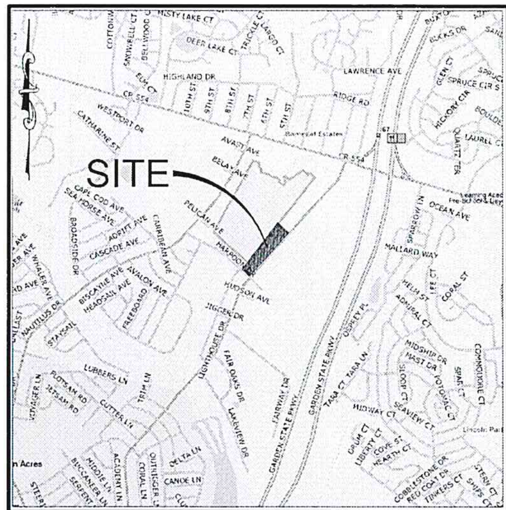
AMENDED PRELIMINARY & FINAL MAJOR SITE PLAN

FOR

BLOCK 92.111 - LOT 24.09

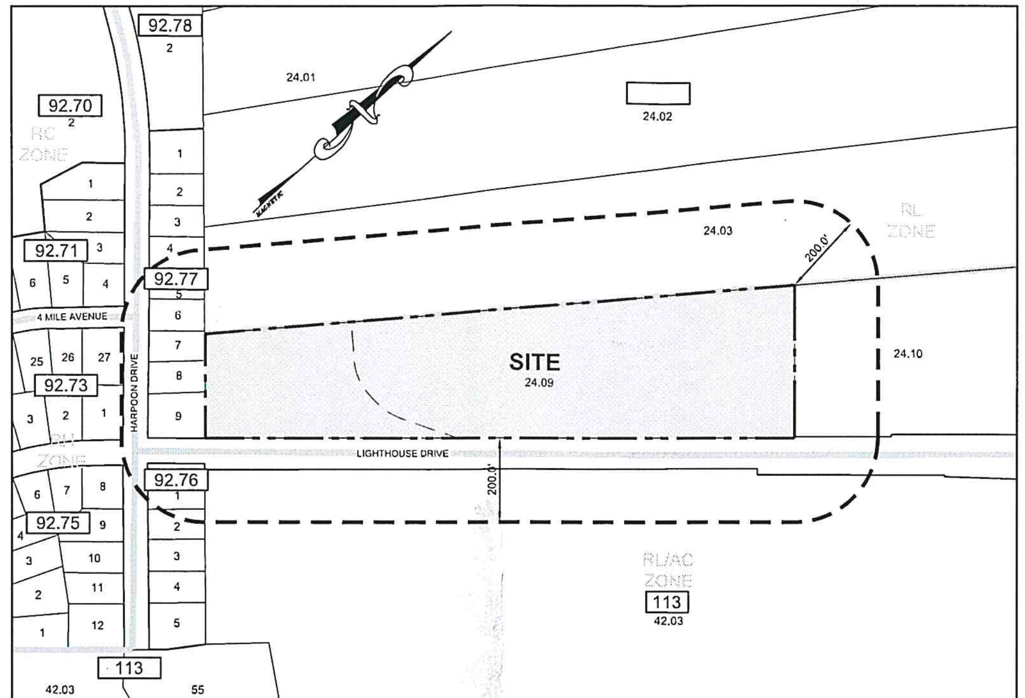
TOWNSHIP OF BARNEGAT

OCEAN COUNTY NEW JERSEY



KEY MAP

SCALE: 1" = 2000'



AREA MAP

SCALE: 1" = 200'

GENERAL NOTES:

1. BEING KNOWN AS BLOCK 92.111 - LOT 24.09 AS SHOWN ON SHEET 50 OF THE BARNEGAT TOWNSHIP TAX MAPS.
2. THE PROPERTY IS LOCATED WITHIN THE CN ZONE IN BARNEGAT TOWNSHIP AND CONTAINS 9.9± ACRES. 148 RESIDENTIAL UNITS ARE PROPOSED.
3. PROPERTY BOUNDARY INFORMATION TAKEN FROM A MAP ENTITLED "BOUNDARY SURVEY OF TAX BLOCK 92.111 - TAX LOT 24.09 - TOWNSHIP OF BARNEGET, OCEAN COUNTY, NEW JERSEY", AS PREPARED BY PROFESSIONAL DESIGN SERVICES, LLC, DATED JULY 25, 2016.
4. WATER WILL BE CONNECTED TO MUNICIPAL WATER SERVICE.
5. SEWAGE SERVICE WILL BE CONNECTED TO MUNICIPAL SANITARY SEWER SERVICE.
6. ALL UTILITIES (ELECTRIC, TELEPHONE, ETC.) TO BE PROVIDED UNDERGROUND. THE CONTRACTOR MUST VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.
7. THE SIGHT TRIANGLE EASEMENTS ARE SUBJECT TO RESTRICTIONS CONTAINED WITHIN THE BARNEGAT TOWNSHIP LAND USE ORDINANCE.
8. ALL DISTURBED AREAS WILL BE VEGETATIVELY STABILIZED IN ACCORDANCE WITH THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN UPON COMPLETION OF THE GRADING ACTIVITIES.
9. ALL TRAFFIC CONTROL SIGNAGE INCLUDING PAVEMENT MARKINGS WILL BE PROVIDED IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
10. TRAFFIC DIRECTION ARROWS, FIRE LANE MARKINGS, ETC. SHALL BE IN CONFORMANCE WITH BARNEGAT TOWNSHIP FIRE PREVENTION BUREAU AND TOWNSHIP ENGINEERING DEPARTMENT REQUIREMENTS.
11. REFUSE AREAS ARE PROVIDED. EACH REFUSE AREA SHALL CONTAIN AREAS FOR COLLECTION OF RECYCLABLE MATERIALS.
12. SOLID WASTE IS TO BE PICKED UP BY A PRIVATE GARBAGE HAULER.
13. 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.
14. ALL CONSTRUCTION TO BE IN CONFORMANCE WITH APPLICABLE CODES, ORDINANCES AND MANUFACTURER'S REQUIREMENTS.
15. THE OWNER OR HIS REPRESENTATIVE, IS TO DESIGNATE AN INDIVIDUAL RESPONSIBLE FOR CONSTRUCTION SITE SAFETY DURING THE COURSE OF SITE IMPROVEMENTS PURSUANT TO N.J.A.C. 5:23-2.21(e) OF THE N.J. UNIFORM CONSTRUCTION CODE AND CFR 1926.32(f) (OSHA COMPETENT PERSON). PROFESSIONAL DESIGN SERVICES, LLC., ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION SITE SAFETY.
16. THE DEVELOPER SHALL OBTAIN A LETTER OF FINAL ACCEPTANCE FROM THE OCEAN COUNTY ENGINEER FOR THE ROAD IMPROVEMENTS ALONG LIGHTHOUSE DRIVE PRIOR TO THE RELEASE OF ANY BOND OR OTHER FINANCIAL SURETY POSTED WITH THE MUNICIPALITY FOR THE COMPLETION OF THE IMPROVEMENTS.
17. THE DEVELOPER SHALL OBTAIN A PERMIT FROM THE OCEAN COUNTY ENGINEERING DEPARTMENT PRIOR TO THE START OF CONSTRUCTION OF ANY IMPROVEMENTS WITHIN THE RIGHT OF WAY OF LIGHTHOUSE DRIVE.
18. KNOX BOX KEY SYSTEM TO BE PROVIDED AT SPRINKLER ROOM.
19. THERE ARE NO SWAMPS, WETLANDS OR PONDS LOCATED WITHIN 200 FEET OF THE SITE.
20. ALL PARKING AREA STRIPING TO BE HAIRPIN STYLE.
21. NO TOP SOIL SHALL BE REMOVED FROM THE SITE OR USED AS SPOIL. TOP SOIL MOVED DURING THE COURSE OF CONSTRUCTION SHALL BE REDISTRIBUTED SO AS TO PROVIDE AT LEAST 4 INCHES OF SPREAD COVER TO ALL SEEDING AND PLANTING AREAS AND SHALL BE STABILIZED BY SEEDING OR PLANTING AS REQUIRED BY SECTION 55-126H OF THE ORDINANCE.
22. BUILDING ACCESS DOORS WILL NOT OPEN DIRECTLY INTO DRIVE AISLES OR LOADING ZONES UNLESS THE APPROPRIATE SAFETY MEASURES ARE PROVIDED (i.e. BOLLARDS, PAVEMENT MARKINGS ETC.).
23. A PRIVATE WELL WILL BE INSTALLED TO PROVIDE IRRIGATION WATER FOR THE SITE.
24. STABILITY CALCULATIONS FOR SLIDING, OVERTURNING AND BEARING CAPACITY FOR THE RETAINING WALLS MUST BE SUBMITTED TO THE PLANNING BOARD ENGINEER FOR ALL PROPOSED RETAINING WALLS PRIOR TO CONSTRUCTION.
25. ALL PROPOSED LIGHT FIXTURES TO BE BLACK IN COLOR. ALL OTHER PROPOSED SITE AMENITIES SHOULD ALSO BE BLACK IN COLOR IN ORDER TO CREATE A VISUAL UNIFORMITY THROUGHOUT THE NEIGHBORING COMMERCIAL SITES.
26. TOPOGRAPHY SHOWN IS RELATIVE TO PLANS PREPARED BY DYNAMIC ENGINEERING, WHICH HAVE NO DATUM REFERENCE. BASED UPON GPS OBSERVATIONS PERFORMED BY THIS OFFICE THE DATUM OF SAID TOPOGRAPHY IS NAVD 1988.
27. INTERNAL MAIL ROOM WILL BE PROVIDED.
28. THE SPRINKLER SYSTEMS WILL BE AUTOMATIC SYSTEMS WITH SIAMESE CONNECTIONS. LOCATIONS WILL BE DETERMINED DURING RESOLUTION COMPLIANCE AND FINAL COORDINATION WITH FINAL ARCHITECTURAL PLANS.
29. THE ON-SITE WATER FACILITIES SYSTEM WILL BE OWNED, OPERATED AND MAINTAINED BY THE PROPERTY OWNER.
30. THE ON-SITE SANITARY SEWER, THE PUMP STATION AND THE FORCE MAIN WILL BE OWNED, OPERATED AND MAINTAINED BY THE PROPERTY OWNER.

PROPERTY OWNERS LIST

SUPPLIED BY THE TOWNSHIP OF BARNEGAT ON JANUARY 24, 2017

BLOCK 92.73, LOT 1
WALTER DEVELOPMENT CO LLC
500 BARNEGAT BLVD N #100
BARNEGAT NJ 08005

BLOCK 92.73, LOT 27
WALTER DEVELOPMENT CO LLC
500 BARNEGAT BLVD N #100
BARNEGAT NJ 08005

BLOCK 92.76, LOT 1
BRAIN TEGEDER
45 HARPOON DR
BARNEGAT NJ 08005

BLOCK 92.76, LOT 2
WALTER DEVELOPMENT CO LLC
500 BARNEGAT BLVD N #100
BARNEGAT NJ 08005

BLOCK 92.77, LOT 4
WALTER DEVELOPMENT CO LLC
500 BARNEGAT BLVD N #100
BARNEGAT NJ 08005

BLOCK 92.77, LOT 5
WALTER DEVELOPMENT CO LLC
500 BARNEGAT BLVD N #100
BARNEGAT NJ 08005

BLOCK 92.77, LOT 6
TIL DEATH DO US PART INC
PO BOX 3186
HARVEY CEDERS NJ 08008

BLOCK 92.77, LOT 7
TIL DEATH DO US PART INC
PO BOX 3186
HARVEY CEDERS NJ 08008

BLOCK 92.77, LOT 8
TIL DEATH DO US PART INC
PO BOX 3186
HARVEY CEDERS NJ 08008

BLOCK 92.77, LOT 9
TIL DEATH DO US PART INC
PO BOX 3186
HARVEY CEDERS NJ 08008

BLOCK 92.111, LOT 24.03
NEW JERSEY NATURAL LANDS TRUST
109 W STATE ST CN 404
TRENTON NJ 08625

BLOCK 92.111, LOT 24.14
LIGHTHOUSE BARNEGAT LLC
605 THIRD AVE 7TH FL
NY, NY 10022

BLOCK 113, LOT 24.03
LAKE RIDGE AT BARNEGAT LLC
55 SCHOOLHOUSE ROAD
WHITING NJ 08579

COMCAST
630 ROUTE 37 WEST
TOMS RIVER NJ 08755

CONECTIV
REAL ESTATE DEPT
457 US HWY 9
WEST CREEK NJ 08092

BARNEGAT WATER & SEWER UTILITY
900 WEST BAY AVE
BARNEGAT NJ 08005

GPU ENERGY
PO BOX 16001
REAL ESTATE DEPT
READING PA 19640-0001

VERIZON
540 BROAD ST
NEWARK NJ 07101

NJ NATURAL GAS CO
1415 WYCKOFF RD
PO BOX 1464
WALL NJ 07719

OCEAN COUNTY UTILITY AUTHORITY
501 HICKORY LANE
PO BOX P
BAYVILLE NJ 08721

TOWNSHIP OF OCEAN
DEPT OF UTILITIES
50 RAILROAD AVE
WARETOWN NJ 08758

NJ TURNPIKE AUTHORITY (GS PARKWAY)
PO BOX 6042
581 MAIN ST
WOODBRIDGE NJ 07095-5042

STATE OF NEW JERSEY DOT
CN 600
TRENTON NJ 08625

OCEAN COUNTY DOT
PO BOX 2191
TOMS RIVER NJ 08754

WATER SYSTEM FACILITIES

APPROVED BY THE TOWNSHIP OF BARNEGAT

TOWNSHIP WATER ENGINEER ____________ DATE

SANITARY SEWERAGE FACILITIES

APPROVED BY THE TOWNSHIP OF BARNEGAT

TOWNSHIP SEWER ENGINEER ____________ DATE

PLANNING BOARD APPROVAL BLOCK

APPROVED BY THE PLANNING BOARD OF BARNEGAT TOWNSHIP, OCEAN COUNTY, NEW JERSEY

CHAIRMAN ____________ DATE

SECRETARY ____________ DATE

BOARD ENGINEER ____________ DATE

INDEX OF DRAWINGS

No.	DESCRIPTION
1	COVER SHEET
2	EXISTING CONDITIONS
3	SITE PLAN
4	TRAFFIC CIRCULATION PLAN, SIGNAGE & STRIPING PLAN
5	GRADING & STORM DRAINAGE PLAN
6	UTILITY PLAN
7	STORM AND SANITARY SEWER PROFILES
8	PROPOSED WATER MAIN PROFILE
9	LANDSCAPE PLAN
10	LIGHTING PLAN
11	LANDSCAPE & LIGHTING DETAILS
12	CONSTRUCTION DETAILS
13	CONSTRUCTION DETAILS
14	CONSTRUCTION DETAILS
15	CONSTRUCTION DETAILS
16	CONSTRUCTION DETAILS - PUMP STATION
17	CONSTRUCTION DETAILS - PUMP STATION
18	PRE DEVELOPED DRAINAGE AREA MAP
19	POST DEVELOPED DRAINAGE AREA MAP
20	COLLECTION SYSTEM DRAINAGE AREA MAP
21	SOIL EROSION & SEDIMENT CONTROL PLAN
22	SOIL COMPACTION PLAN
23	SOIL EROSION & SEDIMENT CONTROL NOTES & DETAILS
24	VEHICLE TURNING MOVEMENT PLAN
25	STORM WATER MAINTENANCE PLAN

SUPPLEMENTAL DRAWINGS

No.	DESCRIPTION
1 OF 1	MAP OF SURVEY
1 OF 1	MAP SHOWING BOUNDARY & PARTIAL TOPOGRAPHIC SURVEY

RECEIVED
SEP - 9 2020
Barnegat Township
Planning & Zoning

APPLICANT / OWNER

LIGHTHOUSE AT BARNEGAT, LLC
2141 ROUTE 88 EAST
SUITE 1
BRICK, NJ 08724
732-295-7380

OWNERSHIP OF DOCUMENTS

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF PROFESSIONAL DESIGN SERVICES, L.L.C., AND IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PROFESSIONAL DESIGN SERVICES, L.L.C.

NO.	DATE	DESCRIPTION	BY

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CONSULTING ENGINEERS, LAND SURVEYORS, PLANNERS, ENVIRONMENTAL SCIENTISTS, CONSTRUCTION SERVICES
1245 AIRPORT ROAD, SUITE 1, LAKEWOOD, NEW JERSEY 08701
PHONE 732 363 0060 FAX 732 363 0073
ENGINEERING@PDS-NJ.COM WWW.PDS-NJ.COM
NEW JERSEY STATE BOARD OF P.E. & L.S.
CERTIFICATE OF AUTHORIZATION NO 24GA28123500
WILLIAM A. STEVENS, P.E., P.P.
PROFESSIONAL ENGINEER, NEW JERSEY LIC. #39015
PROFESSIONAL PLANNER, NEW JERSEY LIC. #5264

AMENDED PRELIMINARY & FINAL MAJOR SITE PLAN

COVER SHEET

FOR

BLOCK 92.111 - LOT 24.09

TOWNSHIP OF BARNEGAT

OCEAN COUNTY NEW JERSEY

SCALE: 1" = 200'	DATE: AUGUST 24, 2020	JOB NUMBER: 16617	SHEET 1 / 25
DRAWN BY: KNL/BJK	DESIGNED BY: IMB	CHECKED BY: WAS	

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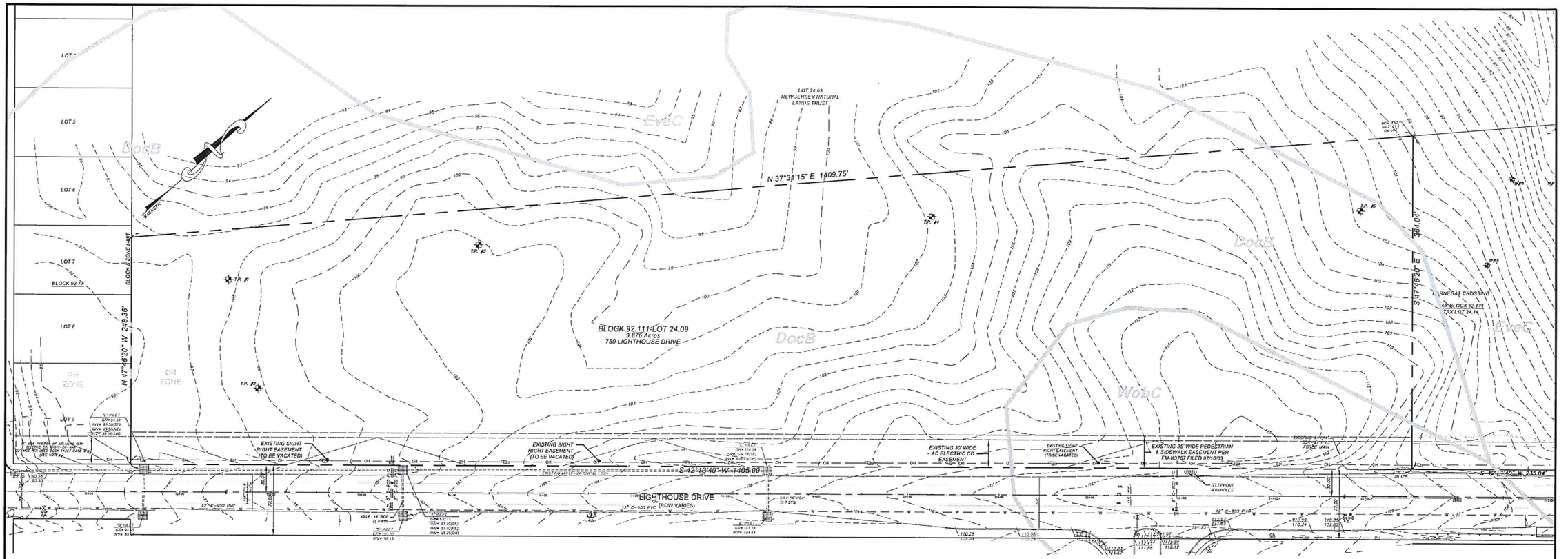

GRAPHIC SCALE
1" = 50'

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PHONE 732 363 7400 FAX 732 363 6722
ENGINEERING@PDS-NJ.COM WWW.PDS-NJ.COM
NEW JERSEY STATE BOARD OF PE & LS
CERTIFICATE OF AUTHORIZATION NO. 24GA28035400
WILLIAM A. STEVENS, P.E., P.P.
PROFESSIONAL ENGINEER NEW JERSEY LIC. #29915
PROFESSIONAL PLANNER NEW JERSEY LIC. #5264

AMENDED PRELIMINARY & FINAL MAJOR SITE PLAN

EXISTING CONDITIONS PLAN

FOR

BLOCK 92.111 - LOT 24.09

TOWNSHIP OF BARNEGAT

OCEAN COUNTY NEW JERSEY

SCALE: 1" = 50'	DATE: AUGUST 24, 2020	JOB NUMBER: 16617	SHEET 2 / 25
DRAWN BY: KNL/BJK	DESIGNED BY: IMB	CHECKED BY: WAS	

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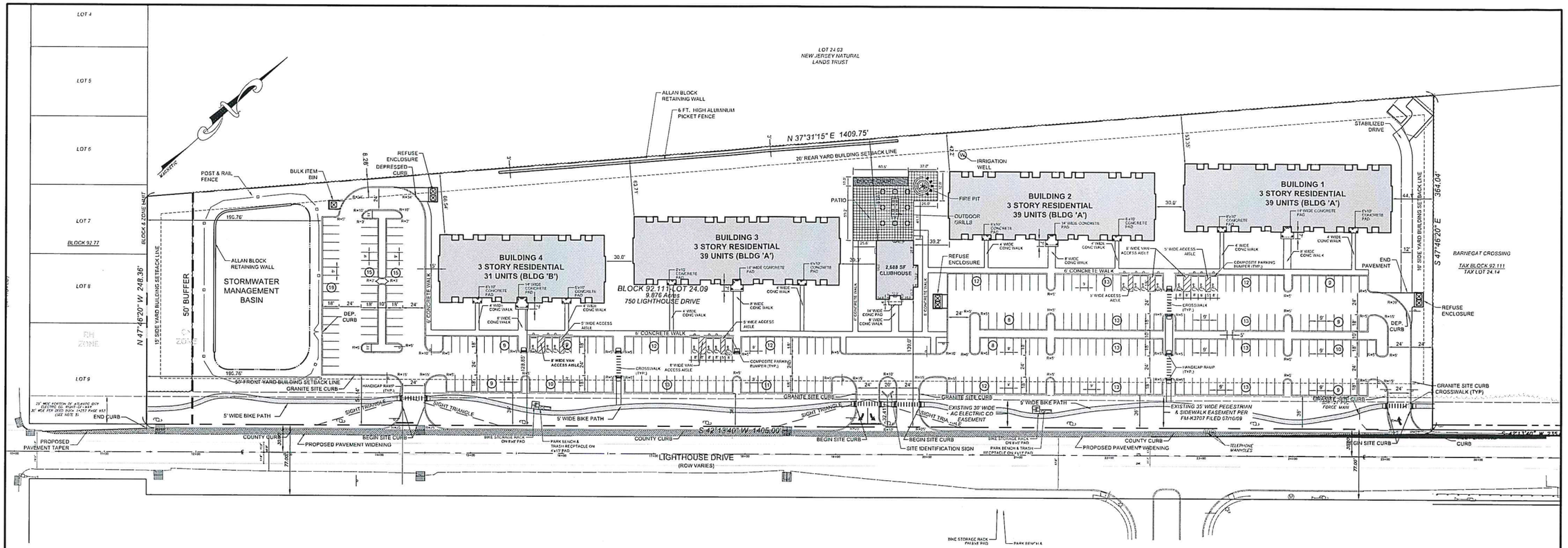

C-N NEIGHBORHOOD COMMERCIAL ZONE

A CONDOMINIUM DEVELOPMENT SHALL BE PERMITTED IN THE C-N NEIGHBORHOOD COMMERCIAL ZONE, SUBJECT TO THE ISSUANCE OF A CONDITIONAL USE PERMIT IN CONFORMANCE WITH THE PROVISIONS HEREIN.

A. A CONDOMINIUM DEVELOPMENT SHALL ONLY BE PERMITTED ON PROPERTY DIRECTLY ACCESSED BY A COUNTY ROAD. A CONDOMINIUM DEVELOPMENT SHALL NOT BE PERMITTED ON PROPERTY THAT IS ACCESSED SOLELY BY A MUNICIPAL ROADWAY.

