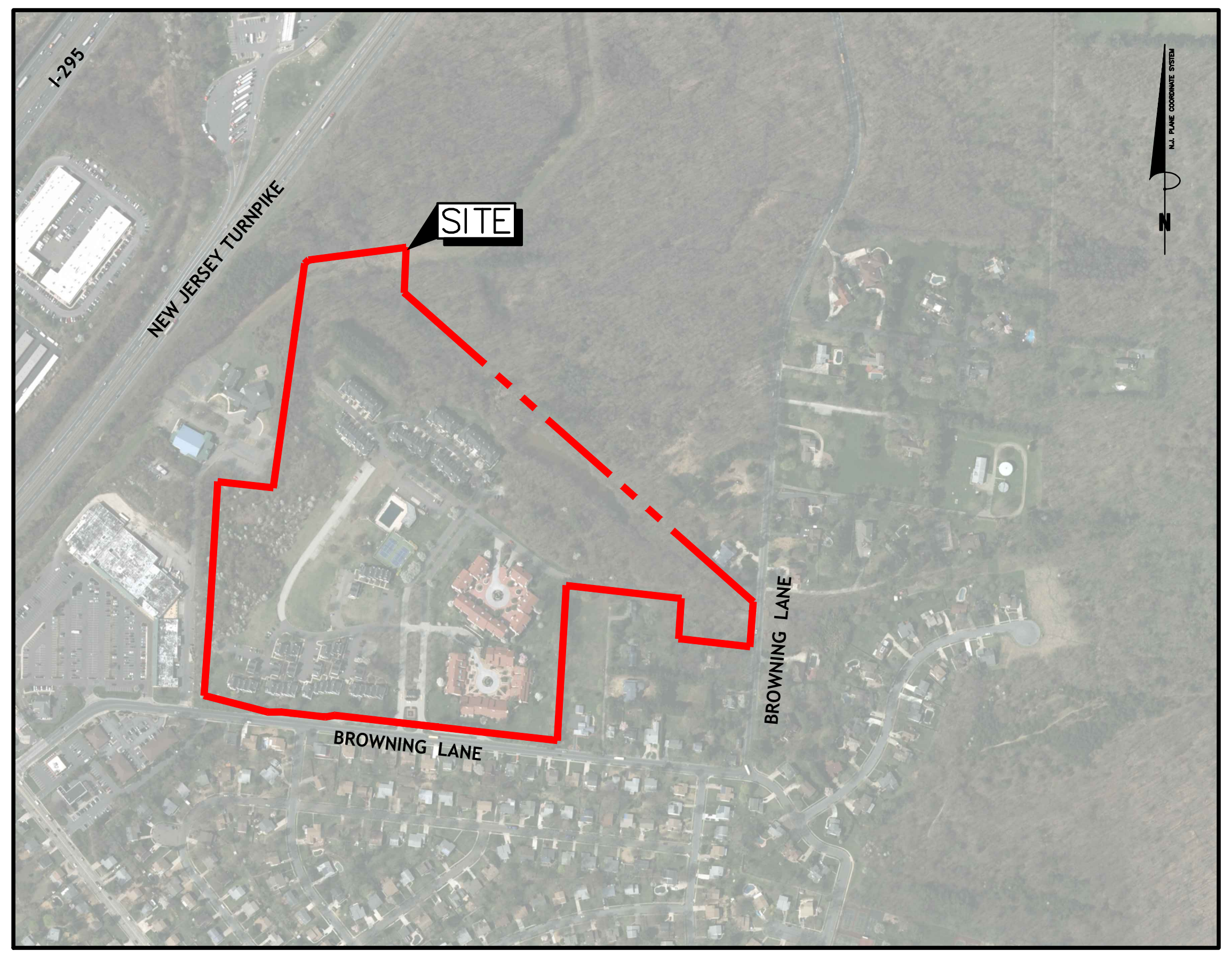
CREATED ON 04/01/2022, LAST MODIFIED ON 04/01/2022

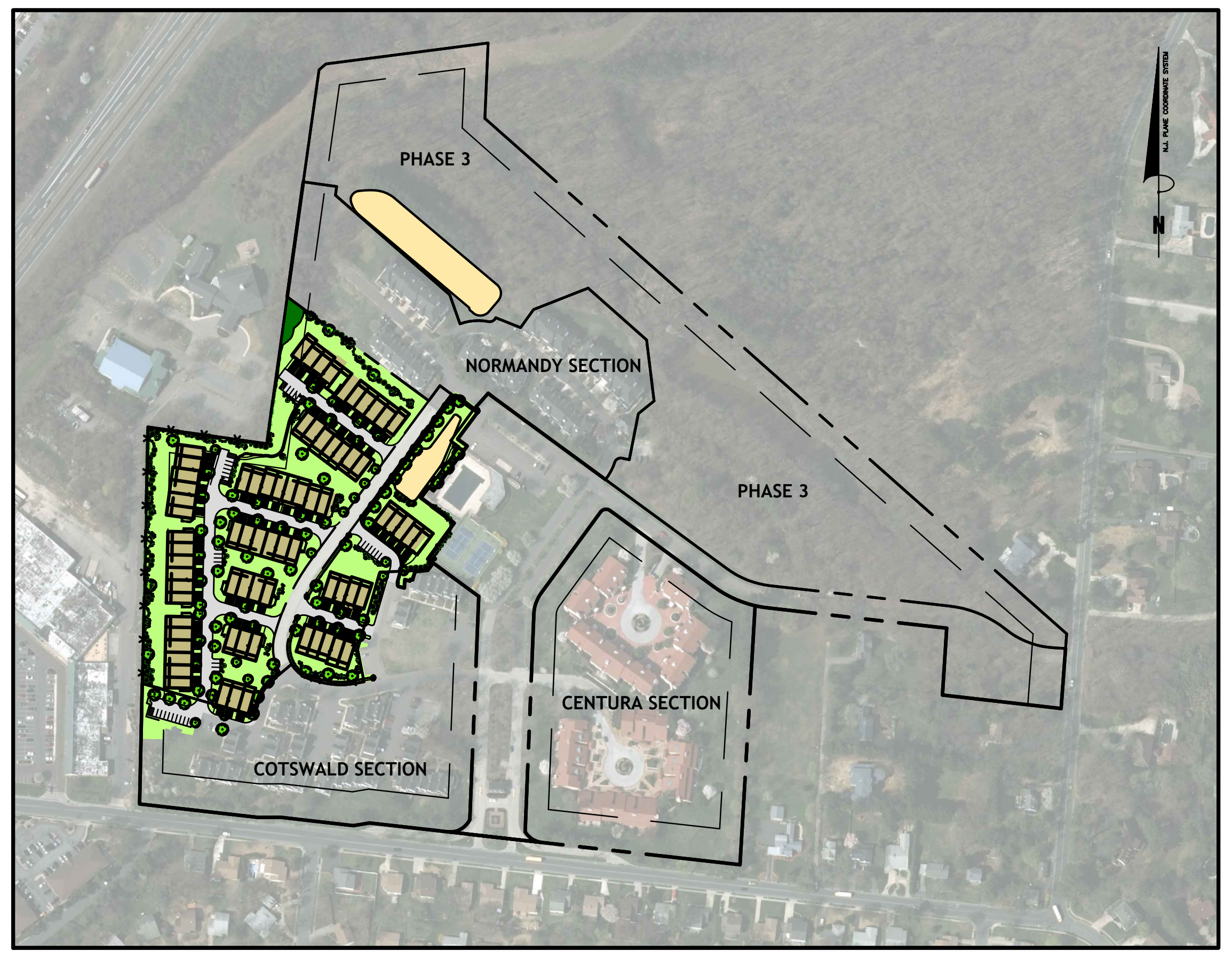
CENTURA - PHASE 1 AND 2

TAX MAP SHEET 234, BLOCK 433.20, LOT 15.01 & 16.01 FORMERLY BLOCK 433.20, LOT1
CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

AMENDED PRELIMINARY & FINAL SITE DEVELOPMENT PLANS



AERIAL MAP
1"=1,000'



RENDERING
N.T.S.

SITE PHOTOGRAPH
N.T.S.

APPLICANT:
DEVEL, LLC
C/O STEPHEN D. SAMOST, ESQUIRE 479 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043

GENERAL SITE NOTES

1. THE TRACT TO BE DEVELOPED CONSISTS OF PLATE 234, BLOCK 433.20, LOTS 15.01 AND 16.01, FORMERLY BLOCK 433.20, LOT 1, OF THE OFFICIAL TAX MAP OF CHERRY HILL TOWNSHIP.
2. THE TRACT TO BE DEVELOPED IS ZONED R10, RESIDENTIAL DISTRICT ON THE OFFICIAL ZONING MAP OF CHERRY HILL TOWNSHIP.
3. THE TOTAL AREA OF THE TRACT EQUALS 47.9+/– ACRES OF LAND. PHASE 1 CONTAINS 7.3 +/– ACRES OF LAND AND PHASE 2 CONTAINS 2.1+/– ACRES OF LAND.
4. THE PROPOSED DEVELOPMENT WILL BE SERVICED BY PUBLIC WATER TO BE SUPPLIED BY NEW JERSEY AMERICAN WATER. WASTEWATER SERVICE PROVIDED BY CHERRY HILL TOWNSHIP.
5. THE PROPOSED DEVELOPMENT SHALL COMPLY WITH THE CURRENT RECYCLING PROGRAM IN EFFECT IN CHERRY HILL TOWNSHIP.
6. THE PROPOSED DEVELOPMENT WILL CONSIST OF 14 BUILDINGS (79 TOWNHOUSE UNITS OF WHICH 12 UNITS WILL BE COAH UNITS). A TOTAL OF 294 PARKING SPACES ARE PROPOSED. TWO ON–SITE STORMWATER MANAGEMENT FACILITIES ARE PROPOSED WHICH SHALL BE OWNED AND MAINTAINED BY AN APPROVED HOMEOWNERS ASSOCIATION. A TOTAL OF SIX (6) NEW PRIVATE COURTS ARE BEING PROPOSED AND AN EXTENTION OF ONE (1) PRIVATE COURT.
7. SEE DRAWING NUMBER CS0002 FOR ALL PROJECT RELATED NOTES, REFERENCES AND LOCATION MAPS.

REGULATORY APPROVALS AND OR PERMITS

AGENCY	APPROVAL STATUS
CHERRY HILL TOWNSHIP PLANNING BOARD	PRELIMINARY APPROVAL GRANTED PER RESOLUTION 17–P–0041 & 18–P–0002
CAMDEN COUNTY PLANNING BOARD	APPROVED (TO BE RESUBMITTED)
CAMDEN COUNTY SOIL CONSERVATION DISTRICT	TBD
CAMDEN COUNTY MUNICIPAL UTILITIES AUTHORITY	TBD
NJDEP PERMITS AS APPLICABLE	FRESHWATER WETLANDS LOI APPROVED JULY 19, 2018.

OWNER

NARAM GROUP, LP
P.O. BOX 368, 230 COOPER ROAD
WEST BERLIN, NEW JERSEY 08091

PHONE: 609–344–4486

APPLICANT

DEVEL, LLC
C/O STEPHEN SAMOST, ESQ.
479 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043

PHONE: 856–782–3700

PROJECT SHEET INDEX

SHEET NO.	DWG. NO.	SHEET TITLE
1 OF 26	CS0001	COVER SHEET
2 OF 26	CS0002	INFORMATION SHEET
3 OF 26	CS0101	EXISTING CONDITIONS AND DEMOLITION PLAN
4 OF 26	CS0200	OVERALL AND PHASING PLAN
5 OF 26	CS0201	SITE PLAN
6 OF 26	CS0301	GRADING AND DRAINAGE PLAN
7 OF 26	CS0302	GRADING AND DRAINAGE PLAN
8 OF 26	CS0401	UTILITY PLAN
9 OF 26	CS0402	UTILITY PLAN
10 OF 26	CS0501	ROAD AND UTILITY PROFILES
11 OF 26	CS0502	UTILITY PROFILES
12 OF 26	CS0601	LANDSCAPING PLAN
13 OF 26	CS0602	LANDSCAPING PLAN
14 OF 26	CS0701	LIGHTING PLAN
15 OF 26	CS0801	LANDSCAPING AND LIGHTING DETAILS
16 OF 26	CS0901	SITE CONSTRUCTION DETAIL SHEET
17 OF 26	CS1001	STORM SEWER DETAIL SHEET
18 OF 26	CS1002	STORMWATER MANAGEMENT DETAIL SHEET
19 OF 26	CS1101	SANITARY SEWER DETAIL SHEET
20 OF 26	CS1201	WATER DETAIL SHEET
21 OF 26	CS1301	EROSION AND SEDIMENT CONTROL PLAN
22 OF 26	CS1302	EROSION AND SEDIMENT CONTROL PLAN
23 OF 26	CS1303	SOIL MANAGEMENT AND PREPARATION PLAN
24 OF 26	CS1304	SOIL MANAGEMENT AND PREPARATION PLAN
25 OF 26	CS1401	EROSION AND SEDIMENT CONTROL NARRATIVE SHEET
26 OF 26	CS1402	EROSION AND SEDIMENT CONTROL DETAIL SHEET

CERTIFICATION OF APPROVALS

I CONSENT TO THE FILING OF THIS SITE DEVELOPMENT PLAN WITH THE CHERRY HILL TOWNSHIP PLANNING BOARD.

OWNER: ______________________ DATE ________

IT IS HEREBY CERTIFIED THAT THIS SITE DEVELOPMENT PLAN HAS BEEN APPROVED BY THE CHERRY HILL TOWNSHIP PLANNING BOARD.

CHAIRPERSON ______________________ DATE ________

SECRETARY ______________________ DATE ________

ENGINEER ______________________ DATE ________

MUNICIPAL CLERK ______________________ DATE ________

THIS SITE DEVELOPMENT PLAN IS HEREBY APPROVED BY THE CAMDEN COUNTY PLANNING BOARD SUBJECT TO THE RESTRICTIONS, AGREEMENTS, AND CONDITIONS SET FORTH BY THE CAMDEN COUNTY PLANNING BOARD.

______________________ DATE ________

Z:\CHERRY HILL LAND DEVELOPMENT GROUP\3487 CENTURA PHASE 1 & 2\DRAWINGS\CENTURA\CS0001.DWG

JSA INC.

