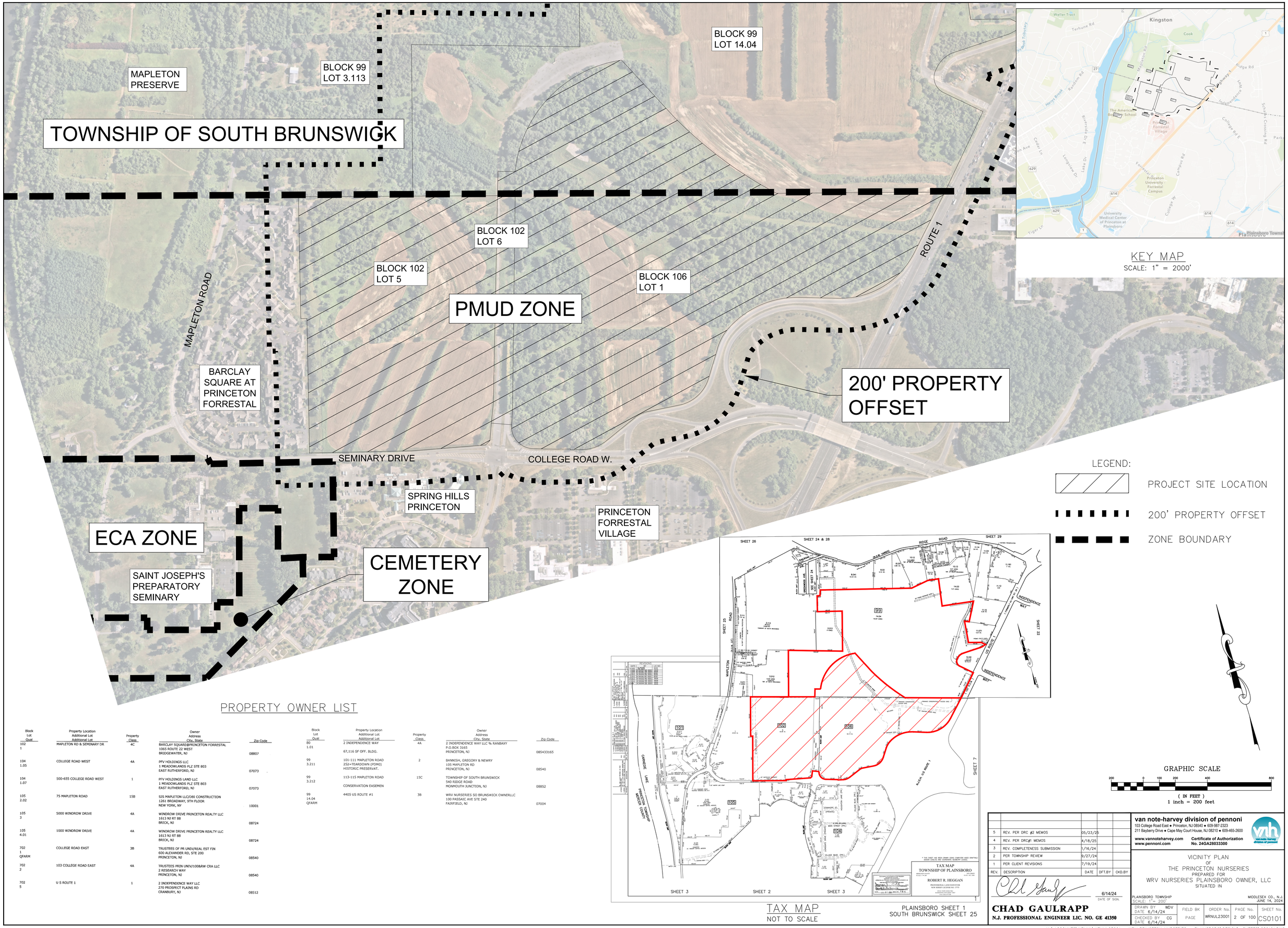


PROPERTY OWNER LIST

Block / Lot / Qual	Property Location / Additional Lot / Additional Lot	Property Class	Owner Address / City, State	Zip Code
102 1	MAPLETON RD & SEMINARY DR	4C	BARCLAY SQUARE@PRINCETON FORRESTAL 1065 ROUTE 22 WEST BRIDGEWATER, NJ	08807
104 1.05	COLLEGE ROAD WEST	4A	PPV HOLDINGS LLC 1 MEADOWLANDS PLZ STE 803 EAST RUTHERFORD, NJ	07073
104 1.07	500-655 COLLEGE ROAD WEST	1	PPV HOLDINGS LAND LLC 1 MEADOWLANDS PLZ STE 803 EAST RUTHERFORD, NJ	07073
105 2.02	75 MAPLETON ROAD	15B	SJS MAPLETON LLC/DBI CONSTRUCTION 1261 BROADWAY, 9TH FLOOR NEW YORK, NY	10001
105 3	5000 WINDROW DRIVE	4A	WINDROW DRIVE PRINCETON REALTY LLC 1613 NJ RT 88 BRICK, NJ	08724
105 4.01	1000 WINDROW DRIVE	4A	WINDROW DRIVE PRINCETON REALTY LLC 1613 NJ RT 88 BRICK, NJ	08724
702 1 QFARM	COLLEGE ROAD EAST	3B	TRUSTEES OF PR UNIV/REAL EST FIN 600 ALEXANDER RD, STE 200 PRINCETON, NJ	08540
702 2	103 COLLEGE ROAD EAST	4A	TRUSTEES PRIN UNIV/100&RW CRA LLC 2 RESEARCH WAY PRINCETON, NJ	08540
702 5	U S ROUTE 1	1	2 INDEPENDENCE WAY LLC 270 PROSPECT PLAINS RD CRANBURY, NJ	08512
80 1.01	2 INDEPENDENCE WAY	4A	2 INDEPENDENCE WAY LLC % RANBAXY P.O.BOX 3165 PRINCETON, NJ	085433165
99 3.211	67,116 SF OFF. BLDG. 101-111 MAPLETON ROAD 252=TEARDOWN (PDMO) HISTORIC PRESERVAT.	2	BANNISH, GREGORY & NEWRY 105 MAPLETON RD PRINCETON, NJ	08540
99 3.212	113-115 MAPLETON ROAD CONSERVATION EASEMEN	15C	TOWNSHIP OF SOUTH BRUNSWICK 540 RIDGE ROAD MONMOUTH JUNCTION, NJ	08852
99 14.04 QFARM	4405 US ROUTE #1	3B	WRV NURSERIES SO BRUNSWICK OWNERLLC 100 PASSAIC AVE STE 240 FAIRFIELD, NJ	07004

TAX MAP
NOT TO SCALE

PLAINSBORO SHEET 1
SOUTH BRUNSWICK SHEET 25

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
5	REV. PER DRC #2 MEMOS	05/23/25		
4	REV. PER DRC#1 MEMOS	4/18/25		
3	REV. COMPLETENESS SUBMISSION	1/16/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization
No. 24GA28033300

VICINITY PLAN
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE: 1"= 200'
MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY	WDV	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE 6/14/24					
CHECKED BY	CG	PAGE	WRNUL23001	2 OF 100	CS0101
DATE 6/14/24					

U: \ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS0101.DWG

NOTES PERTAINING TO ALL CIVIL SHEETS:

REFERENCE PLANS:

1.) "ALTA/ACSM BOUNDARY SURVEY OF LOTS 22.02 & 64.01, BLOCK 5.01, PLAINSBORO TOWNSHIP, MIDDLESEX COUNTY, NEW JERSEY, SCALE 1" = 60', DATED NOVEMBER 15, 2005 " PREPARED BY NASSAU SURVEYING A DIVISION OF VAN NOTE-HARVEY ASSOCIATES P.C.

2.) "PRELIMINARY AND FINAL SITE PLANS OF PLAINSBORO PLAZA, FOR AO PLAINSBORO, LLC, BLOCK 1602, LOTS 5 AND 7, BLOCK 1508, LOT 7, PLAINSBORO TOWNSHIP, MIDDLESEX COUNTY, NEW JERSEY," PREPARED BY VAN NOTE-HARVEY ASSOCIATES, P.C., DATED OCTOBER 22, 2013, LAST REVISED AUGUST 8, 2014. (VNHA JOB NO. 41575)

3.) "MINOR SITE PLAN OF LIGHTBRIDGE ACADEMY, FOR VIDYANI EDUCATION CENTER, INC., BLOCK 1602, LOTS 5 AND 7, PLAINSBORO TOWNSHIP, MIDDLESEX COUNTY, NEW JERSEY," PREPARED BY VAN NOTE-HARVEY ASSOCIATES, P.C., DATED JUNE 17, 2014, LAST REVISED OCTOBER 21, 2014. (VNHA JOB NO. 41575)

4) HORIZONTAL DATUM SHOWN ON THE PLANS IS REFERENCED TO THE NEW JERSEY STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM OF 1983. VERTICAL DATUM SHOWN ON THE PLANS IS REFERENCED TO THE NORTH AMERICAN DATUM OF 1988.

GRADING CONSTRUCTION NOTES:

1. MINIMUM 6" OF TOPSOIL TO BE SPREAD AND ALL DISTURBED AREAS TO BE STABILIZED IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL NOTES.
2. NO TOPSOIL SHALL BE SHALL BE REMOVED FROM THE AREAS INTENDED FOR LAWN OR OPEN SPACE UNLESS SAME IS REQUIRED TO PROVIDE MINIMUM GRADING. TOPSOIL MOVED DURING THE COURSE OF CONSTRUCTION SHALL BE REDISTRIBUTED WITHIN THE SITE SO AS TO PROVIDE AT LEAST 6" COVER TO ALL AREAS OF THE SITE AND SHALL BE STABILIZED BY SEEDING OR PLANTING.
3. ALL STRUCTURAL FILL REQUIRED IN AREAS OF PROPOSED AND FUTURE IMPROVEMENTS SUCH AS UTILITIES, SANITARY SEWER, STORM DRAINAGE, BUILDINGS, PAVEMENTS, WALKS, ETC. MUST BE PLACED AND COMPACTED ETC. IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER FOR THE TYPE OF MATERIAL UTILIZED.
4. HANDICAP RAMPS WITH DETECTABLE WARNING SURFACES SHALL BE PROVIDED AT ALL SIDEWALK INTERSECTIONS AT DRIVEWAYS, PARKING AREAS, ETC., AND SHALL COMPLY WITH A.D.A. REQUIREMENTS.
5. MINIMUM ROAD AND PARKING AREA GRADES OF NOT LESS THAN 0.50% OR MORE THAN 6.0% SHALL BE MAINTAINED, WITH 0.75% PREFERRED UNLESS OTHERWISE NOTED ON THE PLANS.
6. TOP OF CURB ELEVATIONS SHOWN ARE FOR 6" REVEAL, DEPRESS CURBS AT LOCATIONS SHOWN ON PLAN VIEW.

PAVING NOTES:

1. THE CONTRACTOR SHALL NOTIFY THE TOWNSHIP ENGINEER IN WRITING 48 HOURS PRIOR TO PAVING.
2. ON THE DAY OF PAVING, THE SUBGRADE SHALL BE PROOF-ROLLED WITH A 10 TON, THREE WHEELED ROLLER AND APPROVED BY THE TOWNSHIP ENGINEER. THE SUBGRADE SHALL BE WELL FREE OF LARGE ROCKS AND ORGANIC MATERIALS AND SHALL BE COMPACTED. THE TOWNSHIP ENGINEER MAY REQUEST THAT A DENSE GRADED AGGREGATE SUBBASE BE INSTALLED IF CONDITIONS WARRANT THE SAME.
3. ALL SUBGRADE SHALL CONFORM TO THE NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST REVISION.
4. ALL CURBING SHALL BE INSTALLED OR REPAIRED AND APPROVED PRIOR TO THE INSTALLATION OF ANY PAVING.
5. INSTALLATION METHODS AND MATERIALS FOR ALL BITUMINOUS CONCRETE SHALL FOLLOW THE PROCEDURES AND SPECIFICATIONS OF THE NEW JERSEY DEPARTMENT OF TRANSPORTATION.
6. PAVING SHALL NOT TAKE PLACE WHILE RAINING.
7. ALL BITUMINOUS STABILIZED BASE MATERIALS SHALL BE HOT MIX I-2 CONFORMING TO THE NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST REVISION.
8. ALL TOP COMPACTED DEPTH BITUMINOUS CONCRETE, TYPE FABC-2 COURSE MATERIAL SHALL CONFORM TO THE NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST REVISION.
9. PRIOR TO THE PLACEMENT OF THE TOP COURSE, THE PAVEMENT SHALL BE SWEPT. ANY AREAS OF DISTRESSED PAVEMENT SHALL BE REPLACED AT THE DIRECTION OF THE TOWNSHIP ENGINEER, AND A TACK COAT OF 0.10 GALLONS PER SQUARE YARD OR AS CONDITIONS WARRANT SHALL BE APPLIED.

GENERAL NOTES:

G-1. THE LOCATION, ELEVATION AND SIZE OF EXISTING UTILITIES SHOWN ON THE CONTRACT DRAWINGS ARE APPROXIMATE AND ARE BASED UPON BEST AVAILABLE INFORMATION PROVIDED TO THE ENGINEER

THE FOLLOWING SHALL BE PERFORMED BY THE CONTRACTOR:

A) VERIFY THE LOCATION OF EXISTING UNDERGROUND UTILITIES WITHIN THE WORK AREA PRIOR TO CONSTRUCTION.

B) EXERCISE EXTREME CAUTION WHEN WORKING ADJACENT TO EXISTING POWER, COMMUNICATIONS, WATER OR GAS LINES TO PREVENT DAMAGE TO THESE LINES.

C) IMMEDIATELY REPAIR ANY DAMAGE TO EXISTING UTILITIES IN A MANNER APPROVED BY THE ENGINEER, AT NO ADDITIONAL COST TO THE OWNER.

G-2. PRIOR TO THE COMMENCEMENT OF WORK, INCLUDING INITIAL SITE CLEARANCE AND GRADING, A HAULING PLAN SHALL BE SUBMITTED TO THE TOWNSHIP FOR REVIEW AND APPROVAL FOR THE MOVEMENT OF ANY CONSTRUCTION MATERIALS OR DEMOLITION DEBRIS ON ROADWAYS LEADING FROM THE TOWNSHIP BORDER AND VICE VERSA.

G-3. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, A DETAILED SEQUENCE OF CONSTRUCTION AND CONTRACTOR'S STAGING PLAN SHALL BE PROVIDED TO SEPARATE AND MANAGE CONSTRUCTION TRAFFIC AND PUBLIC TRAFFIC. THIS WILL FURTHER ESTABLISH CONTRACTOR'S WORK AND STAGING AREAS FOR EACH STAGE OF CONSTRUCTION, AND SHALL INCLUDE BUT NOT LIMITED TO ITEMS RELATED TO THE PLACEMENT OF CONSTRUCTION OFFICE AND/OR CONSTRUCTION TRAILERS, OUTDOOR EQUIPMENT AND MATERIALS STORAGE, SAFETY AND SECURITY FENCING, VEHICULAR AND PEDESTRIAN CIRCULATION, INSTALLATION OF UNDERGROUND UTILITIES, PARKING AREA CONSTRUCTION AND CONSTRUCTION RELATED SIGNAGE.

G-4. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN SITE EXAMINATION AND DETERMINING THE ACTUAL NATURE AND EXTENT OF EXISTING CONDITIONS PRIOR TO UNDERTAKING WORK.

G-5. PRIOR TO THE COMMENCEMENT OF WORK, INCLUDING INITIAL SITE CLEARANCE AND GRADING, A HAULING PLAN SHALL BE SUBMITTED TO THE TOWNSHIP FOR REVIEW AND APPROVAL FOR THE MOVEMENT OF ANY CONSTRUCTION MATERIALS OR DEMOLITION DEBRIS ON ROADWAYS LEADING FROM THE TOWNSHIP BORDER AND VICE VERSA.

G-6. SUBSTITUTIONS OF PROPRIETARY MATERIAL AND/OR PRODUCT SPECIFICATIONS THAT NOTE "OR EQUAL" MUST BE APPROVED BY THE DESIGN ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DEMONSTRATE TO THE SATISFACTION OF THE DESIGN ENGINEER THAT THE SUBSTITUTION IS EQUAL.

G-7. THE CONTRACTOR SHALL IMMEDIATELY INFORM THE OWNER AND OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES OR ERRORS HE DISCOVERS ON THE PLAN. APPARENT CONTRADICTIONS IN CONTRACT DOCUMENTS SHALL BE RESOLVED WITH THE OWNER AND ENGINEER BEFORE AFFECTED WORK PROCEEDS.

G-8. DEVIATION FROM THESE PLANS AND NOTES WITHOUT THE PRIOR CONSENT OF THE OWNER, OWNER'S REPRESENTATIVE AND/OR THE DESIGN ENGINEER MAY BE CAUSE FOR THE WORK TO BE UNACCEPTABLE.

G-9. IN THE EVENT DESIGN INFORMATION WITHIN THE CONTRACT PLANS AND SPECIFICATIONS DIFFER, THE CONTRACT PROVIDED ON THE PLANS SHALL GOVERN.

G-10. UTILIZE A MOBILE SWEEPER AND WATER TRUCK DAILY FOR DUST CONTROL ALONG HAUL ROUTES AND IN AREAS MADE AVAILABLE FOR CONSTRUCTION.

G-11. PREVENT WATER PONDING RESULTING FROM CONSTRUCTION OPERATIONS. PROMPTLY REMOVE ANY PONDED WATER TO THE SATISFACTION OF THE ENGINEER.

G-12. ALL TOPSOIL SHALL BE STRIPPED, STOCKPILED AND REUSED ON SITE AND MAY NOT BE TRANSPORTED OFF-SITE WITHOUT WRITTEN REQUEST AND RESPONSE FROM THE OWNER AUTHORIZING SAME.

G-13. ALL MATERIAL BROUGHT ON SITE SHALL BE CLEAN FILL, SAMPLED, AND ANALYZED WITH STANDARD NJDEP QUALITY ASSURANCE STANDARDS AND PRACTICES AT A MINIMUM, AS SPECIFIED IN N.J.A.C. 7:26E, TO FULLY CHARACTERIZE THE CONTAMINANTS IN THE LATEST SOIL CLEANUP CRITERIA (SCC). THE CONTRACTOR SHALL SUBMIT TO THE OWNER WRITTEN DOCUMENTATION FROM A LABORATORY CERTIFIED IN NEW JERSEY ENVIRONMENTAL LABORATORY CERTIFICATION PROGRAM (ELCP) AND IN ACCORDANCE WITH N.J.A.C. 7:18 PRIOR TO PLACEMENT OF THE MATERIAL ON SITE. THE MATERIAL MUST NOT CONTAIN CONTAMINANTS ABOVE THE MOST RESTRICTIVE DIRECT CONTACT OR IMPACT TO GROUNDWATER (IGW) SCC.

G-14. CONTRACTOR SHALL SUBMIT A PLAN DEPICTING ANY NECESSARY EQUIPMENT AND MATERIALS STAGING OUTSIDE OF THE AREA OF CONSTRUCTION FOR APPROVAL BY THE OWNER & ENGINEER. THE PLAN SHALL INCLUDE THE LOCATION OF TRAILERS, CONSTRUCTION TRAFFIC CIRCULATION AND PHASING IF NECESSARY.

G-15. STAGING AREAS AND CONSTRUCTION AREAS SHALL BE SECURED BY TEMPORARY FENCING WITH LATCHING GATES OF OTHER MEANS APPROVED BY THE OWNER & ENGINEER.

G-16. CONTRACTOR SHALL WORK TO MINIMIZE EXCESS SOIL GENERATED. IF IT IS NECESSARY TO REMOVE SOIL FROM THE SITE, IT SHOULD BE DISPOSED OF AT A PERMITTED DISPOSAL FACILITY. PROVIDE THE NAME OF THE DISPOSAL FACILITY AND SOIL SAMPLE RESULTS 7 DAYS PRIOR TO HAULING SOIL. COPIES OF ALL BILLS-OF-LADING SHALL BE PROVIDED TO THE ENGINEER WITHIN 24 HOURS OF SOIL LEAVING THE SITE. CONTRACTOR SHALL ASSUME OWNERSHIP/RESPONSIBILITY OF EARTH OR CONCRETE SPOILS AND/OR DEBRIS GENERATED DURING CONSTRUCTION.

G-17. ALL AREAS OUTSIDE THE LIMITS OF CONSTRUCTION WHICH ARE DAMAGED BY THE CONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL CONDITION TO THE SATISFACTION OF THE ENGINEER AND OWNER.

G-18. THE CONTRACTOR WILL INSURE THAT POSITIVE AND ADEQUATE DRAINAGE IS MAINTAINED AT ALL TIMES WITHIN THE PROJECT LIMITS. THIS MAY INCLUDE, BUT NOT BE LIMITED TO, REPLACEMENT OR RECONSTRUCTION OF EXISTING DRAINAGE STRUCTURES THAT HAVE BEEN DAMAGED OR REMOVED, OR REGRADING AS REQUIRED BY THE ENGINEER, EXCEPT FOR THOSE DRAINAGE ITEMS SHOWN AT SPECIFIC LOCATIONS AND HAVING SPECIFIC PAY ITEMS IN THE DETAILED ESTIMATE. NO SEPARATE PAYMENT WILL BE MADE FOR ANY COSTS INCURRED TO COMPLY WITH THIS REQUIREMENT.

G-19. ALL AREAS WHERE NATURAL VEGETATION AND/OR SPECIMEN TREES ARE TO REMAIN SHALL BE PROTECTED BY THE ERECTION OF FENCING, AND NO DISTURBANCE SHALL OCCUR PRIOR TO INSPECTION BY THE TOWNSHIP ENGINEER AND THE ISSUANCE OF WRITTEN AUTHORIZATION TO PROCEED WITH CONSTRUCTION. THESE PROTECTIVE MEASURES SHALL NOT BE ALTERED OR REMOVED WITHOUT THE APPROVAL OF THE TOWNSHIP

G-20. THE CONTRACTOR SHALL PROVIDE ANY AND ALL EXCAVATION AND MATERIAL SAMPLES NECESSARY TO CONDUCT REQUIRED SOIL TESTS. ALL ARRANGEMENTS AND SCHEDULING FOR THE TESTING SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

G-21. CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY BARRICADES AROUND THE WORK AREA AND SHALL PROVIDE PROTECTION AGAINST WATER DAMAGE AND SOIL EROSION.

G-22. ALL TRAFFIC CONTROL DEVICES TO BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH "THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION. TRAFFIC CONTROL SHALL INCLUDE POLICE PRESENCE, IF REQUIRED, AT NO COST TO THE OWNER. SIGN POSTS SHALL BE GALVANIZED STEEL AND ALL SIGN MATERIALS SHALL BE MADE OF REFLECTIVE SHEETING ON ALUMINUM BLANKS IN ACCORDANCE WITH NJDOT STANDARD SPECIFICATIONS.

GENERAL NOTES CONT.:

G-23. ALL DIMENSIONING IS TO FACE OF CURB OR BUILDING FACE, UNLESS OTHERWISE NOTED.

G-24. ALL CURB WITHIN THE PROJECT LIMITS SHALL BE BELGIAN BLOCK CURB. ALL CURB WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE CONCRETE CURB UNLESS OTHERWISE SPECIFIED.

G-25. UNLESS OTHERWISE INDICATED, ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO THE NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, 2007, AS AMENDED AND SUPPLEMENTED TO DATE.

G-26. ALL CONCRETE SHALL BE NJDOT CLASS 'B', 4,500 PSI, UNLESS OTHERWISE NOTED.

G-27. ALL PROPOSED UTILITIES TO BE INSTALLED UNDERGROUND.

G-28. ALL NEW CONCRETE PAVING AND CURBING SHALL MEET FLUSH WITH EXISTING.

G-29. THE CONTRACTOR SHALL NOTIFY THE FREEHOLD SOIL CONSERVATION DISTRICT A MINIMUM OF 72 HOURS BEFORE THE BEGINNING OF CONSTRUCTION.

G-30. ALL WORK SHALL COMPLY WITH APPLICABLE STATE, FEDERAL, AND LOCAL CODES, AND ALL NECESSARY LICENSES AND PERMITS SHALL BE OBTAINED BY THE CONTRACTOR AT HIS EXPENSE UNLESS PREVIOUSLY OBTAINED BY THE OWNER/DEVELOPER.

G-31. UPON COMPLETION OF THE WORK, REMOVE ALL DEBRIS, EQUIPMENT AND UNUSED MATERIALS FROM OWNER PROPERTY AND RESTORE THE AREAS TO THEIR ORIGINAL CONDITION, AS APPROVED BY THE ENGINEER.

G-32. A MINIMUM SLOPE OF 1.5% AND A MAXIMUM SLOPE OF 3:1 IN ALL GRASS AREAS SHALL BE MAINTAINED. A MINIMUM SLOPE OF 1.0% SHALL BE MAINTAINED IN ALL PAVED AREAS UNLESS OTHERWISE DEPICTED ON THE GRADING PLAN.

G-33. NO SIDEWALK SLOPE SHALL BE GREATER THAN 20:1 (5%). ALL CROSS-SLOPES SHALL BE 2.0%.

G-34. ALL ROADWAYS ARE TO BE PASSABLE FOR FIRE DEPARTMENT USE DURING CONSTRUCTION.

G-35. TRAFFIC STRIPING AND/OR MARKING, WHETHER CIRCULATION, DIRECTIONAL OR PARKING, SHALL BE PERFORMED IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", AS AMENDED.

G-36. ALL TRAFFIC SIGNAGE SHALL BE RETROREFLECTIVE AND SHALL HAVE CONCRETE FOUNDATIONS.

G-37. ALL BUILDING STRUCTURES ARE SUBJECT TO REVIEW BY THE CONSTRUCTION CODE OFFICIAL.

G-38. BARRIER FREE SUB-CODE COMPLIANCE IS SUBJECT TO CONSTRUCTION CODE OFFICIAL REVIEW AND APPROVAL.

G-39. AS-BUILT GRADING AND UTILITIES SHALL BE PROVIDED AT THE TIME OF THE REQUEST FOR CERTIFICATE OF OCCUPANCY. THE FINAL AS-BUILT PLAN SHALL BE PROVIDED BY THE APPLICANT TO THE TOWNSHIP ENGINEER'S OFFICE AS BOTH A HARD COPY (PAPER OR MYLAR) AND AS A DIGITAL/ELECTRONIC DOCUMENT(s). THE DIGITAL DATA USED FOR SUCH DOCUMENTS SHALL BE IN VECTOR FORMAT AND CONTAIN COORDINATE VALUES FOR AT LEAST THREE IDENTIFIABLE BOUNDARY CORNERS (PREFERABLY IN THE 1983 NEW JERSEY STATE PLANE COORDINATE SYSTEM).

G-40. ALL DAMAGED SIDEWALK, CURB, PAVEMENT, PAVEMENT STRIPING AND MARKINGS, AND SIGNAGE ASSOCIATED WITH THE CONSTRUCTION OF THIS PROJECT SHALL BE REPLACED OR REPAIRED TO THE SATISFACTION OF THE TOWNSHIP ENGINEER.

G-41. ALL ROOF-MOUNTED HVAC UNITS AND OTHER EQUIPMENT SHALL BE ADEQUATELY SCREENED WITH FENCE-TYPE SCREENING DEVICES, SUBJECT TO REVIEW AND APPROVAL OF THE TOWNSHIP PLANNING STAFF. ALL GROUND MECHANICAL UNITS, IF ANY, SHALL BE ADEQUATELY SCREENED, SUBJECT TO REVIEW AND APPROVAL OF THE TOWNSHIP PLANNING AND ENGINEERING STAFF.

ENVIRONMENTAL NOTES:

E-1. ALL MATERIAL BROUGHT ON SITE SHALL BE CLEAN FILL, SAMPLED, AND ANALYZED IN ACCORDANCE WITH STANDARD NJDEP QUALITY ASSURANCE STANDARDS AND PRACTICES AT A MINIMUM, AS SPECIFIED IN N.J.A.C. 7:26E, TO FULLY CHARACTERIZE THE CONTAMINANTS IN THE LATEST SOIL CLEANUP CRITERIA (SCC). THE CONTRACTOR SHALL SUBMIT TO THE OWNER WRITTEN DOCUMENTATION FROM A LABORATORY CERTIFIED IN NEW JERSEY ENVIRONMENTAL LABORATORY CERTIFICATION PROGRAM (ELCP) AND IN ACCORDANCE WITH N.J.A.C. 7:18 PRIOR TO PLACEMENT OF THE MATERIAL ON SITE. THE MATERIAL MUST NOT CONTAIN CONTAMINANTS ABOVE THE MOST RESTRICTIVE DIRECT CONTACT OR IMPACT TO GROUNDWATER (IGW) SCC.

E-2. INSTALL RIPRAP OUTFALL PROTECTION.

E-3. REPAIR DISTURBED SLOPE AREAS WITH TOPSOIL AND PERMANENT VEGETATION.

E-4. REMOVE SILT FENCE FROM THE BASIN BOTTOM OF SLOPE.

DEMOLITION NOTES

D-1. DEMOLITION WILL BEGIN UPON RECEIPT OF ALL NECESSARY APPROVALS AND PERMITS FROM ALL APPLICABLE GOVERNMENTAL AGENCIES AND AFTER ALL UTILITIES HAVE BEEN DEACTIVATED / DISCONNECTED. CONTRACTOR SHALL CONTACT UNDERGROUND UTILITIES AS PER NEW JERSEY ONE CALL LAW NOT LESS THAN FIVE (5) DAYS NOR MORE THAN TEN (10) WORKING DAYS BEFORE COMMENCING WITH DEMOLITION.

D-2. ALL DEMOLITION WORK SHALL BE PERFORMED IN ACCORDANCE WITH NFPA 241 AND OSHA STANDARDS.

D-3. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO DEMOLITION. SUCH MEASURES SHALL BE LEFT IN PLACE UNTIL PROJECT IS COMPLETED OR AREAS ARE STABILIZED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE COUNTY CONSERVATION DISTRICT. SOIL EROSION CONTROLS WILL BE RELOCATED, MODIFIED OR REPLACED DURING THE ENTIRE CONSTRUCTION PERIOD AS NEEDED AT NO COST TO THE OWNER.

D-4. NO DISTURBANCES OR PLACEMENT OF MATERIALS SHALL BE PERMITTED BEYOND THE PROJECT PROPERTY LINES WITHOUT WRITTEN CONSENT OF THE PROPERTY OWNERS OR COUNTY APPROVAL. DAMAGE CAUSED TO ADJACENT FACILITIES BY DEMOLITION OPERATIONS AND/OR STORAGE OF MATERIAL OR EQUIPMENT SHALL BE PROMPTLY REPAIRED AT NOT COST TO THE OWNER.

D-5. ALL DEMOLITION MATERIAL AND DEBRIS SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. NO ON-SITE BURIAL IS PERMITTED. A SOIL REMOVAL PERMIT IS THE RESPONSIBILITY OF THE CONTRACTOR.

D-6. ALL HOLES AND TRENCH AREAS REMAINING AFTER DEMOLITION SHALL BE BACKFILLED TO MATCH EXISTING GRADE.

D-7. WHERE A PIPE BEING REMOVED IS CONNECTED TO AN EXISTING STRUCTURE, EITHER REMOVE THE PIPE AND FILL THE WALL OPENING WITH CONCRETE, OR CUT THE PIPE WITHOUT PERCUSSION NOT MORE THAN 6" FROM THE OUTSIDE FACE OF THE STRUCTURE AND FILL THE REMAINING LENGTH OF PIPE WITH CONCRETE.

D-8 THE REMOVAL OF EXISTING BOLLARDS, POSTS, GATES, AND FREESTANDING LIGHTS SHALL INCLUDE THE PIPE/ POST AND CONCRETE FOOTING IN ITS ENTIRETY. BACKFILL AND COMPACT ALL AREAS WHERE ITEMS ARE REMOVED.

D-9 ALL EXISTING CATCH BASINS AND MANHOLES SHALL BE FIELD LOCATED PRIOR TO WORK AND THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES PERTAINING TO LOCATIONS SHOWN ON THE CONTRACT DRAWINGS.

D-10. ELECTRICAL UTILITIES SHALL BE DISCONNECTED PRIOR TO BEGINNING ANY DEMOLITION WORK. DEMOLITION SHALL INCLUDE THE REMOVAL OF BURIED AND EXPOSED CONDUIT IN THE AREA DESIGNATED FOR DEMOLITION, SEALING ENDS OF ALL BURIED CONDUIT ABANDONED IN PLACE AND REMOVING ALL POWER AND CONTROL WIRING BETWEEN THE DEMOLISHED FACILITY AND THE TERMINAL JUNCTION BOX, CIRCUIT BREAKER, OR METER CONTROL CENTER SUPPLYING POWER TO THE FACILITY.

D-11. THE CONTRACTOR SHALL CONDUCT DEMOLITION OPERATIONS AND REMOVAL OF DEBRIS TO ENSURE MINIMAL INTERFERENCE WITH ROADS, WALKS AND OTHER ADJACENT OCCUPIED OR USED FACILITIES. THE AREAS OF DEMOLITION SHALL BE PROTECTED TO ENSURE THE SAFE PASSAGE OF PEDESTRIANS. CONTRACTOR SHALL SUBMIT CONSTRUCTION STAGING AND SEQUENCING PLANS TO OWNER AND ENGINEER FOR APPROVAL PRIOR TO PERFORMING CONSTRUCTOIN ACTIVITIES IN WORK AREAS. CONTRACTOR SHALL FURNISH A CONSTRUCTION SCHEDULE TO THE OWNER PRIOR TO START OF WORK.

D-12. ALL ACTIVE CONSTRUCTION SITES AND LOCATIONS SHALL BE PROVIDED WITH NON-COMBUSTIBLE REFUSE CONTAINER(S) IN SUCH NUMBERS AS SHALL BE NECESSARY TO CONTAIN ALL COMBUSTIBLE REFUSE GENERATED BY THE CONSTRUCTION ACTIVITIES. ALL NON-COMBUSTIBLE REFUSE, RUBBISH AND DEBRIS SHALL BE COLLECTED UP AND DEPOSITED IN THE CONTAINER(S) ON A DAILY BASIS. REFUSE CONTAINER(S) SHALL BE LOCATED A MINIMUM OF 20 FEET AWAY FROM ANY BUILDING, STRUCTURE, LOT LINE OR COMBUSTIBLE MATERIAL STORAGE LOCATION.

D-13. WHILE CONSTRUCTION ACTIVITIES ARE IN PROGRESS, AT LEAST FOUR(4) PORTABLE FIRE EXTINGUISHERS HAVING A RATING OF AT LEAST 10-A, 80-BC SHALL BE PROVIDED, AND SHALL BE MAINTAINED IN A LOCATION APPROVED BY THE FIRE OFFICIAL. PERSONNEL NORMALLY ON THE CONSTRUCTION SITE SHALL BE INSTRUCTED IN THE USE OF THE FIRE EXTINGUISHERS PROVIDED.

D-14. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AND PROTECTING EXISTING STRUCTURES AS IDENTIFIED ON THE DEMOLITION PLANS CS0501. THE CONTRACTOR MUST NOTIFY THE ENGINEER IF ANY DAMAGE OCCURS TO THESE ITEMS. THE ENGINEER/ OWNER WILL DETERMINE WHETHER THE DAMAGED ITEMS CAN BE REPAIRED, OR SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.

D-15. REMOVE CONCRETE VERTICAL CURB AND/OR CONCRETE WALKWAYS TO NEAREST CONTROL OR EXPANSION JOINT TO THE EXENT SHOWN HEREON.

D-16. BACKFILL ALL VOIDS CREATED BY REMOVALS, INCLUDING, BUT NOT LIMITED TO THE FOLLOWING: FOUNDATIONS, MANHOLES, INLETS, SITE PIPING, VALVES, CONDUITS, CLEANOUTS, AND TREE ROOT REMOVALS. BACKFILL WITH STRUCTURAL FILL IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS.

D-17. PRIOR TO REMOVAL OF EXISTING FULL-DEPTH ASPHALTIC AND/OR CONCRETE PAVEMENT, CONTRACTOR SHALL SAWCUT TO FULL DEPTH TO PROVIDE A CLEAN STRAIGHT EDGE. CONCRETE SIDEWALK AND/OR CURB SHALL BE REMOVED TO THE NEAREST CONTROL JOINT.

D-18. ALL TREES/SHRUBS/BRUSH TO BE REMOVED AS SHOWN ON SHEET CS0501 SHALL BE COMPLETELY REMOVED, INCLUDING GRUBBING.

D-19. ALL WOODED AREAS AND INDIVIDUAL TREES DESIGNATED TO REMAIN SHALL BE PROTECTED FROM ROOT AND BRANCH DAMAGE

D-20. SAWCUT ALL SURFACE MATERIALS TO BE REMOVED AT THE INTERFACE WHERE THEY ARE TO REMAIN IN NEAT STRAIGHT LINES.

D-21. CONSTRUCTION EQUIPMENT AND VEHICLES SHALL BE STAGED WITHIN PAVED DRIVEWAYS AND PARKING LOTS TO MINIMIZE SOIL DISTURBANCES DURING DEMOLITION PROCESS.

D-22. CONTRACTOR TO COORDINATE, WITH THE RESPECTIVE UTILITY COMPANIES, THE REMOVAL OF ANY EXISTING UTILITY POLES AND OVERHEAD WIRES WHEN PROCEEDING WITH DEMOLITION WORK.

SITE NOTES:

1. PROPERTY IN QUESTION LOCATED IN PLAINSBORO TOWNSHIPS, NEW JERSEY. BLOCK 102, LOT 5, 6 & BLOCK 106 LOT 1 AND SOUTH BRUNSWICK TOWNSHIP, NEW JERSEY BLOCK 99 LOT 14.04
2. PROPERTY ACREAGE: 108.837 ACRES
3. PROPERTY ZONING: PMUD
4. OWNER: WRV NURSURIES PLAINSBORO OWNER, LLC
   570 COMMERCE BLVD
   CARLSTADT, NEW JERSEY 07072
5. OWNER REPRESENTATIVE: MR. ERIC WITMONDT

UTILITY NOTES:

U-1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AND TO TAKE WHATEVER STEPS NECESSARY TO PROVIDE FOR THEIR PROTECTION. THE ENGINEER HAS DILIGENTLY ATTEMPTED TO LOCATE AND INDICATE EXISTING FACILITIES ON THESE PLANS; HOWEVER, THIS INFORMATION IS SHOWN FOR THE CONTRACTOR'S CONVENIENCE ONLY. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS OF UTILITIES SHOWN OR NOT SHOWN. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES FOR EXACT LOCATION OF THEIR UTILITIES PRIOR TO STARTING CONSTRUCTION. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AND REPLACE ANY AND ALL DAMAGE MADE TO UTILITIES BY THE CONTRACTOR.

U-2. BEFORE EXCAVATING THE PROJECT AREA THE CONTRACTOR IS TO VERIFY THE LOCATION OF ANY UNDERGROUND UTILITY (GAS MAINS, WATER MAINS, SEWER LINES, TELEPHONE LINES, ETC.). SHOULD ANY UNDERGROUND UTILITY INTERFERE WITH PROJECT CONSTRUCTION THE ENGINEER SHALL BE NOTIFIED BEFORE PROCEEDING WITH WORK. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES THREE (3) DAYS PRIOR TO COMMENCEMENT OF ANY EXCAVATION FOR ACCURATE FIELD LOCATIONS. FOR UTILITY MARKOUT CALL 1-800-272-1000.

U-3. PIPE BEDDING REQUIREMENTS SPECIFIED HEREIN ARE TO BE CONSIDERED AS MINIMUMS FOR RELATIVELY DRY, STABLE EARTH CONDITIONS. ADDITIONAL BEDDING SHALL BE REQUIRED FOR ROCK TRENCHES AND WET AREAS. CONTRACTOR SHALL HAVE THE RESPONSIBILITY TO PROVIDE SUCH ADDITIONAL BEDDING AS MAY BE REQUIRED TO PROPERLY CONSTRUCT THE WORK.

U-4. BACKFILL IN THE TRENCHES SHALL BE COMPACTED TO THE DENSITY OF 95% OF THEORETICAL MAXIMUM DRY DENSITY (ASTM D698). BACKFILL MATERIAL SHALL BE FREE FROM ROOTS, STUMPS, OR OTHER FOREIGN DEBRIS AND SHALL BE PLACED IN LIFTS NOT TO EXCEED 6 INCHES IN COMPACTED FILL THICKNESS. A REPORT FROM THE OWNER'S GEOTECHNICAL ENGINEER MAY BE REQUIRED BY THE TOWNSHIP INSPECTOR. CORRECTION OF ANY TRENCH SETTLEMENT WITHIN A YEAR FROM THE DATE OF APPROVAL WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

U-5. CONTRACTOR SHALL EXCAVATE ONLY ENOUGH TRENCH TO INSTALL NEW UTILITY AND BACKFILL BY THE END OF EACH WORK DAY. OPEN TRENCH SHALL NOT BE PERMITTED AT ANY TIME CONTRACTOR IS NOT ACTIVELY WORKING ON PORTION OF UTILITY REQUIRING OPEN EXCAVATION.

U-6. STORM SEWER PIPING:
HDPE PIPE: SHALL BE IN ACCORDANCE WITH AASHTO M294, TYPE S OR ASTM F2306. ALL HDPE PIPE TRENCHES SHALL BE INSTALLED AND BACKFILLED IN ACCORDANCE WITH ASTM D2321. TRENCH BACKFILL MATERIAL SHALL BE AASHTO #57 AGGREGATE AND INSTALLED WITH A MINIMUM OF TWELVE (12) INCHES OVER TOP OF PIPE.
RCP PIPE: MINIMUM CLASS III RCP, WALL B IN ACCORDANCE WITH CURRENT N.J.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION UNLESS OTHERWISE NOTED.

U-7. TRENCH DETAILS ARE INTENDED TO PROVIDE INFORMATION REGARDING BACKFILLING MATERIALS AND GENERAL MATERIAL DEPTHS AND PAVEMENT LIMITS ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND SHALL PROVIDE APPROPRIATE SAFETY MEASURES, SHEETING, AND BRACING AS MAY BE REQUIRED DUE TO FIELD CONDITIONS. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE OSHA STANDARDS AND DETAILS FOR TRENCH EXCAVATION.

CODE: CODE OF THE TOWNSHIP OF PLAINSBORO

TAX MAP: SHEET 1
BLOCK 102, LOTS 5 & 6
BLOCK 106, LOT 1
TOTAL AREA = 108.837 ACRES

ZONING DISTRICT: PMUD; PLANNED UNIT DEVELOPMENT

PERMITTED USES: INTEGRATED MIXED-USE NEIGHBORHOOD DEVELOPMENT, ON A TRACT OF LAND WEST OF U.S. ROUTE 1, MEASURING A MINIMUM OF 100 ACRES, CONTAINING OPEN SPACE AREAS (INCLUDING COMMON OPEN SPACE, PLAZAS OR SQUARES, AND PUBLIC AREAS); RECREATIONAL USES (INDOOR AND/OR OUTDOOR); RETAIL SALES AND SERVICES; A MIX OF RESIDENTIAL USES (INCLUDING SINGLE-FAMILY AND TOWNHOUSE DWELLINGS, MULTIFAMILY DWELLINGS, AFFORDABLE HOUSING UNITS, AND AGE-RESTRICTED HOUSING PROVIDING LIVING ACCOMMODATIONS FOR ADULTS 55 YEARS OF AGE OR OLDER OR FOR COUPLES, ONE OF WHOM IS AT LEAST 55 YEARS OF AGE, OR AS OTHERWISE PERMITTED BY STATE AND FEDERAL LAWS FOR AGE-RESTRICTED HOUSING); AND A MIX OF NONRESIDENTIAL USES SUCH AS PERSONAL SERVICES, BANKS AND FINANCIAL SERVICE ESTABLISHMENTS, RESTAURANTS, EATING AND DRINKING ESTABLISHMENTS, THEATERS,PERFORMANCE AND ARTS FACILITIES, ENTERTAINMENT, HOTELS, OFFICES, HEALTH AND FITNESS FACILITIES,EDUCATIONAL AND RESEARCH USES, AND OTHER COMPLEMENTARY BUSINESS OR COMMERCIAL USES; INTEGRATED MIXED-USE NEIGHBORHOOD DEVELOPMENTS MAY ALSO INCLUDE CHILD-CARE CENTERS PURSUANT TO §§ 101-65F, 101-13.4, AND 101-25F OF THIS CODE, AS APPLICABLE; FAMILY DAY-CARE HOMES; HOME OCCUPATIONS AND PROFESSIONAL OFFICES PURSUANT TO § 101-13.5; AND ACCESSORY USES AND BUILDINGS CUSTOMARY AND INCIDENTAL TO ANY AND ALL OF THE PERMITTED PRINCIPAL USES REFERENCED HEREIN. PERMITTED USES MAY BE LOCATED IN VERTICAL MIXED-USE BUILDINGS (COMBINING DIFFERENT RESIDENTIAL AND/OR NONRESIDENTIAL USES IN THE SAME BUILDING), SINGLE-USE BUILDINGS,HORIZONTAL MIXED-USE BUILDINGS (COMBINING VERTICAL MIXED-USE BUILDINGS AND SINGLE-USE BUILDINGS ON DISTINCT PARCELS IN A RANGE OF RESIDENTIAL AND/OR NONRESIDENTIAL USES), OR ANY COMBINATION THEREOF. THE UTILIZATION OF OUTDOOR SPACE(S) AS PLACES OF ASSEMBLY, DINING, SHOPPING AND/OR SPECIAL EVENTS SHALL BE SPECIFICALLY PERMITTED. THE OVERALL TRACT COMPRISING THE INTEGRATED MIXED-USE DEVELOPMENT MAY BE SUBDIVIDED INTO MULTIPLE PARCELS UNDER SEPARATE OWNERSHIPS, THE ENTIRETY OF WHICH SHALL BE REFERRED TO AND FUNCTION AS AN "INTEGRATED MIXED-USE NEIGHBORHOOD DEVELOPMENT."

PROPOSED USE: RESIDENTIAL (SINGLE-FAMILY AND TOWNHOUSE DWELLINGS, MULTIFAMILY DWELLINGS, AFFORDABLE HOUSING UNITS, AND AGE-RESTRICTED HOUSING), RETAIL SALES AND SERVICES, OFFICE, HOTEL, RESTAURANTS, GROCER

AREA AND BULK REGULATIONS (PMUD; PLANNED UNIT DEVELOPMENT)

CODE REF	STANDARD	REQUIRED/PERMITTED	EXISTING	PROPOSED	CONFORMANCE
101-136	MIN. LOT AREA (SF)	100 ACRES	108.837 ACRES	108.837 ACRES	C
101-139.C.	RESIDENTIAL DENSITY	NOT MORE THAN 7 DWELLING UNITS PER ACRE OR 750 UNITS, AGE-RESTRICTED SHALL NOT EXCEED 2 UNITS PER ACRE OR 200 UNITS	N/A	950 DWELLING UNITS TOTAL, 200 AGE RESTRICTED	C
101-140.C.1.	NONRESIDENTIAL FLOOR AREA	MAX: 310,000 SF RETAIL 220,000 SF OFFICE 75,000 SF HOTEL TOTAL NONRESIDENTIAL = 605,000 SF	N/A	147,470 SF RETAIL 80,080 SF OFFICE 75,000 SF HOTEL 325,165 SF TOTAL	C
101-140.C.3.a.	MAX USES PER RETAIL BLDG	NO MORE THAN 3 INDIVIDUAL RETAIL ANCHOR USES SHALL OCCUPY A GROUND FLOOR SPACE BETWEEN 30,000 SF AND 45,000 SF, SHALL NOT EXCEED 60% OF THE TOTAL GROUND FLOOR RETAIL SF (GROCER EXEMPT)	N/A	BLDG A- 22,135 SF RETAIL BLDG B- 26,485 SF RETAIL BLDG D1- 29,150 RETAIL BLDG D2- 10,090 SF RETAIL	C
101-140.C.3.a.	MAX RETAIL SF PER USE	NO MORE THAN 3 INDIVIDUAL RETAIL ANCHOR USES SHALL OCCUPY A GROUND FLOOR SPACE BETWEEN 30,000 SF AND 45,000 SF, SHALL NOT EXCEED 60% OF THE TOTAL GROUND FLOOR RETAIL SF (GROCER EXEMPT)	N/A	BLDG A- 22,135 SF RETAIL BLDG B- 26,485 SF RETAIL	C
101-140.C.3.b.1	MAX RETAIL FRONTAGE	RETAIL USES > 30,000 SF SHALL NOT EXCEED 60 FEET OF STREET FRONTAGE ALONG THE MAIN STREET.	N/A	NO BUILDING EXCEEDS 30,000 SF OF RETAIL	C
101-140.C.3.b.3.	MAIN STREET REQUIREMENTS (PROPOSED NURSERY ROAD)	NO LESS THAN 60% OF THE LINEAR STREET FRONTAGE ALONG THE MAIN STREET SHALL CONSIST OF BUILDINGS WITH AT LEAST ONE UPPER FLOOR OF ACTIVE USES (RETAIL, OFFICE, HOTEL, OR RESIDENTIAL) TOTAL FRONTAGE = 2284.7 LF, 60% = 1370.82 LF	N/A	BLDG A - 418 LF BLDG B - 412 LF CLUBHOUSE - 130 LF BLDG D - 321 LF BLDG D1 - 325 LF TOTAL = 1606 LF (70.3%)	C
101-141.F.	OPEN SPACE WITHIN AN INTEGRATED MIXED-USE NEIGHBORHOOD DEVELOPMENT	MIN. 30% OF THE OVERALL TRACT. ONLY INDIVIDUAL OPEN SPACE FEATURES MEASURING 1,000 SF OR GREATER IN AREA SHALL BE INCLUDED IN CALCULATIONS. 30% = 32.65 ACRES	N/A	38.7% (42.09 ACRES)*	C
101-142.R.	BUILDING SETBACK	NO BUILDING OR STRUCTURE SHALL BE LOCATED WITHIN/OUTSIDE OF 50 FEET OF ANY EXTERIOR BOUNDARY LINE OF THE SITE DESIGNATED FOR A PMUD PLANNED UNIT DEVELOPMENT, OR FROM ANY STATE OR COUNTY ROAD. SHALL NOT APPLY TO EXTERIOR BOUNDARY LINES THAT FORM A MUNICIPAL BOUNDARY	N/A	57.42 LF (FROM BLDG D3)	C
101-142.S.	MAX. BUILDING HEIGHTS	ACCESSORY BLDG = 20 FT SINGLE-FAMILY = 35 FT TOWNHOUSE = 45 FT STACKED TOWNHOUSE = 60 FT OTHER MULTI-FAMILY DWELLINGS (INCL. AGE-RESTRICTED) = 60 FT MIXED-USE AND NON RESID. = 60 FT	N/A	EAST RESIDENTIAL SFD - 30.40' 24' SFA - 38.87' TOWNSHOUSE 2&3 - 37.36' 20' SFA 3 STORY - 44.23' 20' SFA 2 STORY - 39.60' TOWNHOUSE STACKED 1 BEDROOM 2 STORY - 30.16' WEST RESIDENTIAL STACKED TOWNHOUSE - 39.71' TOWNHOUSE - 42.84' CARRIAGE - 29.13' AR MULTIFAMILY FLATS - 49.00' BLDG A - 60.00' BLDG B - 60.00' BLDG C - 60.00' BLDG D1 - 41.12' BLDG D2 - 22.77' BLDG D3 - 27.23' BLDG D4 - 30'	C
	TOTAL BUILDING COVERAGE			752207.39 SF 17.27 ACRES 15.87% OF LOT	

* REFER TO OPEN SPACE PLAN

CODE:
CODE OF THE TOWNSHIP OF PLAINSBORO

ZONING DISTRICT: PMUD; PLANNED UNIT DEVELOPMENT

DESIGN STANDARDS FOR SUBDIVISION AND SITE PLANS

SIDEWALK				
85.22.B.	SIDEWALKS SHALL BE PROVIDED ON BOTH SIDES OF ALL STREETS	BOTH SIDES	ONE SIDE	NC
85.22.B.	SIDEWALKS ADJOINING RESIDENTIAL USES SHALL BE MIN. 5 FT WIDE	5 FT	5 FT	C
85.22.B.	SIDEWALKS ADJOINING MULTIFAMILY/APARTMENT BUILDINGS SHALL HAVE A MIN. WIDTH OF 6 FT	6 FT	6 FT	C
85.22.B.	SIDEWALKS ADJOINING NON-RESIDENTIAL OR MIXED-USED BUILDINGS SHALL HAVE A MIN. WIDTH OF 8 FT	8 FT	8 FT	C

PARKING AND LOADING REQUIREMENTS / DESIGN STANDARDS - BUILDING A

CODE REF	STANDARD	REQUIRED/PERMITTED	PROPOSED	ON-STREET PARKING	CONFORMANCE
101-143.D.	RETAIL	5.5 SPACES FOR EACH 1,000 SF OF GFA 22,135 SF = 122 SPACES	SEE BELOW		C
NJAC 5:21-4.14	RESIDENTIAL	GARDEN APARTMENT: 1 BEDROOM = 1.8 SPACES/UNIT X 62 UNITS = 112 SPACES 2 BEDROOM= 2.0 SPACES/UNIT X 87 UNITS = 134 SPACES 3 BEDROOM = 2.1 SPACES/UNIT X 7 UNITS = 15 SPACES TOTAL PARKING REQUIRED = 261 SPACES	SEE BELOW		C
577-230-F	TOTAL	383 REQUIRED SPACES **(345 REQUIRED SPACES PER EV CREDIT PARKING REDUCTION)**[A]	313	65	C
101-13.8 AND DCA MODEL EV ORDINANCE	EV PARKING REQUIREMENT FOR MIXED USE DEVELOPMENT	PREPARE AS MAKE-READY PARKING SPACES AT LEAST 15% OF THE REQUIRED OFF-STREET PARKING, AND INSTALL ELECTRIC VEHICLE SUPPLY EQUIPMENT IN AT LEAST ONE-THIRD OF THE 15% 378 SPACES x 15%= 57 TOTAL, 19 ACTIVE	SEE BELOW		C
101-13.8 AND DCA MODEL EV ORDINANCE	EV PARKING REQUIREMENT FOR MIXED USE DEVELOPMENT	THROUGHOUT THE INSTALLATION OF ELECTRIC VEHICLE SUPPLY EQUIPMENT, AT LEAST 5% SHALL BE ACCESSIBLE FOR PEOPLE WITH DISABILITIES 57 SPACES X 5%= 3 SPACES	3 EV ADA		C
101-13.8 AND DCA MODEL EV ORDINANCE	TOTAL	57 TOTAL, 19 ACTIVE, 38 MAKE-READY	3 EV ADA (ACTIVE) 19 EV (ACTIVE) 35 MAKE-READY*		C
E.2 ORDINANCE (NJ EV ORDINANCE) [A]	EV ACTIVE OR MAKE-READY PARKING CREDIT FOR SPACE REQUIREMENT REDUCTION	**A PARKING SPACE PREPARED WITH EVSE OR MAKE-READY EQUIPMENT SHALL COUNT AS AT LEAST TWO PARKING SPACES FOR THE PURPOSE OF COMPLYING WITH A MINIMUM PARKING SPACE REQUIREMENT. THIS SHALL RESULT IN A REDUCTION OF NO MORE THAN 10 PERCENT OF THE TOTAL REQUIRED PARKING. (383 X 10% = 38 SPACES)**	38		C
2010 ADA DESIGN STANDARDS 208.2 (TABLE 208.2)	MIN. NUMBER OF ADA PARKING SPACES	8	8 ADA (OFF-STREET) 3 EV ADA (OFF-STREET) 6 ADA (ON-STREET) 17 TOTAL ADA		C
2010 ADA DESIGN STANDARDS 208.2.4	MIN. VAN PARKING SPACES (FOR EVERY 6 PARKING SPACES REQUIRED BY 208.2, AT LEAST 1 SHALL BE A VAN PARKING SPACE)	2	2		C

PARKING AND LOADING REQUIREMENTS / DESIGN STANDARDS - BUILDING B

CODE REF	STANDARD	REQUIRED/PERMITTED	PROPOSED	ON-STREET PARKING	CONFORMANCE
101-143.D.	RETAIL	5.5 SPACES FOR EACH 1,000 SF OF GFA 26,485 SF = 146 SPACES	SEE BELOW		C
NJAC 5:21-4.14	RESIDENTIAL	GARDEN APARTMENT: 1 BEDROOM = 1.8 SPACES/UNIT X 87 UNITS = 157 SPACES 2 BEDROOM= 2.0 SPACES/UNIT X 97 UNITS = 194 SPACES 3 BEDROOM = 2.1 SPACES/UNIT X 14 UNITS = 30 SPACES TOTAL PARKING REQUIRED = 381 SPACES	SEE BELOW		C
577-230-F	TOTAL	527 REQUIRED SPACES **(475 REQUIRED SPACES PER EV CREDIT PARKING REDUCTION)**[A]	375	102	C
101-13.8 AND DCA MODEL EV ORDINANCE	EV PARKING REQUIREMENT FOR MIXED USE DEVELOPMENT	PREPARE AS MAKE-READY PARKING SPACES AT LEAST 15% OF THE REQUIRED OFF-STREET PARKING, AND INSTALL ELECTRIC VEHICLE SUPPLY EQUIPMENT IN AT LEAST ONE-THIRD OF THE 15% 475 SPACES x 15%= 71 TOTAL, 24 ACTIVE	SEE BELOW		C
101-13.8 AND DCA MODEL EV ORDINANCE	EV PARKING REQUIREMENT FOR MIXED USE DEVELOPMENT	THROUGHOUT THE INSTALLATION OF ELECTRIC VEHICLE SUPPLY EQUIPMENT, AT LEAST 5% SHALL BE ACCESSIBLE FOR PEOPLE WITH DISABILITIES 72 SPACES X 5%= 4 SPACES	4 EV ADA		C
101-13.8 AND DCA MODEL EV ORDINANCE	TOTAL	72 TOTAL, 24 ACTIVE, 48 MAKE-READY	4 EV ADA (ACTIVE) 24 EV (ACTIVE) 44 MAKE-READY*		C
E.2 ORDINANCE (NJ EV ORDINANCE) [A]	EV ACTIVE OR MAKE-READY PARKING CREDIT FOR SPACE REQUIREMENT REDUCTION	**A PARKING SPACE PREPARED WITH EVSE OR MAKE-READY EQUIPMENT SHALL COUNT AS AT LEAST TWO PARKING SPACES FOR THE PURPOSE OF COMPLYING WITH A MINIMUM PARKING SPACE REQUIREMENT. THIS SHALL RESULT IN A REDUCTION OF NO MORE THAN 10 PERCENT OF THE TOTAL REQUIRED PARKING. (527 X 10% = 52 SPACES)**	52		C
2010 ADA DESIGN STANDARDS 208.2 (TABLE 208.2)	MIN. NUMBER OF ADA PARKING SPACES	11	11 ADA (OFF-STREET) 4 EV ADA (OFF-STREET) 6 ADA (ON-STREET) 21 TOTAL ADA		C
2010 ADA DESIGN STANDARDS 208.2.4	MIN. VAN PARKING SPACES (FOR EVERY 6 PARKING SPACES REQUIRED BY 208.2, AT LEAST 1 SHALL BE A VAN PARKING SPACE)	2	2		C

* 1. THE ENGINEER IS PROPOSING TO BUILD MORE ACTIVE EV PARKING SPACES THAN REQUIRED. HENCE FEWER THAN REQUIRED MAKE-READY SPACES ARE PROPOSED.

PARKING AND LOADING REQUIREMENTS / DESIGN STANDARDS - BUILDING C

CODE REF	STANDARD	REQUIRED/PERMITTED	PROPOSED	ON-STREET PARKING	CONFORMANCE
101-143.D.	HOTEL	1 SPACE PER GUEST UNIT 125 UNITS= 125 SPACES REQUIRED	SEE BELOW		C
101-143.D.	RESTAURANT	1 SPACE PER 3 SEATS 264 SEATS = 88 SPACES	SEE BELOW		C
577-230-F	TOTAL	213 REQUIRED SPACES **(192 REQUIRED SPACES PER EV CREDIT PARKING REDUCTION)**[A]	190	23	C
101-13.8 AND DCA MODEL EV ORDINANCE	EV PARKING REQUIREMENT FOR MIXED USE DEVELOPMENT	PREPARE AS MAKE-READY PARKING SPACES AT LEAST 15% OF THE REQUIRED OFF-STREET PARKING, AND INSTALL ELECTRIC VEHICLE SUPPLY EQUIPMENT IN AT LEAST ONE-THIRD OF THE 15% 213 SPACES x 15% = 32 TOTAL, 11 ACTIVE	SEE BELOW		C
101-13.8 AND DCA MODEL EV ORDINANCE	EV PARKING REQUIREMENT FOR MIXED USE DEVELOPMENT	THROUGHOUT THE INSTALLATION OF ELECTRIC VEHICLE SUPPLY EQUIPMENT, AT LEAST 5% SHALL BE ACCESSIBLE FOR PEOPLE WITH DISABILITIES 32 SPACES X 5%= 2 SPACES	2 EV ADA		C
101-13.8 AND DCA MODEL EV ORDINANCE	TOTAL	32 TOTAL, 11 ACTIVE, 21 MAKE-READY	2 EV ADA (ACTIVE) 11 EV (ACTIVE) 19 MAKE-READY*		C
E.2 ORDINANCE (NJ EV ORDINANCE) [A]	EV ACTIVE OR MAKE-READY PARKING CREDIT FOR SPACE REQUIREMENT REDUCTION	**A PARKING SPACE PREPARED WITH EVSE OR MAKE-READY EQUIPMENT SHALL COUNT AS AT LEAST TWO PARKING SPACES FOR THE PURPOSE OF COMPLYING WITH A MINIMUM PARKING SPACE REQUIREMENT. THIS SHALL RESULT IN A REDUCTION OF NO MORE THAN 10 PERCENT OF THE TOTAL REQUIRED PARKING. (213 X 10% = 21 SPACES)**	21		C
2010 ADA DESIGN STANDARDS 208.2 (TABLE 208.2)	MIN. NUMBER OF ADA PARKING SPACES	7	6 ADA 2 EV ADA 8 TOTAL ADA		C
2010 ADA DESIGN STANDARDS 208.2.4	MIN. VAN PARKING SPACES (FOR EVERY 6 PARKING SPACES REQUIRED BY 208.2, AT LEAST 1 SHALL BE A VAN PARKING SPACE)	1	2		C

PARKING AND LOADING REQUIREMENTS / DESIGN STANDARDS - BUILDINGS D1, D2, D3

CODE REF	STANDARD	REQUIRED/PERMITTED	PROPOSED	ON-STREET PARKING	CONFORMANCE
101-143.D.	RETAIL	5.5 SPACES FOR EACH 1,000 SF OF GFA 29,150 SF (D1) + 10,090 SF (D2) + 30,000 SF (D3) = 69,240 SF = 381 SPACES	SEE BELOW	SEE BELOW	C
101-143.D.	OFFICE	1/400 SF OF GROSS FLOOR AREA 80,080 SF (D1) = 201 SPACES	SEE BELOW	SEE BELOW	C
101-143.D.	TOTAL	582 REQUIRED SPACES **(524 REQUIRED SPACES PER EV CREDIT PARKING REDUCTION)**[A]	565	26	C
101-13.8 AND DCA MODEL EV ORDINANCE	EV PARKING REQUIREMENT FOR MIXED USE DEVELOPMENT	PREPARE AS MAKE-READY PARKING SPACES AT LEAST 15% OF THE REQUIRED OFF-STREET PARKING, AND INSTALL ELECTRIC VEHICLE SUPPLY EQUIPMENT IN AT LEAST ONE-THIRD OF THE 15% 591 SPACES x 15%= 89 TOTAL, 30 ACTIVE	SEE BELOW		C
101-13.8 AND DCA MODEL EV ORDINANCE	EV PARKING REQUIREMENT FOR MIXED USE DEVELOPMENT	THROUGHOUT THE INSTALLATION OF ELECTRIC VEHICLE SUPPLY EQUIPMENT, AT LEAST 5% SHALL BE ACCESSIBLE FOR PEOPLE WITH DISABILITIES 89 SPACES X 5%= 5 SPACES	5 EV ADA		C
101-13.8 AND DCA MODEL EV ORDINANCE	TOTAL	89 TOTAL, 30 ACTIVE, 59 MAKE-READY	5 EV ADA (ACTIVE) 30 EV (ACTIVE) 54 MAKE-READY*		C
E.2 ORDINANCE (NJ EV ORDINANCE) [A]	EV ACTIVE OR MAKE-READY PARKING CREDIT FOR SPACE REQUIREMENT REDUCTION	**A PARKING SPACE PREPARED WITH EVSE OR MAKE-READY EQUIPMENT SHALL COUNT AS AT LEAST TWO PARKING SPACES FOR THE PURPOSE OF COMPLYING WITH A MINIMUM PARKING SPACE REQUIREMENT. THIS SHALL RESULT IN A REDUCTION OF NO MORE THAN 10 PERCENT OF THE TOTAL REQUIRED PARKING. (552 X 10% = 58 SPACES)**	58		C
2010 ADA DESIGN STANDARDS 208.2 (TABLE 208.2)	MIN. NUMBER OF ADA PARKING SPACES	12	12 ADA 5 EV ADA 17 TOTAL ADA		C
2010 ADA DESIGN STANDARDS 208.2.4	MIN. VAN PARKING SPACES (FOR EVERY 6 PARKING SPACES REQUIRED BY 208.2, AT LEAST 1 SHALL BE A VAN PARKING SPACE)	2	4		C

PARKING AND LOADING REQUIREMENTS / DESIGN STANDARDS - WESTERN RESIDENTIAL (RSIS N.J.A.C. 5:21)

TYPE OF UNIT	REQUIRED/PERMITTED	REQUIRED/PERMITTED	PROPOSED OFF-STREET (INCLUDING GARAGE AND DRIVEWAY)*	ON-STREET PARKING	CONFORMANCE
SINGLE FAMILY HOMES (3 BEDROOM)	3 BEDROOM = 2.0 SPACES/UNIT	3 BEDROOM = 2.0 SPACES/UNIT X 20 = 40 SPACES	SEE BELOW	SEE BELOW	SEE BELOW
LUXURY SINGLE FAMILY UNIT	1 BEDROOM = 1.8 SPACES/UNIT 2 BEDROOM= 2.3 SPACES/UNIT 3 BEDROOM = 2.4 SPACES/UNIT	3 BEDROOM = 2.4 SPACES/UNIT X 114 = 274 SPACES	SEE BELOW	SEE BELOW	SEE BELOW
TOWNHOMES (AFFORDABLE)	1 BEDROOM = 1.8 SPACES/UNIT 2 BEDROOM= 2.3 SPACES/UNIT 3 BEDROOM = 2.4 SPACES/UNIT	1 BEDROOM = 1.8 SPACES/UNIT X 6 = 11 SPACES 2 BEDROOM= 2.3 SPACES/UNIT X 19 = 44 SPACES 3 BEDROOM = 2.4 SPACES/UNIT X 7 = 17 SPACES TOTAL = 72 SPACES	SEE BELOW	SEE BELOW	SEE BELOW
TERRACE HOUSES	1 BEDROOM = 1.8 SPACES/UNIT 2 BEDROOM= 2.3 SPACES/UNIT 3 BEDROOM = 2.4 SPACES/UNIT	3 BEDROOM = 2.4 SPACES/UNIT X 85 = 204 SPACES	SEE BELOW	SEE BELOW	SEE BELOW
TOTAL		590	812	145	C

* 1. A ONE-CAR GARAGE AND DRIVEWAY COMBINATION SHALL COUNT AS 2.0 OFF-STREET PARKING SPACES, PROVIDED THE DRIVEWAY MEASURES 18 FEET IN LENGTH BETWEEN THE FACE OF THE GARAGE DOOR AND THE RIGHT-OF-WAY
2. A TWO-CAR GARAGE AND DRIVEWAY COMBINATION SHALL COUNT AS 3.5 OFF-STREET PARKING SPACES, PROVIDED THE DRIVEWAY MEASURES 20 FEET WIDE AND 18 FEET IN LENGTH BETWEEN THE FACE OF THE GARAGE DOOR AND THE RIGHT-OF-WAY

PARKING AND LOADING REQUIREMENTS / DESIGN STANDARDS - EASTERN RESIDENTIAL (RSIS N.J.A.C. 5:21)

TYPE OF UNIT	REQUIRED/PERMITTED	REQUIRED/PERMITTED	PROPOSED OFF-STREET (INCLUDING GARAGE AND DRIVEWAY)*	ON-STREET PARKING	CONFORMANCE
TRADITIONAL TOWNHOME	1 BEDROOM = 1.8 SPACES/UNIT 2 BEDROOM= 2.3 SPACES/UNIT 3 BEDROOM = 2.4 SPACES/UNIT	3 BEDROOM = 2.4 SPACES/UNIT X 51 = 123 SPACES	SEE BELOW	SEE BELOW	SEE BELOW
STACKED TOWNHOME	1 BEDROOM = 1.8 SPACES/UNIT 2 BEDROOM= 2.3 SPACES/UNIT 3 BEDROOM = 2.4 SPACES/UNIT	1 BEDROOM = 1.8 SPACES/UNIT X 4 = 8 SPACES 2 BEDROOM= 2.3 SPACES/UNIT X 59 = 136 SPACES 3 BEDROOM = 2.4 SPACES/UNIT X 51 = 123 SPACES TOTAL = 267 SPACES	SEE BELOW	SEE BELOW	SEE BELOW
CARRIAGE HOMES (AGE-RESTRICTED)	1 BEDROOM = 1.8 SPACES/UNIT 2 BEDROOM= 2.3 SPACES/UNIT 3 BEDROOM = 2.4 SPACES/UNIT	3 BEDROOM = 2.4 SPACES/UNIT X 31 = 75 SPACES	SEE BELOW	SEE BELOW	SEE BELOW
FLATS (AGE-RESTRICTED)	1 BEDROOM = 1.8 SPACES/UNIT 2 BEDROOM= 2.0 SPACES/UNIT 3 BEDROOM = 2.1 SPACES/UNIT	1 BEDROOM = 1.8 SPACES/UNIT X 8 = 15 UNITS 2 BEDROOM= 2.0 SPACES/UNIT X 64 = 128 UNITS TOTAL PARKING REQUIRED = 143 SPACES **(131 REQUIRED SPACES PER EV CREDIT PARKING REDUCTION)**[A]	SEE BELOW	SEE BELOW	SEE BELOW
TOTAL		608 REQUIRED SPACES **(596 REQUIRED SPACES PER EV CREDIT PARKING REDUCTION)**[A]	523	169	C
FLATS (AGE-RESTRICTED) 101-13.8 AND DCA MODEL EV ORDINANCE	EV PARKING REQUIREMENT FOR MIXED USE DEVELOPMENT	PREPARE AS MAKE-READY PARKING SPACES AT LEAST 15% OF THE REQUIRED OFF-STREET PARKING, AND INSTALL ELECTRIC VEHICLE SUPPLY EQUIPMENT IN AT LEAST ONE-THIRD OF THE 15% 120 SPACES x 15%= 18 TOTAL, 6 ACTIVE	SEE BELOW		C
FLATS (AGE-RESTRICTED) 101-13.8 AND DCA MODEL EV ORDINANCE	EV PARKING REQUIREMENT FOR MIXED USE DEVELOPMENT	THROUGHOUT THE INSTALLATION OF ELECTRIC VEHICLE SUPPLY EQUIPMENT, AT LEAST 5% SHALL BE ACCESSIBLE FOR PEOPLE WITH DISABILITIES 18 SPACES X 5%= 1 SPACE	1 EV ADA		C
FLATS (AGE-RESTRICTED) 101-13.8 AND DCA MODEL EV ORDINANCE	TOTAL	18 TOTAL, 6 ACTIVE, 12 MAKE-READY	1 EV ADA (ACTIVE) 6 EV (ACTIVE) 11 MAKE-READY*		C
E.2 ORDINANCE (NJ EV ORDINANCE) [A]	EV ACTIVE OR MAKE-READY PARKING CREDIT FOR SPACE REQUIREMENT REDUCTION	**A PARKING SPACE PREPARED WITH EVSE OR MAKE-READY EQUIPMENT SHALL COUNT AS AT LEAST TWO PARKING SPACES FOR THE PURPOSE OF COMPLYING WITH A MINIMUM PARKING SPACE REQUIREMENT. THIS SHALL RESULT IN A REDUCTION OF NO MORE THAN 10 PERCENT OF THE TOTAL REQUIRED PARKING. (120 X 10% = 12)**	12		C
FLATS (AGE-RESTRICTED) 2010 ADA DESIGN STANDARDS 208.2 (TABLE 208.2)	MIN. NUMBER OF ADA PARKING SPACES	2 PER BUILDING, 4 TOTAL SPACES	4 ADA 1 EV ADA 5 TOTAL ADA		C
FLATS (AGE-RESTRICTED) 2010 ADA DESIGN STANDARDS 208.2.4	MIN. VAN PARKING SPACES (FOR EVERY 6 PARKING SPACES REQUIRED BY 208.2, AT LEAST 1 SHALL BE A VAN PARKING SPACE)	1 PER BUILDING, 2 TOTAL	1 PER BUILDING 2 TOTAL		C

* 1. A ONE-CAR GARAGE AND DRIVEWAY COMBINATION SHALL COUNT AS 2.0 OFF-STREET PARKING SPACES, PROVIDED THE DRIVEWAY MEASURES 18 FEET IN LENGTH BETWEEN THE FACE OF THE GARAGE DOOR AND THE RIGHT-OF-WAY
2. A ONE-CAR GARAGE WITHOUT DRIVEWAY SHALL COUNT AS 1.0 OFF-STREET PARKING SPACE
3. A TWO-CAR GARAGE AND DRIVEWAY COMBINATION SHALL COUNT AS 3.5 OFF-STREET PARKING SPACES, PROVIDED THE DRIVEWAY MEASURES 20 FEET WIDE AND 18 FEET IN LENGTH BETWEEN THE FACE OF THE GARAGE DOOR AND THE RIGHT-OF-WAY
4. THE ENGINEER IS PROPOSING TO BUILD MORE ACTIVE EV PARKING SPACES THAN REQUIRED. HENCE FEWER THAN REQUIRED MAKE-READY SPACES ARE PROPOSED.

RSIS - STREETS - ALLEY TWO-WAY

CITATION	STANDARD	REQUIRED	PROPOSED	COMPLIES	REMARKS
§5:21-4.1	Street Hierarchy	Streets - Alley Two-Way	Provided	Y	
§5:21-4.2	Cartway Width (Feet)	18 FT	20 FT	Y	
§5:21-4.2	Cartway Traveled Way Width (Feet)	18 FT	20 FT	Y	
§5:21-4.2	Number of Parking Lanes	0	0	Y	
§5:21-4.2	Parking Lane Width (Feet)	0 FT	0 FT	Y	
§5:21-4.2	Curb or Shoulder	None	Curb	Y	
§5:21-4.2	Sidewalk (SW) or Graded Area (GA)	2 GA	2 GA*	Y	* 2.5 FT wide sidewalks provided within Cartway per GDP
§5:21-4.5(d)	Sidewalk	Parallel to Street	Parallel to Street	Y	
§5:21-4.5(e)	Sidewalk Along Streets with Non-Parallel Parking	Sidewalk Not Between Vehicles and Traveled Way	NA	NA	
§5:21-4.5(g)	Sidewalk Width (Feet)	4 FT	5 FT	Y	
§5:21-4.7(a)	Utility Areas	Located within ROW or Easement	Provided	Y	
§5:21-4.7(b)	Utility Areas	Suitable Ground Cover	Provided	Y	
§5:21-4.8(a)	Right-of-Way Width (Feet)	22 FT	NA	NA	Private Road witihin a 22' wide easement
§5:21-4.19(a)1.	Minimum Street Grade (%)	Alley - 0.5%	1.00%	Y	
§5:21-4.19(a)2.	Maximum Street Grade (%)	Alley - 15%	10.64%	Y	
§5:21-4.19(b)1.	Minimum Intersection Angle (DEG)	75	90	Y	
§5:21-4.19(b)2.	Intersection Location	Opposite Existing Or Offset More than 150 Feet	NA	NA	Alleys serve a drive aisles to the individual driveways and are not intended for through traffic. Therefore, intersections of neighborhood roads with alleys, and alleys with alleys are not assessed as intersections.
§5:21-4.19(b)3.	Minimum Intersection Curb Radius (Feet)	Alley - 20 FT	20 FT	Y	
§5:21-4.19(b)5.	Minimum Centerline Radius (Feet)	Alley - 100 FT	25 FT	N	Alleys serve as drive aisles to the individual driveways and are not considered a de-minimus exception due to the low speeds associated with the narrow alley cartways.
§5:21-4.19(b)5.	Minimum Tangent Between Reverse Curves (Feet)	Alley - 0 FT	N/A	N/A	
§5:21-4.19(b)6.	Sight Triangles	In Accordance with AASHTO	Safe stopping sight distance 200'	Y	

RSIS - NEIGHBORHOOD (ALL INTENSITIES)

CITATION	STANDARD	REQUIRED	PROPOSED	COMPLIES	REMARKS
§5:21-4.1	Street Hierarchy	Neighborhood - All Intensities	Provided	Y	
§5:21-4.2	Cartway Width (Feet)	30 FT	32'	Y	22' at bump-outs where there are no parking lanes and 32' wide cartway where parking is on both sides.
§5:21-4.2	Cartway Traveled Way Width (Feet)	16 FT	18 FT	Y	
§5:21-4.2	Number of Parking Lanes	2	0, 1 and 2*	Y	* 32' wide cartway where parking is on both sides
§5:21-4.2	Parking Lane Width (Feet)	14 FT	7 FT (14 FT prkg both sides)	Y	
§5:21-4.2	Curb or Shoulder	Curb	Curb	Y	
§5:21-4.2	Sidewalk (SW) or Graded Area (GA)	2 SW	1 SW	N	Multiple Roads (see Sidewalk Exhibit which provides basis)
§5:21-4.5(d)	Sidewalk	Parallel to Street	Parallel to Street	Y	
§5:21-4.5(e)	Sidewalk Along Streets with Non-Parallel Parking	Sidewalk Not Between Vehicles and Traveled Way	N/A	Y	
§5:21-4.5(g)	Sidewalk Width (Feet)	4 FT	5 FT (Min)	Y	
§5:21-4.7(a)	Utility Areas	Located within ROW or Easement	Provided	Y

SHEET INTENTIONALLY OMITTED

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
3	REV. COMPLETENESS SUBMISSION	7/16/25		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com **Certificate of Authorization**
www.pennoni.com **No. 24GA28033300**

SIGN ZONING COMPLIANCE SHEET
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP — MIDDLESEX CO., N.J.
SCALE: AS NOTED — JUNE 14, 2024

DRAWN BY WDV DATE 6/14/24	FIELD BK	ORDER No.	PAGE No.	SHEET No.
CHECKED BY CG DATE 6/14/24	PAGE	WRNUL23001	5 OF 100	CS0203

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS0202.DWG

DEMOLITION LEGEND:

- LIMIT OF DISTURBANCE
- ASPHALT PAVEMENT REMOVAL
- REMOVE EXISTING TREES
- CURB REMOVAL
- SAWCUT
- UNDERGROUND UTILITY REMOVAL
- PROPOSED TREELINE
- EXISTING TREELINE TO BE REMOVED
- EXISTING TREELINE TO BE REMAIN
- AREA OF IMPACTED SOILS
- AREA TO RECEIVE IMPACTED SOILS

NOTES

1. CONTRACTOR SHALL INVESTIGATE THE AREA SURROUNDING BUILDING FOUNDATIONS FOR THE PRESENCE OF SEPTIC SYSTEMS. IF FOUND, SEPTIC SYSTEMS SHALL BE REMOVED IN ACCORDANCE WITH PLAINSBORO TOWNSHIP & MIDDLESEX COUNTY HEALTH DEPARTMENT REQUIREMENTS

REMOVE EXISTING FORCEMAIN - SEE UTILITY PLANS FOR SEQUENCING

ABANDON EXISTING FORCEMAIN

PROPOSED TREELINE

REMOVE EXISTING TREES

REMOVE EXISTING TREES

STRIP AND STOCKPILE IMPACTED SOIL

REMOVE EXISTING GRAVEL ROADWAY

AREA TO RECEIVE IMPACTED SOILS

REMOVE EXISTING STORM PIPE AND INLETS

EXISTING SOIL STOCKPILES SHALL BE MAINTAINED AND NOT DISTURBED

PROPOSED TREELINE

REMOVE EXISTING STORM PIPE AND INLETS

REMOVE EXISTING TREES

STRIP AND STOCKPILE IMPACTED SOIL

PROPOSED TREELINE

REMOVE EXISTING BUILDINGS AND FOUNDATIONS (SEE NOTE 1)

REMOVE EXISTING UTILITY POLES AND OVERHEAD WIRES (COORDINATE DEMO WITH RESPECTIVE UTILITY COMPANIES)

MAINTAIN AND PROTECT WATER MAIN

REMOVE EXISTING FULL DEPTH ASPHALT PAVEMENT

REMOVE EXISTING STORM PIPE AND INLETS

AREA TO RECEIVE IMPACTED SOILS

AREA TO RECEIVE IMPACTED SOILS

REMOVE EXISTING TREES

REMOVE EXISTING CONCRETE CURB

REMOVE EXISTING ASPHALT WALKWAY

REMOVE EXISTING ASPHALT WALKWAY

SAWCUT WALKWAY PAVING

REMOVE EXISTING CURBING

REMOVE EXISTING CURBED ISLAND

REMOVE EXISTING CURBING

REMOVE EXISTING SIDEWALKS, ADA RAMPS AND TRAFFIC SIGNALS AND SIGNAGE

SAWCUT PAVING

REMOVAL OF ALL TRAFFIC CONTROL SIGNALS AND ASSOCIATED ELECTRICAL SERVICE AND REGULATORY SIGNAGE SHALL BE IN ACCORDANCE WITH THE PLANS PREPARED BY LANGAN

ROUTE 1 RAMP

COLLEGE ROAD WEST

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)

1 inch = 100 feet

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
6	REV. PER DRC#2 MEMOS	5/23/25		
5	REV. PER DRC#1 MEMOS	4/18/25		
4	REV. COMPLETENESS SUBMISSION	1/16/25		
3	REV. FOR PERMIT RESUBMISSION	11/8/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

OVERALL DEMOLITION PLAN
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE 1"= 100'

MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY	FIELD BK	ORDER No.	PAGE No.	SHEET No.
WDV DATE 6/14/24		WRNUL23001	6 OF 100	CS0501
CHECKED BY CG DATE 6/14/24	PAGE			

U:\ACCOUNTS\WRNUL\WRNUL23001 - WRV PRINCETON NURSERIES - PLAINSBORO\DESIGN_SHEETS\CS0501.DWG

DEMOLITION LEGEND:

- EXISTING TREE REMOVAL (DENSE)
- EXISTING TREE REMOVAL (SPARSE)
- EXISTING TREE REMOVAL (ARBORVITAE)
- PROPOSED TREELINE
- EXISTING TREELINE
- TREE SAMPLE AREA WITHIN INDIVIDUAL TREE SURVEY AREA
- MATURE WOODLANDS (9.73 AC)

REMOVE EXISTING TREES (SPARSE AREA)

REMOVE EXISTING TREES (DENSE)

TREE SAMPLE AREA 1

TREE SAMPLE AREA 2

REMOVE EXISTING TREES

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)

1 inch = 100 feet

TREE REMOVAL CALCULATION

AREA 1 - DENSE TREE AREA

Step 1: Trees in Sample Study Area

Category	Tree Removed (DBH)	Sample Quantity
1	6"-12.99"	**57**
2	13"-22.99"	**3**
3	23"-32.99"	**0**
4	>33"	**0**

Step 2: Multiplier Determination

Sample Area	10,000 sq ft
Total Dense Area	960,000 sq ft
Multiplier	**960,000/10,000 = 96**

Step 3: Tree Removal Count

Category	Tree Removed (DBH)	Est. Total Quantity
1	6"-12.99"	**5,472**
2	13"-22.99"	**288**
3	23"-32.99"	**0**
4	>33"	**0**
TOTAL		**5,760**

Step 4: Category 3 Tree Adjustment

Since Category 3 trees were not in the Sample Area but were found in other parts of the site, an adjustment is needed.

Category 3 Trees in Dense Area	13	
Surveyed Dense Tree Area	166,370	sq ft
Total Dense Tree Area	960,000	sq ft
Multiplier	960,000/166,370 = 5.77	
Category 3 Adjusted Tree Count	**13 X 5.77 = 75.01 = 76**	

There are no Category 4 trees on site based on the survey conducted. The largest tree surveyed was 30" in diameter.

Step 5: Adjusted Tree Count Estimation

Category	Tree Removed (DBH)	Est. Total Quantity
1	6"-12.99"	**5472**
2	13"-22.99"	**288**
3	23"-32.99"	**76**
4	>33"	**0**
TOTAL		**5836**

AREA 2 - SPARSE TREE AREA

Step 1: Trees in Sample Study Area

Category	Tree Removed (DBH)	Sample Quantity
1	6"-12.99"	**37**
2	13"-22.99"	**2**
3	23"-32.99"	**0**
4	>33"	**0**

Step 2: Multiplier Determination

Sample Area	10,000 sq ft
Total Sparse Area	220,000 sq ft
Multiplier	**220,000/10,000 = 22**

Step 3: Tree Removal Count

Category	Tree Removed (DBH)	Est. Total Quantity
1	6"-12.99"	**814**
2	13"-22.99"	**44**
3	23"-32.99"	**0**
4	>33"	**0**
TOTAL		**858**

Step 4: Category 3 Tree Adjustment

Since Category 3 trees were not in the Sample Area but were found in other parts of the site, an adjustment is needed.

Category 3 Trees in Sparse Area	1	
Surveyed Sparse Tree Area	33,000	sq ft
Total Sparse Tree Area	220,000	sq ft
Multiplier	220,000/33,000 = 6.67	
Category 3 Adjusted Tree Count	**1 X 6.67 = 6.67 = 7**	

There are no Category 4 trees on site based on the survey conducted. The largest tree surveyed was 30" in diameter.

Step 5: Adjusted Tree Count Estimation

Category	Tree Removed (DBH)	Est. Total Quantity
1	6"-12.99"	**814**
2	13"-22.99"	**44**
3	23"-32.99"	**7**
4	>33"	**0**
TOTAL		**865**

TOTAL TREE REMOVAL

Category	Dense	Sparse	Category Sum
1	5472	814	**6286**
2	288	44	**332**
3	76	7	**83**
4	0	0	**0**
DENSE AND SPARSE TREE REMOVAL TOTAL			**6701**
13" ARBORVITAE TREE REMOVAL TOTAL (CATEGORY 2)			**350**
TREE REMOVAL GRAND TOTAL			**7051**

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
3	REV. PER DRC#2 MEMOS	5/23/25		
2	REV. PER DRC#1 MEMOS	4/18/25		
1	REV. COMPLETENESS SUBMISSION	01/16/25		

9/27/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com Certificate of Authorization
www.pennoni.com No. 24GA28033300

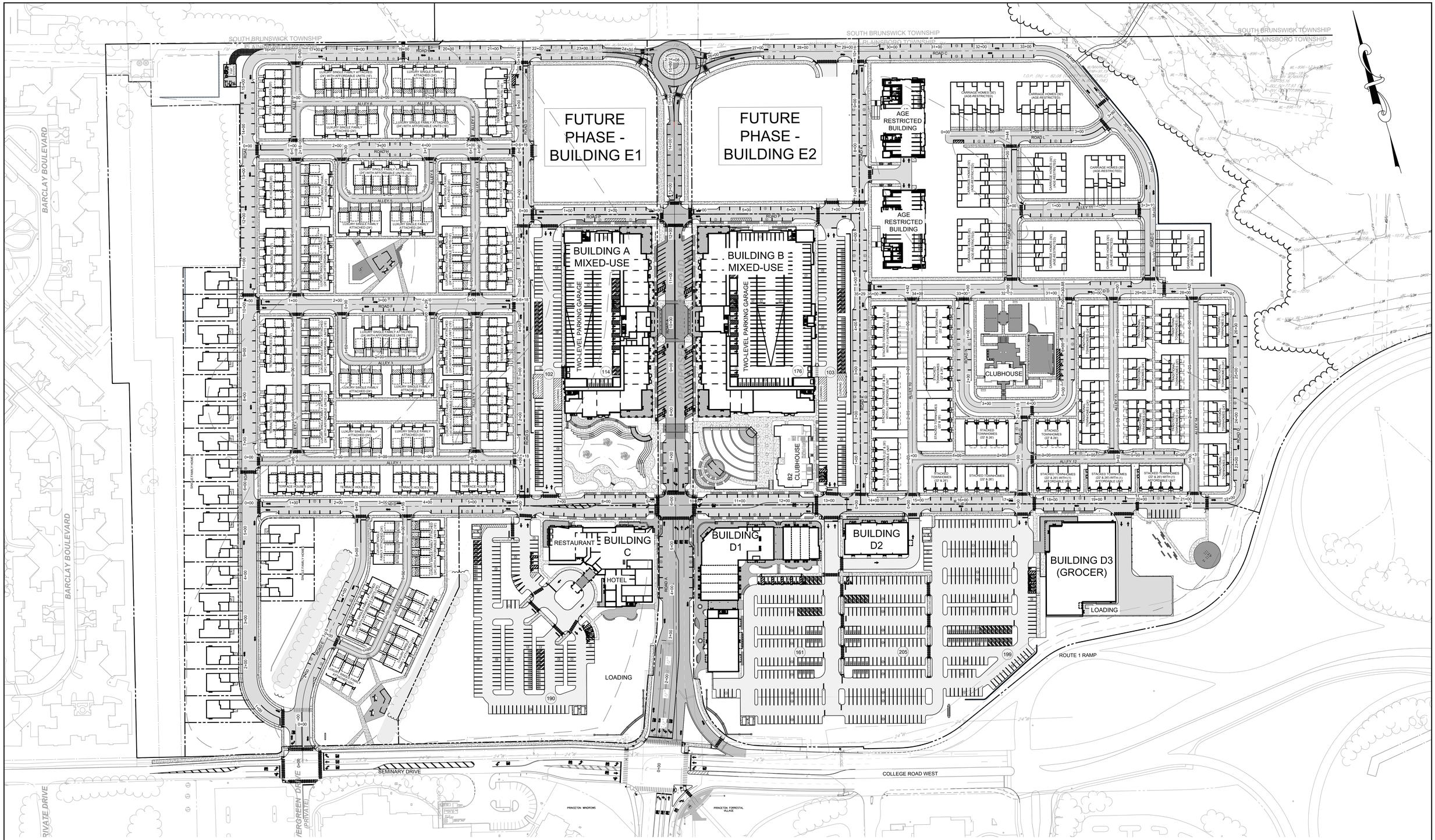
TREE REMOVAL PLAN
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE 1"=100'

MIDDLESEX CO., N.J.
SEPTEMBER 27, 2024

DRAWN BY	FIELD BK	ORDER No.	PAGE No.	SHEET No.
WDV				
DATE 9/27/24		WRNUL23001	7 OF 100	CS0502
CHECKED BY CG	PAGE			
DATE 9/27/24				

U:\ACCOUNTS\WRNUL\WRNUL23001 - WRV PRINCETON NURSERIES - PLAINSBORO\DESIGN_SHEETS\CS0502.DWG



GRAPHIC SCALE

80 0 40 80 160 320

(IN FEET)
1 inch = 80 feet

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
6	REV. PER DRC#2 MEMOS	5/23/25		
5	REV. PER DRC#1 MEMOS	4/18/25		
4	REV. COMPLETENESS SUBMISSION	1/16/25		
3	PER CLIENT COMMENTS	12/13/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

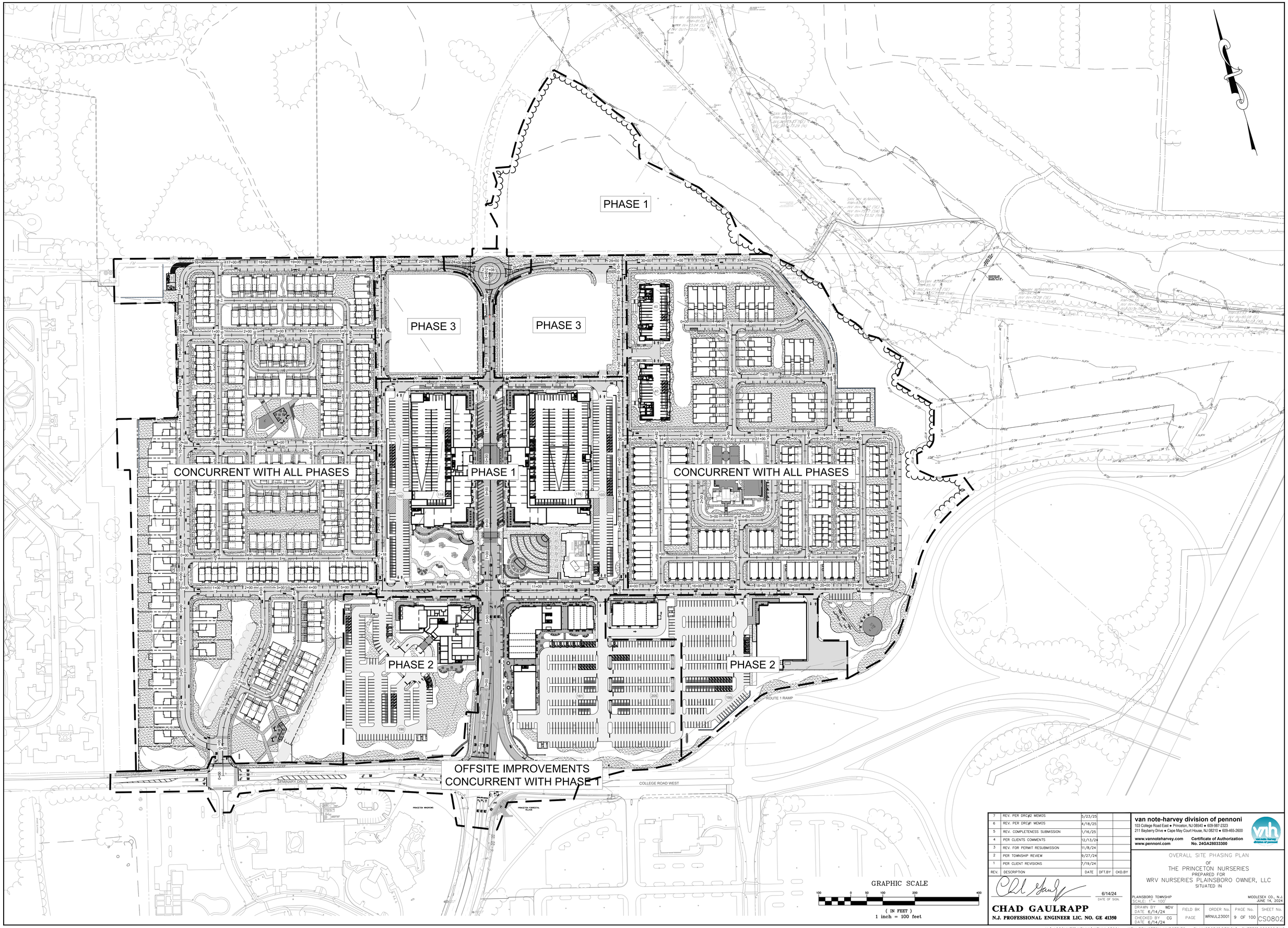
van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

OVERALL SITE PLAN
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE: 1"= 80'
MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY	FIELD BK	ORDER No.	PAGE No.	SHEET No.
WDV				
DATE 6/14/24		WRNUL23001	8 OF 100	CS0801
CHECKED BY CG	PAGE			
DATE 6/14/24				

U:\ACCOUNTS\WRNUL\WRNUL23001 - WRV PRINCETON NURSERIES - PLAINSBORO\DESIGN_SHEETS\CS0801.DWG



GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)

1 inch = 100 feet

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
7	REV. PER DRC#2 MEMOS	5/23/25		
6	REV. PER DRC#1 MEMOS	4/18/25		
5	REV. COMPLETENESS SUBMISSION	1/16/25		
4	PER CLIENTS COMMENTS	12/13/24		
3	REV. FOR PERMIT RESUBMISSION	11/8/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

OVERALL SITE PHASING PLAN
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP — MIDDLESEX CO., N.J.
SCALE: 1" = 100' — JUNE 14, 2024

DRAWN BY	FIELD BK	ORDER No.	PAGE No.	SHEET No.
WDV DATE 6/14/24		WRNUL23001	9 OF 100	CS0802
CHECKED BY CG DATE 6/14/24	PAGE			

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS0802.DWG

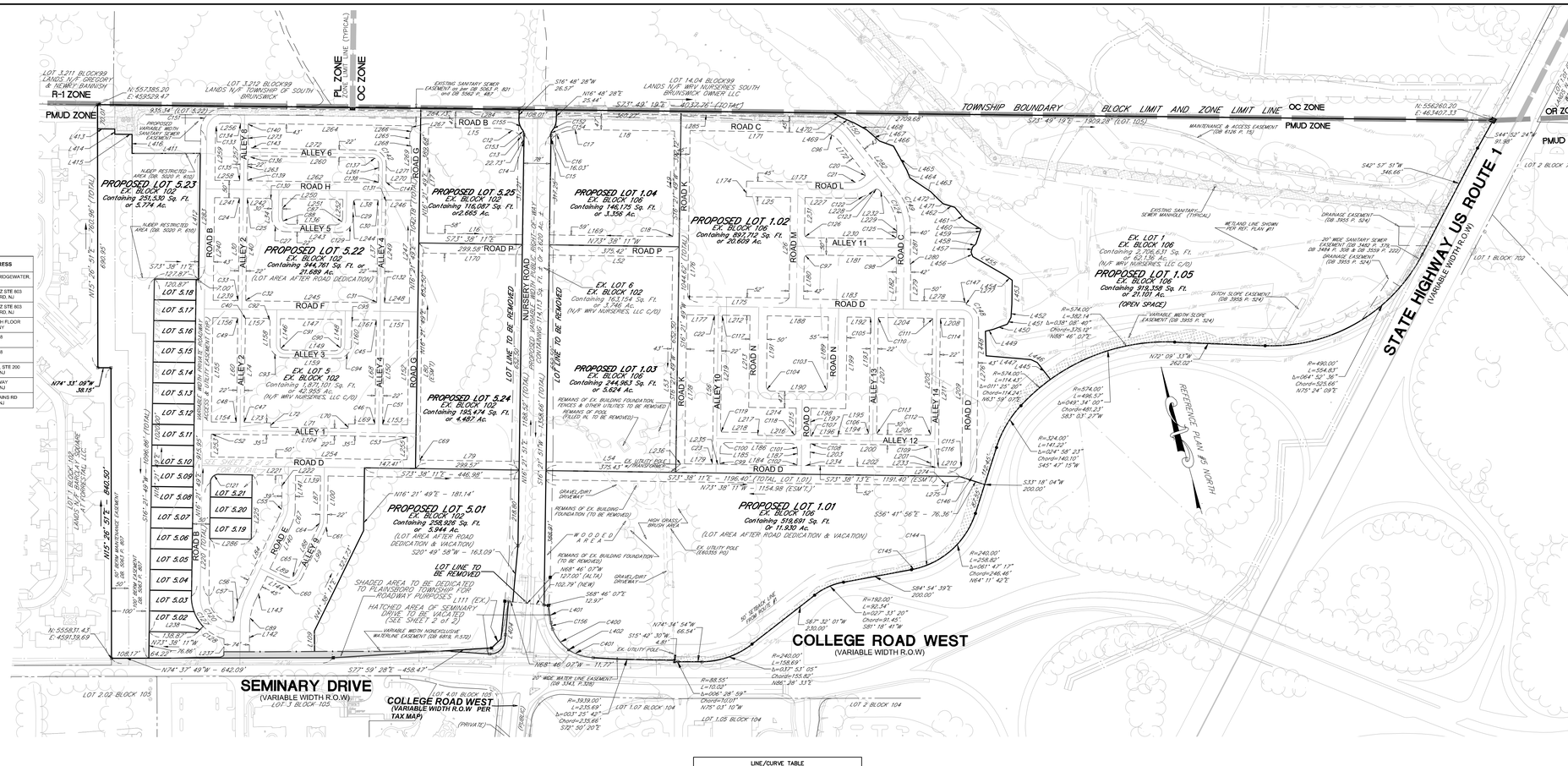
PROPERTY OWNERS WITHIN 200' OF PROPOSED SUBDIVISION PER CERTIFIED LISTS FROM THE TAX ASSESSOR FROM SOUTH BRUNSWICK TOWNSHIP (DATED: 04-16-24) AND PLAINSBORO TOWNSHIP (DATED: 04-16-24)

ADJOINING OWNERS WITHIN 200 FEET

BLOCK	LOT	PROPERTY OWNERS	MAILING ADDRESS
102	1	BARCLAY SQUARE/@PRINCETON FORRESTAL	1065 ROUTE 22 WEST, BRIDGEWATER, NJ
104	1.05	PFV HOLDINGS LLC	1 MEADOWLANDS PLZ STE 603 EAST RUTHERFORD, NJ
104	1.07	PFV HOLDINGS LAND LLC	1 MEADOWLANDS PLZ STE 603 EAST RUTHERFORD, NJ
105	2.02	SJS MAPLETON LLC/DBI CONSTRUCTION	1261 BROADWAY, 9TH FLOOR NEW YORK, NY
105	3	WINDROW DRIVE PRINCETON REALTY LLC	1613 NJ RT 88 BRICK, NJ
105	4.01	WINDROW DRIVE PRINCETON REALTY LLC	1613 NJ RT 88 BRICK, NJ
702	1 QFARM	TRUSTEES OF PRINCETON UNIVERSITY/REAL EST FIN	600 ALEXANDER RD, STE 200 PRINCETON, NJ
702	2	TRUSTEES OF PRINCETON UNIVERSITY/1100&RW CRA LLC	2 RESEARCH WAY PRINCETON, NJ
702	5	2 INDEPENDENCE WAY LLC	270 PROSPECT PLAINS RD CRANBURY, NJ

UTILITY COMPANIES WITHIN 200' OF PROPOSED SUBDIVISION PER CERTIFIED LISTS FROM THE TAX ASSESSOR FROM SOUTH BRUNSWICK TOWNSHIP (DATED: 04-16-24) AND PLAINSBORO TOWNSHIP (DATED: 04-16-24)

UTILITIES & AGENCIES	
Director of Planning for Middlesex County Middlesex County Administration Bldg.	75 Bayard Street, 5th Floor New Brunswick
NJ American Water	1341 North Avenue Plainfield, NJ 07061-000
NJ Dept. of Transportation	1035 Parkway Avenue CN 600 Trenton, NJ 08625
PSE&G	Manager - Corporate Properties 80 Park Plaza, T6B Newark, NJ 071
United Water Princeton Meadows/a subsidiary of United Water Mid-Atlantic	111 Howard Boulevard, Suite 203 Mount Arlington, NJ 07856-1315
Stony Brook Regional Sewerage Authority	290 River Road Princeton, NJ 085
Right-of-Way Dept. Sun Pipe Line Co	Two Penn Center 26th Floor 1801 Market Street Philadelphia, PA 19103-1599
Director of Planning for Mercer County	P O Box 8068 Trenton, NJ 08650
Comcast Cable Communications, Inc. Andy Cortes Area Construction Supervisor - Monmouth	751Brick Blvd. Brick, NJ 0872
Township Clerk Township of South Brunswick	540 Ridge Road P.O. Box 190 Monmouth Jet., NJ 08852



KEY MAP
1" = 1000'±

I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP AND SURVEY UPON WHICH IT IS DATED JANUARY 03, 2024 MEET THE MINIMUM SURVEY DETAIL REQUIREMENTS, WITH OUTBOUND CORNERS MARKED, AS PROMULGATED BY THE STATE BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS AND HAS BEEN MADE UNDER MY SUPERVISION, AND COMPLIES WITH THE PROVISIONS OF 'THE MAP FILING LAW', AND THAT THE OUTBOUND CORNER MARKERS AS SHOWN HAVE BEEN FOUND, OR SET.

KENNETH T. SCHILLING — DATE
N.J. LAND SURVEYOR No. GS 34496

I CERTIFY THAT THIS MAP COMPLIES WITH THE PROVISIONS OF CHAPTER 141 P.L. 1960, AND FURTHER CERTIFY THAT IT HAS BEEN APPROVED FOR FILING IN THE OFFICE OF THE COUNTY CLERK OF MIDDLESEX COUNTY BY THE 'PROPER AUTHORITY', THE SOUTH BRUNSWICK TOWNSHIP PLANNING BOARD. THIS CERTIFICATION SHALL EXPIRE IF THIS MAP IS NOT PROPERLY FILED WITH THE SAID COUNTY CLERK ON OR BEFORE (DATE TO BE DETERMINED UPON PLANNING BOARD APPROVAL).

DATED — EXTENSION

SECRETARY — DATE

I HAVE CAREFULLY EXAMINED THIS MAP AND TO THE BEST OF MY KNOWLEDGE AND BELIEF FIND IT CONFORMS WITH THE PROVISIONS OF 'THE MAP FILING LAW' RESOLUTION OF APPROVAL AND THE MUNICIPAL ORDINANCES AND REQUIREMENTS APPLICABLE THERETO.

TOWNSHIP ENGINEER — DATE

APPROVED BY THE PLAINSBORO TOWNSHIP PLANNING BOARD.

CHAIRMAN — DATE

SECRETARY — DATE

APPROVED BY THE MIDDLESEX COUNTY PLANNING BOARD.

PLANNING DIRECTOR — DATE

RECORDING SECRETARY — DATE

THE UNDERSIGNED CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF NEW JERSEY HEREBY DECLARES THAT THEY ARE THE OWNERS/APPLICANTS OF EXISTING LOTS 5 & 6 IN BLOCK 102 AND LOT 1 IN BLOCK 106 AS DELINEATED HEREON AND HEREBY CONSENT TO THE FILING OF THIS MAP IN THE MIDDLESEX COUNTY CLERK'S OFFICE.

ERIC WITMONDT, MANAGER — DATE
WRV NURSERIES PLAINSBORO OWNER, LLC
100 PASSAIC AVENUE, SUITE 240
FAIRFIELD, NJ 07004

THIS NOTARIZATION IS FOR THE OWNER'S SIGNATURE SWORN TO AND SUBSCRIBED BEFORE ME THIS

DAY OF_____, _____.

NOTARY PUBLIC

THIS NOTARIZATION IS FOR THE APPLICANT'S SIGNATURE SWORN TO AND SUBSCRIBED BEFORE ME THIS

DAY OF_____, _____.

NOTARY PUBLIC

Know what's below. Call before you dig.