THE PROPERTY CONTAINS DIRECT ACCESS TO LIGHTHOUSE DRIVE, A COUNTY ROAD.

B. A CONDOMINIUM DEVELOPMENT SHALL BE PERMITTED ONLY ON PROPERTY LOCATED WITHIN THE PINELANDS REGIONAL GROWTH AREA.

THE PROPERTY IS LOCATED WITHIN THE PINELANDS REGIONAL GROWTH AREA.

C. OWNERSHIP OF THE CONDOMINIUM UNITS SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF N.J.S.A. 46:4B-1 ET SEQ.

CONDOMINIUM UNITS ARE PROPOSED WHICH WILL BE OWNER-OCCUPIED.

D. ALL UNITS SHALL BE AGE-RESTRICTED AND LIMITED TO ONE- AND TWO-BEDROOM UNITS. ONE-BEDROOM UNITS SHALL BE NO LESS THAN 800 SQUARE FEET. TWO-BEDROOM UNITS SHALL BE NO LESS THAN 950 SQUARE FEET WITH A MINIMUM OF 70% OF THE TWO-BEDROOM UNITS HAVING NO LESS THAN 1,100 SQUARE FEET..

ALL UNITS WILL BE AGE-RESTRICTED TO AGE 49 OR OVER AND HAVING NO CHILDREN UNDER THE AGE OF 18. THE UNITS COMPLY WITH THE MINIMUM SIZE REQUIREMENTS.

E. THE MAXIMUM PERMITTED DENSITY FOR AGE-RESTRICTED OWNER-OCCUPIED CONDOMINIUM UNITS SHALL BE 15 UNITS PER ACRE. A MINIMUM OF 0% UP TO A MAXIMUM OF 20% AFFORDABLE HOUSING SET-ASIDE MAY BE PROVIDED AS SET FORTH IN THE FAIR HOUSING ACT. N.J.S.A. 52:27D-329.9. NOT MORE THAN 10 OF THE AFFORDABLE UNITS CAN BE LOW INCOME WITH THE REMAINING AFFORDABLE UNITS TO BE MODERATE INCOME. PINELANDS DEVELOPMENT CREDITS SHALL BE PURCHASED AND REDEEMED FOR TWENTY-FIVE PERCENT (25%) OF ALL UNITS IN THE CONDOMINIUM DEVELOPMENT. REDEMPTION OF PINELANDS DEVELOPMENT CREDITS SHALL NOT BE REQUIRED FOR AFFORDABLE HOUSING UNITS PROVIDED TO MEET THE REQUIREMENTS OF THE FAIR HOUSING ACT, N.J.S.A. 52:27D-329.9, PROVIDED SUCH AFFORDABLE UNITS DO NOT EXCEED 20% OF THE TOTAL NUMBER OF PROPOSED UNITS.

148 UNITS ARE PROPOSED FOR A DENSITY OF 15 UNITS PER ACRE. PDC'S WILL BE PURCHASED AND REDEEMED FOR 29 UNITS.

F. THE CONDOMINIUM DEVELOPMENT SHALL INCLUDE A CLUBHOUSE AND OUTDOOR RECREATION AREA FOR SOLE USE BY THE RESIDENTS OF THE DEVELOPMENT AND THEIR GUESTS.

THE PROJECT INCLUDES A POOL AND CLUBHOUSE FOR SOLE USE BY RESIDENTS AND THEIR GUESTS.

G. THE PROPOSED CONDOMINIUM DEVELOPMENT SHALL COMPLY WITH THE MINIMUM PARKING REQUIREMENTS SET FORTH IN SECTION 55-173 OF THE BARNEGAT TOWNSHIP LAND USE CODE. NO ADDITIONAL PARKING ABOVE WHAT IS REQUIRED FOR THE CONDOMINIUM UNITS SHALL BE REQUIRED FOR THE CLUBHOUSE.

THE PROJECT COMPLIES WITH THE MINIMUM PARKING REQUIREMENTS.

H. A DENSE VEGETATIVE BUFFER HAVING A MINIMUM WIDTH OF 50 FEET SHALL BE PROVIDED FROM ANY ADJOINING LOTS ZONED FOR OR OCCUPIED BY SINGLE FAMILY RESIDENTIAL DWELLINGS.

THE REQUIRED BUFFER IS PROVIDED AS REQUIRED, ALONG THE SOUTHERN PROPERTY LINE

CN ZONE REQUIREMENTS

	REQUIRED	PROPOSED
MINIMUM LOT AREA	9 ACRES	9.88 ACRES
MINIMUM LOT FRONTAGE (COUNTY ROAD)	1,400 FT	1,405 FT
MINIMUM LOT DEPTH	300 FT	306.2 FT
MINIMUM FRONT YARD SETBACK	50 FT	128.85 FT
MINIMUM SIDE YARD SETBACK	10 FT	44.10 FT
MINIMUM COMBINED SIDE YARD SETBACK	35 FT	362 FT
MINIMUM REAR YARD SETBACK	30 FT	42.2 FT
MAXIMUM BUILDING LOT COVERAGE	50%	20%
MAXIMUM BUILDING HEIGHT	3 STORIES / 48 FT	3 STORIES / < 48 FT

WAIVERS GRANTED

1. A WAIVER FROM THE REQUIREMENT TO PERMIT A FIRE HAZARD FUEL BREAK OF 42.33 FEET FROM THE WESTERLY PROPERTY LINE TO BUILDING #1 AND 43 FEET TO BUILDING #2, WHEREAS A MINIMUM FIRE HAZARD FUEL BREAK OF 75 FEET IS REQUIRED.
2. A WAIVER FROM THE REQUIREMENT TO PERMIT VERTICAL SIDE SLOPES ALONG THE SOUTHERLY AND WESTERLY SIDES OF THE STROMWATER MANAGEMENT BASIN, WHEREAS THE ORDINANCE PERMITS A MAXIMUM SIDE SLOPE OF 3:1.

GENERAL NOTES

1. BEING KNOWN AS TAX LOT 24.09, TAX BLOCK 92.111 AS SHOWN ON SHEET 51 OF THE BARNEGAT TOWNSHIP TAX MAPS AND CONTAINS 9.88 ACRES.
2. OUTBOUND INFORMATION TAKEN FROM A MAP ENTITLED "BOUNDARY & TOPOGRAPHIC MAP TAX LOTS 24.06& 24.07 IN BLOCK 92.111 AND TAX LOT 42.02 IN BLOCK 92.112 – BARNEGAT TOWNSHIP, OCEAN COUNTY, NEW JERSEY", AS PREPARED BY ERNST, ERNST & LISSENDEN, DATED JUNE 26, 2001 AND LAST REVISED APRIL 9, 2009.
3. IT IS PROPOSED TO DEVELOP 148 RESIDENTIAL APARTMENTS.
4. NO WAIVERS OR DE MINIMUM EXCEPTIONS FROM THE RESIDENTIAL SITE IMPROVEMENT STANDARDS (RSIS) ARE PROPOSED.

PROJECT SUMMARY

1. PROPOSED 2 BEDROOM RESIDENTIAL UNITS: 148 UNITS (15 UNITS PER ACRE)
2. 296 PARKING SPACES ARE REQUIRED AT 2.0 SPACES PER UNIT
3. 314 PARKING SPACES ARE PROPOSED

50 0 50 100 200
GRAPHIC SCALE
1"= 50'

LEGEND

EXISTING EDGE OF PAVEMENT
EXISTING EASEMENT
PROPOSED EASEMENT
EXISTING CURB
EXISTING DEPRESSED CURB
PROPOSED CURB
PROPOSED DEPRESSED CURB
CENTERLINE
PROPOSED FENCE
EXISTING WOODLINE
PROPOSED WOODLINE
HANDICAP CURB RAMP
PARKING COUNT (20)

OWNERSHIP OF DOCUMENTS

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NO.	DATE	DESCRIPTION	BY

PDS
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PHONE 732.367.0711 FAX 732.367.0713
ENGINEERING@PDS-NJ.COM WWW.PDS-NJ.COM
NEW JERSEY STATE BOARD OF P.E. & L.S.
CERTIFICATE OF AUTHORIZATION NO. 24GA28159600
WILLIAM A. STEVENS, P.E., P.P.
PROFESSIONAL ENGINEER, NEW JERSEY LIC. #39513
PROFESSIONAL PLANNER, NEW JERSEY LIC. #33154

AMENDED PRELIMINARY & FINAL MAJOR SITE PLAN

SITE PLAN

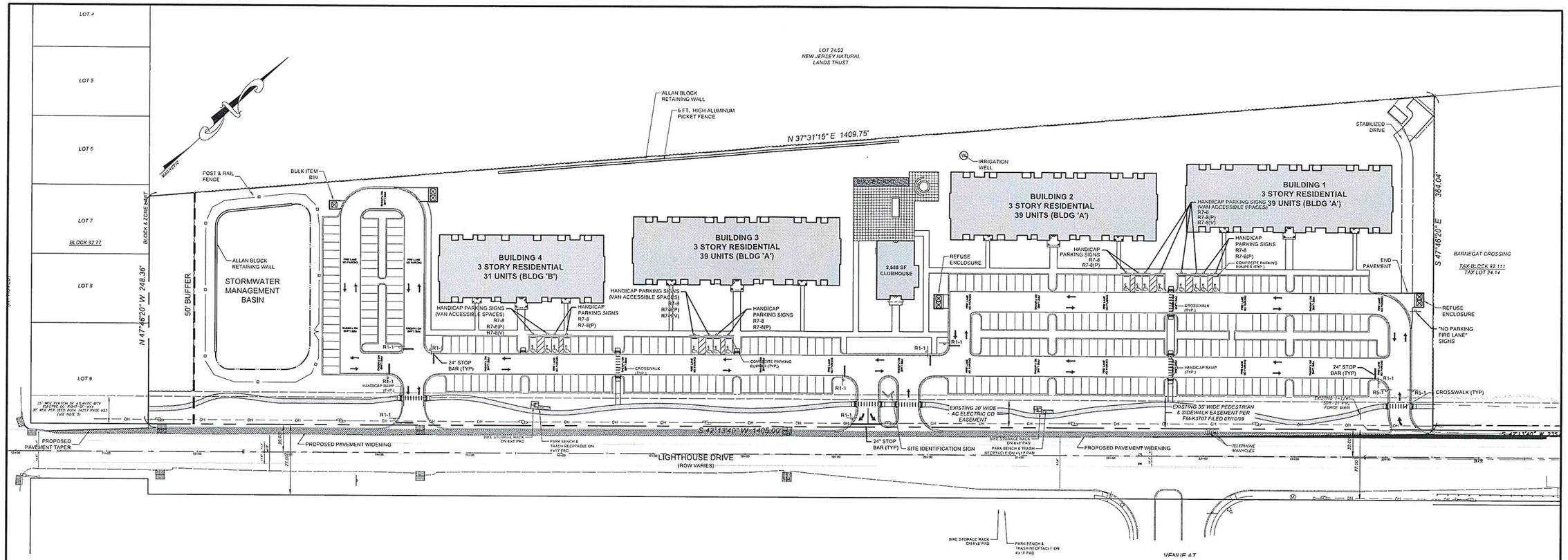
FOR

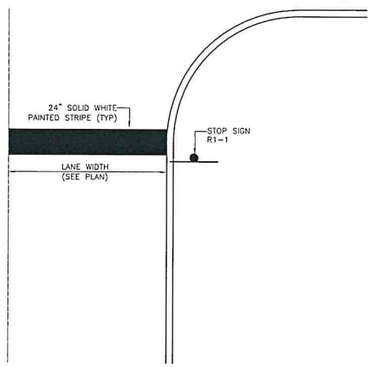
BLOCK 92.111 - LOT 24.09

TOWNSHIP OF BARNEGAT

OCEAN COUNTY NEW JERSEY

SCALE: 1" = 50'	DATE: AUGUST 24, 2020	JOB NUMBER: 16617	SHEET 3 / 25
DRAWN BY: KNL/BJK	DESIGNED BY: IMB	CHECKED BY: WAS	

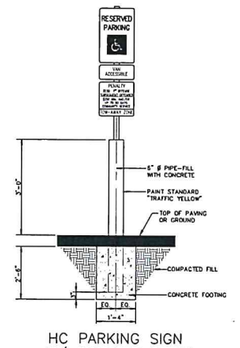




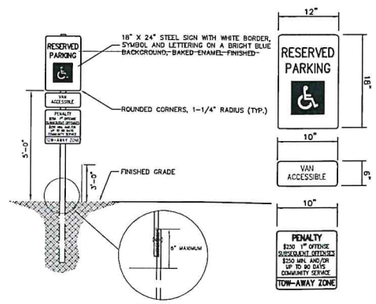
STOP BAR
N.T.S.

NOTES:
1. FIRE SIGN TO BE ERECTED WITH THE BOTTOM OF THE SIGN NOT LESS THAN 8 FEET ABOVE THE GROUND.
2. FIRE SIGN TO BE 12" WIDE BY 18" IN LENGTH.
3. FIRE SIGN TO HAVE A WHITE REFLECTIVE BACKGROUND WITH A RED BORDER AND A MINIMUM OF 3" SIZED REFLECTIVE RED LETTERS LABELED "NO" ON THE FIRST LINE, 2" SIZED REFLECTIVE RED LETTERS LABELED "PARKING" ON THE SECOND LINE, 2" SIZED REFLECTIVE RED LETTERS LABELED "FIRE" ON THE THIRD LINE, AND 2" SIZED REFLECTIVE RED LETTERS LABELED "LANE" OR "ZONE" ON THE FOURTH LINE.
4. SPACING OF THE SIGNS SHALL BE EVEN, WITH ONE SIGN FACING THE DIRECTION OF TRAVEL OR ALTERNATE DIRECTION OF TRAVEL FOR A MAXIMUM DISTANCE 100' PER SIGN OR AS ORDERED BY THE FIRE OFFICIAL.

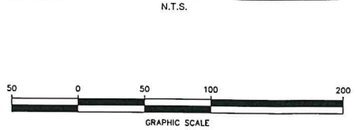
FIRE LANE SIGN
N.T.S.

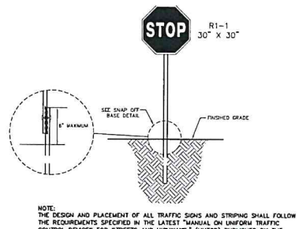


HC PARKING SIGN W/ BOLLARD DETAIL
N.T.S.



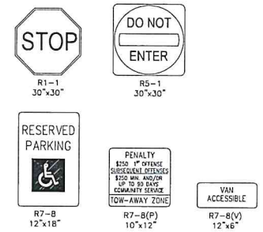
HANDICAPPED PARKING SPACE SIGN DETAIL
N.T.S.





NOTE:
THE DESIGN AND PLACEMENT OF ALL TRAFFIC SIGNS AND STRIPING SHALL FOLLOW THE REQUIREMENTS SPECIFIED IN THE LATEST "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS," (MUTCD) PUBLISHED BY THE U.S.DEPARTMENT OF TRANSPORTATION AND ADOPTED BY THE NJ DEPARTMENT OF TRANSPORTATION.

STOP SIGN & POST
N.T.S.



SIGN SCHEDULE

THE DESIGN AND PLACEMENT OF ALL TRAFFIC SIGNS AND STRIPING SHALL MEET THE REQUIREMENTS SPECIFIED IN THE LATEST "MANUAL ON UNIFORM TRAFFIC CONTROL DEVISES FOR STREETS AND HIGHWAYS" (MUTCD) PUBLISHED BY THE US DEPARTMENT OF TRANSPORTATION AND ADOPTED BY THE NJ DEPARTMENT OF TRANSPORTATION.

TRAFFIC

R1-1	30"x30"	STOP
R5-1	30"x30"	DO NOT ENTER

HANDICAP PARKING SIGNS

R7-8	12"x18"	HANDICAP PARKING
R7-8P	10"x12"	HANDICAP PARKING PENALTY PLAQUE
R7-8V	6"x12"	HANDICAP PARKING VAN ACCESSIBLE

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WILLIAM A. STEVENS, P.E., P.P.
PROFESSIONAL ENGINEER, NEW JERSEY LIC. #29613
PROFESSIONAL PLANNER, NEW JERSEY LIC. #5354

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

FOR

BLOCK 92.111 - LOT 24.09

TOWNSHIP OF BARNEGAT

OCEAN COUNTY NEW JERSEY

SCALE: 1" = 50'	DATE: AUGUST 24, 2020	JOB NUMBER: 16617	SHEET 4 / 25
DRAWN BY: KNL/BJK	DESIGNED BY: IMB	CHECKED BY: WAS	

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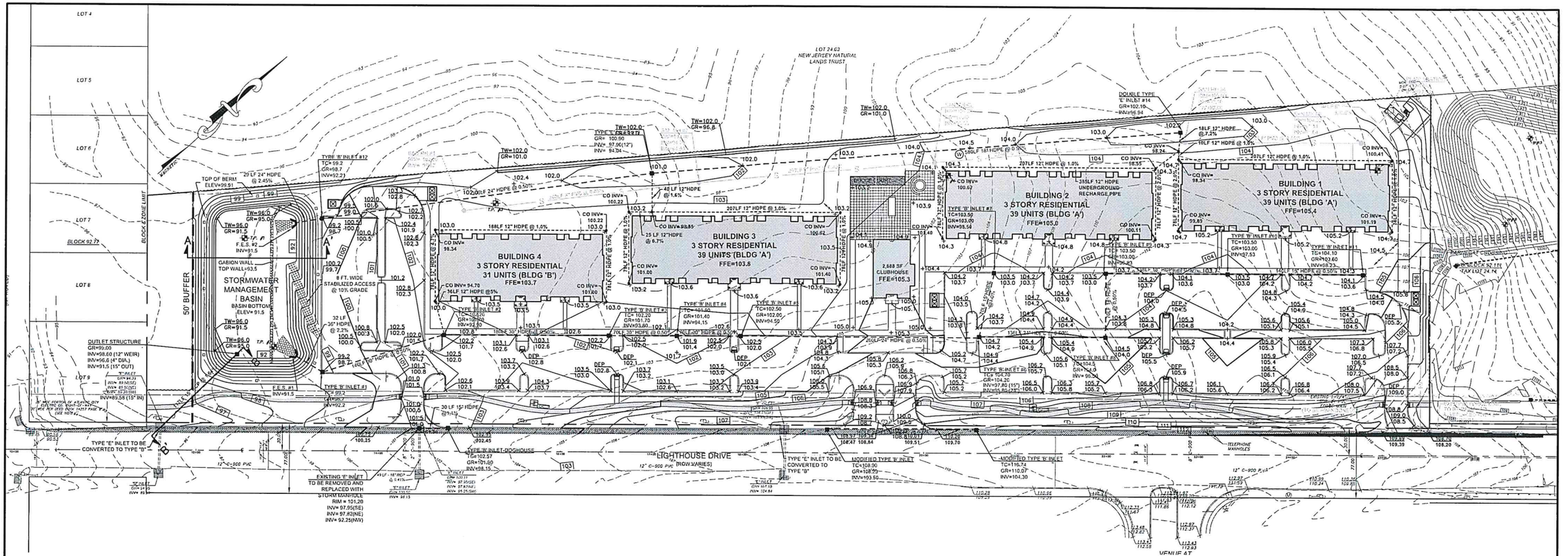
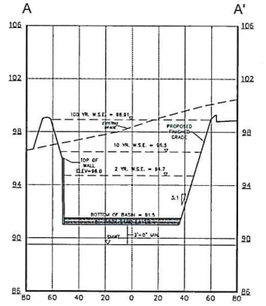
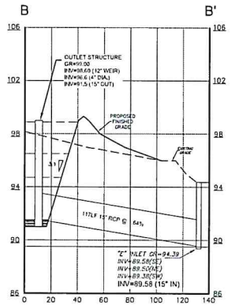


LEGEND

EXISTING SPOT ELEVATION	122.32 ×
PROPOSED SPOT ELEVATION	115.10
EXISTING CONTOUR LINE	124
PROPOSED CONTOUR LINE	128
PROPOSED INLET	
PROPOSED STORM MANHOLE	
PROPOSED FLARED END SECTION	
PROPOSED STORM LINE	
PROPOSED ROOF DRAIN	
PROPOSED DOWNSPOUT	
PROPOSED CLEANOUT	
EXISTING SANITARY MANHOLE	
EXISTING SANITARY LINE	
EXISTING WATER LINE	—W—
EXISTING WATER CURB STOP	
EXISTING HYDRANT	
EXISTING WATER VALVE	
PROPOSED SANITARY LINE	
PROPOSED SANITARY FORCE MAIN	—FM—
PROPOSED SANITARY MANHOLE	
PROPOSED SANITARY CLEANOUT	
PROPOSED WATER LINE	—W—
PROPOSED WATER VALVE	



BASIN SECTION A–A'
SCALE: 1" = 50' HORIZONTAL
1" = 5' VERTICAL



BASIN SECTION B–B'
SCALE: 1" = 50' HORIZONTAL
1" = 5' VERTICAL

TEST PIT LOG

TP #1 — ELEV = 97.5±

0 – 6" ORGANIC LAYER
6 – 30" 4/6 10YR SANDY LOAM
30 – 108" 7/1 10YR SAND
108 – 120" 7/1 10YR SAND W/ 6/4 10YR MOTTLE
SHWT @ 108" – ELEV = 88.5
NO WATER ENCOUNTERED

TP #2 — ELEV = 98.8±

0 – 5" ORGANIC LAYER
5 – 32" 5/8 10YR SANDY LOAM
32 – 114" 7/8 10YR LOAMY SAND
114 – 120 " 7/8 10YR SAND W/ 6/1 10YR SAND MOTTLES
SHWT @ 114" – ELEV = 89.3
NO WATER ENCOUNTERED

TP #3 — ELEV = 99.0±

0 – 6" ORGANIC LAYER
6 – 42" 4/6 10YR SANDY LOAM
42 – 118" 7/3 10YR SAND
118 – 120" 7/1 10YR SAND W/ 7/4 10YR MOTTLE
SHWT @ 118" – ELEV = 88.2
NO WATER ENCOUNTERED
PERMEABILITY @ 65" = 15.2 INCH/HR

TP #4 — ELEV = 102.3±

0 – 7" ORGANIC LAYER
7 – 50" 5/8 10YR SANDY LOAM
50 – 120" 6/8 10YR LOAMY SAND
NO SHWT ENCOUNTERED – ELEV < 92.3
NO WATER ENCOUNTERED
PERMEABILITY @ 80" = 14.0 INCH/HR

TP #5 — ELEV = 102.5±

0 – 8" ORGANIC LAYER
8 – 40" 6/8 10YR SANDY LOAM
40 – 108" 7/2 10YR SAND
NO SHWT ENCOUNTERED
NO WATER ENCOUNTERED
PERMEABILITY @ 90" = 16.0 INCH/HR

SOIL BORINGS #1 & #2 PERFORMED BY PDS, LLC, ON MAY 11, 2017.
SOIL BORINGS #3, #4 & #5 PERFORMED BY PDS, LLC, ON MARCH 20, 2019.

STORMWATER BASIN NOTES

1. THE PROJECT DOES NOT CONTAIN ANY HIGH POLLUTANT LOADING AREAS (HPLA) AND SEGREGATION OR PRE-TREATMENT OF RUNOFF IS NOT REQUIRED.
2. 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.
3. THE SOIL PERMEABILITY BELOW THE BASIN DOES NOT PERMEATE IN EXCESS OF 20 INCHES PER HOUR AND NO BIORETENTION SYSTEM IS REQUIRED. THE CLAY LOAM LAYER PRESENT UNDER A PORTION OF THE BASIN MUST BE REMOVED AND REPLACED WITH K-4 SOILS.
4. 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.

GRADING & DRAINAGE NOTES:

1. EXISTING TOPOGRAPHY INFORMATION IS NAVD 1988..
2. ALL ROOF LEADERS SHALL CONNECT INTO THE UNDERGROUND RECHARGE DRAINAGE SYSTEM. ROOF LEADER CONNECTION LOCATIONS WILL BE DETERMINED DURING RESOLUTION COMPLIANCE AND FINAL COORDINATION WITH FINAL ARCHITECTURAL PLANS.
3. ALL STORMWATER INLETS TO BE TYPE "B" UNLESS OTHERWISE NOTED.
4. ALL HDPE STORM DRAINAGE TO BE HI-Q SURE LOCK 2.0 HIGH STRENGTH PIPE AS MANUFACTURED BY HANCOR, OR EQUIVALENT, UNLESS OTHERWISE NOTED.
5. ALL PROPOSED LAWN AREAS WILL BE GRADED WITH LIGHT-WEIGHT CONSTRUCTION EQUIPMENT.
6. TOPOGRAPHY SHOWN IS RELATIVE TO PLANS PREPARED BY DYNAMIC ENGINEERING, WHICH HAVE NO DATUM REFERENCE. BASED UPON GPS OBSERVATIONS PERFORMED BY THIS OFFICE THE DATUM OF SAID TOPOGRAPHY IS NAVD 1988.

