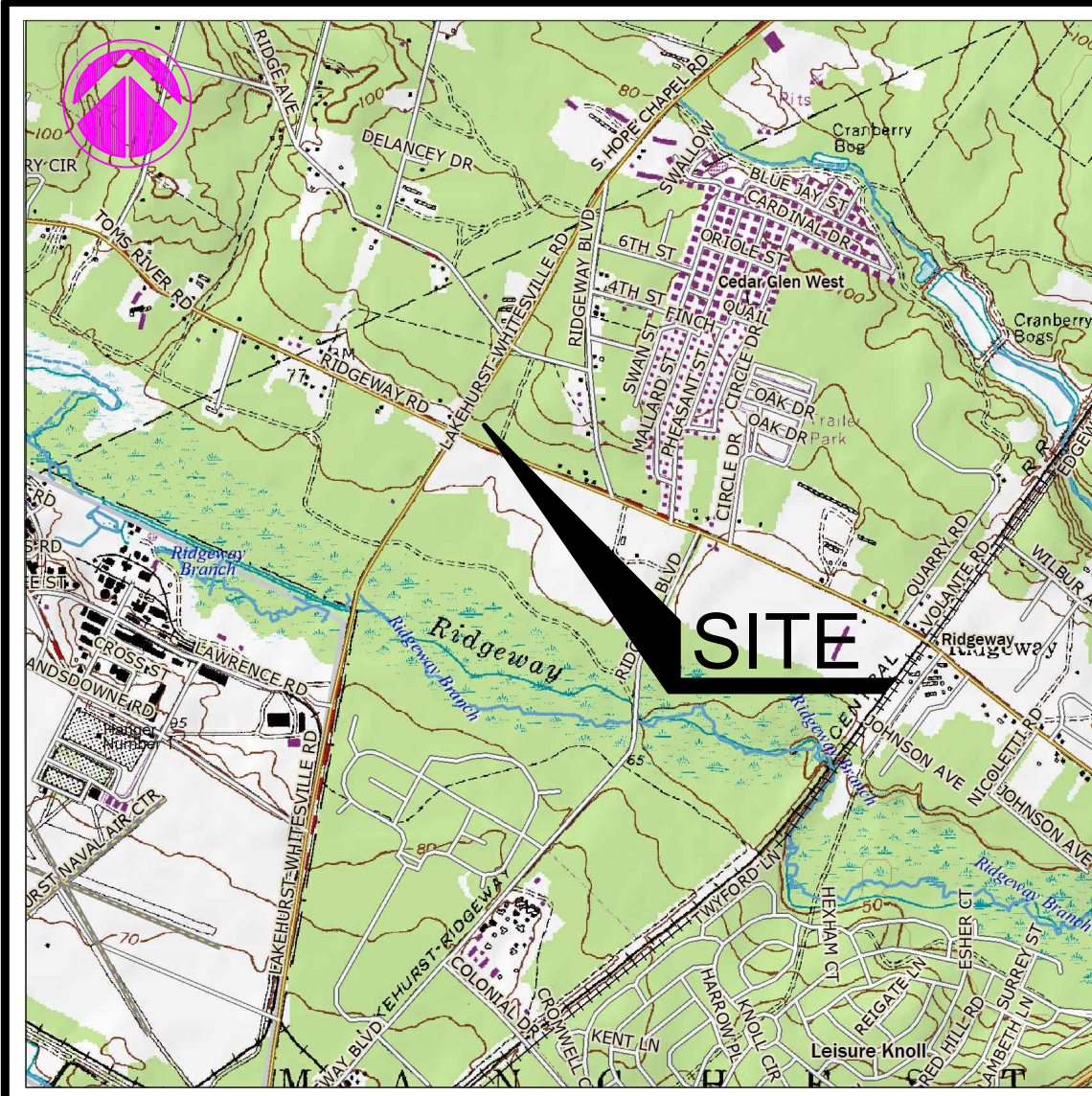


# PRELIMINARY & FINAL - MAJOR SITE PLANS FOR BLOCK 65 - LOTS 11, 12, 13 & 14 TOWNSHIP OF MANCHESTER OCEAN COUNTY NEW JERSEY



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



**KEY MAP**  
1"=2000'

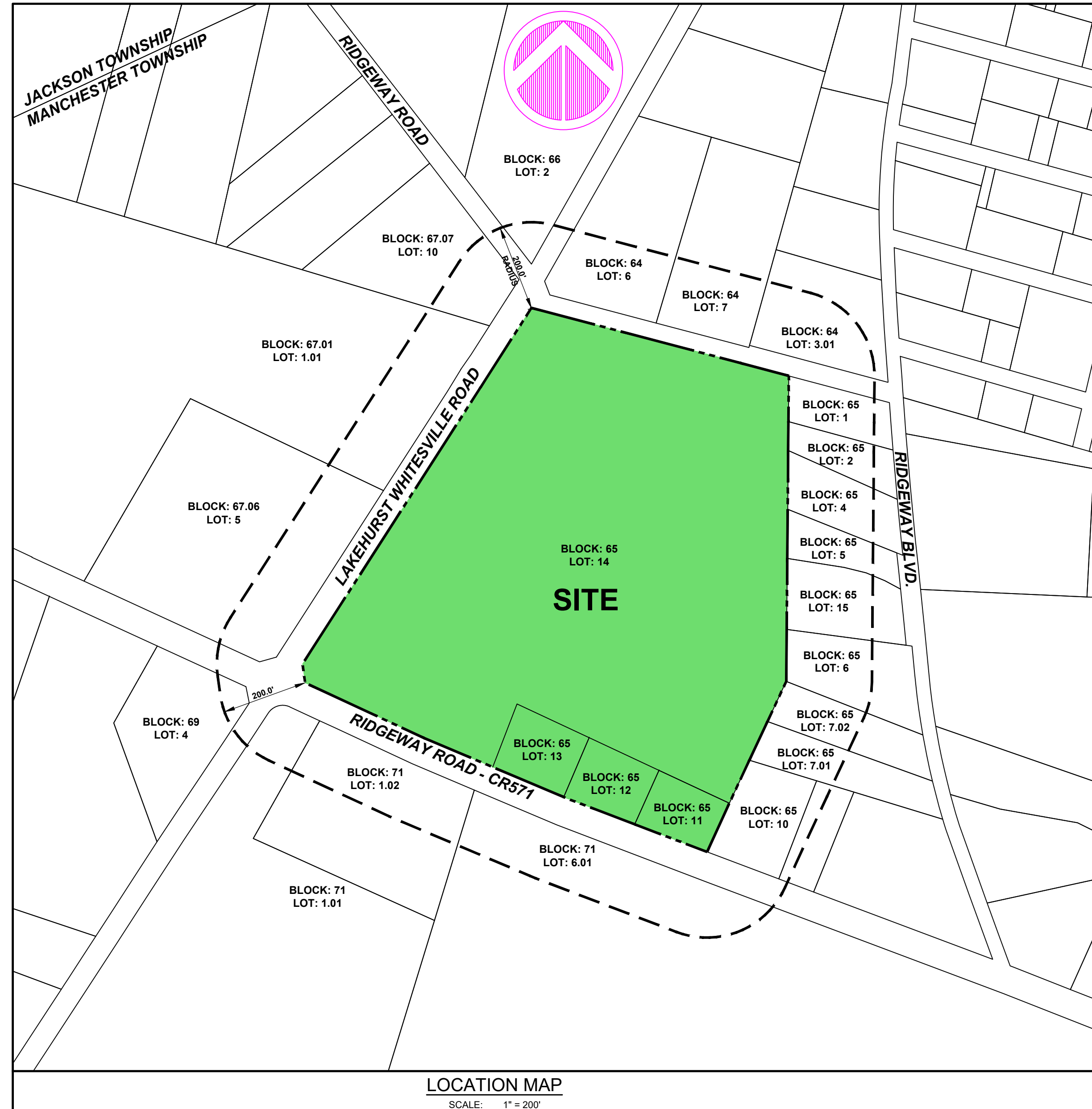
**PROPERTY OWNERS LIST**

SUPPLIED BY THE TOWNSHIP OF MANCHESTER ON APRIL 25, 2023

BLOCK & LOT	NAME	ADDRESS	CITY STATE, ZIP
	NAVAL AIR ENGINEERING STATION - COMMANDING OFFICER COMCAST	830 RT 37 WEST	TOMS RIVER NJ 08755
	VERIZON ENG DEPT	PO BOX 152206	IRVING TX 75015
	MANCHESTER TWP CLERKS OFFICE	400 LINCOLN ST	PHILIPSBURG NJ 08865
	NJ DOT	CN 401 RT 79 & DANIELS WAY	TRENTON NJ 08625 FREEHOLD NJ 07728
	NJ NATURAL GAS CO	PO BOX 1464	WALL NJ 07719
	OCEAN COUNTY MUA	PO BOX P	BAYVILLE NJ 08721
	OCEAN COUNTY ROAD DEPT	119 HOOPER AVE	TOMS RIVER NJ 08753
B 64 - L 3.01	KIARI & EMBERLE PEARSON	3808 RIDGE AVE	MANCHESTER NJ 08759
B 64 - L 6	PATRICIA GIORDANO	3134 HWY 547	MANCHESTER NJ 08759
B 64 - L 7	ROBERT J III & R J JR BLANK	224 EDGEMERE DR	TOMS RIVER NJ 08755
B 65 - L 1	RUSSELL DECKER & JOYCE H BLACKWELL	3163 RIDGEWAY AVE	MANCHESTER NJ 08759
B 65 - L 2	JAMES & FAITH JOINS	3153 RIDGEWAY AVE	MANCHESTER NJ 08759
B 65 - L 4	CYNTHIA S SEARS	3143 RIDGEWAY AVE	MANCHESTER NJ 08759
B 65 - L 5	KARL E & VICTORIA KOVACOSKY	3133 RIDGEWAY AVE	MANCHESTER NJ 08759
B 65 - L 6	CHARLES & MICHELE KOVACS	3099 RIDGEWAY AVE	MANCHESTER NJ 08759
B 65 - L 7.01	ORRIETT S WIDV MARCUS	3083 RIDGEWAY AVE	MANCHESTER NJ 08759
B 65 - L 7.02	JOHN L JR & ERIKA M PROVEAUX	3087 RIDGEWAY AVE	MANCHESTER NJ 08759
B 65 - L 9	GERARD R HEALY	3738 RIDGEWAY AVE	MANCHESTER NJ 08759
B 65 - L 10	FRANK BARTI	3776 RIDGEWAY AVE	MANCHESTER NJ 08759
B 65 - L 11	PARKWOOD SQUARE LP	305 MAIN ST	LAKEWOOD NJ 08701
B 65 - L 12	PARKWOOD SQUARE LP	305 MAIN ST	LAKEWOOD NJ 08701
B 65 - L 13	PARKWOOD SQUARE LP	305 MAIN ST	LAKEWOOD NJ 08701
B 65 - L 14	PARKWOOD SQUARE LP & PARKWOOD CTR B	305 MAIN ST	LAKEWOOD NJ 08701
B 65 - L 15	CARLOS & MONICA ARTEAGA	3123 RIDGEWAY AVE	MANCHESTER NJ 08759
B 66 - L 2	LAKEWOOD INVESTMENTS LLC	305 MAIN ST	LAKEWOOD NJ 08701
B 67.01 - L 1.01	MANCHESTER TWP	1 COLONIAL DR	MANCHESTER NJ 08759
B 67.06 - L 5	JAMES WALL	390 TOMS RIVER RD	JACKSON NJ 08527
B 67.07 - L 10	HARVEY & JOANN HUEBSCHER	3857 RIDGE AVE	MANCHESTER NJ 08759
B 69 - L 4	TARANTINO PROPERTIES LLC	3875 RIDGEWAY AVE	MANCHESTER NJ 08759
B 71 - L 1.01	OCEAN COUNTY	101 HOOPER AVE	TOMS RIVER NJ 08753
B 71 - L 1.02	OCEAN COUNTY	101 HOOPER AVE	TOMS RIVER NJ 08753
B 71 - L 6.01	OCEAN COUNTY	101 HOOPER AVE	TOMS RIVER NJ 08753

APPROVED BY:  
**THE MANCHESTER TOWNSHIP  
PLANNING BOARD**

BOARD CHAIRMAN	DATE
BOARD SECRETARY	DATE
BOARD ENGINEER	DATE



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

**GENERAL NOTES**

- PROPERTY IS KNOWN AS BLOCK 65 - LOTS 11, 12, 13 & 14 AS SHOWN ON THE MANCHESTER TOWNSHIP TAX MAP SHEET 4.
- OUTBOUND & TOPOGRAPHIC INFORMATION TAKEN FROM A MAP ENTITLED "BOUNDARY & TOPOGRAPHIC SURVEY FOR TAX BLOCK 65 - TAX LOTS 11, 12, 13 & 14 TOWNSHIP OF MANCHESTER, OCEAN COUNTY, NEW JERSEY" AS PREPARED BY PROFESSIONAL DESIGN SERVICES, LLC, DATED NOVEMBER 29, 2021.
- THE PROPERTY IS CURRENTLY LOCATED WITHIN THE PB ZONE AND CONTAINS APPROXIMATELY 29.88 ACRES.
- IT IS ASSUMED THAT THERE ARE NO FRESHWATER WETLANDS LOCATED ON OR WITHIN 300 FEET OF THE PROPERTY.
- TOWNSHIP DEVELOPMENTS ARE A CONDITIONAL USE IN THE PB-1 ZONE PURSUANT TO 245-74 AS SET FORTH IN ORDINANCE 17-025.
- IT IS PROPOSED TO CONSTRUCT 138 TOWNHOUSE UNITS, 1 OFFICE BUILDING AND 1 COMMERCIAL BUILDING WITH 28 AFFORDABLE HOUSING UNITS ON THE SECOND AND THIRD FLOOR.
- WATER SERVICE WILL BE PROVIDED BY PUBLIC WATER.
- SEWAGE SERVICE WILL BE PROVIDED PRIVATE SEPTIC SYSTEM.
- 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(e) OF THE NJ UNIFORM CONSTRUCTION CODE AND CFR 1926.321(f) (OSHA COMPETENT PERSON). PROFESSIONAL DESIGN SERVICES, LLC 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 SCORE 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 RE-CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITIES/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.
- THE DEVELOPER IS REQUIRED TO OBTAIN A PERMIT FROM THE OCEAN COUNTY ENGINEERING DEPARTMENT PRIOR TO THE START OF CONSTRUCTION OF ANY IMPROVEMENTS WITHIN THE RIGHT-OF-WAY OF LAKEHURST-WHITESVILLE ROAD (CR547) OR RIDGEWAY ROAD (CR571).
- THE DEVELOPER SHALL OBTAIN A LETTER OF FINAL ACCEPTANCE FROM THE OCEAN COUNTY ENGINEER FOR THE ROAD IMPROVEMENTS ALONG LAKEHURST-WHITESVILLE ROAD (CR547) OR RIDGEWAY ROAD (CR571) PRIOR TO THE RELEASE OF ANY BOND OR FINANCIAL SURETY POSTED WITH THE MUNICIPALITY FOR THE COMPLETION OF SAID IMPROVEMENTS.
- THERE IS NO NATURAL OR MAN-MADE WATERCOURSE TRAVERSING THE SITE.

SHEET INDEX		SHEET INDEX		SUPPLEMENTAL DRAWINGS	
No.	DESCRIPTION	No.	DESCRIPTION	TOTAL SHEETS	DESCRIPTION
1	COVER SHEET	17	CONSTRUCTION DETAILS - SITE DETAILS	1	BOUNDARY SURVEY
2	SITE PLAN OVERALL	18	CONSTRUCTION DETAILS - STORMWATER DETAILS		
3	NOTES	19	CONSTRUCTION DETAILS - STORMWATER DETAILS		
4	SITE PLAN "A"	20	CONSTRUCTION DETAILS - UTILITY DETAILS		
5	SITE PLAN "B"	21	PRE-DEVELOPED DRAINAGE AREA MAP		
6	OVERALL GRADING & STORM DRAINAGE PLAN	22	POST DEVELOPED DRAINAGE AREA MAP		
7	GRADING & STORM DRAINAGE PLAN "A"	23	STORMWATER MAINTENANCE PLAN		
8	GRADING & STORM DRAINAGE PLAN "B"				
9	OVERALL UTILITY PLAN				
10	ROAD PROFILES				
11	ROAD PROFILES				
12	TRAFFIC SIGNAGE, STRIPING & CIRCULATION PLAN				
13	LANDSCAPE PLAN "A"				
14	LANDSCAPE PLAN "B"				
15	LANDSCAPE DETAILS				
16	LIGHTING PLAN				

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NO.	DATE	REVISION	DESCRIPTION	BY
1	11/01/2023	REVISED PER MANCHESTER ORDINANCE		KNL

**PDS**  
**PROFESSIONAL DESIGN SERVICES, L.L.C.**  
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1245 AIRPORT ROAD, SUITE 1, LAKEWOOD, NEW JERSEY 08701  
PHONE: 732-383-0050 FAX: 732-383-0073  
ENGINEERING@PDS-NJ.COM WWW.PDS-NJ.COM  
NEW JERSEY STATE BOARD OF P.E. & L.S.  
CERTIFICATE OF AUTHORIZATION NO. 246A28125400  
**WILLIAM A. STEVENS, P.E., P.P.**  
PROFESSIONAL ENGINEER, NEW JERSEY LIC #39915  
PROFESSIONAL PLANNER, NEW JERSEY LIC #5394

**MANCHESTER LAND USE ZONE**

R-3 RURAL RESIDENTIAL  
R-20 SINGLE FAMILY RESIDENTIAL (MEDIUM DENSITY)

**LAND USE**

(C) COMMERCIAL  
(I) INDUSTRIAL  
(R) RESIDENTIAL  
(V) VACANT

**OWNER / APPLICANT**

BELLEVUE ESTATES, LLC  
305 MAIN STREET  
LAKEWOOD, NJ 08701

**PRELIMINARY & FINAL MAJOR SITE PLAN  
COVER SHEET**

FOR  
**BLOCK 65  
LOTS 11, 12, 13 & 14**  
TOWNSHIP OF MANCHESTER

NEW JERSEY

SCALE: AS SHOWN	DATE: APRIL 25, 2022	JOB NUMBER: 18123	SHEET: 1
DRAWN BY: KNL	DESIGNED BY: IMB	CHECKED BY: WAS	23

<b>ZONE REQUIREMENTS</b> § 245-74.1 Mixed Use Developments	<b>PROVIDED</b>
B. Permitted Principal Uses.	All proposed uses are permitted
C. Development standards.	
(1) Minimum lot size: 5 acres.	20.86 acres
(2) The maximum density for Residential Dwelling units, shall be 8 units per gross acre of the entire development tract for mixed use developments.	8.0 units/ acre
(3) The ground floor of a mixed-use building shall be utilized as a shopping plaza as specified here-in. No permitted principal use other than multifamily residential dwellings shall be located above the ground floor of any mixed-use building.	Complies
(4) Minimum setback distance:	
(a) Minimum front yard: 75 feet from a collector road or arterial road as identified in the Master Plan;	75 feet
(b) Minimum side yard setback: 50 feet;	50 feet
(c) Minimum rear yard setback: 30 feet.	N/A
(5) A swimming pool of 1,000 square feet minimum size and/or a splash pad of 1,500 square feet minimum size shall be provided for all development of 90 units or more.	1,500 sf splash pad
(6) Minimum width of any residential unit shall be 20 feet.	20 feet
(7) Minimum floor area per any residential unit shall be 600 square feet.	> 600 sf
(8) Maximum floor area per multifamily residential unit shall be 1,500 square feet.	< 1,500 sf
(9) Maximum building height: Same as underlying zone.	40 feet
(10) Maximum number of stories per townhome: 2.5 story.	2.5 story
(11) Maximum building coverage for commercial and mixed use buildings: Same as underlying zone.	20% permitted, 13.7% proposed
(12) Minimum number of multifamily residential units per structure shall be 8.	28 units
(13) Maximum number of multifamily residential units per structure: 28.	28 units
(14) Maximum number of townhouse units per structure: 8.	8 units
(15) Maximum number of eight-unit townhouse structures shall not be more than 50% of all residential structures included in the townhouse development.	Complies
(16) The minimum distance between townhouse buildings shall be as follows:	Complies
(a) For townhouse dwellings oriented essentially at 90° to each other, the minimum distance between same shall be 30 feet.	30 feet
(b) For townhouse dwellings oriented essentially end-to-end to each other, the minimum distance between same shall be 30 feet.	30 feet
(c) For townhouse dwellings oriented essentially with parallel axis facing each other, the minimum distance between same shall be 50 feet.	50 feet
(17) A minimum of one (1) outdoor refuse and recycling storage area shall be required per ten (10) acres of residential development. All such outdoor refuse and recycling storage areas shall be appropriately located & screened by a wall enclosure constructed of materials similar to the facades of the buildings and with appropriate landscaping as required by the Planning Board.	Three (3) refuse enclosures
D. Recreation requirement.	Complies
(1) Playground area or areas shall be provided at the rate of 500 square feet per four dwelling units for all development of 90 units or more. A swimming pool of 1,000 square feet minimum size and/or a splash pad of 1,500 square feet minimum size shall be provided. Outdoor playground equipment shall be installed in each playground in sufficient amount and variety to service the occupants of the project. No certificate of occupancy shall be issued until recreation areas are completed.	20,875 sf is required, 27,970 sf is provided
(2) All areas of mixed use development not used for the construction of buildings, roads, accessways, parking areas or sidewalks shall be fully landscaped or grassed.	Complies
E. Off-street parking requirements.	
(1) Off-street parking, loading and vehicular access.	
(a) Minimum off-street parking, loading and vehicular access shall be provided in accordance with the standards set forth in § 245-28 of this chapter as defined for that particular use.	Complies, see parking table
(c) Guest parking areas shall be provided at a minimum of .5 parking spaces per residential unit.	
(2) Garage facilities or off-street parking areas shall be provided and shall be developed and maintained in accordance with the following:	Complies, no garage facilities are proposed
(a) Garages and parking area shall be used for automobile parking only. The sale of automobiles, dead storage of automobiles, repair work, dismantling or servicing of any kind is strictly prohibited.	Complies
(b) Parking areas shall be paved and curbed and provided with an adequate system of stormwater drainage.	Complies
(c) No garages or off-street parking areas shall be located nearer than five feet from any tract property line.	Complies
(d) No detached garages shall be located between the main building or buildings and the street line on which the building(s) fronts.	N/A
(e) Where the rear or side yard of a lot abuts on a street, no garage or off-street parking area shall be located nearer than 25 feet from such street line.	N/A
(f) No parking area, with exception to townhome driveways, shall be placed closer to a building than 12 feet.	Complies
(g) All garage walls facing any street shall be screened from street view by dense evergreen	N/A

(h) All off-street parking shall be efficiently screened along all side and rear lot line by a six-foot high fence landscaped with dense evergreen planting, or a dense evergreen shrub or hedge screening at least six feet in height maintained in good condition.	Complies
F. Utility requirements.	
(1) The applicant for the site plan approval shall arrange with the serving utility for the underground installation of the utilities distribution supply lines and service connections in accordance with the provisions of the applicable standard terms and conditions incorporated as part of its tariff on file with the State of New Jersey Board of Public Utility Commissioners.	Complies
(2) All mixed use developments shall be served by public sewer in accordance with the requirements of the Manchester Township Division of Utilities.	Complies
G. Landscaping and buffer requirements.	
All areas of mixed use developments not used for the construction of buildings, roads, accessways, parking areas or sidewalks shall be fully landscaped, and/or grass. Where a mixed use development boundary line abuts a lot in a residential zone, which lot is not owned by the mixed use developer, which there shall not be cut, uprooted, destroyed or taken away any existing trees, shrubbery or other planting within the area of 20 feet inside the boundary line of the mixed use development abutting a residential lot. If inadequate trees, shrubs or planting exists in the twenty-foot area in the natural state of the premises before development, the area shall be provided with an adequate approved planting plan to provide a belt of screening within the twenty-foot area.	Complies
H. Interior roads and driveway location.	
(1) All roads and other accessways within the mixed use development shall be private roads constructed, paved and curbed to a right-of-way width of not less than 26 feet. All such construction, paving and curbing shall be completed in accordance with the subdivision regulations of Manchester Township.	Complies
(2) Driveways for ingress and egress for the project shall not be located within 200 feet of an existing intersection or create any hazardous conditions. Acceleration and deceleration lanes shall be installed where a traffic hazard exists or where substantial traffic congestion shall be created.	Complies
I. Accessory uses. Accessory uses incidental to the above uses, as specified below:	
(1) Noncommercial garages for exclusive use of site residents only.	N/A
(2) Parking, including for residential dwellings as provided herein.	Complies
(3) Active and passive non-commercial recreational facilities for residents, which may include, but not be limited to, a clubhouse, swimming pool, splash pad, fitness and exercise areas and bicycle/walking paths for exclusive use of site residents only.	Complies
(4) Signage for residential and commercial uses subject to the approval of the Manchester Township Planning.	Complies
(5) Garbage storage and recycling enclosures.	Complies
(6) Centralized mail cluster boxes as required by the USPS.	Complies
(7) Any other uses which are subordinate and customarily incidental to a permitted use, subject to the approval of the Manchester Township Planning Board.	N/A
J. Association required.	
Any applicant requesting a townhouse project approval shall provide for the creation of an association. Such documents creating the association shall specifically provide for the association to have responsibility for maintenance for all common areas and shall provide for assurances that the Township shall in no way be held responsible for and shall be held harmless for the cost of maintenance of the common elements.	Complies
K. Affordable housing requirement.	
The applicant shall provide for a twenty percent of the total number of market rate units as an inclusionary component or such other requirement that is in effect in accordance with a court-approved housing plan or a housing plan approved by the New Jersey Council on Affordable Housing (COAH) at the time of final site plan approval. The inclusionary component shall not require integration of affordable units with market rate units. The type, construction and distribution of affordable housing units shall conform to the regulations in effect by COAH, by the Department of Community Affairs or such other state agency designated as the regulatory agency for affordable housing and affordable housing construction in New Jersey at the time of the issuance of the first building permit for the development.	28 Affordable Housing units required and 28 apartments are provided in the mixed-use building
L. Pinelands development credits.	
In the PB-1 and PRC-1 Zoning Districts, Pinelands development credits shall be purchased and redeemed for 30% of all units, excluding up to 20% of the total project units that are made affordable for low- and moderate-income households in accordance with applicable state law. Units made affordable for low- and moderate-income households that account for more than 20% of the total project units shall purchase and redeem Pinelands development credits for 30% of all such units.	10.5 PDC's are required for the 138 market townhouse units

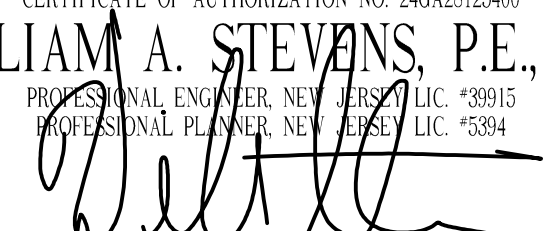
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NO.	DATE	DESCRIPTION	BY
1	11/01/2023	REVISED PER MANCHESTER ORDINANCE	KNL

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**PROFESSIONAL DESIGN SERVICES, L.L.C.**  
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NEW JERSEY STATE BOARD OF P.E. & L.S.  
CERTIFICATE OF AUTHORIZATION NO. 2462812540

**WILLIAM A. STEVENS, P.E., P.P.**  
PROFESSIONAL ENGINEER, NEW JERSEY LIC #39915  
PROFESSIONAL PLANNER, NEW JERSEY LIC #5394



**PRELIMINARY & FINAL MAJOR SITE PLAN**

**NOTES**  
FOR  
**BLOCK 65**  
**LOTS 11, 12, 13 & 14**  
TOWNSHIP OF MANCHESTER  
NEW JERSEY

SCALE: NTS	DATE: APRIL 25, 2022	JOB NUMBER: 18123	SHEET: 3
DRAWN BY: KNL	DESIGNED BY: IMB	CHECKED BY: WAS	23

**PROJECT SUMMARY**

TOTAL NUMBER OF MARKET UNITS = 138

TOTAL AFFORDABLE UNITS = 28

TOTAL DWELLING UNITS = 166

	Affordable Unit Bedroom Mix			
	Total Affordable Units	Min 3 bedroom (15%)	Min 2 bedroom (35%)	Max Efficiency (20%)
Required	28	4	10	5
Provided	28	7	16	5

**Affordable Housing Completion Schedule**

Market Units	Affordable Units Completed			
	Number	Percentage	Number	Min Percentage
13	25%	0	0%	
14		6	10%	
70	50%	14	50%	
104	75%	28	100%	
125	90%	0	100%	

**Parking Calculations**

Land Use	Units	Parking Required	Parking	
			Required	Provided
			Driveway	Off-Street
Commercial	31,200	1/200 SF	156	156
Townhouse				
Four Bedroom				
Apartments	138	2.5/Unit	345	276
One Bedroom				
	5	1.8 /Unit	9	9
Two Bedroom				
	16	2.0 / Unit	32	32
Three Bedroom				
	7	2.1 / Unit	14	14
Residential Guest	166	0.5/Unit	83	86
EV Ready Space Credit	18			9
<b>Total</b>			<b>639</b>	<b>651</b>

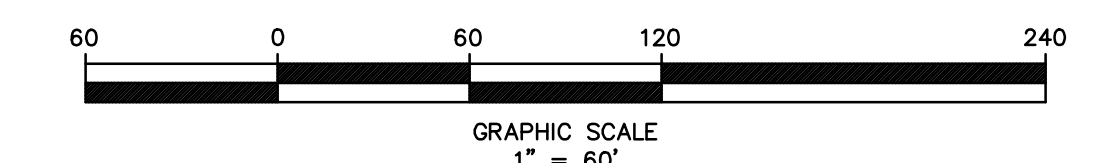
NOTE: 18 EV READY PARKING SPACES ARE PROVIDED. A 2:1 CREDIT IS PERMITTED.

**SITE PLAN LEGEND**

- EDGE OF PAVEMENT EXISTING
- EDGE OF PAVEMENT PROPOSED
- CURBING EXISTING
- CURBING PROPOSED
- CURBING PROPOSED DEPRESSED
- WOODLINE EXISTING
- WOODLINE PROPOSED
- HANDICAPPED RAMP PROPOSED
- HANDICAPPED SPACE AND SYMBOL
- PAVEMENT OR SURFACE SYMBOL
- CONCRETE SCORED WALKWAY OR PATIO SURFACE
- RESERVED PARKING FOR AFFORDABLE APARTMENTS
- EV READY PARKING SPACE

**TOWNHOUSE LEGEND**

- (A) 7 UNIT COMPLEX
  - (B) 7 UNIT COMPLEX
  - (C) 7 UNIT COMPLEX
  - (D) 7 UNIT COMPLEX
  - (E) 8 UNIT COMPLEX
  - (F) 8 UNIT COMPLEX
  - (G) 7 UNIT COMPLEX
  - (H) 8 UNIT COMPLEX
  - (I) 8 UNIT COMPLEX
  - (J) 8 UNIT COMPLEX
  - (K) 8 UNIT COMPLEX
  - (L) 8 UNIT COMPLEX
  - (M) 8 UNIT COMPLEX
  - (N) 6 UNIT COMPLEX
  - (O) 6 UNIT COMPLEX
  - (P) 6 UNIT COMPLEX
  - (Q) CLUBHOUSE
  - (R) 6 UNIT COMPLEX
  - (S) 8 UNIT COMPLEX
  - (T) 8 UNIT COMPLEX
- 138 TOWNHOUSE UNITS



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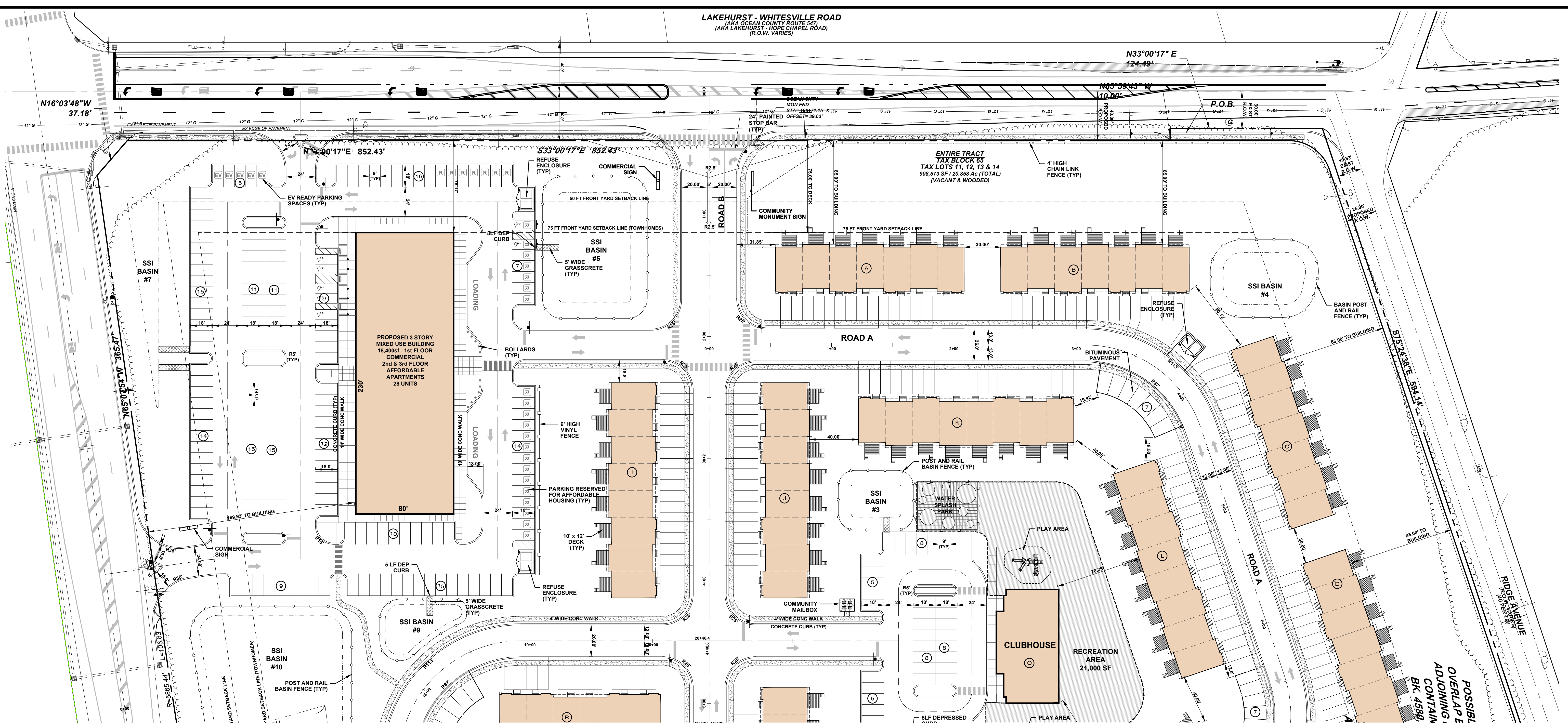
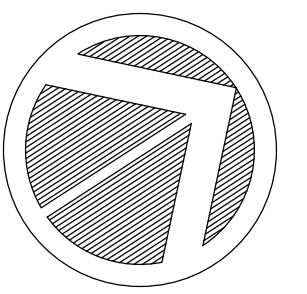
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 PROFESSIONAL PLANNER, NEW JERSEY LIC. #5394

**PRELIMINARY & FINAL MAJOR SITE PLAN**  
**OVERALL SITE PLAN**  
 FOR  
**BLOCK 65**  
**LOTS 11, 12, 13 & 14**  
 TOWNSHIP OF MANCHESTER  
 OCEAN COUNTY NEW JERSEY