RECORD DEED INFORMATION
DEED BOOK 19384, PAGE 204 INSTR. #2024005893
N/F WRV NURSERIES PLAINSBORO OWNER, LLC
(BLOCK 102 LOT 5 AND 6)
(BLOCK 106 LOT 1)

PLAINSBORO TOWNSHIP TAX MAP DATA

BLOCK 106	BLOCK 102	BLOCK 102
LOT 1 SHEET 1	LOT 6 SHEET 1	LOT 5 SHEET 1

CODE: CODE OF THE TOWNSHIP OF PLAINSBORO

TAX MAP: SHEET 1
BLOCK 702, LOTS 5 & 6
BLOCK 106, LOT 1
TOTAL AREA = 16.6527 ACRES

ZONING DISTRICT: PMUD, PLAINSBO UNIFIED DEVELOPMENT

PERMITTED USES: INTEGRATED MIXED-USE NEIGHBORHOOD DEVELOPMENT, ON A TRACT OF LAND NEST OF U.S. ROUTE 1, INCLUDING A MINIMUM OF 100 ACRES, CONTAINING OPEN SPACE, AREAS (INCLUDING COMMON OPEN SPACE, PLACES OR SQUARES, AND PUBLIC AREAS), RECREATIONAL USES (INDOOR AND/OR OUTDOOR), RETAIL SALES AND SERVICES, A MIX OF RESIDENTIAL USES (INCLUDING SINGLE-FAMILY AND TOWNHOUSE DWELLINGS, MULTIFAMILY DWELLINGS, AFFORDABLE HOUSING UNITS, AND AGE-RESTRICTED HOUSING), AND PUBLIC, SEMI-PUBLIC OR INSTITUTIONAL USES, TO BE MORE SPECIFICALLY DEFINED IN THE ORDINANCE, WITH THE FOLLOWING PERMITTED MAXIMUM DEVELOPMENT LIMITS: (1) NO MORE THAN 950 DWELLING UNITS TOTAL, OF WHICH NO MORE THAN 200 SHALL BE AGE-RESTRICTED HOUSING; AND A MIX OF NONRESIDENTIAL USES IN NO MORE THAN 300,000 SQUARE FEET OF GROSS FLOOR AREA, INCLUDING: OFFICES, BANKS AND FINANCIAL SERVICES, RETAIL ESTABLISHMENTS, RESTAURANTS, EATING AND DRINKING ESTABLISHMENTS, THEATERS/PERFORMANCE AND ARTS FACILITIES, ENTERTAINMENT, HOTELS, OFFICES, HEALTH AND FITNESS FACILITIES/EDUCATIONAL AND TRAINING FACILITIES, AND OTHER USES SIMILAR TO THE FOREGOING; (2) PUBLIC AND QUASI-PUBLIC USES, INCLUDING PUBLIC PARKS, PLAYGROUNDS, AND OTHER RECREATIONAL FACILITIES, PUBLIC AND PRIVATE SCHOOLS, CHILD-CARE CENTERS PURSUANT TO (3) 10:1-33, 10:1-3.4, AND 10:1-33 OF THIS CODE, AS APPLICABLE; CHURCHES AND OTHER PLACES OF WORSHIP, CEMETERIES, PUBLIC AND PRIVATE UTILITIES, PUBLIC SAFETY AND EMERGENCY SERVICES, MUNICIPAL BUILDINGS AND USES, AND OTHER PUBLIC, SEMI-PUBLIC, AND INSTITUTIONAL USES; AND (3) ACCESSORY USES AND BUILDINGS CUSTOMARY AND INCIDENTAL TO ANY AND ALL OF THE PERMITTED USES, INCLUDING, BUT NOT LIMITED TO, PARKING AND LOADING FACILITIES, SIGNS, FENCES, WALLS, AND LANDSCAPING, AND NONRESIDENTIAL USES IN MIXED-USE BUILDINGS, SINGLE-USE BUILDINGS, HORIZONTAL MIXED-USE BUILDINGS, CONVENIENCE VERTICAL MIXED-USE BUILDINGS AND SINGLE-USE BUILDINGS ON DISTINCT PARCELS IN A RANGE OF RESIDENTIAL AND/OR NONRESIDENTIAL USES), OR ANY COMBINATION THEREOF. THE UTILIZATION OF THE PERMITTED USES SHALL BE GOVERNED BY THE FOLLOWING: (1) NO MORE THAN 1,000,000 SQUARE FEET OF GROSS FLOOR AREA SHALL BE PERMITTED COMPRISING THE INTEGRATED MIXED-USE DEVELOPMENT MAY BE SUBDIVIDED INTO AS MANY SEPARATELY OWNED PARCELS AS SHALL BE DEEMED NECESSARY, WHICH SHALL BE REFERRED TO AND FUNCTION AS AN "INTEGRATED MIXED-USE NEIGHBORHOOD DEVELOPMENT."

PROHIBITED USES: RESIDENTIAL SINGLE-FAMILY AND TOWNHOUSE DWELLINGS, MULTIFAMILY DWELLINGS, AFFORDABLE HOUSING UNITS, AND AGE-RESTRICTED HOUSING, RETAIL SALES AND SERVICES, OFFICE, HOTEL, RESTAURANTS, GYM/SPA

AREA AND BULK REGULATIONS (PMUD: PLAINSBO UNIFIED DEVELOPMENT)

CODE REF	STANDARD	REQUIRED/PERMITTED	EXISTING	PROPOSED	CONFORMANCE
101-136	MIN. LOT AREA (SF)	100 ACRES	106.837 ACRES	106.837 ACRES	C
101-139.C.	RESIDENTIAL DENSITY	NOT MORE THAN 5 DWELLING UNITS PER ACRE OF TOTAL TRACT AREA, NOT EXCEED 2,048 SF PER ACRE OR 200 UNITS	N/A	950 DWELLING UNITS TOTAL, 200 AGE RESTRICTED	C
101-140.C.1.	NONRESIDENTIAL FLOOR AREA	MAX: 210,000 SF RETAIL 90,000 SF OFFICE 75,000 SF HOTEL TOTAL NONRESIDENTIAL = 300,000 SF	N/A	147,470 SF RETAIL 90,000 SF OFFICE 75,000 SF HOTEL 326,765 SF TOTAL	C
101-140.C.2.a.	MAX USES PER RETAIL BLDG	NO MORE THAN 3 INDIVIDUAL RETAIL TENANTS WITHIN EACH RETAIL BUILDING, NOT TO EXCEED 80% OF THE TOTAL GROUND FLOOR RETAIL SF (GROCER EXEMPT)	N/A	BLDG A=31,139 SF RETAIL BLDG D=26,455 SF RETAIL BLDG D=29,161 RETAIL BLDG G2=10,090 SF RETAIL	C
101-140.C.2.a.	MAX RETAIL PER TENANT	NO MORE THAN 3 INDIVIDUAL RETAIL ANCHOR USES SHALL OCCUPY A GROUND FLOOR SPACE OF 20,000 SF OR GREATER, AND SHALL NOT EXCEED 80% OF THE TOTAL GROUND FLOOR RETAIL SF (GROCER EXEMPT)	N/A	BLDG A=22,139 SF RETAIL BLDG D=26,455 SF RETAIL	C
101-140.C.3.b.1	MAX RETAIL, PROMENADE	RETAIL USES < 30,000 SF SHALL NOT EXCEED 65 FEET OF BUILDING FRONTAGE ALONG THE PROMENADE	N/A	NO BUILDING EXCEEDS 30,000 SF RETAIL OR 65 FEET	C
101-140.C.3.b.1	MAIN STREET REQUIREMENTS (PROPOSED NURSERY ROAD)	NO LESS THAN 60% OF THE LINEAR STREET FRONTAGE ALONG THE MAIN STREET SHALL CONSIST OF RETAIL USES, WITH AT LEAST 1 UPPER FLOOR OF ACTIVE USES (RETAIL, SCHOOL, HOTEL, OR RESIDENTIAL) TOTAL FRONTAGE = 2784.7 FT, 60% = 1670.82 LF	N/A	BLDG A - 418 LF BLDG D = 412 LF BLDG G2 = 240 LF BLDG C = 521 LF BLDG D1 = 326 LF TOTAL = 1909 LF (70.2%)	C
101-141.F.	OPEN SPACE WITHIN AN INTEGRATED MIXED-USE NEIGHBORHOOD DEVELOPMENT	MIN. 30% OF THE OVERALL TRACT ONLY INDIVIDUAL OPEN SPACE FEATURES MEASURING AT LEAST 1 ACRE OR IN AREA SHALL BE INCLUDED IN CALCULATIONS MIN. = 32.605 ACRES	N/A	38.7% (42.09 ACRES)*	C
101-142.A.	BUILDING SETBACK	NO BUILDING SHALL BE LOCATED WITHIN 100 FEET OF A BOUNDARY LINE OF THE SITE THAT IS ALSO A BOUNDARY LINE OF ANY EXTERIOR BOUNDARY LINE OF THE SITE THAT IS ALSO A BOUNDARY LINE OF A DESIGNATED DISTRICT, OR FROM ANY STATE OR COUNTY ROAD, SHALL NOT APPLY TO EXTERIOR BOUNDARY LINES THAT FORM A MUNICIPAL BOUNDARY	N/A	57.42 LF (FROM BLDG D3)	C
101-142.A.	MAX. BUILDING HEIGHTS	CAST RESIDENTIAL SFD = 35.667 SFA = 35.667 TOWNHOUSE BLDG = 51.36' 20' SFA, 3 STORY - 44.25' 20' SFA, 2.5 STORY = 39.00' TOWNHOUSE STACKED 3 BEDROOM STORY = 41.75' MIXED RESIDENTIAL STACKED FLAT BLDG = 39.71' TOWNHOUSE = 42.64' CARRIAGE = 29.13' AR MULTI FAMILY FLATS = 49.00' BLDG A = 60.00' BLDG C = 60.00' BLDG C = 60.00' BLDG D1 = 41.12' BLDG D2 = 41.12' BLDG D3 = 27.27' BLDG D4 = 30'	N/A	C
	TOTAL BUILDING COVERAGE			750201.39 SF 17.27 ACRES 15.87% OF LOT	

* REFER TO OPEN SPACE PLAN

LEGEND

- ⊡ DENOTES CONCRETE MONUMENT TO BE SET
- ■ DENOTES EXISTING CONCRETE MONUMENT FOUND
- ◉ DENOTES CAPPED IRON PIN TO BE SET
- ● DENOTES EXISTING IRON PIN OR IRON PIPE FOUND
- #695 DENOTES PROPERTY STREET ADDRESS
- (NR) DENOTES NON-RADIAL LINE

ENVIRONMENTAL CONSTRAINTS LEGEND

- DRCC — DRCC STREAM CORRIDOR
- NJFH — NJ FLOOD HAZARD AREA DESIGN FLOOD
- FRESHWATER WETLANDS BOUNDARY
- WTB — FRESHWATER WETLANDS TRANSITION AREA BOUNDARY
- SOW — STATE OPEN WATER

LINE/CURVE TABLE					
TAG	CURVE RADIUS	CURVE LENGTH	DELTA	CH/LINE BEARING	CH/LINE DISTANCE
C12	70.50	34.88	28° 21' 00"	N47° 21' 36"W	34.53
C13	100.50	20.78	11° 50' 42"	N14° 12' 36"W	20.74
C14	100.53	4.20	2° 23' 31"	N07° 05' 21"W	4.20
C15	71.00	13.91	11° 13' 27"	S51° 09' 22"W	13.89
C16	101.00	41.64	23° 37' 27"	S81° 42' 46"W	41.35
C17	221.00	26.21	6° 47' 44"	N83° 46' 38"W	26.20
C18	19.00	8.26	24° 54' 04"	N28° 48' 51"E	8.19
C20	10.00	15.71	90° 00' 00"	N22° 11' 11"E	14.14
C21	51.00	34.87	39° 10' 38"	N86° 46' 30"E	34.20
C22	19.00	6.64	20° 00' 45"	N06° 21' 26"E	6.60
C23	19.00	6.10	18° 24' 23"	N25° 34' 00"E	6.08
C24	19.00	6.10	18° 24' 31"	N07° 09' 33"E	6.08
C25	19.00	6.10	18° 24' 31"	S25° 34' 04"W	6.08
C27	41.00	64.40	90° 00' 00"	S28° 38' 11"E	57.98
C29	9.00	14.14	90° 01' 21"	S61° 22' 19"W	12.73
C30	19.00	6.16	18° 34' 46"	N07° 04' 26"E	6.13
C31	19.00	6.14	18° 30' 55"	N25° 37' 16"E	6.11
C32	19.00	6.03	18° 11' 40"	S07° 15' 59"W	6.01
C33	19.00	6.10	18° 24' 31"	S25° 34' 04"W	6.08
C40	19.00	6.10	18° 24' 31"	S25° 34' 04"W	6.08
C41	19.00	6.10	18° 24' 31"	S07° 09' 33"E	6.08
C42	19.00	6.10	18° 24' 31"	S10° 34' 04"E	6.08
C43	19.00	6.10	18° 24' 31"	S28° 58' 35"E	6.08
C44	19.00	6.10	18° 24' 31"	S47° 33' 07"E	6.08
C45	19.00	6.10	18° 24' 31"	S65° 07' 39"E	6.08
C46	19.00	6.10	18° 24' 31"	S82° 41' 42"E	6.08
C47	19.00	6.10	18° 24' 31"	N79° 43' 46"E	6.08
C48	19.00	6.10	18° 24' 32"	N61° 19' 15"E	6.08
C49	19.00	6.10	18° 24' 31"	N43° 54' 47"E	6.08
C50	19.00	6.10	18° 24' 31"	N25° 30' 16"E	6.08
C51	19.00	6.10	18° 24' 31"	N07° 05' 45"E	6.08
C52	19.00	5.58	16° 49' 35"	N82° 02' 59"W	5.56
C53	19.00	6.10	18° 24' 31"	N64° 25' 54"W	6.08
C56	218.00	76.04	19° 58' 02"	S31° 32' 44"W	75.65
C57	19.00	13.39	40° 23' 09"	N41° 44' 47"E	13.12
C60	41.00	64.40	90° 00' 00"	N86° 32' 15"E	57.98
C61	19.00	11.00	31.20	25° 10' 26"	N28° 57' 02"E	30.94
C62	19.00	6.10	18° 24' 31"	N25° 34' 04"E	6.08
C64	49.00	21.53	25° 10' 26"	N28° 57' 02"E	21.36
C65	19.00	29.85	90° 00' 00"	N86° 32' 15"E	26.87
C66	19.00	29.85	90° 00' 00"	N03° 27' 45"W	26.87
C67	113.00	49.72	25° 12' 32"	N28° 58' 19"E	49.32
C68	19.00	6.16	18° 34' 46"	N07° 04' 26"E	6.13
C69	14.00	4.06	16° 37' 36"	S08° 03' 00"W	4.05
C70	19.00	29.85	90° 00' 00"	N61° 21' 49"E	26.87
C71	19.00	29.85	90° 00' 00"	S28° 38' 11"E	26.87
C72	19.00	6.14	18° 31' 31"	S73° 38' 11"E	6.09
C73	19.00	6.10	18° 24' 31"	S55° 34' 04"W	6.08
C74	19.00	6.10	18° 24' 31"	S37° 09' 33"W	6.08
C75	19.00	6.10	18° 24' 31"	S18° 45' 02"W	6.08
C76	19.00	6.10	18° 24' 31"	S00° 19' 29"W	6.08
C77	19.00	6.10	18° 24' 31"	S17° 25' 17"E	6.08
C78	19.00	6.10	18° 24' 31"	S35° 49' 48"E	6.08
C79	19.00	6.10	18° 24' 31"	S54° 14' 19"E	6.08
C80	19.00	6.10	18° 24' 31"	S72° 38' 50"E	6.08
C81	19.00	6.10	18° 24' 31"	N89° 03' 21"E	6.08
C82	19.00	6.10	18° 24' 31"	N70° 37' 50"E	6.08
C83	19.00	6.10	18° 24' 31"	N52° 12' 19"E	6.08
C84	19.00	6.10	18° 24' 31"	N33° 46' 48"E	6.08
C85	19.00	6.10	18° 24' 31"	N15° 21' 17"E	6.08
C86	67.00	59.43	50° 49' 22"	N48° 13' 30"E	57.50
C87	19.00	17.28	52° 06' 00"	N26° 21' 48"E	16.68
C88	11.00	17.28	89° 59' 59"	N28° 38' 11"W	15.56
C89	19.00	15.74	47° 27' 47"	N82° 37' 55"E	15.29
C90	19.00	29.85	90° 00' 00"	N61° 21' 49"E	26.87
C91	14.00	21.99	90° 00' 00"	S28° 38' 11"E	19.80
C92	9.00	14.14	90° 00' 00"	S61° 21' 49"W	12.73
C93	41.00	64.40	90° 00' 00"	S28° 38' 11"E	57.98
C94	41.00	64.40	89° 59' 59"	N61° 21' 49"E	57.98
C95	9.00	14.14	90° 01' 29"	S61° 22' 33"W	12.73
C96	67.00	59.43	50° 49' 22"	N48° 13' 30"E	57.50
C97	11.00	17.28	90° 00' 01"	S61° 21' 49"W	15.56
C98	11.00	17.28	89° 59' 59"	N28° 38' 11"W	15.56
C99	19.00	6.10	18° 24' 31"	S07° 09' 33"W	6.08
C100	19.00	29.85	90° 00' 00"	N61° 21' 49"E	26.87
C101	19.00	29.85	90° 00' 00"	N28° 38' 11"W	26.87
C102	19.00	6.10	18° 24' 31"	N25° 34' 04"E	6.08
C103	15.00	23.56	89° 58' 59"	N61° 21' 18"E	21.21
C104	15.00	23.56	90° 00' 35"	S28° 38' 55"E	21.22
C105	19.00	6.64	20° 01' 05"	N06° 21' 16"E	6.60
C106	19.00	11.75	35° 26' 26"	N34° 05' 02"E	11.57
C107	19.00	5.59	16° 52' 19"	S65° 12' 02"E	5.57
C108	19.00	5.59	16° 52' 19"	N82° 04' 21"E	5.57
C109	19.00	29.85	90° 00' 00"	N28° 38' 11"W	26.87
C110	19.00	6.64	20° 01' 05"	S26° 22' 21"W	6.60
C111	19.00	6.64	20° 01' 05"	N06° 21' 16"E	6.60
C112	19.00	11.76	35° 28' 01"	N34° 05' 49"E	11.57
C113	19.00	11.75	35° 26' 41"	S01° 21' 32"E	11.57
C114	19.00	6.64	20° 01' 38"	S26° 22' 38"W	6.61
C115	11.00	17.28	89° 59' 58"	N61° 21' 48"E	15.56
C116	19.00	5.58	16° 49' 35"	S07° 10' 11"W	6.07
C117	19.00	6.64	20° 00' 47"	S26° 22' 12"W	6.60
C118	19.00	15.74	47° 27' 47"	N82° 37' 55"E	15.29
C119	19.00	11.73	35° 22' 43"	S01° 19' 33"E	11.55
C120	73.44	111.47	86° 58' 02"	S23° 02' 06"E	101.07
C121	24.00	37.71	90° 01' 20"	S61° 22' 29"W	33.95
C122	91.00	62.22	39° 10' 38"	N86° 46' 30"E	61.02
C123	11.00	17.28	90° 00' 00"	N61° 46' 49"W	15.56
C124	141.00	96.41	39° 10' 38"	N33° 13' 30"W	94.54
C125	11.00	17.28	90° 00' 00"	N61° 21' 49"E	15.56
C126	11.00	17.28	90° 00' 00"	S28° 38' 11"E	15.56
C127	127.14	166.84	75° 11' 12"	S21° 46' 56"E	155.13
C128	127.14	71.38	32° 09' 59"	N43° 17' 32"W	70.44
C129	41.00	64.40	90° 00' 00"	N28° 38' 11"W	57.98
C130	9.00	14.13	89° 58' 59"	N28° 37' 41"W	12.73
C131	19.00	6.15	18° 33' 28"	S25° 38' 32"W	6.13
C132	19.00	6.09	18° 22' 42"	S07° 10' 28"W	6.07
C133	20.00	31.42	90° 00' 00"	S61° 21' 49"W	28.28
C134	19.00	6.10	18° 23' 10"	N07° 10' 14"E	6.07
C135	19.00	6.12	18° 27' 31"	N25° 35' 34"E	6.09
C136	19.00	29.85	90° 00' 00"	S28° 38' 11"E	26.87
C137	19.00	29.85	90° 00' 00"	N28° 38' 11"W	26.87
C138	19.00	6.10	18° 24' 31"	N25° 34' 04"E	6.08
C139	19.00	6.10	18° 24' 31"	S07° 09' 33"W	6.08
C140	19.00	6.10	18° 24' 31"	S25° 34' 04"W	6.08
C141	19.00	6.07	18° 18' 47"	S07° 12' 25"W	6.05
C142	41.00	64.40	90° 00' 00"	N28° 38' 11"W	57.98
C143	19.00	29.85	90° 00' 00"	N61° 21' 49"E	26.87
C146	49.00	76.97	90° 00' 00"	N61° 21' 49"E	69.30
C147	66.00	22.43	19° 28' 18"	N63° 54' 04"W	22.32
C148	49.00	64.84	75° 49' 23"	N21° 32' 53"W	60.22
C149	19.00	29.85	90° 00' 00"	N61° 21' 49"E	26.87
C150	107.00	94.91	50° 49' 22"	N48° 13' 30"W	91.83
C151	64.00	100.53	90° 00' 00"	S61° 21' 49"W	90.51
C152	54.00	35.79	37° 58' 11"	N33° 15' 25"E	35.13
C153	25.00	15.70	35° 58' 17"	N01° 37' 18"W	15.44
C154	25.00	15.65	35° 52' 40"	S34° 18' 17"W	15.40
C155	54.00	34.32	36° 24' 54"	S01° 23' 59"E	33.75
C156	77.95	19.43	14° 16' 44"	S00° 29' 19"W	19.38
C400	140.71	76.45	31° 07' 49"	S22° 12' 58"E	75.51
C401	150.98	75.75	28° 44' 48"	S56° 45' 05"E	74.96
L15				N73° 41' 35"W	199.36
L16				S73° 38' 11"E	276.19
L17				N16° 21' 51"E	306.35
L18				N73° 38' 12"W	281.59
L19				N16° 21' 49"E	297.55
L25				N73° 38' 11"W	128.06
L26				N16° 21' 49"E	291.69
L30				S41° 32' 01"W	115.58
L34				N16° 21' 49"E	46.08
L37				S16° 21' 49"W	285.13
L38				N73° 37' 10"W	62.00
L40				N16° 21' 49"E	285.13
L52				S73° 38' 11"E	357.42
L53				S16° 21' 49"W	598.00
L54				N73° 38' 11"W	1196.40
L55				N16° 21' 49"E	181.14
L56				S68° 46' 07"W	12.97
L57				S15° 42' 30"W	4.81
L58				S73° 38' 11"E	746.98
L59				N16° 21' 49"E	594.50
L60				N16° 21' 49"E	126.85
L63				S41° 32' 01"W	151.58
L64				N16° 21' 49"E	126.85
L65				S73° 38' 11"E	555.57
L66				N15° 21' 20"E	59.28
L67				S73° 38' 11"E	136.25
L68				S73° 38' 11"E	1191.40
L69				N16° 21' 49"E	294.23
L70				N73

PROPERTY OWNERS WITHIN 200' OF PROPOSED SUBDIVISION PER CERTIFIED LISTS FROM THE TAX ASSESSOR FROM SOUTH BRUNSWICK TOWNSHIP (DATED: 04-16-24) AND PLAINSBORO TOWNSHIP (DATED: 04-16-24)

ADJOINING OWNERS WITHIN 200 FEET

BLOCK	LOT	PROPERTY OWNERS	MAILING ADDRESS
102	1	BARCLAY SQUARE@PRINCETON FORRESTAL	1065 ROUTE 22 WEST, BRIDGEWATER, NJ
104	1.05	PPV HOLDINGS LLC	1 MEADOWLANDS PLZ STE 803 EAST RUTHERFORD, NJ
104	1.07	PPV HOLDINGS LAND LLC	1 MEADOWLANDS PLZ STE 803 EAST RUTHERFORD, NJ
105	2.02	SJS MAPLETON LLC/DBI CONSTRUCTION	1261 BROADWAY, 9TH FLOOR NEW YORK, NY
105	3	WINDROW DRIVE PRINCETON REALTY LLC	1613 NJ RT 88 BRICK, NJ
105	4.01	WINDROW DRIVE PRINCETON REALTY LLC	1613 NJ RT 88 BRICK, NJ
702	1 QFARM	TRUSTEES OF PRINCETON UNIVERSITY/REAL EST FIN	600 ALEXANDER RD, STE 200 PRINCETON, NJ
702	2	TRUSTEES OF PRINCETON UNIVERSITY/1008/RW CRA LLC	2 RESEARCH WAY PRINCETON, NJ
702	5	2 INDEPENDENCE WAY LLC	270 PROSPECT PLAINS RD CRANBURY, NJ

UTILITY COMPANIES WITHIN 200' OF PROPOSED SUBDIVISION PER CERTIFIED LISTS FROM THE TAX ASSESSOR FROM SOUTH BRUNSWICK TOWNSHIP (DATED: 04-16-24) AND PLAINSBORO TOWNSHIP (DATED: 04-16-24)

UTILITIES & AGENCIES	
Director of Planning for Middlesex County Middlesex County Administration Bldg.	75 Bayard Street, 5th Floor New Brunswick
NJ American Water	1341 North Avenue Plainfield, NJ 07061-000
NJ Dept. of Transportation	1035 Parkway Avenue CN 600 Trenton, NJ 08625
PSE&G	Manager - Corporate Properties 80 Park Plaza, T6B Newark, NJ 071
United Water Princeton Meadows/a subsidiary of United Water Mid-Atlantic	111 Howard Boulevard, Suite 203 Mount Arlington, NJ 07856-1315
Stony Brook Regional Sewerage Authority	290 River Road Princeton, NJ 085
Right-of-Way Dept. Sun Pipe Line Co	Ten Penn Center 26th Floor 1801Market Street Philadelphia, PA 19103-1699
Director of Planning for Mercer County	P O Box 8068 Trenton, NJ 08650
Comcast Cable Communications, Inc. Andy Cortes Area Construction Supervisor - Monmouth	751Brick Blvd. Brick, NJ 0872
Township Clerk Township of South Brunswick	540 Ridge Road P.O. Box 190 Monmouth Jet., NJ 08852

ZONE: CODE OF THE TOWNSHIP OF PLAINSBORO

TAX MAP: SHEET 1
BLOCK 102 LOTS 5 & 6
BLOCK 106 LOT 1
TOTAL AREA = 106.837 ACRES

ZONING DISTRICT: PA5(S) PLANNED UNIT DEVELOPMENT

PERMITTED USES: INTEGRATED MIXED-USE NEIGHBORHOOD DEVELOPMENT, ON A TRACT OF LAND WEST OF U.S. ROUTE 1, MEASURING A MINIMUM OF 100 ACRES, CONSISTING OF RESIDENTIAL USES INCLUDING SINGLE-FAMILY AND TOWNHOUSE DWELLINGS, MULTIFAMILY DWELLINGS, AFFORDABLE HOUSING UNITS, OUTDOOR RETAIL SALES AND SERVICES, A MIX OF RESIDENTIAL USES INCLUDING SINGLE-FAMILY AND TOWNHOUSE DWELLINGS, MULTIFAMILY DWELLINGS, AFFORDABLE HOUSING UNITS, AND AGE-RESTRICTED HOUSING PROVIDING LIVING ACCOMMODATIONS FOR ADULTS 55 YEARS OF AGE OR OLDER OR FOR ADULTS AND THEIR SPOUSES OR PARTNERS WHERE ONE OF THE OCCUPANTS IS 55 YEARS OF AGE OR OLDER, AND A MIX OF NONRESIDENTIAL USES SUCH AS PERSONAL SERVICE, BANKS AND FINANCIAL SERVICE ESTABLISHMENTS, RESTAURANTS, DELICATESSENS, RETAIL ESTABLISHMENTS, THEATERS, PERFORMANCE AND ARTS FACILITIES, ENTERTAINMENT, HOTELS, OFFICES, HEALTH AND FITNESS FACILITIES,EDUCATIONAL AND RECREATIONAL FACILITIES, AND OTHER SIMILAR USES, AND ACCESSORY USES AND STRUCTURES CUSTOMARILY INCIDENTAL TO THE PERMITTED USES, EXCLUDE CASINO/CASINO GAMING PURSUANT TO [N.J.S.40:48F- 1(h.)] AND 16-OFF OF THIS CODE, AS APPLICABLE, PAWN SHOPS, CHECK CASHING AND LOAN COMPANIES, AUTOMOBILE SALES AND SERVICE ESTABLISHMENTS, AND ADULT ENTERTAINMENT ESTABLISHMENTS. CONDITIONAL USES: RESTAURANTS WITH DRIVE-IN FACILITIES, FINANCIAL USES, RETIREMENT HOMES. PERMITTED USES MAY BE LOCATED IN VERTICAL MIXED-USE BUILDINGS (COMBINING DIFFERENT OCCUPATION, AND/OR USES ON DIFFERENT FLOORS OF THE SAME BUILDING) OR HORIZONTAL MIXED-USE BUILDINGS (COMBINING DIFFERENT OCCUPATION, AND/OR USES IN SINGLE-USE BUILDINGS ON DISTINCT TRACTS) IN A RANGE OF RESIDENTIAL, AND/OR NONRESIDENTIAL USES). OR ANY COMBINATION THEREOF. THE UTILIZATION OF OUTDOOR SPACE(S) AS PLACES OF ASSEMBLY, DINING, SHOPPING AND/OR SPECIAL EVENTS SHALL BE SPECIFICALLY PERMITTED. THE CENTRAL TRACT SHALL CONTAIN A MIX OF USES AND BE DESIGNED AS A PEDESTRIAN-ORIENTED MIXED-USE TOWN CENTER. THE PERIPHERAL TRACT OWNERSHIPS, THE ENTIRETY OF WHICH SHALL BE REFERRED TO HAND FUNCTION AS AN "INTEGRATED MIXED-USE NEIGHBORHOOD DEVELOPMENT".

PROPOSED USE: RESIDENTIAL (SINGLE-FAMILY AND TOWNHOUSE DWELLINGS), MULTIFAMILY DWELLINGS, AFFORDABLE HOUSING UNITS, AND AGE-RESTRICTED HOUSING, RETAIL SALES AND SERVICES, OFFICE, HOTEL, RESTAURANTS, GROCERY

ZONING DISTRICT: PA5(S) PLANNED UNIT DEVELOPMENT

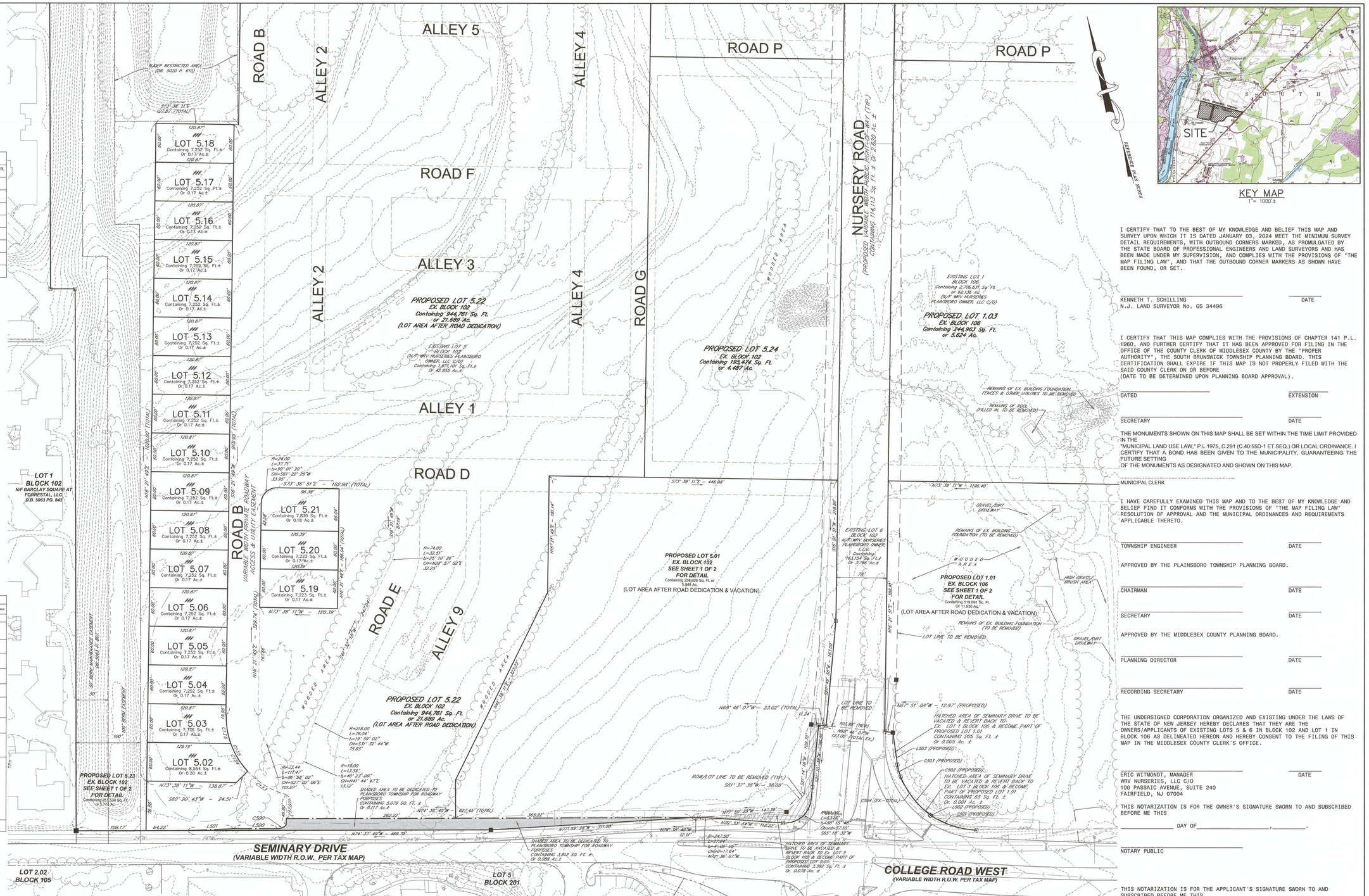
AREA AND BULK REGULATIONS (PA5(S) PLANNED UNIT DEVELOPMENT)

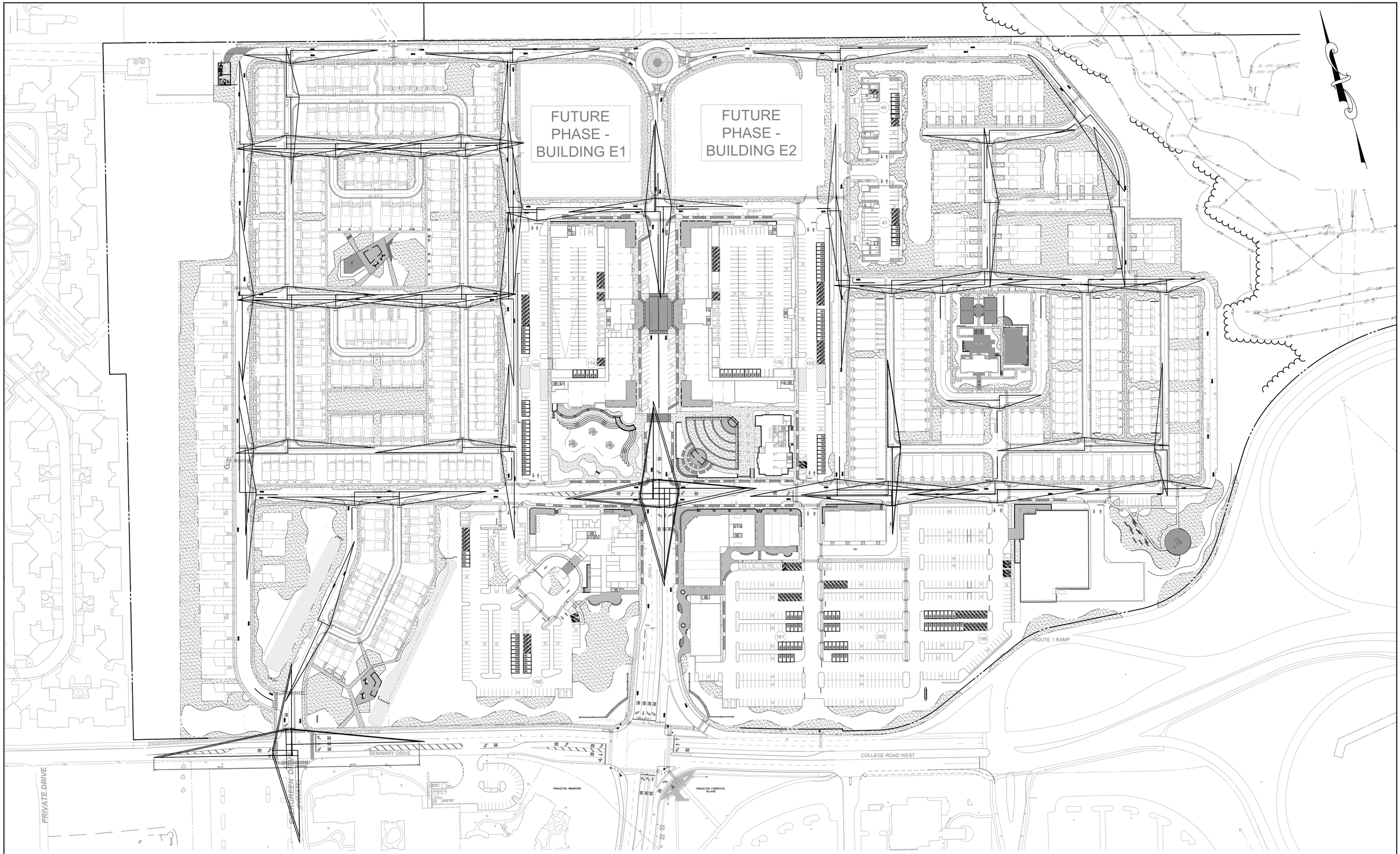
CODE REF	STANDARD	REQUIRED/PERMITTED	EXISTING	PROPOSED	CONFORMANCE
101-13E	MIN. LOT AREA (SF)	100 ACRES	106.837 ACRES	106.837 ACRES	C
101-13E.C	RESIDENTIAL DENSITY	NOT MORE THAN 7 DWELLING UNITS PER ACRE OR 750 UNITS, AGE-RESTRICTED SHALL NOT EXCEED 3 UNITS PER ACRE OR 280 UNITS	N/A	650 DWELLING UNITS TOTAL, 200 AGE RESTRICTED	C
101-146.C.1	NONRESIDENTIAL FLOOR AREA	3MSF 2MSF OF RETAIL 750,000 SF OFFICE 750,000 SF HOTEL TOTAL NONRESIDENTIAL = 500,000 SF	N/A	147,470 SF RETAIL 0 SF OFFICE 75,000 SF HOTEL 325,185 SF TOTAL	C
101-146.C.3.a	MAX USES PER RETAIL BLDG	NO MORE THAN 2 INDIVIDUAL RETAIL ANCHOR USES SHALL OCCUPY A GROUND FLOOR SPACE BETWEEN 30,000 SF AND 75,000 SF, SHALL EXCEED 150,000 SF OF TOTAL GROUND FLOOR RETAIL SF	N/A	BLDG 3A - 31,100 SF RETAIL BLDG 3B - 35,485 SF RETAIL BLDG 3C - 31,100 SF RETAIL BLDG 3D - 51,500 SF RETAIL	C
101-146.C.3.a	MAX RETAIL SF PER USE	NO MORE THAN 3 INDIVIDUAL RETAIL ANCHOR USES SHALL OCCUPY A GROUND FLOOR SPACE BETWEEN 30,000 SF AND 75,000 SF, SHALL EXCEED 225,000 SF OF TOTAL GROUND FLOOR RETAIL SF (GROUCH EXCEPT)	N/A	BLDG A- 31,100 SF RETAIL BLDG B- 35,485 SF RETAIL	C
101-146.C.3.b.1	MAX RETAIL FRONTAGE	RETAIL USES > 30,000 SF SHALL NOT EXCEED 60 FEET OF STREET FRONTAGE ALONG THE MAIN STREET	N/A	NO BUILDING EXCEEDS 30,000 SF OF RETAIL	C
101-146.C.3.b.3	MAIN STREET REQUIREMENTS (PROPOSED NURSERY ROAD)	NOT LESS THAN 60% OF THE LINEAR STREET FRONTAGE ALONG THE MAIN STREET SHALL CONSIST OF BUILDINGS WITH RETAIL USES ON THE UPPER FLOOR OF ACTIVE USES (RETAIL, OFFICE, HOTEL, OR RESIDENTIAL)	N/A	BLDG A - 415 LF BLDG B - 410 LF BLDG C - 331 LF BLDG D - 331 LF TOTAL = 1,485 LF (ALONG	C
101-147	OPEN SPACE WITHIN AN INTEGRATED MIXED-USE NEIGHBORHOOD DEVELOPMENT	MIN. 35% OF THE OVERALL TRACT. 50% OF INDIVIDUAL OPEN SPACE FEATURES SHALL BE LOCATED IN THE CENTRAL AREA SHALL BE INCLUDED IN THE OPEN SPACE CALCULATIONS	N/A	38.7% (42.95 ACRES)*	C
101-142.R	BUILDING SETBACK	NO BUILDING OR STRUCTURE SHALL BE LOCATED WITHIN A DISTANCE OF 50 FEET OF THE EXISTING RIGHT-OF-WAY LINE OF ROUTE 1 DESIGNATED FOR A LIMITED-ACCESS HIGHWAY OR WITHIN A DISTANCE OF 25 FEET OF COUNTY ROAD. SHALL NOT APPLY TO EXTERIOR BOUNDARY OF THE OVERALL TRACT/ A MUNICIPAL BOUNDARY	N/A	57.43 LF (FROM BLDG SW)	C
101-142.S.	MAX. BUILDING HEIGHTS	ACCESSORY BLDG = 35 FT SINGLE-FAMILY = 35 FT TOWNHOUSE = 45 FT STACKED TOWNHOUSE = 60 FT OTHER MULTI-FAMILY DWELLINGS (INCL. AFFORDABLE HOUSING) MIXED-USE AND NON-RESID. = 85 FT	N/A	EAST RESIDENTIAL BLDG 1 - 60 FT SF SFA 1 STORY - 35 SF SF SFA 2 STORY - 36 SF TH 2 STORY - 36 SF AR MULTIFAMILY - 60 SF WEST RESIDENTIAL BLDG 2 - 60 FT TOWNHOUSE - 45 FT CARRIAGE - 36 FT AR MULTIFAMILY - 60 SF BLDG A - 60 SF BLDG B - 60 SF BLDG C - 60 SF BLDG D - 60 SF BLDG E - 60 SF BLDG F - 60 SF	C
	TOTAL BUILDING COVERAGE			750SF/.39 SF 17.5% OF LOT 15.87% OF LOT	C

*REFER TO OPEN SPACE PLAN

CODE: CODE OF THE TOWNSHIP OF PLAINSBORO

ZONING DISTRICT: PA5(S) PLANNED UNIT DEVELOPMENT


ROAD B
ALLEY 2
ALLEY 5
ALLEY 4
ROAD P
ROAD F
ALLEY 3
ROAD G
ALLEY 1
ROAD D
ROAD E
ALLEY 9
NURSERY ROAD
(PROPOSED VARIABLE WIDTH PUBLIC ROADWAY (TYP.)
CONTAINING 114,113 Sq. Ft. ± OF 2.620 Ac. ±
LOT 5.18
Containing 7,252 Sq. Ft.± Or 0.17 Ac.±
LOT 5.17
Containing 7,252 Sq. Ft.± Or 0.17 Ac.±
LOT 5.16
Containing 7,252 Sq. Ft.± Or 0.17 Ac.±
LOT 5.15
Containing 7,252 Sq. Ft.± Or 0.17 Ac.±
LOT 5.14
Containing 7,252 Sq. Ft.± Or 0.17 Ac.±
LOT 5.13
Containing 7,252 Sq. Ft.± Or 0.17 Ac.±
LOT 5.12
Containing 7,252 Sq. Ft.± Or 0.17 Ac.±
LOT 5.11
Containing 7,252 Sq. Ft.± Or 0.17 Ac.±
LOT 5.10
Containing 7,252 Sq. Ft.± Or 0.17 Ac.±
LOT 5.09
Containing 7,252 Sq. Ft.± Or 0.17 Ac.±
LOT 5.08
Containing 7,252 Sq. Ft.± Or 0.17 Ac.±
LOT 5.07
Containing 7,252 Sq. Ft.± Or 0.17 Ac.±
LOT 5.06
Containing 7,252 Sq. Ft.± Or 0.17 Ac.±
LOT 5.05
Containing 7,252 Sq. Ft.± Or 0.17 Ac.±
LOT 5.04
Containing 7,252 Sq. Ft.± Or 0.17 Ac.±
LOT 5.03
Containing 7,376 Sq. Ft.± Or 0.17 Ac.±
LOT 5.02
Containing 8,554 Sq. Ft.± Or 0.20 Ac.±
LOT 5.21
Containing 7,830 Sq. Ft.± Or 0.18 Ac.±
LOT 5.20
Containing 7,223 Sq. Ft.± Or 0.17Ac.±
LOT 5.19
Containing 7,223 Sq. Ft.± Or 0.17 Ac.±
PROPOSED LOT 5.22
EX. BLOCK 102
Containing 944,751 Sq. Ft. or 21.689 Ac.
(LOT AREA AFTER ROAD DEDICATION)
PROPOSED LOT 5.24
EX. BLOCK 102
Containing 195,474 Sq. Ft. or 4.487 Ac.
PROPOSED LOT 5.01
EX. BLOCK 102
SEE SHEET 1 OF 2
FOR DETAIL
Containing 258,926 Sq. Ft. or 5.944 Ac.
(LOT AREA AFTER ROAD DEDICATION & VACATION)
PROPOSED LOT 1.01
EX. BLOCK 106
SEE SHEET 1 OF 2
FOR DETAIL
Containing 519,691 Sq. Ft. Or 11.930 Ac.±
(LOT AREA AFTER ROAD DEDICATION & VACATION)
PROPOSED LOT 5.23
EX. BLOCK 102
SEE SHEET 1 OF 2
FOR DETAIL
Containing 25,539 Sq. Ft. or 0.5744 Ac.
EXISTING LOT 5
BLOCK 102
(N/F) MRV NURSERIES PLAINSBORO OWNER, LLC C/O)
Containing 1,873,191 Sq. Ft.± Or 42.995 Ac.±
EXISTING LOT 6
BLOCK 102
N/F) MRV NURSERIES PLAINSBORO OWNER, LLC
Containing 761,151 Sq. Ft.± or 17.476 Ac.±
EXISTING LOT 1
BLOCK 106
Containing 2,706,631 Sq. Ft. or 62.136 Ac.±
(N/F MRV NURSERIES PLAINSBORO OWNER, LLC C/O)
PROPOSED LOT 1.03
EX. BLOCK 106
Containing 244,983 Sq. Ft. or 5.624 Ac.
WOODED AREA
HIGH GRASS/ BRUSH AREA
GRAVEL/DIRT DRIVEWAY
REMAINS OF EX. BUILDING FOUNDATION (TO BE REMOVED)
REMAINS OF EX. BUILDING FOUNDATION, FENCES & OTHER UTILITIES TO BE REMOVED
REMAINS OF POOL (FILLED IN, TO BE REMOVED)
LOT LINE TO BE REMOVED
HATCHED AREA OF SEMINARY DRIVE TO BE VACATED & REVERT BACK TO EX. LOT 1 BLOCK 106 & BECOME PART OF PROPOSED LOT 1.01 CONTAINING 205 Sq. Ft. ± Or 0.005 Ac. ±
HATCHED AREA OF SEMINARY DRIVE TO BE VACATED & REVERT BACK TO EX. LOT 5 BLOCK 102 & BECOME PART OF PROPOSED LOT 5.01 CONTAINING 3,392 Sq. Ft. ± Or 0.078 Ac. ±
SHADED AREA TO BE DEDICATED TO PLAINSBORO TOWNSHIP FOR ROADWAY PURPOSES CONTAINING 5,079 SQ. FT. ± Or 0.117 Ac.±
SHADED AREA TO BE DEDICATED TO PLAINSBORO TOWNSHIP FOR ROADWAY PURPOSES CONTAINING 3,812 SQ. FT. ±, Or 0.088 Ac.±
SEMINARY DRIVE
(VARIABLE WIDTH R.O.W. PER TAX MAP)
COLLEGE ROAD WEST
(VARIABLE WIDTH R.O.W. PER TAX MAP)
LOT 2.02
BLOCK 105
LOT 1
BLOCK 102
N/F BARCLAY SQUARE AT FORRESTAL, LLC.
D.B. 5063 PG. 843
LOT 5
BLOCK 201
S73° 38' 11"E - 127.87' (TOTAL)
N73° 38' 11"W - 120.39'
S60° 20' 43"W - 24.51'
N74° 38' 40"W - 827.45' (TOTAL)
N74° 37' 49"W - 468.28'
S73° 38' 51"E - 182.98' (TOTAL)
S73° 38' 11"E - 446.98'
N73° 38' 11"W - 1196.40'
N63° 46' 07"W - 23.02' (TOTAL)
N67° 51' 08"W - 12.97' (PROPOSED)
S73° 38' 11"E - 1820.80' (TOTAL)
N16° 21' 49"E - 915.85' (TOTAL)
N16° 21' 49"E - 638.74' (TOTAL)
N16° 21' 49"E - 288.49'
N16° 21' 49"E - 181.14'
S16° 21' 49"W - 915.85'
S16° 21' 49"W - 216.60'
S16° 21' 49"W - 163.05'
S16° 21' 49"W - 108.70'
S16° 21' 49"W - 54.35'
S16° 21' 49"W - 27.18'
S16° 21' 49"W - 13.59'
S16° 21' 49"W - 6.79'
S16° 21' 49"W - 3.40'
S16° 21' 49"W - 1.70'
S16° 21' 49"W - 0.85'
S16° 21' 49"W - 0.42'
S16° 21' 49"W - 0.21'
S16° 21' 49"W - 0.11'
S16° 21' 49"W - 0.05'
S16° 21' 49"W - 0.03'
S16° 21' 49"W - 0.01'
S16° 21' 49"W - 0.00'
S16° 21' 49"W - 0.00'
S16° 21' 49"W - 0.00



SIGHT TRIANGLE NOTES:

1. ALL INTERNAL SIGHT TRIANGLES ARE BASED ON A 30 MPH DESIGN SPEED (FOR 25 MPH POSTED SPEED LIMIT).
2. SITE TRIANGLE FOR ROAD E TO SEMINARY DRIVE IS BASED ON A 40 MPH DESIGN SPEED (FOR 35 MPH POSTED SPEED LIMIT).
3. ALL SIGHT TRIANGLES ARE BASED ON AASHTO EXHIBIT 3-1 STOPPING SIGHT DISTANCE.
4. WHERE AN ADJACENT INTERSECTION IS LOCATED CLOSER THAN THE SAFE STOPPING DISTANCE, THE SIGHT LINE IS MEASURED TO THE FAR CURBLINE OF THE ADJACENT INTERSECTION.

GRAPHIC SCALE

50 0 40 80 160 320

(IN FEET)
1 inch = 80 feet

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
1	REV. PER DRC#2 MEMOS	5/23/25		

4/18/2025
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization
No. 24GA28033300

SIGHT TRIANGLES
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE: 1"=80'

MIDDLESEX CO., N.J.
APRIL 18, 2025

DRAWN BY	MT	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE	4/18/25				
CHECKED BY	CG	PAGE	WRNUL23001	12 OF 100	CS0900
DATE	4/18/25				

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS0900.DWG

FUTURE PHASE - BUILDING E1

FUTURE PHASE - BUILDING E2

WB-40

WB-62

ROUTE 1 RAMP

SEMINARY DRIVE

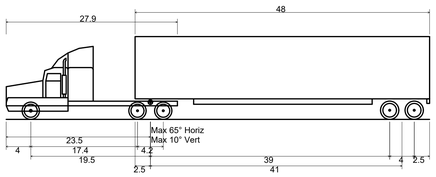
COLLEGE ROAD WEST

EVERGREEN DRIVE (PRIVATE)

PRIVATE DRIVE

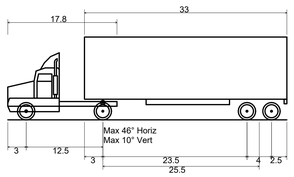
PRINCETON WINDROWS

PRINCETON FORRESTAL VILLAGE



WB-62 - Interstate Semi-Trailer

Overall Length	69.000ft
Overall Width	8.500ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.334ft
Max Track Width	8.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	28.40°



WB-40 - Intermediate Semi-Trailer

Overall Length	45.499ft
Overall Width	8.000ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.334ft
Track Width	8.000ft
Lock-to-lock time	4.00s
Max Steering Angle (Virtual)	20.30°

GRAPHIC SCALE

80 0 40 80 160 320

(IN FEET)
1 inch = 80 feet

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
7	REV. PER DRC#2 MEMOS	5/23/25		
6	REV. PER DRC#1 MEMOS	4/18/25		
5	REV. COMPLETENESS SUBMISSION	1/16/25		
4	PER CLIENTS COMMENTS	12/13/24		
3	REV. FOR PERMIT RESUBMISSION	11/8/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com Certificate of Authorization
www.pennoni.com No. 24GA28033300

VEHICLE MANEUVERING PLAN – WB62 & WB40

OF

THE PRINCETON NURSERIES

PREPARED FOR

WRV NURSERIES PLAINSBORO OWNER, LLC

SITUATED IN

PLAINSBORO TOWNSHIP MIDDLESEX CO., N.J.

SCALE: 1"=80' JUNE 14, 2024

DRAWN BY	FIELD BK	ORDER No.	PAGE No.	SHEET No.
WDV DATE 6/14/24		WRNUL23001	13 OF 100	CS0901
CHECKED BY CG DATE 6/14/24	PAGE			

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS0901.DWG

FUTURE PHASE - BUILDING E1

FUTURE PHASE - BUILDING E2

ROUTE 1 RAMP

SEMINARY DRIVE

COLLEGE ROAD WEST

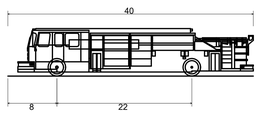
PRINCETON WINDROWS

PRINCETON FORRESTAL VILLAGE

GRAPHIC SCALE

80 0 40 80 160 320

(IN FEET)
1 inch = 80 feet



Pumper Fire Truck	
Overall Length	40.000ft
Overall Width	8.167ft
Overall Body Height	7.745ft
Min Body Ground Clearance	0.656ft
Track Width	8.167ft
Lock-to-lock time	5.00s
Max Wheel Angle	45.00°

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
1	REV. PER DRC@2 MEMOS	5/23/25		

4/18/2025
DATE OF SIGN.

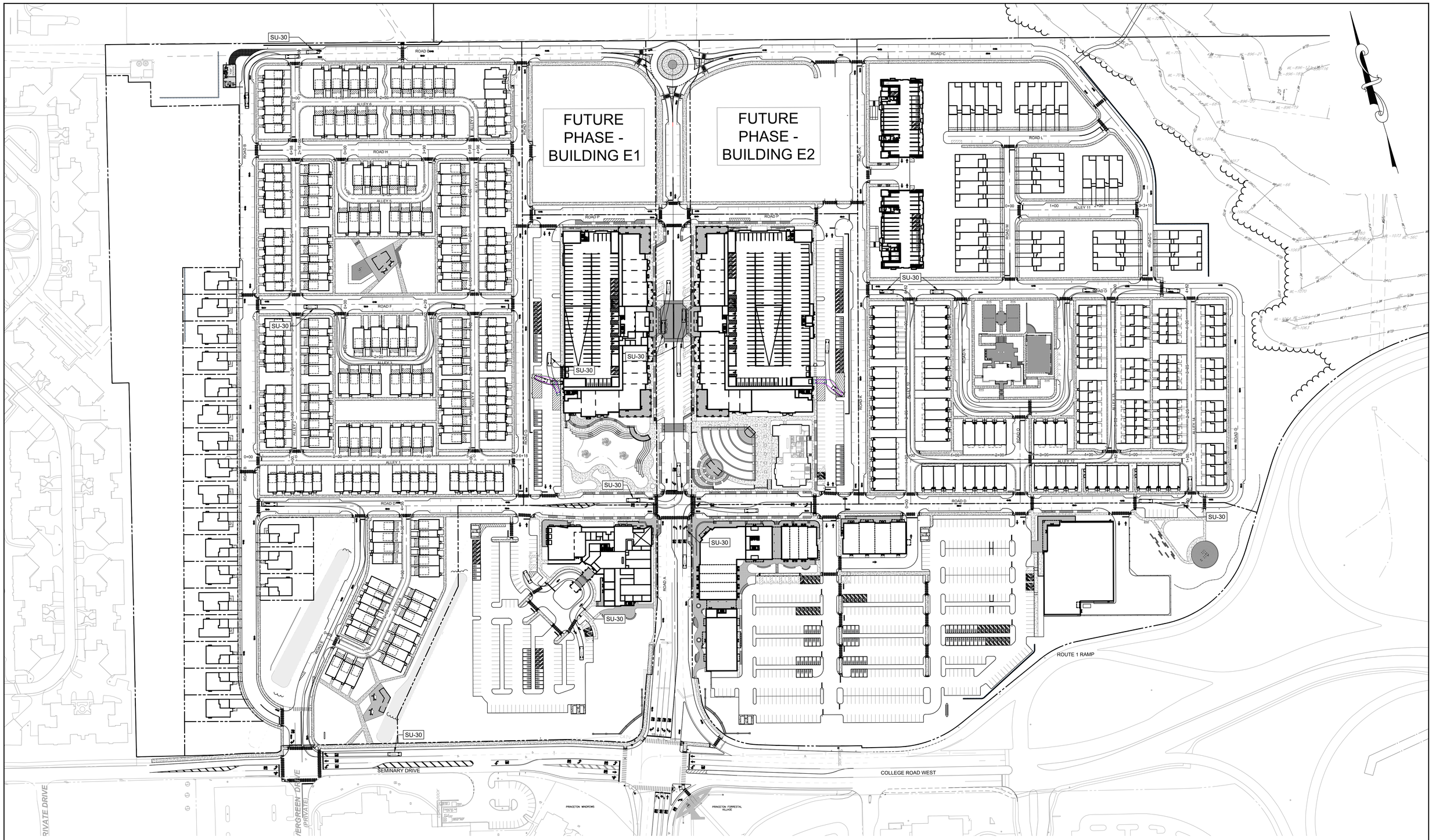
CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

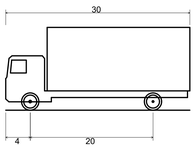
van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

VEHICLE MANUVERING PLAN – FIRE TRUCK
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN
PLAINSBORO TOWNSHIP
MIDDLESEX CO., N.J.
SCALE: 1"=80'
APRIL 18, 2025

DRAWN BY	FIELD BK	ORDER No.	PAGE No.	SHEET No.
MT				
DATE 4/18/25		WRNUL23001	14 OF 100	CS0902
CHECKED BY CG	PAGE			
DATE 4/18/25				

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS0902.DWG





SU-30 - Single Unit Truck	
Overall Length	30.00(
Overall Width	8.000(
Overall Body Height	13.50(
Min Body Ground Clearance	1.367(
Track Width	8.000(
Lock-to-lock time	5.00s
Max Steering Angle (Virtual)	31.80'

GRAPHIC SCALE

80 0 40 80 160 320

(IN FEET)
1 inch = 80 feet

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
1	REV. PER DRC#2 MEMOS	5/23/25		

4/18/2025
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

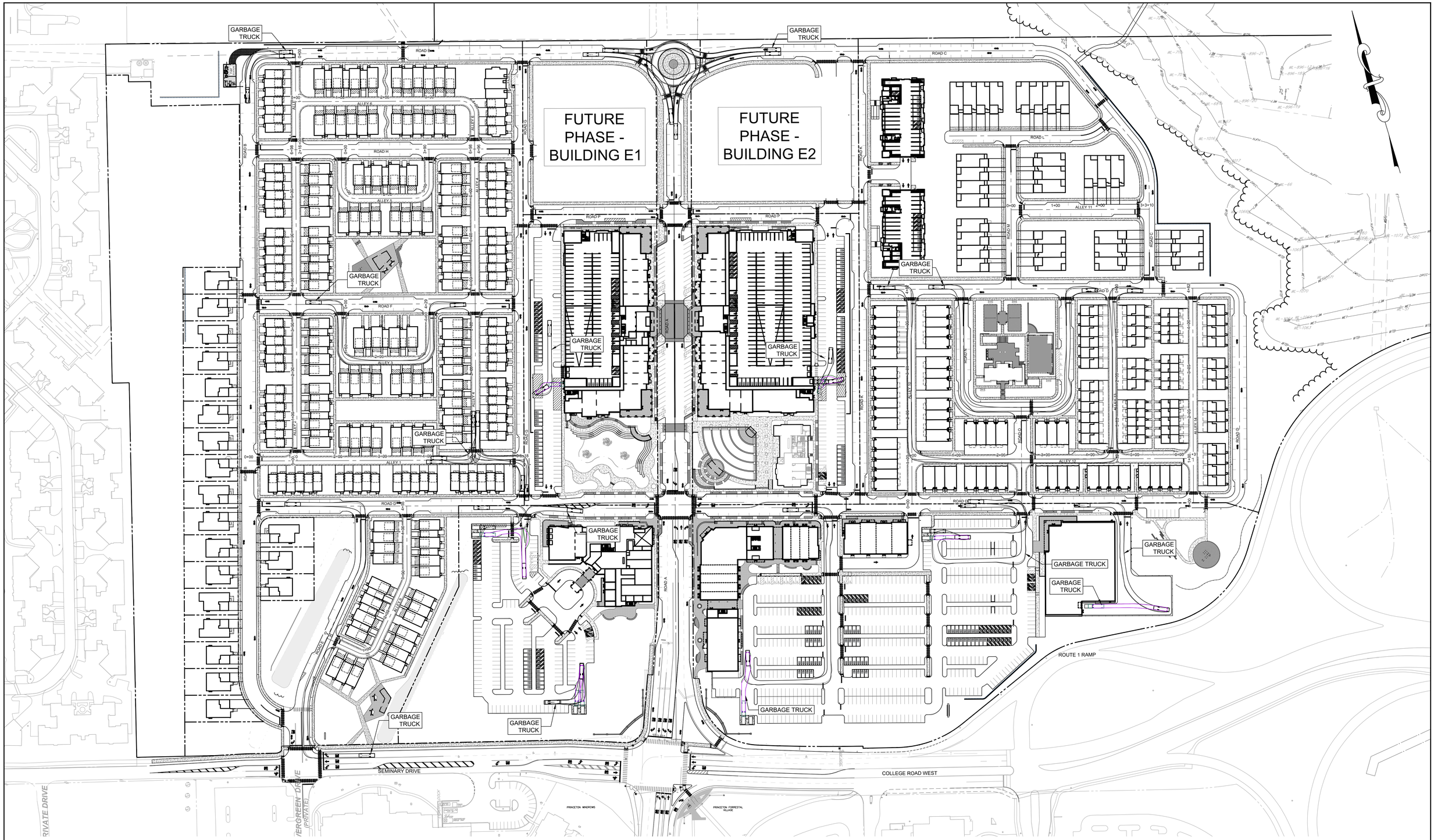
VEHICLE MANUVERING PLAN – SU–30
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

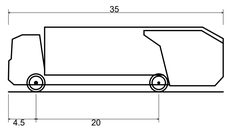
PLAINSBORO TOWNSHIP
SCALE: 1"=80'

MIDDLESEX CO., N.J.
APRIL 18, 2025

DRAWN BY MT DATE 4/18/25	FIELD BK	ORDER No.	PAGE No.	SHEET No.
CHECKED BY CG DATE 4/18/25	PAGE	WRNUL23001	15 OF 100	CS0903

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS0903.DWG





Rear-Load Garbage Truck	
Overall Length	35.000ft
Overall Width	8.375ft
Overall Body Height	10.546ft
Min Body Ground Clearance	1.000ft
Track Width	8.375ft
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	29.300ft

GRAPHIC SCALE

80 0 40 80 160 320

(IN FEET)
1 inch = 80 feet

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
1	REV. PER DRC#2 MEMOS	5/23/25		

4/18/2025
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

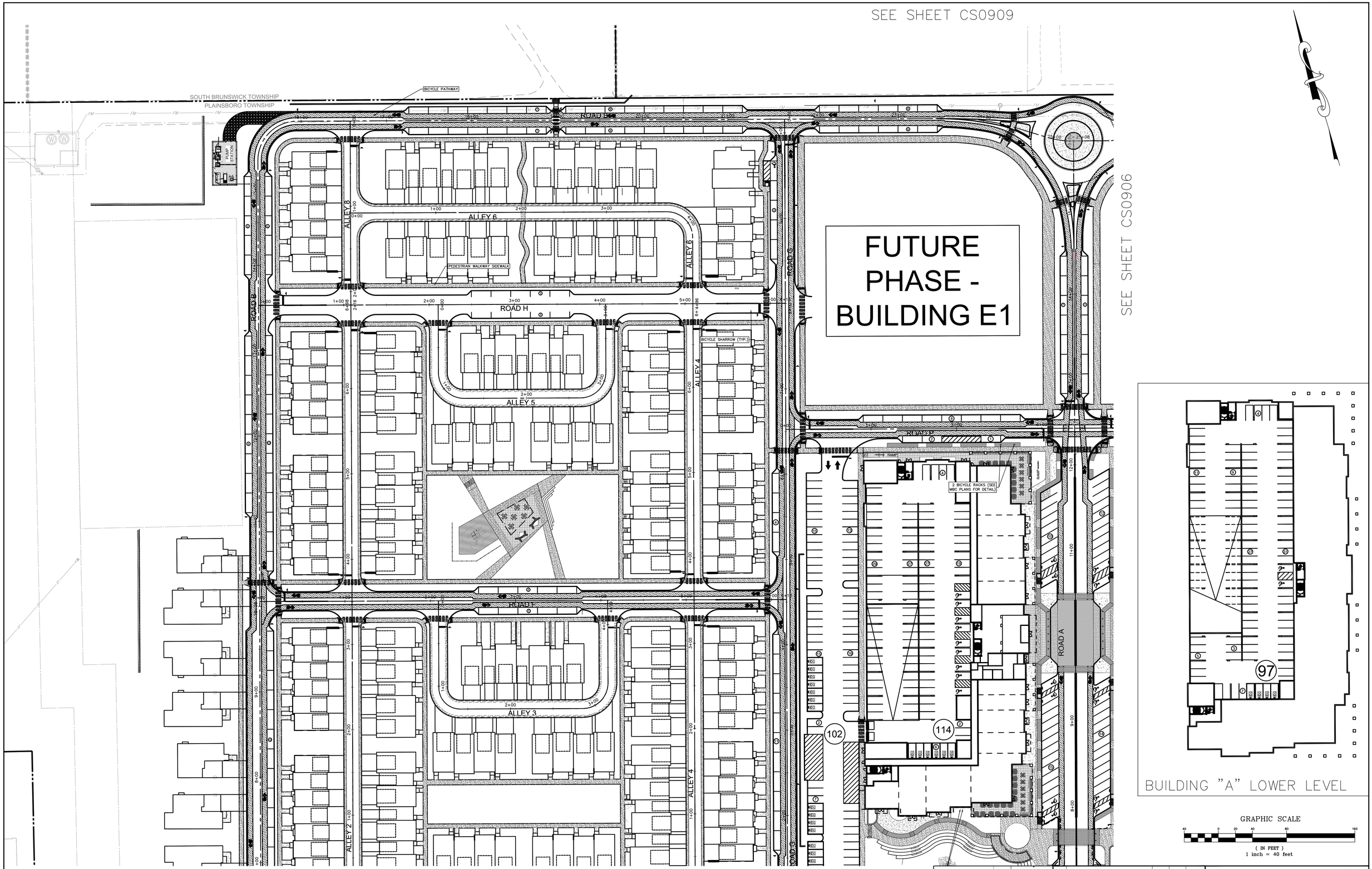
van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization
No. 24GA28033300

VEHICLE MANUVERING PLAN – GARBAGE TRUCK
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE: 1"=80'
MIDDLESEX CO., N.J.
APRIL 18, 2025

DRAWN BY	FIELD BK	ORDER No.	PAGE No.	SHEET No.
MT				
DATE 4/18/25		WRNUL23001	16 OF 100	CS0904
CHECKED BY CG	PAGE			
DATE 4/18/25				

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS0904.DWG

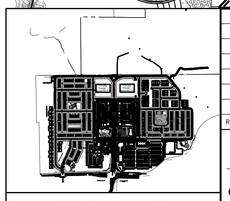


CIRCULATION LEGEND

TOTAL SITE BIKE RACK COUNT: 47

LEGEND

- PEDESTRIAN WALKWAY/SIDEWALK
- BICYCLE CIRCULATION PATH
- BICYCLE SHARROW PAVEMENT MARKER
- BIKE RACK (SEE MCS DETAILS)



SHEET KEY MAP

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
1	REV. PER DRC#2 MEMOS	5/23/25		

4/18/2025
DATE OF SIGN.

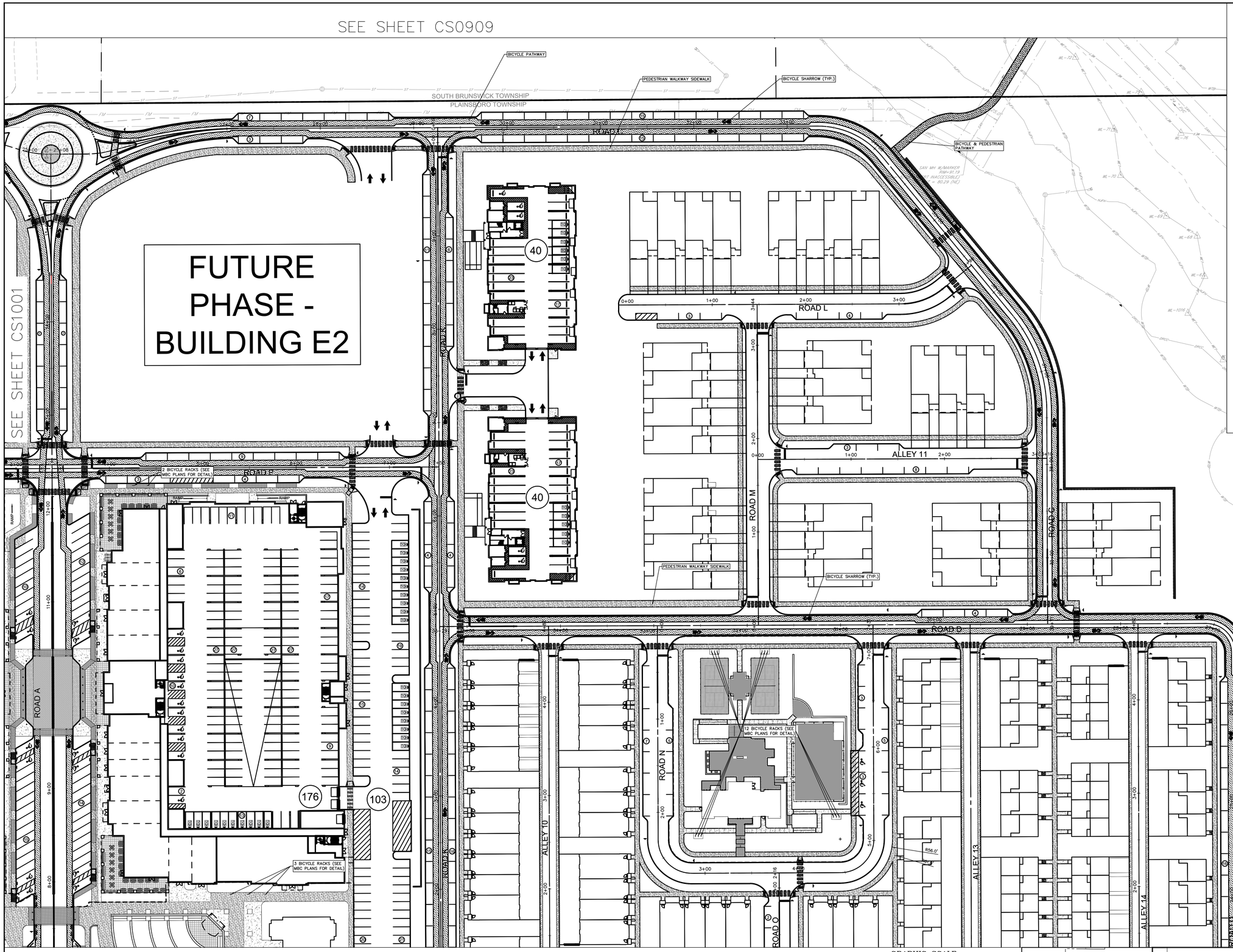
CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

BICYCLE/PEDESTRIAN CIRCULATION PLAN –1
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN
PLAINSBORO TOWNSHIP
SCALE 1"=40'
MIDDLESEX CO., N.J.
APRIL 18, 2025

DRAWN BY MT DATE 4/18/25	FIELD BK	ORDER No.	PAGE No.	SHEET No.
CHECKED BY CG DATE 4/18/25	PAGE	WRNUL23001	17 OF 100	CS0905

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_EXHIBITS\BICYCLE EXHIBIT\CS1001–1005–BICYCLE PEDESTRIAN EXHIBIT.DWG



CIRCULATION LEGEND

TOTAL SITE BIKE RACK COUNT: 47

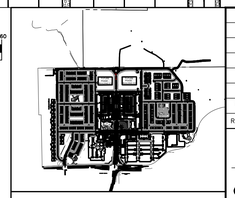
LEGEND

- PEDESTRIAN WALKWAY/SIDEWALK
- BICYCLE CIRCULATION PATH
- BICYCLE SHARROW PAVEMENT MARKER
- BIKE RACK (SEE MCS DETAILS)

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet



SHEET KEY MAP

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
1	REV. PER DRC#2 MEMOS	5/23/25		

4/18/2025
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

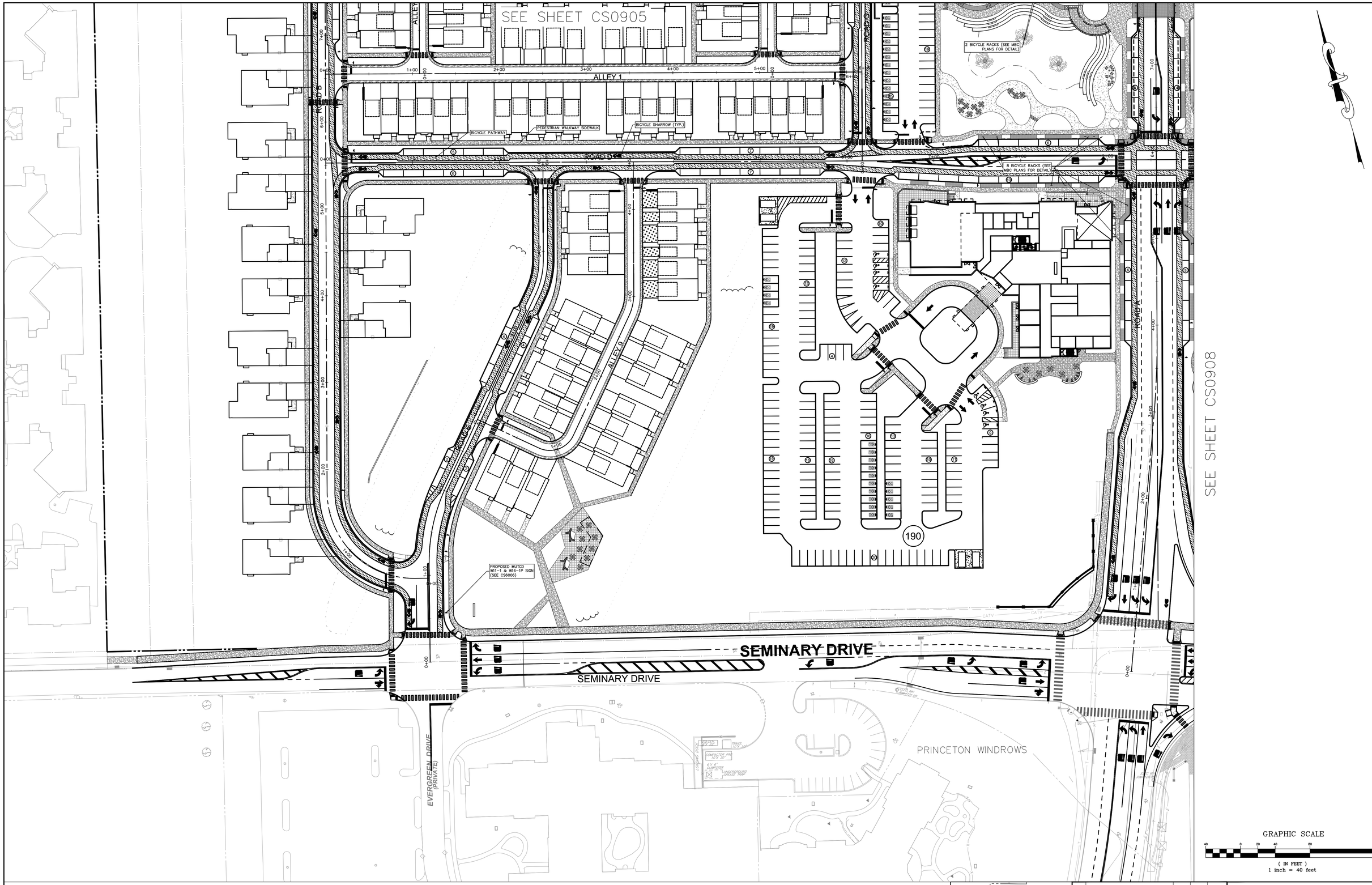
BICYCLE/PEDESTRIAN CIRCULATION PLAN –2
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE 1"= 40'

MIDDLESEX CO., N.J.
APRIL 18, 2025

DRAWN BY MT DATE 4/18/25	FIELD BK	ORDER No.	PAGE No.	SHEET No.
CHECKED BY CG DATE 4/18/25	PAGE	WRNUL23001	18 OF 100	CS0906

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_EXHIBITS\BICYCLE EXHIBIT\CS1001–1005–BICYCLE PEDESTRIAN EXHIBIT.DWG


SEE SHEET CS0905
ALLEY 1
ALLEY 2
ALLEY 3
ALLEY 4
ALLEY 5
ALLEY 6
ALLEY 7
ALLEY 8
ALLEY 9
ALLEY 10
ALLEY 11
ALLEY 12
ALLEY 13
ALLEY 14
ALLEY 15
ALLEY 16
ALLEY 17
ALLEY 18
ALLEY 19
ALLEY 20
ALLEY

SEE SHEET CS0907

SEE SHEET CS0906

ROAD O

ALLEY 12

BICYCLE SHARROW (TYP.)

BICYCLE PATHWAY

ROAD D

ROAD A

13 BICYCLE RACKS (SEE MBC PLANS FOR DETAIL)

PEDESTRIAN WALKWAY SIDEWALK

5 BICYCLE RACKS (SEE MBC PLANS FOR DETAIL)

161

205

199

ROUTE 1 RAMP

PROPOSED MUTCD W11-1 & W16-1P SIGN (SEE CS6006)

COLLEGE ROAD WEST

COLLEGE ROAD WEST

PRINCETON FORRESTAL VILLAGE

CIRCULATION LEGEND

LEGEND

- PEDESTRIAN WALKWAY/SIDEWALK
- BICYCLE CIRCULATION PATH
- BICYCLE SHARROW PAVEMENT MARKER
- BIKE RACK (SEE MCS DETAILS)

TOTAL SITE BIKE RACK COUNT: 47

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet

SHEET KEY MAP

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
1	REV. PER DRC#2 MEMOS	5/23/25		

4/18/2025
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

BICYCLE/PEDESTRIAN CIRCULATION PLAN – 4
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN
PLAINSBORO TOWNSHIP
MIDDLESEX CO., N.J.
SCALE 1"= 40'
APRIL 18, 2025

DRAWN BY	DATE	FIELD BK	ORDER No.	PAGE No.	SHEET No.
MT	4/18/25		WRNUL23001	20 OF 100	CS0908
CHECKED BY CG	DATE 4/18/25	PAGE			

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_EXHIBITS\BICYCLE EXHIBIT\CS1001–1005–BICYCLE PEDESTRIAN EXHIBIT.DWG

HEATHCOTE BROOK TRIBUTARY
(AKA "HARRY'S BROOK PER VARIOUS REFERENCE PLANS")

HEATHCOTE BROOK TRIBUTARY
(AKA "HARRY'S BROOK PER VARIOUS REFERENCE PLANS")

HEATHCOTE BROOK TRIBUTARY
(AKA "HARRY'S BROOK PER VARIOUS REFERENCE PLANS")

SAN. MH. W/MARKER
RIM=81.83
INV. IN=73.04 (S)
INV. OUT=73.02 (N)

SAN. MH. W/MARKER
RIM=82.19
INV. IN=73.33 (SE)
INV. OUT=73.29 (N)

SAN. MH. W/MARKER
RIM=83.67
INV. IN=74.97 (SE)
INV. IN=75.17 (SW)
INV. OUT=73.52 (NW)

BICYCLE PATHWAY

PEDESTRIAN WALKWAY SIDEWALK

BICYCLE SHARROW (TYP.)

BICYCLE & PEDESTRIAN PATHWAY

SOUTH BRUNSWICK TOWNSHIP
PLAINSBORO TOWNSHIP

SOUTH BRUNSWICK TOWNSHIP
PLAINSBORO TOWNSHIP

SEE SHEET CS1002

CIRCULATION LEGEND

LEGEND

- PEDESTRIAN WALKWAY/SIDEWALK
- BICYCLE CIRCULATION PATH
- BICYCLE SHARROW PAVEMENT MARKER
- BIKE RACK (SEE MCS DETAILS)

TOTAL SITE BIKE RACK COUNT: 47

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet

SHEET KEY MAP

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
1	REV. PER DRC#2 MEMOS	5/23/25		

4/18/2025
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization
No. 24GA28033300

BICYCLE/PEDESTRIAN CIRCULATION PLAN -5
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE 1"=40'

MIDDLESEX CO., N.J.
APRIL 18, 2025

DRAWN BY	DATE	FIELD BK	ORDER No.	PAGE No.	SHEET No.
MT	4/18/25		WRNUL23001	21 OF 100	CS0909
CHECKED BY CG	DATE 4/18/25	PAGE			

U:\ACCOUNTS\WRNUL\WRNUL23001 - WRV PRINCETON NURSERIES - PLAINSBORO\DESIGN_EXHIBITS\BICYCLE EXHIBIT\CS1001-1005-BICYCLE PEDESTRIAN EXHIBIT.DWG

SITE LAYOUT PLAN - 5
(SEE SHEET CS1005)

SITE LAYOUT PLAN - 1
(SEE SHEET CS1001)

SITE LAYOUT PLAN - 2
(SEE SHEET CS1002)

SITE LAYOUT PLAN - 3
(SEE SHEET CS1003)

SITE LAYOUT PLAN - 4
(SEE SHEET CS1004)

PROPOSED NURSERY ROAD

SEMINARY DRIVE

COLLEGE ROAD WEST

ROUTE 1 RAMP

PRINCETON NURSERIES

PRINCETON FORRESTAL VILLAGE

EV SPACE LEGEND

- FULL EV SPACE
- MAKE READY EV SPACE

PAVEMENT LEGEND

- HEAVY DUTY PAVEMENT (ROAD A)
- INTERNAL ROAD/DRIVE SECTION
- PARKING SPACE PAVEMENT SECTION
- PEDESTRIAN WALKWAY/SIDEWALK
- POROUS PAVEMENT
- "NO DISTURBANCE BEYOND THIS POINT" DRCC SIGNAGE (MAX. 250' SPACING)

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 feet

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
8	REV. PER DRC#2 MEMOS	5/23/25		
7	REV. PER DRC#1 MEMOS	4/18/25		
6	REV. DRCC SUBMISSION	1/22/25		
5	REV. COMPLETENESS SUBMISSION	1/16/25		
4	PER CLIENTS COMMENTS	12/13/24		
3	REV. FOR PERMIT RESUBMISSION	11/8/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization
No. 24GA28033300

OVERALL SITE LAYOUT PLAN
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE 1"= 100'

MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY	WDV	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE 6/14/24			WRNUL23001	22 OF 100	CS1000
CHECKED BY CG		PAGE			
DATE 6/14/24					

U:\ACCOUNTS\WRNUL\WRNUL23001 - WRV PRINCETON NURSERIES - PLAINSBORO\DESIGN_SHEETS\CS1000.DWG

SEE SHEET CS1005

SEE SHEET CS1002

SEE SHEET CS1003

SOUTH BRUNSWICK TOWNSHIP

PLAINSBORO

ROAD B

ROAD H

ROAD F

ROAD P

ROAD A

ROAD G

ALLEY 2

ALLEY 3

ALLEY 4

ALLEY 5

ALLEY 6

ALLEY 8

EXISTING PUMP STATION

PUMP STATION

SEE SHEETS CS3001-CS3002 FOR PUMP STATION DESIGN

PROPOSED 6' HIGH BOARD ON BOARD FENCING AND VEGETATIVE SCREENING (SEE CS6009)

SEGMENTAL CONCRETE UNIT RETAINING WALL AND SPLIT-RAIL FENCE (SEE CS6006)

DEPRESSED CURB AT PUMP STATION DRIVEWAY

EXISTING MAINTAINED PATH

SEGMENTAL CONCRETE BLOCK WALL AND STEPS

CONCRETE SIDEWALK (TYP.)

PROPOSED PEDESTRIAN CROSSWALK (TYP.)

10 MPH SPEED LIMIT (W13-1-10) & LEFT TURN SYMBOL (W1-1L)

10 MPH SPEED LIMIT (W13-1-10) & RIGHT TURN SYMBOL (W1-1R)

SPEED LIMIT R2-1-25

DEPRESSED CURB AT ALL DRIVEWAY (TYP.)

PROPOSED ADA CURB RAMPS W/ DWS (TYP.)

DRIVEWAY SCREENWALL (TYP.)

2.5" STAMPED ASPHALT (TYP.)

PROPOSED EASEMENT LINES (TYP.)

PROPOSED 50' DOUBLE YELLOW CENTERLINE (TYP.)

BICYCLE SHARROW (TYP.)

R7-4X NO STOPPING OR STANDING

STOP SIGN (R1-1) & 12" STOP BAR (TYP.)

R7-4-2 NO IDLING

PEDESTRIAN SIGN (W11-2) & AHEAD PLAQUE (W16-9P)

PROPOSED MIDBLOCK PEDESTRIAN CROSSWALK W/ "STOP HERE FOR PEDESTRIANS" SIGN (R1-5B) (TYP. OF 2) & W11-2 & W16-7P/P/A

CONCRETE SIDEWALK (TYP.)

W11-2 & W16-7PL

R1-2

TWO-LEVEL PARKING GARAGE

BUILDING A GROUND LEVEL

BUILDING A MIXED-USE

BICYCLE RACK (TYP.)(SEE MBC PLANS FOR DETAIL)

60° ANGLED PARKING

LOADING

RAMP

102

114

97

BUILDING "A" LOWER LEVEL

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet

EV SPACE LEGEND

FULL EV SPACE

MAKE READY EV SPACE

PAVEMENT LEGEND

- HEAVY DUTY PAVEMENT
- INTERNAL ROAD/DRIVE SECTION
- PARKING SPACE PAVEMENT SECTION
- PEDESTRIAN WALKWAY/SIDEWALK
- STAMPED ASPHALT ALLEY SIDEWALK

SHEET KEY MAP

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
7	REV. PER DRC#2 MEMOS	5/23/25		
6.	REV. PER DRC #1 MEMOS	4/18/25		
5	REV. COMPLETENESS SUBMISSION	1/16/25		
4	REV. PER CLIENT COMMENTS	12/13/24		
3	REV. FOR PERMIT RESUBMISSION	11/8/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

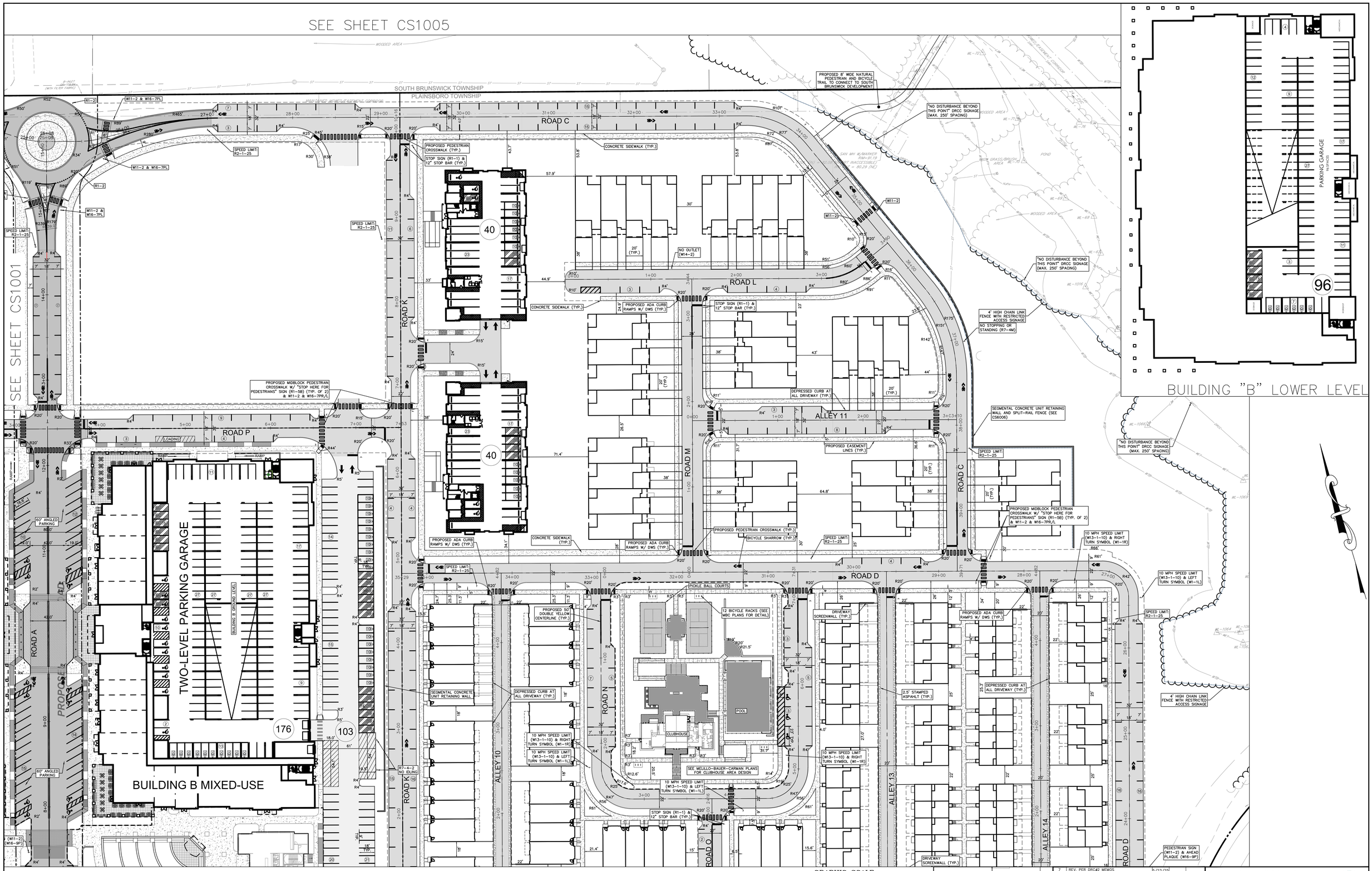
SITE LAYOUT PLAN – 1
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE 1"= 40'

MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY	DATE	FIELD BK	PAGE	ORDER No.	PAGE No.	SHEET No.
WDV	6/14/24			WRNUL23001	23 OF 100	CS1001
CHECKED BY	DATE					
CG	6/14/24					

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS1002-1005.DWG



SEE SHEET CS1004

EV SPACE LEGEND

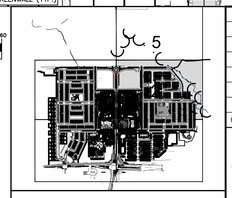
- FULL EV SPACE
- MAKE READY EV SPACE

PAVEMENT LEGEND

- HEAVY DUTY PAVEMENT
- INTERNAL ROAD/DRIVE SECTION
- PARKING SPACE PAVEMENT SECTION
- PEDESTRIAN WALKWAY/SIDEWALK
- STAMPED ASPHALT ALLEY SIDEWALK

GRAPHIC SCALE

(IN FEET)
1 inch = 40 feet



SHEET KEY MAP

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
7	REV. PER DRC#2 MEMOS	5/23/25		
6	REV. PER DRC #1 MEMOS	4/18/25		
5	REV. DRCC SUBMISSION	1/22/25		
4	REV. COMPLETENESS SUBMISSION	1/16/25		
3	REV. FOR PERMIT RESUBMISSION	11/8/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

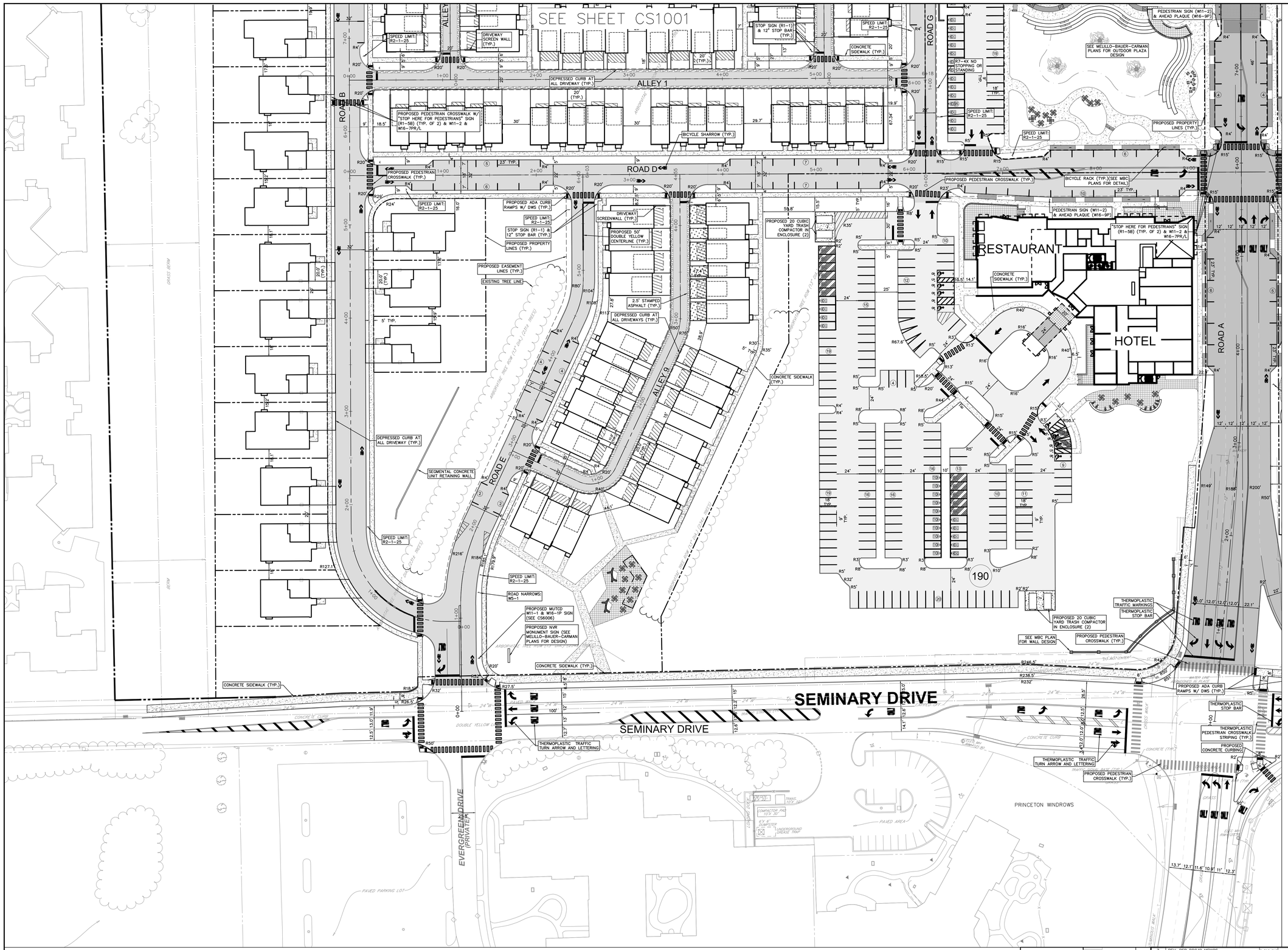
SITE LAYOUT PLAN – 2
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE 1"= 40'

MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY WDV DATE 6/14/24	FIELD BK	ORDER No.	PAGE No.	SHEET No.
CHECKED BY CG DATE 6/14/24	PAGE	WRNUL23001	24 OF 100	CS1002

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS1002-1005.DWG



EV SPACE LEGEND

- FULL EV SPACE
- MAKE READY EV SPACE

PAVEMENT LEGEND

- HEAVY DUTY PAVEMENT
- INTERNAL ROAD/DRIVE SECTION
- PARKING SPACE PAVEMENT SECTION
- PEDESTRIAN WALKWAY/SIDEWALK
- STAMPED ASPHALT ALLEY SIDEWALK

SHEET KEY MAP

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
7	REV. PER DRC#2 MEMOS	5/23/25		
6	REV. PER DRC #1 MEMOS	4/18/25		
5	REV. COMPLETENESS SUBMISSION	1/16/25		
4	REV. PER CLIENT COMMENTS	12/13/24		
3	REV. FOR PERMIT RESUBMISSION	11/8/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

SITE LAYOUT PLAN – 3
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN
PLAINSBORO TOWNSHIP — MIDDLESEX CO., N.J.
SCALE 1"= 40' — JUNE 14, 2024

DRAWN BY	WDV	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE	6/14/24				
CHECKED BY	CG	PAGE	WRNUL23001	25 OF 100	CS1003
DATE	6/14/24				

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS1002-1005.DWG

SEE SHEET CS1002

SEE SHEET CS1003

ROAD A

ROAD D

ROAD O

ALLEY 12

SEE MELILLO-BAUER-CARMAN PLANS FOR OUTDOOR PLAZA DESIGN

CLUBHOUSE

PEDESTRIAN SIGN (W11-2) & AHEAD PLAQUE (W16-9P)

SPEED LIMIT: R2-1-25

2.5" STAMPED ASPHALT (TYP.)

DEPRESSED CURB AT ALL DRIVEWAY (TYP.)

STOP SIGN (R1-1) & 12"STOP BAR (TYP.)

DRIVEWAY SCREENWALL (TYP.)

PROPOSED ADA CURB RAMPS W/ DWS (TYP.)

BICYCLE SHARROW (TYP.)

PROPOSED 50' DOUBLE YELLOW CENTERLINE (TYP.)

PROPOSED PEDESTRIAN CROSSWALK (TYP.)

PROPOSED ADA CURB RAMPS W/ DWS (TYP.)

SPEED LIMIT: R2-1-25

PEDESTRIAN SIGN (W11-2) & AHEAD PLAQUE (W16-9P)

PROPOSED EASEMENT LINES (TYP.)

10 MPH SPEED LIMIT (W13-1-10) & RIGHT TURN SYMBOL (W1-1R)

10 MPH SPEED LIMIT (W13-1-10) & LEFT TURN SYMBOL (W1-1L)

PROPOSED MIDBLOCK PEDESTRIAN CROSSWALK W/ "STOP HERE FOR PEDESTRIANS" SIGN (R1-5B) (TYP. OF 2) & W11-2 & W16-7PR/L

CONCRETE SIDEWALK (TYP.)

STOP (R1-1) & DO NOT ENTER (R5-1) SIGN

CONCRETE SIDEWALK (TYP.)

23' TYP.

STOP SIGN (R1-1) & 12" STOP BAR (TYP.)

PEDESTRIAN SIGN (W11-2) & AHEAD PLAQUE (W16-9P)

PROPOSED 20 CUBIC YARD TRASH COMPACTOR IN ENCLOSURE (2)

PROPOSED CART CORRAL (4)

STOP SIGN (R1-1) & 12" STOP BAR (TYP.)

BICYCLE RACK (TYP.)(SEE MBC PLANS FOR DETAIL)

SPEED LIMIT: R2-1-25

"STOP HERE FOR PEDESTRIANS" SIGN (R1-5B) (TYP. OF 2) & W11-2 & W16-7PR/L

PEDESTRIAN SIGN (W11-2) & AHEAD PLAQUE (W16-9P)

SEE MELILLO-BAUER-CARMAN PLANS FOR SHOP-FRONT DESIGN

SEE MBC PLANS FOR STOREFRONT AMENITIES

PROPOSED ADA CURB RAMPS W/ DWS (TYP.)

DRIVE-THRU WINDOW WITH CANOPY

SEE MELILLO-BAUER-CARMAN PLANS FOR PARK DESIGN

BREEZEWAY

PROPOSED PEDESTRIAN CROSSWALK (TYP.)

LOADING

8' HIGH SCREEN FENCE

CONCRETE SIDEWALK (TYP.)

SEGMENTAL CONCRETE UNIT RETAINING WALL AND SPLIT-RAIL FENCE (SEE CS6006)

8' HIGH SCREEN FENCE

SEE MBC PLAN FOR WALL DESIGN

PROPOSED MUTCD W11-1 & W16-1P SIGN (SEE CS6006)

PROPOSED PYLON SIGN (SEE MELILLO-BAUER-CARMAN PLANS FOR DESIGN)

CONCRETE SIDEWALK (TYP.)

(2) PROPOSED 20 CUBIC YARD TRASH COMPACTOR WITH ENCLOSURES

THERMOPLASTIC PEDESTRIAN CROSSWALK STRIPING (TYP.)

ADA CURB DWS (TYP.)

THERMOPLASTIC STOP BAR

THERMOPLASTIC PEDESTRIAN CROSSWALK STRIPING (TYP.)