STORMWATER SYSTEM MAINTENANCE

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

THE FOLLOWING IS A SUMMARY OF THE REQUIRED MAINTENANCE ACTIVITIES:

TASK

INFILTRATION SYSTEMS
- DEBRIS REMOVAL
- INSPECTION & REPAIR (AS NECESSARY) OF STRUCTURES
- TILLING OF BASIN BOTTOM

COLLECTION SYSTEMS
- DEBRIS REMOVAL & CLEANING
- INSPECTION & REPAIR (AS NECESSARY) OF STRUCTURES

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

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

50 0 50 100 200
GRAPHIC SCALE
1"= 50'

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PROFESSIONAL PLANNER, NEW JERSEY LIC. #5154

AMENDED PRELIMINARY & FINAL MAJOR SITE PLAN
GRADING & STORM DRAINAGE PLAN

FOR

BLOCK 92.111 - LOT 24.09

TOWNSHIP OF BARNEGAT

OCEAN COUNTY NEW JERSEY

SCALE: 1" = 50'	DATE: AUGUST 24, 2020	JOB NUMBER: 16617	SHEET 5 / 25
DRAWN BY: KNL/BJK	DESIGNED BY: IMB	CHECKED BY: WAS	

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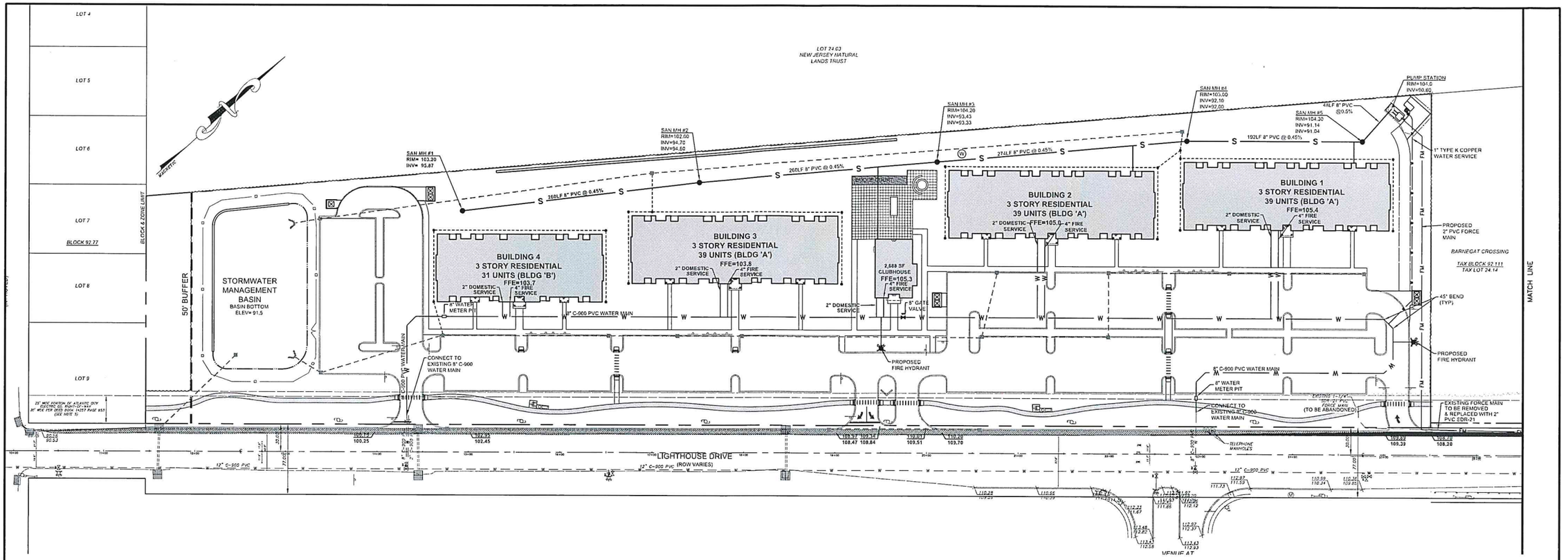

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EXISTING WATER LINE	—W—
EXISTING WATER CURB STOP	
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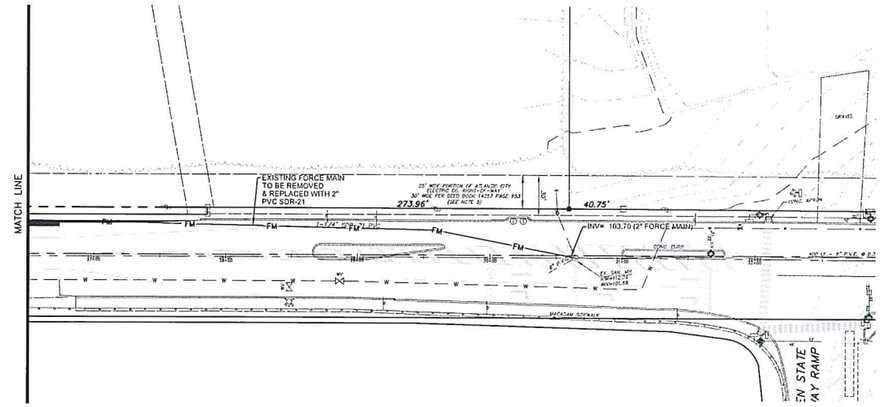
PROPOSED SANITARY FORCE MAIN	—FM—
PROPOSED SANITARY MANHOLE	
PROPOSED SANITARY CLEANOUT	
PROPOSED WATER LINE	—W—
PROPOSED WATER VALVE	

GENERAL UTILITY NOTES:

1. THRUST BLOCKS ARE TO BE PROVIDED AT ALL WATER MAINS, BENDS, FITTINGS AND REDUCERS.
2. FIRE HYDRANTS MUST BE SUPPLIED BY A MINIMUM OF 6" WATER LINES.
3. ALL SANITARY LATERALS SHALL BE INSTALLED WITH A MINIMUM SLOPE OF ¼" PER FOOT.
4. AT THE SANITARY LATERAL WYE OR TEE-WYE, MATCH THE CROWN OF THE SEWER MAINS AND THE LATERAL.
5. 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 OR THE SEWER MAIN IS ABOVE THE WATER MAIN, INSTALL THE SEWER WITH DUCTILE IRON PIPE WITH WATER TIGHT JOINTS THAT AREA A DISTANCE OF AT LEAST 10 FEET ON EITHER SIDE OF THE WATER MAIN.
6. UTILITY CROSSING REQUIREMENTS:
   A. IF A SEWER MAIN CROSSES LESS THAN 6 INCHES ABOVE THE WATER MAIN, SUPPORT THE SEWER MAIN WITH A CONCRETE CRADLE.
   B. IF A WATER MAIN CROSSES LESS THAN 6 INCHES ABOVE THE SEWER MAIN, SUPPORT THE WATER MAIN WITH A CONCRETE CRADLE.
   C. IF OTHER PIPING OR UTILITIES CROSS LESS THAN 18 INCHES ABOVE THE SEWER, SUPPORT THE TOP PIPING OR UTILITIES WITH CONCRETE CRADLES.
   D. IF OTHER PIPING OR UTILITIES CROSS LESS THAN 6 INCHES ABOVE THE WATER, SUPPORT THE TOP PIPING OR UTILITIES WITH CONCRETE CRADLES.
   E. 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.
7. PROVIDE 4'-0" MINIMUM OVER SEWER MAINS. PROVIDE 3'-0" MINIMUM OVER SEWER LATERALS.
8. ALL SANITARY SEWER SHALL BE PVC CONFORMING TO ASTM D-3034; SDR-35 WITH PUSH ON JOINTS, UNLESS OTHERWISE NOTED.
9. ALL WATER MAINS SHALL BE CLDIP CLASS 52 WITH PUSH-ON JOINT SINGLE GASKET OR MECHANICAL JOINT SINGLE GASKET CONFORMING TO THE REQUIREMENTS OF AWWA C111.
10. ALL WATER SERVICES AND PLUMBING SHALL CONFORM WITH THE PLUMBING SUBCODE NJAC 5:23-3.15.
11. ALL WATER VALVES SHALL BE RESILIENT WEDGE TYPE IN ACCORDANCE WITH THE AMERICAN WATER WORKS ASSOCIATION STANDARD SPECIFICATION C-509.
12. VALVES SHALL BE PLACED ON WATER DISTRIBUTION MAINS NOT MORE THAN 1000 FEET APART.
13. ALL DEAD END WATER MAINS SHALL BE TERMINATED WITH A FIRE HYDRANT.
14. WATER MAIN FITTINGS TO BE USED WHEREVER JOINT DEFLECTION EXCEEDS MANUFACTURERS SPECIFICATIONS.
15. CONTRACTOR SHALL USE MEGALUGS ON ALL MECHANICAL JOINT FITTINGS.
16. CONTRACTOR SHALL BE ALLOWED TO USE MECHANICAL JOINT HYDRANT TEES WITH ROTATING GLANDS, AS EQUAL TO THE FIRE HYDRANT ASSEMBLY CONNECTIONS SHOWN IN THE CONSTRUCTION DETAILS.
17. SAFETY PLATFORMS SHALL BE REQUIRED FOR ALL MANHOLES 16 FEET DEEP OR GREATER. ALL MANHOLES 16 FEET DEEP OR GREATER SHALL HAVE A 5'-0" INSIDE DIAMETER.
18. THE NUMBER AND LOCATIONS OF SERVICE CONNECTIONS TO BE FINALIZED UPON COMPLETION OF FINAL ARCHITECTURAL PLANS.
19. THE LOCATION AND SIZES OF FIRE SERVICE LINES ARE TO BE SPECIFIED BY ARCHITECT.
20. THE LOCATION AND SIZES OF FIRE SPRINKLER CONNECTIONS ARE TO BE SPECIFIED BY ARCHITECT.
21. THE LOCATION AND SIZES OF WATER SERVICE LINES ARE TO BE SPECIFIED BY ARCHITECT.
22. ALL FIRE SERVICE LINES WILL INCLUDE AN APPROVED BACKFLOW PREVENTION DEVICE AS STIPULATED IN NJAC 7:10-10.1 et seq. A DETAIL OF THE PROPOSED FIRE CONNECTIONS TO BE PROVIDED UPON COMPLETION OF FINAL ARCHITECTURAL PLANS.
23. LOCATION AND SIZES OF SIAMESE CONNECTIONS TO BE DETERMINED BY FINAL ARCHITECTURAL DESIGN.
24. NO CONCRETE CRADLES ARE REQUIRED AT UTILITY CROSSINGS.



GRAPHIC SCALE
1" = 50'

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AMENDED PRELIMINARY & FINAL MAJOR SITE PLAN

UTILITY PLAN

FOR

BLOCK 92.111 - LOT 24.09

TOWNSHIP OF BARNEGAT

OCEAN COUNTY NEW JERSEY

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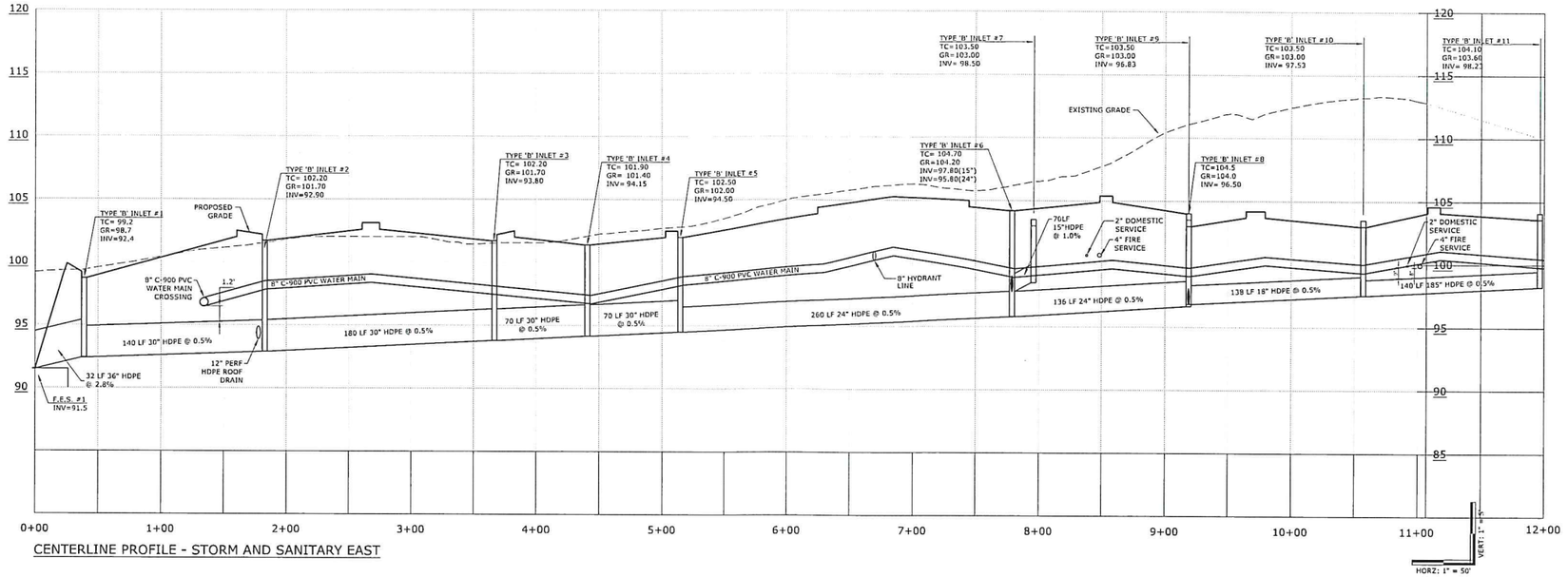
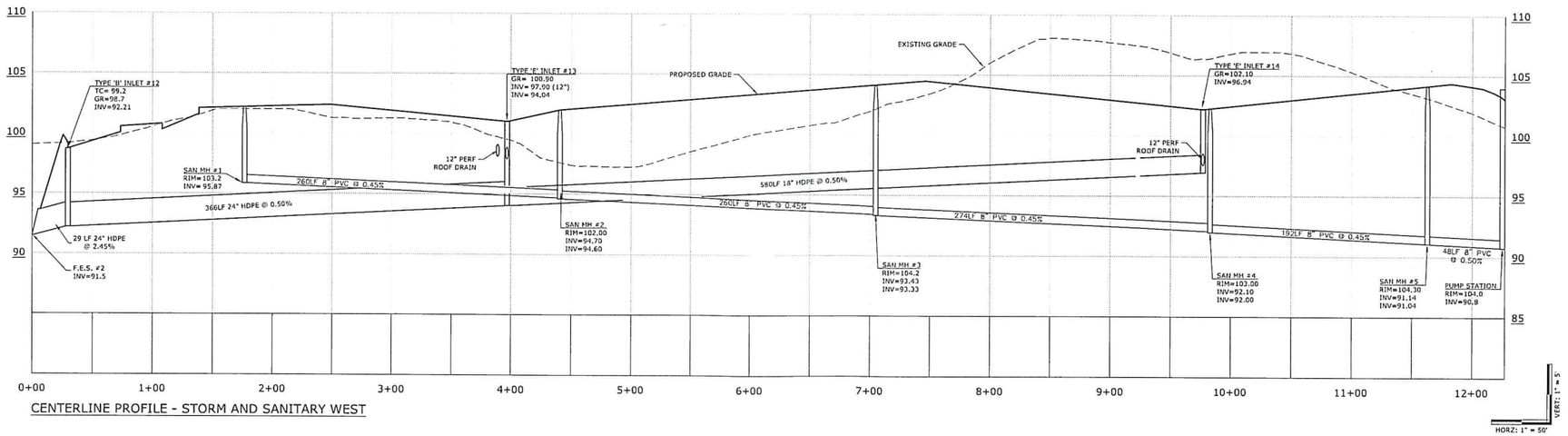


CENTERLINE PROFILE - STORM AND SANITARY EAST



CENTERLINE PROFILE - STORM AND SANITARY WEST

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AMENDED PRELIMINARY & FINAL MAJOR SITE PLAN

STORM AND SANITARY SEWER PROFILES

FOR

BLOCK 92.111 - LOT 24.09

TOWNSHIP OF BARNEGAT

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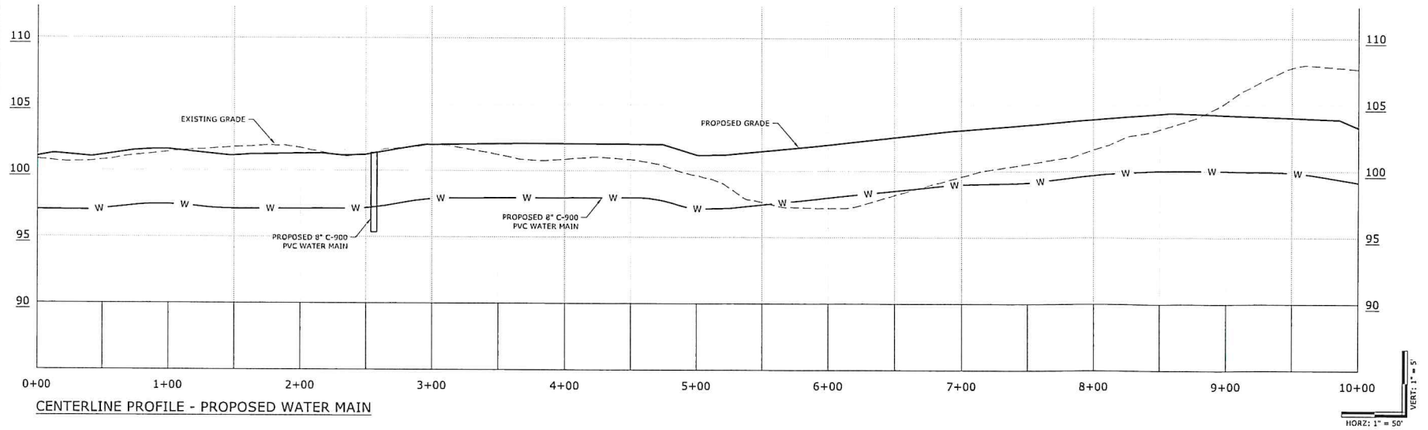
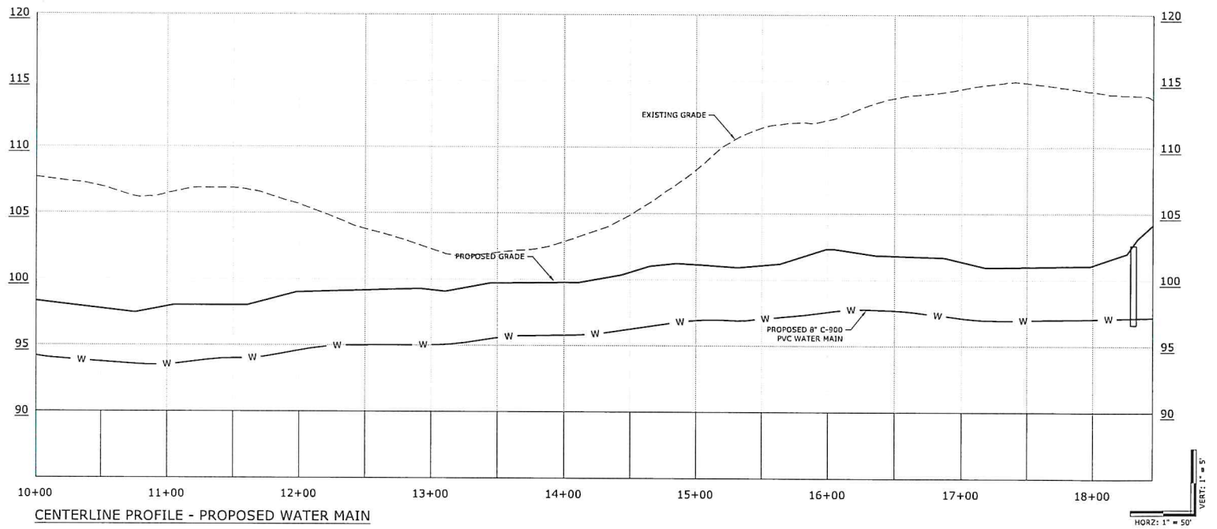
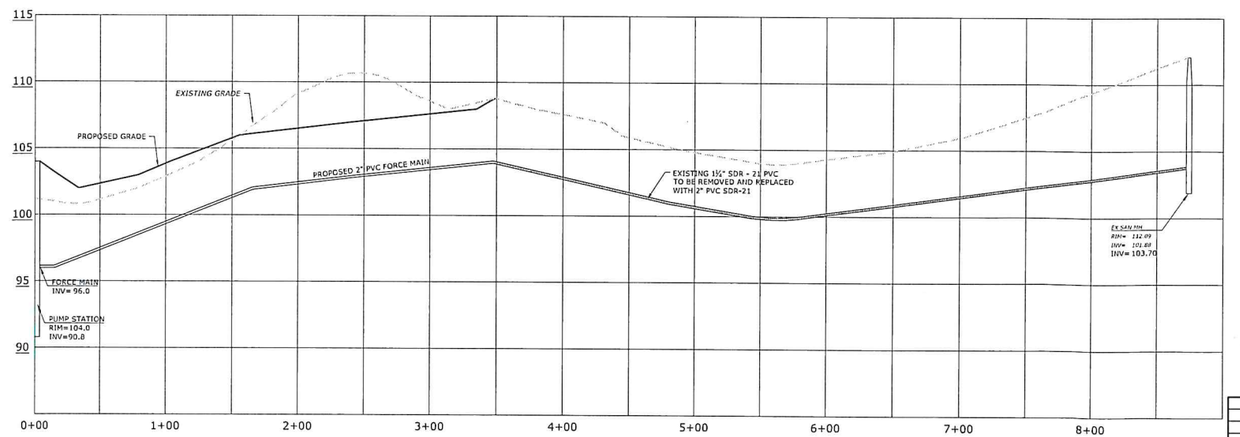


CENTERLINE PROFILE - PROPOSED WATER MAIN



CENTERLINE PROFILE - PROPOSED WATER MAIN



FORCE MAIN PROFILE

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AMENDED PRELIMINARY & FINAL MAJOR SITE PLAN

PROPOSED WATER MAIN PROFILE

FOR

BLOCK 92.111 - LOT 24.09

TOWNSHIP OF BARNEGAT

OCEAN COUNTY NEW JERSEY

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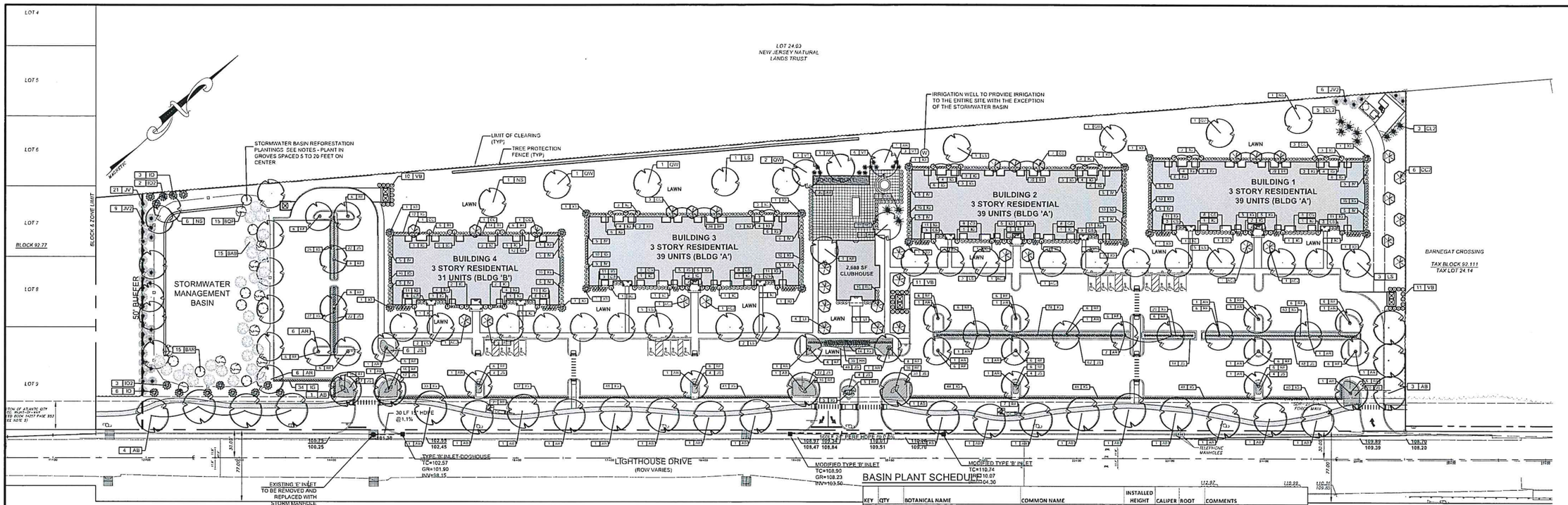