SCALE: 1" = 60'	DATE: APRIL 25, 2022	JOB NUMBER: 18123	SHEET: 3
DRAWN BY: KNL	DESIGNED BY: IMB	CHECKED BY: WAS	

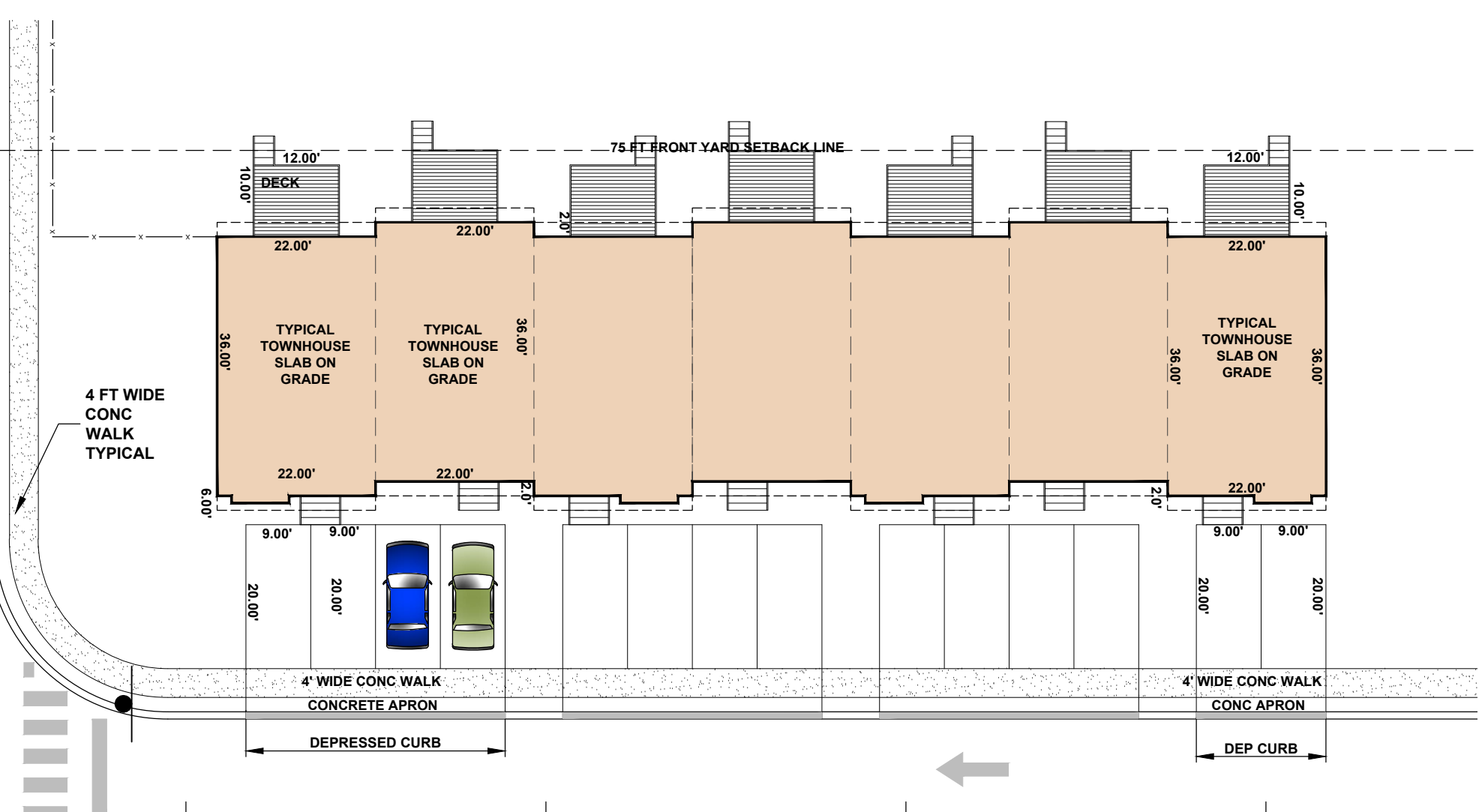
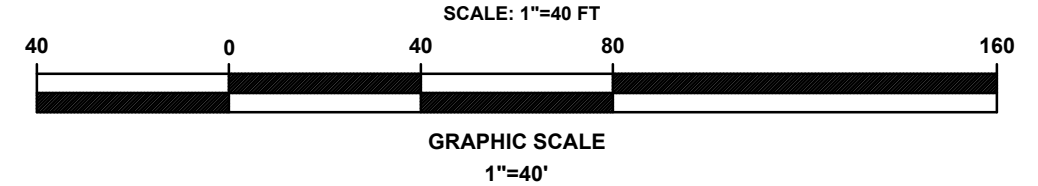
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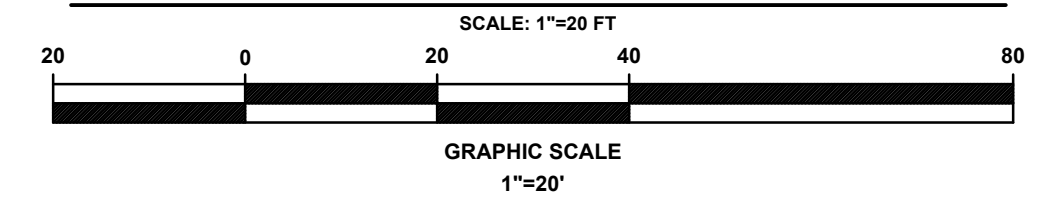
**SITE PLAN "A"**

**SITE PLAN LEGEND**

- EDGE OF PAVEMENT EXISTING
- EDGE OF PAVEMENT PROPOSED
- CURBING EXISTING
- CURBING PROPOSED
- CURBING PROPOSED DEPRESSED
- WOODLINE EXISTING
- WOODLINE PROPOSED
- HANDICAPPED RAMP PROPOSED
- HANDICAPPED SPACE AND SYMBOL
- VARIES
- PAVEMENT OR SURFACE SYMBOL
- CONCRETE SCORED WALKWAY OR PATIO SURFACE



**TYPICAL 7 UNIT TOWNHOUSE PLAN DETAIL**



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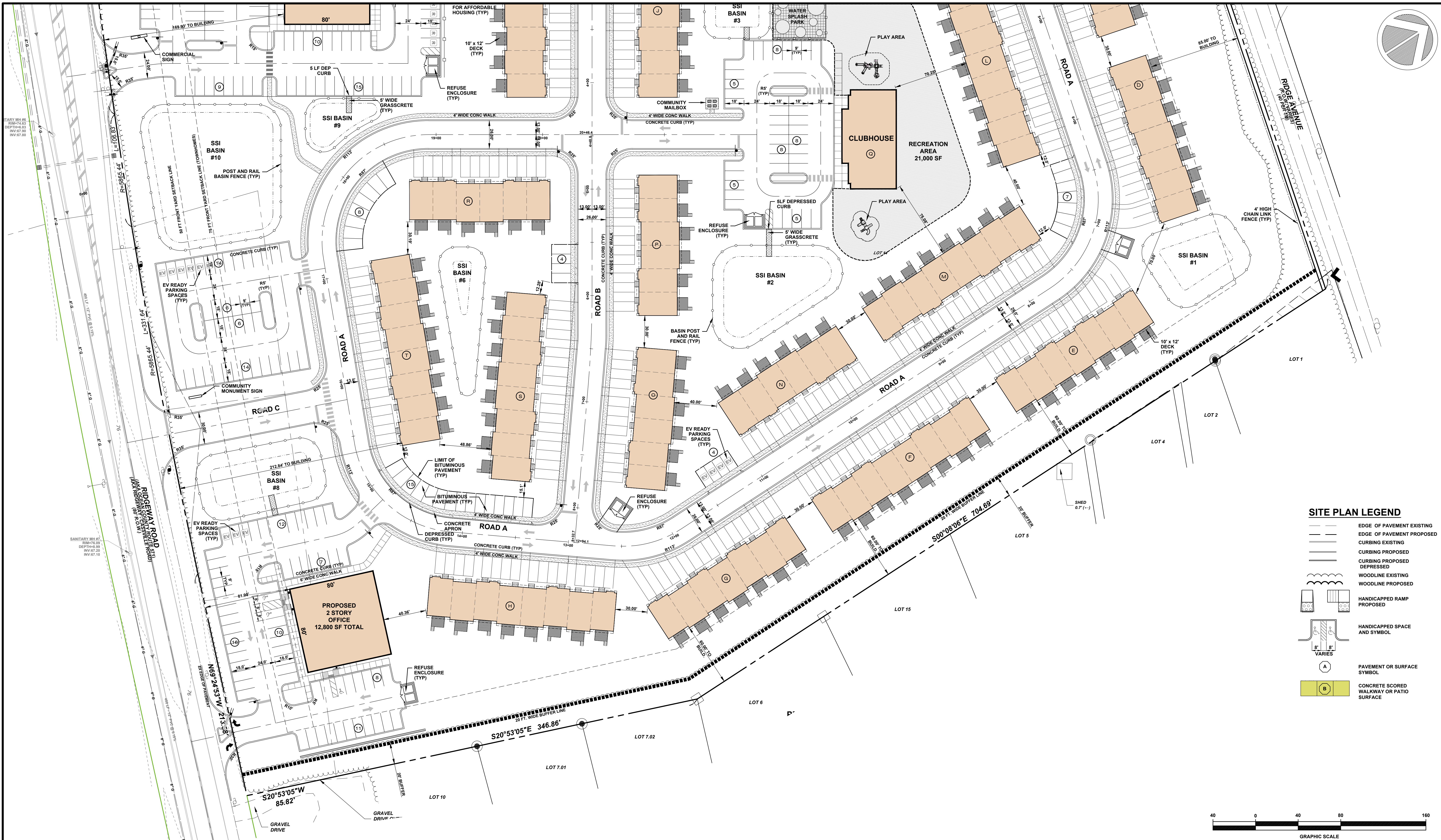
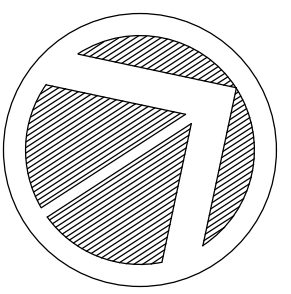
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1	05/26/2023	GENERAL REVISIONS	KNL

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**SITE PLAN "A"**  
 FOR  
**BLOCK 65**  
**LOTS 11, 12, 13 & 14**  
 TOWNSHIP OF MANCHESTER  
 OCEAN COUNTY, NEW JERSEY

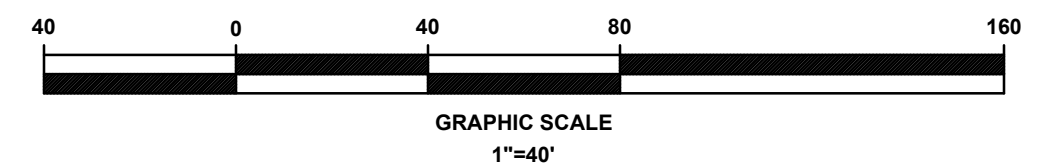
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 DRAWN BY: KNL DESIGNED BY: IMB CHECKED BY: WAS

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**SITE PLAN LEGEND**

- EDGE OF PAVEMENT EXISTING
- - - EDGE OF PAVEMENT PROPOSED
- CURBING EXISTING
- - - CURBING PROPOSED
- CURBING PROPOSED DEPRESSED
- WOODLINE EXISTING
- - - WOODLINE PROPOSED
- HANDICAPPED RAMP PROPOSED
- HANDICAPPED SPACE AND SYMBOL
- PAVEMENT OR SURFACE SYMBOL
- CONCRETE SCORED WALKWAY OR PATIO SURFACE



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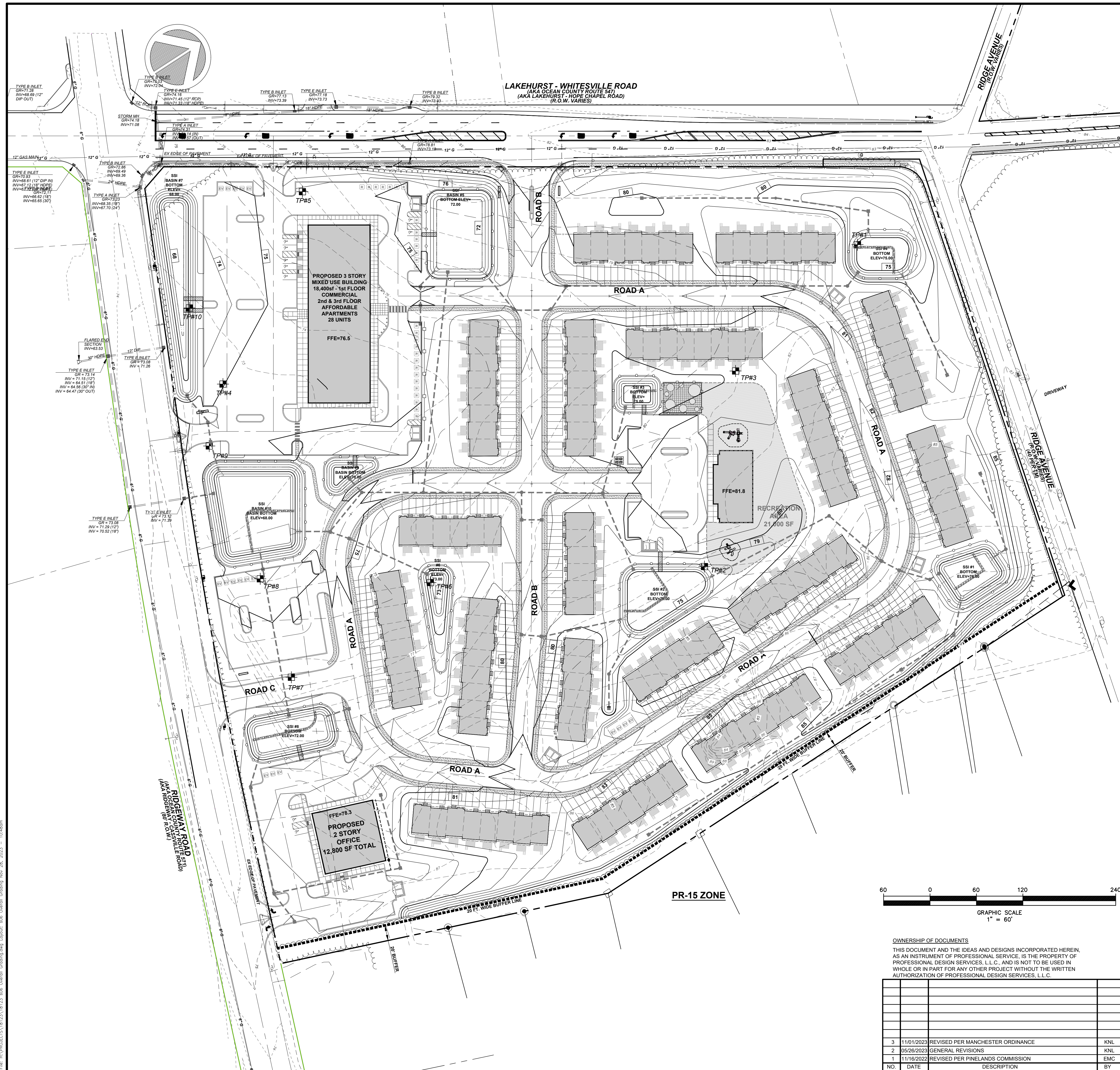
NO.	DATE	DESCRIPTION	BY
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**PRELIMINARY & FINAL MAJOR SITE PLAN**  
**SITE PLAN "B"**  
 FOR  
**BLOCK 65**  
**LOTS 11, 12, 13 & 14**  
 TOWNSHIP OF MANCHESTER  
 OCEAN COUNTY NEW JERSEY

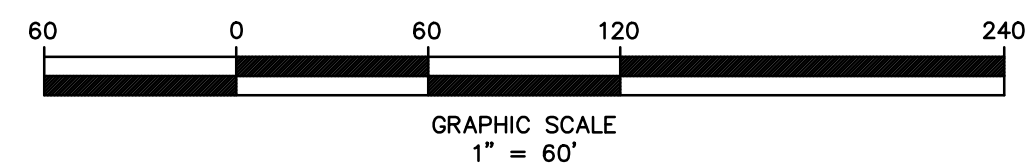
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 DRAWN BY: KNL DESIGNED BY: IMB CHECKED BY: WAS

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 SANITARY MH #7 80" DIA. 6.9' DEPTH 6.9' INV. 27.20  
 SANITARY MH #6 80" DIA. 6.9' DEPTH 6.9' INV. 27.20  
 SANITARY MH #5 80" DIA. 6.9' DEPTH 6.9' INV. 27.20  
 SANITARY MH #4 80" DIA. 6.9' DEPTH 6.9' INV. 27.20  
 SANITARY MH #3 80" DIA. 6.9' DEPTH 6.9' INV. 27.20  
 SANITARY MH #2 80" DIA. 6.9' DEPTH 6.9' INV. 27.20  
 SANITARY MH #1 80" DIA. 6.9' DEPTH 6.9' INV. 27.20  
 SANITARY MH #0 80" DIA. 6.9' DEPTH 6.9' INV. 27.20



TEST PIT LOGS			
Test Pits			
TP # 1	Elevation = 81.4	TP # 6	Elevation = 76.1
0 - 4"	10 YR 4/4 Loamy Sand	0 - 4"	10 YR 4/4 Loamy Sand
4 - 30"	10 YR 6/8 Sandy Loam	4 - 30"	10 YR 6/8 Sandy Loam
30 - 64"	10 YR 7/6 Loamy Sand	30 - 64"	10 YR 8/4 Loamy Sand
64 - 84"	10 YR 8/2 Loamy Sand	54 - 84"	10 YR 8/1 Loamy Sand
84 - 96"	10 YR 8/6 Sandy Loam	84 - 90"	10 YR 8/6 Sandy Loam
96 - 110"	10 YR 8/6 Sandy Loam 6/8	90 - 99"	10 YR 8/1 Sandy Loam
110 - 120"	10 YR 8/2 Sandy Loam 6/8 distinct mottles	99 - 106"	10 YR 8/2 Loamy Sand
		106 - 130"	10 YR 8/8 Sandy Loam 6/8 distinct mottles
		130 - 144"	10 YR 7/2 Loamy Sand
SHWT @ 110" Elevation 72.2		SHWT @ 106" Elevation = 67.3	
Permeability @ 60" = 2.5 inches per hour		Water encountered @ 140"	
		Permeability 70" @ = 5.5 inches per hour	
TP # 2	Elevation = 82.2	TP # 7	Elevation = 76.3
0 - 3"	10 YR 4/4 Loamy Sand	0 - 6"	10 YR 4/4 Loamy Sand
3 - 34"	10 YR 6/8 Sandy Loam	6 - 28"	10 YR 6/8 Sandy Loam
34 - 56"	10 YR 6/8 Loamy Sand	28 - 64"	10 YR 7/8 Loamy Sand
56 - 73"	10 YR 8/6 Loamy Sand	64 - 88"	10 YR 8/6 Loamy Sand
73 - 85"	10 YR 6/8 Sandy Clay Loam	88 - 112"	10 YR 8/8 Sandy Loam
85 - 96"	7.5 YR 6/6 Sand	112 - 125"	10 YR 8/1 Sand
95 - 120"	5 YR 5/4 Loamy Sand 8/8 faint mottles @ 112"		
SHWT @ 112" Elevation 72.9		SHWT @ >125" Elevation = <66.0	
Permeability @ 60" = 7.5 inches per hour		Permeability @ 70" = 11.5 inches per hour	
TP # 3	Elevation = 81.0	TP # 8	Elevation = 74.0
0 - 4"	10 YR 4/4 Loamy Sand	0 - 4"	10 YR 4/4 Loamy Sand
4 - 26"	10 YR 6/8 Sandy Loam	4 - 32"	10 YR 6/8 Sandy Loam
26 - 72"	10 YR 6/8 Loamy Sand	32 - 59"	10 YR 7/8 Loamy Sand
72 - 96"	10 YR 8/6 Loamy Sand	59 - 94"	10 YR 8/1 Loamy Sand
96 - 108"	10 YR 7/8 Loamy Sand	94 - 110"	10 YR 8/8 Sandy Loam
108 - 120"	10 2.5 YR 4/4 Sand 5/8 distinct mottles	110 - 130"	10 YR 8/1 Sand 5/8 distinct mottles
SHWT @ 108" Elevation = 72.0		SHWT @ 110" Elevation = 64.9	
Permeability @ 55" = 9.0 inches per hour		Permeability @ 90" = 2.5 inches per hour	
TP # 4	Elevation = 73.5	TP # 9	Elevation = 72.8
0 - 4"	10 Yr 4/4 Loamy Sand	0 - 4"	10 YR 4/4 Loamy Sand
4 - 27"	10 YR 7/6 Sandy Loam	4 - 32"	10 YR 6/8 Sandy Loam
27 - 48"	10 YR 7/8 Loamy Sand	32 - 64"	10 YR 6/8 Loamy Sand
48 - 56"	10 YR 7/8 Loamy Sand	64 - 96"	10 YR 7/8 Loamy Sand
56 - 67"	10 YR 6/8 Loamy Sand	96 - 106"	Gley 8/N Sandy Clay 8/8 distinct mottles
67 - 84"	10 YR 7/6 Loamy Sand	106 - 120"	10 YR 8/4 Loamy Sand
84 - 95"	10 YR 8/3 Loamy Sand 5/8 distinct mottles		
95 - 104"	10 YR 8/1 Loamy Sand 8/8 distinct mottles	SHWT @ 96" Elevation = 64.8	
104 - 109"	Gley 8/N Sandy Clay 8/8 distinct mottles	Permeability @ 70" = 6.5 inches per hour	
109 - 112"	10 YR 8/4 Sandy Clay Loam 8/8 distinct mottles		
112 - 132"	10 YR 8/1 Loamy Sand 8/8 distinct mottles		
SHWT @ 84" Elevation = 66.5			
Permeability @ 60" = 15.5 inches per hour			
TP # 5	Elevation = 77.0	TP # 10	Elevation = 73.0
0 - 4"	10 YR 4/4 Loamy Sand	0 - 4"	10 YR 4/4 Loamy Sand
4 - 23"	10 YR 6/8 Sandy Loam	4 - 19"	10 YR 6/8 Sandy Loam
23 - 60"	10 YR 7/6 Loamy Sand	19 - 57"	10 YR 6/8 Loamy Sand
60 - 71"	10 YR 8/4 Loamy Sand	57 - 94"	10 YR 8/8 Loamy Sand
71 - 99"	2.5 Y 8/1 Loamy Sand	94 - 102"	10 YR 8/8 Loam / Silt Loam 5/8 distinct mottles
99 - 109"	10 YR 8/1 Loamy Sand 6/8 distinct mottles	102 - 120"	10 YR 8/1 Sand 8/8 distinct mottles
109 - 130"	10 YR 8/4 Sand 5/8 distinct mottles		
SHWT @ 99" Elevation = 68.7		SHWT @ 102" Elevation = 64.5	
Permeability @ 64" = 13.0 inches per hour		Permeability @ 60" = 3.5 inches per hour	
Test Pits performed by PDS February 5, 2022			
Permeability results per Tube Permeameter Tests			

- STORMWATER BASIN NOTES:**
- THE PROJECT DOES NOT CONTAIN ANY HIGH POLLUTANT LOADING AREAS (HPLA) AND SEGREGATION OR PRETREATMENT OF RUNOFF IS NOT REQUIRED.
  - THE STORMWATER BASIN HAS BEEN DESIGNED TO MAINTAIN A MINIMUM SEPARATION OF AT LEAST TWO (2) FEET FROM THE BASIN BOTTOM TO THE SEASONAL HIGH WATER TABLE.
  - THE SOIL PERMEABILITY BELOW THE BASIN DOES NOT PERMEATE IN EXCESS OF 20 INCHES PER HOUR AND NO BIORETENTION SYSTEM IS REQUIRED.
  - A GROUNDWATER MOUNDING ANALYSIS INDICATES NO ADVERSE IMPACT TO ADJACENT WATERBODIES, WETLANDS, STRUCTURES OR SEPTICS.
  - THE BASIN FOREBAY SHALL SERVE AS A TEMPORARY SEDIMENT BASIN UNTIL THE DRAINAGE AREA HAS BEEN COMPLETELY STABILIZED. WHEN THE DRAINAGE SYSTEM HAS BEEN COMPLETELY STABILIZED, TWO (2) FEET OF THE BOTTOM WITHIN THE FOREBAY MUST BE EXCAVATED AND REPLACED WITH CLEAN SAND HAVING A PERMEABILITY OF 6 TO 20 INCHES PER HOUR.
  - CARE MUST BE TAKEN DURING CONSTRUCTION TO MINIMIZE COMPACTION OF THE BASIN BOTTOM. THE BASIN AREA MUST BE RENOVATED AND TILLED AFTER CONSTRUCTION IS COMPLETED AND THE DRAINAGE AREA IS STABILIZED. NO EARTHWORK MAY BE PERFORMED WHEN SOIL MOISTURE CONTENT IS ABOVE THE LOWER PLASTIC LIMIT.
  - ONCE THE BASIN IS COMPLETED AND THE DRAINAGE AREA IS STABILIZED, FIELD PERMEABILITY TESTS MUST BE PERFORMED AND SUBMITTED TO THE TOWNSHIP ENGINEER TO ASSURE COMPLIANCE WITH THE DESIGN PERMEABILITY.
  - AS-BUILT PLANS MUST BE PERFORMED OF THE COMPLETED BASIN AND SUBMITTED TO THE TOWNSHIP ENGINEER TO ASSURE COMPLIANCE WITH THE DESIGN.
  - THE BASIN MUST BE DEED RESTRICTED TO PERMANENTLY PROTECT IT FROM FUTURE DEVELOPMENT.



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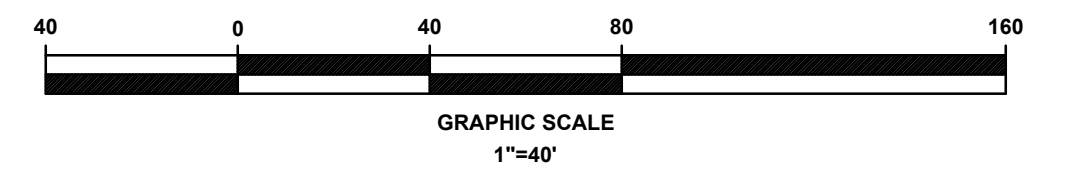
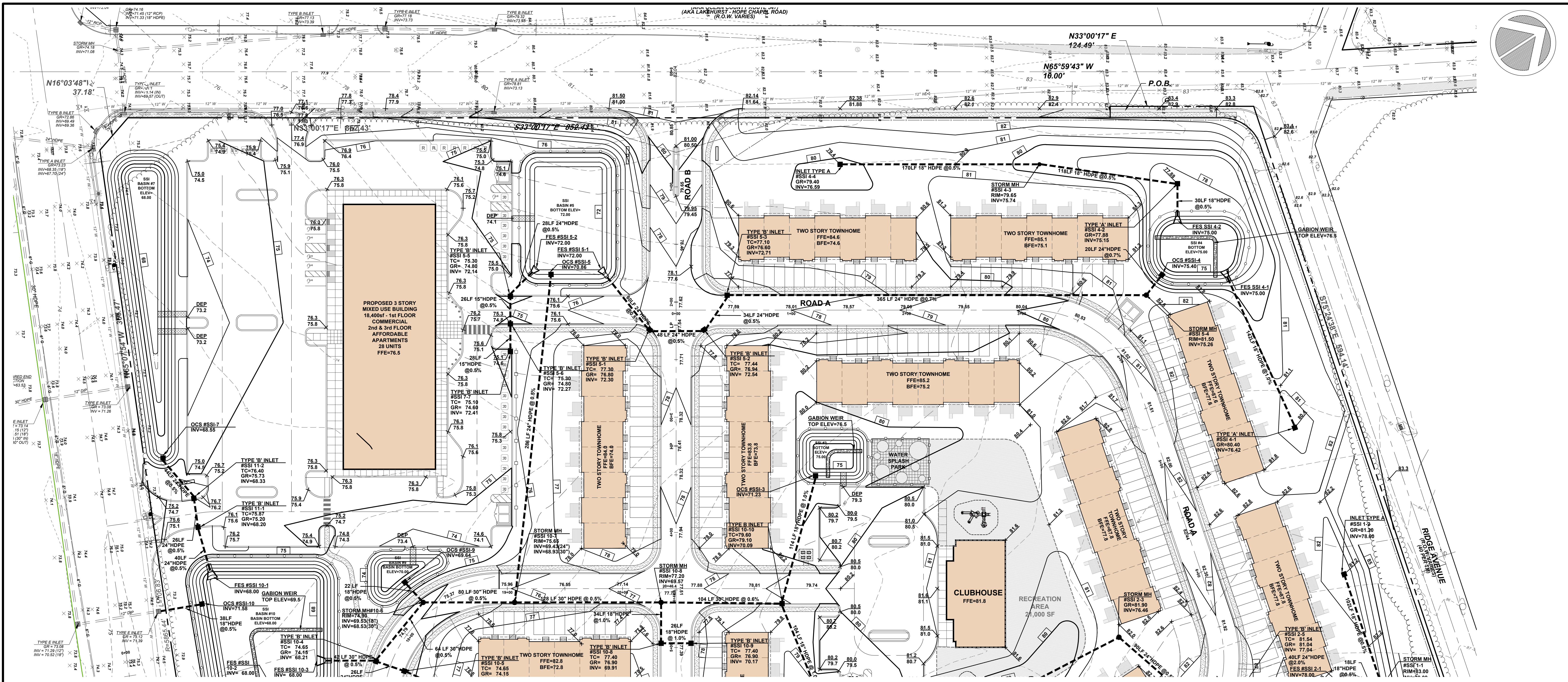
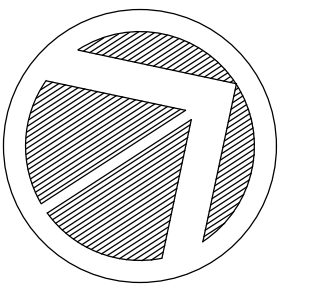
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**OVERALL GRADING & STORM DRAINAGE PLAN**  
 FOR  
**BLOCK 65**  
**LOTS 11, 12, 13 & 14**  
 TOWNSHIP OF MANCHESTER  
 OCEAN COUNTY, NEW JERSEY

SCALE: 1" = 60' DATE: APRIL 25, 2022 JOB NUMBER: 18123 SHEET: 6  
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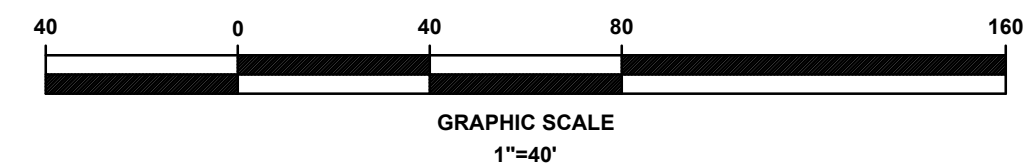
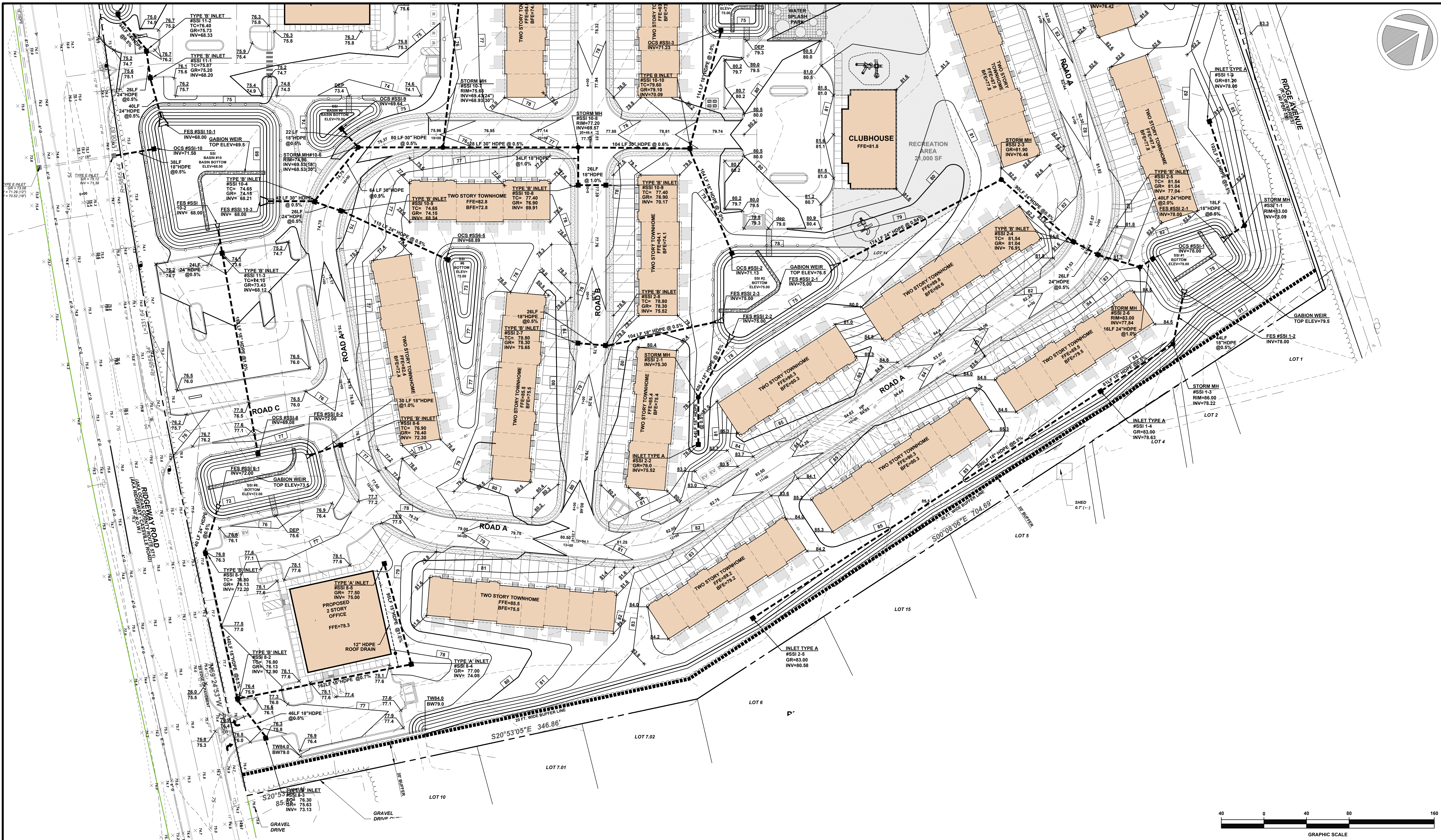
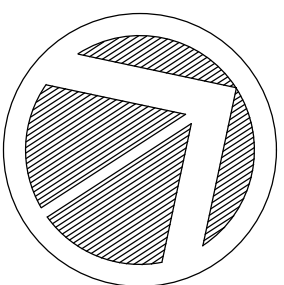
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**GRADING & STORM DRAINAGE**  
**PLAN "A"**  
FOR  
**BLOCK 65**  
**LOTS 11, 12, 13 & 14**  
TOWNSHIP OF MANCHESTER  
NEW JERSEY

SCALE: 1" = 40'	DATE: APRIL 25, 2022	JOB NUMBER: 18123	SHEET: 7
DRAWN BY: KNL	DESIGNED BY: IMB	CHECKED BY: WAS	23

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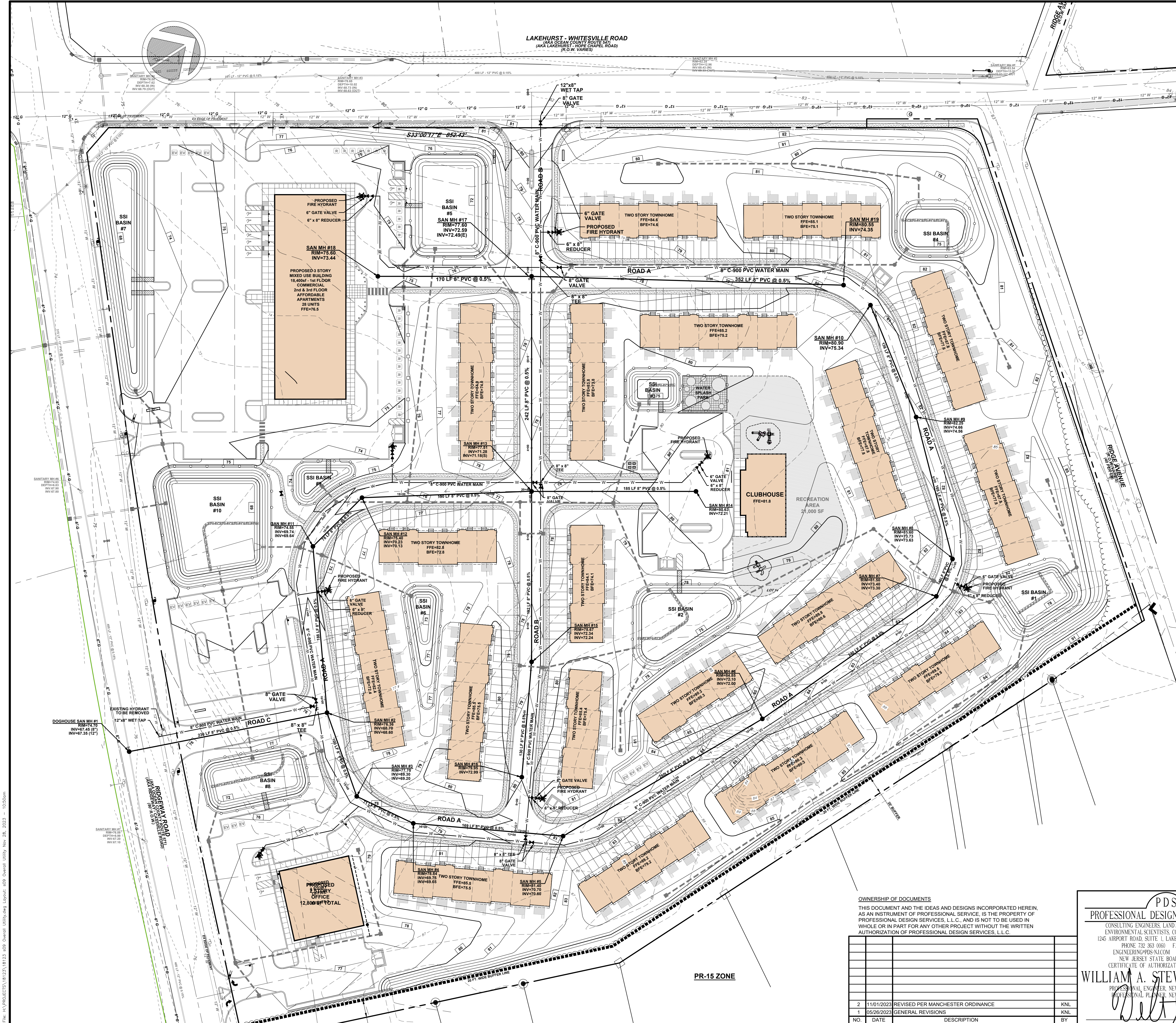
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**PRELIMINARY & FINAL MAJOR SITE PLAN**  
**GRADING & STORM DRAINAGE**  
**PLAN "B"**  
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**LOTS 11, 12, 13 & 14**  
 TOWNSHIP OF MANCHESTER  
 OCEAN COUNTY, NEW JERSEY

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 DRAWN BY: KNL DESIGNED BY: IMB CHECKED BY: WAS

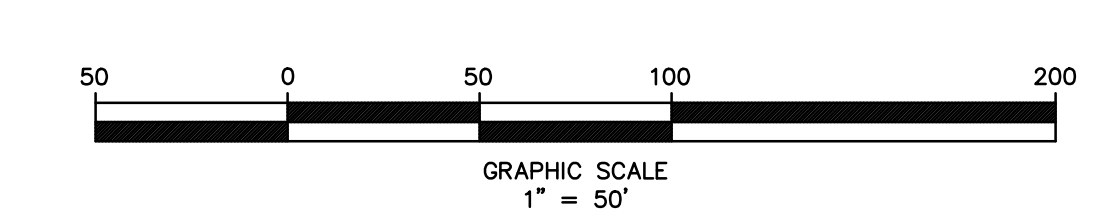
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**GENERAL UTILITY NOTES:**

- 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 LESSENED TO 3'-9" WITH APPROVAL E.O.F. 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.



