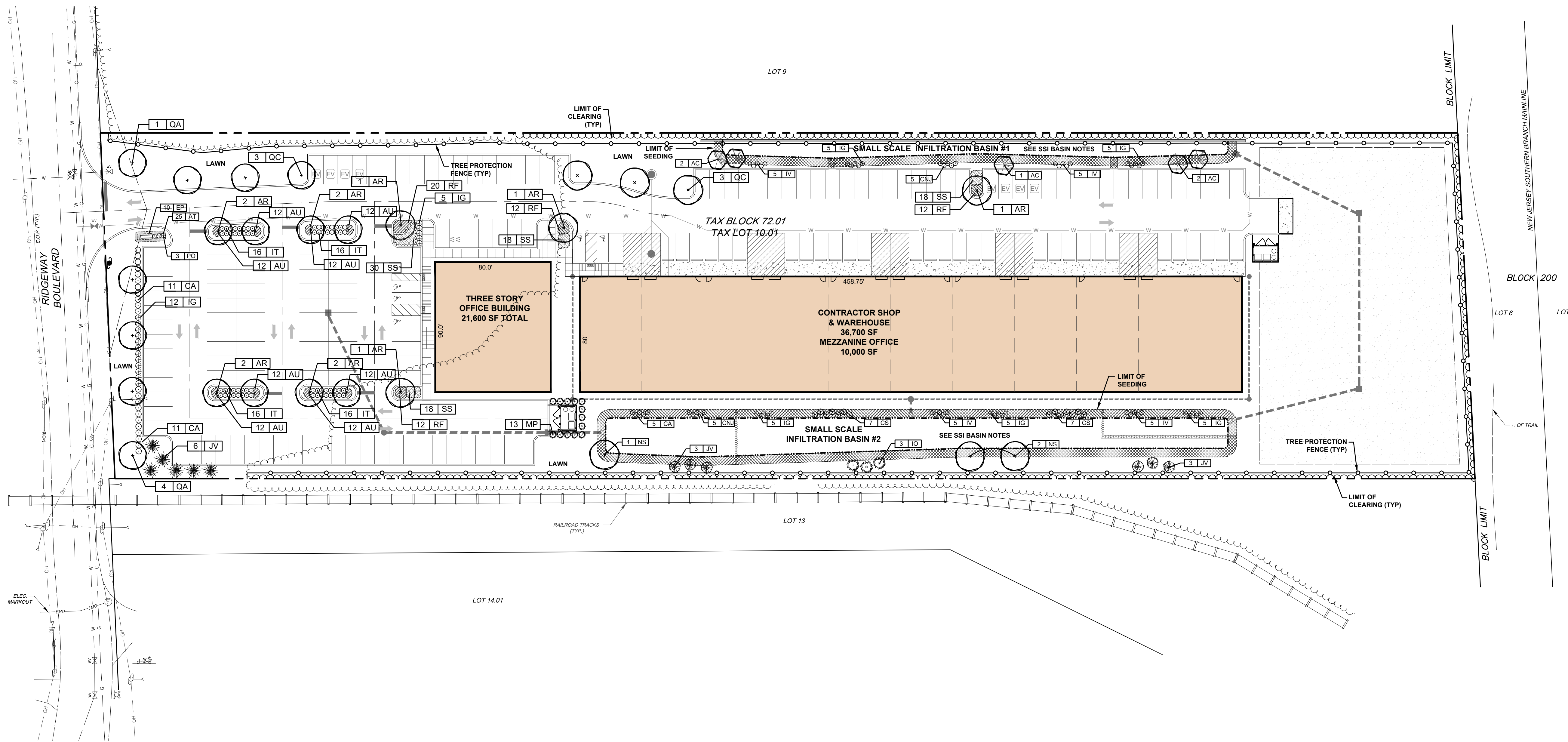
KRISTIN 3/7/24  
P:\PROJECTS\322334 - 322334\_S07 TRAFFIC PLAN >





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KRISTIN 3/7/24  
P:\PROJECTS\232334 - 322334 509 LANDSCAPE PLAN >



No.	DATE	DESCRIPTION	BY

**LANDSCAPE SCHEDULE:**

KEY	QTY	BOTANICAL NAME	COMMON NAME	INSTALLED HEIGHT	CALIPER	ROOT	COMMENTS
<b>Shade Trees</b>							
AR	12	<i>Acer buergerianum</i>	Trident Red Maple	2 1/2" - 3"	B&B		Limbed up to 7'; Spring Planting Only
NS	3	<i>Nyssa sylvatica</i>	Black Gum	2 1/2" - 3"	B&B		Spring Planting Only
QA	5	<i>Quercus alba</i>	White Oak	2 1/2" - 3"	B&B		Spring Planting Only
QC	6	<i>Quercus coccinea</i>	Scarlet Oak	2 1/2" - 3"	B&B		Limbed up to 7'; Spring Planting Only
<b>Ornamental Trees</b>							
AC	3	<i>Amelanchier canadensis</i>	Shadblow Serviceberry	6' - 8'		B&B	Multi-stem
<b>Evergreen Trees</b>							
IO	3	<i>Ilex opaca</i>	American Holly	6' - 8'		B&B	Plant 2 'Jersey Knight' as pollinator
JV	12	<i>Juniperus virginiana</i>	Eastern Red Cedar	6' - 8'		B&B	
<b>Shrubs</b>							
CA	27	<i>Clethra alnifolia</i> 'Hummingbird'	Hummingbird Summersweet	18" - 24"		#5 CONT	
CNJ	10	<i>Cornus americana</i>	New Jersey Tea	18" - 24"		#5 CONT	
CS	14	<i>Cornus sericea</i>	Red Twig Dogwood	30" - 36"		#5 CONT	
IG	42	<i>Ilex glabra</i> 'Shamrock'	Shamrock Inkberry Holly	24" - 30"		#5 CONT	
IT	64	<i>Itea virginiana</i>	Virginia Sweetpire	24" - 30"		#5 CONT	
IV	20	<i>Ilex verticillata</i> 'Winter Red'	Winter Red Winterberry	30" - 36"		#5 CONT	
MP	13	<i>Myrica pennsylvanica</i>	Northern Bayberry	18" - 24"		#5 CONT	
PO	3	<i>Prunus laurocerasus</i> 'Otto Luyken'	Otto Luyken Laurel	30" - 36"		#7 CONT	
<b>Groundcover</b>							
AU	96	<i>Arctostaphylos uva-ursi</i>	Bearberry	15" - 18"		#1 CONT	Plant 18" On Center Spacing
<b>Grasses/Perennials</b>							
AT	25	<i>Amsonia tabernaemontana</i>	Storm Cloud Bluestar			2 GAL	18" On Center Spacing
EP	10	<i>Echinacea purpurea</i>	Eastern Purple Coneflower			2 GAL	18" On Center Spacing
RF	56	<i>Rudbeckia fulgida</i> 'Goldstrum'	Black Eyed Susan			2 GAL	18" On Center Spacing
SS	84	<i>Schizachyrium scoparium</i> 'Zazz'	Jazz Little Bluestem			2 GAL	18" On Center Spacing

**LANDSCAPE LEGEND**

**SHADE TREE** (Symbol: Circle with crosshair)

**ORNAMENTAL TREE** (Symbol: Circle with hexagon)

**EVERGREEN** (Symbol: Circle with starburst)

**SHRUB** (Symbol: Circle with dots)

**EXISTING TREE** (Symbol: Circle with solid fill)

**EXISTING TREE TO REMAIN** (Symbol: Circle with solid fill and border)

**EXISTING TREE TO BE REMOVED** (Symbol: Circle with X)

**TREE CLEARING LIMIT** (Symbol: Dashed line)

**TREE PROTECTION FENCE** (Symbol: Dotted line)

**PLANT KEY** (Symbol: Circle with # and XX)

**PLANT QUANTITY** (Symbol: Line with # and XX)

**SSI BASIN NOTES:**

- SSI BASIN BOTTOM TO BE 6" K-5 SAND.
- SSI BASIN SLOPE TO BE SEEDDED WITH "RAIN GARDEN MIX" SEED AS MANUFACTURED BY PINELANDS NURSERY & SUPPLY, COLUMBUS, NJ OR APPROVED EQUAL. COVERAGE RATE: 11 LBS / ACRE.
- SSI BASINS ARE TO BE PLANTED TO REDUCE WEEKLY MOWING OPERATIONS AND CHEMICAL TREATMENTS. THE AREA SHOULD NOT BE MAINTAINED AS CONVENTIONAL LAWN AREAS.

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**PRELIMINARY & FINAL MAJOR SITE PLANS**  
**LANDSCAPE PLAN**

FOR  
**TAX BLOCK 72.01**  
**TAX LOT 10.01**  
TOWNSHIP OF MANCHESTER  
NEW JERSEY

SCALE:	1" = 40'	JOB NUMBER:	322334
DRAWN BY:	KNL	DATE:	MARCH 6, 2024
DESIGN/CALC'D BY:	IMB	SHEET:	9
CHECKED BY:	WAS	SHEET:	15

# 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 SUPERSEDE.
- E. ALL PLANTING MATERIAL AND METHODS SHALL MEET OR EXCEED THE REQUIREMENTS OF THE MUNICIPAL ORDINANCES OF THE TOWNSHIP OF MANCHESTER AND ANSI Z-60.1 (CURRENT VERSION), "THE AMERICAN STANDARD FOR NURSERY STOCK," PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSEYMEN. IN THE EVENT OF CONFLICT BETWEEN A.N. 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 30' ABOVE THE ELEVATION OF THE ADJACENT ROADWAY. STREET TREES AND SHADE TREES PLANTED NEAR PEDESTRIAN OR VEHICULAR ACCESSSES, OR WITHIN REQUIRED SIGHT DISTANCES/ SIGHT TRIANGLE EASEMENTS SHALL NOT BE BRANCHED ANY LOWER THAN 7'-0" ABOVE GRADE, AND MUST BE APPROPRIATELY PRUNED. NO WOODY PLANTS, EXCEPT GROUND COVERS, ARE TO HAVE THEIR CENTERS CLOSER THAN 36" TO THE BACK OF THE CURB. NO STREET TREES ARE TO BE PLANTED IN SIGHT TRIANGLES IN ACCORDANCE WITH MANCHESTER TOWNSHIP 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 70% TOPSOIL, 20% FULLY COMPOSTED COW OR HORSE MANURE AND 10% PEAT MOSS. TOPSOIL SHALL MEET NJDOT 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 ENGINEER, PLANTS SHALL BE SET SO THAT THEIR ROOT CROWNS ARE APPROXIMATELY THREE INCHES ABOVE THE FINAL GRADE, WITH TOPSOIL AND MULCH GENTLY MOUNDING TO AVOID EXCESSIVE DRYING AT THE SURFACE. UNDER NO CIRCUMSTANCES SHALL PLANTINGS AT RELATIVELY DRY LOCATIONS BE PERFORMED IN A MOUNDED 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 1/2 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, MASSED 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 SPECIALIST. ALL SUBSTITUTIONS SHALL BE SUBMITTED TO THE TOWNSHIP TREE SPECIALIST 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, SPECIFIED VARIETY OR CULTIVAR, PLANT PATENT NUMBER (IF A PATENTED TREE), AS WELL AS CULTURAL REQUIREMENTS, INCLUDING WATERING AND FERTILIZATION.

## 4. MAINTENANCE

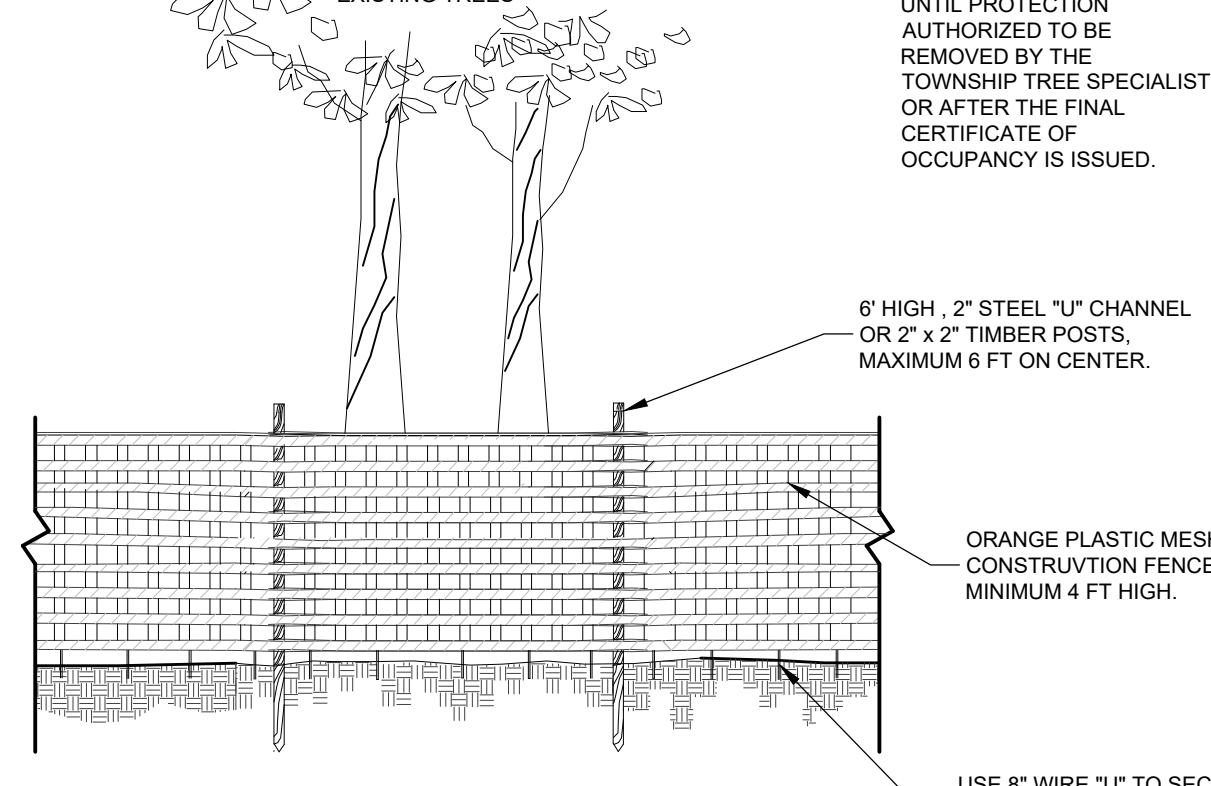
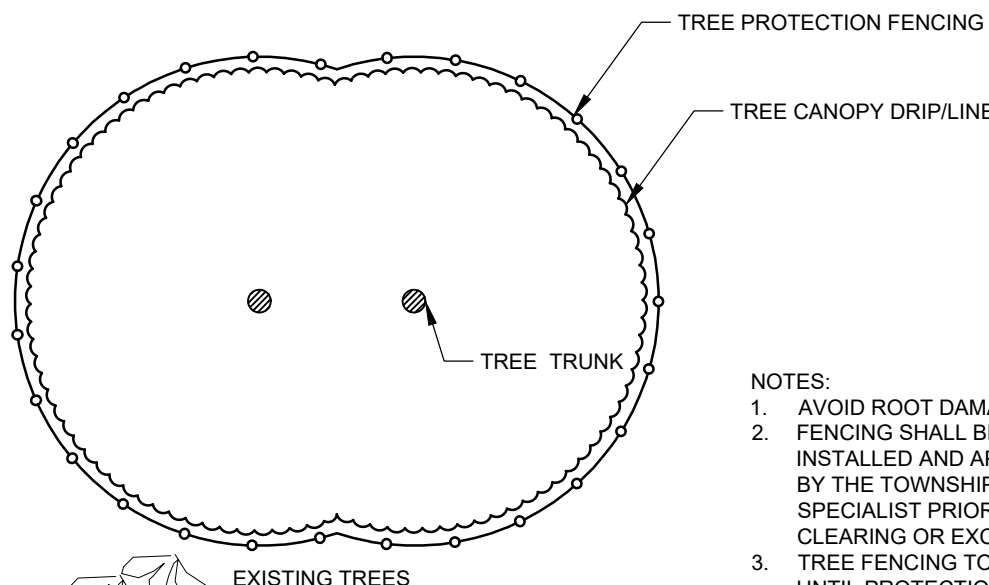
- A. ALL PLANTING SHALL BE WATERED AS NECESSARY FOR SOUND HORTICULTURAL PRACTICE DURING THE FIRST GROWING SEASON, TO ENSURE THEIR PROPER ESTABLISHMENT. ALL TREES IN A SCREENING AREA SHALL BE WATERED WEEKLY THROUGH THE FIRST GROWING SEASON.
- B. IN GENERAL, SHRUBS ARE TO BE PLANTED AT INTERVALS WHICH 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.
- C. STAKING SHALL BE ATTACHED TO THE TREE WITH TWELVE GAUGE GALVANIZED WIRE COVERED WITH RUBBER OR PLASTIC HOSE, OR TREE TIES ESPECIALLY MANUFACTURED FOR THIS PURPOSE. THE LOOP IN CONTACT WITH THE TREE SHALL BE LOOSE ENOUGH TO PERMIT GROWTH AND PREVENT GIRDLING FOR TWO YEARS, BUT SHALL BE TIGHTLY BOUND TO THE STAKE TO PREVENT SLIPPING.

D. EACH TREE SHALL BE WRAPPED WITH AN EXPANDABLE PAPER OR CLOTH TREATED TO LAST ONE YEAR. THIS WRAP SHALL EXTEND FROM THE GROUND LEVEL UP THE TRUNK TO THE FIRST BRANCHES. THIS WRAP SHOULD BE ATTACHED OR FASTENED AT EACH END WITH A MATERIAL THAT WILL PERMIT TREE GROWTH.

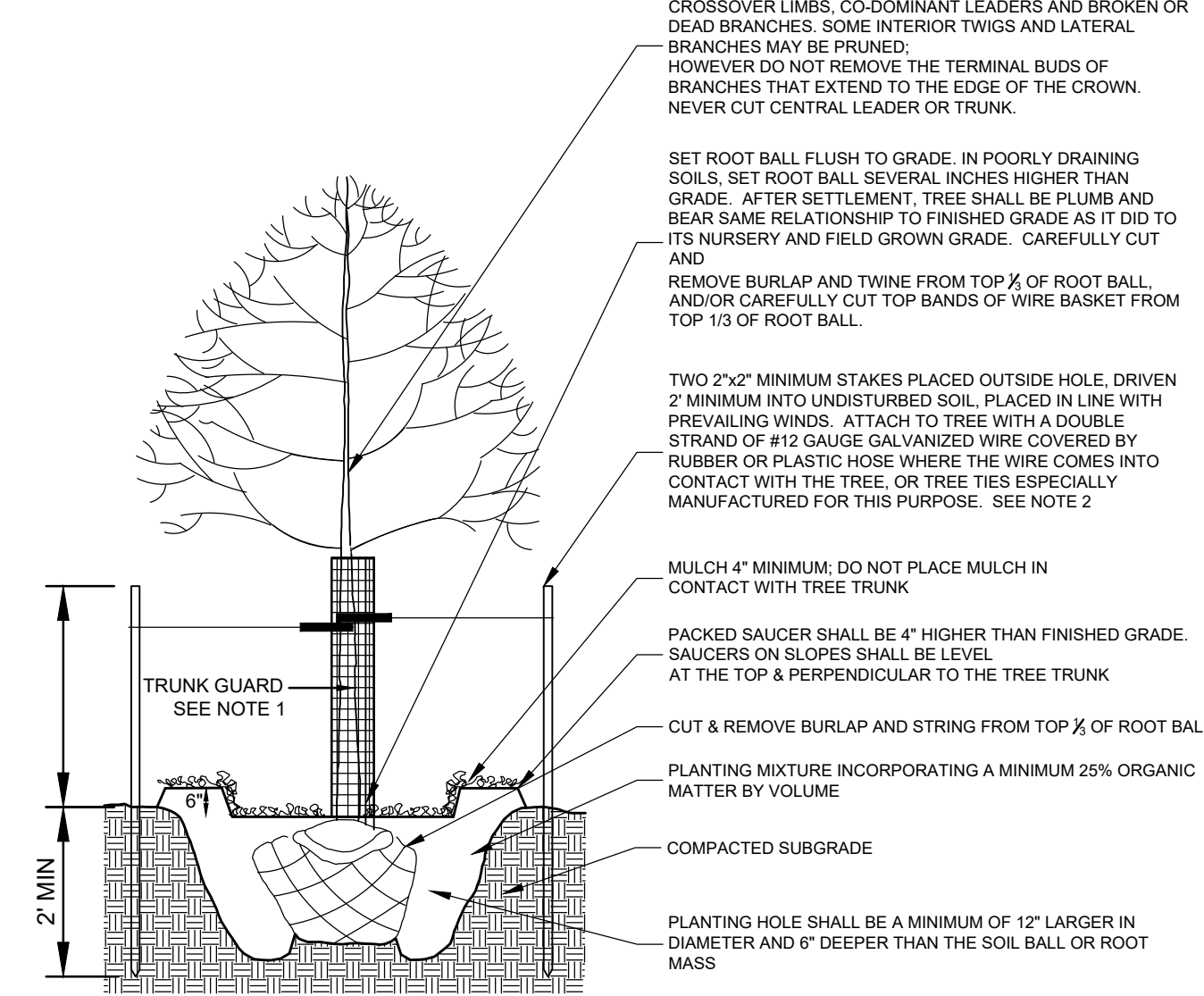
E. A PERMANENT IRRIGATION SYSTEM SHALL BE INSTALLED TO ENSURE PROPER ESTABLISHMENT AND MAINTENANCE OF ALL PLANTINGS. THE APPLICANT SHOULD ADDRESS THE BOARD REGARDING THEIR PLANS TO INSTALL A PRIVATE WELL TO PROVIDE IRRIGATION WATER TO THE SITE.