BASIN PLANT SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	INSTALLED HEIGHT	CALIPER	ROOT	COMMENTS
Shade Trees							
BAS	9	Acer Buergeranum	Trident Red Maple	8' - 10'		B&B	Spring Planting Only
	3	Acer Buergeranum	Trident Red Maple		1 ½" - 2"	B&B	Spring Planting Only
	3	Acer Buergeranum	Trident Red Maple		2 ½" - 3"	B&B	Spring Planting Only
BAR	9	Acer rubrum 'Franksred' or 'October Glory'	Red Sunset or October Glory Red Maple	8' - 10'		B&B	
	3	Acer rubrum 'Franksred' or 'October Glory'	Red Sunset or October Glory Red Maple		1 ½" - 2"	B&B	
	3	Acer rubrum 'Franksred' or 'October Glory'	Red Sunset or October Glory Red Maple		2 ½" - 3"	B&B	
BQP	9	Quercus palustris	Pin Oak	8' - 10'		B&B	
	3	Quercus palustris	Pin Oak		1 ½" - 2"	B&B	
	3	Quercus palustris	Pin Oak		2 ½" - 3"	B&B	

PLANT SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	INSTALLED HEIGHT	CALIPER	ROOT	COMMENTS
Shade Trees							
AB	29	Acer buergeranum	Trident Red Maple		2 ½" - 3"	B&B	Limbed up to 7'; Spring Planting Only
AR	37	Acer rubrum 'Franksred' or 'October Glory'	Red Sunset or October Glory Red Maple		2" - 2 ½"	B&B	Limbed up to 7'
LS	22	Liquidambar styraciflua 'Rotundiloba'	Seedless Sweet Gum		2" - 2 ½"	B&B	Limbed up to 7'; Spring Planting Only
NS	8	Nyssa sylvatica	Black Gum		2 ½" - 3"	B&B	Spring Planting Only
QW	5	Quercus phellos	Willow Oak		2 ½" - 3"	B&B	Limbed up to 7'; Spring Planting Only
Ornamental Trees							
AC2	9	Amelanchier canadensis	Shadblow Serviceberry	8' - 10'		B&B	Multi-stem
CC	12	Cercis canadensis	Eastern Red Bud	6' - 8'		B&B	Multi-stem
CC2	6	Cercis canadensis	Eastern Red Bud	8' - 10'		B&B	Multi-stem
LI	6	Lagerstroemia indica x fauriei 'Zuni'	Zuni Crape Myrtle	6'-8'		B&B	Multi-stem
Evergreen Trees							
CL	3	Chamaecyparis x Cupressocyparis leylandii	Leyland Cypress	6' - 8'		B&B	
CL2	8	Chamaecyparis x Cupressocyparis leylandii	Leyland Cypress	8' - 10'		B&B	
IO	23	Ilex opaca	American Holly	6' - 8'		B&B	Use 7 male as pollinator
IO2	5	Ilex opaca	American Holly	8' - 10'		B&B	Use 1 male as pollinator
JV	21	Juniperus virginiana	Eastern Red Cedar	6' - 8'		B&B	
JV2	15	Juniperus virginiana	Eastern Red Cedar	8' - 10'		B&B	
Shrubs							
CS	78	Cornus sericea 'Kelseyi'	Kelsey's Dwarf Redosier Dogwood	24" - 30"		#3 CONT	
IC	62	Ilex crenata 'Steeds'	Steeds Upright Holly	30" - 36"		B&B	
IG	964	Ilex glabra 'Compacta'	Dwarf Inkberry Holly	24" - 30"		#5 CONT	
IH	143	Ilex virginica 'Sarich'	Little Henry Dwarf Virginia Sweetspire	24" - 30"		CONT	
IV	82	Ilex verticillata 'Winter Red'	Winter Red Winterberry	30" - 36"		CONT	Plant 2 'Jim Dandy' as pollinator
RC	33	Rhododendron catwbiense 'Album'	White Catawba Rhododendron	30" - 36"		B&B	
VB	32	Viburnum x burkwoodii	Burkwood Viburnum	36"		B&B	
VT	12	Viburnum trilobum 'Compactum'	Dwarf Cranberry Bush Viburnum	36"		B&B	
WP	15	Weigela florida 'Red Prince'	Red Prince Weigela	36"			
Groundcover							
JS	343	Juniperus conferta	Shore Juniper	15" - 18"		#1 CONT	48" On Center Spacing
Grasses/Perennials							
HH	32	Hemerocallis 'Happy Returns'	Happy Returns Daylily	15" - 18"		#1 CONT	18" On Center Spacing
RF	245	Rudbeckia fulgida var. sullivantii 'Goldsturm'	Goldsturm Black-Eyed Susan	15" - 18"		#1 CONT	18" On Center Spacing

LANDSCAPE NOTES

1. GENERAL NOTES

A. THIS PLAN SHALL BE UTILIZED FOR LANDSCAPE AND TREE SAVE USES ONLY. PLEASE REFER TO SITE PLANS FOR CONSTRUCTION OF SITE IMPROVEMENTS.

B. ALL TREES ARE DRAWN TO THEIR ANTICIPATED MATURE DRIPLINE.

C. CONTRACTOR SHALL EXAMINE DRAWINGS AND REQUEST A MARKOUT OF FIELD CONDITIONS FOR SPECIFIC LOCATIONS OF UTILITIES, STRUCTURES, ETC. NOTIFY THE ENGINEER IN WRITING IMMEDIATELY, IN REFERENCE TO DISCREPANCIES OR LOCATION CONFLICTS.

D. IN THE EVENT THAT PLANT QUANTITY DISCREPANCIES OR MATERIAL OMISSIONS OCCUR IN THE PLANTING SCHEDULE, THE PLAN SHALL SUPERSEDE.

E. ALL PLANTING MATERIAL AND METHODS SHALL MEET OR EXCEED THE REQUIREMENTS OF THE MUNICIPAL ORDINANCES OF THE TOWNSHIP OF NORTH HANOVER AND ANSI Z-60.1 (CURRENT VERSION), "THE AMERICAN STANDARD FOR NURSERY STOCK," PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN. IN THE EVENT OF CONFLICT BETWEEN A.A.N. AND MUNICIPAL STANDARDS, THE MUNICIPAL REQUIREMENTS SHALL SUPERCEDE.

F. ALL LANDSCAPING SHALL BE PLANTED SO AS TO NOT INTERFERE WITH UTILITY LINES, SIGHT TRIANGLES, UNDERGROUND UTILITIES, PUBLIC WALKWAYS OR OTHER EXISTING OR PROPOSED STRUCTURES. ALL PLANT MATERIAL PROPOSED WITHIN THE REQUIRED SIGHT DISTANCES OR SIGHT TRIANGLES ARE SELECTED SO AS TO NOT EXCEED A MATURE HEIGHT GREATER THAN 30" ABOVE THE ELEVATION OF THE ADJACENT ROADWAY. STREET TREES AND SHADE TREES PLANTED NEAR PEDESTRIAN OR VEHICULAR 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 GROUNDCOVERS, 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 NORTH HANOVER TOWNSHIP ORDINANCE.

2. PLANTING

A. SOIL MUST BE FROST-FREE, FRIABLE AND NOT MUDDY AT THE TIME OF PLANTING.

B. BACKFILL MATERIAL FOR PLANTING PITS SHALL BE COMPOSED OF 70% TOPSOIL, 20% FULLY COMPOSTED COW OR HORSE MANURE AND 10% PEAT MOSS. TOPSOIL SHALL MEET NJDOT 2007 STANDARD SPECIFICATIONS SECTION 917.01, AND MAY BE FROM ON-SITE OR IMPORTED SOURCES. SOIL SHALL CONTAIN NO ACIDIC MARL, NOR ANY LARGE STONES.

C. PLANTS SHALL BE SET TO ULTIMATE FINISHED GRADE SO THAT THEY WILL BE LEFT IN THE RELATIONSHIP TO THE SURROUNDING GROUND AS THEY HAD, PRIOR TO BEING DUG. IF EVIDENCE OF SATURATED SOILS IS ENCOUNTERED DURING EXCAVATION OF THE PLANTING PITS, UPON DIRECTION BY THE ENGINEER, PLANTS SHALL BE SET SO THAT THEIR ROOT CROWNS ARE APPROXIMATELY THREE INCHES ABOVE THE FINAL GRADE, WITH TOPSOIL AND MULCH GENTLY MOUNDED TO AVOID EXCESSIVE DRYING AT THE SURFACE. UNDER NO CIRCUMSTANCES SHALL PLANTINGS AT RELATIVELY DRY LOCATIONS BE PERFORMED IN A MOUNDED MANNER.

D. THE CORD BINDING THE BALL OF ALL BALLED AND BURLAPPED (B&B) PLANTS SHALL BE CUT AND REMOVED, AND BURLAP ON THE UPPER ⅓ OF THE ROOT BALL SHALL BE REMOVED. PLANTS WITH SYNTHETIC NON-DEGRADEABLE ROOT BALL WRAPS SHALL NOT BE ACCEPTABLE.

E. ALL WIRE BASKETS MUST BE REMOVED PRIOR TO PLANTING.

F. ALL PROPOSED TREES SHALL BE SET IN BEDS MULCHED TO THE LIMIT OF THEIR PLANTING PITS. EXCEPT AS NOTED ALL OTHER TYPES OF PLANTINGS SHALL BE SET IN CONTINUOUS, MASSED PLANTING BEDS, RATHER THAN ISOLATED INDIVIDUALS. ALL TREE AND SHRUB BEDS SHALL RECEIVE A 3" THICK APPLICATION OF A THOROUGHLY COMPOSTED ORGANIC MULCH FREE FROM ANY OBJECTIONABLE OR FOREIGN MATERIALS.

G. THE MULCH AT THE OUTER PERIMETER OF PLANTING PITS AND BEDS SHALL BE PREPARED SO THAT A 2" HIGH RIM TO RETAIN MOISTURE IS CONSTRUCTED. THE THICKNESS OF THE MULCH SHALL BE FEATHERED WITHIN 3" OF STEMS OR TRUNK , SO THAT NO MULCH IS IN DIRECT PHYSICAL CONTACT WITH THE PLANTS BRANCHING OR TRUNKS. PLANTING OF GROUNDCOVERS MAY BE SUBSTITUTED FOR MULCH IN PARKING LOT ISLANDS.

H. TREES SHALL NOT BE GUYED, EXCEPT IF AND WHERE REQUIRED BY THE MUNICIPALITY; WHEREIN TREES GREATER THAN FIVE FEET IN HEIGHT MAY BE STAKED AND GUYED PER THE DETAILS.

3. PLANT MATERIAL

A. NO PLANT SUBSTITUTION SHALL BE ALLOWED WITH REGARD TO SIZE, SPECIES, NAMED VARIETY OR CULTIVAR, WITHOUT PRIOR PERMISSION FROM THE TOWNSHIP TREE SPECIALIST. ALL SUBSTITUTIONS SHALL BE SUBMITTED TO THE TOWNSHIP TREE SPECIALIST FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.

B. ALL PLANTS SHALL BE DUG, PACKED, TRANSPORTED AND HANDLED WITH THE UTMOST CARE TO ENSURE ADEQUATE PROTECTION FROM INJURY DESICCATION.

C. ALL PLANTS SHALL BE FREE FROM DISEASE AND INFESTATION, AND ALL LEGALLY REQUIRED AGRICULTURAL CERTIFICATIONS.

D. ALL PLANTS SHALL BE PRUNED TO ENHANCE VIGOR PRIOR TO, OR UPON INSTALLATION, WHILE RETAINING NATURAL GROWTH HABIT OF THE PLANTS. THE CENTRAL LEADER SHALL NOT BE CUT; PLANTS PROVIDED IN THIS CONDITION SHALL NOT BE ACCEPTED. DAMAGED, BROKEN OR CONFLICTING BRANCHES SHALL BE PRUNED CLEANLY, FLUSH WITH THE MAIN TRUNK OR BRANCH.

E. ALL PLANTS SHALL BE NURSERY-GROWN AND TAGGED WITH A DURABLE LABEL INDICATING THE GENUS, SPECIES, SPECIFIED VARIETY OR CULTIVAR, PLANT PATENT NUMBER (IF A PATENTED TREE), AS WELL AS CULTURAL REQUIREMENTS, INCLUDING WATERING AND FERTILIZATION.

4. MAINTENANCE

A. ALL PLANTING SHALL BE WATERED AS NECESSARY FOR SOUND HORTICULTURAL PRACTICE DURING THE FIRST GROWING SEASON, TO ENSURE THEIR PROPER ESTABLISHMENT.

B. IN GENERAL, SHRUBS ARE TO BE PLANTED AT INTERVALS WHICH WILL ALLOW THEM TO FULLY DEVELOP INTO CONTINUOUS MASSES OF THE INDIVIDUAL SPECIES. SHEARING OR SHAPING IS ONLY REQUIRED OR DESIRABLE WHERE DEAD OR CONFLICTING BRANCHING DEVELOPS.

C. STAKING SHALL BE ATTACHED TO THE TREE WITH TWELVE GAUGE GALVANIZED WIRE COVERED WITH RUBBER OR PLASTIC HOSE, OR TREE TIES ESPECIALLY MANUFACTURED FOR THIS PURPOSE. THE LOOP IN CONTACT WITH THE TREE SHALL BE LOOSE ENOUGH TO PERMIT GROWTH AND PREVENT GIRDLING FOR TWO YEARS, BUT SHALL BE TIGHTLY BOUND TO THE STAKE TO PREVENT SLIPPING.

D. 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.

E. A PRIVATE WELL SHALL BE PROVIDED TO SUPPLY IRRIGATION WATER TO THE ENTIRE SITE, WITH THE EXCEPTION OF THE STORMWATER BASIN.

5. MISCELLANEOUS

D. NO TOPSOIL SHALL BE REMOVED FROM THE SITE OR USED AS SPOIL. TOPSOIL MOVED DURING THE COURSE OF CONSTRUCTION SHALL BE REDISTRIBUTED SO AS TO PROVIDE AT LEAST FOUR (4) INCHES OF SPREAD COVER TO ALL SEEDING AND PLANTING AREAS OF THE SITE AND SHALL BE STABILIZED BY SEEDING OR PLANTING. IN THE EVENT THAT THE QUANTITY OF TOPSOIL AT THE SITE IS INSUFFICIENT TO PROVIDE FOUR (4) INCHES OF COVER FOR ALL SEEDING AND PLANTING AREAS, THE DEVELOPER SHALL PROVIDE SUCH A COVER. TOPSOIL SHALL BE APPROVED BY THE TOWNSHIP ENGINEER.

E. TOPSOIL SHALL BE PROVIDED ON ALL LAWN AND PLANTING AREAS. TOPSOIL SHALL EITHER BE EXISTING MATERIAL THAT HAS BEEN STRIPPED AND STOCKPILED FOR REUSE OR NEWLY FURNISHED MATERIAL.

F. STREET AND PARKING LOT TREES SHALL HAVE NO BRANCHES LOWER THAN 7' ABOVE GRADE.

G. ALL DEAD OR SEVERELY DECLINING PLANTS SHALL BE REPLANTED WITHIN THE NEXT GROWING SEASON DURING PERFORMANCE AND MAINTENANCE BOND PERIODS.

H. THE TREE PROTECTION FENCING SHALL BE INSTALLED AND APPROVED BY THE TOWNSHIP TREE SPECIALIST PRIOR TO ANY CLEARING OR EXCAVATION. TREE FENCING TO REMAIN UNTIL PROTECTION AUTHORIZED TO BE REMOVED BY THE TOWNSHIP TREE SPECIALIST OR AFTER THE FINAL CERTIFICATE OF OCCUPANCY IS ISSUED.

STORMWATER BASIN REFORESTATION (1) PLANTING SUMMARY

	REQUIRED	PROVIDED
BASIN AREA	N/A	18,000 SQ. FT.
TREES REQUIRED (1 / 400 SQ. FT.)	45	45
2" - 2.5" CAL.(SHADE TREE)	20%(9)	9
1.5" - 2" CAL.(SHADE TREE)	20%(9)	9
8' - 10' WHIPS (SHADE TREE)	60%(27)	27

(1) PER ORDINANCE SECTION 55-162.2H(3)

REFORESTATION (1) PLANTING SUMMARY

	REQUIRED	PROVIDED
UPLAND GREEN SPACE (2)	N/A	412,000 SQ. FT.
TREES REQUIRED (1 / 1,000 SQ. FT.)	412	214
2" - 2.5" CAL.(SHADE TREE AND/OR 6 - 8 FT. EVERGREEN)	60%(247)	129
2.5" - 3" CAL.(SHADE TREE AND/OR 8 - 10 FT. EVERGREEN)	40%(165)	85

(1) PER ORDINANCE SECTION 55-162.2H(3)

(2) DOES NOT INCLUDE STORMWATER BASIN.

(3) OFFSITE PLANTINGS TO BE PROVIDED UNDER THE DIRECTION OF THE TOWNSHIP LANDSCAPE ARCHITECT.

50 0 50 100 200

GRAPHIC SCALE
1"= 50'

TREE REMOVAL NOTES

1. CLEARING LIMITS ARE TO BE STAKED IN THE FIELD AND APPROVED BY THE TOWNSHIP LANDSCAPE ARCHITECT.
2. TREE PROTECTION FENCING SHALL BE INSTALLED AND APPROVED BY THE TOWNSHIP LANDSCAPE ARCHITECT PRIOR TO ANY CLEARING OR EXCAVATION.

LANDSCAPE LEGEND

SHADE TREE

ORNAMENTAL TREE

EVERGREEN TREES

EVERGREEN & DECIDUOUS SHRUB

LOW SHRUBS/ PERENNIALS/GROUNDCOVER

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NO.	DATE	DESCRIPTION	BY

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WILLIAM A. STEVENS, P.E., P.P.
PROFESSIONAL ENGINEER NEW JERSEY LIC #29915
PROFESSIONAL PLANNER NEW JERSEY LIC #5914

AMENDED PRELIMINARY & FINAL MAJOR SITE PLAN

LANDSCAPE PLAN

FOR

BLOCK 92.111 - LOT 24.09

TOWNSHIP OF BARNEGAT

OCEAN COUNTY NEW JERSEY

SCALE: 1" = 50'	DATE: AUGUST 24, 2020	JOB NUMBER: 16617	SHEET 9 / 25
DRAWN BY: KNL/BJK	DESIGNED BY: IMB	CHECKED BY: WAS	

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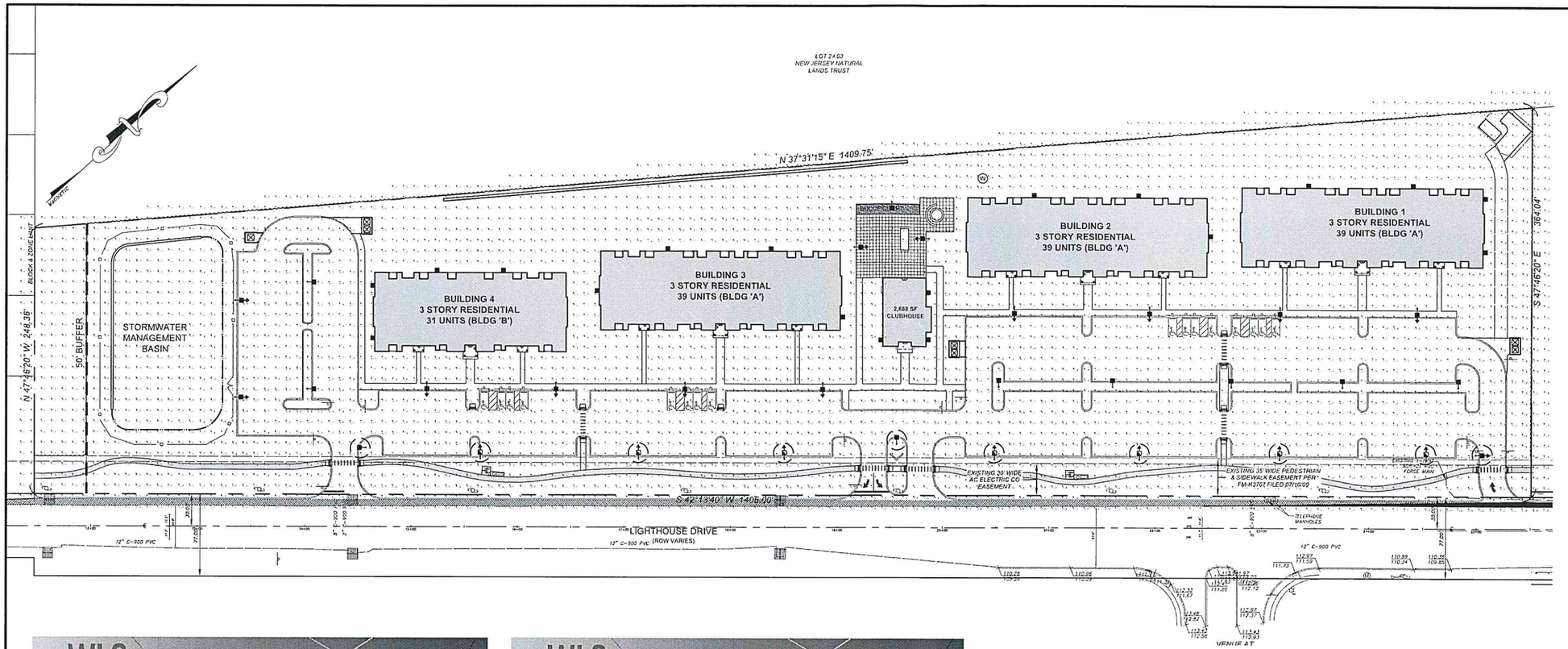

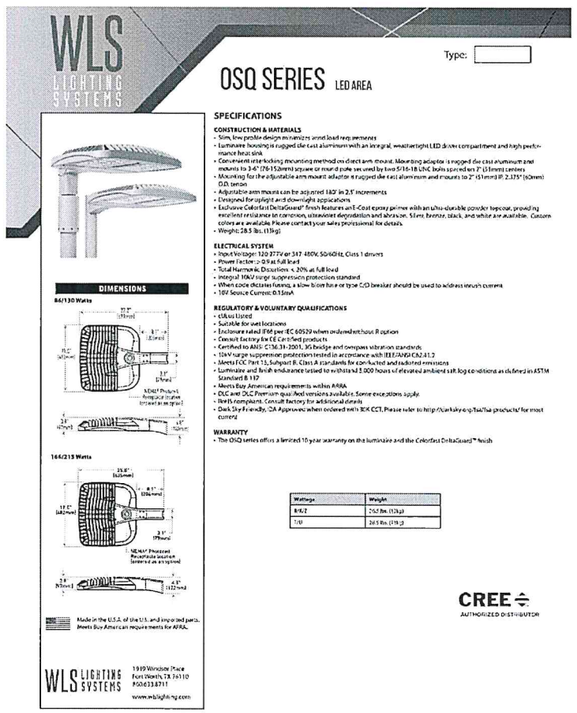

Wattage	Weight
84/62	26.5 lbs (12kg)
130	26.5 lbs (12kg)

Lumen Package	Weight
3L, 4L, 6L	11.0 lbs (5.0kg)
7L	11.0 lbs (5.0kg)

LIGHTING NOTES

1. ALL LIGHTS SHOULD BE SET BACK AT LEAST 4' FROM THE DRIVES OR PARKING TO AVOID CONFLICTS.
2. CIRCLED LIGHT FIXTURES TO HAVE CUT-OFF HOUSE SHIELDS ATTACHED.