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1	05/26/2023	GENERAL REVISIONS	KNL

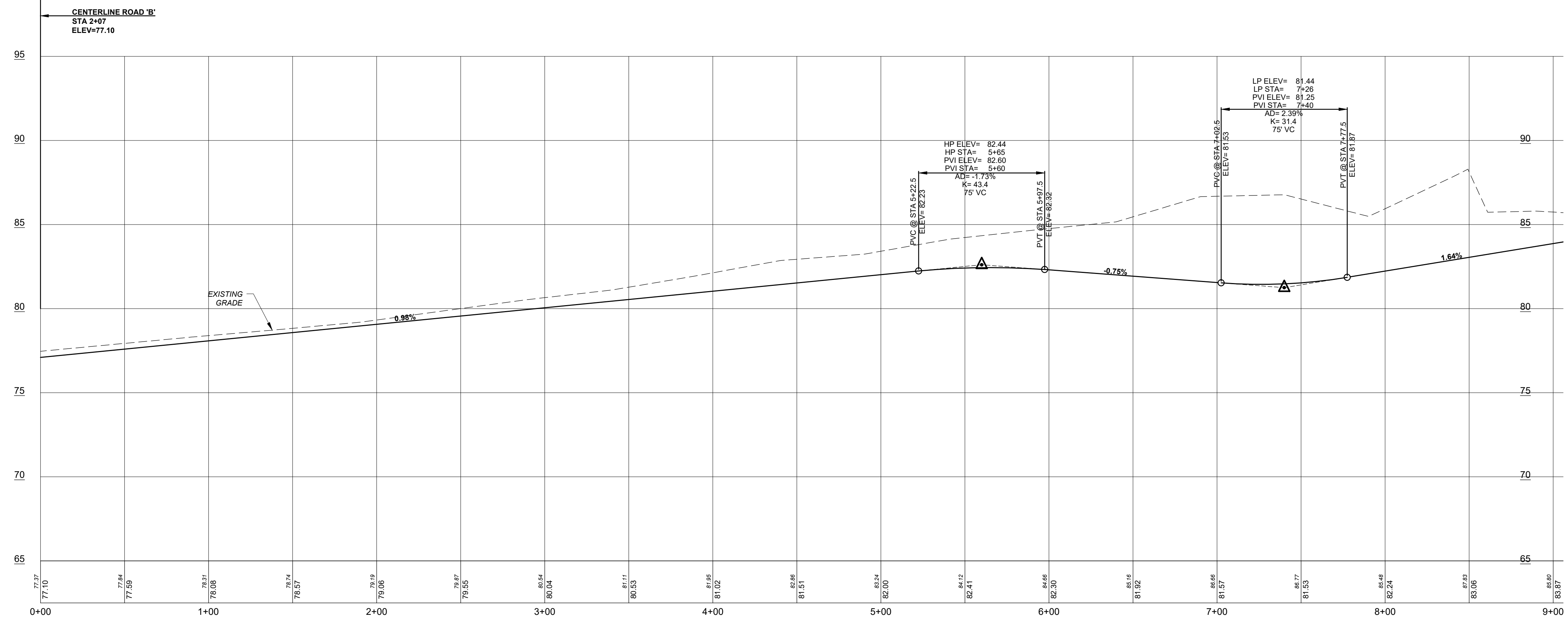
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**PRELIMINARY & FINAL MAJOR SITE PLAN**  
**OVERALL UTILITY PLAN**

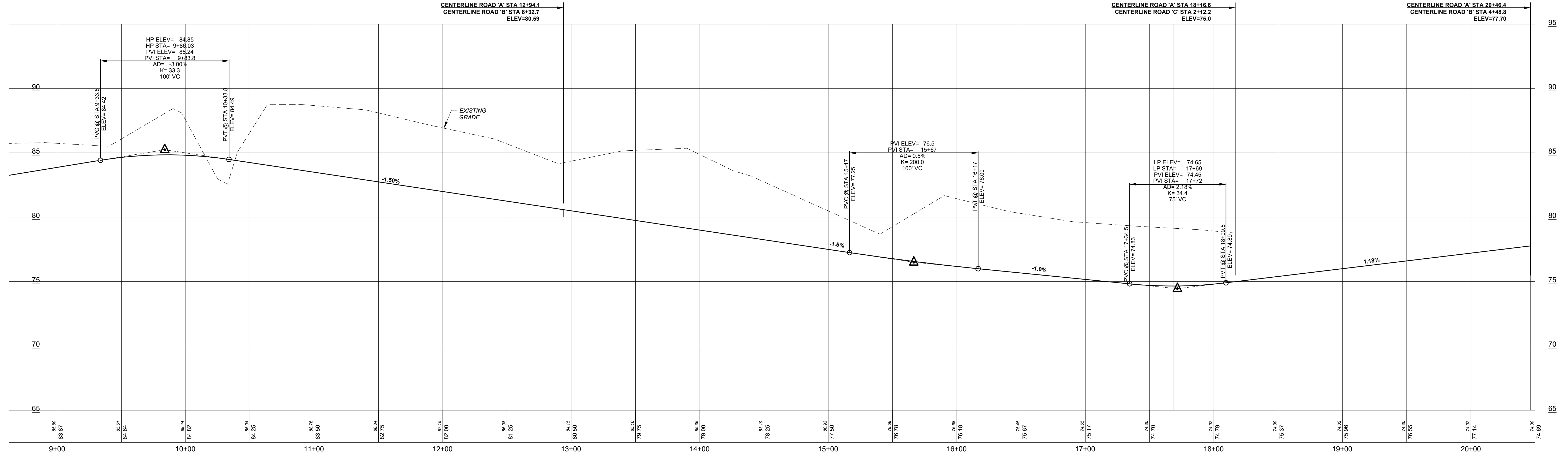
FOR  
**BLOCK 65**  
**LOTS 11, 12, 13 & 14**  
 TOWNSHIP OF MANCHESTER  
 NEW JERSEY

SCALE: 1" = 50' DATE: APRIL 25, 2022 JOB NUMBER: 18123 SHEET: 9  
 DRAWN BY: KNL DESIGNED BY: IMB CHECKED BY: WAS

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**ROAD 'A'**  
SCALE H: 1" = 40'  
V: 1" = 4'



**ROAD 'A'**  
SCALE H: 1" = 40'  
V: 1" = 4'

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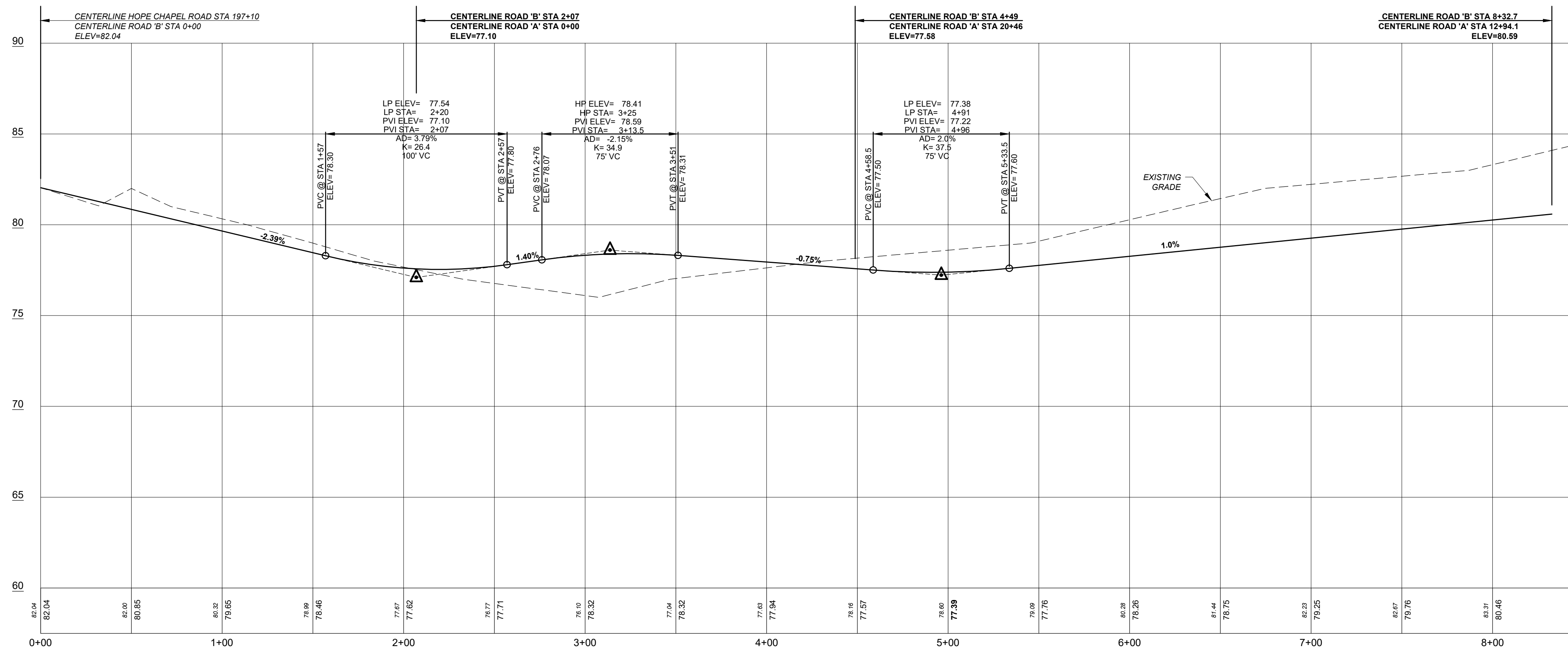
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PROFESSIONAL PLANNER, NEW JERSEY, LIC. #5394

**PRELIMINARY & FINAL MAJOR SITE PLAN**  
**ROAD PROFILES**  
FOR  
**BLOCK 65**  
**LOTS 11, 12, 13 & 14**  
TOWNSHIP OF MANCHESTER  
NEW JERSEY

SCALE: AS SHOWN	DATE: APRIL 25, 2022	JOB NUMBER: 18123	SHEET: 10
DRAWN BY: KNL	DESIGNED BY: IMB	CHECKED BY: WAS	23

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**ROAD 'B'**  
 SCALE H: 1" = 40'  
 V: 1" = 4'

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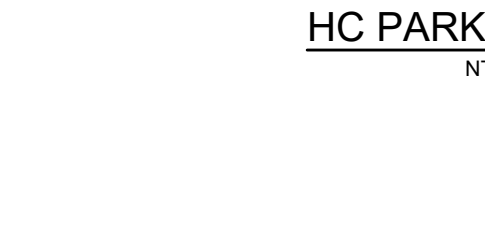
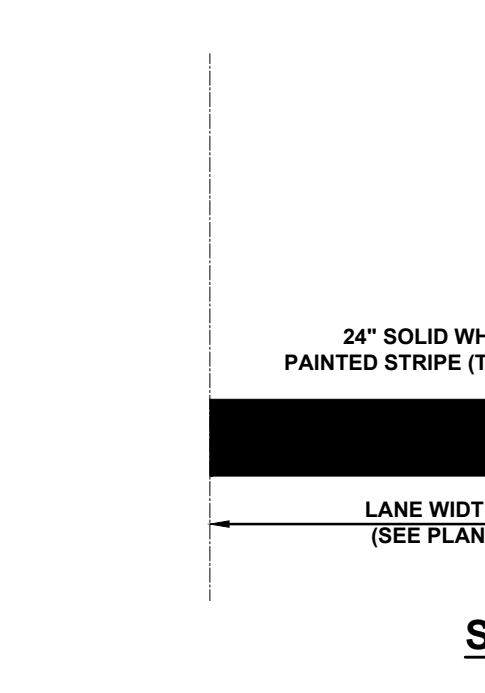
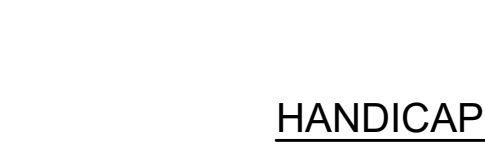
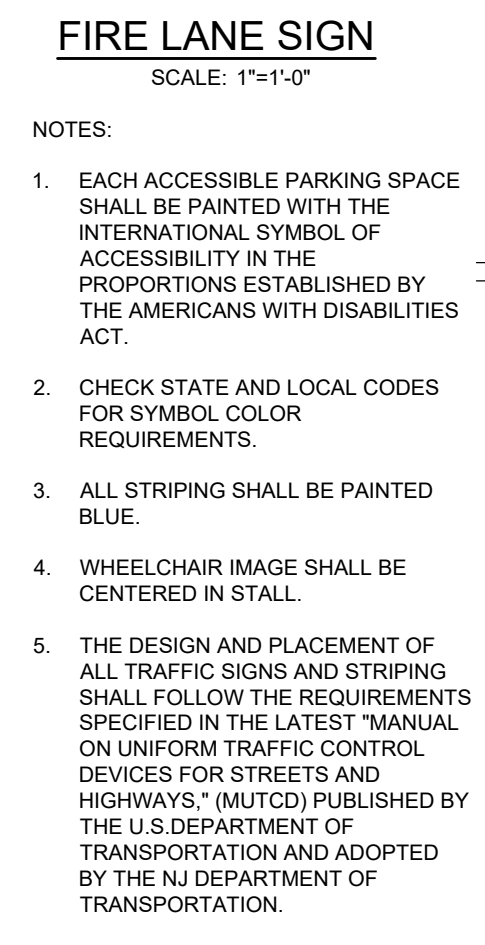
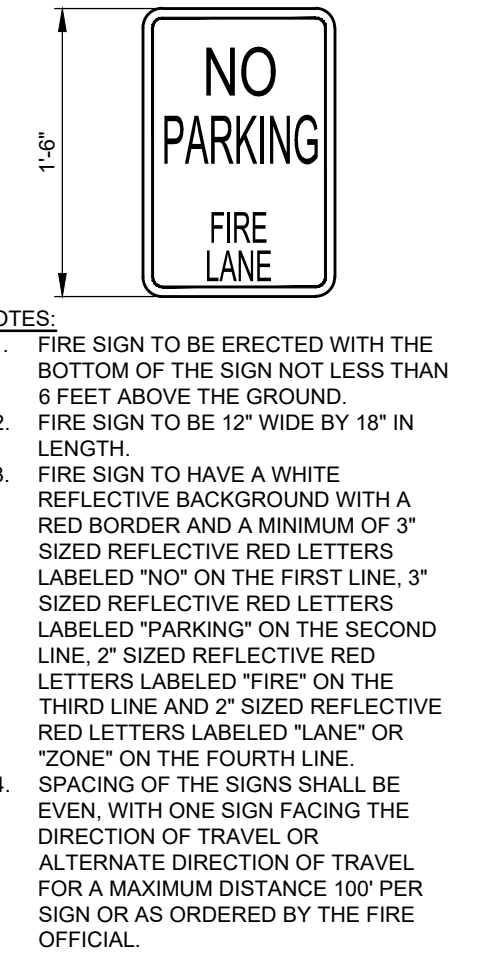
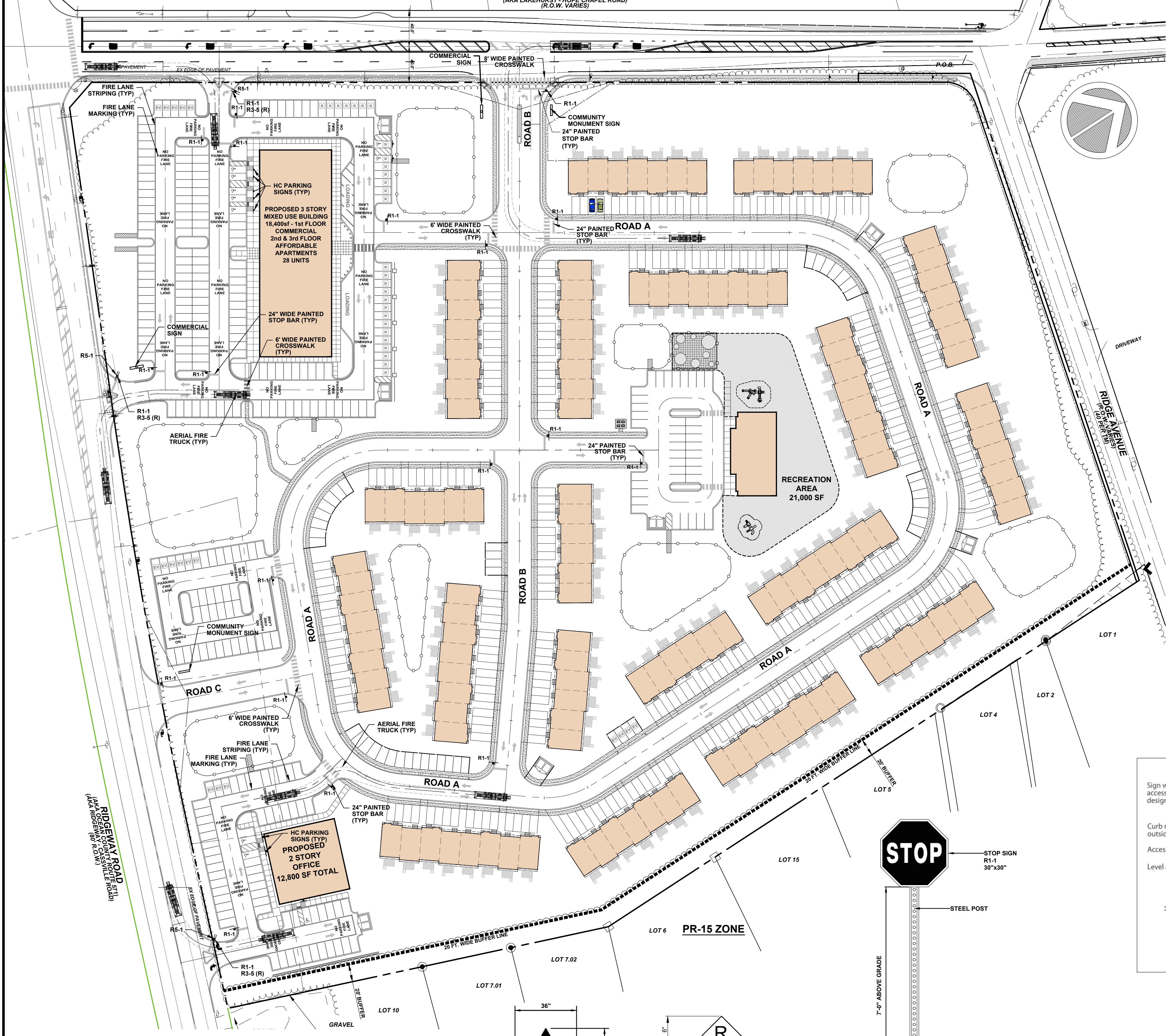
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**PRELIMINARY & FINAL MAJOR SITE PLAN**  
**ROAD PROFILES**  
 FOR  
**BLOCK 65**  
**LOTS 11, 12, 13 & 14**  
 TOWNSHIP OF MANCHESTER  
 OCEAN COUNTY NEW JERSEY

SCALE: AS SHOWN	DATE: APRIL 25, 2022	JOB NUMBER: 18123	SHEET: 11
DRAWN BY: KNL	DESIGNED BY: IMB	CHECKED BY: WAS	23

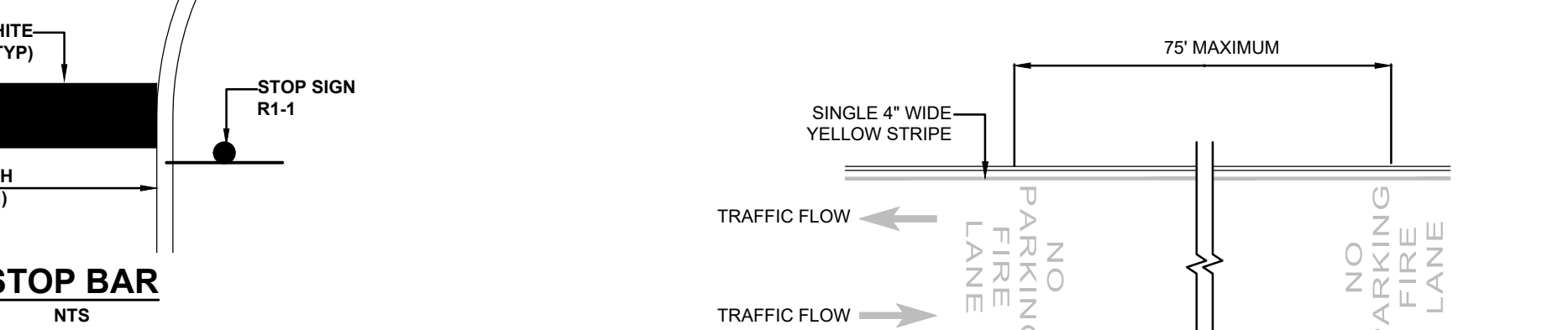
**LAKEHURST - WHITESVILLE ROAD**  
(AKA OCEAN COUNTY ROUTE 547)  
(AKA LAKEHURST - HOPE CHAPEL ROAD)  
(R.O.W. VARIES)



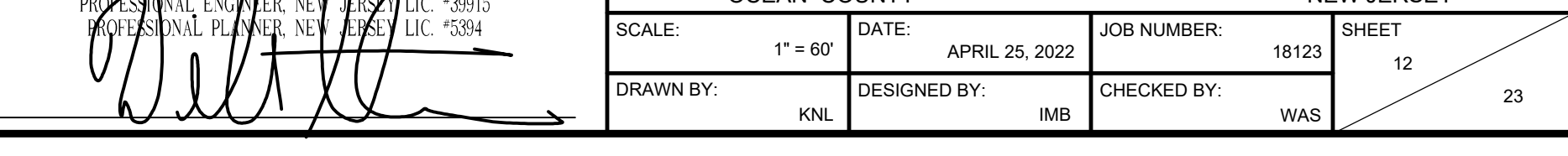
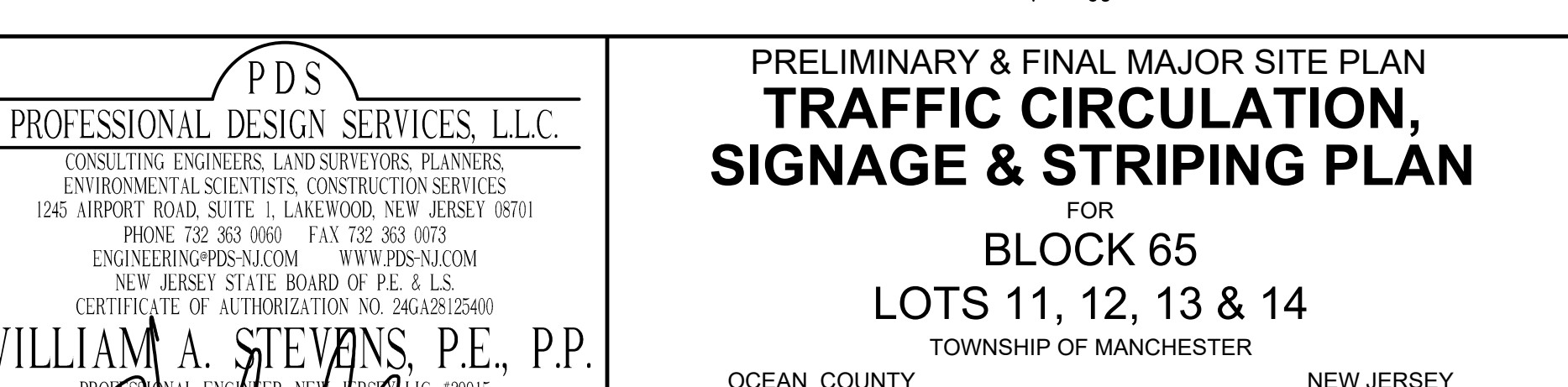
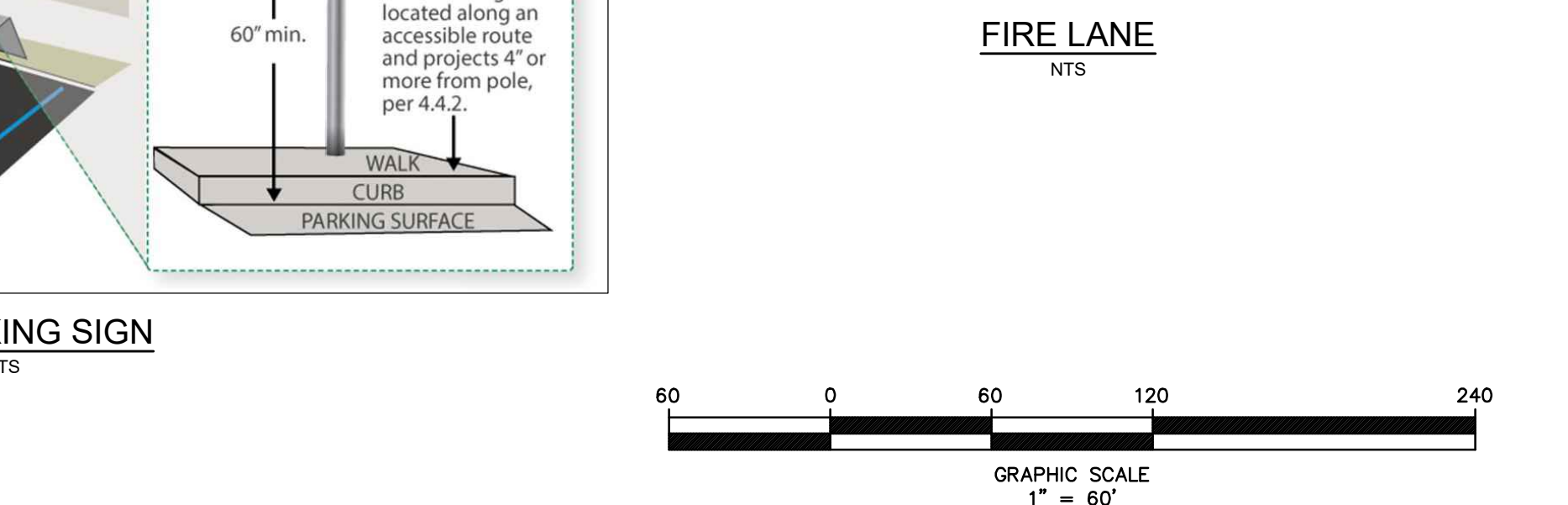
- ### FIRE PROTECTION NOTES
- ADDRESS SIGNAGE DENOTING THE PROPOSED LOCATION SHALL BE ERRECTED THE ENTRANCE ON LEESVILLE ROAD. THE ADDRESS IDENTIFICATION SHALL BE LEGIBLE AND PLACED IN A POSITION THAT IS VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. ADDRESS IDENTIFICATION CHARACTERS SHALL CONTRAST 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 JACKSON CODE CHAPTER 204.
  - AN EMERGENCY KEY LOCK BOX SHALL BE INSTALLED ON EACH PROPOSED BUILDING, IN ACCORDANCE WITH TOWNSHIP OF JACKSON CODE CHAPTER 204, 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 ON 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 ISOCELES 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 "F/R" 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 JACKSON 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 RADII SHOWN ON THIS PLAN WERE GENERATED BY AUTOTURN PRO, USING A 105' PIERCE ARROW XT AERIAL LADDER FIRE TRUCK.
  - 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.



- ### NOTES:
- FIRE LANE GROUND MARKING SHALL BE A MINIMUM OF 20' WIDE LABELED "NO PARKING FIRE LANE"
  - THE LETTERING SHALL BE LEGIBLE AND THE LETTER SIZE SHALL BE A MINIMUM OF 24" HIGH AND A FOUR INCH STROKE.
  - THE WORDING SHALL FACE DIRECTION OF TRAVEL OR ALTERNATE DIRECTION OF TRAVEL FOR A MAXIMUM DISTANCE OF EVERY 75' ON PAVED SURFACE.
  - STRIPING AND LETTERING SHALL BE APPROVED NJDOT STANDARD TRAFFIC YELLOW PAINT.



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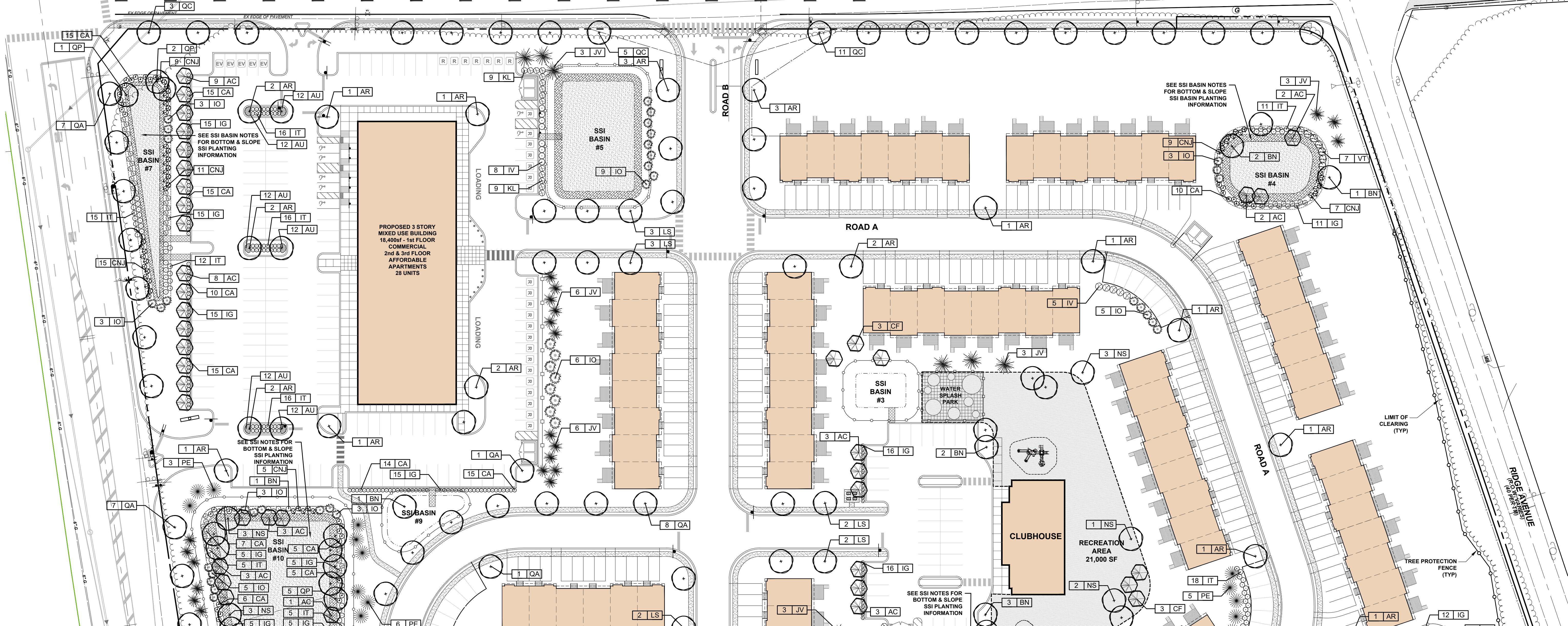
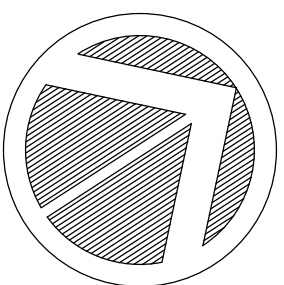
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**PRELIMINARY & FINAL MAJOR SITE PLAN TRAFFIC CIRCULATION, SIGNAGE & STRIPING PLAN**

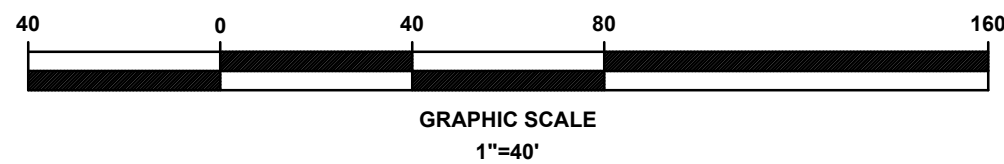
FOR **BLOCK 65**  
**LOTS 11, 12, 13 & 14**  
TOWNSHIP OF MANCHESTER  
OCEAN COUNTY NEW JERSEY

SCALE: 1" = 60' DATE: APRIL 25, 2022 JOB NUMBER: 18123 SHEET: 12  
DRAWN BY: KNL DESIGNED BY: IMB CHECKED BY: WAS



**SSI BASIN NOTES:**

- SSI BASIN BOTTOM TO BE 6" K-5 SAND.
- SSI BASIN SLOPE TO BE SEEDED WITH "RAIN GARDEN MIX" SEED AS MANUFACTURED BY PINELANDS NURSERY & SUPPLY, COLUMBUS, NJ OR APPROVED EQUAL. COVERAGE RATE: 11 LBS / ACRE.