PROPOSED CONCRETE CURBING

THERMOPLASTIC TRAFFIC TURN ARROW AND LETTERING

MAKE EXISTING CONCRETE CURBING

PROPOSED CONCRETE CURBING

COLLEGE ROAD WEST

COLLEGE ROAD WEST

ROUTE 1 RAMP

161

205

199

EV SPACE LEGEND

- FULL EV SPACE
- MAKE READY EV SPACE

PAVEMENT LEGEND

- HEAVY DUTY PAVEMENT
- INTERNAL ROAD/DRIVE SECTION
- PARKING SPACE PAVEMENT SECTION
- PEDESTRIAN WALKWAY/SIDEWALK
- STAMPED ASPHALT ALLEY SIDEWALK

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet

SHEET KEY MAP

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
6	REV. PER DRC#2 MEMOS	5/23/25		
5	REV. PER DRC #1 MEMOS	4/18/25		
4	REV. COMPLETENESS SUBMISSION	7/16/25		
3	REV. FOR PERMIT RESUBMISSION	11/8/24		
2	PER TOWSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com Certificate of Authorization
www.pennoni.com No. 24GA28033300

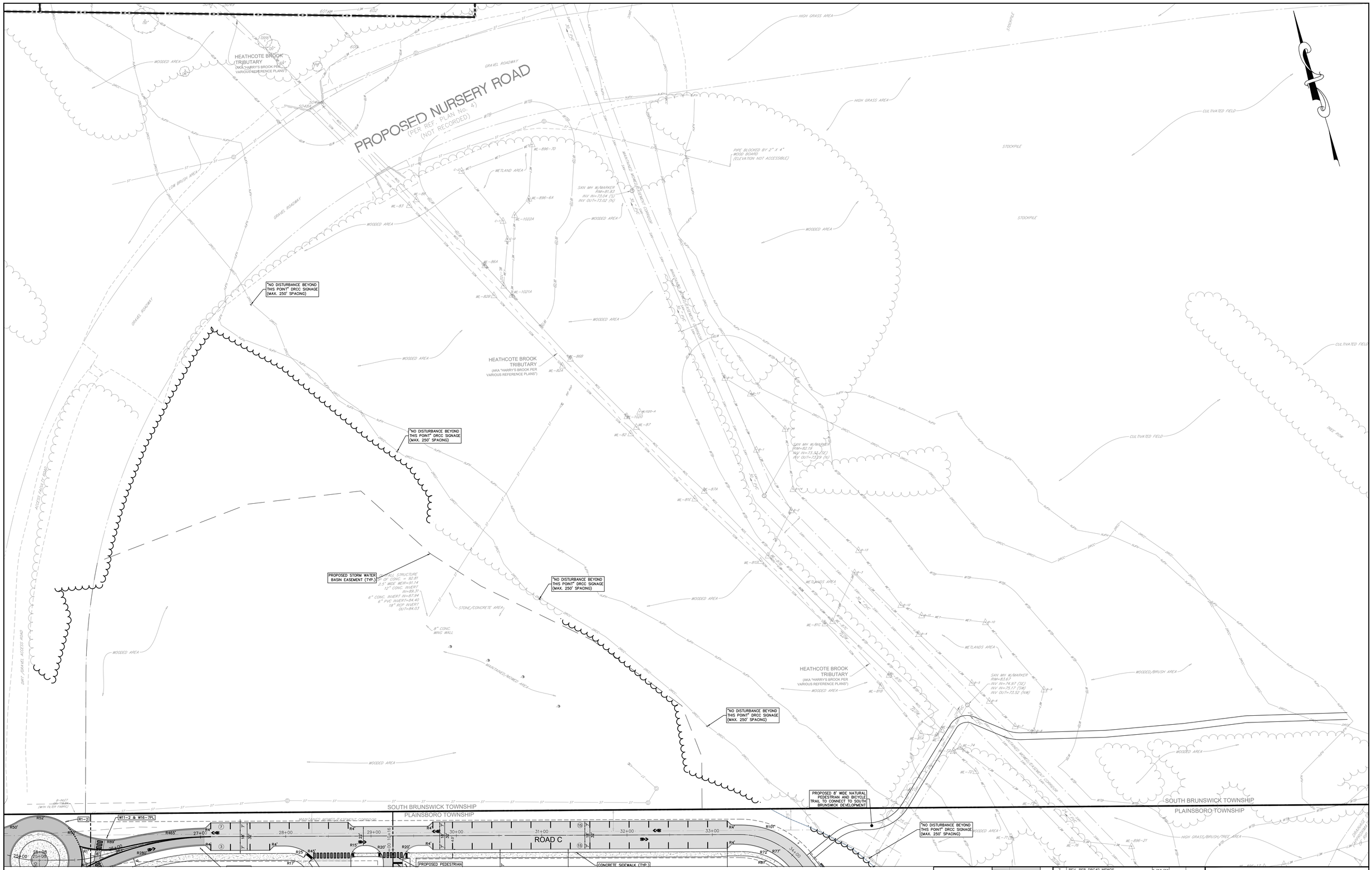
SITE LAYOUT PLAN – 4
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE 1"= 40'

MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY	FIELD BK	ORDER No.	PAGE No.	SHEET No.
WDV DATE 6/14/24		WRNUL23001	26 OF 100	CS1004
CHECKED BY CG DATE 6/14/24	PAGE			

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS1002–1005.DWG



EV SPACE LEGEND

- FULL EV SPACE
- MAKE READY EV SPACE

PAVEMENT LEGEND

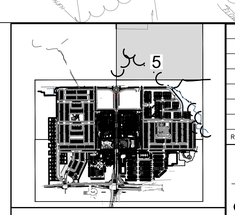
- HEAVY DUTY PAVEMENT
- INTERNAL ROAD/DRIVE SECTION
- PARKING SPACE PAVEMENT SECTION
- PEDESTRIAN WALKWAY/SIDEWALK
- STAMPED ASPHALT ALLEY SIDEWALK

SEE SHEET CS1002

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet



SHEET KEY MAP

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
7	REV. PER DRC#2 MEMOS	5/23/25		
6	REV. PER DRC #1 MEMOS	4/18/25		
5	REV. DRCC SUBMISSION	1/22/25		
4	REV. COMPLETENESS SUBMISSION	1/16/25		
3	REV. FOR PERMIT RESUBMISSION	11/8/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

SITE LAYOUT PLAN – 5
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE 1"= 40'

MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY WDV DATE 6/14/24	FIELD BK	ORDER No.	PAGE No.	SHEET No.
CHECKED BY CG DATE 6/14/24	PAGE	WRNUL23001	27 OF 100	CS1005

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS1002-1005.DWG

SITE GRADING PLAN - 1
(SEE SHEET CS1501)

SITE GRADING PLAN - 2
(SEE SHEET CS1502)

SITE GRADING PLAN - 5
(SEE SHEET CS1505)

SITE GRADING PLAN - 3
(SEE SHEET CS1503)

SITE GRADING PLAN - 4
(SEE SHEET CS1504)

SEMINARY DRIVE

COLLEGE ROAD WEST

ROUTE 1 RAMP

PRINCETON THEOLOGICAL SEMINARY

PRINCETON FORRESTAL VILLAGE

Material/Item	Area (SF)	Depth (F)	Volume (CF)	Volume (CY)	Cut (CY)	Fill (CY)	Adjusted Cut (CY)	Adjusted Fill (CY)	Net (CY)
Existing To Proposed Surface					-154228	285233	-169650	342280	172630
Manual Cut-Fill Adjustment							**Cut Factor: 1.1**	**Fill Factor: 1.2**	
Pavement	661932	1.00	661932	24516	-24516		-26968		-26968
Pervious Pavement (Driveway & On-Street Parking)	226239	1.00	226239	8379	-8379		-9217		-9217
Pervious Pavement (Parking Lots)	170801	1.375	234851	8698	-8698		-9568		-9568
Sidewalk	488236	0.83	405236	15009	-15009		-16510		-16510
Commercial Building	302754	0.83	252295	9344	-9344		-10279		-10279
Residential Building	480457	0.67	321906	11922	-11922		-13115		-13115
Bioremediation Basin Soil	103710	2.00	207419	7682	-7682		-8450		-8450
Underground basin (SC-310)	9656	2.50	24139	894	-894		-983		-983
Underground basin (SC-740)	149799	3.50	524295	19418	-19418		-21360		-21360
Pool	1144	4.50	5148	191	-191		-210		-210
Impacted Soil Layer - Plainsboro (Export to Berm)	42553	1.00	42553	1576		1576		1891	1891
Existing Topsoil to be Removed	2658382	0.5	1329191	49229		49229		59075	59075
Topsoil for Proposed Landscaping Area	1383197	0.5	691598	25615	-25615		-28176		-28176
Sum					-131669	50805	-144836	60966	-83869
Total					-285896	336039	-314486	403246	88760

Assumptions

1. The cut factor is 1.1 and the fill factor is 1.2.
2. The basement elevations used for buildings with basements is as follows:
Building A- 12'
Building B- 12'
Multifamily Flats - 11'
Townhouse - 10'
Single Family Home - 10'
3. Average depth of pool was assumed to be 4.5'.
4. 1' certified clean fill will be added to landscaping area in Arsenic/Dieldrin Import areas as shown on Proposed Conditions Soil Management Plan.
5. The analysis does not account for export of unsuitable materials from the site.
6. The basins don't account for overexcavation of unsuitable insitu soils with low infiltration rates.

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 feet

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
6	REV. PER DRC#2 MEMOS	5/23/25		
5	REV. PER DRC#1 MEMOS	4/18/25		
4	REV. COMPLETENESS SUBMISSION	1/16/25		
3	PER CLIENTS COMMENTS	12/13/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com Certificate of Authorization
www.pennoni.com No. 24GA28033300

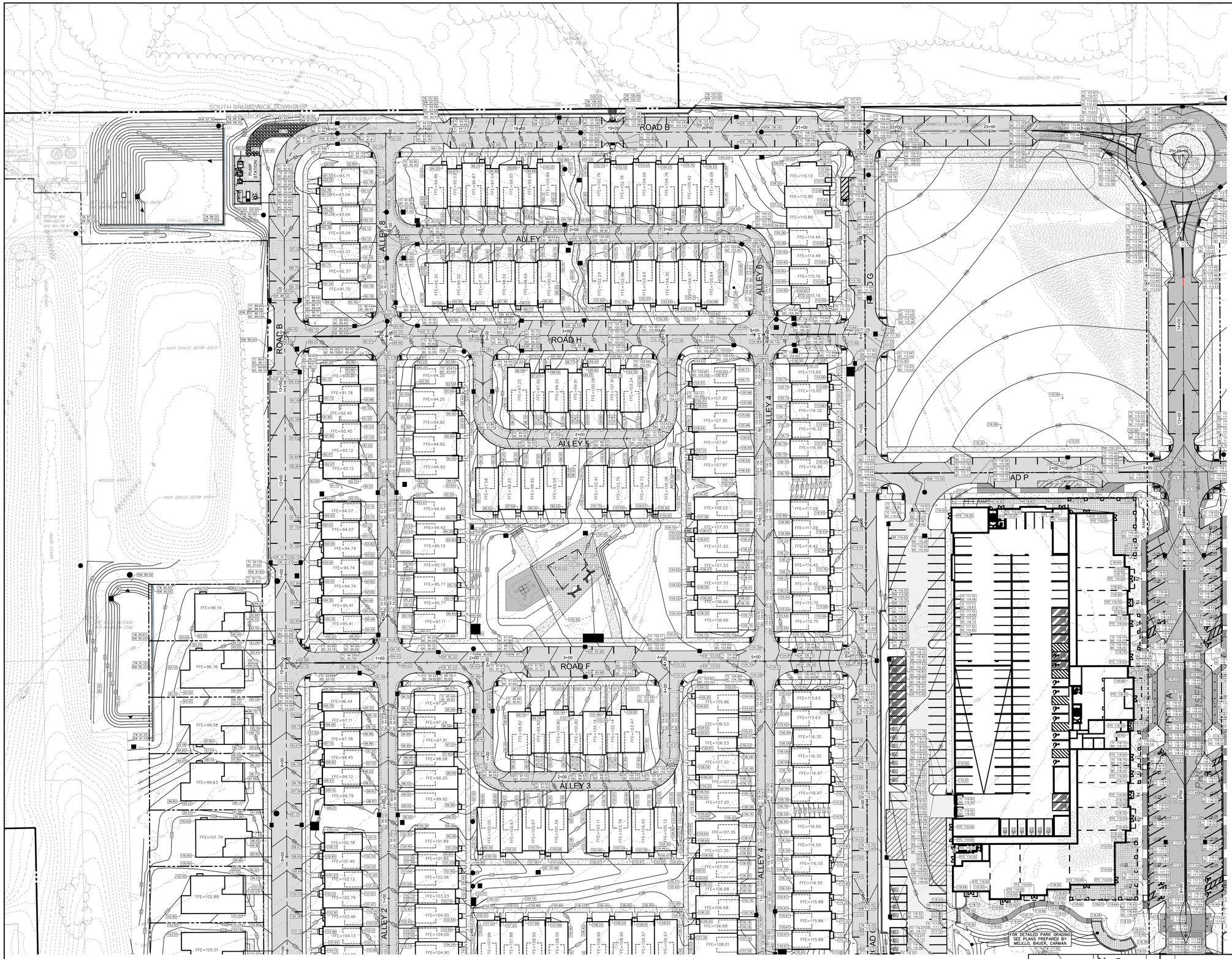
OVERALL SITE GRADING PLAN
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE 1"= 100'

MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY	WDV	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE	6/14/24				
CHECKED BY	CG	PAGE	WRNUL23001	28 OF 100	CS1500
DATE	6/14/24				

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS1500.DWG



GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet

SHEET KEY MAP

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
6	REV. PER DRC#2 MEMOS	5/23/25		
5	REV. PER DRC#1 MEMOS	4/18/25		
4	REV. COMPLETENESS SUBMISSION	1/16/25		
3	PER CLIENTS COMMENTS	12/13/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization
No. 24GA28033300

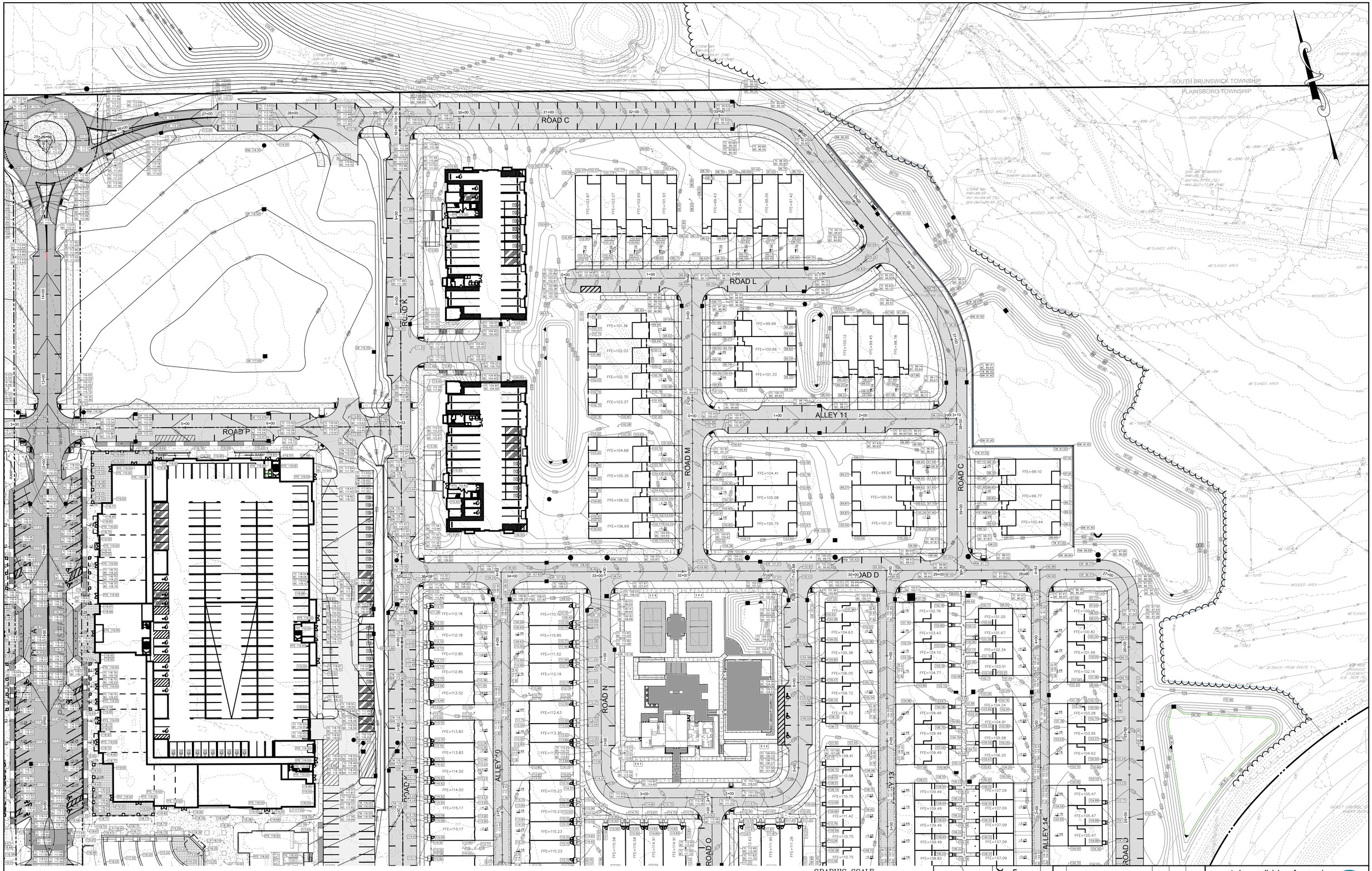
SITE GRADING PLAN – 1
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE 1"= 40'

MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY	WDV	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE 6/14/24			WRNUL23001	29 OF 100	CS1501
CHECKED BY	CG	PAGE			
DATE 6/14/24					

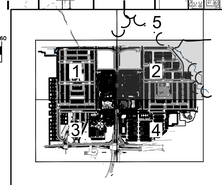
U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS1501–1504.DWG



GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet



SHEET KEY MAP

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
6	REV. PER DRC#2 MEMOS	5/23/25		
5	REV. PER DRC#1 MEMOS	4/18/25		
4	REV. COMPLETENESS SUBMISSION	1/16/25		
3	PER CLIENTS COMMENTS	12/13/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

SITE GRADING PLAN – 2
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE 1"= 40'

MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY WDV DATE 6/14/24	FIELD BK	ORDER No.	PAGE No.	SHEET No.
CHECKED BY CG DATE 6/14/24	PAGE	WRNUL23001	30 OF 100	CS1502

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS1501-1504.DWG

FOR DETAILED PARK GRADING SEE PLANS PREPARED BY MEUILLO, BAUER, CARMAN

ALLEY 1

ROAD B

ROAD D

ROAD A

ALLEY 9

SEMINARY DRIVE

EVERGREEN DRIVE (PRIVATE)

PRINCETON WINDROWS

PAVED PARKING LOT

PAVED AREA

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet

SHEET KEY MAP

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
6	REV. PER DRC#2 MEMOS	5/23/25		
5	REV. PER DRC#1 MEMOS	4/18/25		
4	REV. COMPLETENESS SUBMISSION	1/16/25		
3	PER CLIENTS COMMENTS	12/13/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

SITE GRADING PLAN – 3
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE 1"= 40'

MIDDLESEX CO., N.J.
JUNE 14, 2024

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

DRAWN BY	FIELD BK	ORDER No.	PAGE No.	SHEET No.
WDV DATE 6/14/24		WRNUL23001	31 OF 100	CS1503
CHECKED BY CG DATE 6/14/24	PAGE			

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS1501–1504.DWG

FOR DETAILED PARK GRADING SEE PLANS PREPARED BY MELILLO, BAUER, CARMAN

ROAD A

ROAD O

ROAD D

ALLEY

ROUTE 1 RAMP

COLLEGE ROAD WEST

PRINCETON FORRESTAL VILLAGE

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet

SHEET KEY MAP

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
6	REV. PER DRC#2 MEMOS	5/23/25		
5	REV. PER DRC#1 MEMOS	4/18/25		
4	REV. COMPLETENESS SUBMISSION	1/16/25		
3	PER CLIENTS COMMENTS	12/13/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

6/14/24
DATE OF SIGN.

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

SITE GRADING PLAN – 4
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
MIDDLESEX CO., N.J.
SCALE 1"= 40'
JUNE 14, 2024

DRAWN BY	DATE	FIELD BK	ORDER No.	PAGE No.	SHEET No.
WDV	6/14/24		WRNUL23001	32 OF 100	CS1504
CHECKED BY CG	DATE 6/14/24	PAGE			

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS1501–1504.DWG

PROPOSED NURSERY ROAD
(PER REF. PLAN NO. 4)
(NOT RECORDED)

HEATHCOTE BROOK TRIBUTARY
(AKA "HARRY'S BROOK PER VARIOUS REFERENCE PLANS")

PROPOSED STORM WATER BASIN EASEMENT (TYP.)

ROAD C

SOUTH BRUNSWICK TOWNSHIP

PLAINSBORO TOWNSHIP

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

1 inch = 40 feet

SHEET KEY MAP

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
6	REV. PER DRC#2 MEMOS	5/23/25		
5	REV. PER DRC#1 MEMOS	4/18/25		
4	REV. COMPLETENESS SUBMISSION	1/16/25		
3	PER CLIENTS COMMENTS	12/13/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

SITE GRADING PLAN – 5
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE 1"=40'
MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY	FIELD BK	ORDER No.	PAGE No.	SHEET No.
WDV DATE 6/14/24		WRNUL23001	33 OF 100	CS1505
CHECKED BY CG DATE 6/14/24	PAGE			

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN__SHEETS\CS1501-1504.DWG

SITE DRAINAGE PLAN - 5
(SEE SHEET CS1605)

SITE DRAINAGE PLAN - 1
(SEE SHEET CS1601)

SITE DRAINAGE PLAN - 2
(SEE SHEET CS1602)

SITE DRAINAGE PLAN - 3
(SEE SHEET CS1603)

SITE DRAINAGE PLAN - 4
(SEE SHEET CS1604)

GRAPHIC SCALE

80 0 40 80 160 320

(IN FEET)
1 inch = 80 feet

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
7	REV PER DRC #2 MEMOS	5/23/25		
6	REV. PER DRC#1 MEMOS	4/18/25		
5	REV. COMPLETENESS SUBMISSION	1/16/25		
4	REV. PER CLIENT COMMENTS	12/13/24		
3	REV. FOR PERMIT RESUBMISSION	11/8/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization
No. 24GA28033300

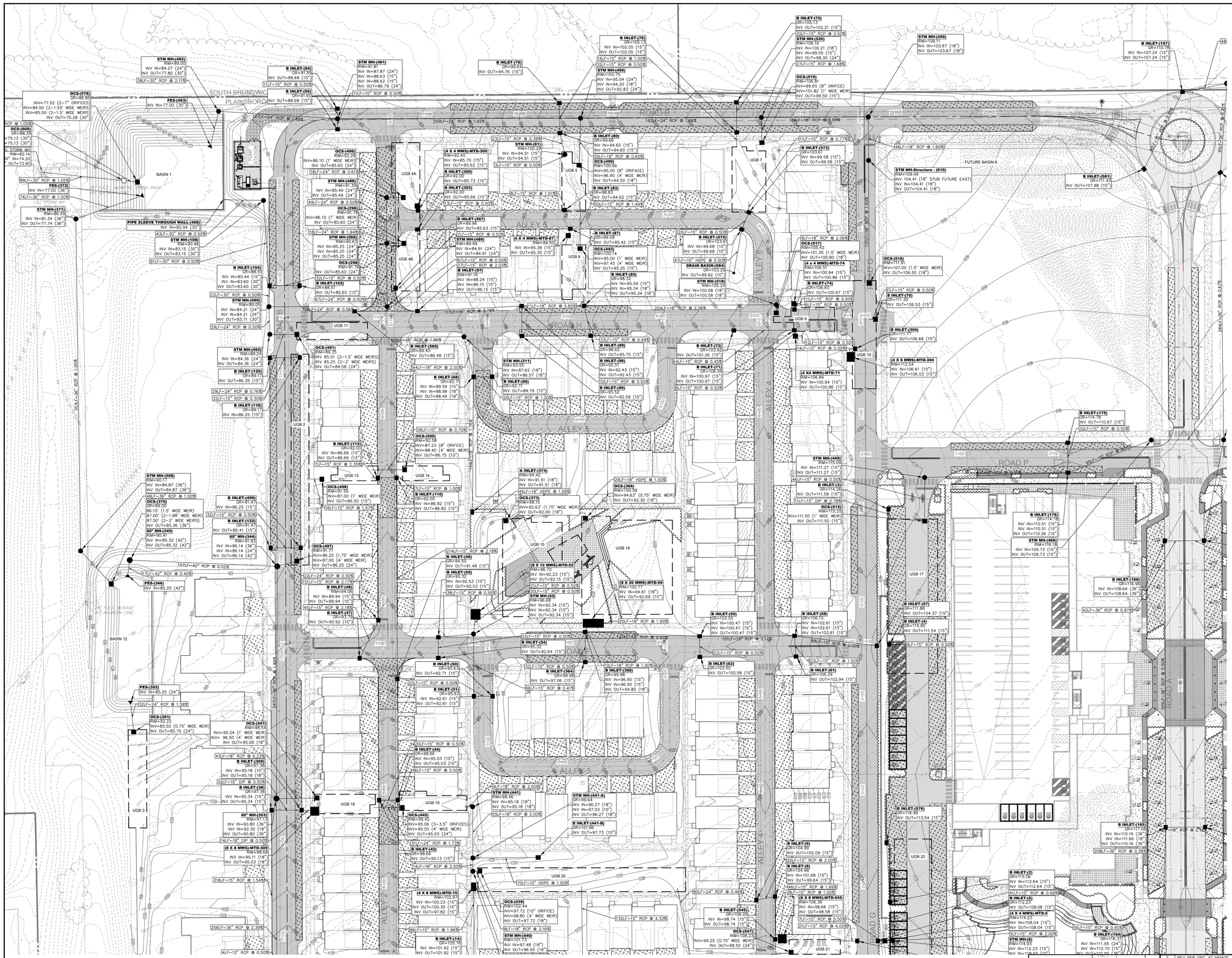
OVERALL SITE DRAINAGE PLAN
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE 1"= 80'

MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY	MDV	FIELD BK		ORDER No.	PAGE No.	SHEET No.
DATE	6/14/24			WRNUL23001	34 OF 100	CS1600
CHECKED BY	CG	PAGE				
DATE	6/14/24					

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS1600.DWG



PAVEMENT LEGEND

POROUS PAVEMENT

SHEET KEY MAP

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
7	REV. PER DRC #2 MEMOS	05/23/25		
6	REV. PER DRC#1 MEMOS	4/18/25		
5	REV. COMPLETENESS SUBMISSION	1/16/25		
4	REV. PER CLIENT COMMENTS	12/13/24		
3	REV. PER PERMIT RESUBMISSION	11/8/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

SITE DRAINAGE PLAN – 1
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN
PLAINSBORO TOWNSHIP
MIDDLESEX CO., N.J.
SCALE 1"= 40'
JUNE 14, 2024

DRAWN BY WDV DATE 6/14/24
CHECKED BY CG DATE 6/14/24
FIELD BK
PAGE
ORDER No. WRNUL23001
PAGE No. 35 OF 100
SHEET No. CS1601

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS1601–1604.DWG

SOUTH BRUNSWICK TOWNSHIP
PLAINSBORO TOWNSHIP

ROAD A
ROAD C
ROAD D
ROAD K
ROAD L
ROAD M
ROAD N
ROAD P
ALLEY 11
ALLEY 12
ALLEY 13
ALLEY 14

UGB 27
UGB 31
UGB 32
UGB 33
UGB 34
UGB 36
UGB 37
UGB 42
UGB 43
UGB 44

BASIN 26
BASIN 28
BASIN 29
BASIN 30
BASIN 36
BASIN 45

FES-(586)
INV IN=107.41 (24")
55LF=24" RCP @ 0.42%
B INLET-(294)
QR=112.30
INV IN=107.78 (24")
INV OUT=107.78 (24")
23LF=24" RCP @ 0.49%
B INLET-(295)
QR=112.29
INV IN=107.89 (24")
INV OUT=107.89 (24")
CONNECT TO EX MH
MH-Structure - (593)
QR=109.74
INV IN=98.12 (36")
B INLET-(167)
QR=110.78
IN=107.24 (15")
T=107.24 (15")
48LF=15" RCP @ 0.50%
60" MH-(580)
RIM=110.00
INV IN=107.00 (15")
INV IN=104.95 (36")
INV OUT=99.95 (36")
244LF=36" RCP @ 0.75%
B INLET-(296)
QR=111.15
INV IN=105.64 (36")
INV OUT=105.64 (36")
122LF=24" RCP @ 0.35%
STM MH-(585)
QR=114.16
INV IN=108.32 (24")
INV OUT=108.32 (24")
E INLET-(276)
QR=116.00
INV IN=108.58 (24")
INV OUT=108.58 (24")
27LF=15" RCP @ 0.50%
B INLET-(325)
QR=112.30
INV OUT=102.00 (15")
B INLET-(281)
QR=110.35
INV IN=110.57 (15")
INV OUT=110.57 (15")
E INLET-(275)
QR=117.00
INV IN=110.79 (15")
INV IN=109.93 (15")
INV OUT=109.18 (24")
128LF=15" RCP @ 0.50%
B INLET-(274)
QR=115.41
INV IN=111.13 (15")
INV OUT=111.13 (15")
32LF=15" RCP @ 0.50%
B INLET-(273)
QR=115.41
INV IN=111.29 (15")
INV OUT=111.29 (15")
B INLET-(271)
QR=115.14
INV OUT=112.23 (15")
32LF=15" RCP @ 0.50%
B INLET-(272)
QR=115.14
INV IN=112.07 (15")
INV OUT=112.07 (15")
77LF=15" RCP @ 0.55%
STM MH-(469)
RIM=116.17
INV IN=107.55 (36")
INV IN=109.30 (15")
INV OUT=107.55 (36")
285LF=36" RCP @ 0.61%
176LF=24" RCP @ 0.93%
B INLET-(182)
QR=111.00
INV IN=101.87 (15")
INV OUT=101.86 (15")
52LF=15" RCP @ 2.01%
B INLET-(184)
QR=104.00
INV IN=99.61 (15")
INV OUT=98.04 (15")
FES-(183)
INV IN=97.00 (15")
FES-(588)
INV IN=97.00 (18")
OCS-(589)
RIM=104.28
INV=100.72 (1'-WIDE WEIR)
INV OUT=98.07 (18")
54LF=18" RCP @ 2.00%
OCS-(377)
QR=99.87
INV=97.80 (1' WIDE WEIR)
INV=98.50 (1.5' WIDE WEIR)
INV OUT=95.55 (36")
FES-(181)
INV IN=97.00 (15")
60" MH-(378)
RIM=108.62
INV IN=95.21 (30")
INV IN=95.71 (24")
INV OUT=94.71 (36")
74LF=15" RCP @ 1.93%
B INLET-(180)
QR=107.83
INV IN=101.95 (15")
INV OUT=101.95 (15")
22LF=15" RCP @ 0.73%
MH-Structure - (601)
RIM=104.78
INV IN=100.51 (15")
INV OUT=97.86 (15")
43LF=15" RCP @ 2.00%
113LF=30" RCP @ 0.30%
43LF=36" RCP @ 0.45%
60" MH-(379)
RIM=108.73
INV IN=94.51 (36")
INV IN=103.08 (24")
INV OUT=94.25 (42")
204LF=24" RCP @ 2.00%
B INLET-(238)
QR=107.83
INV IN=102.11 (15")
INV OUT=102.11 (15")
48LF=15" RCP @ 0.50%
B INLET-(243)
QR=108.43
INV IN=102.35 (15")
INV OUT=102.35 (15")
20LF=15" RCP @ 0.50%
B INLET-(242)
QR=108.43
INV OUT=102.45 (15")
6LF=15" RCP @ 0.50%
B INLET-(260)
QR=110.85
INV OUT=107.90 (15")
B INLET-(252)
INV OUT=105.10 (15")
6LF=15" RCP @ 1.00%
B INLET-(277)
QR=115.65
INV OUT=112.33 (15")
OCS-(505)
RIM=113.03
INV= 110.00 (8" ORIFICE)
INV OUT=110.00 (15")
B INLET-(258)
QR=113.11
INV OUT=110.05 (15")
11LF=15" RCP @ 0.50%
B INLET-(256)
QR=113.12
INV OUT=110.04 (15")
B INLET-(278)
QR=113.90
INV OUT=110.98 (15")
113LF=15" RCP @ 0.63%
B INLET-(171)
QR=116.95
INV IN=108.23 (36")
INV OUT=108.23 (36")
42LF=36" RCP @ 0.97%
301LF=15" RCP @ 0.50%
STM MH-(427)
RIM=110.70
INV IN=105.05 (24")
INV OUT=99.79 (24")
52LF=24" RCP @ 2.00%
OCS-(426)
RIM=110.94
INV=106.40 (1.5' WIDE WEIR)
INV IN=106.08 (24")
INV OUT=106.08 (24")
12LF=24" RCP @ 2.00%
8LF=15" RCP @ 2.40%
B INLET-(262)
QR=110.70
INV OUT=107.90 (15")
INV OUT=107.90 (15")
B INLET-(280)
QR=115.9
INV OUT=112.08 (15")
STM MH-(421)
RIM=112.92
INV IN=109.20 (24")
INV IN=109.95 (15")
INV OUT=109.20 (24")
10LF=15" RCP @ 0.50%
40LF=24" RCP @ 2.37%
STM MH-(420)
RIM=118.23
INV IN=110.15 (24")
INV OUT=110.15 (24")
STM MH-(419)
RIM=118.40
INV IN=111.53 (15")
INV OUT=111.53 (15")
15LF=15" RCP @ 0.50%
OCS-(504)
RIM=118.19
INV=110.50 (1.5' WIDE WEIR)
INV OUT=110.25 (24")
B INLET-(170)
QR=117.28
INV OUT=112.55 (18")
142LF=18" RCP @ 2.12%
B INLET-(502)
QR=117.68
INV OUT=110.29 (15")
111LF=15" RCP @ 0.36%
B INLET-(187)
QR=95.12
INV OUT=91.98 (18")
MH-Structure - (592)
RIM=94.57
INV IN=91.39 (18")
CONNECT TO EX MH
99LF=18" RCP @ 0.49%
B INLET-(186)
QR=95.15
INV IN=91.82 (18")
INV OUT=91.82 (18")
B INLET-(186)
QR=95.15
INV IN=91.82 (18")
INV OUT=91.82 (18")
131LF=18" RCP @ 0.50%
B INLET-(537)
QR=94.21
INV IN=91.42 (14" X 23")
INV OUT=91.42 (14" X 23")
27LF=14 x 23" HERCP @ 0.30%
B INLET-(193)
QR=94.11
INV OUT=91.50 (14" X 23")
STM MH-(191)
RIM=96.47
INV IN=93.29 (15")
INV OUT=93.29 (15")
24LF=15" RCP @ 0.50%
B INLET-(189)
QR=96.89
INV OUT=94.01 (15")
B INLET-(190)
QR=96.90
INV IN=93.89 (15")
INV OUT=93.89 (15")
121LF=15" RCP @ 0.25%
FES-(192)
INV IN=93.23 (15")
FES-(329)
INV IN=94.88 (15")
23LF=15" RCP @ 0.85%
B INLET-(326)
QR=95.27
INV IN=95.10 (15")
INV OUT=95.08 (15")
32LF=15" RCP @ 0.50%
B INLET-(327)
QR=96.21
INV OUT=95.26 (15")
B INLET-(239)
QR=101.97
INV OUT=99.07 (15")
22LF=15" RCP @ 0.47%
B INLET-(240)
QR=101.97
INV IN=98.97 (15")
INV OUT=98.97 (15")
25LF=15" RCP @ 0.61%
72" MH-(380)
RIM=103.08
INV IN=93.51 (42")
INV IN=95.94 (18")
INV OUT=93.01 (48")
53LF=18" RCP @ 2.00%
B INLET-(178)
QR=94.61
INV IN=91.18 (14" X 23")
INV OUT=91.18 (14" X 23")
24LF= 14 x 23" HERCP @ 0.30%
PIPE SLEEVE THROUGH WALL-(195)
INV IN=91.08 (14" X 23")
7LF= 14 x 23" HERCP @ 0.40%
B INLET-(194)
QR=94.61
INV IN=91.11 (14" X 23")
INV OUT=91.11 (14" X 23")
STM MH-(564)
QR=90.71
INV IN=85.50 (42")
INV IN=87.00 (24")
INV OUT=84.91 (24")
33LF=24" RCP @ 0.98%
OCS-(565)
QR=96.75
INV=91.50 (1' WIDE WEIR)
INV OUT=87.32 (24")
PIPE SLEEVE THROUGH WALL-(541)
INV IN=91.48 (24")
125LF=42" RCP @ 1.99%
OCS-(562)
QR=96.05
INV=91.45 (2.5" ORIFICE)
INV=92.62 (2.25' WIDE WEIR)
INV=93.52 (4.33' WIDE WEIR)
INV OUT=88.00 (42")
OCS-(538)
QR=95.90
INV=94.30 (1.5' WIDE WEIR)
INV OUT=92.26 (24")
24LF=15" RCP @ 0.50%
B INLET-(201)
QR=95.63
INV OUT=92.69 (15")
B INLET-(202)
QR=95.63
INV OUT=92.57 (15")
7LF=15" RCP @ 0.57%
PIPE SLEEVE THROUGH WALL-(203)
INV IN=92.53 (15")
(4 X 4 MWS)-MTD-235
RIM=102.48
INV IN=97.41 (15")
INV OUT=93.81 (15")
10LF=15" RCP @ 7.01%
OCS-(480)
RIM=100.39
INV=93.18 (10" ORIFICE)
INV OUT=93.10 (15")
20LF=15" RCP @ 0.85%
72" MH-(481)
RIM=100.42
INV IN=92.70 (48")
INV IN=92.93 (15")
INV OUT=92.70 (48")
72" MH-(384)
RIM=97.77
INV IN=92.16 (48")
INV IN=94.81 (15")
INV OUT=92.16 (48")
72" MH-(381)
RIM=96.69
INV IN=91.55 (48")
INV IN=93.01 (15")
INV OUT=91.55 (48")
6LF= 38 x 60" HERCP @ 0.45%
B INLET-(206)
QR=96.07
INV IN=93.04 (15")
INV OUT=93.04 (15")
22LF=15" RCP @ 0.50%
B INLET-(205)
QR=96.07
INV OUT=93.15 (15")
Headwalls-(207)
INV IN=91.40 (48")
21LF= 38 x 60" HERCP @ 0.69%
152LF= 38 x 60" HERCP @ 0.40%
B INLET-(215)
QR=100.76
INV OUT=97.44 (15")
B INLET-(214)
QR=100.26
INV IN=97.34 (15")
INV OUT=97.34 (15")
46LF=15" RCP @ 1.50%
70LF=15" RCP @ 0.82%
B INLET-(235)
QR=101.07
INV IN=97.98 (15")
INV OUT=97.98 (15")
22LF=15" RCP @ 0.50%
20LF=15" RCP @ 0.50%
B INLET-(236)
QR=101.07
INV OUT=98.09 (15")
19LF=15" RCP @ 1.60%
(8 X 8 MWS)-MTD-214
RIM=100.5
INV IN=97.03 (15")
INV OUT=96.36 (15")
54LF=15" RCP @ 1.60%
OCS-(521)
RIM=98.92
INV=96.00 (0.75' WIDE WEIR)
INV OUT=95.95 (15")
OCS-(523)
RIM=102.91
INV=99.00 (1' WIDE WEIR)
INV OUT=98.50 (18")
A INLET-(432)
QR=102.97
99LF=18" RCP @ 1.28%
39LF=15" RCP @ 7.78%
OCS-(522)
RIM=102.71
INV=102.00 (1' WIDE WEIR)
INV OUT=101.50 (15")
8LF=15" RCP @ 0.50%
A INLET-(431)
QR=100.9
INV OUT=98.54 (15")
6LF=12" HDPE @ 0.50%
DRAIN BASIN-(552)
QR=106.56
INV OUT=103.08 (12")
6LF=12" HDPE @ 0.50%
DRAIN BASIN-(554)
QR=106.46
INV OUT=103.08 (12")
6LF=12" HDPE @ 0.50%
DRAIN BASIN-(556)
QR=106.49
INV OUT=103.08 (12")
DRAIN BASIN-(558)
QR=106.45
INV OUT=103.08 (12")
B INLET-(219)
QR=107.18
INV IN=104.18 (12")
INV OUT=104.18 (12")
6LF=12" HDPE @ 3.00%
(4 X 4 MWS)-MTD-219
RIM=107.73
INV IN=103.92 (12")
INV OUT=103.50 (12")
B INLET-(221)
QR=107.18
INV OUT=104.28 (12")
20LF=12" RCP @ 0.50%
E INLET-(225)
B INLET-(225)
QR=100.20
INV IN=96.97 (48")
INV OUT=96.97 (48")
32LF= 14 x 23" HERCP @ 0.50%
B INLET-(224)
QR=100.36
INV IN=97.13 (18")
INV OUT=97.13 (48")
78LF=18" RCP @ 0.50%
62LF= 14 x 23" HERCP @ 0.50%
B INLET-(199)
QR=101.10
INV IN=97.52 (18")
INV OUT=97.52 (18")
20LF=18" RCP @ 0.49%
B INLET-(200)
QR=100.56
INV IN=97.62 (18")
INV OUT=97.62 (18")
B INLET-(413)
QR=101.36
INV IN=96.66 (48")
INV OUT=96.66 (18")
33LF=18" RCP @ 0.49%
B INLET-(232)
QR=103.05
INV OUT=100.62 (15")
21LF=15" RCP @ 2.00%
72" MH-(382)
RIM=97.77
INV IN=92.16 (48")
INV IN=94.81 (15")
INV OUT=92.16 (48")
72" MH-(383)
RIM=96.69
INV IN=91.55 (48")
INV IN=93.01 (15")
INV OUT=91.55 (48")
B INLET-(208)
QR=96.07
INV IN=93.04 (15")
INV OUT=93.04 (15")
22LF=15" RCP @ 0.50%
B INLET-(205)
QR=96.07
INV OUT=93.15 (15")
FES-(418)
INV IN=92.00 (36")
FES-(226)
INV IN=96.50 (18")
OCS-45
QR=100.50
INV=97.08 (0.5' WIDE WEIR)
INV=98.75 (2-3' WIDE WEIRS)
INV OUT=95.74 (36")
FES-(213)
INV IN=93.62 (34" X 53")
FES-(226)
INV IN=96.50 (18")
B INLET-(413)
QR=101.36
INV IN=96.66 (48")
INV OUT=96.66 (18")
B INLET-(232)
QR=103.05
INV OUT=100.62 (15")
21LF=15" RCP @ 2.00%
STM MH-(424)
RIM=112.92
INV IN=109.20 (24")
INV IN=109.95 (15")
INV OUT=109.20 (24")
10LF=15" RCP @ 0.50%
40LF=24" RCP @ 2.37%
STM MH-(420)
RIM=118.23
INV IN=110.15 (24")
INV OUT=110.15 (24")
STM MH-(419)
RIM=118.40
INV IN=111.53 (15")
INV OUT=111.53 (15")
15LF=15" RCP @ 0.50%
OCS-(504)
RIM=118.19
INV=110.50 (1.5' WIDE WEIR)
INV OUT=110.25 (24")
B INLET-(170)
QR=117.28
INV OUT=112.55 (18")
142LF=18" RCP @ 2.12%
B INLET-(502)
QR=117.68
INV OUT=110.29 (15")
111LF=15" RCP @ 0.36%
B INLET-(278)
QR=113.90
INV OUT=110.98 (15")
113LF=15" RCP @ 0.63%
B INLET-(252)
INV OUT=105.10 (15")
6LF=15" RCP @ 1.00%
B INLET-(277)
QR=115.65
INV OUT=112.33 (15")
OCS-(505)
RIM=113.03
INV= 110.00 (8" ORIFICE)
INV OUT=110.00 (15")
B INLET-(258)
QR=113.11
INV OUT=110.05 (15")
11LF=15" RCP @ 0.50%
B INLET-(256)
QR=113.12
INV OUT=110.04 (15")
14LF=15" RCP @ 0.50%
13LF=15" RCP @ 0.50%
B INLET-(471)
QR=113.03
INV IN=108.72 (15")
INV OUT=108.72 (15")
(4 X 8 MWS)-MTD-470
RIM=113.36
INV IN=108.65 (15")
INV OUT=108.56 (15")
22LF=15" RCP @ 0.50%
STM MH-(474)
RIM=113.44
B INLET-(248)
QR=111.36
INV IN=108.31 (15")
INV OUT=108.31 (15")
45LF=15" RCP @ 0.50%
27LF=15" RCP @ 0.59%
B INLET-(249)
QR=111.45
INV OUT=108.47 (15")
E INLET-(229)
OCS-(382)
QR=100.98
INV=98.75 (1' WIDE WEIR)
INV OUT=97.00 (18")
FES-(237)
INV IN=98.81 (15")
OCS-(506)
RIM=108.54
INV=104.50 (1' WIDE WEIR)
INV OUT=104.00 (24")
45LF=24" RCP @ 2.04%
6LF=15" RCP @ 1.17%
B INLET-(254)
QR=110.13
INV OUT=105.09 (15")
B INLET-(253)
QR=111.00
INV OUT=101.86 (15")
B INLET-(263)
QR=108.43
INV OUT=102.45 (15")
B INLET-(241)
QR=108.43
INV OUT=102.45 (15")
B INLET-(243)
QR=108.43
INV OUT=102.45 (15")
B INLET-(242)
QR=108.43
INV OUT=102.45 (15")
B INLET-(260)
QR=110.85
INV OUT=107.90 (15")
B INLET-(252)
INV OUT=105.10 (15")
6LF=15" RCP @ 1.00%
B INLET-(277)
QR=115.65
INV OUT=112.33 (15")
OCS-(505)
RIM=113.03
INV= 110.00 (8" ORIFICE)
INV OUT=110.00 (15")
B INLET-(258)
QR=113.11
INV OUT=110.05 (15")
11LF=15" RCP @ 0.50%
B INLET-(256)
QR=113.12
INV OUT=110.04 (15")
B INLET-(278)
QR=113.90
INV OUT=110.98 (15")
113LF=15" RCP @ 0.63%
B INLET-(471)
QR=113.03
INV IN=108.72 (15")
INV OUT=108.72 (15")
14LF=15" RCP @ 0.50%
13LF=15" RCP @ 0.50%
(4 X 8 MWS)-MTD-470
RIM=113.36
INV IN=108.65 (15")
INV OUT=108.56 (15")
22LF=15" RCP @ 0.50%
STM MH-(474)
RIM=113.44
B INLET-(248)
QR=111.36
INV IN=108.31 (15")
INV OUT=108.31 (15")
45LF=15" RCP @ 0.50%
27LF=15" RCP @ 0.59%
B INLET-(249)
QR=111.45
INV OUT=108.47 (15")
E INLET-(229)
20LF=12" RCP @ 0.50%
B INLET-(221)
QR=107.18
INV OUT=104.28 (12")
B INLET-(219)
QR=107.18
INV IN=104.18 (12")
INV OUT=104.18 (12")
6LF=12" HDPE @ 3.00%
(4 X 4 MWS)-MTD-219
RIM=107.73
INV IN=103.92 (12")
INV OUT=103.50 (12")
DRAIN BASIN-(558)
QR=106.45
INV OUT=103.08 (12")
B INLET-(239)
QR=101.97
INV OUT=99.07 (15")
22LF=15" RCP @ 0.47%
B INLET-(240)
QR=101.97
INV IN=98.97 (15")
INV OUT=98.97 (15")
25LF=15" RCP @ 0.61%
72" MH-(380)
RIM=103.08
INV IN=93.51 (42")
INV IN=95.94 (18")
INV OUT=93.01 (48")
53LF=18" RCP @ 2.00%
(4 X 4 MWS)-MTD-235
RIM=102.48
INV IN=97.41 (15")
INV OUT=93.81 (15")
10LF=15" RCP @ 7.01%
OCS-(480)
RIM=100.39
INV=93.18 (10" ORIFICE)
INV OUT=93.10 (15")
20LF=15" RCP @ 0.85%
72" MH-(481)
RIM=100.42
INV IN=92.70 (48")
INV IN=92.93 (15")
INV OUT=92.70 (48")
B INLET-(215)
QR=100.76
INV OUT=97.44 (15")
B INLET-(214)
QR=100.26
INV IN=97.34 (15")
INV OUT=97.34 (15")
46LF=15" RCP @ 1.50%
70LF=15" RCP @ 0.82%
B INLET-(235)
QR=101.07
INV IN=97.98 (15")
INV OUT=97.98 (15")
22LF=15" RCP @ 0.50%
20LF=15" RCP @ 0.50%
B INLET-(236)
QR=101.07
INV OUT=98.09 (15")
19LF=15" RCP @ 1.60%
(8 X 8 MWS)-MTD-214
RIM=100.5
INV IN=97.03 (15")
INV OUT=96.36 (15")
54LF=15" RCP @ 1.60%
OCS-(521)
RIM=98.92
INV=96.00 (0.75' WIDE WEIR)
INV OUT=95.95 (15")
OCS-(523)
RIM=102.91
INV=99.00 (1' WIDE WEIR)
INV OUT=98.50 (18")
A INLET-(432)
QR=102.97
99LF=18" RCP @ 1.28%
39LF=15" RCP @ 7.78%
OCS-(522)
RIM=102.71
INV=102.00 (1' WIDE WEIR)
INV OUT=101.50 (15")
8LF=15" RCP @ 0.50%
A INLET-(431)
QR=100.9
INV OUT=98.54 (15")
6LF=12" HDPE @ 0.50%
DRAIN BASIN-(552)
QR=106.56
INV OUT=103.08 (12")
6LF=12" HDPE @ 0.50%
DRAIN BASIN-(554)
QR=106.46
INV OUT=103.08 (12")
6LF=12" HDPE @ 0.50%
DRAIN BASIN-(556)
QR=106.49
INV OUT=103.08 (12")
DRAIN BASIN-(558)
QR=106.45
INV OUT=103.08 (12")
B INLET-(219)
QR=107.18
INV IN=104.18 (12")
INV OUT=104.18 (12")
6LF=12" HDPE @ 3.00%
(4 X 4 MWS)-MTD-219
RIM=107.73
INV IN=103.92 (12")
INV OUT=103.50 (12")
B INLET-(221)
QR=107.18
INV OUT=104.28 (12")
20LF=12" RCP @ 0.50%
E INLET-(225)
B INLET-(225)
QR=100.20
INV IN=96.97 (48")
INV OUT=96.97 (48")
32LF= 14 x 23" HERCP @ 0.50%
B INLET-(224)
QR=100.36
INV IN=97.13 (18")
INV OUT=97.13 (48")
78LF=18" RCP @ 0.50%
62LF= 14 x 23" HERCP @ 0.50%
B INLET-(199)
QR=101.10
INV IN=97.52 (18")
INV OUT=97.52 (18")
20LF=18" RCP @ 0.49%
B INLET-(200)
QR=100.56
INV IN=97.62 (18")
INV OUT=97.62 (18")
B INLET-(413)
QR=101.36
INV IN=96.66 (48")
INV OUT=96.66 (18")
33LF=18" RCP @ 0.49%
B INLET-(232)
QR=103.05
INV OUT=100.62 (15")
21LF=15" RCP @ 2.00%
STM MH-(424)
RIM=112.92
INV IN=109.20 (24")
INV IN=109.95 (15")
INV OUT=109.20 (24")
10LF=15" RCP @ 0.50%
40LF=24" RCP @ 2.37%
STM MH-(420)
RIM=118.23
INV IN=110.15 (24")
INV OUT=110.15 (24")
STM MH-(419)
RIM=118.40
INV IN=111.53 (15")
INV OUT=111.53 (15")
15LF=15" RCP @ 0.50%
OCS-(504)
RIM=118.19
INV=110.50 (1.5' WIDE WEIR)
INV OUT=110.25 (24")
B INLET-(170)
QR=117.28
INV OUT=112.55 (18")
142LF=18" RCP @ 2.12%
B INLET-(502)
QR=117.68
INV OUT=110.29 (15")
111LF=15" RCP @ 0.36%
B INLET-(278)
QR=113.90
INV OUT=110.98 (15")
113LF=15" RCP @ 0.63%
B INLET-(252)
INV OUT=105.10 (15")
6LF=15" RCP @ 1.00%
B INLET-(277)
QR=115.65
INV OUT=112.33 (15")
OCS-(505)
RIM=113.03
INV= 110.00 (8" ORIFICE)
INV OUT=110.00 (15")
B INLET-(258)
QR=113.11
INV OUT=110.05 (15")
11LF=15" RCP @ 0.50%
B INLET-(256)
QR=113.12
INV OUT=110.04 (15")
14LF=15" RCP @ 0.50%
13LF=15" RCP @ 0.50%
B INLET-(471)
QR=113.03
INV IN=108.72 (15")
INV OUT=108.72 (15")
(4 X 8 MWS)-MTD-470
RIM=113.36
INV IN=108.65 (15")
INV OUT=108.56 (15")
22LF=15" RCP @ 0.50%
STM MH-(474)
RIM=113.44
B INLET-(248)
QR=111.36
INV IN=108.31 (15")
INV OUT=108.31 (15")
45LF=15" RCP @ 0.50%
27LF=15" RCP @ 0.59%
B INLET-(249)
QR=111.45
INV OUT=108.47 (15")
E INLET-(229)
20LF=12" RCP @ 0.50%
B INLET-(221)
QR=107.18
INV OUT=104.28 (12")
B INLET-(219)
QR=107.18
INV IN=104.18 (12")
INV OUT=104.18 (12")
6LF=12" HDPE @ 3.00%
(4 X 4 MWS)-MTD-219
RIM=107.73
INV IN=103.92 (12")
INV OUT=103.50 (12")
DRAIN BASIN-(558)
QR=106.45
INV OUT=103.08 (12")

PAVEMENT LEGEND

POROUS PAVEMENT

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

SHEET KEY MAP

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
6	REV PER DRC #2 MEMOS	05/23/25		
5	REV. PER DRC#1 MEMOS	4/18/25		
4	REV. COMPLETENESS SUBMISSION	1/16/25		
3	REV. PER PERMIT RESUBMISSION	11/8/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com Certificate of Authorization
www.pennoni.com No. 24GA28033300

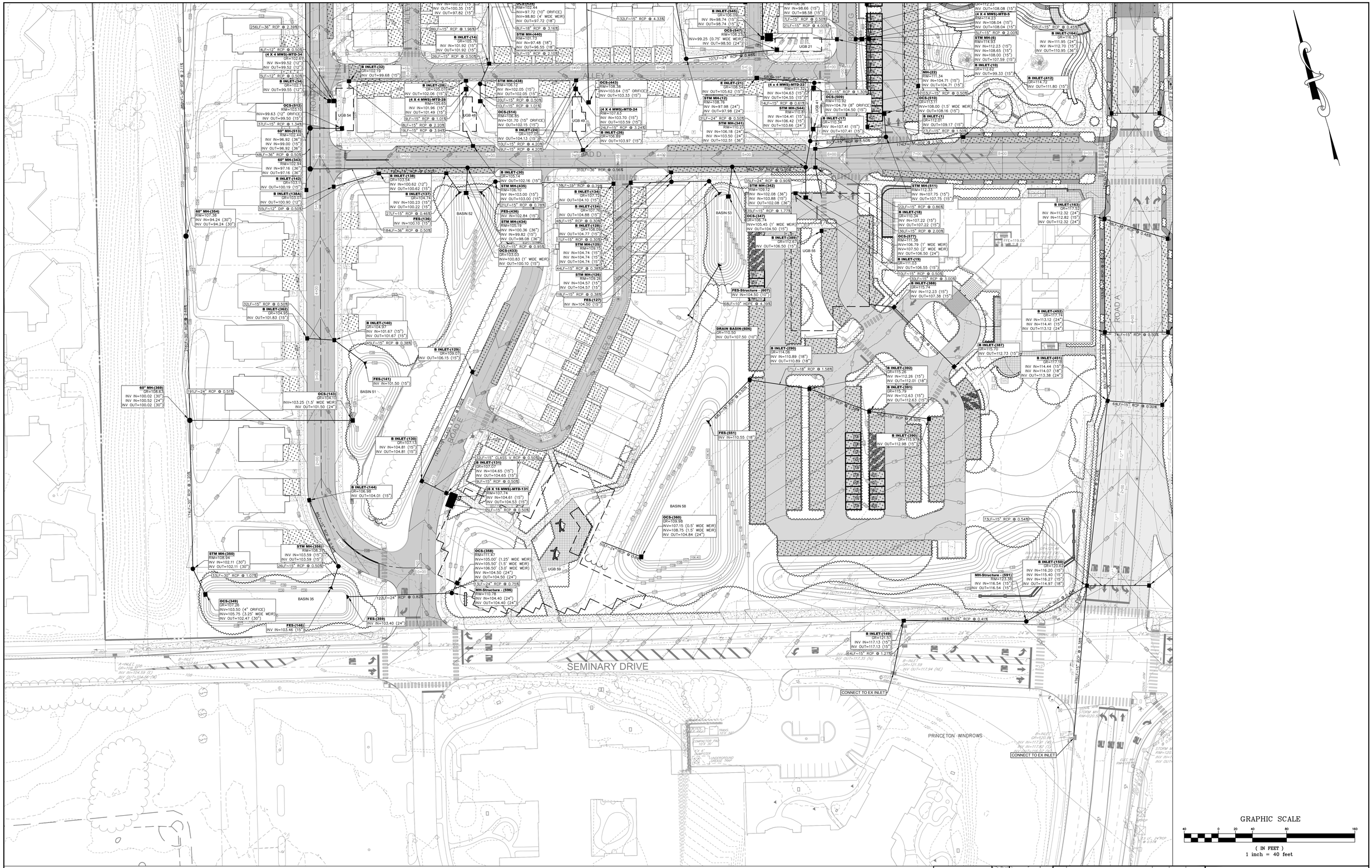
SITE DRAINAGE PLAN – 2
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE 1"= 40'
MIDDLESEX CO., N.J.
JUNE 14, 2024

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350
6/14/24
DATE OF SIGN.

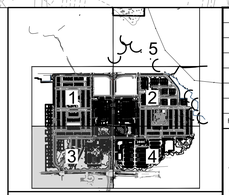
DRAWN BY	WDV	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE	6/14/24				
CHECKED BY	CG	PAGE	WRNUL23001	36 OF 100	CS1602
DATE	6/14/24				

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS1601–1604.DWG



PAVEMENT LEGEND

POROUS PAVEMENT



SHEET KEY MAP

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
6	REV PER DRC #2 MEMOS	05/23/25		
5	REV. PER DRC#1 MEMOS	4/18/25		
4	REV. COMPLETENESS SUBMISSION	1/16/25		
3	REV. PER PERMIT RESUBMISSION	11/8/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

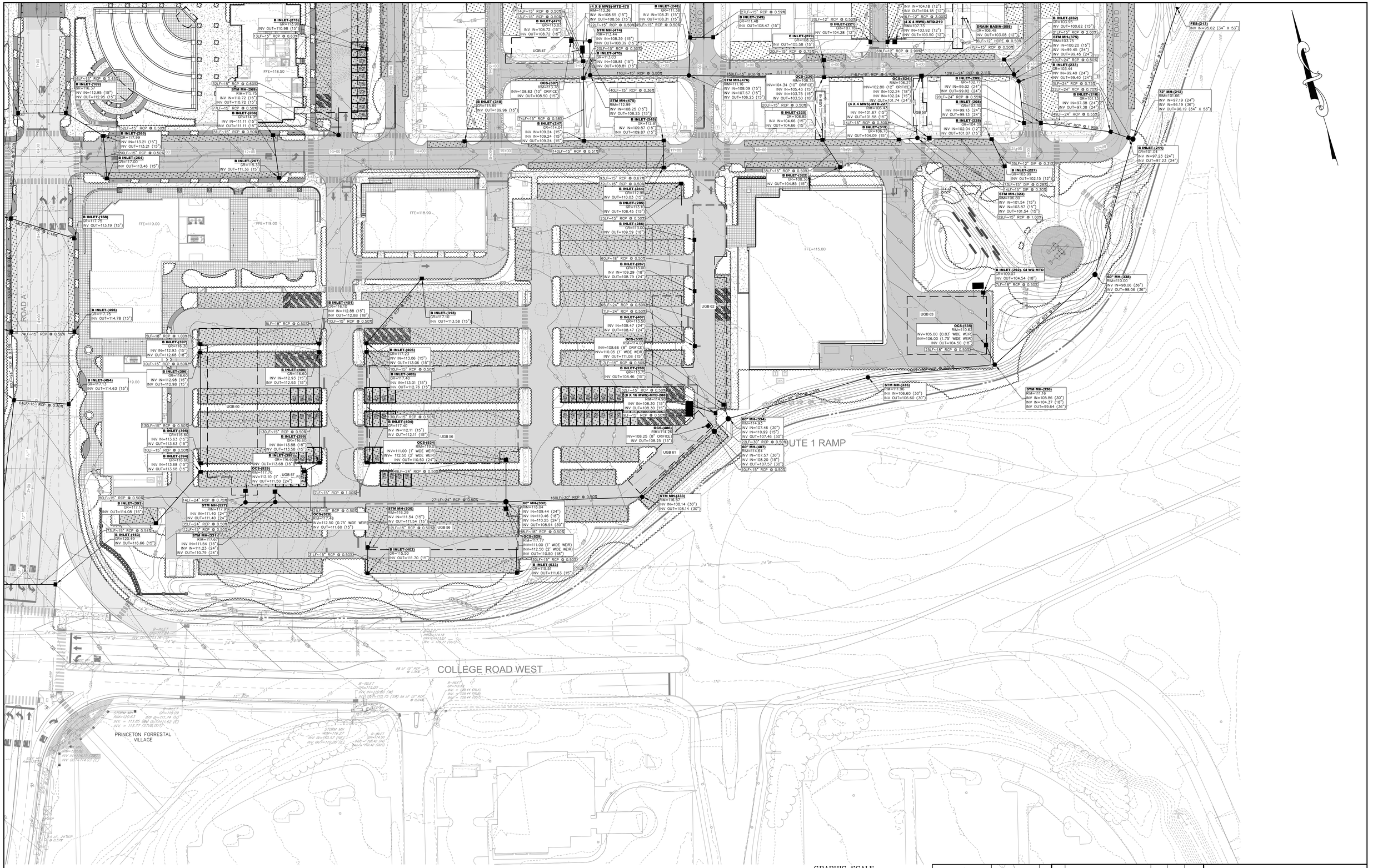
CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

SITE DRAINAGE PLAN – 3
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN
PLAINSBORO TOWNSHIP
MIDDLESEX CO., N.J.
SCALE 1"= 40'
JUNE 14, 2024

DRAWN BY MDV	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE 6/14/24		WRNUL23001	37 OF 100	CS1603
CHECKED BY CG	PAGE			
DATE 6/14/24				

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS1601-1604.DWG



REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
6	REV PER DRC #2 MEMOS	05/23/25		
5	REV. PER DRC#1 MEMOS	4/18/25		
4	REV. COMPLETENESS SUBMISSION	1/16/25		
3	REV. PER PERMIT RESUBMISSION	11/8/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

SITE DRAINAGE PLAN – 4
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE 1"= 40'
MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY	WDV	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE	6/14/24				
CHECKED BY	CG	PAGE	WRNUL23001	38 OF 100	CS1604
DATE	6/14/24				

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS1601–1604.DWG



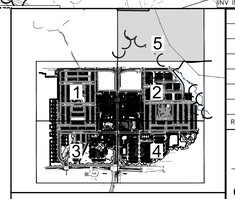
PAVEMENT LEGEND

POROUS PAVEMENT

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet



SHEET KEY MAP

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
6	REV PER DRC #2 MEMOS	05/23/25		
5	REV. PER DRC#1 MEMOS	4/18/25		
4	REV. COMPLETENESS SUBMISSION	1/16/25		
3	REV. PER PERMIT RESUBMISSION	11/8/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

SITE DRAINAGE PLAN – 5
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE 1"= 40'

MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY WDV DATE 6/14/24	FIELD BK	ORDER No.	PAGE No.	SHEET No.
CHECKED BY CG DATE 6/14/24	PAGE	WRNUL23001	39 OF 100	CS1605

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS1601-1604.DWG

SITE UTILITY PLAN - 1
(SEE SHEET CS1701)

SITE UTILITY PLAN - 2
(SEE SHEET CS1702)

SITE UTILITY PLAN - 3
(SEE SHEET CS1703)

SITE UTILITY PLAN - 4
(SEE SHEET CS1704)

1

2

3

4

BARCLAY BOULEVARD

PRIVATE DRIVE

EVERGREEN DRIVE

SEMINARY DRIVE

COLLEGE ROAD WEST

ROUTE 1 RAMP

SOUTH BRUNSWICK TOWNSHIP

PLAINSBORO TOWNSHIP

PRINCETON WINDROWS

PRINCETON FORRESTAL VILLAGE

GRAPHIC SCALE

80 0 40 80 160 320

(IN FEET)
1 inch = 80 feet

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
7	REV. WATER/SEWER COMMENTS	7/28/25		
6	REV. COMPLETENESS SUBMISSION	7/16/25		
5	REV. PER CLIENT COMMENTS	12/13/24		
4	REV. FOR PERMIT RESUBMISSION	11/8/24		
3	WATER EASEMENT UPDATE	10/23/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

9 REV. PER DRC#2 MEMOS 5/23/25
8 REV. PER DRC#1 MEMOS 4/18/25

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

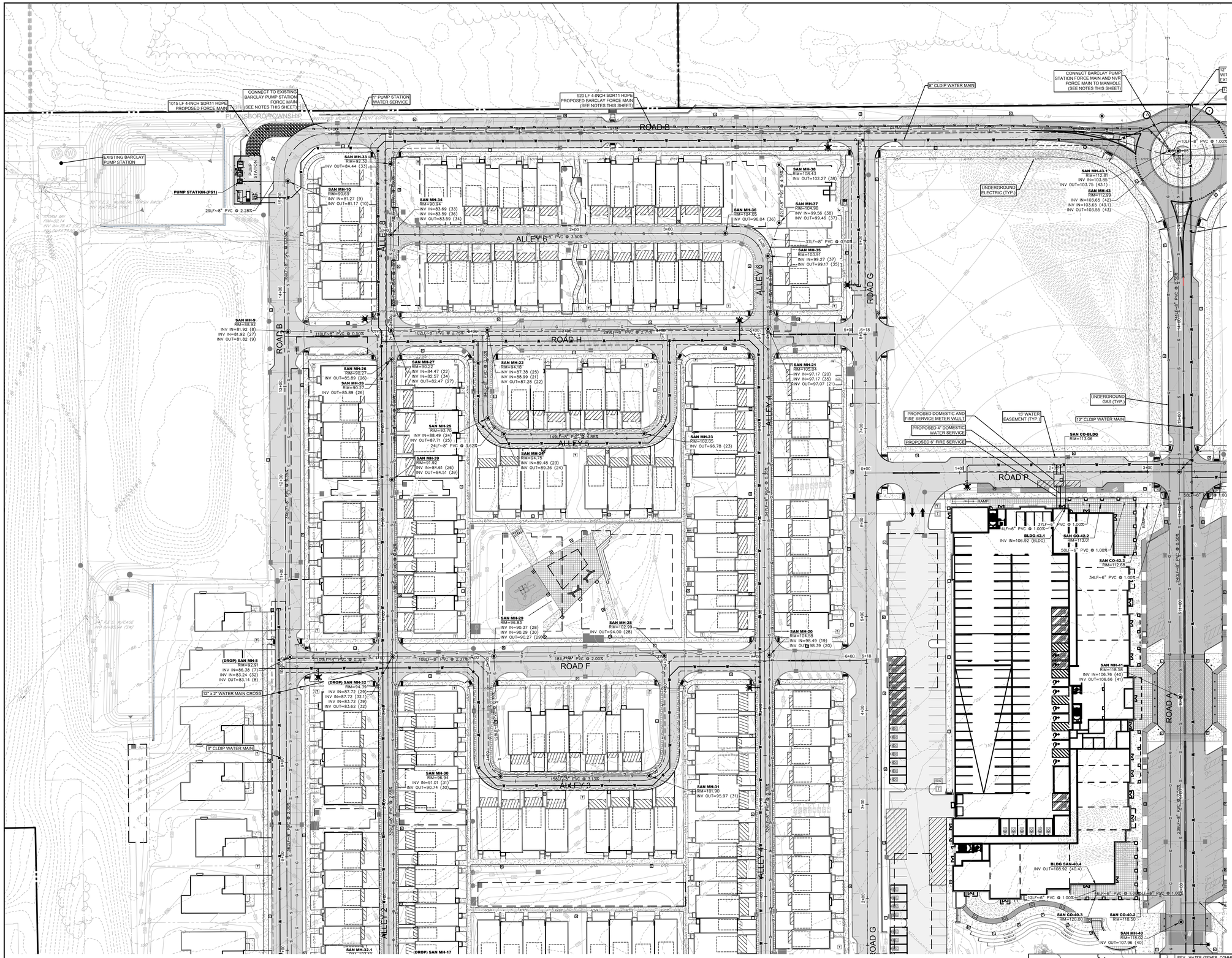
OVERALL SITE UTILITY PLAN
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE 1" = 80'

MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY	FIELD BK	ORDER No.	PAGE No.	SHEET No.
MDV DATE 6/14/24		WRNUL23001	40 OF 100	CS1700
CHECKED BY CG DATE 6/14/24	PAGE			

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS1700.DWG



BARCLAY PUMP STATION FORCE MAIN CONSTRUCTION SEQUENCE:

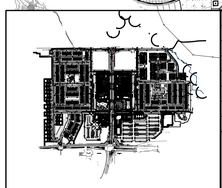
1. PERFORM SOFTDIG TO SHOW HORIZONTAL AND VERTICAL FORCE MAIN LOCATION.
2. PERFORM ROUGH GRADING FOR ROAD B.
3. SUPPORT AND PROTECT FORCE MAIN WHEN GRADING EXPOSES THE PIPE.
4. CONSTRUCT NEW BARCLAY PUMP STATION FORCE MAIN STARTING AT SAN. M.H. 43.1 TO THE EXISTING FORCE MAIN CONNECTION POINT.
5. PERFORM PRESSURE TEST ON FORCE MAIN.
6. CONSTRUCT GRAVITY MAIN FROM SAN. M.H. 43.1 EASTERLY AND CONNECT TO SAN. M.H. 49.1
7. SHUT DOWN THE BARCLAY PUMP STATION DURING NON PEAK HOURS AND MAKE NEW FORCE MAIN CONNECTION TO THE EXISTING FORCE MAIN.
8. REMOVE EXISTING BARCLAY PUMP STATION FORCEMAIN.

UTILITY NOTE:
ALL OF THE SANITARY SEWER FACILITIES WILL REMAIN PRIVATELY OWNED AND MAINTAINED.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet



SHEET KEY MAP

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
9	REV. PER DRC#2 MEMOS	5/23/25		
8	REV. PER DRC#1 MEMOS	4/18/25		
7	REV. WATER/SEWER COMMENTS	1/28/25		
6	REV. COMPLETENESS SUBMISSION	1/16/25		
5	REV. PER CLIENT COMMENTS	12/13/24		
4	REV. FOR PERMIT RESUBMISSION	11/8/24		
3	WATER EASEMENT UPDATE	10/23/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350
6/14/24
DATE OF SIGN.

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

SITE UTILITY PLAN – 1
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN
PLAINSBORO TOWNSHIP MIDDLESEX CO., N.J.
SCALE 1" = 40' JUNE 14, 2024

DRAWN BY	CHECKED BY	DATE	FIELD BK	PAGE	ORDER No.	PAGE No.	SHEET No.
WDV	CG	6/14/24			WRNUL23001	41 OF 100	CS1701

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS1701-1704.DWG

UTILITY NOTE:
ALL OF THE SANITARY SEWER FACILITIES WILL REMAIN PRIVATELY OWNED AND MAINTAINED.

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

SHEET KEY MAP

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
7	REV. WATER/SEWER COMMENTS	7/28/25		
6	REV. COMPLETENESS SUBMISSION	7/16/25		
5	REV. PER CLIENT COMMENTS	12/13/24		
4	REV. FOR PERMIT RESUBMISSION	11/8/24		
3	WATER EASEMENT UPDATE	10/23/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		
9	REV. PER DRC#2 MEMOS	5/23/25		
8	REV. PER DRC#1 MEMOS	4/18/25		

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com Certificate of Authorization
www.pennoni.com No. 24GA28033300

SITE UTILITY PLAN – 2
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE 1"= 40'

MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY WDV
DATE 6/14/24
CHECKED BY CG
DATE 6/14/24
FIELD BK
PAGE
ORDER No. WRNUL23001
PAGE No. 42 OF 100
SHEET No. CS1702

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS1701–1704.DWG

SAN MH-32.1
RIM=103.10
INV OUT=96.43 (32.1)

(DROP) SAN MH-17
RIM=103.55
INV IN=97.57 (16)
INV OUT=95.89 (17)

SAN MH-19
RIM=106.90
INV OUT=99.63 (19)

SAN MH-40
RIM=118.02
INV OUT=107.96 (40)

SAN MH-7
RIM=101.94
INV IN=93.71 (4)
INV IN=93.71 (13)
INV OUT=93.61 (7)

ALLEY 1

229LF~8" PVC @ 0.74%

84LF~8" PVC @ 2.19%

SAN MH-16
RIM=107.63
INV IN=100.91 (15)
INV OUT=100.81 (16)

SAN MH-15
RIM=108.59
INV OUT=100.75 (15)

SAN MH-3
RIM=107.50
INV IN=99.13 (2)
INV IN=99.13 (14)
INV OUT=99.03 (3)

ROAD B

ROAD D

ROAD G

8" CLDIP WATER MAIN

UNDERGROUND GAS (TYP.)

344LF~8" PVC @ 1.00%

269LF~8" PVC @ 1.00%

265LF~6" PVC @ 2.42%

22LF~6" PVC @ 1.00%

19LF~6" PVC @ 1.00%

SAN MH-4
RIM=103.03
INV IN=95.59 (3)
INV IN=95.59 (5)
INV OUT=95.49 (4)

(DROP) SAN MH-2
RIM=111.08
INV IN=104.62 (1)

SAN CO-1.1 (2)
RIM=108.17
INV IN=107.65 ()
INV OUT=107.65 (1.1)

UNDERGROUND ELECTRIC (TYP.)

SAN MH-1
RIM=117.46
INV OUT=111.04 (1)

12" CLDIP WATERMAIN

SAN MH-14
RIM=111.69
INV IN=101.81 (138)
INV OUT=99.92 (14)

12LF~6" PVC @ 1.00%

SAN CO-50.2
RIM=118.42

ROAD A

PROPOSED 4" DOMESTIC WATER SERVICE

PROPOSED 6" FIRE SERVICE

ALLEY 2

SAN MH-12
RIM=108.66
INV OUT=103.38 (12)

ROAD E

354LF~8" PVC @ 2.00%

MH-13B
RIM=109.83
INV IN=102.53 (13)
INV OUT=102.43 (138)

17LF~8" PVC @ 1.00%

CONNECT TO EXISTING 12" MAIN WITH WET TAP AND VALVE

(DROP) SAN MH-5
RIM=107.14
INV IN=101.73 (6)
INV OUT=99.63 (5)

SAN MH-13
RIM=109.53
INV IN=102.80 (12)
INV OUT=102.70 (13)

SAN MH-50
RIM=118.58
INV OUT=112.22 (50)

SAN MH-6
RIM=107.82
INV OUT=102.38 (6)

12" WET TAP

SEMINARY DRIVE

CONNECT TO EX INLET

EVERGREEN DRIVE (PRIVATE)

PRINCETON WINDROWS

CONNECT TO EX INLET

UTILITY NOTE:
ALL OF THE SANITARY SEWER FACILITIES WILL REMAIN PRIVATELY OWNED AND MAINTAINED.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet

SHEET KEY MAP

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
9	REV. PER DRC#2 MEMOS	5/23/25		
8	REV. PER DRC#1 MEMOS	4/18/25		
7	REV. WATER/SEWER COMMENTS	1/28/25		
6	REV. COMPLETENESS SUBMISSION	1/16/25		
5	REV. PER CLIENT COMMENTS	12/13/24		
4	REV. FOR PERMIT RESUBMISSION	11/8/24		
3	WATER EASEMENT UPDATE	10/23/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

SITE UTILITY PLAN – 3
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE 1"= 40'
MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY	WDV	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE 6/14/24			WRNUL23001	43 OF 100	CS1703
CHECKED BY	CG	PAGE			
DATE 6/14/24					

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS1701-1704.DWG

ROAD A

ROAD C

ROAD D

ALLEY 12

COLLEGE ROAD WEST

ROUTE 1 RAMP

PRINCETON FORRESTAL VILLAGE

PROPOSED DOMESTIC AND FIRE SERVICE METER VAULT

PROPOSED 6" FIRE SERVICE

PROPOSED 4" DOMESTIC WATER SERVICE

UNDERGROUND ELECTRIC (TYP.)

8" CLDIP WATER MAIN

15' WATER EASEMENT (TYP.)

UNDERGROUND GA

SAN MH-51 RIM=117.58 INV IN=108.51 (50) INV OUT=108.51 (51)

SAN CO-50.1 RIM=118.17

SAN CO-79 RIM=116.38

SAN CO-231 RIM=117.79

SAN MH-52 RIM=116.16 INV IN=106.62 (51) INV OUT=106.52 (52)

SAN CO-232 RIM=118.00

SAN MH-53 RIM=112.38 INV IN=104.52 (52) INV OUT=104.42 (53)

SAN MH-54 RIM=107.13 INV IN=101.93 (53) INV OUT=101.83 (54)

SAN MH-55 RIM=103.02 INV IN=97.83 (54) INV OUT=97.73 (55)

SAN MH-63 RIM=107.35 INV OUT=101.28 (63)

SAN MH-69 RIM=115.68 INV OUT=111.46 (69)

SAN CO-199 RIM=112.54

SAN CO-81 RIM=111.83

CO-Structure - (235) RIM=103.30

40LF~6" PVC @ 1.00%
16LF~4" PVC @ 1.00%
24LF~4" PVC @ 1.00%
50LF~4" PVC @ 1.00%
377LF~8" PVC @ 0.50%
40LF~8" PVC @ 0.50%
219LF~8" PVC @ 1.15%
174LF~6" PVC @ 2.34%
45LF~4" PVC @ 1.00%
75LF~4" PVC @ 1.00%
73LF~4" PVC @ 1.00%
13LF~4" PVC @ 1.00%
51LF~4" PVC @ 1.00%
27LF~4" PVC @ 1.00%
32LF~4" PVC @ 1.00%
34LF~4" PVC @ 1.00%
140LF~6" PVC @ 1.00%
6LF~6" PVC @ 1.00%
98 LF 15" RCP @ 1.36%
STORM MH RIM=120.63 INV IN=111.62 (TC) INV = 113.77 (12.0S,6E,12W)
B-INLET GRATE=120.84 CURB TOP=120.34 INV = 115.99 (IN 8") INV = 114.74 (IN 24") INV = 112.49 (OUT)
STORM MH RIM=120.96 INV = 114.01 (IN 18" FUTURE) INV = 114.31 (IN 24") INV = 114.31 (OUT)
B-INLET GRATE=118.09 INV = 111.24 (OUT)
B-INLET GRATE=115.00 CURB TOP=112.65 (N) INV = 109.75 (SW) 54 LF 15" RCP @ 1.00%
B-INLET GRATE=114.27 INV IN=110.57 (NE) INV OUT=110.35 (S)
B-INLET GRATE=114.59 INV = 109.44 (OUT)
B-INLET GRATE=113.58 INV. = 109.44 (OUT)
B-INLET GRATE=114.50 INV. = 109.44 (OUT)
B-INLET GRATE=114.18 INV. = 110.27 (OUT)
B-INLET GRATE=114.18 (24.0"X13.5") INV. = 110.27 (OUT)
B-INLET GRATE=114.18 (24.0"X13.5") INV. = 110.27 (OUT)
B-INLET GRATE=114.18

SITE SOIL EROSION AND SEDIMENT CONTROL PLAN - 1
(SEE SHEET CS1801)

SITE SOIL EROSION AND SEDIMENT CONTROL PLAN - 2
(SEE SHEET CS1802)

SITE SOIL EROSION AND SEDIMENT CONTROL PLAN - 5
(SEE SHEET CS1805)

SITE SOIL EROSION AND SEDIMENT CONTROL PLAN - 3
(SEE SHEET CS1803)

SITE SOIL EROSION AND SEDIMENT CONTROL PLAN - 4
(SEE SHEET CS1804)

WogA
HbmB
NknB
NkrA
NknA
NkrB
HboA
FavAr

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 feet

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
7	REV. PER DRC#2 MEMOS	5/23/25		
6	REV. PER DRC#1 MEMOS	4/18/25		
5	REV. COMPLETENESS SUBMISSION	1/16/25		
4	REV. PER CLIENT COMMENTS	12/13/24		
3	REV. FOR PERMIT RESUBMISSION	11/8/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

OVERALL SOIL EROSION AND SEDIMENT CONTROL PLAN OF THE PRINCETON NURSERIES

PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN
PLAINSBORO TOWNSHIP — MIDDLESEX CO., N.J.
SCALE 1"=100' — JUNE 14, 2024

DRAWN BY	FIELD BK	ORDER No.	PAGE No.	SHEET No.
WDV				
DATE 6/14/24		WRNUL23001	45 OF 100	CS1800
CHECKED BY CG	PAGE			
DATE 6/14/24				

U:\ACCOUNTS\WRNUL\WRNUL23001 - WRV PRINCETON NURSERIES - PLAINSBORO\DESIGN_SHEETS\CS1800.DWG

ROAD B
ROAD C
ROAD F
ROAD G
ROAD H
ROAD P
ROAD A
ALLEY 2
ALLEY 3
ALLEY 4
ALLEY 5
ALLEY 6
PHASE 1
PHASE 3
PROPOSED ROAD A
LIMIT OF DISTURBANCE
PHASE 1 BOUNDARY LINE
PHASE 3 BOUNDARY LINE
PHASE 3 STONE CONSTRUCTION ENTRANCE
CONCURRENT WITH ALL PHASES
TOPSOIL STOCK PILE
SB LINE
BASIN 1
BASIN 12
(DROP) SAN MH-8
(DROP) SAN MH-32
(DROP) SAN MH-33
PUMP STATION
INLET FILTER BAG (TYP.)
SUPER SILT FENCE (TYP.)
HIGH GRASS BERM AREA
WOODED AREA
RAMP
SAN MH-1
SAN MH-2
SAN MH-3
SAN MH-4
SAN MH-5
SAN MH-6
SAN MH-7
SAN MH-8
SAN MH-9
SAN MH-10
SAN MH-11
SAN MH-12
SAN MH-13
SAN MH-14
SAN MH-15
SAN MH-16
SAN MH-17
SAN MH-18
SAN MH-19
SAN MH-20
SAN

EROSION CONTROL PLAN LEGEND:

PHASE LINE

INLET PROTECTION FILTER BAG

LIMIT OF DISTURBANCE

SOIL STOCKPILE

SCOUR HOLE

SUPER SILT FENCE

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet

CONCURRENT WITH ALL PHASES

CONCURRENT WITH ALL PHASES

SHEET KEY MAP

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
7	REV. PER DRC#1 MEMOS	4/18/25		
6	REV. PER SCD REVIEW	2/24/25		
5	REV. COMPLETENESS SUBMISSION	1/16/25		
4	REV. PER CLIENT COMMENTS	12/13/24		
3	REV. FOR PERMIT RESUBMISSION	11/8/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		
8	REV. PER DRC#2 MEMOS	5/23/25		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization
No. 24GA28033300

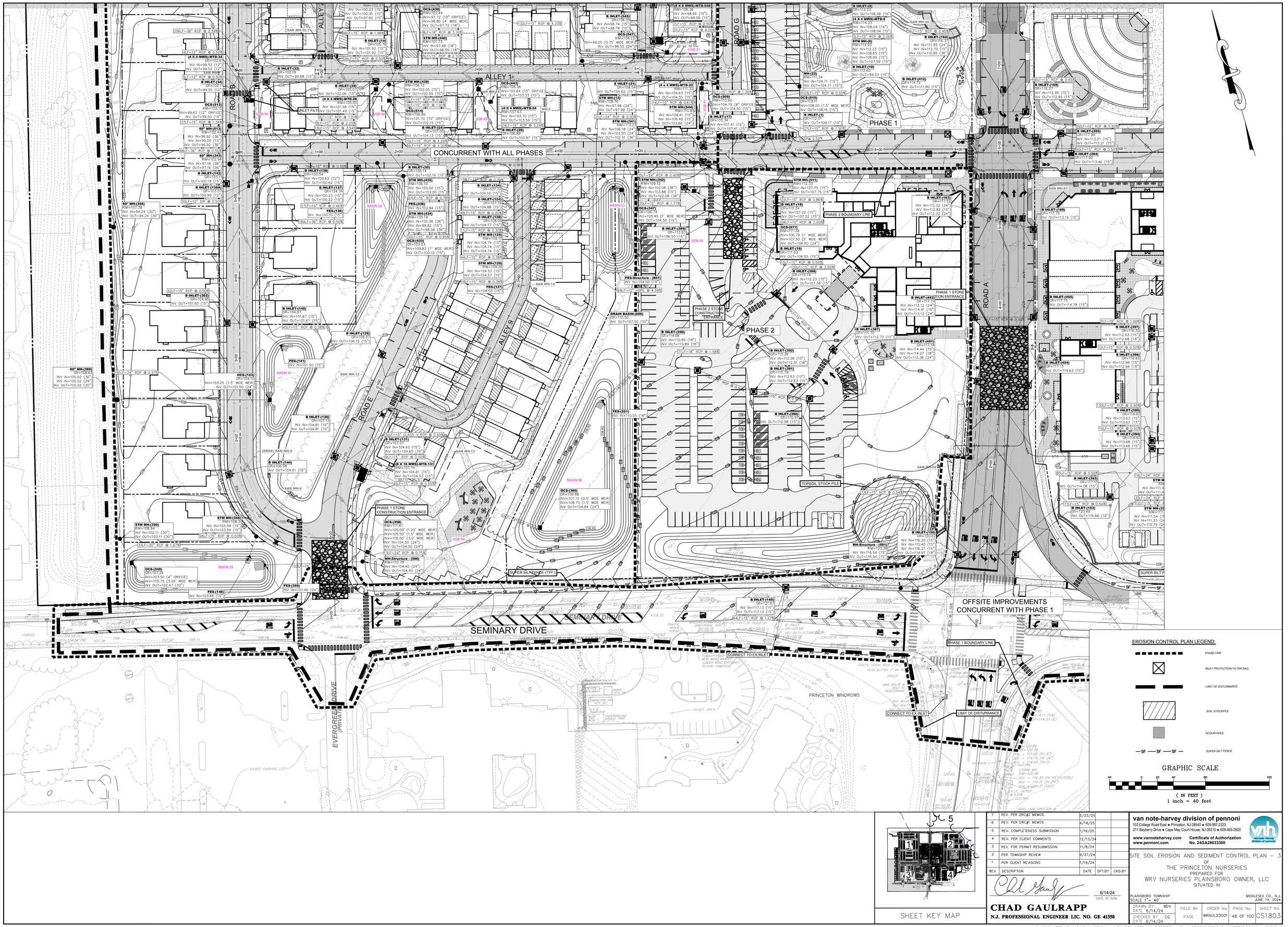
SITE SOIL EROSION AND SEDIMENT CONTROL PLAN – 2
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

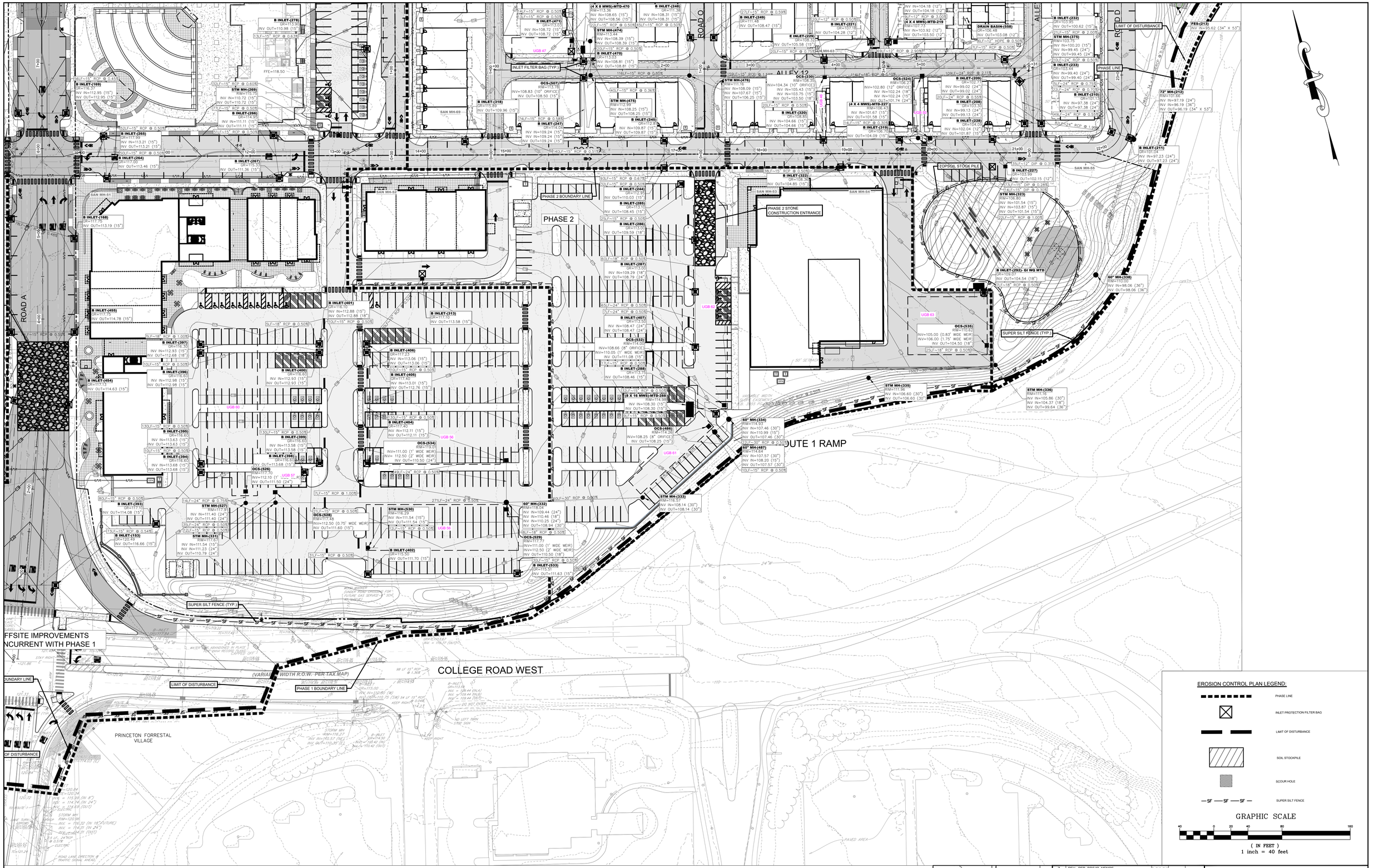
PLAINSBORO TOWNSHIP
SCALE 1"= 40'

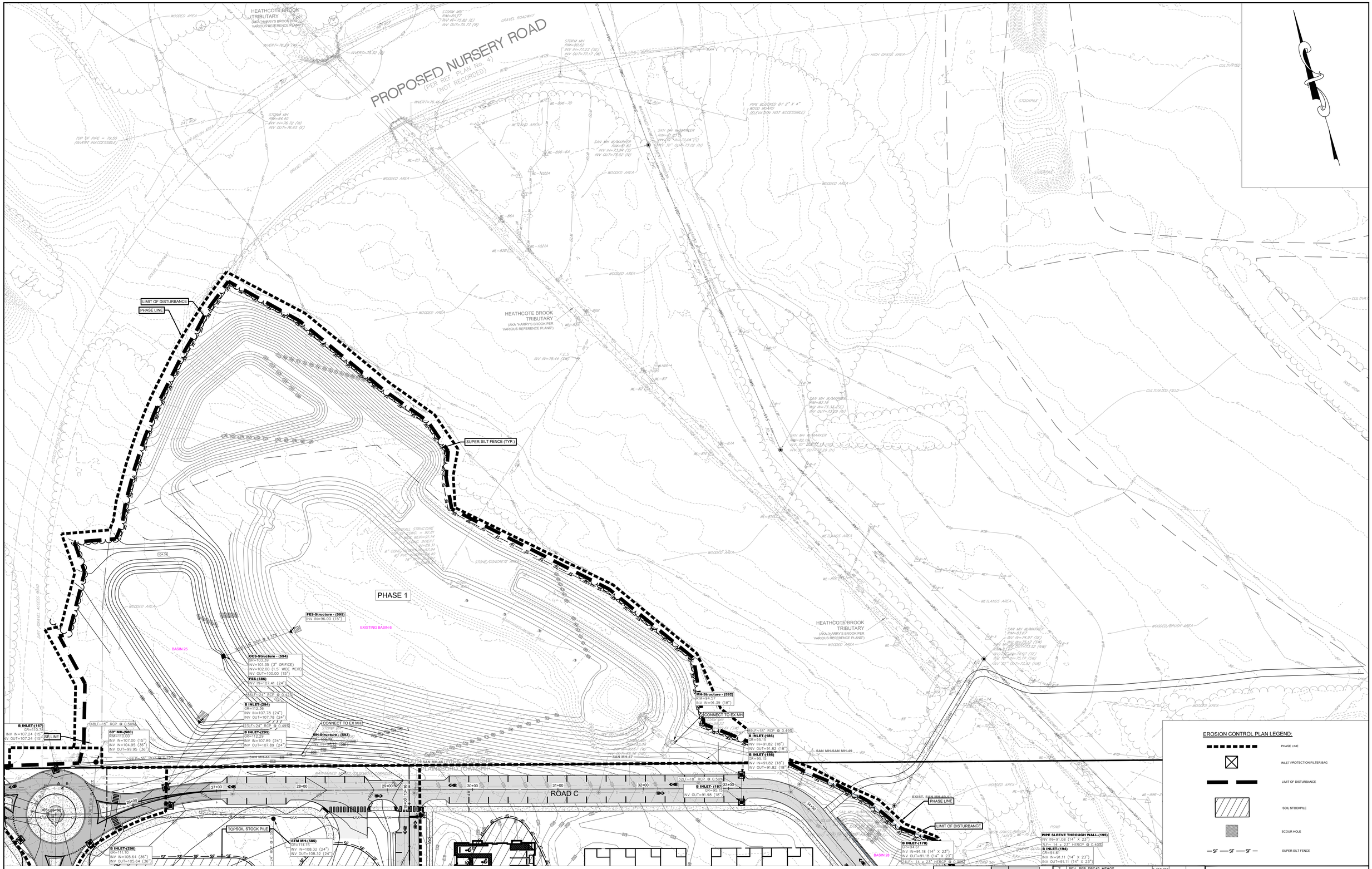
MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY	CHECKED BY	FIELD BK	ORDER No.	PAGE No.	SHEET No.
WDV	CG		WRNUL23001	47 OF 100	CS1802
DATE 6/14/24	DATE 6/14/24	PAGE			

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS1801–1805.DWG


CONCURRENT WITH ALL PHASES
PHASE 1
PHASE 2
PHASE 2 BOUNDARY LINE
PHASE 1 BOUNDARY LINE
PHASE 1 STONE CONSTRUCTION ENTRANCE
PHASE 2 STONE CONSTRUCTION ENTRANCE
ALLEY 1
ALLEY 9
ROAD A
ROAD B
ROAD E
ROAD G
SEMINARY DRIVE
EVERGREEN DRIVE (PRIVATE)
PRINCETON WINDROWS
OFFSITE IMPROVEMENTS CONCURRENT WITH PHASE 1
TOPSOIL STOCK PILE
SUPER SILT FENCE (TYP.)
CONNECT TO EX INLET
LIMIT OF DISTURBANCE
PAVED PARKING LOT
PAVED AREA
BASIN 51
BASIN 52
BASIN 53
BASIN 58
BASIN 35
UGB 54
UGB 55
UGB 56
UGB 57
UGB 58
UGB 59
UGB 60
UGB 61
UGB 62
UGB 63
UGB 64
UGB 65
UGB 66
UGB 67
UGB 68
UGB 69
UGB 70
UGB 71
UGB 72
UGB 73
UGB


ROAD A
ROAD O
ALLEY 12
ROAD D
PHASE 2
PHASE 2 BOUNDARY LINE
PHASE 2 STONE CONSTRUCTION ENTRANCE
PHASE LINE
LIMIT OF DISTURBANCE
INLET FILTER BAG (TYP.)
SUPER SILT FENCE (TYP.)
TOPSOIL STOCK PILE
ROUTE 1 RAMP
COLLEGE ROAD WEST
(VARIABLE WIDTH R.O.W. PER TAX MAP)
PRINCETON FORRESTAL VILLAGE
OFFSITE IMPROVEMENTS CONCURRENT WITH PHASE 1
PHASE 1 BOUNDARY LINE
B INLET-(278)
B INLET-(169)
B INLET-(265)
B INLET-(264)
B INLET-(267)
B INLET-(168)
B INLET-(455)
B INLET-(454)
B INLET-(397)
B INLET-(396)
B INLET-(395)
B INLET-(394)
B INLET-(393)
B INLET-(153)
B INLET-(318)
B INLET-(247)
B INLET-(471)
B INLET-(470)
B INLET-(248)
B INLET-(249)
B INLET-(221)
B INLET-(229)
B INLET-(320)
B INLET-(245)
B INLET-(244)
B INLET-(285)
B INLET-(286)
B INLET-(287)
B INLET-(407)
B INLET-(288)
B INLET-(313)
B INLET-(401)
B INLET-(400)
B INLET-(406)
B INLET-(405)
B INLET-(404)
B INLET-(399)
B INLET-(398)
B INLET-(402)
B INLET-(533)
B INLET-(232)
B INLET-(233)
B INLET-(210)
B INLET-(208)
B INLET-(209)
B INLET-(228)
B INLET-(319)
B INLET-(322)
B INLET-(227)
B INLET-(211)
B INLET-(292)- GI WQ MTD
STM MH-(269)
STM MH-(266)
STM MH-(267)
STM MH-(527)
STM MH-(331)
STM MH-(474)
STM MH-(470)
STM MH-(471)
STM MH-(476)
STM MH-(475)
STM MH-(530)
STM MH-(333)
STM MH-(335)
STM MH-(336)
STM MH-(323)
STM MH-(375)
72" MH-(212)
60" MH-(332)
60" MH-(334)
60" MH-(338)
60" MH-(487)
(4 X 8 MWS)-MTD-470
(8 X 16 MWS)-MTD-282
(4 X 4 MWS)-MTD-219
(4 X 4 MWS)-MTD-227
OCS-(507)
OCS-(526)
OCS-(528)
OCS-(529)
OCS-(534)
OCS-(533)
OCS-(230)
OCS-(524)
OCS-(535)
OCS-(486)
DRAIN BASIN-(558)
FES-(213)
UGB 47
UGB 48
UGB 49
UGB 50
UGB 51
UGB 52
UGB 53
UGB 54
UGB 55
UGB 56
UGB 57
UGB 58
UGB 59
UGB 60
UGB 61
UGB 62
UGB 63
SAN MH-51
SAN MH-52
SAN MH-53
SAN MH-54
SAN MH-55
SAN MH-56
SAN MH-57
SAN MH-58
SAN MH-59
SAN MH-60
SAN MH-61
SAN MH-62
SAN MH-63
SAN MH-64
SAN MH-65
SAN MH-66
SAN MH-67
SAN MH-68
SAN MH-69
SAN MH-70
SAN



GRAPHIC SCALE

(IN FEET)
1 inch = 40 feet

SHEET KEY MAP

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
7	REV. PER DRC#2 MEMOS	5/23/25		
6	REV. PER DRC#1 MEMOS	4/18/25		
5	REV. COMPLETENESS SUBMISSION	1/16/25		
4	REV. PER CLIENT COMMENTS	12/13/24		
3	REV. FOR PERMIT RESUBMISSION	11/8/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

9/27/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

SITE SOIL EROSION AND SEDIMENT CONTROL PLAN – 5
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE 1"=40'

MIDDLESEX CO., N.J.
SEPTEMBER 27, 2024

DRAWN BY WDV DATE 9/27/24	FIELD BK	ORDER No.	PAGE No.	SHEET No.
CHECKED BY CG DATE 9/27/24	PAGE	WRNUL23001	50 OF 100	CS1805

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS1801-1805.DWG

FREEHOLD SOIL CONSERVATION DISTRICT
A. SOIL EROSION AND SEDIMENT CONTROL NOTES

1. THE FREEHOLD SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY LAND DISTURBING ACTIVITY.

2. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.

3. ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RECERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT STATE SOIL EROSION AND SEDIMENT CONTROL STANDARDS.

4. N.J.S.A. 4:29–39 ET. SEQ. REQUIRES THAT NO CERTIFICATE OF OCCUPANCY BE ISSUED BEFORE THE DISTRICT DETERMINES THAT A PROJECT OR PORTION THEREOF IS IN FULL COMPLIANCE WITH THE CERTIFIED PLAN AND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL. UNLESS IN NJ AND A REPORT OF COMPLIANCE HAS BEEN ISSUED, UPON WRITTEN REQUEST FROM THE APPLICANT, THE DISTRICT MAY ISSUE A REPORT OF COMPLIANCE WITH CONDITIONS ON A LOT-BY–LOT OR SECTION-BY–SECTION BASIS, PROVIDED THAT THE PROJECT OR PORTION THEREOF IS IN SATISFACTORY COMPLIANCE WITH THE SEQUENCE OF DEVELOPMENT AND TEMPORARY MEASURES FOR SESC HAVE BEEN IMPLEMENTED, INCLUDING PROVISIONS FOR STABILIZATION AND SITE WORK.

5. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN SIXTY (60) DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF 2 – 2 ½ TONS PER ACRE, ACCORDING TO THE STANDARD FOR INSTALLATION WITH MULCH ONLY.

6. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. SOIL STOCKPILES, STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AND A MULCHER ANCHOR ACCORDING WITH STATE STANDARDS.

7. A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS TO STABILIZE STREETS, ROADS, DRIVEWAYS, AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB-BASE SHALL BE INSTALLED WITHIN FIFTEEN (15) DAYS OF PRELIMINARY GRADING.

8. THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES THE INSTALLATION OF A PAD OF CLEAN CRUSHED STONES AT POINTS WHERE TRAFFIC WILL BE ACCESSING THE CONSTRUCTION SITE. AFTER INTERIOR ROADWAYS ARE PAVED, INDIVIDUAL LOTS REQUIRE A STABILIZED CONSTRUCTION ENTRANCE CONSISTING OF 1"–2" STONE FOR A MINIMUM LENGTH OF 10' EQUAL TO THE LOT ENTRANCE WIDTH. ALL OTHER ACCESS POINTS SHALL BE BLOCKED OFF.

9. ALL SOIL WASHED, DROPPED, SPILLED, OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHTS-OF–WAY WILL BE REMOVED IMMEDIATELY.

10. PERMANENT VEGETATION IS TO BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING.

11. AT THE TIME THAT SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT IT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON–VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.

12. IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, ANY SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE COVERED WITH A MINIMUM OF TWELVE (12) INCHES OF SOIL WITH A PH OF 5 OR MORE, ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS PER ACRE, OR 460LBS PER 1,000SF OF SURFACE AREA AND COVERED WITH A MINIMUM OF 12" OF SETTLE SOIL WITH A PH OF 5 OR MORE, OR 24" WHERE TREES OR SHRUBS ARE TO BE PLANTED.

13. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.

14. UNFILTERED DEWATERING IS NOT PERMITTED. NECESSARY PRECAUTIONS MUST BE TAKEN DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMENT TRANSFER. ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH STANDARDS FOR DEWATERING.

15. SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET. TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED AS REQUIRED BY THE STANDARD FOR DUST CONTROL.

16. STOCKPILE AND STAGING LOCATIONS ESTABLISHED IN THE FIELD SHALL BE PLACED WITHIN THE LIMIT OF DISTURBANCE ACCORDING TO THE CERTIFIED PLANS. ANY STOCKPILES NOT LOCATED WITHIN THE LIMIT OF DISTURBANCE WILL REQUIRE CERTIFICATION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLAN. CERTIFICATION OF A NEW SOIL EROSION AND SEDIMENT CONTROL PLAN MAY BE REQUIRED FOR THESE ACTIVITIES IF AN AREA GREATER THAN 5,000 SQUARE FEET IS DISTURBED.

17. ALL SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL NOTE #6

18. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.

19. ALL GRADING WITHIN STORMWATER BASIN BOTTOMS SHALL BE PERFORMED BY "LIGHTWEIGHT EQUIPMENT" ONLY.

20. ALL OTHER PERVIOUS AREAS WHICH CANNOT BE GRADED WITH LIGHTWEIGHT EQUIPMENT SUCH AS AROUND BUILDINGS SHALL BE SCARIFIED TO A MIN 18" DEPTH PRIOR TO THE PLACEMENT OF TOPSOIL.

FREEHOLD SOIL CONSERVATION DISTRICT
4000 KOZLOSKI ROAD
FREEHOLD, NJ 07728
TEL: 732–683–8500
FAX: 732–683–8140
HTTP://WWW.FREEHOLD.ORG
INFO@FREEHOLDSCD.ORG

B. TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

1. SITE PREPARATION

A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING, PG. 19–1, IN "STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY" (SSESCNJ).

B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSION, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS. SEE SSESCNJ ENGINEERING STANDARDS.

C. IMMEDIATELY PRIOR TO SEEDING, THE SURFACE SHOULD BE SCARIFIED TO A 6" MINIMUM DEPTH. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.).

2. SEEDBED PREPARATION

A. APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10–20–10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE. APPLY LIMESTONE AT THE RATE DETERMINED BY SOIL TESTING. CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES.

B. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.

C. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED IN ACCORDANCE WITH THE ABOVE.

D. SOILS HIGH IN SULFIDES OR HAVING A PH OF 4 OR LESS REFER TO STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, SSESCNJ PG 1–1.

3. SEEDING

A. APPLY SEED AS FOLLOWS:

COOL SEASON: PERENNIAL RYEGRASS AT 100 POUNDS/ACRE OR 1 POUND/1000 SQ.FT.; OPTIMUM SEEDING DATES:3/1–5/15 & 8/15–10/1; OPTIMUM SEED DEPTH: 0.5 INCHES

WARM SEASON: PEARL MILLET AT 20 POUNDS/ACRE OR 0.5 POUNDS/1000 SQ.FT. OPTIMUM SEEDING DATE: 5/15–8/15; OPTIMUM SEED DEPTH: 1.0 INCHES

THE CONTRACTOR SHALL VERIFY THE SUITABILITY OF THE SPECIFIED SEED AND PLANTING DATES WITH THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT PRIOR TO PLANTING.

B. SEEDING RATE FOR WARM SEASON GRASS SHALL BE ADJUSTED TO REFLECT THE AMOUNT OF PURE LINE SEED (PLS) AS DETERMINED BY A GERMINATION TEST RESULT. NO ADJUSTMENT IS REQUIRED FOR COOL SEASON GRASSES.

C. GRASSES MAY BE PLANTED THROUGHOUT SUMMER IF SOIL MOISTURE IS ADEQUATE OR SEEDED AREA CAN BE IRRIGATED.

D. REFER TO SSESNJ, FIGURE 7–1, PG. 7–5 FOR PLANT HARDINESS ZONES.

E. PLANTING DEPTHS SHOULD BE DOUBLED FOR SANDY SOILS.

F. CONVENTIONAL SEEDING: APPLY SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL A DEPTH OF 1/4 TO 1/2 INCH BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE TEXTURED SOIL.

G. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK OR TRAILER MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING (ALSO SEE SECTION 4 BELOW, MULCHING). HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. POOR SEED TO SOIL CONTACT OCCURS, REDUCING SEED GERMINATION AND GROWTH. HYDROSEEDING MAY BE USED FOR AREAS TOO STEEP OR INCONVENIENT FOR CONVENTIONAL EQUIPMENT TO TRAVERSE OR TOO OBSTRUCTED WITH ROCKS, STUMPS, ETC. DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION.

H. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED–TO–SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON–SITE WILL BE MAXIMIZED.

4. MULCHING

MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL INSURE AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. THE EXISTENCE OF VEGETATION SUFFICIENT TO CONTROL SOIL EROSION SHALL BE DEEMED COMPLIANCE WITH THIS MULCHING REQUIREMENT.

A. STRAW OR HAY. UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, OR SALT HAY TO BE APPLIED AT THE RATE OF 1–1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH–BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER–BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED. APPLICATION: SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 85% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND–SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION.

B. ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COSTS.

1. PEG AND TWINE. DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISS–CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.

2. MULCH NETTINGS, STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.

C. PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

1. SITE PREPARATION

A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING.

B. IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARDS FOR LAND GRADING.

C. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER, AS NEEDED, IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING.

D. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE–STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.

2. SEEDBED PREPARATION

A. UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED, ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO–OPERATIVE EXTENSION SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES (HTTP://NJAES.RUTGERS.EDU/COUNTY/). FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10–10–10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE–HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ONE–HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.

B. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.

C. HIGH ACID PRODUCING SOIL, SOILS HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5 OR MORE BEFORE INITIATING SEEDBED REPARATION. SEE STANDARD FOR MANAGEMENT OF HIGH ACID–PRODUCING SOILS FOR SPECIFIC REQUIREMENTS.