Calculation Summary								
Label	Units	Avg	Max	Min	Avg/Min	Max/Min	PtSpcLr	PtSpcTr
PARKING AND DRIVES	Fc	1.01	5.9	0.1	10.10	59.00	10	10

Luminaire Schedule

WLS16273S BARNEGAT CROSSING RESIDENTIAL BARNEGAT, NJ RM: DEAN PLEASE EMAIL US FOR PRICING AT DEAN@WLSLIGHTING.COM

Symbol	Qty	Label	Lum. Lumens	LLF	Description	Lum. Watts
	10	A	8478	0.980	WLS-OSQ-A-LED-2-40K 14' MOUNTING HEIGHT	57
	12	B	8856	0.980	WLS-OSQ-A-2WE-2-40K 14' MOUNTING HEIGHT	57
	3	C	2856	0.980	WLS-OSQ-A-2WE-2-40K 14' MOUNTING HEIGHT	57
	18	F	2483	0.980	WLS-XSPW-E-MOT-3DE-2L-40K 10' MOUNTING HEIGHT	18.34

GRAPHIC SCALE
50 0 50 100 200
1" = 50'

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NEW JERSEY STATE BOARD OF P.E. & L.S.
CERTIFICATE OF AUTHORIZATION NO. 24GA28215300
WILLIAM A. STEVENS, P.E., P.P.
PROFESSIONAL ENGINEER, NEW JERSEY LIC. #29615
PROFESSIONAL PLANNER, NEW JERSEY LIC. #5261

AMENDED PRELIMINARY & FINAL MAJOR SITE PLAN

LIGHTING PLAN

FOR

BLOCK 92.111 - LOT 24.09

TOWNSHIP OF BARNEGAT

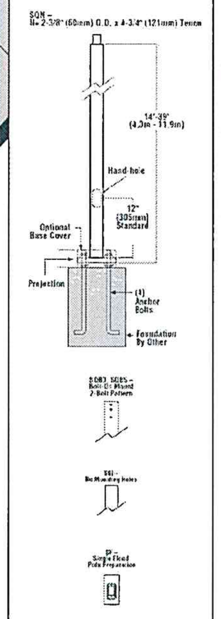
OCEAN COUNTY NEW JERSEY

SCALE: 1" = 50'	DATE: AUGUST 24, 2020	JOB NUMBER: 16617	SHEET 10 / 25
DRAWN BY: KNL/BJK	DESIGNED BY: IMB	CHECKED BY: WAS	

File: W:\PROJECTS\16617\16617 SITE Key Layout 510 LT Aug 27, 2020 - 1:36pm

SNTS SERIES

Type: ______



Made in the U.S.A. of the U.S. and imported parts. Meets Buy American requirements for ARRA.

SPECIFICATIONS

POLE SHAFT
Pole shaft is electro-welded ASTM A500 Grade C steel tubing with a minimum yield strength of 50,000 psi. On Tenon Mount steel poles, tenon is 2-3/8" O.D. high-strength pipe. Tenon is 4-3/4" in length. Straight poles are 4", 5", and 6" square.

HAND-HOLE
Standard hand-hole location is 12" above pole base. Poles 22' and above have a 3" x 6" reinforced hand-hole. Shorter poles have a 2" x 4" non-reinforced hand hole BASE - Pole base is ASTM A36 hot rolled steel plate with a minimum yield strength of 36,000 psi. Two-piece square base cover is optional.

ANCHOR BOLTS
Poles are furnished with anchor bolts featuring zinc-plated double nuts and washers. Galvanized anchor bolts are optional. Anchor bolts conform to ASTM F 1554 Grade 55 with a minimum yield strength of 55,000 psi.

GROUND LUG
Ground lug is standard.

DUPLEX RECEPTACLE
Weatherproof duplex receptacle is optional.

GROUND FAULT CIRCUIT INTERRUPTER
Self-testing ground fault circuit interrupter is optional.

FINISHES
Each pole is finished with DuraGrip®, WLS's baked-on polyester-powder finishing process which electrostatically applies and fuses a polyester powder to the pole. Provides an extremely smooth and uniform finish to withstand extreme weather changes without cracking or peeling, and features a five-year limited warranty. Optional DuraGrip® Plus features the added protection of a 3.0 to 5.0 mil thickness of polyester powder finish plus an inner coating, as well as a seven-year limited warranty.

DETERMINING THE LUMINAIRE/POLE COMBINATION FOR YOUR APPLICATION:
- Select luminaire from luminaire ordering information
- Select bracket configuration if required
- Determine EPA value from luminaire/bracket EPA chart
- Select pole height
- Select MPH to match wind speed in the application area (See windspeed maps)
- Confirm pole EPA equal to or exceeding value from note above
- Consult factory for special wind load requirements and banner brackets

SHIPPING WEIGHTS - SNTS Series	
4"(102mm) sq. 11 Ga. approximately	7.53 lbs./ft.
4"(102mm) sq. 07 Ga. approximately	10.00 lbs./ft.
5"(127mm) sq. 11 Ga. approximately	9.65 lbs./ft.
5"(127mm) sq. 07 Ga. approximately	12.53 lbs./ft.
5"(127mm) sq. 07 Ga. approximately	15.45 lbs./ft.
Anchor Bolts (3/4" x 30")(19mm x 762mm)	15 lbs. (2 kg)/set
Anchor Bolts (1" x 36")(25mm x 914mm)	38 lbs. (17 kg)/set

WLS LIGHTING SYSTEMS
1919 Windsor Place
Fort Worth, TX 76110
800.622.8711
www.wlslighting.com

Project Name: ______
Date: ______
Location: ______
Notes: ______

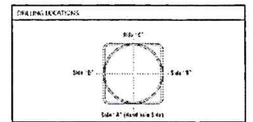
01 REV. 01/19
Specifications subject to change without notice.

SNTS SERIES

BOLT CIRCLE	4" (102mm) square 10-1/8" (257mm) sq. 11" (279mm) Dia. Bolt Circle	5" (127mm) square 10-1/8" (257mm) sq. 11" (279mm) Dia. Bolt Circle	5" (127mm) square 10-1/8" (257mm) sq. 11" (279mm) Dia. Bolt Circle	6" (152mm) square 12" (305mm) sq. 12" (305mm) Dia. Bolt Circle
	B	C	D	F
Bolt Circle	Slotted 8"-11" (203mm-279mm)	Slotted 9"-11" (229mm-279mm)	Slotted 9"-11" (229mm-279mm)	Slotted 12" (305mm)
Anchor Bolt Size	3/4" x 30" (19mm x 762mm)	3/4" x 30" (19mm x 762mm)	1" x 36" (25mm x 914mm)	1" x 36" (25mm x 914mm)
Anchor Bolt Projection	3-1/4" 83mm	3-1/4" (83mm)	4" (102mm)	4" (102mm)
Base Plate Opening for Wireway Entry	3-5/8" 92mm	4-3/4" (121mm)	4-5/8" (117mm)	5-5/8" (143mm)
Base Plate Dimensions	10-1/8" sq. x 3/4" thk. (257mm x 19mm)	10-1/8" sq. x 3/4" thk. (257mm x 19mm)	10-1/8" sq. x 1" thk. (257mm x 25mm)	12" sq. x 1-1/8" thk. (305mm x 29mm)

Note: Base plate illustrations may change without notice. Do not use for setting anchor bolts. Consult factory for the base plate templates.

DRILLING LOCATIONS



Sides	A	B	C	D
Hand Hole	X			
Single	X			
D 90°	X	X		
DN90°	X			X
T90°	X	X		X
TN120°	X			
Q90°	X	X	X	X
Single FBO	X			
Double FBO		X		X

*Other tier locations will be 120° to the tier and right of Side A. Note: Standard 'H' and DF pole preparations are located 3/4 of the height of the pole from the base, unless otherwise specified.

WLS LIGHTING SYSTEMS
1919 Windsor Place
Fort Worth, TX 76110
800.622.8711
www.wlslighting.com

Project Name: ______
Date: ______
Location: ______
Notes: ______

01 REV. 01/19
Specifications subject to change without notice.

SNTS SERIES

ORDERING INFORMATION SELECT APPROPRIATE CHOICE FROM EACH COLUMN TO FORMULATE ORDER CODE.
Refer to example below.

SERIES	POLE SERIES	MATERIAL	HEIGHT[2]	MOUNTING CONFIGURATION	POLE FINISH	OPTIONS
SNTS	**Bolt-on Arm Mount** See pole selection guide for pattern and fixture matches. **4SQB3** 3" Reduced drilling pattern **5SQB3** 3" Reduced drilling pattern **4SQBS** 5" Traditional drilling pattern **5SQBS** 5" Traditional drilling pattern **6SQBS** 5" Traditional drilling pattern **4SQBO** **5SQBO** **6SQBO**	**S11G** 11 Ga. Steel **S07G** 07 Ga. Steel	**14** 14' **16** 16' **18** 18' **20** 20' **22** 22' **24** 24' **26** 26' **28** 28' **30** 30' **33** 33' **39** 39'	**S** Single/Parallel **D180°** Double **D90°** Double **DN90°** Double **T90°** Triple **TN120°** Triple **Q90°** Quad **QN90°** Quad	**BRZ** Bronze **BLK** Black **PLP** Platinum Plus **WHT** White **SVG** Satin Verde Green **GPT** Graphite **MSV** Metallic Silver	**GA** Galvanized Anchor Bolts **SF**[3] Single Flood **DF**[3] Double Flood **DGP** DuraGrip® Plus **LAB** Less Anchor Bolts **OSXX**[4] Pole preparation for PMOS Occupancy Sensor
	Tenon Mount See selection guide for tenon and fixture/bracket matches. **4SQN** **5SQN** **6SQN** **No Mounting Holes** Use with: • BKA 4ISF & BKA 5ISF • BKA X4ISF & BKA X5ISF **Internal Slip-fitter**[1] **4SQI** **5SQI**			**N** Tenon Mount Standard tenon size is 2-3/8" O.D.		

ORDER:

WLS-SNTS	BOLT-ON ARM MOUNT	S11G	14	S	BLK	GA

Example: WLS-SNTS-4SQB3-S11G-20-T90-BRZ-GA

FOOTNOTES:
1. See Area Lighting Brackets 3" Reduced Drill Pattern and Area Lighting Brackets - Bolt on 5" Traditional Drill Pattern spec sheets for Internal Slip-fitter brackets.
2. Pole heights will have +/- 1/2" tolerance.
3. See Flood Lighting Brackets section for choice of FBO brackets.
4. Order PMOS separately. Change "XX" to indicate height and side of pole location for pole preparation. EX: OS18A indicates preparation is to be 18ft. up from pole base on side A. Optimal distance from ground to sensor is 20ft.
5. OSXX option required. Not for use with Metal Halide fixtures.

ACCESSOR ORDERING INFORMATION (Accessories are field installed)	
Description	**Order Number**
4BC - 4" Square Base Cover	122539CLR
5BC - 5" Square Base Cover	122561CLR
6BC - 6" Square Base Cover	122563CLR
DR2 - Weatherproof Duplex Receptacle	122566CLR
GFI - Ground Fault Circuit Interrupter	122567CLR
MHP - Mounting Hole Plugs (3 plugs) for use with 5" traditional drill pattern	172336
MHD - Mounting Hole Weatherproof Decal for use with 3" reduced drill pattern	340120
Vibration Damper - 4" Square Pole (bolt-on mount only)	172539
Vibration Damper - 5" Square Pole (bolt-on mount only)	172538
Vibration Damper - 6" Square Pole (bolt-on mount only)	176341
PMOS120 - 120V Occupancy Sensor	51803XXCLR
PMOS208/240 - 208, 240V Occupancy Sensor	53423XXCLR[5]
PMOS277 - 277V Occupancy Sensor	51802XXCLR[5]
PMOS480 - 480V Occupancy Sensor	53424XXCLR[5]

WLS LIGHTING SYSTEMS
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Fort Worth, TX 76110
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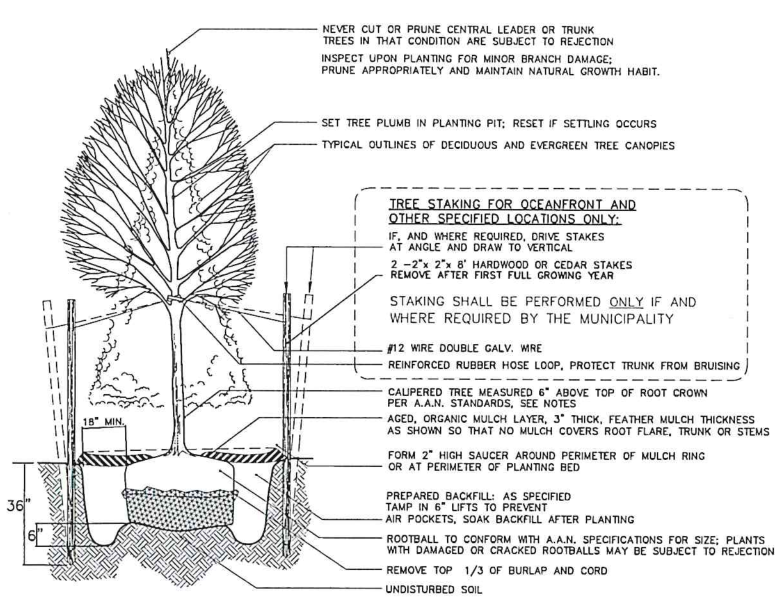
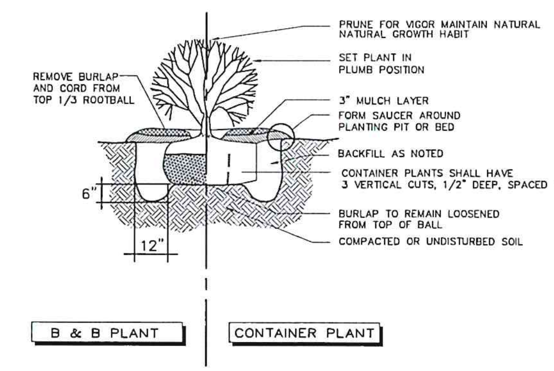
www.wlslighting.com

Project Name: ______
Date: ______
Location: ______
Notes: ______

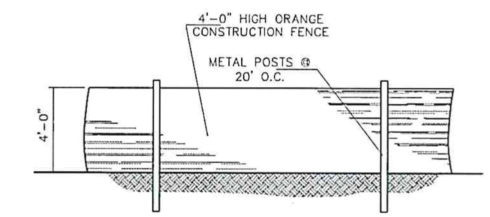
01 REV. 01/19
Specifications subject to change without notice.



TREE PLANTING
NTS

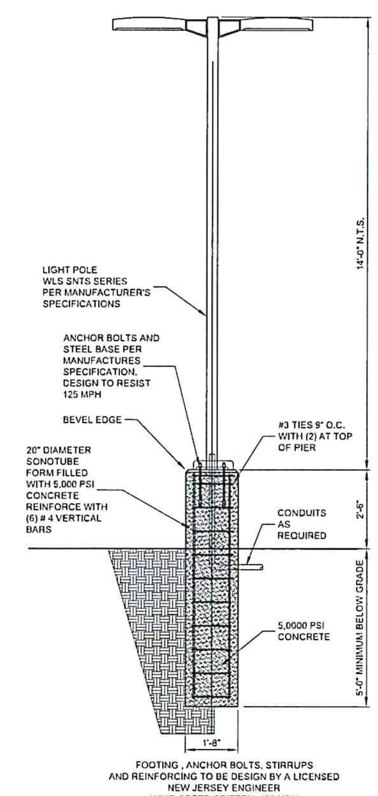


SHRUB & CONTAINER PLANTING
NTS



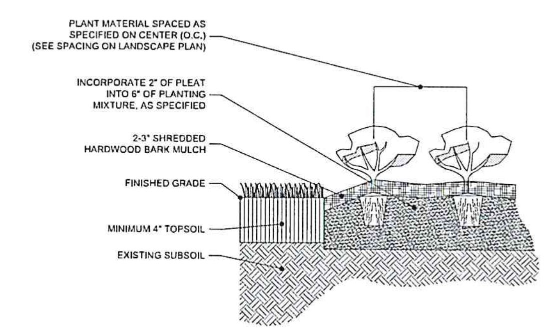
NOTE:
TREE PROTECTION FENCING SHALL BE INSTALLED AND APPROVED BY THE TOWNSHIP LANDSCAPE ARCHITECT PRIOR TO ANY CLEARING OR EXCAVATION

TEMPORARY TREE PROTECTION FENCE
NTS



FOOTING, ANCHOR BOLTS, STIRRUPS AND REINFORCING TO BE DESIGN BY A LICENSED NEW JERSEY ENGINEER
WIND SPEED CRITERIA 125 MPH

POLE MOUNTED LIGHT FIXTURE
NTS



PERENNIAL/GROUND COVER PLANTING DETAIL
NTS

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NO.	DATE	DESCRIPTION	BY

PDS
PROFESSIONAL DESIGN SERVICES, L.L.C.
CONSULTING ENGINEERS, LAND SURVEYORS, PLANNERS
ENVIRONMENTAL SCIENTISTS, CONSTRUCTION SERVICES
1245 AIRPORT ROAD, SUITE 1, LAKEWOOD, NEW JERSEY 08701
PHONE 732 363 0060 FAX 732 363 6673
ENGINEERING@PDS-NJ.COM WWW.PDS-NJ.COM
NEW JERSEY STATE BOARD OF PE & LS
CERTIFICATE OF AUTHORIZATION NO. 24GA28125400
WILLIAM A. STEVENS, P.E., P.P.
PROFESSIONAL ENGINEER, NEW JERSEY LIC. #29615
PROFESSIONAL PLANNER, NEW JERSEY LIC. #5284

AMENDED PRELIMINARY & FINAL MAJOR SITE PLAN
LANDSCAPE & LIGHTING DETAILS
FOR
BLOCK 92.111 - LOT 24.09
TOWNSHIP OF BARNEGAT
OCEAN COUNTY NEW JERSEY

SCALE: AS SHOWN	DATE: AUGUST 24, 2020	JOB NUMBER: 16617	SHEET 11 / 25
DRAWN BY: KNL/BJK	DESIGNED BY: IMB	CHECKED BY: WAS	

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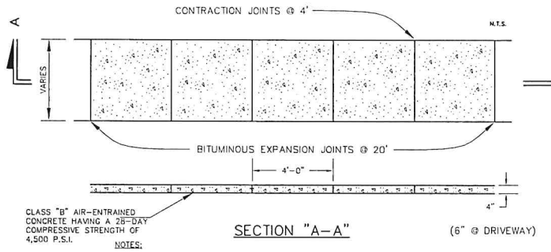


SECTION "A–A" (6" @ DRIVEWAY)

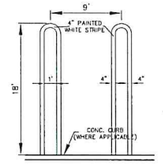
NOTES:

1. A PREFORMED, BITUMINOUS EXPANSION JOINT ½" THICK, 4" WIDE AND EXTENDING THE FULL WIDTH OF THE WALK, UNBROKEN, SHALL BE INSTALLED EVERY 20 FEET. CONTRACTION JOINTS SHALL BE INSTALLED EVERY 4 FEET THE FULL WALK WIDTH.
2. THERE SHALL BE A BROOM FINISH WITH THE EDGES FINISHED WITH A SUITABLE TOOL.
3. THE MAXIMUM PERMITTED CROSS-SLOPE IS 2%.

CONCRETE SIDEWALK AND BIKE PATH DETAIL

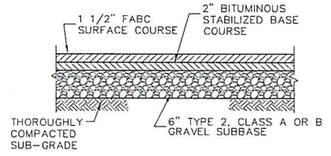
N.T.S.

(SEE SITE LAYOUT PLAN FOR LOCATION)



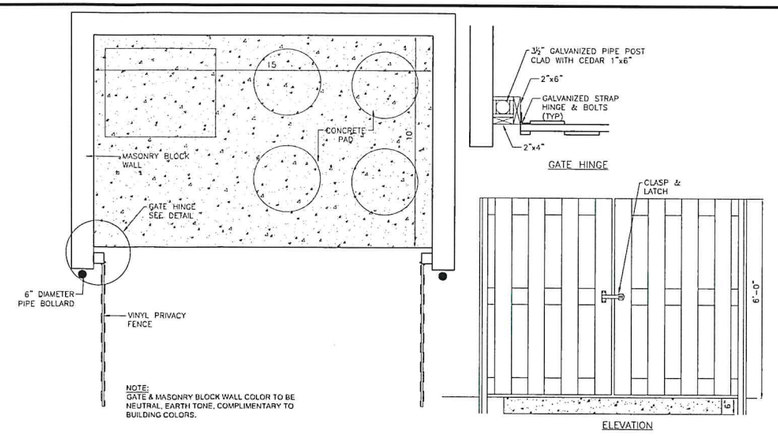
HAIRPIN STRIPING DETAIL

N.T.S.



TYPICAL PAVEMENT SECTION

N.T.S.



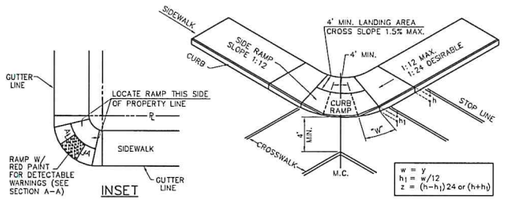
NOTE:
GATE & MASONRY BLOCK WALL COLOR TO BE NEUTRAL, EARTH TONE, COMPLIMENTARY TO BUILDING COLORS.

REFUSE ENCLOSURE DETAIL

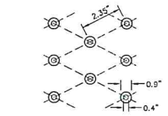
N.T.S.

STOP BAR

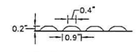
N.T.S.



INSET



TRIANGULAR PATTERN

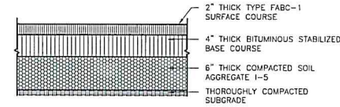


SECTION A–A

SECTION THROUGH RAMP

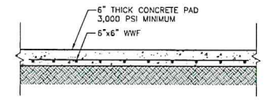
HANDICAPPED RAMP DETAIL

N.T.S.



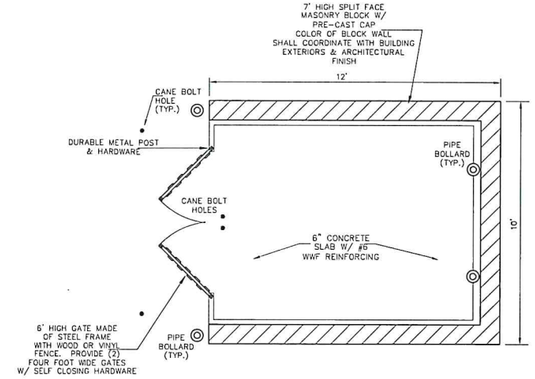
COUNTY PAVEMENT SECTION

N.T.S.



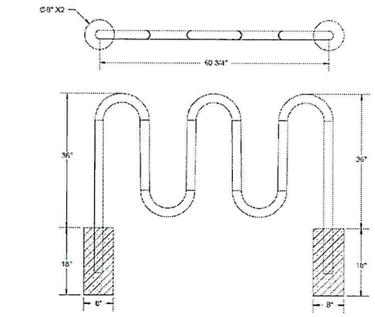
CONCRETE PAD DETAIL

N.T.S.



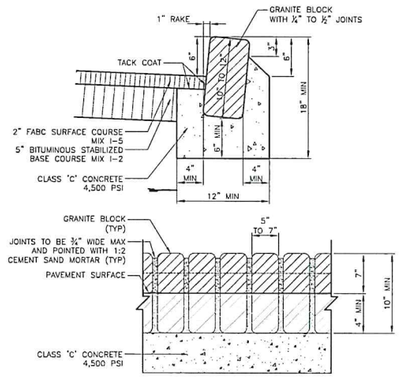
BULK ITEM ENCLOSURE

N.T.S.



BICYCLE STORAGE RACK DETAIL

N.T.S.

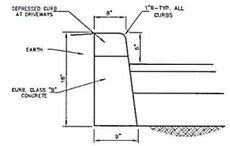


NOTES:

1. METHODS AND MATERIALS USED FOR BELGIAN BLOCK CURB CONSTRUCTION SHALL COMPLY WITH ALL TOWNSHIP REQUIREMENTS.
2. THE DIMENSIONS OF THE FOOTING SHALL BE CONSTRUCTED TO MATCH THE PAVEMENT SURFACE COURSE.

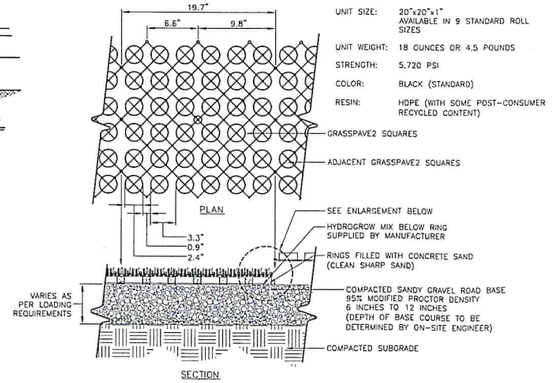
ON SITE GRANITE CURB

N.T.S.