**LANDSCAPE SCHEDULE:**

KEY	QTY	BOTANICAL NAME	COMMON NAME	INSTALLED HEIGHT	CALIPER	ROOT	COMMENTS
<b>Shade Trees</b>							
AR	42	<i>Acer rubrum</i> 'October Glory'	October Glory Red Maple	5'-3 1/2'	B&B		Limbed up to 7 feet
LS	14	<i>Liquidambar styraciflua</i>	Sweet Gum	2 1/2'-3'	B&B		Limbed up to 7 feet, Fall Dig Hazard - Spring Planting Only
BN	21	<i>Betula nigra</i>	River Birch	2 1/2'-3'	B&B		Fall Dig Hazard-Spring Planting Only
NS	20	<i>Nyssa sylvatica</i>	Black Gum	2 1/2'-3'	B&B		Fall Dig Hazard-Spring Planting Only
QA	33	<i>Quercus alba</i>	White Oak	2 1/2'-3'	B&B		Limbed up to 7 feet, Fall Dig Hazard - Spring Planting Only
QC	18	<i>Quercus coccinea</i>	Scarlet Oak	2 1/2'-3'	B&B		Limbed up to 7 feet, Fall Dig Hazard - Spring Planting Only
QP	9	<i>Quercus phellos</i>	Willow Oak	2 1/2'-3'	B&B		Limbed up to 7 feet, Fall Dig Hazard - Spring Planting Only
<b>Ornamental Trees</b>							
AC	45	<i>Ametanochier canadensis</i>	Shadblow Serrisaberrey	6' - 8'		B&B	
CF	2	<i>Cornus florida</i>	Eastern Red Bud Flowering Dogwood	6' - 8'		B&B	
MV	6	<i>Magnolia virginiana</i>	Sweetbay Magnolia	6' - 8'		B&B	
<b>Evergreen Trees</b>							
IO	79	<i>Ilex opaca</i>	American Holly	5' - 6'		B&B	Use 10 "Jersey Knight" as Pollinator
JV	55	<i>Juniperus virginiana</i>	Eastern Red Cedar	5' - 6'			
PE	26	<i>Pinus echinata</i>	Shortleaf Pine	6' - 8'			
<b>Shrubs</b>							
CA	233	<i>Clethra alnifolia</i>	Ruby Spice Summersweet	24" - 30"		#5 CONT	
CNJ	113	<i>Ceanothus americanus</i>	New Jersey Tea	24" - 30"		#5 CONT	
IG	218	<i>Ilex glabra</i>	Inkberry Holly	24" - 30"		#5 CONT	
IT	216	<i>Itea virginiana</i>	Virginia Sweetspire	24" - 30"		#5 CONT	
IV	13	<i>Ilex verticillata</i>	Winterberry Holly	30" - 36"		#5 CONT	Plant 43" Jim Dandy" as pollinator
KL	49	<i>Kalmia latifolia</i>	Mountain Laurel	30" - 36"		#5 CONT	
VT	19	<i>Viburnum trilobum</i>	Cranberry Viburnum	30" - 36"		#5 CONT	
<b>Groundcover</b>							
AU	72	<i>Arctostaphylos uva-ursi</i>	Bearberry	15" - 18"		#1 CONT	Plant 18" On Center Spacing

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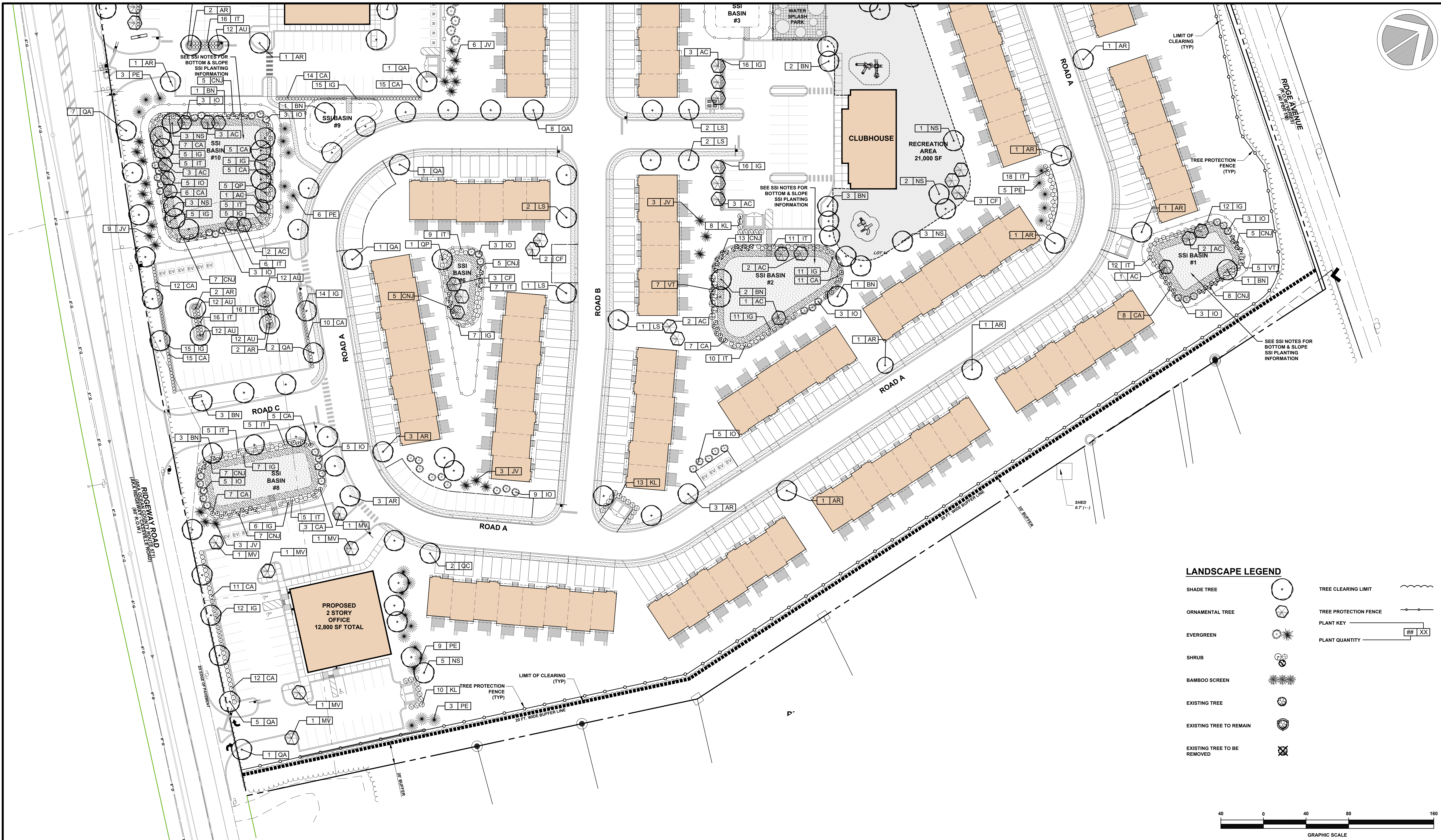
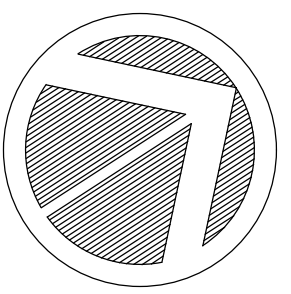
**PRELIMINARY & FINAL MAJOR SITE PLAN**  
**LANDSCAPE PLAN "A"**

FOR  
**BLOCK 65**  
**LOTS 11, 12, 13 & 14**  
 TOWNSHIP OF MANCHESTER  
 OCEAN COUNTY, NEW JERSEY

SCALE: 1" = 40'  
 DATE: APRIL 25, 2022  
 JOB NUMBER: 18123  
 SHEET: 13

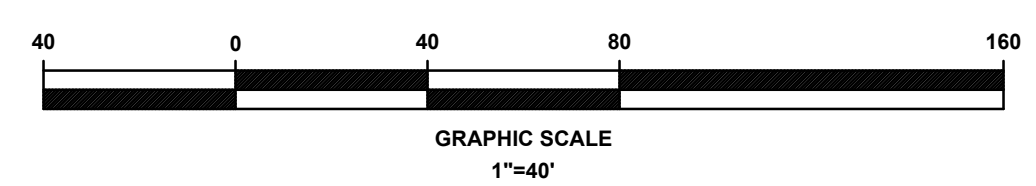
DRAWN BY: KNL  
 DESIGNED BY: IMB  
 CHECKED BY: WAS

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**LANDSCAPE LEGEND**

SHADE TREE		TREE CLEARING LIMIT	
ORNAMENTAL TREE		TREE PROTECTION FENCE	
EVERGREEN		PLANT KEY	
SHRUB		PLANT QUANTITY	
BAMBOO SCREEN			
EXISTING TREE			
EXISTING TREE TO REMAIN			
EXISTING TREE TO BE REMOVED			



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NO.	DATE	DESCRIPTION	BY
2	11/01/2023	REVISED PER MANCHESTER ORDINANCE	KNL
1	05/26/2023	GENERAL REVISIONS	KNL

**PDS**  
**PROFESSIONAL DESIGN SERVICES, L.L.C.**  
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 CERTIFICATE OF AUTHORIZATION NO. 246428125400  
**WILLIAM A. STEVENS, P.E., P.P.**  
 PROFESSIONAL ENGINEER, NEW JERSEY LIC. #39915  
 PROFESSIONAL PLANNER, NEW JERSEY LIC. #5394

**PRELIMINARY & FINAL MAJOR SITE PLAN**  
**LANDSCAPE PLAN "B"**

FOR  
**BLOCK 65**  
**LOTS 11, 12, 13 & 14**  
 TOWNSHIP OF MANCHESTER

OCEAN COUNTY NEW JERSEY

SCALE: 1" = 40'	DATE: APRIL 25, 2022	JOB NUMBER: 18123	SHEET: 14
DRAWN BY: KNL	DESIGNED BY: IMB	CHECKED BY: WAS	23

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# LANDSCAPE NOTES

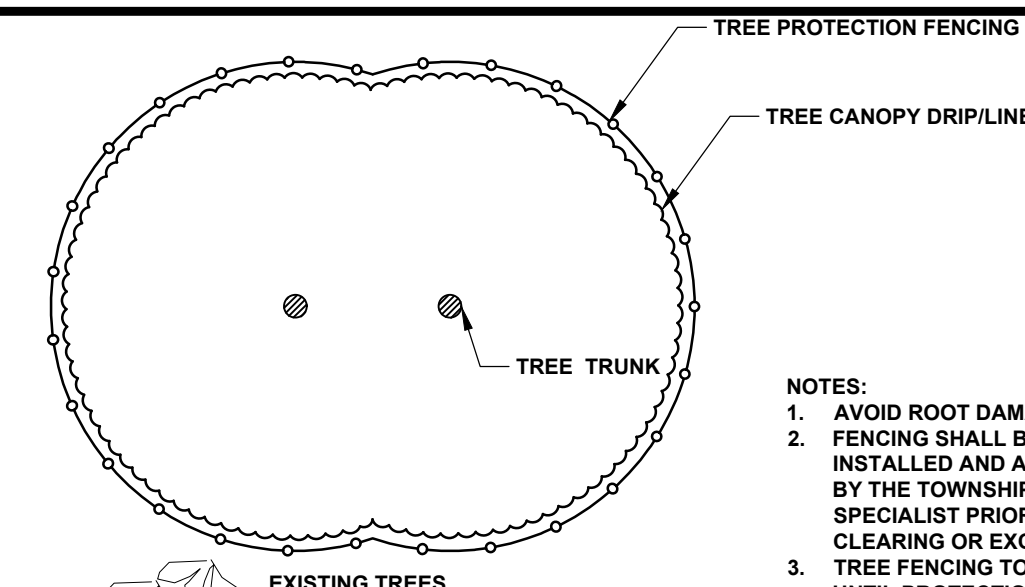
- GENERAL NOTES**
  - THIS PLAN SHALL BE UTILIZED FOR LANDSCAPE AND TREE SAVE USES ONLY. PLEASE REFER TO SITE PLANS FOR CONSTRUCTION OF SITE IMPROVEMENTS.
  - ALL TREES ARE DRAWN TO THEIR ANTICIPATED MATURE DRIFLINE.
  - CONTRACTOR SHALL EXAMINE DRAWINGS AND REQUEST A MARKOUT OF FIELD CONDITIONS FOR SPECIFIC LOCATIONS OF UTILITIES, STRUCTURES, ETC. NOTIFY THE ENGINEER IN WRITING IMMEDIATELY, IN REFERENCE TO DISCREPANCIES OR LOCATION CONFLICTS.
  - IN THE EVENT THAT PLANT QUANTITY DISCREPANCIES OR MATERIAL OMISSIONS OCCUR IN THE PLANTING SCHEDULE, THE PLAN SHALL SUPERSEDE.
  - ALL PLANTING MATERIAL AND METHODS SHALL MEET OR EXCEED THE REQUIREMENTS OF THE MUNICIPAL ORDINANCES OF THE TOWNSHIP OF MANCHESTER AND ANSI Z-61 (CURRENT VERSION), "THE AMERICAN STANDARD FOR NURSERY STOCK," PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERMEN. IN THE EVENT OF CONFLICT BETWEEN A.A.N. AND MUNICIPAL STANDARDS, THE MUNICIPAL REQUIREMENTS SHALL SUPERSEDE.
  - 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 ACCESSES, 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.
- PLANTING**
  - SOIL MUST BE FROST-FREE, FRIABLE AND NOT MUDDY AT THE TIME OF PLANTING.
  - 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.
  - 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 MOUNDING MANNER.
  - THE CORD BINDING THE BALL OF ALL BALLED AND BURLAPPED (B&B) PLANTS SHALL BE CUT AND REMOVED, AND BURLAP ON THE UPPER HALF OF THE ROOT BALL SHALL BE REMOVED. PLANTS WITH SYNTHETIC NON-DEGRADABLE ROOT BALL WRAPS SHALL NOT BE ACCEPTABLE.
  - ALL WIRE BASKETS MUST BE REMOVED PRIOR TO PLANTING.
  - 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.
  - 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.
  - 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.
- PLANT MATERIAL**
  - 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.
  - ALL PLANTS SHALL BE DUG, PACKED, TRANSPORTED AND HANDLED WITH THE UTMOST CARE TO ENSURE ADEQUATE PROTECTION FROM INJURY DESICCATION.
  - ALL PLANTS SHALL BE FREE FROM DISEASE AND INFESTATION, AND ALL LEGALLY REQUIRED AGRICULTURAL CERTIFICATIONS.
  - 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.
- MAINTENANCE**
  - 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.
  - 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.
  - 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.

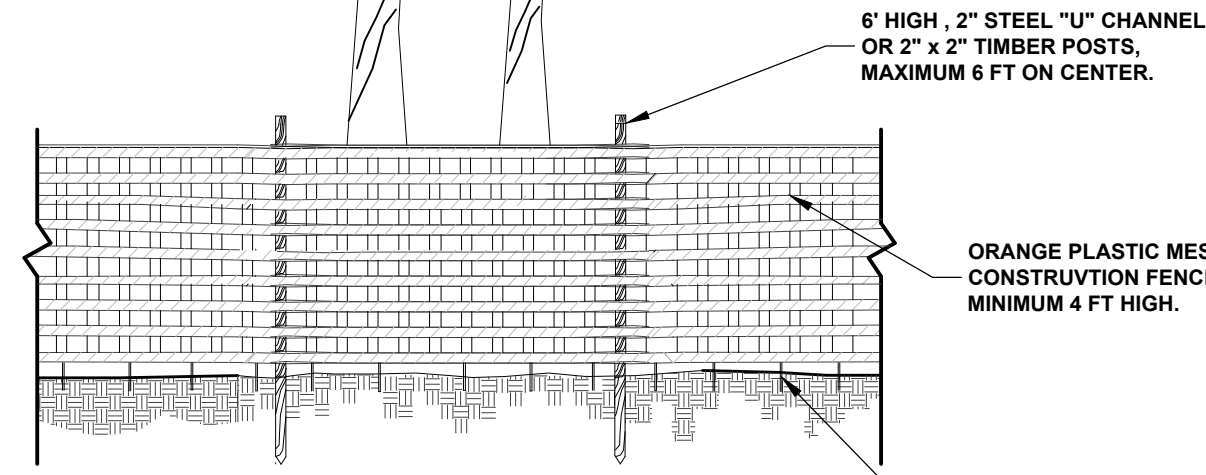
- EACH TREE SHALL BE WRAPPED WITH AN EXPANDABLE PAPER OR CLOTH TREATED TO LAST ONE YEAR. THIS WRAP SHALL EXTEND FROM THE GROUND LEVEL UP THE TRUNK TO THE FIRST BRANCHES. THIS WRAP SHOULD BE ATTACHED OR FASTENED AT EACH END WITH A MATERIAL THAT WILL PERMIT TREE GROWTH.
- A PERMANENT IRRIGATION SYSTEM 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.
- A PRIVATE WELL SHALL BE PROVIDED TO SUPPLY IRRIGATION WATER TO THE SITE.
- MISCELLANEOUS**
  - 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.
  - 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.
  - STREET AND PARKING LOT TREES SHALL HAVE NO BRANCHES LOWER THAN 7' ABOVE GRADE.
  - ALL DEAD OR SEVERELY DECLINING PLANTS SHALL BE REPLANTED WITHIN THE NEXT GROWING SEASON DURING PERFORMANCE AND MAINTENANCE BOND PERIODS.
  - 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 REMOVAL AND LANDSCAPE NOTES

- THE CONTRACTOR MUST PROVIDE WRITTEN NOTICE TO THE MANCHESTER TOWNSHIP FORESTER A MINIMUM OF 48 HOURS PRIOR TO COMMENCEMENT OF TREE REMOVAL OPERATIONS.
- THE CONTRACTOR MUST COMPLY WITH ALL PROVISIONS OF MANCHESTER TOWNSHIP ORDINANCE
- 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.
- 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.
- THE RETAINED TREES MUST BE IDENTIFIED BY FLAGGING EACH WITH RIBBON. THE CONTRACTOR MUST CONTACT THE MANCHESTER TOWNSHIP FORESTER TO SCHEDULE AN INSPECTION.
- ALL REMAINING TREES ARE TO BE PRUNED AS NECESSARY IN ACCORDANCE WITH INDUSTRY STANDARDS BY A NJ CERTIFIED TREE EXPERT.
- THE CONTRACTOR MUST COMPLY WITH ALL PROVISIONS OF MANCHESTER TOWNSHIP TREE REMOVAL ORDINANCE CHAPTER 403.
- THE MANCHESTER TOWNSHIP FORESTER SHALL REQUIRE DEAD, BROKEN BRANCH AND SELECT RISK TREE REMOVAL ON REMAINING SPECIMEN TREES BEFORE PERFORMANCE BOND RELEASE.
- THERE ARE NO SPECIMEN TREES LOCATED ON THIS SITE.
- 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.



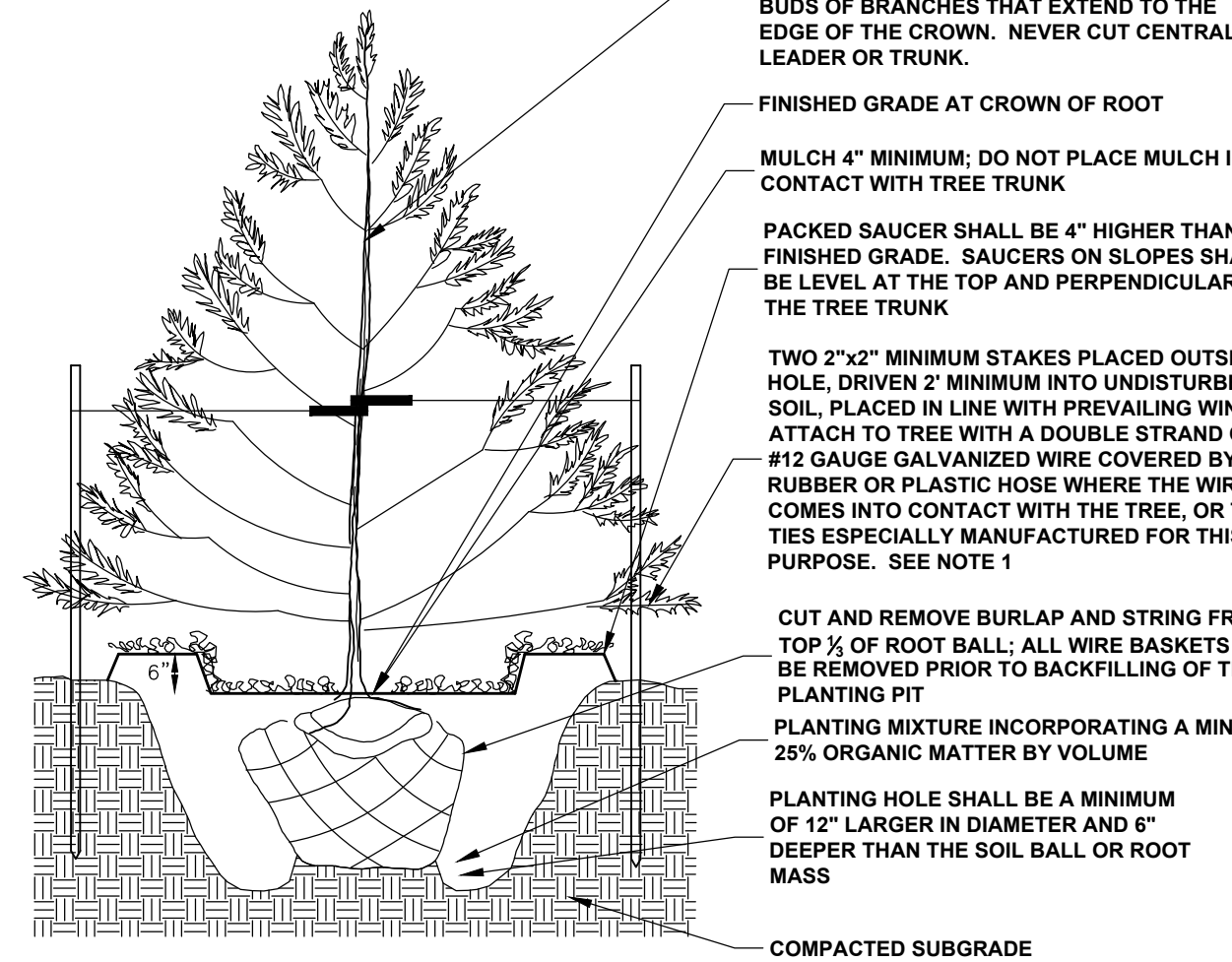
- NOTES:**
- AVOID ROOT DAMAGE.
  - FENCING SHALL BE INSTALLED AND APPROVED BY THE TOWNSHIP TREE SPECIALIST PRIOR TO ANY CLEARING OR EXCAVATION.
  - TREE FENCING TO REMAIN UNTIL PROTECTION AUTHORIZED TO BE REMOVED BY THE TOWNSHIP TREE SPECIALIST OR AFTER THE FINAL CERTIFICATE OF OCCUPANCY IS ISSUED.



## TREE PROTECTION FENCING

NOT TO SCALE

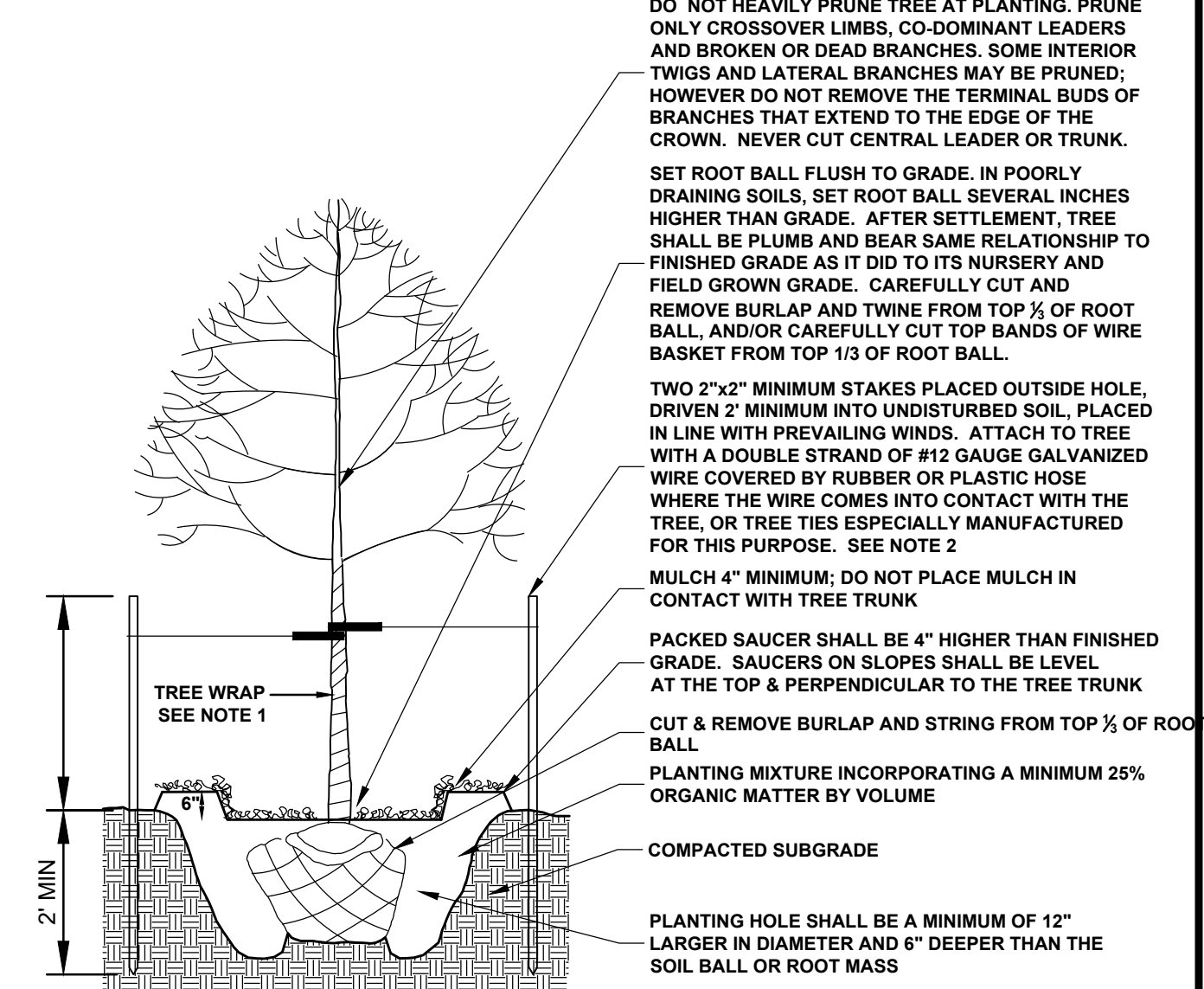
DO NOT HEAVILY PRUNE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS AND BROKEN OR DEAD BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED; HOWEVER DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN. NEVER CUT CENTRAL LEADER OR TRUNK.



- NOTE:**
- 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

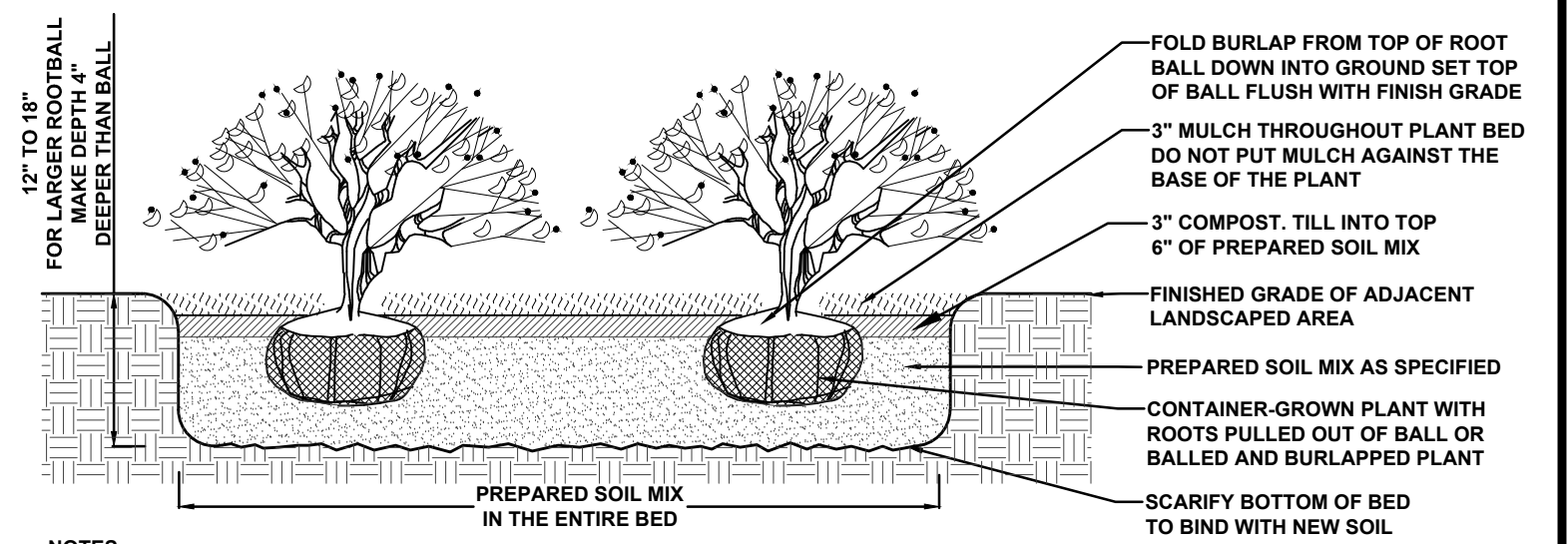
NO SCALE



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



- NOTES:**
- 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
  - ALL TREE BEDS SHALL PERCOLATE. NOTIFY ARCHITECT IF SUBSOIL CONDITIONS PREVENT WATER PERCOLATION.
  - SHRUB SHALL BEAR SAME RELATION TO FINISH GRADE AS IT DID TO ITS NURSERY FIELD GROW GRADE.
  - 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

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NO.	DATE	DESCRIPTION	BY
2	11/01/2023	REVISED PER MANCHESTER ORDINANCE	KNL
1	05/26/2023	GENERAL REVISIONS	KNL

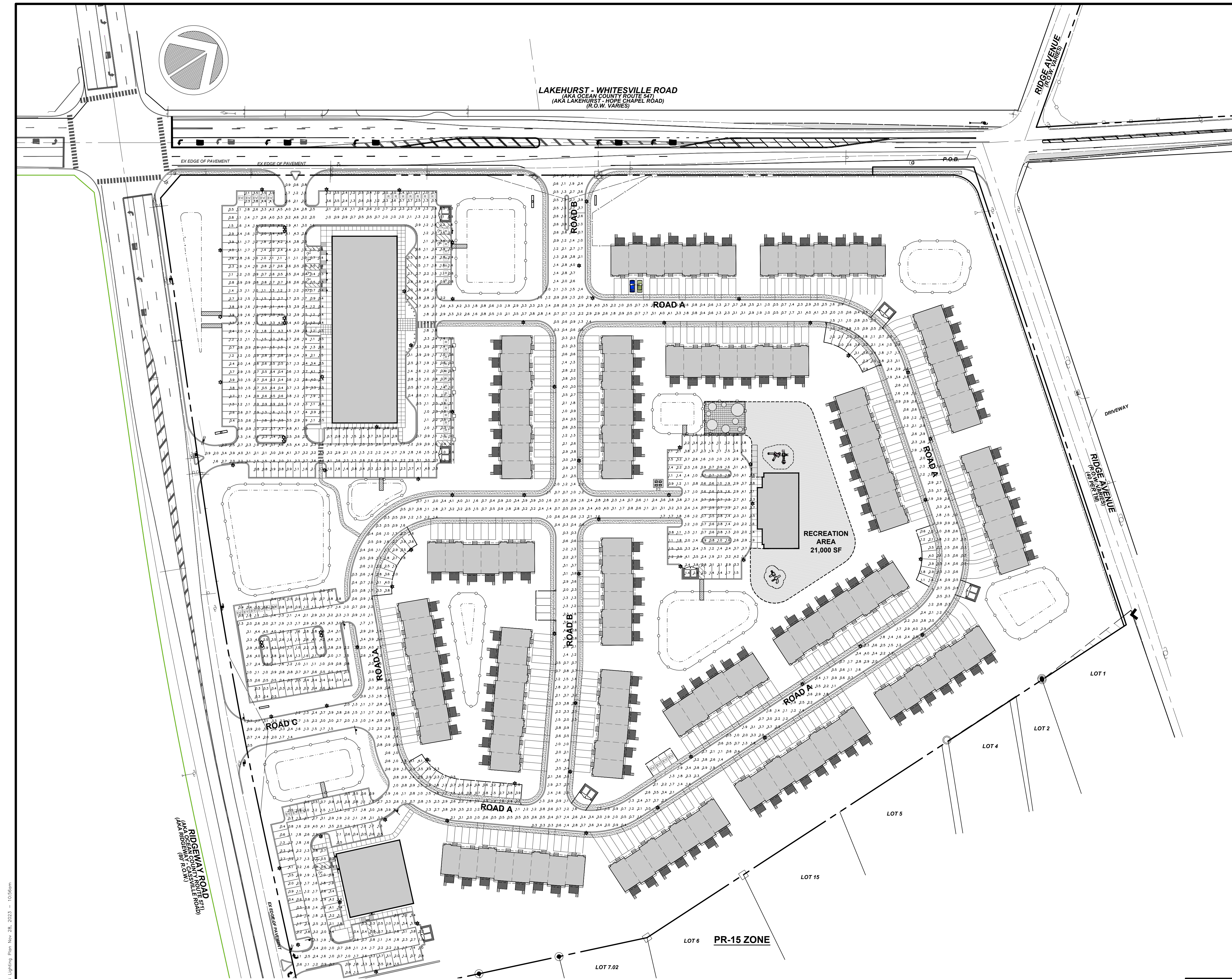
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 PROFESSIONAL PLANNER, NEW JERSEY LIC. #5394

### PRELIMINARY & FINAL MAJOR SITE PLAN

## LANDSCAPE DETAILS

FOR  
**BLOCK 65**  
**LOTS 11, 12, 13 & 14**  
 TOWNSHIP OF MANCHESTER

SCALE:		DATE:		JOB NUMBER:		SHEET	
AS SHOWN		APRIL 25, 2022		18123		15	
DRAWN BY:	KNL	DESIGNED BY:	IMB	CHECKED BY:	WAS		23



LAKEHURST - WHITESVILLE ROAD  
 (AKA OCEAN COUNTY ROUTE 547)  
 (AKA LAKEHURST - HOPE CHAPEL ROAD)  
 (R.O.V. VARIES)

**850SRLED OLD TOWN SERIES** LED

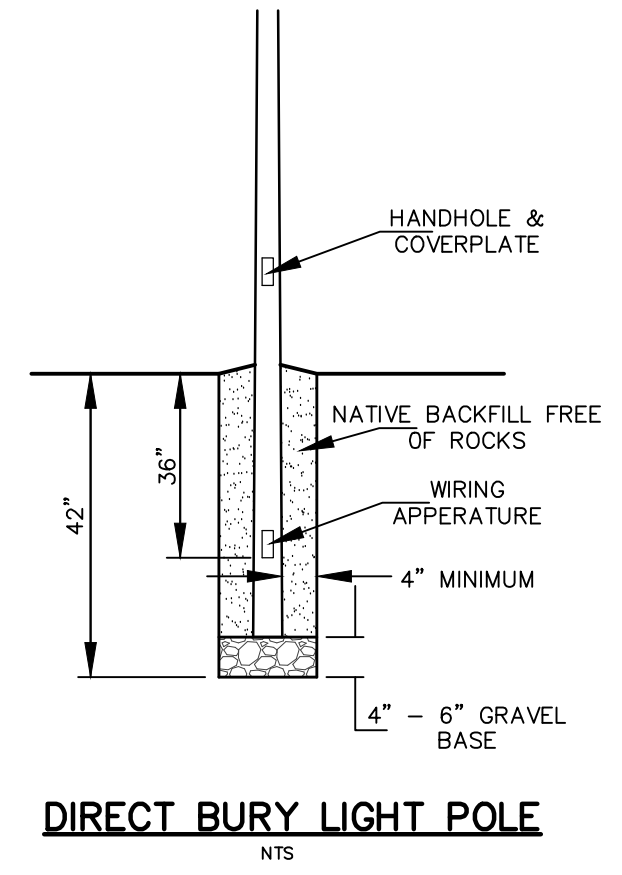
EPA 1.2(18) WEIGHT 43 LBS	7 YEAR WARRANTY	Lumen Range 2,500/2	Life Span L70 14,110 HOURS	UL LISTED UL 159	CLICK FOR FAZ EPA	RATED IP66	JOB NAME
							FIGURE TYPE
							MEMO

**BUILD A PART NUMBER**

ORDERING EXAMPLE: **2A-850SRLED-SP-16L40T5-MDL014-A-PEC-FHD/480PM/42IP64/GFF/BCT**

Mounting Config.	Fixture	LED	CCT	Distribution Type	Driver	Lens	Option Control	Option Control	Option Control	Option Control	Option Control	Option Control	Option Control	Option Control	Option Control	Option Control	Option Control	Option Control
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<p><b>Mounting Configuration</b>          (Click here to view mounting configuration specification page)          • IW • 2A • 3AG0 • 1AM          • FT • 2AG0 • 3APT • 2AM          • IA • 2APT • 4A • 4GFPB          • IAPT • 3A • 4APT</p> <p><b>Fixture</b>          • 850SRLED</p> <p><b>Filter</b>          • SP • 991 • 995 • 0L3          • 73 • 992 • 8D4 • 0L4          • 74 • 993 • 8D5 • 5B8          • 990 • 994 • 8D7 • C-20974</p> <p><b>LED</b>          • 32L • 24L • 16L • 12L</p> <p><b>CCT - Color Temperature (K)</b>          • 2700 • 3000 • 3500 • 4000 • 5000</p> <p><b>Distribution Type</b>          • T2 • T3 • T4 • T5</p> <p><b>Driver</b>          • MDL018 (120V-277V, 180mA)          • MDL019 (347V-480V, 180mA)          • MDL016 (120V-277V, 160mA)          • MDL017 (347V-480V, 160mA)          • MDL014 (120V-277V, 140mA)          • MDL014 (347V-480V, 140mA)          • MDL008 (120V-277V, 80mA)          • MDL008 (347V-480V, 80mA)</p> <p><b>Lens</b>          • A (Acrylic) • P (Polycarbonate)</p> <p><b>Options</b>          • R7 - 7 Pin control receptacle only          • SR77 Rod Mounted 7 Pin Control Receptacle Only</p>	<p>• PE* Twist-Lock Photocontrol (120V-277V)          • PE4* Twist-Lock Photocontrol (347V-480V)          • SC* Shading Cap          • PEC* Electronic Button Photocontrol (347V-480V)          • PECA* Electronic Button Photocontrol (480V)          • FHD* Profaced Brass Decorative Ring          • CDR* Cast Decorative Ring          • CDRCL* Cast Decorative Ring with Custom Logo          • PBD01* Profaced Brass Decorative Ring          • GF* 15A Duplex GFI for Utility Filter          • TB* Terminal Block          • HSS 120" House Side Shield          • BLOC* Back Light Optical Control</p> <p><b>Specifications</b></p> <p><b>Fixture</b>          The luminaire shall be 16" diameter and 40-1/2" tall. The acorn 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 acorn shall be selected to provide maximum life and performance for the LED light sources and rated IP66. The optional perforated brass decorative ring (PBD01) 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 medallions finished in accent gold. Also available are custom medallions that can be specified with a name, initial or logo. The Luminaire shall be UL listed in US and Canada.</p> <p><b>Filter - Standard</b>          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 Sternberg aluminum pole, the filter shall be welded to the pole top or grommet 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.</p> <p><b>900 Series Utility Filter Option</b>          The filter shall be heavy wall cast aluminum, 355 die cast alloy for high tensile strength. It shall have a 7-1/4" 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 gaskets. The filter shall have a one-piece ring gasket to resist insect penetration into lamp assembly.</p> <p><b>Custom Finishes*</b>          • CM Custom Mesh          • CH Cast Iron          • RT Rust          • WUR Weathered Brown          • CD Cedar          • WBR Weathered Black          • TT Two Tone</p> <p>*Custom colors require upcharge.          Sternberg Select Finishes</p> <p><b>Options</b>          • VC Verde Green          • SI Swedish Iron          • OWGT Old World Gray Textured</p>
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**LIGHTING NOTES**

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.