## 5. MISCELLANEOUS

- D. 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.
- E. 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.
- F. STREET AND PARKING LOT TREES SHALL HAVE NO BRANCHES LOWER THAN 7' ABOVE GRADE.
- G. ALL DEAD OR SEVERELY DECLINING PLANTS SHALL BE REPLANTED WITHIN THE NEXT GROWING SEASON DURING PERFORMANCE AND MAINTENANCE BOND PERIODS.
- H. THE TREE PROTECTION FENCING SHALL BE INSTALLED AND APPROVED BY THE TOWNSHIP TREE SPECIALIST PRIOR TO ANY CLEARING OR EXCAVATION. TREE FENCING TO REMAIN UNTIL PROTECTION AUTHORIZED TO BE REMOVED BY THE TOWNSHIP TREE SPECIALIST OR AFTER THE FINAL CERTIFICATE OF OCCUPANCY IS ISSUED.

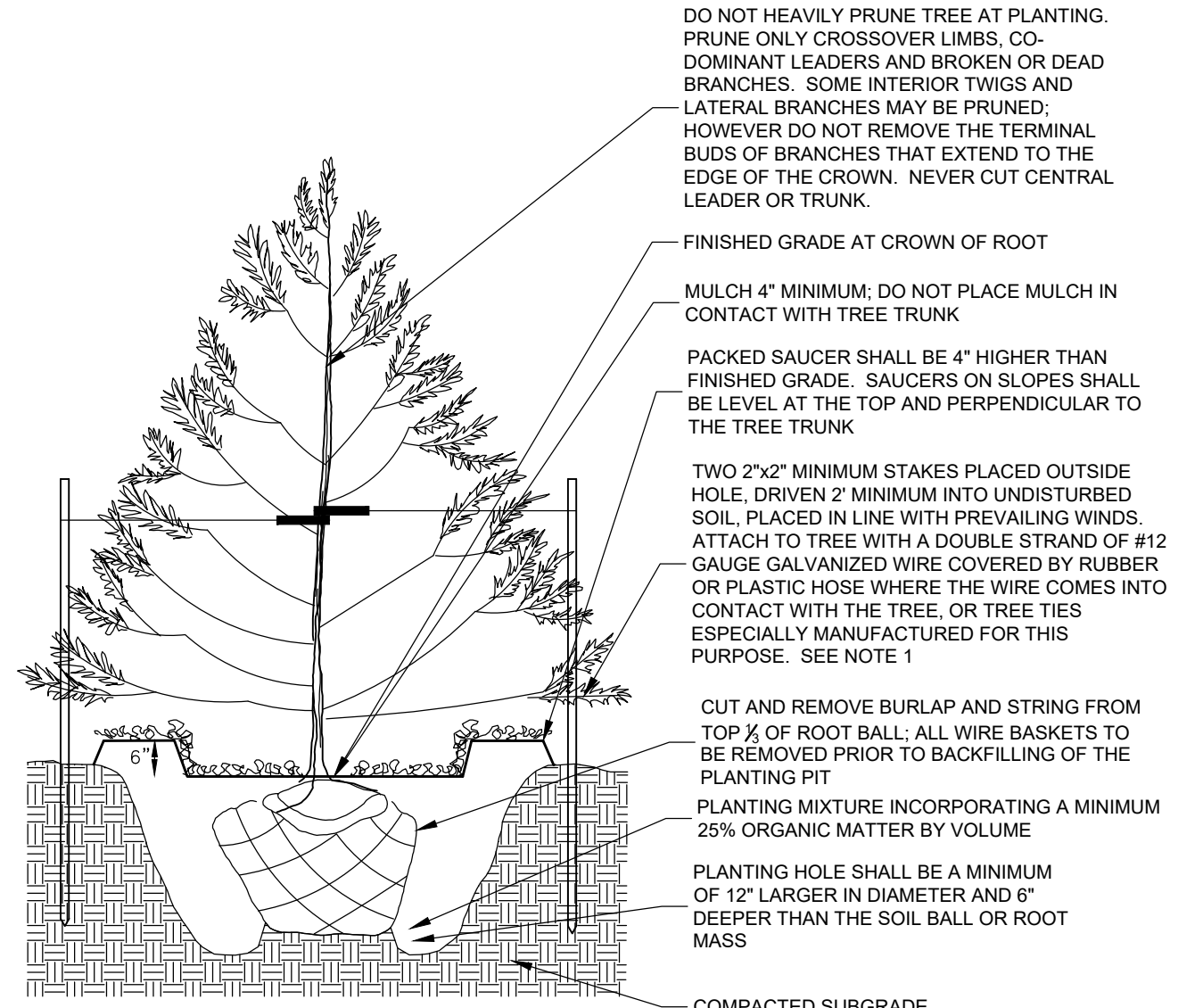


**TREE PROTECTION FENCING**  
NOT TO SCALE



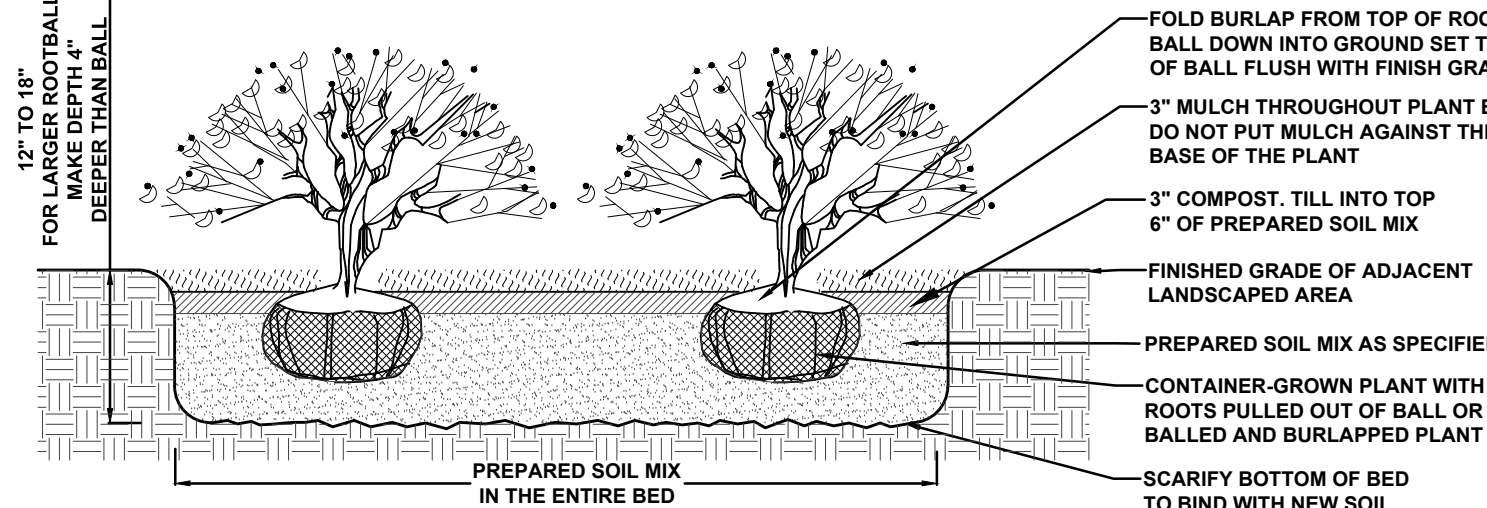
- NOTE:
- 1. EACH TREE SHALL USE A RIGID, PLASTIC OPEN MESH TRUNK GUARD TO PROTECT THE TREE FROM IRREPARABLE DAMAGE OF BUCK RUB. THE GUARD SHALL EXTEND FROM THE GROUND LEVEL UP THE TRUNK TO THE FIRST BRANCHES. THE GUARD SHALL BE ATTACHED OR FASTENED TO A STAKE TO PERMIT TREE GROWTH.
  - 2. THE LOOP IN CONTACT WITH THE TREE SHALL BE LOOSE ENOUGH TO PERMIT GROWTH AND PREVENT GIRDLING FOR TWO YEARS, BUT SHALL BE TIGHTLY BOUND TO THE STAKE TO PREVENT SLIPPING.

**TREE PLANTING**  
NOT TO SCALE



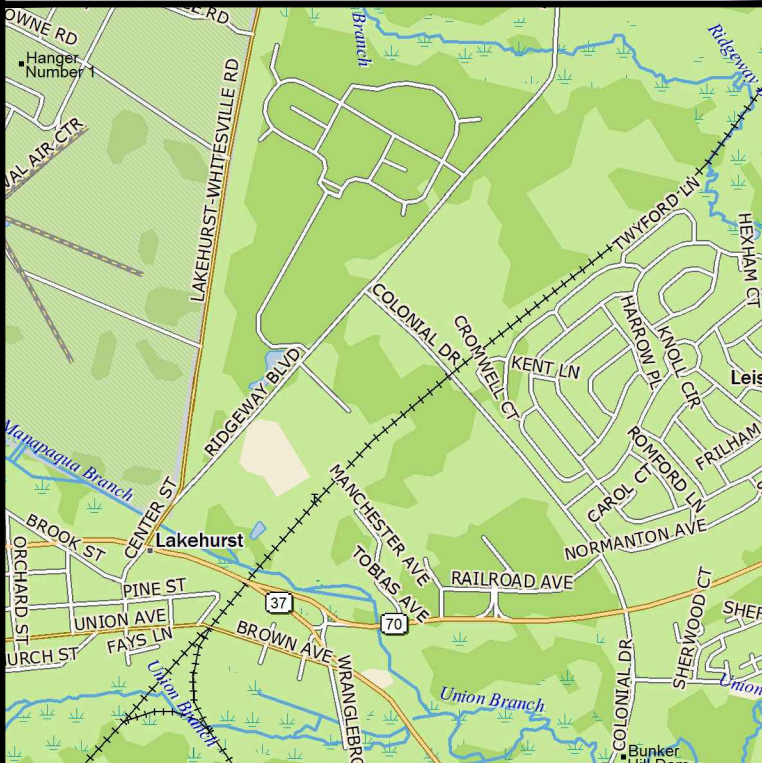
- NOTE:
- 1. THE LOOP IN CONTACT WITH THE TREE SHALL BE LOOSE ENOUGH TO PERMIT GROWTH AND PREVENT GIRDLING FOR TWO YEARS, BUT SHALL BE TIGHTLY BOUND TO THE STAKE TO PREVENT SLIPPING.

**EVERGREEN TREE PLANTING**  
NO SCALE



- 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.
  - 4. 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 DETAIL**  
NOT TO SCALE



**KEY MAP**  
SCALE: 1" = 200'

# TREE REMOVAL AND LANDSCAPE NOTES

- 1. THE CONTRACTOR MUST PROVIDE WRITTEN NOTICE TO THE MANCHESTER TOWNSHIP FORESTER A MINIMUM OF 48 HOURS PRIOR TO COMMENCEMENT OF TREE REMOVAL OPERATIONS.
- 2. THE CONTRACTOR MUST COMPLY WITH ALL PROVISIONS OF MANCHESTER TOWNSHIP ORDINANCE
- 3. THE EXISTING TREES MUST BE PROTECTED BY INSTALLATION OF A 4 FOOT ORANGE CONSTRUCTION FENCING. THE FENCING MUST BE PLACED AT THE LIMIT OF CLEARING PRIOR TO COMMENCEMENT OF TREE REMOVAL OPERATIONS.
- 4. THE TREE PROTECTION FENCING SHALL BE INSTALLED AND APPROVED BY THE TOWNSHIP TREE SPECIALIST PRIOR TO ANY CLEARING OR EXCAVATION. TREE FENCING TO REMAIN UNTIL PROTECTION AUTHORIZED TO BE REMOVED BY THE TOWNSHIP TREE SPECIALIST OR AFTER THE FINAL CERTIFICATE OF OCCUPANCY IS ISSUED.
- 5. THE RETAINED TREES MUST BE IDENTIFIED BY FLAGGING EACH WITH RIBBON. THE CONTRACTOR MUST CONTACT THE MANCHESTER TOWNSHIP FORESTER TO SCHEDULE AN INSPECTION.
- 6. ALL REMAINING TREES ARE TO BE PRUNED AS NECESSARY IN ACCORDANCE WITH INDUSTRY STANDARDS BY A NJ CERTIFIED TREE EXPERT.
- 7. THE CONTRACTOR MUST COMPLY WITH ALL PROVISIONS OF MANCHESTER TOWNSHIP TREE REMOVAL ORDINANCE CHAPTER 403.
- 8. THE MANCHESTER TOWNSHIP FORESTER SHALL REQUIRE DEAD, BROKEN BRANCH AND SELECT RISK TREE REMOVAL ON REMAINING SPECIMEN TREES BEFORE PERFORMANCE BOND RELEASE.
- 9. THERE ARE NO SPECIMEN TREES LOCATED ON THIS SITE.
- 10. ALL TREE STUMPS AND OTHER TREE PARTS OR OTHER DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH THE LAND. NO TREE STUMPS, PORTIONS OF A TREE TRUNK OR LIMBS SHALL BE BURIED ANYWHERE IN THE DEVELOPMENT.

No.	DATE	DESCRIPTION	BY

**PDS**  
PROFESSIONAL DESIGN SERVICES, L.L.C.

CONSULTING ENGINEERS, LAND SURVEYORS, PLANNERS,  
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CERTIFICATE OF AUTHORIZATION NO. 246A29125400

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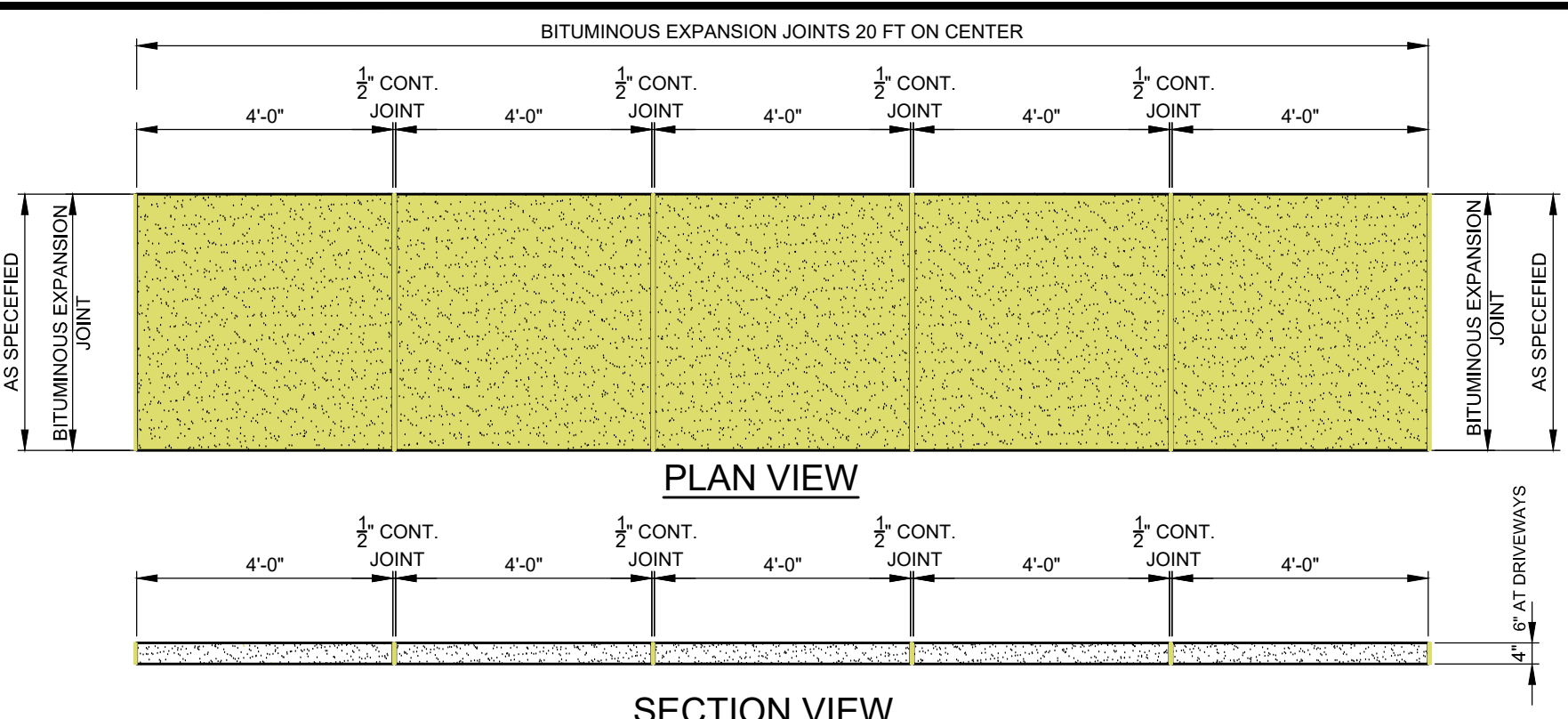
**PRELIMINARY & FINAL MAJOR SITE PLANS**  
**LANDSCAPE DETAILS**

FOR  
**TAX BLOCK 72.01**  
**TAX LOT 10.01**  
TOWNSHIP OF MANCHESTER  
OCEAN COUNTY NEW JERSEY

SCALE: AS SHOWN JOB NUMBER: 322334  
DRAWN BY: KNL DATE: MARCH 6, 2024  
DESIGN/CALC'D BY: IMB SHEET: 10  
CHECKED BY: WAS SHEET: 15