COUNTY CURB DETAIL

N.T.S.

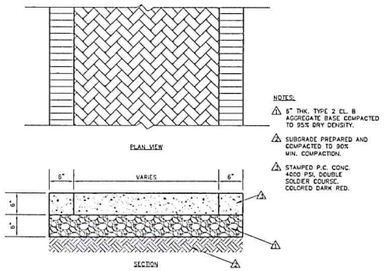


SPECIFICATIONS

UNIT SIZE:	20"x20"x1" AVAILABLE IN 9 STANDARD ROLL SIZES
UNIT WEIGHT:	18 OUNCES OR 4.5 POUNDS
STRENGTH:	5,720 PSI
COLOR:	BLACK (STANDARD)
RESIN:	HDPE (WITH SOME POST-CONSUMER RECYCLED CONTENT)

20 FT. STABILIZED ACCESS DRIVE

N.T.S.

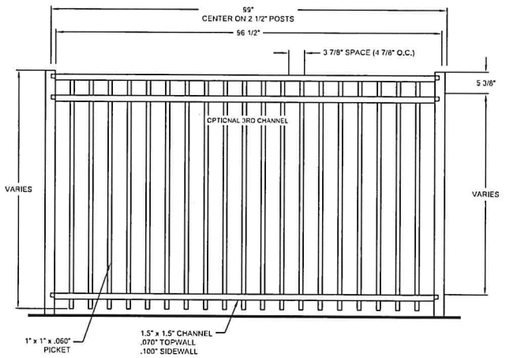


NOTES:

1. 6" THK. TYPE 2 CL. B AGGREGATE BASE COMPACTED TO 95% DRY DENSITY.
2. SUBGRADE PREPARED AND COMPACTED TO 90% MIN. COMPACTION.
3. STAMPED P.C. CONC 4000 PSI, DOUBLE SOLDIER COURSE, COLORED DARK RED.

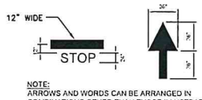
PATIO DETAIL

(SEE SITE LAYOUT PLAN FOR LOCATION)



ANODIZED ALUMINUM FENCE DETAIL

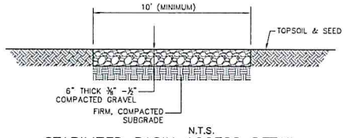
N.T.S.



NOTE:
ARROWS AND WORDS CAN BE ARRANGED IN COMBINATIONS OTHER THAN THOSE ILLUSTRATED HERE TO ACHIEVE DESIRED RESULT. ALL PAINT TO BE THERMOPLASTIC.

PAINTED MARKING DETAILS

N.T.S.



N.T.S.

STABILIZED BASIN ACCESS DETAIL

N.T.S.

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NO.	DATE	DESCRIPTION	BY

PDS
PROFESSIONAL DESIGN SERVICES, L.L.C.
CONSULTING ENGINEERS, LAND SURVEYORS, PLANNERS
ENVIRONMENTAL SCIENTISTS, CONSTRUCTION SERVICES
1245 AIRPORT ROAD, SUITE 1, LAKEWOOD, NEW JERSEY 08701
PHONE 732 363 7767 FAX 732 363 6673
ENGINEERING@PDS-NJ.COM WWW.PDS-NJ.COM
NEW JERSEY STATE BOARD OF P.E. & L.S.
CERTIFICATE OF AUTHORIZATION NO. 24GA28123400
WILLIAM A. STEVENS, P.E., P.P.
PROFESSIONAL ENGINEER, NEW JERSEY LIC. #29615
PROFESSIONAL PLANNER, NEW JERSEY LIC. #5154

AMENDED PRELIMINARY & FINAL MAJOR SITE PLAN

CONSTRUCTION DETAILS

FOR

BLOCK 92.111 - LOT 24.09

TOWNSHIP OF BARNEGAT

OCEAN COUNTY NEW JERSEY

SCALE: AS SHOWN	DATE: AUGUST 24, 2020	JOB NUMBER: 16617	SHEET 12 / 25
DRAWN BY: KNL/BJK	DESIGNED BY: IMB	CHECKED BY: WAS	

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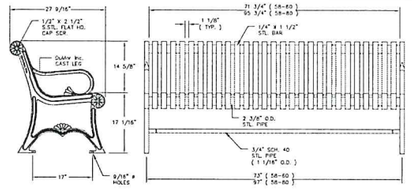
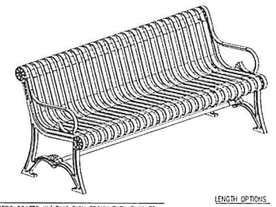




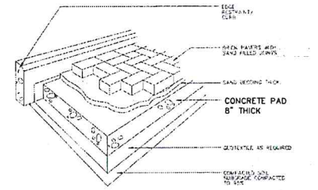
NOTES
1) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
2) 1/2" X 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED.
3) CUSTOM LETTERING AVAILABLE FOR RECESSED SIDE PANELS (TOTAL OF 37 SPACES)
☐ CUSTOM LETTERING (37 SPACES) _____

LENGTH OPTIONS
☐ 6' BENCH
☐ 8' BENCH

DuMor, inc.	BENCH	A.D. DRAWN - 12/27/24 DRAWN BY - MK A.D. REV - 11/27/25 REV BY - CA	REV. D	DRAWING NUMBER 58 SERIES	SHEET 1 OF 2

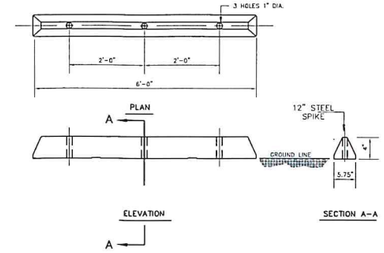
NOTE:
COLOR TO BE BLACK

PARK BENCH DETAIL
N.T.S.
OR APPROVED EQUAL



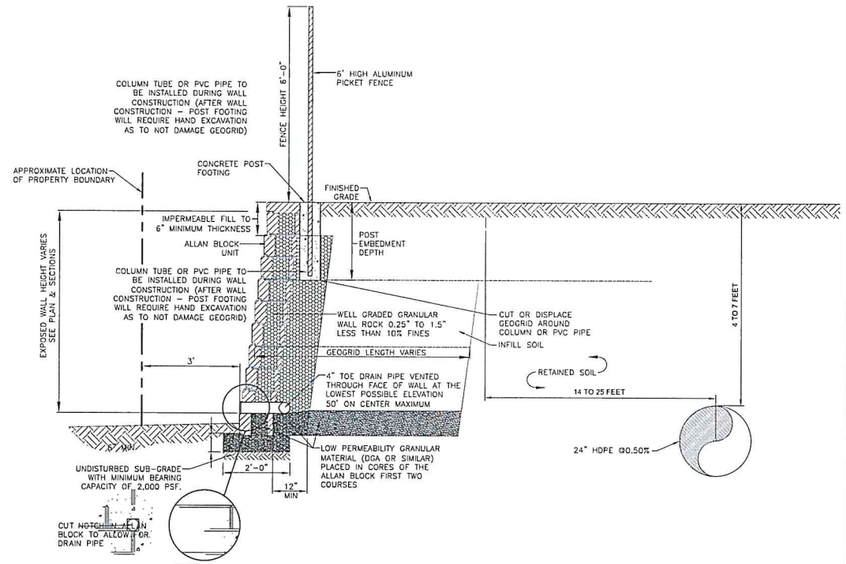
PARK BENCH/TRASH RECEPTACLE AND BIKE RACK PAD & INTERLOCKING BRICK PAVER SIDEWALK DETAIL
NOT TO SCALE
(SEE SITE LAYOUT PLAN FOR LOCATION)

NOTES:
1. BRICK PAVERS AS MANUFACTURED BY EP HENRY.
2. 90 DEGREE HERRINGBONE PATTERN TO BE USED, WITH 4x8 NOMINAL PAVERS.
3. COLOR TO BE HARVEST BLEND.
4. THE BRICK SPECIFICATION WILL MATCH THE OVERALL D & F BARNEGAT SUBDIVISION STANDARD.



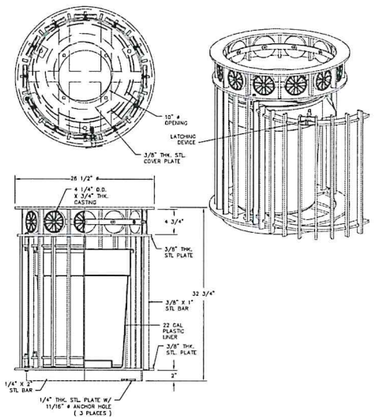
GENERAL NOTES:
1. APPROXIMATELY 16 POUNDS
2. AVAILABLE IN FOUR COLORS - SAFETY YELLOW, GRAY, WHITE & HANDICAPPED BLUE.

COMPOSITE PARKING BUMPER
N.T.S.



NOTES:
1. INFILL SOIL SHALL BE FREE-DRAINED SAND OR GRAVEL WITH LESS THAN 10% FINES.
2. COLOR IS TO BE WARM, MUTED EARTH TONE TO COMPLEMENT THE BUILDINGS.
3. THE PROPERTY LINE MUST BE STAKED OUT AND SILT FENCE MUST BE INSTALLED ALONG THE PROPERTY LINE PRIOR TO CONSTRUCTION.
4. THE RETAINING WALL MUST BE INSTALLED IN SUCH A MANNER AS TO PREVENT ANY IMPACTS ONTO THE ADJOINING PROPERTY.

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

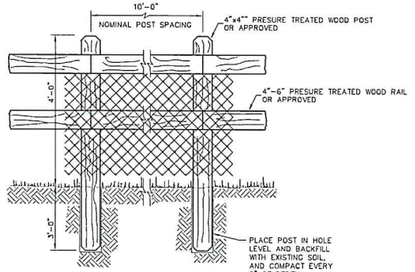


NOTES:
1.) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
2.) 1/2" X 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED.
3.) SIDE OF RECEPTACLE HINGES OPEN FOR REMOVAL OF LINER.
4.) LATCH PROVIDED W/ KEY, USE OF KEY OPTIONAL.
5.) RECEPTACLE FULLY ASSEMBLED AT FACTORY.

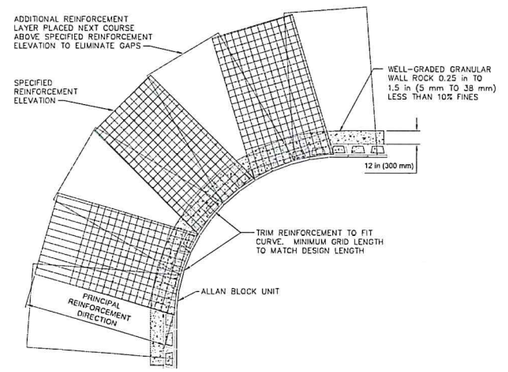
DuMor, inc.	RECEPTACLE	A.D. DRAWN - 12/27/24 DRAWN BY - MK A.D. REV - 12/27/24 REV BY - DMW	REV. G	DRAWING NUMBER 102-22-FTO	SHEET 1 OF 3

NOTE:
COLOR TO BE BLACK

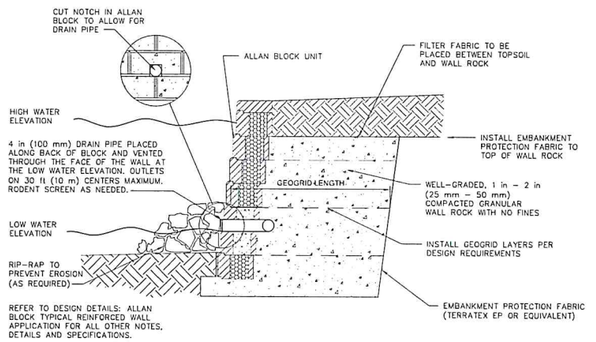
TRASH RECEPTACLE DETAIL
N.T.S.
OR APPROVED EQUAL



FENCE



INSIDE CURVE GEOGRID APPLICATION
N.T.S.



ALLAN BLOCK RETAINING WALL TYPICAL BASIN SECTION
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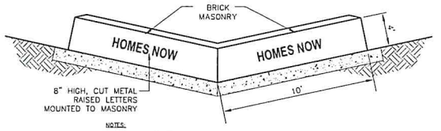
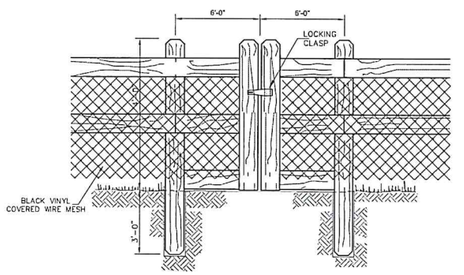


NOTES:
1. SIGN SUPPORTS AND SUPPORT FOUNDATIONS SHALL BE DESIGNED TO SUSTAIN MINIMUM DESIGN LOADING FOR DEAD, LIVE, WIND AND SEISMIC CONDITIONS IN ACCORDANCE WITH THE BUILDING CODE HAVING JURISDICTION.
2. FOUNDATION DESIGN TO BE PREPARED BY A PROFESSIONAL ENGINEER.
3. GROUND SIGN TO BE ILLUMINATED BY SMALL GROUND MOUNTED LIGHT. ONE LIGHT PER SIGN FACE.

IDENTIFICATION SIGN DETAIL
N.T.S.



GATE

DETENTION BASIN PRESSURE TREATED WOOD HORSE BOARD FENCE
N.T.S.

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NO.	DATE	DESCRIPTION	BY

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WILLIAM A. STEVENS, P.E., P.P.
PROFESSIONAL ENGINEER, NEW JERSEY LIC. #29913
PROFESSIONAL PLANNER, NEW JERSEY LIC. #5534

AMENDED PRELIMINARY & FINAL MAJOR SITE PLAN
CONSTRUCTION DETAILS
FOR
BLOCK 92.111 - LOT 24.09
TOWNSHIP OF BARNEGAT
OCEAN COUNTY NEW JERSEY

SCALE: AS SHOWN	DATE: AUGUST 24, 2020	JOB NUMBER: 16617	SHEET 13 / 25
DRAWN BY: KNL/BJK	DESIGNED BY: IMB	CHECKED BY: WAS	

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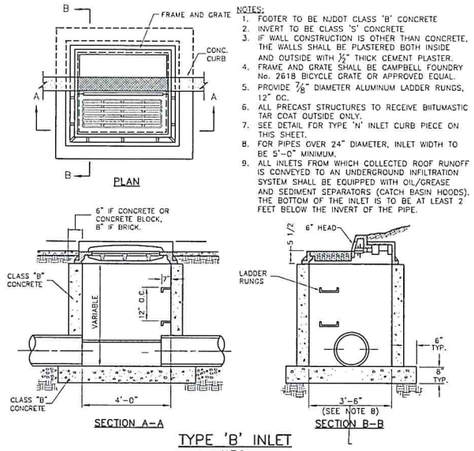
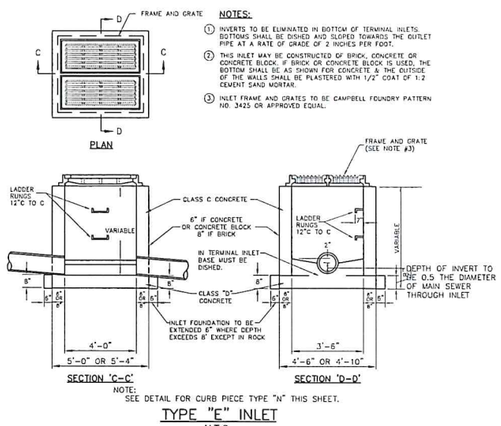


NOTES:
1. FOOTER TO BE NJDOT CLASS "B" CONCRETE
2. INVERT TO BE CLASS "C" CONCRETE
3. IF WALL CONSTRUCTION IS OTHER THAN CONCRETE, THE WALLS SHALL BE PLASTERED BOTH INSIDE AND OUTSIDE WITH ½" THICK CEMENT PLASTER.
4. FRAME AND GRATE SHALL BE CAMPBELL FOUNDRY No. 2618 BICYCLE GRATE OR APPROVED EQUAL.
5. PROVIDE ¾" DIAMETER ALUMINUM LADDER RUNGS, 12" OC.
6. ALL PRECAST STRUCTURES TO RECEIVE BITUMASTIC TAR COAT OUTSIDE ONLY.
7. SEE DETAIL FOR TYPE 'N' INLET CURB PIECE ON THIS SHEET.
8. FOR PIPES OVER 24" DIAMETER, INLET WIDTH TO BE 5'-0" MINIMUM.
9. ALL INLETS FROM WHICH COLLECTED ROOF RUNOFF IS CONVEYED TO AN UNDERGROUND INFILTRATION SYSTEM SHALL BE EQUIPPED WITH OIL/GREASE AND SEDIMENT SEPARATORS (CATCH BASIN HOODS). THE BOTTOM OF THE INLET IS TO BE AT LEAST 2 FEET BELOW THE INVERT OF THE PIPE.

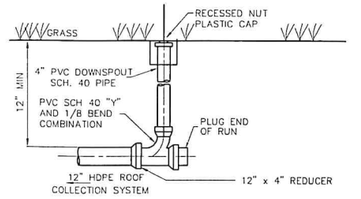
TYPE 'B' INLET
N.T.S.



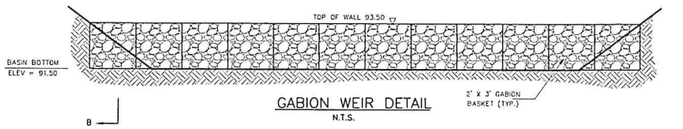
NOTES:
1. INVERTS TO BE ELIMINATED IN BOTTOM OF TERMINAL INLETS. BOTTOMS SHALL BE DISHED AND SLOPED TOWARDS THE OUTLET PIPE AT A RATE OF GRADE OF 2 INCHES PER FOOT.
2. THIS INLET MAY BE CONSTRUCTED OF BRICK, CONCRETE OR CONCRETE BLOCK. IF BRICK OR CONCRETE BLOCK IS USED, THE BOTTOM SHALL BE AS SHOWN FOR CONCRETE & THE OUTSIDE OF THE WALLS SHALL BE PLASTERED WITH ½" COAT OF 1:2 CEMENT SAND MORTAR.
3. INLET FRAME AND GRATES TO BE CAMPBELL FOUNDRY PATTERN NO. 3425 OR APPROVED EQUAL.

NOTE:
SEE DETAIL FOR CURB PIECE TYPE "N" THIS SHEET.

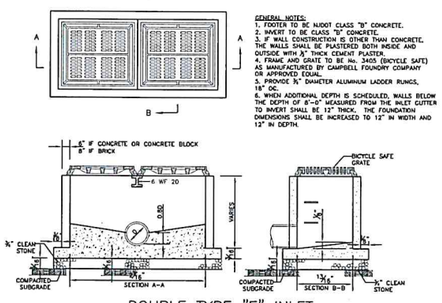
TYPE "E" INLET
N.T.S.



DRAINAGE CLEANOUT
NTS

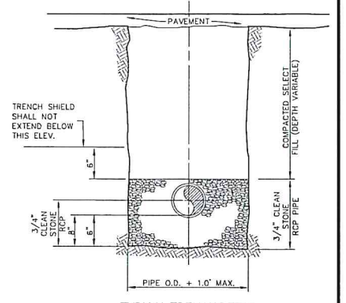


GABION WEIR DETAIL
N.T.S.

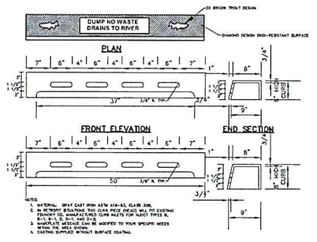


GENERAL NOTES:
1. FOOTER TO BE NJDOT CLASS "B" CONCRETE.
2. INVERT TO BE CLASS "B" CONCRETE.
3. IF WALL CONSTRUCTION IS OTHER THAN CONCRETE, THE WALLS SHALL BE PLASTERED BOTH INSIDE AND OUTSIDE WITH ½" THICK CEMENT PLASTER.
4. FRAME AND GRATE TO BE No. 3405 (BICYCLE SAFE) AS MANUFACTURED BY CAMPBELL FOUNDRY COMPANY OR APPROVED EQUAL.
5. PROVIDE ¾" DIAMETER ALUMINUM LADDER RUNGS, 12" OC.
6. WHEN ADDITIONAL DEPTH IS SCHEDULED, WALLS BELOW THE DEPTH OF 8'-0" MEASURED FROM THE INLET CUTTER TO INVERT SHALL BE 12" THICK. THE FOUNDATION DIMENSIONS SHALL BE INCREASED TO 12" IN WIDTH AND 12" IN DEPTH.

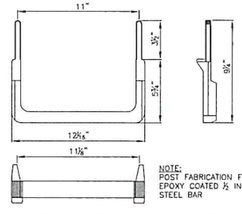
DOUBLE TYPE "E" INLET
N.T.S.



TYPICAL TRENCH DETAIL UNDER PAVEMENTS
N.T.S.

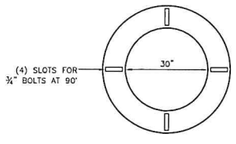


TYPE "N" INLET CURB PIECE
N.T.S.



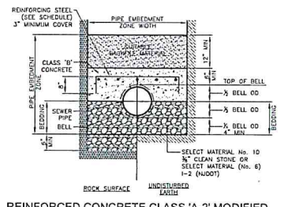
NOTE:
POST FABRICATION FUSION-BONDED, EPOXY COATED ½ INCH DEFORMED STEEL BAR

POLYPROPOLENE MANHOLE STEP
NTS

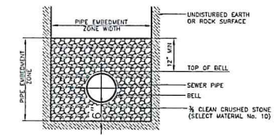


STANDARD MANHOLE GRADE RING PLAN VIEW

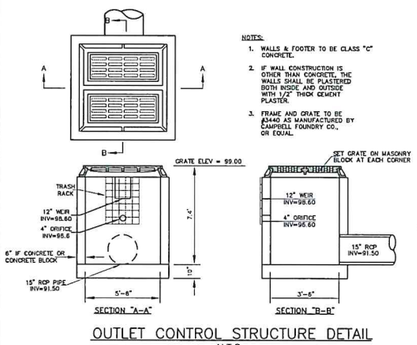
CONCRETE RINGS NOTES:
1. CONCRETE IS DESIGNED TO OBTAIN A STRENGTH OF 4,000 PSI IN 28 DAYS.
2. DESIGN MEETS REQUIREMENTS OF ASTM STANDARD C-478.
3. WEIGHT OF ONE PIECE 30" DIAMETER = 330 LBS.



REINFORCED CONCRETE CLASS 'A-2' MODIFIED CONCRETE ARCH BEDDING
N.T.S.

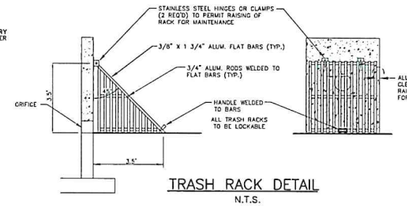


PVC PIPE ORDINARY BEDDDING
N.T.S.

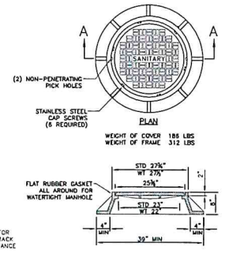


NOTES:
1. WALLS & FOOTER TO BE CLASS "C" CONCRETE.
2. IF WALL CONSTRUCTION IS OTHER THAN CONCRETE, THE WALLS SHALL BE PLASTERED BOTH INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT PLASTER.
3. FRAME AND GRATE TO BE #3440 AS MANUFACTURED BY CAMPBELL FOUNDRY CO., OR EQUAL.

OUTLET CONTROL STRUCTURE DETAIL
N.T.S.

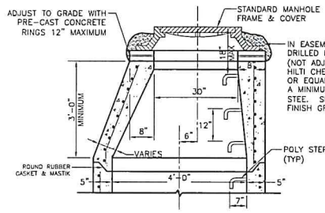


TRASH RACK DETAIL
N.T.S.

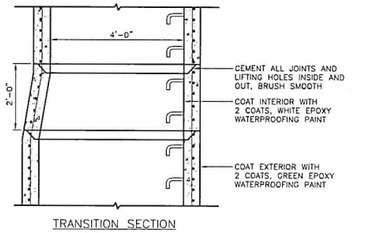


NOTES:
1. IN EASEMENT, FLOOD PLAIN, OR REMOTE AREAS LOCKING DEVICES WILL BE REQUIRED.
2. ALL CASTING MUST BE MARKED, ENABLING HOLES TO LINE UP.