GRAPHIC SCALE  
 1" = 60'

**Statistics**

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc. Zone #1	+	1.8 fc	5.3 fc	0.3 fc	17.7:1	6.0:1

**Schedule**

Symbol	Height	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
⊛	16 ft.	66	Sternberg Lighting	850SRLED-24L40T4-MDL018-BLOC	850SRLED OLD TOWN SERIES ACORN, 50-50 LED, T4, Bloc optic shield	LuxeoLuxeon	1	850SRLED-24L40T4-MDL018-BLOC.IES	7800	1	119
⊛	16 ft.	5	Sternberg Lighting	850SRLED-24L40T4-MDL018-BLOC	850SRLED OLD TOWN SERIES ACORN, 50-50 LED, T4, Bloc optic shield	LuxeoLuxeon	1	850SRLED-24L40T4-MDL018-BLOC.IES	7800	1	238

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1	05/26/2023	GENERAL REVISIONS	KNL

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 NEW JERSEY STATE BOARD OF P.E. & L.S.  
 CERTIFICATE OF AUTHORIZATION NO. 2462812540

**WILLIAM A. STEVENS, P.E., P.P.**  
 PROFESSIONAL ENGINEER, NEW JERSEY LIC. #3915  
 PROFESSIONAL PLANNER, NEW JERSEY LIC. #5304

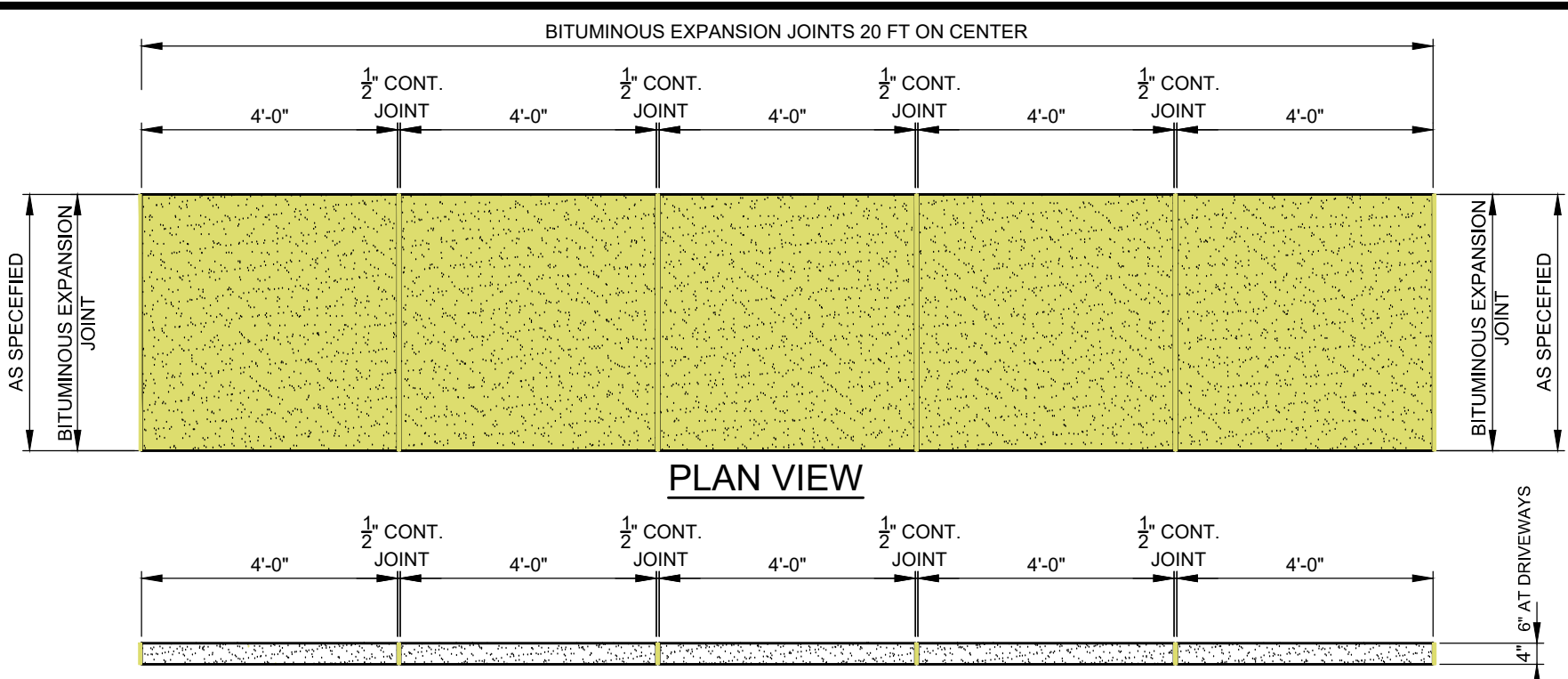
**PRELIMINARY & FINAL MAJOR SITE PLAN**  
**LIGHTING PLAN**

FOR  
**BLOCK 65**  
**LOTS 11, 12, 13 & 14**  
 TOWNSHIP OF MANCHESTER  
 OCEAN COUNTY NEW JERSEY

SCALE: 1" = 60' DATE: APRIL 25, 2022 JOB NUMBER: 18123 SHEET 16  
 DRAWN BY: KNL DESIGNED BY: IMB CHECKED BY: WAS

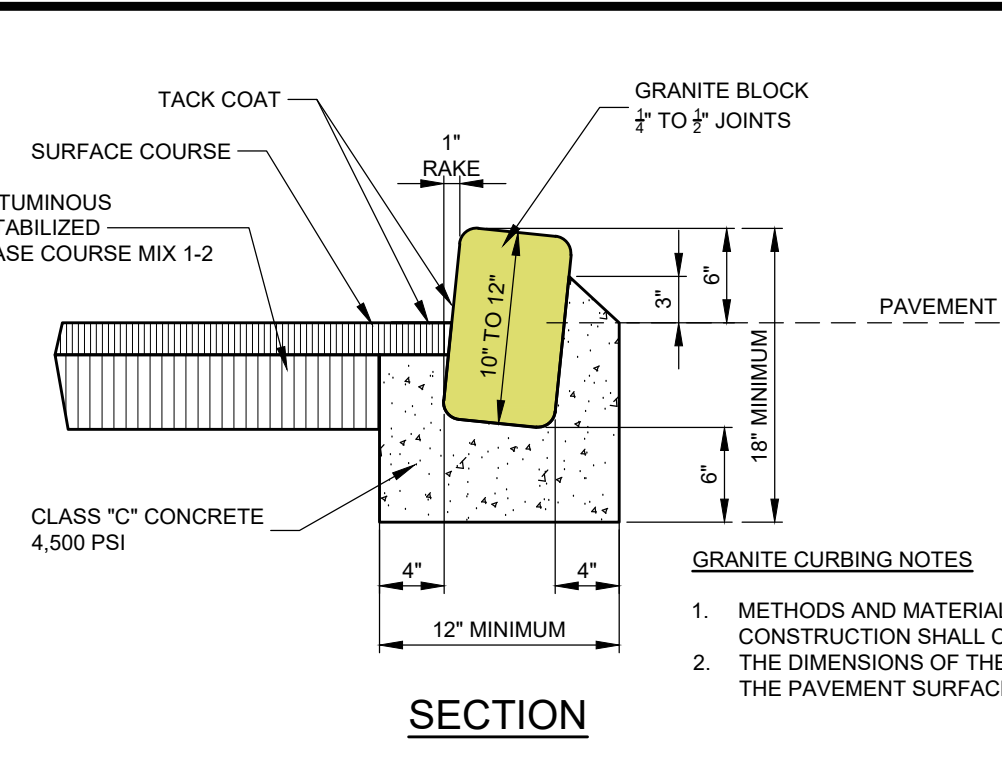
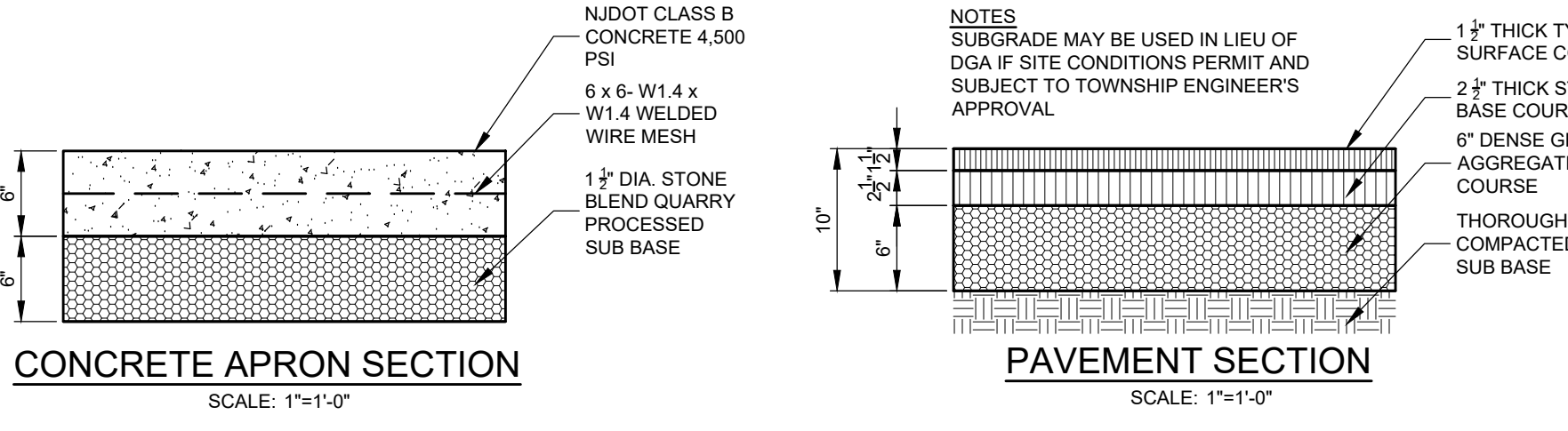
File: H:\PROJECTS\18123\18123\_815\_Lighting.dwg Support: 114\_Lighting Plot: New: 26: 2022: 10:50am





1. A PREFORMED EXPANSION JOINT 1/2" 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.

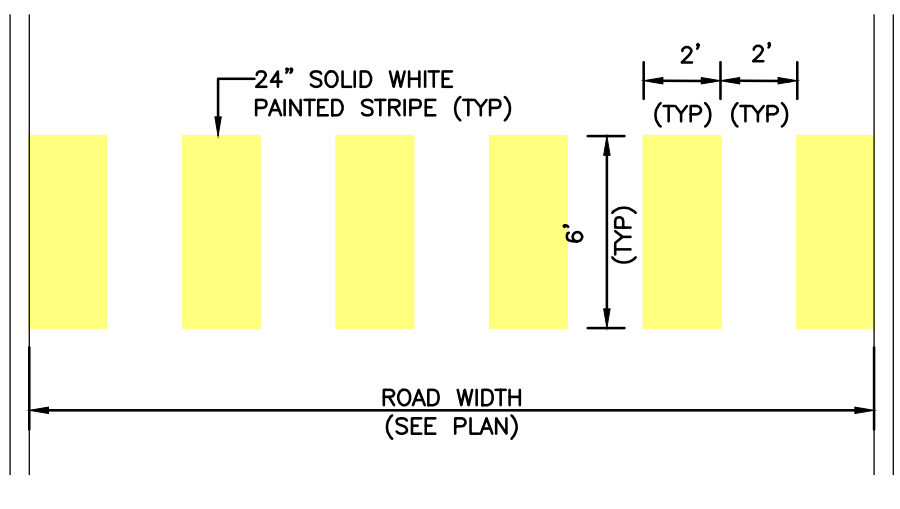
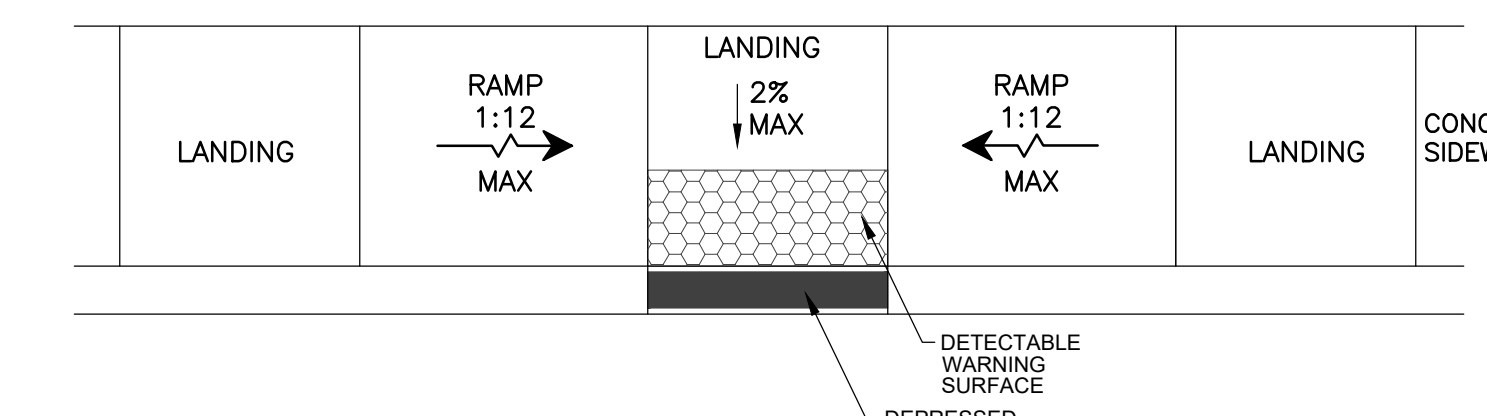
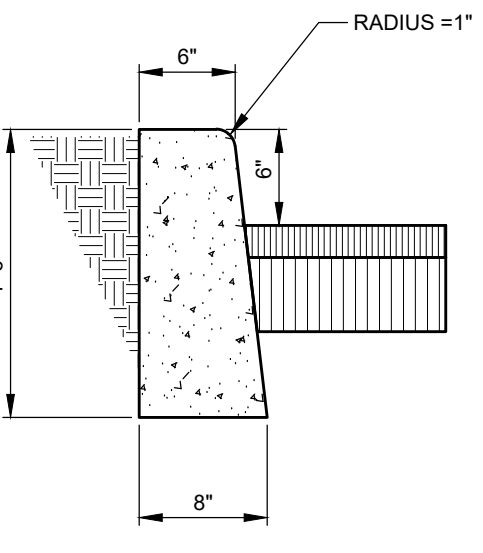
**CONCRETE SIDE WALK DETAIL**  
SCALE: 3/8"=1'-0"



**GRANITE CURB VERTICAL**  
SCALE: 1"=1'-0"

**CURBING NOTES:**

1. 1/2" WIDE TRANSVERSE EXPANSION JOINT SHALL BE INSTALLED IN THE CONCRETE CURB AT 20' INTERVALS. THE EXPANSION JOINT SHALL BE FILLED WITH PRE-FORMED BITUMINOUS IMPREGNATED JOINT FILER (AASHTO M-213), RECESSED 1/2" FROM FACE AND TOP OF CURB.
2. CURB AND SIDEWALK SHALL CONSIST OF 4,000 PSI CONCRETE AT 28 DAYS.

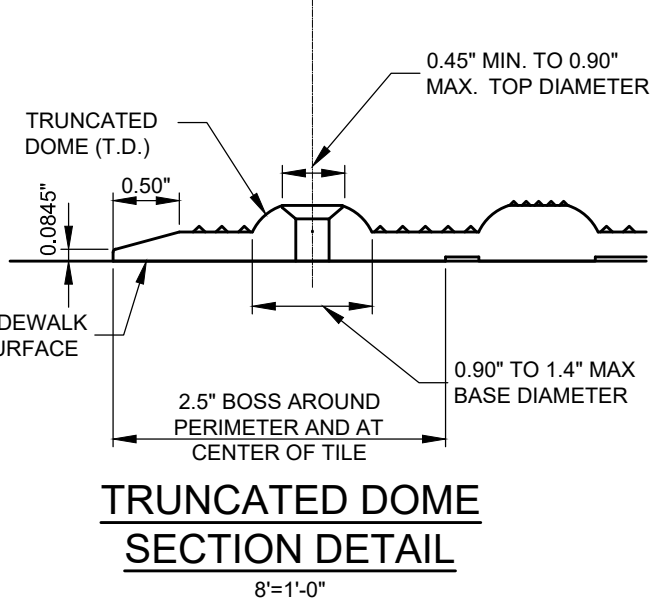


**SIGN REQUIREMENTS**

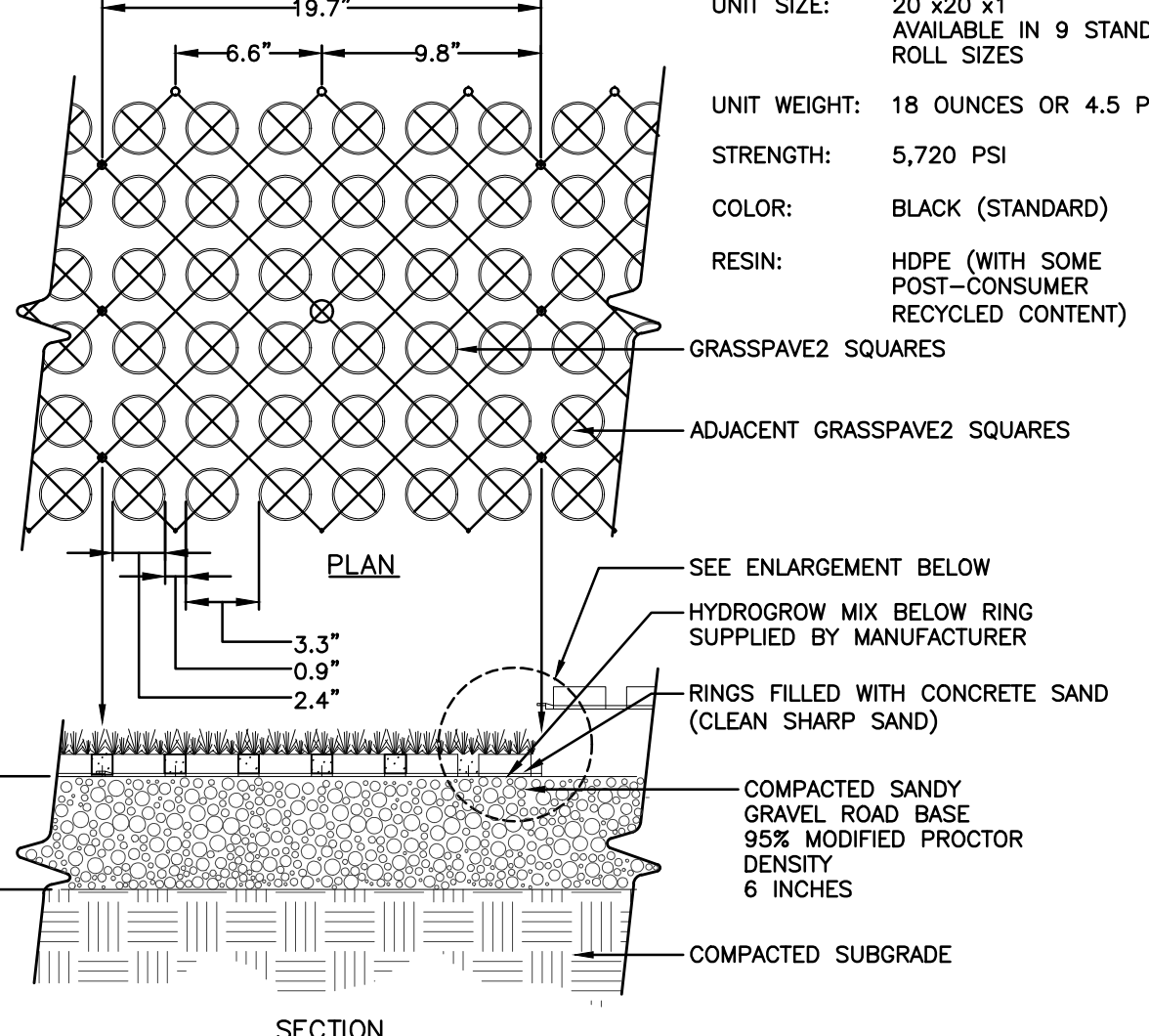
	REQUIRED	PROVIDED
MAXIMUM SIGN AREA	60 SF	60 SF.
MINIMUM SETBACK	15 FT.	15 FT.
MINIMUM SETBACK TO INTERSECTION	50 FT.	>50 FT.

- NOTES:**
1. SIGN SUPPORTS AND SUPPORT FOUNDATIONS SHALL BE DESIGNED TO SUSTAIN MINIMUM DESIGN LOADINGS FOR DEAD, LIVE, WIND AND SEISMIC CONDITIONS IN ACCORDANCE WITH THE BUILDING CODE HAVING JURISDICTION.
  2. THE PROPOSED SIGNS SHALL HAVE TIMERS TO ENSURE THE SIGNS WILL NOT BE ILLUMINATED WHEN THE PREMISES IS CLOSED.

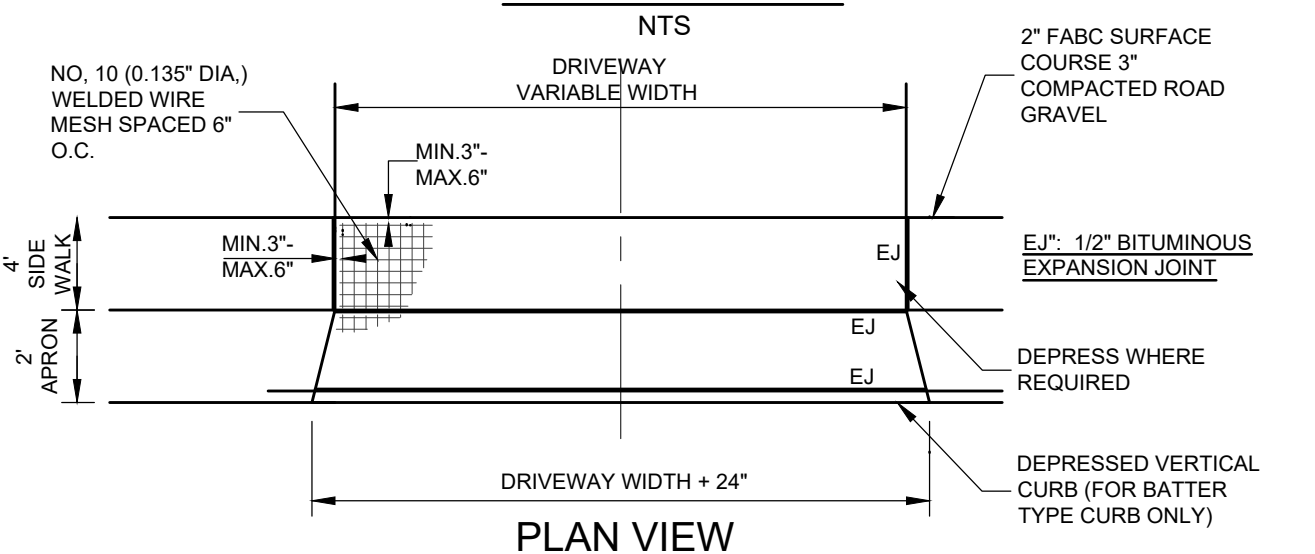
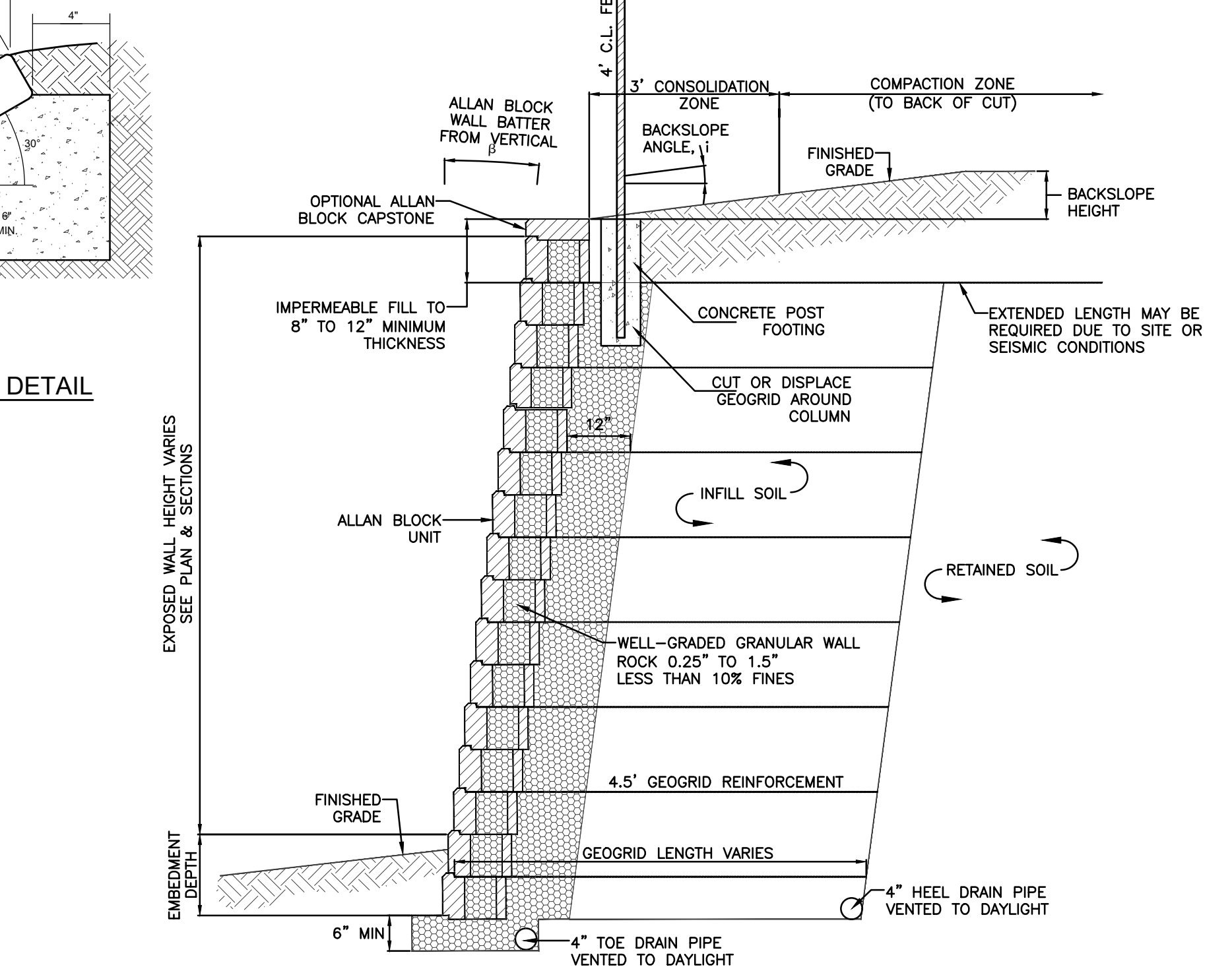
**COMMERCIAL SIGN DETAIL**  
SCALE: 1/2"=1'-0"



**DETECTABLE WARNING SURFACE PLAN DETAIL**  
SCALE: 1/2"=1'-0"

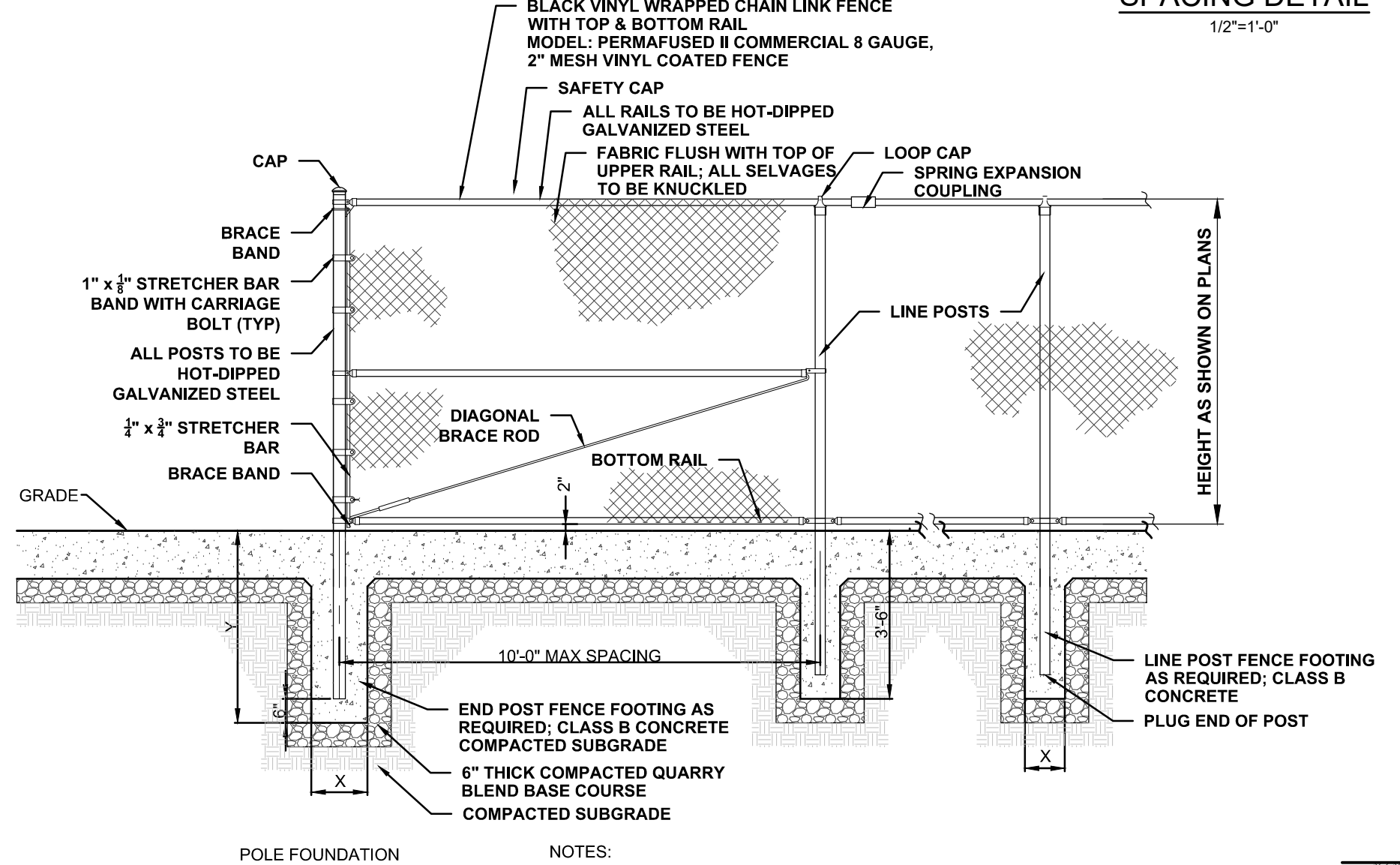


**ENLARGEMENT GRASSCRETE**  
SCALE: 1"=1'-0"



**DEPRESSED CONCRETE CURB**  
SCALE: 1/2"=1'-0"

**CONCRETE CURB SECTION DETAIL**  
SCALE: 1/2"=1'-0"

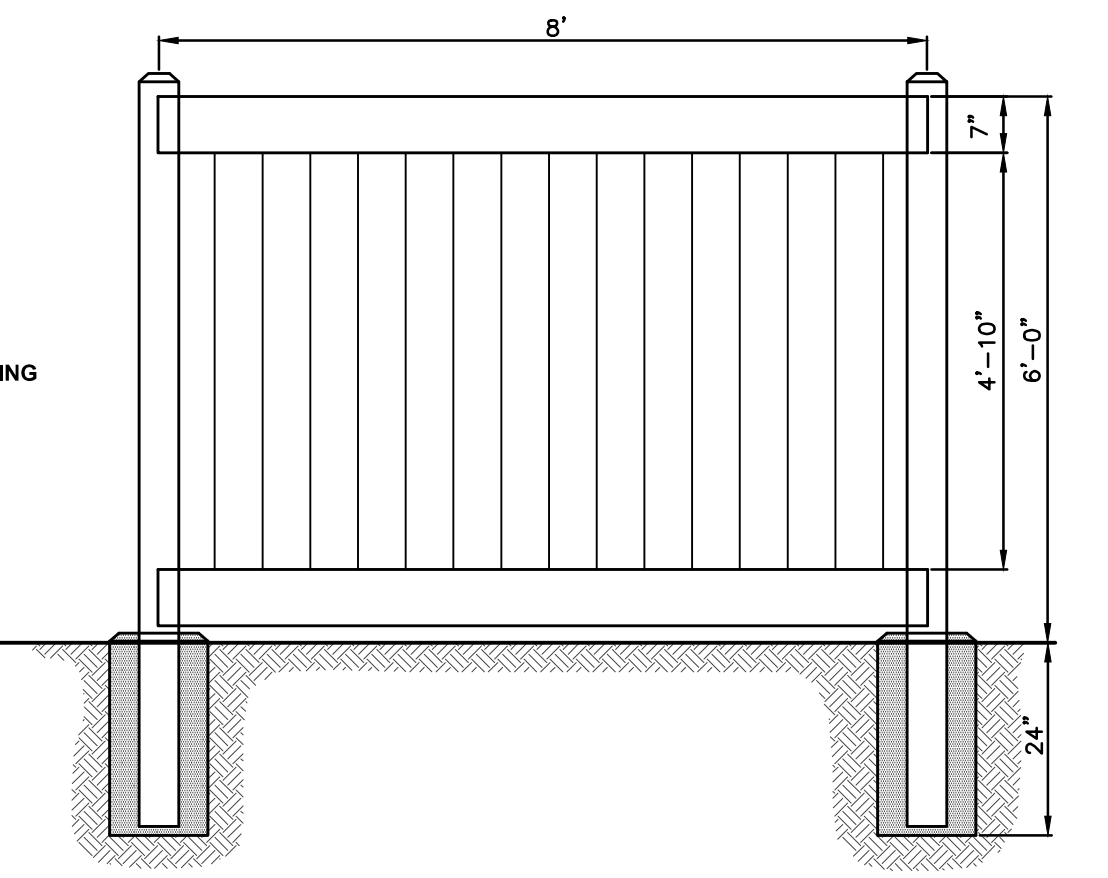


**CHAIN LINK FENCE**  
SCALE: 1"=1'-0"

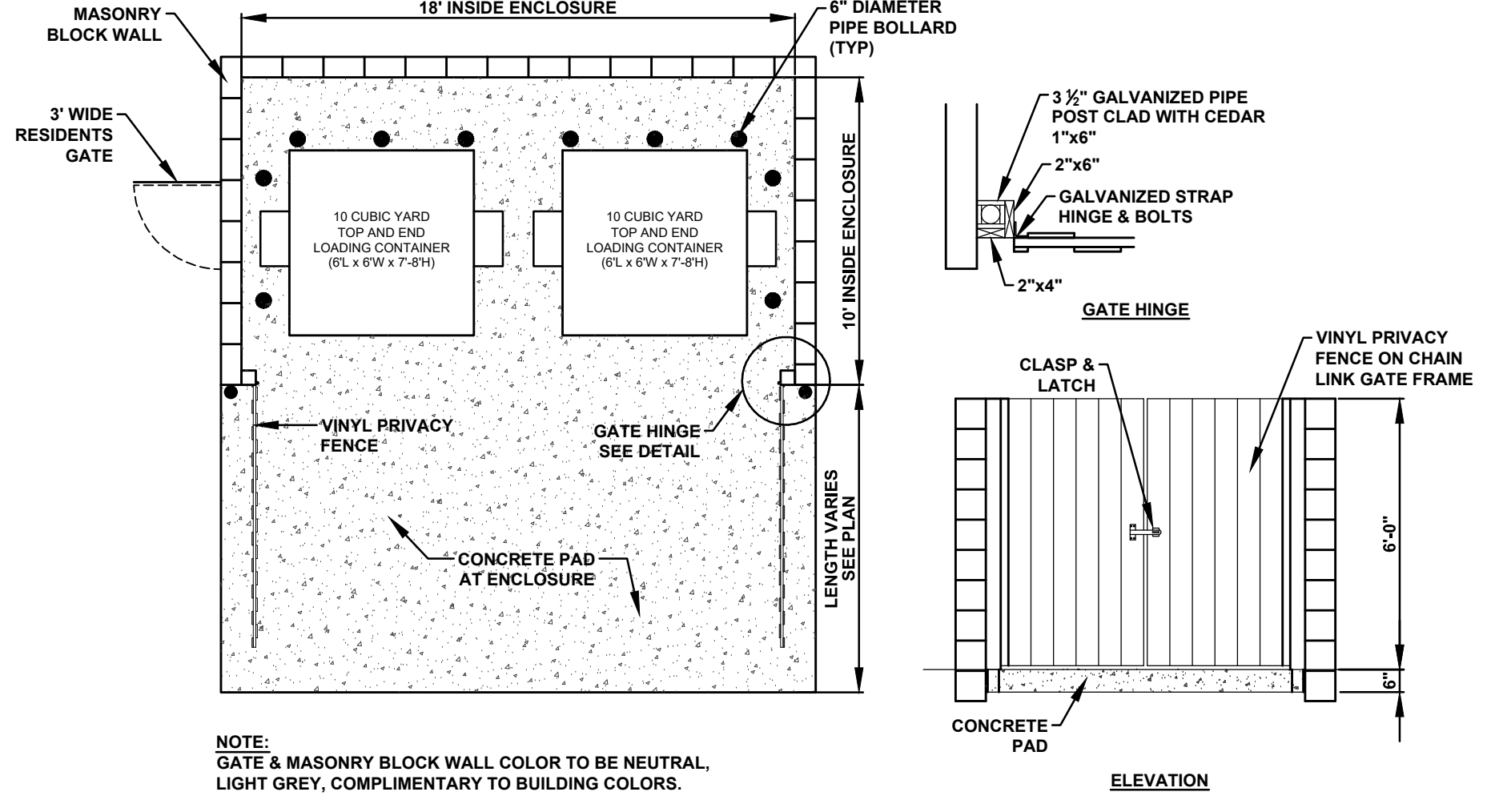
**POLE FOUNDATION**

POLE HEIGHT	WIDTH (X)	DEPTH (Y)
4'-8"	12"	4'
30'	30"	8'