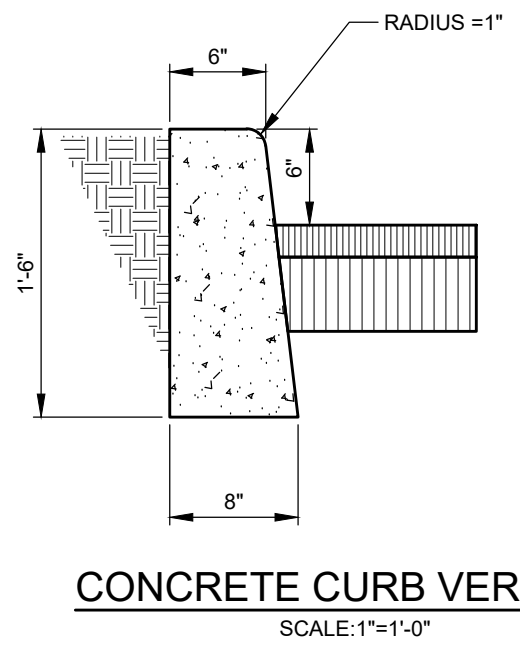
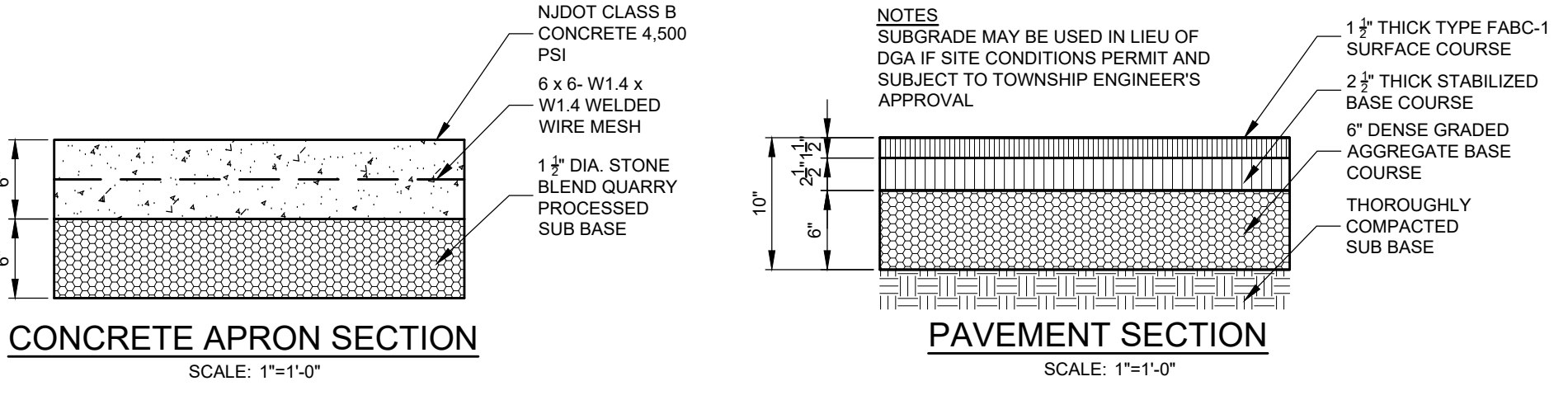
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KRISTIN 3/7/24  
 P:\PROJECTS\232334 - 322334\_S10 DETAILS >

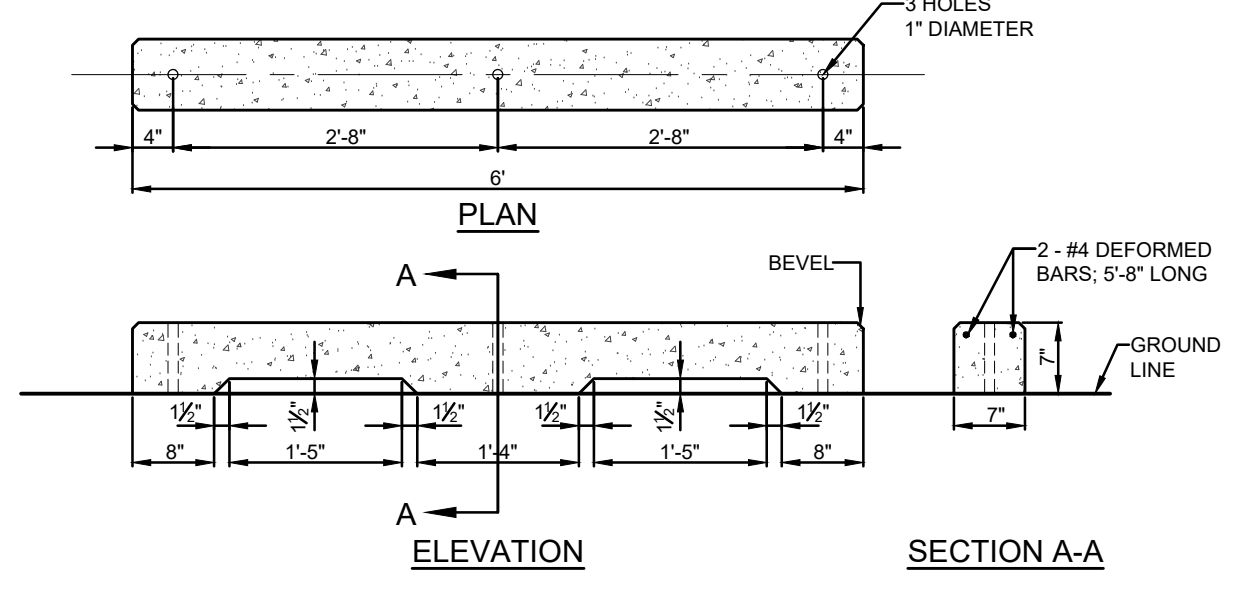
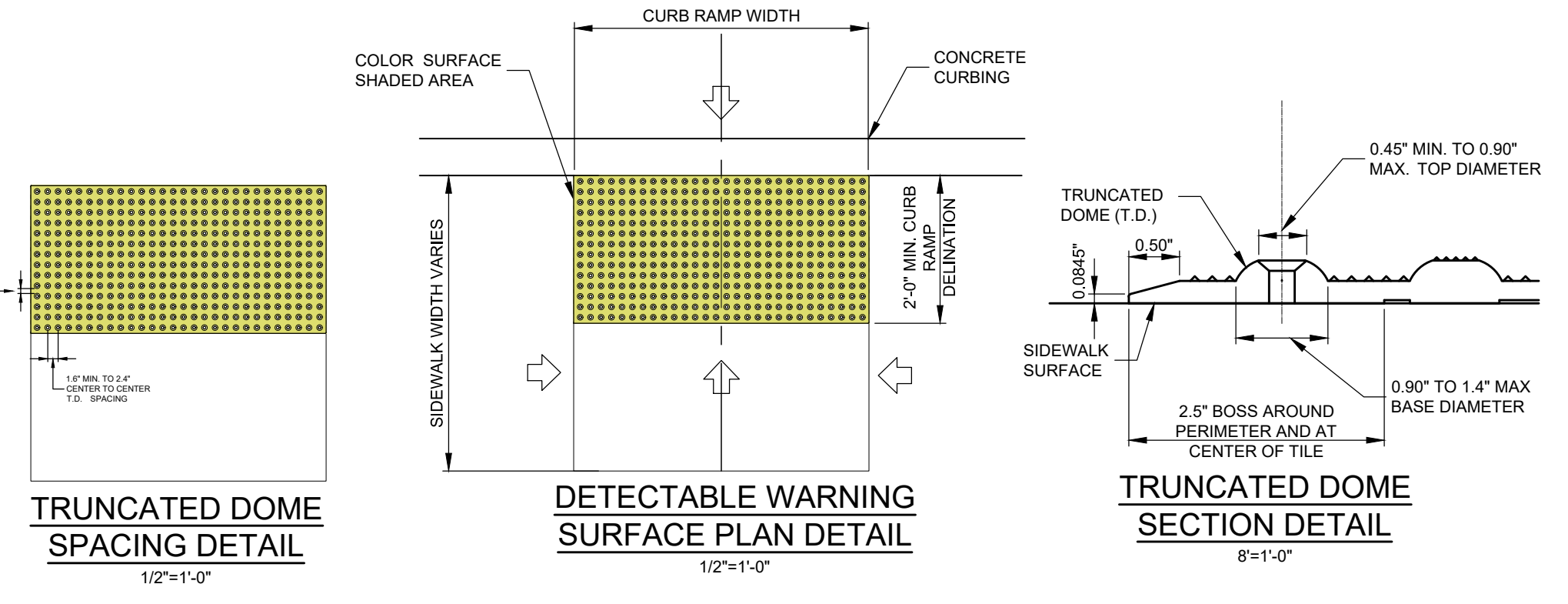
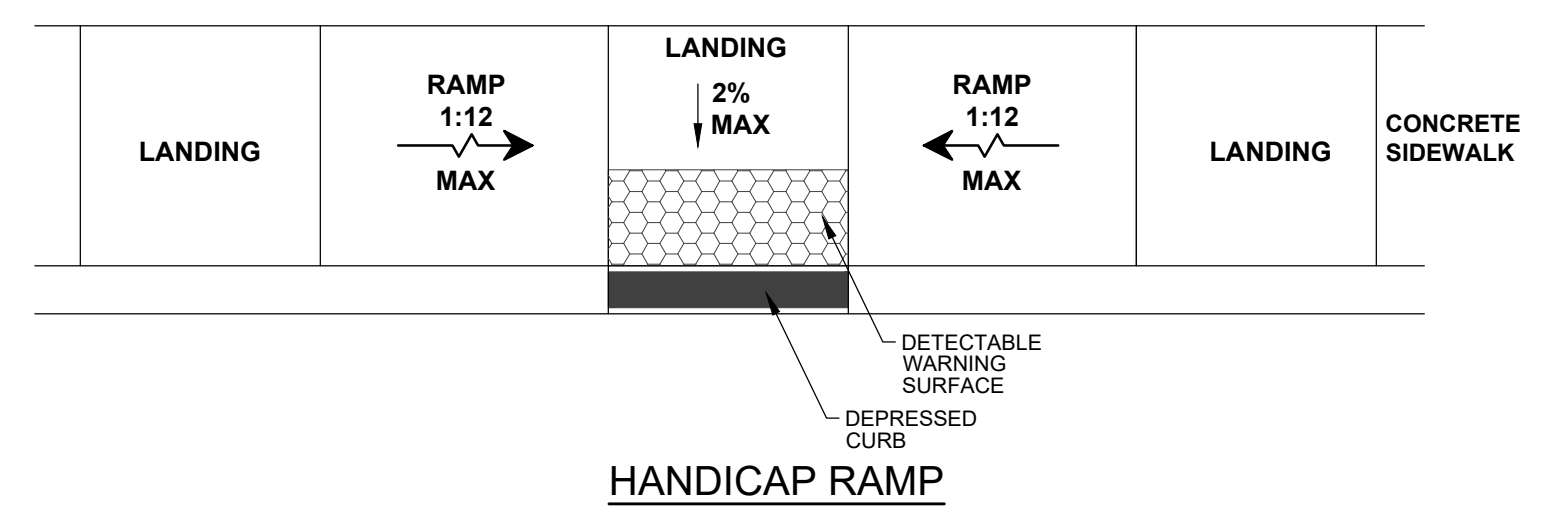


1. A PREFORMED EXPANSION JOINT 3/4" THICK, 4" WIDE, AND EXTENDING THE FULL WIDTH OF THE WALK, UNBROKEN, SHALL BE INSTALLED EVERY 20 FT. CONTRACTION JOINTS SHALL BE INSTALLED EVERY 4 FT. THE FULL WALK WIDTH. THERE SHALL BE A BROOM FINISH WITH THE EDGES FINISHED WITH A SUITABLE TOOL.
2. SIDEWALK SHALL CONSIST OF 4,000 PSI CONCRETE IN 28 DAYS.

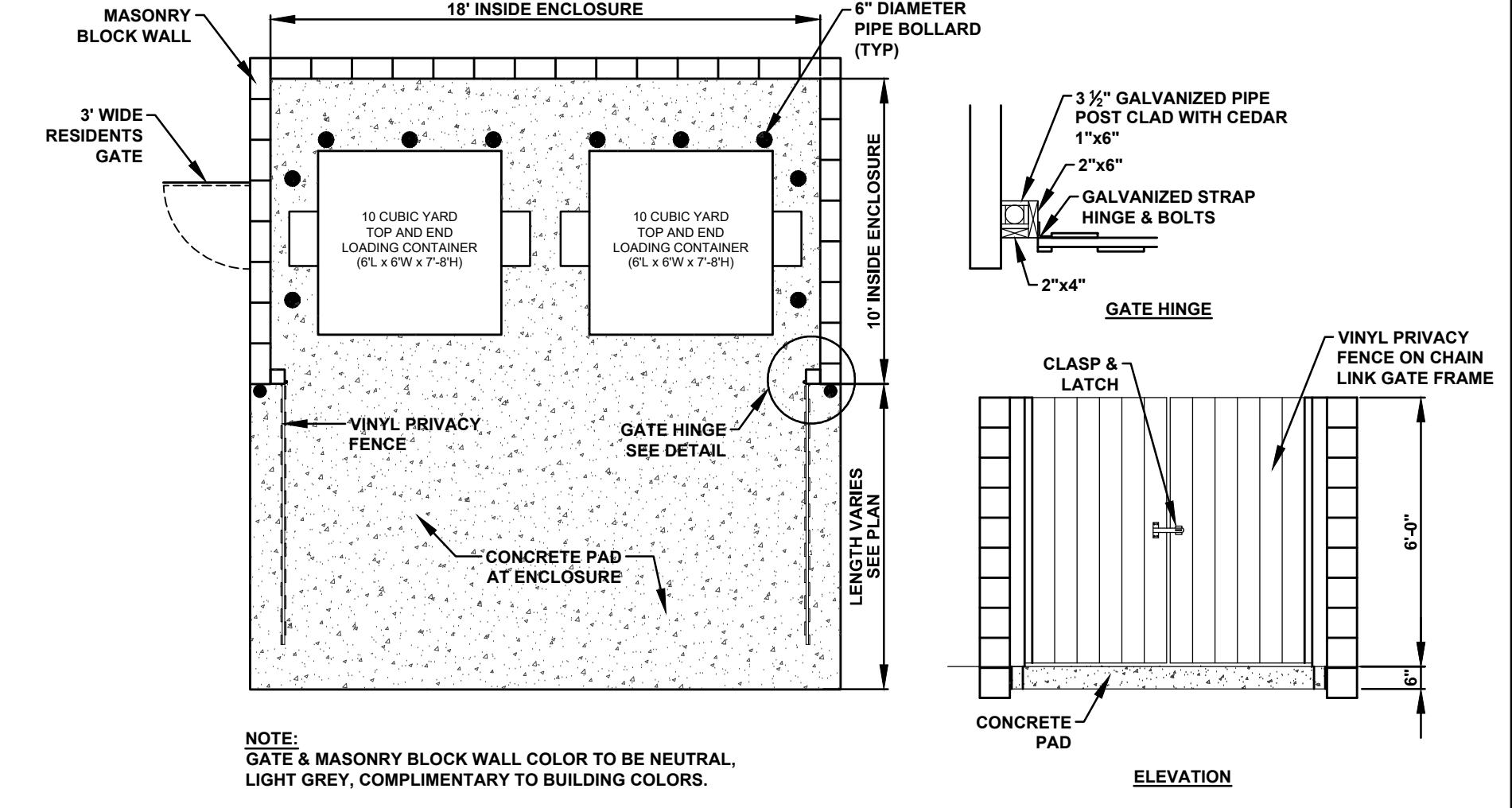
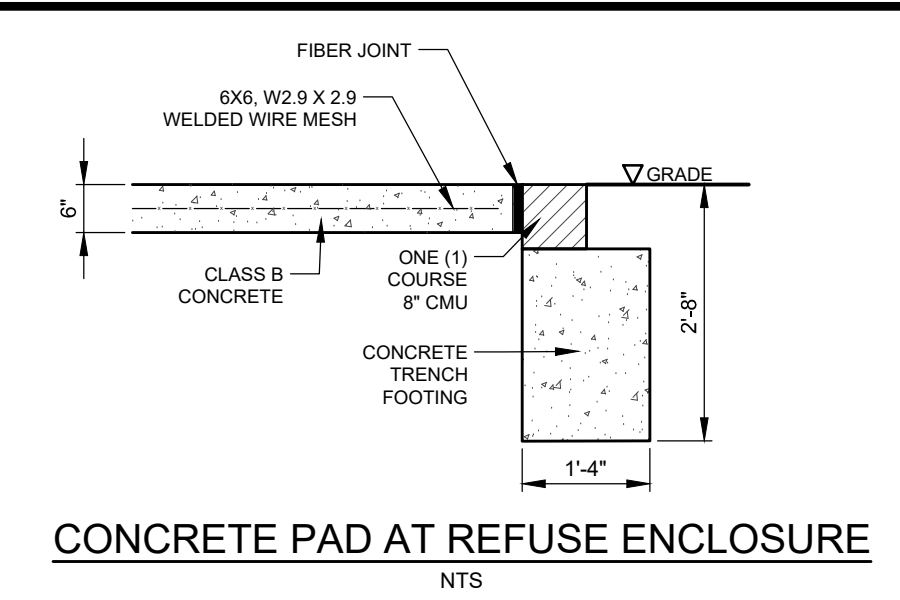
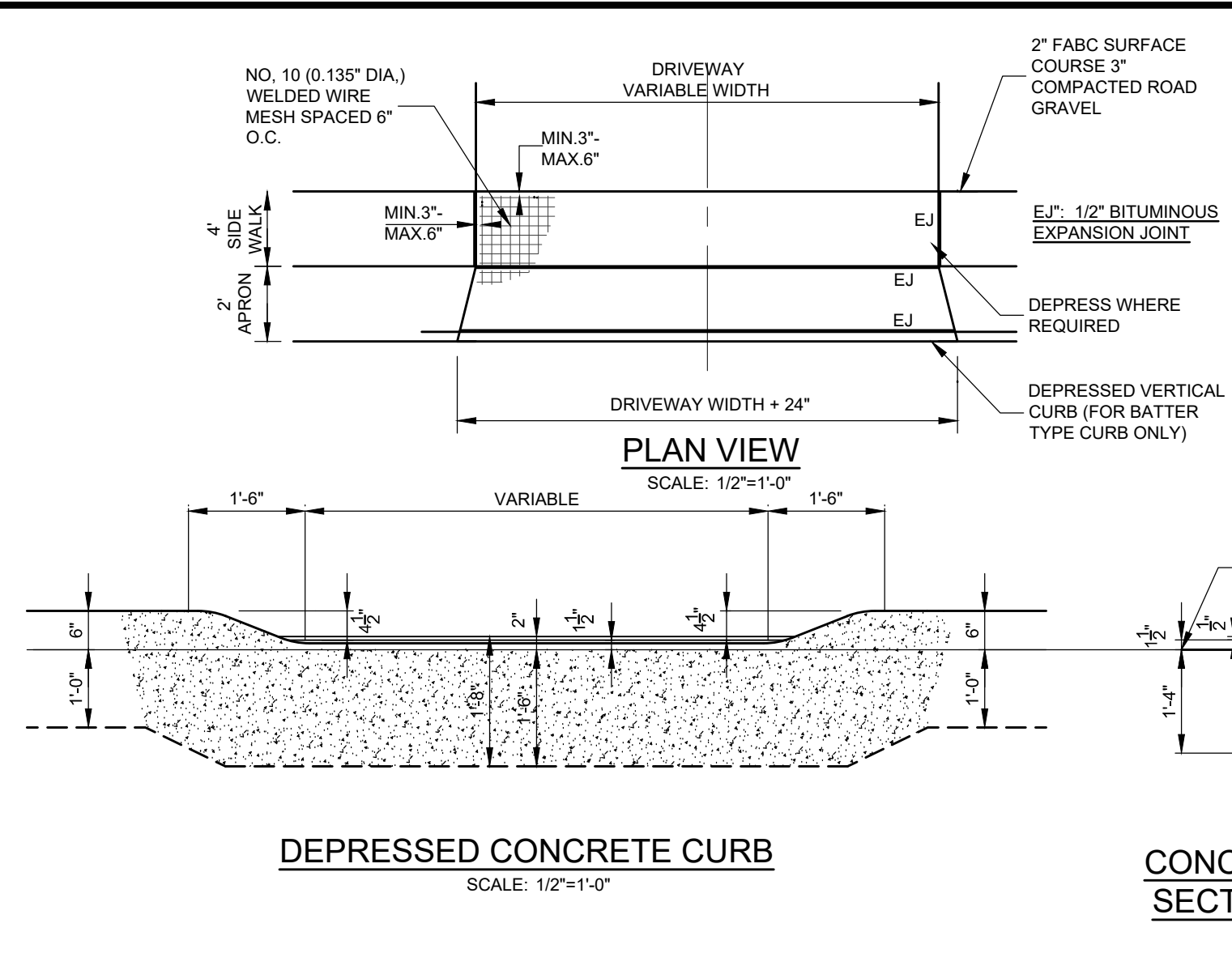
**CONCRETE SIDE WALK DETAIL**  
SCALE: 3/8"=1'-0"