DATE	ISSUE	REVISION	BY	APPR.
03/10/2022	6	ISSUED FOR FINAL SITE PLAN COMPLIANCE	TJK	RJC
07/02/2020	5	SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK	RJC
01/13/20	4	NO CHANGE THIS SHEET	GMM	RJC
07/16/19	3	REVISE PROJECT SHEET INDEX	TJK	RJC
10/2/18	2	UPDATE APPROVALS/PERMITS NOTES AND GENERAL NOTES	GMM	RJC
12/12/17	1	NOT PART OF INITIAL SUBMISSION	TJK	RJC

CENTURA – PHASE 1 AND 2
TAX MAP SHEET 234, BLOCK 433.20, LOT 15.01 & 16.01, FORMERLY BLOCK 433.20, LOT 1
CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

COVER SHEET

DEVEL, LLC.
C/O STEPHEN D. SAMOST, ESQUIRE 479 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043

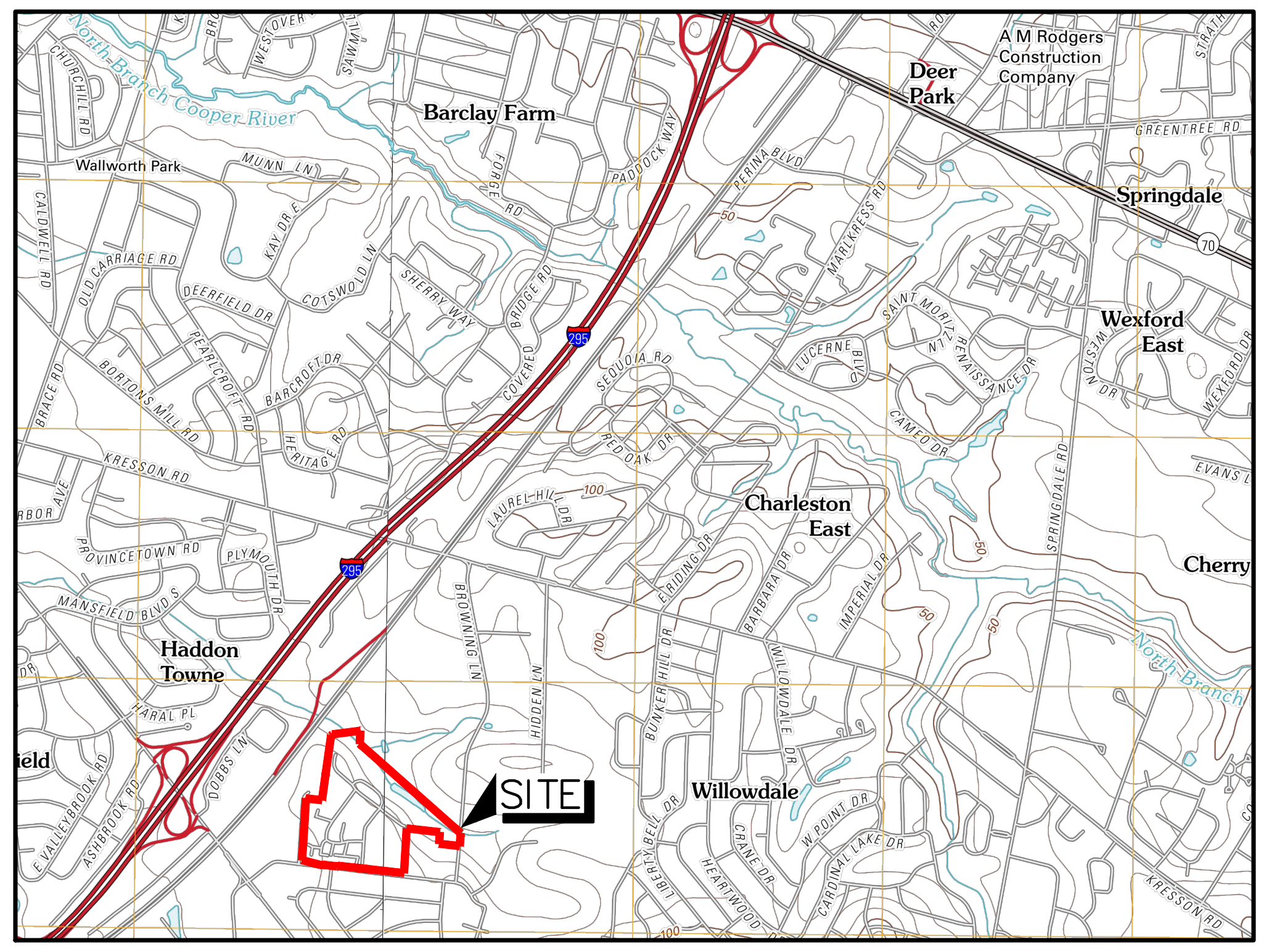
JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28017600
41 SOUTH ROUTE 73, BUILDING 1, SUITE 201
HAMMONTON, NEW JERSEY 08037
TELEPHONE (609) 704-1155
FAX (609) 704-1166
www.jsaengineering.com

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200
Richard J Clemson 03/10/2022
DATE

ALL DOCUMENTS PREPARED BY JSA. ARE INSTRUMENTS OF SERVICE IN RESPECT TO THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER TO OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY JSA. FOR THE SPECIFIC PURPOSE INTENDED WILL BE OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO JSA. AND SHALL INDEMNIFY AND HOLD HARMLESS JSA FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY GMM	APPROVED BY RJC
SCALE AS SHOWN	DATE 12/12/17
JOB NUMBER 3487	SHEET NO. 1 OF 26

CS0001



U.S.G.S. QUADRANGLE

SCALE: 1" = 2,000'

GENERAL SITE NOTES

1. GRADING AROUND BUILDING AND FINISHED FLOOR ELEVATION IS SUBJECT TO CHANGE UPON REVIEW OF FINAL ARCHITECTURAL PLANS.
2. ALL BARRIER FREE DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST A.D.A., CHERRY HILL TOWNSHIP AND NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARDS.
3. ANY VARIATIONS FROM THE PLANS MUST BE AUTHORIZED BY THE DESIGN ENGINEER AND APPROVED BY THE TOWNSHIP ENGINEER.
4. THIS SET OF PLANS IS FOR SITE DEVELOPMENT APPROVAL ONLY AND SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS.
5. CONSTRUCTION DETAILS/SHOP DRAWINGS UTILIZED BY THE CONTRACTOR SHALL BE REVIEWED AND APPROVED BY THE TOWNSHIP ENGINEER.
6. REFER TO THE COMPLETE SET OF PLANS FOR ADDITIONAL INFORMATION.
7. THIS SET OF DRAWINGS AND ALL INFORMATION CONTAINED HEREIN IS AUTHORIZED FOR THE USE ONLY BY THE PARTY FOR WHOM THE WORK IS CONTRACTED OR WHOM IT IS CERTIFIED. THIS SET OF DRAWINGS MAY NOT BE COPIED, REUSED, DISCLOSED, DISTRIBUTED, OR RELIED UPON FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF JAMES SASSANO ASSOCIATES, INC..
8. ANY DEMOLITION MATERIAL SHALL BE PROPERLY DISPOSED OF AND NO ON-SITE BURIAL IS PERMITTED.
9. ALL TRAFFIC SIGN PLACEMENT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF "STANDARD SIGNS" (MUTCD, U.S. DEPARTMENT OF TRANSPORTATION AS AMENDED). ALL SIGNS SHALL BE MOUNTED ON BREAKAWAY SIGN POSTS.
10. THE APPLICANT SHALL NOTIFY THE TOWNSHIP ENGINEER A MINIMUM OF 24 HOURS PRIOR TO THE START OF ANY CONSTRUCTION.
11. ALL EQUIPMENT AND MATERIAL SHALL CONFORM TO THE TOWNSHIP OF CHERRY HILL STANDARDS AS DETERMINED BY THE TOWNSHIP ENGINEER DURING THE SHOP DRAWING REVIEW PHASE.

SURVEY NOTES

1. OUTBOUND INFORMATION TAKEN FROM A PLAN ENTITLED "ALTA/ACSM (1999) LAND TITLE SURVEY, CENTURA, BLOCK 433.20, P/O LOT 1, BROWNING LANE, CHERRY HILL TOWNSHIP, CAMDEN COUNTY, STATE OF NEW JERSEY", PREPARED BY TAYLOR WISEMAN TAYLOR, DATED 10/14/05 AND REVISED TO 11/09/05, AS PROVIDED BY CLIENT.
2. HORIZONTAL DATUM: N.J.P.C.S. NAD 83, AS INDICATED ON A PLAN ENTITLED "ALTA/ACSM (1999) LAND TITLE SURVEY, CENTURA, BLOCK 433.20, P/O LOT 1, BROWNING LANE, CHERRY HILL TOWNSHIP, CAMDEN COUNTY, STATE OF NEW JERSEY", PREPARED BY TAYLOR WISEMAN TAYLOR, DATED 10/14/05 AND REVISED TO 11/09/05, AS PROVIDED BY CLIENT.
3. TOPOGRAPHY AND VERTICAL DATUM PROVIDED BY THE CLIENT AND SUPPLEMENTED BY CLANCY & ASSOCIATES, INC.
4. UTILITY ASBUILT INFORMATION PROVIDED BY THE CLIENT AND SUPPLEMENTED BY CLANCY & ASSOCIATES, INC.

CONTRACTOR/OWNER RESPONSIBILITY NOTES

1. THE CONTRACTOR/OWNER SHALL DESIGNATE A PERSON THAT IS KNOWLEDGEABLE AND RESPONSIBLE FOR CONSTRUCTION SAFETY STANDARDS AND IS EXPECTED TO BE AT THE CONSTRUCTION SITE ON A REGULAR BASIS. THIS PERSON SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION, DISCHARGE, AND MONITORING OF SAFETY STANDARDS AND PRACTICES AT THE SITE. THE CONTRACTOR/OWNER SHALL PROVIDE DESIGN ENGINEER WITH NAME, ADDRESS AND TELEPHONE NUMBER OF DESIGNEE. IN LIEU OF THIS INFORMATION, THE REPRESENTATIVE PERSON FROM THE CONTRACTOR'S ORGANIZATION WHO SIGNED THE CONTRACT SHALL HEREBY BE RESPONSIBLE FOR THIS FUNCTION. CONSTRUCTION SAFETY SHALL BE PURSUANT TO N.J.A.C. 5:23-2.21(E) OF THE NEW JERSEY UNIFORM CONSTRUCTION CODE AND CFR 1926.32 (F)(OSHA COMPETENT PERSON).
2. THE SITE CONTRACTOR SHALL VERIFY WITH DESIGN ENGINEER WHAT PERMITS AND APPROVALS ARE PENDING OR HAVE BEEN APPROVED.
3. THE SITE CONTRACTOR SHALL VERIFY AND MATCH HORIZONTAL AND VERTICAL DATUMS.
4. THE CONTRACTOR SHALL PERFORM ALL WORK IN A WORKMANLIKE MANNER IN ACCORDANCE WITH ALL APPLICABLE CODES, ORDINANCES, AND MANUFACTURERS' RECOMMENDATIONS AND STANDARDS.
5. ALL DIMENSIONS AND EXISTING CONDITIONS MUST BE VERIFIED BY THE CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.
6. ALL UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE AND ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR AT THE TIME OF CONSTRUCTION.
7. THE CONTRACTOR SHALL VERIFY IN THE FIELD ALL CONDITIONS AS SHOWN ON THE PLANS AND SHALL BE RESPONSIBLE FOR FIELD MEASUREMENTS OF ALL NEW CONSTRUCTION.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING, UNDERPINNING AND STRUCTURAL STABILITY DURING CONSTRUCTION.
9. THE CONTRACTOR SHALL CALL 811 FOR FIELD LOCATIONS OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
10. IN THE EVENT CONDITIONS AT THE SITE ARE NOTICEABLY DIFFERENT (AT THE TIME OF CONSTRUCTION) FROM THE DOCUMENTS PROVIDED, THE CONTRACTOR AND/OR OWNER SHALL NOTIFY THE DESIGN ENGINEER.
11. THE PROPOSED SITE GRADING DEPICTED IN THESE PLANS IS INTENDED TO PROVIDE A GENERAL GUIDE FOR GRADING. THE GENERAL CONTRACTOR, CONSTRUCTION MANAGER OR OWNER SHALL INSTRUCT THE CONCRETE CONTRACTOR TO TAKE CARE IN SETTING FORMS FOR PEDESTRIAN AREAS TO INSURE THAT THEY CONFORM TO THE CURRENT A.D.A. BARRIER FREE CODES.
12. THE CONTRACTOR SHALL COMPLY WITH ALL CONDITIONS OF APPROVAL IMPOSED BY ALL REGULATORY AGENCIES HAVING JURISDICTION AS IT RELATES TO THE CONSTRUCTION AND MAINTENANCE OF THE IMPROVEMENTS.
13. CONTRACTOR DAMAGE TO ANY EXISTING FEATURE SUCH AS, BUT NOT LIMITED TO, CONCRETE CURBS, CONCRETE WALKS, PAVING, LIGHTS, PLANTERS, SIGNS, UTILITIES OR BUILDINGS NOT SCHEDULED FOR REMOVAL SHALL BE RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR.
14. CONTRACTOR EFFORTS SHALL BE MADE TO RETAIN EXISTING TREES, VEGETATION AND NATURAL CHARACTERISTICS OF THE TRACT WHERE EVER POSSIBLE.
15. THE CONTRACTOR SHALL PAY ALL STREET OPENING FEES AND GIVE NOTICES NECESSARY FOR AND INCIDENTAL TO THE DUE AND LAWFUL EXECUTION OF THE PROJECT.
16. THE CONTRACTOR SHALL NOT PLACE MATERIALS NOR DISTURB PROPERTY BEYOND THE PROJECT PROPERTY LINE WITHOUT THE WRITTEN PERMISSION OF THE PROPERTY OWNER DIRECTLY INVOLVED.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION, PAVING, TOPSOILING AND SODDING WITHIN TOWNSHIP, COUNTY AND/OR STATE ROADS AND SHALL MEET THE REQUIREMENTS OF THE TOWNSHIP AND/OR THE NJDOT ENGINEER.
18. INSPECTION OF, OR FAILURE TO INSPECT ANY MATERIALS OR WORKMANSHIP BY STATE, COUNTY OR TOWNSHIP OFFICIALS SHALL IN NO WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES TO PERFORM THE WORK IN ACCORDANCE WITH APPLICABLE PLANS, SPECIFICATIONS AND LAWS.

GENERAL UTILITY NOTES

1. ALL PROPOSED UTILITIES SHALL BE INSTALLED UNDERGROUND.
2. ALL MATERIALS, METHODS AND DETAILS OF IMPROVEMENT CONSTRUCTION SHALL CONFORM TO THE REGULATIONS OF THE TOWNSHIP OF CHERRY HILL, THE NEW JERSEY DEPARTMENT OF TRANSPORTATION, CAMDEN COUNTY AND/OR THE APPROPRIATE UTILITY COMPANY, WHICHEVER REGULATION TAKES PRECEDENCE.
3. WHERE IT IS NECESSARY TO CONNECT TO EXISTING UTILITIES WITHIN THE EXISTING ROADWAYS, THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAW CUTTING FOR WATER AND SEWER SERVICE. TRENCHING, BACKFILL, COMPACTION AND PAVING SHALL BE IN ACCORDANCE WITH THE TOWNSHIP OF CHERRY HILL, CAMDEN COUNTY AND THE NEW JERSEY DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, AS APPLICABLE.
4. ALL PIPE LENGTHS AND GRADIENTS ARE CALCULATED TO THE CENTERLINE OF THE SANITARY SEWER STRUCTURES. ACTUAL PIPE LENGTHS MAY BE LESS THAN THE CALCULATED LENGTH, AND SHOULD BE COMPUTED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
5. EXISTING UTILITY INFORMATION SHOWN ON THIS PLAN IS FURNISHED BY THE UTILITY COMPANIES OR SURVEY PLAN BY THE SURVEYOR. IT IS THE RESPONSIBILITY OF THE OWNER AND/OR CONTRACTOR TO CALL 811 FOR ACCURATE FIELD LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF THE EXACT LOCATION OF ALL UTILITIES AND THE DISTRIBUTION SERVICES TO THE BUILDINGS AS NEEDED FOR THE PROJECT. IF THERE ARE ANY CONFLICTS, NOTIFY THE ENGINEER IMMEDIATELY, IN WRITING, PRIOR TO INSTALLATION.
7. WHEREVER THE TRENCH BOTTOM DOES NOT AFFORD SUFFICIENT BEARING STRENGTH TO SUSTAIN THE WEIGHT OF THE PIPE AND SUPERIMPOSED LOADS, IT SHALL BE OVER EXCAVATED AND STABILIZED WITH A 12 INCH THICK MINIMUM LAYER OF DENSE GRADED AGGREGATE (DGA).
8. ALL WATER AND SEWER METERS FOR THE NEW UNITS IN THE COTSWOLD AND NORMANDY SECTIONS WILL BE METERED SEPARATELY AND BILLED TO THE INDIVIDUAL HOMEOWNER. THE APPLICANT WILL ESTABLISH A SEPARATE WATER METER FOR THE IRRIGATION SYSTEM TO BE INSTALLED FOR THE COTSWOLD AND NORMANDY SECTIONS WHICH WILL BE BILLED TO THE HAMLETS HOMEOWNERS ASSOCIATION.
9. IN ADDITION TO PROVIDING SEPARATE WATER AND SEWER METERS FOR THE NEW UNITS IN COTSWOLD AND NORMANDY, THE APPLICANT WILL ALSO ATTEMPT TO SEPARATE THE WATER AND SEWER METERS FOR THE EXISTING UNITS IN COTSWOLD AND NORMANDY SO THAT EACH UNIT WILL BE BILLED SEPARATELY FOR ITS OWN USAGE.
10. DECORATIVE LIGHTING WILL BE UTILIZED ON TWELVE (12) FOOT HIGH POLES AT AN INTERVAL OF 100 FEET ALONG CANTERBURY WAY AND ROADS H AND I.