**CHAIN LINK FENCE**  
SCALE: 1"=1'-0"



**VINYL PRIVACY FENCE**  
SCALE: 1"=1'-0"



**REFUSE ENCLOSURE**  
SCALE: 1"=1'-0"

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CERTIFICATE OF AUTHORIZATION NO. 246A28125400

**WILLIAM A. STEVENS, P.E., P.P.**  
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PROFESSIONAL PLANNER, NEW JERSEY LIC. #5394

**PRELIMINARY & FINAL MAJOR SITE PLAN CONSTRUCTION DETAILS SITE DETAIL**

FOR **BLOCK 65**  
**LOTS 11, 12, 13 & 14**  
TOWNSHIP OF MANCHESTER NEW JERSEY

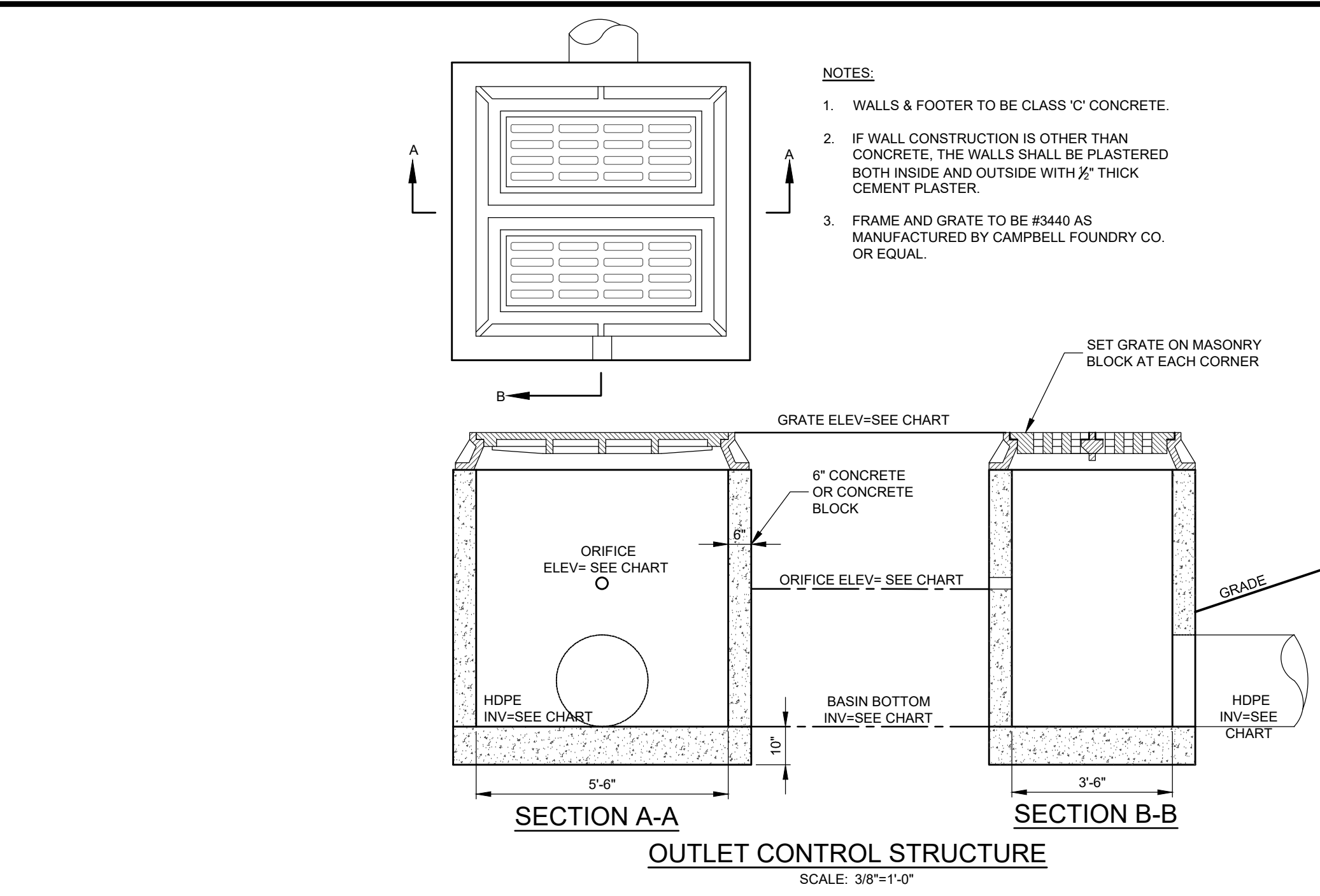
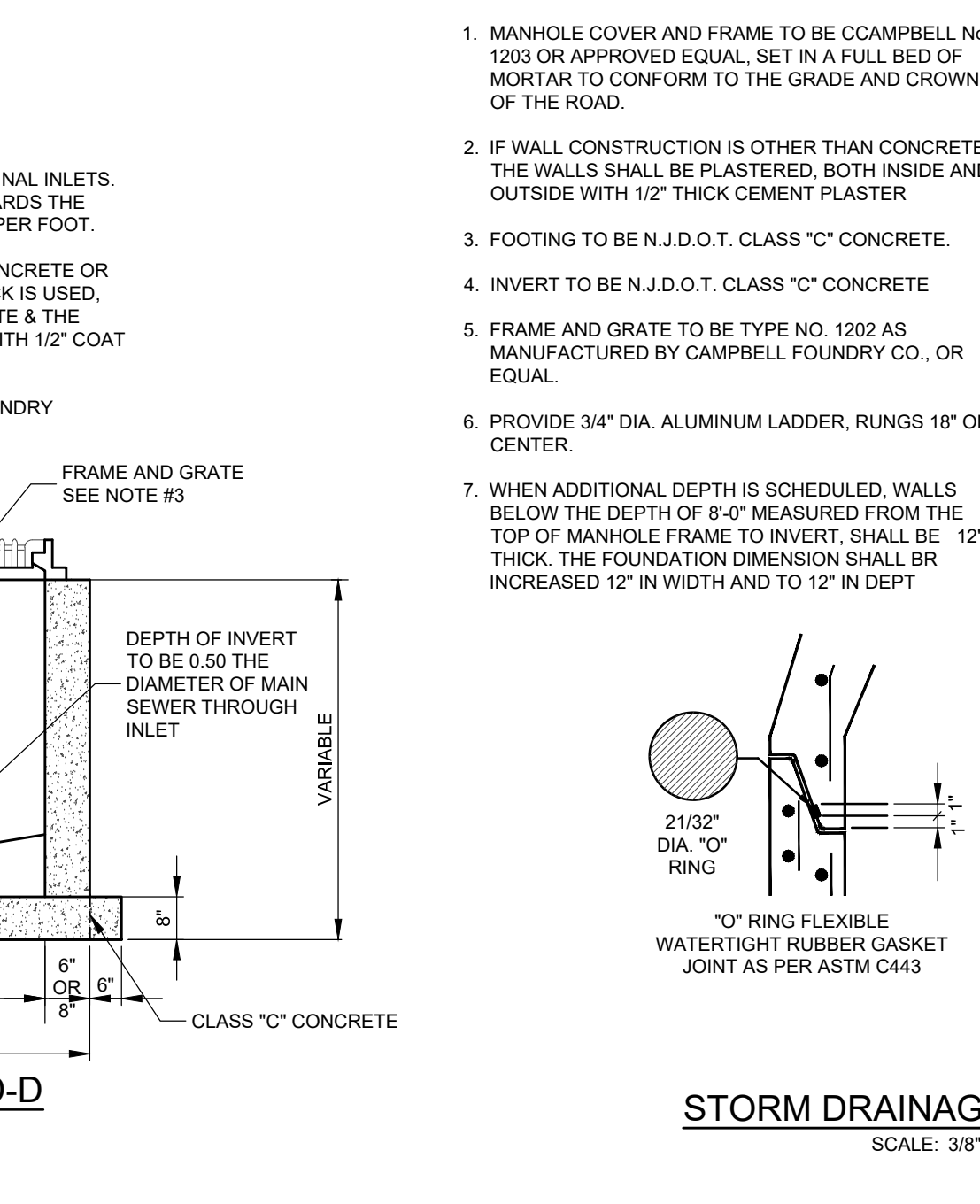
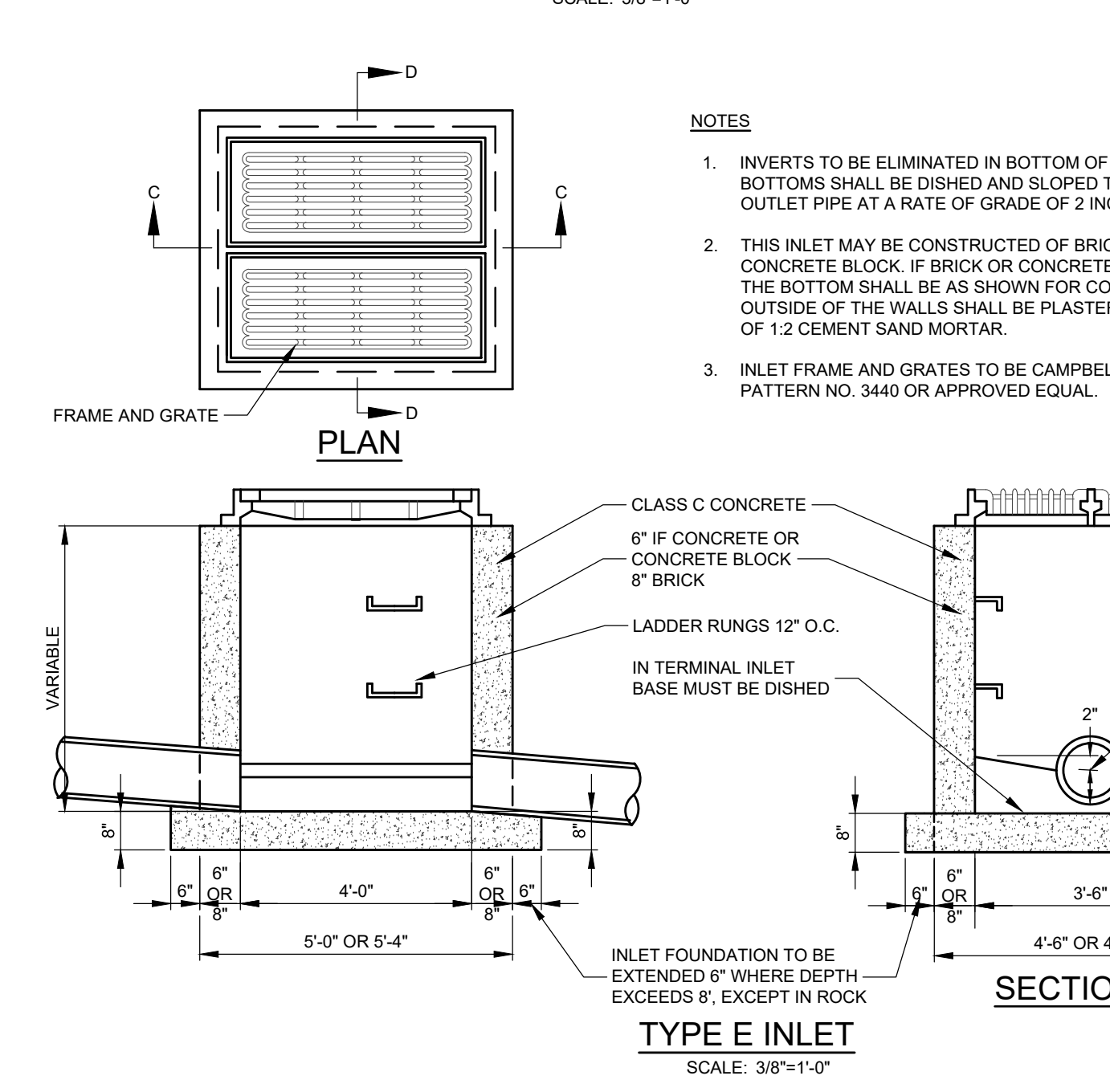
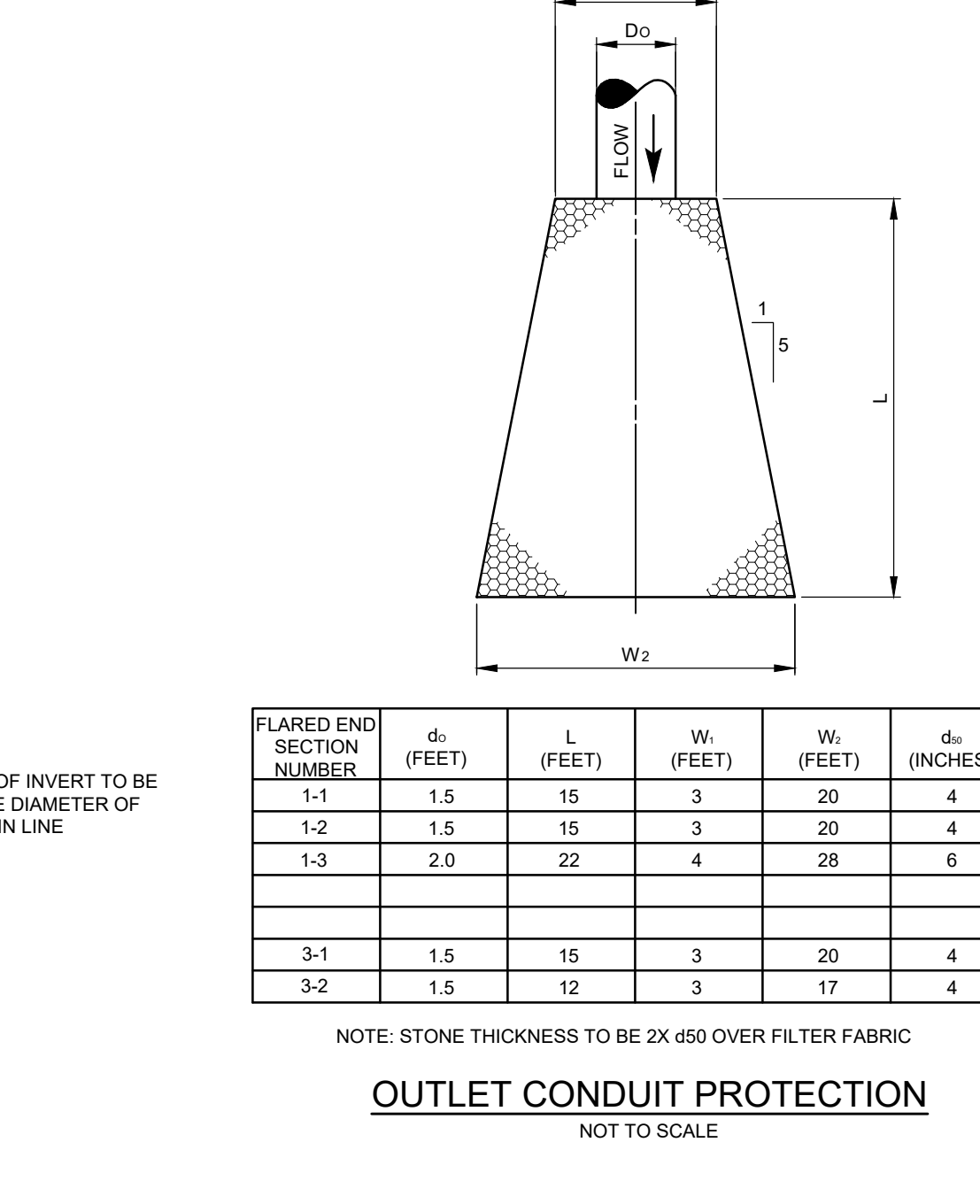
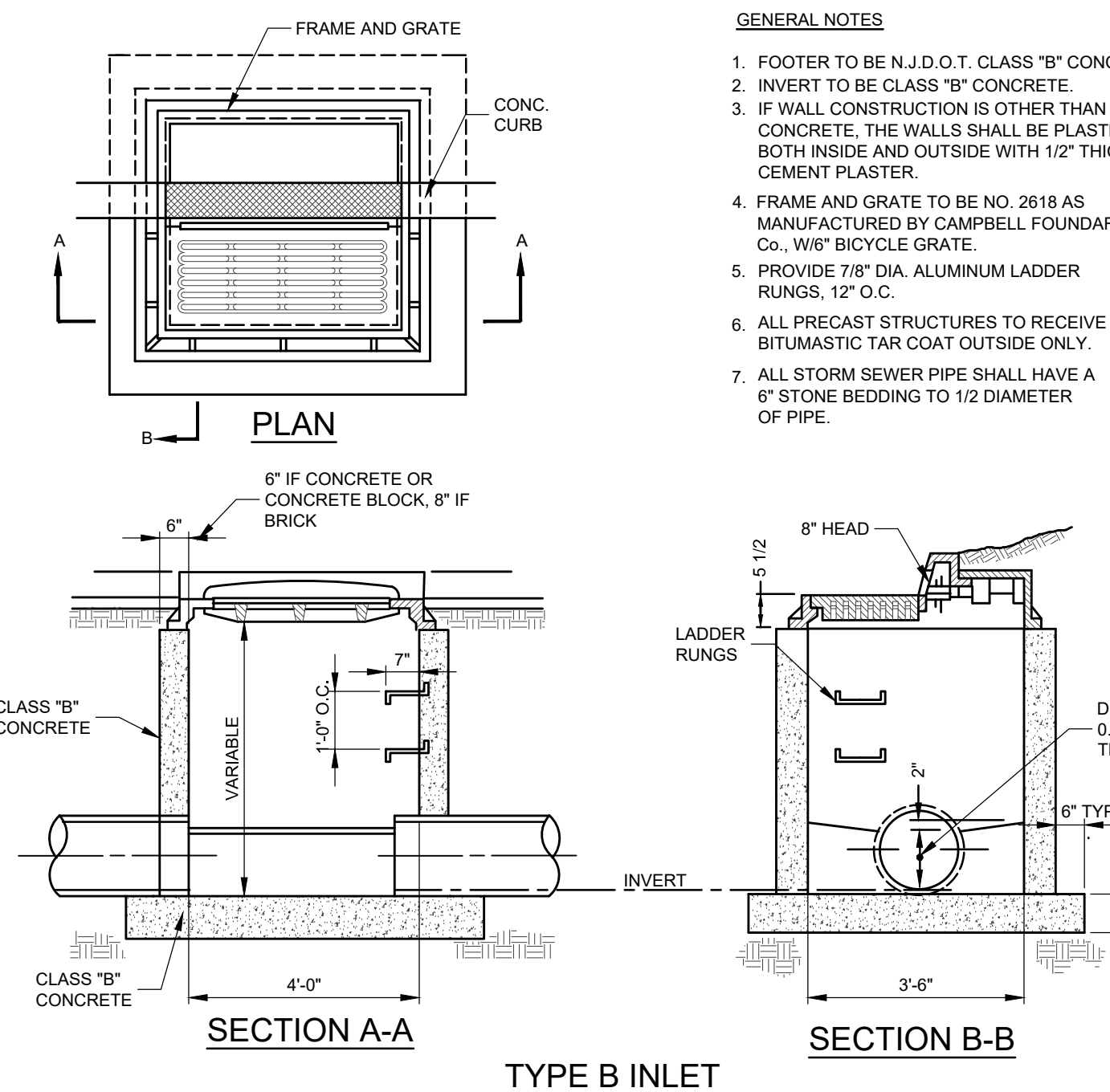
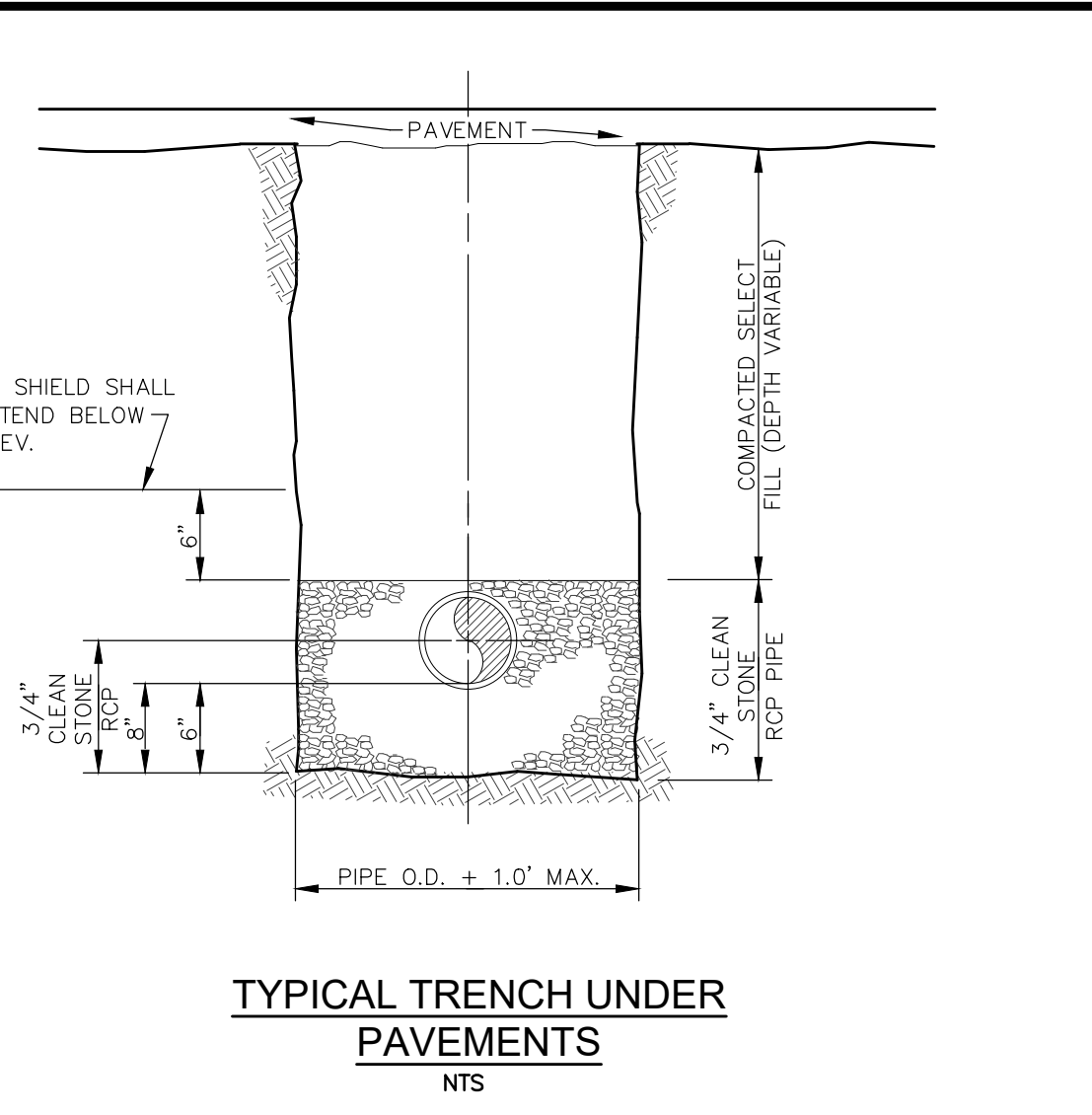
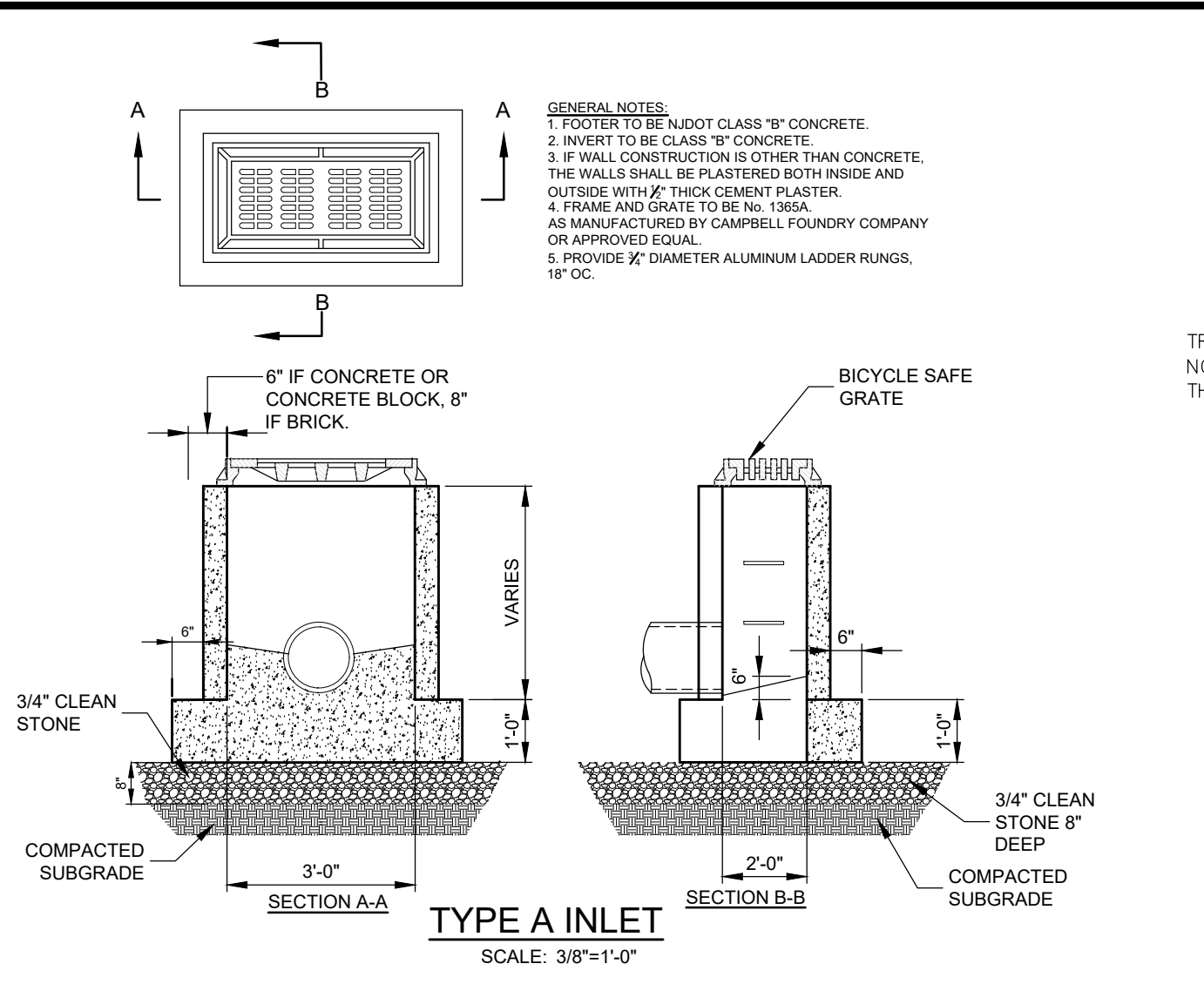
SCALE: NTS DATE: APRIL 25, 2022 JOB NUMBER: 18123 SHEET: 17