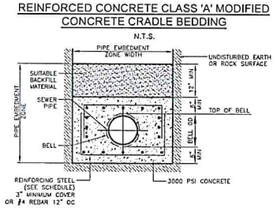
STANDARD OR WATERTIGHT MANHOLE FRAME AND COVER
N.T.S.



CONE TOP



TRANSITION SECTION
USE FOR MANHOLES DEEPER THAN 16'



REINFORCED CONCRETE CLASS 'A' MODIFIED CONCRETE CRADLE BEDDING
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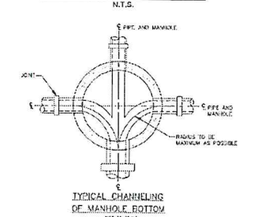
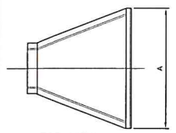
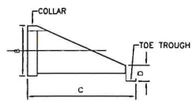


REINFORCED CONCRETE CLASS 'A-1' MODIFIED CONCRETE CRADLE BEDDING
N.T.S.

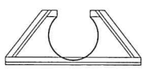


TOP VIEW

DIMENSION	PIPE DIAMETER (INCHES)					
	10/12	15	18	24	30	36
A	42	41	49	59½	88	88
B	14½	19	22	28	36	43
C	33	34	43	48	63½	66½
D	6	6	6	6	6	6

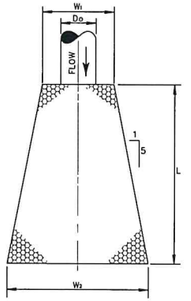


SIDE VIEW



FRONT VIEW

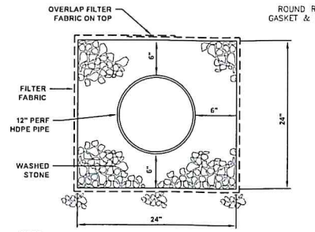
FLARED END SECTION
N.T.S.



FLARED END SECTION NUMBER	Do (INCHES)	L (FEET)	W1 (FEET)	W2 (FEET)	dso (INCHES)	THICKNESS (INCHES)
1	36	21	9	18	4	8
2	24	19	6	14	3	6

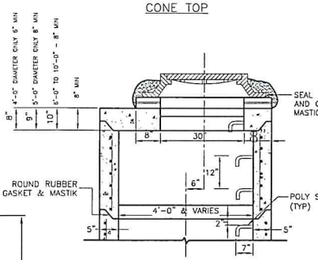
NOTE: THICKNESS OF dso INCLUDES THE USE OF FILTER FABRIC

CONDUIT OUTLET PROTECTION
N.T.S.

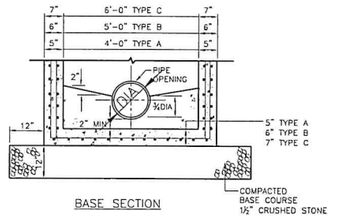


NOTE:
1. WASHED STONE RETENTION VOLUME = 10.6 CUBIC FEET PER LINEAR FOOT.
2. DESIGN AND PROPER FUNCTION OF RECHARGE SYSTEM RELIES ON ADEQUATE PERMEABILITY OF SOILS BENEATH THE RECHARGE SYSTEM. EXCAVATION BENEATH INVERT OF PERFORATED PIPES SHALL BE CARRIED TO THE ELEVATION AT WHICH PERMEABILITY SAND AND GRAVEL IS ENCOUNTERED WHICH HAS A PERMEABILITY RATE OF AT LEAST 20 INCHES/HOUR.

UNDERGROUND RECHARGE PIPE
N.T.S.



SLAB TOP
FOR MANHOLES LESS THAN 7'-0" IN HEIGHT



BASE SECTION

PRE-CAST CONCRETE MANHOLE
NTS

TYPICAL CHANNELING OF MANHOLE BOTTOM
NOT TO SCALE

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NO.	DATE	DESCRIPTION	BY

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NEW JERSEY STATE BOARD OF PE & LS
CERTIFICATE OF AUTHORIZATION NO. 24GA28123600
WILLIAM A. STEVENS, P.E., P.P.
PROFESSIONAL ENGINEER, NEW JERSEY LIC. #29963
PROFESSIONAL PLANNER, NEW JERSEY LIC. #5584

AMENDED PRELIMINARY & FINAL MAJOR SITE PLAN

CONSTRUCTION DETAILS

FOR

BLOCK 92.111 - LOT 24.09

TOWNSHIP OF BARNEGAT

OCEAN COUNTY NEW JERSEY

SCALE: AS SHOWN	DATE: AUGUST 24, 2020	JOB NUMBER: 16617	SHEET 14 / 25
DRAWN BY: KNL/BJK	DESIGNED BY: IMB	CHECKED BY: WAS	

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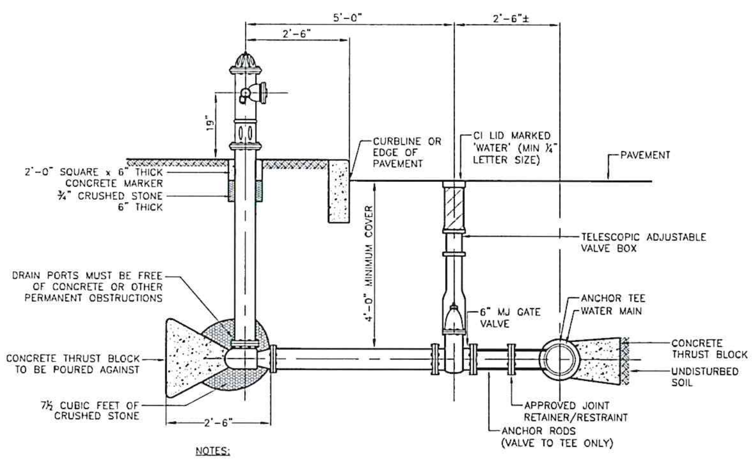
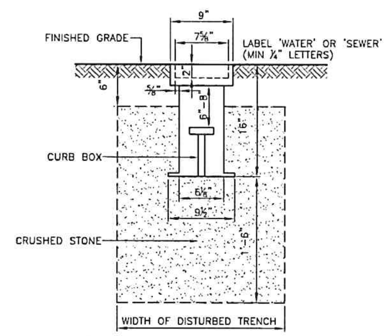


NOTES:

1. WHEREVER POSSIBLE HYDRANTS SHOULD BE LOCATED AT THE PROJECTION OF THE LOT LINE SEPARATING TWO PROPERTIES, OR AS DIRECTED BY THE ENGINEER.
2. DO NOT ROD HYDRANT TO VALVE.

FIRE HYDRANT ASSEMBLY
NTS



CLEANOUT PROTECTION BOX
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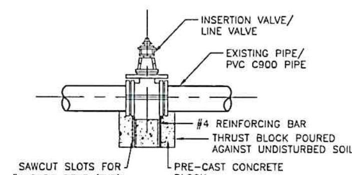
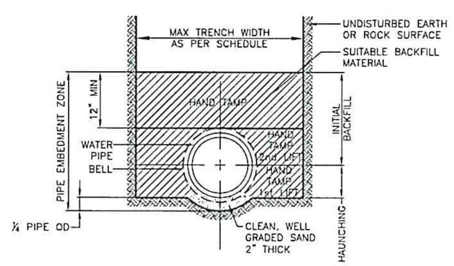
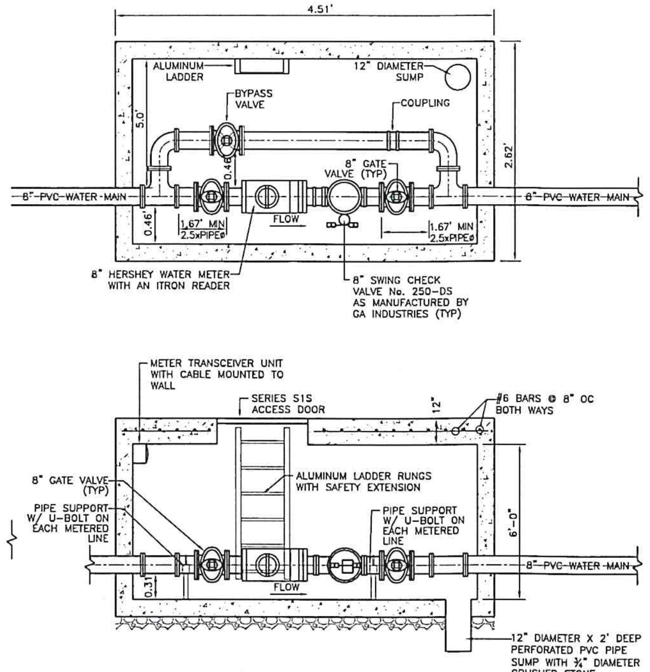


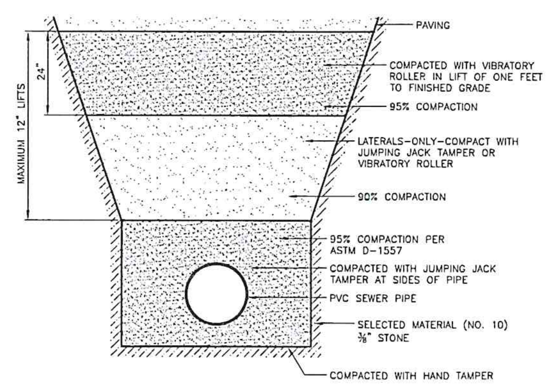
CONCRETE THRUST SUPPORT INSTALLED WITH PVC C900 PIPE
NTS



SHAPED BEDDING CLASS 'B' FIRST CLASS BEDDING
NTS



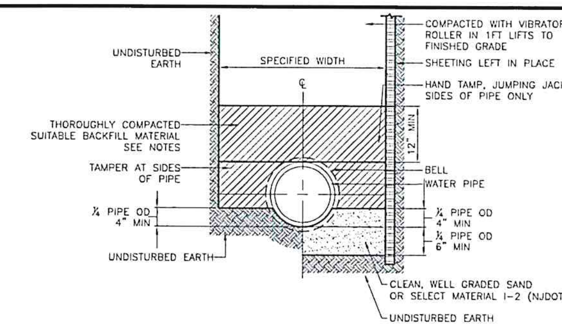
8" WATER METER PIT
NTS



GENERAL NOTES:

1. SUITABLE BACKFILL MATERIAL SHALL BE SELECT MATERIAL I-2 (NJDOT) WHEN ON SITE SUITABLE MATERIAL IS NOT AVAILABLE.
2. CHOKED CRUSHED STONE MAY BE SUBSTITUTED FOR SELECT MATERIAL (No. 6) I-2 (NJDOT) AS APPROVED BY THE ENGINEER. CHOKED CRUSHED STONE SHALL BE CRUSHED STONE (COARSE AGGREGATE No. 57 AS PER NJDOT SPECIFICATIONS) CHOKED WITH SAND WHICH WILL PASS A NO. 10 SIEVE AND BE RETAINED ON A No. 200 SIEVE.
3. ALL TRENCHES AND EXCAVATION TO BE GIVEN THE STEEPEST SLOPE PRACTICABLE.
4. COMPACTION SHALL BE PERFORMED IN MAXIMUM 12" LIFTS UNLESS ANOTHER COMPACTED EFFORT IS PROVED BY A SOIL ENGINEER.
5. COMPACTED BACKFILL SHALL BE AS A MINIMUM 90% OF MAXIMUM DRY DENSITY OF SOIL AS DETERMINED BY ASTM D-1557.
6. COMPACTION OF TOP 2 FEET OF (SURFACE ZONE) UNDER AREAS TO BE PAVED SHALL ACHIEVE AS A MINIMUM 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557.
7. LIMITS OF TRENCH TO BE CUT TO A NEAT EDGE AND SEALED WITH EMULSIFIED ASPHALT. BE SPRINKLED TO PREVENT PICK UP BY TRAFFIC.
8. ALL TRENCHES AND EXCAVATIONS SHALL FOLLOW OSHA REGULATIONS (54FR45854) TO PROVIDE FOR THE PROTECTION OF PERSONNEL IN OR NEAR IN EXCAVATION.

REQUIRED BACK FILL / COMPACTION
NTS



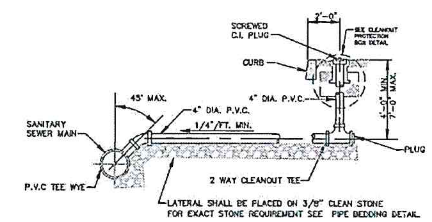
HALF SECTION SHAPED BEDDING — HALF SECTION GRANULAR BEDDING

COLUMNS	TABLE OF TRENCH WIDTHS			
1	2	3	4	5
PIPE DIAMETER	SPECIFIED WIDTH	STONE OR GRAVEL BEDDING TO 1/4 POINT	STONE OR GRAVEL BEDDING TO 1/2 POINT	CONCRETE CRADLE
6-8"	3'-0"	3'-0"	3'-0" TO 4'-0"	OVER 4'-0"
10-12"	3'-0"	3'-6"	3'-6" TO 5'-0"	OVER 5'-0"
16-24"	3'-6"	4'-0"	4'-0" TO 5'-6"	OVER 5'-6"

NOTES:

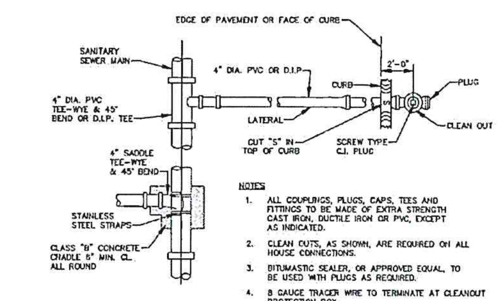
1. ALL TRENCHES & EXCAVATIONS TO BE GIVEN THE STEEPEST SIDE SLOPE PRACTICAL.
2. IF THE WIDTH OF THE TRENCH AT OR BELOW THE OUTSIDE TOP OF THE PIPE EXCEEDS THE WIDTH IN COLUMN 2, THE SPACE BETWEEN THE PIPE AND THE SIDE OF THE TRENCH OR SHEETING SHALL BE BACK FILLED WITH CLEAN WELL GRADED SAND OR SELECT MATERIAL I-2 BEDDING TO THE ¼ POINT OF THE PIPE. IF THE TRENCH WIDTH EXCEEDS THE WIDTH IN COLUMN 3, THE CLEAN WELL GRADED SAND OR SELECT MATERIAL I-2 SHALL BE BROUGHT UP TO THE ½ POINT OF THE PIPE. IF THE TRENCH WIDTH EXCEEDS THE WIDTH IN COLUMN 4, THE CONTRACTOR SHALL PROVIDE A CLASS 'B' CONCRETE CRADLE INSTEAD OF CLEAN WELL GRADED SAND OR SELECT MATERIAL I-2 BEDDING TO THE ½ POINT OF THE PIPE, 20" DIAMETER OR SMALLER.
3. COMPACTED BACK FILL SHALL BE AS A MINIMUM 90% OF MAXIMUM DRY DENSITY OF SOIL AS DETERMINED BY ASTM D-1557 (MODIFIED PROCTOR DENSITY).
4. COMPACTION OF THE TOP 2 FEET OF THE TRENCH (SURFACE ZONE) UNDER AREAS TO BE PAVED SHALL ACHIEVE AS A MINIMUM 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557.
5. AIR RELEASE ASSEMBLY TO BE INSTALLED AT ALL PIPELINE HIGH POINTS.
6. SUITABLE BACK FILL MATERIAL SHALL BE SELECT MATERIAL I-2 (NJDOT) WHEN ONSITE MATERIAL IS NOT AVAILABLE.
7. LIMITS OF TRENCH TO BE CUT TO A NEAT EDGE AND SEALED WITH EMULSIFIED ASPHALT.
8. ON AREAS SEALED WITH EMULSIFIED ASPHALT, DRY SAND SHALL BE SPRINKLED TO PREVENT PICK UP BY TRAFFIC.

ORDINARY BEDDING
BEDDING DETAIL (WATER MAIN)
NTS



ELEVATION
(SADDLE INSTALLATION SIMILAR)

NOTE:
WHEN CUTTING NEW 4" TEE USE P.V.C. SADDLE WITH S.S STRAPS. AS SHOWN IN SADDLE DETAIL.



NOTES

1. ALL COUPLINGS, PLUGS, CAPS, TEES AND FITTINGS TO BE MADE OF EXTRA STRENGTH CAST IRON, DUCTILE IRON OR PVC, EXCEPT AS INDICATED.
2. CLEAN OUTS, AS SHOWN, ARE REQUIRED ON ALL HOUSE CONNECTIONS.
3. BITUMASTIC SEALER, OR APPROVED EQUAL, TO BE USED WITH PLUGS AS REQUIRED.
4. 8 GAUGE TRACER WIRE TO TERMINATE AT CLEANOUT PROTECTION BOX.

PLAN

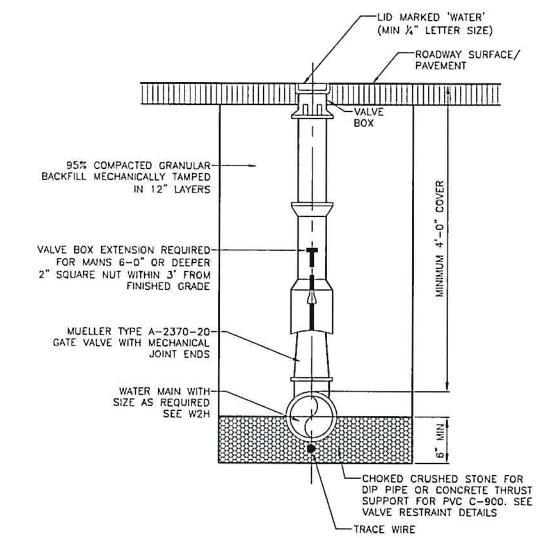
TYPICAL 4 INCH HOUSE CONNECTION INSTALLATION
NOT TO SCALE

DIAMETER (d) OF PIPE	5° - 22½° ELBOW	23° - 45° ELBOW	46° - 90° ELBOW	TEE CONNECTION	45° WYE	PLUG
	A	A	A	A	A	A
4"	0.5	1.4	2.6	1.8	2.2	2.0
6"	1.5	3.0	6.0	4.0	4.5	4.5
8"	2.5	5.0	9.5	6.5	9.5	8.0
10"	4.1	8.0	13.0	9.5	12.5	12.5
12"	5.5	11.5	19.0	13.2	16.0	18.0
16"	9.0	18.0	33.0	23.0	27.0	32.0
20"	14.0	28.0	51.0	36.0	42.0	50.5

A= CONTACT BEARING AREA OF BLOCK WITH EARTH, SQUARE FEET

NOTES:
1. BEARING AREAS ARE BASED ON UNDISTURBED SOIL WITH A BEARING CAPACITY OF 1,000 POUNDS PER SQUARE FOOT. FOR A LESSER SOIL BEARING CAPACITY, THESE AREAS SHALL BE INCREASED ACCORDINGLY.
2. ALL CONCRETE THRUST BLOCKS SHALL BE CLASS 'B'.
3. THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED EARTH.
4. NO JOINT SHALL BE COVERED WITH CONCRETE.
5. APPROVED MECHANICAL JOINT RESTRAINTS ARE REQUIRED AT ALL VERTICAL BENDS AND MAY BE USED IN LIEU OF THRUST BLOCKS AT HORIZONTAL BENDS AT THE OPTION OF THE ENGINEER.
6. ALL BOLTS, NUTS, WASHERS, RODS, THRUST RESTRAINT BOLTS AND CLAMPS, ETC TO BE #304 STAINLESS STEEL.
7. 6 MIL POLY SHEETING SHALL BE PLACED BETWEEN FITTINGS AND CONCRETE THRUST BLOCKS.

TABLE OF THRUST BLOCKS
NTS



UNDERGROUND GATE VALVE VALVE 12" DIAMETER AND UNDER
NTS

LIST OF STANDARD WATER SUPPLY MATERIALS	
HYDRANTS:	MUELLER CENTURION FIRE HYDRANT A423 5¼" THREE WAY, 2 HOSE NOZZLES AND 1 PUMPER NOZZLE
VALVES:	MUELLER RESILIENT SEAT GATE VALVE, NRS-AWWA C508
CURB STOPS:	MUELLER #H15209
CORPORATION STOPS:	MUELLER #B25008
PIPE:	AWWA C151, CEMENT MORTAR LINED, THICKNESS CLASS 52, MIN
TAPPING SLEEVES:	MUELLER #H-615
VALVE BOXES:	MUELLER #A-10364
CURB BOXES:	MUELLER #H-10334

NOTE:
ALL UTILITY WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT STANDARDS AND DETAILS OF THE BARNEGAT TOWNSHIP MUNICIPAL UTILITIES AUTHORITY.

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NO.	DATE	DESCRIPTION	BY

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NEW JERSEY STATE BOARD OF P.E. & L.S.
CERTIFICATE OF AUTHORIZATION NO. 24GA28125400
WILLIAM A. STEVENS, P.E., P.P.
PROFESSIONAL ENGINEER NEW JERSEY LIC. #29915
PROFESSIONAL PLANNER NEW JERSEY LIC. #5264

AMENDED PRELIMINARY & FINAL MAJOR SITE PLAN
CONSTRUCTION DETAILS
FOR
BLOCK 92.111 - LOT 24.09
TOWNSHIP OF BARNEGAT
OCEAN COUNTY NEW JERSEY

SCALE: AS SHOWN	DATE: AUGUST 24, 2020	JOB NUMBER: 16617	SHEET 15 / 25
DRAWN BY: KNL/BJK	DESIGNED BY: IMB	CHECKED BY: WAS	

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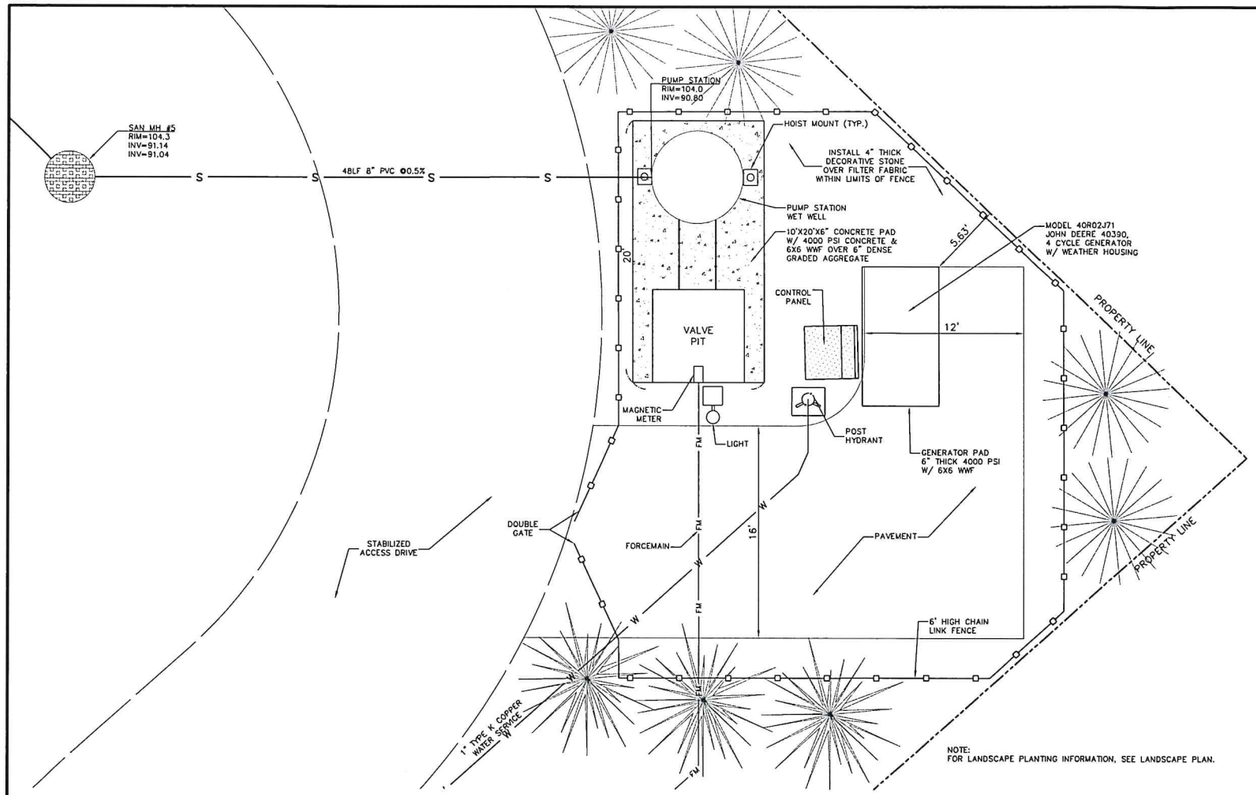
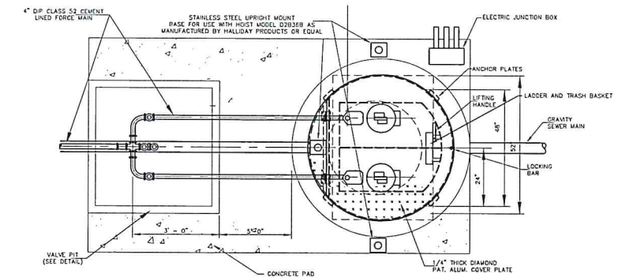
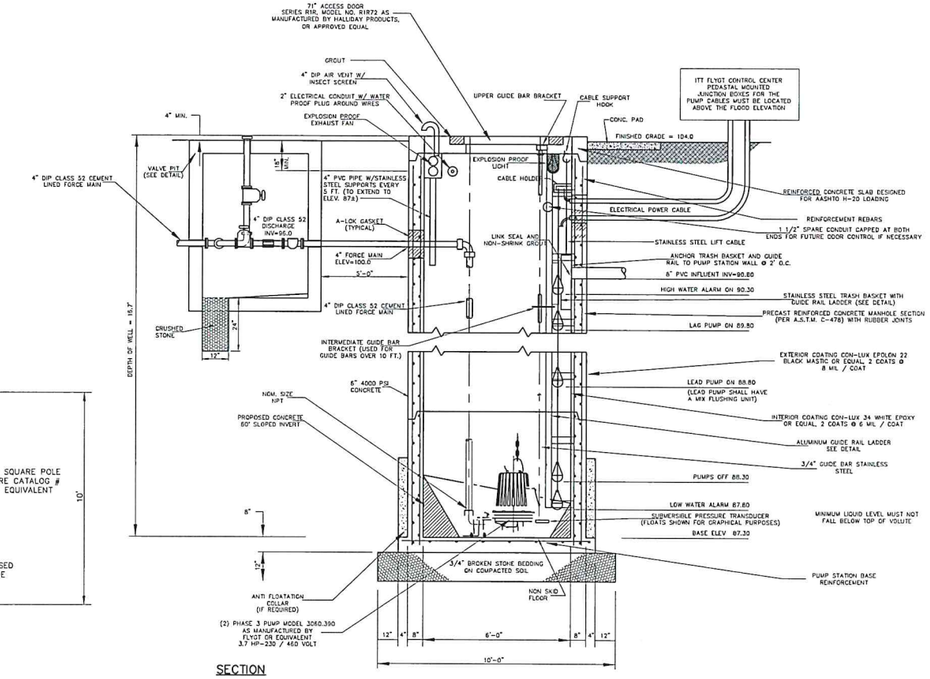


NOTE:
FOR LANDSCAPE PLANTING INFORMATION, SEE LANDSCAPE PLAN.