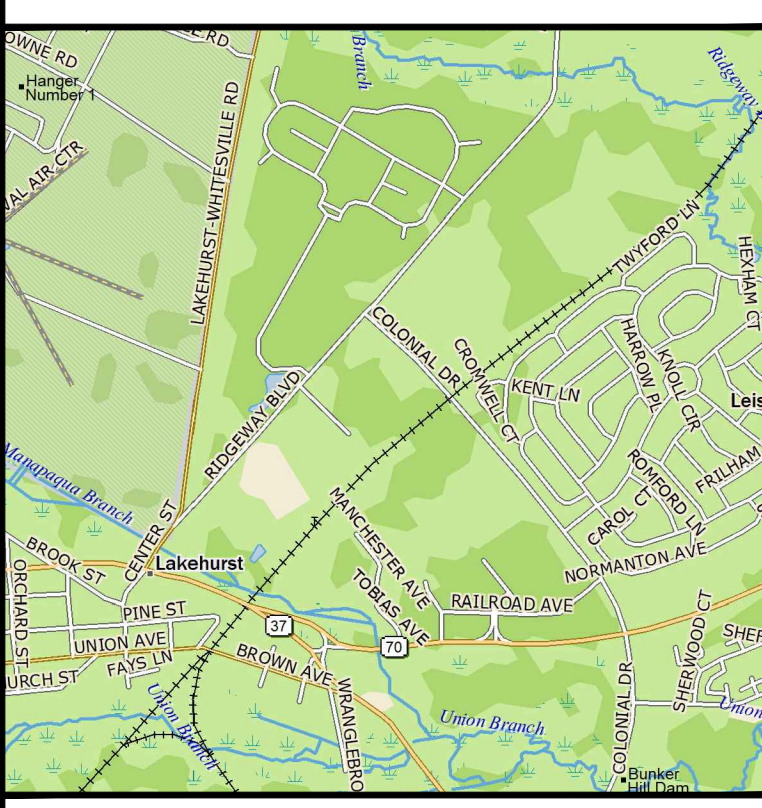
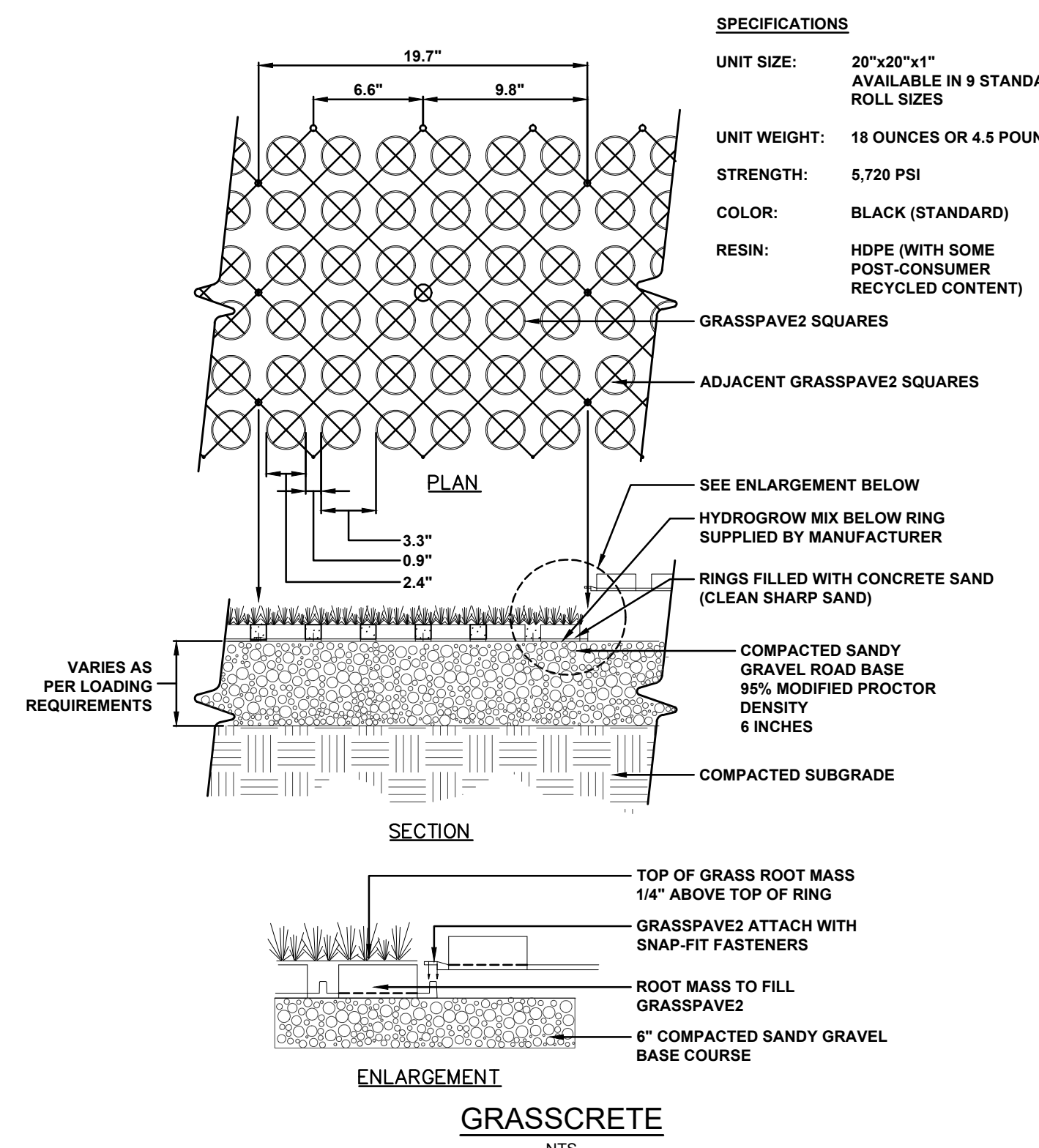
- CURBING NOTES:**
1. 1/2" WIDE TRANSVERSE EXPANSION JOINT SHALL BE INSTALLED IN THE CONCRETE CURB AT 20' OC INTERVALS. THE EXPANSION JOINT SHALL BE FILLED WITH PRE-FORMED BITUMINOUS IMPREGNATED JOINT FILER (ASHTO M-213), RECESSED 1/2" FROM FACE AND TOP OF CURB.
  2. CURB AND SIDEWALK SHALL CONSIST OF 4,500 PSI CONCRETE AT 28 DAYS.



- GENERAL NOTES:**
1. CONCRETE USED TO HAVE MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,500 PSI.
  2. UNIT TO BE PINNED TO SURFACE WITH 3-3/4" DIAMETER STEEL RODS, 24" MINIMUM LENGTH.
  3. ALL BEVELS TO BE 1/2".
  4. ALL ANGLES TO BE 45°.



**NOTE:** GATE & MASONRY BLOCK WALL COLOR TO BE NEUTRAL, LIGHT GREY, COMPLIMENTARY TO BUILDING COLORS.



**KEY MAP**  
SCALE: 1" = 2000'

No.	DATE	DESCRIPTION	BY

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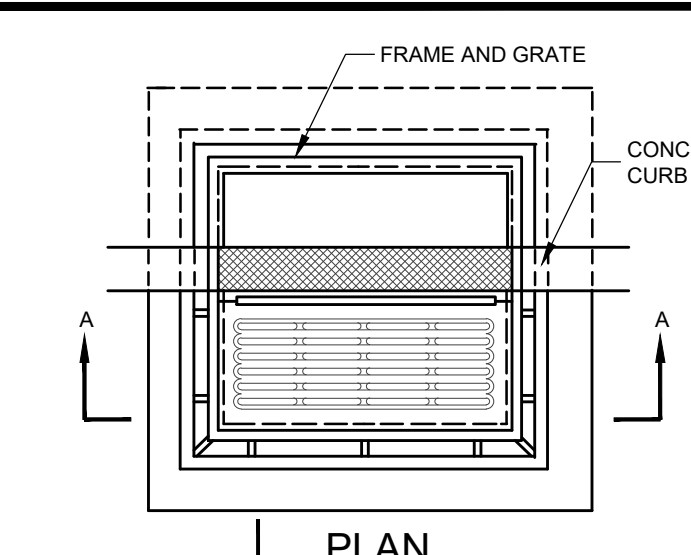
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**PRELIMINARY & FINAL MAJOR SITE PLANS**  
**CONSTRUCTION DETAILS**  
**SITE**

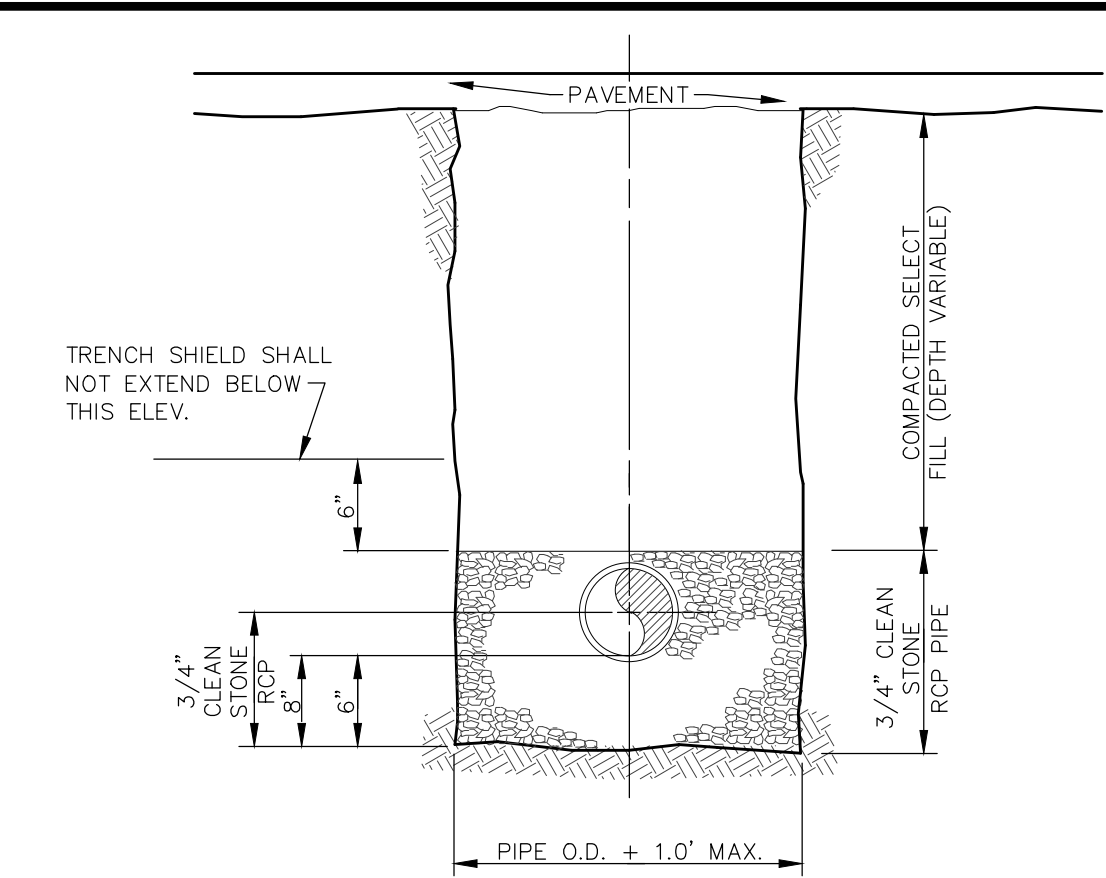
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SCALE: AS SHOWN JOB NUMBER: 322334  
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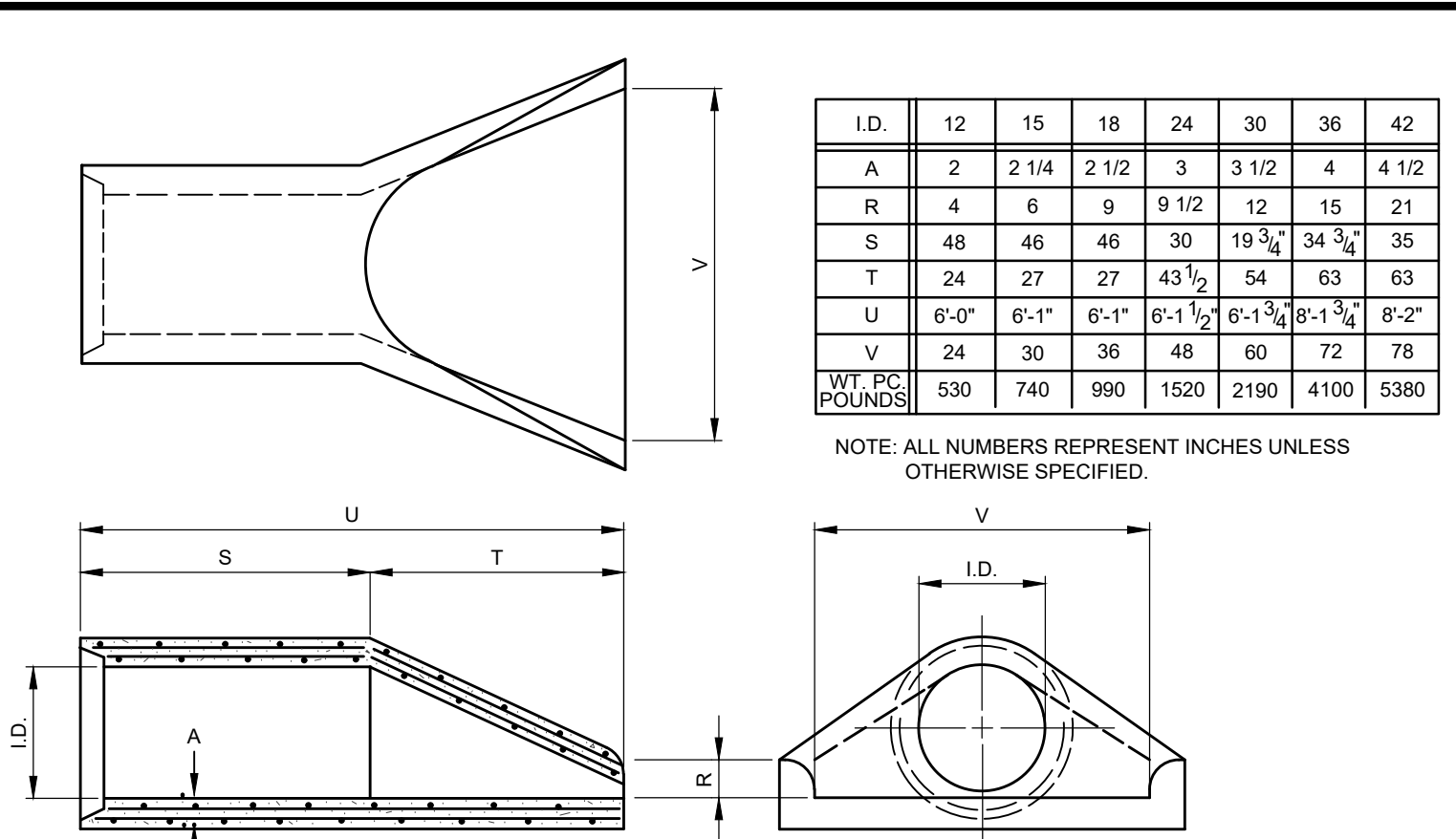
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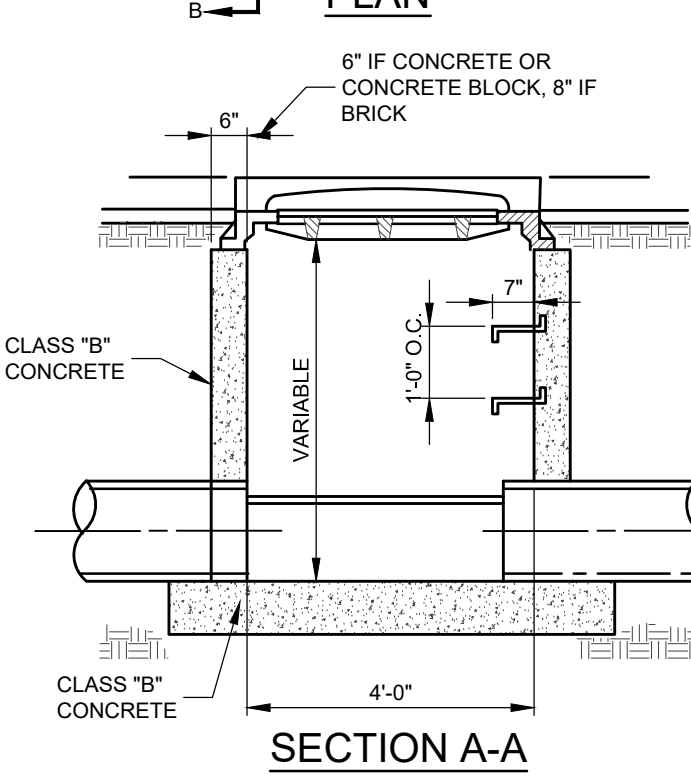
- GENERAL NOTES**
- FOOTER TO BE N.J.D.O.T. CLASS "B" CONC.
  - INVERT TO BE CLASS "B" CONCRETE.
  - IF WALL CONSTRUCTION IS OTHER THAN CONCRETE, THE WALLS SHALL BE PLASTERED BOTH INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT PLASTER.
  - FRAME AND GRATE TO BE NO. 2818 AS MANUFACTURED BY CAMPBELL FOUNDRY CO., W/6" BICYCLE GRATE.
  - PROVIDE 7/8" DIA. ALUMINUM LADDER RUNGS, 12" O.C.
  - ALL PRECAST STRUCTURES TO RECEIVE BITUMASTIC TAR COAT OUTSIDE ONLY.
  - ALL STORM SEWER PIPE SHALL HAVE A 6" STONE BEDDING TO 1/2 DIAMETER OF PIPE.