3. SEEDING

A. SELECT A MIXTURE FROM BELOW OR USE A MIXTURE RECOMMENDED BY RUTGERS COOPERATIVE EXTENSION OR NATURAL RESOURCES CONSERVATION SERVICE WHICH IS APPROVED BY THE SOIL CONSERVATION DISTRICT. SEED GERMINATION SHALL HAVE BEEN TESTED WITHIN 12 MONTHS OF THE PLANTING DATE. NO SEED SHALL BE ACCEPTED WITH A GERMINATION TEST DATE MORE THAN 12 MONTHS OLD UNLESS RETESTED. APPLY SEED AS FOLLOWS:

WATERWAY MIX

– STRONG CREEPING RED FESCUE AT 130 POUNDS/ACRE OR 3 POUNDS/1000 SQ.FT.; OPTIMUM SEEDING DATES: 8/15–10/15, ACCEPTABLE SEEDING DATES: 3/1–4/30 & 5/1–8/14*

– KENTUCKY BLUEGRASS AT 50 POUNDS/ACRE OR 1 POUND/1000 SQ.FT.; OPTIMUM SEEDING DATES 8/15–10/15, ACCEPTABLE SEEDING DATES: 3/1–4/30 & 5/1–8/14*

– PERENNIAL RYEGRASS AT 20 POUNDS/ACRE OR 0.5 POUNDS/1000 SQ.FT.; OPTIMUM SEEDING DATES 8/15–10/15, ACCEPTABLE SEEDING DATES: 3/1–4/30 & 5/1–8/14*

OR, REDTOP AT 10 POUNDS/ACRE OR 0.05 POUNDS/1000 SQ.FT PLUS WHITE CLOVER AT 5 POUNDS/ACRE OR 0.1 POUNDS/1000 SQ.FT.; OPTIMUM SEEDING DATES 8/15–10/15, ACCEPTABLE SEEDING DATES: 3/1–4/30 & 5/1–8/14*

GENERAL LAWN/RECREATION

– BLEND OF HARD FESCUE AND/OR CHEWING FESCUE AND/OR STRONG CREEPING RED FESCUE AT 175 POUNDS/ACRE OR 4 POUNDS/1000 SQ.FT. WITH PERENNIAL RYEGRASS AT 45 POUNDS/ACRE OR 1 POUND/ACRE PLUS KENTUCKY BLUEGRASS BLEND AT 45 POUNDS/ACRE OR 1 POUND/1000 SQ.FT.; OPTIMUM SEEDING DATES 8/15–10/15, ACCEPTABLE SEEDING DATES: 3/1–4/30 & 5/1–8/14*

* IF SITE IS IRRIGATED

1. SEEDING RATES SPECIFIED ARE REQUIRED WHEN A REPORT OF COMPLIANCE IS REQUESTED PRIOR TO ACTUAL ESTABLISHMENT OF PERMANENT VEGETATION. UP TO 50% REDUCTION IN RATES MY BE USED WHEN PERMANENT VEGETATION IS ESTABLISHED PRIOR TO A REPORT OF COMPLIANCE INSPECTION. THESE RATES APPLY TO ALL METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATIVE COVERAGE WITH THE SPECIFIED SEED MIXTURE FOR THE SEEDED AREA AND MOWED ONCE.

2. WARM SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT HIGH TEMPERATURES, GENERALLY 85 DEGREES F AND ABOVE. SEE TABLE 4–3 IN SSESCNJ. MIXTURES 1 TO 7, PLANTING RATES FOR WARM SEASON GRASSES SHALL BE THE AMOUNT OF PURE LIVE SEED (PLS) AS DETERMINED BY GERMINATION TESTING RESULTS.

3. COOL SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT TEMPERATURES BELOW 85 DEGREES F. MANY GRASSES BECOME ACTIVE AT 65 DEGREES F. SEE TABLE 4–3 IN SSESCNJ. MIXTURES 8–20, ADJUSTMENT OF PLANTING RATES TO COMPENSATE FOR THE AMOUNT OF PLS IS NOT REQUIRED FOR COOL SEASON GRASSES.

B. CONVENTIONAL SEEDING IS PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYUCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL A DEPTH OF 1/4 TO 1/2 INCH BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE TEXTURED SOIL.

C. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED–TO–SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON–SITE WILL BE MAXIMIZED.

D. PERMANENT STABILIZATION WITH SOD

1. METHODS AND MATERIALS

A. HIGH QUALITY CULTIVATED SOD IS PREFERRED OVER NATIVE OR PASTURE SOD.

B. SOD SHOULD BE FREE OF BROADLEAF WEEDS AND UNDESIRABLE COARSE AND FINE WEED GRASSES.

C. SOD SHOULD BE OF UNIFORM THICKNESS, TYPICALLY 5/8 INCH, PLUS OR MINUS 1/4 INCH, AT TIME OF CUTTING (EXCLUDES TOP GROWTH.).

D. SOD SHOULD BE VIGOROUS AND DENSE AND BE ABLE TO RETAIN ITS OWN SHAPE AND WEIGHT WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP FROM THE UPPER 10 PERCENT OF THE STRIP. BROKEN PADS AND ROLLS OR TORN AND UNEVEN ENDS WILL NOT BE ACCEPTABLE.

E. FOR DROUGHTY SITES, A SOD OF TURF–TYPE TALL FESCUE OR TURF–TYPE TALL FESCUE MIXED WITH KENTUCKY BLUEGRASS IS PREFERRED OVER A 100% KENTUCKY BLUEGRASS SOD. ALTHOUGH NOT WIDELY AVAILABLE, A SOD OF FINE FESCUE IS ALSO ACCEPTABLE FOR DROUGHTY SITES.

F. ONLY MOIST, FRESH, UNHEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 24 HOURS OR LESS DURING SUMMER MONTHS.

2. SITE PREPARATION

A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR LIMING, FERTILIZING, INCORPORATION OF ORGANIC MATTER, AND OTHER SOIL PREPARATION PROCEDURES. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING.

B. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 6 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. SEE STANDARD FOR TOPSOILING FOR TOPSOIL AND AMENDMENT REQUIREMENTS.

C. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.

3. SOD PLACEMENT

A. SOD STRIPS SHOULD BE LAID ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LADDERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOD.

B. PLACE SOD STRIPS WITH SNUG, EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES INVITE EROSION.

C. ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT TO INSURE SOLID CONTACT OF ROOT MAT AND SOIL SURFACE. DO NOT OVERLAP SOD. ALL JOINTS SHOULD BE BUTTED TIGHTLY IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE DRYING OF THE ROOTS.

D. ON SLOPES GREATER THAN 3 TO 1, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES, BIODEGRADABLE PLASTIC SPIKES, OR SPLIT SHINGLES,(8 TO 10 INCHES LONG BY ¾ INCH WIDE).

E. SURFACE WATER CANNOT ALWAYS BE DIVERTED FROM FLOWING OVER THE FACE OF THE SLOPE, BUT A CAPPING STRIP OF HEAVY JUTE OR PLASTIC NETTING, PROPERLY SECURED, ALONG THE CROWN OF THE SLOPE AND EDGES WILL PROVIDE EXTRA PROTECTION AGAINST LIFTING AND UNDERCUTTING OF SOD. THE SAME TECHNIQUE CAN BE USED TO ANCHOR SOD IN WATER–CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL WORK.

F. IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL MOISTURE PENETRATES THE SOIL LAYER BENEATH SOD TO A DEPTH OF 1 INCH. MAINTAIN OPTIMUM MOISTURE FOR AT LEAST TWO WEEKS.

4. TOPDRESSING

A. SINCE SLOW RELEASE NITROGEN FERTILIZER (WATER INSOLUBLE) IS PRESCRIBED IN SECTION F–2 ABOVE, A FOLLOW–UP TOPDRESSING IS NOT MANDATORY, EXCEPT WHERE GROSS NITROGEN DEFICIENCY EXISTS TO THE EXTENT THAT TURF FAILURE MAY DEVELOP. TOPDRESSING SHALL THEN BE APPLIED. TOPDRESS WITH 10–10–10 OR EQUIVALENT AT 400 POUNDS PER ACRE OR 10 POUNDS PER 1,000 SQUARE FEET.

E. STANDARD FOR TOPSOILING

1. MATERIALS

A. TOPSOIL SHOULD BE FRIABLE (*), LOAMY (2*), FREE OF DEBRIS, OBJECTIONABLE WEEDS AND STONES, AND CONTAIN NO TOXIC SUBSTANCE OR ADVERSE CHEMICAL OR PHYSICAL CONDITION THAT MAY BE HARMFUL TO PLANT GROWTH. SOLUBLE SALTS SHOULD NOT BE EXCESSIVE (CONDUCTIVITY LESS THAN 0.5 MILLIMHOS PER CENTIMETER, MORE THAN 0.5 MILLIMHOS MAY DESOCIATE SEEDLINGS AND ADVERSELY IMPACT GROWTH). IMPORTED TOPSOIL SHALL HAVE A MINIMUM ORGANIC MATTER CONTENT OF 2.75 PERCENT. ORGANIC MATTER CONTENT MAY BE RAISED BY ADDITIVES.

B. TOPSOIL SUBSTITUTE IS A SOIL MATERIAL WHICH MAY HAVE BEEN AMENDED WITH SAND, SILT, CLAY, ORGANIC MATTER, FERTILIZER OR LIME AND HAS THE APPEARANCE OF TOPSOIL. TOPSOIL SUBSTITUTES MAY BE UTILIZED ON SITES WITH INSUFFICIENT TOPSOIL FOR ESTABLISHING PERMANENT VEGETATION. ALL TOPSOIL SUBSTITUTES FROM OFFSITE SOURCES SHALL MEET THE REQUIREMENTS OF TOPSOIL NOTED ABOVE. SOIL TESTS SHALL BE PERFORMED TO DETERMINE THE COMPONENTS OF SAND, SILT, CLAY, ORGANIC MATTER, SOLUBLE SALTS AND pH LEVEL.

2. STRIPPING AND STOCKPILING

A. FIELD EXPLORATION SHOULD BE MADE TO DETERMINE WHETHER QUANTITY AND OR QUALITY OF SURFACE SOIL JUSTIFIES STRIPPING.

B. STRIPPING SHOULD BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA.

C. WHERE FEASIBLE, LIME MAY BE APPLIED BEFORE STRIPPING AT A RATE DETERMINED BY SOIL TESTS TO BRING THE SOIL pH TO APPROXIMATELY 6.5.

D. A 4–6 INCH STRIPPING DEPTH IS COMMON, BUT MAY VARY DEPENDING ON THE PARTICULAR SOIL.

E. STOCKPILES OF TOPSOIL SHOULD BE SITUATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OR CAUSE OFF–SITE ENVIRONMENTAL DAMAGE.

F. STOCKPILES SHOULD BE VEGETATED IN ACCORDANCE WITH STANDARDS PREVIOUSLY DESCRIBED HEREIN. SEE STANDARDS FOR PERMANENT OR TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION. WEEDS SHOULD NOT BE ALLOWED TO GROW ON STOCKPILES.

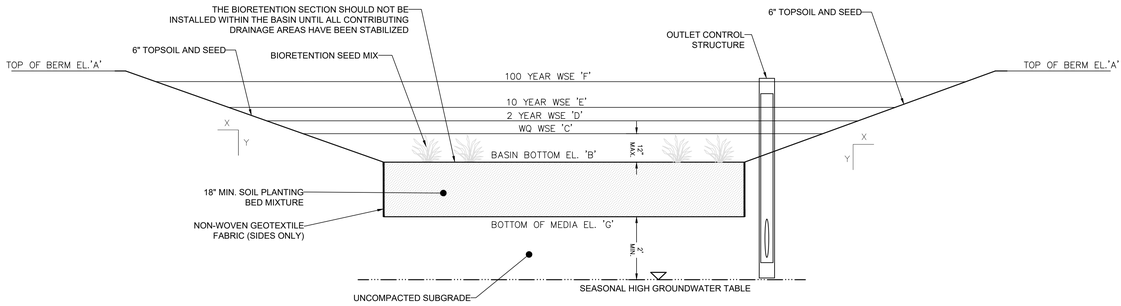
3. SITE PREPARATION

A. GRADE AT THE ONSET OF THE OPTIMAL SEEDING PERIOD SO AS TO MINIMIZE THE DURATION AND AREA OF EXPOSURE OF DISTURBED SOIL TO EROSION. IMMEDIATELY PROCEED TO ESTABLISH VEGETATIVE–COVER IN ACCORDANCE WITH THE4 SPECIFIED SEED MIXTURE. TIME IS OF THE ESSENCE.

B. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE. SEE THE SSESCNJ, STANDARD FOR LAND GRADING, PG. 19–1.

C. AS GUIDANCE FOR IDEAL CONDITIONS, SUBSOIL SHOULD BE TESTED FOR LIME REQUIREMENT. LIMESTONE, IF NEEDED, SHOULD BE APPLIED TO BRING SOIL TO A pH OF APPROXIMATELY 6.5 AND INCORPORATED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES.

D. PRIOR TO TOPSOILING, THE SUBSOIL SHALL BE IN COMP



GEOTEXTILE FABRIC SPECIFICATION:
NEEDLED NON-WOVEN POLYPROPYLENE FIBERS, ALONG THE SIDES OF PLANTING SOIL BED, MEETING THE FOLLOWING PROPERTIES:

A. GRAB TENSILE STRENGTH (ASTM-D4632) ≥ 120 LBS
B. MULLEN BURST STRENGTH (ASTM-D3786) ≥ 225 PSI
C. FLOW RATE (ASTM-D4491) ≥ 95 GAL/MIN/FT2
D. UV RESISTANCE AFTER 500 HRS (ASTM-D4355) ≥ 70%
E. HEAT-SET OR HEAT-CALENDARED FABRICS ARE NOT PERMITTED

BIORETENTION SOIL PLANTING BED MIX

A. 80% TO 95% SAND (WITH NO MORE THAN 25% OF THE SANDS AS FINE OR VERY FINE SAND)
B. NO MORE THAN 15% SILT AND CLAY
C. 2% TO 5% CLAY CONTENT
D. 3-7% ORGANIC CONTENT
E. pH RANGE FROM 5.5 TO 6.5
F. MAXIMUM PERMEABILITY RATE= 3 INCHES PER HOUR
MINIMUM PERMEABILITY RATE= 2 INCHES PER HOUR

THE MATERIAL SHALL BE PLACED IN 6 INCH LIFTS. LIFT DEPTH SHALL NOT EXCEED 6". THE MIX MUST BE CERTIFIED BY THE VENDOR.

BIORETENTION SYSTEM NOTES:

1. INSTALL UNDERDRAINS AT 0.025 FT/FT.
2. SEE SHEET CS1701 FOR UNDERDRAIN LAYOUT.
3. UNDERDRAIN PIPING SHALL BE DUAL WALL WITH SMOOTH INTERIOR AND MEET AASHTO 294 MATERIALS SPECIFICATIONS. PERFORATION PATTERN SHALL BE AASHTO CLASS II.
4. FOR REQUIRED SEED MIXTURE IN BIORETENTION SYSTEM AREA, SEE SHEET CS8501.

SEQUENCE OF BIORETENTION SYSTEM CONSTRUCTION:

1. CLEARLY DELINEATE THE PROPOSED BIORETENTION AREAS BEFORE BEGINNING ANY EARTH MOVING ACTIVITIES TO AVOID COMPACTION. AREAS SHALL BE SURROUNDED BY FABRIC FILTER FENCING TO AVOID ANY SEDIMENT FROM BUILDING UP.
2. COMPLETE THE SITE ROUGH GRADING AND STABILIZE THE DISTURBED AREAS. DO NOT FINALIZE BIORETENTION EXCAVATION AND CONSTRUCTION UNTIL THE DRAINAGE AREA IS FULLY STABILIZED.
3. EXCAVATE BIORETENTION AREAS TO SPECIFIED DEPTH AND MANUALLY SCARIFY THE EXISTING SOIL SURFACES. DO NOT COMPACT IN-SITU SOILS. HEAVY EQUIPMENT SHALL BE KEPT OUT OF THE EXCAVATED AREA TO THE MAXIMUM EXTENT POSSIBLE.
4. INSTALL THE PERFORATED UNDERDRAIN PIPING, OVERFLOW INLETS, AND STONE TO SPECIFIED DEPTHS.
5. BACKFILL EXCAVATED AREA AS SOON AS THE SUBGRADE PREPARATION IS COMPLETE TO AVOID ACCUMULATION OF DEBRIS. PLACE PLANTING BED SOIL IN 12-18 INCH LIFTS AND TAMP LIGHTLY. SLIGHT OVERFILLING MIGHT BE NECESSARY TO ACCOUNT FOR SETTLEMENT.
6. SEED BASIN BOTTOM IN ACCORDANCE WITH SPECIFICATIONS ON SHEET CS8501.
7. WATER VEGETATION AT THE END OF EACH AND EVERY WORK DAY FOR TWO WEEKS AFTER PLANTING IS COMPLETED.

STORMWATER BMP (BIORETENTION BASINS) CONSTRUCTION NOTES:

1. REQUIRED INFILTRATION TESTING:

1.1. IMMEDIATELY UPON COMPLETION OF BASIN EXCAVATION, AND ESTABLISHMENT OF BASIN BOTTOM FINISH GRADE, CONTRACTOR SHALL CONDUCT A MINIMUM OF TWO (2) IN-SITU SOIL PERMEABILITY TESTS (ASTM D 3385) TO CONFIRM IF AS-BUILT SOIL PERMEABILITY RATES ARE CONSISTENT WITH THE DESIGN SOIL PERMEABILITY RATES OF 1 INCH PER HOUR. THE RESULTS OF EACH TEST SHALL BE SUBMITTED TO THE ENGINEER. IF THE RESULTS OF THE POST-DEVELOPMENT FIELD PERMEABILITY TESTS FAIL TO ACHIEVE THE MINIMUM REQUIRED DESIGN PERMEABILITY RATE (UTILIZING A FACTOR OF SAFETY OF TWO) CORRECTIVE ACTION SHALL BE TAKEN BY THE CONTRACTOR AND THE SOIL PERMEABILITY RATE SHALL BE RE-TESTED UNTIL SUCH MINIMUM REQUIRED PERMEABILITY RATES ARE ACHIEVED.

1.2. UPON SUBSTANTIAL COMPLETION OF THE PROJECT (SUCH THAT 90% OF THE UPSTREAM AREA HAS BEEN STABILIZED IN ACCORDANCE WITH THE SOIL CONSERVATION DISTRICT STANDARDS), CONTRACTOR SHALL CONDUCT A MINIMUM OF TWO (2) IN-SITU SOIL PERMEABILITY TESTS (ASTM D 3385) TO CONFIRM IF AS-BUILT SOIL PERMEABILITY RATES ARE CONSISTENT WITH THE DESIGN SOIL PERMEABILITY RATES. THE RESULTS OF EACH TEST SHALL BE SUBMITTED TO THE ENGINEER. IF THE RESULTS OF THE POST-DEVELOPMENT FIELD PERMEABILITY TESTS FAIL TO ACHIEVE THE MINIMUM REQUIRED DESIGN PERMEABILITY RATE (UTILIZING A FACTOR OF SAFETY OF TWO) CORRECTIVE ACTION SHALL BE TAKEN BY THE CONTRACTOR AND THE SOIL PERMEABILITY RATE SHALL BE RE-TESTED UNTIL SUCH MINIMUM REQUIRED PERMEABILITY RATES ARE ACHIEVED.

1.3. UPON INSTALLATION OF THE PLANTING BED MIX, THE INSTALLED PERMEABILITY SHALL BE DEMONSTRATED TO BE A MINIMUM OF 2 INCHES PER HOUR AND A MAXIMUM PERMEABILITY OF 3 INCHES PER HOUR.

2. STORMWATER MANAGEMENT SYSTEM AS-BUILT PLAN:

2.1. UPON SUBSTANTIAL COMPLETION OF THE STORMWATER MANAGEMENT SYSTEM, CONTRACTOR SHALL SUBMIT AS-BUILT PLANS (SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF NEW JERSEY) THAT INCLUDE AS-BUILT ELEVATIONS OF THE BASIN, AND ALL STORMWATER MANAGEMENT MEASURES COMPLETED UNDER THIS CONTRACT TO THE DESIGN ENGINEER. USING THE CONTRACTOR FURNISHED AS-BUILT PLAN, THE DESIGN ENGINEER WILL CONFIRM THAT THE SYSTEM (AS CONSTRUCTED) MEETS THE INTENT OF THE DESIGN, AND IS IN STRICT COMPLIANCE WITH THE APPROVALS FOR STORMWATER MANAGEMENT. IF IT IS DETERMINED THAT THE STORMWATER MANAGEMENT SYSTEM WAS NOT CONSTRUCTED TO MEET THE INTENT OF THE DESIGN, AND/OR IS NOT IN STRICT COMPLIANCE WITH THE APPROVAL FOR STORMWATER MANAGEMENT, CORRECTIVE ACTION BY THE CONTRACTOR SHALL BE REQUIRED TO CORRECT ANY DEFICIENCIES AT NO COST TO THE OWNER.

2.2. ALL CORRECTIONS OR REMEDIAL ACTIONS DEEMED BY THE MUNICIPAL ENGINEER TO BE NECESSARY DUE TO THE FAILURE TO COMPLY WITH DESIGN STANDARDS AND/OR FOR ANY REASON CONCERNING PUBLIC HEALTH AND SAFETY, SHALL BE COMPLETED BY THE APPLICANT. IN LIEU OF REVIEW BY THE DESIGN ENGINEER, A LICENSED PROFESSIONAL ENGINEER MAY BE ENGAGED TO REVIEW THE AS-BUILT PLANS AND CHARGE THE APPLICANT FOR ALL COSTS ASSOCIATED WITH SUCH REVIEW.

3. NO STORMWATER INFILTRATION BASIN SHALL BE PLACED INTO OPERATION UNTIL ITS DRAINAGE AREA HAS BEEN COMPLETELY STABILIZED. INSTEAD, UPSTREAM RUN-OFF SHALL BE DIRECTED INTO TEMPORARY SEDIMENT BASINS. SUCH TEMPORARY FACILITIES AND BASINS SHALL BE INSTALLED AND UTILIZED FOR STORMWATER MANAGEMENT AND SEDIMENT CONTROL UNTIL STABILIZATION IS ACHIEVED IN ACCORDANCE WITH N.J.A.C. 1:90, STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.

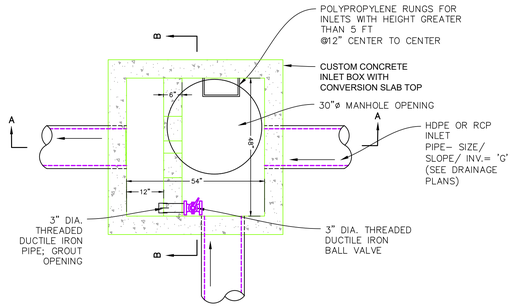
4. IF FOR ENGINEERING, ENVIRONMENTAL OR SAFETY REASONS, TEMPORARY STORMWATER MANAGEMENT FACILITIES AND SEDIMENT BASINS CANNOT BE CONSTRUCTED ON THE PARCEL IN ACCORDANCE WITH NJAC 7:50-6.84 (a)6iv(5)(A), THE STORMWATER BASIN MAY BE PLACED INTO OPERATION PRIOR TO THE COMPLETE STABILIZATION OF ITS DRAINAGE AREA PROVIDED THAT THE BASIN'S BOTTOM DURING THIS PERIOD IS CONSTRUCTED AT A DEPTH OF AT LEAST TWO FEET HIGHER THAN ITS FINAL DESIGN ELEVATION. WHEN THE DRAINAGE AREA HAS BEEN COMPLETELY STABILIZED, ALL ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE INFILTRATION BASIN, WHICH SHALL THEN BE EXCAVATED TO IT'S FINAL DESIGN ELEVATION.

5. TO AVOID COMPACTING AN INFILTRATION BASIN'S SUBGRADE SOILS, NO HEAVY EQUIPMENT (CONSTRUCTION VEHICLES, INCLUSIVE OF ON AND OFF-ROAD VEHICLES) SHALL BE PERMITTED TO OPERATE WITHIN THE FOOTPRINT OF THE STORMWATER BASIN. ALL EXCAVATION REQUIRED TO CONSTRUCT A STORMWATER BASIN SHALL BE PERFORMED BY EQUIPMENT PLACED OUTSIDE THE BASIN. EARTHWORK ASSOCIATED WITH STORMWATER INFILTRATION BASIN CONSTRUCTION, INCLUDING EXCAVATION, GRADING, CUTTING OR FILLING, SHALL NOT BE PERFORMED WHEN SOIL MOISTURE CONTENT IS ABOVE THE LOWER PLASTIC LIMIT.

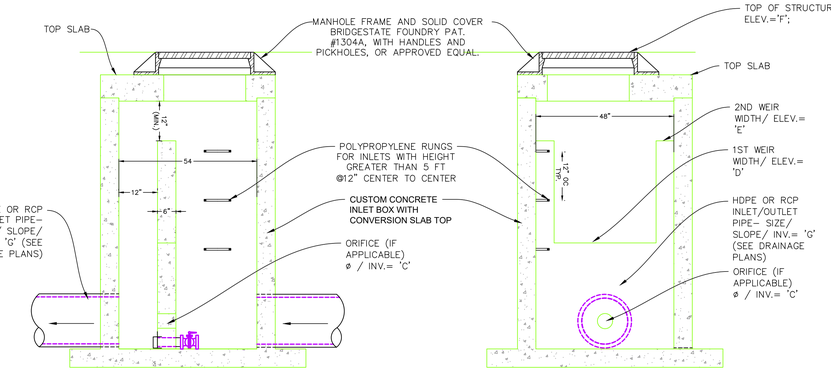
STORMWATER BASIN DETAIL
NTS

SPECIFICATIONS:

1. THE CONCRETE SHALL BE DESIGNED TO OBTAIN A STRENGTH OF 4,000 PSI IN 28 DAYS.
2. THE REINFORCING STEEL HAS A YIELD STRENGTH OF 60,000 PSI.
3. THE INLET SHALL BE DESIGNED TO MEET ASTM C-913, "PRECAST CONCRETE WATER AND WASTEWATER STRUCTURES.
4. THE REINFORCED CONCRETE WALLS AND BASE SLAB ARE DESIGNED FOR A MAXIMUM DEPTH OF 10 FT (DEPTH = F.G. TO TOP OF BASE SLAB).
5. STRUCTURE SHALL BE DESIGNED TO MEET NJDOT SPECS.
6. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS DETAILING STRUCTURE DIMENSIONS, REINFORCING, AND BUOYANCY CALCULATIONS FOR APPROVAL.



PLAN VIEW
NOT TO SCALE



SECTION A-A
NOT TO SCALE

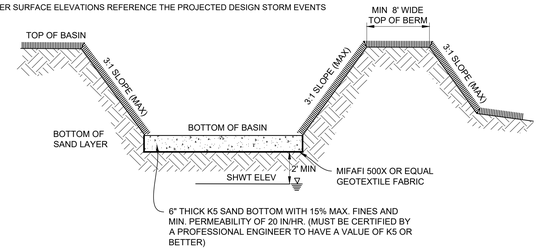
SECTION B-B
NOT TO SCALE

OUTLET CONTROL STRUCTURE OCS-1
NOT TO SCALE

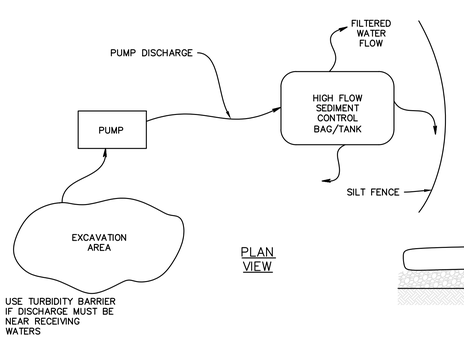
BASIN SCHEDULE

LOCATION	TOP OF BERM ELEVATION A	BASIN BOTTOM ELEVATION B	WQ WSE. C	2 YEAR WSE. D	10 YEAR WSE. E	100 YEAR WSE. F	BOTTOM OF MEDIA ELEVATION G	SHOW ELEVATION H	PERMEABILITY RATE IN/HR	PROFILE PIT NUMBER	BASIN SIDE SLOPES X:Y	BASIN TYPE	BOTTOM MATERIAL
BIO 1	88.35	77.00	77.24	85.07	86.81	88.39	75.50	67.50	6.67	1	3:1	BIORETENTION	18" THK., SOIL MEDIA
EX. BASIN 6	95.16	89.00	89.34	91.55	92.27	94.16	87.50	___	___	___	3:1	BIORETENTION	18" THK., SOIL MEDIA
INFIL 8	112.00	109.50	109.79	110.06	110.36	110.98	109.00	107.00	4.39	3	3:1	INFILTRATION	6" THK., K-5 SAND
BIO 12	90.55	85.25	85.46	87.68	88.55	89.52	83.75	79.50	9.09	5	3:1	BIORETENTION	18" THK., SOIL MEDIA
BIO 25	104.29	100.00	100.34	101.69	102.26	103.29	98.50	93.50	3.88	29	3:1	BIORETENTION	18" THK., SOIL MEDIA
BIO 26	101.15	97.00	97.36	98.69	99.28	100.12	95.50	87.30	15.00	9	3:1	BIORETENTION	18" THK., SOIL MEDIA
BIO 28	95.75	91.00	91.34	92.66	93.33	94.73	89.50	89.00	15.00	27	3:1	BIORETENTION	18" THK., SOIL MEDIA
INFIL 29	97.25	93.00	94.30	95.15	95.55	96.22	92.50	90.10	15.00	27	3:1	INFILTRATION	6" THK., K-5 SAND
INFIL 30	97.05	91.40	91.47	93.49	94.40	96.05	90.90	90.20	2.28	25	3:1	INFILTRATION	6" THK., K-5 SAND
BIO 35	108.26	103.40	103.48	105.05	106.05	107.25	101.90	94.70	1.64	21	3:1	BIORETENTION	18" THK., SOIL MEDIA
BIO 36	101.98	98.00	98.58	99.57	100.05	100.98	96.50	87.30	3.00	24	3:1	BIORETENTION	18" THK., SOIL MEDIA
BIO 45	101.50	96.50	96.82	98.66	99.37	100.49	95.00	93.00	2.31	23	3:1	BIORETENTION	18" THK., SOIL MEDIA
BIO 51	105.35	102.00	102.22	103.32	103.65	104.33	100.50	97.80	1.64	14	3:1	BIORETENTION	18" THK., SOIL MEDIA
BIO 52	105.00	100.10	100.83	101.62	102.09	103.03	98.60	97.60	7.83	12	3:1	BIORETENTION	18" THK., SOIL MEDIA
BIO 53	109.00	104.50	104.91	105.89	106.18	106.74	103.00	98.70	1.54	13	3:1	BIORETENTION	18" THK., SOIL MEDIA
BIO 58	110.98	106.40	106.98	108.08	108.90	109.98	104.90	102.80	0.75	15	3:1	BIORETENTION	18" THK., SOIL MEDIA

NOTE: WATER SURFACE ELEVATIONS REFERENCE THE PROJECTED DESIGN STORM EVENTS



INFILTRATION BASIN DETAIL (BASINS 8 & 30)
N.T.S.



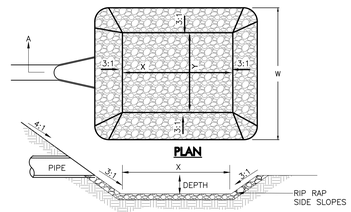
NOTES:

1. BAG MUST BE LOCATED AWAY FROM RECEIVING WATERS, OTHER ENVIRONMENTALLY SENSITIVE AREAS, AND/OR CONSTRUCTION ACTIVITIES.
2. BAGS MUST BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
3. BAGS MAY NOT BE REUSED.
4. BAGS MUST BE DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
5. BAGS TO BE HIGH FLOW TYPE WHEN USED FOR PARKING LOTS

SEDIMENT CONTROL BAG DETAIL
N.T.S.

BASIN NAME	OS #	UNDERDRAIN INV. 'A'	VALVE NORMAL POSITION 'B'	ORIFICE DIA./INV. 'C'	1ST WEIR WIDTH/ EL. 'D'	2ND WEIR WIDTH/ EL. 'E'	TOP OF STRUCTURE 'F'	OUTLET PIPE SIZE/ SLOPE/INV. 'G'
BASIN 1	OCS-578	N/A	N/A	2- 7.0" Ø @ 77.52'	2- 1.55' W @ 84.50'	2-1.5' W @ 85.50'*	86.85'	30" @ 1.05%, 75.28'
UGB 2	OCS-497	N/A	N/A	N/A	1.75' W @ 86.25'	4' W @ 87.00'	91.71'	24" @ 0.5%, 86.25'
UGB 3	OCS-351	N/A	N/A	N/A	0.75' W @ 85.50'	N/A	92.22'	24" @ 1.58%, 85.75'
UGB 4A/4B	OCS-496/298	N/A	N/A	N/A	1.00' W @ 86.10'	N/A	92.28', 91.78'	24" @ 0.50%, 85.60'
UGB 5	OCS-495	N/A	N/A	8" Ø @ 95.00'	4.00' W @ 96.90'	N/A	100.75'	15" @ 0.5%, 94.50'
UGB 6	OCS-493	N/A	N/A	N/A	1.00' W @ 95.00'	4.00' W @ 97.45'	100.14'	15" @ 1.49%, 95.25'
UGB 7	OCS-519	N/A	N/A	8" Ø @ 99.65'	1.00' W @ 101.82'	N/A	106.81'	15" @ 1.68%, 99.50'
UGB 9	OCS-517	N/A	N/A	N/A	1.50' W @ 101.30'	N/A	105.42'	18" @ 2.56%, 100.80'
UGB 10	OCS-516	N/A	N/A	N/A	1.50' W @ 107.00'	N/A	111.91'	18" @ 1.60%, 106.50'
UGB 11	OCS-491	N/A	N/A	N/A	(2) 1.5' W @ 85.01'	2-2.00' W @ 85.25'*	89.35'	24" @ 0.50%, 84.58'
BASIN 12	OCS-370	N/A	N/A	N/A	1.50' W @ 86.15'	3.75' W @ 87.00/ 4' W @ 87.50'*	89.00'	30" @ 1.78%, 85.36'
UGB 13	OCS-498	N/A	N/A	N/A	1.00' W @ 87.00'	N/A	91.50'	15" @ 1.57%, 86.50'
UGB 14	OCS-500	N/A	N/A	8" Ø @ 87.23'	4.00' W @ 88.40'	N/A	92.56'	15" @ 0.70%, 86.75'
UGB 15	OCS-372	N/A	N/A	N/A	1.75' W @ 92.63'	N/A	98.15'	18" @ 1.09%, 92.00'
UGB 16	OCS-366	N/A	N/A	N/A	0.75' W @ 94.63'	N/A	100.58'	18" @ 1.00%, 92.30'
UGB 17	OCS-515	N/A	N/A	N/A	1.00' W @ 111.50'	N/A	115.26'	15" @ 0.50%, 111.50'
UGB 18	OCS-447	N/A	N/A	N/A	1.00' W @ 95.24'	4.00' W @ 96.50'	98.54'	18" @ 2.75%, 95.00'
UGB 19	OCS-445	N/A	N/A	3-3.5" Ø @ 95.06'	4.00' W @ 95.50'	N/A	99.42'	10" @ 1.73%, 95.03'
UGB 20	OCS-439	N/A	N/A	10" Ø @ 97.72'	4.00' W @ 98.80'	N/A	102.44'	10" @ 3.16%, 97.72'
UGB 21	OCS-547	N/A	N/A	N/A	0.75' W @ 99.25'	N/A	107.95'	24" @ 0.50%, 98.50'
UGB 22	OCS-510	N/A	N/A	N/A	1.50' W @ 108.00'	N/A	113.19'	15" @ 1.50%, 108.16'
BASIN 25	OCS-594	N/A	N/A	3" Ø @ 101.35'	1.50' W @ 102.00'	N/A	103.39'	15" @ 4.77%, 100.00'
BASIN 26	OCS-377	N/A	N/A	N/A	1.00' W @ 97.80'	1.50' W @ 98.50'	99.87'	30" @ 0.30%, 95.55'
UGB 27	OCS-589	N/A	N/A	N/A	1.00' W @ 100.72'	N/A	104.28'	18" @ 2.00%, 98.07'
BASIN 28	OCS-565	N/A	N/A	N/A	1.0' W @ 91.50'	N/A	94.75'	24" @ 0.98%, 87.32'
BASIN 29	OCS-538	N/A	N/A	N/A	1.50' W @ 94.30'	N/A	95.90'	24" @ 0.58%, 92.26'
BASIN 30	OCS-562	N/A	N/A	2.5" Ø @ 91.45'	2.25' W @ 92.62'	4.33' W @ 93.52'	96.05'	42" @ 1.99%, 88.00'
UGB 31	OCS-480	N/A	N/A	10" Ø @ 93.18'	N/A	N/A	100.39'	15" @ 0.85%, 93.10'
UGB 32	OCS-504	N/A	N/A	N/A	1.50' W @ 110.50'	N/A	118.19'	24" @ 1.00%, 110.25'
UGB 33	OCS-426	N/A	N/A	N/A	1.50' W @ 106.40'	N/A	110.94'	24" @ 2.00%, 106.08'
UGB 34	OCS-505	N/A	N/A	8" Ø @ 110.00'	N/A	N/A	113.03'	15" @ 0.50%, 110.00'
BASIN 35	OCS-349	N/A	N/A	4" Ø @ 103.50'	3.25' W @ 105.75'	N/A	107.26'	30" @ 1.07%, 102.47'
BASIN 36	OCS-382	N/A	N/A	N/A	1.00' W @ 98.75'	N/A	100.98'	18" @ 2.00%, 97.00'
UGB 37	OCS-506	N/A	N/A	N/A	1.00' W @ 104.50'	N/A	108.54'	24" @ 2.00%, 104.00'
UGB 41	OCS-509	N/A	N/A	8" Ø @ 104.79'	N/A	N/A	110.96'	15" @ 0.50%, 104.50'
UGB 42	OCS-521	N/A	N/A	N/A	0.75' W @ 96.00'	N/A	98.92'	15" @ 1.50%, 95.50'
UGB 43	OCS-523	N/A	N/A	N/A	1.00' W @ 99.00'	N/A	102.99'	18" @ 1.28%, 98.50'
UGB 44	OCS-522	N/A	N/A	N/A	1.00' W @ 102.00'	N/A	106.11'	15" @ 15.48%, 101.50'
BASIN 45	OCS-45	N/A	N/A	N/A	0.5' W @ 97.08'	2-3.00' W @ 98.75'	100.50'	36" @ 2.87%, 95.74'
UGB 46	OCS-230	N/A	N/A	10" Ø @ 104.34'	N/A	N/A	108.35'	15" @ 0.75%, 103.50"
UGB 47	OCS-507	N/A	N/A	10" Ø @ 108.83'	N/A	N/A	113.48'	15" @ 0.50%, 108.50'
UGB 48	OCS-514	N/A	N/A	15" Ø @ 101.70'	N/A	N/A	106.72'	15" @ 0.50%, 102.15'
UGB 49	OCS-443	N/A	N/A	15" Ø @ 103.64"	N/A	N/A	108.35'	15" @ 4.33%, 103.33'
UGB 50	OCS-524	N/A	N/A	12" Ø @ 102.80"	N/A	N/A	106.27'	24" @ 2.11%, 101.74'
BASIN 51	OCS-143	N/A	N/A	N/A	1.50' W @ 103.25'	N/A	104.10'	24" @ 0.51%, 101.50'
BASIN 52	OCS-433	N/A	N/A	N/A	1.0' W @ 100.83'	N/A	103.03'	15" @ 0.91%, 100.10'
BASIN 53	OCS-347	N/A	N/A	N/A	1.0' W @ 105.45'	N/A	106.74'	15" @ 1.77%, 104.50"
UGB 54	OCS-512	N/A	N/A	12" Ø @ 99.63'	N/A	N/A	103.10'	15" @ 1.34%, 99.50'
UGB 55	OCS-577	N/A	N/A	N/A	1.0' W @ 106.79'	2.0' W @ 107.50'	111.38'	24" @ 0.90%, 106.50'
UGB 56	OCS-534	N/A	N/A	N/A	1.0' W @ 111.00'	2.0' W @ 112.50'	119.01'	24" @ 0.50%, 110.50'
UGB 57	OCS-528	N/A	N/A	N/A	0.75' W @ 112.50'	N/A	117.48'	15" @ 0.50%, 111.60'
BASIN 58	OCS-360	N/A	N/A	N/A	0.50' W @ 107.15'	1.50' W @ 108.75'	109.98'	24" @ 0.69%, 104.84'
UGB 59	OCS-358	N/A	N/A	N/A	1.25' W @ 105.00'	1.5' W @ 105.50', 3' W @ 106.50'	111.47'	24" @ 0.75%, 104.50'
UGB 60	OCS-526	N/A	N/A	N/A	1.0' W @ 112.10'	N/A	117.70'	24" @ 0.75%, 111.50'
UGB 61	OCS-486	N/A	N/A	8" Ø @ 108.25'	N/A	N/A	114.26'	15" @ 0.50%, 108.25'
UGB 62	OCS-532	N/A	N/A	8" Ø @ 108.66'	1.0' W @ 110.05'	N/A	114.00'	15" @ 0.50%, 111.08'
UGB 63	OCS-535	N/A	N/A	N/A	0.83' W @ 105.00'	1.75' W @ 106.00'	110.62'	18" @ 0.50%, 104.50'

* 2 WEIRS CONSTRUCTED ON 2 SEPARATE WALLS OF THE OUTLET CONTROL STRUCTURE. BOTH SIDES NEED TO BE EXPOSED IN THE BASIN FOR FLOW TO ENTER



SECTION A-A
RIP-RAP SPECIFICATION CHART

LOCATION	AVERAGE STONE SIZE: Dso	MAXIMUM STONE SIZE	BOTTOM LENGTH OF STONE X	BOTTOM WIDTH OF STONE Y	LENGTH OF STONE L	WIDTH OF STONE W	STONE THICKNESS W/O FILTER FABRIC	STONE THICKNESS W/O FILTER FABRIC	PIPE SIZE Do
FES 127	3"	6"	3.75'	2.5'	7.47'	6.22'	6"	N/A	15"
FES 136	3"	6"	3.75'	2.5'	7.47'	6.22'	6"	N/A	15"
FES 141	3"	6"	3.75'	2.5'	7.47'	6.22'	6"	N/A	15"
FES 146	3"	6"	3.75'	2.5'	7.47'	6.22'	6"	N/A	15"
HW 207	4"	6"	9.48'	10.00'	18.48'	19.00'	9"	N/A	48"
FES 213	3"	6"	12.00'	8.00'	24.00'	20.00'	6"	N/A	48"
FES 226	3"	6"	6'	3	10.5'	7.5'	6"	N/A	24"
FES 346	3"	6"	10.5'	7'	21'	17.5'	6"	N/A	42"
FES 352	3"	6"	7.5'	5'	15'	12.5'	6"	N/A	30"
FES 359	3"	6"	6'	4'	12'	10'	6"	N/A	24"
FES 372	3"	6"	7.5'	5'	15'	12.5'	6"	N/A	30"
FES 418	3"	6"	9'	6'	18'	15'	6"	N/A	36"
FES 419	3"	6"	9'	6'	18'	15'	6"	N/A	36"
FES 436	3"	6"	3.75'	2.5'	7.47'	6.22'	6"	N/A	15"
FES 463	3"	6"	7.5'	5'	15'	12.5'	6"	N/A	30"
FES 551	3"	6"	4.5'	3'	9'	7.5'	6"	N/A	18"

NOTES:
1. SCOUR HOLES SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORM EVENTS.
2. SCOUR HOLES SHALL BE REMOVED OF ALL SEDIMENT ANNUALLY OR WHEN SEDIMENT REACHES 50% OF CAPACITY.

*RENO-MATTRESSES OR PVC-COATED GABIONS CAN BE USED IN LIEU OF RIP-RAP WITH Dso > 12 IN. THICKNESS OF MATTRESSES/GABIONS SAME AS WHAT IS NOTED ON THE CHART. REFER TO DETAIL AT LEFT.

SCOUR HOLE DETAIL
NTS

TABLE 16-1: DUST CONTROL MATERIALS

MATERIAL	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLONS/ACRE
ANIONIC ASPHALT EMULSION	7:1	COARSE SPRAY	1200
LATEX EMULSION	12.5:1	FINE SPRAY	235
RESIN IN WATER	4:1	FINE SPRAY	300
POLYACRYLAMIDE (PAM) - SPRAY ON POLYACRYLAMIDE (PAM) - DRY SPREAD	APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MAY BE ALSO USED AS AN ADDITIVE TO SEDIMENT BASINS TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS. SEE SEDIMENT BASIN STANDARD, P. 26-1		
AGIDULATED SOY BEAN SOAP STICK	NONE	COARSE SPRAY	1200

TILLAGE: TO ROUGHEN SURFACE AND BRINGS CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART AND SPRING-TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRE EFFECT.

SPRINKLING: SITE IS SPRINKLED UNTIL THE SURFACE IS WET.

BARRIERS: SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING.

CALCIUM CHLORIDE: SHALL BE IN THE FORM OF LOOSE, DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY USED SPREADERS AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. IF USED ON STEEPER SL

SITE LIGHTING PLAN - 1
(SEE SHEET CS2201)

SITE LIGHTING PLAN - 2
(SEE SHEET CS2202)

SITE LIGHTING PLAN - 3
(SEE SHEET CS2203)

SITE LIGHTING PLAN - 4
(SEE SHEET CS2204)

FUTURE PHASE - BUILDING E1

FUTURE PHASE - BUILDING E2

SOUTH BRUNSWICK TOWNSHIP

PLAINSBORO TOWNSHIP

ROUTE 1 RAMP

SEMINARY DRIVE

COLLEGE ROAD WEST

PRIVATE DRIVE

EVERGREEN DRIVE (PRIVATE)

PRINCETON WINDROWS

PRINCETON FORRESTAL VILLAGE

GRAPHIC SCALE

80 0 40 80 160 320

(IN FEET)
1 inch = 80 feet

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
4	REV. PER DRC #2 MEMOS	5/23/25		
3	REV. COMPLETENESS SUBMISSION	1/16/25		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

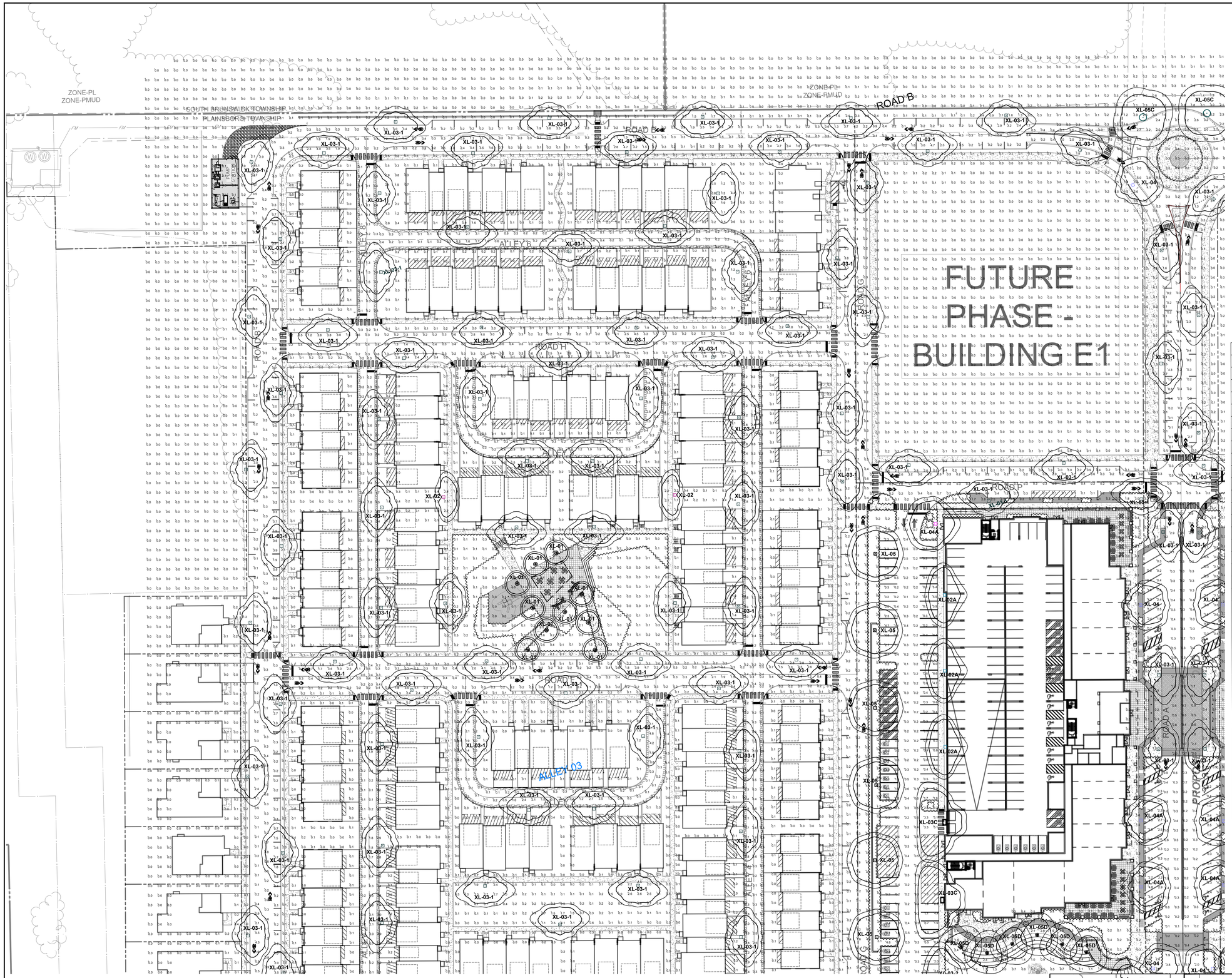
CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

OVERALL SITE LIGHTING PLAN
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN
PLAINSBORO TOWNSHIP MIDDLESEX CO., N.J.
SCALE 1"= 80' JUNE 14, 2024

DRAWN BY	DATE	FIELD BK	ORDER No.	PAGE No.	SHEET No.
WDV	6/14/24		WRNUL23001	53 OF 100	CS2200
CHECKED BY CG	DATE 6/14/24	PAGE			

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS2200.DWG



CALCULATION SUMMARY									
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	PtSpcLr	PtSpcTb
ALLEY 01_Ground	Illuminance	Fc	0.9	4.9	0.1	8.5	49.0	10	N.A.
ALLEY 02_Ground	Illuminance	Fc	0.8	5.0	0.1	7.9	50.0	10	N.A.
ALLEY 03_Ground	Illuminance	Fc	0.9	5.0	0.1	8.7	50.0	10	N.A.
ALLEY 04_Ground	Illuminance	Fc	0.8	4.8	0.1	8.2	48.0	10	N.A.
ALLEY 05_Ground	Illuminance	Fc	0.9	5.0	0.1	8.6	50.0	10	N.A.
ALLEY 06_Ground	Illuminance	Fc	0.8	4.9	0.1	7.7	49.0	10	N.A.
ALLEY 08_Ground	Illuminance	Fc	0.5	3.8	0.1	4.8	38.0	10	N.A.
ALLEY 09_Ground	Illuminance	Fc	1.0	4.8	0.1	9.8	48.0	10	N.A.
ALLEY 10_Ground	Illuminance	Fc	0.9	5.0	0.1	8.8	50.0	10	N.A.
ALLEY 11_Ground	Illuminance	Fc	0.8	3.9	0.1	8.1	39.0	10	N.A.
ALLEY 12_Ground	Illuminance	Fc	0.9	5.1	0.1	9.0	51.0	10	N.A.
ALLEY 13_Ground	Illuminance	Fc	0.9	5.0	0.1	8.8	50.0	10	N.A.
ALLEY 14_Ground	Illuminance	Fc	0.9	4.7	0.1	9.2	47.0	10	N.A.
LOADING DOCK_Ground	Illuminance	Fc	1.7	5.5	0.1	16.9	55.0	10	10
PARKING LOT 01_Ground	Illuminance	Fc	1.2	6.8	0.1	11.5	68.0	10	10
PARKING LOT 02_Ground	Illuminance	Fc	1.1	5.8	0.1	10.9	58.0	10	10
PARKING LOT 03_Ground	Illuminance	Fc	1.0	7.4	0.1	10.2	74.0	10	10
PARKING LOT 04_Ground	Illuminance	Fc	1.0	5.1	0.2	5.2	25.5	10	10
ROAD A - PARKING 1_Ground	Illuminance	Fc	1.2	5.1	0.2	6.1	25.5	10	10
ROAD A - PARKING 2_Ground	Illuminance	Fc	1.1	3.6	0.1	10.8	36.0	10	10
ROAD A - PARKING 3_Ground	Illuminance	Fc	1.6	4.8	0.1	15.6	48.0	10	10
ROAD A - PARKING 4_Ground	Illuminance	Fc	1.5	5.1	0.2	7.6	25.5	10	10
ROAD A B C INTERSECTION_Ground	Illuminance	Fc	0.9	5.0	0.1	8.7	50.0	10	10
ROAD A_Ground	Illuminance	Fc	1.0	5.1	0.1	9.8	51.0	10	10
ROAD B_Ground	Illuminance	Fc	0.9	5.0	0.1	8.5	50.0	10	N.A.
ROAD C_Ground	Illuminance	Fc	0.9	4.9	0.1	8.7	49.0	10	N.A.
ROAD D - PARKING_Ground	Illuminance	Fc	0.5	2.5	0.1	5.3	25.0	10	10
ROAD D_Ground	Illuminance	Fc	0.8	5.0	0.1	8.4	50.0	10	N.A.
ROAD E_Ground	Illuminance	Fc	1.1	5.5	0.1	11.0	55.0	10	10
ROAD F_Ground	Illuminance	Fc	0.9	5.0	0.1	9.1	50.0	10	N.A.
ROAD G_Ground	Illuminance	Fc	1.0	5.1	0.1	10.3	51.0	10	N.A.
ROAD H_Ground	Illuminance	Fc	0.9	4.6	0.1	8.7	46.0	10	N.A.
ROAD K_Ground	Illuminance	Fc	0.7	5.0	0.1	6.7	50.0	10	N.A.
ROAD L_Ground	Illuminance	Fc	1.1	5.0	0.1	10.5	50.0	10	N.A.
ROAD M_Ground	Illuminance	Fc	1.0	4.6	0.1	9.7	46.0	10	N.A.
ROAD N_Ground	Illuminance	Fc	0.9	4.7	0.1	8.5	47.0	10	N.A.
ROAD O_Ground	Illuminance	Fc	1.1	4.8	0.1	11.1	48.0	10	N.A.
ROAD P_Ground	Illuminance	Fc	0.9	4.8	0.1	8.5	48.0	10	N.A.

GRAPHIC SCALE

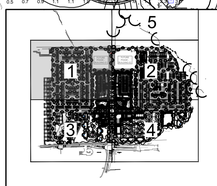
40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet

LEGEND

- BOLLARD LED LIGHT
- POST TOP LED LIGHTS
- TENON ARM LED POLE LIGHTS (25' POLE)
- COLUMN LED LIGHTS
- WALL MOUNT LED LIGHTS
- MEDIUM SCALE POST TOP LIGHT

SEE SHEET CS2205 FOR LIGHTING SCHEDULE AND DETAILS



SHEET KEY MAP

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
4	REV. PER DRC #2 MEMOS	5/23/25		
3	REV. COMPLETENESS SUBMISSION	7/16/25		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization
No. 24GA28033300

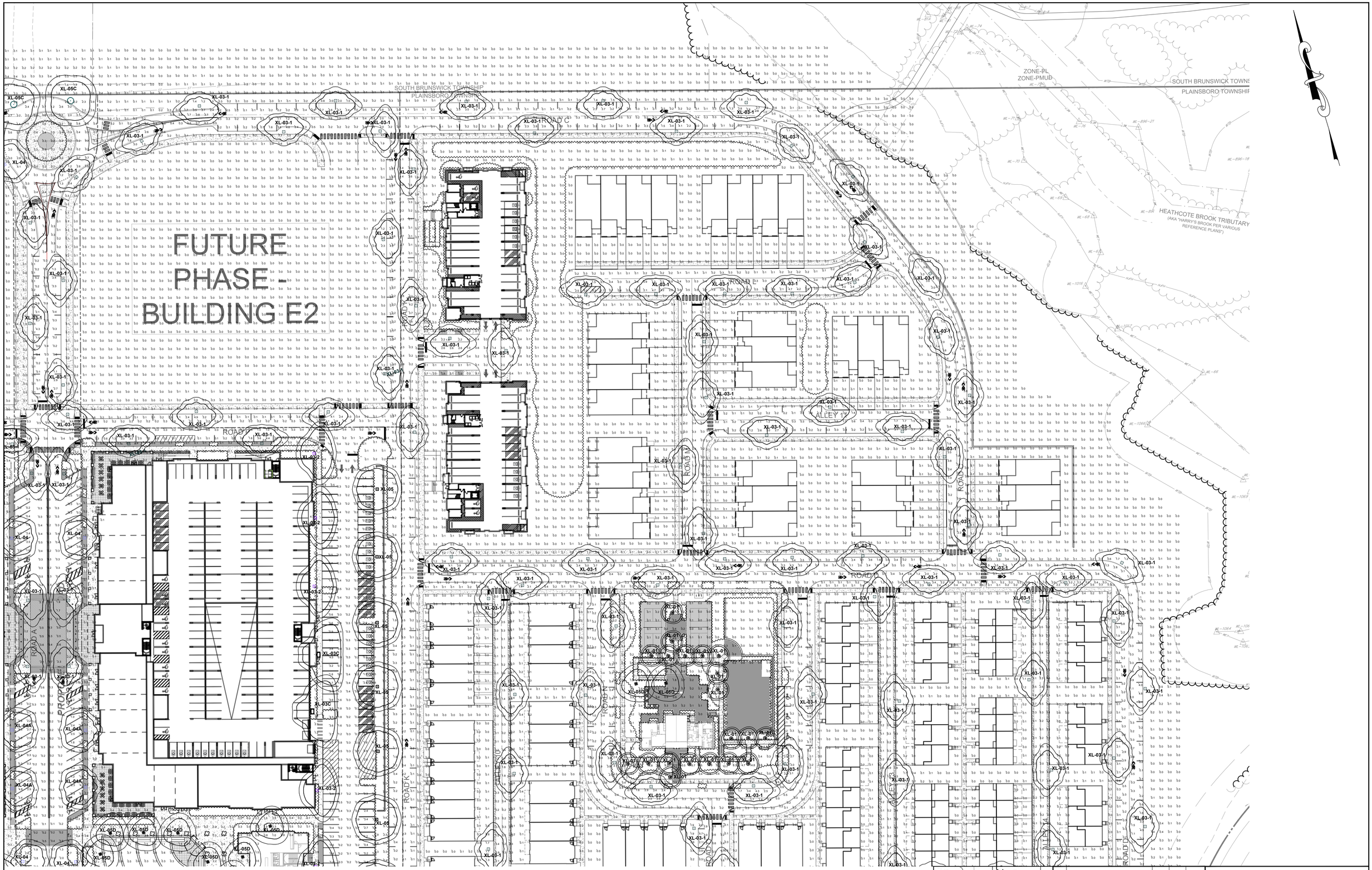
SITE LIGHTING PLAN – 1
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE 1" = 40'

MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY	MDV	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE 6/14/24					
CHECKED BY	CG	PAGE	WRNUL23001	54 OF 100	CS2201
DATE 6/14/24					

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS2201–CS2204.DWG



LEGEND

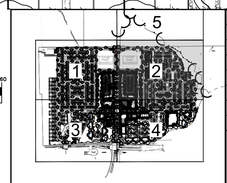
- BOLLARD LED LIGHT
- POST TOP LED LIGHTS
- TENON ARM LED POLE LIGHTS (25' POLE)
- COLUMN LED LIGHTS
- WALL MOUNT LED LIGHTS
- MEDIUM SCALE POST TOP LIGHT

SEE SHEET CS2205 FOR LIGHTING SCHEDULE AND DETAILS

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet



SHEET KEY MAP

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
4	REV. PER DRC #2 MEMOS	5/23/25		
3	REV. COMPLETENESS SUBMISSION	1/16/25		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

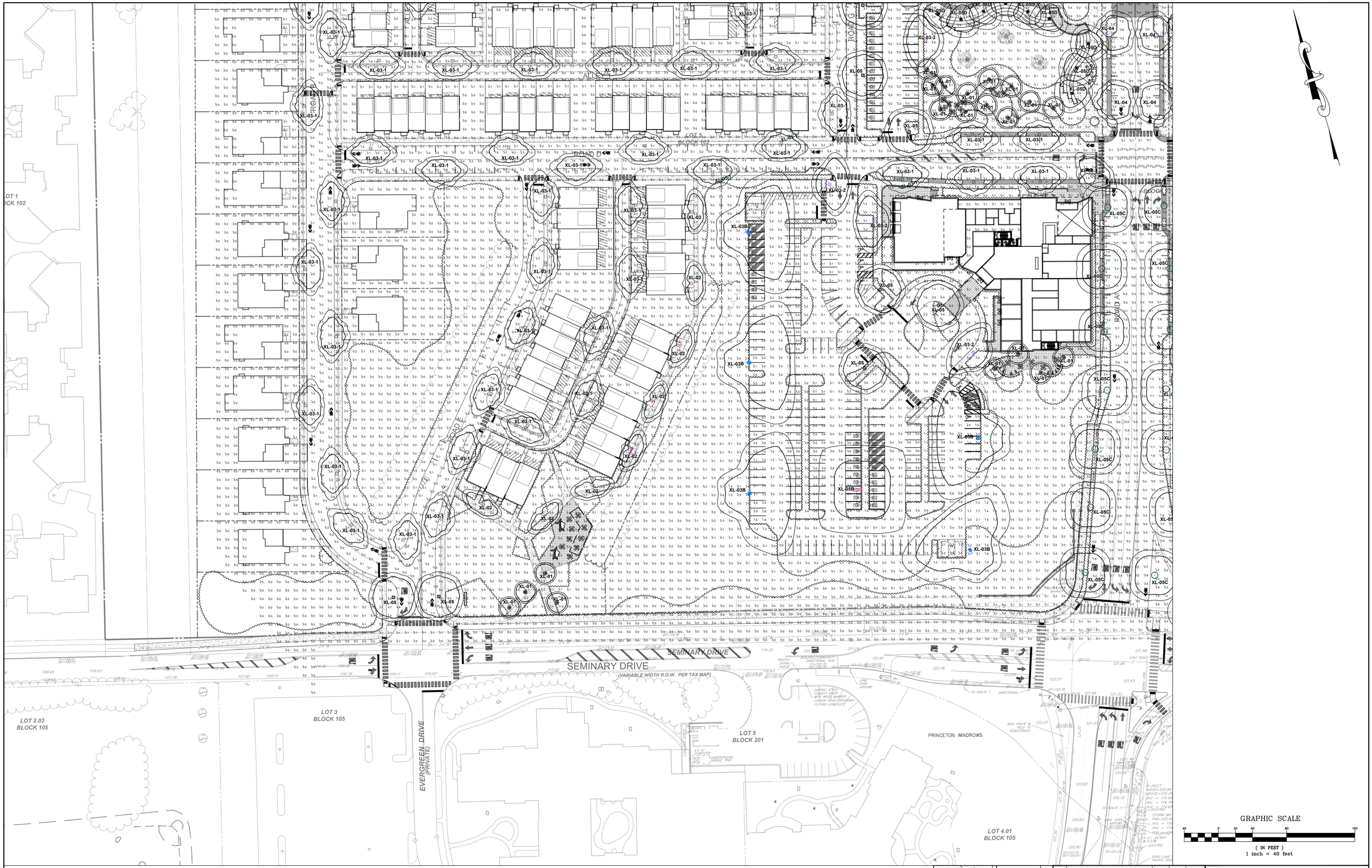
SITE LIGHTING PLAN – 2
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE 1"= 40'

MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY WDV DATE 6/14/24	FIELD BK	ORDER No.	PAGE No.	SHEET No.
CHECKED BY CG DATE 6/14/24	PAGE	WRNUL23001	55 OF 100	CS2202

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS2201–CS2204.DWG



GRAPHIC SCALE

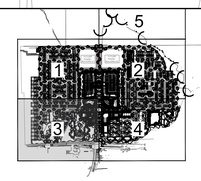
40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet

LEGEND

- BOLLARD LED LIGHT
- POST TOP LED LIGHTS
- TENON ARM LED POLE LIGHTS (25' POLE)
- COLUMN LED LIGHTS
- WALL MOUNT LED LIGHTS
- MEDIUM SCALE POST TOP LIGHT

SEE SHEET CS2205 FOR LIGHTING SCHEDULE AND DETAILS



SHEET KEY MAP

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
4	REV. PER DRC #2 MEMOS	5/23/25		
3	REV. COMPLETENESS SUBMISSION	7/16/25		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

6/14/24
DATE OF SIGN.

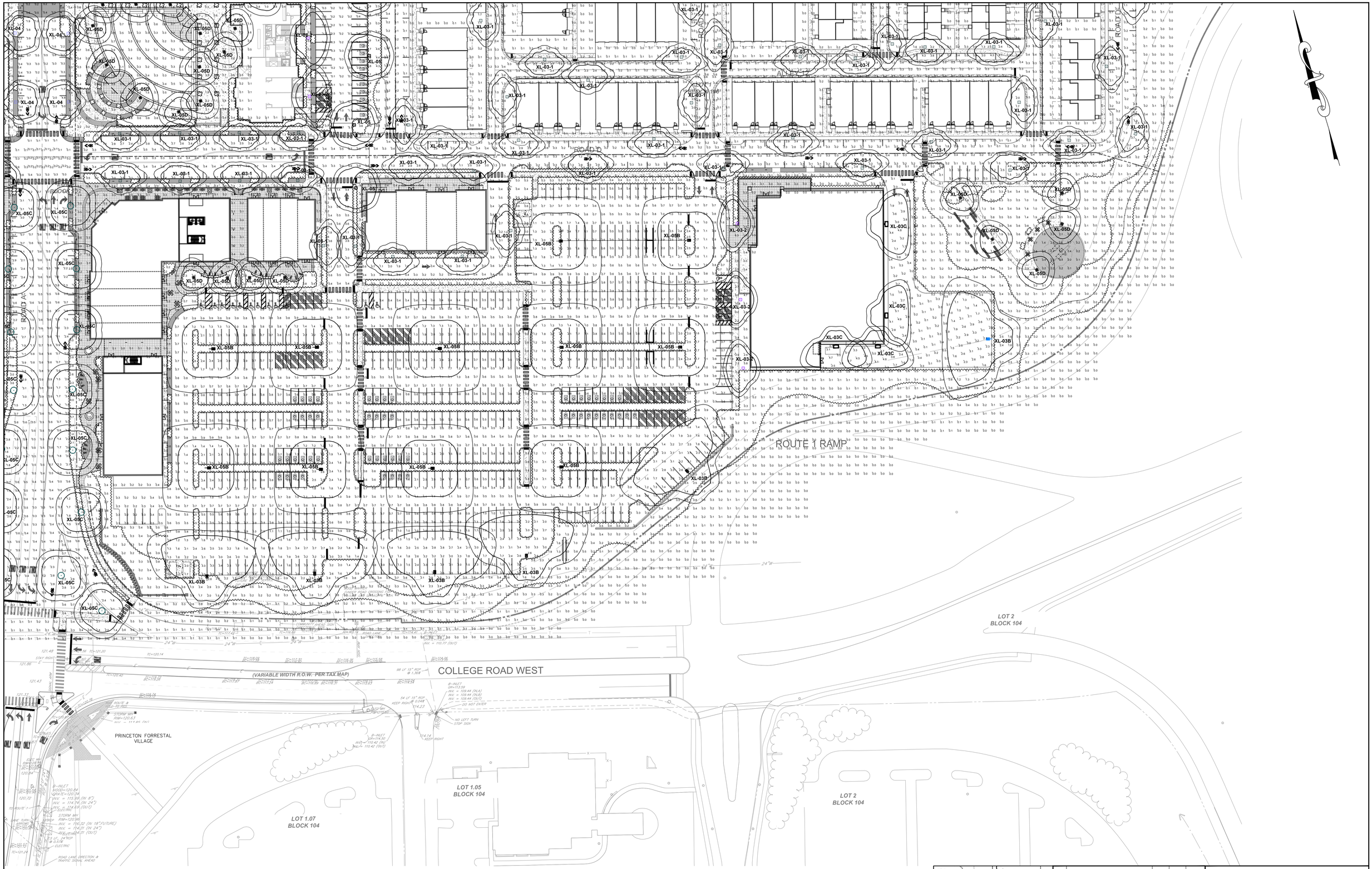
CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

SITE LIGHTING PLAN – 3
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE 1"= 40'
MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY	FIELD BK	ORDER No.	PAGE No.	SHEET No.
WDV DATE 6/14/24		WRNUL23001	56 OF 100	CS2203
CHECKED BY CG DATE 6/14/24	PAGE			

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN__SHEETS\CS2201–CS2204.DWG



LEGEND

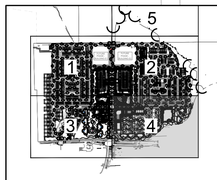
- BOLLARD LED LIGHT
- POST TOP LED LIGHTS
- TENON ARM LED POLE LIGHTS (25' POLE)
- COLUMN LED LIGHTS
- WALL MOUNT LED LIGHTS
- MEDIUM SCALE POST TOP LIGHT

SEE SHEET CS2205 FOR LIGHTING SCHEDULE AND DETAILS

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet



SHEET KEY MAP

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
4	REV. PER DRC #2 MEMOS	5/23/25		
3	REV. COMPLETENESS SUBMISSION	7/16/25		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

SITE LIGHTING PLAN – 4
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN
PLAINSBORO TOWNSHIP
MIDDLESEX CO., N.J.

SCALE 1"= 40'
JUNE 14, 2024

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

DRAWN BY	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE 6/14/24				
CHECKED BY CG	PAGE	WRNUL23001	57 OF 100	CS2204
DATE 6/14/24				

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS2201–CS2204.DWG

Specification Sheet

Millenia™
ML660 Medium Post Top

Project Name _____ Qty: _____

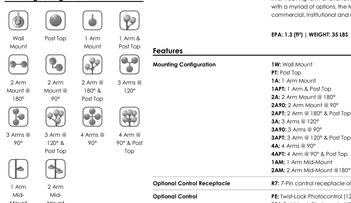
Type _____ Catalog / Part Number _____





7 Year Warranty

Mounting Configuration



Description

The Millenia™ ML660 medium post top luminaire is a breakthrough in modern area lighting technology utilizing die-cast and permenent mold parts. Its new world urban design transcends traditional lighting convention by seamlessly interweaving form and function to yet another level. Available with a myriad of options, the Millenia™ is perfect for commercial, institutional and municipal markets.

EPA: 1.3 (PF) | WEIGHT: 35 LBS

Features

Mounting Configuration
- **1W:** Wall Mount
- **PT:** Post Top
- **1A:** 1 Arm Mount
- **1APT:** 1 Arm & Post Top
- **2A:** 2 Arm Mount @ 180°
- **2APO:** 2 Arm Mount @ 90°
- **2APT:** 2 Arm @ 180° & Post Top
- **3A:** 3 Arms @ 120°
- **3APO:** 3 Arms @ 90°
- **3APT:** 3 Arm @ 120° & Post Top
- **4A:** 4 Arms @ 90°
- **4APT:** 4 Arm @ 90° & Post Top
- **1AM:** 1 Arm Mid-Mount
- **2AM:** 2 Arm Mid-Mount @180°

Optional Control Receptacle
- **R7:** 7-Pin control receptacle only

Optional Control
- **PE:** Twist-Lock Photocontrol (120V-277V)
- **PE4:** Twist-Lock Photocontrol (347V-480V)
- **SC:** Shorting Cap

Optional Fuse
- **FHD:** Double Fuse and Holder

Optional House Side Shield
- **BLOC:** Back Light Optical Control

Optional Fixed Dimming Resistor Board
- **FDRB:** Fixed Dimming Resistor Board

Sternberg

555 Lawrence Ave, Roselle, IL 60172, US | T 847.588.3400 | contactus@sternberglighting.com
www.sternberglighting.com/products/tt/

Sternberg reserves the right to make changes to this product at any time without prior notice and such modification shall be effective immediately.
2025.02.06 Copyright © 2025 Sternberg

Specification Sheet

Millenia™
ML660 Medium Post Top

How to Order

Mounting Configuration	Fixture	LED	CCT - Color Temp (K)	Distribution Type	Driver	Lens	Optional Control Receptacle (R) (a)	Optional Control	Optional Fuse	Optional House Side Shield (b)	Optional Fixed Dimming Resistor Board	Finish
1W Wall Mount **PT** Post Top **1A** 1 Arm Mount **1APT** 1 Arm & Post Top **2A** 2 Arm @ 180° **2APO** 2 Arm @ 90° **2APT** 2 Arm @ 180° & Post Top **3A** 3 Arms @ 120° **3APO** 3 Arms @ 90° **3APT** 3 Arm @ 120° & Post Top **4A** 4 Arms @ 90° **4APT** 4 Arm @ 90° & Post Top **1AM** 1 Arm Mid-Mount **2AM** 2 Arm Mid-Mount @180°	**ML660** Millenia Medium Post Top	**2A** 24 LEDs **1A** 16 LEDs **1ZL** 12 LEDs	**27** 2700K **30** 3000K **35** 3500K **40** 4000K **50** 5000K	**T2** Type 2 **T3** Type 3 **T4** Type 4 **T5** Type 5	**MDL018** 18W @ 277V, 180mA **MDH018** 347V - 480V, 180mA **MDL014** 14W @ 277V, 140mA **MDH014** 347V - 480V, 140mA **MDL008** 8.8W @ 120V, 277V, 80mA (c) **MDH008** 347V - 480V, 80mA (c)	**CA** Clear Acrylic **SV1** Flat Soft-Vue™ Diffused Acrylic **SV2** Soft-Vue™ Diffused Acrylic	**R7** 7-Pin control receptacle only	**PE** Twist-Lock Photocontrol (120V-277V) **PE4** Twist-Lock Photocontrol (347V-480V) **SC** Shorting Cap (d)	**FHD** Double Fuse and Holder	**BLOC** Back Light Optical Control	**FDRB** Fixed Dimming Resistor Board	**UGMT** Urban Gun Metal Textured **UGM** Urban Gun Metal Matte **UBT** Urban Bronze Textured **UB** Urban Bronze Matte **USLT** Urban Silver Textured **USL** Urban Silver Matte **UWHT** Urban White Textured **UWH** Urban White Matte **BKT** Black Textured **CM** Custom Match (e)

Notes:
1. 4-Pin available with a round profile pole.
2. 7 (R or 7A) control pins.
3. 7 (R or 7A) control pins.
4. 7 (R) control pins.
5. Not for use with PDRB.
6. See specifications section for more info on compatibility with wireless controllers.
7. Requires control receptacle.
8. Not for use with PDRB.
9. Custom colors require upcharge.

Sternberg

555 Lawrence Ave, Roselle, IL 60172, US | T 847.588.3400 | contactus@sternberglighting.com
www.sternberglighting.com/products/tt/

Sternberg reserves the right to make changes to this product at any time without prior notice and such modification shall be effective immediately.
2025.02.06 Copyright © 2025 Sternberg

Catalog #: _____ Project: _____ Type: _____

Prepared By: _____ Date: _____

Mirada Medium (MRM)

Outdoor LED Area Light



IN THE USA | IP66 | IK08

OVERVIEW	
Lumen Package	7,000 - 55,000
Wattage Range	48 - 438
Efficacy Range (LPW)	115 - 162
Weight lbs(kg)	30 (13.6)
Control Options	IMSBT, ALB, ALS, 7-Pin, PCI

QUICK LINKS

Ordering Guide | Performance | Photometrics | Dimensions

FEATURES & SPECIFICATIONS

Construction
- Rugged die-cast aluminum housing contains factory prewired driver and optical unit. Cast aluminum wiring access door located underneath.
- Designed to mount to square or round poles.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Shipping weight: 37 lbs in carton.

Optical System
- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated sealed optical chamber in 1 component.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in IES Types 2, 3, 4, SW, FT, FTA, AM, and LC/RC.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93-95%.
- Zero uplight.
- Available in 5000K, 4000K, and 3000K color temperatures per ANSI C78.377. Also Available in Phosphor Converted Amber with Peak intensity at 610nm.
- Minimum CRI of 70.
- Integral louver (IL) and integral half louver (IH) options available for enhanced backlight control.

Electrical
- High-performance programmable driver features over-voltage, under-voltage, short-circuit and over temperature protection. Custom lumen and wattage packages available.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) input 50/60 Hz or optional High Voltage (347-480 Vac).
- LBO Calculated Life: >100k Hours (See Lumen Maintenance chart)
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F). 42L and 48L lumen packages rated to +40°C. 55L lumen package rate to +35°C.
- Power factor: >.90
- Input power stays constant over life.
- Field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.

Controls
- Optional integral passive infrared Bluetooth™ motion. Fixtures operate independently and can be commissioned via iOS or Android configuration app
- LSI's AirLink™ wireless control system options reduce energy and maintenance costs while optimizing light quality 24/7. (see controls section for more details).

Installation
- Designed to mount to square or round poles.
- A single fastener secures the hinged door, underneath the housing and provides quick & easy access to the electrical compartment.
- Included terminal block accepts up to 12 ga. wire.
- Utilizes LSI's traditional 3" drill pattern B3 for easy fastening of LSI products.

Warranty
- LSI LED Fixtures carry a 5-year warranty.

Listings
- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- RoHS compliant
- Suitable for wet Locations.
- IP66 rated Luminaire per IEC 60598.
- 3G rated for ANSI C136.31 high vibration applications are qualified.
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL, to confirm which versions are qualified.
- Patented Silicone Optics (US Patent NO. 10,816,165 B2)
- IK08 rated luminaire per IEC 66262 mechanical impact code

LSI Industries Inc. 10000 Alliance Rd. Cincinnati, OH 45242 • (513) 372-3200 • www.lsicorp.com

©LSI Industries Inc. All Rights Reserved. Specifications and dimensions subject to industry standard tolerances. Specifications subject to change without notice.

Mirada Medium Outdoor LED Area Light

Type: _____

Have questions? Call us at (800) 436-7800

ORDERING GUIDE

Back to Quick Links

TYPICAL ORDER EXAMPLE: MRM LED 35L SIL FTA UNV DIM 50 70CRI ALSCSA BBZ IL

Prefix	Light Source	Lumen Package	Lens	Distribution	Orientation*	Voltage	Driver
MRM - Mirada Medium Area Light	**LED**	**7L** - 7,000 lms, 48W **9L** - 9,000 lms, 63W **12L** - 12,000 lms, 81W **18L** - 18,000 lms, 135W **24L** - 24,000 lms, 176W **30L** - 30,000 lms, 212W **36L** - 36,000 lms, 288W **42L** - 42,000 lms, 324W **48L** - 48,000 lms, 402W **55L** - 55,000 lms, 438W Custom Lumen Package†	**SIL** - Silicone	**2** - Type 2 **3** - Type 3 **4** - Type 4 **SW** - Type 5 Wide **FT** - Forward Throw **FTA** - Forward Throw Automotive **AM** - Automotive Merchandise **LC** - Left Corner **RC** - Right Corner	**(Blank)** - standard **L** - Optics rotated left 90° **R** - Optics rotated right 90°	**UNV** - Universal Voltage (120-277V) **HV** - High Voltage (347-480V)	**DIM** - 0-10V Dimming (0-10V)

Color Temp	Color Rendering	Finish		Options
50 - 5,000 CCT **40** - 4,000 CCT **30** - 3,000 CCT **AMB** - Phosphor Converted Amber(1)	**70CRI** - 70 CRI	**BLK** - Black **DBZ** - Dark Bronze **GMG** - Gen Medal Gray **GPT** - Graphite	**MSV** - Metallic Silver **PVP** - Platinum Plus **SVG** - Satin Verde Green **WHT** - White	**(Blank)** - None **IH** - Integral Half Louver (Moderate Spill Light Cutoff) **IL** - Integral Louver (Sharp Spill Light Cutoff)

Controls (Choose One)

(Blank) - None

Wireless Control System
- **ALSC** - AirLink Sensaphi Control System(2)
- **ALSCSD** - AirLink Sensaphi Control System with 12-20' Motion Sensor(2)
- **ALSCSM** - AirLink Sensaphi Control System with 21-40' Motion Sensor(2)
- **ALSCS** - AirLink Blue Wireless Motion & Photo Sensor Controller (5-24' mounting height)(3)
- **ALSCZ** - AirLink Blue Wireless Motion & Photo Sensor Controller (25-40' mounting height)(3)

Stand-Alone Controls
- **LCS** - 0-10v Dimming leads extended to housing exterior
- **CSTP** - 7 Pin Control Receptacle ANSI C136.41.4
- **IMSBT1** - Integral Bluetooth™ Motion and Photocell Sensor (9-24' MH)*
- **IMSBT2** - Integral Bluetooth™ Motion and Photocell Sensor (25-40' MH)*

Button Type Photocells
- **PCSLB** - 120V
- **PCSDB-277** - 208 - 277V
- **PCDLC** - 347V

SHIELDING OPTIONS

Mirada Small	See Shielding Guide
Mirada Medium	
Mirada Large	
Zone Medium	
Zone Large	
Slice Medium	

Need more information? Click here for our glossary

Have additional questions? Call us at (800) 436-7800

ACCESSORY ORDERING INFORMATION*

CONTROLS ACCESSORIES	
Description	**Order Number**
PCLSD Photocell for use with CSTP option (120V)*	322534
PC208-277 Photocell for use with CSTP option (208V, 240V, 277V)*	322535
Twist Lock Photocell (347V) for use with CSTP *	322536
Twist Lock Photocell (480V) for use with CSTP *	322538
Airlink 5 Pin Twist Lock Controller (120-277V Only)*	663409
Airlink 7 Pin Twist Lock Controller (120-277V Only)*	663410
Airlink 7 Pin Twist Lock Controller (347-480V)	679948
Shorting Cap for use with CSTP	349529

FUSING OPTIONS(4)	
Single Fusing (120V)	See Fusing Accessory Guide
Single Fusing (277V)	
Double Fusing (208V, 240V)	
Double Fusing (480V)	
Double Fusing (347V)	

1. Custom lumen and wattage packages available, consult factory. Values are within industry standard tolerances but not ISC listed.
2. Not available with SW distribution
3. Consult factory for availability.
4. Not available in HV.
5. Motion sensors are field configurable via an app that can be downloaded from your smartphone's native app store. See controls section for more details.
6. Control device or shorting cap must be ordered separately. See Accessory Ordering Information.
7. Accessories are shipped separately and field installed.
8. Factory installed CSTP option required. See Options.
9. "CSX" denotes finish. See finish options.
10. Only available with ALSC&CSX control options.
11. Fusing must be located in hand hole of pole. See Fusing Accessory Guide for compatability.
12. Only available in 5L, 7L, 9L and 12L Lumen Packages. Consult factory for lead time and availability.
13. Not available with DL Lumen Package.

LSI Industries Inc. 10000 Alliance Rd. Cincinnati, OH 45242 • (513) 372-3200 • www.lsicorp.com

©LSI Industries Inc. All Rights Reserved. Specifications and dimensions subject to industry standard tolerances. Specifications subject to change without notice.

Catalog #: _____ Project: _____ Type: _____

Prepared By: _____ Date: _____

Mirada Medium Wall Sconce (XWM)

Outdoor Wall Sconce



IP65 | IK08

OVERVIEW	
Lumen Package	3,000 - 21,000
Wattage Range	23 - 175
Efficacy Range (LPW)	125 - 158
Weight lbs(kg)	27 (12.2)
Control Options	IMSBT, ALB, ALS, PCI

QUICK LINKS

Ordering Guide | Performance | Photometrics | Dimensions

FEATURES & SPECIFICATIONS

Construction
- Rugged die-cast aluminum housing contains factory prewired driver and optical unit. Hinged die-cast aluminum wiring access door located underneath.
- Galvanized-steel universal wall mount bracket comes standard with hinging mechanism to easily access the junction box wire connections without removing the luminaire.
- Optional pole-mounting bracket (XPMA) permits mounting to standard poles.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Max shipping weight: 30lbs in carton

Optical System
- State-of-the-Art one piece silicone optic provides industry leading optical control while also acting as an integrated gasket reducing system complexity and improving fixture reliability.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in Types 2, 3, 4, and FT distributions.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93-95%.
- Zero uplight.
- Available in 5000K, 4000K and 3000K color temperatures per ANSI C78.377. Also Available in Phosphor Converted Amber with Peak intensity at 610nm.
- Minimum CRI of 70.

Electrical
- High-performance programmable driver features over-voltage, under-voltage, short-circuit and over temperature protection. Custom lumen and wattage packages available.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) input 50/60 Hz or optional High Voltage (347-480 Vac).
- LBO Calculated Life: >100k Hours
- Total harmonic distortion (THD): <20%
- 3L to 12L operating temperature: -40°C to +50°C (-40°F to +122°F)
- 15L operating temperature: -40°C to +45°C (-40°F to +113°F).
- 18L operating temperature: -40°C to +40°C (-40°F to +104°F).
- 21L operating temperature: -40°C to +35°C (-40°F to +95°F).
- Power factor (PF): > .90
- Input power stays constant over life.
- Optional 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed via hinged door.
- Optional integral emergency battery pack provides 90+minutes of constant power to the LED system, ensuring code compliance. A test switch/indicator button is installed on the housing for ease of maintenance. The fixture delivers 1500 lumens during emergency mode.

Controls
- Integral passive infrared Bluetooth™ motion sensor options. Fixtures operate independently and can be commissioned via an iOS or Android configuration app. Updates and modifications to the control strategy are easily implemented via an intuitive app.
- LSI's AirLink™ Blue lighting control system is a simple feature rich wireless Bluetooth mesh network. The integrated fixture sensor module provides wireless control of grouped fixtures based on motion sensors, daylight or a fully customizable schedule.

Installation
- Universal wall mounting plate easily mounts directly to 4" octagonal or square junction box.
- 2 fasteners secure the hinged door underneath the housing and provide quick & easy access to the electrical compartment for installing/servicing.
- Optional terminal block accepts up to 12 ga wire.

Warranty
- LSI luminaires carry a 5-year limited warranty. Refer to Https://www.lsicorp.com/resources/terms-conditions-warranty/ for more information.
- 1 Year warranty on Battery Back-up option.

Listings
- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K or lower color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet Locations.
- IP65 rated luminaire per IEC 60598.
- 3G rated for ANSI C136.31 high vibration applications when pole mounted (using optional XPMA bracket) or wall mounted.
- IK08 rated luminaire per IEC 66262
- mechanical impact code
- DesignLights Consortium® (DLC) Premium qualified product. Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL, to confirm which versions are qualified.

LSI Industries Inc. 10000 Alliance Rd. Cincinnati, OH 45242 • (513) 372-3200 • www.lsicorp.com

©LSI Industries Inc. All Rights Reserved. Specifications and dimensions subject to industry standard tolerances. Specifications subject to change without notice.

POST TOP LIGHT FIXTURE (XL-02, XL-2A, XL-03-1, XL-03-2, XL-04, XL-04A, XL-05)

TENON ARM MOUNT POLE LIGHT FIXTURE (XL-03B AND XL-05B)

WALL MOUNT LIGHT FIXTURE (XL-03C)

(4) 1/2" x 18" Anchor Bolts, 8" Bolt Circle, Diamond pattern

Access Door Orientation: 0°
Street Side Orientation: 180°

555 Lawrence Avenue | Roselle, IL 60172 | p 847.588.3400 | www.sternberglighting.com

CONCEPTUAL ASSEMBLY DRAWING, SUBJECT TO ENGINEERING VERIFICATION BY THE FACTORY

PT FIXTURE: 1720ALED
The Villa series luminaire is a medium scale, arch design fixture featuring a tall cylindrical body made up of a cast aluminum top and round lens. The luminaire shall be UL listed in US and Canada.

Shade Style: Shallow shade with flat top (RD)
Internal Housing: 4-Vaned Deco (IH4)
Filter: R3

PT FIXTURE LIGHT SOURCE: -1L30TS-MDL14-SV2
Array: 1 LED, 41WHMD_07, 52WHMD_09, 64WHMD_11, 80WHMD_14 (1L)
Color Temp: 3000K (30)
Distribution: TS (Symmetric) (TS)
Driver: Multi-Volt Dimmable Low-Range Driver - 120-277V, 1400mA (MDL14)
Internal Lens: Soft Vue Moderate Diffused Acrylic (SV2)

POLE: 450P4-12-.188
The 10-1/2" diameter cast 356 aluminum alloy base and aluminum shaft shall be a one-piece construction. For fixtures using remote ballasts or drivers, the servicing of these components requires pulling the pole. The pole shall be U.L. or E.T.L. listed in U.S. and Canada. All pole heights to have a tolerance of ± 2".

Model: 450 Lexington (450)
Shaft Type: Smooth Straight 4 Inch, 6061-T6 Aluminum Alloy (P4) (P4-)
Height: 12 Ft (12)
Gauge: 188" (.188)

FINISH: /STD
Assembly shall be powder coated to a yet to be determined standard finish. This option may be used for quoting purposes when a final decision on the finish specification is pending.

Job Name: Customer Signature: Drawing #53048
Job Location: Date: 2024/06/04 1 of 2

Catalog Number: PT-1720ALED-RD-IH4-R3-1L30TS-MDL14-SV2 / 450P4-12-.188 / STD

555 Lawrence Avenue | Roselle, IL 60172 | p 847.588.3400 | www.sternberglighting.com

CONCEPTUAL ASSEMBLY DRAWING, SUBJECT TO ENGINEERING VERIFICATION BY THE FACTORY

Job Name: Customer Signature: Drawing #53048
Job Location: Date: 2024/06/04 2 of 2

Catalog Number: PT-1720ALED-RD-IH4-R3-1L30TS-MDL14-SV2 / 450P4-12-.188 / STD

POST TOP LIGHT FIXTURE (XL-05C)

Catalog Number: BL-RT4-42IN-26L30T5-MDL03-CA/STD Type: _____

Customer Approval: _____ Signature _____ Date

Conceptual assembly drawing, subject to Engineering verification by factory.

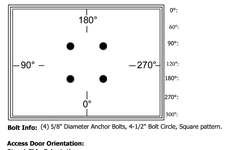
BOLLARD: BL-RT4
The Rialta RTAXX bollards are available in 30", 42", and 48" heights.

LIGHT SOURCE: -26L30T5
Light Source: 26L30T5 (26 LED, 3000K, Type V) (26L30T5)

DRIVER: -MDL03
Driver: MDL03 (350mA, 120-277V Dimming Driver) (MDL03)

OPTIONS: -CA
Lens: Clear Acrylic (CA)

FINISH: STD
Assembly shall be powder coated to a yet to be determined standard finish. This option may be used for quoting purposes when a final decision on the finish specification is pending.



Bolt Info: (4) 5/8" Diameter Anchor Bolts, 4-1/2" Bolt Circle, Square pattern.

Access Door Orientation:
Street Side Orientation:

Rev	Description	By	Date
A			
B			
C			
D			
E			

Job Name: _____
Job Location: _____ Drawing No. 53139
Drawn By: _____ Drawn Date: _____ Checked By: _____ Checked Date: _____

BOLLARD LIGHT FIXTURE (XL-01)

Catalog Number: PT-14-RT403-26L30T5-MDL05-SV2/USTD Type: _____

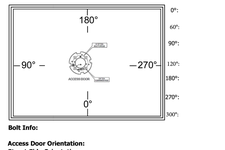
Customer Approval: _____ Signature _____ Date

Conceptual assembly drawing, subject to Engineering verification by factory.

LIGHT COLUMN: PT-14-RT403
The RIALTA® RT403 luminaire in a cylindrical, three legged, open cage post top mounted luminaire designed to bring ambiance to any project by providing a performance lighting package. The vertical fins of the aluminum cage cylinder adds a three foot high decorative element that adds additional interest. Illuminating from the top casting and giving the effect of moon light from within its cage form.

LIGHT SOURCE: -26L30T5-MDL05-SV2
Array: 26 LEDS, 32 Watts with MD_03, 49 Watts with MD_05 (26L)
Color Temp: 3000K (30)
Distribution: Type 5 (T5)
Driver: 120-277 525mA (MDL05)
Lens: Flat Heavy Diffuse Acrylic (SV2)

FINISH: USTD
Assembly shall be powder coated to a yet to be determined Urban finish. This option may be used for quoting purposes when a final decision on the finish specification is pending.



Bolt Info:

Access Door Orientation:
Street Side Orientation:

Rev	Description	By	Date
A			
B			
C			
D			
E			

Job Name: _____
Job Location: _____ Drawing No. 53156
Drawn By: _____ Drawn Date: _____ Checked By: _____ Checked Date: _____

COLUMN LIGHT FIXTURE (XL-05D)

POST TOP LIGHT FOUNDATION DETAIL
NTS

TENON ARM MOUNT AREA LIGHT FOUNDATION DETAIL
NTS

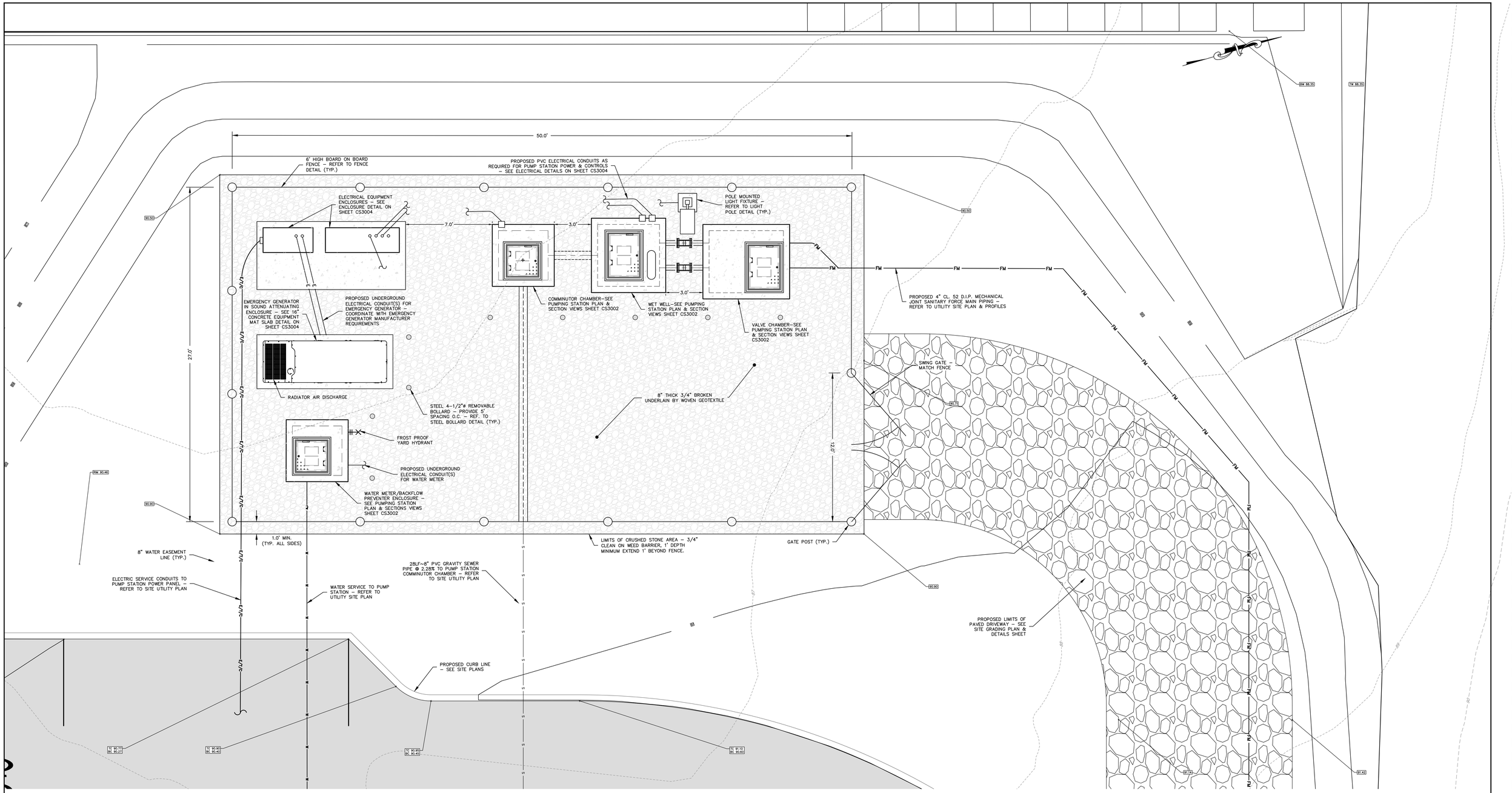
BOLLARD / COLUMN LIGHT FOUNDATION DETAIL
NTS

LUMINAIRE SCHEDULE **REFER TO LIGHTING FIXTURE CUTSHEETS FOR COMPLETE CATALOG NUMBERS**

Symbol	Qty	Arrangement	Fixture Type	Description	Manufacturer	Catalog Number	CCT	LLF	Total Watts	Delivered Lumens	Mounting Height
◉	50	Single	XL-01	42 INCH ROUND BOLLARD	STERNBERG LIGHTING	BL-RT4-42IN-26L30T5-MDL03-CA/STD	3000K	0.830	30.7	2698	3.5
■	10	Single	XL-02	DECORATIVE POST TOP LANTERN, TYPE 2, MOUNTED ON 12 FT. POLE, NOMINAL 2600 INITIAL DELIVERED LUMENS	STERNBERG LIGHTING	PT-ML660-12L30T2-MDL008-SV1-FDRP / 4SQ12-.188/STD	3000K	0.830	26.8	2582	14.5
■	3	Single	XL-02A	DECORATIVE LANTERN, TYPE 2, MOUNTED ON WALL, NOMINAL 8300 INITIAL DELIVERED LUMENS	STERNBERG LIGHTING	1W-ML660-24L30T2-MDL014-SV1-R56-FDRP	3000K	0.830	87.9	8279	14
■	247	Single	XL-03-1	DECORATIVE POST TOP LANTERN, TYPE 3, MOUNTED ON 12 FT. POLE, NOMINAL 4000 INITIAL DELIVERED LUMENS	STERNBERG LIGHTING	PT-ML660-12L30T3-MDL014-SV1-FDP / 4SQ12-.188/STD	3000K	0.830	46.4	3951	14.5
■	12	Single	XL-03-2	DECORATIVE POST TOP LANTERN, TYPE 3, MOUNTED ON 12 FT. POLE, NOMINAL 7700 INITIAL DELIVERED LUMENS	STERNBERG LIGHTING	PT-ML660-24L30T3-MDL014-SV1-FDRP / 4SQ12-.188/STD	3000K	0.830	88.1	7669	12, 14.5
▭	11	Single	XL-03B	MEDIUM SCALE AREA LIGHT, TYPE 3 MOUNTED ON 25 FT. POLE, NOMINAL 19,500 INITIAL DELIVERED LUMENS	LSI INDUSTRIES, INC.	MRM-LED-18L-SIL-3-VOLTS-DIM-30-70CRI-(FINISH)-ALBCS2	3000K	0.900	135	19462	25
▯	8	Single	XL-03C	WALLPACK, TYPE 3 DISTRIBUTION, NOMINAL 8300 INITIAL DELIVERED LUMENS	LSI INDUSTRIES, INC.	XWM-3-LED-08L-30	3000K	0.900	64	8283	14, 14.5
■	11	Single	XL-04	DECORATIVE POST TOP LANTERN, TYPE 4, MOUNTED ON 12 FT. POLE, NOMINAL 4900 INITIAL DELIVERED LUMENS	STERNBERG LIGHTING	PT-ML660-12L30T4-MDL014-SV1-FDP / 4SQ12-.188/STD	3000K	0.830	59.7	4887	14.5
■	1	Single	XL-04A	DECORATIVE LANTERN, TYPE 4, MOUNTED ON WALL, NOMINAL 7700 INITIAL DELIVERED LUMENS	STERNBERG LIGHTING	1W-ML660-24L30T4-MDL014-SV1-R56-FDRP	3000K	0.830	88	7738	14
■	22	Single	XL-05	DECORATIVE LANTERN, TYPE 5, MOUNTED ON WALL, NOMINAL 8200 INITIAL DELIVERED LUMENS	STERNBERG LIGHTING	PT-ML660-12L30T5-MDL014-SV1-FDP / 4SQ12-.188/STD	3000K	0.830	88.1	8216	14.5
▭	12	Single	XL-05B	MEDIUM SCALE AREA LIGHT, TYPE 5W MOUNTED ON 25 FT. POLE, NOMINAL 18,600 INITIAL DELIVERED LUMENS	LSI INDUSTRIES, INC.	MRM-LED-18L-SIL-5W-VOLTS-DIM-30-70CRI-COLOR-ALBCS2-	3000K	0.900	135	18633	25
⊙	17	Single	XL-05C	MEDIUM SCALE POST TOP LUMINAIRE, TYPE 5, MOUNTED ON 12 FT. POLE	STERNBERG LIGHTING	PT-1720ALED-RD-IH4-R3-1L30TS-MDL14-SV2 / 450P4-12-.188 / STD/	3000K	0.880	79.7	8684	14.5
■	33	Single	XL-05D	EXTERIOR LED LIGHT COLUMN, TYPE 5, OAH 14 FT.	STERNBERG LIGHTING	PT-14-RT403-26L30T5-MDL05-SV2/USTD	3000K	0.840	48.8	3415	14, 14.5

GENERAL LIGHTING NOTES:

1. REFER TO MEP ELECTRICAL DRAWINGS FOR HOME RUN ELECTRICAL FEEDS AND CIRCUITING.
2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE 2011 NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL CODES.
3. CONTRACTOR SHALL COORDINATE WITH ALL PROJECT DRAWINGS FOR SCOPE OF WORK AND PROJECT ENGINEER FOR THE INSTALLATION SPECIFICATIONS FOR METERED SERV



PROPOSED LEGEND:

○	METAL BOLLARD
——E——	ELECTRICAL CONDUIT
——8"W——	8"ø WATER MAIN
——FM——	FORCE MAIN
——1"W——	1"ø WATER SERVICE
——G——	GAS SERVICE CONDUIT
——E/T/C——	BURIED ELECTRICAL CONDUIT
——70——	MAJOR CONTOUR LINE
——71——	MINOR CONTOUR LINE
	SANITARY SEWER PIPE
	CONCRETE STRUCTURE
	CRUSHED STONE AREA
	DRIVEWAY

GRAPHIC SCALE

3 0 1.5 3 6 12

(IN FEET)
1 inch = 3 feet

Know what's **below.** **Call** before you dig.

UTILITY NOTE:
ALL OF THE SANITARY SEWER FACILITIES WILL REMAIN PRIVATELY OWNED AND MAINTAINED.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
5	REV. PER DRC#2 MEMOS	5/23/25		
4	REV. COMPLETENESS SUBMISSION	1/16/25		
3	REVISED PER COMMENTS	10/23/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

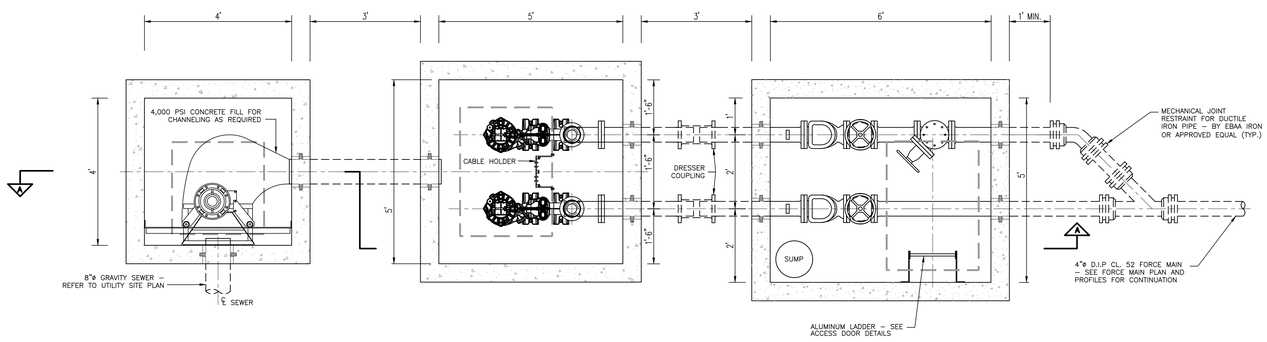
CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

PUMP STATION SITE PLAN
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN
PLAINSBORO TOWNSHIP MIDDLESEX CO., N.J.
SCALE 1"=3' JUNE 14, 2024

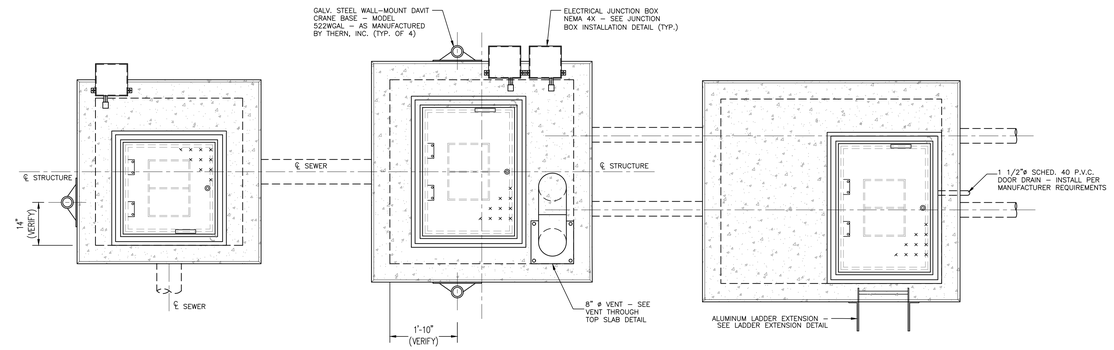
DRAWN BY	FIELD BK	ORDER No.	PAGE No.	SHEET No.
WDV DATE 06/14/24				
CHECKED BY CG DATE 06/14/24	PAGE	WRNUL23001	59 OF 100	CS3001

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN\CS\WRNUL23001-CS-PS-SP.DWG



PLAN VIEW BELOW TOP SLAB

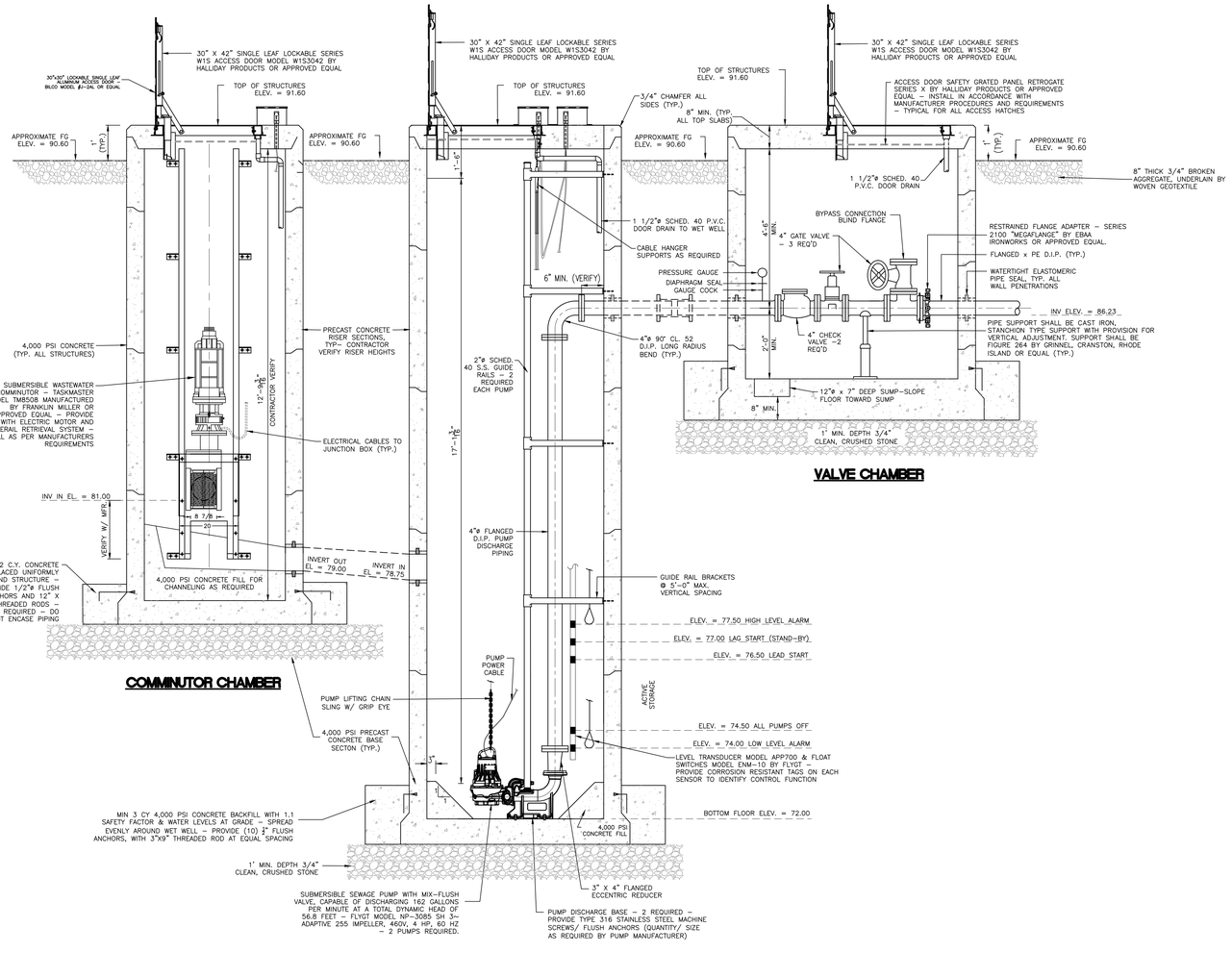
N.T.S.