STORMWATER MANAGEMENT AND STORM SEWER NOTES

1. ALL STORMWATER MANAGEMENT DESIGN AND CONSTRUCTION SHALL COMPLY WITH THE LOW IMPACT PRACTICES AS OUTLINED IN THE REQUIREMENTS OF THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION BEST MANAGEMENT PRACTICES MANUAL, CAMDEN COUNTY AND THE REQUIREMENTS SET FORTH BY THE TOWNSHIP OF CHERRY HILL.
2. STORM SEWER DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH STANDARDS SET FORTH BY THE TOWNSHIP OF CHERRY HILL AND CAMDEN COUNTY.
3. STORM SEWER PIPE SHALL BE RCP (REINFORCED CONCRETE PIPE). THE MINIMUM PIPE SIZE SHALL BE 15". REINFORCED CONCRETE PIPE SHALL CONFORM TO REQUIREMENTS OF ASTM C-76, CLASS III OR IV AS INDICATED. ALL REINFORCED CONCRETE PIPE SHALL HAVE EITHER RUBBER GASKET OR BUTYL TAPE JOINTS AND BE WRAPPED WITH MORTAR AND FABRIC ON THE OUTSIDE.
4. ALL DRAINAGE STRUCTURES, I.E. INLETS, MANHOLES OR ENDWALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARDS.
5. ALL INLETS SHALL BE INSTALLED WITH BICYCLE SAFE GRATES.
6. BEDDING AND BACKFILL SHALL BE IN ACCORDANCE WITH NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARDS.
7. MAINTENANCE OF ALL STORMWATER MANAGEMENT FACILITIES SHALL BE IN ACCORDANCE WITH THE STORMWATER FACILITIES INSPECTION, MAINTENANCE AND REPAIR PLAN PREPARED FOR UNDER THIS PROJECT.
8. THE STORMWATER MANAGEMENT BASINS AS WELL AS THE STORM SEWER CONVEYANCE SYSTEM SHALL BE OWNED AND MAINTAINED BY THE ESTABLISHED HOMEOWNERS ASSOCIATION.
9. AT THE TIME OF CONSTRUCTION FOR ALL STORMWATER RECHARGE FACILITIES, A REPRESENTATIVE FROM THE DESIGN ENGINEER'S OFFICE AND THE TOWNSHIP ENGINEER'S OFFICE MUST BE PRESENT TO WITNESS THE EXCAVATION AND DETERMINE THE ACTUAL DEPTH OF SOIL EXCAVATION TO ENSURE THAT ANY QUESTIONABLE MATERIAL (RESTRICTIVE SOIL LAYERS) WITHIN FIVE (5) FEET OF THE BOTTOM OF THE RECHARGE BASIN IS REMOVED AND REPLACED WITH A SOIL TYPE EQUIVALENT TO A K-5 SOIL PERMEABILITY RATING. THE STORMWATER BASIN MUST BE ABLE TO DRAIN WITHIN SEVENTY-TWO (72) HOURS.
10. UPON THE CONSTRUCTION OF THE STORMWATER BASIN, THE APPLICANT SHALL NOTIFY THE TOWNSHIP TO WITNESS THE SOIL BORING AND PERCOLATION TESTS WITHIN THE BASIN. SHOULD THE RESULTS INDICATE UNSUITABLE MATERIAL WITHIN THE BASIN BOTTOM OR SIDEWALLS, THE APPLICANT SHALL BE RESPONSIBLE TO EXCAVATE ALL UNSUITABLE MATERIAL AND REPLACE IT WITH CLEAN FILL MATERIAL APPROVED BY THE TOWNSHIP ENGINEER.
11. UPON EXCAVATION AND COMPLETION OF THE STORMWATER MANAGEMENT SYSTEM, A NEW JERSEY LICENSED PROFESSIONAL ENGINEER SHOULD CERTIFY IN WRITING THAT THE STORMWATER MANAGEMENT FACILITIES WERE PROPERLY CONSTRUCTED AND WILL OPERATE AS INTENDED.

TOPSOIL REMOVAL POLICY

NO TOPSOIL SHALL BE REMOVED FROM THE SITE OR USED AS SPOIL. TOPSOIL MOVED DURING THE COURSE CONSTRUCTION SHALL BE REDISTRIBUTED SO AS TO PROVIDE A LEAST FIVE (5) INCHES OF COVER (SEE DRAWING NUMBER CS1401, EROSION AND SEDIMENT CONTROL NARRATIVE SHEET) TO ALL AREAS OF THE SITE AND SHALL BE STABILIZED BY SEEDING OR PLANTING OUTLINED ON DRAWING NUMBER CS1401.

GAS, ELECTRIC AND COMMUNICATIONS NOTES

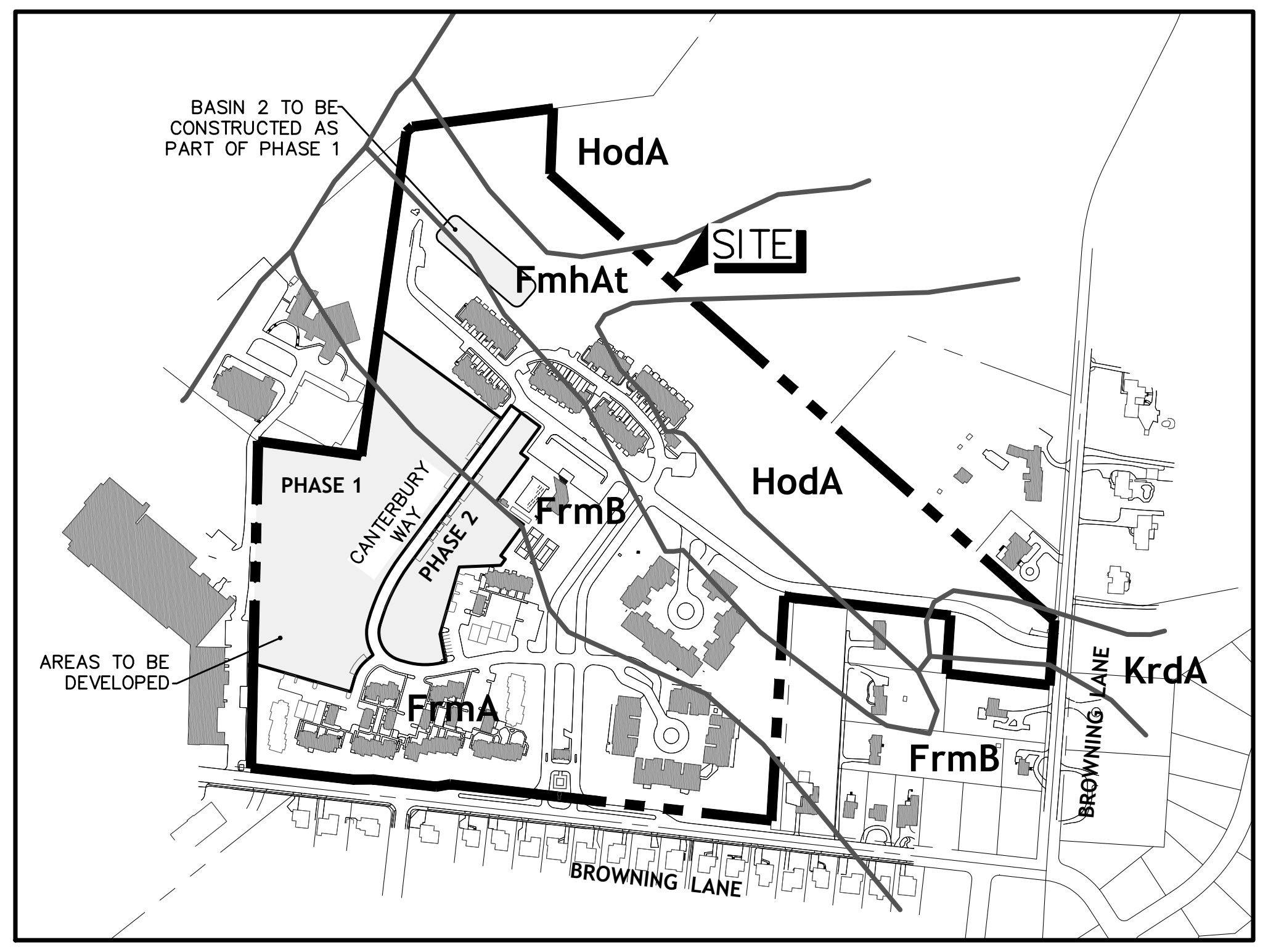
1. GAS, ELECTRIC AND COMMUNICATION SERVICE SHALL BE INSTALLED UNDERGROUND THROUGHOUT THE DEVELOPMENT IN ACCORDANCE WITH THE REGULATIONS OF THE LOCAL UTILITY COMPANIES AND THE TOWNSHIP OF CHERRY HILL.
2. ALL GAS SERVICE DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE RULES AND REGULATIONS OF SOUTH JERSEY GAS COMPANY.
3. ALL ELECTRIC SERVICE DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE RULES AND REGULATIONS OF ATLANTIC CITY ELECTRIC COMPANY.
4. ALL COMMUNICATIONS SERVICE DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE RULES AND REGULATIONS OF VERIZON AND COMCAST.

EROSION AND SEDIMENT CONTROL NOTES

1. EROSION AND SEDIMENT CONTROL SHALL BE IN ACCORDANCE WITH ALL APPLICABLE RULES AND REGULATIONS SET FORTH IN THE NEW JERSEY SOIL EROSION AND SEDIMENT CONTROL MANUAL AND THE CAMDEN COUNTY SOIL CONSERVATION DISTRICT.

PHASING NOTE (PHASE 1 AND 2)

PROJECT PHASES 1 AND 2 WILL BE CONSTRUCTED UNDER ONE(1) PHASE. IN THE EVENT OF ANY CHANGE THE APPLICANT SHALL SUBMIT A CONSTRUCTION PHASING PLAN TO BE APPROVED BY THE DEPARTMENT OF COMMUNITY DEVELOPMENT AND THE PLANNING BOARD ENGINEER, PRIOR TO THE ISSUANCE OF ANY PERMITS.



SOILS MAP

SCALE: 1"=600'