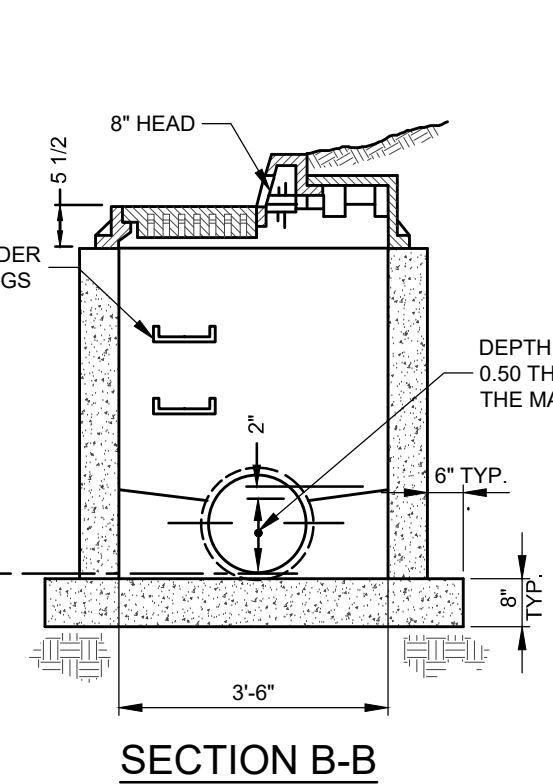
**TYPICAL TRENCH UNDER PAVEMENTS**  
NTS



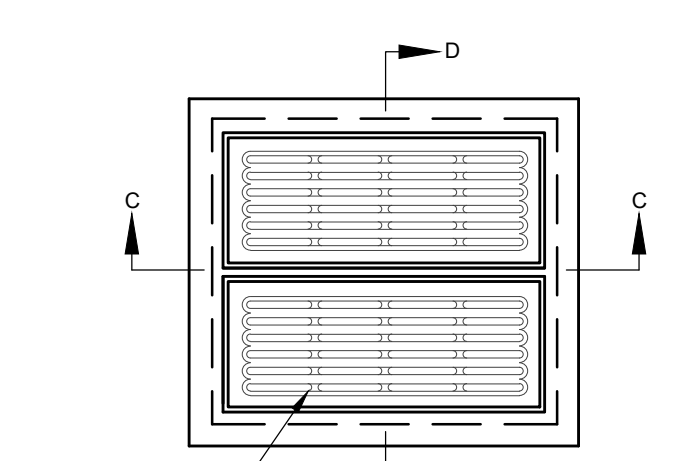
**HEADWALL- ENDWALL FLARED END SECTION REINFORCED CONCRETE PIPE SCHEDULE**  
NOT TO SCALE



**TYPE B INLET**  
SCALE: 3/8"=1'-0"

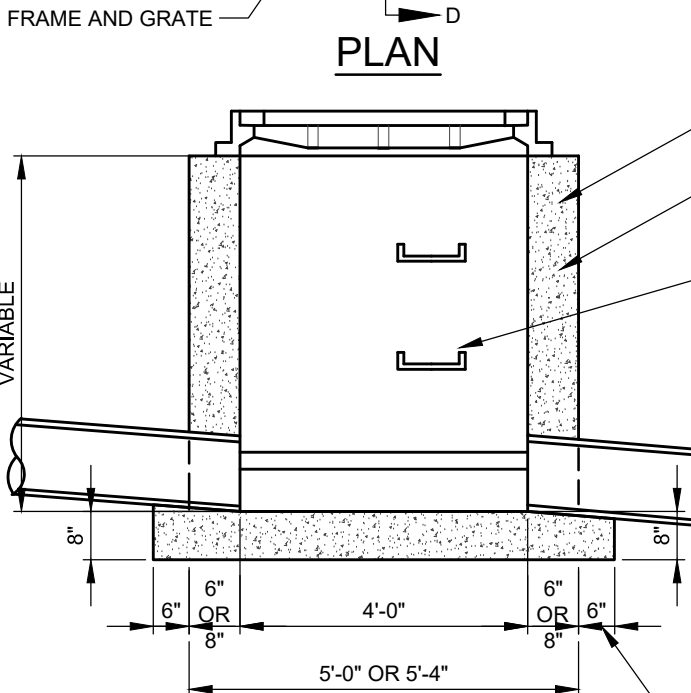


**SECTION B-B**

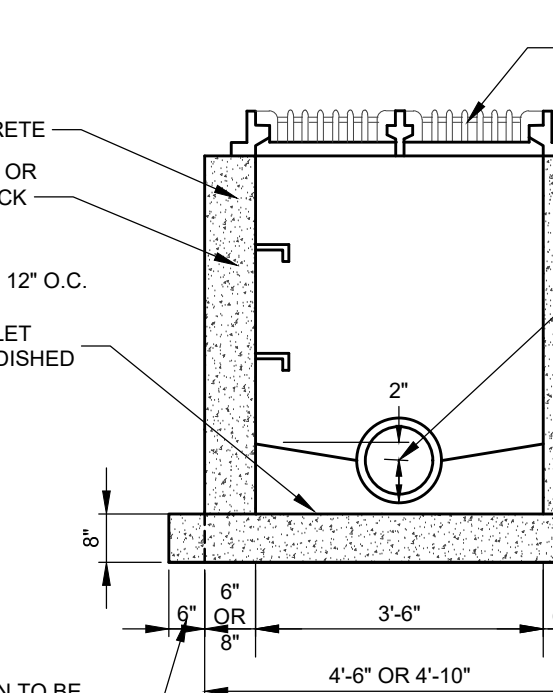


**PLAN**

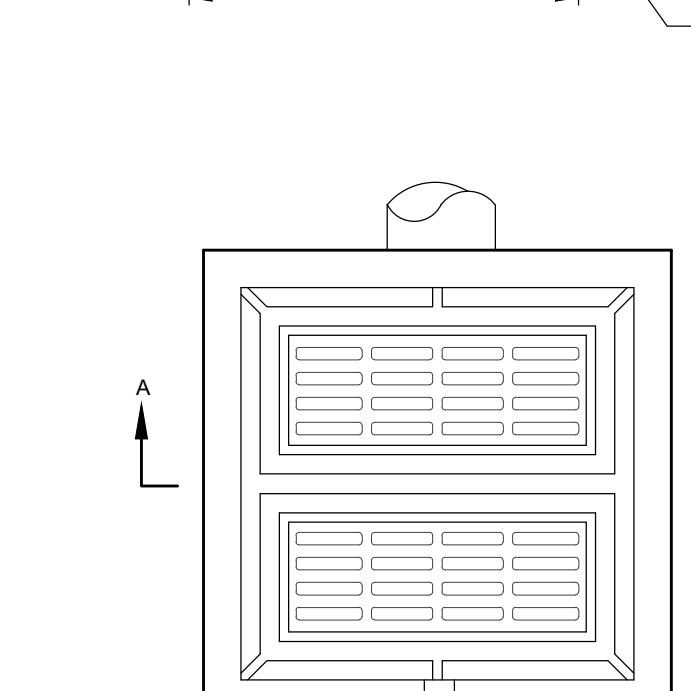
- NOTES**
- INVERTS TO BE ELIMINATED IN BOTTOM OF TERMINAL INLETS. BOTTOMS SHALL BE DISHED AND SLOPED TOWARDS THE OUTLET PIPE AT A RATE OF GRADE OF 2" INCHES PER FOOT.
  - THIS INLET MAY BE CONSTRUCTED OF BRICK, CONCRETE OR CONCRETE BLOCK. IF BRICK OR CONCRETE BLOCK IS USED, THE BOTTOM SHALL BE AS SHOWN FOR CONCRETE & THE OUTSIDE OF THE WALLS SHALL BE PLASTERED WITH 1/2" COAT OF 1:2 CEMENT SAND MORTAR.
  - INLET FRAME AND GRATES TO BE CAMPBELL FOUNDRY PATTERN NO. 3440 OR APPROVED EQUAL.



**TYPE E INLET**  
SCALE: 3/8"=1'-0"

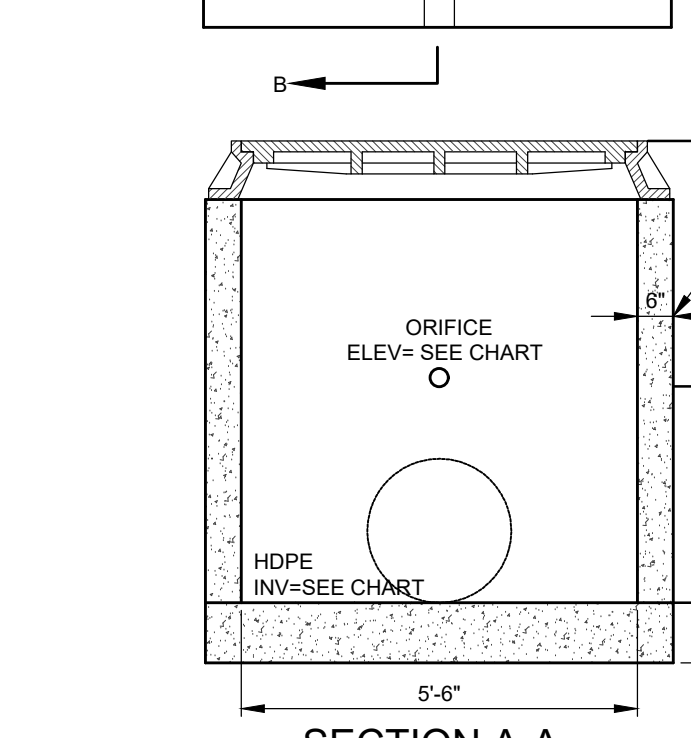


**SECTION D-D**

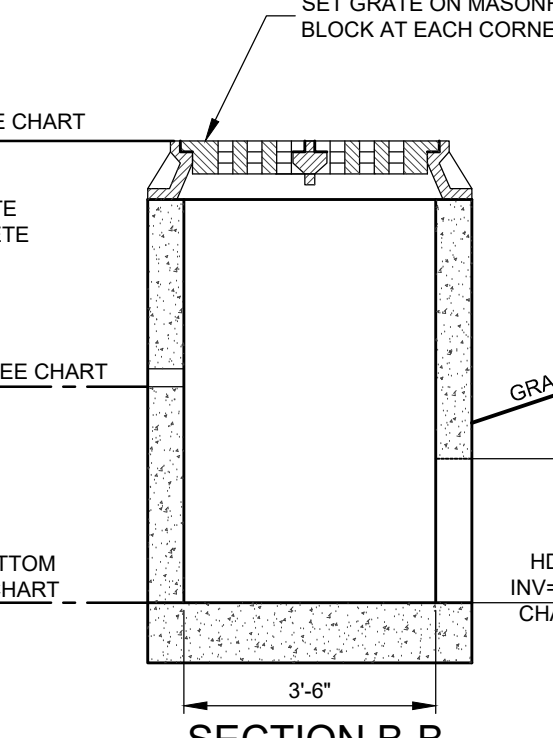


**PLAN**

- NOTES**
- WALLS & FOOTER TO BE CLASS "C" CONCRETE.
  - IF WALL CONSTRUCTION IS OTHER THAN CONCRETE, THE WALLS SHALL BE PLASTERED BOTH INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT PLASTER.
  - FRAME AND GRATE TO BE #3440 AS MANUFACTURED BY CAMPBELL FOUNDRY CO. OR EQUAL.



**SECTION A-A**



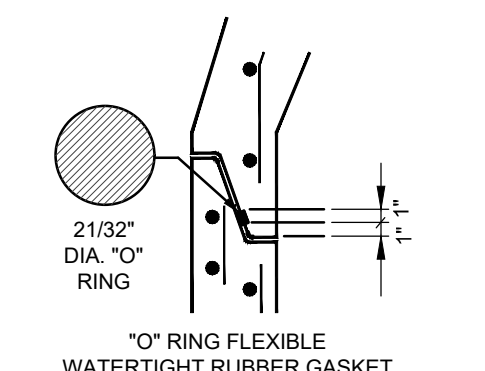
**SECTION B-B**

BASIN	BASIN BOTTOM ELEV	ORIFICE DIAMETER	ORIFICE ELEV	GRATE ELEV
SSI 1	63.0	3"	64.0	65.0

FLARED END SECTION NUMBER	d <sub>o</sub> (FEET)	L (FEET)	W <sub>1</sub> (FEET)	W <sub>2</sub> (FEET)	d <sub>o</sub> (INCHES)
1	1.25	-	-	-	3
2	1.25	-	-	-	3
3	1.25	-	-	-	3

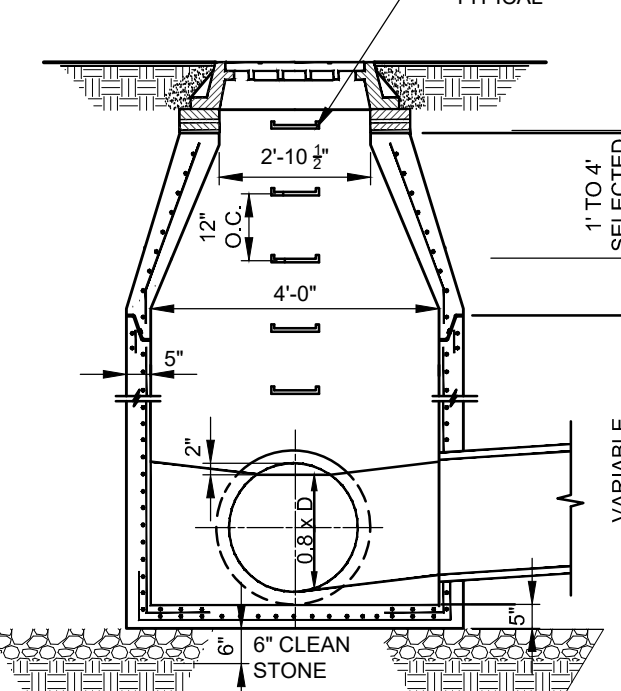
NOTE: STONE THICKNESS TO BE 2X d50 OVER FILTER FABRIC

**OUTLET CONDUIT PROTECTION**  
NOT TO SCALE

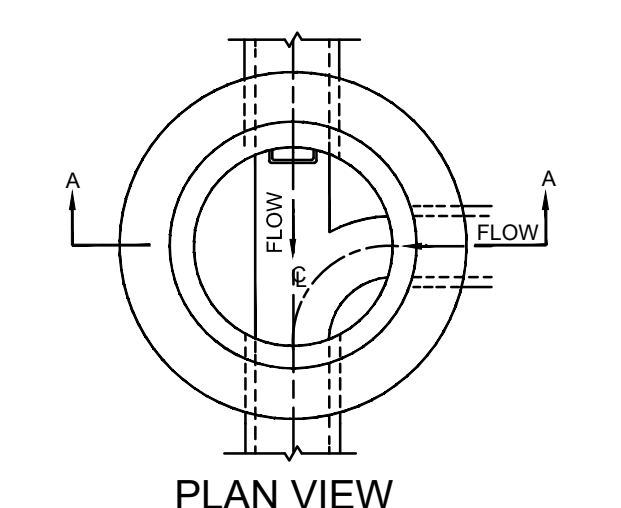


**STORM DRAINAGE MANHOLE**  
SCALE: 3/8"=1'-0"

- NOTES**
- MANHOLE COVER AND FRAME TO BE CAMPBELL NO. 1203 OR APPROVED EQUAL. SET IN A FULL BED OF MORTAR TO CONFORM TO THE GRADE AND CROWN OF THE ROAD.
  - IF WALL CONSTRUCTION IS OTHER THAN CONCRETE THE WALLS SHALL BE PLASTERED, BOTH INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT PLASTER.
  - FOOTING TO BE N.J.D.O.T. CLASS "C" CONCRETE.
  - INVERT TO BE N.J.D.O.T. CLASS "C" CONCRETE
  - FRAME AND GRATE TO BE TYPE NO. 1202 AS MANUFACTURED BY CAMPBELL FOUNDRY CO., OR EQUAL.
  - PROVIDE 3/4" DIA. ALUMINUM LADDER, RUNGS 18" ON CENTER
  - WHEN ADDITIONAL DEPTH IS SCHEDULED, WALLS BELOW THE DEPTH OF 8'-0" MEASURED FROM THE TOP OF MANHOLE FRAME TO INVERT, SHALL BE 12" THICK. THE FOUNDATION DIMENSION SHALL BE INCREASED 12" IN WIDTH AND TO 12" IN DEPT

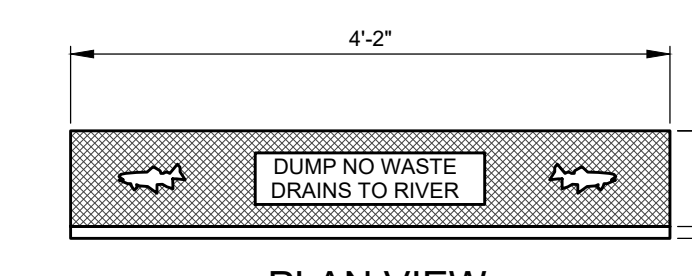


**SECTION A-A**

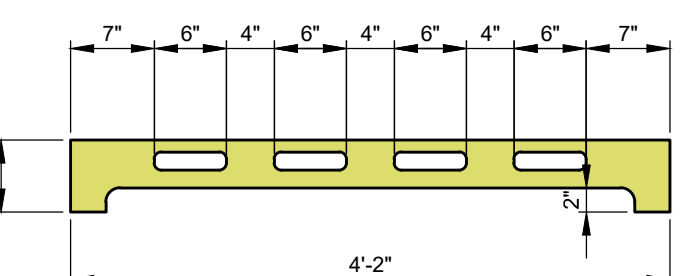


**PLAN VIEW**

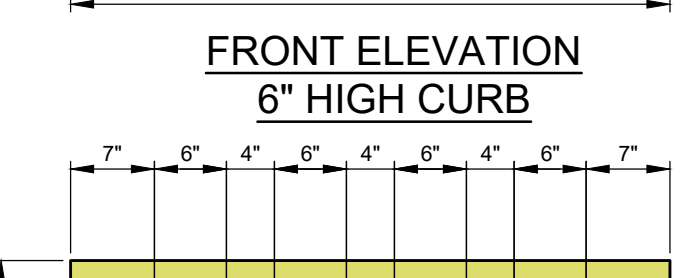
**TYPE "N" CURB PIECE INLET**  
SCALE: 3/4"=1'-0"



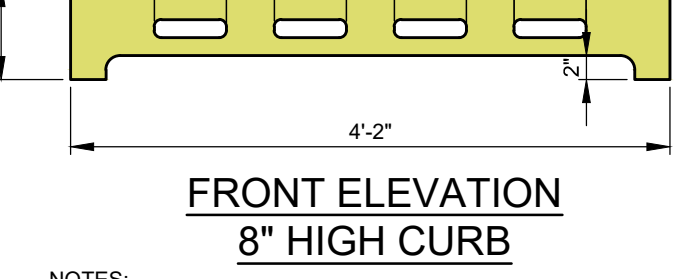
**PLAN VIEW**



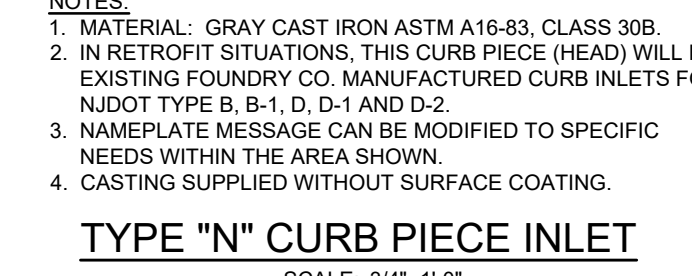
**FRONT ELEVATION 6" HIGH CURB**



**END SECTION 6" HIGH CURB**



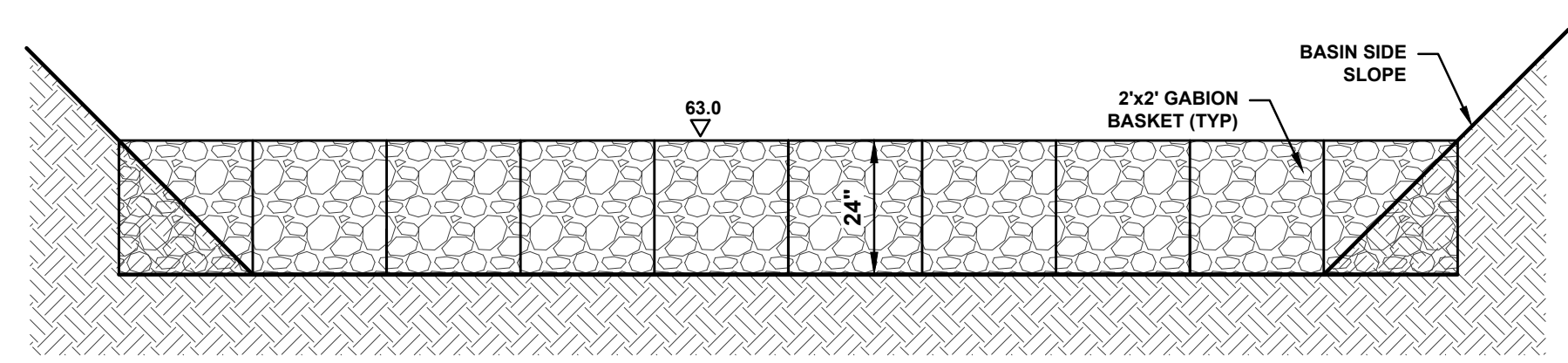
**FRONT ELEVATION 8" HIGH CURB**



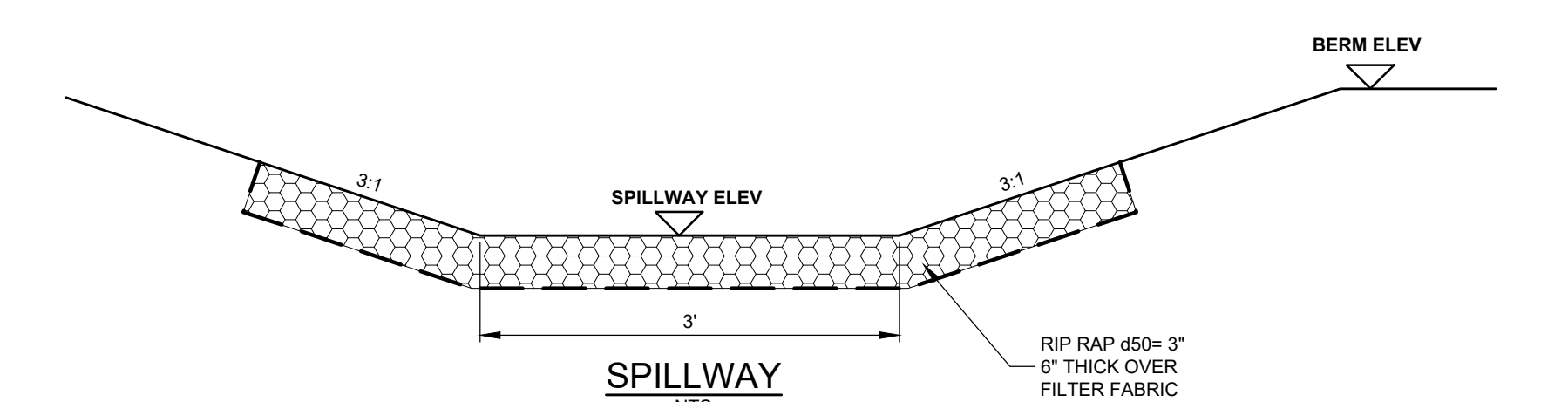
**END SECTION 8" HIGH CURB**

- NOTES**
- MATERIAL: GRAY CAST IRON ASTM A16-83, CLASS 30B.
  - IN RETROFIT SITUATIONS, THIS CURB PIECE (HEAD) WILL FIT EXISTING FOUNDRY CO. MANUFACTURED CURB INLETS FOR NJDOT TYPE B, B-1, D, D-1 AND D-2.
  - NAMER/LATE MESSAGE CAN BE MODIFIED TO SPECIFIC NEEDS WITHIN THE AREA SHOWN.
  - CASTING SUPPLIED WITHOUT SURFACE COATING.