PUMP STATION SITE PLAN
SCALE: 1" = 5'



PLAN



SECTION

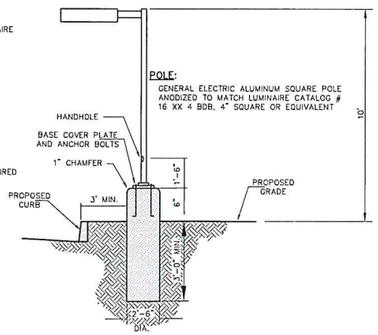
PUMP STATION
N.T.S.

NOTES

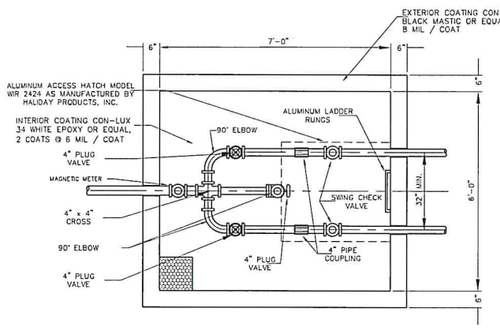
1. LOCATE ANCHOR BOLTS USING CLEAR INSIDE EDGE OF ACCESS FRAME AND CENTER LINE OF PUMP AS REFERENCE POINT. BOLT LOCATIONS MUST BE HELD TO MAINTAIN EXACT POSITION OF PUMP RELATIVE TO ACCESS FRAME.
2. GROUT OPENING FOR ACCESS FRAME.
3. A-LOK GASKETS SHALL COMPLY WITH ASTM-C361.
4. AN INTRINSICALLY SAFE SWITCH SHALL BE PROVIDED TO ACTIVATE BOTH LIGHTING AND VENTILATION CIRCUITS WHEN THE HATCH IS OPENED.
5. THE PUMPS MUST BE EXPLOSION PROOF.
6. THE SUBMERSIBLE LEVEL TRANSDUCER SHALL BE LOCATED WITHIN A SECTION OF PVC PIPE WITH SLITS, MOUNTED TO THE WALL OF THE WET WELL.
7. PROVIDE A BACKUP HIGH WATER FLOAT ALARM AT ELEVATION 84.50.
8. THE INCOMING POWER LINES AND PHONE LINES SHALL BE PROTECTED FROM LIGHTNING SURGES.
9. PROVIDE A NEMA 4x STAINLESS STEEL JUNCTION BOX BETWEEN THE WET WELL AND CONTROL PANEL. NO JUNCTION BOXES SHALL BE INSTALLED IN THE WET WELL.

LUMINAIRE:
MODEL:
GENERAL ELECTRIC
DECASHIELD III LUMINAIRE
LAMP:
150W METAL HALIDE
DISTRIBUTION:
TYPE MC3

FOOTING:
CONCRETE W/ REINFORCING AS REQUIRED
ANCHOR BOLTS:
1" x 36 x 4, 10" BOLT CIRCLE

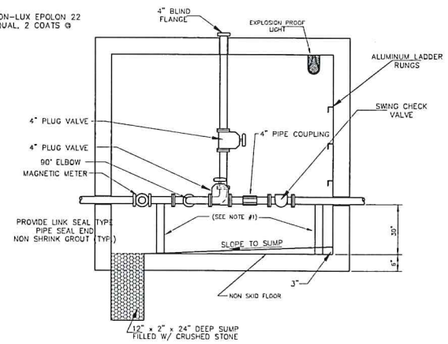


LIGHT DETAIL
N.T.S.



PLAN

VALVE PIT
1" = 2'



SECTION

NOTE:

1. ALL PIPING IN THE VALVE PIT SHALL BE PROPERLY SUPPORTED WITH CONCRETE PEDESTALS OR APPROVED PIPE JACKS.
2. PROVIDE EXPLOSION PROOF LIGHT IN VALVE PIT.
3. PROVIDE A REMOTE TOTALIZING FOR MAGNETIC METER IN THE CONTROL PANEL.

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WILLIAM A. STEVENS, P.E., P.P.
PROFESSIONAL ENGINEER, NEW JERSEY LIC. #29615
PROFESSIONAL PLANNER, NEW JERSEY LIC. #5164

AMENDED PRELIMINARY & FINAL MAJOR SITE PLAN
CONSTRUCTION DETAILS
PUMP STATION
FOR
BLOCK 92.111 - LOT 24.09
TOWNSHIP OF BARNEGAT
OCEAN COUNTY NEW JERSEY

SCALE: AS SHOWN	DATE: AUGUST 24, 2020	JOB NUMBER: 16617	SHEET 16 / 25
DRAWN BY: KNL/BJK	DESIGNED BY: IMB	CHECKED BY: WAS	

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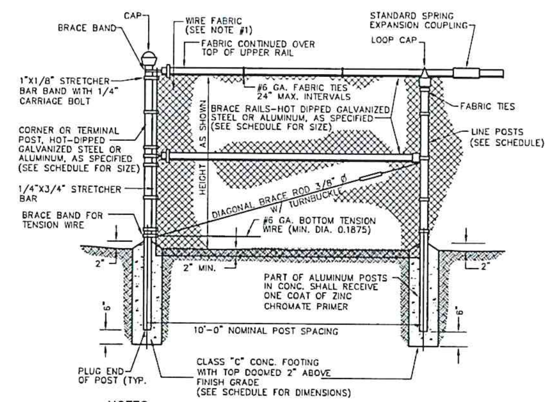
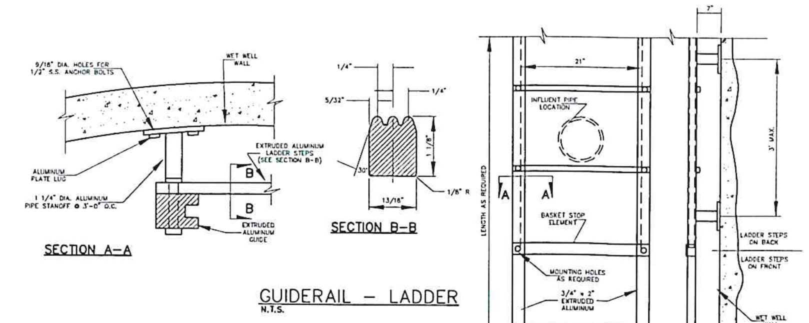


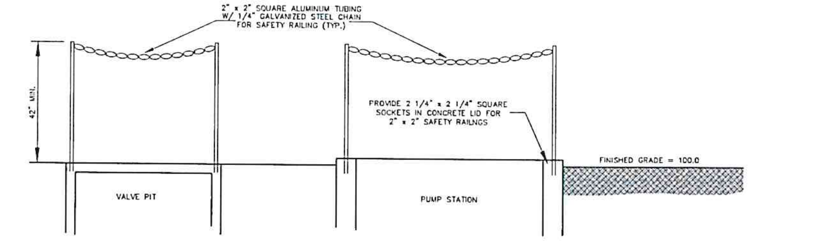
NOTES :

1. FENCE FABRIC SHALL BE #9 GAUGE HOT-DIPPED GALVANIZED OR ALUMINUM COATED STEEL, CORE WIRE PLUS VINYL CLAD, COLOR: BLACK.
2. UNLESS OTHERWISE PROVIDED, FENCE DETAILS SHALL CONFORM TO THE REQUIREMENTS OF A S T M, M181-60.

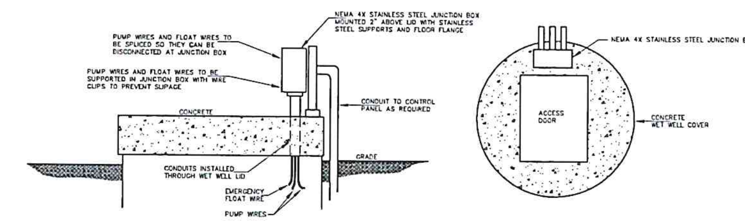
CHAIN LINK FENCE DETAIL
N.T.S.



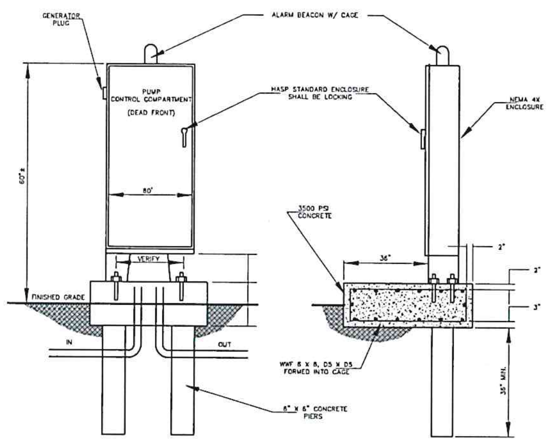
GUIDERAIL – LADDER
N.T.S.



B.T.M.U.A. SAFETY CHAIN DETAIL
N.T.S.



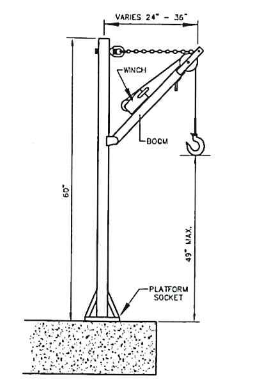
ELECTRICAL JUNCTION BOX DETAIL
N.T.S.



CONTROL PANEL
N.T.S.

NOTE:

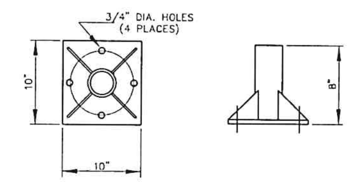
THE CONTROL PANEL MUST BE SIZED TO ACCOMMODATE ALL CONTROLS AND ELECTRICAL EQUIPMENT SUCH AS AUTODIALER, AUTOMATIC TRANSFER SWITCH AND TOTALIZER.



HOIST

HALLIDAY MODEL D2B36B (316 STAINLESS STEEL – EXCEPT WINCH)

USE 1" MASONRY BIT. DRILL 4 HOLES 4" DEEP (TO MATCH HOLES IN SOCKET) FOR 3/4" DOUBLE KEYSTONE HEX. HD. EXPANSION ANCHORS.



FLOOR MOUNTED PLATFORM SOCKET

(316 STAINLESS STEEL)

PORTABLE HOIST DETAIL
N.T.S.

NOTES:

LUBRICATE INTERIOR SURFACE AND SHOULDER OF SOCKET WITH BEARING GREASE TO FACILITATE ROTATION OF HOIST.

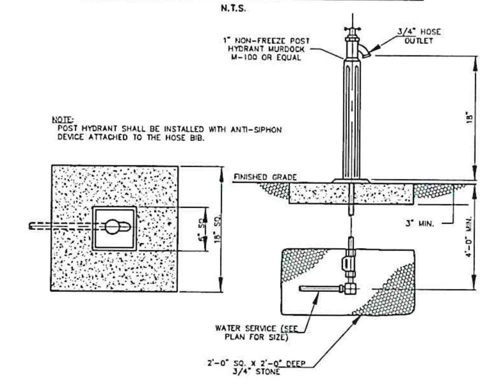
SPECIFICATIONS:

SAFE LOAD 650 LBS.

WEIGHT: 60 LBS.

LIFT: 30 FT.

REACH: 36" MAX. PIT



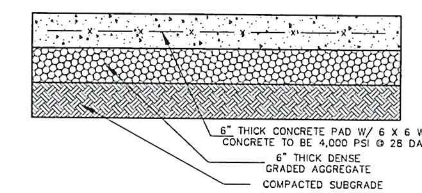
NOTE:
POST HYDRANT SHALL BE INSTALLED WITH ANTI-SIPHON DEVICE ATTACHED TO THE HOSE BIB.

POST HYDRANT DETAIL

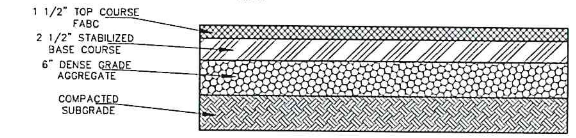
CHAIN LINK FENCE SCHEDULES

DESCRIPTION	NOMINAL FENCE HEIGHT: UNDER 4'	4' – 8'	8' – 12'
MEMBER SCHEDULE			
IN-LINE POST	2"	2-1/2"	2-1/2"
TERMINAL AND CORNER POSTS	2-1/2"	3"	3"
BRACE RAILS (TOP, BOTTOM OR INTERMEDIATE)	1-3/8"	1-5/8"	1-5/8"
GATE FRAMES	1-5/8"	2"	2-1/2"
GATE POSTS (0-6' SPAN)*	2-1/2"	3"	3"
GATE POSTS (6'-12' SPAN)*	3"	3-1/2"	4"
FOOTING SCHEDULE			
FOOTING DEPTH			
– CORNER AND TERMINAL POSTS	3'-6"	4'-0"	4'-0"
– IN LINE POSTS	3'-0"	3'-6"	3'-6"
– GATE POSTS	3'-6"	4'-0"	4'-0"
FOOTING DIAMETER (BOTTOM)			
– CORNER AND TERMINAL POSTS	12"	14"	16"
– IN LINE POSTS	10"	12"	14"
– GATE POSTS	12"	14"	16"
FOOTING DIAMETER (TOP)			
– CORNER AND TERMINAL POSTS	10"	12"	14"
– IN LINE POSTS	8"	10"	12"
– GATE POSTS	10"	12"	14"

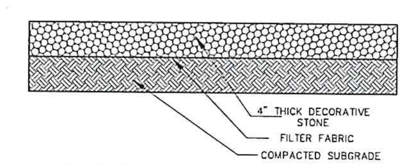
*) SPAN AS PER SINGLE LEAF



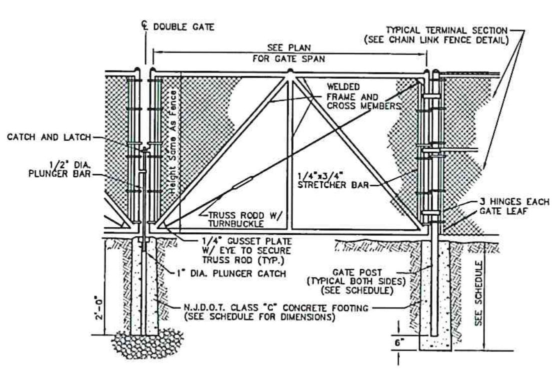
CONCRETE PAD DETAIL
N.T.S.



DRIVEWAY PAVEMENT DETAIL
N.T.S.



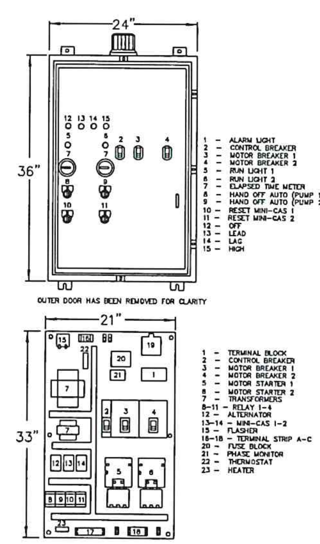
DECORATIVE STONE DETAIL
N.T.S.

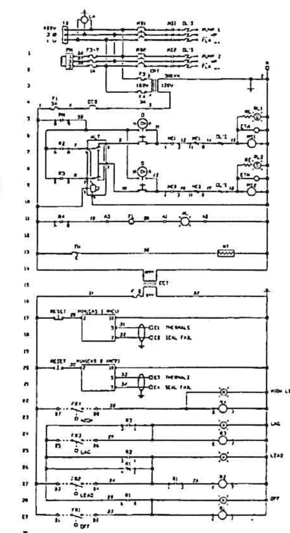


NOTES:

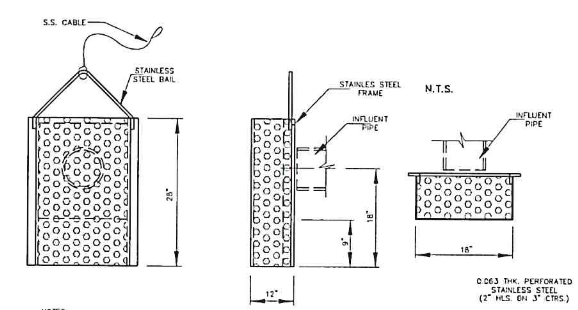
1. FABRIC SHALL BE 2" MESH, #9 GAUGE HOT-DIPPED GALVANIZED OR ALUMINUM COATED STEEL CORE WIRE PLUS VINYL CLAD, COLOR: BLACK.
2. FOR GATES LARGER THAN 4'-0" SPAN INSTALL DIAGONAL BRACING WITH TURNBUCKLE.
3. UNLESS OTHERWISE PROVIDED, GATE DETAIL SHALL CONFORM TO THE REQUIREMENTS OF A.S.T.M. M-181-LATEST EDITION.

DOUBLE GATE DETAIL
N.T.S.





ELECTRICAL LINE DIAGRAM



N.T.S.

NOTES:

ALL STAINLESS STEEL TRASH BASKET COMPONENTS SHALL BE SHOP FABRICATED OF 316 STAINLESS STEEL BY CONTRACTOR OR EQUAL.

ALL ALUMINUM LADDER COMPONENTS SHALL BE SHOP FABRICATED OF 6061-T6 ALUMINUM BY CONTRACTOR OR EQUAL.

ALL TRASH BASKET/LADDER COMPONENTS SHALL BE INSTALLED BY CONTRACTOR.

TRASH BASKET
N.T.S.

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NO.	DATE	DESCRIPTION	BY
			KNL

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AMENDED PRELIMINARY & FINAL MAJOR SITE PLAN
CONSTRUCTION DETAILS
PUMP STATION
FOR
BLOCK 92.111 - LOT 24.09

TOWNSHIP OF BARNEGAT
OCEAN COUNTY NEW JERSEY

SCALE: AS SHOWN	DATE: AUGUST 24, 2020	JOB NUMBER: 16617	SHEET 17 / 25
DRAWN BY: KNL/BJK	DESIGNED BY: IMB	CHECKED BY: WAS	

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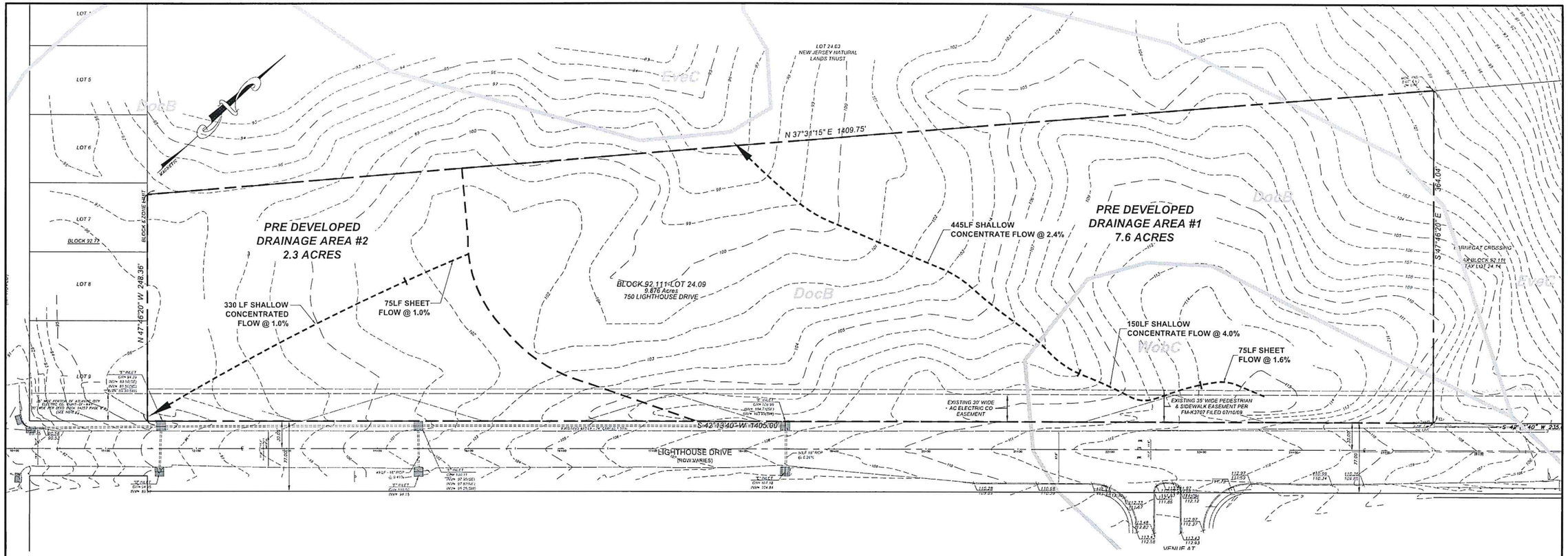

NOTE:

ON SITE SOIL IS DocB – DOWNER LOAMY SAND, 0 TO 5 PERCENT SLOPES, WobC – WOODMANSIE SAND, 5 TO 10 PERCENT SLOPES PER UNITED STATES DEPARTMENT OF AGRICULTURE NATURAL RESOURCE CONSERVATION SERVICE WEB SOIL SURVEY.

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NO.	DATE	DESCRIPTION	BY

50 0 50 100 200

GRAPHIC SCALE
1"= 50'

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PROFESSIONAL PLANNER, NEW JERSEY LIC. #5364

AMENDED PRELIMINARY & FINAL MAJOR SITE PLAN

PRE DEVELOPED DRAINAGE AREA PLAN

FOR

BLOCK 92.111 - LOT 24.09

TOWNSHIP OF BARNEGAT

OCEAN COUNTY NEW JERSEY

SCALE: 1" = 50'	DATE: AUGUST 24, 2020	JOB NUMBER: 16617	SHEET 18 / 25
DRAWN BY: KNL/BJK	DESIGNED BY: IMB	CHECKED BY: WAS	

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