NEW JERSEY AMERICAN WATER NOTES

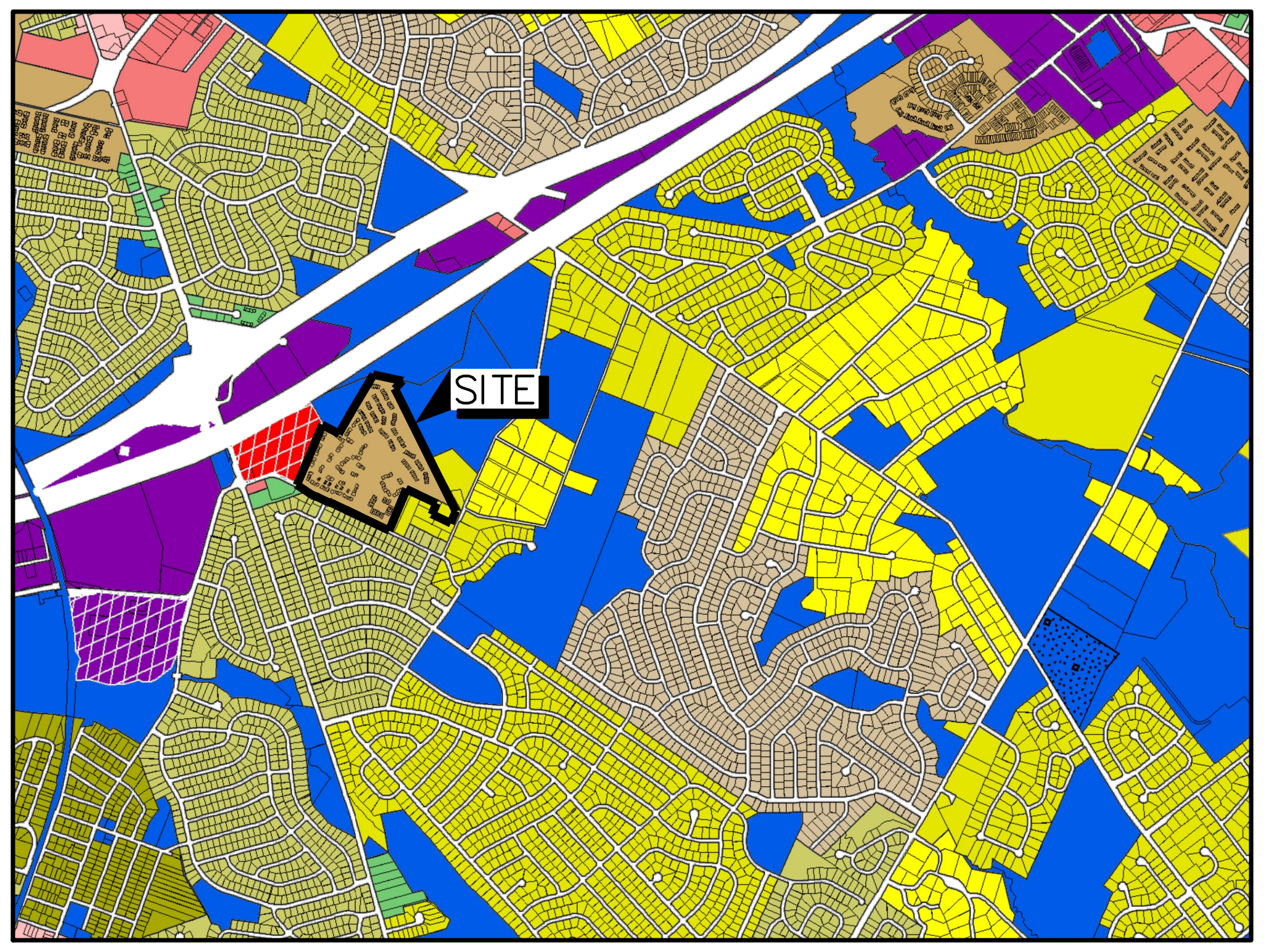
1. ALL CONSTRUCTION, MATERIALS RESTORATION AND METHODS OF WATER MAIN INSTALLATION SHALL BE IN ACCORDANCE WITH RULES, REGULATIONS AND TECHNICAL SPECIFICATIONS OF NEW JERSEY AMERICAN WATER.
2. WATER MAIN DISINFECTION SHALL BE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS OF NEW JERSEY AMERICAN WATER.
3. WATER PRESSURE AND LEAKAGE TESTS SHALL BE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS OF NEW JERSEY AMERICAN WATER.
4. WATER MAIN SHALL NOT BE PLACED IN COMMON TRENCHES WITH OTHER UNDERGROUND UTILITIES.
5. IN-LINE VALVES SHALL BE INSTALLED AT EVERY POINT WHERE THE PIPELINES INTERSECT, IN EVERY DIRECTION.
6. THE MINIMUM PIPELINE COVER SHALL BE FORTY-EIGHT (48) INCHES.
7. SELECT BACKFILL-A MINIMUM OF SIX (6) INCHES OF BEDDING AND TWELVE (12) INCHES OF COVER SHALL BE REQUIRED FOR ALL MAINS AND SERVICES IN ACCORDANCE WITH ALL MATERIAL, CONSTRUCTION METHODS AND PROCEDURES OUTLINED IN THE LATEST EDITION OF THE WATER MAIN TECHNICAL SPECIFICATIONS OF NEW JERSEY AMERICAN WATER. FOR WATER MAINS WITHIN AND ALONG PROPOSED ROADWAYS AS WELL AS OUTSIDE OF PAVEMENT AREAS, 100% SELECT BACKFILL IS RECOMMENDED WHICH SHALL BE COMPACTED A MINIMUM OF 90% OF OPTIMUM COMPACTION. IF ANY SOIL IS FOUND THAT IS NOT SIMILAR TO THE MATERIAL APPROVED FOR USE FOR BACKFILL BY THE GOVERNING ENTITY THAT HAS JURISDICTION OF RIGHT OF WAY OR IF THE SOIL IS TOO WET OR HAS A HIGH ORGANIC CONTENT OR CANNOT BE PROPERLY COMPACTED, THIS SOIL SHALL BE REPLACED BY 100% SELECT BACKFILL WHICH SHALL BE COMPACTED TO A MINIMUM OF 90% OF OPTIMUM COMPACTION. ADDITIONALLY NEW JERSEY AMERICAN WATER RESERVES THE RIGHT TO REQUIRE 100 % SELECT BACKFILL, WHICH SHALL BE COMPACTED TO A MINIMUM OF 90% OF THE OPTIMUM COMPACTION OR REJECT ANY MATERIAL IT DEEMS UNSUITABLE.
8. MATERIAL FOR BACKFILLING SHALL BE EARTH MATERIALS ENTIRELY FREE FROM VEGETATION, TRASH, LUMBER, FROZEN, SOFT OR ORGANIC MATERIALS. NO STONES OR ROCKS LARGER THAN ONE (1) INCH FOR COMMON FILL-TYPE A OR FOUR (4) INCHES FOR COMMON FILL-TYPE B SHALL BE PERMITTED IN THE BACKFILL. COMMON FILL MATERIAL MAY BE OBTAINED FROM THE EXCAVATION PROVIDED THAT IT HAS BEEN TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 2210.1.01 OF THE SPECIFICATIONS OF NEW JERSEY AMERICAN WATER. IF APPROVED MATERIAL OBTAINED FROM THE TRENCH EXCAVATION IS INSUFFICIENT TO COMPLETE THE BACKFILL, THE CONTRACTOR SHALL OBTAIN THE NECESSARY APPROVED FILL MATERIAL FROM AN OFF-SITE SOURCE.
9. MATERIAL USED FOR BEDDING AND THE HAUNCH AROUND THE PIPE SHALL BE A COURSE TO FINE SANDY MATERIAL WITH MAXIMUM STONE SIZE OF ONE (1) INCH. THE MATERIAL SHALL CONFORM TO ASTM D2487 "STANDARD METHOD FOR CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES". BEDDING MATERIAL MAY BE OBTAINED FROM THE EXCAVATION PROVIDED THAT IT HAS BEEN TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 2210.1.01 OF THE SPECIFICATIONS OF NEW JERSEY AMERICAN WATER. IF APPROVED MATERIAL OBTAINED FROM THE TRENCH EXCAVATION IS INSUFFICIENT TO COMPLETE THE BEDDING, THE CONTRACTOR SHALL OBTAIN THE NECESSARY APPROVED FILL MATERIAL FROM AN OFF-SITE SOURCE.
10. ALL FIRE HYDRANT LOCATIONS SHALL BE APPROVED BY THE CHERRY HILL TOWNSHIP FIRE MARSHALL.
11. WATER MAINS AND SANITARY SEWER SHALL BE SEPARATED TEN (10) FEET HORIZONTALLY WHEREVER POSSIBLE. OTHERWISE, THE SEWER AND WATER SHALL BE IN SEPARATE TRENCHES WITH THE SEWER 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN. AT WATER AND SEWER CROSSINGS, THE SEWER SHALL BE 18 INCHES MINIMUM BELOW THE WATER OR SEWER MAIN SHALL BE DUCTILE IRON PIPE WITH SLIP-ON JOINT FOR TEN (10) FEET MINIMUM OF EACH SIDE OF THE CROSSING. JOINT MUST BE TEN (10) FEET FROM EXISTING.
12. TRENCH WIDTHS SHALL BE OUTSIDE DIAMETER OF PIPE PLUS EIGHT (8) INCHES, FOUR (4) INCHES EACH SIDE.
13. ALL VALVES SHALL COMPLY FULLY WITH AWWA STANDARD C509. VALVES SHALL BE IRON BODY, RESILIENT-SEALED, NUT OPERATED, NON-RISING STEM, GATE VALVES SUITABLE FOR BURIED SERVICE. VALVES SHALL BE DESIGNATED FOR AN OPERATING PRESSURE OF 200 PSI AND TEST PRESSURES TO 400 PSI AND SHALL BE DESIGNED TO OPERATE IN THE VERTICAL POSITION. VALVE ENDS SHALL BE MECHANICAL JOINT IN ACCORDANCE WITH AWWA C111. STEM SEALS SHALL BE DOUBLE "O" RING. SQUARE OPERATING NUTS SHALL CONFORM TO AWWA C509 AND SHALL OPEN RIGHT OR LEFT. ACCEPTABLE MANUFACTURES ARE MUELLER COMPANY, WATEROUS COMPANY, MCWANE CAST IRON PIPE COMPANY (CLOW AND M&H DIVISIONS ONLY), UNITED STATES PIPE AND FOUNDRY AND STOCKHAM VALVES AND FITTINGS.
14. FIRE HYDRANTS SHALL BE MUELLER SUPERCENTURION MODEL #250 A423, WATEROUS PACER MODEL 250, AMERICAN DARLING B-62-B OR APPROVED EQUAL. ALL HYDRANT LOCATIONS MUST BE APPROVED BY THE CHERRY HILL TOWNSHIP FIRE MARSHALL.
15. TAPPING SLEEVES SHALL BE DUCTILE IRON OR CAST IRON DUAL COMPRESSION TYPE. THE HORIZONTAL TAPPING VALVE SHALL CONFORM TO APPLICABLE REQUIREMENTS OF AWWA C509. THE TAPPING VALVE SHALL HAVE FLANGED INLETS WITH MECHANICAL JOINT OUTLETS, ENCLOSED BEVEL GEARS, BYPASS VALVE, ROLLERS, TRACKS AND SCRAPERS. ACCEPTABLE MANUFACTURES SHALL BE MUELLER, MCWANE, U.S. PIPE AND WATEROUS. TAPPING SADDLES SHALL CONSIST OF DUCTILE IRON CASTINGS, ATTACHED TO THE PIPELINE WITH HIGH STRENGTH STEEL STRAPS. CASTINGS SHALL BE SEALED TO PIPELINE WITH "O" RING SEALS. SADDLES SHALL HAVE ANSI A21.10 FLANGED OUTLETS COUNTERBORED FOR USE WITH TAPPING VALVES AND TAPPING EQUIPMENT.
16. WHEREVER THE TRENCH BOTTOM DOES NOT AFFORD SUFFICIENT BEARING STRENGTH TO SUSTAIN THE WEIGHT OF THE PIPE AND SUPERIMPOSED LOADS, IT SHALL BE OVER EXCAVATED AND STABILIZED WITH A 12" THICK MINIMUM LAYER OF CRUSHED STONE.
17. THE OWNER/APPLICANT SHALL BE AWARE AND AGREES THAT THE REVIEW BY NEW JERSEY AMERICAN WATER IS BASED UPON THE BEST INFORMATION AVAILABLE AND IN NO WAY DOES IT GUARANTEE THE EXISTENCE OF, OR NON-EXISTANCE OF WATER MAIN AND OR APPURTENANCES. IT IS THE RESPONSIBILITY OF THE APPLICANT/OWNER TO VERIFY THE LOCATION OF SUCH MAINS/APPURTENANCES.
18. NO WATER MAIN SHALL BE INSTALLED BENEATH THE CURB.
19. ALL WATER METERS SHALL BE RADIO READ WATER METERS.
20. A WATER METER SHALL BE INSTALLED FOR EACH HOUSE IN ACCORDANCE WITH NEW JERSEY AMERICAN WATER RATES, RULES AND REGULATIONS. THE METER SHALL BE RADIO FREQUENCY TYPE FOR BILLING PURPOSES.
21. WATER SERVICE LINES SHALL BE SEPARATED A DISTANCE OF AT LEAST FIVE (5) FEET HORIZONTALLY FROM ANY SANITARY SEWER LATERAL.
22. WATER SERVICE LINES SHALL BE SEPARATED A DISTANCE OF AT LEAST FIVE (5) FEET HORIZONTALLY FROM ANY PROPERTY LINE.
23. ALL PROPOSED WATER MAINS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 36" TO ANY UTILITY POLE OF STORM DRAINAGE STRUCTURE OR PIPE.
24. ALL PROPOSED WATER MAINS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 36" TO ANY FACE OF CURB.
25. WATER MAIN SHALL BE CLASS 50 DUCTILE IRON PIPE, COATED ON THE OUTSIDE WITH A BITUMINOUS COATING, CONFORMING TO ANSI/AWWA C151/A21.51. THE PIPE INTERIOR SHALL BE CEMENT MORTAR LINED AND SEAL COATED IN COMPLIANCE WITH THE LATEST REVISION OF ANSI/AWWA C104/A21.4. THE CEMENT MORTAR LINING SHALL BE DOUBLE THICKNESS.
26. JOINTS SHALL BE MECHANICAL AND PUSH-ON CONFORMING TO ANSI/AWWA C111/A21.11.
27. FITTINGS SHALL BE DUCTILE IRON CONFORMING TO ANSI/AWWA C110/A21.10.
28. WATER SERVICE LATERALS SHALL BE ONE (1) INCH TYPE "L" OR TYPE "K" COPPER MEETING THE REQUIREMENTS OF ASTM STANDARD B88.
29. CURB BOXES SHALL BE STANDARD 1 OR 2-1/2 INCH, CAST IRON, SLIDING OR SCREW TYPE, COMPLETE WITH LID AND HEAD BOLT, ADJUSTABLE FROM 18 TO 66 INCHES. ACCEPTABLE MANUFACTURERS ARE BINGHAM & TAYLOR, MUELLER, HANDLEY INDUSTRIES, CLAY & BAILY, A.Y. MCDONALD OR QUALITY WATER PRODUCTS.
30. CORPORATION STOPS SHALL BE BRASS, BALL VALVE TYPE MANUFACTURED IN ACCORDANCE WITH AWWA STANDARD C800. THE INLET CONNECTION SHALL HAVE STANDARD AWWA TAPERED THREADS UNLESS OTHERWISE REQUIRED. THE OUTLET CONNECTION SHALL BE FLARED COPPER CONNECTION END. ACCEPTABLE MANUFACTURER AND MODEL NUMBERS ARE, FORD METER BOX COMPANY-FB400 THROUGH FB1600, MUELLER-H-15000 SERIES OR A.Y. MCDONALD-6000 SERIES.p
31. CURB STOPS SHALL BE BRONZE BODY CONSTRUCTION, BALL VALVE, WITH DOUBLE "O" RING STEM SEALS MANUFACTURED IN ACCORDANCE WITH AWWA STANDARD C800. END CONNECTIONS SHALL BE SUITABLE FOR FLARED COPPER CONNECTION END. ACCEPTABLE MANUFACTURER AND MODEL NUMBERS ARE, FORD METER BOX COMPANY-B SERIES, MUELLER-H-15000 SERIES OR A.Y. MCDONALD-4701 SERIES.
32. MISCELLANEOUS SERVICE FITTINGS SUCH AS COUPLINGS, ADAPTERS, SADDLES, BENDS, PLUGS, ETC. SHALL CONFORM TO AWWA SPECIFICATION C800. ACCEPTABLE MANUFACTURERS ARE, FORD METER BOX COMPANY, MUELLER OR A.Y. MCDONALD.

PLACEMENT OF FILL MATERIAL

1. THE MATERIAL PLACED IN THE FILL SHALL BE FREE OF DETRIMENTAL AMOUNTS OF SOD, ROOTS, FROZEN SOIL, STONES MORE THAN SIX INCHES IN DIAMETER (EXCEPT ROCK FILLS), AND OTHER OBJECTIONABLE MATERIAL.
2. DRAIN FILL SHALL BE KEPT FROM BEING CONTAMINATED BY ADJACENT SOIL MATERIALS DURING PLACEMENT BY EITHER PLACING IT IN A CLEANLY EXCAVATED TRENCH, OR BY KEEPING THE DRAIN AT LEAST ONE FOOT ABOVE THE ADJACENT EARTH FILL.
3. SELECTED DRAIN FILL AND BACKFILL MATERIAL SHALL BE PLACED AROUND STRUCTURES, PIPE CONDUITS, AND ANTI-SEEP COLLARS AT ABOUT THE SAME RATE ON ALL SIDES TO PREVENT DAMAGE FROM UNEQUAL LOADING. FILL MATERIAL SHALL BE PLACED AND SPREAD BEGINNING AT THE LOWEST POINT IN THE FOUNDATION, AND THEN BRINGING IT UP IN CONTINUOUS HORIZONTAL LAYERS THICK ENOUGH THAT THE REQUIRED COMPACTION CAN BE OBTAINED. THE FILL SHALL BE CONSTRUCTED IN CONTINUOUS LAYERS. IF OPENINGS OR SECTIONALIZED FILLS ARE REQUIRED, THE SLOPE OF THE BONDING SURFACES BETWEEN THE EMBANKMENT IN PLACE AND THE EMBANKMENT TO TO BE PLACED SHALL NOT BE STEEPER THAN THE RATIO OF THREE HORIZONTAL TO ONE VERTICAL. THE BONDING SURFACE SHALL BE TREATED THE SAME AS THAT SPECIFIED FOR THE FOUNDATION TO ENSURE A GOOD BOND WITH THE NEW FILL.
4. THE DISTRIBUTION AND GRADATION OF MATERIALS SHALL BE SUCH THAT NO LENSES, POCKETS, STREAKS, OR LAYERS OF MATERIAL SHALL DIFFER SUBSTANTIALLY IN TEXTURE OF GRADATION FROM THE SURROUNDING MATERIAL. IF IT IS NECESSARY TO USE MATERIALS OF VARYING TEXTURE AND GRADATION, THE MORE IMPERVIOUS MATERIAL SHALL BE PLACED IN THE CENTER AND UPSTREAM PARTS OF THE FILL. IF ZONED FILLS OF SUBSTANTIALLY DIFFERING MATERIALS ARE SPECIFIED, THE ZONES SHALL BE PLACED ACCORDING TO LINES AND GRADES SHOWN ON THE DRAWINGS. THE COMPLETE WORK SHALL CONFORM TO THE LINES, GRADES, AND ELEVATIONS SHOWN IN THE DRAWINGS OR AS STAKED IN THE FIELD.
5. THE MOISTURE CONTENT OF THE FILL MATERIAL SHALL BE ADEQUATE FOR OBTAINING THE REQUIRED COMPACTION. MATERIAL THAT IS TOO WET SHALL BE DRIED TO MEET THIS REQUIREMENT, AND MATERIAL THAT IS TOO DRY SHALL BE WETTED AND MIXED UNTIL THE REQUIREMENT IS MET. CONSTRUCTION EQUIPMENT SHALL BE OPERATED OVER EACH LAYER OF FILL TO ENSURE THAT THE REQUIRED COMPACTION IS OBTAINED. SPECIAL EQUIPMENT SHALL BE USED IF NEEDED TO OBTAIN THE REQUIRED COMPACTION. IF A MINIMUM REQUIRED DENSITY IS SPECIFIED, EACH LAYER OF FILL SHALL BE COMPACTED AS NECESSARY TO OBTAIN THAT DENSITY.
6. FILL ADJACENT TO STRUCTURES, PIPE CONDUITS, AND DRAIN FILL OR ANTI-SEEP COLLARS SHALL BE COMPACTED TO A DENSITY EQUIVALENT TO THAT OF THE SURROUNDING FILL BY HAND TAMPING, OR BY USING MANUALLY DIRECTED POWER TAMPERS OR PLATE VIBRATORS. FILL ADJACENT TO CONCRETE STRUCTURES SHALL NOT BE COMPACTED UNTIL THE CONCRETE HAS HAD TIME TO GAIN ENOUGH STRENGTH TO SUPPORT THE LOAD.