DRAWN BY: KNL DESIGNED BY: IMB CHECKED BY: WAS

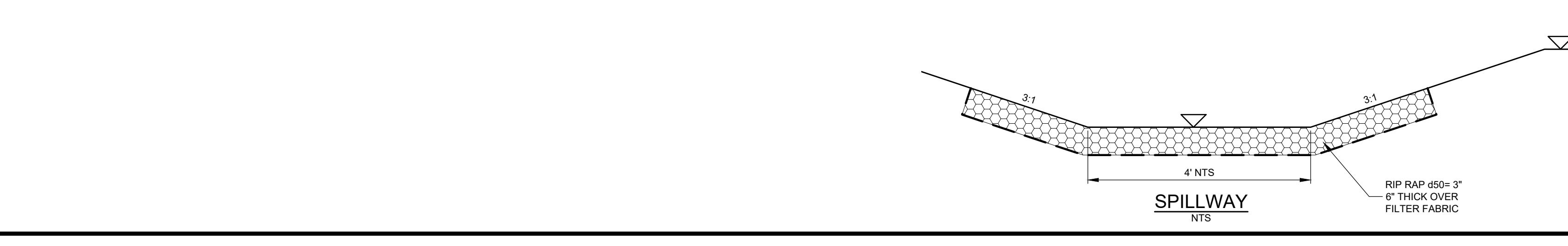
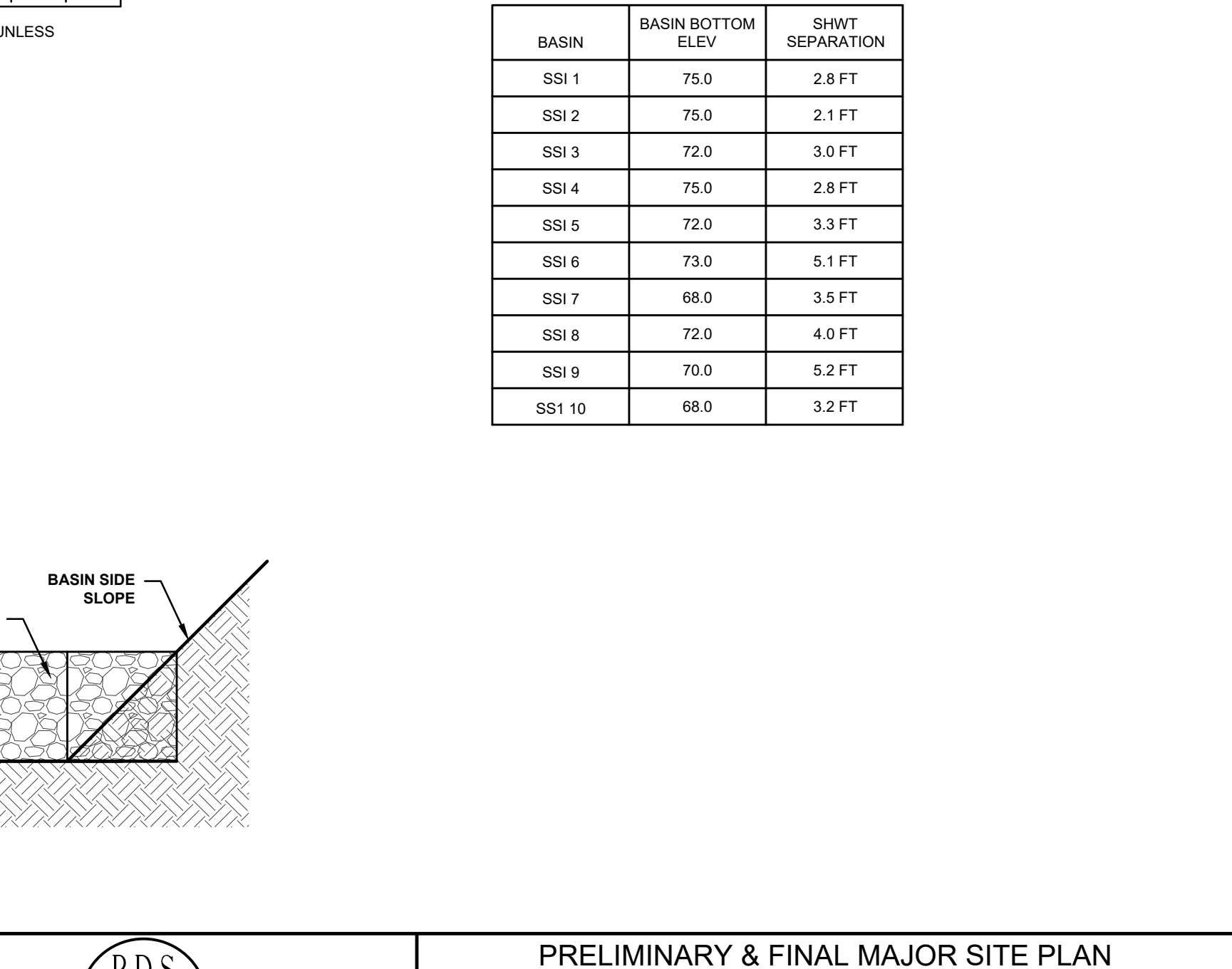
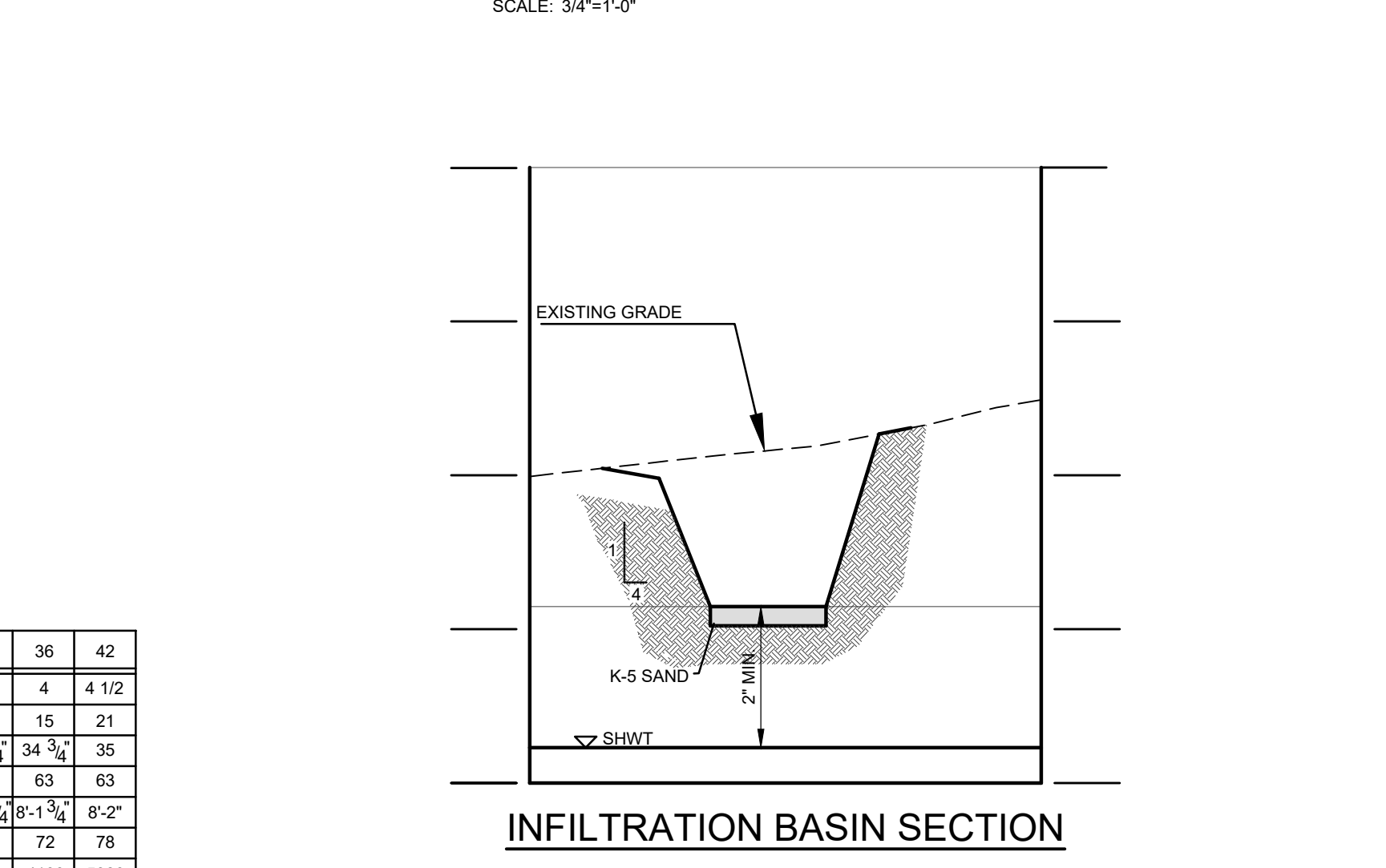
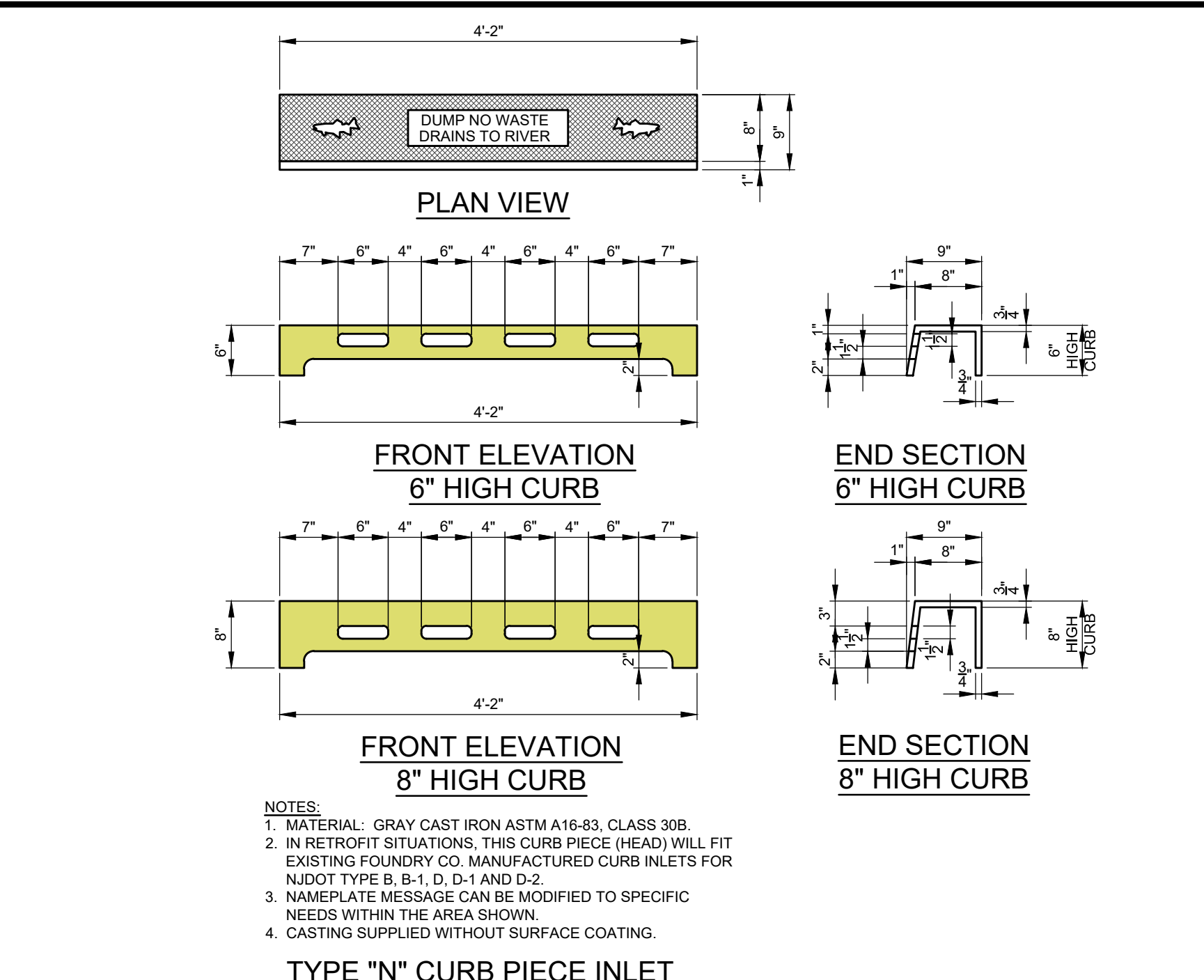
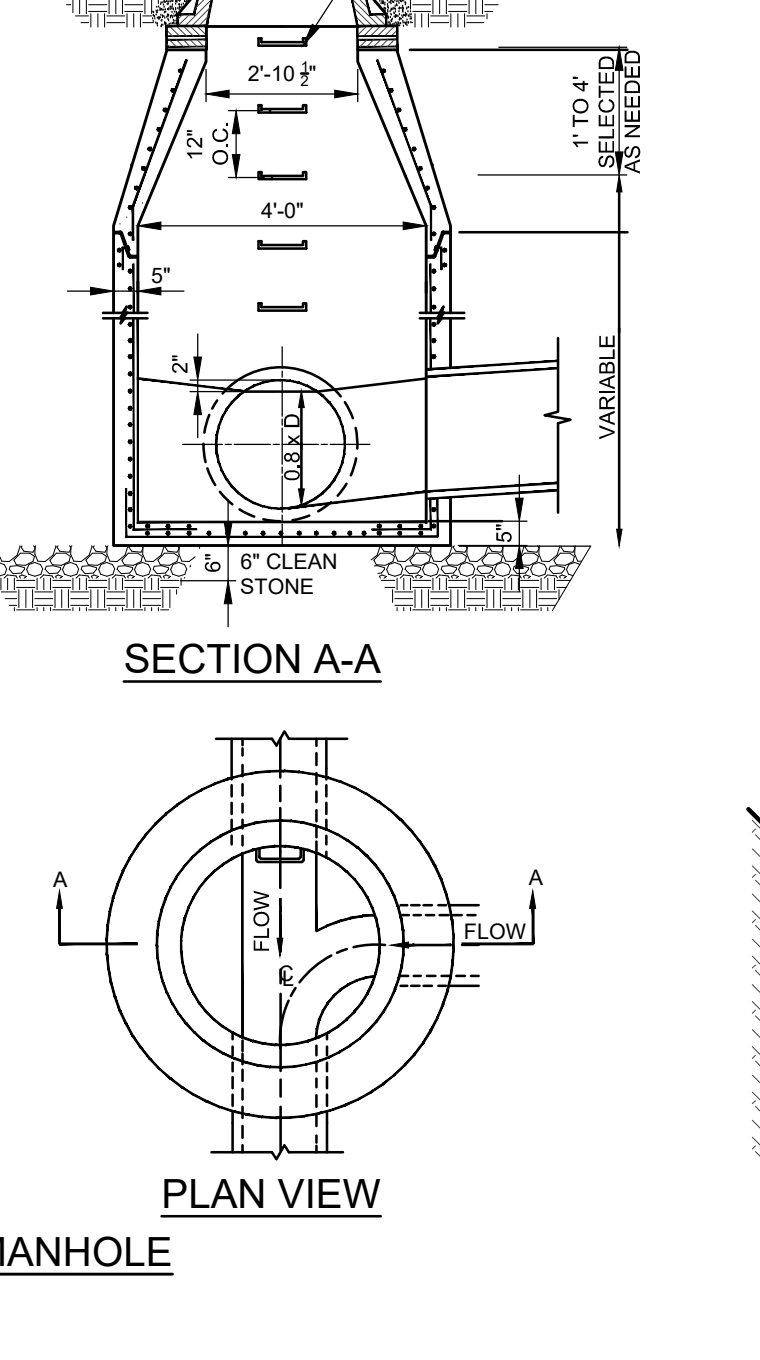
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1	05/26/2023	GENERAL REVISIONS	KNL

File: H:\PROJECTS\18123\18123.dwg Date: 04/25/2022 10:58am User: jstevens



BASIN	BASIN BOTTOM ELEV	ORIFICE DIAMETER	ORIFICE ELEV	GRATE ELEV
SSI 1	75.0	3"	77.0	78.0
SSI 2	75.0	3"	77.0	78.0
SSI 3	72.0	3"	74.0	75.0
SSI 4	75.0	3"	77.0	79.0
SSI 5	72.0	3"	74.0	76.0
SSI 6	73.0	3"	72.0	74.0
SSI 7	68.0	3"	71.0	73.0
SSI 8	72.0	3"	75.0	75.0
SSI 9	70.0	3"	72.0	74.0
SSI 10	68.0	3"	71.5	74.0



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2	05/28/2023	GENERAL REVISIONS	KNL
1	11/16/2022	REVISED PER PENNSYLVANIA COMMISSION	EMC

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 PROFESSIONAL PLANNER, NEW JERSEY LIC. #5394

**PRELIMINARY & FINAL MAJOR SITE PLAN CONSTRUCTION DETAILS STORMWATER DETAILS**

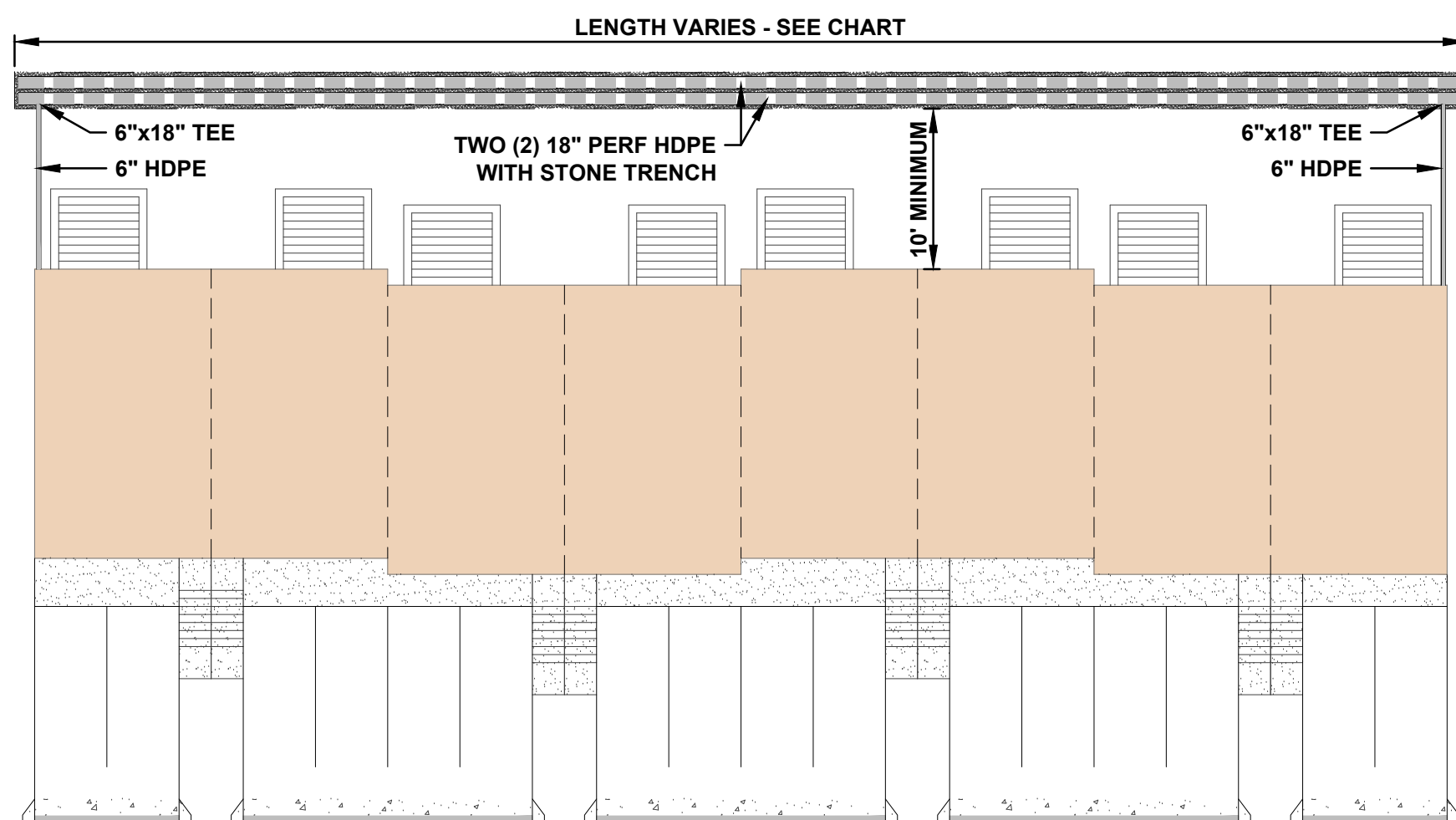
FOR  
**BLOCK 65**  
**LOTS 11, 12, 13 & 14**  
 TOWNSHIP OF MANCHESTER  
 OCEAN COUNTY, NEW JERSEY

SCALE: N.T.S. DATE: APRIL 25, 2022 JOB NUMBER: 18123 SHEET: 18 OF 23  
 DRAWN BY: KNL DESIGNED BY: IMB CHECKED BY: WAS

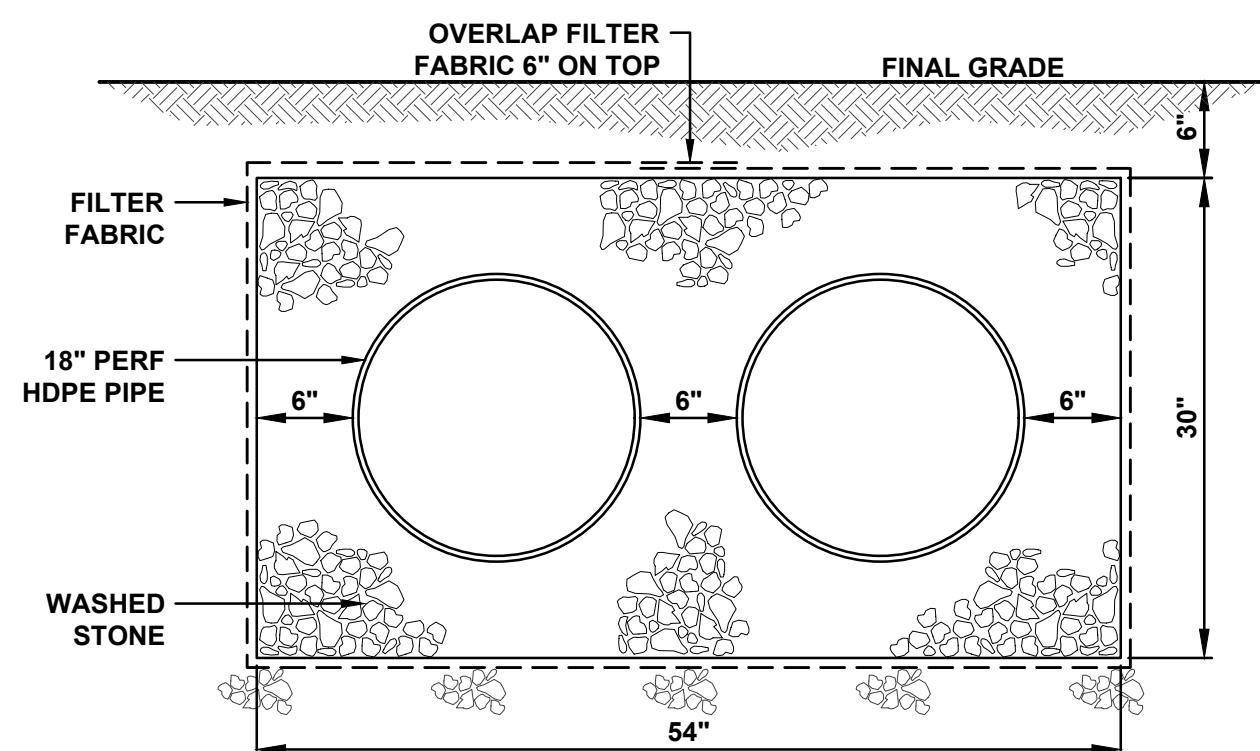
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## BUILDING RECHARGE SYSTEM ELEVATION SUMMARY

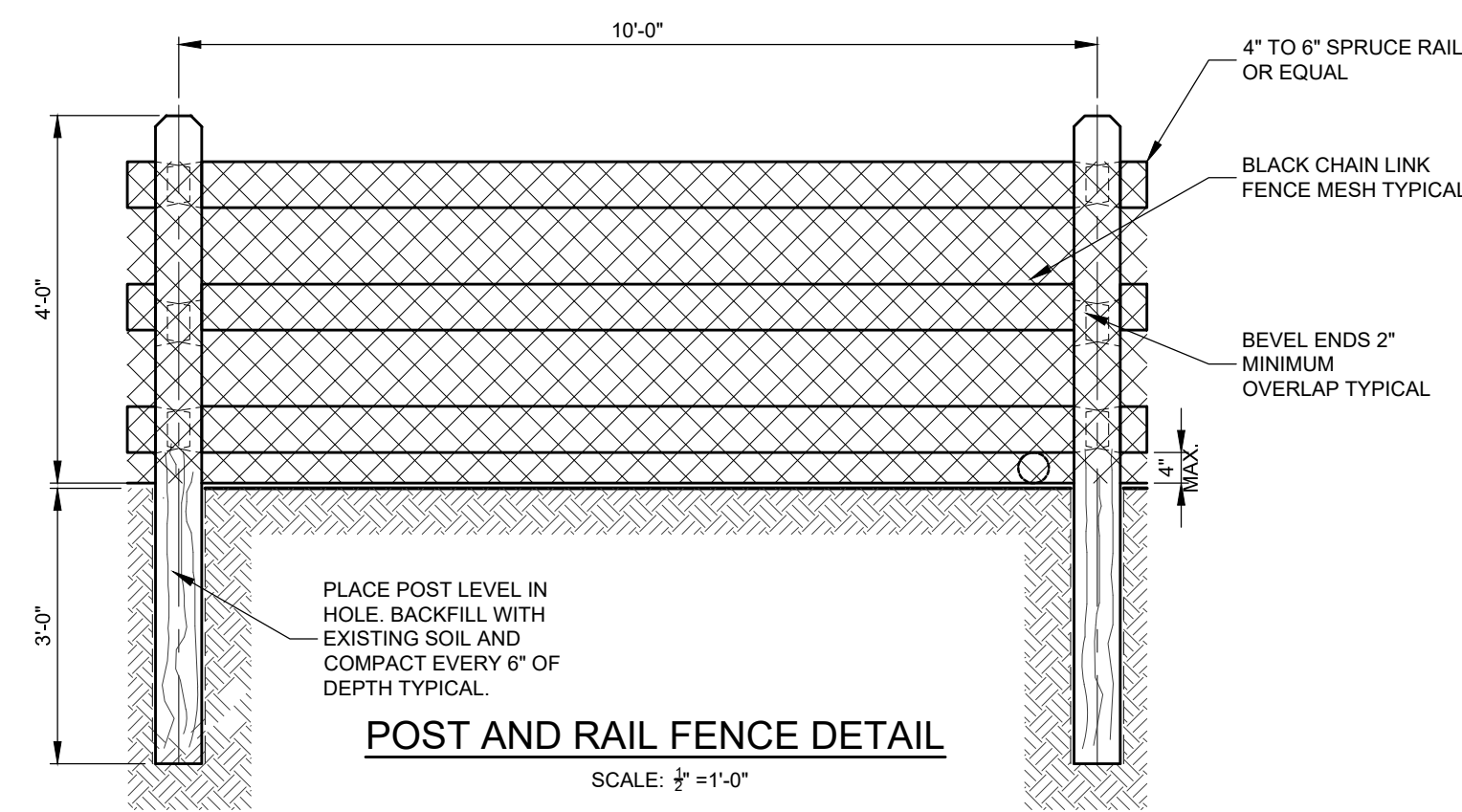
BUILDING	FINAL GRADE	BOTTOM ELEVATION	PIPE LENGTH
A	80.6	77.6	160 FT
B	81.3	78.3	160 FT
C	81.8	78.8	160 FT
D	82.6	79.6	160 FT
E	84.5	81.5	160 FT
F	85.8	82.8	180 FT
G	84.2	81.2	160 FT
H	81.4	78.4	180 FT
I	79.0	76.0	180 FT
J	79.8	76.8	180 FT
K	80.5	77.5	180 FT
L	81.5	78.5	180 FT
M	81.0	78.0	180 FT
N	81.0	78.0	140 FT
O	79.0	76.0	140 FT
P	79.0	76.0	140 FT
Q	80.8	77.8	100 FT
R	77.5	74.5	140 FT
S	78.0	75.0	180 FT
T	78.0	75.0	180 FT



**RECHARGE PIPE**  
NTS

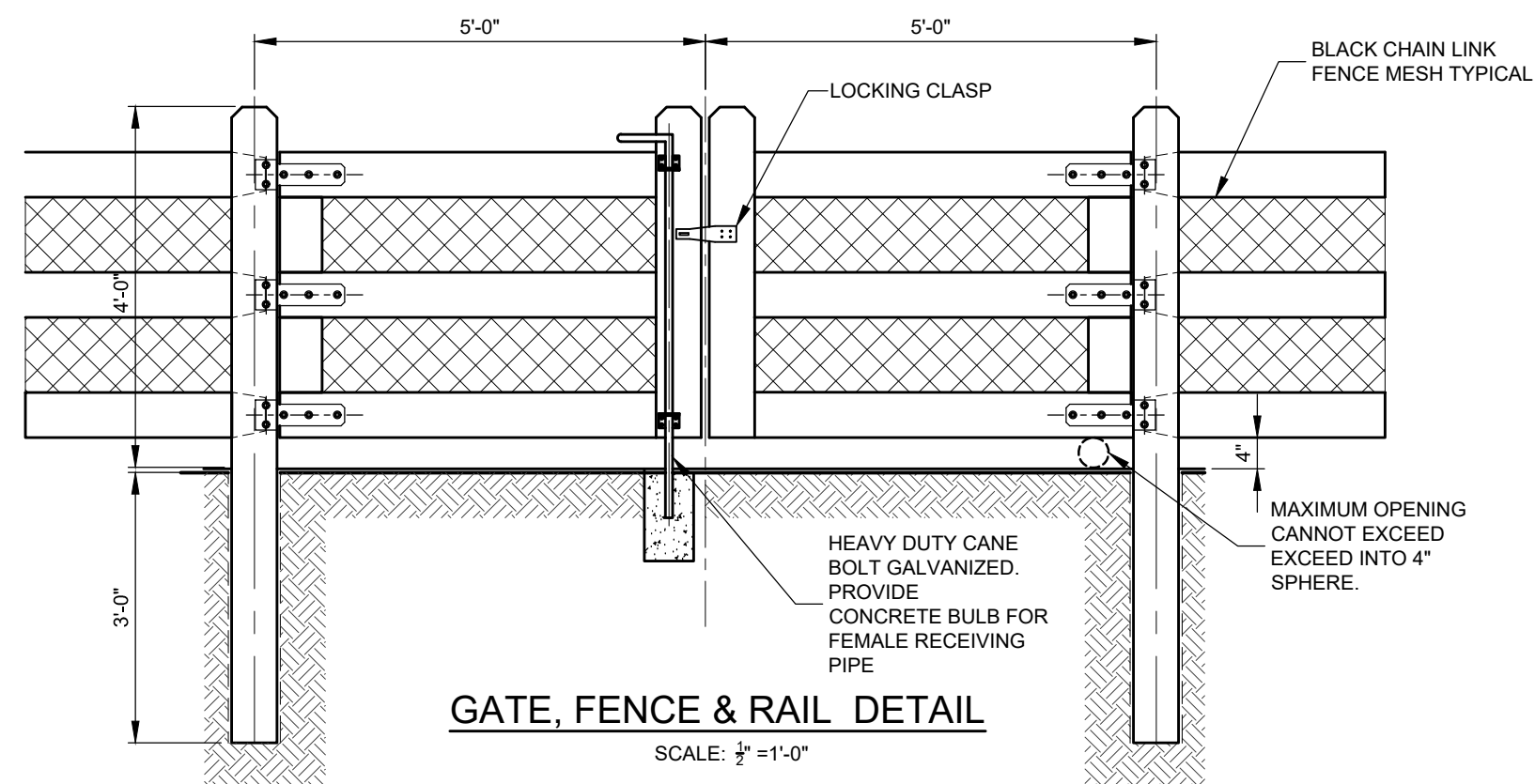


**RECHARGE PIPE**  
NTS



**POST AND RAIL FENCE DETAIL**

SCALE: 1/2" = 1'-0"



**GATE, FENCE & RAIL DETAIL**

SCALE: 1/2" = 1'-0"

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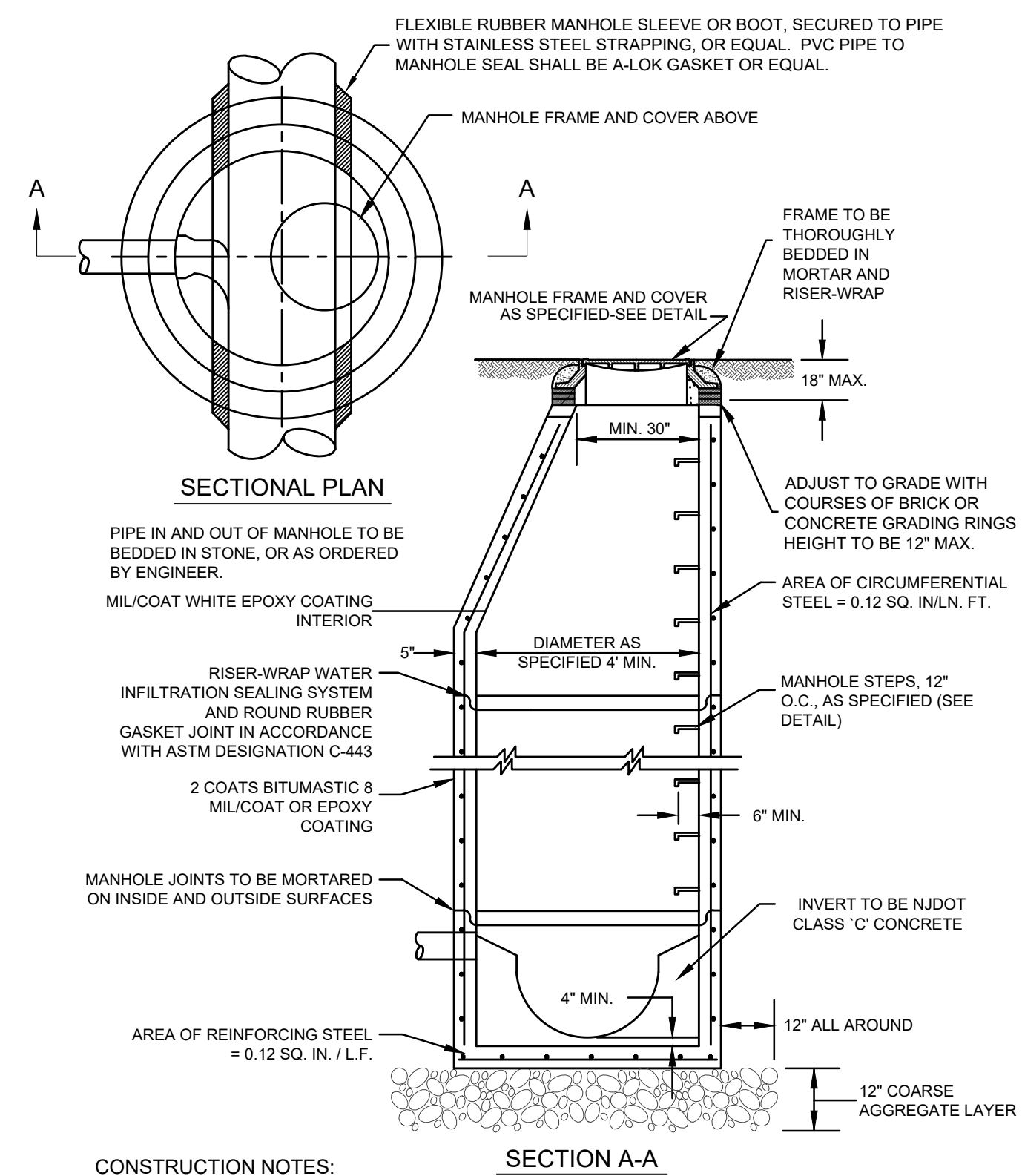
PROFESSIONAL ENGINEER, NEW JERSEY LIC. #38915  
PROFESSIONAL PLANNER, NEW JERSEY LIC. #5384

**PRELIMINARY & FINAL MAJOR SITE PLAN  
CONSTRUCTION DETAILS  
STORMWATER DETAILS**

FOR  
**BLOCK 65**  
**LOTS 11, 12, 13 & 14**  
TOWNSHIP OF MANCHESTER

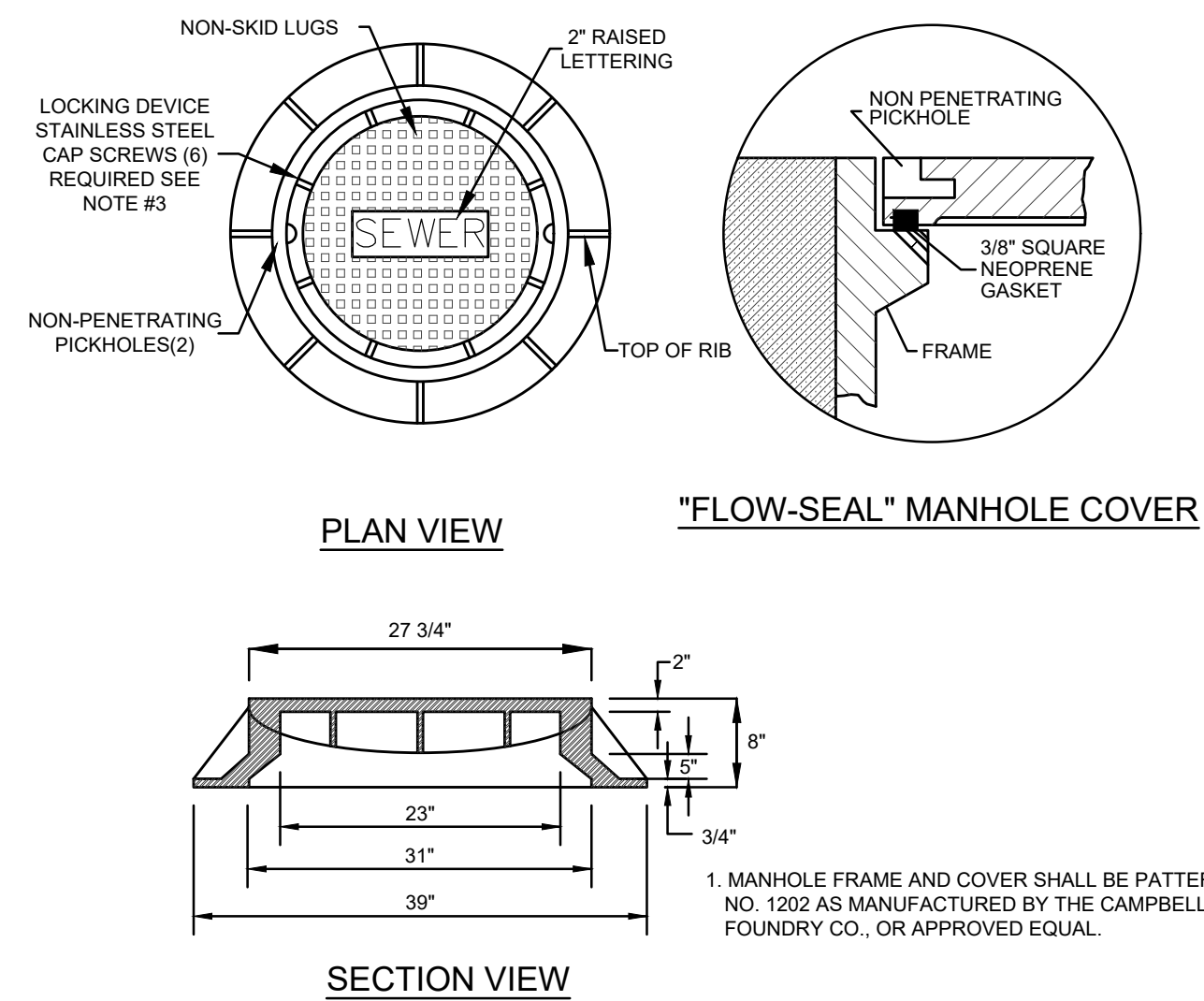
OCEAN COUNTY NEW JERSEY

SCALE:	NTS	DATE:	APRIL 25, 2022	JOB NUMBER:	18123	SHEET	19
DRAWN BY:	KNL	DESIGNED BY:	IMB	CHECKED BY:	WAS		23

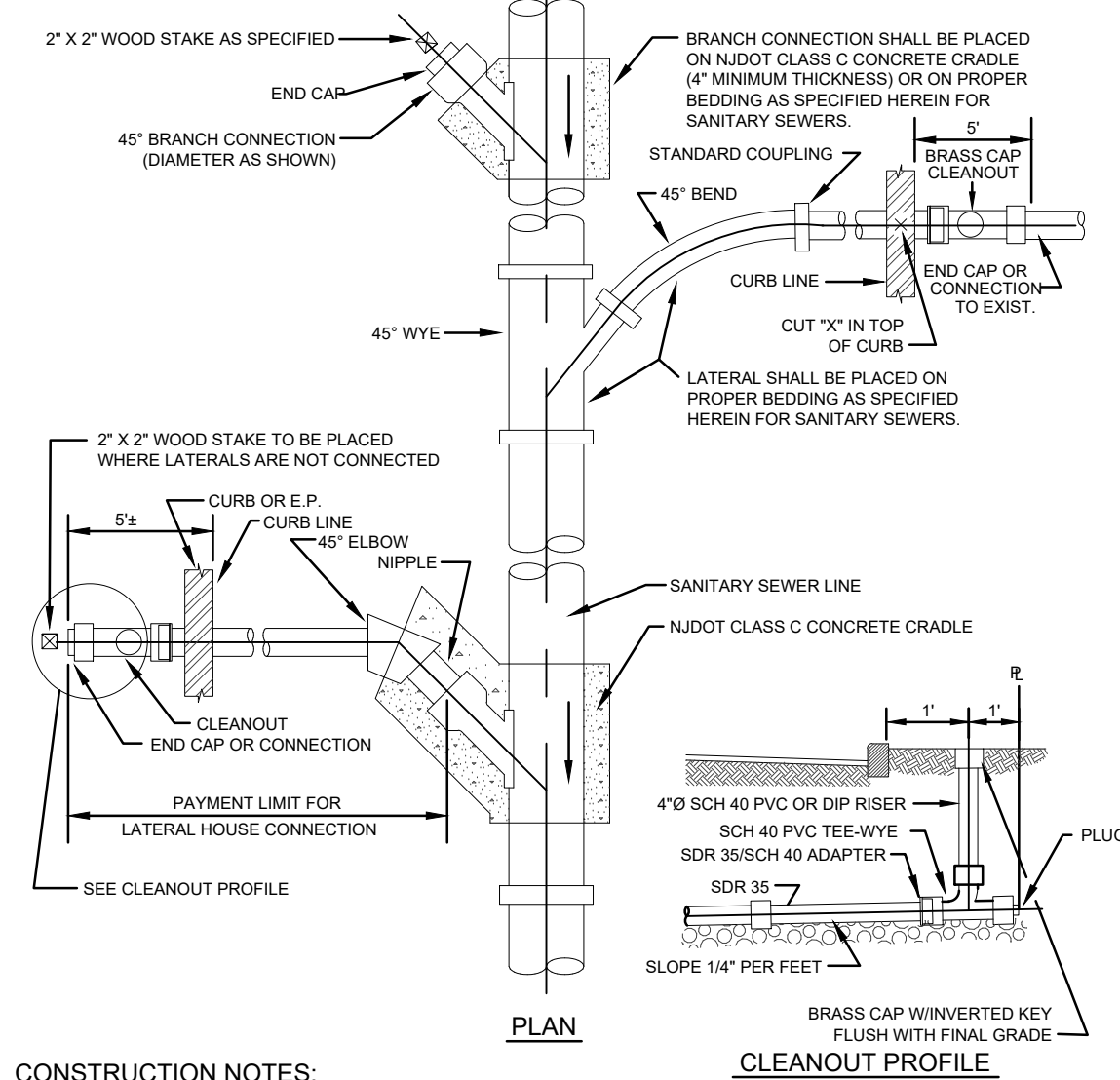


- CONSTRUCTION NOTES:**
- FRAME AND GRATE TO BE CAMPBELL FOUNDRY No. 2618 BICYCLE GRATE WITH TYPE "J" ECO CURB PIECE OR APPROVED EQUAL.
  - PROVIDE CAMPBELL FOUNDRY No. 2593-2254 DESIGN TO CONFORM TO HS-25 TRAFFIC LOADING.