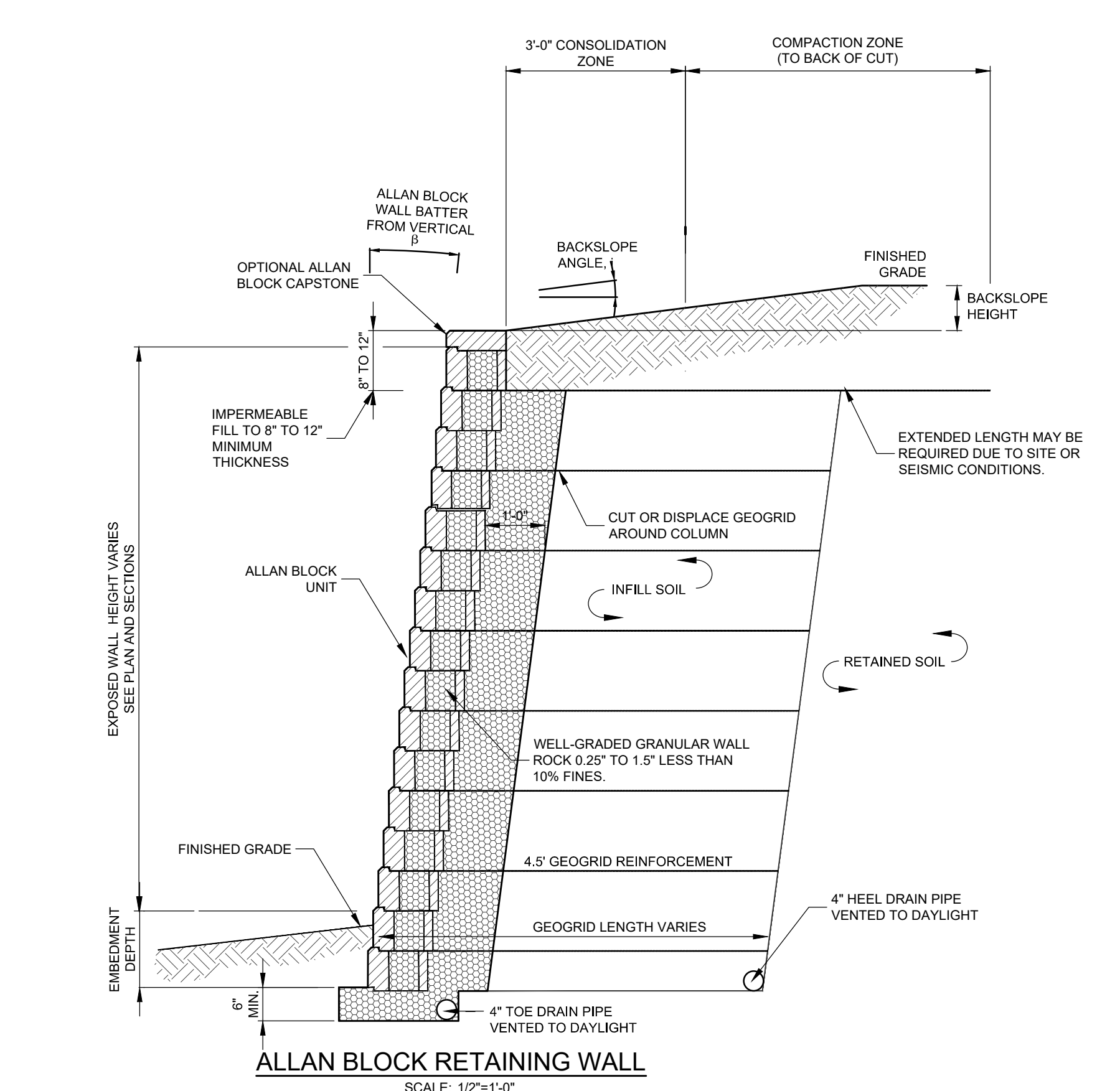
**TYPE "N" CURB PIECE INLET**  
SCALE: 3/4"=1'-0"



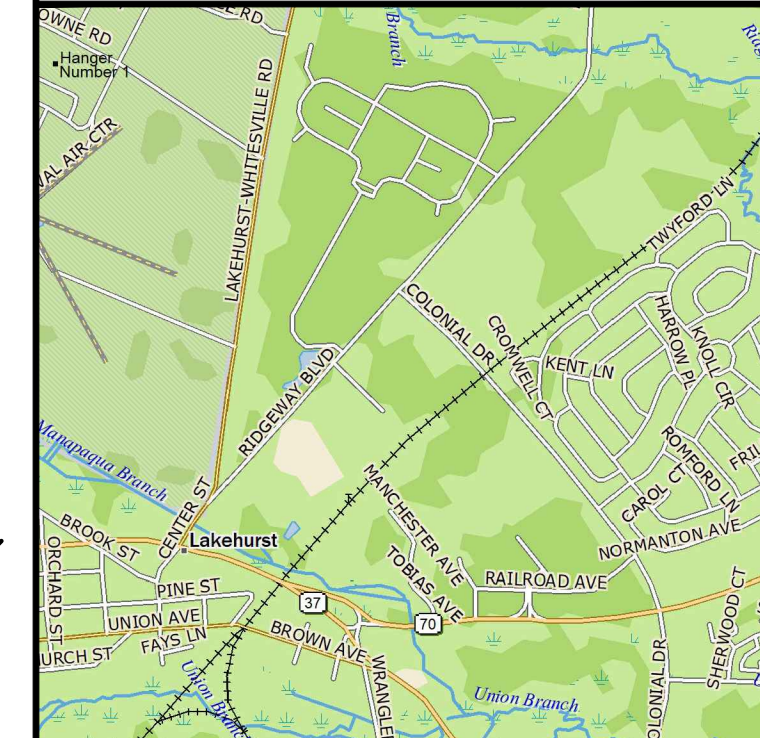
**GABION WEIR**  
N.T.S.



**SPILLWAY**  
NTS



**ALLAN BLOCK RETAINING WALL**  
SCALE: 1/2"=1'-0"



**KEY MAP**  
SCALE: 1" = 200'

No.	DATE	DESCRIPTION	BY

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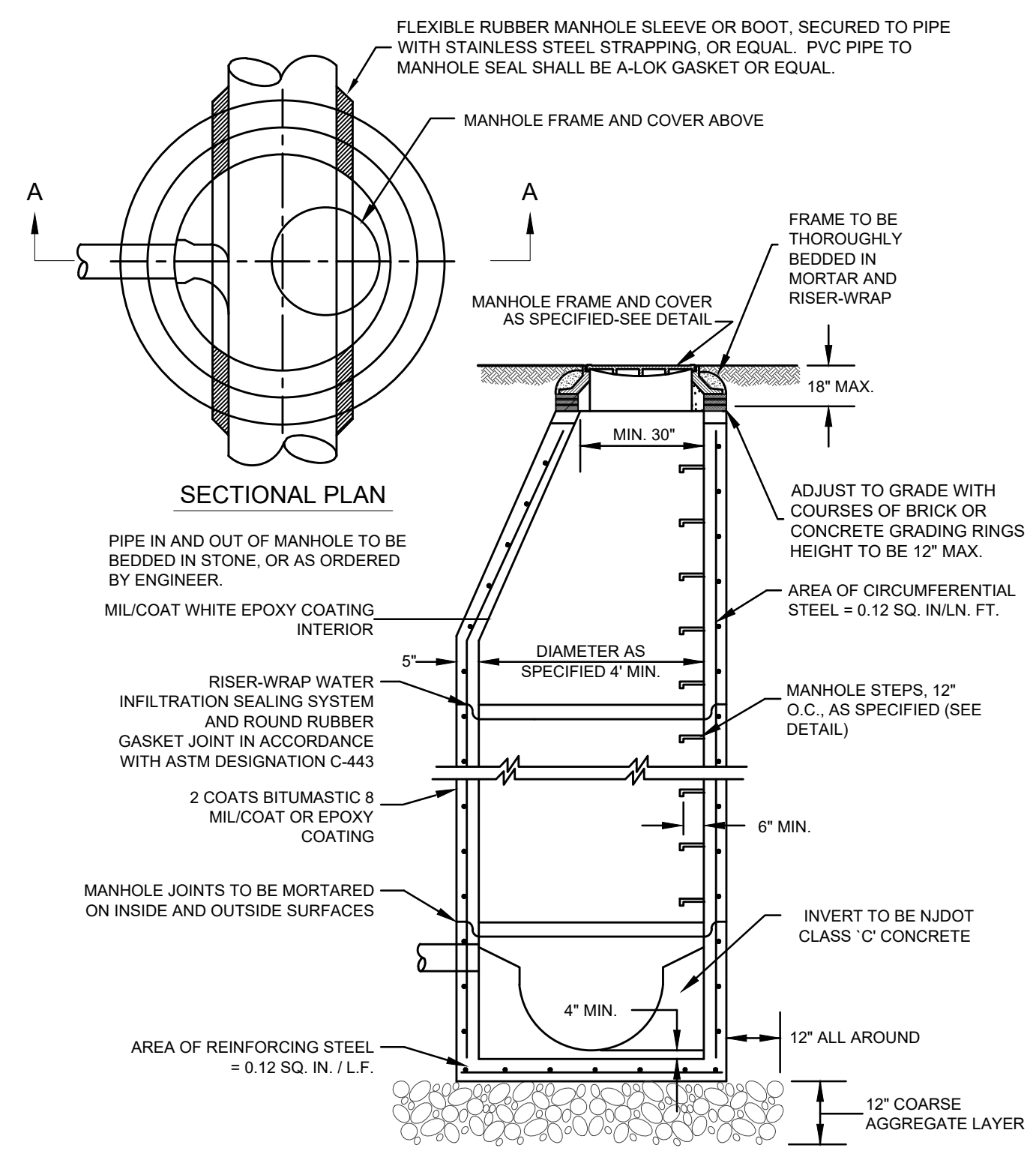
**PRELIMINARY & FINAL MAJOR SITE PLANS  
CONSTRUCTION DETAILS  
STORM DRAINAGE**

FOR  
**TAX BLOCK 72.01  
TAX LOT 10.01**  
TOWNSHIP OF MANCHESTER  
NEW JERSEY

SCALE: AS SHOWN JOB NUMBER: 322334  
DRAWN BY: KNL DATE: MARCH 6, 2024  
DESIGN/CALC'D BY: IMB SHEET: 12  
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KRISTIN 3/7/24  
P:\PROJECTS\22334 - 322334\_S10 DETAILS >

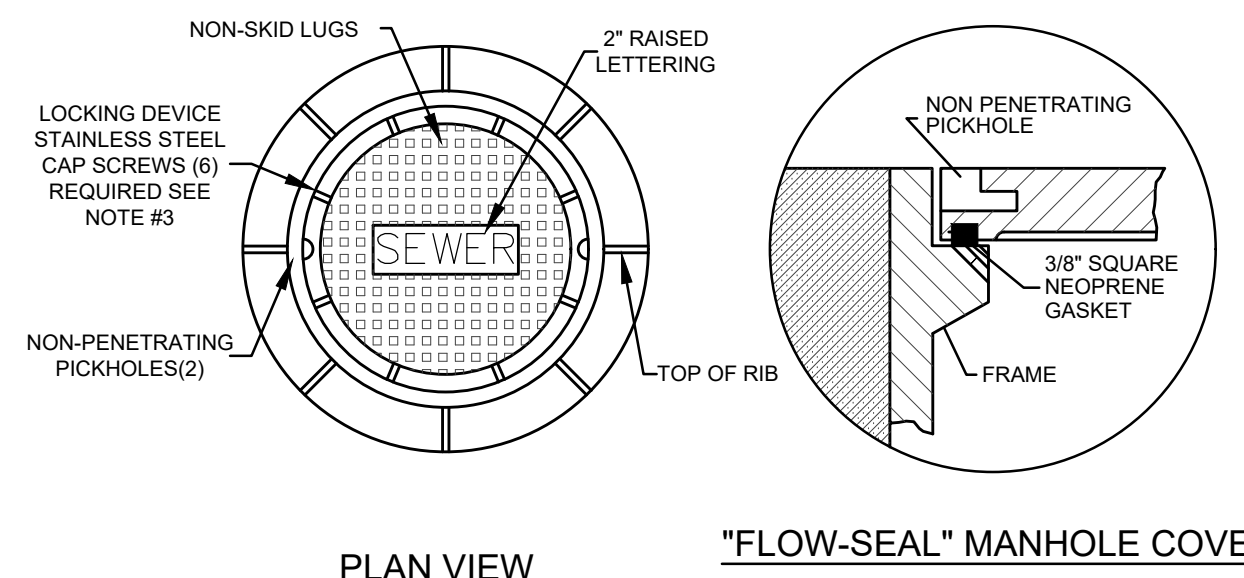
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**CONSTRUCTION NOTES:**

- FRAME AND GRATE TO BE CAMPBELL FOUNDRY No. 2618 BICYCLE GRATE WITH TYPE "J" ECO CURB PIECE OR APPROVED EQUAL.
- PROVIDE CAMPBELL FOUNDRY No. 2593-2254 DESIGN TO CONFORM TO HS-25 TRAFFIC LOADING.

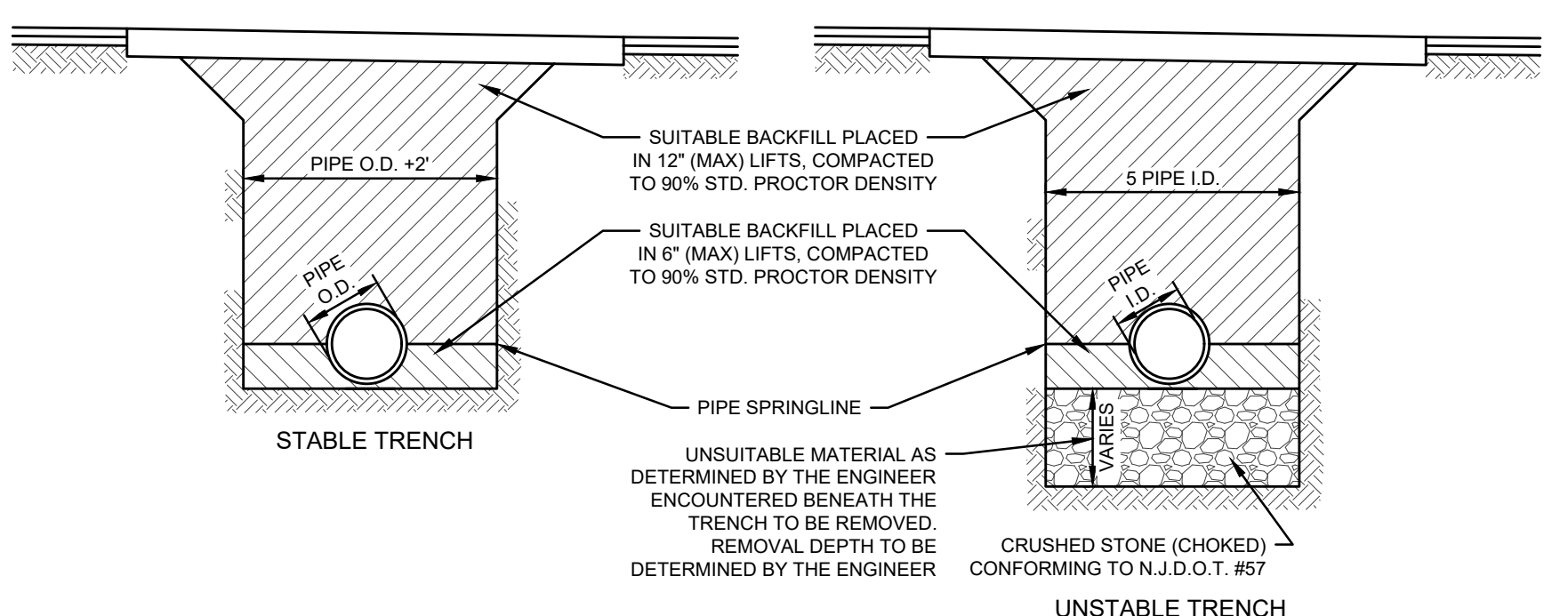
**SANITARY PRECAST CONCRETE MANHOLE**  
N.T.S.