CHERRY HILL TOWNSHIP SANITARY SEWER NOTES

1. SANITARY SEWER CONSTRUCTION, MATERIALS AND TESTING SHALL BE SUBJECT TO THE APPROVAL OF AN INSPECTION BY THE CHERRY HILL TOWNSHIP ENGINEER AND SUBJECT TO RATES, RULES AND REGULATIONS BY CHERRY HILL TOWNSHIP.
2. ALL CONSTRUCTION, MATERIALS RESTORATION AND METHODS OF INSTALLATION IN TOWNSHIP ROADS SHALL BE SUBJECT TO THE REQUIREMENTS AND APPROVAL OF THE TOWNSHIP OF CHERRY HILL.
3. SANITARY SEWER MAINS SHALL BE PVC.
4. A MINIMUM SIZE OF 8" POLYVINYL CHLORIDE (PVC) PIPE (MEETING ASTM 03034, SDR 35 & 26 SPECIFICATIONS) WITH A MINIMUM OF THREE (3) FEET OF COVER. PVC PIPE SHALL HAVE BELL AND SPIGOT ENDS AND "O" RING RUBBER GASKET JOINTS.
5. THE MINIMUM SLOPE ALLOWABLE FOR EIGHT (8) INCH PVC IS 0.004.
6. ALL MANHOLES SHALL BE PRECAST REINFORCED CONCRETE IN ACCORDANCE WITH ASTM C-478.
7. NO SANITARY SEWER LATERALS SHALL BE CONNECTED DIRECTLY INTO ANY MANHOLE.
8. SANITARY SEWER LATERALS SHALL BE FOUR (4) INCH PVC WITH A MINIMUM SLOPE OF 1/4 INCH PER FOOT AND INSTALLED AT 90 DEGREES TO THE MAIN BY MEANS OF A WYE CONNECTION ONLY. THE MINIMUM COVER OVER ANY SANITARY SEWER LATERAL SHALL BE 36 INCHES.
9. SANITARY SEWER RISERS SHALL NOT BE INSTALLED IN DRIVEWAYS OR SIDEWALKS (NO EXCEPTIONS).
10. ALL SANITARY SEWERS SHALL BE CONSTRUCTED WITH CLASS "B" MODIFIED BEDDING UNLESS OTHERWISE NOTED.
11. WHEREVER THE TRENCH BOTTOM DOES NOT AFFORD SUFFICIENT BEARING STRENGTH TO SUSTAIN THE WEIGHT OF THE PIPE AND SUPERIMPOSED LOADS, IT SHALL BE OVER EXCAVATED AND STABILIZED WITH A 12" THICK MINIMUM LAYER OF CRUSHED STONE.
12. ALL SEWER INSTALLATIONS SHALL CONFORM TO THE REQUIREMENTS OF THE TESTING AND INSPECTING PROCEDURES OF CHERRY HILL TOWNSHIP.
13. SANITARY SEWER CONNECTION TO EXISTING MANHOLE CORE SHALL BE OVERSIZED. FILL VOIDS AT CONNECTION WITH NON-SHRINK GROUT AS SPECIFIED BY THE CHERRY HILL TOWNSHIP ENGINEER. EXISTING FLOW SHALL NOT BE INTERRUPTED DURING THE PROPOSED CONNECTION AND CONSTRUCTION.
14. THE APPLICANT/OWNER SHALL BE AWARE AND AGREES THAT THE REVIEW BY CHERRY HILL TOWNSHIP ENGINEER IS BASED UPON THE BEST INFORMATION AVAILABLE AND IN NO WAY DOES IT GUARANTEE THE EXISTENCE OF, OR NON-EXISTANCE OF SANITARY SEWER AND OR APPURTENANCES. IT IS THE RESPONSIBILITY OF THE APPLICANT/OWNER TO VERIFY THE LOCATION OF SUCH MAINS/APPURTENANCES.
15. ACCEPTANCE OF THE SEWER MAINS AT THE TIME OF BASE PAVING DOES NOT ABSOLVE THE DEVELOPER OF ANY RESPONSIBILITY FOR SETTLEMENT OR FAILURES BETWEEN BASE PAVING AND FINAL PAVING OPERATIONS.
16. SANITARY SEWER AND WATER MAINS SHALL BE SEPARATED BY TEN (10) FEET HORIZONTALLY WHEREVER POSSIBLE. OTHERWISE, THE SEWER AND WATER SHALL BE IN SEPARATE TRENCHES WITH THE SEWER 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN. AT WATER AND SEWER CROSSINGS, THE SEWER SHALL BE 18 INCHES MINIMUM BELOW THE WATER OR SEWER MAIN SHALL BE DUCTILE IRON PIPE WITH SLIP-ON JOINT FOR TEN (10) FEET MINIMUM OF EACH SIDE OF THE CROSSING. JOINT MUST BE TEN (10) FEET FROM EXISTING.
17. SANITARY SEWER LATERALS SHALL BE SEPARATED A DISTANCE OF AT LEAST FIVE (5) FEET HORIZONTALLY FROM ANY PROPERTY LINE.
18. PRESSURE TESTING, LAMPING AND VERTICAL SURVEY AS-BUILT OF THE SEWER SYSTEM SHALL BE PERFORMED BY THE DEVELOPER AND REVIEWED BY THE CHERRY HILL TOWNSHIP ENGINEER PRIOR TO AUTHORIZING ANY BASE PAVING. THE TOWNSHIP ENGINEER AND SUPERINTENDENT, PRIOR TO AUTHORIZING ANY PAVING OPERATIONS SHALL REVIEW AND ACCEPT LAMPING, PRESSURE TEST RESULTS, SLOPES AND DEPTHS OF NEW MAINS.
19. NO UNDERDRAIN, CONDUIT AND OR CABLES OF ANY NATURE SHALL BE INSTALLED IN THE SAME TRENCH WITH SANITARY SEWER.
20. WHEN A NEW SANITARY SEWER LINE IS CONSTRUCTED AND TIES INTO AN ACTIVE MANHOLE, THE NEW LINE WILL BE PLUGGED AND REMAINED PLUGGED UNTIL ALL TESTING HAS BEEN COMPLETED AND APPROVED BY CHERRY HILL TOWNSHIP.
21. ALL SANITARY SEWER LATERALS THAT ARE SCHEDULED FOR CONNECTION TO A SPECIFIC SEWER MAIN MUST BE CONNECTED AND EXTENDED TO THE CURBLINE PRIOR TO THE ACCEPTANCE TESTING ON THAT LINE.
22. NEITHER REPAIR CLAMPS NOR SADDLES ARE PERMITTED TO BE USED ON NEW SANITARY SEWERS WITHIN THE JURISDICTION OF CHERRY HILL TOWNSHIP. THESE ARE ONLY TO BE USED IN CASES OF EMERGENCY, AND THEN ONLY WITH THE PRIOR WRITTEN APPROVAL OF CHERRY HILL TOWNSHIP. IF AND WHEN SADDLES ARE APPROVED, THEY WILL BE OF THE STRAP-ON TPYE; NO BOLT-ON SADDLES WILL BE PERMITTED.
23. THE MAXIMUM MANHOLE SPACING SHALL BE 400 FEET.
24. THE MINIMUM MANHOLE DIAMETER SHALL BE 4 FEET WITH A MINIMUM ACCESS DIAMETER OF 30 INCHES.
25. THE FLOW CHANNEL THROUGH THE MANHOLE SHALL BE MADE TO CONFORM IN SHAPE AND SLOPE TO THAT OF THE SEWERS.
26. SANITARY SEWER SHALL BE CAST IN THE LIDS OF ALL SANITARY MANHOLES.
27. ALL PIPE PENETRATIONS INTO THE MANHOLE SHALL BE NO LESS THAN 90 DEGREES TO THE CENTER OF THE DOWNSTREAM MAIN.
28. CHERRY HILL TOWNSHIP SHALL ASSUME OWNERSHIP OF THE PROPOSED SANITARY SEWER UPON RELEASE OF THE PERFORMANCE BOND.
29. PIPES INSTALLED AT DEPTHS GREATER THAN 10 FEET BUT LESS THAN 20 FEET SHALL BE SDR-26.



OFFICIAL ZONING MAP OF CHERRY HILL TOWNSHIP

SCALE: 1" = 2000'

ZONING SCHEDULE AND NOTES

ZONING REQUIREMENTS OVERALL DEVELOPMENT
(ZONE: "R10")

	R10 ZONE	REQUIRED	EXISTING	PROPOSED	CONFORMANCE
MINIMUM LOT REQUIREMENTS (FOR INTERIOR LOTS)					
408	LOT AREA	10 AC.	47.9 AC.+/-	47.9 AC.+/-	YES
MINIMUM YARD REQUIREMENTS					
408.E.1.	MIN. DISTANCE BETWEEN STRUCTURES	25 FT.	20.73 FT.	>25 FT.	NO (1) GRANTED
408.E.1.	SIDE YARD	50 FT.	92.9 FT.	28.34 FT.	NO (2&4) GRANTED (3) NEW VARIANCE
408.E.1.	REAR YARD	50 FT.	216.48 FT.	40 FT.	NO (1 & 2) NEW VARIANCE
408.E.1.	AGGREGATE SIDE YARD	100 FT	116.33 FT.	>100 FT.	YES
408.E.1.	FRONT YARD (FROM BROWNING LANE)	75 FT.	55.46 FT.	>50 FT.	NO (5) GRANTED
408.E.1.	MAX. BUILDING HEIGHT	6 STORY	3 STORY	3 STORY	YES
LOT REQUIREMENTS					
RSIS	PARKING PHASES 1, 2 AND 3				
RSIS	REQUIRED NUMBER OF STALLS	354	N/A	463	YES
511.H.2.c.	PARKING SETBACK FROM NON-RESIDENTIAL	5 FT.	>5 FT.	>5 FT.	YES
511.H.2.a.	PARKING SETBACK FROM RESIDENTIAL	25 FT.	>25 FT.	>25 FT.	YES
511.H.2.b.	PARKING SETBACK FROM R.O.W.	20 FT	>20 FT	>20 FT	YES
430.B.2.b.	STREAM BUFFER	75 FT.	>75 FT.	>75 FT.	YES
408.E.1.	BUILDING AND LOT COVERAGE BUILDING COVERAGE (EXIST. 3.54 AC.=7.38%) BUILDING COVERAGE (PROP. 3.62 AC.=7.55%) MAX BUILDING COVERAGE (TOTAL) MAX LOT COVERAGE (TOTAL IMPERVIOUS) MIN TOTAL OPEN SPACE	40% 50% 50%		14.94%(7.16AC.) 44.3%(21.22AC.) 54%(25.87AC.)*A	YES YES NO (6) GRANTED

*A THE PROVIDED OPEN SPACE OF 25.87 ACRES (54% OF THE SITE) DOES NOT INCLUDE STORMWATER MANAGEMENT BASINS ASSOCIATED WITH THE DEVELOPMENT OF PHASES 1, 2 AND 3 NOR DOES IT INCLUDE THE FRONT YARD LAWN AREAS OF THE PROPOSED UNITS.

VARIANCES & WAIVERS GRANTED VIA RESOLUTION 17-P-0041 DATED 5/4/2019.

1. FROM SECTION 408.E.2.b. TO PERMIT LESS THAN TWENTY-FIVE (25) FEET BETWEEN STRUCTURES, WHERE A MINIMUM OF TWENTY-FIVE (25) FEET IS REQUIRED. (EXISTING NON CONFORMING CONDITION).
2. FROM SECTION 408.E.1. TO PERMIT A SIDE YARD OF 29.37' ON THE NORTH SIDE OF BUILDING 1-E, WHERE A MINIMUM OF FIFTY (50) FEET IS REQUIRED.
3. FROM SECTION 408.E.1 TO PERMIT A REAR YARD SETBACK OF 45.82' ON THE WEST SIDE OF BUILDING 1-E, WHERE A MINIMUM OF FIFTY (50) FEET IS REQUIRED.
4. FROM SECTION 408.E.1. TO PERMIT A SIDE YARD OF 28.34' ON THE WEST SIDE OF BUILDING 1-K, WHERE A MINIMUM OF FIFTY (50) FEET IS REQUIRED.
5. FROM SECTION 408. E.1. TO PERMIT A FRONT YARD WITH MULTIPLE NON CONFORMING DISTANCES FROM BROWNING LANE WITH THE MINIMUM BEING 55.46 FEET, WHERE SEVENTY-FIVE (75) FEET IS REQUIRED. (EXISTING NON CONFORMING CONDITION).
6. FROM SECTION 401.K AND SECTION 408.E.1 TO ALLOW OPEN SPACE OF 49% IN PHASES 1 AND 2 AND 47% IN PHASE 3 WHERE A MINIMUM OF 50% IS REQUIRED. IT SHOULD BE NOTED, HOWEVER, THAT THE OVERALL CENTURA DEVELOPMENT MEETS THE 50% OPEN SPACE REQUIREMENT.
7. FROM SECTION 408.E.2.e. TO PERMIT THE CONSTRUCTION OF ALL CONDOMINIUM DWELLING UNITS, WHERE FOR DEVELOPMENTS OF TWENTY-FIVE (25) ACRES OR MORE, A MIX OF TOWNHOUSES AND GARDEN APARTMENT UNIT TYPE IS REQUIRED, EITHER TYPE NOT TO EXCEED SIXTY (60) PERCENT OF THE TOTAL DWELLING UNITS.
8. INTERNAL VARIANCE FROM SECTION 408. E. 1 TO PERMIT A 0.15 FOOT FRONT YARD SETBACK WHERE A MINIMUM OF 75 FEET IS REQUIRED RELATING TO BUILDING 1-A.
9. INTERNAL VARIANCE FROM SECTION 408. E. 1 TO PERMIT A 4.90 FOOT SIDE YARD SETBACK WHERE A MINIMUM OF 50 FEET IS REQUIRED RELATING TO BUILDING 1-C.
10. INTERNAL VARIANCE FROM SECTION 408. E. 1 TO PERMIT A 49.54 FOOT REAR YARD SETBACK WHERE A MINIMUM OF 50 FEET IS REQUIRED RELATING TO BUILDING 1-J.
11. INTERNAL VARIANCE FROM SECTION 408. E. 1 TO PERMIT A 39.38 FOOT REAR YARD SETBACK WHERE A MINIMUM OF 50 FEET IS REQUIRED RELATING TO BUILDING 1-K.
12. INTERNAL VARIANCE FROM SECTION 408. E. 1 TO PERMIT A 30.25 FOOT FRONT YARD SETBACK WHERE A MINIMUM OF 75 FEET IS REQUIRED RELATING TO BUILDING 2-A.
13. INTERNAL VARIANCE FROM SECTION 408. E. 1 TO PERMIT A 8.88 FOOT SIDE YARD SETBACK WHERE A MINIMUM OF 50 FEET IS REQUIRED RELATING TO BUILDING 2-A.
14. INTERNAL VARIANCE FROM SECTION 408. E. 1 TO PERMIT A 9.83 FOOT SIDE YARD SETBACK WHERE A MINIMUM OF 50 FEET IS REQUIRED RELATING TO BUILDING 2-B.
15. INTERNAL VARIANCE FROM SECTION 408. E. 1 TO PERMIT A 35.25 FOOT FRONT YARD SETBACK WHERE A MINIMUM OF 75 FEET IS REQUIRED RELATING TO BUILDING 2-C.
16. INTERNAL VARIANCE FROM SECTION 408. E. 1 TO PERMIT A 24.09 FOOT SIDE YARD SETBACK WHERE A MINIMUM OF 50 FEET IS REQUIRED RELATING TO BUILDING 2-C.
17. INTERNAL VARIANCE FROM SECTION 408. E. 1 TO PERMIT A 45.80 FOOT REAR YARD SETBACK WHERE A MINIMUM OF 50 FEET IS REQUIRED RELATING TO BUILDING 2-C.
18. ANY OTHER VARIANCES DEEMED NECESSARY BY THE PLANNING BOARD.