COMMINUTOR CHAMBER | **WET WELL** | **VALVE CHAMBER**

PLAN VIEW ABOVE TOP SLAB

N.T.S.



VALVE CHAMBER

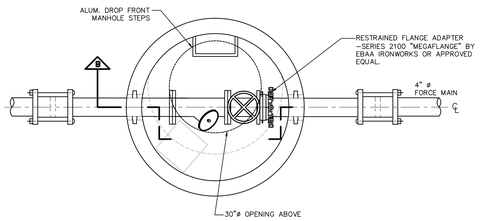
WET WELL

SECTION A – PUMPING STATION STRUCTURE DETAIL

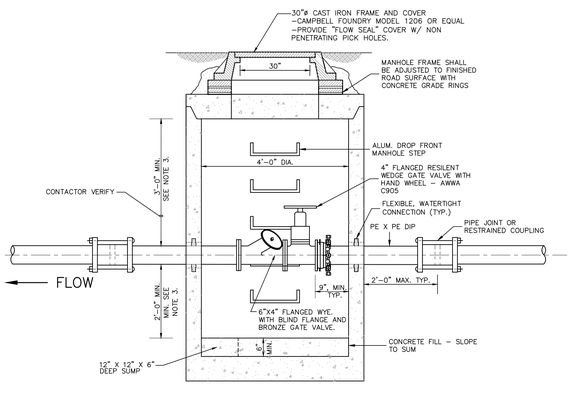
N.T.S.

NOTES:

1. THE WET WELL AND VALVE CHAMBER SHALL CONSIST OF PRECAST CONCRETE SECTIONS DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH ASTM STANDARD SPECIFICATION C–913 ENTITLED "PRECAST CONCRETE WATER AND WASTEWATER STRUCTURES" AND AS OUTLINED IN THE AMERICAN CONCRETE INSTITUTE (ACI–318) BUILDING CODE WHEN SUBJECTED TO LOADING CONDITIONS NOT LESS THAN THOSE GIVEN IN ASTM STANDARD PRACTICE C–890 ENTITLED "MINIMUM STRUCTURAL DESIGN LOADING FOR MONOLITHIC OR SECTIONAL PRECAST CONCRETE WATER AND WASTEWATER STRUCTURES."
2. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS DETAILING DIMENSIONS AND REINFORCING STEEL BASED ON DESIGN LOADINGS. SHOP DRAWINGS SHALL CLEARLY NOTE CONFORMANCE TO ALL APPLICABLE ASTM STANDARDS, BOUYANCY CALCULATIONS, LOADING, ETC. SUBMITTALS SHALL BE SIGNED AND SEALED BY NJPE.
3. ALL INTERIOR BELOW GRADE CONCRETE SURFACES OF WET WELL SHALL BE COATED WITH TWO (2) COATS OF DURA–PLATE 235 AS MANUFACTURED BY SHERWIN–WILLIAMS FOR A TOTAL 10 MILS MINIMUM DRY FILM THICKNESS. THE EXTERIOR SURFACES SHALL BE COATED WITH ONE (1) COAT AT MAXIMUM SPREADING RATE OF 150 SF/GAL. PAINT ALL EXTERIOR SURFACES OF WET WELL FROM 12 INCHES ABOVE GROUND WATER ELEVATION AND BELOW.
4. CONTRACTOR SHALL COMPACT THE BACKFILL AROUND THE WET WELL, VALVE CHAMBER AND FLOW METER MANHOLE IN MAX 12" LIFTS WITH 95% PROCTOR DENSITY.
5. ALL SUBMERGED HARDWARE SHALL BE TYPE 316 STAINLESS STEEL.
6. ACCESS DOORS SHALL BE PROVIDED WITH PADLOCK HASPS & KEYED–ALIKE PADLOCKS.



PLAN VIEW BELOW TOP SLAB



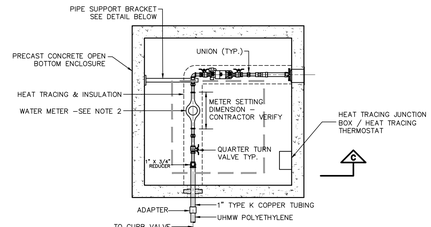
SECTION–B

FORCE MAIN AIR RELEASE ACCESS MANHOLE

N.T.S.

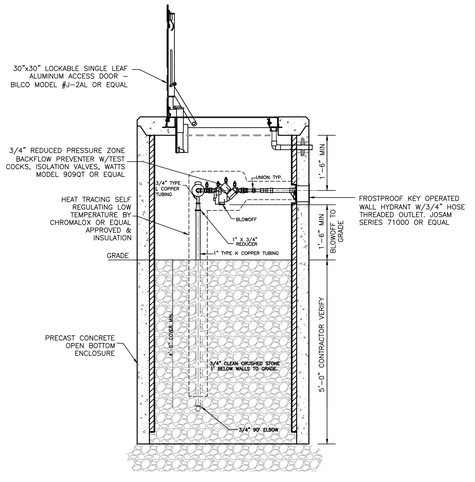
NOTES:

1. 4' ø MANHOLE BASE, RISER & TOP SLAB SHALL BE PRECAST CONCRETE MANUFACTURED IN ACCORDANCE WITH ASTM–6478 STANDARD SPECIFICATION.
2. INSTALL WYE AT 45° TO HORIZONTAL.
3. PROVIDE A MINIMUM OF 2' VERTICAL CLEARANCE BETWEEN BOTTOM OF FORCE MAIN AND FLOOR OF STRUCTURE. ADJUST AS REQUIRED TO PROVIDE A MINIMUM OF 6'–0" CLEARANCE FROM UNDERSIDE OF TOP SLAB TO FLOOR.



PLAN VIEW BELOW TOP SLAB

N.T.S.



SECTION C

METER/BACKFLOW PREVENTER INSTALLATION

N.T.S.

NOTES:

1. CONTRACTOR SHALL OBTAIN NJDEP INITIAL PHYSICAL CONNECTION PERMIT. – SEE SPECIFICATION SECTION FOR PHYSICAL CONNECTION PERMIT.
2. WATER METER SHALL BE SUPPLIED & INSTALLED BY WATER COMPANY.
3. ALL MATERIALS & EQUIPMENT SHALL BE SUBJECT TO WATER COMPANY REVIEW / ACCEPTANCE.
4. ENTIRE WATER SERVICE SHALL BE INSTALLED IN ACCORDANCE WITH WATER COMPANY REQUIREMENTS.
5. HEAT TRACING SYSTEM SHALL BE SELF REGULATING TYPE, INSTALLED IN SUFFICIENT LENGTH TO MAINTAIN 40° TEMPERATURE DIFFERENTIAL. THERMOSTAT TO BE PROVIDED BY SYSTEM MANUFACTURER.
6. ENCLOSURE & PIPE INSULATION SHALL BE 3/4" THICK CLOSED CELL, FLEXIBLE ELASTOMERIC TYPE – ARMSTRONG "ARMAFLEX" OR EQUAL.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
5	REV. PER DRC#2 MEMOS	5/23/25		
4	REV. COMPLETENESS SUBMISSION	1/16/25		
3	REVISED PER COMMENTS	10/23/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

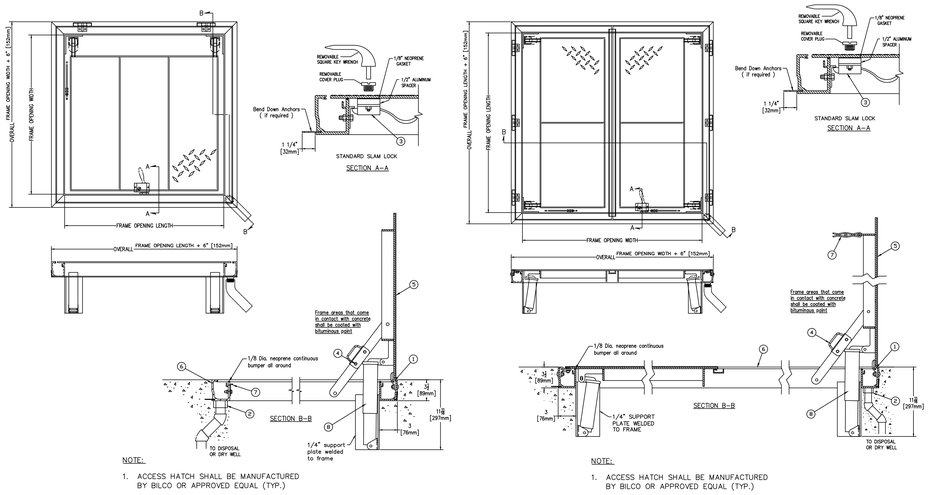
van note-harvey division of pennoni
103 College Road East ● Princeton, NJ 08540 ● 609-987-2323
211 Bayberry Drive ● Cape May Court House, NJ 08210 ● 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

PUMP STATION PLAN AND SECTIONS
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
NOT TO SCALE
MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY	WDV	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE	6/14/24				
CHECKED BY	CG	PAGE	WRNUL23001	60 OF 100	CS3002
DATE	6/14/24				

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN\CS\WRNUL23001–CS–PS.DWG



NOTE:

1. ACCESS HATCH SHALL BE MANUFACTURED BY BILCO OR APPROVED EQUAL (TYP.)

ALUMINUM ACCESS SINGLE DOOR (300 PSF) DETAIL

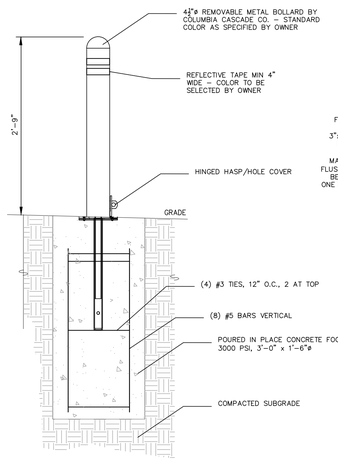
N.T.S.

NOTE:

1. ACCESS HATCH SHALL BE MANUFACTURED BY BILCO OR APPROVED EQUAL (TYP.)

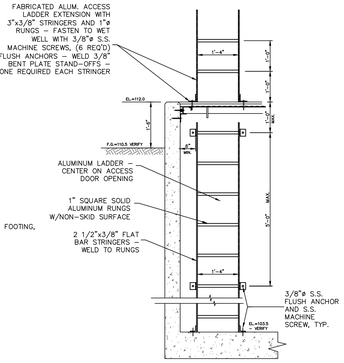
ALUMINUM ACCESS DOUBLE DOOR (300 PSF) DETAIL

N.T.S.



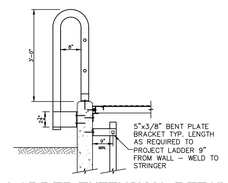
STEEL BOLLARD DETAIL

N.T.S.



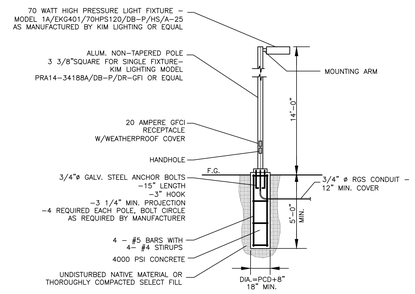
VALVE CHAMBER LADDER DETAIL

N.T.S.



LADDER EXTENSION DETAIL

N.T.S.

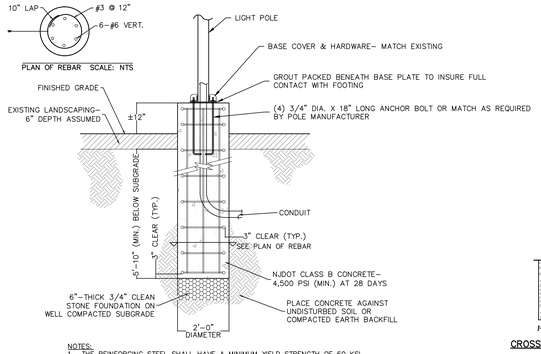


NOTES:

1. ALL REBAR TO HAVE 2" MINIMUM COVER.
2. AREA LIGHTING CONTROL SWITCH SHALL BE INSTALLED IN ELECTRICAL EQUIPMENT ENCLOSURE.

AREA LIGHTING FIXTURE INSTALLATION DETAIL

N.T.S.

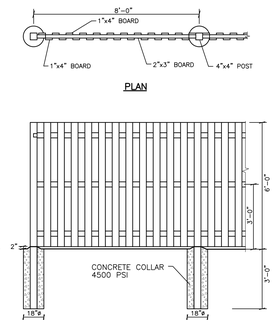


NOTES:

1. THE REINFORCING STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 60 KSI.
2. ANCHOR BOLT PER ASTM A576 WITH (1) NUT, (1) FLAT WASHER, AND (2) SHIMS. NUTS, WASHERS AND THREADED PORTION OF BOLT SHALL BE HOT DIP GALVANIZED.
3. IN AREAS OUTSIDE OF PROPOSED PARKING LOTS THE LIGHT POLE BASE SHALL BE INSTALLED AT GRADE (NO EXPOSED CONCRETE)

LIGHT POLE FOUNDATION DETAIL

N.T.S.

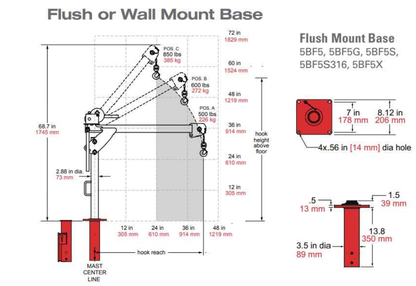


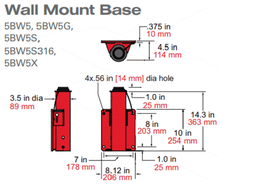
NOTES:

1. ALL LUMBER SHALL BE PRESSURE TREATED.
2. GATE SHALL BE DOUBLE LEAF, MINIMUM 12' OPENING – PROVIDE LOCKING HASP.

BOARD-ON-BOARD FENCE FOR SEWAGE PUMP STATION

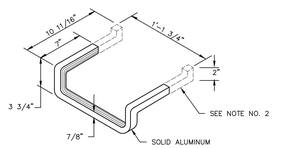
N.T.S.





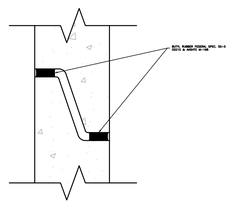
PORTABLE DAVIT CRANE FIRST MATE MODEL 5PF5M1G BY THERN

N.T.S.



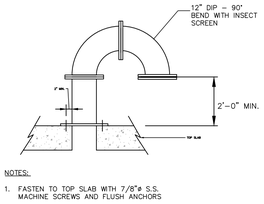
CONFINED SPACE ENTRY SIGN DETAIL

N.T.S.



PRECAST STRUCTURE JOINT DETAIL

N.T.S.

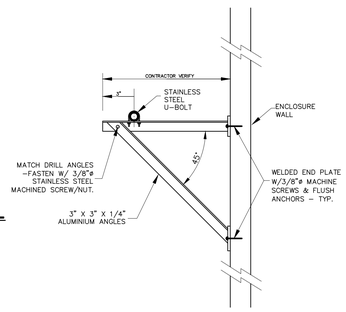


NOTES:

1. FASTEN TO TOP SLAB WITH 7/8"ø S.S. MACHINE SCREWS AND FLUSH ANCHORS

VENT THROUGH TOP SLAB DETAIL OF WET WELL

N.T.S.



PIPE SUPPORT BRACKET

N.T.S.
(IF AS REQUIRED)

ALUMINUM LADDER RUNG DETAIL

N.T.S.

NOTES:

1. ALUMINUM STEP SHALL BE EXTRUDED ALUM. 6061–T6 ALLOY DROP FRONT DESIGN OR APPROVED EQUAL
2. THE PORTION TO BE IMBEDDED IN THE CONCRETE SHALL BE COATED WITH COALTAR PITCH OR OTHER APPROVED MATERIAL.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
4	REV. PER DRC#2 MEMOS	5/23/25		
3	REV. COMPLETENESS SUBMISSION	1/16/25		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

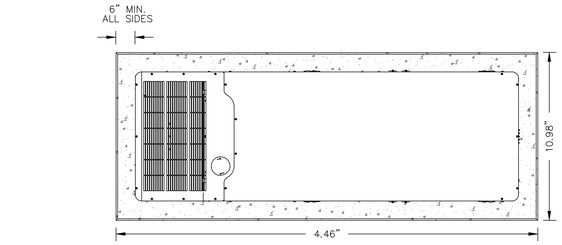
PUMP STATION CONSTRUCTION DETAILS
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
NOT TO SCALE

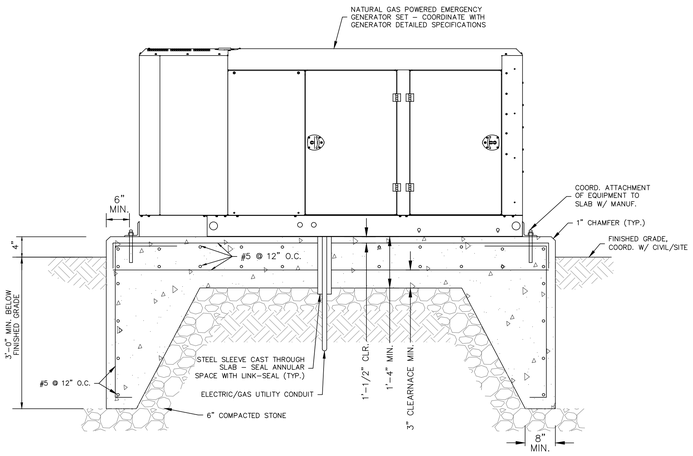
MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY	FIELD BK	ORDER No.	PAGE No.	SHEET No.
WDV				
DATE 6/14/24				
CHECKED BY CG	PAGE	WRNUL23001	61 OF 100	CS3003
DATE 6/14/24				

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS3003–CS3004.DWG



PLAN – GENERATOR PAD



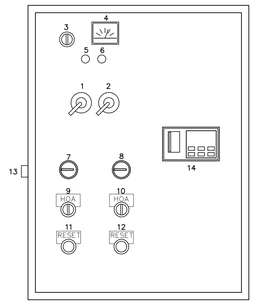
SECTION – GENERATOR PAD

NOTES:

1. COORDINATE PAD SIZE, HEIGHT, EMBEDDED UTILITIES, ANCHOR BOLTS & PAD LOCATIONS WITH FINAL EQUIPMENT REQUIREMENTS, MANUFACTURER'S RECOMMENDATIONS AND ELECTRICAL DRAWINGS.
2. ALL PADS TO HAVE 1" CHAMFERED EDGES, ALL AROUND.
3. PAD DIMENSIONS SHALL PROJECT 6" (MIN.) PAST UNIT, ALL AROUND.
4. ALL CONCRETE TO BE BROOMED FINISHED, 4500 PSI AND 4–6% AIR ENTRAINED.

16" CONCRETE EQUIPMENT MAT SLAB DETAIL

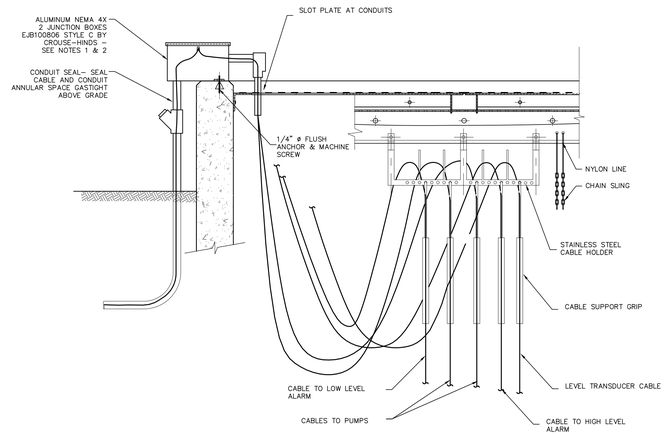
N.T.S.



1 – PUMP MOTOR BREAKER 1
2 – PUMP MOTOR BREAKER 2
3 – AMMETER SELECTOR SWITCH: PUMP 1/PUMP 2
4 – AMMETER
5 – LOW LEVEL INDICATOR LAMP
6 – HIGH LEVEL INDICATOR LAMP
7 – ELAPSED TIME METER 1
8 – ELAPSED TIME METER 2
9 – HOA SWITCH PUMP 1
10 – HOA SWITCH PUMP 2
11 – RESET PUMP 1 – OVER TEMPERATURE/SEAL FAILURE.
12 – RESET PUMP 2 – OVER TEMPERATURE/SEAL FAILURE.
13 – ALARM SILENCE BUTTON
14 – DUPLEX PUMP CONTROLLER

PUMP CONTROL SYSTEM ENCLOSURE DOOR LAYOUT

N.T.S.



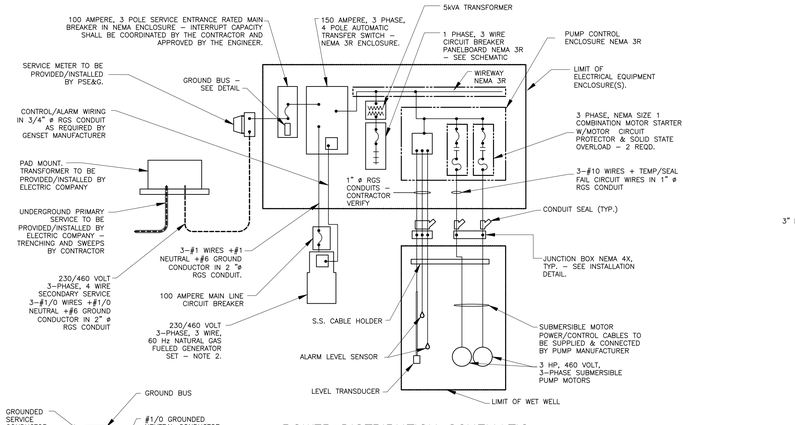
WET WELL JUNCTION BOX INSTALLATION DETAIL

N.T.S.

NOTES:

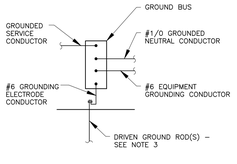
1. EACH JUNCTION BOX SHALL BE MINIMUM 10" x 8" x 6" ALUMINUM WITH NEOPRENE GASKET & S.S. COVER SCREWS – EJB100806 STYLE C BY CROUSE–HINDS OR EQUAL. DRILL/TAP FOR CONDUITS. PROVIDE 4 MOUNTING FEET WITH 3/8" ø HOLES FOR 1/4" ø S.S. MACHINE SCREWS.

2. PROVIDE SEPARATE JUNCTION BOXES FOR INTRINSICALLY SAFE AND NON–INTRINSICALLY SAFE CIRCUIT WIRING.



POWER DISTRIBUTION SCHEMATIC

N.T.S.



GROUND BUS DETAIL

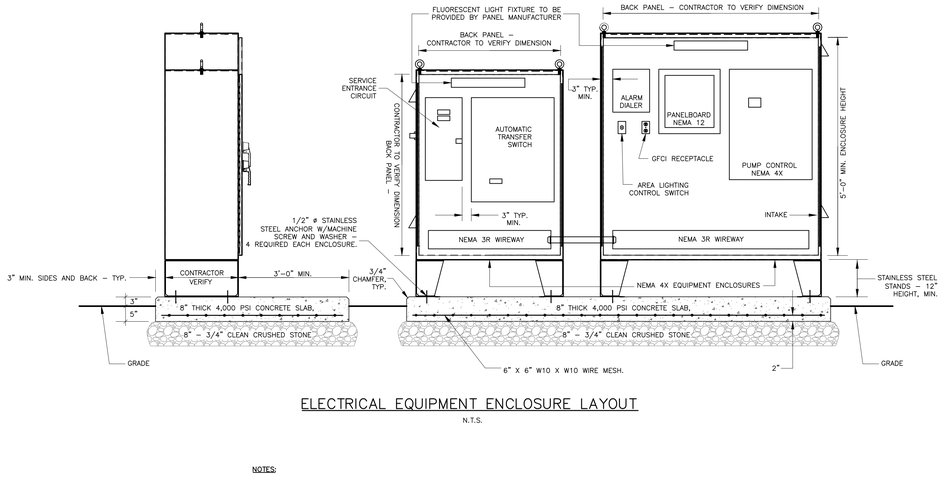
N.T.S.

NOTES:

1. MATERIALS, EQUIPMENT AND ELECTRICAL INSTALLATION SHALL COMPLY WITH NATIONAL FIRE PROTECTION ASSOCIATION ARTICLE 70 – NATIONAL ELECTRIC CODE.

2. THE GENERATOR SET IS NOT A SEPARATELY DERIVED SYSTEM AS DEFINED UNDER NEC ARTICLE 250–30. INSTALL EQUIPMENT GROUNDING CONDUCTOR FROM SERVICE GROUND TO THE TRANSFER SWITCH AND FROM THE TRANSFER SWITCH TO THE GENERATOR FRAME. BONDING JUMPERS FROM THE GENERATOR FRAME TO THE ALTERNATOR GROUNDED CIRCUIT CONDUCTOR MUST BE REMOVED.

3. DRIVEN GROUND RODS SHALL BE PROVIDED AS REQUIRED TO ATTAIN A RESISTANCE TO GROUND NOT EXCEEDING 25 OHMS. GROUND RODS SHALL BE NOT LESS THAN 8 FEET IN LENGTH AND SHALL EXTEND TO PERMANENTLY MOIST SOIL.



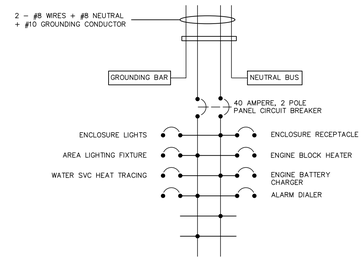
ELECTRICAL EQUIPMENT ENCLOSURE LAYOUT

N.T.S.

NOTES:

1. ENCLOSURE DIMENSIONS & LAYOUT OF APPROVED EQUIPMENT SHALL BE COORDINATED BY THE CONTRACTOR & APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.

2. ENCLOSURE HEATING & COOLING EQUIPMENT SHALL BE PROVIDED BY THE ENCLOSURE MANUFACTURER AS REQUIRED UNDER SPECIFICATION SECTION – ELECTRICAL ENCLOSURE.



CIRCUIT BREAKER PANELBOARD SCHEMATIC

N.T.S.

NOTES:

1. CIRCUIT BREAKER PANELBOARD SHALL BE LISTED UNDER UNDERWRITERS LABORATORIES, INC. FILE E–6294 AND SHALL COMPLY WITH FEDERAL SPECIFICATIONS W–P–115C, TYPE 1, CLASS 2. – 12 POLE, MINIMUM.

2. PROVIDE 2–#12 WIRES (MIN.) + GROUND W 1/2 ø CONDUIT FOR 15/20 AMPERE, 120 AND 240 VOLT SINGLE PHASE CIRCUITS NOT EXCEEDING 50 FEET IN LENGTH.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
5	REV. PER DRC@2 MEMOS	5/23/25		
4	REV. COMPLETENESS SUBMISSION	1/16/25		
3	REVISED PER COMMENTS	10/23/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

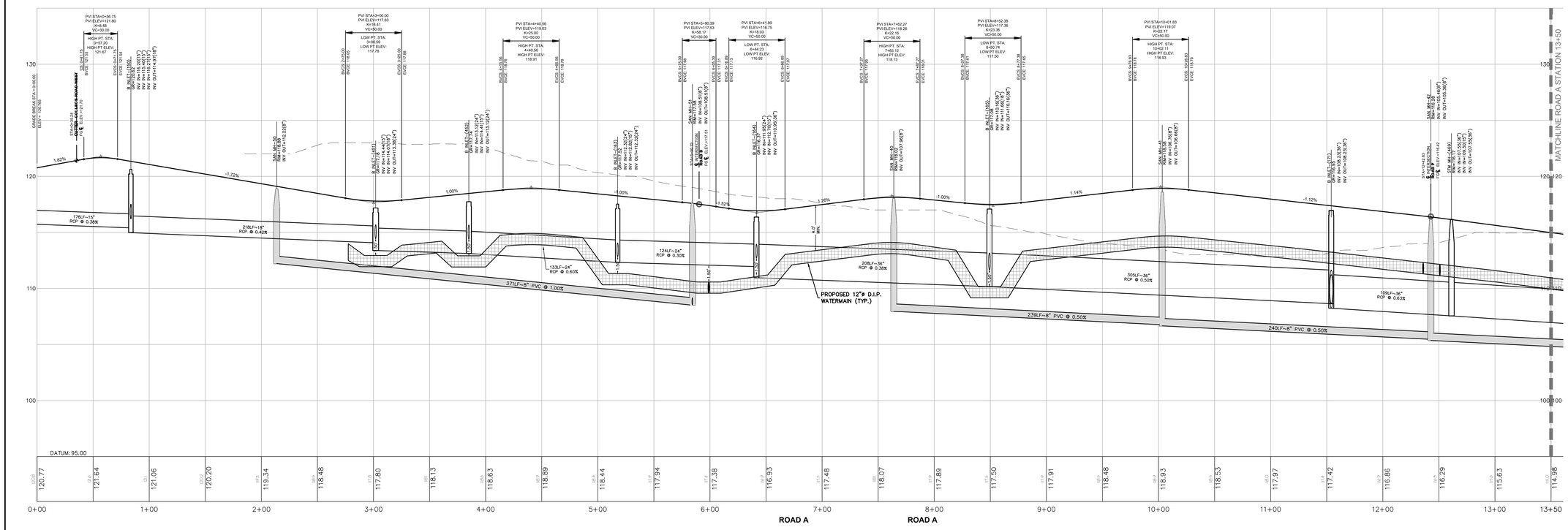
PUMP STATION ELECTRICAL DETAILS
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

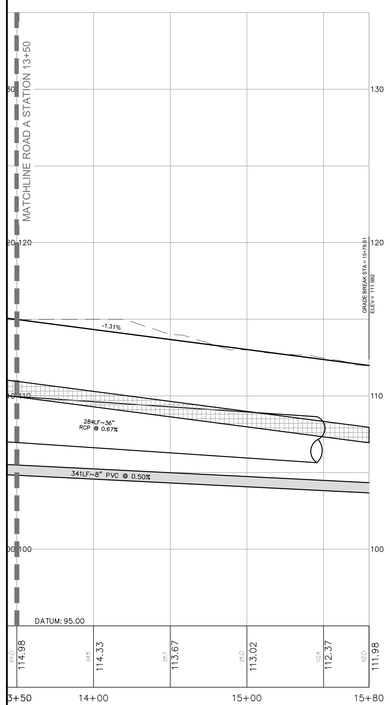
PLAINSBORO TOWNSHIP
NOT TO SCALE

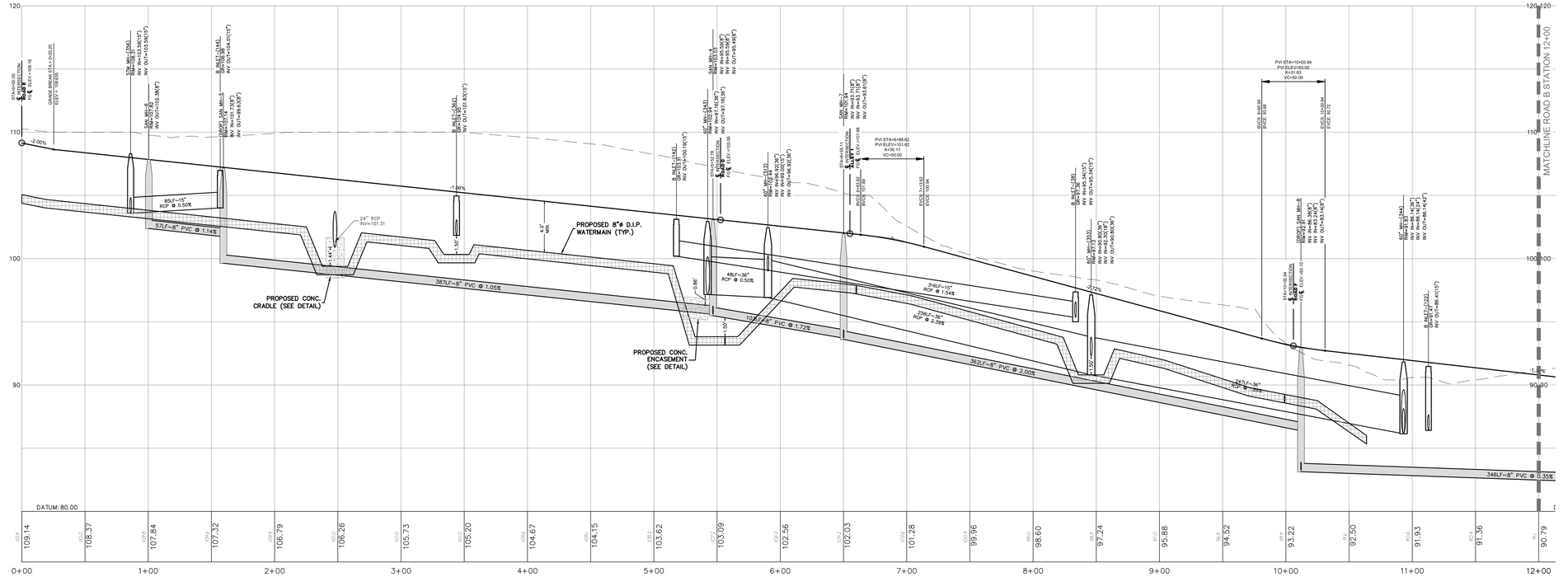
MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY	CHECKED BY	FIELD BK	PAGE	ORDER No.	PAGE No.	SHEET No.
WDV DATE 6/14/24	CG DATE 6/14/24			WRNUL23001	62 OF 100	CS3004

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS3003–CS3004.DWG







GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet (HORIZONTAL)

GRAPHIC SCALE

4 0 2 4 8 16

(IN FEET)
1 inch = 4 feet (VERTICAL)

Know what's below. Call before you dig.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
5	REV. PER DRC#2 MEMOS	5/23/25		
4	REV. PER DRC#1 MEMOS	4/18/25		
3	REV. COMPLETENESS SUBMISSION	1/16/25		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

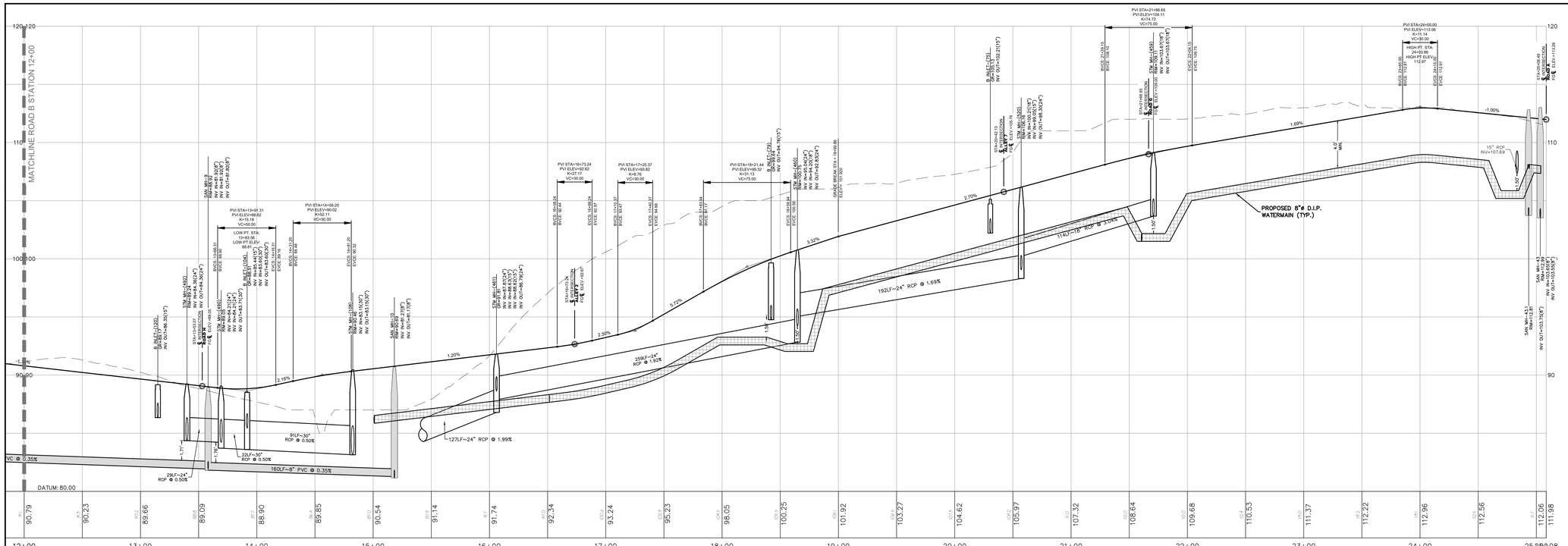
CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

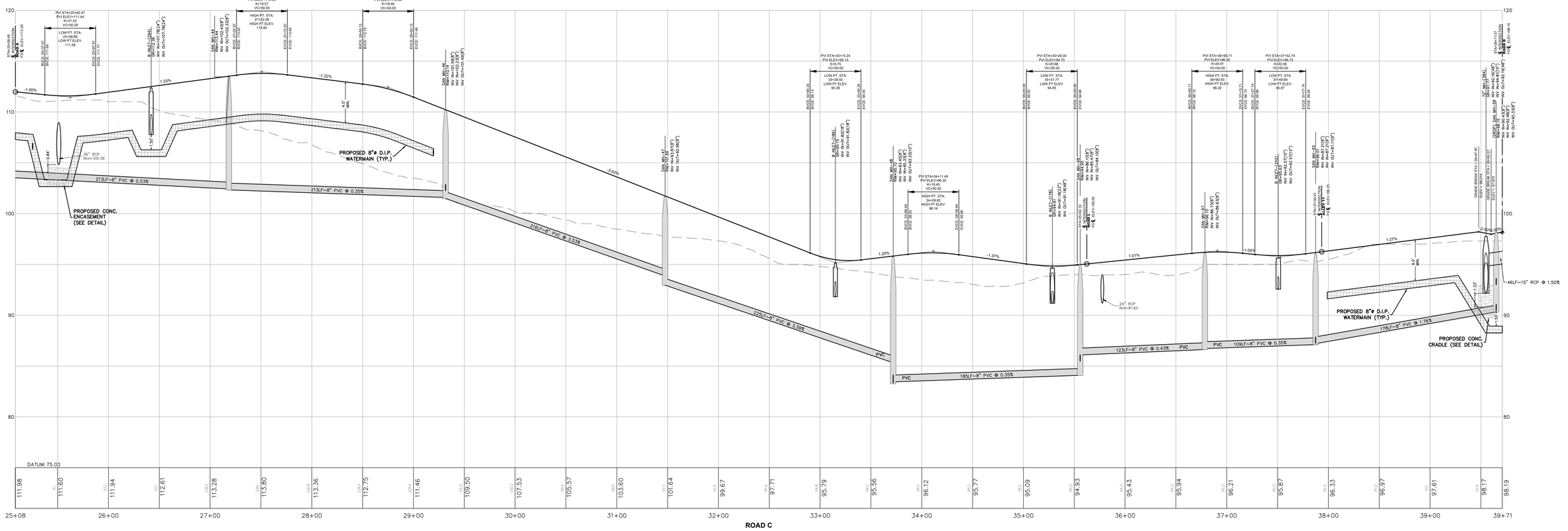
van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

ROAD PROFILES 1
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN
PLAINSBORO TOWNSHIP, MIDDLESEX CO., N.J.
SCALE 1"= 40'
JUNE 14, 2024

DRAWN BY	DATE	FIELD BK	ORDER No.	PAGE No.	SHEET No.
WDV	6/14/24		WRNUL23001	63 OF 100	CS3501
CHECKED BY	DATE	PAGE			
CG	6/14/24				

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS3501.DWG





GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet (HORIZONTAL)

GRAPHIC SCALE

4 0 2 4 8 16

(IN FEET)
1 inch = 4 feet (VERTICAL)

811 Know what's below. Call before you dig.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
6	REV. PER DRC@2 MEMOS	5/23/25		
5	REV. PER DRC@1 MEMOS	4/18/25		
4	REV. COMPLETENESS SUBMISSION	3/16/25		
3	REV. FOR PERMIT RESUBMISSION	11/8/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

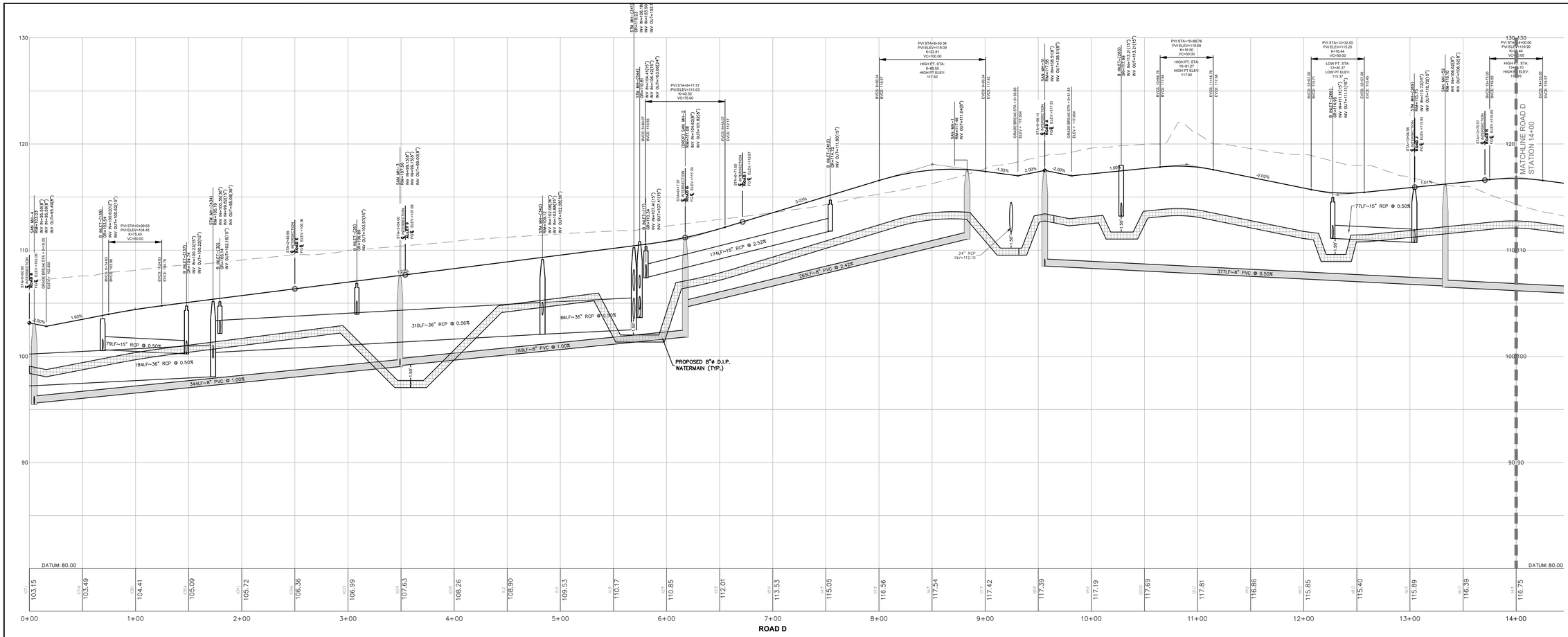
ROAD PROFILES 2
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN
PLAINSBORO TOWNSHIP
MIDDLESEX CO., N.J.
SCALE 1"= 40'
JUNE 14, 2024

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

DRAWN BY	WDV	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE	6/14/24				
CHECKED BY	CG	PAGE	WRNUL23001	64 OF 100	CS3502
DATE	6/14/24				

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS3501.DWG



GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet (HORIZONTAL)

GRAPHIC SCALE

4 0 2 4 8 16

(IN FEET)
1 inch = 4 feet (VERTICAL)

Know what's below. Call before you dig.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
4	REV. PER DRCP2 MEMOS	5/23/25		
3	REV. COMPLETENESS SUBMISSION	7/16/25		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

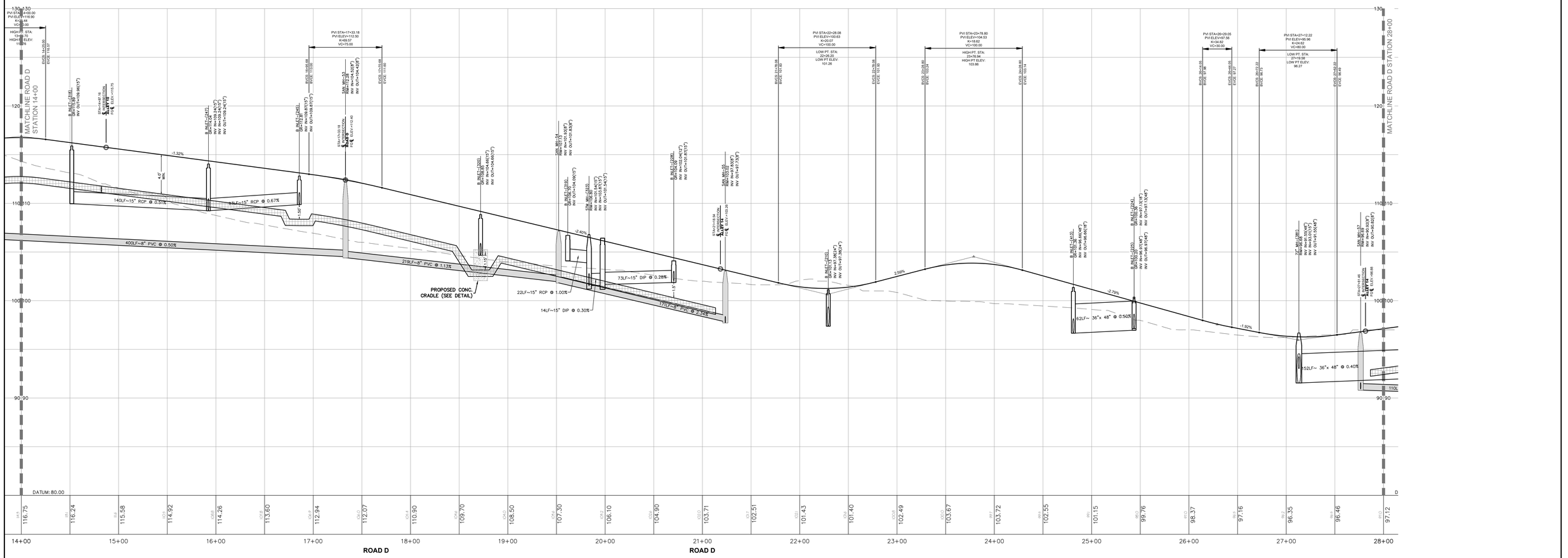
van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

ROAD PROFILES 3
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE 1"= 40'
MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY WDV DATE 6/14/24	FIELD BK	ORDER No.	PAGE No.	SHEET No.
CHECKED BY CG DATE 6/14/24	PAGE	WRNUL23001	65 OF 100	CS3503

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS3501.DWG



GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet (HORIZONTAL)

GRAPHIC SCALE

4 0 2 4 8 16

(IN FEET)
1 inch = 4 feet (VERTICAL)

Know what's below. Call before you dig.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
5	REV. PER DRCpl2 MEMOS	5/23/25		
4	REV. PER DRCpl1 MEMOS	4/18/25		
3	REV. COMPLETENESS SUBMISSION	1/16/25		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

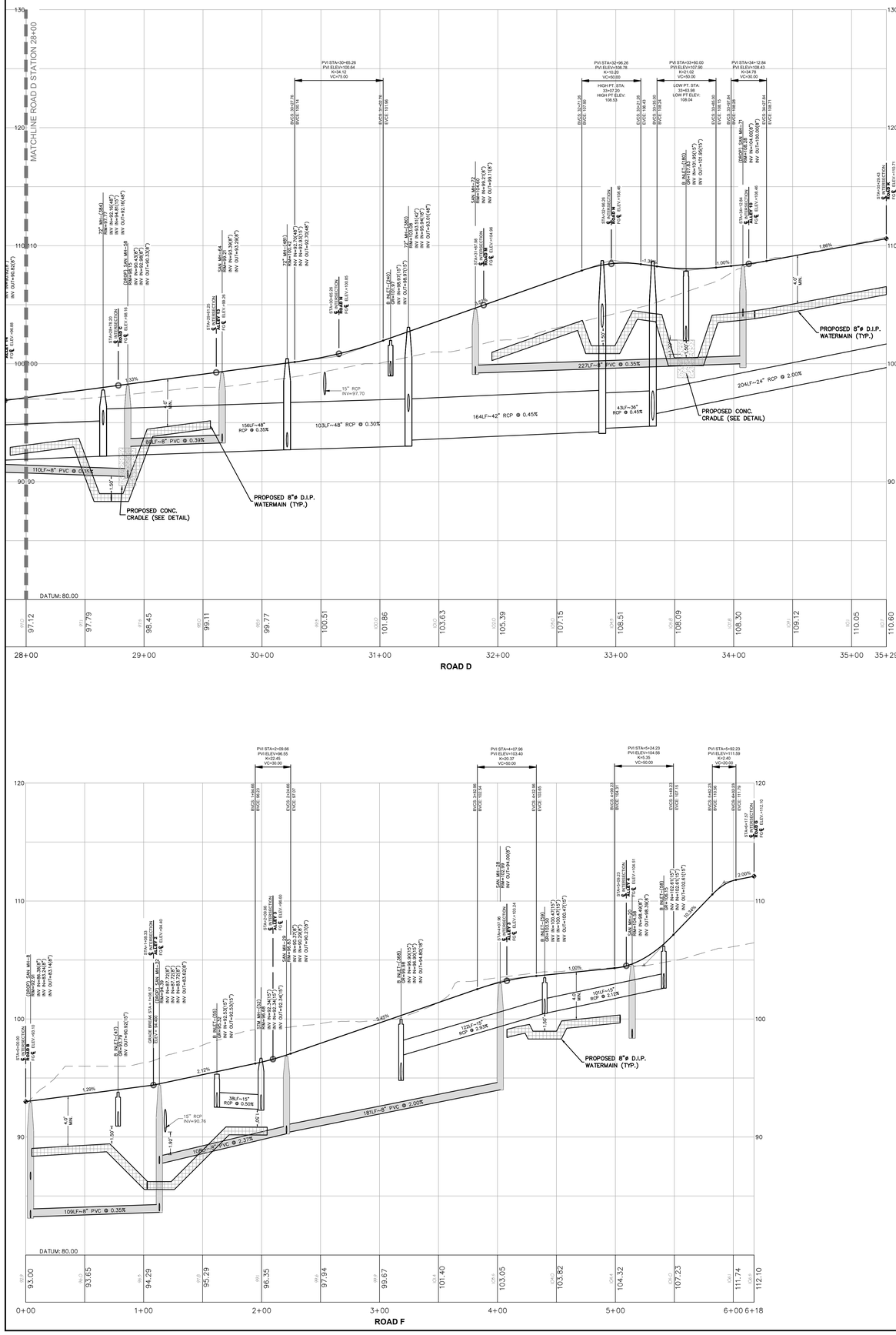
ROAD PROFILES 4
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

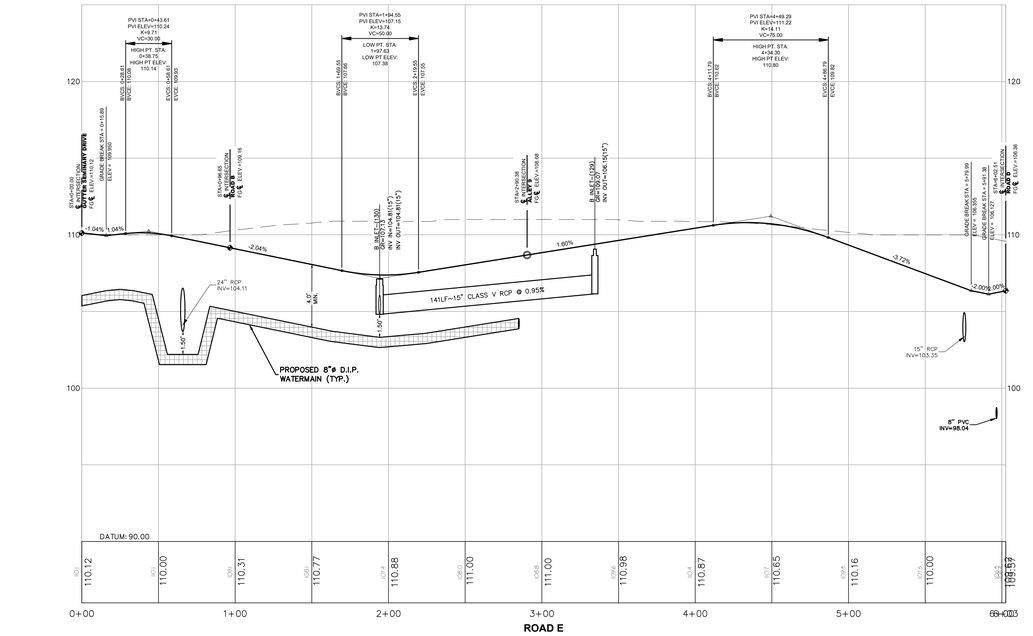
PLAINSBORO TOWNSHIP
SCALE 1"= 40'

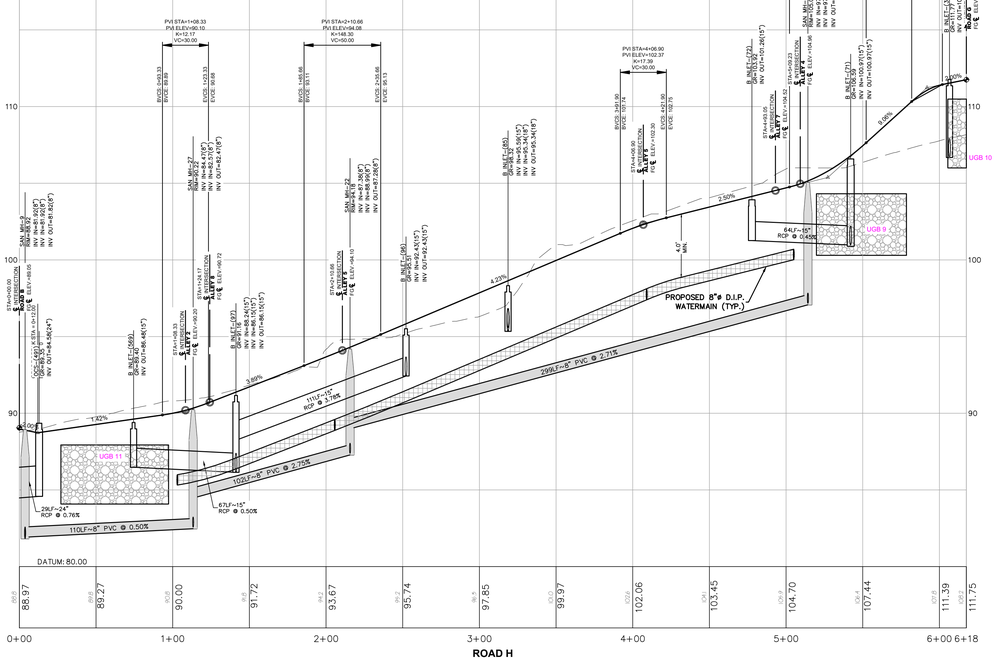
MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY MDV DATE 6/14/24	FIELD BK	ORDER No.	PAGE No.	SHEET No.
CHECKED BY CG DATE 6/14/24	PAGE	WRNUL23001	66 OF 100	CS3504

U:\ACCOUNTS\WRNUL\WRNUL23001 - WRV PRINCETON NURSERIES - PLAINSBORO\DESIGN_SHEETS\CS3501.DWG







GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet (HORIZONTAL)

GRAPHIC SCALE

4 0 2 4 8 16

(IN FEET)
1 inch = 4 feet (VERTICAL)

811 Know what's below. Call before you dig.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
5	REV. PER DRC#2 MEMOS	5/23/25		
4	REV. PER DRC#1 MEMOS	4/18/25		
3	REV. COMPLETENESS SUBMISSION	1/16/25		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

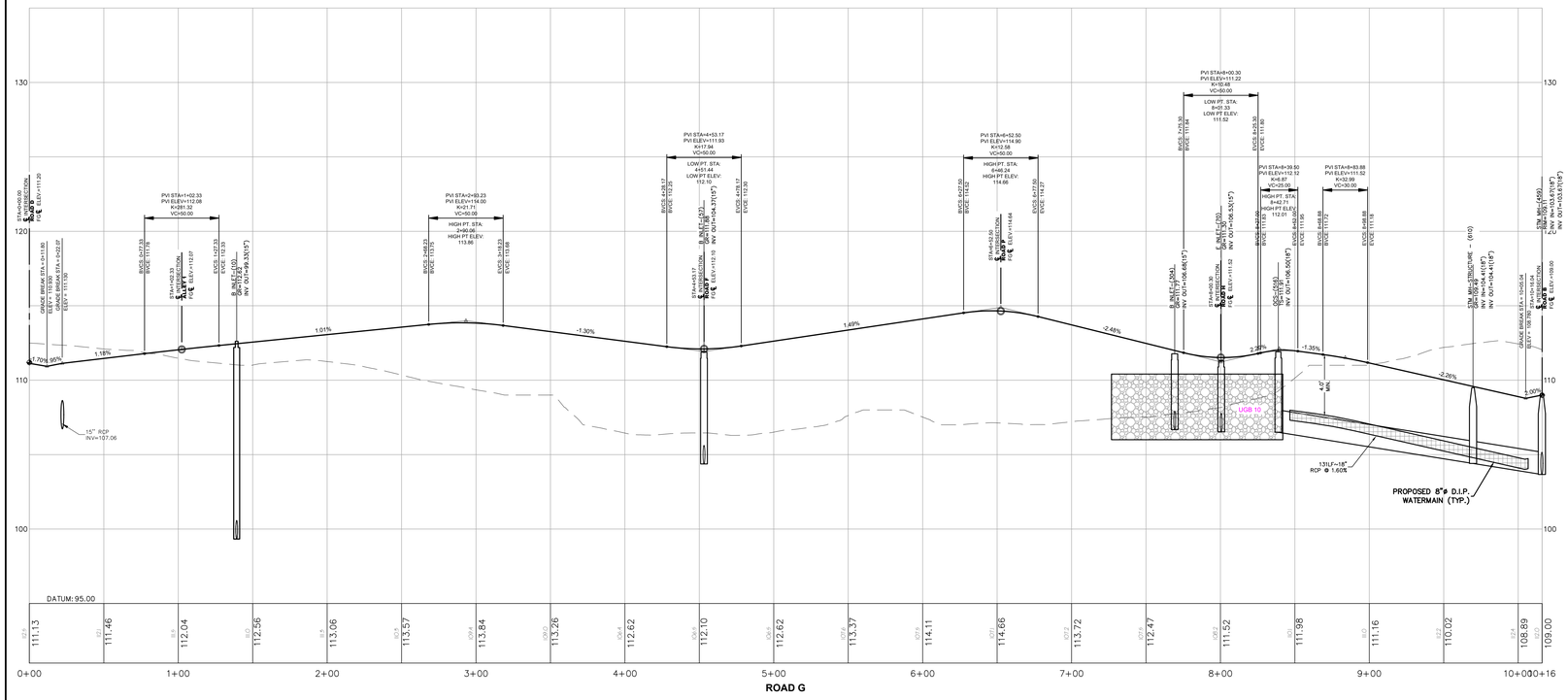
van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

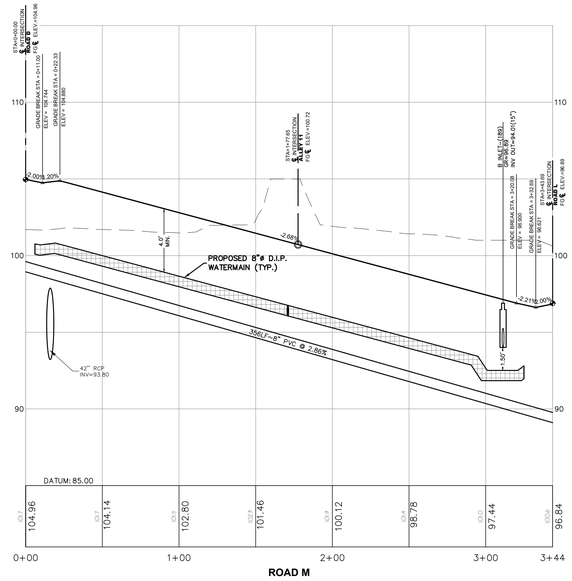
ROAD PROFILES 5
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

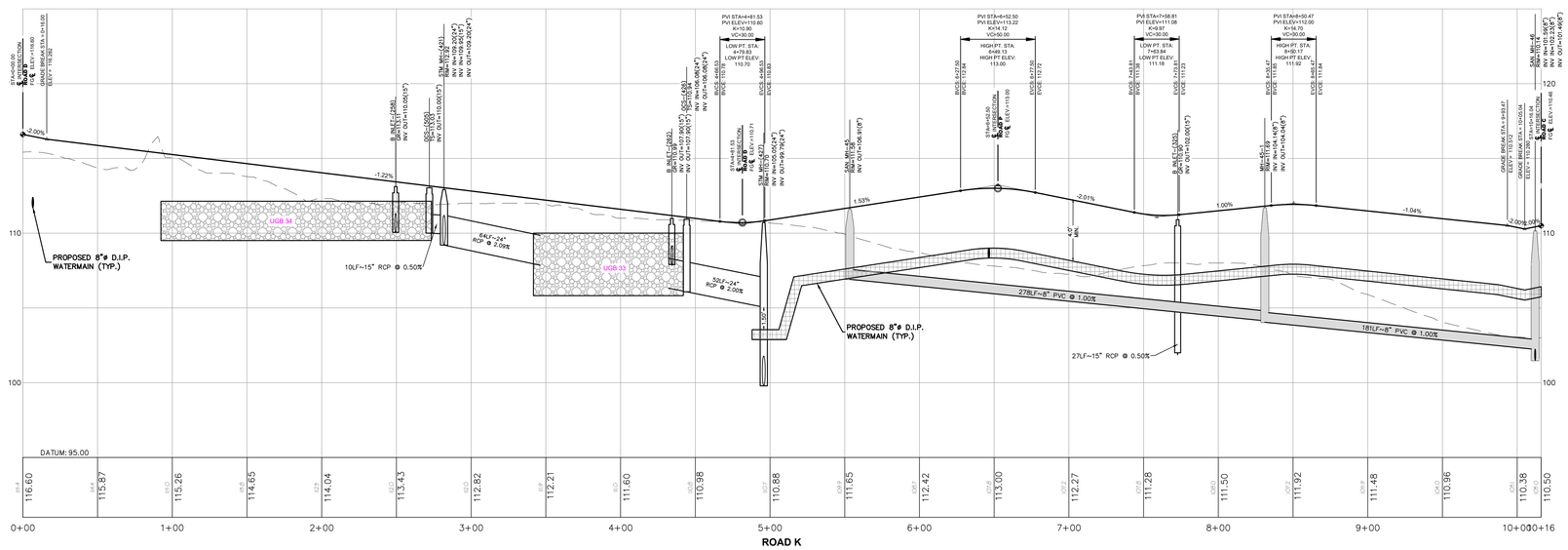
PLAINSBORO TOWNSHIP
SCALE 1"= 40'
MIDDLESEX CO., N.J.
JUNE 14, 2024

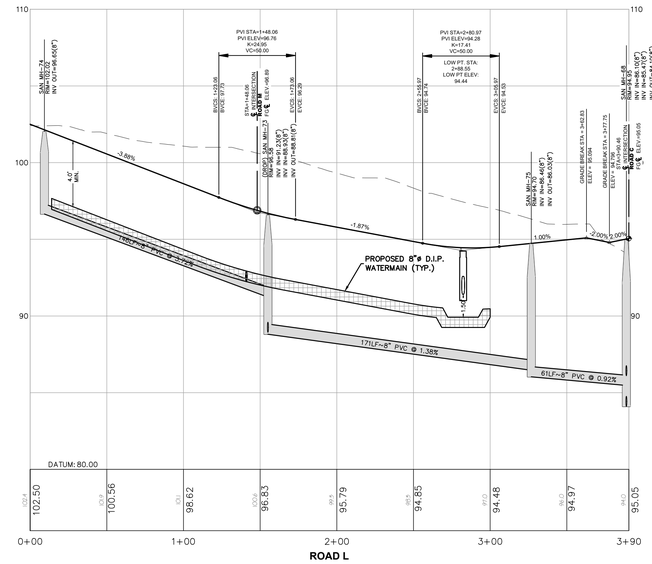
DRAWN BY	FIELD BK	ORDER No.	PAGE No.	SHEET No.
WDV DATE 6/14/24		WRNUL23001	67 OF 100	CS3505
CHECKED BY CG DATE 6/14/24	PAGE			

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS3501.DWG









GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet (HORIZONTAL)

GRAPHIC SCALE

4 0 2 4 8 16

(IN FEET)
1 inch = 4 feet (VERTICAL)

Know what's below. Call before you dig.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
5	REV. PER DRC#2 MEMOS	5/23/25		
4	REV. PER DRC#1 MEMOS	4/18/25		
3	REV. COMPLETENESS SUBMISSION	1/16/25		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

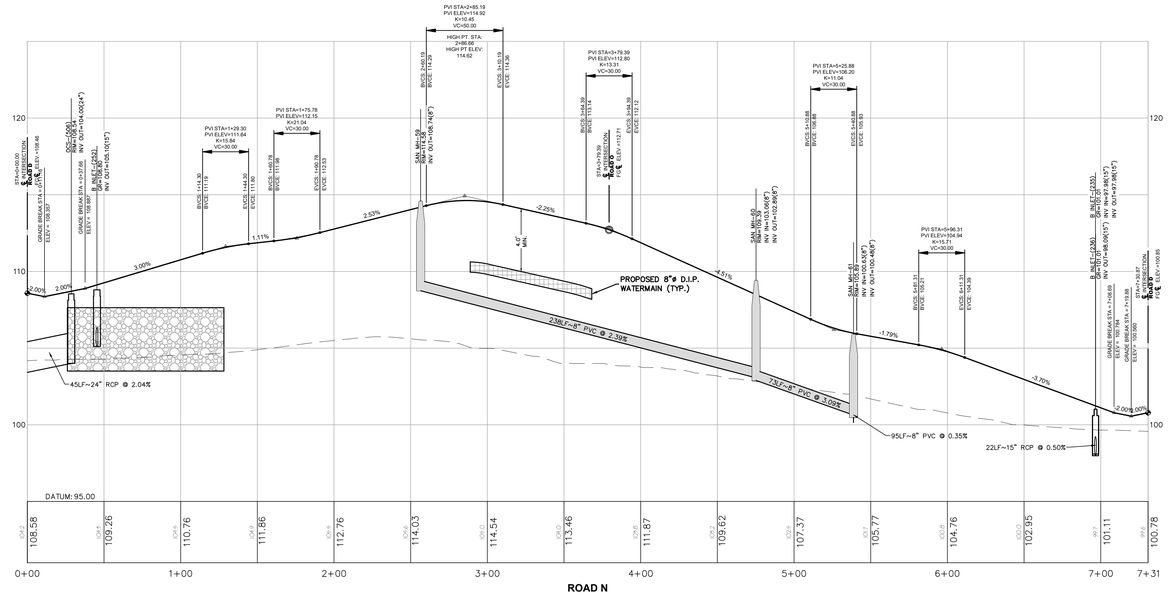
van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization
No. 24GA28033300

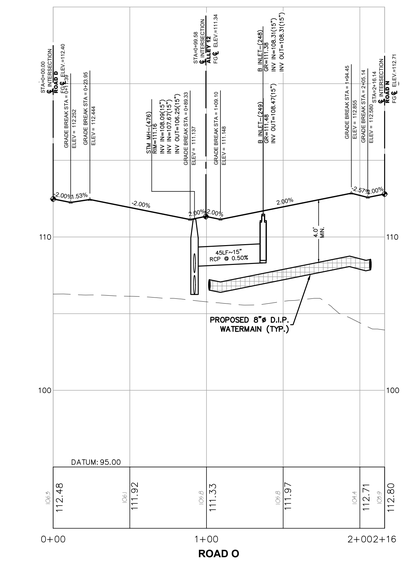
ROAD PROFILES 6
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

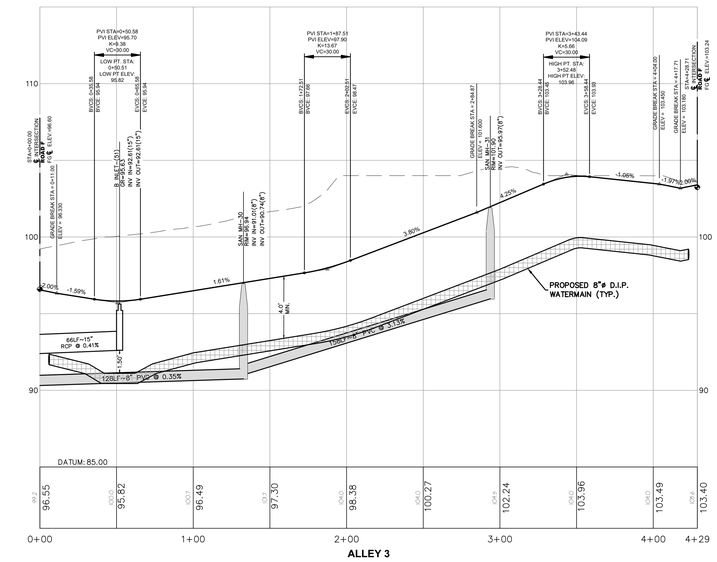
PLAINSBORO TOWNSHIP
SCALE 1"= 40'
MIDDLESEX CO., N.J.
JUNE 14, 2024

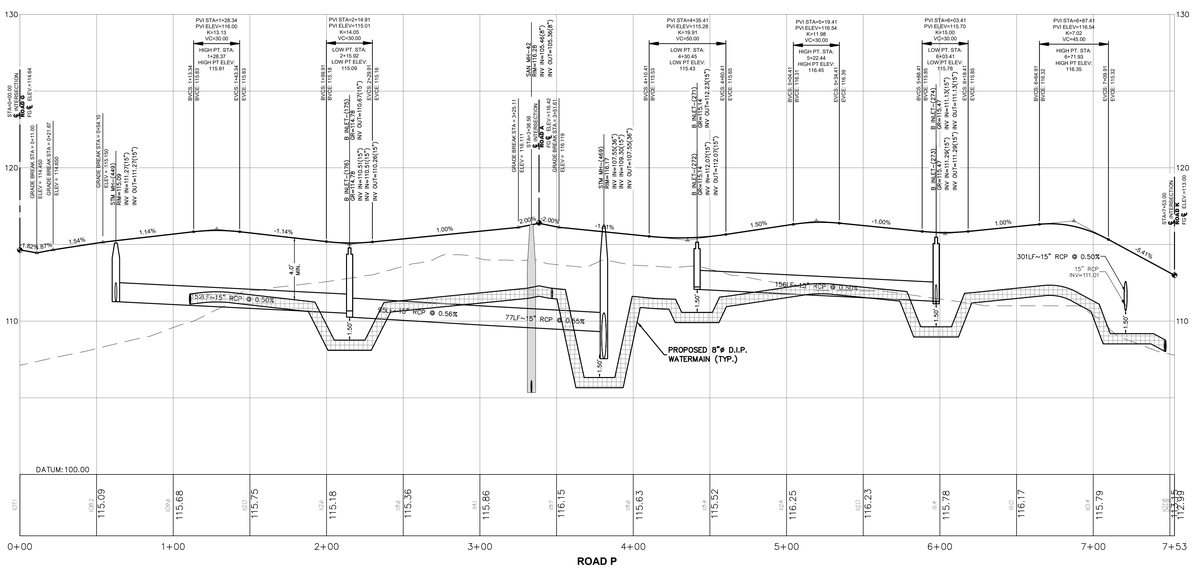
DRAWN BY MDV	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE 6/14/24				
CHECKED BY CG	PAGE	WRNUL23001	68 OF 100	CS3506
DATE 6/14/24				

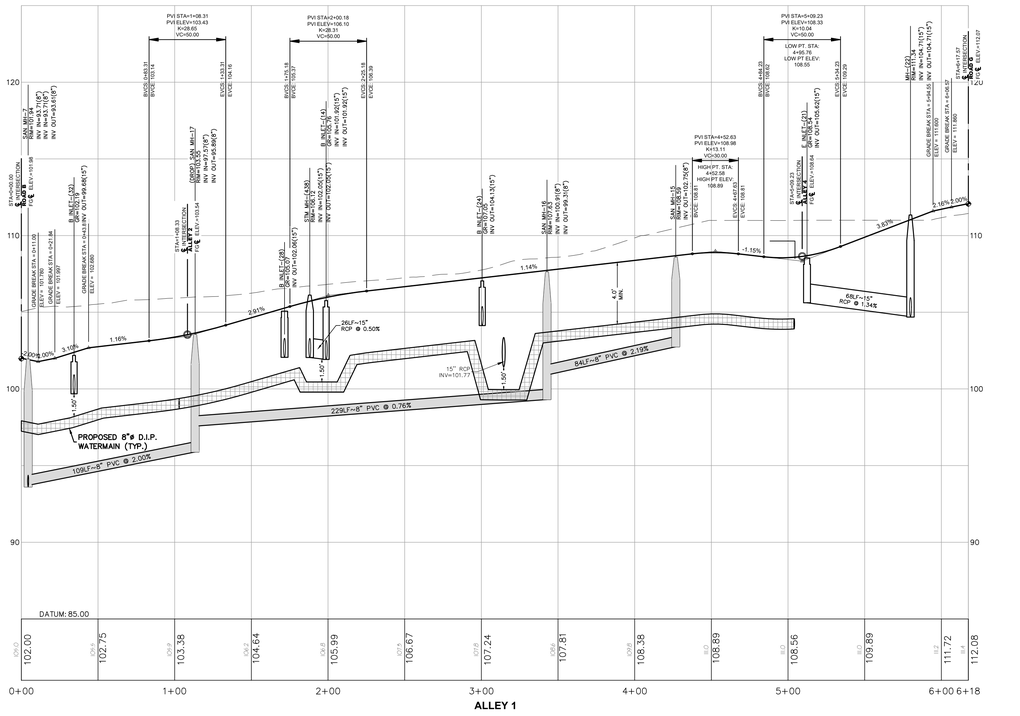
U:\ACCOUNTS\WRNUL\WRNUL23001 - WRV PRINCETON NURSERIES - PLAINSBORO\DESIGN_SHEETS\CS3501.DWG

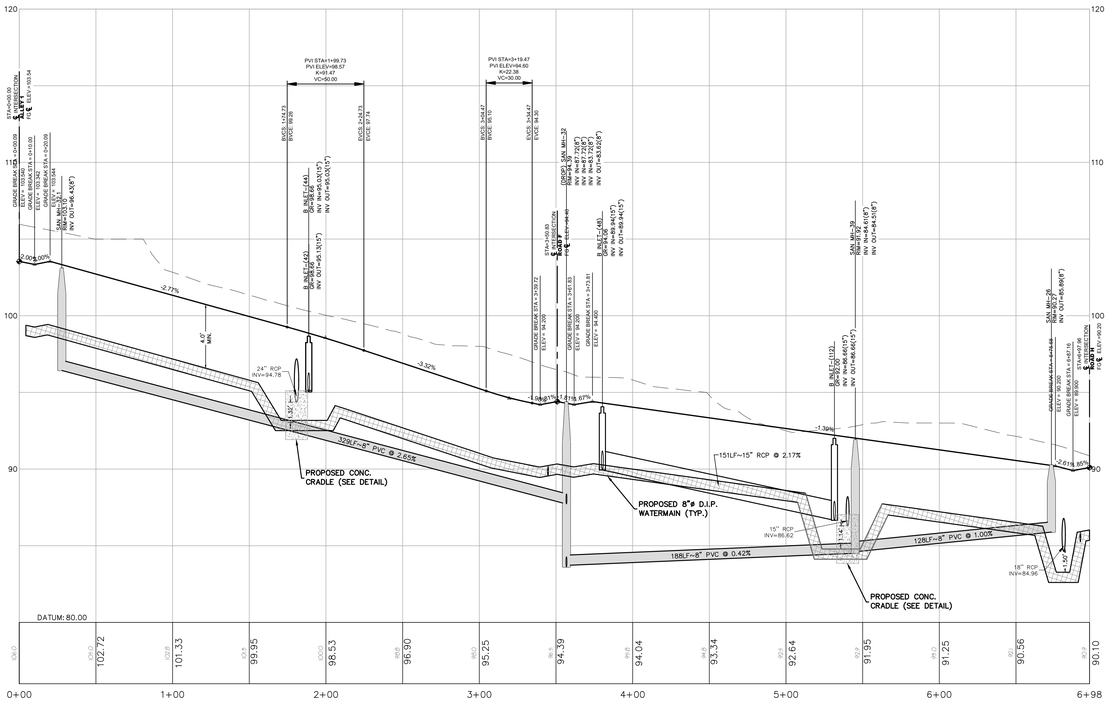




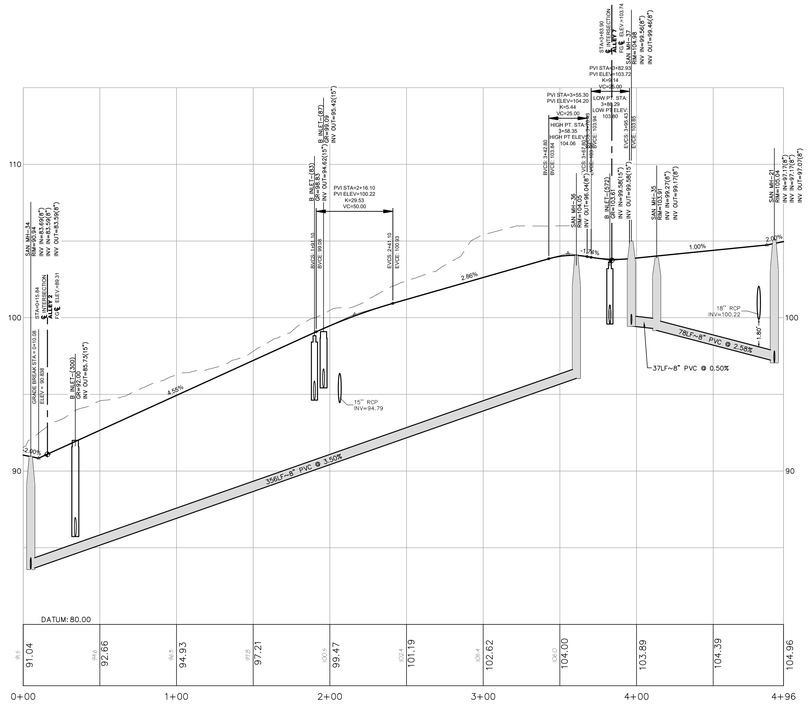




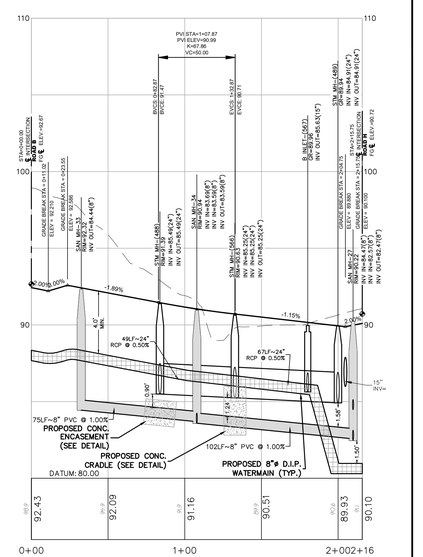

PVI STA=1+08.31
PVI ELEV=103.43
K=28.65
VC=50.00
PVI STA=2+00.18
PVI ELEV=108.10
K=36.31
VC=50.00
PVI STA=4+52.63
PVI ELEV=108.98
K=13.11
VC=30.00
HIGH PT. STA: 4+52.58
HIGH PT ELEV: 108.89
PVI STA=5+09.23
PVI ELEV=108.33
K=10.04
VC=50.00
LOW PT. STA: 4+95.70
LOW PT ELEV: 108.55
STA=0+00.00
BEGIN CONSTRUCTION
PROP. ELEV.=110.07
FG ℄ ELEV.=110.07
GRADE BREAK STA.=1+11.50
ELEV.= 110.07'
GRADE BREAK STA.=1+42.01
ELEV.= 110.68'
GRADE BREAK STA.=2+21.86
ELEV.= 107.95'
STA=1+58.33
END CONSTRUCTION
FG ℄ ELEV.=110.54
STA=0+00.00
BEGIN CONSTRUCTION
PROP. ELEV.=101.98
FG ℄ ELEV.=101.98
B_INLET-(232)
RIM=+103.37±
INV IN=+94.57(15")
INV OUT=+94.57(15")
B_INLET-(233)
RIM=+103.34±
INV IN=+95.71(15")
INV OUT=+95.71(15")
SAN. MH-2
RIM=+103.14±
INV IN=+95.71(8")
INV OUT=+95.61(8")
(DROP) SAN. MH-17
RIM=+103.05±
INV IN=+95.75(8")
INV OUT=+95.65(8")
B_INLET-(234)
RIM=+103.27±
INV IN=+95.37(15")
INV OUT=+95.27(15")
B_INLET-(235)
RIM=+103.18±
INV IN=+95.18(15")
INV OUT=+95.08(15")
B_INLET-(236)
RIM=+103.18±
INV IN=+95.08(15")
INV OUT=+94.98(15")
B_INLET-(237)
RIM=+103.18±
INV IN=+94.98(15")
INV OUT=+94.88(15")
B_INLET-(238)
RIM=+103.18±
INV IN=+94.88(15")
INV OUT=+94.78(15")
SAN. MH-3
RIM=+103.43±
INV IN=+94.78(8")
INV OUT=+94.68(8")
SAN. MH-4
RIM=+103.43±
INV IN=+94.68(8")
INV OUT=+94.58(8")
SAN. MH-5
RIM=+103.43±
INV IN=+94.58(8")
INV OUT=+94.48(8")
SAN. MH-6
RIM=+103.43±
INV IN=+94.48(8")
INV OUT=+94.38(8")
SAN. MH-7
RIM=+103.43±
INV IN=+94.38(8")
INV OUT=+94.28(8")
SAN.



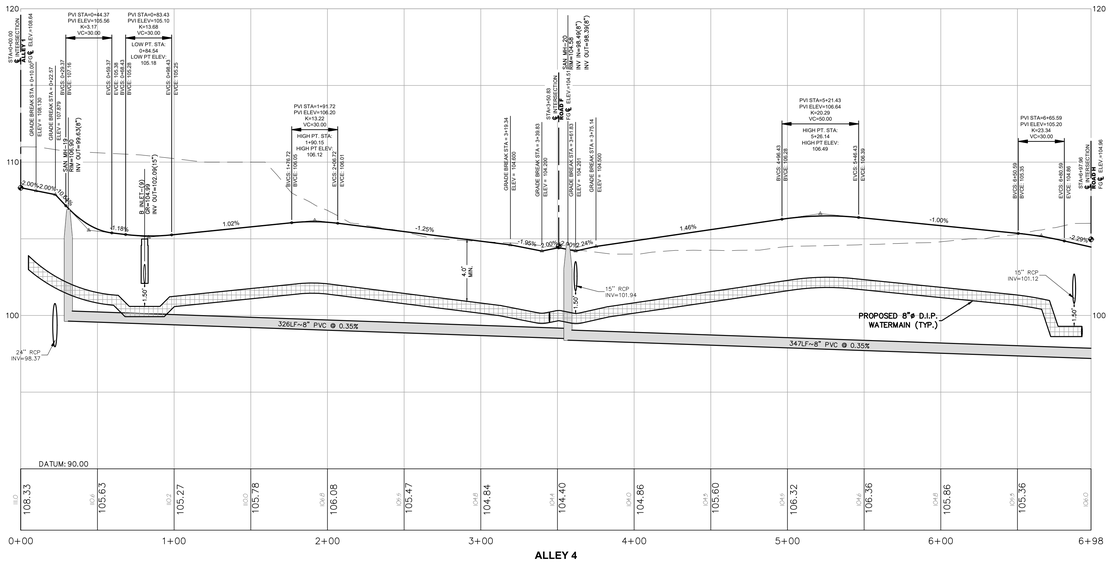
ALLEY 2



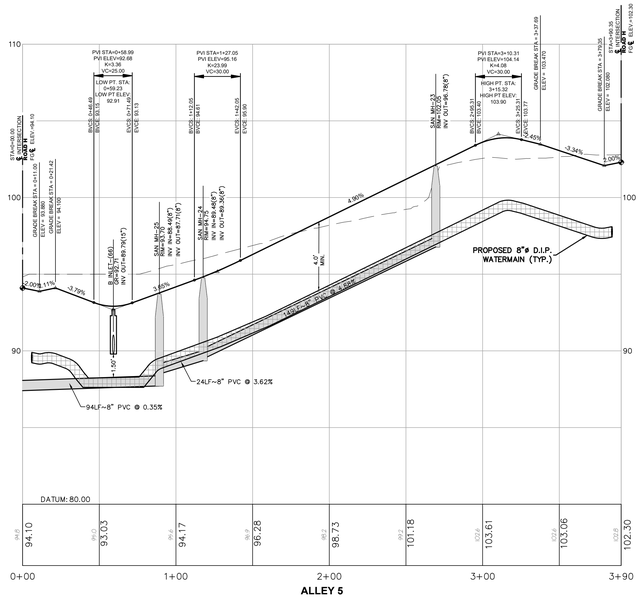
ALLEY 6



ALLEY 8



ALLEY 4



ALLEY 5

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet (HORIZONTAL)

GRAPHIC SCALE

4 0 2 4 8 16

(IN FEET)
1 inch = 4 feet (VERTICAL)

811 Know what's below. Call before you dig.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
5	REV. PER DRC#2 MEMOS	5/23/25		
4	REV. PER DRC#1 MEMOS	4/18/25		
3	REV. COMPLETENESS SUBMISSION	1/16/25		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

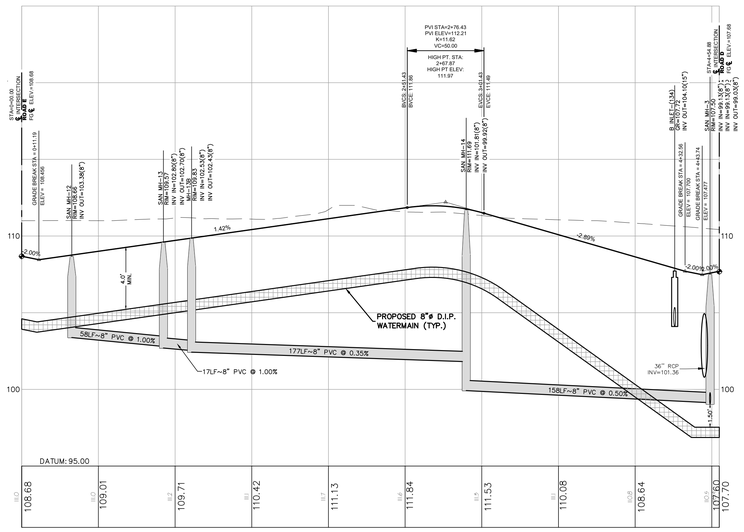
van note-harvey division of pennoni
103 College Road East ● Princeton, NJ 08540 ● 609-987-2323
211 Bayberry Drive ● Cape May Court House, NJ 08210 ● 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

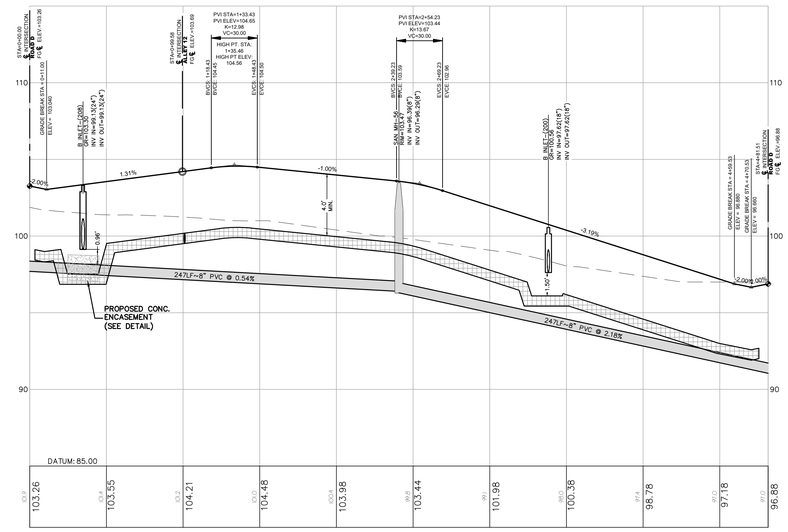
ROAD PROFILES 8
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

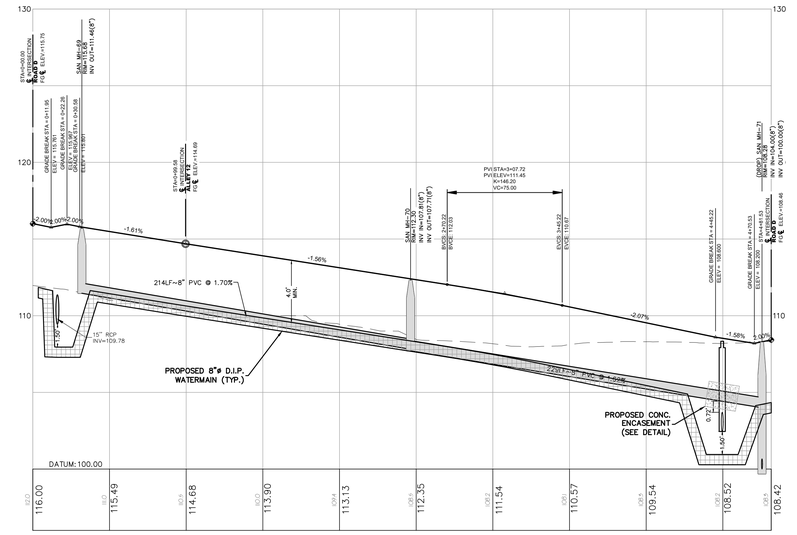
PLAINSBORO TOWNSHIP
SCALE 1"= 40'
MIDDLESEX CO., N.J.
JUNE 14, 2024

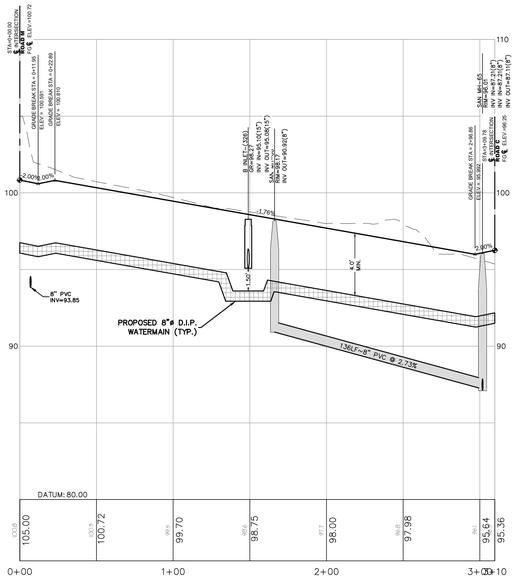
DRAWN BY	WDV	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE	6/14/24		WRNUL23001	70 OF 100	CS3508
CHECKED BY	CG	PAGE			
DATE	6/14/24				

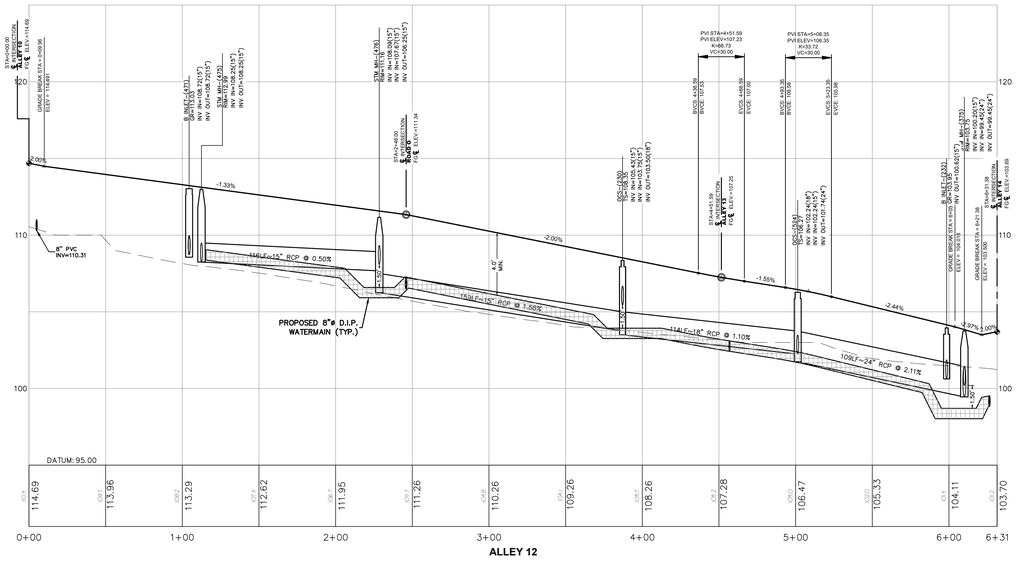
U:\ACCOUNTS\WRNUL\WRNUL23001 - WRV PRINCETON NURSERIES - PLAINSBORO\DESIGN_SHEETS\CS3501.DWG

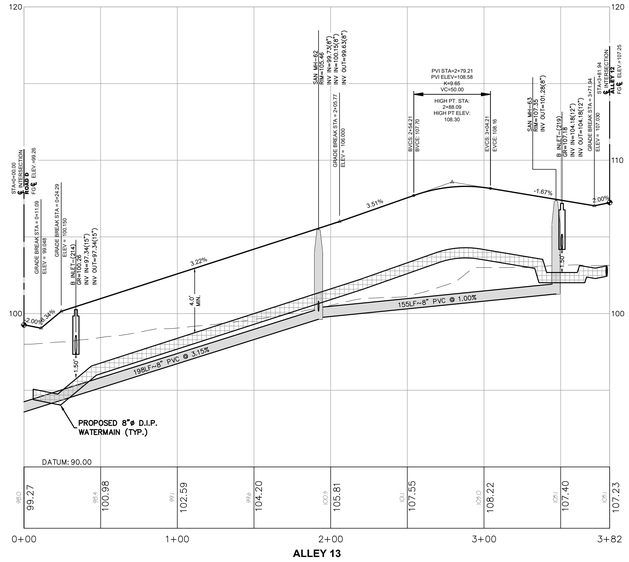












GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet (HORIZONTAL)

GRAPHIC SCALE

4 0 2 4 8 16

(IN FEET)
1 inch = 4 feet (VERTICAL)

Know what's below. Call before you dig.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
5	REV. PER DRC#2 MEMOS	5/23/25		
4	REV. PER DRC#1 MEMOS	4/18/25		
3	REV. COMPLETENESS SUBMISSION	1/16/25		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

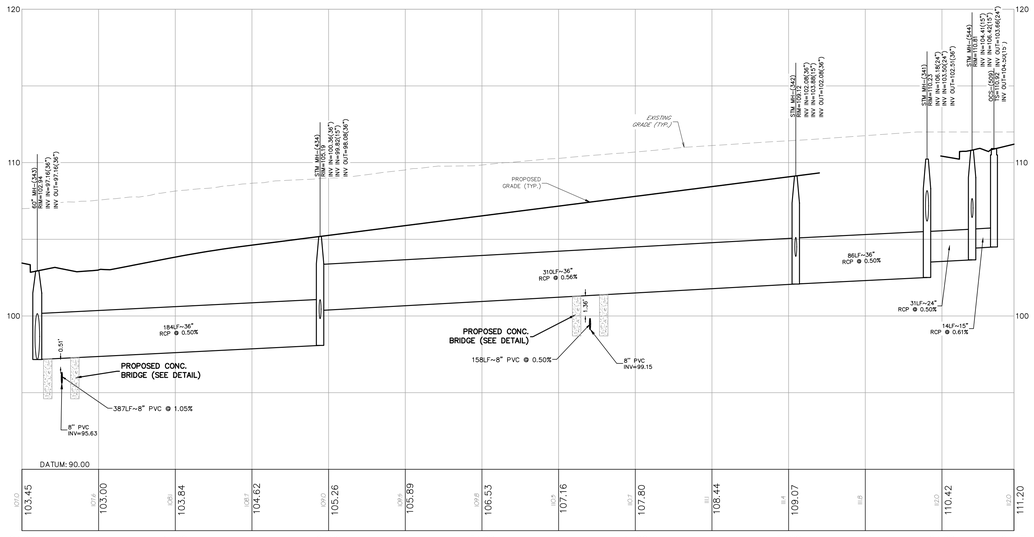
van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

ROAD PROFILES 9
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

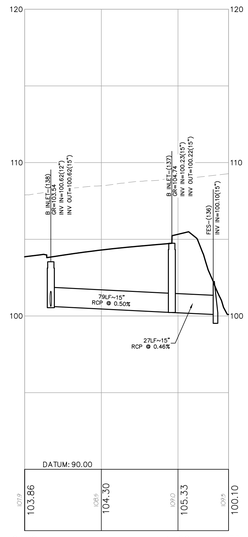
PLAINSBORO TOWNSHIP
SCALE 1"= 40'
MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY MDV DATE 6/14/24	FIELD BK	ORDER No.	PAGE No.	SHEET No.
CHECKED BY CG DATE 6/14/24	PAGE	WRNUL23001	71 OF 100	CS3509

U:\ACCOUNTS\WRNUL\WRNUL23001 - WRV PRINCETON NURSERIES - PLAINSBORO\DESIGN_SHEETS\CS3501.DWG

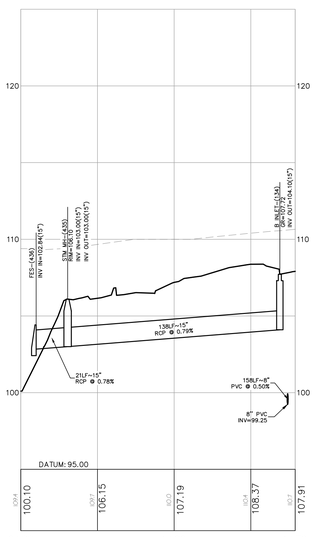


STM MH 343 TO OCS-509

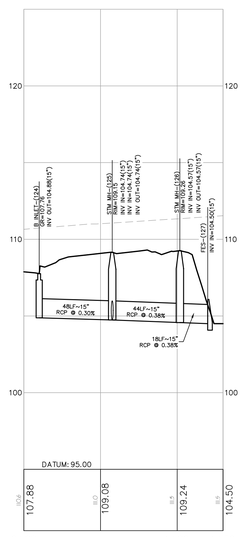


B INLET-138 TO FES-136

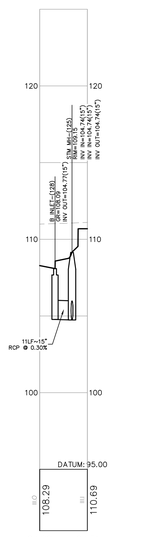
OCS-433 TO STM MH-434



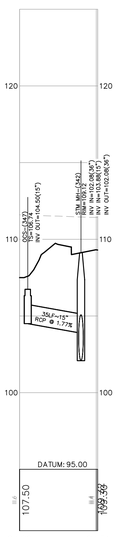
FES-436 TO B INLET-134



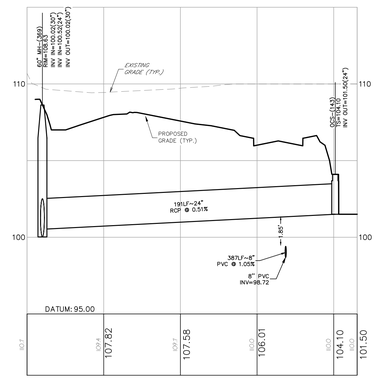
B INLET-124 TO FES-127



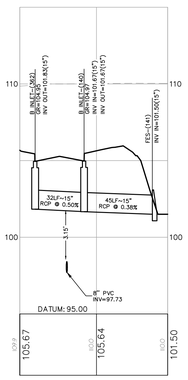
B INLET-128 TO STM MH-125



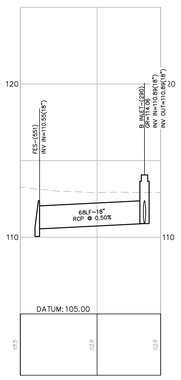
OCS-347 TO STM MH-342



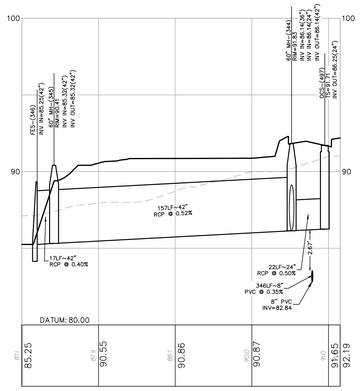
STM MH-369 TO OCS-143



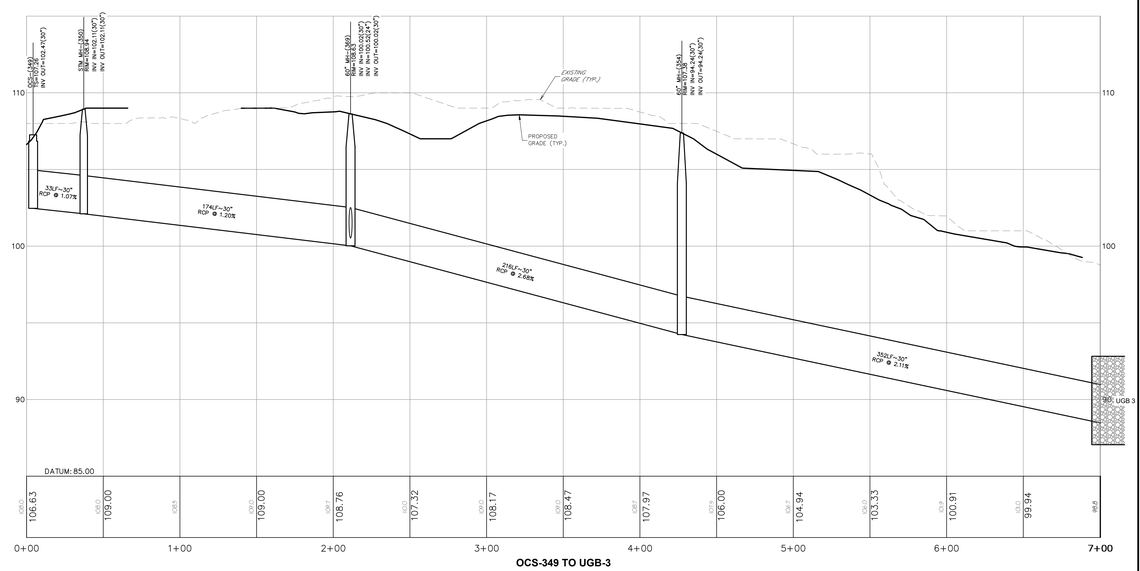
B INLET-140 TO FES-141



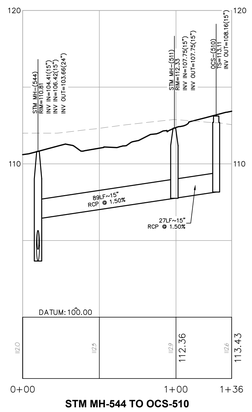
FES-551 TO B INLET-290



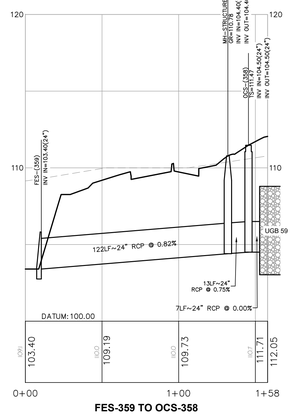
FES-346 TO OCS-497



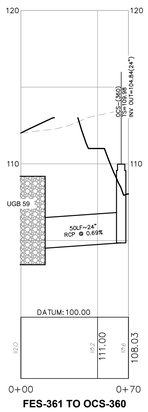
OCS-349 TO UGB-3



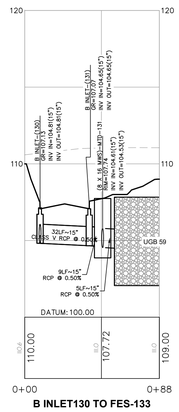
STM MH-544 TO OCS-510



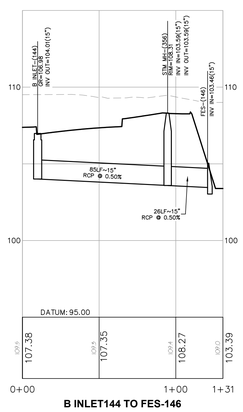
FES-359 TO OCS-358



FES-361 TO OCS-360



B INLET130 TO FES-133



B INLET144 TO FES-146

STM MH-369 TO OCS-143

B INLET-140 TO FES-141

FES-551 TO B INLET-290

FES-346 TO OCS-497

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

1 inch = 40 feet (HORIZONTAL)

GRAPHIC SCALE

4 0 2 4 8 16

(IN FEET)

1 inch = 4 feet (VERTICAL)

Know what's below. Call before you dig.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
5	REV. PER DRC#2 MEMOS	5/23/25		
4	REV. PER DRC#1 MEMOS	4/18/25		
3	REV. COMPLETENESS SUBMISSION	1/16/25		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

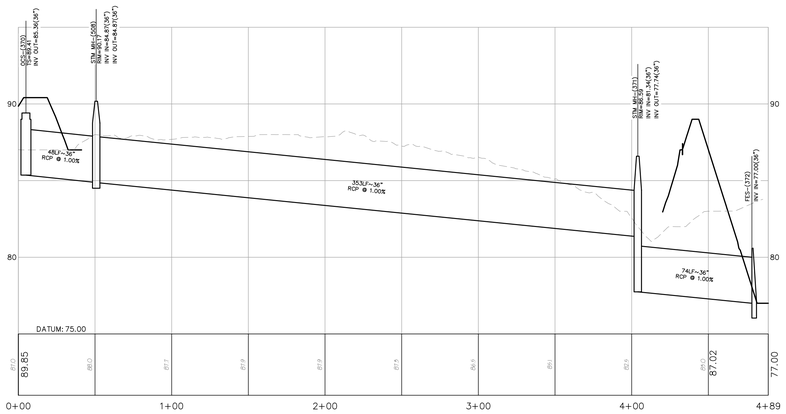
van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

STORM SEWER PROFILES – 1
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

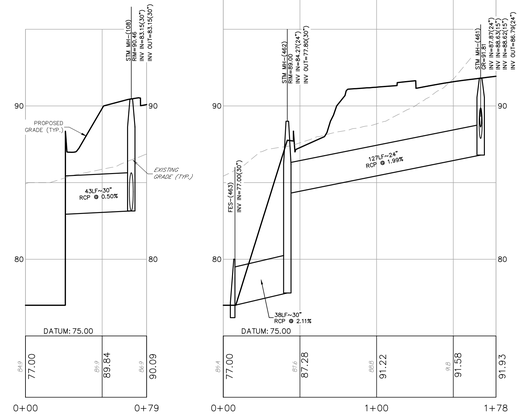
PLAINSBORO TOWNSHIP
SCALE 1"= 40'
MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY	WDV	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE 6/14/24					
CHECKED BY	CG	PAGE	WRNUL23001	72 OF 100	CS4001
DATE 6/14/24					

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS4001.DWG

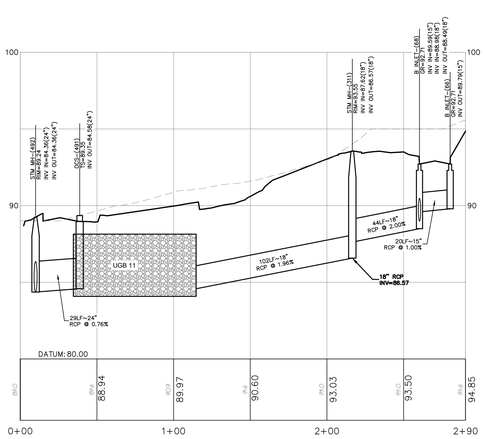


OCS-370 TO FES-372

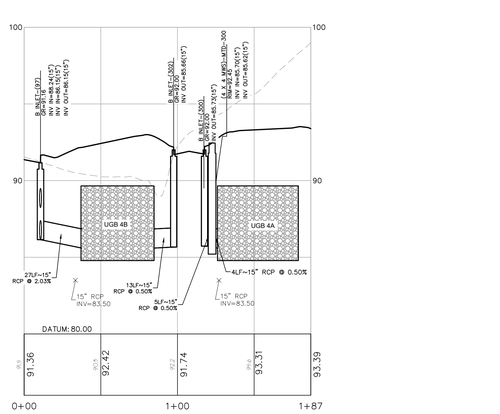


FES-408 TO STM MH-108

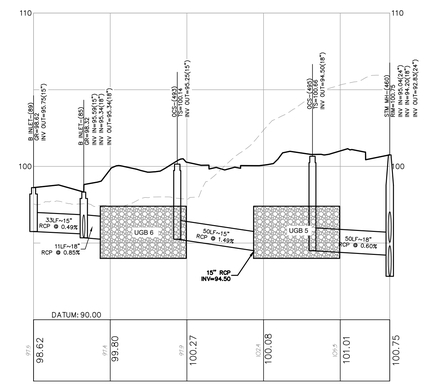
FES-463 TO STM MH-461



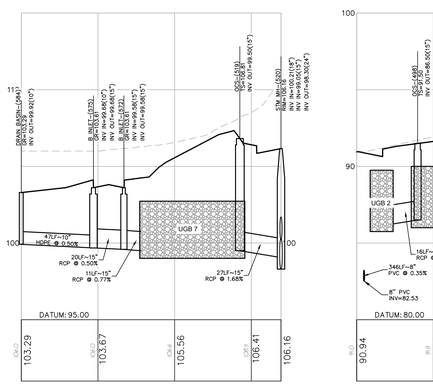
STM MH-492 TO B INLET-66



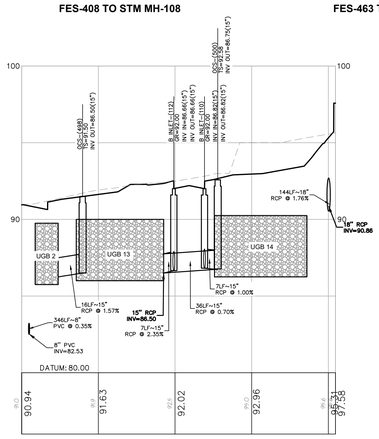
B INLET-97 TO UGB-4A



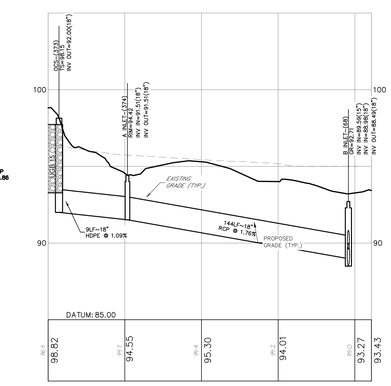
B INLET-89 TO STM MH-460



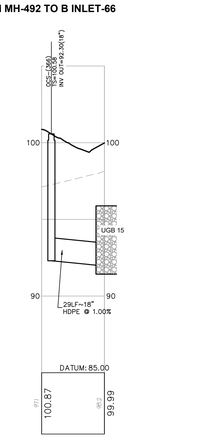
DRAIN BASIN-584 TO STM MH-520



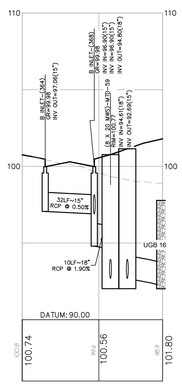
UGB-2 TO UGB-13 AND UGB-14



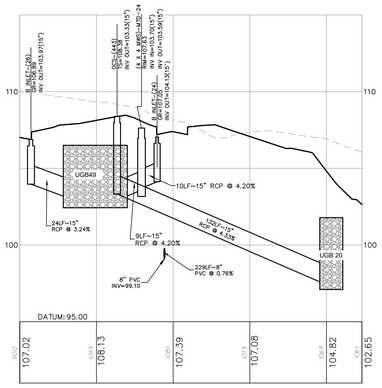
OCS-373 TO B INLET-68



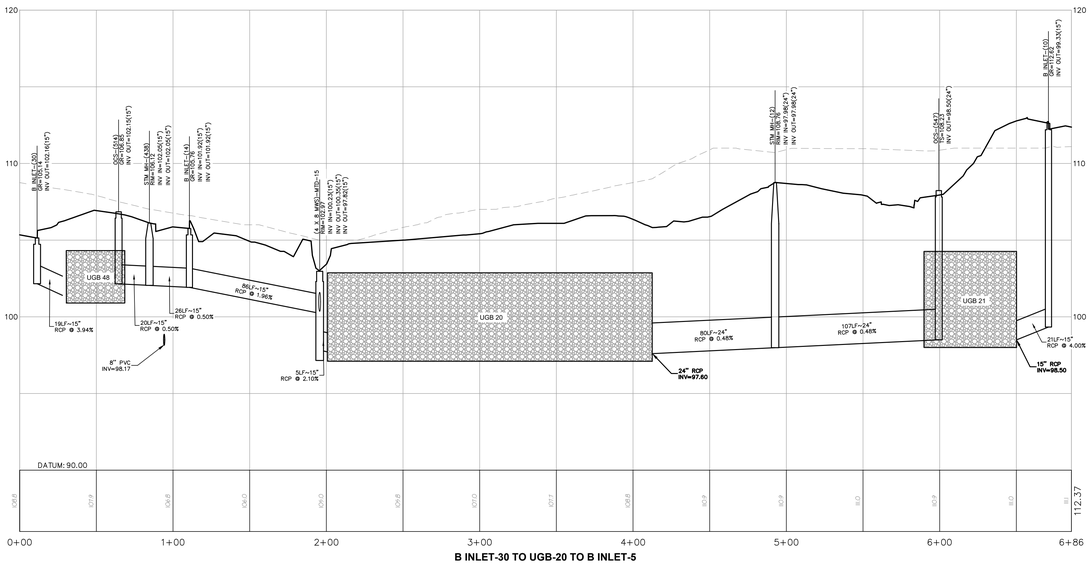
OCS-366 to UGB 16



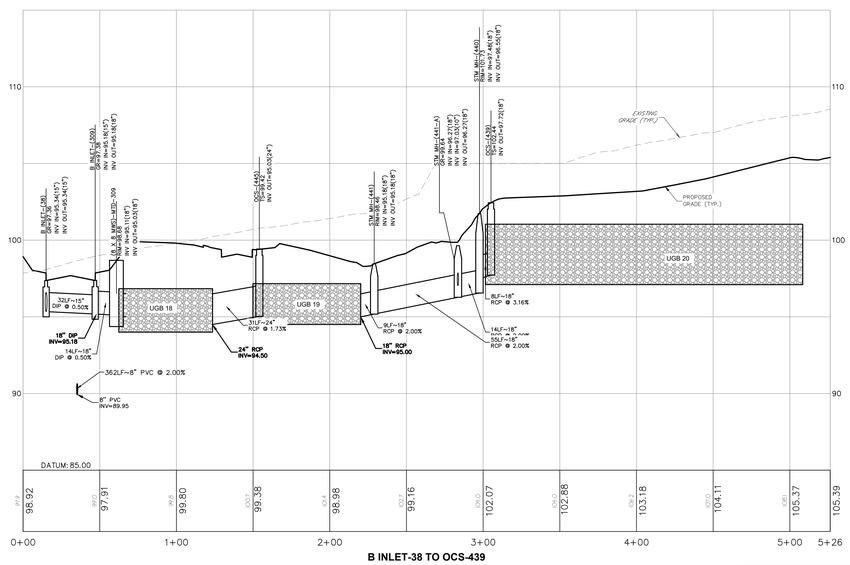
E INLET-364 TO FES-365



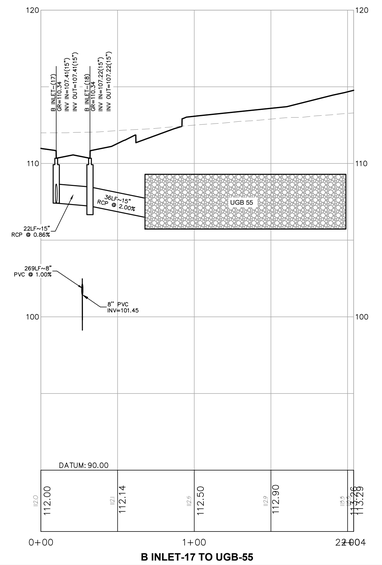
B INLET-26 TO UGB-20



B INLET-30 TO UGB-20 TO B INLET-5



B INLET-38 TO OCS-439



B INLET-17 TO UGB-55

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet (HORIZONTAL)

GRAPHIC SCALE

4 0 2 4 8 16

(IN FEET)
1 inch = 4 feet (VERTICAL)

811 Know what's **below.** **Call** before you dig.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
5	REV. PER DRC#2 MEMOS	5/23/25		
4	REV. PER DRC#1 MEMOS	4/15/25		
3	REV. COMPLETENESS SUBMISSION	1/16/25		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com Certificate of Authorization
www.pennoni.com No. 24GA28033300

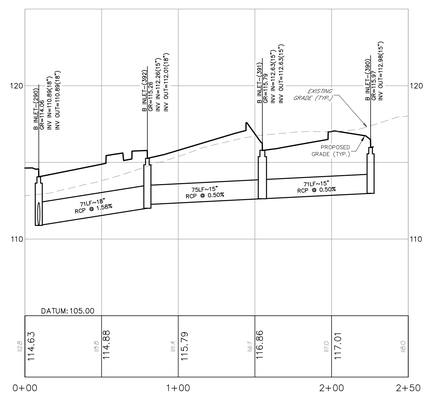
STORM SEWER PROFILES – 2
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN
PLAINSBORO TOWNSHIP MIDDLESEX CO., N.J.
SCALE 1"= 40' JUNE 14, 2024

6/14/24
DATE OF SIGN.