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

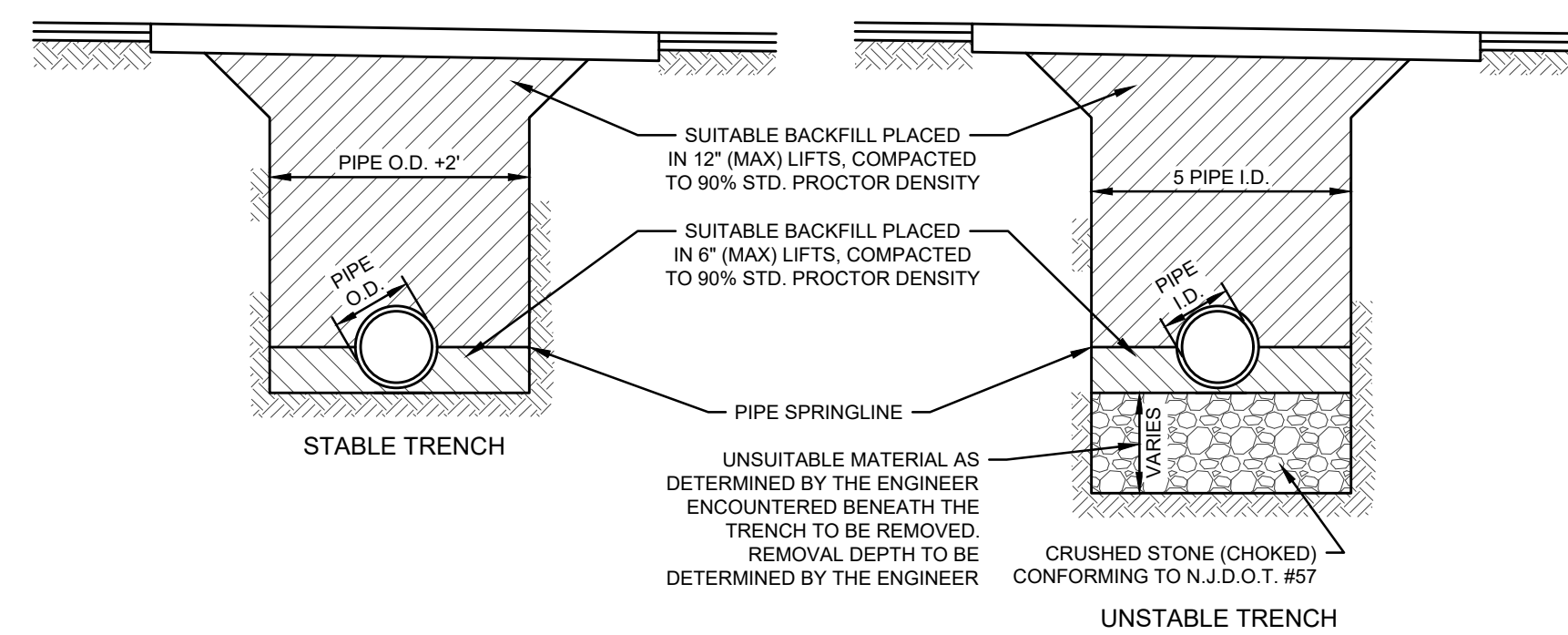


**SANITARY MANHOLE FRAME & COVER**  
N.T.S.

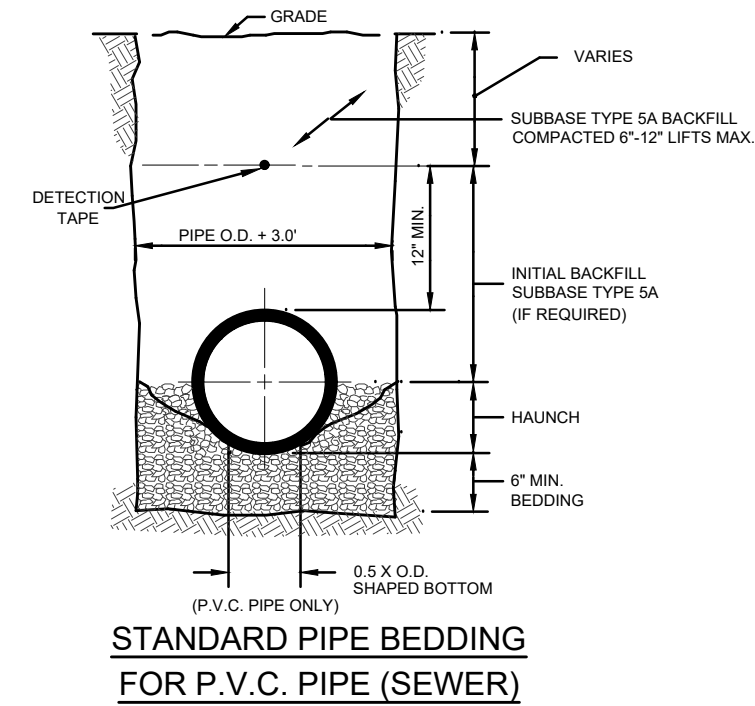


- CONSTRUCTION NOTES:**
- DETAIL SHOWS CONSTRUCTION OF A "BRANCH CONNECTION" AND OF TWO DIFFERENT TYPES OF "LATERAL HOUSE CONNECTION". TYPE OF CONNECTION IS AT CONTRACTOR'S OPTION.
  - SIZE OF LATERAL TO BE AS SHOWN ON THE PLANS OR AS DIRECTED, 4" MINIMUM.
  - CLEAN-OUTS IN DRIVEWAYS SHALL BE COVERED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

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

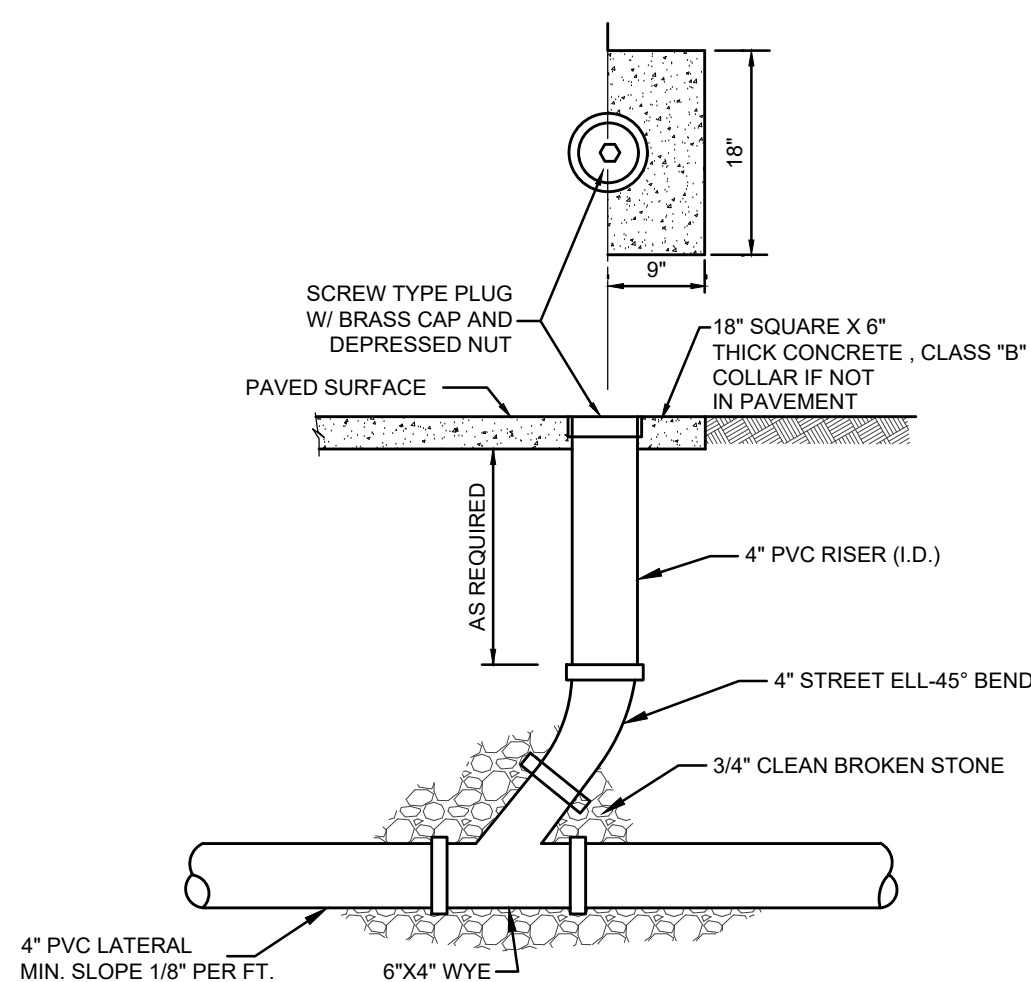


**DUCTILE IRON PIPE BEDDING/BACKFILL DETAIL**  
N.T.S.

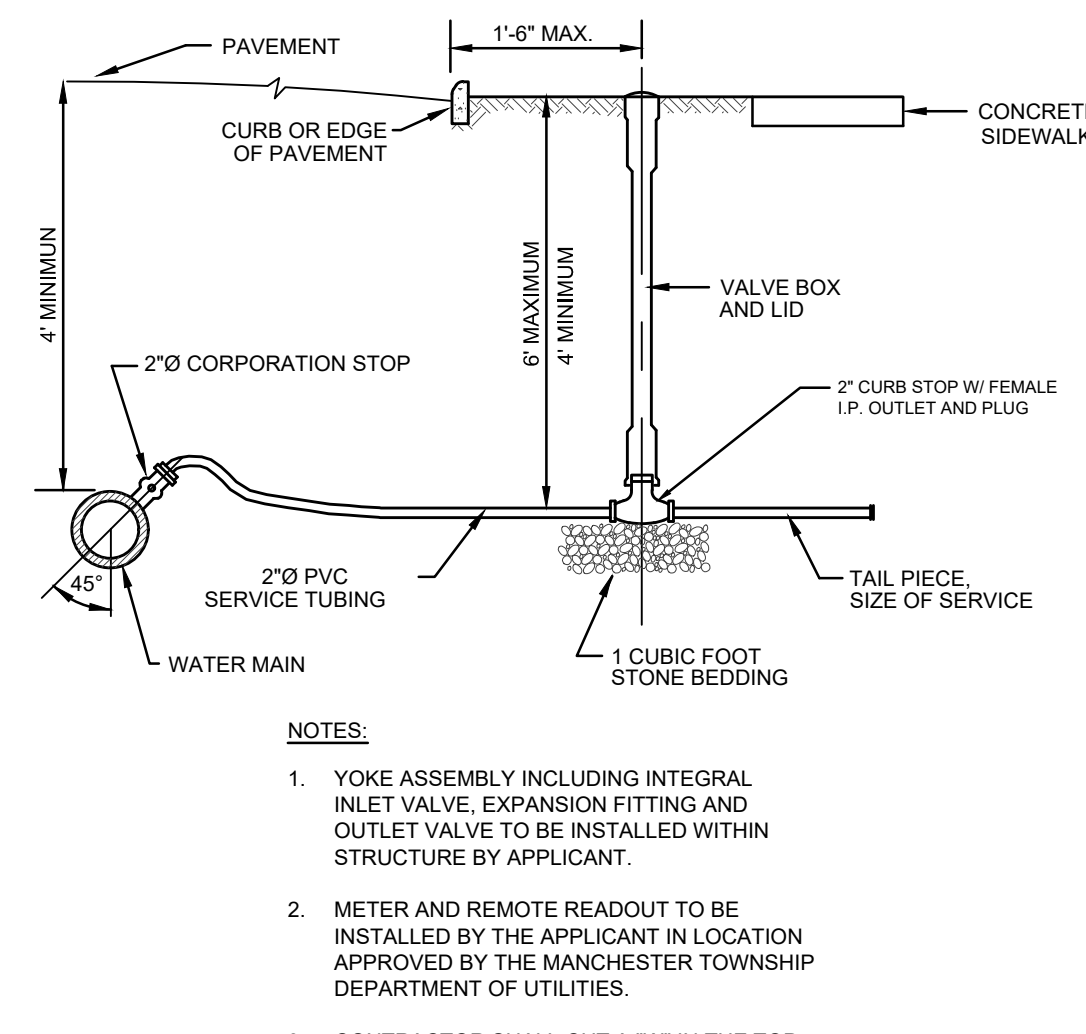


**STANDARD PIPE BEDDING FOR P.V.C. PIPE (SEWER)**  
N.T.S.

- NOTE:**
- HAUNCH & BEDDING 3/4" WELL GRADED CRUSHED STONE OR GRAVEL (NO. 57, COARSE AGGREGATE) (IF REQUIRED).
  - HYDRHAMMERS ARE NOT TO BE USED 3' OR LESS FROM TOP OF PIPE.

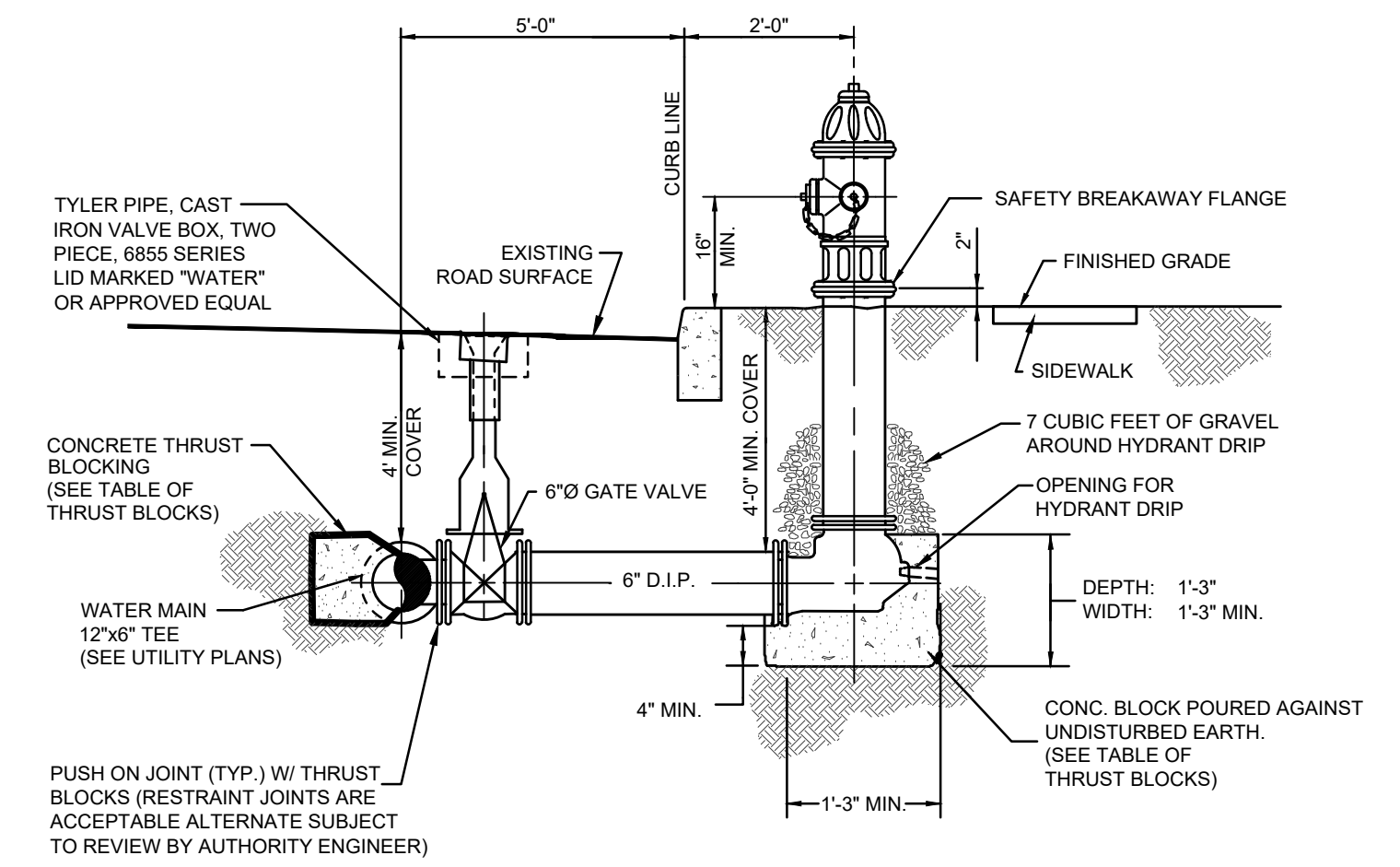


**STANDARD CLEANOUT DETAIL**  
N.T.S.



- 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.



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

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

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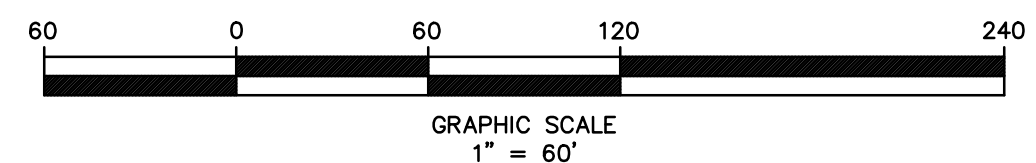
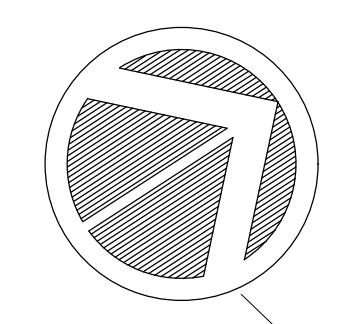
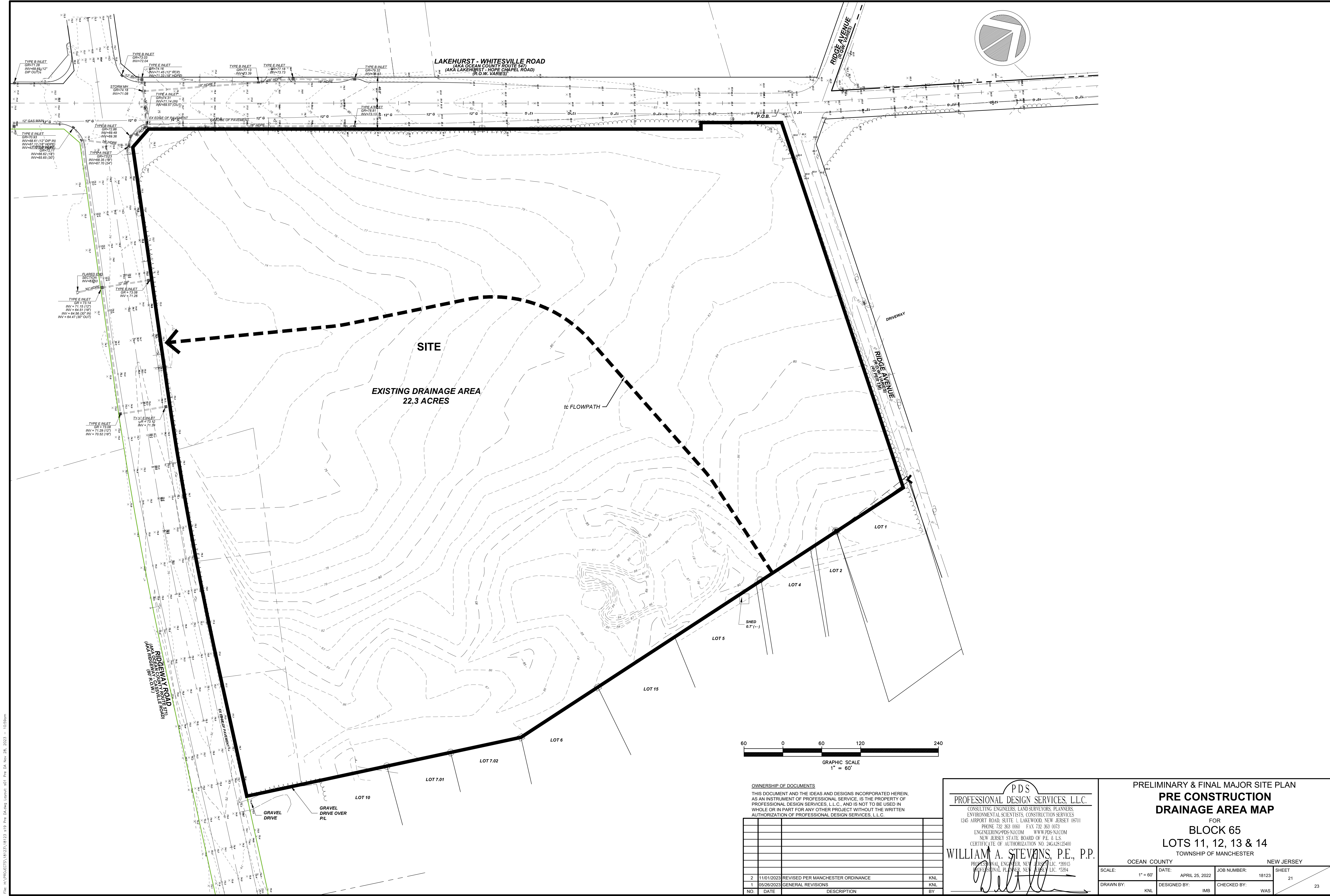
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**PRELIMINARY & FINAL MAJOR SITE PLAN  
CONSTRUCTION DETAIL  
UTILITY DETAILS**

FOR  
**BLOCK 65  
LOTS 11, 12, 13 & 14**  
TOWNSHIP OF MANCHESTER

OCEAN COUNTY NEW JERSEY

SCALE:	1" = 60'	DATE:	APRIL 25, 2022	JOB NUMBER:	18123	SHEET	20
DRAWN BY:	KNL	DESIGNED BY:	IMB	CHECKED BY:	WAS		23



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NO.	DATE	DESCRIPTION	BY
2	11/01/2023	REVISED PER MANCHESTER ORDINANCE	KNL
1	05/26/2023	GENERAL REVISIONS	KNL

**PDS**  
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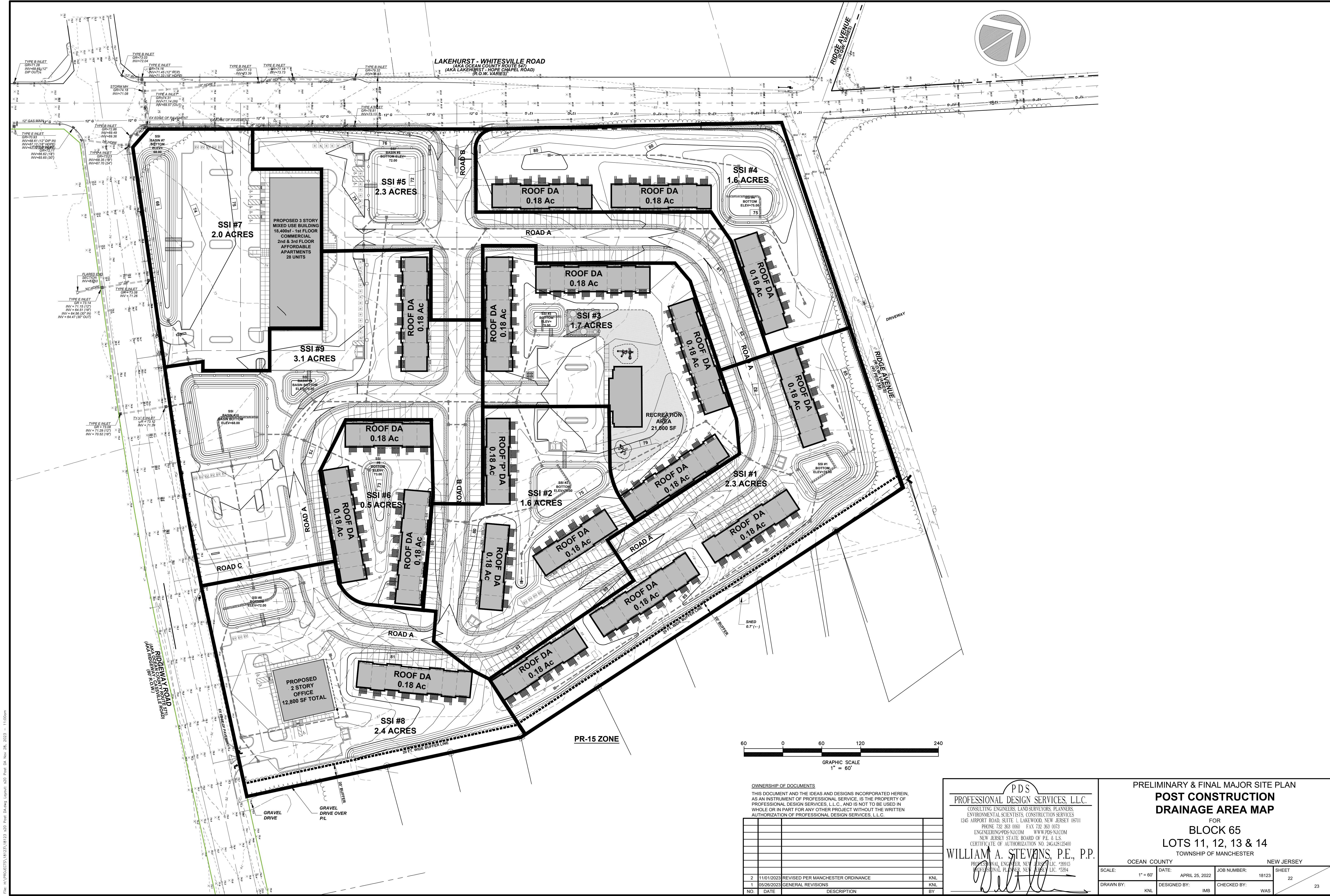
**PRELIMINARY & FINAL MAJOR SITE PLAN**  
**PRE CONSTRUCTION**  
**DRAINAGE AREA MAP**

FOR  
**BLOCK 65**  
**LOTS 11, 12, 13 & 14**  
 TOWNSHIP OF MANCHESTER

OCEAN COUNTY NEW JERSEY

SCALE: 1" = 60'	DATE: APRIL 25, 2022	JOB NUMBER: 18123	SHEET: 21
DRAWN BY: KNL	DESIGNED BY: IMB	CHECKED BY: WAS	23

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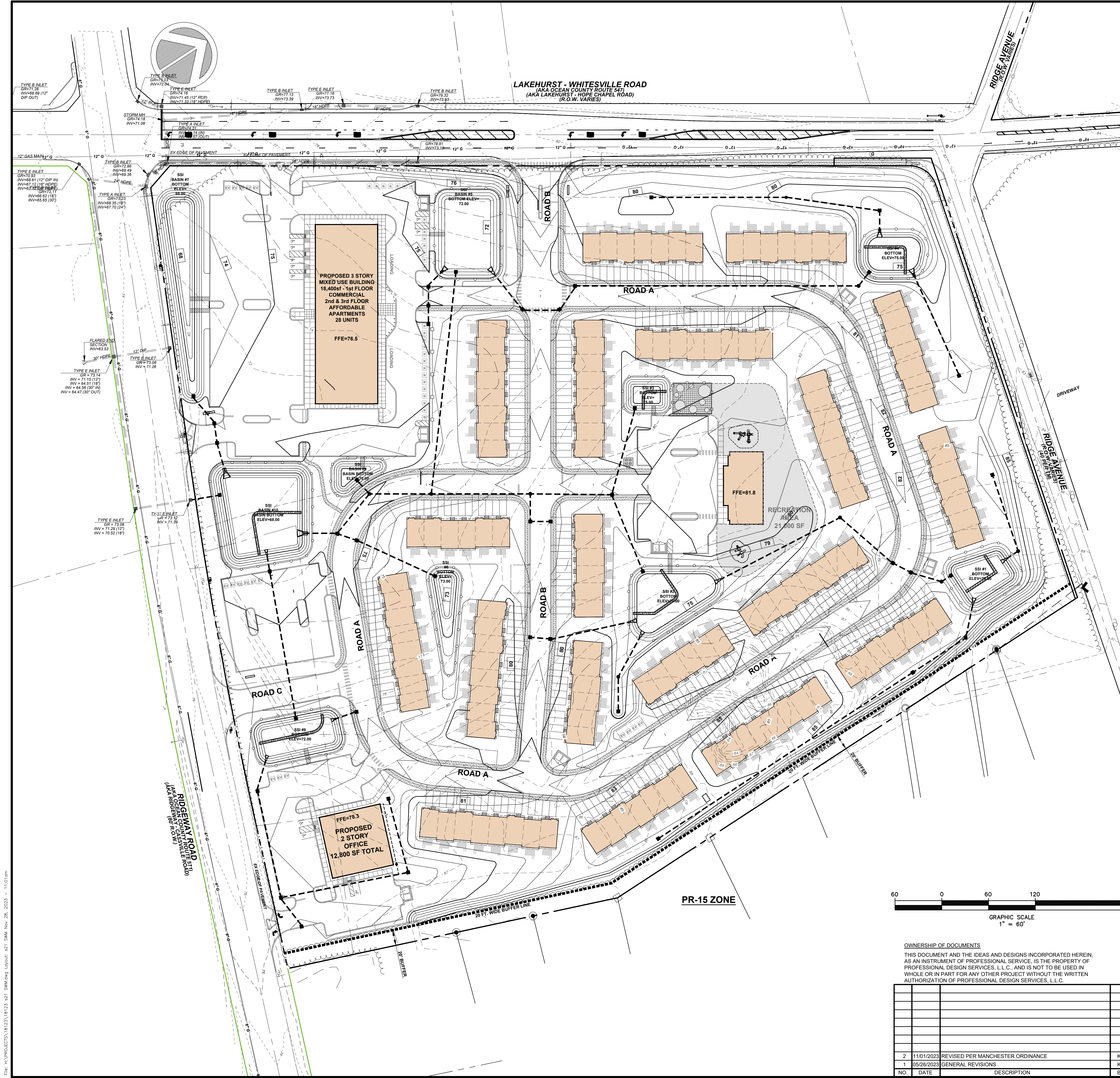
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**PRELIMINARY & FINAL MAJOR SITE PLAN**  
**POST CONSTRUCTION**  
**DRAINAGE AREA MAP**

FOR  
**BLOCK 65**  
**LOTS 11, 12, 13 & 14**  
TOWNSHIP OF MANCHESTER

OCEAN COUNTY NEW JERSEY

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**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:
  - 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 TRAPS, 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 REGULATION.
  - 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. 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 ACCORDING TO 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 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.
- INFILTRATION 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. 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 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. VEGETATED AREAS SHOULD BE INSPECTED FOR UNWANTED TRIMMING OR RESTORING VEGETATION, BIWEEKLY INSPECTIONS OF VEGETATION HEALTH SHOULD BE PERFORMED DURING THE FIRST GROWING SEASON OR UNTIL THE VEGETATION IS 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 BIoretention 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. THIS NORMAL DRAIN 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 TESTED 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.

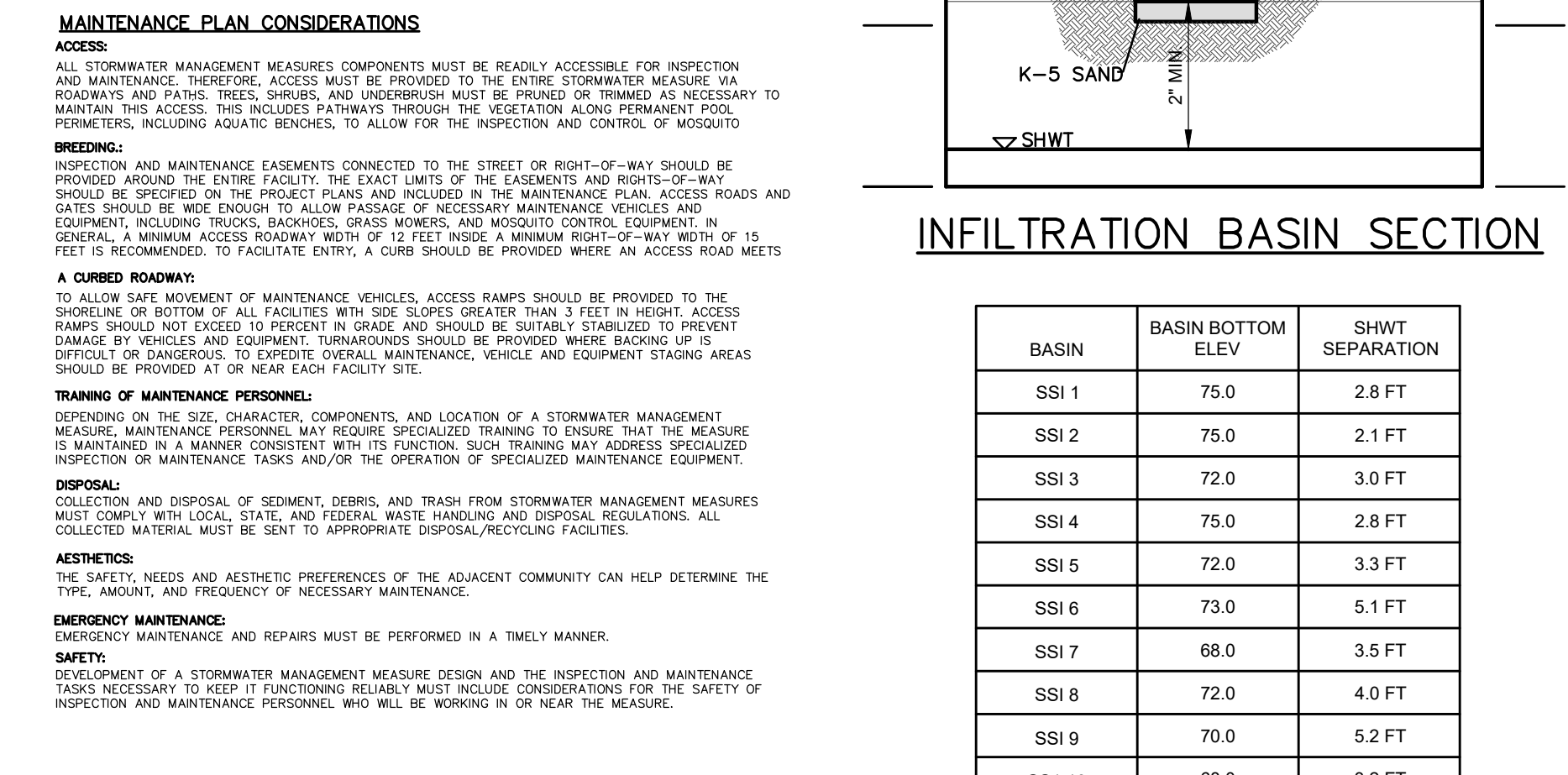
3. PROBLEMS FOUND DURING MAINTENANCE INSPECTIONS SHALL BE CORRECTED. THESE INCLUDE THE RESTORATION OF ERODED AREAS, REPAIR OR REPLACEMENT OF STORMWATER MANAGEMENT MEASURE COMPONENTS, RESTORATION OF VEGETATION, AND REPAIR OR REPLACEMENT OF NON-VEGETATED LININGS.

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

A. LAWN MOWING EQUIPMENT	G. WHEEL BARROWS
B. GAS POWERED TRIMMERS	H. GAS POWERED HEDGE TRIMMERS
C. GAS POWERED BLOWERS	I. CHAIN SAW
D. RAKES	J. FERTILIZER/PESTICIDE APPLICATION
E. SHOVELS	K. WASTE RECEPTACLES
F. PICKS	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-CRADE SAND BOTTOM ONCE EVERY 5 YEARS (\$1,000)	\$200
<b>TOTAL ANNUAL MAINTENANCE COST</b>	<b>\$2,450</b>



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**PRELIMINARY & FINAL MAJOR SITE PLAN**  
**STORMWATER MAINTENANCE PLAN**

FOR  
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 TOWNSHIP OF MANCHESTER  
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