THE APPLICANT WAS PREVIOUSLY GRANTED THE FOLLOWING WAIVERS FOR SECTION 1 AND 2

1. WAIVER FROM CHECKLIST ITEM NO. 5 (SUBMISSION OF ENVIRONMENTAL IMPACT STUDY)
2. WAIVER FROM CHECKLIST ITEM NO. 6 (SUBMISSION OF ENVIRONMENTAL ASSESSMENT)
3. WAIVER FROM CHECKLIST ITEM NO. 35 (SUBMISSION OF BUILDING PLANS)
4. WAIVER FROM CHECKLIST ITEM NO. 20 (SURVEY)
5. DESIGN WAIVER TO ALLOW FOR NO LANDSCAPING WITHIN STORMWATER BASINS.

NEW VARIANCES REQUESTED

1. REQUESTING A VARIANCE FROM SECTION 408.E.1 TO PERMIT A REAR YARD SETBACK OF 40 FEET ALONG THE REAR OF BUILDINGS 1-C, 1-D AND 1-E WHERE 50 FEET IS REQUIRED.
2. REQUESTING A VARIANCE FROM SECTION 408.E.1 TO PERMIT A REAR YARD SETBACK OF 40 FEET ALONG THE REAR OF BUILDING 1-H WHERE 50 FEET IS REQUIRED.
3. REQUESTING A VARIANCE FROM SECTION 408.E.1 TO PERMIT A SIDE YARD SETBACK OF 40 FEET ALONG THE SIDE OF BUILDING 1-E WHERE 50 FEET IS REQUIRED, SO AS TO MAINTAIN A CONSISTENT SETBACK FROM PROPERTY LINE.
4. REQUESTING A VARIANCE FROM SECTION 408.E.1 TO PERMIT A REAR YARD SETBACK OF 37.93 FEET ALONG THE REAR OF BUILDING 1-K WHERE 50 FEET IS REQUIRED. A PERVIOUSLY APPROVED VARIANCE TO PERMIT A 39.38 FOOT SETBACK WAS GRANTED UNDER RESOLUTION 17-9-0041.

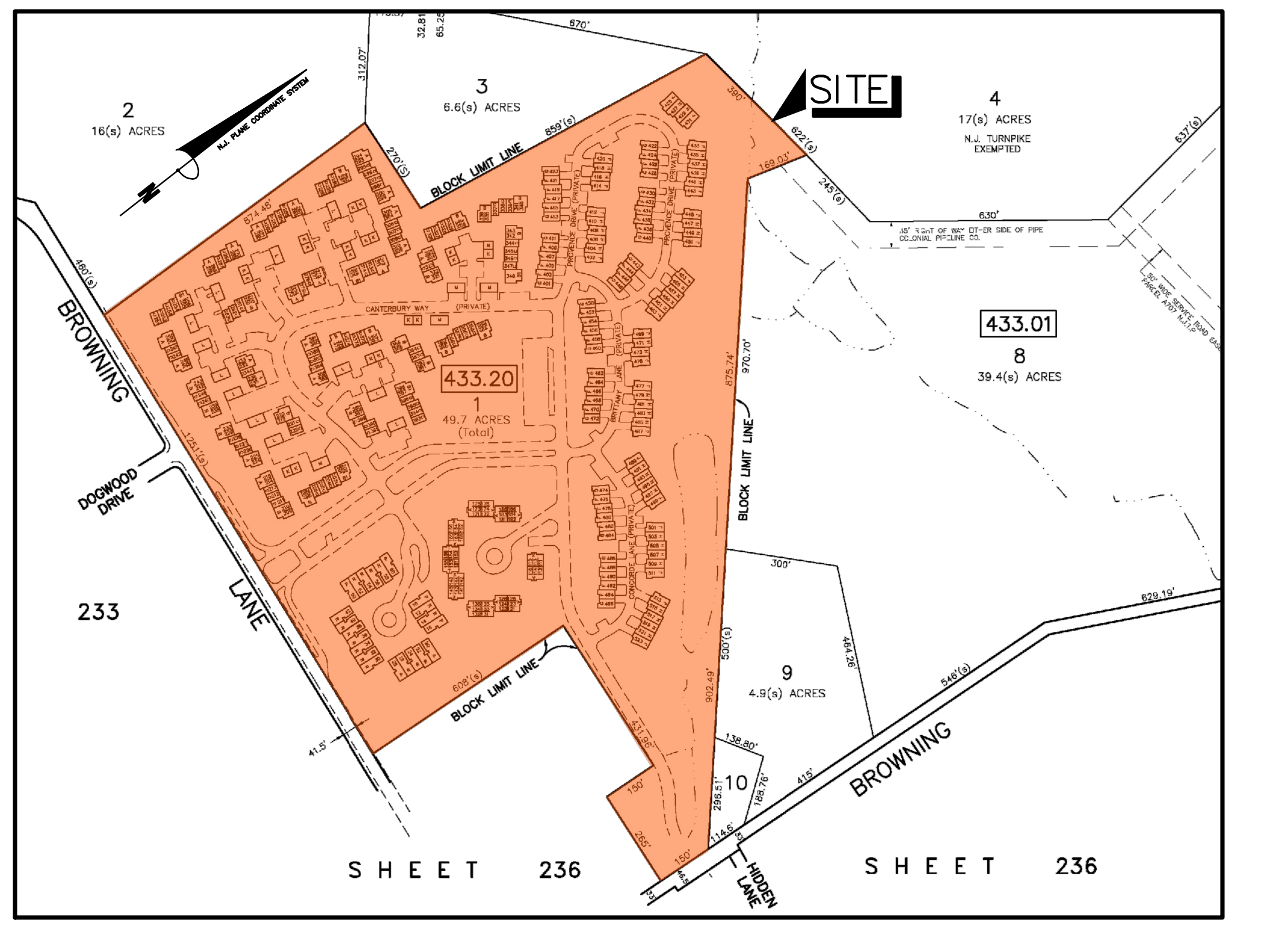
SOLID WASTE, RECYCLING & TRASH MANAGEMENT NOTE

THE SOLID WASTE AND TRASH WILL BE STORED IN AN EXISTING TRASH AND REFUSE AREA ALONG PROVENCE DRIVE.

TRASH REMOVAL FOR ALL PROPOSED TOWNHOMES AND ALL EXISTING UNITS IN PHASES I, II & III WILL BE STREET SIDE COLLECTIONS AS CURRENTLY EXISTS. FREQUENCY OF COLLECTION WILL REMAIN AT ONCE A WEEK FOR SOLID REFUSE. CENTURA ASSOCIATION WILL CONTINUE TO UTILIZE DUMPSTERS (3) ON RELOCATED PAD SITES PER PLANS. (NOTE: NORMAL HOUSEHOLD REFUSE IS TAKEN DOWN TO RECEPTACLES IN THE BASEMENTS OF EACH BUILDING AND FROM THERE DAILY REMOVED TO THE EXISTING DUMPSTERS.) BASED ON FISCAL YEAR 2010 FIGURES SUPPLIED BY CHERRY HILL TOWNSHIP PUBLIC WORKS, THE AVERAGE AMOUNT OF WASTE GENERATED PER RESIDENCE IS APPROXIMATELY 33 POUNDS/WEEK OR 1,714 POUNDS PER YEAR. THE PROJECT WILL BE DEVELOPED IN PHASES WHICH WILL ALLOW FOR A GRADUAL INCREASE IN THE ADDITION MUNICIPAL SERVICE REQUIREMENT.

RECYCLING FOR ALL PROPOSED TOWNHOUSES WILL BE CONDUCTED CURBSIDE AS AN EXTENSION OF THE CURRENT RECYCLING/CREDIT PROGRAM. RE-CYCLING IN THE EXISTING CENTURA ASSOCIATION BUILDINGS IS ACCOMPLISHED IN THE SAME MANNER AS TRASH REMOVAL. (THE ENTIRE CENTURA PROJECT IS A PARTICIPANT IN THE BENCHMARK/INCENTIVE PROGRAM.) FREQUENCY OF COLLECTION WILL REMAIN AT ONCE A WEEK. BASED ON FISCAL YEAR 2010 FIGURES SUPPLIED BY CHERRY HILL TOWNSHIP PUBLIC WORKS, THE AVERAGE AMOUNT OF WASTE GENERATED PER RESIDENCE IS APPROXIMATELY 16 POUNDS/WEEK OR 816 POUNDS PER YEAR. THE PROJECT WILL BE DEVELOPED IN PHASES WHICH WILL ALLOW FOR A GRADUAL INCREASE IN THE ADDITION MUNICIPAL SERVICE REQUIREMENT. THE APPLICANT HAS REQUESTED UPDATED FIGURES FROM THE TOWNSHIP AND WILL ADJUST THE NUMBERS CITED IF THE CURRENT FISCAL YEAR DATA HAS CHANGED FROM THE SOURCE DATA.

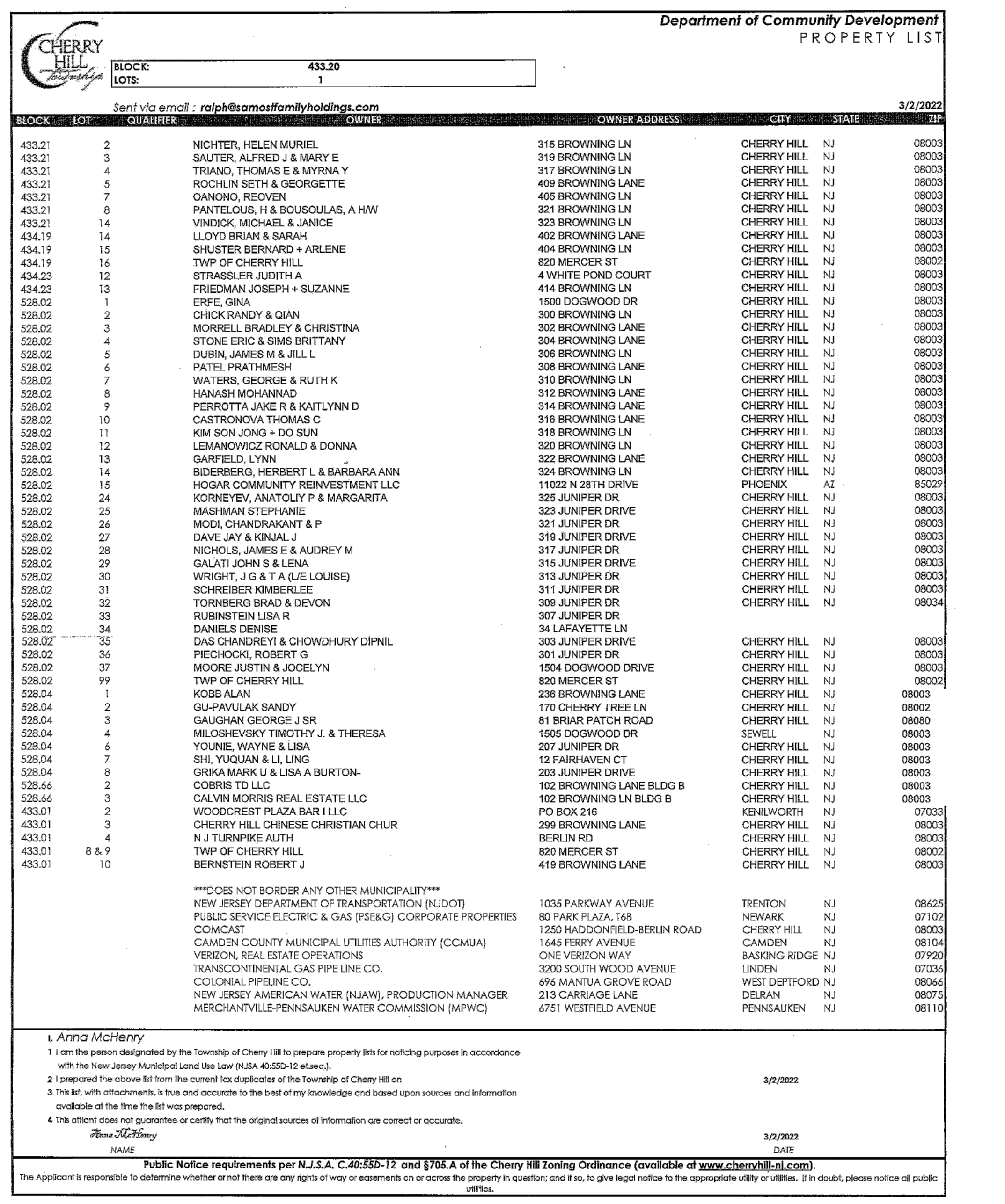
CENTURA HOME OWNER ASSOCIATIONS WITH INDIVIDUAL TRASH/RECYCLING COLLECTION HAVE REGULATIONS REQUIRING ALL TRASH AND/OR RECYCLABLES TO BE STORED INDOORS. IN ADDITION, HOME OWNERS ASSOCIATIONS RULES PROHIBIT THE PLACING OF MATERIALS TO BE COLLECTED OUTSIDE PRIOR TO 7:00 P.M. THE NIGHT BEFORE PICK-UP AND FURTHER REQUIRE THAT CONTAINERS BE REMOVED FROM STREET SIDE PRIOR TO 4:00 P.M. THE DAY OF COLLECTION.



OFFICIAL TAX MAP OF CHERRY HILL TOWNSHIP

SCALE: 1" = 400'