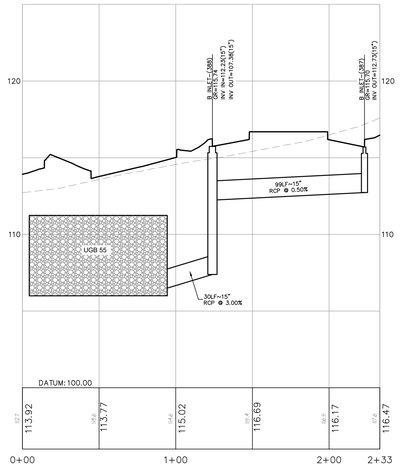
CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

DRAWN BY WDV	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE 6/14/24		WRNUL23001	73 OF 100	CS4002
CHECKED BY CG	PAGE			
DATE 6/14/24				

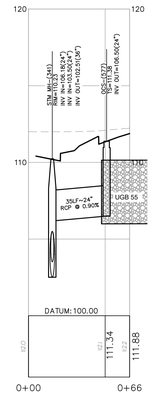
U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS4001.DWG



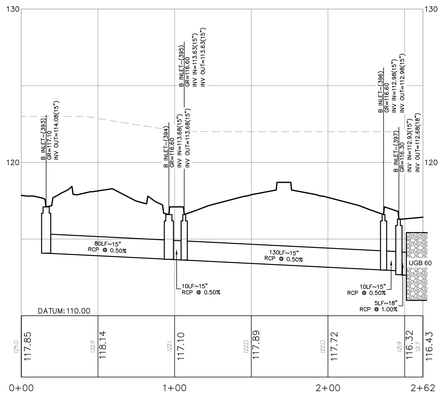
B INLET-290 TO B INLET-390



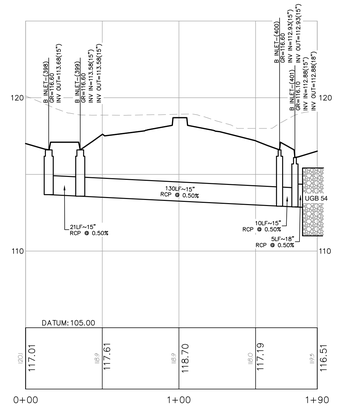
UGB-55 TO B INLET-387



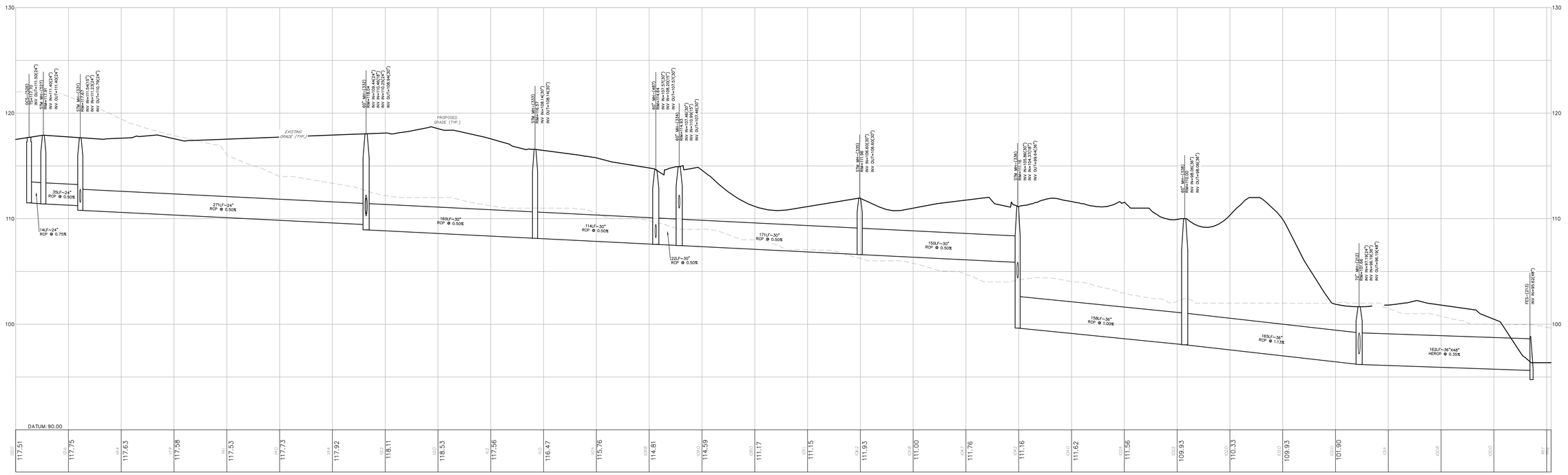
STM MH-341 TO OCS-577



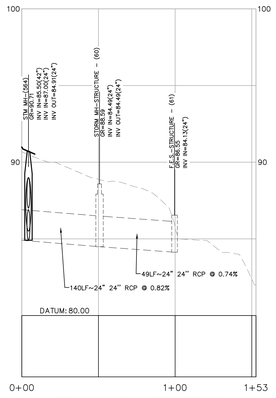
B INLET-339 TO UGB-60



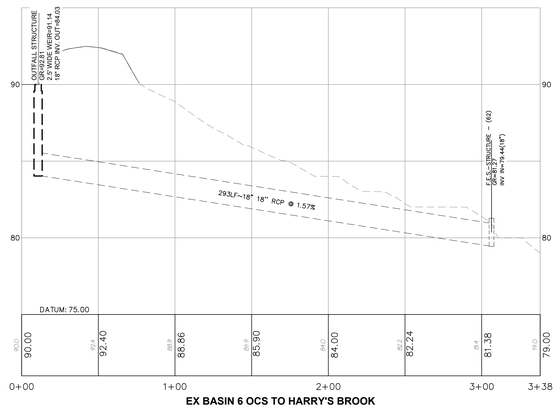
B INLET-398 TO UGB-54



OCS-526 TO FES-213



STM MH-564 TO HARRY'S BROOK



EX BASIN 6 OCS TO HARRY'S BROOK

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

1 inch = 40 feet (HORIZONTAL)

GRAPHIC SCALE

4 0 2 4 8 16

(IN FEET)

1 inch = 4 feet (VERTICAL)

811 Know what's below. Call before you dig.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
6	REV. PER DRC#2 MEMOS	5/23/25		
5	REV. PER DRC#1 MEMOS	4/18/25		
4	REV. PER DRCC COMMENTS	1/22/25		
3	REV. COMPLETENESS SUBMISSION	1/16/25		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

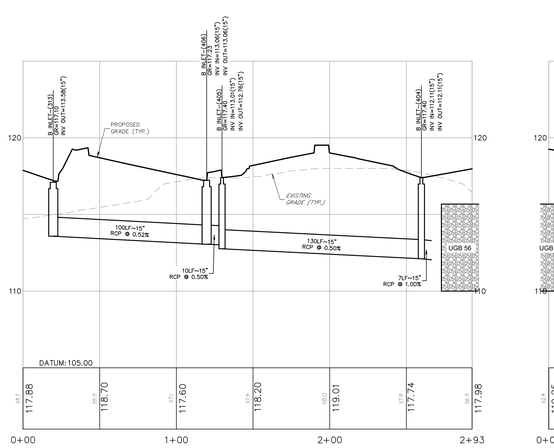
van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

STORM SEWER PROFILES – 3
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

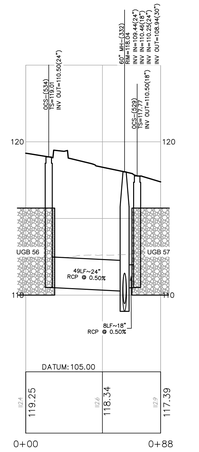
PLAINSBORO TOWNSHIP
SCALE 1"= 40'
MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY	CHECKED BY	FIELD BK	ORDER No.	PAGE No.	SHEET No.
WDV	CG	PAGE	WRNUL23001	74 OF 100	CS4003
DATE 6/14/24	DATE 6/14/24				

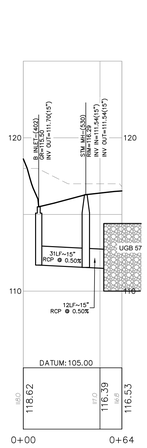
U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS4001.DWG



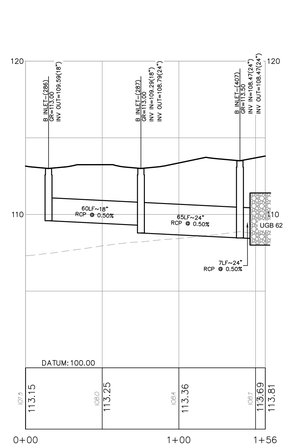
B INLET-313 TO UGB-56



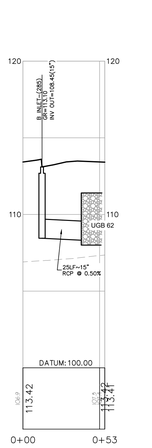
OCS-534 TO OCS-529



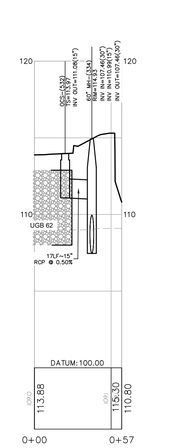
B INLET-402 TO UGB-57



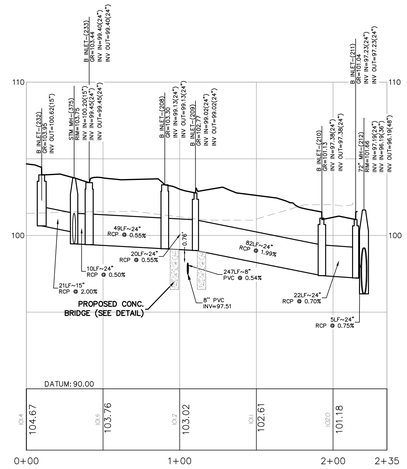
B INLET-286 TO UGB-62



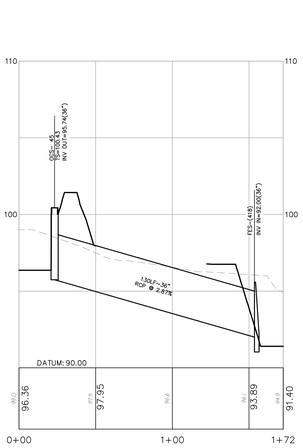
B INLET-285 TO UGB-62



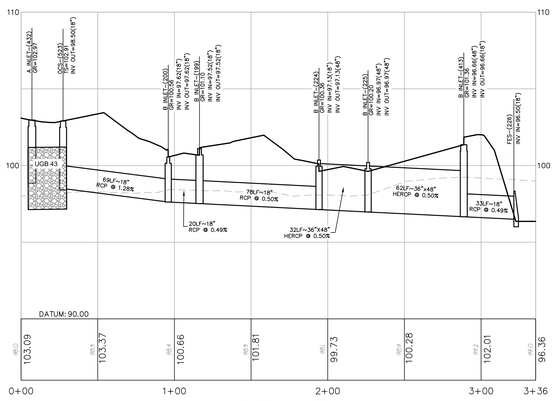
OCS-532 TO 60 STM MH-334



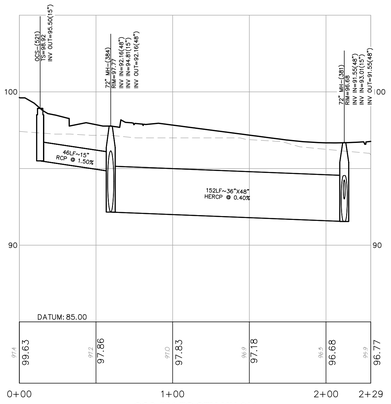
B INLET-232 TO STM MH-212



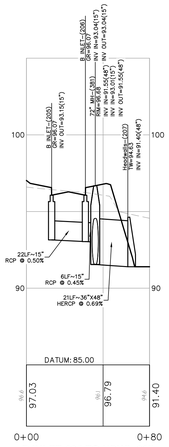
OCS-45 TO FES-418



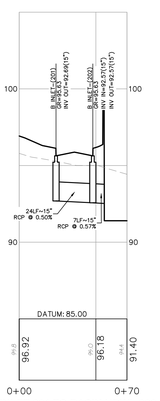
OCS-523 TO FES-226



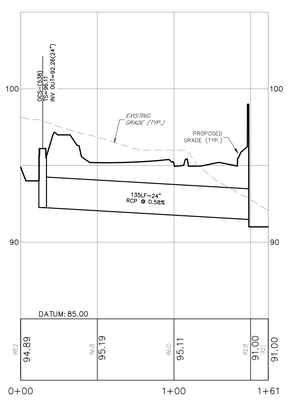
OCS-521 TO STM MH-381



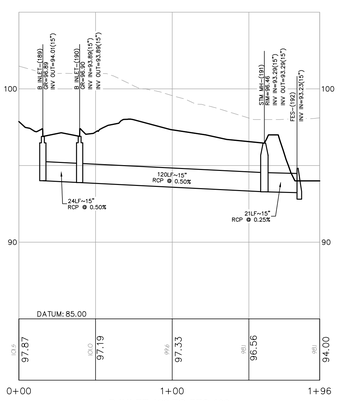
B INLET-205 TO HDWL-207



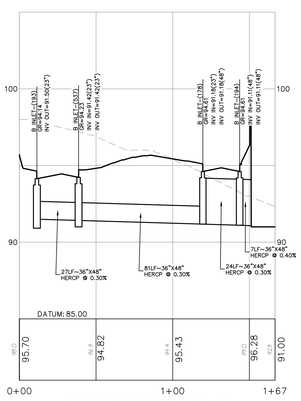
B INLET-201 TO BASIN HDWL-203



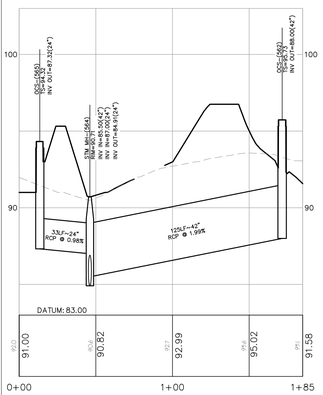
OCS-538 TO BASIN HDWL-541



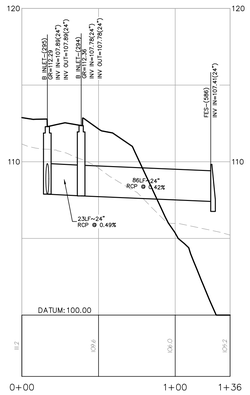
B INLET-189 TO FES-192



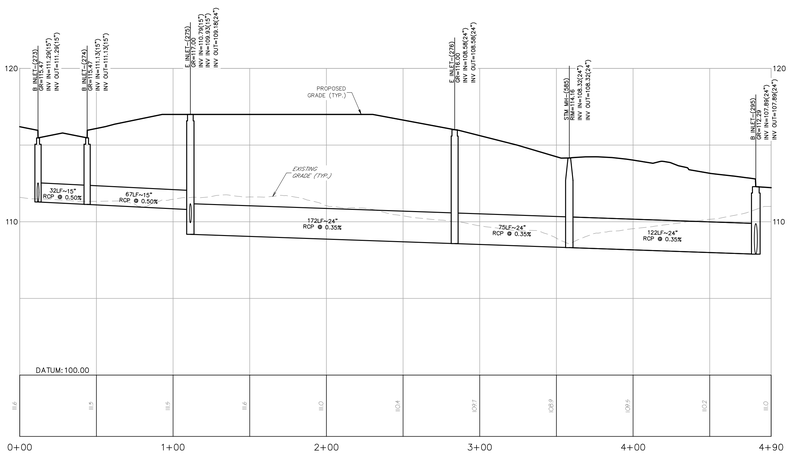
B INLET-193 TO BASIN HDWL-195



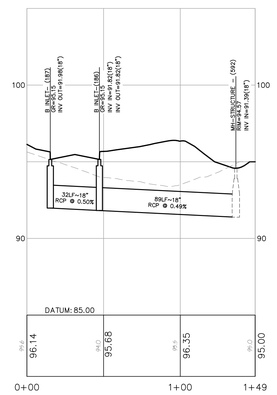
OCS-565 TO OCS-562



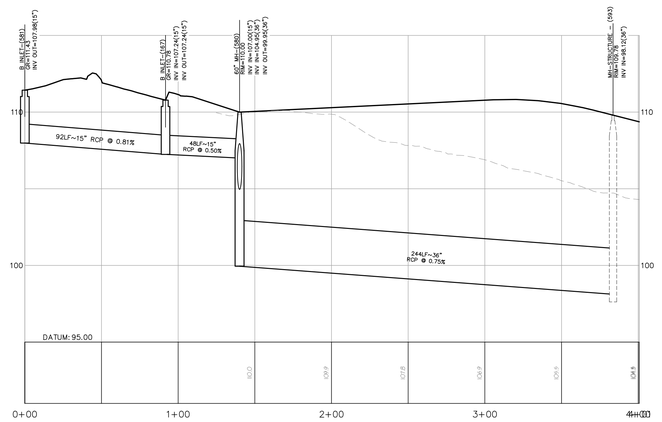
B INLET-295 TO FES-586



B INLET-273 TO B INLET-295



B INLET-187 TO EX. STM MH



B INLET 581 TO EX. STM MH

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet (HORIZONTAL)

GRAPHIC SCALE

4 0 2 4 8 16

(IN FEET)
1 inch = 4 feet (VERTICAL)

Know what's below. Call before you dig.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
5	REV. PER DRC#2 MEMOS	5/23/25		
4	REV. PER DRC#1 MEMOS	4/18/25		
3	REV. COMPLETENESS SUBMISSION	1/16/25		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

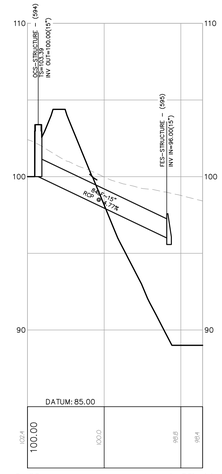
CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

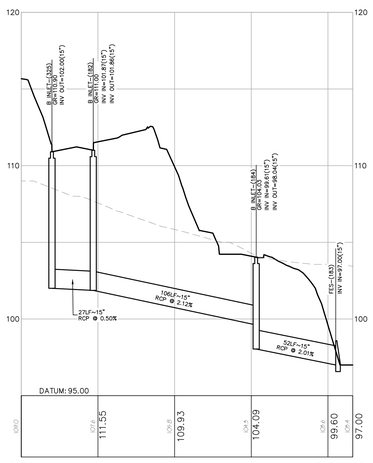
STORM SEWER PROFILES – 4
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN
PLAINSBORO TOWNSHIP
MIDDLESEX CO., N.J.
SCALE 1"= 40'
JUNE 14, 2024

DRAWN BY MDV	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE 6/14/24				
CHECKED BY CG	PAGE	WRNUL23001	75 OF 100	CS4004
DATE 6/14/24				

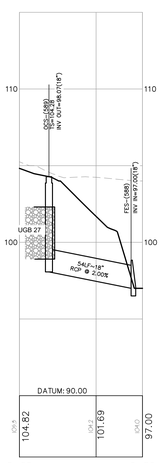
U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS4001.DWG



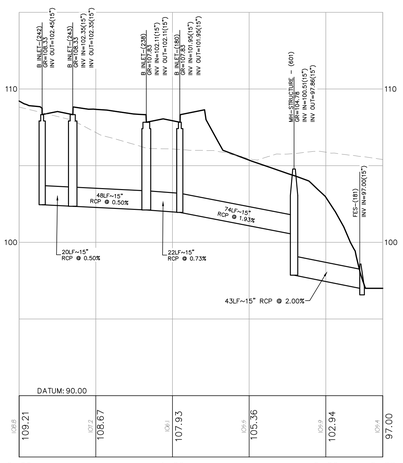
OCS-594 TO FES-595



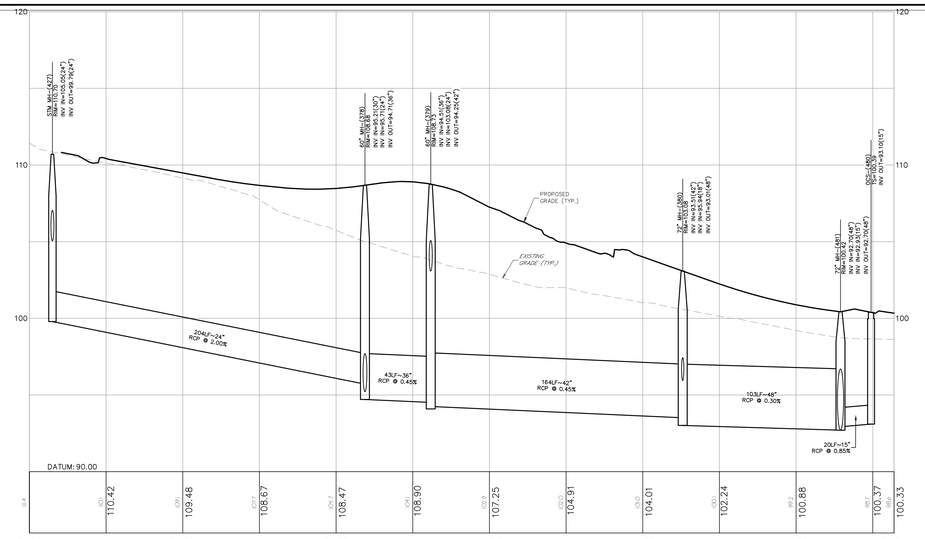
B INLET-325 TO FES-183



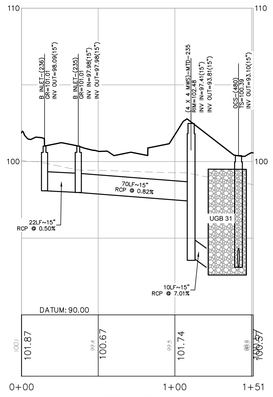
OCS-589 TO FES-588



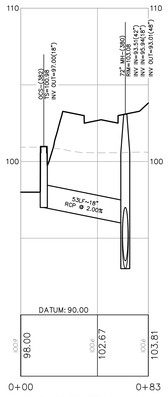
B INLET-242 TO FES-181



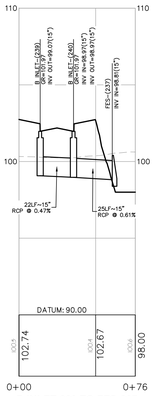
STM MH-427 TO OCS-480



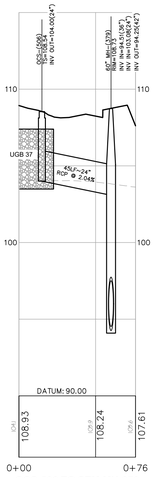
B INLET-236 TO UGB-31



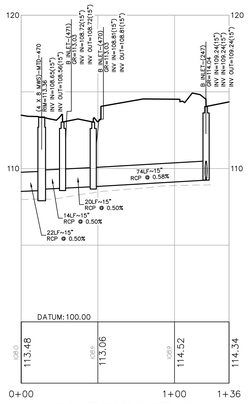
OCS-382 TO STM MH-380



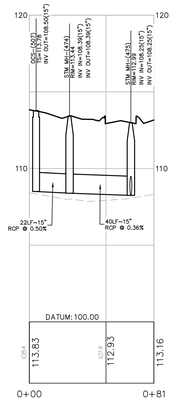
B INLET-239 TO FES-237



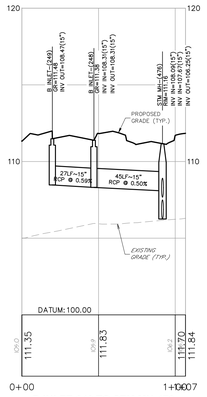
OCS-506 TO STM MH-379



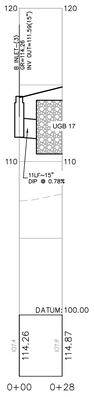
B INLET-471 TO B INET-247



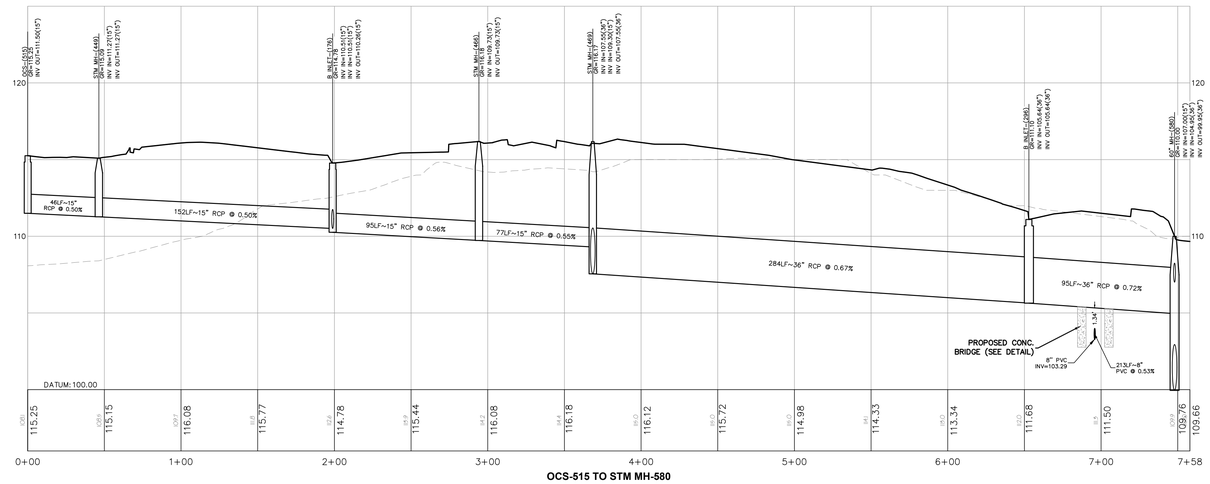
OCS-507 TO STM MH-475



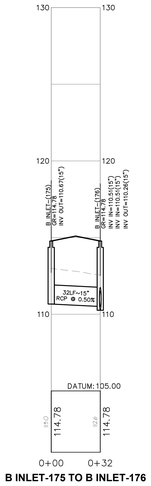
B INLET-249 TO STM MH-476



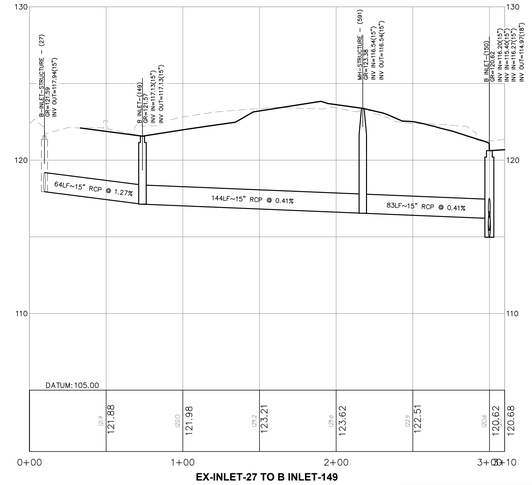
B INLET-3 TO UGB-17



OCS-515 TO STM MH-580



B INLET-175 TO B INLET-176



EX-INLET-27 TO B INLET-149

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

1 inch = 40 feet (HORIZONTAL)

GRAPHIC SCALE

4 0 2 4 8 16

(IN FEET)

1 inch = 4 feet (VERTICAL)

Know what's below. Call before you dig.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
2	REV. PER DRC#2 MEMOS	5/23/25		
1	REV. PER DRC#1 MEMOS	4/18/25		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

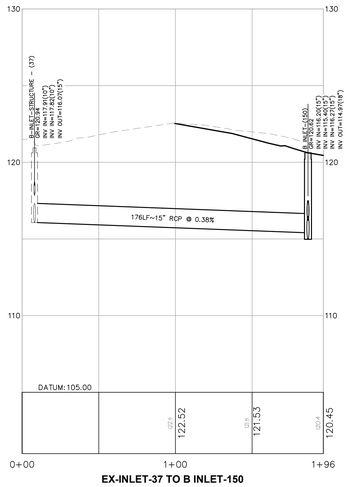
van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

STORM SEWER PROFILES – **5**
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

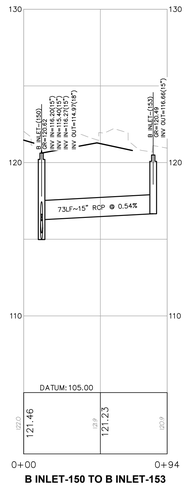
PLAINSBORO TOWNSHIP
SCALE 1"= 40'
MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY	WDV	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE 6/14/24					
CHECKED BY	CG	PAGE	WRNUL23001	76 OF 100	CS4005
DATE 6/14/24					

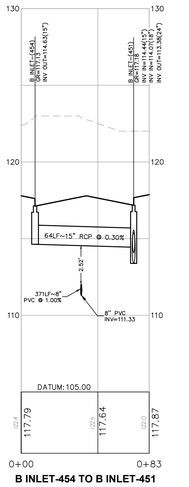
U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS4001.DWG



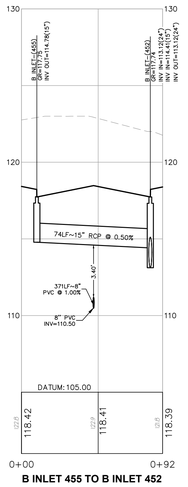
EX-INLET-37 TO B INLET-150



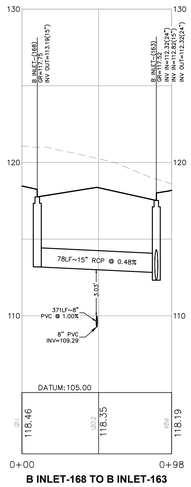
B INLET-150 TO B INLET-153



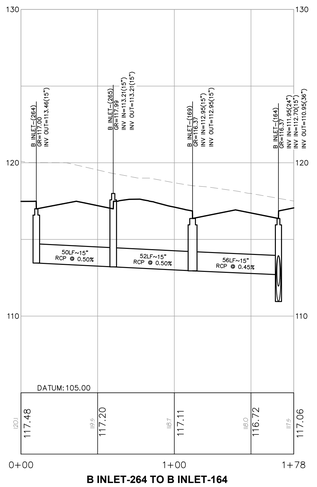
B INLET-454 TO B INLET-451



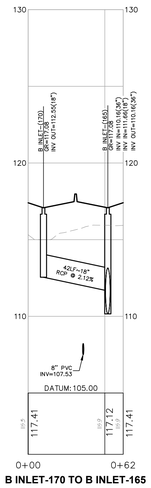
B INLET 455 TO B INLET 452



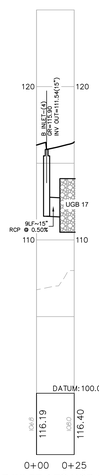
B INLET-168 TO B INLET-163



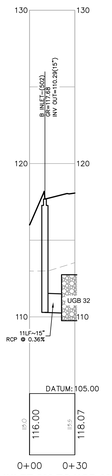
B INLET-264 TO B INLET-164



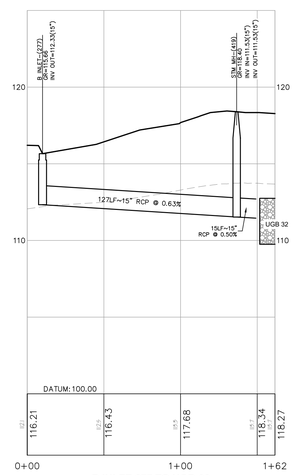
B INLET-170 TO B INLET-165



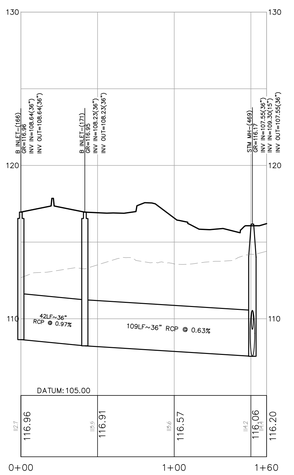
B INLET-4 TO UGB-17



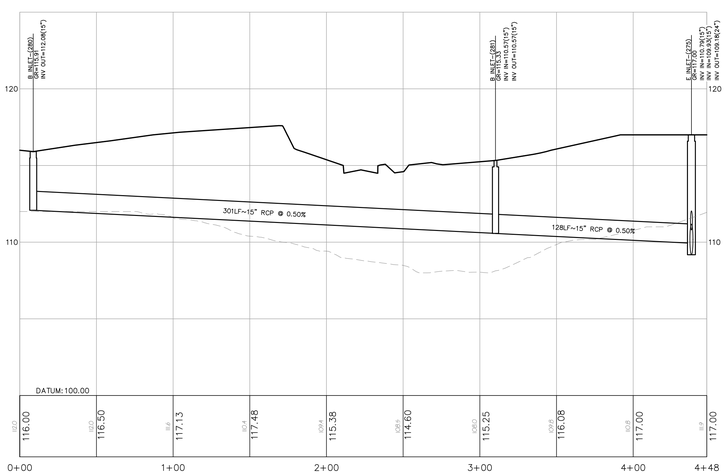
B INLET-502 TO UGB-32



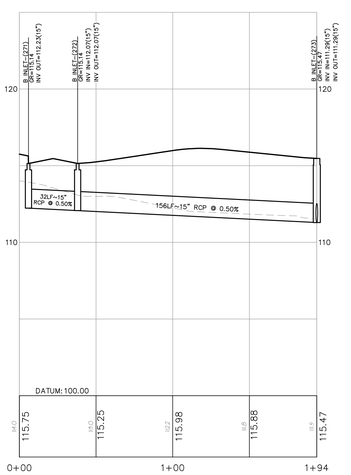
B INLET-277 TO UGB-32



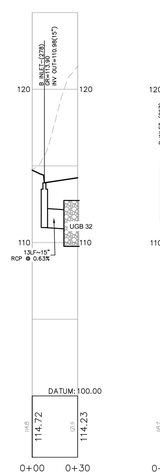
B INLET-166 TO STM MH-469



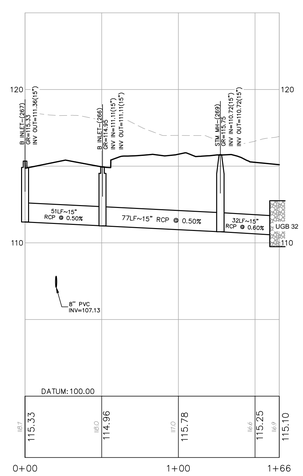
B INLET-280 TO E INLET-275



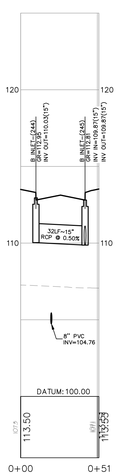
B INLET-271 TO B INLET-273



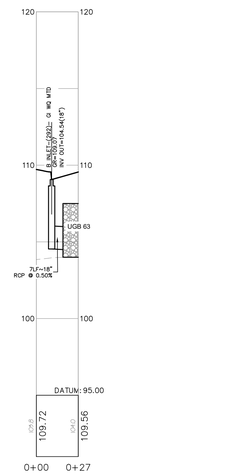
B INLET-278 TO UGB-32



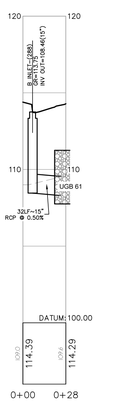
B INLET-267 TO UGB-32



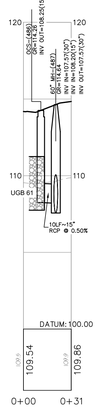
B INLET-244 TO B INLET-245



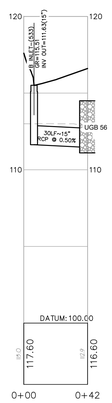
B INLET-292 GI WQ MTD TO UGB-63



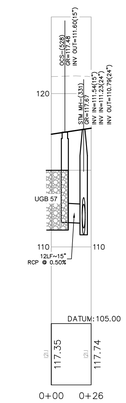
INLET-288 TO UGB-61



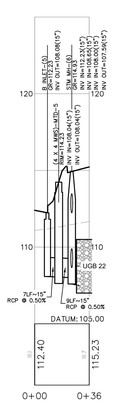
OCS-486 TO STM MH-487



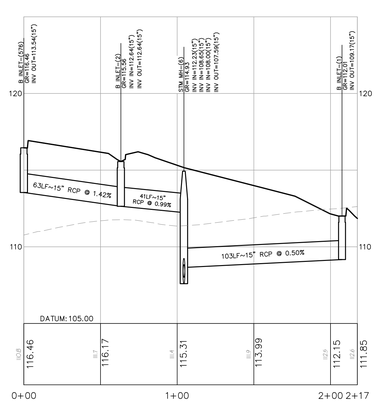
B-INLET 533 TO UGB-56



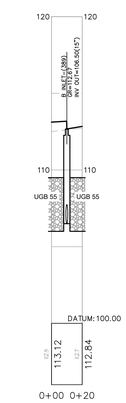
OCS-528 TO STM MH-331



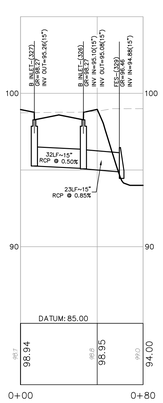
B INLET-5 TO UGB-22



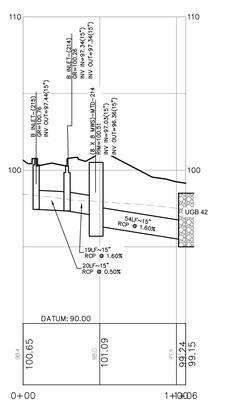
B INLET-276 TO B INLET-1



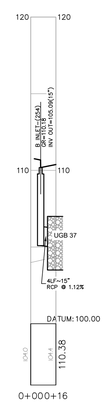
B INLET 389 TO UGB-55



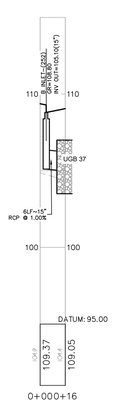
B INLET-327 TO FES-329



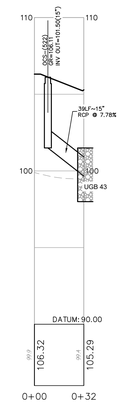
B INLET-215 TO UGB-42



B INLET-254 TO UGB-37



B INLET-252 TO UGB-37



OCS-522 TO UGB-43

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet (HORIZONTAL)

GRAPHIC SCALE

4 0 2 4 8 16

(IN FEET)
1 inch = 4 feet (VERTICAL)

Know what's **below.** **Call** before you dig.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
2	REV. PER DRC#2 MEMOS	5/23/25		
1	REV. PER DRC#1 MEMOS	4/18/25		

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

STORM SEWER PROFILES – **6**
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

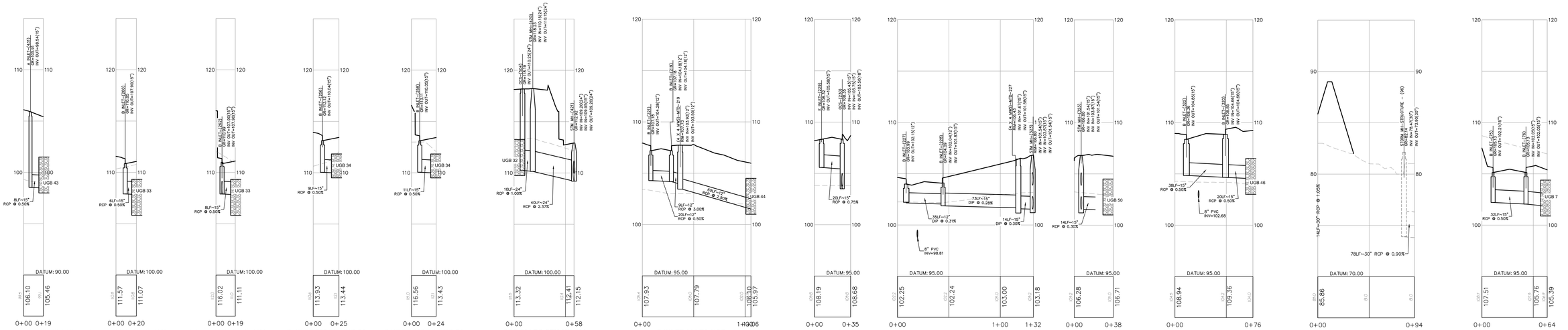
PLAINSBORO TOWNSHIP MIDDLESEX CO., N.J.
SCALE 1"= 40' JUNE 14, 2024

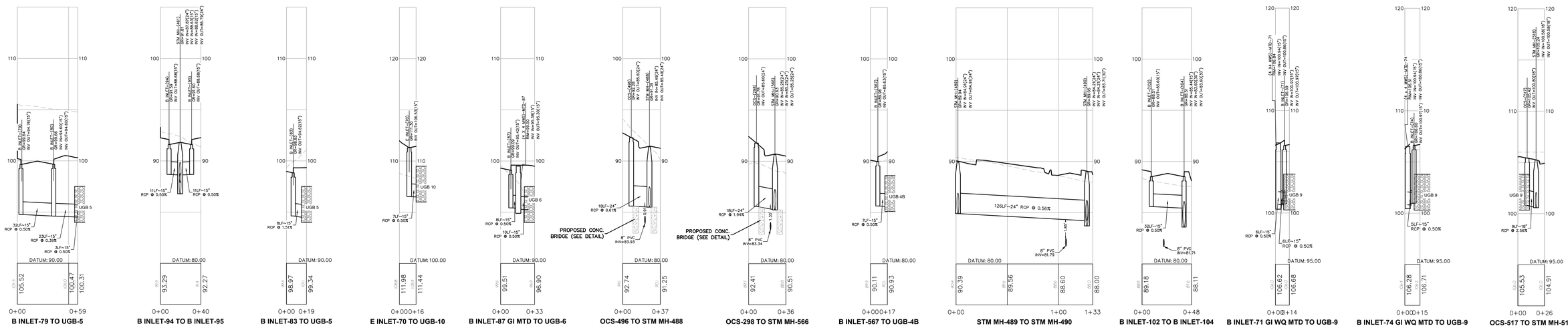
DRAWN BY	WDV	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE 6/14/24			WRNUL23001	77 OF 100	CS4006
CHECKED BY	CG	PAGE			
DATE 6/14/24					

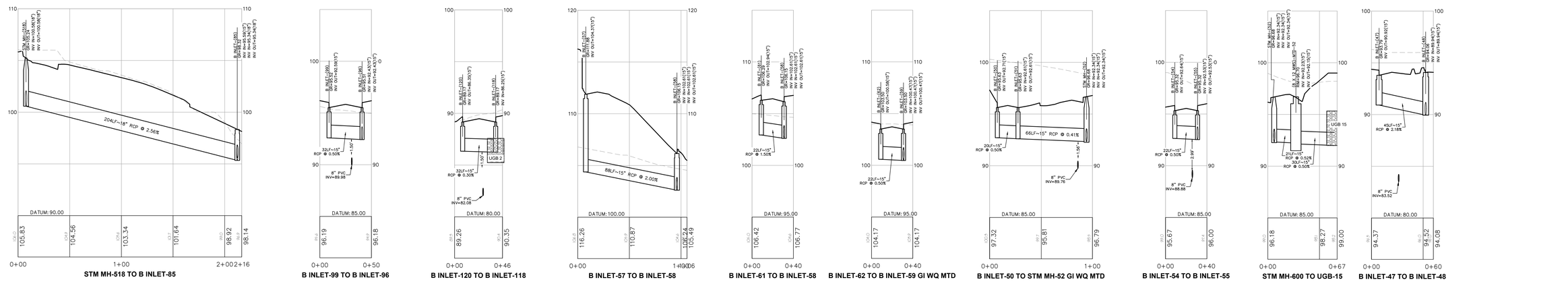
6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS4001.DWG







GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

1 inch = 40 feet (HORIZONTAL)

GRAPHIC SCALE

4 0 2 4 8 16

(IN FEET)

1 inch = 4 feet (VERTICAL)

Know what's below. Call before you dig.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
2	REV. PER DRC#2 MEMOS	5/23/25		
1	REV. PER DRC#1 MEMOS	6/18/25		

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

STORM SEWER PROFILES – 7
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

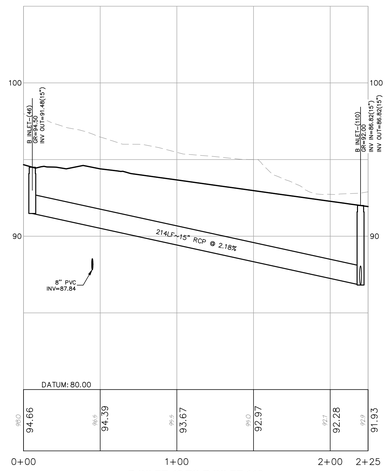
PLAINSBORO TOWNSHIP
SCALE 1"= 40'
MIDDLESEX CO., N.J.
JUNE 14, 2024

6/14/24
DATE OF SIGN.

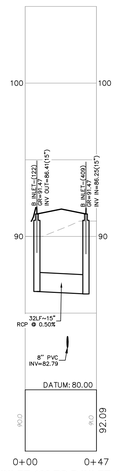
CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

DRAWN BY	WDV	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE 6/14/24					
CHECKED BY	CG	PAGE	WRNUL23001	78 OF 100	CS4007
DATE 6/14/24					

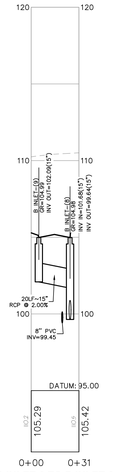
U: \ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS4001.DWG



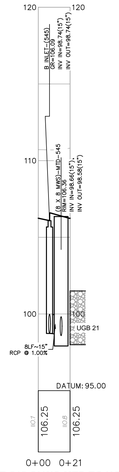
B INLET-46 TO B INLET-110



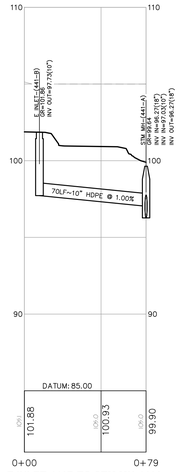
B INLET-122 TO B INLET-409



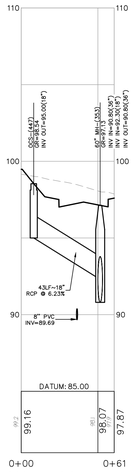
B INLET-9 TO B INLET-8



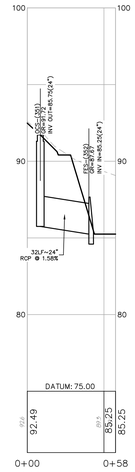
B INLET-545 GI WQ MTD TO UGB-21



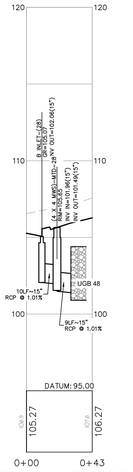
E INLET-441B TO STM MH-441A



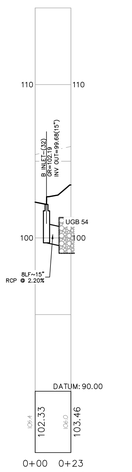
OCS-447 TO STM MH-353



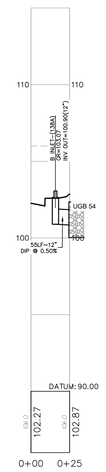
OCS-351 TO FES-352



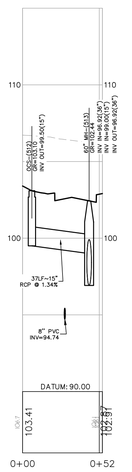
B INLET-28 GI WQ MTD TO UGB-48



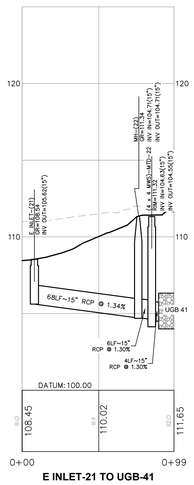
B INLET-32 TO UGB-54



B INLET-34 TO UGB-54



OCS-512 TO STM MH-513



E INLET-21 TO UGB-41

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet (HORIZONTAL)

GRAPHIC SCALE

4 0 2 4 8 16

(IN FEET)
1 inch = 4 feet (VERTICAL)

Know what's below. Call before you dig.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
2	REV. PER DRC#2 MEMOS	5/23/25		
1	REV. PER DRC#1 MEMOS	4/18/25		

6/14/24
DATE OF SIGN.

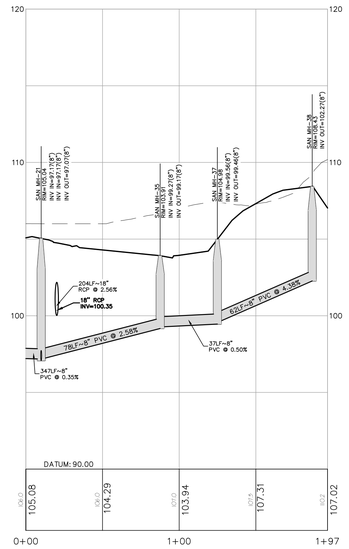
CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

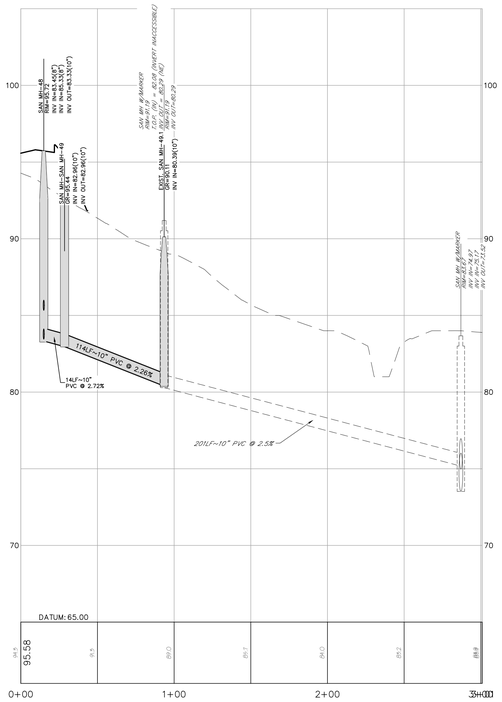
STORM SEWER PROFILES – **8**
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN
PLAINSBORO TOWNSHIP MIDDLESEX CO., N.J.
SCALE 1"= 40' JUNE 14, 2024

DRAWN BY / DATE	FIELD BK	ORDER No.	PAGE No.	SHEET No.
WDV 6/14/24		WRNUL23001	**79** OF 100	CS4008
CHECKED BY / DATE CG 6/14/24	PAGE			

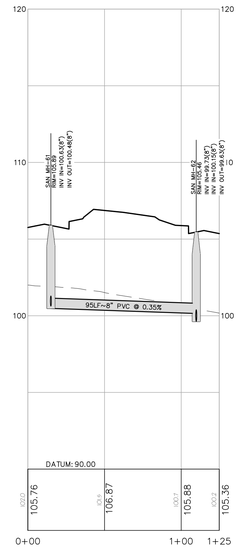
U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS4001.DWG



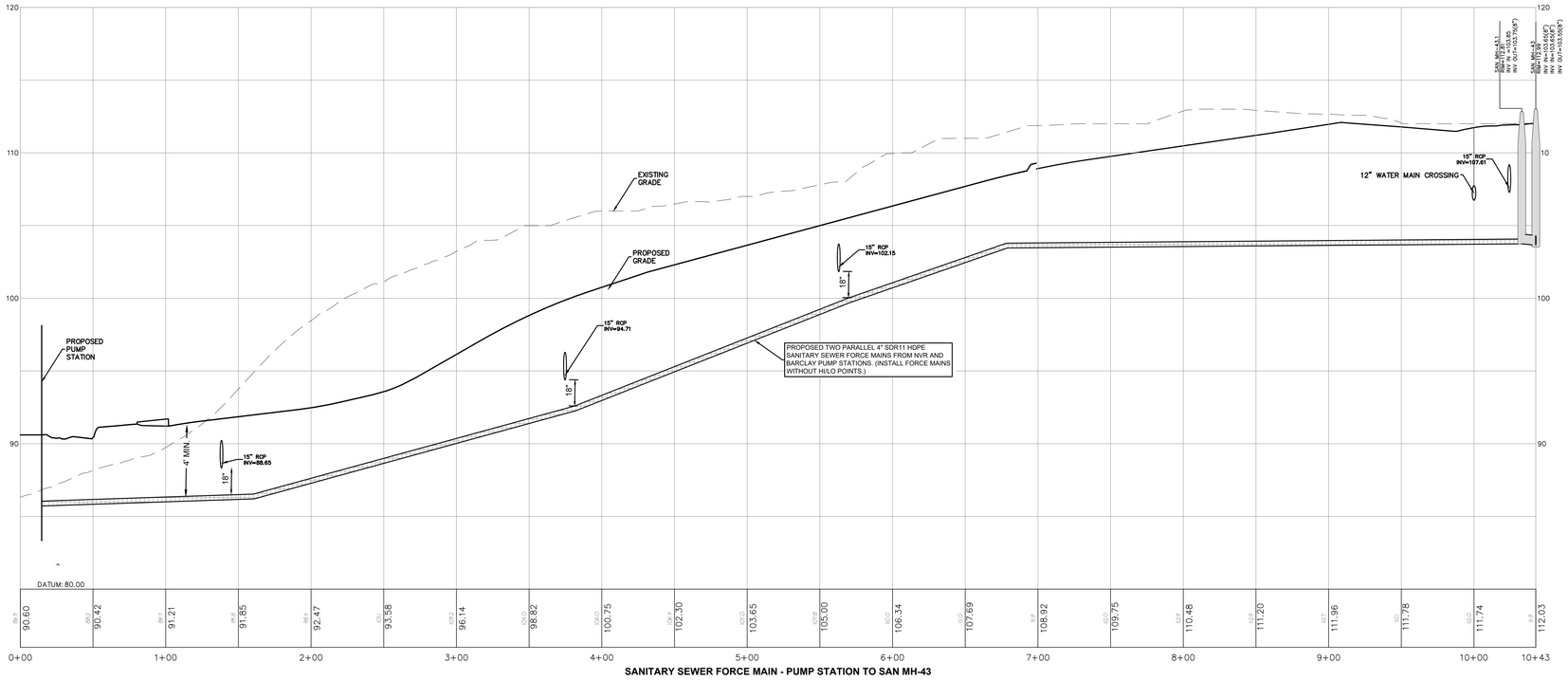
SAN MH-21 TO SAN MH-38



SAN MH-48 TO SAN MH-49



SAN MH-61 TO SAN MH-62



SANITARY SEWER FORCE MAIN - PUMP STATION TO SAN MH-43

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet (HORIZONTAL)

GRAPHIC SCALE

4 0 2 4 8 16

(IN FEET)
1 inch = 4 feet (VERTICAL)

Know what's below. Call before you dig.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
6	REV. PER DRC#2 MEMOS	5/23/25		
5	REV. PER DRC#1 MEMOS	4/18/25		
4	REV. COMPLETENESS SUBMISSION	1/16/25		
3	REV. FOR PERMIT RESUBMISSION	11/8/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

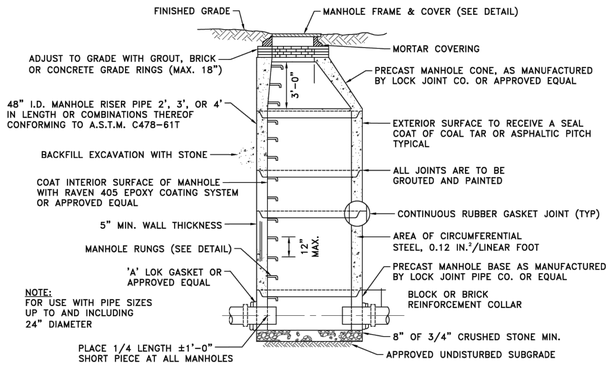
van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

FORCE MAIN AND SEWER PROFILES
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

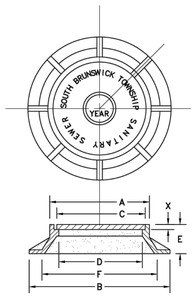
PLAINSBORO TOWNSHIP
SCALE 1"= 40'
MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY	WDV	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE	6/14/24				
CHECKED BY	CG	PAGE	WRNUL23001	80 OF 100	CS5001
DATE	6/14/24				

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS5001.DWG



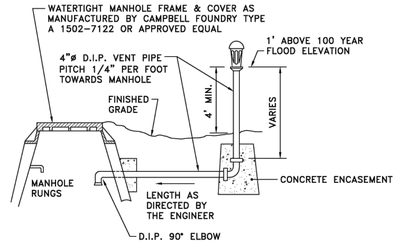
STANDARD PRECAST MANHOLE

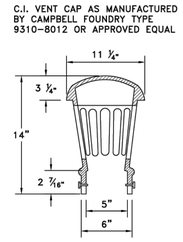


NOTE:
MANHOLE FRAME AND COVER AS MANUFACTURED BY CAMPBELL FOUNDRY, TYPE 1202B-7122 OR APPROVED EQUAL.

PATTERN NO.	DIMENSIONS IN INCHES						
ROUND FLANGE	A	B	C	D	E	F	X
1202B – 7122	27¾	39	25⅜	23	8	31	2

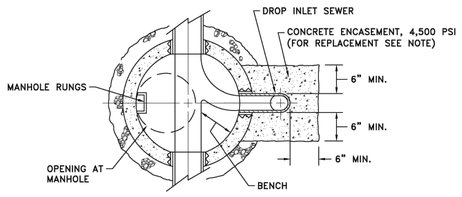
MANHOLE FRAME & COVER





CAST IRON VENT CAP

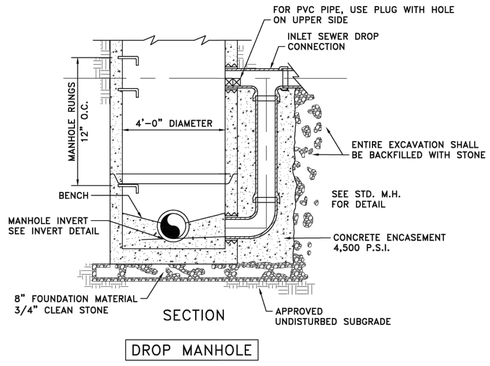
WATERTIGHT MANHOLE FRAME & COVER



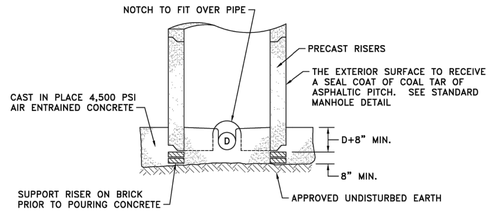
PLAN VIEW

NOTES:

1. ATLANTIC PRECAST CONCRETE DROP MANHOLE COLLARS OR EQUAL CAN BE USED IN PLACE OF CONCRETE ENCASEMENT. IF USED, FORMS SHALL BE ELIMINATED.
2. PRECAST UNITS ARE PREFERRED.
3. INTERIOR DROP STRUCTURES SHALL NOT BE ALLOWED UNLESS PRIOR APPROVAL IS RECEIVED BY THE TOWNSHIP AND IT'S ENGINEER.



DROP MANHOLE

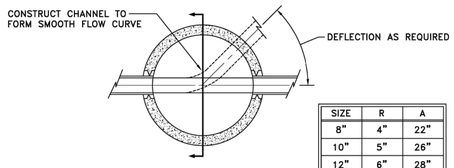


NOTES:

1. TOP OF PIPE SHALL BE NEATLY CUT AFTER CAST-IN-PLACE CONC. BASE AND BENCH HAS SET.
2. FOR DETAIL OF UPPER PART OF MANHOLE, SEE "STANDARD MANHOLE" DETAIL.
3. ACRYLIMIDE GEL GROUT INJECTION SHALL BE USED TO STOP LEAKS, IF ANY.

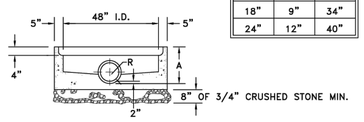
DOG HOUSE MANHOLE

(FOR INSTALLING NEW MANHOLE ON ACTIVE SEWER)

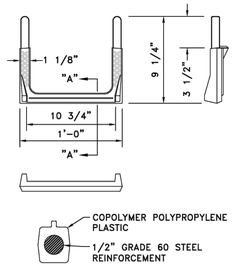


PLAN VIEW

SIZE	R	A
8"	4"	22"
10"	5"	26"
12"	6"	28"
14"	7"	30"
16"	8"	32"
18"	9"	34"
24"	12"	40"

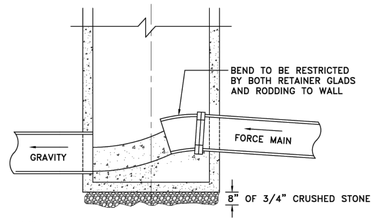


INVERT DETAIL
PRECAST MANHOLE BASE



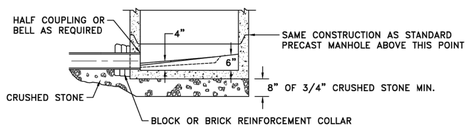
SECTION "A-A"

MANHOLE RUNGS

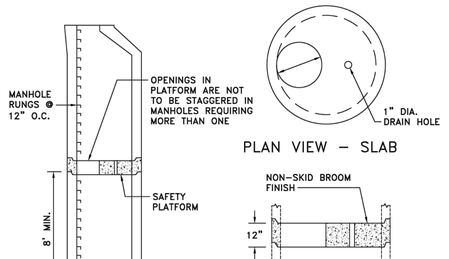


NOTE:
TRANSITION CHAMBER SHALL MEET ALL REQUIREMENTS OF STANDARD MANHOLE.

PRESSURE TO GRAVITY TRANSITION CHAMBER



INVERT DETAIL
PRECAST FLUSH MANHOLE BASE



PLAN VIEW – SLAB

M.H. CROSS SECTION

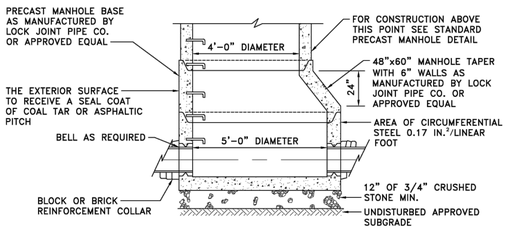
17 FT. OR GREATER

CROSS SECTION – SLAB

MANHOLE SPECIFICATIONS:

1. CONCRETE IS DESIGNED TO OBTAIN A STRENGTH OF 4,500 PSI IN 28 DAYS.
2. REINFORCING STEEL HAS A MINIMUM YIELD STRENGTH OF 60,000 PSI.
3. SLAB IS DESIGNED FOR A CONCENTRATED LOAD OF 10,000 LBS.

5' DIA. MANHOLE DEPTH 17' OR GREATER



NOTE:
FOR USE WITH PIPE SIZES OVER 24" DIAMETER AND UP TO AND INCLUDING 36" DIAMETER.

5 FT. DIAMETER MANHOLE BASE

SEWER DETAILS (1 of 2)
SOUTH BRUNSWICK TWP.

MIDDLESEX COUNTY, NEW JERSEY

SCALE: N.T.S.

WILBUR F. DOWNING, JR., L.S. 10623 TOWNSHIP ENGINEER

MUNICIPAL BUILDING KINGSTON LA.
MONMOUTH JUNCTION N.J.

MARCH 2019

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
2	REV. PER DRC@2 MEMOS	5/23/25		
1	REV. PER DRC@1 MEMOS	4/18/25		

1/28/2025
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

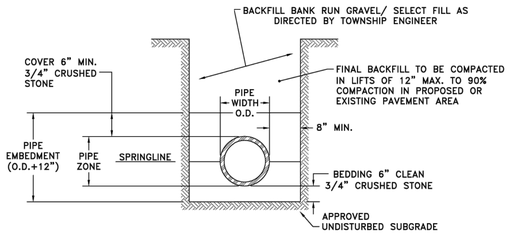
van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

SANITARY SEWER DETAILS SHEET 1
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE N.T.S
MIDDLESEX CO., N.J.
JANUARY 28, 2025

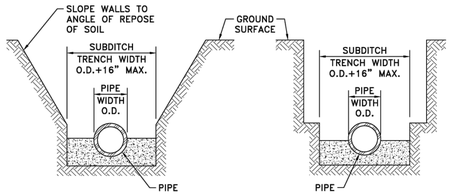
DRAWN BY WDV DATE 1/28/25	FIELD BK	ORDER No.	PAGE No.	SHEET No.
CHECKED BY CG DATE 1/28/25	PAGE	WRNUL23001	81 OF 100	CS6001

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS6001.DWG



NOTES:
1. PIPE EMBEDMENT SHALL BE 3/4" CLEAN CRUSHED STONE.
2. WHERE SUBGRADE IS UNACCEPTABLE FOUNDAION SHALL BE REQUIRED AS SPECIFIED BY THE ENGINEER.
3. TYP. CONCRETE FOUNDATION IS SPECIFIED BELOW.
4. ENTIRE TRENCH WIDTH SHALL BE BACKFILLED AS SPECIFIED IN THE TRENCH DETAIL ABOVE.
5. FOR WIDE TRENCHES (GREATER THAN 6 PIPE DIA.) SEE TYP. SUBDITCH TRENCH DETAIL BELOW.

TRENCH DETAIL

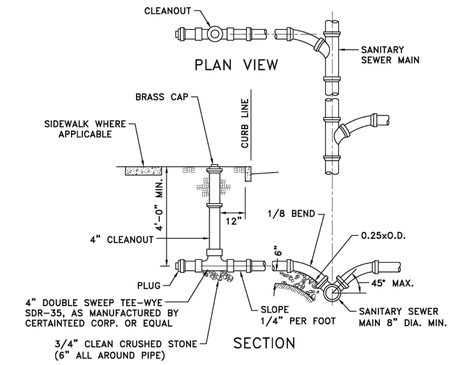


TYP. SUBDITCH TRENCH DETAIL FOR WIDE TRENCHES

TYP. CONCRETE FOUNDATION

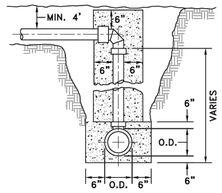
NOTES:
1. CONTRACTOR SHALL VERIFY ALL INVERTS/ELEVATIONS.
2. ALTERNATE WALL CONSTRUCTION MAY CONSIST OF SOLID PRECAST SEGMENTAL CONCRETE MASONRY UNITS MANUFACTURED IN ACCORDANCE WITH NJDOT SPECIFICATION SECTION 910.02.
3. CONCRETE CRADLES ONLY REQUIRED WHERE VERTICAL CLEARANCE BETWEEN PIPING IS LESS THAN 18".
4. CONCRETE ENCASEMENT IS REQUIRED WHERE VERTICAL CLEARANCE BETWEEN PIPES IS LESS THAN 12". HOWEVER, MINIMUM VERTICAL CLEARANCE SHALL BE NO LESS THAN 6".

PIPE BRIDGING AT UTILITY CROSSINGS DETAIL
(IF/AS REQUIRED)
NTS

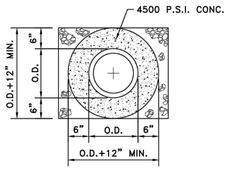


NOTES:
1. IN EASEMENT AREAS 4" CLEANOUTS SHALL BE LOCATED AS CLOSE TO THE EASEMENT LINE AS POSSIBLE.
2. ALL PIPING 4" DIA. PVC SDR-35.

STANDARD HOUSE CONNECTION

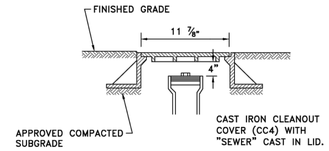


TYPICAL RISER CONNECTION



NOTE:
LENGTH AS DIRECTED BY THE ENGINEER.

CONCRETE ENCASEMENT

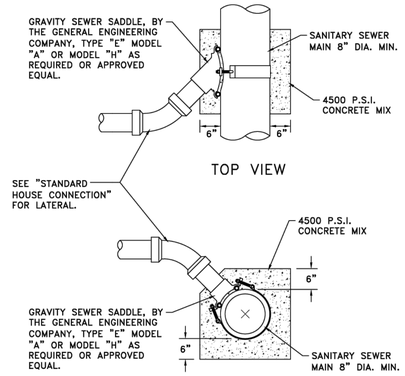


NOTE:
CLEANOUT COVER REQUIRED FOR ALL CLEANOUTS LOCATED IN SIDEWALK OR PAVEMENT.

CLEANOUT COVER DETAIL



CONCRETE ENCASEMENT DETAIL
(IF/AS REQUIRED)
NTS



STRAP-ON SADDLE DETAIL

NOTES:

1. MINIMUM EASEMENT WIDTH IS 25 FEET WIDE – ORDINANCE: 175-59(G).
2. EASEMENTS NOT RUNNING PARALLEL WITH AND ADJACENT TO PUBLIC IMPROVED ROAD R.O.W. SHALL BE COMPACTED, GRADED AND STABILIZED SO AS TO PROVIDE A MINIMUM WIDTH OF 18 FEET WHOSE SURFACE IS FIRM, UNYIELDING AND SHALL HAVE A POSITIVE DRAINAGE AWAY FROM IT. DRAINAGE CONTROL MEASURES SHALL BE IMPLEMENTED AS FIELD CONDITIONS WARRANT OR AS DIRECTED BY THE TOWNSHIP ENGINEER.
3. ALL SANITARY SEWER LINES THAT ARE TO BE OWNED AND OPERATED BY THE TOWNSHIP SHALL BE SO NOTED ON THE PLANS.
4. SANITARY SEWER GRAVITY PIPE SHALL BE PVC, SDR-35. FORCE MAIN PIPE SHALL BE C900, DR-14.
5. SANITARY SEWER GRAVITY MAINS SHALL BE AIR, LAMP AND MANDREL TESTED PRIOR TO OPERATION ACCORDING TO INDUSTRY STANDARD OR AS DIRECTED BY THE TOWNSHIP ENGINEER.
6. FORCE MAINS SHALL BE WATER TESTED AT 1.5 TIMES THE MAXIMUM RATED PUMP OUTLET PRESSURE OR 100 PSIG, WHICHEVER IS GREATER.
7. FINAL PIPE TESTING SHALL NOT BE PERFORMED PRIOR TO SUB-BASE PAVING GRADE.
8. MINIMUM DEPTH OF SANITARY SEWER MAIN IS 4 FT.
9. ALL COMMERCIAL OR INDUSTRIAL BUILDING/UNITS SHALL HAVE A SAMPLING MANHOLE WHICH IS ACCESSIBLE TO THE TOWNSHIP FOR WASTEWATER SAMPLE COLLECTION.
10. NON METALLIC/MAGNETIC FORCE MAIN SHALL BE INSTALLED WITH CONTINUOUS TRACER WIRE BEGINNING AND ENDING AT VALVE BOXES.
11. LANDSCAPE PLANTINGS SHALL BE INSTALLED SO AS NOT TO INTERFERE WITH THE OPERATION OF THE SANITARY SEWER AND APPURTENANCES.
12. ALL RESIDENTIAL UNITS SHALL HAVE A CLEANOUT INSTALLED IN THE R.O.W. BETWEEN THE PROPERTY LINE AND THE EDGE OF PAVEMENT.
13. SEWERAGE PUMP STATION:
    a. PROPOSALS FOR INDIVIDUAL PUMP STATIONS SERVING ISOLATED DEVELOPMENTS SHALL NOT BE CONSIDERED UNLESS AND UNTIL IT IS DEMONSTRATED THAT A GRAVITY SYSTEM IS PHYSICALLY INFEASIBLE. INDIVIDUAL PUMP STATIONS SHALL BE MAINTAINED BY THE DEVELOPMENT IT SERVES. HOWEVER, THE TOWNSHIP RESERVES THE RIGHT TO ACCEPT OR REJECT OWNERSHIP OF THE PUMP STATION. THE OWNER OF A PRIVATE PUMP STATION IS RESPONSIBLE FOR ALL MAINTENANCE AND REPAIRS OF THE FORCE MAIN SERVICING SAID PUMP STATION. THIS RESPONSIBILITY BEGINS AT THE PUMP STATION AND CONTINUES UP TO THE TOWNSHIP OWNED TRANSITION GRAVITY MANHOLE REGARDLESS OF WHETHER IT IS LOCATED ON A TOWNSHIP OWNED ROAD.
    b. THE FOLLOWING SUBMISSIONS ARE REQUIRED:
        i) SITE PLAN OF THE PUMP STATION, WHICH SHALL INCLUDE BUILDING CONSTRUCTION PLAN.
        ii) ENGINEERING PUMP AND IMPELLER DATA AND PUMP SIZING CALCULATIONS – NSPH-CURVE, HYDRAULIC/ENERGY GRADE LINE, NAME AND TYPE OF PUMP, PERFORMANCE AND EFFICIENCY CURVE, SYSTEM CURVE CLEARLY INDICATING OPERATING REGION AND PUMP SUPPLIER.
        iii) FOUR SETS OF SHOP DRAWINGS OF ALL EQUIPMENT PROPOSED TO BE INSTALLED, WHICH MUST BE APPROVED PRIOR TO CONSTRUCTION.
14. AS-BUILT SHALL INDICATE LOCATION OF SANITARY SEWER LINE IN PLAN AND PROFILE WITH DISTANCES AND ELEVATION ACCORDING TO USGS DATUM. THE USGS MONUMENT USED AS THE BENCH MARK MUST BE NOTED ON THE PLANS. EASEMENTS SHALL BE SHOWN ON THE AS-BUILT PLANS WITH DEED REFERENCES (BOOK, PAGE, DATE OF FILING). MINIMUM LIST OF INFORMATION REQUIRED ON AS-BUILTS ARE AS FOLLOWS:

    INVERT AND RIM ELEVATIONS; PIPE DIAMETERS AND MATERIAL; DISTANCES; GRADES; LOCATIONS OF LATERAL CLEANOUTS (BY TRIANGULATION), PROFILES, UTILITY CROSSINGS. THESE AS-BUILT PLANS SHALL BE MARKED CLEARLY AND BE EASILY READABLE, BE OF THE SAME SCALE AS THE CONSTRUCTION PLANS, AND SHALL BE SIGNED AND SEALED BY A LICENSED PROFESSIONAL SURVEYOR.

15. ALL DOGHOUSE AND CORED MANHOLES SHALL USE A LINK-SEAL IN THE ANNULAR SPACE BETWEEN THE PIPES AND THE MANHOLE WALL. THE DOWNSTREAM MANHOLE IS TO BE PLUGGED DURING CONSTRUCTION AND UNTIL NEW WORK HAS BEEN FLUSHED AND DEBRIS REMOVED.
16. ALL PLUGS TO BE MECHANICAL TYPE AND TIED-OFF ON MANHOLE LADDER RUNGS.
17. CONTRACTOR SHALL JET AND TELEVISE SEWER MAINS ONE WEEK PRIOR TO REQUESTING TEMPORARY OR PERMANENT CO. ALL DEBRIS IS TO BE REMOVED FROM DOWNSTREAM MANHOLE AND RECEIPT FOR DEBRIS DISPOSAL SHALL BE SUBMITTED TO THE TOWNSHIP SEWER DEPARTMENT. A COPY OF THE TV INSPECTION ON DVD SHALL ALSO BE SUBMITTED FOR REVIEW PRIOR TO REMOVAL OF DOWNSTREAM PLUG. NO PLUG SHALL BE REMOVED WITHOUT APPROVAL BY THE TOWNSHIP AND IT'S ENGINEER.
    a. FOR SANITARY SEWER MAINS THAT WILL BE DEDICATED TO THE AUTHORITY, THE TELEVISION INSPECTIONS MUST BE PERFORMED WITH RUNNING WATER FROM A HYDRANT TO REVEAL ANY LOW SPOTS OR BELLIES IN THE PIPE.
    b. TELEVISION INSPECTIONS ARE REQUIRED FOR SANITARY SEWER MAINS THAT WILL REMAIN PRIVATE. HOWEVER, THE TELEVISION INSPECTION MAY BE PERFORMED DRY, WITHOUT THE USE OF RUNNING HYDRANT WATER.
18. ALL DETAILS ARE SUBJECT TO CHANGE WITHOUT ADVANCE NOTICE.

SEWER DETAILS (2 of 2)
SOUTH BRUNSWICK TWP.

MIDDLESEX COUNTY, NEW JERSEY

SCALE: N.T.S.

WILBUR F. DOWNING, JR., L.S. 10623 TOWNSHIP ENGINEER

MUNICIPAL BUILDING KINGSTON LA.
MONMOUTH JUNCTION N.J.

MARCH 2019

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
2	REV. PER DRC#2 MEMOS	5/23/25		
1	REV. PER DRC#1 MEMOS	4/18/25		

1/28/2025
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

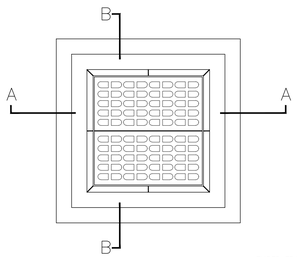
van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

SANITARY SEWER DETAILS SHEET 2
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP SCALE N.T.S | MIDDLESEX CO., N.J. JANUARY 28, 2025

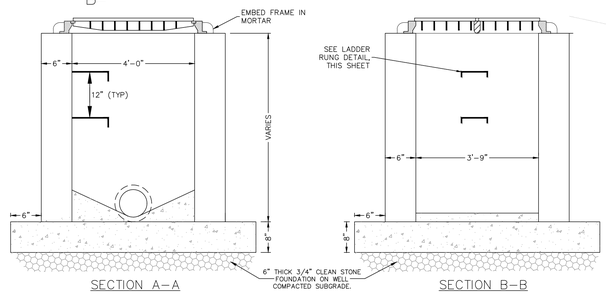
DRAWN BY	FIELD BK	ORDER No.	PAGE No.	SHEET No.
WDV DATE 1/28/25				
CHECKED BY CG DATE 1/28/25	PAGE	WRNUL23001	82 OF 100	CS6002

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS6001.DWG

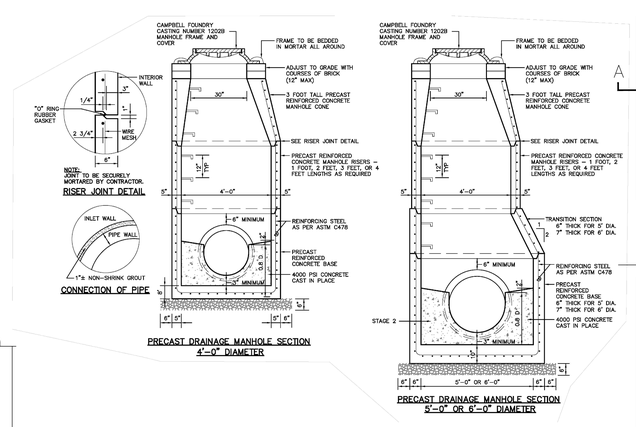


NOTES:

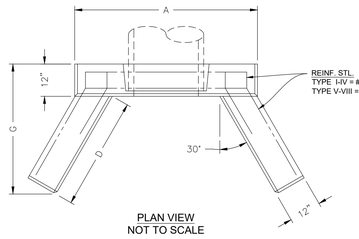
1. FOOTING AND INVERT TO BE 4,500 PSI CONCRETE.
2. IF INLET IS NOT PRECAST, WALLS TO BE PLASTERED INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT MORTAR.
3. CASTINGS TO INCLUDE BICYCLE SAFE GRATE, CAMPBELL OR BRIDGESTATE FOUNDRY HEAVY DUTY #3425, OR APPROVED EQUAL.
4. WHEN DEPTH OF INLET EXCEEDS 8' FORM GUTTER TO INVERT, WALLS SHALL BE INCREASED TO 8" THICK, FOUNDATION INCREASED TO 12" THICK.
5. INLETS WITHIN THE COUNTY R.O.W. TO MEET CURRENT NJDOT STORMWATER REGULATIONS.
6. ANY CASTING WITHIN A PAVED AREA SHALL WITHSTAND A.A.S.H.T.O. H525 HIGHWAY LOADING AS PER MANUFACTURING SPECIFICATIONS.



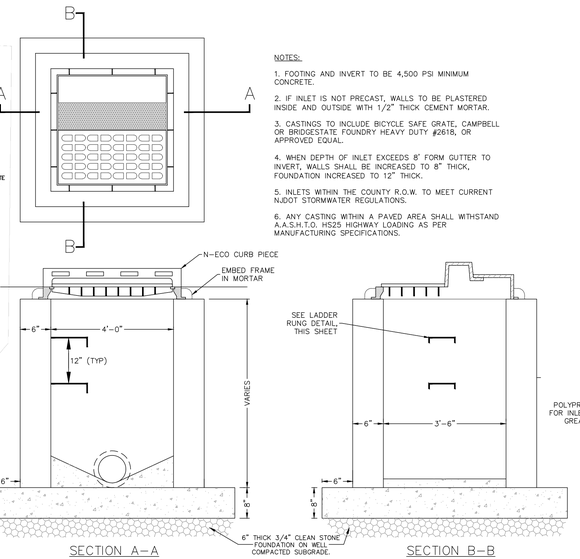
TYPE "E" INLET DETAIL
N.T.S.



SPECIFICATIONS:
- THE CONCRETE IS DESIGNED TO OBTAIN A STRENGTH OF 4,500 PSI IN 28 DAYS.
- THE REINFORCING STEEL HAS A YIELD STRENGTH OF 60,000 PSI.



PLAN VIEW
NOT TO SCALE

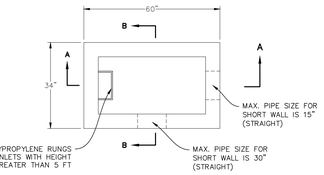


TYPE "B" INLET DETAIL
N.T.S.

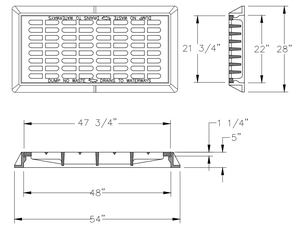
NOTES:

1. FOOTING AND INVERT TO BE 4,500 PSI MINIMUM CONCRETE.
2. IF INLET IS NOT PRECAST, WALLS TO BE PLASTERED INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT MORTAR.
3. CASTINGS TO INCLUDE BICYCLE SAFE GRATE, CAMPBELL OR BRIDGESTATE FOUNDRY HEAVY DUTY #2618, OR APPROVED EQUAL.
4. WHEN DEPTH OF INLET EXCEEDS 8' FORM GUTTER TO INVERT, WALLS SHALL BE INCREASED TO 8" THICK, FOUNDATION INCREASED TO 12" THICK.
5. INLETS WITHIN THE COUNTY R.O.W. TO MEET CURRENT NJDOT STORMWATER REGULATIONS.
6. ANY CASTING WITHIN A PAVED AREA SHALL WITHSTAND A.A.S.H.T.O. H525 HIGHWAY LOADING AS PER MANUFACTURING SPECIFICATIONS.

SPECIFICATIONS:
1. THE CONCRETE IS DESIGNED TO OBTAIN A STRENGTH OF 4,500 PSI IN 28 DAYS.
2. THE REINFORCING STEEL HAS A YIELD STRENGTH OF 60,000 PSI.
3. THE INLET SHALL BE DESIGNED TO MEET ASTM C-913, "PRECAST CONCRETE WATER AND WASTEWATER STRUCTURES.
4. THE REINFORCED CONCRETE WALLS AND BASE SLAB ARE DESIGNED FOR A MAXIMUM DEPTH OF 10 FT (DEPTH = F.G. TO TOP OF BASE SLAB).
5. STRUCTURE IS DESIGNED TO MEET NJDOT SPECS.



PLAN VIEW
NOT TO SCALE

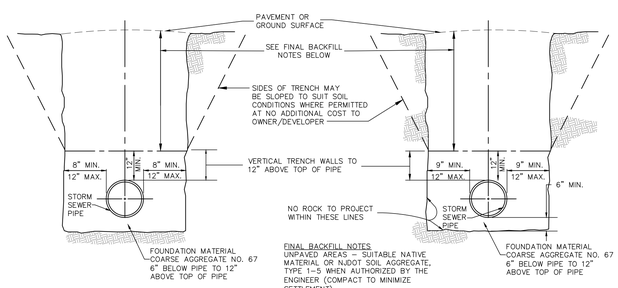


HEAVY DUTY PATTERN No. 2617 AS MANUFACTURED BY CAMPBELL BRIDGESTATE FOUNDRY COMPANY (ECO GRATE)

NOTES:

1. ANY CASTING WITHIN A PAVED AREA SHALL WITHSTAND A.A.S.H.T.O. H525 HIGHWAY LOADING AS PER MANUFACTURING SPECIFICATIONS.

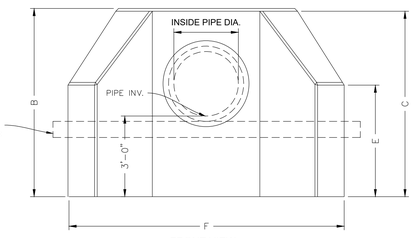
NJDOT TYPE "A" INLET WITH BICYCLE SAFE GRATES
N.T.S.



FINAL BACKFILL NOTES
UNPAVED AREAS - SUITABLE NATIVE MATERIAL OR NJDOT SOIL AGGREGATE, TYPE 1-5 WHEN AUTHORIZED BY THE ENGINEER (COMPACT TO MINIMIZE SETTLEMENT)

PAVED AREAS - NJDOT SOIL AGGREGATE, TYPE 1-5 (3/4") ROAD STONE (COMPACTION 95%) OR APPROVED NATIVE MATERIAL

STORM SEWER TRENCH DETAIL
N.T.S.



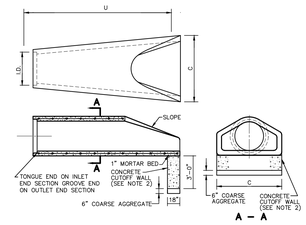
FRONT VIEW
NOT TO SCALE

TYPE	INSIDE PIPE DIA. (IN.)	WEIGHT (LB.)	A (IN.)	B (IN.)	C (IN.)	D (IN.)	E (IN.)	F (IN.)	G (IN.)
I	12-15	6670	56	63	63	30	51	86	38
II	18-21	9350	64	69	69	42	57	106	49
III	24-27	12060	68	75	75	54	63	122	59
IV	30-36	17270	79	84	84	72	72	151	75
* V	42	29980	111	96	93	84	83	172	85
* VI	48	35320	118	103	99	96	89	192	95
* VII	54-60	47370	132	116	112	120	102	242	116
* VIII	72	61770	148	130	126	144	116	286	137

TYPE MARKED BY * INDICATES WALL MAY BE FABRICATED IN (3) PIECES

NOTES:

1. ALL EXPOSED EDGES TO BE CHAMFERED 1"
2. ELEVATIONS FOR THE TERMINUS OF THE OUTLET AND INLETS APRONS SHALL BE SET BY EXTENDING THE PIPE GRADE AHEAD AND BACK RESPECTIVELY.
3. ALL FORM MARKS SHALL BE REMOVED FROM THE EXPOSED SURFACES.
4. FOOTING SHALL BE CARRIED TO FIRM BEARING BELOW FROST LINE.

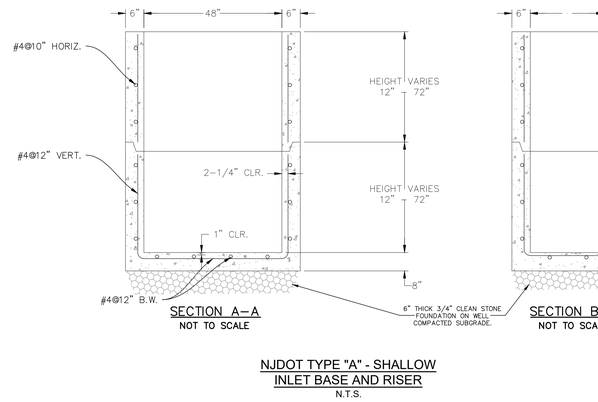


DIMENSIONS (INCHES)													
I.D.	12	15	18	21	24	27	30	36	42	48	54	60	
A	2	2ᵀ	2ᵀ	2ᵀ	3	3ᵀ	3ᵀ	4	4ᵀ	5	5ᵀ	6	
U	72	72	72	72	72	72	72	96	96	96	96	96	
C	28	34.5	41	47.5	54	60.5	67	80	87	94	101	108	

NOTES:

1. MINOR VARIATIONS TO THE ABOVE DIMENSIONS ARE ACCEPTABLE WITH THE EXCEPTION OF THE INSIDE DIAMETER DIMENSION.
2. A 1 INCH THICK MORTAR BED AND A 6 INCH DEEP LAYER OF COARSE AGGREGATE ARE REQUIRED WHEN A PRECAST CONCRETE CUTOFF WALL IS USED.
3. NO SEPARATE PAYMENT WILL BE MADE FOR THE CONCRETE CUTOFF WALL. THE COST OF THE CONCRETE CUTOFF WALL SHALL BE INCLUDED IN THE COST OF THE END SECTION.
4. THE WIDTH OF THE CONCRETE CUTOFF WALL SHALL BE EQUAL TO THE MAXIMUM WIDTH OF THE END SECTION AS INDICATED ON THE DETAIL BY DIMENSION "C". HOWEVER, IF THE ACTUAL MAXIMUM WIDTH EXCEEDS THE CHART VALUE OF "C", THE WIDTH OF THE CONCRETE CUTOFF WALL SHALL EQUAL THE ACTUAL MAXIMUM WIDTH OF THE END SECTION. CONCRETE TO BE 4,500 PSI CONCRETE.

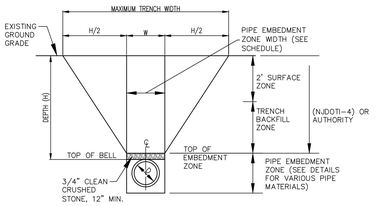
(FLARED) END SECTIONS FOR CONCRETE PIPE
N.T.S.



NOTES:

1. ALL CASTING WITHIN A PAVED AREA SHALL WITHSTAND A.A.S.H.T.O. H525 HIGHWAY LOADING AS PER MANUFACTURING SPECIFICATIONS.

NJDOT TYPE "A" - SHALLOW INLET BASE AND RISER
N.T.S.



PIPE EMBEDMENT ZONE WIDTH SCHEDULE

INSIDE DIA. OF PIPE (D)	4",6",8" 10",12"	15"	18"	21"	24"	27"
EMBEDMENT ZONE WIDTH (W)	3'-0"	3'-6"	3'-6"	4'-0"	4'-0"	4'-6"

NOTES:

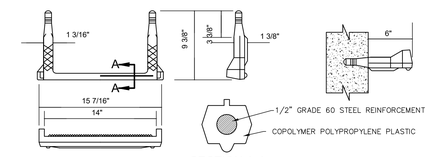
1. THE MAXIMUM DRY DENSITIES SHALL BE DETERMINED IN ACCORDANCE WITH ASTM DESIGNATION D1557. THE MINIMUM PERCENTAGE OF COMPACTION TO BE ACHIEVED BY THE CONTRACTOR IN THE VARIOUS ZONES IS AS FOLLOWS:

	PIPE MATERIAL	LOCATION	INTIAL COMPACTION
	ALL	ALL	
SURFACE ZONE:			95%
TRENCH BACKFILL ZONE:			90%
PIPE EMBEDMENT ZONE:			95%

THE MINIMUM COMPACTION IN EMBANKMENTS SHALL BE 90%

1.
2. THE PIPE EMBEDMENT ZONE WIDTH AND THE MAXIMUM TRENCH WIDTH SHALL NOT EXCEED THE PERMISSIBLE WIDTHS SHOWN. IF THE PERMISSIBLE WIDTH IS EXCEEDED, THE PIPE SHALL BE INSTALLED IN A HIGHER CLASS BEDDING THAN SHOWN ON THE DRAWINGS OR THE SPECIFIED PIPE SHALL BE REPLACED WITH PIPE OF GREATER CRUSHING STRENGTH OR BOTH, TO ACHIEVE SUITABLE CONDITIONS.
3. SUITABLE MATERIAL FROM EXCAVATIONS SHALL BE FREE FROM OBJECTIONABLE QUANTITIES OF ORGANIC MATTER, CLAYS, TREES, STUMPS, FROZEN MATERIAL, RUBBLE, REFUSE, CINDERS, ROCK AND OTHER MATERIALS CONSIDERED DELETERIOUS BY THE AUTHORITY AND SHALL NOT HAVE FINES IN EXCESS OF 10 PERCENT PASSING THE NO. 200 SIEVE NOR STONE OR GRAVEL LARGER THAN 2 INCHES.
4. FOR PIPE MATERIAL OTHER THAN PVC, PIPE EMBEDMENT ZONE MAY BE INCREASED BY 6 INCHES.

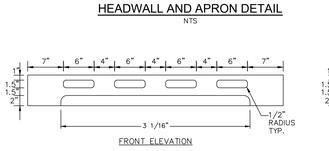
PIPE EMBEDMENT DETAIL
NTS



SECTION A-A

NOTES:
1. FIRST RUNG SHALL BE PLACED 12" BELOW CASTING.
2. RUNGS NOT REQUIRED FOR MANHOLES AND INLETS LESS THAN THREE FEET (3FT) DEEP.
3. MAXIMUM DISTANCE BETWEEN STEPS SHALL NOT EXCEED 12" AND SHALL BE UNIFORM THROUGHOUT THE LENGTH OF THE LADDER.
4. LADDER RUNGS SHALL BE INSTALLED TO FACE TRAFFIC.

PLASTIC LADDER RUNG DETAIL
N.T.S.