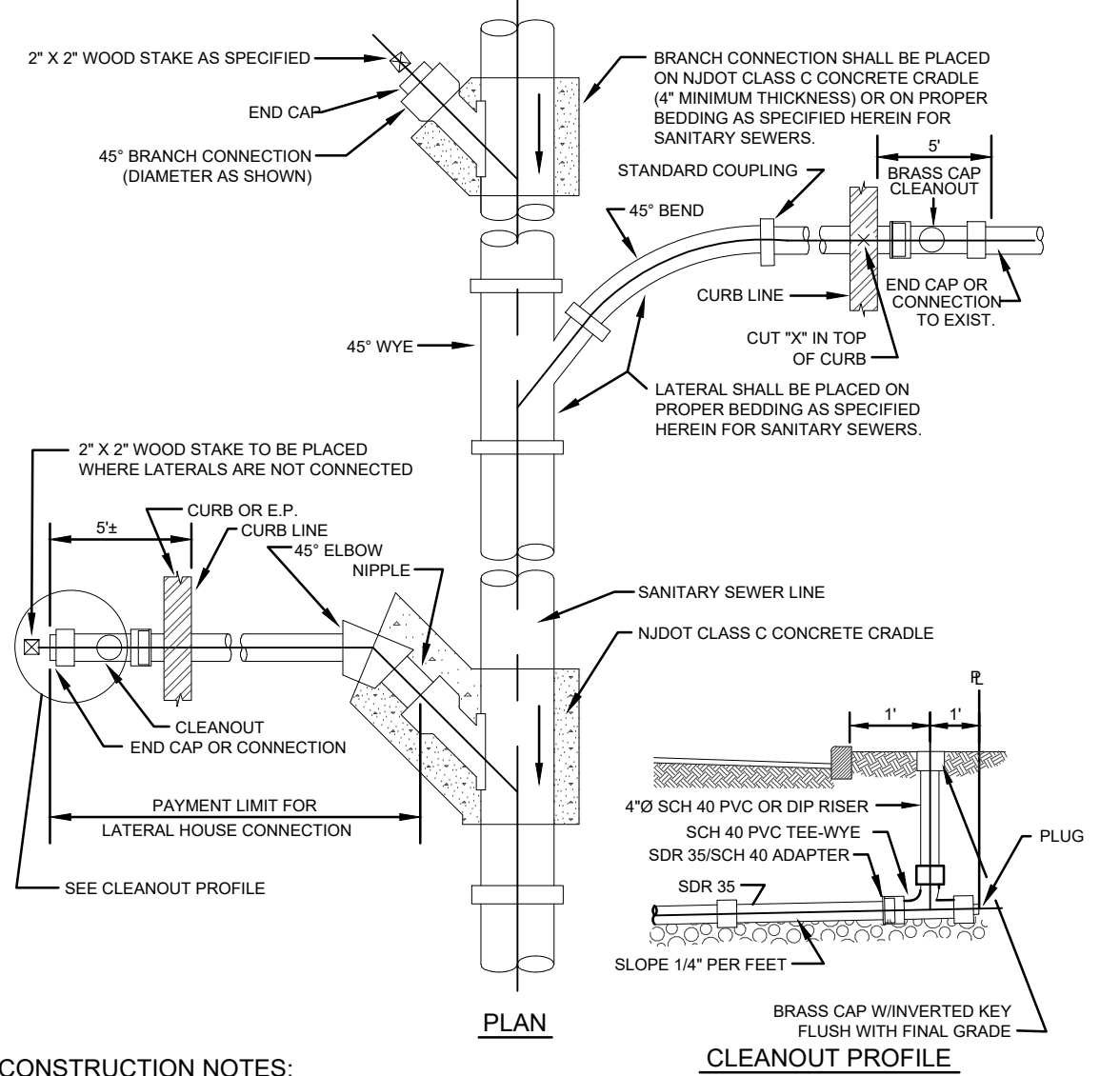
**SECTION VIEW**

1. MANHOLE FRAME AND COVER SHALL BE PATTERN NO. 1202 AS MANUFACTURED BY THE CAMPBELL FOUNDRY CO., OR APPROVED EQUAL.

**SANITARY MANHOLE FRAME & COVER**  
N.T.S.



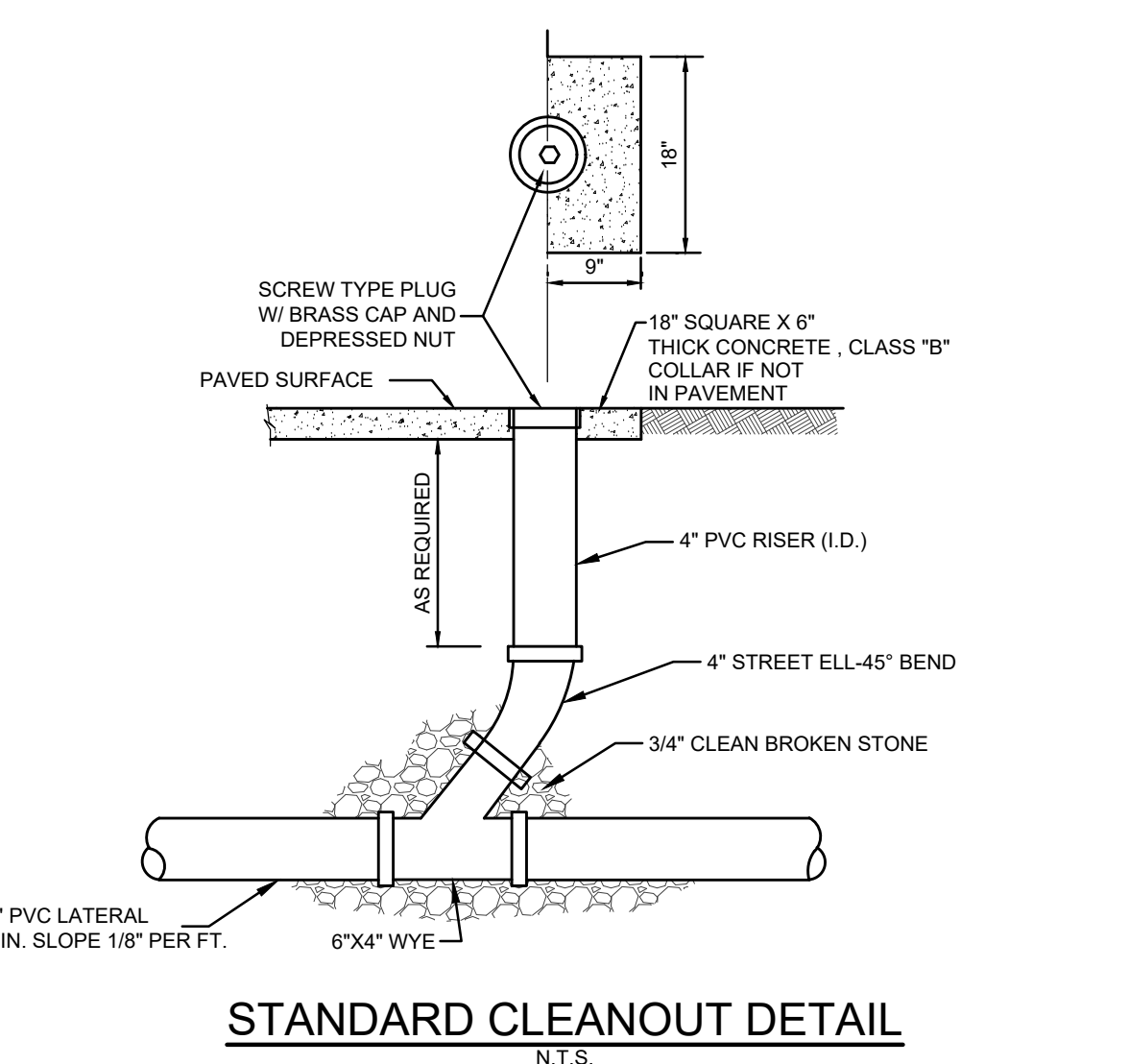
**DUCTILE IRON PIPE BEDDING/BACKFILL DETAIL**  
N.T.S.



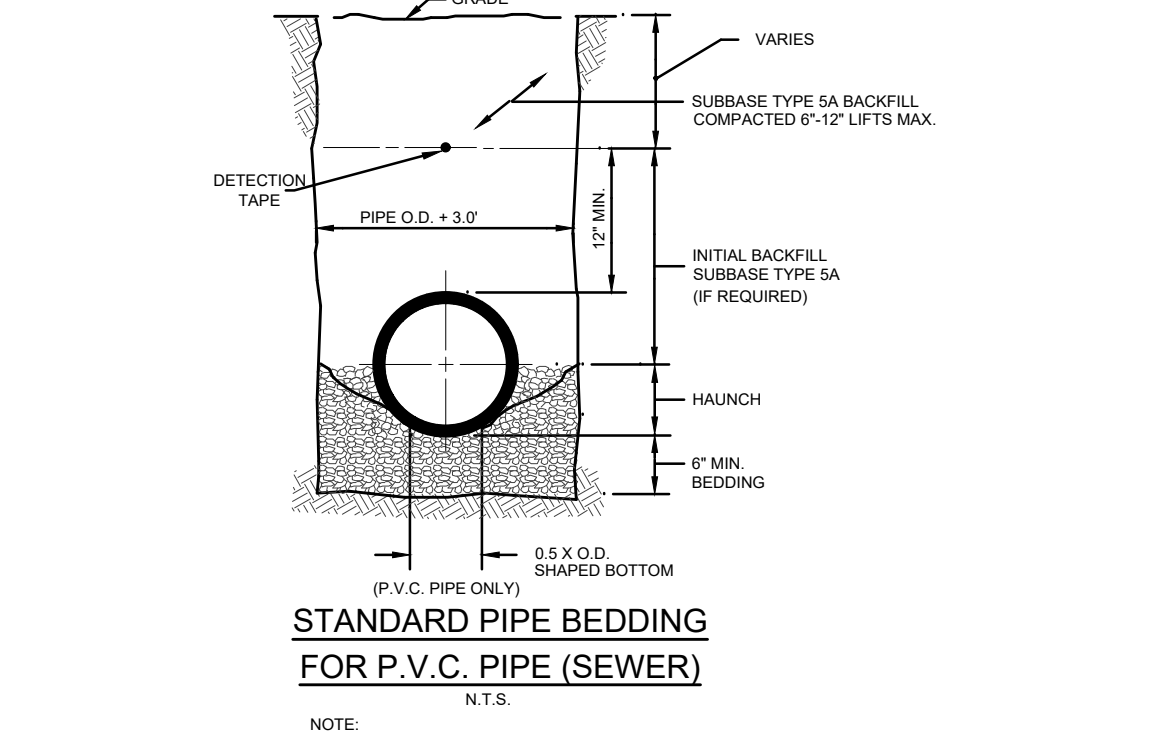
**CONSTRUCTION NOTES:**

- DETAIL SHOWS CONSTRUCTION OF A "BRANCH CONNECTION" AND OF TWO DIFFERENT TYPES OF "LATERAL HOUSE CONNECTION". TYPE OF CONNECTION IS AT CONTRACTOR'S OPTION.
- SIZE OF LATERAL TO BE AS SHOWN ON THE PLANS OR AS DIRECTED, 4" MINIMUM.
- CLEAN-OUTS IN DRIVEWAYS SHALL BE COVERED WITH A MONUMENT BOX - CAMPBELL PATTERN NO. 4155 OR EQUAL.

**BRANCH AND LATERAL HOUSE CONNECTIONS**  
N.T.S.



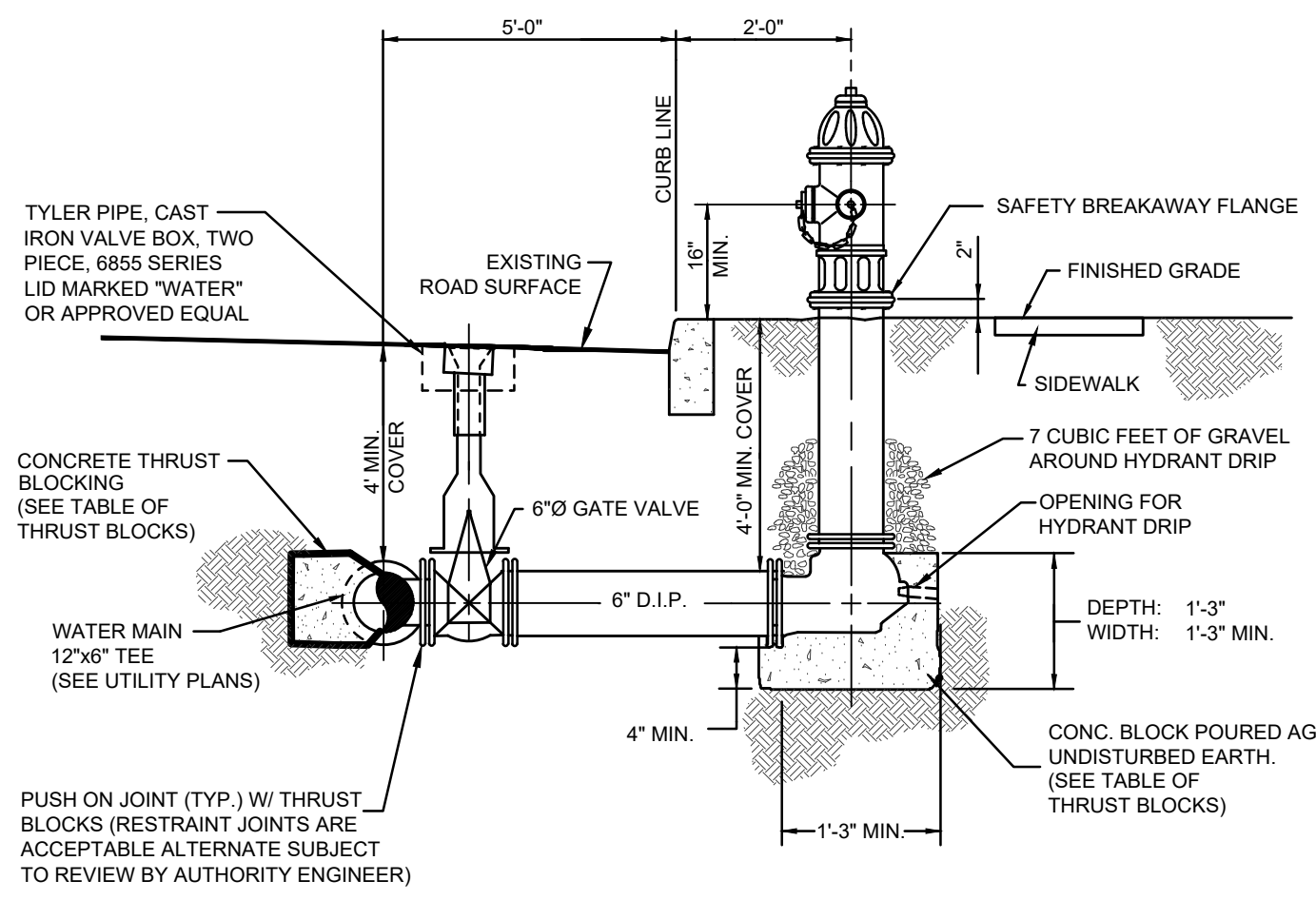
**STANDARD CLEANOUT DETAIL**  
N.T.S.



**STANDARD PIPE BEDDING FOR P.V.C. PIPE (SEWER)**  
N.T.S.

**NOTE:**

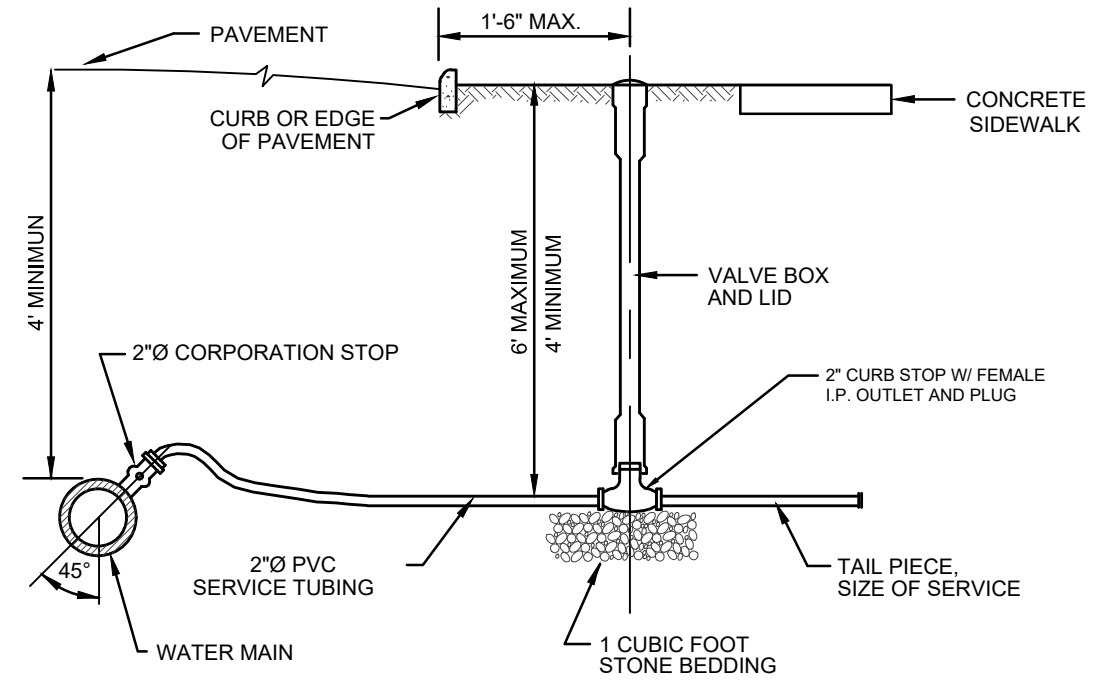
- HAUNCH & BEDDING 3/4" WELL GRADED CRUSHED STONE OR GRAVEL (N/DOT #57, COARSE AGGREGATE) (IF REQUIRED).
- HYDROPHOBIC AGGREGATE IS NOT TO BE USED 3' OR LESS FROM TOP OF PIPE.



**FIRE HYDRANT DETAIL**  
N.T.S.

**NOTES:**

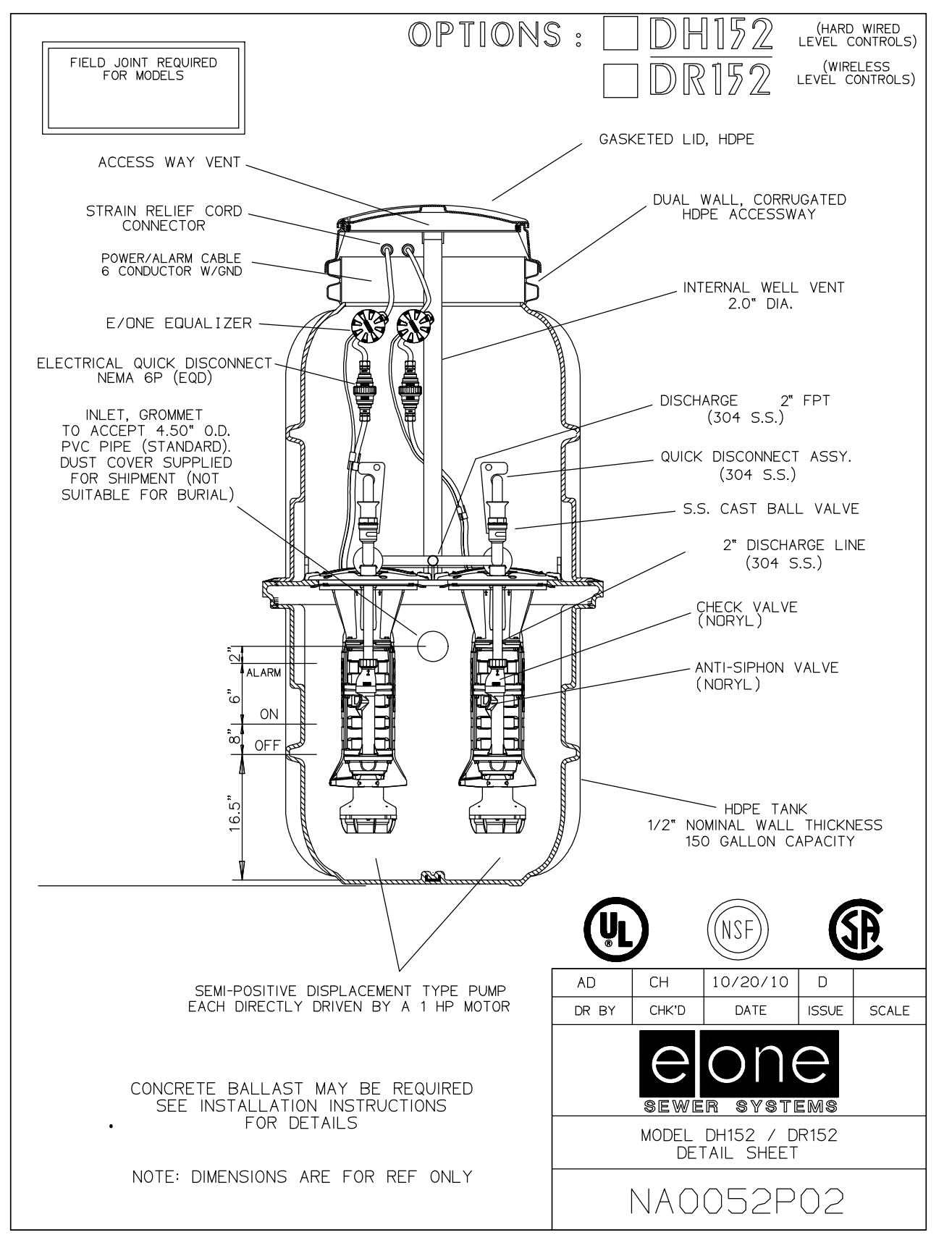
- HYDRANT TO BE MUELLER COMPANY SUPER CENTURION 250, MODEL A-423.