ADJOINING OWNERS LIST



Department of Community Development
PROPERTY LIST

BLOCK: 433.20
LOTS: 1

Sent via email : ralph@samostfamilyholdings.com

3/2/2022

BLOCK	LOT	QUALIFIER	OWNER	OWNER ADDRESS	CITY	STATE	ZIP
433.21	2		NICHTER, HELEN MURIEL	315 BROWNING LN	CHERRY HILL	NJ	08003
433.21	3		SAUTER, ALFRED J & MARY E	319 BROWNING LN	CHERRY HILL	NJ	08003
433.21	4		TRIANO, THOMAS E & MYRNA Y	317 BROWNING LN	CHERRY HILL	NJ	08003
433.21	5		ROCHLIN SETH & GEORGETTE	409 BROWNING LANE	CHERRY HILL	NJ	08003
433.21	7		OANONO, REOVEN	405 BROWNING LN	CHERRY HILL	NJ	08003
433.21	8		PANTELOUS, H & BOUSOULAS, A H/W	321 BROWNING LN	CHERRY HILL	NJ	08003
433.21	14		VINDICK, MICHAEL & JANICE	323 BROWNING LN	CHERRY HILL	NJ	08003
434.19	14		LLOYD BRIAN & SARAH	402 BROWNING LANE	CHERRY HILL	NJ	08003
434.19	15		SHUSTER BERNARD + ARLENE	404 BROWNING LN	CHERRY HILL	NJ	08003
434.19	16		TWP OF CHERRY HILL	820 MERCER ST	CHERRY HILL	NJ	08002
434.23	12		STRASSLER JUDITH A	4 WHITE POND COURT	CHERRY HILL	NJ	08003
434.23	13		FRIEDMAN JOSEPH + SUZANNE	414 BROWNING LN	CHERRY HILL	NJ	08003
528.02	1		ERFE, GINA	1500 DOGWOOD DR	CHERRY HILL	NJ	08003
528.02	2		CHICK RANDY & QIAN	300 BROWNING LN	CHERRY HILL	NJ	08003
528.02	3		MORRELL BRADLEY & CHRISTINA	302 BROWNING LANE	CHERRY HILL	NJ	08003
528.02	4		STONE ERIC & SIMS BRITTANY	304 BROWNING LANE	CHERRY HILL	NJ	08003
528.02	5		DUBIN, JAMES M & JILL L	306 BROWNING LN	CHERRY HILL	NJ	08003
528.02	6		PATEL PRATHMESH	308 BROWNING LANE	CHERRY HILL	NJ	08003
528.02	7		WATERS, GEORGE & RUTH K	310 BROWNING LN	CHERRY HILL	NJ	08003
528.02	8		HANASH MOHANNAD	312 BROWNING LANE	CHERRY HILL	NJ	08003
528.02	9		PERROTTA JAKE R & KAITLYNN D	314 BROWNING LANE	CHERRY HILL	NJ	08003
528.02	10		CASTRONOVA THOMAS C	316 BROWNING LANE	CHERRY HILL	NJ	08003
528.02	11		KIM SON JONG + DO SUN	318 BROWNING LN	CHERRY HILL	NJ	08003
528.02	12		LEMANOWICZ RONALD & DONNA	320 BROWNING LN	CHERRY HILL	NJ	08003
528.02	13		GARFIELD, LYNN	322 BROWNING LANE	CHERRY HILL	NJ	08003
528.02	14		BIDERBERG, HERBERT L & BARBARA ANN	324 BROWNING LN	CHERRY HILL	NJ	08003
528.02	15		HOGAR COMMUNITY REINVESTMENT LLC	11022 N 28TH DRIVE	PHOENIX	AZ	85029
528.02	24		KORNEYEV, ANATOLIY P & MARGARITA	325 JUNIPER DR	CHERRY HILL	NJ	08003
528.02	25		MASHMAN STEPHANIE	323 JUNIPER DRIVE	CHERRY HILL	NJ	08003
528.02	26		MODI, CHANDRAKANT & P	321 JUNIPER DR	CHERRY HILL	NJ	08003
528.02	27		DAVE JAY & KINJAL J	319 JUNIPER DRIVE	CHERRY HILL	NJ	08003
528.02	28		NICHOLS, JAMES E & AUDREY M	317 JUNIPER DR	CHERRY HILL	NJ	08003
528.02	29		GALATI JOHN S & LENA	315 JUNIPER DRIVE	CHERRY HILL	NJ	08003
528.02	30		WRIGHT, J G & T A (L/E LOUISE)	313 JUNIPER DR	CHERRY HILL	NJ	08003
528.02	31		SCHREIBER KIMBERLEE	311 JUNIPER DR	CHERRY HILL	NJ	08003
528.02	32		TORNBERG BRAD & DEVON	309 JUNIPER DR	CHERRY HILL	NJ	08034
528.02	33		RUBINSTEIN LISA R	307 JUNIPER DR			
528.02	34		DANIELS DENISE	34 LAFAYETTE LN			
528.02	35		DAS CHANDREYI & CHOWDHURY DIPNIL	303 JUNIPER DRIVE	CHERRY HILL	NJ	08003
528.02	36		PIECHOCKI, ROBERT G	301 JUNIPER DR	CHERRY HILL	NJ	08003
528.02	37		MOORE JUSTIN & JOCELYN	1504 DOGWOOD DRIVE	CHERRY HILL	NJ	08003
528.02	99		TWP OF CHERRY HILL	820 MERCER ST	CHERRY HILL	NJ	08002
528.04	1		KOBB ALAN	236 BROWNING LANE	CHERRY HILL	NJ	08003
528.04	2		GU-PAVULAK SANDY	170 CHERRY TREE LN	CHERRY HILL	NJ	08002
528.04	3		GAUGHAN GEORGE J SR	81 BRIAR PATCH ROAD	CHERRY HILL	NJ	08080
528.04	4		MILOSHEVSKY TIMOTHY J. & THERESA	1505 DOGWOOD DR	SEWELL	NJ	08003
528.04	6		YOUNIE, WAYNE & LISA	207 JUNIPER DR	CHERRY HILL	NJ	08003
528.04	7		SHI, YUQUAN & LI, LING	12 FAIRHAVEN CT	CHERRY HILL	NJ	08003
528.04	8		GRIKA MARK U & LISA A BURTON-	203 JUNIPER DRIVE	CHERRY HILL	NJ	08003
528.66	2		COBRIS TD LLC	102 BROWNING LANE BLDG B	CHERRY HILL	NJ	08003
528.66	3		CALVIN MORRIS REAL ESTATE LLC	102 BROWNING LN BLDG B	CHERRY HILL	NJ	08003
433.01	2		WOODCREST PLAZA BAR I LLC	PO BOX 216	KENILWORTH	NJ	07033
433.01	3		CHERRY HILL CHINESE CHRISTIAN CHUR	299 BROWNING LANE	CHERRY HILL	NJ	08003
433.01	4		N J TURNPIKE AUTH	BERLIN RD	CHERRY HILL	NJ	08003
433.01	8 & 9		TWP OF CHERRY HILL	820 MERCER ST	CHERRY HILL	NJ	08002
433.01	10		BERNSTEIN ROBERT J	419 BROWNING LANE	CHERRY HILL	NJ	08003
			DOES NOT BORDER ANY OTHER MUNICIPALITY				
			NEW JERSEY DEPARTMENT OF TRANSPORTATION (NJDOT)	1035 PARKWAY AVENUE	TRENTON	NJ	08625
			PUBLIC SERVICE ELECTRIC & GAS (PSE&G) CORPORATE PROPERTIES	80 PARK PLAZA, T6B	NEWARK	NJ	07102
			COMCAST	1250 HADDONFIELD-BERLIN ROAD	CHERRY HILL	NJ	08003
			CAMDEN COUNTY MUNICIPAL UTILITIES AUTHORITY (CCMUA)	1645 FERRY AVENUE	CAMDEN	NJ	08104
			VERIZON, REAL ESTATE OPERATIONS	ONE VERIZON WAY	BASKING RIDGE	NJ	07920
			TRANSCONTINENTAL GAS PIPE LINE CO.	3200 SOUTH WOOD AVENUE	LINDEN	NJ	07036
			COLONIAL PIPELINE CO.	696 MANTUA GROVE ROAD	WEST DEPTFORD	NJ	08066
			NEW JERSEY AMERICAN WATER (NJAW), PRODUCTION MANAGER	213 CARRIAGE LANE	DELRAN	NJ	08075
			MERCHANTVILLE-PENNSAUKEN WATER COMMISSION (MPWC)	6751 WESTFIELD AVENUE	PENNSAUKEN	NJ	08110

I, *Anna McHenry*

1 I am the person designated by the Township of Cherry Hill to prepare property lists for noticing purposes in accordance with the New Jersey Municipal Land Use Law (NJSA 40:55D-12 et.seq.).
2 I prepared the above list from the current tax duplicates of the Township of Cherry Hill on 3/2/2022
3 This list, with attachments, is true and accurate to the best of my knowledge and based upon sources and information available at the time the list was prepared.
4 This affiant does not guarantee or certify that the original sources of information are correct or accurate.

Anna McHenry
NAME

3/2/2022
DATE

Public Notice requirements per *N.J.S.A. C.40:55D-12* and §705.A of the Cherry Hill Zoning Ordinance (available at www.cherryhill-nj.com).

The Applicant is responsible to determine whether or not there are any rights of way or easements on or across the property in question; and if so, to give legal notice to the appropriate utility or utilities. If in doubt, please notice all public utilities.

CONDOMINIUM ASSOCIATIONS

CENTURA
ACTION MANAGEMENT
2215 OLD MARLTON PIKE EAST, SUITE A
MARLTON, NEW JERSEY 08053-2350

COTSWOLD
TARGET MANAGEMENT
455 LARCHMONT BOULEVARD, SUITE 14A
MT. LAUREL, NEW JERSEY 08054

NORMANDY
ACTION MANAGEMENT
918 ROUTE 73, BOX 100
MARLTON, NEW JERSEY 08053

FLOOD DATA

THE SITE IS LOCATED IN FLOOD ZONE "X" AS MAPPED ON FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP FOR CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY, PANEL 44 OF 305, MAP NUMBER 34007C0044E, AND PANEL 63 OF 305, MAP NUMBER 34007C0063E, DATED SEPTEMBER 28, 2007. PHASES 1 AND 2 OF THIS PROJECT ARE LOCATED OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

PROJECT SIGNAGE

NO SIGNS ARE PROPOSED AS PART OF THIS APPLICATION.

ADA COMPLIANCE NOTE

THE GENERAL CONTRACTOR, CONSTRUCTION MANAGER OR OWNER SHALL INSTRUCT THE CONCRETE CONTRACTOR TO TAKE CARE IN SETTING FORMS FOR PEDESTRIAN AREAS TO INSURE THAT THEY CONFORM TO THE CURRENT ADA BARRIER FREE CODES. PRIOR TO POURING CONCRETE WITHIN THE BARRIER FREE WALKS AND RAMPS ALL FORMS SHALL BE INSPECTED BY THE CHERRY HILL TOWNSHIP ENGINEER TO INSURE PROPER SLOPES AND ELEVATIONS CONFORMING TO THE CURRENT ADA CODES.

WETLANDS

FRESHWATER WETLANDS/WATERS BOUNDARY LINE AS VERIFIED BY NJDEP ON JULY 19, 2018, FILE NUMBER 0409-10-0004.1

DAM DECOMMISSION NOTE

THE APPLICANT HAS CONSTRUCTED A TEMPORARY BREACH IN ACCORDANCE WITH APPROVED NJDEP, DAM SAFETY APPROVED PLANS. THE APPLICANT IS IN THE PROCEES OF SEEKING APPROVAL TO CONVERT THE TEMPORARY BREACH INTO A PERMANENT BREACH.

RECREATIONAL NOTE

NO NEW RECREATIONAL AMENITIES ARE PROPOSED AS PART OF THIS APPLICATION. ANY FUTURE PLANS FOR RECREATION SHALL BE SUBMITTED TO THE PLANNING BOARD FOR REVIEW.

NEW JERSEY MOTOR VEHICLE CODE, TITLE 39

APPLICANT WILL REQUEST TITLE 39 CERTIFICATION FOR CENTURA-PHASE 1 AND 2.

BASIN MAINTENANCE NOTES

BASIN 1 AND 2 TO BE OWNED AND MAINTAINED BY AN APPROPRIATE HOMEOWNERS ASSOCIATION.

SOILS FOUND ON-SITE FOR PHASES 1 AND 2

THE FOLLOWING SOILS ARE FOUND ON-SITE AS DEFINED BY THE THE UNITED STATES DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE:

FmhAt	FLUVAQUENTS	HYDROLOGIC SOIL GROUP D
FrmA	FREEHOLD FINE SANDY LOAM	HYDROLOGIC SOIL GROUP B
FrmB	FREEHOLD FINE SANDY LOAM	HYDROLOGIC SOIL GROUP B

DATE	ISSUE	REVISION	BY	APPR.
03/10/2022	6	ISSUED FOR FINAL SITE PLAN COMPLIANCE	TJK	RJC
07/02/2020	5	SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK	RJC
01/13/20	4	NO CHANGE THIS SHEET	GMM	RJC
07/16/19	3	ADD NOTES; UPDATE VARIANCE LIST	TJK	RJC
10/2/18	2	REVISE ZONING SCHEDULE, WETLANDS NOTE AND ADJOINING OWNERS LIST	GMM	RJC
12/12/17	1	NOT PART OF INITIAL SUBMISSION	TJK	RJC

TELEPHONE (609) 704-1155
FAX (609) 704-1166
www.jsaengineering.com

41 SOUTH ROUTE 73, BUILDING 1, SUITE 201
HAMMONTON, NEW JERSEY 08037

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28017600

CENTURA – PHASE 1 AND 2

TAX MAP SHEET 234, BLOCK 433.20, LOT 15.01 & 16.01, FORMERLY BLOCK 433.20, LOT 1
CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

INFORMATION SHEET

DEVEL, LLC.
C/O STEPHEN D. SAMOST, ESQUIRE 479 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200

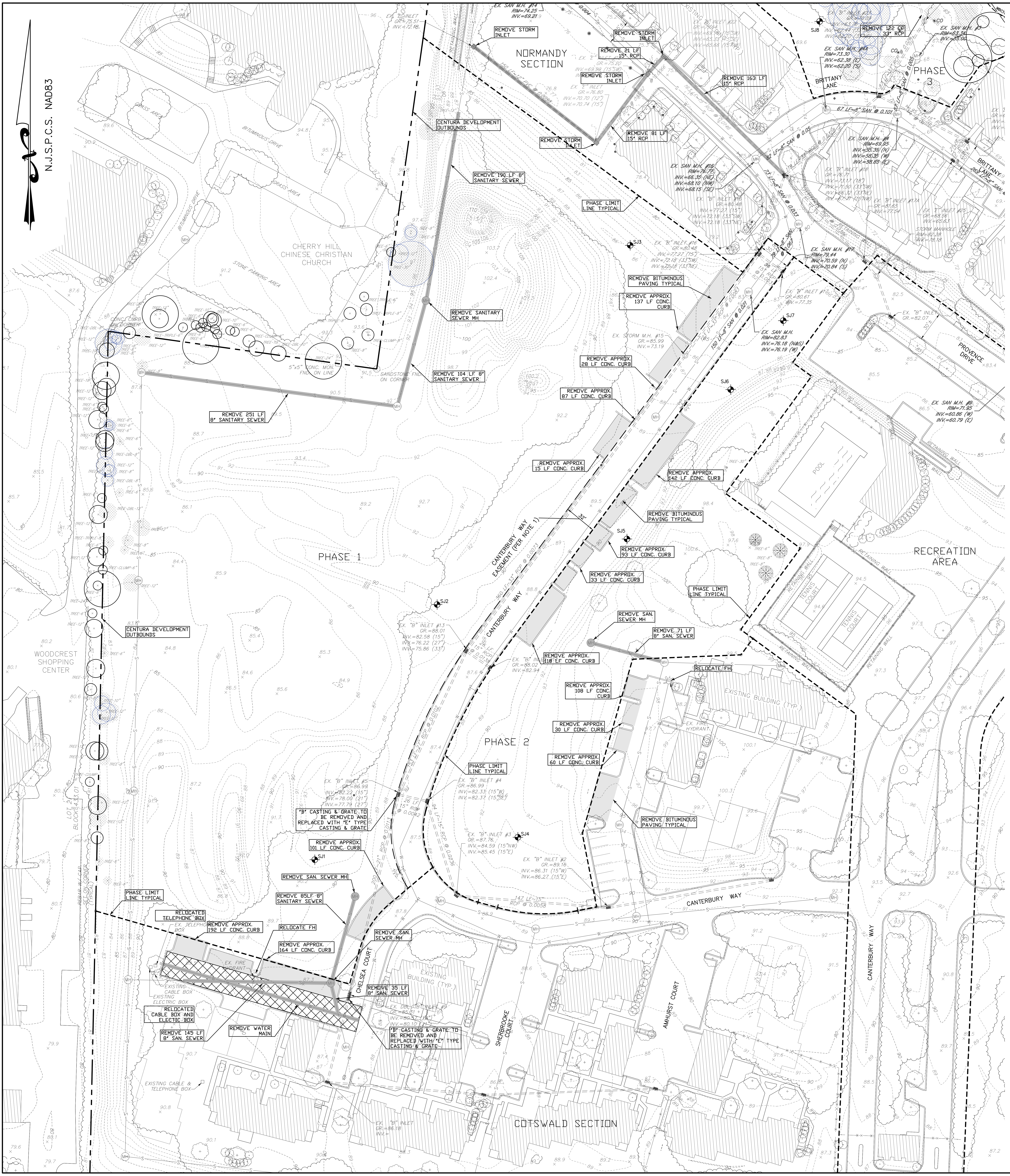
Richard J Clemson 03/10/2022
DATE

ALL DOCUMENTS PREPARED BY JSA. ARE INSTRUMENTS OF SERVICE IN RESPECT TO THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER TO OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY JSA. FOR THE SPECIFIC PURPOSE INTENDED WILL BE OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO JSA. AND SHALL INDEMNIFY AND HOLD HARMLESS JSA FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY TJK	APPROVED BY RJC
SCALE AS SHOWN	DATE 12/12/17
JOB NUMBER 3487	SHEET NO. 2 OF 26