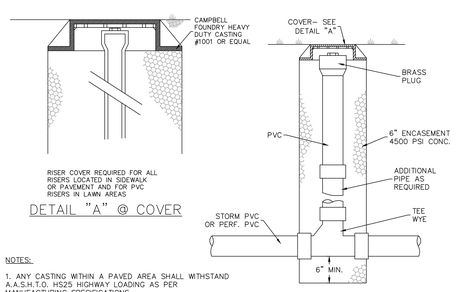


FRONT ELEVATION
END SECTION

NOTES:
1. MATERIAL: GRAY CAST IRON ASTM A48-83, CLASS 30B
2. IN RETROFIT SITUATIONS THIS CURB PIECE (HEAD) WILL FIT EXISTING CAMPBELL FOUNDRY CO. MANUFACTURED CURB INLETS FOR NJDOT TYPES B, B-1, B-2, D, D-1, AND D-2.
3. NAMEPLATE MESSAGE CAN BE MODIFIED TO YOUR SPECIFIC NEEDS WITHIN AREA SHOWN
4. CASTING SUPPLIED WITHOUT SURFACE COATING

HEADWALL AND APRON DETAIL
NTS

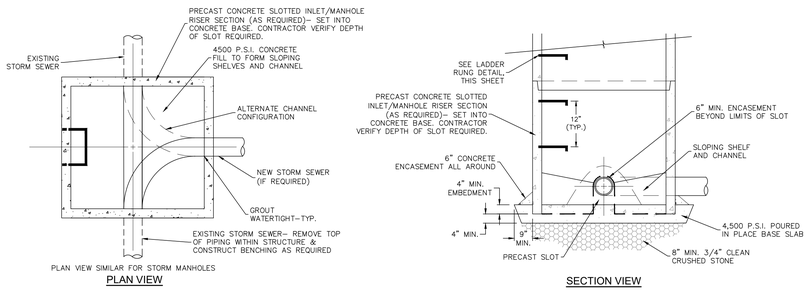
CURB PIECE TYPE N-ECO DETAIL
N.T.S.



NOTES:

1. ANY CASTING WITHIN A PAVED AREA SHALL WITHSTAND A.A.S.H.T.O. H525 HIGHWAY LOADING AS PER MANUFACTURING SPECIFICATIONS.

STORM CLEANOUT DETAIL
N.T.S.



TYPICAL DOGHOUSE STORM MANHOLE / INLET DETAIL
N.T.S.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
5	REV. PER DRC#2 MEMOS	5/23/25		
4	REV. PER DRC#1 MEMOS	4/18/25		
3	REV. COMPLETENESS SUBMISSION	1/16/25		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

van note-harvey division of pennoni
939 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

STORMWATER DETAILS SHEET 3
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN
PLAINSBORO TOWNSHIP — MIDDLESEX CO., N.J.
SCALE N.T.S — JUNE 14, 2024

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

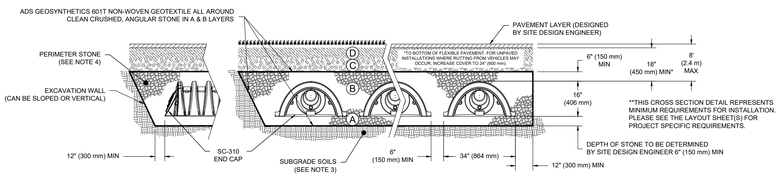
DRAWN BY WDV	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE 6/14/24		WRNUL23001	83 OF 100	CS6003
CHECKED BY CG	PAGE			
DATE 6/14/24				

U:\ACCOUNTS\WRNUL\WRNUL23001 - WRV PRINCETON NURSERIES - PLAINSBORO\DESIGN_SHEETS\CS6001.DWG

ACCEPTABLE FILL MATERIALS: STORMTECH SC-310 CHAMBER SYSTEMS

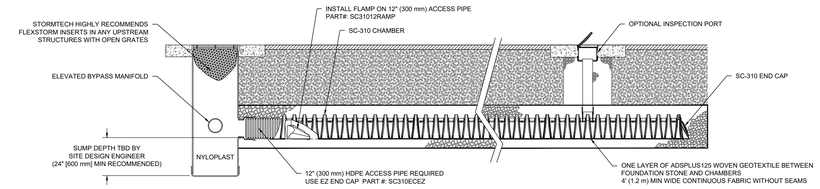
	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE (B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2922 (POLETHYLENE) OR ASTM F2418 (POLYPROPYLENE), "STANDARD SPECIFICATION FOR CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-310 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2922 SHALL BE GREATER THAN OR EQUAL TO 400 LBS/FT/% AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.



SC-310 ISOLATOR ROW PLUS DETAIL
NTS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

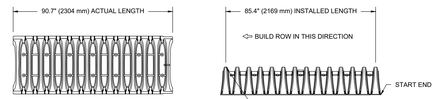
STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

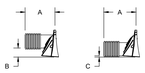




NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	34.0" X 16.0" X 85.4"	(864 mm X 406 mm X 2169 mm)
CHAMBER STORAGE	14.7 CUBIC FEET	(0.42 m³)
MINIMUM INSTALLED STORAGE*	31.0 CUBIC FEET	(0.88 m³)
WEIGHT	35.0 lbs.	(16.8 kg)

*ASSUMES 6" (152 mm) ABOVE, BELOW, AND BETWEEN CHAMBERS



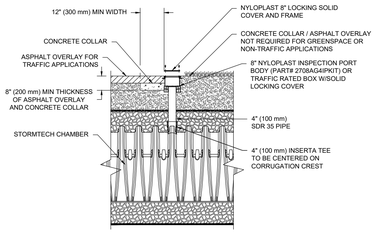
PRE-FAB STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
PRE CORED END CAPS END WITH "PC"

PART #	STUB	A	B	C
SC310EPE06T / SC310EPE06TPC	6" (150 mm)	9.6" (244 mm)	5.8" (147 mm)	---
SC310EPE06B / SC310EPE06BPC			---	0.5" (13 mm)
SC310EPE08T / SC310EPE08TPC	8" (200 mm)	11.9" (302 mm)	3.5" (89 mm)	---
SC310EPE08B / SC310EPE08BPC			---	0.6" (15 mm)
SC310EPE10T / SC310EPE10TPC	10" (250 mm)	12.7" (323 mm)	1.4" (36 mm)	---
SC310EPE10B / SC310EPE10BPC			---	0.7" (18 mm)
SC310ECEZ*	12" (300 mm)	13.5" (343 mm)	---	0.9" (23 mm)

ALL STUBS, EXCEPT FOR THE SC310ECEZ ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

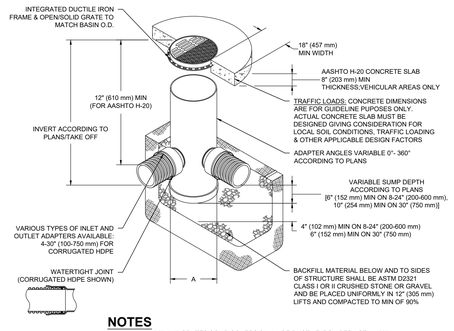
* FOR THE SC310ECEZ THE 12" (300 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 0.25" (6 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL



NOTE:
INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION CREST.

4" PVC INSPECTION PORT DETAIL (SC SERIES CHAMBER)
NTS



NOTES

1. 8-30" (200-750 mm) GRATES/SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
2. 12-30" (300-750 mm) FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS
4. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
5. FOR COMPLETE DESIGN AND PRODUCT INFORMATION: **WWW.NYLOPLAST-US.COM**
6. TO ORDER CALL: **800-821-6710**

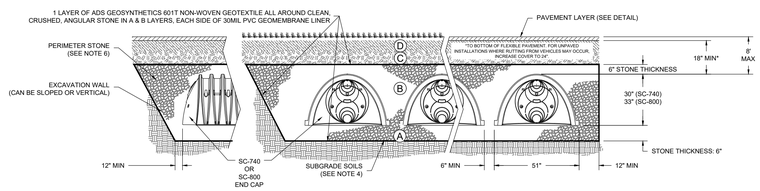
A	PART #	GRATE/SOLID COVER OPTIONS		
8" (200 mm)	2808AG	PEDESTRIAN LIGHT DUTY	STANDARD LIGHT DUTY	SOLID LIGHT DUTY
10" (250 mm)	2810AG	PEDESTRIAN LIGHT DUTY	STANDARD LIGHT DUTY	SOLID LIGHT DUTY
12" (300 mm)	2812AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
15" (375 mm)	2815AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
18" (450 mm)	2818AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
24" (600 mm)	2824AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
30" (750 mm)	2830AG	PEDESTRIAN AASHTO H-20	STANDARD AASHTO H-20	SOLID AASHTO H-20

NYLOPLAST DRAIN BASIN
NTS

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740/SC-800 CHAMBER SYSTEMS [REFER TO BELOW TABLE]

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE (B' LAYER) TO 18" ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs . DYNAMIC FORCE NOT TO EXCEED 20,000 lbs.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE (A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.
5. APPROVED EQUAL: STORMTECH DC-780 UNIT



BASIN SCHEDULE

LOCATION	TOP OF STONE ELEVATION A	BOTTOM OF STONE ELEVATION B	WQ WSE. C	2 YEAR WSE. D	10 YEAR WSE. E	100 YEAR WSE. F	SHGW ELEVATION H	PERMEABILITY RATE IN/HR	PROFILE PIT NUMBER	NUMBER OF ROWS	CHAMBERS PER ROW	BASIN TYPE
UGB2	87.58	85.25	85.86	87.10	87.37	87.58	67.50	6.67	1	4	33	SC-310
UGB3	91.50	85.50	85.50	85.90	86.69	90.23	79.50	6.67	1	3	N/A	225 LF, 60" PERF HDPE
UGB4	88.85	85.10	85.65	86.61	87.10	87.91	67.50	6.67	1	8	14	SC-800
UGB5	97.50	94.00	94.66	96.92	97.37	97.47	86.00	1.94	4	4	7	SC-740
UGB6	97.50	94.00	94.85	97.00	97.50	97.50	86.00	1.94	4	4	7	SC-740
UGB7	102.75	99.00	99.65	100.23	100.66	101.98	94.30	1.33	2	8	7	SC-800
UGB9	103.80	100.30	101.25	101.81	102.06	102.56	94.30	1.33	2	4	9	SC-740
UGB10	109.5	106.00	106.46	107.62	107.93	108.59	94.30	1.33	2	6	14	SC-740
UGB11	85.91	84.08	84.75	85.47	85.73	86.35	67.50	6.67	1	5	9	SC-310
UGB13	89.50	86.00	86.87	87.73	88.05	88.85	67.50	0.13	6	2	8	SC-740
UGB14	89.75	86.25	87.19	87.98	88.49	88.94	80.50	0.13	6	2	8	SC-740
UGB15	95.75	92.00	92.33	93.26	93.73	94.87	87.10	2.23	7	14	14	SC-800
UGB16	97.75	94.00	94.51	95.43	96.01	97.49	88.30	2.23	7	20	14	SC-800
UGB17	114.00	110.50	110.64	111.58	111.88	112.59	101.50	0.06	8	10	33	SC-740
UGB18	97.75	94.00	95.25	96.58	97.12	97.72	87.30	1.00	9	3	9	SC-800
UGB19	98.25	94.50	95.06	96.64	97.20	97.97	87.30	2.30	10	3	9	SC-800
UGB20	100.60	97.10	97.16	98.97	99.43	100.13	95.10	2.30	10	5	29	SC-740
UGB21	101.75	98.00	99.25	100.11	100.53	101.34	95.10	2.30	10	3	6	SC-800
UGB22	110.50	107.00	107.16	108.12	108.49	109.21	95.10	2.30	10	10	29	SC-740
UGB27	102.75	99.00	100.72	101.45	101.89	102.64	90.10	15.00	27	4	15	SC-800
UGB31	96.10	92.60	93.18	94.03	94.47	95.87	87.30	1.00	22	6	15	SC-740
UGB32	113.25	109.75	110.32	111.39	111.88	113.02	107.00	0.50	18	10	29	SC-740
UGB33	109.32	105.82	106.20	107.41	107.98	109.31	94.70	0.50	21	4	15	SC-740
UGB34	111.83	109.50	109.74	110.43	110.72	111.58	107.50	0.50	18	6	25	SC-310
UGB37	107.00	103.50	103.92	104.90	105.19	105.70	87.30	7.83	9	4	15	SC-740
UGB41	106.33	104.00	104.77	105.28	105.50	106.26	95.10	0.06	19	2	6	SC-310
UGB42	98.50	95.00	95.38	96.72	97.14	98.02	93.00	2.31	23	4	13	SC-740
UGB43	101.50	98.00	98.00	99.03	99.35	100.08	93.00	2.31	23	4	14	SC-740
UGB44	104.50	101.00	101.14	102.03	102.28	102.70	95.10	0.06	19	4	14	SC-740
UGB46	106.75	103.00	104.34	105.02	105.33	106.51	94.70	0.22	21	2	7	SC-800
UGB47	111.75	108.00	108.83	109.57	109.98	111.58	94.70	1.64	21	4	14	SC-800
UGB48	104.40	100.90	101.70	102.16	102.31	102.64	97.60	7.83	12	3	4	SC-740
UGB49	106.20	102.70	103.64	104.22	104.46	104.93	98.70	1.54	13	3	4	SC-740
UGB50	104.75	101.00	102.80	103.49	103.76	104.60	98.70	1.54	13	2	7	SC-800
UGB54	101.33	99.00	99.63	100.22	100.46	101.05	98.70	0.75	16	3	7	SC-310
UGB55	109.50	106.00	106.18	107.52	108.01	108.82	102.80	0.75	15	20	20	SC-740
UGB56	113.50	110.00	110.41	111.24	111.70	112.79	101.95	0.75	17	27	23	SC-740
UGB57	114.85	111.10	111.45	112.43	112.70	113.45	102.80	0.75	17	12	28	SC-800
UGB59	107.63	104.00	104.07	105.39	106.14	107.45	98.00	0.13	14	AQUABOX - 1 - 18,700 SF		
UGB60	114.85	111.10	111.50	112.41	112.90	113.85	108.00	0.75	16	12	28	SC-800
UGB61	111.50	107.75	108.61	108.97	109.35	110.46	103.70	0.26	17	4	18	SC-800
UGB62	111.50	108.00	108.66	109.20	109.69	110.74	100.30	0.10	17	14	29	SC-740
UGB63	107.50	104.00	104.45	105.52	105.98	106.61	92.50	0.63	____	14	14	SC-740

NOTE: WATER SURFACE ELEVATIONS REFERENCE THE PROJECTED DESIGN STORM EVENTS

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
6	REV. PER DRC#2 MEMOS	5/23/25		
5	REV. PER DRC#1 MEMOS	4/18/25		
4	REV. COMPLETENESS SUBMISSION	1/16/25		
3	REV. PER PERMIT RESUBMISSION	11/8/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

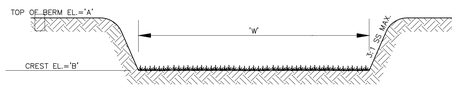
van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

STORMWATER DETAILS SHEET 4
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

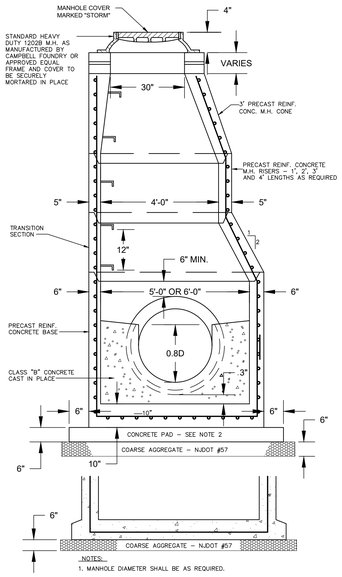
PLAINSBORO TOWNSHIP
SCALE: N.T.S
MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY	FIELD BK	ORDER No.	PAGE No.	SHEET No.
MDV				
DATE 6/14/24		WRNUL23001	84 OF 100	CS6004
CHECKED BY CG	PAGE			
DATE 6/14/24				

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS6001.DWG



EMERGENCY SPILLWAY DETAIL
NTS



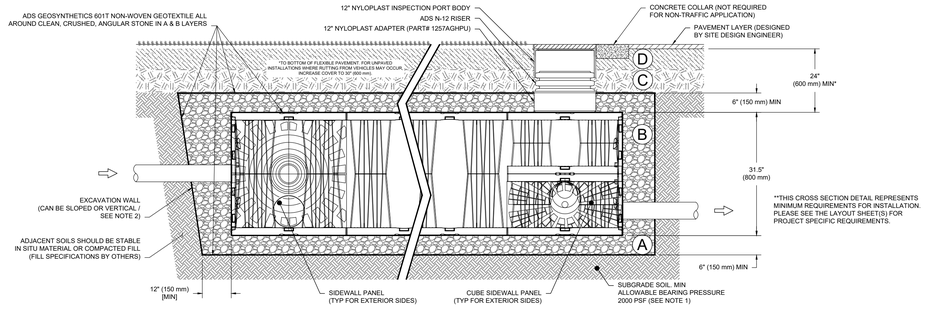
NOTES:
1. MANHOLE DIAMETER SHALL BE AS REQUIRED.
2. PROVIDE 6" THICK CONCRETE PAD UNDER ALL MANHOLES. PAD SHALL EXTEND A MINIMUM OF 6" IN ALL DIRECTIONS. IN LIEU OF THE PAD, A FLARED BASE SECTION, AS SHOWN, MAY BE PROVIDED.
3. STRUCTURE SHALL BE PRECAST CONSTRUCTION AND COMPLY WITH ASTM C-478. PROVIDE NJPE SIGNED AND SEALED SHOP DRAWING FOR APPROVAL.
4. MANHOLES WITHIN THE COUNTY R.O.W. TO MEET CURRENT NJDOT STORMWATER REGULATIONS.
5. ALL CONCRETE SHALL BE MINIMUM 4,500 PSI.
6. ANY CASTING WITHIN A PAVED AREA SHALL WITHSTAND A.A.S.H.T.O. HS25 HIGHWAY LOADING AS PER MANUFACTURING SPECIFICATIONS.

STORM SEWER MANHOLE
N.T.S.

ACCEPTABLE FILL MATERIALS : AQUABOX-1

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE AQUABOX MODULES. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[4] A-1, A-2-6, A-3 OR AASHTO M43[3] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE AQUABOX MODULES IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**PERIMETER STONE:** FILL SURROUNDING THE AQUABOX MODULES FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[3] 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW AQUABOX MODULES FROM THE SUBGRADE UP TO THE BOTTOM OF THE AQUABOX MODULE	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[3] 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

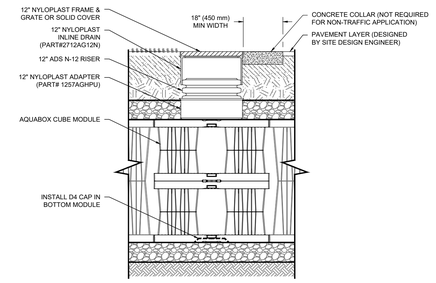
PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #57 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 57 (AASHTO M43) STONE".
2. ADS AQUABOX COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT ADS FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



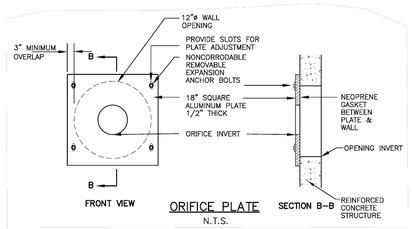
NOTES:

1. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE PERFORMANCE CHARACTERISTICS OF THE SUBGRADE SOILS WITH CONSIDERATION FOR THE RANGE OF EXPECTED MOISTURE CONDITIONS. SUBGRADE PREPARATION AND/OR IMPROVEMENT SHOULD BE SPECIFIED BY THE DESIGN ENGINEER AS NECESSARY TO MEET THE PERFORMANCE REQUIREMENTS OF THE ADS AQUABOX SYSTEM.
2. EXCAVATION WALL SHOULD BE COMPLIANT WITH OSHA SAFETY STANDARDS. DEEPER EXCAVATIONS AND MULTI-LAYER AQUABOX SYSTEMS MAY REQUIRE SLOPED OR BENCHED EXCAVATIONS. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL.

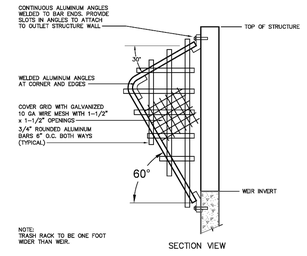
AQUABOX - MODULAR STORMWATER MANAGEMENT SYSTEM CROSS SECTION
N.T.S.



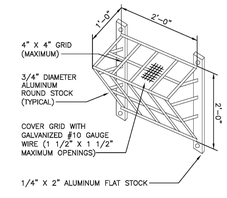
AQUABOX INSPECTION PORT DETAIL
N.T.S.



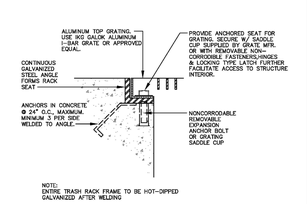
ORIFICE PLATE
N.T.S.



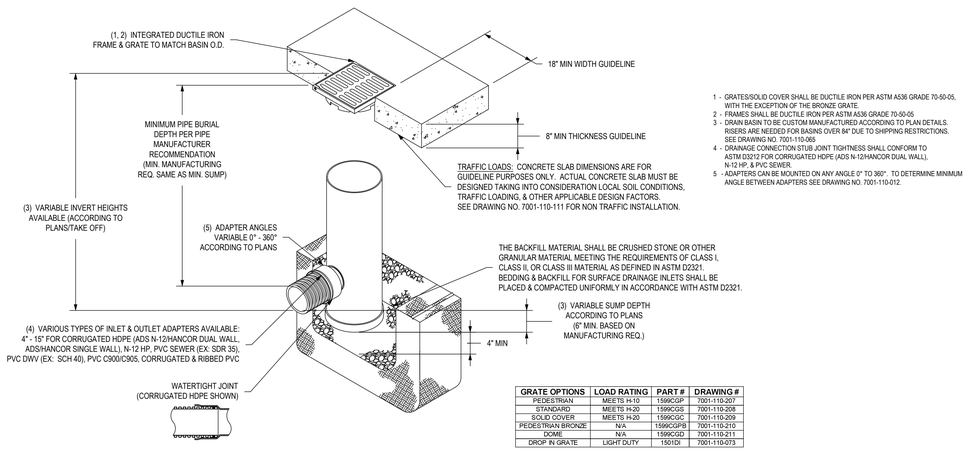
TRASH RACK FOR WEIR
N.T.S.



TRASH RACK FOR ORIFICE
N.T.S.



TRASH RACK FOR TOP OPENING
NOT TO SCALE



1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05, WITH THE EXCEPTION OF THE BRONZE GRATE.
2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER.
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-10	1599CGP	7001-110-207
STANDARD	MEETS H-20	1599CGS	7001-110-208
SOLID COVER	MEETS H-20	1599CGC	7001-110-209
PEDESTRIAN BRONZE	N/A	1599CGPB	7001-110-210
DOME	N/A	1599CGD	7001-110-211
DROP IN GRATE	LIGHT DUTY	1501DI	7001-110-073

PVC (NYLOPLAST OR APPROVED EQUAL) 18" DRAIN BASIN DETAIL
N.T.S.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
5	REV. PER DRC#2 MEMOS	5/23/25		
4	REV. PER DRC#1 MEMOS	4/18/25		
3	REV. COMPLETENESS SUBMISSION	1/16/25		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com Certificate of Authorization
www.pennoni.com No. 24GA28033300

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

STORMWATER DETAILS SHEET 5
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN
PLAINSBORO TOWNSHIP MIDDLESEX CO., N.J.
SCALE N.T.S JUNE 14, 2024

DRAWN BY WDV DATE 6/14/24	FIELD BK	ORDER No.	PAGE No.	SHEET No.
CHECKED BY CG DATE 6/14/24	PAGE	WRNUL23001	85 OF 100	CS6005

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS6001.DWG

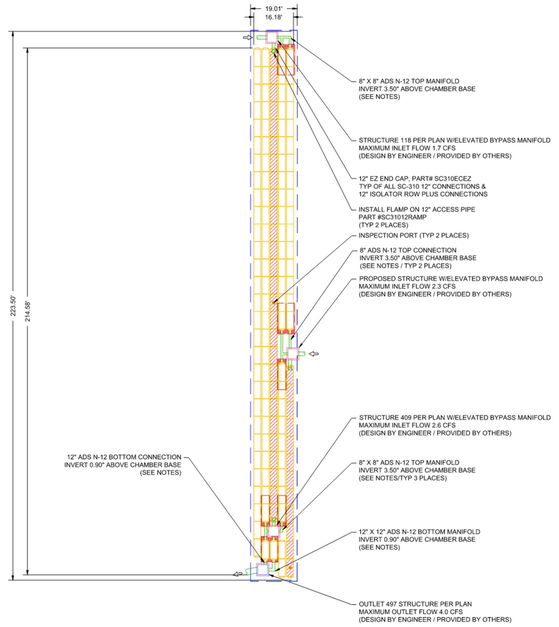
PROPOSED ELEVATIONS: UGB-2

95.08	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
89.08	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
88.58	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
88.58	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
88.58	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
87.58	TOP OF STONE
87.08	TOP OF SC-310 CHAMBER
86.04	8" TOP MANIFOLD/CONNECTION INVERT
85.83	12" ISOLATOR ROW PLUS CONNECTION INVERT
85.83	12" BOTTOM MANIFOLD/CONNECTION INVERT
85.75	BOTTOM OF SC-310 CHAMBER
85.25	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #2 DETAIL

NTS

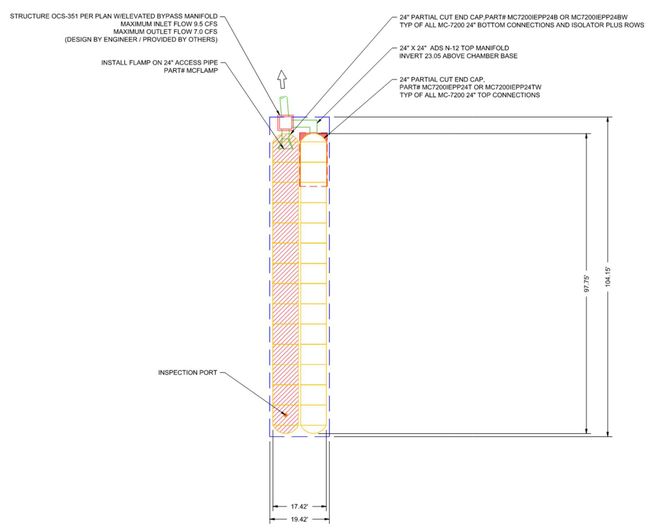
PROPOSED ELEVATIONS: UGB-3

97.50	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
93.00	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
92.50	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
92.50	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
92.50	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
91.50	TOP OF STONE
90.50	TOP OF MC-7200 CHAMBER
87.42	24" TOP MANIFOLD INVERT
85.69	24" ISOLATOR ROW PLUS CONNECTION INVERT
85.50	BOTTOM OF MC-7200 CHAMBER
84.75	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 17.5' OF ADSPLUS125 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #3 DETAIL

NTS

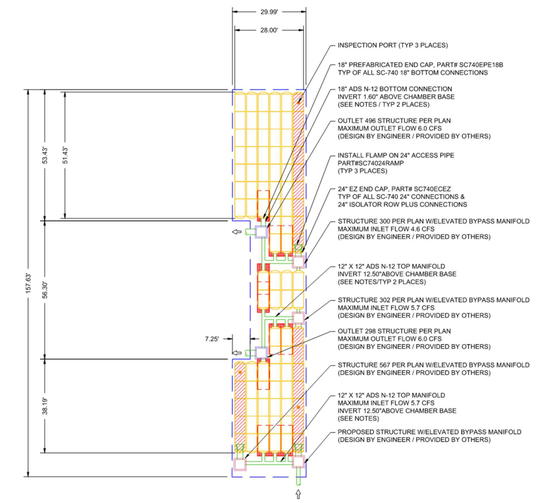
PROPOSED ELEVATIONS: UGB-4

96.10	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
90.10	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
89.60	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
89.60	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
89.60	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
88.60	TOP OF STONE
88.10	TOP OF SC-740 CHAMBER
86.64	12" TOP MANIFOLD INVERT
85.73	18" BOTTOM CONNECTION INVERT
85.61	24" ISOLATOR ROW PLUS CONNECTION INVERT
85.60	BOTTOM OF SC-740 CHAMBER
85.10	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #4 DETAIL

NTS

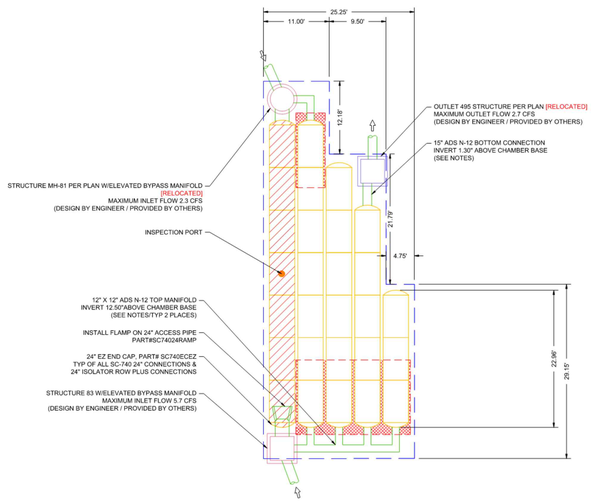
PROPOSED ELEVATIONS: UGB-5

105.00	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
99.00	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
98.50	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
98.50	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
98.50	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
97.50	TOP OF STONE
97.00	TOP OF SC-740 CHAMBER
95.54	12" TOP MANIFOLD INVERT
94.61	15" BOTTOM CONNECTION INVERT
94.51	24" ISOLATOR ROW PLUS CONNECTION INVERT
94.50	BOTTOM OF SC-740 CHAMBER
94.00	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #5 DETAIL

NTS

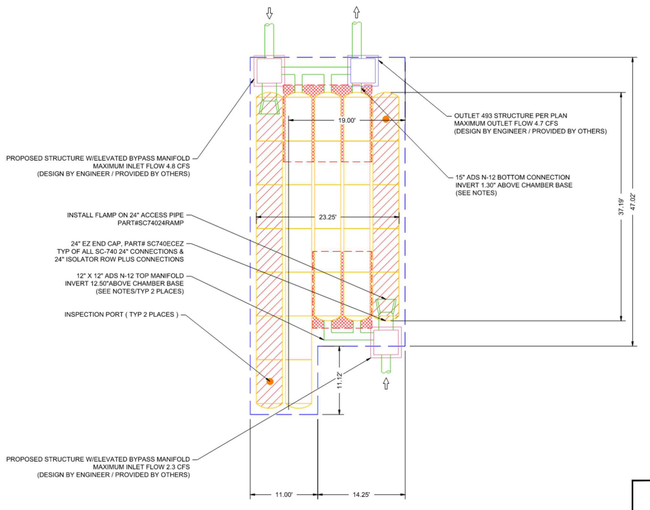
PROPOSED ELEVATIONS: UGB-6

103.00	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
99.00	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
98.50	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
98.50	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
98.50	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
97.50	TOP OF STONE
97.00	TOP OF SC-740 CHAMBER
95.54	12" TOP MANIFOLD INVERT
94.61	15" BOTTOM CONNECTION INVERT
94.51	24" ISOLATOR ROW PLUS CONNECTION INVERT
94.50	BOTTOM OF SC-740 CHAMBER
94.00	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #6 DETAIL

NTS

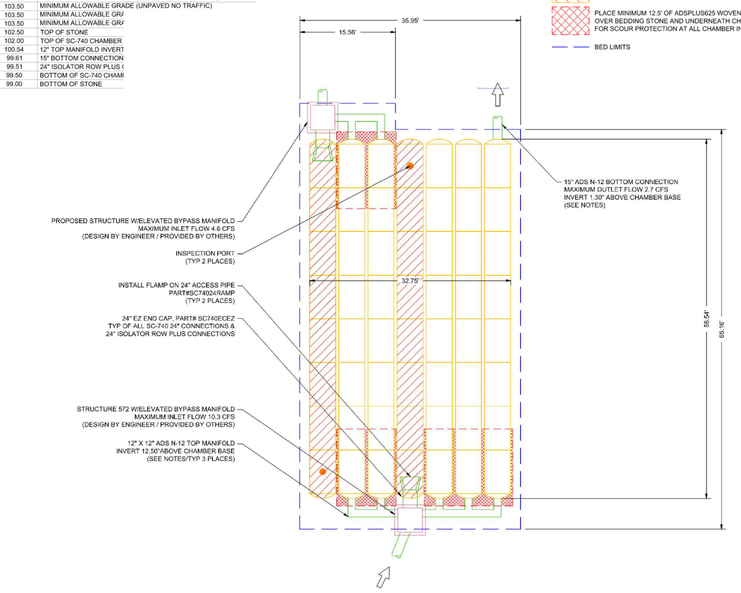
PROPOSED ELEVATIONS: UGB-7

110.00	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
104.00	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
103.50	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
103.50	MINIMUM ALLOWABLE GRA
103.50	MINIMUM ALLOWABLE GRA
102.50	TOP OF STONE
102.00	TOP OF SC-740 CHAMBER
100.54	12" TOP MANIFOLD INVERT
99.61	15" BOTTOM CONNECTION
99.51	24" ISOLATOR ROW PLUS C
99.50	BOTTOM OF SC-740 CHAM
99.00	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #7 DETAIL

NTS

NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECHNICAL NOTE 6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE IN-SITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
- THE SITE DESIGN ENGINEER MUST REVIEW THE PROXIMITY OF THE CHAMBERS TO THE BUILDING/STRUCTURE. NO FOUNDATION LOADS SHALL BE TRANSMITTED TO THE CHAMBERS. THE SITE DESIGN ENGINEER MUST CONSIDER EFFECTS OF POSSIBLE SATURATED SOILS ON BEARING CAPACITY OF SOILS AND SEEPAGE INTO BASEMENTS.

THE DETAILED LAYOUTS OF STORMTECH CHAMBER SYSTEMS PROVIDE BY:
ADVANCED DRAINAGE SYSTEMS, INC.
4 N. DELAWARE DR. EASTON, PENNSYLVANIA 18042
484-602-7199
ADS PROJECT NO. S415965

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
1	REV. PER DRC#2 MEMOS	5/23/25		

4/18/2025
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization
No. 24GA28033300

UNDERGROUND BASIN DETAILS – 1
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN
PLAINSBORO TOWNSHIP
MIDDLESEX CO., N.J.
SCALE: N.T.S.
APRIL 18, 2025

DRAWN BY MT DATE 4/18/25	FIELD BK	ORDER No.	PAGE No.	SHEET No.
CHECKED BY CG DATE 4/18/25	PAGE	WRNUL23001	86 OF 100	CS6021

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN__SHEETS\CS6021.DWG

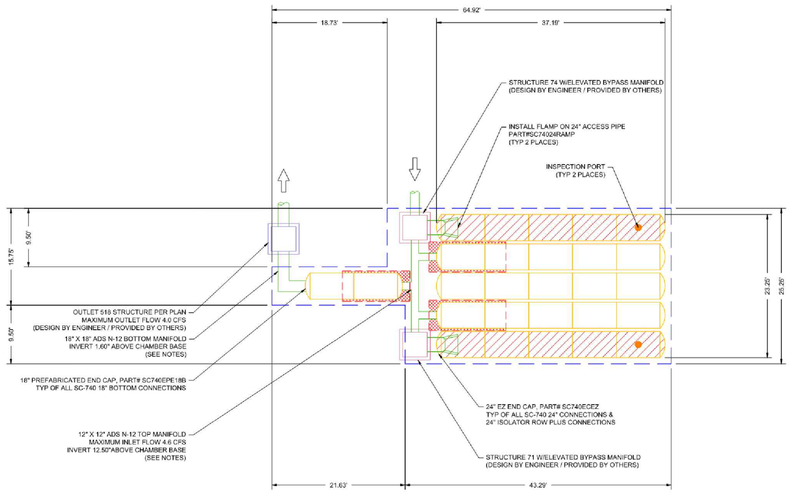
PROPOSED ELEVATIONS: UGB-9

111.30	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
105.30	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
104.80	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
104.80	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
104.80	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
103.80	TOP OF STONE
103.30	TOP OF SC-740 CHAMBER
101.84	12" TOP MANIFOLD INVERT
101.22	18" TOP MANIFOLD INVERT
100.93	18" BOTTOM MANIFOLD/CONNECTION INVERT
100.81	24" ISOLATOR ROW PLUS CONNECTION INVERT
100.80	BOTTOM OF SC-740 CHAMBER
100.30	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #9 DETAIL
NTS

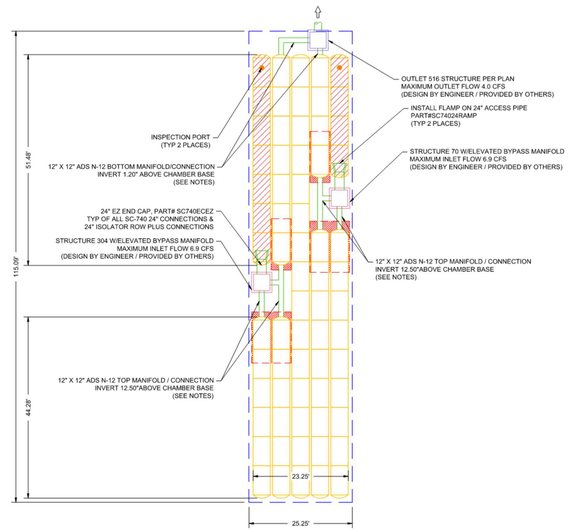
PROPOSED ELEVATIONS: UGB-10

117.00	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
111.00	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
110.50	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
110.50	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
110.50	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
109.50	TOP OF STONE
109.00	TOP OF SC-740 CHAMBER
107.54	12" TOP MANIFOLD/CONNECTION INVERT
106.51	24" ISOLATOR ROW PLUS CONNECTION INVERT
106.50	BOTTOM OF SC-740 CHAMBER
106.00	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #10 DETAIL
NTS

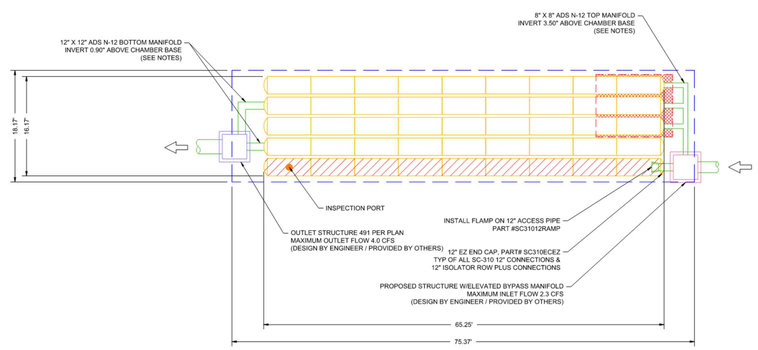
PROPOSED ELEVATIONS: UGB-11

93.91	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
87.91	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
87.41	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
87.41	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
87.41	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
86.41	TOP OF STONE
85.91	TOP OF SC-310 CHAMBER
84.87	8" TOP MANIFOLD INVERT
84.66	12" ISOLATOR ROW PLUS CONNECTION INVERT
84.66	12" BOTTOM MANIFOLD/CONNECTION INVERT
84.58	BOTTOM OF SC-310 CHAMBER
84.08	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #11 DETAIL
NTS

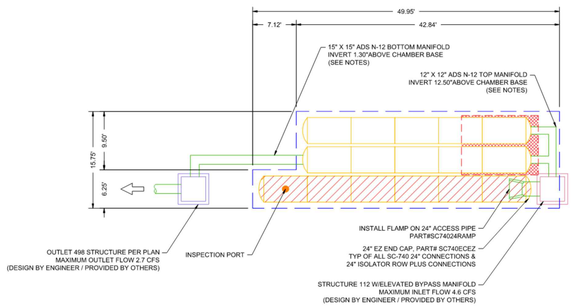
PROPOSED ELEVATIONS: UGB-13

97.00	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
91.00	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
90.50	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
90.50	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
90.50	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
89.50	TOP OF STONE
89.00	TOP OF SC-740 CHAMBER
87.54	12" TOP MANIFOLD INVERT
86.61	15" BOTTOM MANIFOLD INVERT
86.51	24" ISOLATOR ROW PLUS CONNECTION INVERT
86.50	BOTTOM OF SC-740 CHAMBER
86.00	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #13 DETAIL
NTS

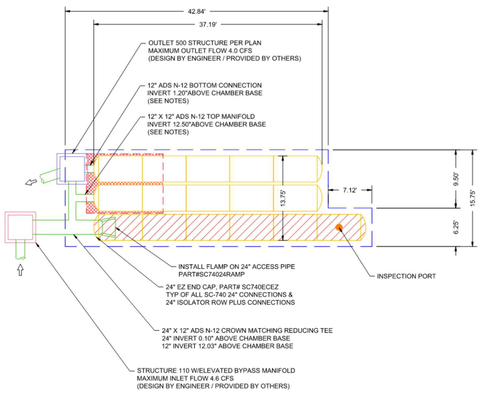
PROPOSED ELEVATIONS: UGB-14

97.25	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
91.25	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
90.75	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
90.75	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
90.75	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
89.75	TOP OF STONE
89.25	TOP OF SC-740 CHAMBER
87.79	12" TOP MANIFOLD INVERT
86.85	12" BOTTOM CONNECTION INVERT
86.76	24" ISOLATOR ROW PLUS CONNECTION INVERT
86.75	BOTTOM OF SC-740 CHAMBER
86.25	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #14 DETAIL
NTS

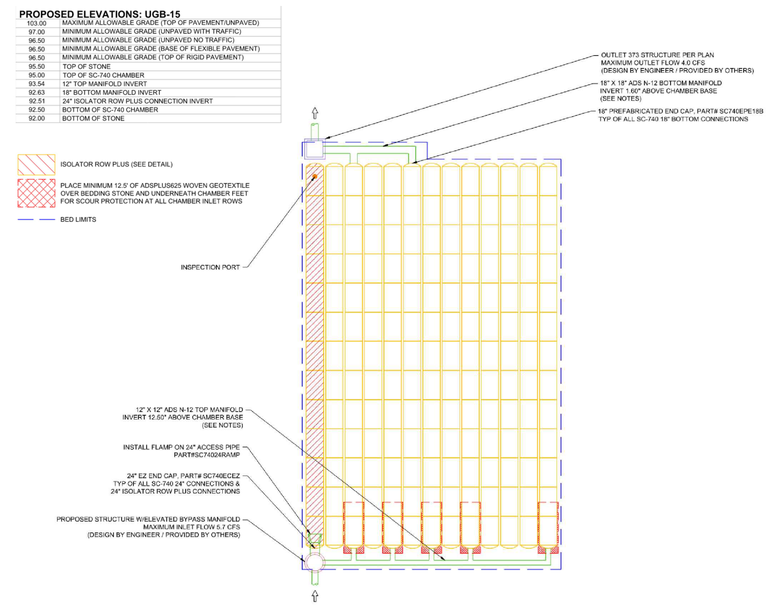
PROPOSED ELEVATIONS: UGB-15

103.00	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
97.00	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
96.50	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
96.50	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
96.50	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
95.50	TOP OF STONE
95.00	TOP OF SC-740 CHAMBER
93.54	12" TOP MANIFOLD INVERT
92.63	18" BOTTOM MANIFOLD INVERT
92.51	24" ISOLATOR ROW PLUS CONNECTION INVERT
92.50	BOTTOM OF SC-740 CHAMBER
92.00	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #15 DETAIL
NTS

NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECHNICAL NOTE 6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
- THE SITE DESIGN ENGINEER MUST REVIEW THE PROXIMITY OF THE CHAMBERS TO THE BUILDING/STRUCTURE. NO FOUNDATION LOADS SHALL BE TRANSMITTED TO THE CHAMBERS. THE SITE DESIGN ENGINEER MUST CONSIDER EFFECTS OF POSSIBLE SATURATED SOILS ON BEARING CAPACITY OF SOILS AND SEEPAGE INTO BASEMENTS.

THE DETAILED LAYOUTS OF STORMTECH CHAMBER SYSTEMS PROVIDE BY:
ADVANCED DRAINAGE SYSTEMS, INC.
4 N. DELAWARE DR. EASTON, PENNSYLVANIA 18042
484-602-7199
ADS PROJECT NO. S415965

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
1	REV. PER DRC#2 MEMOS	5/23/25		

4/18/2025
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
109 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

UNDERGROUND BASIN DETAILS – 2
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN
PLAINSBORO TOWNSHIP
MIDDLESEX CO., N.J.
SCALE N.T.S.
APRIL 18, 2025

DRAWN BY MT DATE 4/18/25	FIELD BK	ORDER No.	PAGE No.	SHEET No.
CHECKED BY CG DATE 4/18/25	PAGE	WRNUL23001	87 OF 100	CS6022

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS6021.DWG

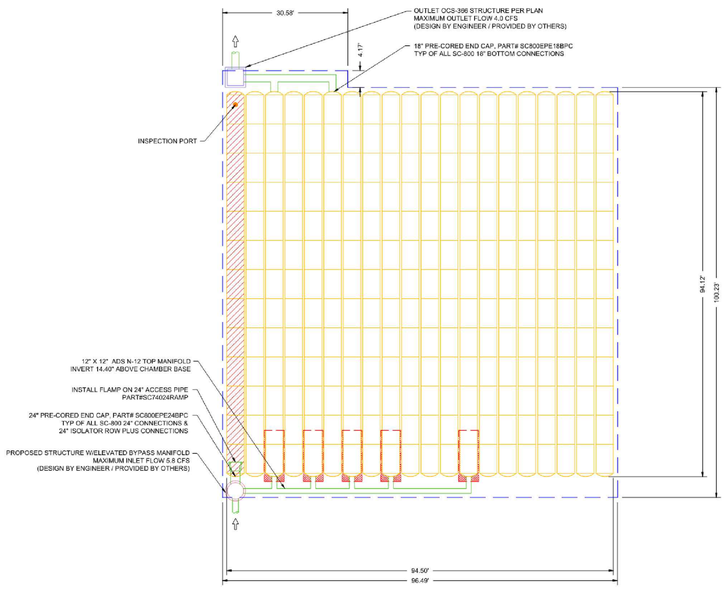
PROPOSED ELEVATIONS: UGB 16

105.25	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
99.00	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
98.50	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
98.50	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
98.50	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
97.75	TOP OF STONE
97.25	TOP OF SC-800 CHAMBER
95.70	12" TOP MANIFOLD INVERT
94.69	24" ISOLATOR ROW PLUS CONNECTION INVERT
94.67	18" BOTTOM MANIFOLD INVERT
94.50	BOTTOM OF SC-800 CHAMBER
94.00	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #16 DETAIL

NTS

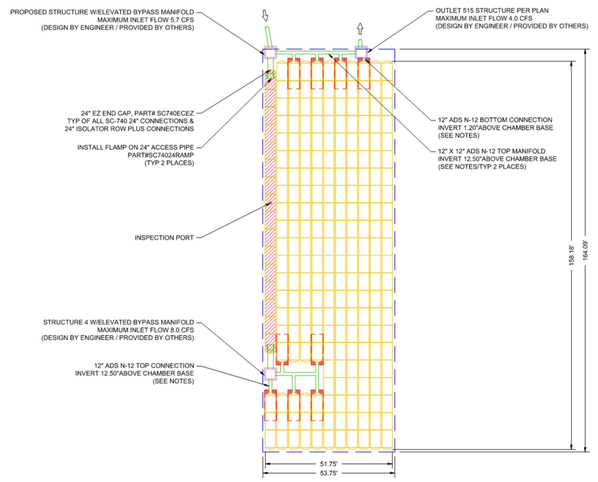
PROPOSED ELEVATIONS: UGB-17

121.50	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
115.50	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
115.00	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
115.00	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
115.00	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
114.00	TOP OF STONE
113.50	TOP OF SC-740 CHAMBER
112.04	12" TOP MANIFOLD/CONNECTION INVERT
111.10	12" TOP CONNECTION INVERT
111.01	24" ISOLATOR ROW PLUS CONNECTION INVERT
111.00	BOTTOM OF SC-740 CHAMBER
110.50	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #17 DETAIL

NTS

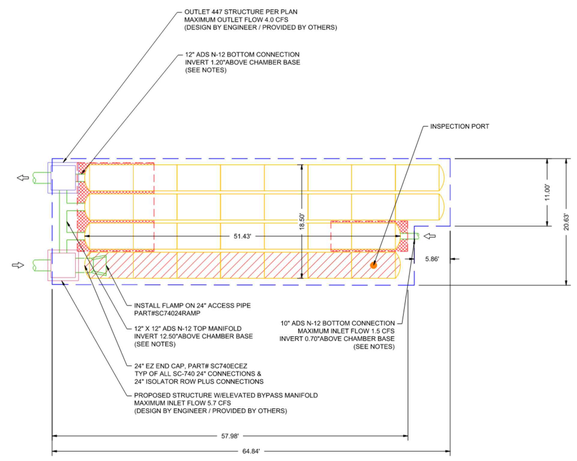
PROPOSED ELEVATIONS: UGB-18

105.00	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
99.00	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
98.50	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
98.50	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
98.50	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
97.50	TOP OF STONE
97.00	TOP OF SC-740 CHAMBER
95.54	12" TOP MANIFOLD INVERT
94.60	12" BOTTOM CONNECTION INVERT
94.56	10" BOTTOM CONNECTION INVERT
94.51	24" ISOLATOR ROW PLUS CONNECTION INVERT
94.50	BOTTOM OF SC-740 CHAMBER
94.00	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #18 DETAIL

NTS

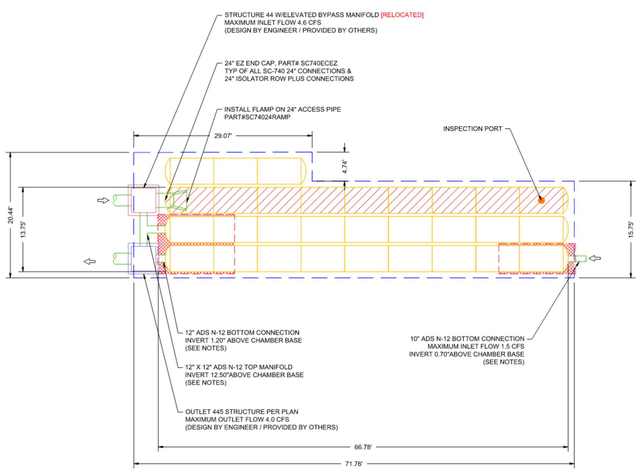
PROPOSED ELEVATIONS: UGB-19

105.50	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
99.50	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
99.00	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
99.00	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
99.00	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
98.00	TOP OF STONE
97.50	TOP OF SC-740 CHAMBER
96.04	12" TOP MANIFOLD INVERT
95.10	12" BOTTOM CONNECTION INVERT
95.06	10" TOP CONNECTION INVERT
95.01	24" ISOLATOR ROW PLUS CONNECTION INVERT
95.00	BOTTOM OF SC-740 CHAMBER
94.50	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #19 DETAIL

NTS

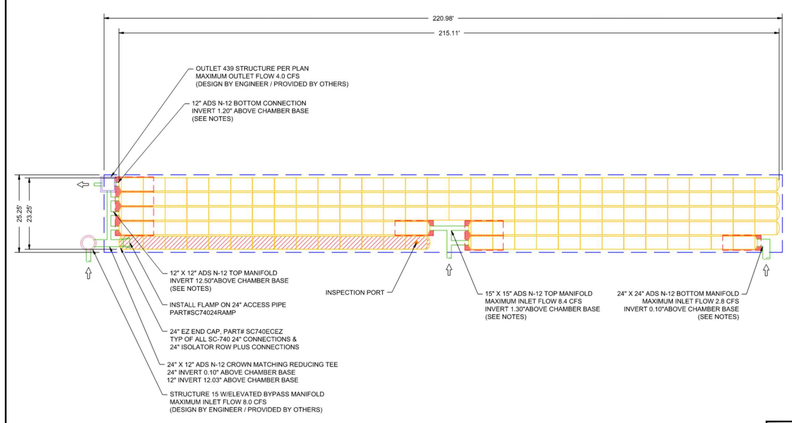
PROPOSED ELEVATIONS: UGB-20

108.10	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
102.10	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
101.60	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
101.60	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
101.60	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
100.60	TOP OF STONE
100.10	TOP OF SC-740 CHAMBER
98.64	12" TOP MANIFOLD INVERT
98.35	15" BOTTOM MANIFOLD INVERT
97.70	12" BOTTOM CONNECTION INVERT
97.61	24" BOTTOM MANIFOLD/CONNECTION INVERT
97.61	24" ISOLATOR ROW PLUS CONNECTION INVERT
97.60	BOTTOM OF SC-740 CHAMBER
97.10	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #20 DETAIL

NTS

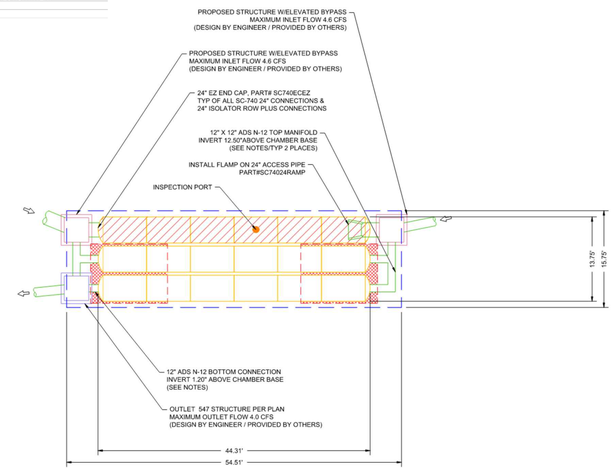
PROPOSED ELEVATIONS: UGB-21

109.00	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
103.00	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
102.50	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
102.50	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
102.50	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
101.50	TOP OF STONE
101.00	TOP OF SC-740 CHAMBER
99.54	12" TOP MANIFOLD/CONNECTION INVERT
98.60	12" BOTTOM CONNECTION INVERT
98.51	24" ISOLATOR ROW PLUS CONNECTION INVERT
98.50	BOTTOM OF SC-740 CHAMBER
98.00	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #21 DETAIL

NTS

NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECHNICAL NOTE 6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE IN-SITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
- THE SITE DESIGN ENGINEER MUST REVIEW THE PROXIMITY OF THE CHAMBERS TO THE BUILDING STRUCTURE. NO FOUNDATION LOADS SHALL BE TRANSMITTED TO THE CHAMBERS. THE SITE DESIGN ENGINEER MUST CONSIDER EFFECTS OF POSSIBLE SATURATED SOILS ON BEARING CAPACITY OF SOILS AND SEEPAGE INTO BASEMENTS.

THE DETAILED LAYOUTS OF STORMTECH CHAMBER SYSTEMS PROVIDE BY:
ADVANCED DRAINAGE SYSTEMS, INC.
4 N. DELAWARE DR. EASTON, PENNSYLVANIA 18042
484-602-7199
ADS PROJECT NO. S415965

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
1	REV. PER DRC#2 MEMOS	5/23/25		

4/18/2025
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
109 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization
No. 24GA28033300

UNDERGROUND BASIN DETAILS – 3
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE N.T.S.
MIDDLESEX CO., N.J.
APRIL 18, 2025

DRAWN BY MT DATE 4/18/25	FIELD BK	ORDER No.	PAGE No.	SHEET No.
CHECKED BY CG DATE 4/18/25	PAGE	WRNUL23001	88 OF 100	CS6023

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS6021.DWG

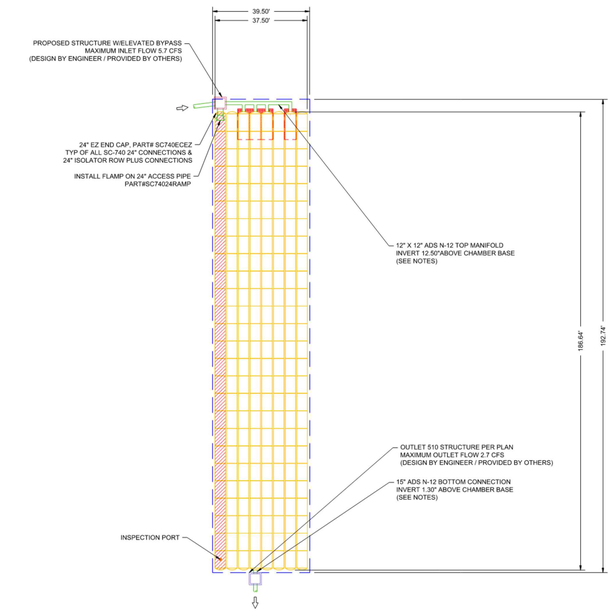
PROPOSED ELEVATIONS: UGB-22

118.00	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
112.00	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
111.50	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
111.50	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
111.50	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
110.50	TOP OF STONE
110.00	TOP OF SC-740 CHAMBER
108.54	12" TOP MANIFOLD INVERT
107.61	15" BOTTOM CONNECTION INVERT
107.51	24" ISOLATOR ROW PLUS CONNECTION INVERT
107.50	BOTTOM OF SC-740 CHAMBER
107.00	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #22 DETAIL

NTS

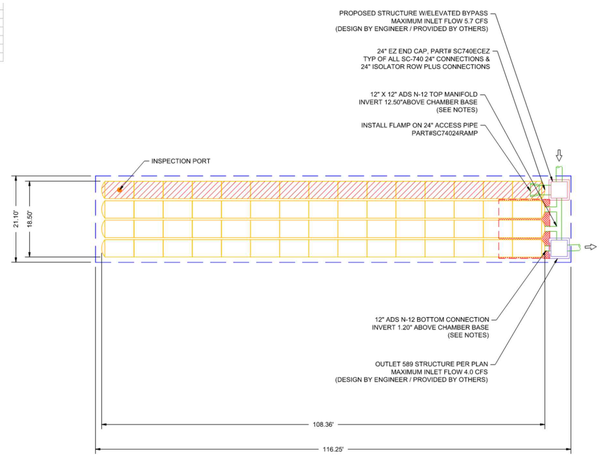
PROPOSED ELEVATIONS: UGB-27

110.50	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
104.50	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
104.00	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
104.00	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
104.00	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
103.00	TOP OF STONE
102.50	TOP OF SC-740 CHAMBER
101.04	12" TOP MANIFOLD INVERT
100.10	12" BOTTOM CONNECTION INVERT
100.01	24" ISOLATOR ROW PLUS CONNECTION INVERT
100.00	BOTTOM OF SC-740 CHAMBER
99.50	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #27 DETAIL

NTS

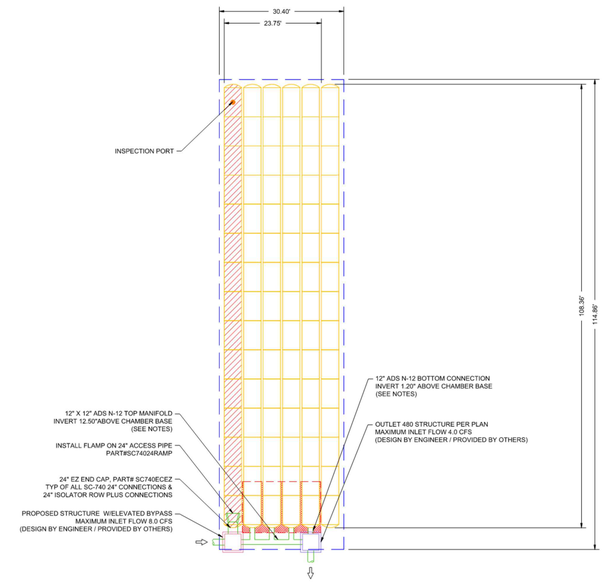
PROPOSED ELEVATIONS: UGB-31

103.60	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
97.60	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
97.10	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
97.10	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
97.10	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
96.10	TOP OF STONE
95.60	TOP OF SC-740 CHAMBER
94.14	12" TOP MANIFOLD INVERT
93.20	12" BOTTOM CONNECTION INVERT
93.11	24" ISOLATOR ROW PLUS CONNECTION INVERT
93.10	BOTTOM OF SC-740 CHAMBER
92.60	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #31 DETAIL

NTS

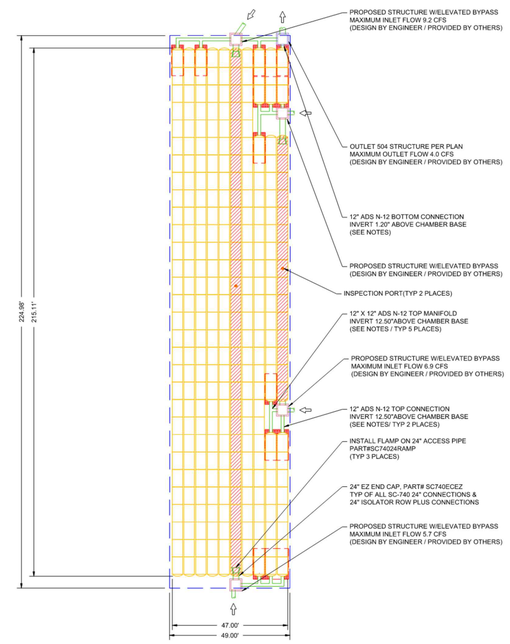
PROPOSED ELEVATIONS: UGB-32

120.75	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
114.75	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
114.25	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
114.25	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
114.25	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
113.25	TOP OF STONE
112.75	TOP OF SC-740 CHAMBER
111.29	12" TOP MANIFOLD/CONNECTION INVERT
110.38	18" BOTTOM CONNECTION INVERT
110.26	24" ISOLATOR ROW PLUS CONNECTION INVERT
110.25	BOTTOM OF SC-740 CHAMBER
109.75	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #32 DETAIL

NTS

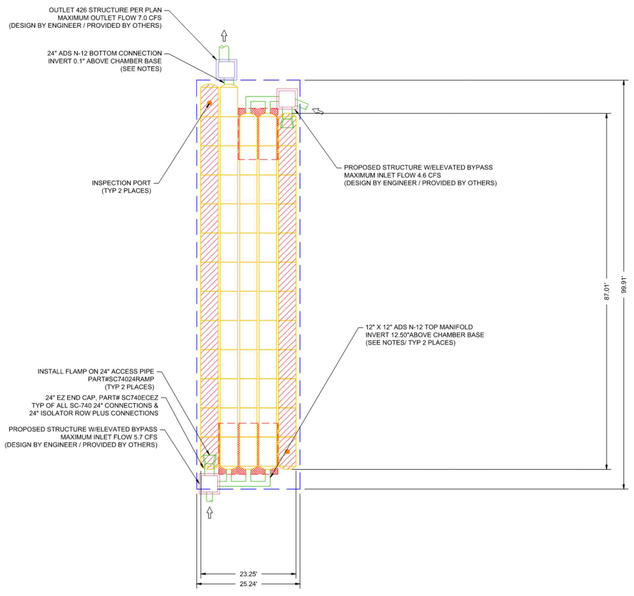
PROPOSED ELEVATIONS: UGB-33

116.82	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
110.82	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
110.32	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
110.32	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
110.32	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
109.32	TOP OF STONE
108.82	TOP OF SC-740 CHAMBER
107.36	12" TOP MANIFOLD/CONNECTION INVERT
106.33	24" BOTTOM CONNECTION INVERT
106.33	24" ISOLATOR ROW PLUS CONNECTION INVERT
106.32	BOTTOM OF SC-740 CHAMBER
105.82	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

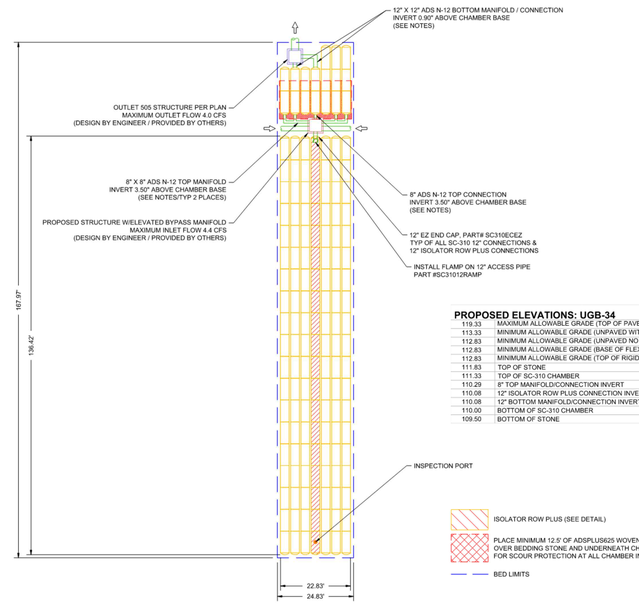
PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #33 DETAIL

NTS



PROPOSED ELEVATIONS: UGB-34

119.33	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
113.33	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
112.83	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
112.83	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
112.83	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
111.83	TOP OF STONE
111.33	TOP OF SC-310 CHAMBER
110.29	8" TOP MANIFOLD/CONNECTION INVERT
110.08	12" ISOLATOR ROW PLUS CONNECTION INVERT
110.08	12" BOTTOM MANIFOLD/CONNECTION INVERT
110.00	BOTTOM OF SC-310 CHAMBER
109.50	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS

UNDERGROUND BASIN #34 DETAIL

NTS

NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECHNICAL NOTE 6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
- THE SITE DESIGN ENGINEER MUST REVIEW THE PROXIMITY OF THE CHAMBERS TO THE BUILDING/STRUCTURE. NO FOUNDATION LOADS SHALL BE TRANSMITTED TO THE CHAMBERS. THE SITE DESIGN ENGINEER MUST CONSIDER EFFECTS OF POSSIBLE SATURATED SOILS ON BEARING CAPACITY OF SOILS AND SEEPAGE INTO BASEMENTS.

THE DETAILED LAYOUTS OF STORMTECH CHAMBER SYSTEMS PROVIDE BY:
ADVANCED DRAINAGE SYSTEMS, INC.
4 N. DELAWARE DR. EASTON, PENNSYLVANIA 18042
484-602-7199
ADS PROJECT NO. S415965

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
1	REV. PER DRC#2 MEMOS	5/23/25		

4/18/2025
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization
No. 24GA28033300

UNDERGROUND BASIN DETAILS – 4
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE N.T.S.
MIDDLESEX CO., N.J.
APRIL 18, 2025

DRAWN BY MT DATE 4/18/25	FIELD BK	ORDER No. WRNUL23001	PAGE No. 89 OF 100	SHEET No. CS6024
CHECKED BY CG DATE 4/18/25	PAGE			

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS6021.DWG

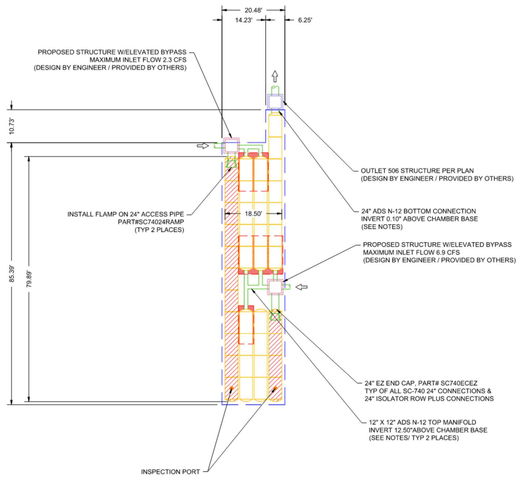
PROPOSED ELEVATIONS: UGB-37

114.50	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
108.50	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
108.00	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
108.00	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
108.00	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
107.00	TOP OF STONE
106.50	TOP OF SC-740 CHAMBER
105.04	12" TOP MANIFOLD/CONNECTION INVERT
104.01	24" BOTTOM CONNECTION INVERT
104.01	24" ISOLATOR ROW PLUS CONNECTION INVERT
104.00	BOTTOM OF SC-740 CHAMBER
103.50	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #37 DETAIL

NTS

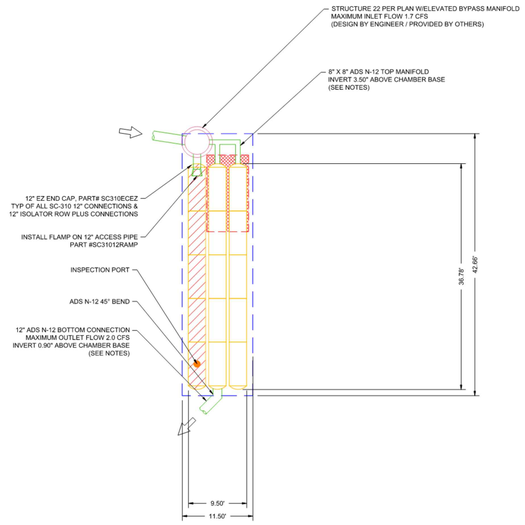
PROPOSED ELEVATIONS: UGB-41

113.83	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
107.83	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
107.33	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
107.33	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
107.33	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
106.33	TOP OF STONE
105.83	TOP OF SC-310 CHAMBER
104.79	8" TOP MANIFOLD INVERT
104.58	12" ISOLATOR ROW PLUS CONNECTION INVERT
104.58	12" BOTTOM CONNECTION INVERT
104.50	BOTTOM OF SC-310 CHAMBER
104.00	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #41 DETAIL

NTS

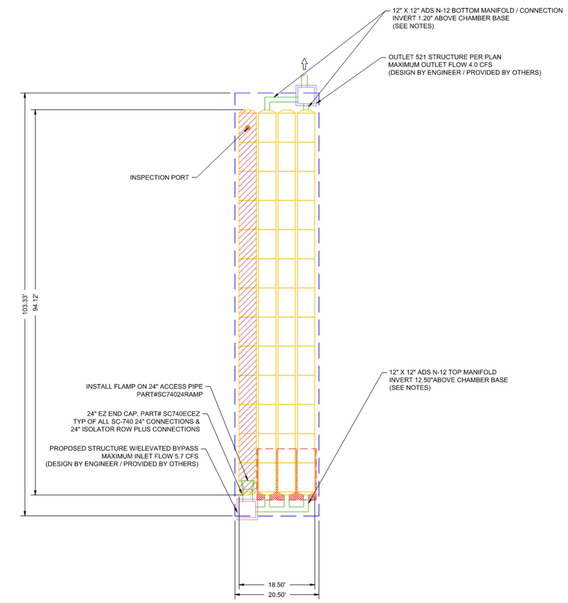
PROPOSED ELEVATIONS: UGB-42

106.00	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
100.00	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
99.50	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
99.50	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
99.50	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
98.50	TOP OF STONE
98.00	TOP OF SC-740 CHAMBER
96.54	12" TOP MANIFOLD INVERT
95.60	12" BOTTOM MANIFOLD/CONNECTION INVERT
95.51	24" ISOLATOR ROW PLUS CONNECTION INVERT
95.50	BOTTOM OF SC-740 CHAMBER
95.00	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #42 DETAIL

NTS

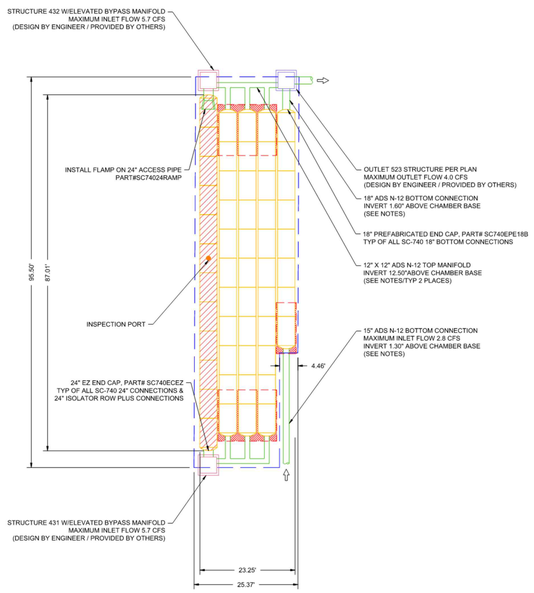
PROPOSED ELEVATIONS: UGB-43

109.00	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
103.00	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
102.50	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
102.50	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
102.50	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
101.50	TOP OF STONE
101.00	TOP OF SC-740 CHAMBER
99.54	12" TOP MANIFOLD INVERT
98.61	15" BOTTOM CONNECTION INVERT
98.63	18" BOTTOM CONNECTION INVERT
98.51	24" ISOLATOR ROW PLUS CONNECTION INVERT
98.50	BOTTOM OF SC-740 CHAMBER

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #43 DETAIL

NTS

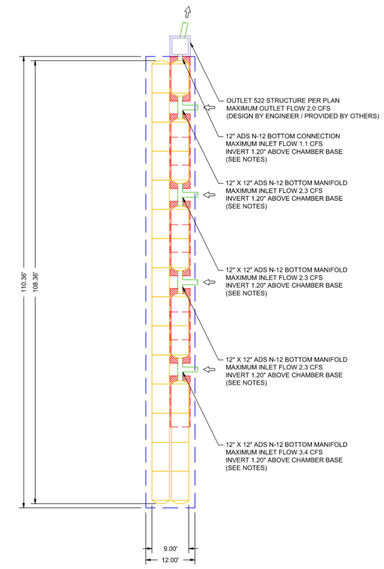
PROPOSED ELEVATIONS: UGB-44

112.00	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
106.00	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
105.50	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
105.50	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
105.50	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
104.50	TOP OF STONE
104.00	TOP OF SC-740 CHAMBER
101.60	12" BOTTOM MANIFOLD/CONNECTION INVERT
101.50	BOTTOM OF SC-740 CHAMBER
101.00	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #44 DETAIL

NTS

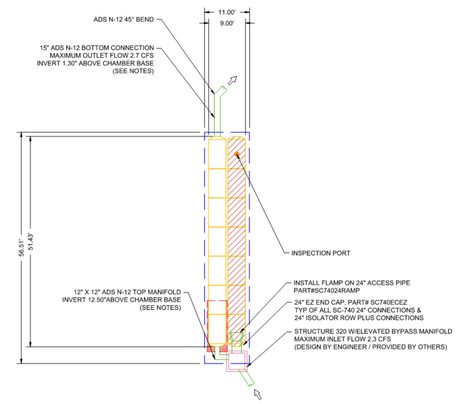
PROPOSED ELEVATIONS: UGB-46

114.00	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
108.00	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
107.50	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
107.50	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
107.50	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
106.50	TOP OF STONE
106.00	TOP OF SC-740 CHAMBER
104.54	12" TOP MANIFOLD INVERT
103.63	15" BOTTOM CONNECTION INVERT
103.51	24" ISOLATOR ROW PLUS CONNECTION INVERT
103.50	BOTTOM OF SC-740 CHAMBER
103.00	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #46 DETAIL

NTS

NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECHNICAL NOTE 6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
- THE SITE DESIGN ENGINEER MUST REVIEW THE PROXIMITY OF THE CHAMBERS TO THE BUILDING/STRUCTURE. NO FOUNDATION LOADS SHALL BE TRANSMITTED TO THE CHAMBERS. THE SITE DESIGN ENGINEER MUST CONSIDER EFFECTS OF POSSIBLE SATURATED SOILS ON BEARING CAPACITY OF SOILS AND SEEPAGE INTO BASEMENTS.

THE DETAILED LAYOUTS OF STORMTECH CHAMBER SYSTEMS PROVIDE BY:
ADVANCED DRAINAGE SYSTEMS, INC.
4 N. DELAWARE DR. EASTON, PENNSYLVANIA 18042
484-602-7199
ADS PROJECT NO. S415965

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
1	REV. PER DRC#2 MEMOS	5/23/25		

4/18/2025
DATE OF SIGN

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
159 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization
No. 24GA28033300

UNDERGROUND BASIN DETAILS – **5**
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP
SCALE N.T.S.
MIDDLESEX CO., N.J.
APRIL 18, 2025

DRAWN BY MT DATE 4/18/25	FIELD BK	ORDER No.	PAGE No.	SHEET No.
CHECKED BY CG DATE 4/18/25	PAGE	WRNUL23001	90 OF 100	CS6025

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS6021.DWG

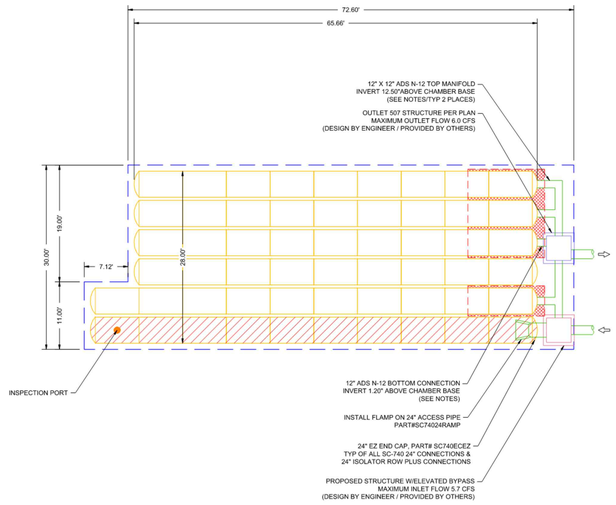
PROPOSED ELEVATIONS: UGB-47

119.00	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
113.00	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
112.50	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
112.50	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
112.50	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
111.50	TOP OF STONE
111.00	TOP OF SC-740 CHAMBER
109.54	12" TOP MANIFOLD/CONNECTION INVERT
108.66	12" BOTTOM MANIFOLD/CONNECTION INVERT
108.51	24" ISOLATOR ROW PLUS CONNECTION INVERT
108.50	BOTTOM OF SC-740 CHAMBER
108.00	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #47 DETAIL

NTS

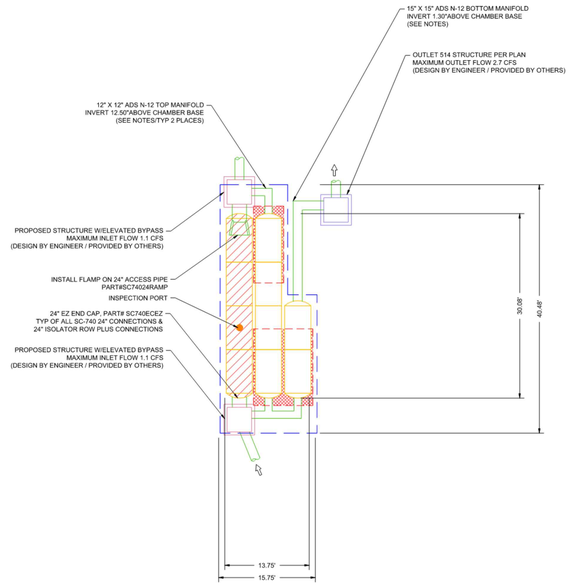
PROPOSED ELEVATIONS: UGB-48

111.90	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
105.90	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
105.40	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
105.40	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
105.40	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
104.40	TOP OF STONE
103.90	TOP OF SC-740 CHAMBER
102.44	12" TOP MANIFOLD INVERT
101.51	15" BOTTOM MANIFOLD INVERT
101.41	24" ISOLATOR ROW PLUS CONNECTION INVERT
101.40	BOTTOM OF SC-740 CHAMBER
100.90	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #48 DETAIL

NTS

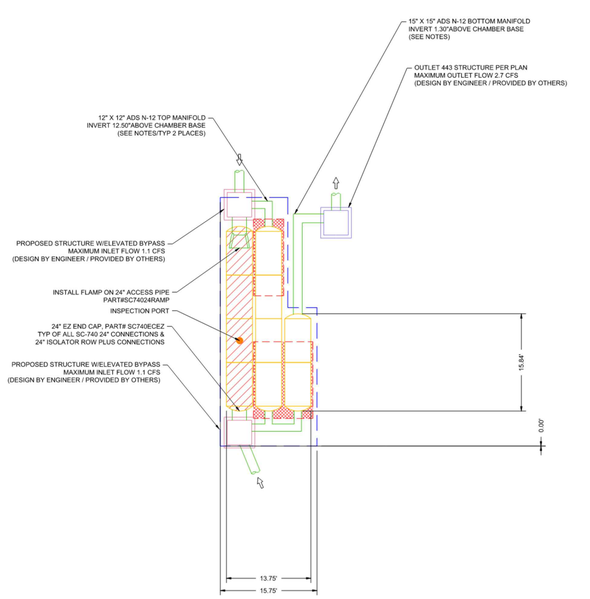
PROPOSED ELEVATIONS: UGB-49

113.70	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
107.70	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
107.20	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
107.20	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
107.20	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
106.20	TOP OF STONE
105.70	TOP OF SC-740 CHAMBER
104.24	12" TOP MANIFOLD INVERT
103.31	15" BOTTOM MANIFOLD INVERT
103.21	24" ISOLATOR ROW PLUS CONNECTION INVERT
103.20	BOTTOM OF SC-740 CHAMBER
102.70	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #49 DETAIL

NTS

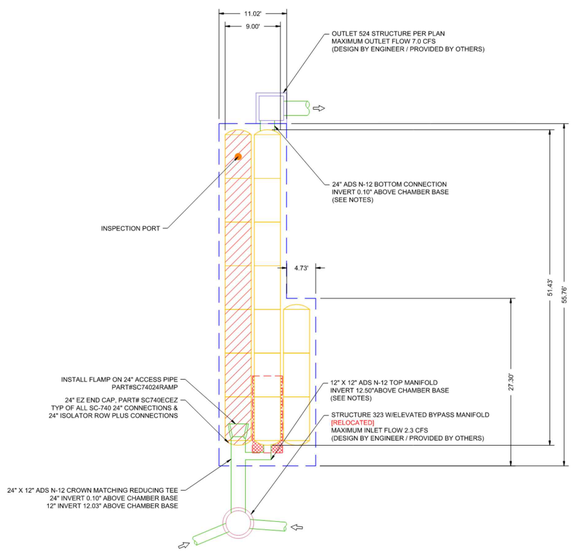
PROPOSED ELEVATIONS: UGB-50

112.00	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
106.00	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
105.50	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
105.50	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
105.50	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
104.50	TOP OF STONE
104.00	TOP OF SC-740 CHAMBER
102.54	12" TOP MANIFOLD INVERT
101.51	24" BOTTOM CONNECTION INVERT
101.51	24" ISOLATOR ROW PLUS CONNECTION INVERT
101.50	BOTTOM OF SC-740 CHAMBER
101.00	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #50 DETAIL

NTS

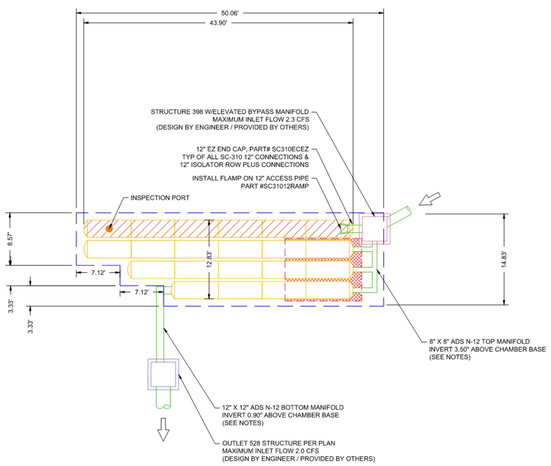
PROPOSED ELEVATIONS: UGB-54

108.83	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
102.83	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
102.33	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
102.33	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
102.33	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
101.33	TOP OF STONE
100.83	TOP OF SC-310 CHAMBER
99.79	8" TOP MANIFOLD INVERT
99.58	12" ISOLATOR ROW PLUS CONNECTION INVERT
99.58	12" BOTTOM MANIFOLD INVERT
99.50	BOTTOM OF SC-310 CHAMBER
99.00	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #54 DETAIL

NTS

NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECHNICAL NOTE 6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
- THE SITE DESIGN ENGINEER MUST REVIEW THE PROXIMITY OF THE CHAMBERS TO THE BUILDING/STRUCTURE. NO FOUNDATION LOADS SHALL BE TRANSMITTED TO THE CHAMBERS. THE SITE DESIGN ENGINEER MUST CONSIDER EFFECTS OF POSSIBLE SATURATED SOILS ON BEARING CAPACITY OF SOILS AND SEEPAGE INTO BASEMENTS.

THE DETAILED LAYOUTS OF STORMTECH CHAMBER SYSTEMS PROVIDE BY:
ADVANCED DRAINAGE SYSTEMS, INC.
4 N. DELAWARE DR. EASTON, PENNSYLVANIA 18042
484-602-7199
ADS PROJECT NO. S415965

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
1	REV. PER DRC#2 MEMOS	5/23/25		

4/18/2025
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

UNDERGROUND BASIN DETAILS – **6**
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

PLAINSBORO TOWNSHIP — MIDDLESEX CO., N.J.
SCALE N.T.S. — APRIL 18, 2025

DRAWN BY MT DATE 4/18/25	FIELD BK	ORDER No.	PAGE No.	SHEET No.
CHECKED BY CG DATE 4/18/25	PAGE	WRNUL23001	91 OF 100	CS6026

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS6021.DWG

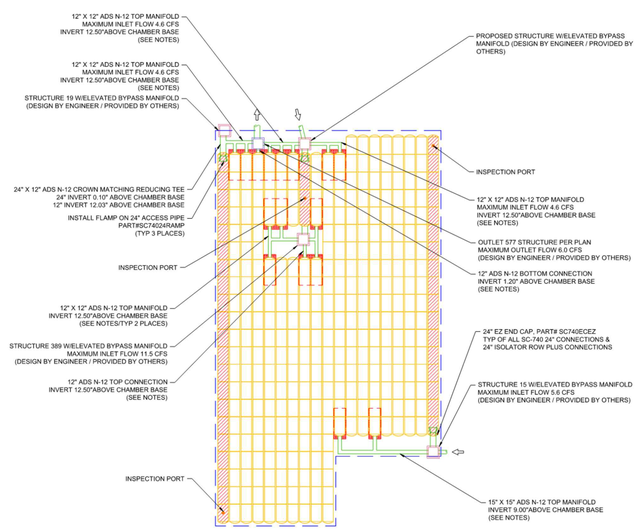
PROPOSED ELEVATIONS: UGB-55

117.00	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
111.00	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
110.50	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
110.50	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
110.50	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
109.50	TOP OF STONE
109.00	TOP OF SC-740 CHAMBER
107.54	12" TOP MANIFOLD/CONNECTION INVERT
107.25	15" TOP MANIFOLD INVERT
106.60	12" BOTTOM CONNECTION INVERT
106.51	24" ISOLATOR ROW PLUS CONNECTION INVERT
106.50	BOTTOM OF SC-740 CHAMBER
106.00	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #55 DETAIL

NTS

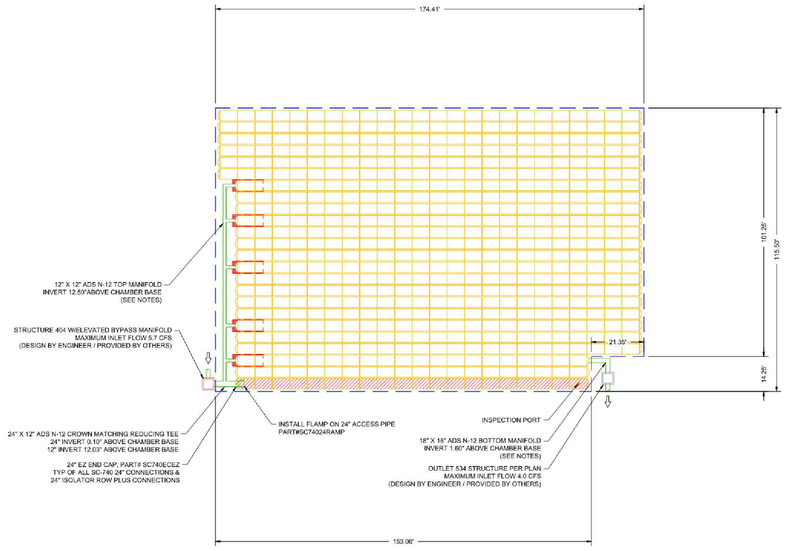
PROPOSED ELEVATIONS: UGB-56

121.00	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
115.00	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
114.50	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
114.50	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
114.50	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
113.50	TOP OF STONE
113.00	TOP OF SC-740 CHAMBER
111.54	12" TOP MANIFOLD INVERT
110.63	18" BOTTOM MANIFOLD INVERT
110.51	24" ISOLATOR ROW PLUS CONNECTION INVERT
110.50	BOTTOM OF SC-740 CHAMBER
110.00	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #56 DETAIL

NTS

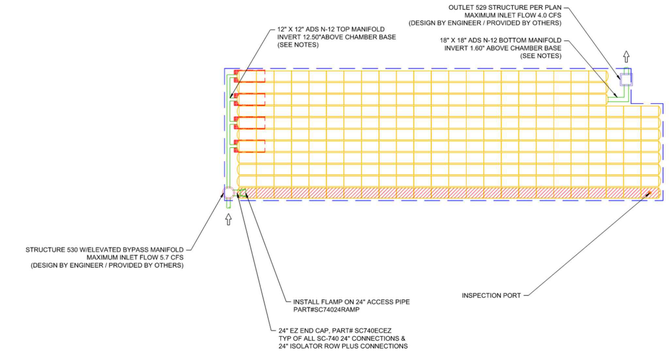
PROPOSED ELEVATIONS: UGB-57

122.10	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
116.10	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
115.60	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
115.60	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
115.60	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
114.60	TOP OF STONE
114.10	TOP OF SC-740 CHAMBER
112.64	12" TOP MANIFOLD INVERT
111.73	18" BOTTOM MANIFOLD INVERT
111.61	24" ISOLATOR ROW PLUS CONNECTION INVERT
111.60	BOTTOM OF SC-740 CHAMBER
111.10	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #57 DETAIL

NTS

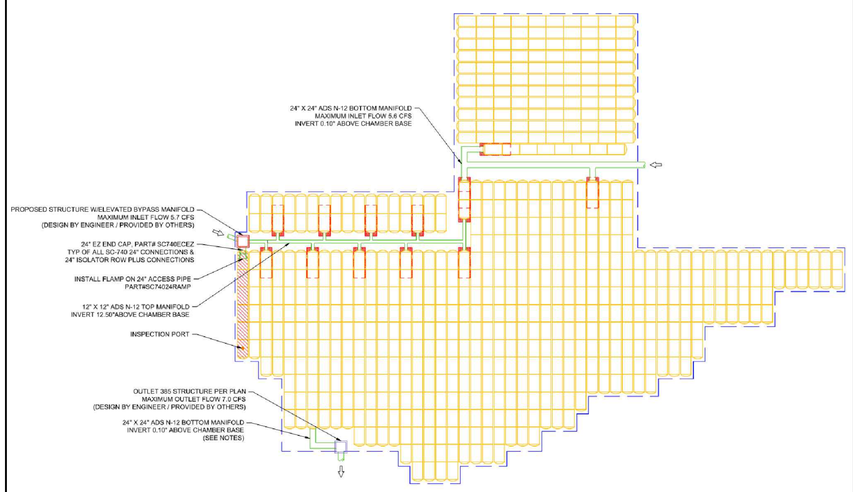
PROPOSED ELEVATIONS: UGB-59

114.93	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
108.93	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
108.43	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
108.43	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
108.43	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
107.43	TOP OF STONE
106.93	TOP OF SC-740 CHAMBER
105.47	12" TOP MANIFOLD INVERT
104.44	24" BOTTOM MANIFOLD INVERT
104.44	24" ISOLATOR ROW PLUS CONNECTION INVERT
104.43	BOTTOM OF SC-740 CHAMBER
103.93	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #59 DETAIL

NTS

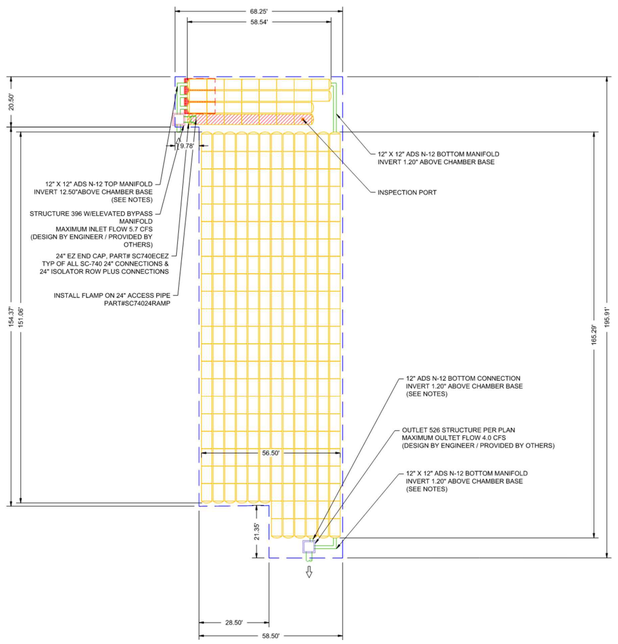
PROPOSED ELEVATIONS: UGB-60

122.10	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
116.10	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
115.60	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
115.60	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
115.60	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
114.60	TOP OF STONE
114.10	TOP OF SC-740 CHAMBER
112.64	12" TOP MANIFOLD INVERT
111.70	12" BOTTOM MANIFOLD/CONNECTION INVERT
111.61	24" ISOLATOR ROW PLUS CONNECTION INVERT
111.60	BOTTOM OF SC-740 CHAMBER
111.10	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #60 DETAIL

NTS

NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECHNICAL NOTE 6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
- THE SITE DESIGN ENGINEER MUST REVIEW THE PROXIMITY OF THE CHAMBERS TO THE BUILDING/STRUCTURE. NO FOUNDATION LOADS SHALL BE TRANSMITTED TO THE CHAMBERS. THE SITE DESIGN ENGINEER MUST CONSIDER EFFECTS OF POSSIBLE SATURATED SOILS ON BEARING CAPACITY OF SOILS AND SEEPAGE INTO BASEMENTS.

THE DETAILED LAYOUTS OF STORMTECH CHAMBER SYSTEMS PROVIDE BY:
ADVANCED DRAINAGE SYSTEMS, INC.
4 N. DELAWARE DR. EASTON, PENNSYLVANIA 18042
484-602-7199
ADS PROJECT NO. S415965

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
1	REV. PER DRC#2 MEMOS	5/23/25		

4/18/2025
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

UNDERGROUND BASIN DETAILS – 7
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN
PLAINSBORO TOWNSHIP
MIDDLESEX CO., N.J.
SCALE N.T.S.
APRIL 18, 2025

DRAWN BY	DATE	FIELD BK	ORDER No.	PAGE No.	SHEET No.
MT	4/18/25		WRNUL23001	92 OF 100	CS6027
CHECKED BY CG	DATE 4/18/25	PAGE			

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS6021.DWG

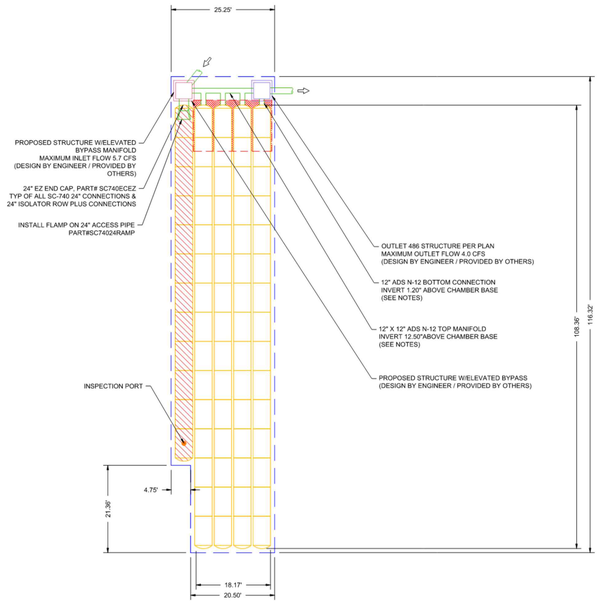
PROPOSED ELEVATIONS: UGB-61

118.75	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
112.75	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
112.25	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
112.25	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
112.25	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
111.25	TOP OF STONE
110.75	TOP OF SC-740 CHAMBER
109.29	12" TOP MANIFOLD INVERT
108.35	12" BOTTOM CONNECTION INVERT
108.26	24" ISOLATOR ROW PLUS CONNECTION INVERT
108.25	BOTTOM OF SC-740 CHAMBER
107.75	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #61 DETAIL
NTS

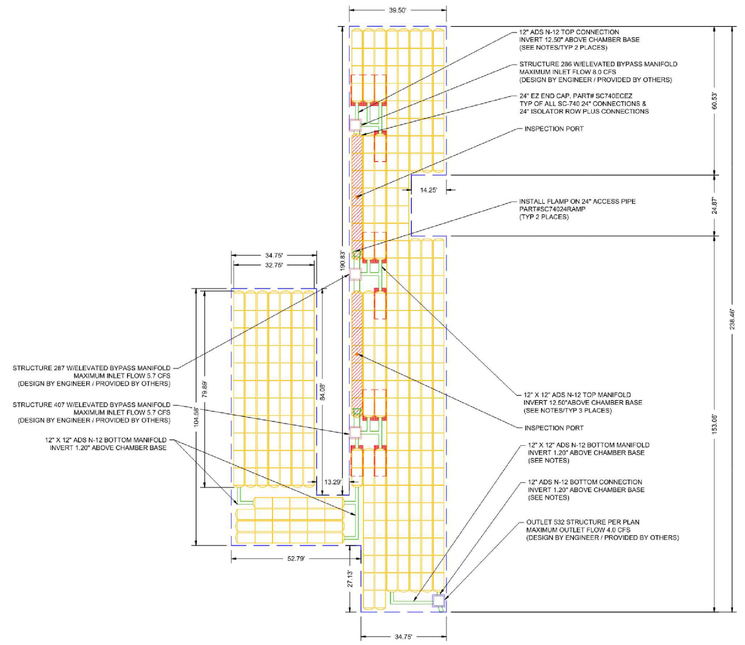
PROPOSED ELEVATIONS: UGB-62

119.00	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
113.00	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
112.50	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
112.50	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
112.50	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
111.50	TOP OF STONE
111.00	TOP OF SC-740 CHAMBER
109.54	12" TOP MANIFOLD/CONNECTION INVERT
108.60	12" BOTTOM MANIFOLD/CONNECTION INVERT
108.51	24" ISOLATOR ROW PLUS CONNECTION INVERT
108.50	BOTTOM OF SC-740 CHAMBER
108.00	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #62 DETAIL
NTS

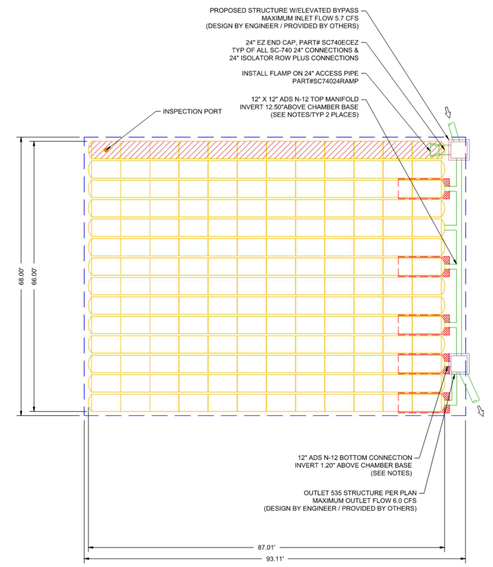
PROPOSED ELEVATIONS: UGB-63

115.00	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
109.00	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
108.50	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
108.50	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
108.50	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
107.50	TOP OF STONE
107.00	TOP OF SC-740 CHAMBER
105.54	12" TOP MANIFOLD INVERT
104.60	12" BOTTOM CONNECTION INVERT
104.51	24" ISOLATOR ROW PLUS CONNECTION INVERT
104.50	BOTTOM OF SC-740 CHAMBER
104.00	BOTTOM OF STONE

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.5' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS



UNDERGROUND BASIN #63 DETAIL
NTS

NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECHNICAL NOTE 6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
- THE SITE DESIGN ENGINEER MUST REVIEW THE PROXIMITY OF THE CHAMBERS TO THE BUILDING/STRUCTURE. NO FOUNDATION LOADS SHALL BE TRANSMITTED TO THE CHAMBERS. THE SITE DESIGN ENGINEER MUST CONSIDER EFFECTS OF POSSIBLE SATURATED SOILS ON BEARING CAPACITY OF SOILS AND SEEPAGE INTO BASEMENTS.

THE DETAILED LAYOUTS OF STORMTECH CHAMBER SYSTEMS PROVIDE BY:
ADVANCED DRAINAGE SYSTEMS, INC.
4 N. DELAWARE DR. EASTON, PENNSYLVANIA 18042
484-602-7199
ADS PROJECT NO. S415965

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
1	REV. PER DRC#2 MEMOS	5/23/25		

4/18/2025
DATE OF SIGN.

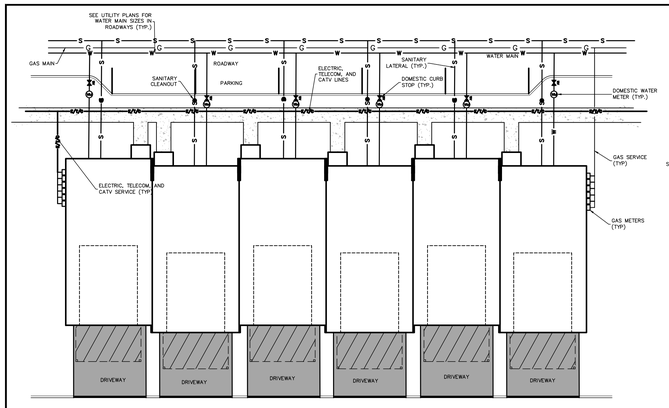
CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

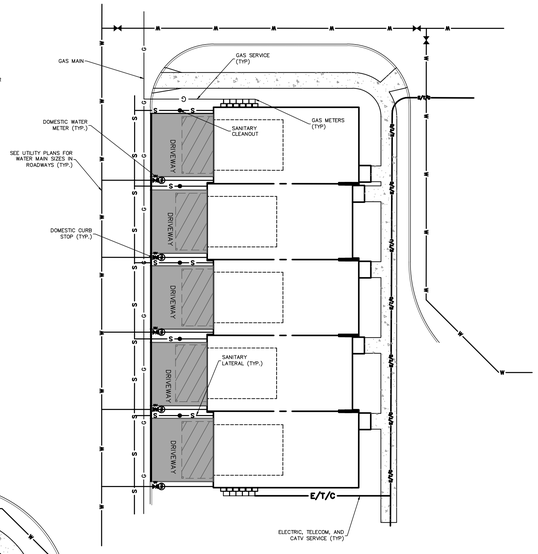
UNDERGROUND BASIN DETAILS – **8**
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN
PLAINSBORO TOWNSHIP MIDDLESEX CO., N.J.
SCALE N.T.S. APRIL 18, 2025

DRAWN BY MT DATE 4/18/25	FIELD BK	ORDER No.	PAGE No.	SHEET No.
CHECKED BY CG DATE 4/18/25	PAGE	WRNUL23001	93 OF 100	CS6028

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS6021.DWG

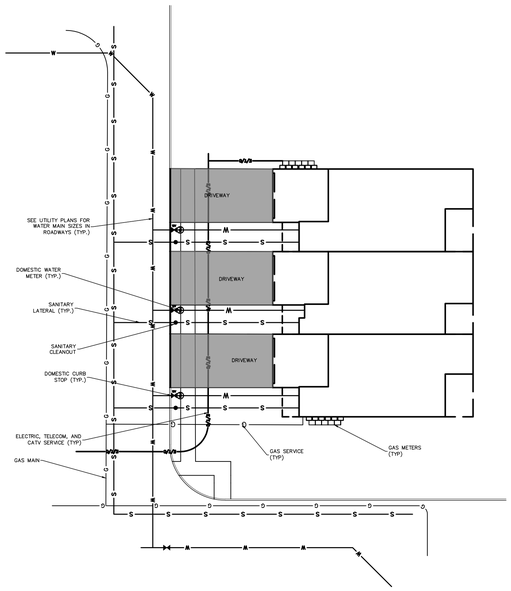


TOWNHOME TYPICAL UTILITY CONNECTION DETAIL (1)



TOWNHOME TYPICAL UTILITY CONNECTION DETAIL (4)

NTS



TOWNHOME TYPICAL UTILITY CONNECTION DETAIL (5)

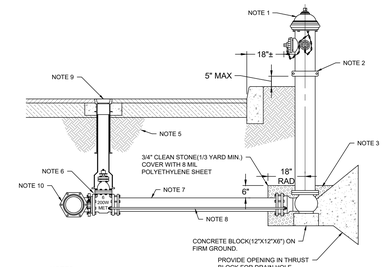
NTS

MINIMUM LENGTH OF WATER MAIN TO BE RESTRAINED, FEET*					
PIPE DIA.	TYPE OF BEND	DEPTH OF BURY, FEET			
		2-4	4-6	6-8	8-10
6"	90°	40	22	15	11
	45°	17	9	6	5
	22-1/2°	8	8	3	3
	11-1/4°	4	3	2	2
	TEE-BRANCH RUN	30/10	5/10	1/10	1/10
	DEAD END	72	38	26	20
8"	90°	52	28	19	15
	45°	22	12	8	6
	22-1/2°	11	6	3	3
	11-1/4°	6	3	2	2
	TEE-BRANCH RUN	56/10	16/10	1/10	1/10
	DEAD END	94	50	35	26
10"	90°	61	33	23	18
	45°	26	14	10	8
	22-1/2°	13	7	5	4
	11-1/4°	6	4	2	2
	TEE-BRANCH RUN	72/10	25/10	7/10	1/10
	DEAD END	111	60	42	32
12"	90°	68	37	26	20
	45°	28	16	11	9
	22-1/2°	14	8	6	4
	11-1/4°	7	4	3	3
	TEE-BRANCH RUN	90/10	35/10	15/10	4/10
	DEAD END	123	67	46	35
*LENGTH OF PIPE TO BE RESTRAINED ON EACH SIDE OF FITTING. PRESSURE NOT EXCEEDING 200 P.S.I.					