**NOTES:**

- YOKE ASSEMBLY INCLUDING INTEGRAL INLET VALVE, EXPANSION FITTING AND OUTLET VALVE TO BE INSTALLED WITHIN STRUCTURE BY APPLICANT.
- METER AND REMOTE READOUT TO BE INSTALLED BY THE APPLICANT IN LOCATION APPROVED BY THE MANCHESTER TOWNSHIP DEPARTMENT OF UTILITIES.
- CONTRACTOR SHALL CUT A "W" IN THE TOP OF THE CURB OVER THE WATER SERVICE.

**WATER SERVICE CONNECTION**  
N.T.S.



**PUMP STATION DETAIL**  
N.T.S.

CONCRETE BALLAST MAY BE REQUIRED SEE INSTALLATION INSTRUCTIONS FOR DETAILS

NOTE: DIMENSIONS ARE FOR REF ONLY

AD	CH	10/20/10	D	
DR BY	CHK'D	DATE	ISSUE	SCALE
<b>eone</b>				
SEWER SYSTEMS				
MODEL: DH152 / DR152 DETAIL SHEET				
NA0052P02				



**KEY MAP**  
SCALE: 1" = 200'

No.	DATE	DESCRIPTION	BY

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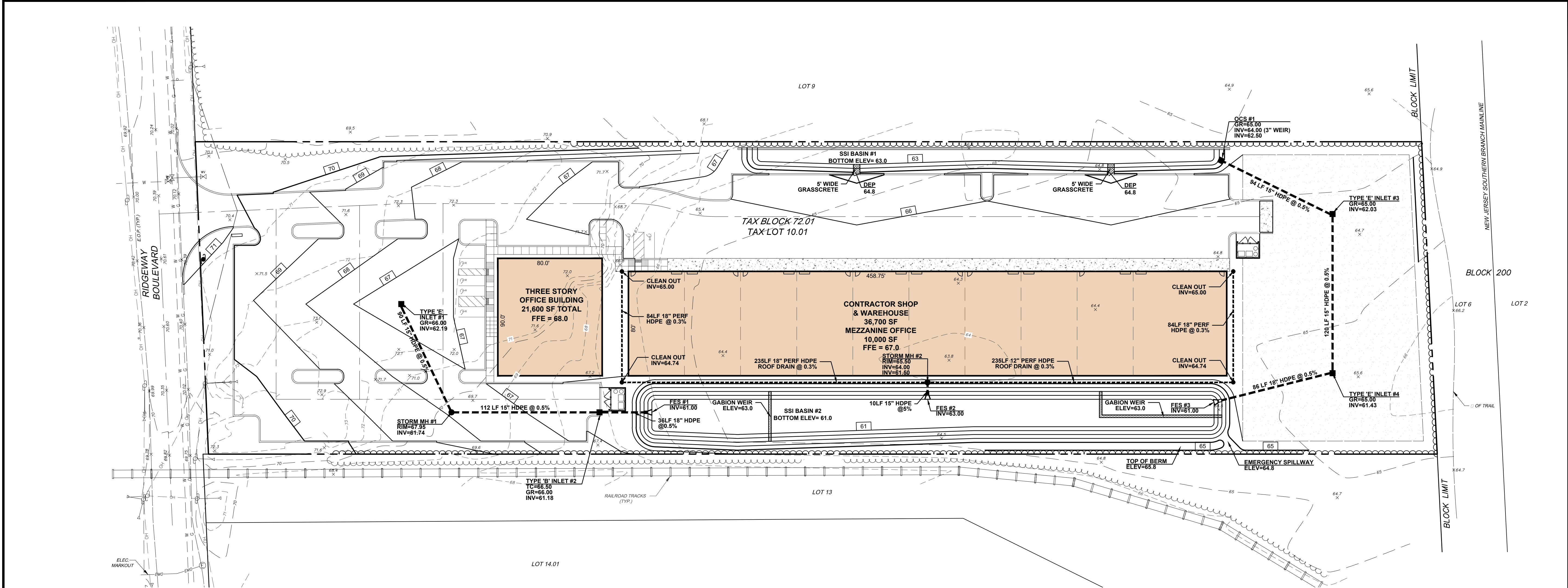
**PRELIMINARY & FINAL MAJOR SITE PLANS  
CONSTRUCTION DETAILS  
SANITARY & WATER**

FOR  
**TAX BLOCK 72.01  
TAX LOT 10.01**

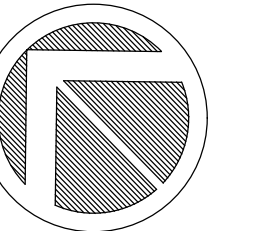
TOWNSHIP OF MANCHESTER  
OCEAN COUNTY NEW JERSEY

SCALE:	AS SHOWN	JOB NUMBER:	322334
DRAWN BY:	KNL	DATE:	MARCH 6, 2024
DESIGN/CALC'D BY:	IMB	SHEET:	13
CHECKED BY:	WAS		15

KRISTIN 3/7/24  
11/PROJECTS/2322334 - 322334\_S10 DETAILS >



**KEY MAP**  
SCALE: 1" = 2000'



40 0 40 80  
**SCALE IN FEET**

**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.

**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.

**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 TASKS NECESSARY TO KEEP IT FUNCTIONING RELIABLY MUST INCLUDE CONSIDERATIONS FOR THE SAFETY OF INSPECTION AND MAINTENANCE PERSONNEL WHO WILL BE WORKING IN OR NEAR THE MEASURE.

**MAINTENANCE NOTES**

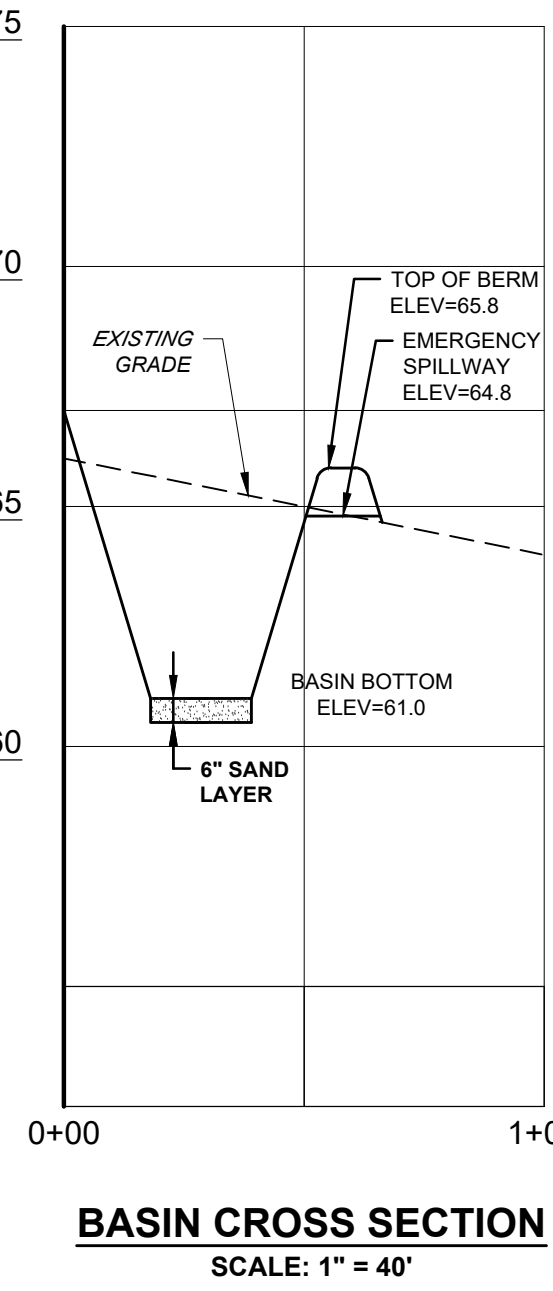
**REQUIRED MAINTENANCE PLAN PROCEDURES:**

- 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**

- ENTITY RESPONSIBLE FOR OVERALL MAINTENANCE OF THE STORMWATER MANAGEMENT MEASURE: OWNER
- SCHEDULE OF MAINTENANCE INSPECTIONS AND MAINTENANCE TASKS:
  - EXTENDED DETENTION BASIN:**
    - 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, TRASH RACKS, LOW FLOW CHANNELS, OUTLET STRUCTURES, RIPRAP OR GABION APRONS, AND INLETS. 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.
    - 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 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 THE 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.
  - 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 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.
- INFLTRATION 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.

	UNITS	FREQUENCY	UNIT PRICE	ANNUAL COST
1. INSPECT BASIN, REMOVE & DISPOSE OF SILT AND DEBRIS	1	1	\$250	\$250
2. INSPECT BOTTOM SAND LAYER AFTER EVERY STORM EVENT EXCEEDING ONE INCH OF RAINFALL	1	3	\$150	\$450
3. INSPECT OUTLET STRUCTURE, INLET & OUTLET PIPING AND MAKE REPAIRS	1	1	\$200	\$200
4. INSPECT AND MAINTAIN FENCE & BASIN ACCESS DRIVE	1	2	\$150	\$300
5. DEEP TILL AND RE-GRADE SAND BOTTOM	1	0.20	\$1000	\$200
TOTAL ESTIMATED ANNUAL COST				\$1,400



**BASIN CROSS SECTION**  
SCALE: 1" = 40'

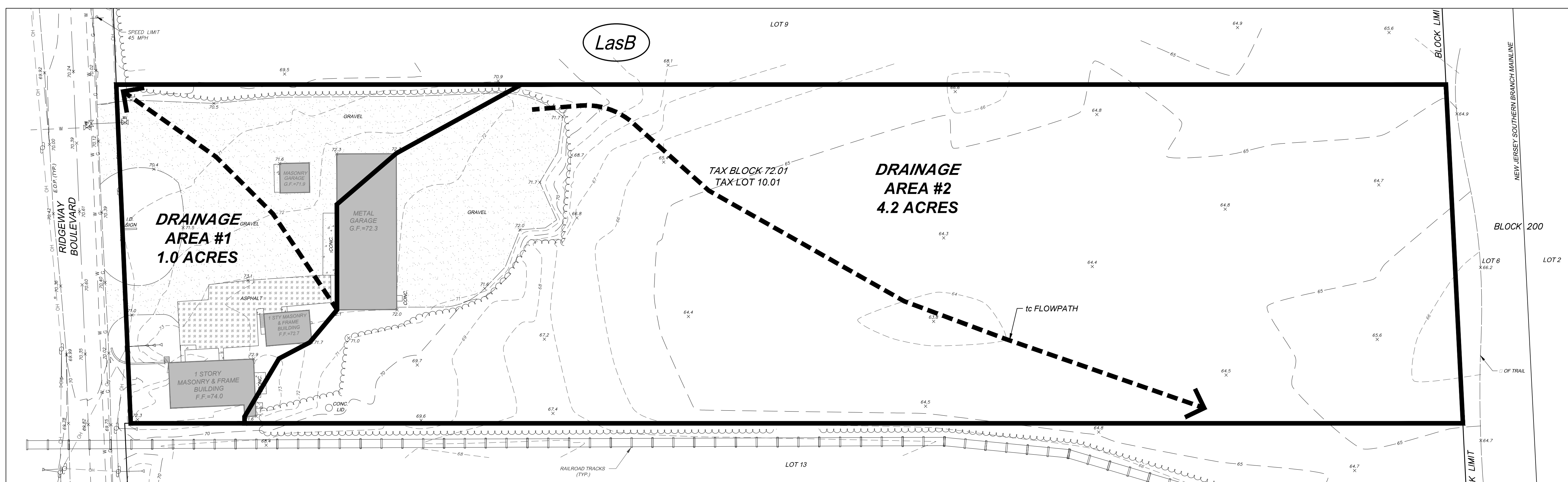


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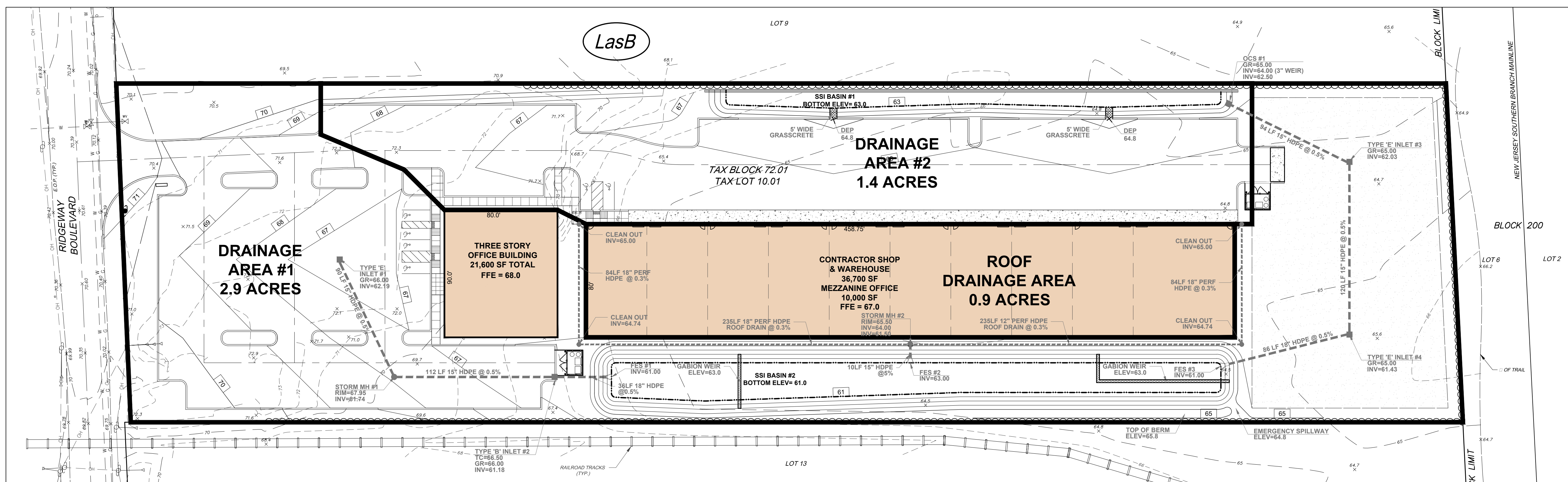
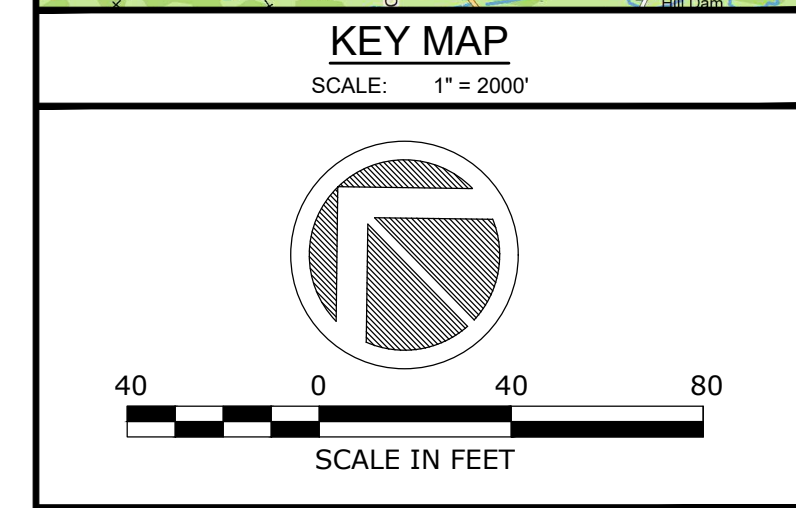
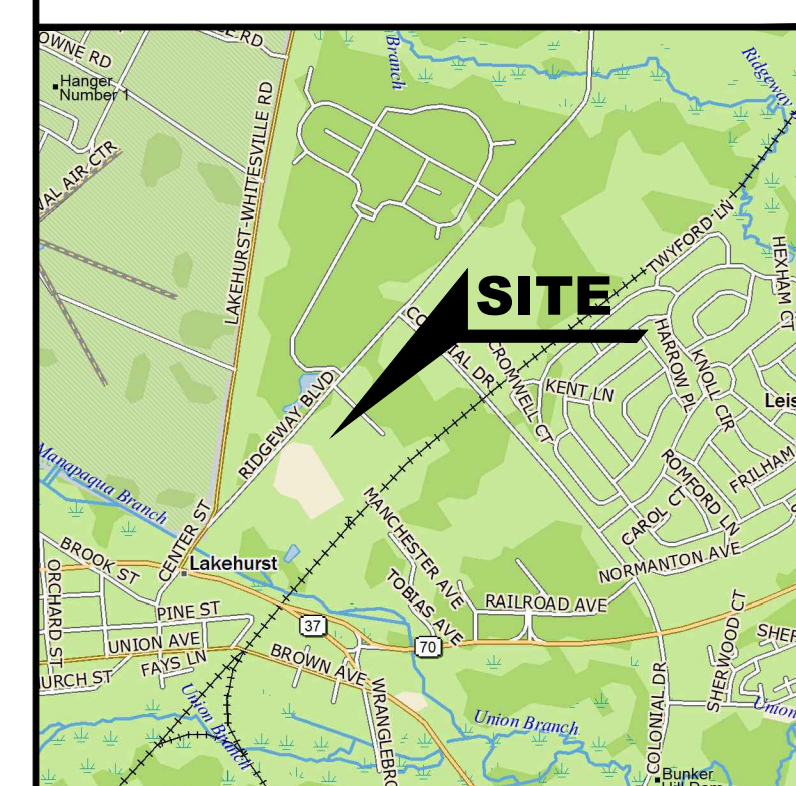
PRELIMINARY & FINAL MAJOR SITE PLANS  
**STORMWATER MAINTENANCE PLAN**  
 FOR  
**TAX BLOCK 72.01**  
**TAX LOT 10.01**  
 TOWNSHIP OF MANCHESTER  
 OCEAN COUNTY NEW JERSEY

SCALE:	1" = 40'	JOB NUMBER:	322334
DRAWN BY:	KNL	DATE:	MARCH 6, 2024
DESIGN/CALC'D BY:	IMB	SHEET:	14
CHECKED BY:	WAS		15

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**PRE-DEVELOPMENT DRAINAGE AREA PLAN**  
SCALE: 1" = 40'



**POST DEVELOPMENT DRAINAGE AREA PLAN**  
SCALE: 1" = 40'

**SOIL TYPE NOTE**  
ON SITE SOILS ARE:  
LasB - LAKEWOOD SAND (HSG A)  
AS PER UNITED STATES DEPARTMENT OF AGRICULTURE NATURAL RESOURCE CONSERVATION SERVICE WEB SOIL SURVEY.

**LEGEND**  
SOIL TYPE   
SOIL LIMIT LINE   
DRAINAGE AREA LIMIT LINE   
FLOW

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**PRELIMINARY & FINAL MAJOR SITE PLANS**  
**DRAINAGE AREA PLAN**  
FOR  
**TAX BLOCK 72.01**  
**TAX LOT 10.01**  
TOWNSHIP OF MANCHESTER  
OCEAN COUNTY NEW JERSEY  
SCALE: 1" = 40' JOB NUMBER: 322334  
DRAWN BY: KNL DATE: MARCH 6, 2024  
DESIGN/CALC'D BY: IMB SHEET: 15  
CHECKED BY: WAS 15

KRISTIN 3/7/24  
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