WATER MAIN THRUST RESTRAINTS

(IF/AS REQUIRED)

NTS

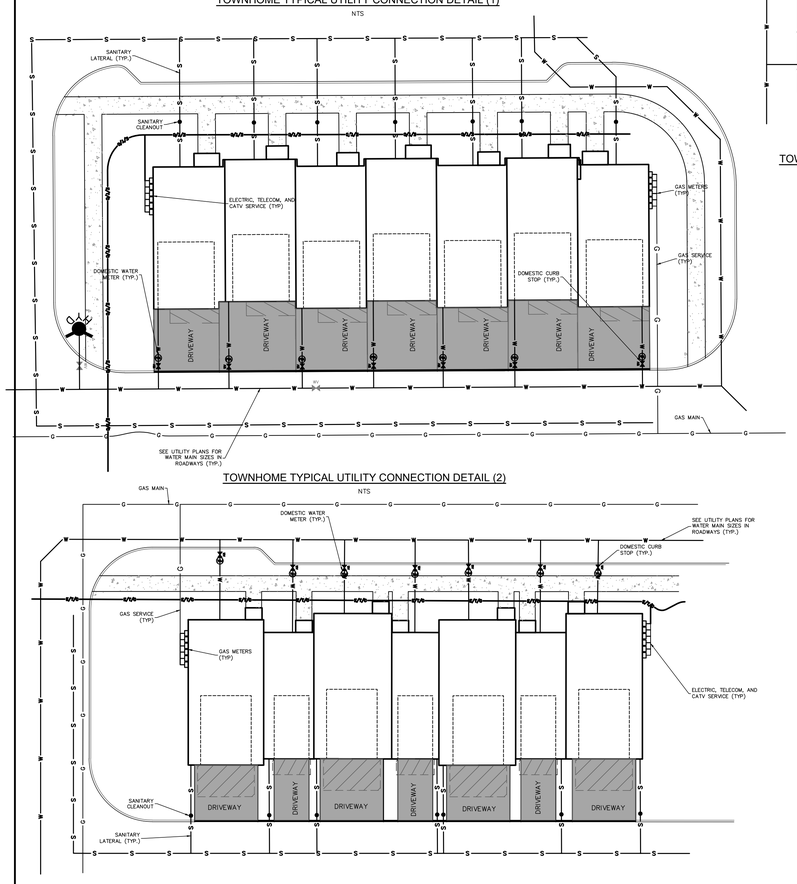


NOTES:

1. HYDRANT SHALL BE T.W.W. STANDARD U.S. PIPE METROPOLITAN/M-94 DRY-BARREL TRAFFIC MODEL DESIGN WITH THE FOLLOWING SPECIFICATION.
   - A. SAFETY COUPLED STANDPIPE.
   - B. 6" MECHANICAL JOINT INLET CONNECTION.
   - C. TWO 2 1/2" NATIONAL STANDARD THREAD HOSE NOZZLES.
   - D. ONE 4 1/2" NATIONAL STANDARD THREAD STEAMER NOZZLE.
   - E. HYDRANT OPERATORS AND HYDRANT NOZZLE CAP NUTS SHALL BE IN ACCORDANCE WITH AWWA/ANSI STANDARD C502.
   - F. HYDRANT HOSE CAPS SHALL BE ATTACHED BY MEANS OF CHAINS.
   - G. HYDRANT BARRELS SHALL BE PAINTED-RED, BONNETS-YELLOW, AND NOZZLE CAPS-BLACK.
   - H. HYDRANTS SHALL OPEN COUNTER CLOCKWISE.
2. STANDPIPE (BREAK-AWAY) COUPLING SHALL NOT EXCEED A MAXIMUM OF 5 INCHES FROM THE TOP OF THE CURB TO THE BOTTOM OF THE COUPLING.
3. HYDRANT TOPS SHALL BE PAINTED IN ACCORDANCE WITH NDA 24 291 TO INDICATE FIRE FLOW DURING FLOW TEST. RED 500 GPM OR LESS, ORANGE 500 GPM TO 999 GPM, GREEN 1,000 GPM TO 1,499, AND LIGHT BLUE 1,500 GPM OR GREATER. NJSA 5:27 D-192 ET SEQ, NJAC 507.2.1 AND ORDINANCE 113-1.
4. THE DRAIN VALVE SHALL BE CLEAR OF ANY OBSTRUCTIONS, AND 3/4" CLEAN GRAVEL BE PLACED FROM THE BOTTOM OF THE HYDRANT TO A POINT 6" ABOVE THE HYDRANT LATERAL PIPE.
5. THRUST BLOCKS SHALL BE MADE OF CLASS B CONCRETE(3300 PSI).
6. BACKFILL MATERIAL SHALL BE IN ACCORDANCE WITH THE LOCAL JURISDICTION.
7. 6" U.S. PIPE RESILIENT WEDGE MJ END GV (RIGHT HAND)
8. 6" DUCTILE IRON CEMENT LINED CLASS 52 PIPE.
9. 3/4" DIAMETER TIE ROD WITH EYE BOLTS- 2 REQUIRED (SIDE VIEW SHOWN).
10. STORZ CONNECTIONS SHALL BE PROVIDED ON ALL FIRE HYDRANTS (N.J.A.C. 912.1)
11. SEE ROADWAY BOX INSTALLATION DETAIL.
12. HYDRANT TEE SHALL BE U.S. PIPE CATALOG #U-592 TRIM-TYTE DUCTILE IRON, MECHANICAL JOINT OR AN T.W.W. APPROVED SUBSTITUTE.
13. MODIFICATIONS OF THE FIRE HYDRANT LOCATION SHALL BE THE DETERMINATION OF THE TRENTON WATER WORKS REPRESENTIVE.

FIRE HYDRANT DETAIL

NTS

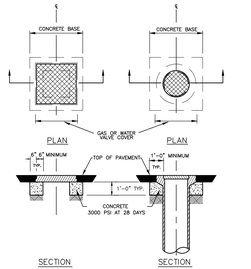


TOWNHOME TYPICAL UTILITY CONNECTION DETAIL (2)

NTS

TOWNHOME TYPICAL UTILITY CONNECTION DETAIL (3)

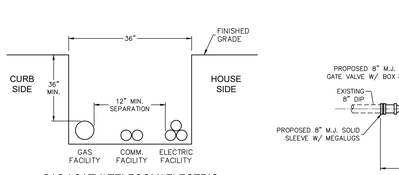
NTS



NOTES:
1. CONCRETE BASES WILL BE SQUARE FOR BOTH SQUARE AND ROUND COVERS.
2. PROVIDE TEMPORARY BITUMINOUS CONCRETE RAMP (1.5' WIDTH PER 1" OF LIP).
3. UTILITY BOXES ARE TO BE RESET AFTER THE CONSTRUCTION OF THE STABILIZED BASE COURSE.
4. RISER INSERTS WILL NOT BE PERMITTED IN SETTING THE UTILITY BOXES TO GRADE.

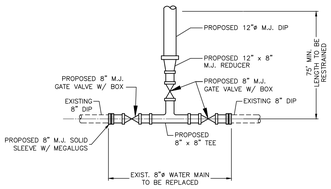
GAS VALVES, WATER VALVES & UTILITY COVER MOUNTING DETAIL

NTS



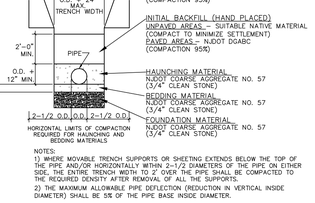
GAS / CATV/ TELECOM/ ELECTRIC TYPICAL TRENCH DETAIL

NTS



WATER MAIN CONNECTION DETAIL

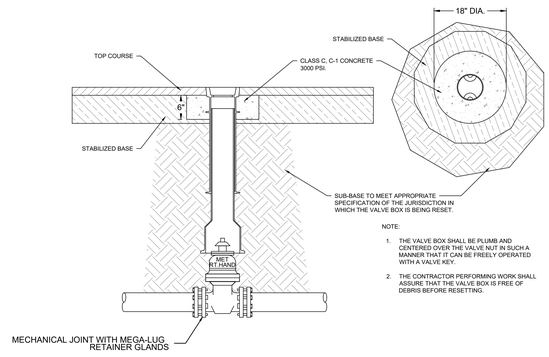
NTS



NOTES:
1) WHERE MOVABLE TRENCH SUPPORTS OR SHEETING EXTENDS BELOW THE TOP OF THE PIPE AND/OR HORIZONTALLY WITHIN 2-1/2 DIAMETERS OF THE PIPE ON EITHER SIDE, THE ENTIRE TRENCH WIDTH TO 2' OVER THE PIPE SHALL BE COMPACTED TO THE REQUIRED DENSITY AFTER REMOVAL OF ALL THE SUPPORTS.
2) THE MAXIMUM ALLOWABLE PIPE DEFLECTION (REDUCTION IN VERTICAL INSIDE DIAMETER) SHALL BE 5% OF THE PIPE BASE INSIDE DIAMETER.

PVC/DIP TRENCH DETAIL

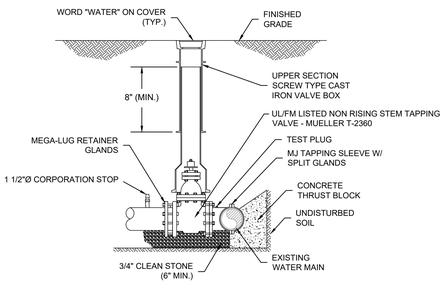
NTS



NOTE:
1. THE VALVE BOX SHALL BE PLUMB AND CENTERED OVER THE VALVE NUT IN SUCH A MANNER THAT IT CAN BE FREELY OPERATED WITH A VALVE KEY.
2. THE CONTRACTOR PERFORMING WORK SHALL ASSURE THAT THE VALVE BOX IS FREE OF DEBRIS BEFORE RESETTING.

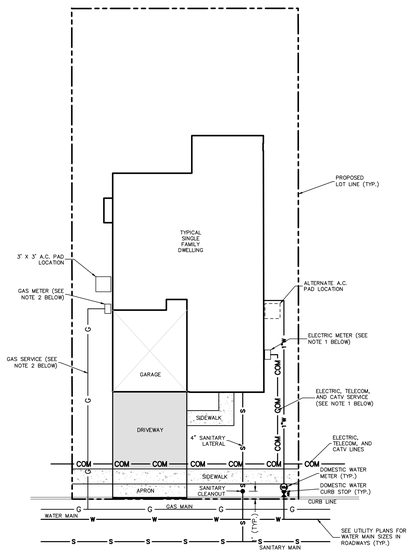
VALVE INSTALLATION DETAIL

NTS



WET TAP DETAIL

NTS



NOTES:
1. ELECTRIC SERVICE AND METER SHALL BE PLACED ON SIDE OPPOSITE OF GARAGE
2. GAS SERVICE AND METER SHALL BE PLACED ON SAME SIDE AS GARAGE

SINGLE FAMILY HOME TYPICAL UTILITY CONNECTION DETAIL

NTS

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
6	REV. PER DRC#2 MEMOS	5/23/25		
5	REV. PER DRC#1 MEMOS	4/18/25		
4	REV. COMPLETENESS SUBMISSION	1/16/25		
3	REV. PER CLIENT COMMENTS	12/13/24		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

van note-harvey division of pennoni
103 College Road East ● Princeton, NJ 08540 ● 609-987-2323
211 Bayberry Drive ● Cape May Court House, NJ 08210 ● 609-465-2600
www.vannoteharvey.com Certificate of Authorization
www.pennoni.com No. 24GA28033300

UTILITY DETAILS SHEET 6
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN
PLAINSBORO TOWNSHIP MIDDLESEX CO., N.J.

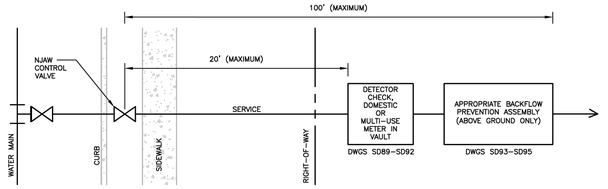
CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

6/14/24
DATE OF SIGN.

SCALE N.T.S JUNE 14, 2024

DRAWN BY	FIELD BK	ORDER No.	PAGE No.	SHEET No.
WDV DATE 6/14/24	PAGE	WRNUL23001	94 OF 100	CS6006
CHECKED BY CG DATE 6/14/24				

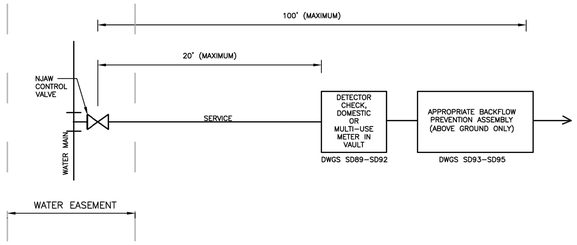
U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS6001.DWG



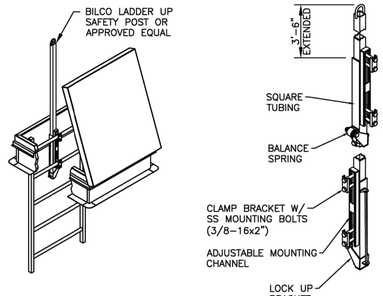
VAULT & ENCLOSURE LOCATION– MAIN IN STREET

NOTES:

1. ALL METERS (3" & LARGER) SHALL BE INSTALLED IN A CONCRETE VAULT.
2. ALL BACKFLOW PREVENTION DEVICES SHALL BE INSTALLED IN AN ABOVEGROUND ENCLOSURE, IMMEDIATELY ADJACENT (I.E. AS CLOSE AS PRACTICABLE) TO THE DISCHARGE SIDE OF THE METER.
3. NOT WITHSTANDING THE ABOVE, IF A METER VAULT AND HEATED BP ENCLOSURE ARE INSTALLED, BOTH STRUCTURES SHALL BE INSTALLED WITHIN 100 FEET OF THE NJAW CONTROL VALVE (MAXIMUM).
4. NJAW MAY WAIVE HEATED BP ENCLOSURE AND ALLOW BACKFLOW PREVENTER INSTALLATION IN BUILDING IF THE 100 FOOT REQUIREMENT IS MAINTAINED.
5. THE INSTALLATION MUST ALSO MEET ALL APPLICABLE CODE & REGULATORY REQUIREMENTS INCLUDING THE NATIONAL STANDARD PLUMBING CODE AND NEW JERSEY STATUTES AND REGULATIONS.



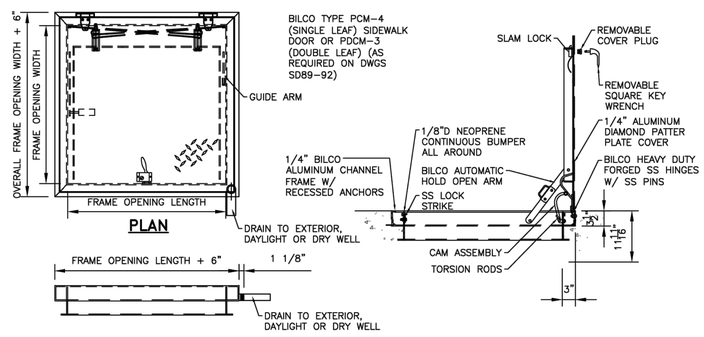
VAULT & ENCLOSURE LOCATION– MAIN IN EASEMENT



NOTE:

1. CLAMP BRACKET MAY BE REVERSED TO ACCOMMODATE RUNG SIZES OF 3/4" TO 1 1/4" WITH STANDARD 2" BOLTS FURNISHED. LARGER RUNGS WILL REQUIRE LONGER BOLTS.

LADDER UP SAFETY POST DETAIL 1 SD100 N.T.S.

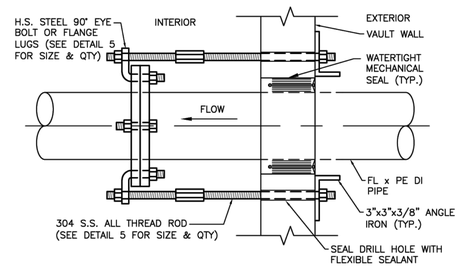


PLAN

ELEVATION

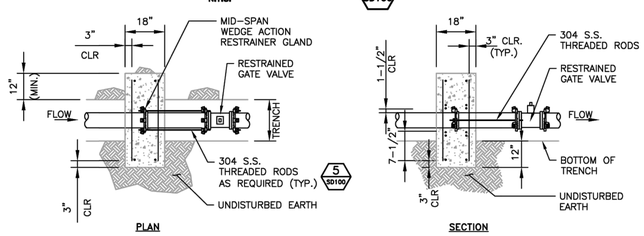
SECTION

ACCESS HATCH DETAIL 2 SD100 N.T.S.

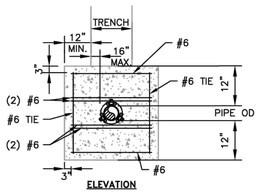


PLAN

VAULT PIPE RESTRAINT DETAIL 3 SD100 N.T.S.



PLAN SECTION



ELEVATION

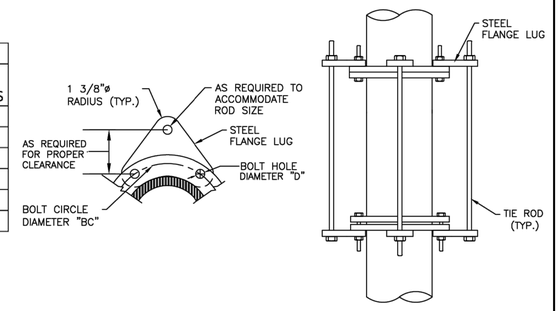
NOTES:

1. PLACE THRUST COLLAR ON ONE FULL LENGTH OF PIPE.
2. LAST JOINT OF PIPE WITH THRUST COLLAR TO BE RESTRAINED MECHANICAL JOINT PIPE.
3. PLACE WEDGE ACTION RESTRAINER GLAND JOINT RESTRAINT 4 FEET FROM VAULT INLET SHUTOFF VALVE.
4. CONCRETE SHALL BE A MINIMUM OF 3000 PSI.
5. REINFORCING BARS SHALL BE DEFORMED BARS AND TIED TOGETHER.
6. BACKFILL & COMPACT IN 6" LAYERS.
7. TRENCH BOTTOM WIDTH IN AT THRUST COLAR LOCATION SHALL BE THE MINIMUM WIDTH PRACTICABLE FOR PIPE PLACEMENT. MAX. TRENCH WIDTH = PIPE O.D.+2 FT.

THRUST COLLAR DETAIL 4 SD100 N.T.S.

TIE ROD SIZING			
NOMINAL PIPE SIZE	# OF RODS	ROD SIZE	LUG THICKNESS
3	2	3/4	3/4
4	2	3/4	3/4
6	4	3/4	3/4
8	4	1	1
10	6	1	1
12	6	1 1/8	1 1/8

NOTE: MAX. PRESSURE 300 PSI



TIE ROD RESTRAINT DETAIL 5 SD100 N.T.S.

NEW JERSEY AMERICAN WATER

REVISIONS		REVISIONS	

NJ LICENSED PROFESSIONAL ENGINEER NO.

AMERICAN WATER ENGINEERING
3906 CHURCH RD.
MT. LAUREL, NJ 08054
AMERICAN WATER

DRAWN BY R. BEATTY
PROJECT ENG'R E. SCHWARTZ

DATE 08-24-18

PROJECT

STANDARD DETAIL
METER VAULT APPURTENANCES

NEW JERSEY AMERICAN WATER

USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES

USE DIMENSIONS ONLY SCALE NOT TO SCALE

0201-0601-SD100

02010601SD100

AMERICAN WATER ENGINEERING
3906 CHURCH RD.
MT. LAUREL, NJ 08054
AMERICAN WATER

DRAWN BY R. BEATTY
PROJECT ENG'R E. SCHWARTZ

DATE 08-24-18

PROJECT

STANDARD DETAIL
DOMESTIC, FIRE & MULTI-USE SERVICE
LOCATION SCHEMATIC

NEW JERSEY AMERICAN WATER

USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES

USE DIMENSIONS ONLY SCALE NOT TO SCALE

0201-0601-SD88

02010601SD88

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
2	REV. PER DRG#2 MEMOS	5/23/25		
1	REV. PER DRG#1 MEMOS	4/18/25		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

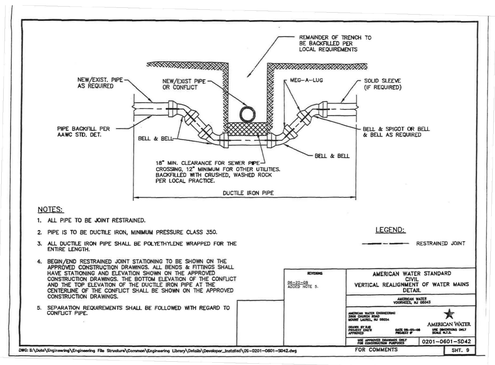
UTILITY DETAILS SHEET 7
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

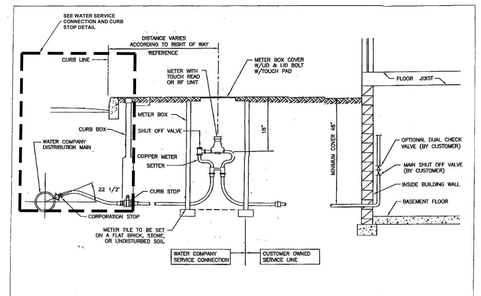
PLAINSBORO TOWNSHIP
SCALE N.T.S

MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY WDV DATE 6/14/24	FIELD BK	ORDER No.	PAGE No.	SHEET No.
CHECKED BY CG DATE 6/14/24	PAGE	WRNUL23001	95 OF 100	CS6007

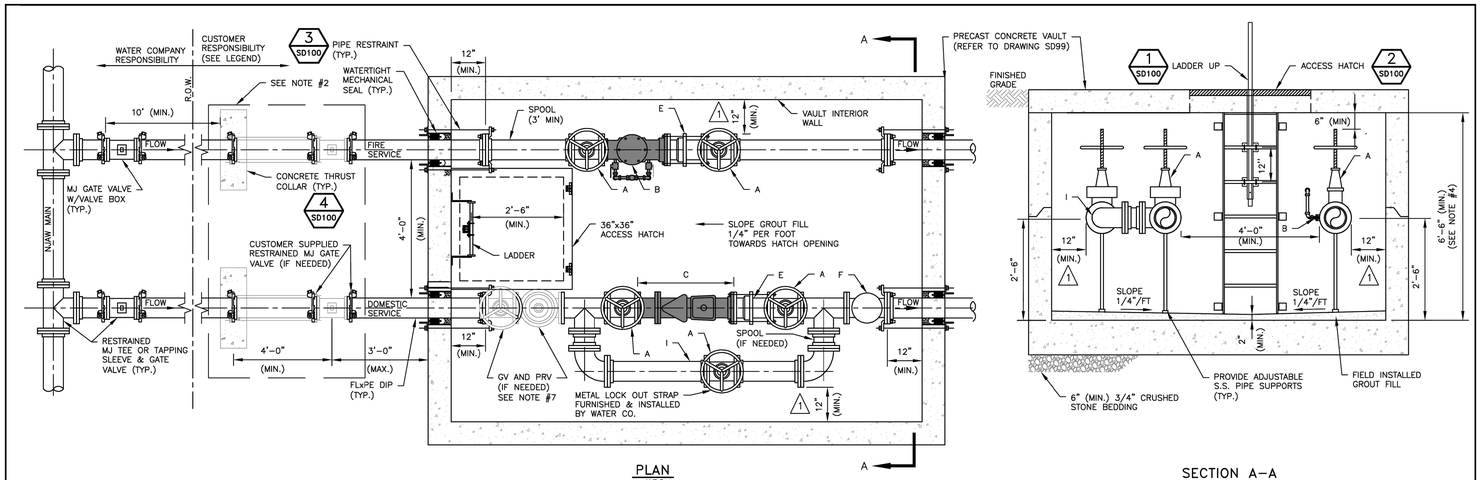
U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS6001.DWG





TYPICAL SERVICE LINE INSTALLATION

NEW JERSEY AMERICAN WATER COMPANY - FIELD SERVICE DEPARTMENT



PLAN
N.T.S.

SECTION A–A
N.T.S.

LEGEND:

COMPONENTS SHADED IN GRAY TO BE FURNISHED BY WATER CO.

A– OS&Y GATE VALVE WITH FLANGED ENDS (FURNISHED & INSTALLED BY CUSTOMER)

B– DETECTOR CHECK VALVE W/ BYPASS METER (FURNISHED BY WATER CO., INSTALLED BY CUSTOMER)

C– DOMESTIC COMPOUND METER ASSEMBLY– METERS WITH FLANGED ENDS (FURNISHED BY WATER CO., INSTALLED BY CUSTOMER)

E– DISMANTLING JOINT TO HAVE FLANGED ENDS WITH JOINT RESTRAINT (FURNISHED & INSTALLED BY CUSTOMER)

F– SWING CHECK WITH FLANGED ENDS (FURNISHED & INSTALLED BY CUSTOMER)

I– BYPASS SIZE SHALL BE NO GREATER THAN ONE STANDARD PIPE SIZE SMALLER THAN DOMESTIC SERVICE SIZE AND SHALL HAVE METAL STRAP FOR LOCKING OUT BYPASS VALVE (STRAP FURNISHED & INSTALLED BY WATER CO.)

BACKFLOW DEVICE:

A BACKFLOW DEVICE IS REQUIRED BY THE NJDEP. THE BACKFLOW DEVICE IS FURNISHED & INSTALLED BY CUSTOMER. THE BACKFLOW DEVICE CANNOT BE INSTALLED INSIDE THE VAULT OR ANY CONFINED SPACE. IT MAY BE INSTALLED IN AN INSULATED HEATED ABOVEGROUND ENCLOSURE OR INSIDE THE BUILDING. THE BACKFLOW DEVICE MUST BE PLACED BEFORE THE FIRST CONNECTION. IF IN BUILDING, LOCATION MUST BE APPROVED BY NJAW PRIOR TO ANY INSTALLATION. REFER TO DRAWING 0201-0601-SD93.

NOTES:

1. VAULTS ARE REQUIRED BY NJAW FOR LARGE METERS (3" & LARGER) AND ARE TO BE FURNISHED AND INSTALLED BY CUSTOMER. ACCESS TO VAULT VIA ALUMINUM 36"x36" BILCO PCM–4 TYPE, FLUSH, WATERTIGHT SIDEWALK DOOR W/ LADDER UP SAFETY POST OR EQUIVALENT. PLASTIC ENCASED STEEL OR ALUMINUM LADDER RUNGS CENTERED AT ONE FOOT (1') MUST BE PROVIDED. AREA AROUND VAULT MUST BE COMPLETELY WATERPROOFED. USE SOLID FLANGE & RODDING ON VALVES. ALL VAULT AND PIPING CONSTRUCTION IS SUBJECT TO WATER COMPANY APPROVAL PRIOR TO SERVICE.
2. IF VAULT IS >20 FEET FROM NJAW SHUTOFF VALVE, CUSTOMER IS REQUIRED TO FURNISH & INSTALL AN ADDITIONAL RESTRAINED MECHANICAL JOINT GATE VALVE & VALVE BOX WITHIN 3 FEET OF THE VAULT. IF VAULT IS <20 FEET FROM NJAW SHUTOFF VALVE, CUSTOMER SHALL INSTALL A SOLID, GASKETED, MECHANICAL JOINT SLEEVE RESTRAINED WITH WEDGE ACTION RESTRAINING GLANDS WITHIN 3 FEET OF VAULT.
3. EXTERIOR VALVES & FITTINGS SHALL BE RESTRAINED WITH WEDGE ACTION RESTRAINING GLANDS, THUST COLLARS AND/OR 304 STAINLESS STEEL RODS/NUTS AND CLAMPS.
4. BASED ON THE LARGEST SIZE GATE VALVE REQUIRED, THE MINIMUM VAULT HEIGHT (INTERIOR DIMENSION) SHALL BE AS FOLLOWS:

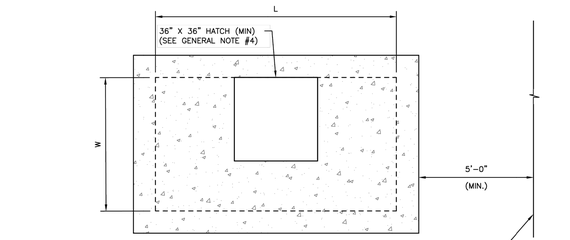
GV SIZE	VAULT HEIGHT
3" TO 8"	6'–6"
10"	7'–0"
12"	7'–6"

5. VAULT PIPING TO BE DUCTILE IRON MEETING ANSI/AWWA C115/A21.15, OR TYPE K DRAWN (HARD) TEMPER COPPER MEETING ASTM–B88.THE USE OF FLANGED COUPLING ADAPTERS IS STRICTLY PROHIBITED.
6. NO DETECTOR CHECK VALVES WILL BE MADE AVAILABLE TO THE CUSTOMER BY NJAW PRIOR TO THE INSPECTION BY NJAW.
7. THE CUSTOMER MUST INSTALL A WATER PRESSURE REDUCING VALVE WHERE REQUIRED BY STATE OF NEW JERSEY PLUMBING CODE. INSTALLATION RECOMMENDED WHERE AVERAGE PRESSURE IS GREATER THAN 80 PSI. WHERE A PRV IS REQUIRED IT SHALL BE PRECEDED BY AN ADDITIONAL OS&Y GATE VALVE.

NJ LICENSED PROFESSIONAL ENGINEER NO.	AMERICAN WATER ENGINEERING 3908 CHURCH RD. MT. LAUREL, NJ 08054 AMERICAN WATER	STANDARD DETAIL DOMESTIC & FIRE SERVICE METER VAULT	
	DRAWN BY R. BEATTY PROJECT ENG'R E. SCHWARTZ		
	DATE 08-24-18	NEW JERSEY AMERICAN WATER	USE DIMENSIONS ONLY SCALE NOT TO SCALE
	PROJECT	USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	0201–0601–SD89

02010601SD89

G:\acad\ACADCOM\NJ American Standard Details\02010601SD99.dwg, 11/29/2022 2:40:18 PM, DWG To PDF.pc3



METER VAULT PLAN

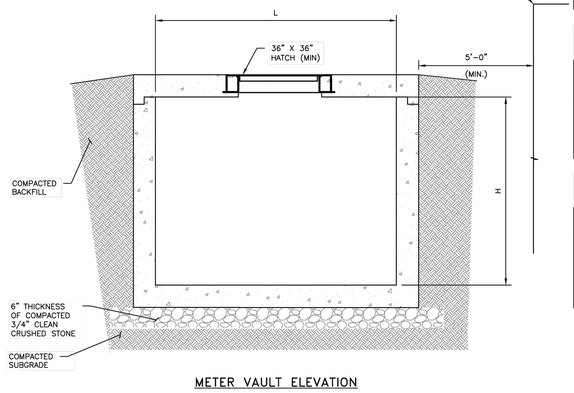
INTERIOR DIMENSIONS FOR FIRE & DOMESTIC METER VAULT (DWG SD89)						
	Without PRV Assembly			With PRV Assembly		
Service Size (in)	Length (ft)	Width (ft)	Height (ft)	Length (ft)	Width (ft)	Height (ft)
3	10.00	8.00	6.50	11.00	8.00	6.50
4	11.00	9.00	6.50	13.00	9.00	6.50
6	12.00	9.00	6.50	15.00	9.00	6.50
8	13.00	10.00	6.50	16.00	10.00	6.50
10	16.00	10.00	7.00	19.00	10.00	7.00

INTERIOR DIMENSIONS FOR DOMESTIC METER VAULT (DWG SD90)						
	Without PRV Assembly			With PRV Assembly		
Service Size (in)	Length (ft)	Width (ft)	Height (ft)	Length (ft)	Width (ft)	Height (ft)
3	10.00	7.00	6.50	11.00	7.00	6.50
4	11.00	7.00	6.50	13.00	7.00	6.50
6	12.00	8.00	6.50	15.00	8.00	6.50
8	13.00	8.00	6.50	16.00	8.00	6.50
10	16.00	8.00	7.00	19.00	8.00	7.00

INTERIOR DIMENSIONS FOR MULTI–USE METER VAULT (DWG SD92)						
	Without PRV Assembly			With PRV Assembly		
Service Size (in)	Length (ft)	Width (ft)	Height (ft)	Length (ft)	Width (ft)	Height (ft)
4	12.00	7.00	6.50	14.00	7.00	6.50
6	14.00	8.00	6.50	15.00	8.00	6.50
8	15.00	8.00	6.50	18.00	8.00	6.50
10	18.00	8.00	7.00	21.00	8.00	7.00

INTERIOR DIMENSIONS FOR FIRE METER VAULT (DWG SD91)			
Service Size	Length (ft)	Width (ft)	Height (ft)
3	7.00	7.00	6.50
4	7.00	7.00	6.50
6	8.00	7.00	6.50
8	5.00	7.00	6.50
10	5.00	8.00	7.00

STRUCTURE



METER VAULT ELEVATION

CONCRETE STRUCTURE NOTES:

1. PRECAST CONCRETE METER VAULT SHALL BE DESIGNED FOR THE FOLLOWING CONDITIONS STATED BELOW (1.1 THROUGH 1.5). SUBMIT CALCULATIONS TO NEW JERSEY AMERICAN WATER FOR REVIEW. ALL CALCULATIONS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE CONSTRUCTION IS TO TAKE PLACE.
   1.1. STRUCTURE FILLED TO TOP WITH NO EXTERNAL SOIL PRESSURE.
   1.2. STRUCTURE EMPTY WITH SOIL BACKFILL TO FINISHED GRADE. ASSUME SOIL DRY DENSITY AT 95 LBS/C.F. ASSUME SOIL SATURATED TO FINISHED GRADE.
   1.3. STRUCTURE SHALL NOT FLOAT WITH SATURATED SOIL TO FINISHED GRADE. ASSUME SOIL LOAD ON CONCRETE LIP AT 32 LBS/C.F. A SAFETY FACTOR OF 1.5 SHALL BE PROVIDED IN THE FLOATATION CALCULATIONS.
   1.4. SOIL BEARING PRESSURE OF 2,500 PSF.
   1.5. EFFECTS OF ALL VERTICAL LOADS ANTICIPATED ON THE FINISHED STRUCTURE SHALL BE INCLUDED IN THE ANALYSIS AND DESIGN. LOADING FROM PIPING AND EQUIPMENT, HOIST, SUPERSTRUCTURES, SNOW, H–20 LIVE LOAD, AND ACTUAL DEPTH OF SOIL COVER SHALL BE INCLUDED.
2. THE EXTERIOR OF ALL PRECAST PRODUCTS SHALL BE COATED WITH TWO COATS OF BITUMASTIC PAINT, 16 TO 20 MIL DFT, TO FINISHED GRADE. USE PROMASTIC 900 COAL TAR WATERPROOFING MANUFACTURED BY PROGUARD COATING, INC., OR APPROVED EQUAL.
3. ALL ALUMINUM IN CONTACT WITH CONCRETE SHALL BE PAINTED WITH 2 COATS OF COAL TAR EPOXY OR ISOLATED FROM THE CONCRETE WITH 1/8" THICK NEOPRENE PADDING. ALL STEEL THRUST RESTRAINT ANGLES SHALL BE WIRE BRUSHED AND PAINTED WITH 2 COATS OF COAL TAR EPOXY.
4. ALL CONCRETE ANCHORS AND HARDWARE SHALL BE STAINLESS STEEL.
5. PROVIDE COMMON KEYED LOCKS FOR ALL HATCHES, PANELS, DOORS AND QUICK DISCONNECT CAPS ASSOCIATED WITH THIS PROJECT.
6. ALL STRUCTURES SHALL BE WATERTIGHT.
7. DUAL SEAL II GASKETS DISTRIBUTED BY DUAL SEAL CORP., OR APPROVED EQUAL, SHALL MEET ASTM C923 REQUIREMENTS.
8. JOINTS IN STRUCTURE SHALL BE SEALED WITH BITUMEN CONSEAL CS–102–B JOINT SEALANT MATERIAL MANUFACTURED BY CONCRETE SEALANTS, INC AND MEET FEDERAL SPECIFICATION SS–S–00210 (210–A).
9. CONCRETE STRUCTURES SHALL MEET THE REQUIREMENTS OF ASTM C478. DESIGN SHALL FOLLOW ACI 318–14 USING LOAD FACTOR DESIGN.
10. CONCRETE: f'c = 4,000 PSI AT 28 DAYS. TYPE III CEMENT. AIR ENTRAINMENT 7% ± 2%. ASTM C33 NO. 57 OR NO. 67 COARSE AGGREGATE.
11. REINFORCEMENT: WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185. BAR REINFORCEMENT SHALL BE GRADE 60, CONFORMING TO ASTM A615.
12. VERTICAL BAR REINFORCEMENT REQUIRED BETWEEN BASE SLAB AND FIRST VERTICAL SECTION OF STRUCTURE.

GENERAL NOTES

1. THE VAULT DIMENSIONS NOTED ABOVE ARE APPROXIMATE MINIMUM REQUIREMENTS BASED ON THE EQUIPMENT AND LAYOUTS SHOWN ON DRAWINGS SD89 THROUGH SD92.
2. THE DESIGN ENGINEER SHALL MAKE HIS OWN DETERMINATION TO ENSURE THAT THE REQUIRED CLEARANCES NOTED ON THE METER VAULT DRAWINGS ARE ACHIEVED BASED ON THE ACTUAL SERVICE SIZE(S), EQUIPMENT AND FITTINGS PROPOSED.
3. THE TABLES PROVIDED ABOVE ARE BASED ON THE LARGEST SERVICE SIZE ENTERING THE METER VAULT.
4. THE MINIMUM ACCEPTABLE ACCESS HATCH SIZE IS 36" X 36". FOR MULTI–USE SERVICE SIZES 8" AND LARGER, A SECOND 48" X 72" HATCH SHALL BE PROVIDED AND CENTERED ABOVE THE MULTI–USE METER ASSEMBLY. THE HATCH TYPE(S) & INSTALLATION LOCATION(S) SHALL BE AS SHOWN ON DRAWINGS SD89 THROUGH SD92, UNLESS OTHERWISE APPROVED BY NJAW.
5. ACCESS INTO THE VAULT SHALL BE VIA AN OSHA COMPLIANT ALUMINUM LADDER EQUIPPED WITH AN APPROVED LADDER UP DEVICE.
6. THE FLOOR OF THE VAULT SHALL BE SLOPED TOWARDS THE HATCH TO ALLOW FOR PUMP OUT SHOULD THE NEED ARISE. GROUT FILL SHALL BE PLACED ON TOP OF THE PRECAST BASE AND SLOPED AT 1" PER FOOT TOWARDS THE HATCH OPENING. MINIMUM GROUT THICKNESS SHALL BE 2".

NEW JERSEY AMERICAN WATER

REVISIONS		REVISIONS	
1	REVISED DIMENSIONS R. BEATTY 11–29–22		

NJ LICENSED PROFESSIONAL ENGINEER NO.	AMERICAN WATER ENGINEERING 3908 CHURCH RD. MT. LAUREL, NJ 08054 AMERICAN WATER	STANDARD DETAIL METER VAULT	
	DRAWN BY R. BEATTY PROJECT ENG'R E. SCHWARTZ		
	DATE 08-24-18	NEW JERSEY AMERICAN WATER	USE DIMENSIONS ONLY SCALE NOT TO SCALE
	PROJECT	USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	0201–0601–SD99

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY

5/23/25
DATE OF SIGN.

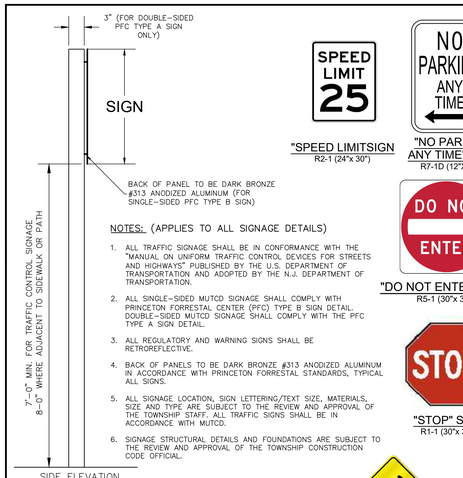
CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

UTILITY DETAILS SHEET 8
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN
PLAINSBORO TOWNSHIP MIDDLESEX CO., N.J.
SCALE N.T.S MAY 23, 2025

DRAWN BY AA DATE 5/23/25	FIELD BK	ORDER No.	PAGE No.	SHEET No.
CHECKED BY CG DATE 5/23/25	PAGE	WRNUL23001	96 OF 100	CS6008

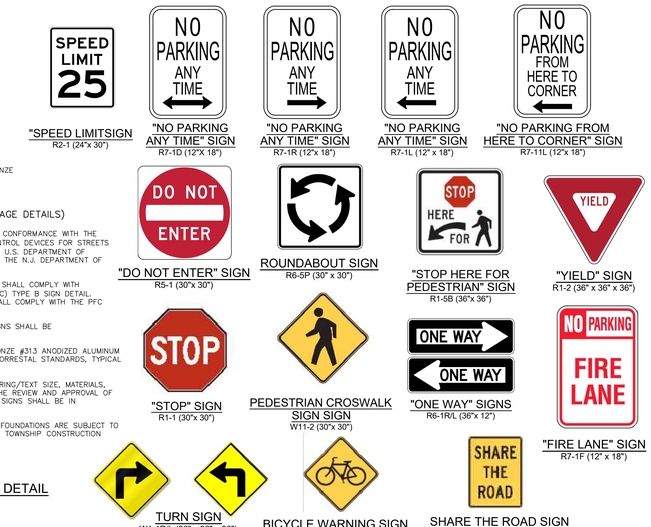
U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS6001.DWG



NOTES: (APPLIES TO ALL SIGNAGE DETAILS)

1. ALL TRAFFIC SIGNAGE SHALL BE IN CONFORMANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION AND ADOPTED BY THE N.J. DEPARTMENT OF TRANSPORTATION.
2. ALL SINGLE-SIDED MUTCD SIGNAGE SHALL COMPLY WITH PRINCETON FORRESTAL CENTER (PFC) TYPE B SIGN DETAIL. DOUBLE-SIDED MUTCD SIGNAGE SHALL COMPLY WITH THE PFC TYPE A SIGN DETAIL.
3. ALL REGULATORY AND WARNING SIGNS SHALL BE RETROREFLECTIVE.
4. BACK OF PANELS TO BE DARK BRONZE #313 ANODIZED ALUMINUM IN ACCORDANCE WITH PRINCETON FORRESTAL STANDARDS, TYPICAL ALL SIGNS.
5. ALL SIGNAGE LOCATION, SIGN LETTERING/TEXT SIZE, MATERIALS, SIZE AND TYPE ARE SUBJECT TO THE REVIEW AND APPROVAL OF THE TOWNSHIP STAFF. ALL TRAFFIC SIGNS SHALL BE IN ACCORDANCE WITH MUTCD.
6. SIGNAGE STRUCTURAL DETAILS AND FOUNDATIONS ARE SUBJECT TO THE REVIEW AND APPROVAL OF THE TOWNSHIP CONSTRUCTION CODE OFFICIAL.

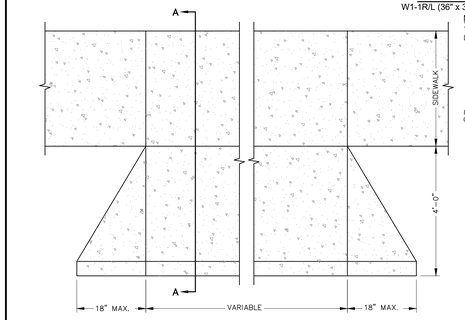
MUTCD SIGNAGE DETAIL
N.T.S.

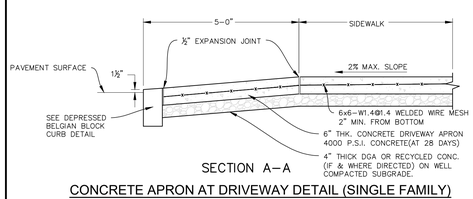


NOTES:

1. ALL SIGNAGE TO BE IN ACCORDANCE WITH "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (US DEPT. OF TRANSPORTATION, FEDERAL HIGHWAY SAFETY ADMINISTRATION) 2009 EDITION, REV. 1 MAY 2012, & REV. 2 MAY 2012.

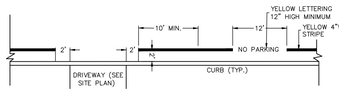
TRAFFIC SIGN DETAILS
NTS





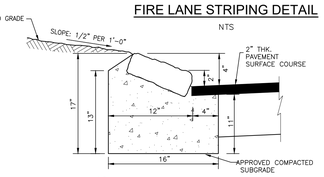
SECTION A–A

CONCRETE APRON AT DRIVEWAY DETAIL (SINGLE FAMILY)
NTS



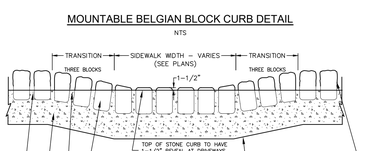
NOTES:
1. YELLOW STRIPE TO BE LONG LIFE EPOXY RESIN, LETTERING TO BE THERMOPLASTIC.
2. MINIMUM SEGMENT LENGTH BETWEEN "NO PARKING" LETTERING 50', MAXIMUM SEGMENT LENGTH 100'.

FIRE LANE STRIPING DETAIL
NTS



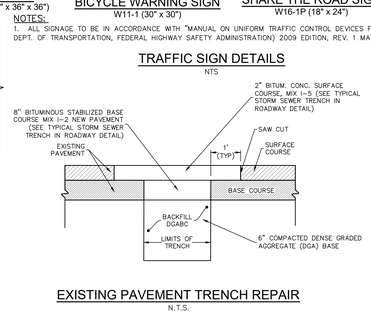
JOINTS TO BE 3/4" WIDE MAX. AND POINTED WITH NON-SHRINK CEMENT MORTAR.

MOUNTABLE BELGIAN BLOCK CURB DETAIL
NTS

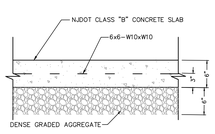


NOTES:
1. CONSTRUCT FULL DEPTH FOOTING AT CURB DEPRESSIONS SEE BELGIAN BLOCK CURB DETAIL, THIS SHEET. 1 1/2" FINISHED CURB REVEAL AT DRIVEWAYS.
2. MEASURES SHALL BE PROVIDED BY THE CONTRACTOR TO MAINTAIN THE CONCRETE TEMPERATURE BETWEEN 40°F AND 80°F DURING "COLD WEATHER" PERIODS.
3. FINISHED CURB SHALL NOT VARY FROM PRESCRIBED LINE AND GRADE MORE THAN 1/4" AT ANY POINT.
4. ALL NEW CURB ON PRIVATE PROPERTY AND IN THE MUNICIPAL RIGHT OF WAY SHALL BE BELGIAN BLOCK UNLESS DIRECTED BY THE ENGINEER.
5. ASPHALT SHALL NOT BE USED TO SET FORMS FOR CURBING.
6. FORMS FOR THE CURBING ARE TO BE FULL SIZE; 16" FOR THE BACK OF THE CURB AND 11" FOR THE FRONT OF THE CURB.
7. FULL SIZE BLOCKS ARE TO BE USED AT THE TRANSITION AREAS AND AT THE DEPRESSED CURB LOCATIONS. BROKEN OR CUT BLOCKS WILL NOT BE PERMITTED.

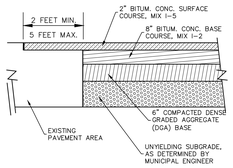
DEPRESSED BELGIAN BLOCK CURB AT DRIVEWAYS DETAIL
NTS



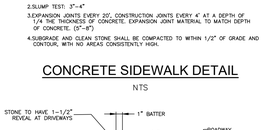
EXISTING PAVEMENT TRENCH REPAIR
N.T.S.



TRASH ENCLOSURE CONCRETE PAD DETAIL
NTS

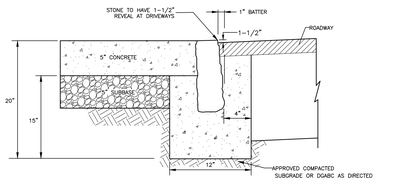


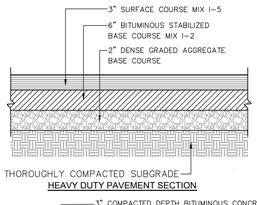
PAVEMENT KEY JOINT DETAIL
NTS



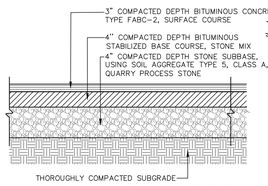
GENERAL NOTES
1. ANY CONCRETE PLACED BETWEEN NOVEMBER 15 AND APRIL 1 MUST CONFORM TO ARTICLES 501.11 AND 501.17 OF THE N.J.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 1996 EDITION, HOT WATER, COVERED W/SALT HAY.
2. SLUMP TEST: 3"–4"
3. EXPANSION JOINTS EVERY 20', CONSTRUCTION JOINTS EVERY 4' AT A DEPTH OF 1/4 THE THICKNESS OF CONCRETE. EXPANSION JOINT MATERIAL TO MATCH DEPTH OF CONCRETE. (5"–8")
4. SUBGRADE AND CLEAN STONE SHALL BE COMPACTED TO WITHIN 1/2" OF GRADE AND CONTOUR, WITH NO AREAS CONSISTENTLY HIGH.

CONCRETE SIDEWALK DETAIL
NTS

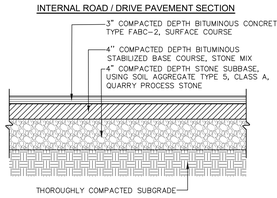




HEAVY DUTY PAVEMENT SECTION



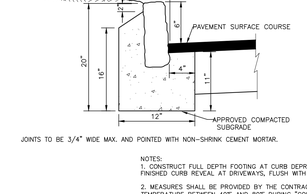
INTERNAL ROAD / DRIVE PAVEMENT SECTION



PARKING AREA PAVING SECTION

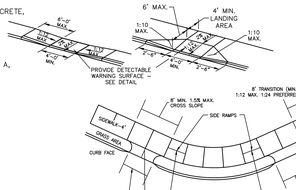
NOTES:
1. AGGREGATE BASE COURSE TO BE DENSE–GRADED AGGREGATE CONFORMING TO NJDOT 901.10, WITH LESS THAN 10 PERCENT FINER THAN THE NO. 200 SIEVE AND ALL FINES TO BE NON–PLASTIC.
2. SUBGRADE TO BE COMPACTED TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY, AS DETERMINED BY THE MODIFIED PROCTOR TEST, ASTM D 1557, AND SHALL CONSIST OF LOAD–BEARING FILL OR EXISTING STRATUM A MATERIALS CAPABLE OF ACHIEVING A CBR VALUE OF 5. THE MOISTURE CONTENT OF THE MATERIAL SHOULD ALSO BE MAINTAINED WITHIN +/– 2 PERCENT OF THE OPTIMUM MOISTURE CONTENT.
3. SOFT OR UNSTABLE SUBGRADES SHALL BE REMOVED FOR A DEPTH OF NOT LESS THAN SIX INCHES AND A SUBBASE OF DENSE GRADED AGGREGATE SHALL BE INSTALLED.

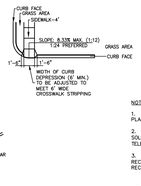
TYPICAL PAVEMENT SECTION DETAILS
NTS



JOINTS TO BE 3/4" WIDE MAX. AND POINTED WITH NON–SHRINK CEMENT MORTAR.

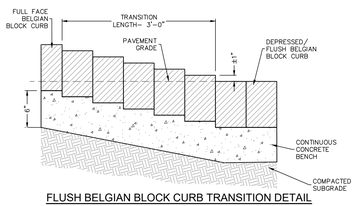
CONCRETE SIDEWALK DETAIL
NTS



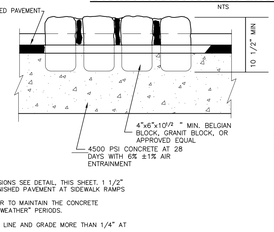


NOTES:
1. CURB REVEAL AT RAMP SHALL BE FLUSH WITH THE PAVEMENT.
2. RAMPS SHALL BE CONSTRUCTED WHERE DIRECTED BY THE ENGINEER.
3. RAMPS SHALL BE CLASS B 4500 PSI CONCRETE WITH 6% ± 1% AIR ENTRAINMENT; 4" THICK SIDEWALK, FULL DEPTH CURB.
4. CONCRETE TO BE PLACED AND CURED IN ACCORDANCE WITH THE PROCEDURES SPECIFIED HEREIN.
5. SLUMP TEST: 3"–4"
6. EXPANSION JOINTS EVERY 20 FT. AND CONSTRUCTION JOINTS EVERY 4 FT. WITH A DEPTH OF 1/4" THICKNESS OF CONCRETE.
7. THE PUBLIC SIDEWALK CURB RAMP DELINEATION SHALL BE PAINTED SAFETY RED IN COLOR AND BE FINISHED WITH A DETECTABLE WARNING SURFACE IN ACCORDANCE WITH ADA REQUIREMENTS & STANDARDS.

ACCESSIBLE SIDEWALK RAMPS DETAIL
NTS

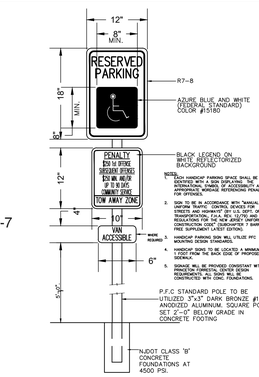


FLUSH BELGIAN BLOCK CURB TRANSITION DETAIL
NTS



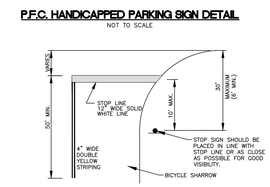
NOTES:
1. CONSTRUCT FULL DEPTH FOOTING AT CURB DEPRESSIONS SEE DETAIL, THIS SHEET. 1 1/2" FINISHED CURB REVEAL AT DRIVEWAYS, FLUSH WITH FINISHED PAVEMENT AT SIDEWALK RAMPS
2. MEASURES SHALL BE PROVIDED BY THE CONTRACTOR TO MAINTAIN THE CONCRETE TEMPERATURE BETWEEN 40°F AND 80°F DURING "COLD WEATHER" PERIODS.
3. FINISHED CURB SHALL NOT VARY FROM PRESCRIBED LINE AND GRADE MORE THAN 1/4" AT ANY POINT.
4. ALL NEW CURB ON PRIVATE PROPERTY AND IN THE MUNICIPAL RIGHT OF WAY SHALL BE BELGIAN BLOCK UNLESS DIRECTED BY THE ENGINEER.
5. ASPHALT SHALL NOT BE USED TO SET FORMS FOR CURBING.
6. FORMS FOR THE CURBING ARE TO BE FULL SIZE; 16" FOR THE BACK OF THE CURB AND 11" FOR THE FRONT OF THE CURB.
7. FULL SIZE BLOCKS ARE TO BE USED AT THE TRANSITION AREAS AND AT THE DEPRESSED CURB LOCATIONS. BROKEN OR CUT BLOCKS WILL NOT BE PERMITTED.

BELGIAN BLOCK CURB DETAIL
NTS

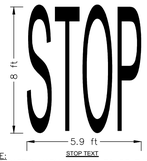


NOTES:
1. HANDICAP PARKING SPACE SHALL BE IDENTIFIED WITH A SIGN DEPICTING THE INTERNATIONAL SYMBOL OF ACCESS AND THE APPROPRIATE WORDAGE REFERENCING PENALTY FOR DEFACING.
2. SIGN TO BE IN ACCORDANCE WITH "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" (NJ U.S. DEPT. OF TRANSPORTATION, P.O. BOX 10,TRENTON, NJ 08625) AND THE NEW JERSEY BARRIER FREE CONSTRUCTION CODE (INCORPORATION 7 BARRIER FREE SUPPLEMENT LATEST EDITION).
3. HANDICAP PARKING SIGN SHALL UTILIZE PFC TYPE A SIGN DETAIL.
4. HANDICAP SIGNS TO BE LOCATED A MINIMUM OF 1 FOOT FROM THE BACK SIDE OF PROPOSED SIDEWALK.
5. SIGNAGE WILL BE PROVIDED CONSISTANT WITH PRINCETON FORRESTAL SIGNAGE DESIGN REQUIREMENTS. ALL SIGNS WILL BE CONSTRUCTED WITH CONC. FOUNDATIONS.

P.F.C. HANDICAPPED PARKING SIGN DETAIL
NOT TO SCALE

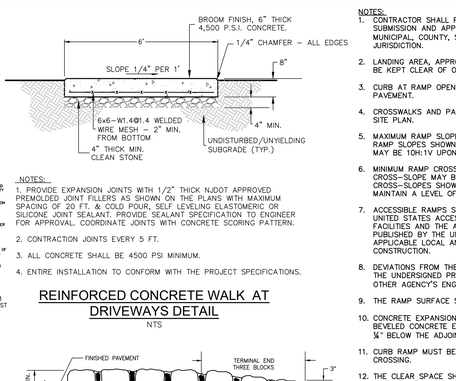


STOP LINE DETAIL
N.T.S.



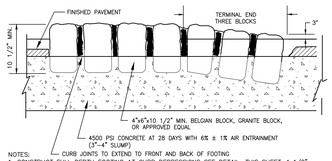
NOTE:
ALL TRAFFIC MARKINGS ARE TO BE THERMO PLASTIC.

STOP LETTERING DETAIL
NTS



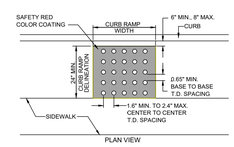
NOTES:
1. PROVIDE EXPANSION JOINTS WITH 1/2" THICK NJDOT APPROVED PREMOLDED JOINT FILLERS AS SHOWN ON THE PLANS WITH MAXIMUM SPACING OF 20 FT. & COLD POUR, SELF LEVELING ELASTOMERIC OR SILICONE JOINT SEALANT. PROVIDE SEALANT SPECIFICATION TO ENGINEER FOR APPROVAL. COORDINATE JOINTS WITH CONCRETE SCORING PATTERN.
2. CONTRACTION JOINTS EVERY 5 FT.
3. ALL CONCRETE SHALL BE 4500 PSI MINIMUM.
4. ENTIRE INSTALLATION TO CONFORM WITH THE PROJECT SPECIFICATIONS.

REINFORCED CONCRETE WALK AT DRIVEWAYS DETAIL
NTS



NOTES: CURB JOINTS TO EXTEND TO FRONT AND BACK OF FOOTING
1. CONSTRUCT FULL DEPTH FOOTING AT CURB DEPRESSIONS SEE DETAIL, THIS SHEET. 1 1/2" FINISHED CURB REVEAL AT DRIVEWAYS, FLUSH WITH FINISHED PAVEMENT AT SIDEWALK RAMPS
2. JOINTS TO BE CLEANED AND DAMP PRIOR TO POINTING.
3. MEASURES SHALL BE PROVIDED BY THE CONTRACTOR TO MAINTAIN THE CONCRETE TEMPERATURE BETWEEN 40°F AND 80°F DURING "COLD WEATHER" PERIODS.
4. FINISHED CURB SHALL NOT VARY FROM PRESCRIBED LINE AND GRADE MORE THAN 1/4" AT ANY POINT.
5. ALL NEW CURB ON PRIVATE PROPERTY AND IN THE MUNICIPAL RIGHT OF WAY SHALL BE BELGIAN BLOCK UNLESS DIRECTED BY THE ENGINEER.
6. ASPHALT SHALL NOT BE USED TO SET FORMS FOR CURBING.
7. FORMS FOR THE CURBING ARE TO BE FULL SIZE; 16" FOR THE BACK OF THE CURB AND 11" FOR THE FRONT OF THE CURB.
8. FULL SIZE BLOCKS ARE TO BE USED AT THE TRANSITION AREAS AND AT THE DEPRESSED CURB LOCATIONS. BROKEN OR CUT BLOCKS WILL NOT BE PERMITTED.
9. AT HANDICAP ACCESSIBLE RAMPS, ALL TRANSITIONS SHALL BE CONCRETE CURB.

BELGIAN BLOCK CURB END TRANSITION DETAIL
NTS



NOTES:
1. THE SYSTEM SHALL INCORPORATE RESILIENT RUBBER DOMES OF THE DIMENSIONS SHOWN ON THE PLANS AND IN ACCORDANCE WITH ADA REGULATIONS FOR DETECTABLE WARNING ON CURB RAMPS.
2. DETECTABLE WARNING SURFACES SHALL BE "CAST IN PLACE" SYSTEM AS MANUFACTURED BY ADA SOLUTIONS, INC. OR APPROVED EQUAL. (WWW.ADATILE.COM) P.O. BOX 3, NORTH BILLERICA, MA. TELEPHONE: 800–372–0519 (OR APPROVED EQUAL)
3. THE DETECTABLE WARNING SURFACES SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR SHALL PROVIDE A COPY OF THE MANUFACTURER'S RECOMMENDATIONS TO THE ENGINEER BEFORE INSTALLATION BEGINS.

DETECTABLE WARNING SURFACE DETAIL
NTS

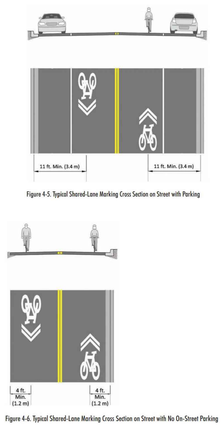
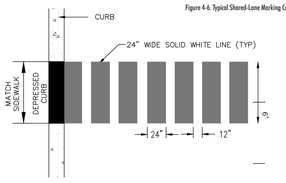


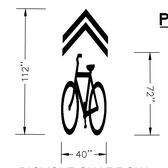
Figure 4-5. Typical Shared-Lane Marking Cross Section on Street with Parking

Figure 4-6. Typical Shared-Lane Marking Cross Section on Street with No On-Street Parking



NOTES:
1. THE SPACING DESIGN SHOULD AVOID THE WHEEL PATHS.
2. PROVIDE DETECTABLE WARNING SURFACE AT FLUSH CURBS.
3. THERMOPLASTIC PAINT SHALL BE USED FOR ALL CROSSWALKS

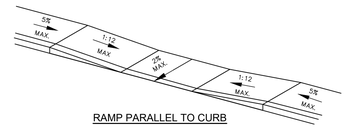
CROSSWALK STRIPING DETAILS
NTS



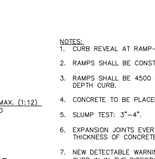
BICYCLE SHARROW DETAIL AND PLACEMENT
NTS

NOTES:
1. CONTRACTOR SHALL PREPARE SHOP DRAWINGS OF EACH CURB RAMP FOR SUBMISSION AND APPROVAL OF THE UNDERSIGNED PROFESSIONAL AND MUNICIPAL, COUNTY, STATE OR OTHER AGENCY'S ENGINEER HAVING JURISDICTION.
2. LANDING AREA, APPROACH SIDEWALK TRANSITIONS AND CURB RAMP SHALL BE KEPT CLEAR OF OBSTRUCTIONS.
3. CURB AT RAMP OPENING (FLUSH CURB) TO BE FLUSH WITH ROADWAY PAVEMENT.
4. CROSSWALKS AND PAVEMENT MARKINGS TO BE INSTALLED AS DENOTED ON SITE PLAN.
5. MAXIMUM RAMP SLOPE MAY BE 12H:1V UPON APPROVAL OF ENGINEER. RAMP SLOPES SHOWN ARE THE PREFERRED SLOPE. SIDE FLARE SLOPES MAY BE 10H:1V UPON APPROVAL OF THE ENGINEER.
6. MINIMUM RAMP CROSS–SLOPE SHALL BE 0.50% THE MAXIMUM RAMP CROSS–SLOPE MAY BE 2.00% UPON APPROVAL OF THE ENGINEER. CROSS–SLOPES SHOWN IN THE DETAILS ARE THE PREFERRED SLOPES TO MAINTAIN A LEVEL OF CONSTRUCTION TOLERANCE.
7. ACCESSIBLE RAMPS SHALL BE INSTALLED PURSUANT WITH THE CURRENT UNITED STATES ACCESS BOARD ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES AND THE ADA STANDARDS FOR ACCESSIBLE DESIGN AS PUBLISHED BY THE UNITED STATES DEPARTMENT OF JUSTICE AND OTHER APPLICABLE LOCAL AND STATE STANDARDS IN EFFECT AT THE DATE OF CONSTRUCTION.
8. DEVIATIONS FROM THE CURB RAMP DETAILS REQUIRE WRITTEN APPROVAL OF THE UNDERSIGNED PROFESSIONAL AND THE MUNICIPAL, COUNTY STATE OR OTHER AGENCY'S ENGINEER HAVING JURISDICTION.
9. THE RAMP SURFACE SHALL HAVE A NON–SLIP, HAND BROOMED FINISH.
10. CONCRETE EXPANSION JOINTS SHALL HAVE A FIRM SURFACE WITH ¼" BEVELED CONCRETE EDGES. THE JOINT SURFACE SHALL NOT BE MORE THAN ¼" BELOW THE ADJOINING CONCRETE SURFACE.
11. CURB RAMP MUST BE WHOLLY CONTAINED WITHIN THE CROSSWALK CROSSING.
12. THE CLEAR SPACE SHALL BE INCREASED TO 5 FEET WHERE THE TURNING SPACE IS CONSTRAINED AT THE BACK OF THE SIDEWALK.
13. THE MAXIMUM SEPARATION BETWEEN THE BACK OF CURB AND DETECTABLE WARNING SURFACE SHALL NOT EXCEED 5 FEET. THE MAXIMUM SEPARATION AREA MAY BE WITHIN THE 4'X4' CLEAR ZONE.
14. SEE SEPARATE DETAILS FOR "DETECTABLE WARNING SURFACE" AND "CURB RAMP SECTIONS".
15. WHERE SIDE FLARES AREA NOTE REQUIRED, PROVIDE AN 18" CURB TAPER TO THE FLUSH CURB.

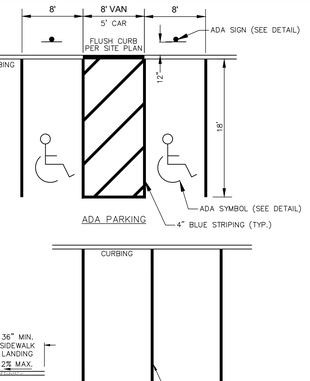
ACCESSIBLE CURB RAMP NOTES
NTS



RAMP PARALLEL TO CURB

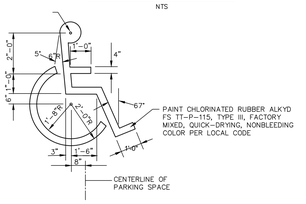


RAMP PERPENDICULAR TO CURB



NOTES:
STRIPING SHALL BE PAINT CHLORINATED RUBBER ALKYDFS TT–P–115, TYPE III, FACTORY MIXED, QUICK–DRYING, NONBLEEDING

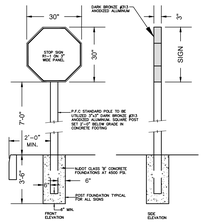
PARKING STRIPING DETAILS
NTS

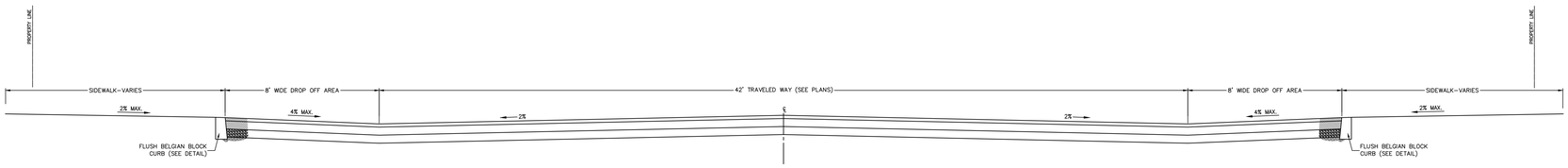


ADA PARKING SPACE SYMBOL DETAIL
N.T.S.

NOTES:
1. CURB REVEAL AT RAMP–FLUSH WITH PAVEMENT.
2. RAMPS SHALL BE CONSTRUCTED WHERE DIRECTED BY THE ENGINEER.
3. RAMPS SHALL BE 4500 PSI CONCRETE WITH 6% ± 1% AIR ENTRAINMENT; 5" THICK SIDEWALK, FULL DEPTH CURB.
4. CONCRETE TO BE PLACED AND CURED IN ACCORDANCE WITH THE PROCEDURES SPECIFIED HEREIN.
5. SLUMP TEST: 3"–4"
6. EXPANSION JOINTS EVERY 20 FT. AND CONSTRUCTION JOINTS EVERY 4 FT. WITH A DEPTH OF 1/4 THICKNESS OF CONCRETE.
7. NEW DETECTABLE WARNING SURFACE TO RUN ENTIRE WIDTH OF RAMP AND EXTEND 2' FROM 6" BEHIND CURB IN IN THE DIRECTION OF TRAVEL (IF REQUIRED).

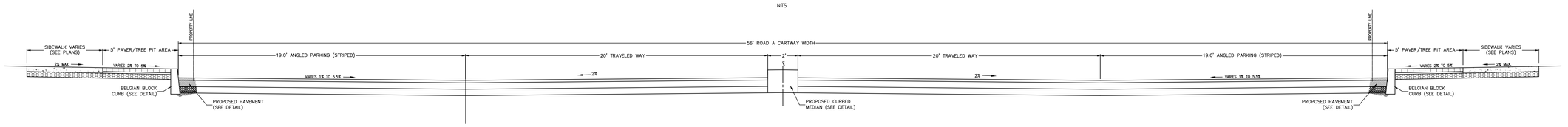
HANDICAP RAMP DETAILS
N.T.S.


30"
DARK BRONZE #313 ANODIZED ALUMINUM
STOP NON–ASTM D 4956–03 MUC R1A2
30"
3½
SIGN
7'–0"
2'–0" MIN.
P.F.C STANDARD POLE TO BE UTILIZED 3"x3" DARK BRONZE #313



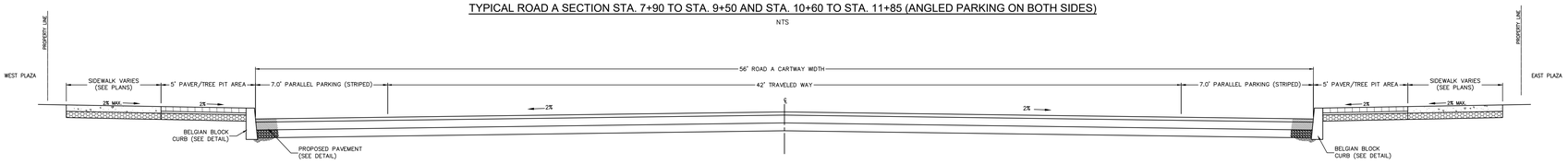
TYPICAL ROAD A SECTION STA. 9+51.2 TO STA. 10+51.3 (NO PARKING)

NTS



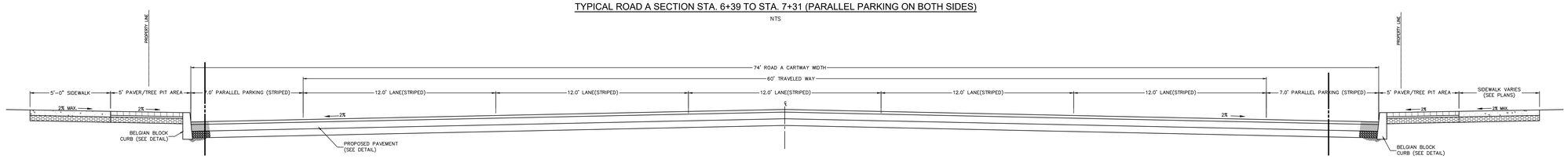
TYPICAL ROAD A SECTION STA. 7+90 TO STA. 9+50 AND STA. 10+60 TO STA. 11+85 (ANGLED PARKING ON BOTH SIDES)

NTS



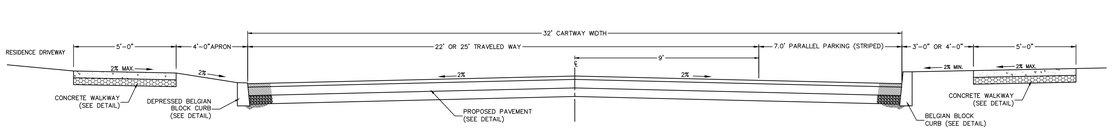
TYPICAL ROAD A SECTION STA. 6+39 TO STA. 7+31 (PARALLEL PARKING ON BOTH SIDES)

NTS



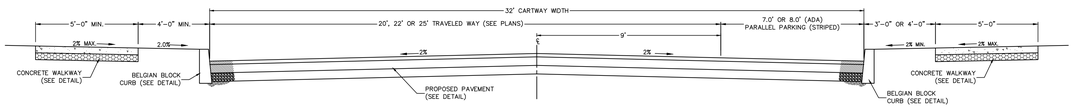
TYPICAL ROAD A SECTION STA. 3+82.3 TO STA. 4+97.32 (PARALLEL PARKING ON BOTH SIDES)

NTS



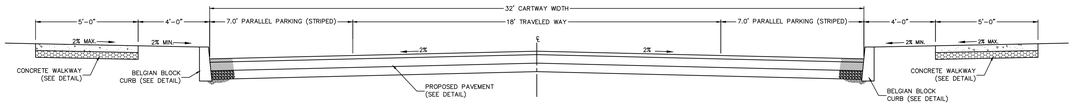
ROAD B STA. 6+95.23 TO STA. 9+71.20
ROAD L STA. 0+00 TO STA. 2+82
ALLEY 11 STA. 1+70 TO STA. 2+26
TYPICAL ROADWAY SECTION (PARALLEL PARKING ONE SIDE AND OPPOSITE DRIVEWAY)

NTS



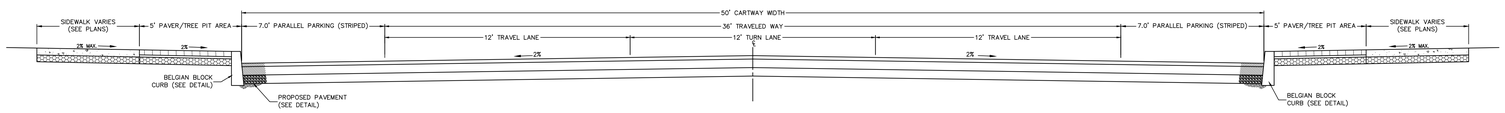
ROADS B, D, G, O AND N
TYPICAL ROADWAY SECTION (PARALLEL PARKING ONE SIDE AND FULL REVEAL CURB)

NTS



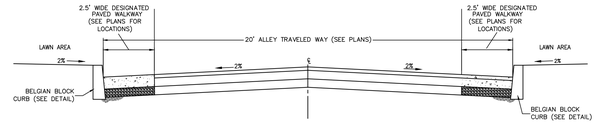
ROADS A, B, C, D, E, F, H, K, N AND P AND ALLEY 11
TYPICAL ROADWAY SECTION (PARALLEL PARKING ON BOTH SIDES)

NTS



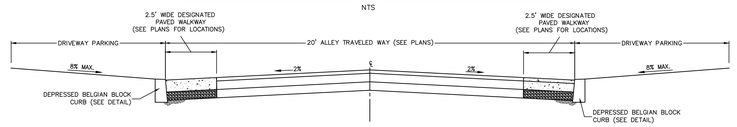
ROAD D STA. 7+50 TO STA. 8+89.65 AND STA. 10+25.66 TO STA. 12+36.63
TYPICAL ROADWAY SECTION (PARALLEL PARKING ON BOTH SIDES)

NTS



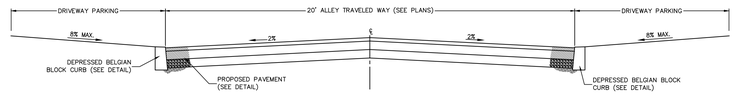
TYPICAL ALLEY SECTION (FULL REVEAL CURB; NO DRIVEWAYS)

NTS



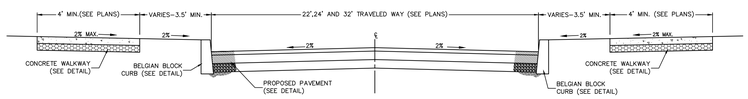
TYPICAL ALLEY SECTION (WITH WALKWAY)

NTS



TYPICAL ALLEY SECTION (RESIDENCE DRIVEWAYS ON BOTH SIDES)

NTS



TYPICAL ROADWAY SECTION (ALL ROAD SECTIONS WITH NO PARKING)

NTS

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
5	REV. PER DRC#2 MEMOS	5/23/25		
4	REV. PER DRC#1 MEMOS	4/18/25		
3	REV. COMPLETENESS SUBMISSION	1/16/25		
2	PER TOWNSHIP REVIEW	9/27/24		
1	PER CLIENT REVISIONS	7/19/24		

6/14/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

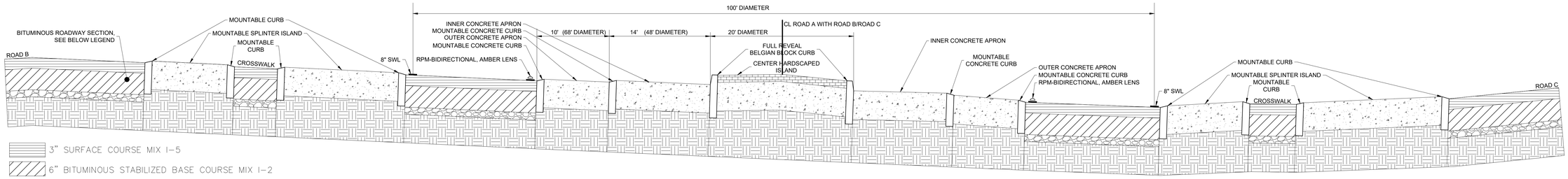
van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

SITE DETAILS SHEET 10
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN

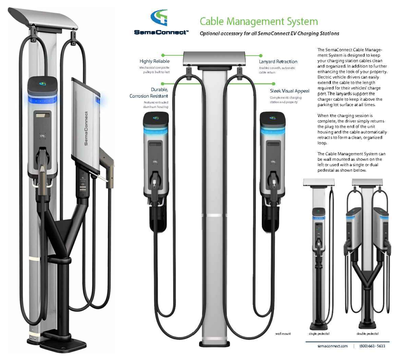
PLAINSBORO TOWNSHIP
SCALE N.T.S
MIDDLESEX CO., N.J.
JUNE 14, 2024

DRAWN BY	WDV	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE	6/14/24				
CHECKED BY	CG	PAGE	WRNUL23001	98 OF 100	CS6010
DATE	6/14/24				

U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS6001.DWG

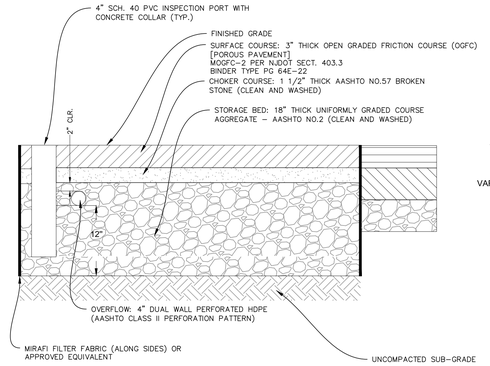


ROUNDABOUT AND SPLITTER ISLAND CROSS SECTION (NTS)
STA. 24+00 TO STA. 26+14 (ROAD B & ROAD C)

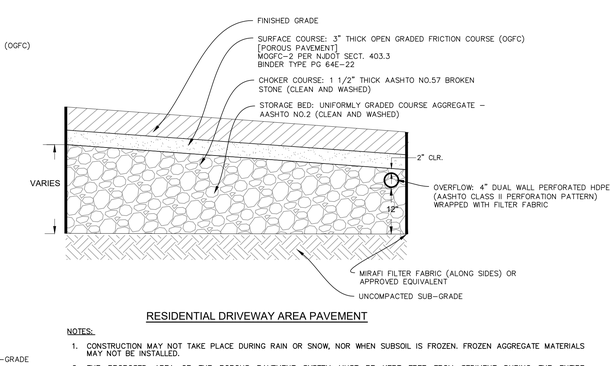


NOTES:
1. CHARGING STATION TO BE DOUBLE-PEDESTAL SEMACONNECT SERIES 6 SMART EV CHARGING STATION (208/240 V; LEVEL 2) OR SIMILAR
2. WIDTH: 40 IN.; HEIGHT: 60 IN.; DEPTH: 18 IN..
3. PUBLICLY ACCESSIBLE EVSE SHALL HAVE POSTED REGULATORY SIGNS, AS IDENTIFIED IN THIS SECTION, ALLOWING ONLY CHARGING ELECTRIC VEHICLES TO PARK IN SUCH SPACES. FOR PURPOSES OF THIS SECTION, "CHARGING" MEANS THAT AN ELECTRIC VEHICLE IS PARKED AT AN EVSE AND IS CONNECTED TO THE EVSE. IF TIME LIMITS OR VEHICLE REMOVAL PROVISIONS ARE TO BE ENFORCED, REGULATORY SIGNS INCLUDING PARKING RESTRICTIONS SHALL BE INSTALLED IMMEDIATELY ADJACENT TO AND VISIBLE FROM THE EVSE. FOR PRIVATE EVSE, INSTALLATION OF SIGNS AND SIGN TEXT IS AT THE DISCRETION OF THE OWNER.
4. ALL REGULATORY SIGNS SHALL COMPLY WITH VISIBILITY, LEGIBILITY, SIZE, SHAPE, COLOR, AND REFLECTIVITY REQUIREMENTS CONTAINED WITHIN THE FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AS PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.
5. WAYFINDING OR DIRECTIONAL SIGNS, IF NECESSARY, SHALL BE PERMITTED AT APPROPRIATE DECISION POINTS TO EFFECTIVELY GUIDE MOTORISTS TO THE EVSE PARKING SPACE(S). WAYFINDING OR DIRECTIONAL SIGNAGE SHALL BE PLACED IN A MANNER THAT SHALL NOT INTERFERE WITH ANY PARKING SPACE, DRIVE LANE, OR EXIT AND SHALL COMPLY WITH SUBSECTION F(5)(B)
6. IN ADDITION TO THE SIGNAGE DESCRIBED ABOVE, THE FOLLOWING INFORMATION SHALL BE AVAILABLE ON THE EVSE OR POSTED AT OR ADJACENT TO ALL PUBLICLY ACCESSIBLE EVSE PARKING SPACES:
   - HOURS OF OPERATIONS AND/OR TIME LIMITS IF TIME LIMITS OR TOWAWAY PROVISIONS ARE TO BE ENFORCED BY THE MUNICIPALITY OR OWNER/DESIGNEE;
   - USAGE FEES AND PARKING FEES, IF APPLICABLE; AND
   - CONTACT INFORMATION (TELEPHONE NUMBER) FOR REPORTING WHEN THE EQUIPMENT IS NOT OPERATING OR OTHER PROBLEMS

VEHICLE CHARGING STATION
NTS

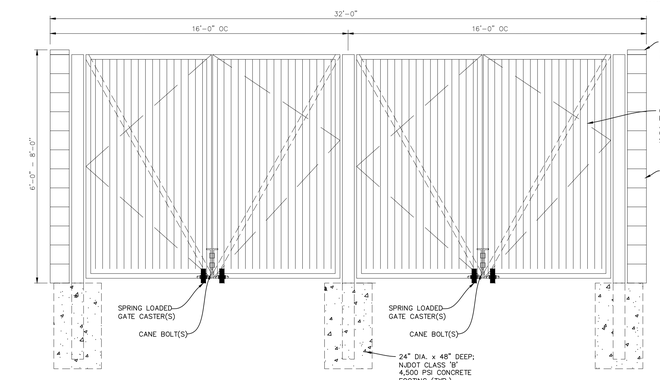


PARKING AREA PAVEMENT

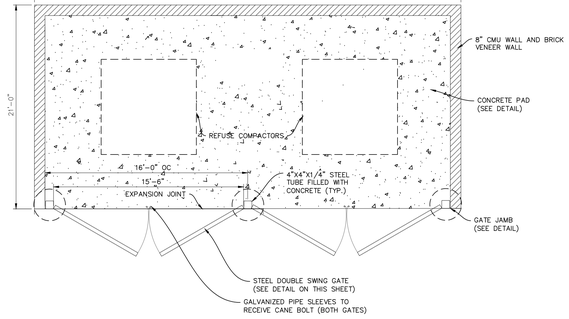


RESIDENTIAL DRIVEWAY AREA PAVEMENT

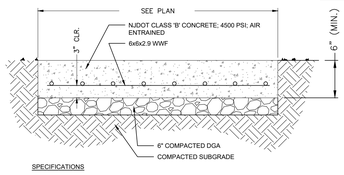
NOTES:
1. CONSTRUCTION MAY NOT TAKE PLACE DURING RAIN OR SNOW, NOR WHEN SUBSOIL IS FROZEN. FROZEN AGGREGATE MATERIALS MAY NOT BE INSTALLED.
2. THE PROPOSED AREA OF THE POROUS PAVEMENT SYSTEM MUST BE KEPT FREE FROM SEDIMENT DURING THE ENTIRE CONSTRUCTION PROCESS. CONSTRUCTION MATERIALS CONTAMINATED BY SEDIMENTS MUST BE REMOVED AND REPLACED WITH CLEAN MATERIALS.
3. THE LOCATION OF THE POROUS PAVEMENT SYSTEM SHOULD NOT BE USED TO PROVIDE SEDIMENT CONTROL DURING CONSTRUCTION, HOWEVER, WHEN UNAVOIDABLE, THE BOTTOM OF THE SEDIMENT CONTROL BASIN MST BE AT LEAST 2 FEET ABOVE THE FINAL DESIGN ELEVATION OF THE BOTTOM OF THE STORAGE BED IN THE PERVIOUS PAVING SYSTEM.
4. THE EXCAVATION TO THE FINAL DESIGN ELEVATION OF THE STORAGE BED MAY ONLY OCCUR AFTER ALL CONSTRUCTION WITHIN ITS CONTRIBUTORY DRAINAGE AREA IS COMPLETED AND THE DRAINAGE AREA IS STABILIZED. IF CONSTRUCTION CANNOT BE DELAYED, DURING ALL PHASES OF CONSTRUCTION ALL FLOWS MUST BE DIVERTED AWAY FROM THE PERVIOUS PAVING SYSTEM. THE DIVERSIONS MAY NOT BE REMOVED UNTIL ALL CONSTRUCTION WITHIN THE CONTRIBUTORY DRAINAGE AREA IS COMPLETED AND THE AREA IS STABILIZED.
5. THE CONTRIBUTORY DRAINAGE AREA MUST BE COMPLETELY STABILIZED PRIOR TO PERVIOUS PAVING SYSTEM USE.
6. SNOW AND ICE, MAY NOT BE STOCKPILED ON THE POROUS PAVEMENT AREA.
7. PIPE JOINTS SHALL BE WATERTIGHT.
8. STORAGE BED AGGREGATE MUST BE PLACES IN LIFTS AND COMPACTED USING PLATE COMPACTORS. THE MAXIMUM RECOMMENDED LOOSE LIFT THICKNESS IS 6-INCHES.
9. THE ASPHALT SHOULD BE ROLLED WITH 2 TO 3 PASSES WITH A 10-TON ROLLER. AFTER FINAL ROLLING, VEHICULAR US IS PROHIBITED FOR AT LEAST 48 HOURS.



GATE ELEVATION VIEW

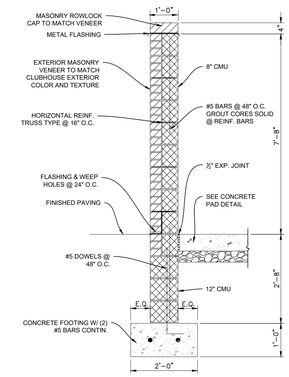


PLAN VIEW

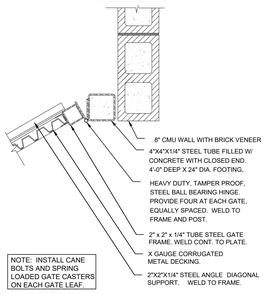


SPECIFICATIONS
1. EXPANSION JOINTS SHALL BE AT 15 FT C.C. MAXIMUM. EXPANSION JOINT LOCATIONS SHALL APPROVED BY ENGINEER/OWNER.
2. EXPANSION JOINT SHALL BE 1/2" MASTIC MATERIAL OR APPROVED EQUAL.
3. ALL EXPANSION JOINTS SHALL RECEIVE A BACKER ROD AND COLORED NON-SHRINK SEALER TO MATCH CONCRETE; SIKA OR EQUAL.

TRASH ENCLOSURE CONCRETE PAD



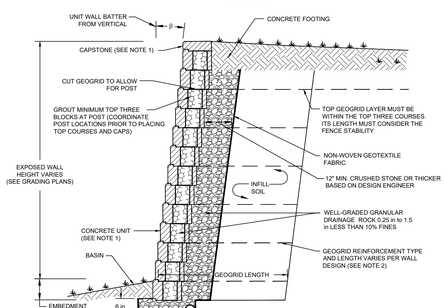
TRASH ENCLOSURE WALL



NOTE: INSTALL CANE BOLTS AND SPRING LOADED GATE CASTERS ON EACH GATE LEAF.

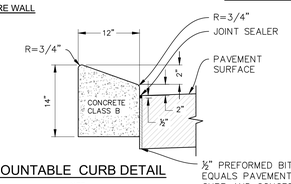
TRASH ENCLOSURE SWING GATE JAMB VIEW

TRASH ENCLOSURE AND LOADING SCREEN WALL DETAILS
N.T.S.



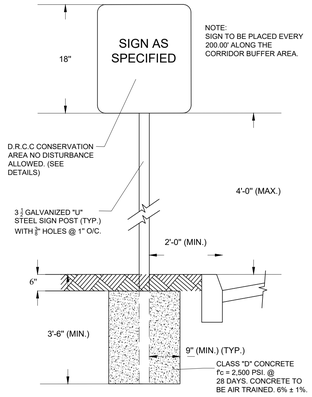
NOTES:
1. PROVIDE SHOP DRAWINGS FOR CONCRETE BLOCK UNIT TYPES, CAPSTONE AND COLORS TO BE REVIEWED BY THE ENGINEER/OWNER. FINAL UNIT TYPE AND COLOR SHALL BE SELECTED BY OWNER. CONTRACTOR TO COORDINATE.
2. PROVIDE NJPE SIGNED AND SEALED SHOP DRAWINGS FOR WALL DESIGN TO ENGINEER AND TO TOWNSHIP BUILDING DEPARTMENT FOR REVIEW AND APPROVAL.
3. 4 in DRAIN PIPE SHALL BE VENTED TO DAYLIGHT OR CONNECTED TO THE NEAREST STROM STRUCTURE AT HIGHEST ELEVATION PER PIPE MANUFACTURER'S MINIMUM COVER REQUIREMENTS.

SEGMENTAL CONCRETE UNIT RETAINING WALL DETAIL
NTS



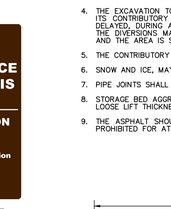
MOUNTABLE CURB DETAIL
NTS

½" PREFORMED BITUMINOUS JOINT FILLER, DEPTH OF FILLER STRIP EQUALS PAVEMENT THICKNESS LESS 1/2" TO BE INSTALLED BETWEEN CURB AND CONCRETE PAVEMENT OR CONCRETE BASE COURSE



NOTE: SIGN TO BE PLACED EVERY 200.00' ALONG THE CORRIDOR BUFFER AREA.

TYPICAL SIGN POST DETAIL



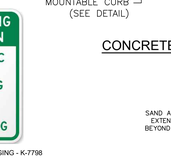
"NO DISTURBANCE BEYOND THIS POINT" SIGN

DRCC SIGNAGE DETAILS
NTS



NOTE:
1. EV CHARGING SYMBOL SHALL BE "GREEN" LONG-LIFE THERMOPLASTIC MATERIAL.

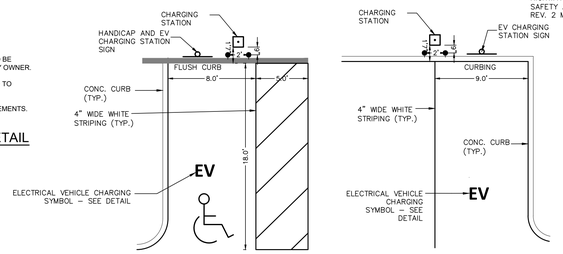
EV CHARGING SYMBOL DETAIL
N.T.S.



ELECTRIC VEHICLE CHARGING - K-7798
(12" X 18")

EV CHARGING STATION SIGN DETAIL
NOT TO SCALE

NOTE:
1. ALL SIGNAGE TO BE IN ACCORDANCE WITH "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (US DEPT. OF TRANSPORTATION, FEDERAL HIGHWAY SAFETY ADMINISTRATION) 2009 EDITION, REV. 1 MAY 2012, & REV. 2 MAY 2012.



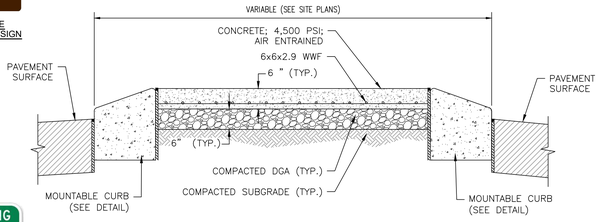
ADA EV SPACE

STANDARD SPACE

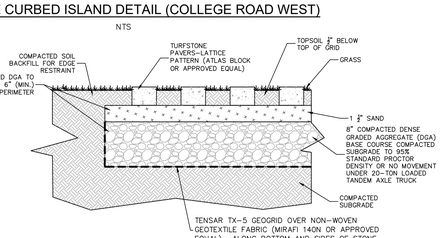
NOTE:
1. ALL TRAFFIC STRIPING AND SYMBOLS SHALL BE LONG-LIFE THERMOPLASTIC MATERIAL.

EV CHARGING STATION AND STRIPING DETAIL
NOT TO SCALE

POROUS ASPHALT PAVEMENT DETAILS
NTS



CONCRETE CURBED ISLAND DETAIL (COLLEGE ROAD WEST)
NTS



NOTES:
1. THE ACCESS TURF SHALL BE CAPABLE OF SUPPORTING A 30-TON VEHICLE.
2. PRODUCT TO BE CLAYTON GRASSTONE OR APPROVED EQUAL.

STABILIZED BASIN ACCESS - CONCRETE GRASS PAVERS DETAIL
NTS

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
5	REV. PER DRC#2 MEMOS	5/23/25		
4	REV. PER DRC#1 MEMOS	4/18/25		
3	REV. DRCC SUBMISSION	1/22/25		
2	REV. COMPLETENESS SUBMISSION	1/16/2025		
1	REV. PER DRC#1 MEMOS	4/18/25		

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com
www.pennoni.com
Certificate of Authorization No. 24GA28033300

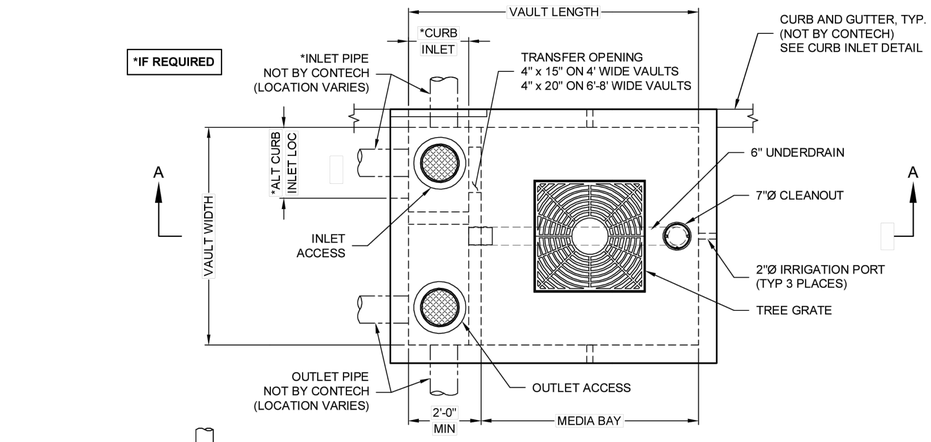
SITE DETAILS SHEET 11
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN
PLAINSBORO TOWNSHIP
MIDDLESEX CO., N.J.
SCALE N.T.S
SEPTEMBER 27, 2024

9/27/24
DATE OF SIGN.

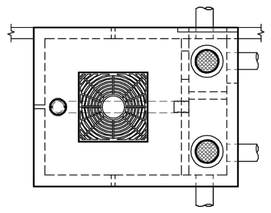
CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

DRAWN BY WDV	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE 9/27/24				
CHECKED BY CG	PAGE	WRNUL23001	99 OF 100	CS6011
DATE 9/27/24				

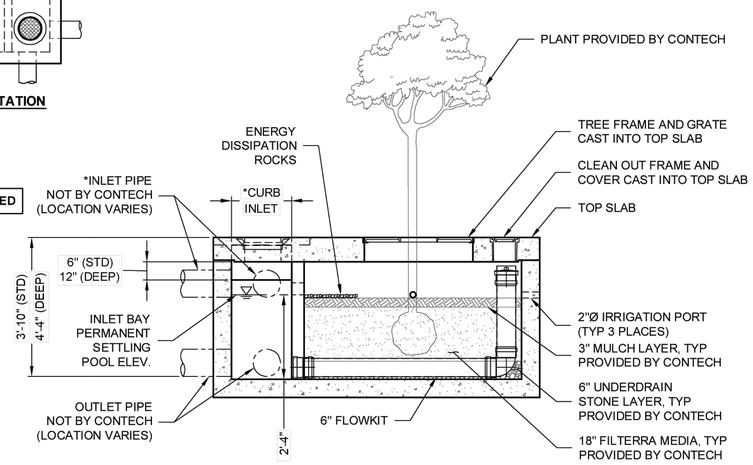
U:\ACCOUNTS\WRNUL\WRNUL23001 – WRV PRINCETON NURSERIES – PLAINSBORO\DESIGN_SHEETS\CS6001.DWG



PLAN VIEW



ALTERNATE ORIENTATION



SECTION A-A
(STANDARD DEPTH SHOWN)

INTERNAL PIPE CONFIGURATION MAY VARY DEPENDING UPON OUTLET LOCATION.

FTPD-HC STANDARD HEIGHT CONFIGURATION

DESIGNATION (OPTIONS: -P, -T, -PT)	DESIGNATION (OPTIONS: -P, -T, -PT)	MEDIA BAY SIZE	VAULT SIZE (W x L)	WEIR LENGTH/ MAX CURB OPENING	*MAX BYPASS FLOW (CFS)	INLET/ OUTLET ACCESS DIA	TREE GRATE QTY & SIZE
FTPD0404-HC	ALL	4 x 4	4 x 6	1'-8"	1.4	12"/12"	(1) 3' x 3'
FTPD0406-HC	N/A DE, MD, NJ, PA, VA, WV	4 x 6	4 x 8	1'-8"	1.4	12"/12"	(1) 3' x 3'
FTPD045058-HC	DE, MD, NJ, PA, VA, WV ONLY	4.5 x 5.83	4.5 x 7.83	1'-8"	1.4	12"/12"	(1) 3' x 3'
FTPD0604-HC	ALL	6 x 4	6 x 6	1'-8"	1.4	12"/12"	(1) 3' x 3'
FTPD0606-HC	ALL	6 x 6	6 x 8	1'-8"	1.4	12"/12"	(1) 3' x 3'
FTPD0608-HC	ALL	6 x 8	6 x 10	1'-8"	1.4	12"/12"	(1) 4' x 4'
FTPD0610-HC	ALL	6 x 10	6 x 12	1'-8"	1.4	12"/12"	(1) 4' x 4'
FTPD0710-HC	ALL	7 x 10	7 x 13	2'-6"	2.1	24"/24"	(1) 4' x 4'
FTPD08105-HC	ALL	8 x 10.5	8 x 14	3'-0"	2.5	24"/24"	(1) 4' x 4'
FTPD08125-HC	N/A OR, WA	8 x 12.5	8 x 16	3'-0"	2.5	24"/24"	(2) 4' x 4'
FTPD09115-HC	OR, WA ONLY	9 x 11.5	9 x 15	3'-0"	2.5	24"/24"	(2) 4' x 4'

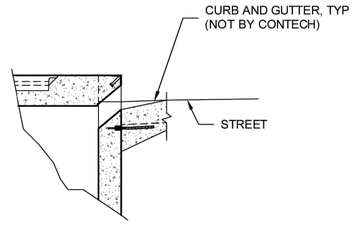
N/A = NOT AVAILABLE

FTPD-D-HC DEEP OPTION CONFIGURATION

DESIGNATION (OPTIONS: -P, -T, -PT)	AVAILABILITY	MEDIA BAY SIZE	VAULT SIZE (W x L)	WEIR LENGTH/ MAX CURB OPENING	*MAX BYPASS FLOW (CFS)	INLET/ OUTLET ACCESS DIA	TREE GRATE QTY & SIZE
FTPD0404-D-HC	ALL	4 x 4	4 x 6	1'-8"	4.6	12"/12"	(1) 3' x 3'
FTPD0406-D-HC	N/A DE, MD, NJ, PA, VA, WV	4 x 6	4 x 8	1'-8"	4.6	12"/12"	(1) 3' x 3'
FTPD045058-D-HC	DE, MD, NJ, PA, VA, WV ONLY	4.5 x 5.83	4.5 x 7.83	1'-8"	4.6	12"/12"	(1) 3' x 3'
FTPD0604-D-HC	ALL	6 x 4	6 x 6	1'-8"	4.6	12"/12"	(1) 3' x 3'
FTPD0606-D-HC	ALL	6 x 6	6 x 8	1'-8"	4.6	12"/12"	(1) 3' x 3'
FTPD0608-D-HC	ALL	6 x 8	6 x 10	1'-8"	4.6	12"/12"	(1) 4' x 4'
FTPD0610-D-HC	ALL	6 x 10	6 x 12	1'-8"	4.6	12"/12"	(1) 4' x 4'
FTPD0710-D-HC	ALL	7 x 10	7 x 13	2'-6"	6.8	24"/24"	(1) 4' x 4'
FTPD08105-D-HC	ALL	8 x 10.5	8 x 14	3'-0"	8.2	24"/24"	(1) 4' x 4'
FTPD08125-D-HC	N/A OR, WA	8 x 12.5	8 x 16	3'-0"	8.2	24"/24"	(2) 4' x 4'
FTPD09115-D-HC	OR, WA ONLY	9 x 11.5	9 x 15	3'-0"	2.5	24"/24"	(2) 4' x 4'

N/A = NOT AVAILABLE

*MAX BYPASS FLOW IS INTERNAL WEIR FLOW. SITE SPECIFIC ANALYSIS IS REQUIRED TO DETERMINE CURB INLET FLOW CAPACITY



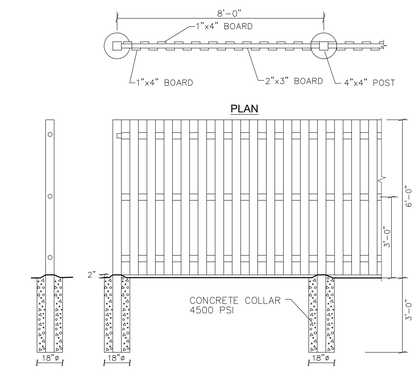
CURB INLET DETAIL

The design and information shown on this drawing is provided as a service to the project owner, engineer and contractor by Contech Engineered Solutions LLC or one of its affiliated companies ("Contech"). Neither this drawing, nor any part thereof, may be used, reproduced or modified in any manner without the prior written consent of Contech. Failure to comply is done at the user's own risk and Contech expressly disclaims any liability or responsibility for such use. If discrepancies between the supplied information upon which the drawing is based and actual field conditions are encountered as site work progresses, these discrepancies must be reported to Contech immediately for re-evaluation of the design. Contech accepts no liability for designs based on missing, incomplete or inaccurate information supplied by others.

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

FILTERRA HC PEAK DIVERSION (FTPD-HC) CONFIGURATION DETAIL

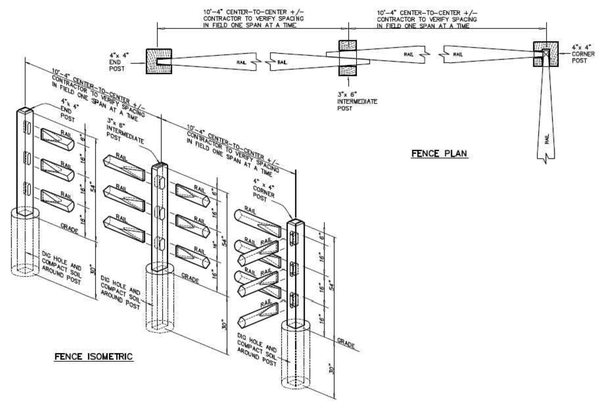
filterra
THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 6,277,274; 6,569,321; 7,625,489; 7,425,261; 7,833,412. RELATED FOREIGN PATENTS.



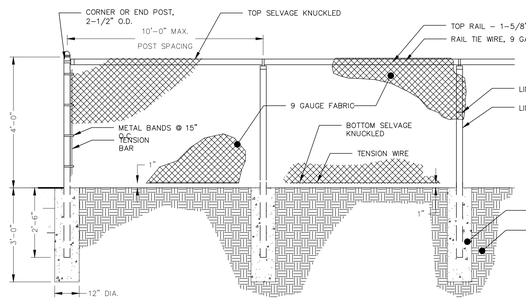
BOARD-ON-BOARD FENCE FOR PUMP STATION
N.T.S.

NOTES:

1. ALL LUMBER SHALL BE PRESSURE TREATED.
2. GATE SHALL BE DOUBLE LEAF, MINIMUM 12' OPENING - PROVIDE LOCKING HASP.



SPLIT-RAIL FENCE DETAIL
N.T.S.



4 FT HIGH CHAINLINK FENCE DETAIL
N.T.S.

NOTES:
1. FENCE FABRIC TO BE CLASS 2B VINYL COATED, 2" DIAMOND MESH: 4' HIGH FENCE: 9 GAUGE
2. ALL NEW FRAMING MEMBERS (INCLUDING POSTS) AND HARDWARE TO BE POWDER COATED (BLACK)
3. GATE FRAME JOINTS TO BE WELDED TO MAKE A RIGID FRAME.
4. GATE DROP RODS TO BE SET IN CONCRETE.
5. TOP AND BOTTOM SELVAGE TO BE KNUCKLED.
6. PROVIDE COMPLETE SHOP DRAWINGS FOR FENCES AND GATES.
7. PROPOSED FENCE FOUNDATIONS TO BE INSTALLED IN THE ASPHALT SURFACE, NOT PROPOSED PLAY SURFACE

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
3	REV. PER DRC#2 MEMOS	5/23/25		
2	REV. PER DRC#1 MEMOS	4/18/25		
1	REV. COMPLETENESS SUBMISSION	1/16/25		

11/8/24
DATE OF SIGN.

CHAD GAULRAPP
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 41350

van note-harvey division of pennoni
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com www.pennoni.com
Certificate of Authorization No. 24GA28033300

SITE DETAILS SHEET 12
OF
THE PRINCETON NURSERIES
PREPARED FOR
WRV NURSERIES PLAINSBORO OWNER, LLC
SITUATED IN
PLAINSBORO TOWNSHIP MIDDLESEX CO., N.J.
SCALE N.T.S NOVEMBER 8, 2024

DRAWN BY	WDV	FIELD BK	ORDER No.	PAGE No.	SHEET No.
DATE 11/8/24					
CHECKED BY	CG	PAGE	WRNUL23001	100F 100	CS6012
DATE 11/8/24					

U:\ACCOUNTS\WRNUL\WRNUL23001 - WRV PRINCETON NURSERIES - PLAINSBORO\DESIGN_SHEETS\CS6001.DWG

I:\STORMWATER\COMMOPPS\54 FILTERRA\40 STANDARD DRAWINGS\FT-HC - FILTERRA HC (NEW JERSEY ONLY)\FTPD-HC - FILTERRA PEAK DIVERSION CONFIG DTL.DWG 9/8/2022 11:36 AM