CS0002

CREATED ON 01/10/2022, LAST MODIFIED ON 01/10/2022


N.J.S.P.C.S. NAD83
NORMANDY SECTION
PHASE 3
PHASE 1
PHASE 2
CHERRY HILL CHINESE CHRISTIAN CHURCH
WOODCREST SHOPPING CENTER
RECREATION AREA
COTSWALD SECTION
CANTERBURY WAY
CANTERBURY WAY EASEMENT (PER NOTE 1)
BRITTANY LANE
PROVENCE DRIVE
CHELSEA COURT
SHERBROOKE COURT
AMHURST COURT
POOL
TENNIS COURT
EXISTING BUILDING (TYP.)
CENTURA DEVELOPMENT OUTBOUNDS
PHASE LIMIT LINE TYPICAL
REMOVE STORM INLET
REMOVE 21 LF 15" RCP
REMOVE 81 LF 15" RCP
REMOVE 163 LF 15" RCP
REMOVE 122 LF 33" RCP
REMOVE 190 LF 8" SANITARY SEWER
REMOVE SANITARY SEWER MH
REMOVE 104 LF 8" SANITARY SEWER
REMOVE 251 LF 8" SANITARY SEWER
REMOVE BITUMINOUS PAVING TYPICAL
REMOVE APPROX. 137 LF CONC. CURB
REMOVE APPROX. 28 LF CONC. CURB
REMOVE APPROX. 87 LF CONC. CURB
REMOVE APPROX. 15 LF CONC. CURB
REMOVE APPROX. 142 LF CONC. CURB
REMOVE APPROX. 93 LF CONC. CURB
REMOVE APPROX. 33 LF CONC. CURB
REMOVE APPROX. 118 LF CONC. CURB
REMOVE APPROX. 108 LF CONC. CURB
REMOVE APPROX. 30 LF CONC. CURB
REMOVE APPROX. 60 LF CONC. CURB
REMOVE APPROX. 101 LF CONC. CURB
REMOVE APPROX. 192 LF CONC. CURB
REMOVE APPROX. 164 LF CONC. CURB
REMOVE SAN. SEWER MH
REMOVE 71 LF 8" SAN. SEWER
RELOCATE FH
"B" CASTING & GRATE TO BE REMOVED AND REPLACED WITH "E" TYPE CASTING & GRATE
REMOVE 85LF 8" SANITARY SEWER
RELOCATED TELEPHONE BOX
RELOCATED CABLE BOX AND ELECTRIC BOX
REMOVE 145 LF 8" SAN. SEWER
REMOVE WATER MAIN
REMOVE 35 LF 8" SAN. SEWER
EXISTING CABLE & TELEPHONE BOX
LOT 2 BLOCK 433.01
SJ1
SJ2
SJ3
SJ4
SJ5
SJ6
SJ7
SJ8

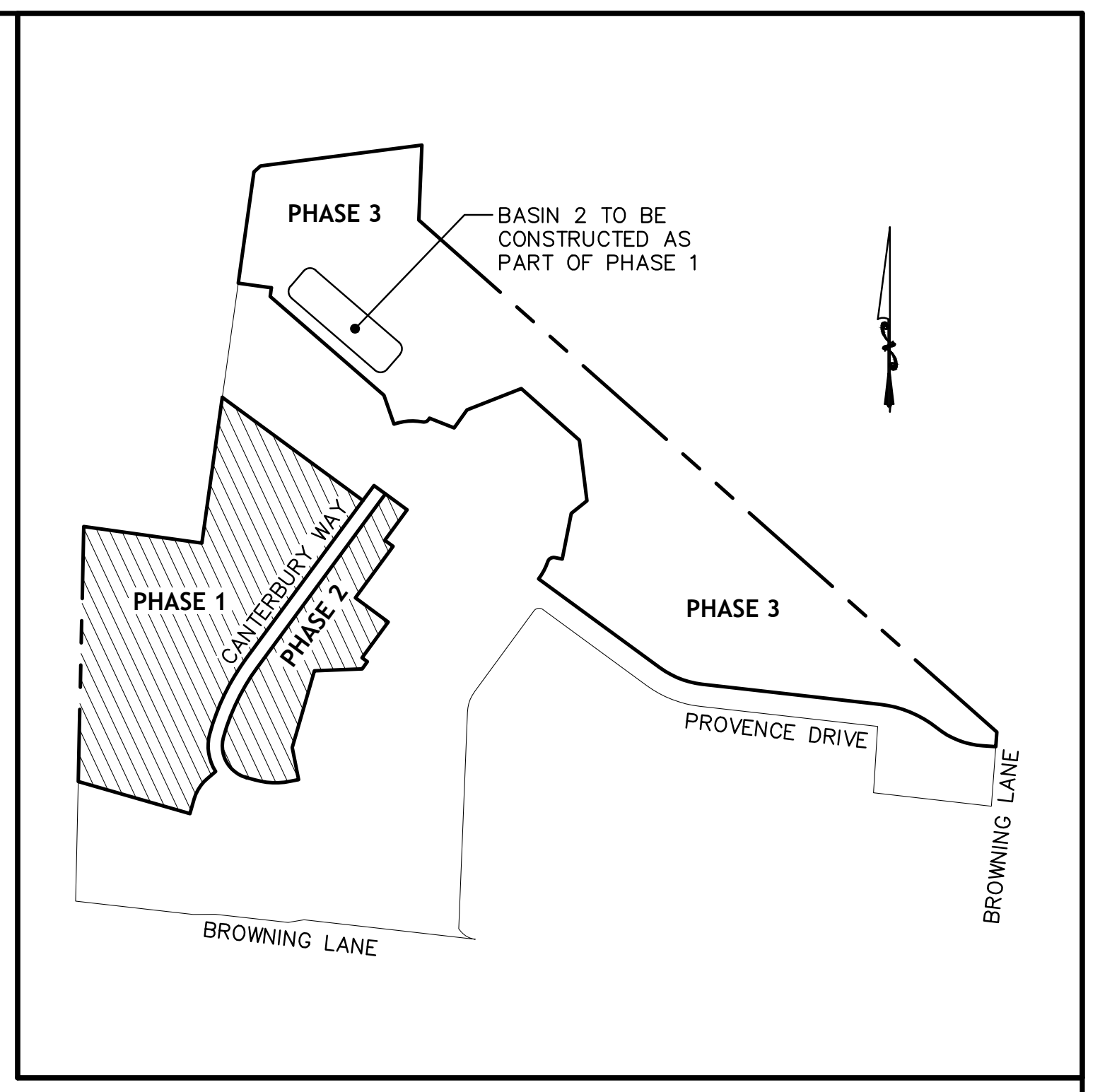
TEST PIT DATA

TEST PIT #SJ7 DEPTH	PROPOSED BASIN AREA ELEVATION 84.45 DESCRIPTION	
0"–3"	TOPSOIL	
2"–144"	YELLOWISH RED FINE LOAMY SAND / SANDY LOAM; SUB–ANGULAR BLOCKY, FRIABLE	
	MOTTLES: GRAY & YELLOW MANY DISTINCT @ 125"	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER–TABLE –125"	(ELEV. 74.05)
TEST PIT #SJ6 DEPTH	PROPOSED BASIN AREA ELEVATION 87.46 DESCRIPTION	
0"–3"	TOPSOIL	
3"–150"	YELLOWISH RED FINE LOAMY SAND / SANDY LOAM; SUB–ANGULAR BLOCKY, FRIABLE	
	MOTTLES: GRAY & YELLOW MANY DISTINCT @ 127"	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER–TABLE –127"	(ELEV. 76.86)
TEST PIT #SJ3 DEPTH	PROPOSED TOWNHOME ELEVATION 86.39 DESCRIPTION	
0"–3"	TOPSOIL	
3"–26"	YELLOWISH RED FINE SANDY LOAM; SUB–ANGULAR BLOCKY, FRIABLE	
26"–140"	REDDISH BROWN FINE SANDY LOAM SUB–ANGULAR BLOCKY, FRIABLE, GRAVEL 15%	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER–TABLE – ≥140"	(ELEV. 74.69)
TEST PIT #SJ5 DEPTH	PROPOSED TOWNHOME ELEVATION 91.34 DESCRIPTION	
0"–4"	TOPSOIL	
4"–132"	YELLOWISH RED FINE SANDY LOAM; SUB–ANGULAR BLOCKY, FRIABLE	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER–TABLE – ≥132"	(ELEV. 80.34)
TEST PIT #SJ2 DEPTH	PROPOSED TOWNHOME ELEVATION 90.57 DESCRIPTION	
0"–11"	FILL MATERIAL CONSISTING OF LOAMY SAND	
11"–56"	STRONG BROWN LOAM / SANDY CLAY LOAM; SUB–ANGULAR BLOCKY, FRIABLE	
	SILT INCLUSIONS THROUGHOUT	
56"–140"	STRONG BROWN FINE SANDY LOAM; SUB–ANGULAR BLOCKY, FRIABLE, STICKY	
	MOTTLES: GRAY & YELLOW FEW FAINT @ 114"	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER–TABLE –114"	(ELEV. 81.07)
TEST PIT #SJ1 DEPTH	PROPOSED TOWNHOME ELEVATION 91.53 DESCRIPTION	
0"–50"	YELLOWISH RED SANDY CLAY LOAM; SUB–ANGULAR BLOCKY, FRIABLE, SLIGHTLY STICKY	
50"–62"	LIGHT GRAY SILTY CLAY LOAM; MASSIVE, FIRM	
62"–96"	REDDISH BROWN FINE SANDY LOAM / SANDY CLAY LOAM; SUB–ANGULAR BLOCKY, FRIABLE, STICKY	
96"–114"	REDDISH BROWN FINE SANDY LOAM; ANGULAR BLOCKY, FRIABLE	
114"–154"	REDDISH BROWN FINE LOAMY SAND MOTTLES: GRAY & YELLOW MANY DISTINCT BANDS @ 132"	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER–TABLE – ≥ 132"	(ELEV. 80.53)
TEST PIT #SJ4 DEPTH	PROPOSED TOWNHOME ELEVATION 92.59 DESCRIPTION	
0"–6"	TOPSOIL	
6"–42"	MISCELLANEOUS FILL CONSISTING OF BRICK, LUMBER, & LOAM	
42"–88"	REDDISH GRAY SILTY CLAY LOAM; MASSIVE, FIRM	
88"–103"	REDDISH BROWN SANDY CLAY LOAM; SUB–ANGULAR BLOCKY, FRIABLE, STICKY	
103"–132"	REDDISH BROWN FINE SANDY LOAM; SUB–ANGULAR, BLOCKY, FRIABLE, SLIGHTLY STICKY	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER–TABLE – ≥ 132"	(ELEV. 81.59)
TEST PIT #SJ8 DEPTH	PROPOSED BASIN AREA ELEVATION 68.87 DESCRIPTION	
0"–6"	TOPSOIL	
6"–61"	YELLOWISH RED FINE TO VERY FINE LOAMY SAND; SUB–ANGULAR BLOCKY, FRIABLE	
61"–80"	REDDISH BROWN FINE LOAMY SAND; SUB–ANGULAR BLOCKY, FRIABLE	
80"–97"	PALE BROWN FINE SAND / LOAMY SAND; SUB–ANGULAR BLOCKY, FRIABLE	
	MOTTLES: YELLOW FEW FAINT @ 96"	
97"–132"	REDDISH BROWN FINE LOAMY SAND; SUB–ANGULAR BLOCKY, FRIABLE	
132"–150"	REDDISH BROWN SILTY SANDL; SUB–ANGULAR BLOCKY, FRIABLE	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER–TABLE –97"	(ELEV. 60.77)
TEST PIT #SJ9 DEPTH	PROPOSED BASIN AREA ELEVATION 69.48 DESCRIPTION	
0"–4"	TOPSOIL	
4"–28"	STRONG BROWN FINE SANDY LOAM / LOAM; SUB–ANGULAR BLOCKY, FRIABLE, STICKY	
28"–90"	MISC. FILL CONSISTING OF BRICK, TRASH DEBRIS, TERRA COTTA PIPE, & ORGANIC SILT	
90"–153"	LIGHT GRAY FINE TO VERY FINE SAND /LOAMY SAND; SUB–ANGULAR BLOCKY, FRIABLE	
	MOTTLES; YELLOWISH RED COMMON DISTINCT @ 102"	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER–TABLE –102"	(ELEV. 60.98)
TEST PIT #SJ10 DEPTH	PROPOSED BASIN AREA ELEVATION 70.25 DESCRIPTION	
0"–36"	FILL MATERIAL CONSISTING OF ORGANICS & LOAMY SAND / SANDY LOAM	
36"–65"	YELLOWISH BROWN FINE LOAMY SAND; SUB–ANGULAR BLOCKY, FRIABLE	
65"–144"	LIGHT GRAY FINE TO VERY FINE LOAMY SAND; SUB–ANGULAR BLOCKY, FRIABLE	
	MOTTLES; YELLOWISH RED MANY DISTINCT @ 125"	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER–TABLE –125"	(ELEV. 59.85)
TEST PIT #SJ13 DEPTH	PROPOSED TOWNHOME ELEVATION 80.75 DESCRIPTION	
0"–4"	TOPSOIL	
4"–31"	YELLOWISH BROWN LOAM; SUB–ANGULAR BLOCKY, FRIABLE	
31"–90"	YELLOWISH RED FINE SANDY LOAM / LOAMY SAND; SUB–ANGULAR BLOCKY, FRIABLE	
90"–132"	REDDISH BROWN FINE SANDY LOAM; ANGULAR BLOCKY, FRIABLE	
114"–154"	LIGHT BROWN FINE LOAMY SAND; SUB–ANGULAR BLOCKY, FRIABLE	
	MOTTLES: GRAY & YELLOW FEW FAINT @ 133"	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER–TABLE – 133"	(ELEV. 69.65)
TEST PIT #SJ14 DEPTH	PROPOSED TOWNHOME ELEVATION 73.25 DESCRIPTION	
0"–5"	TOPSOIL	
5"–68"	YELLOWISH BROWN SANDY LOAM; SUB–ANGULAR BLOCKY, FRIABLE	
68"–90"	YELLOWISH RED FINE SANDY LOAM / LOAMY SAND; SUB–ANGULAR BLOCKY, FRIABLE	
90"–120"	GRAYISH BROWN FINE SANDY LOAM / LOAMY SAND; ANGULAR BLOCKY, FRIABLE	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER–TABLE – 120"	(ELEV. 63.25)
TEST PIT #SJ11 DEPTH	PROPOSED BASIN AREA ELEVATION 67.20 DESCRIPTION	
0"–3"	TOPSOIL	
3"–27"	YELLOWISH RED FINE LOAMY SAND/SANDY LOAM; SUB–ANGULAR BLOCKY, FRIABLE	
27"–47"	DARK GRAY ORGANIC SILT; ANGULAR BLOCKY, STICKY	
47"–132"	YELLOWISH RED FINE LOAMY SAND; SUB–ANGULAR BLOCKY, FRIABLE	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER–TABLE – ≥ 132"	(ELEV. 56.20)
TEST PIT #SJ12 DEPTH	PROPOSED BASIN AREA ELEVATION 69.78 DESCRIPTION	
0"–2"	TOPSOIL	
2"–44"	GRAY FINE FINE SAND / LOAMY SAND; SUB–ANGULAR BLOCKY, FRIABLE	
44"–66"	DARK GRAY ORGANIC SILT; ANGULAR BLOCKY, STICKY	
66"–144"	YELLOWISH RED FINE LOAMY SAND; SUB–ANGULAR BLOCKY, FRIABLE	
	MOTTLES: GRAY & YELLOW FEW FAINT @ 132"	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER–TABLE – ≥ 132"	(ELEV. 58.78)

NOTE: TEST PITS SJ #11, #12, #12 AND #14 ARE LOCATED WITHIN PHASE 3. REFER TO THE PHASE 3 SITE DEVELOPMENT PLANS FOR LOCATIONS.

DEMOLITION LEGEND

▨	BITUMINOUS PAVING TO BE REMOVED
▩	AREA TO BE MILLED AND OVERLAYED
—S—	SANITARY SEWER/MH TO BE REMOVED
═ ═ ═	STORM SEWER/INLET TO BE REMOVED
—W—	WATER MAIN TO BE REMOVED
○	TREES TO REMAIN
◍	TREES AND CLUSTERING TO BE REMOVED


PHASE 3
BASIN 2 TO BE CONSTRUCTED AS PART OF PHASE 1
PHASE 1
PHASE 2
CANTERBURY WAY
PHASE 3
PROVENCE DRIVE
BROWNING LANE
BROWNING LANE

KEY MAP:

SCALE: 1"=400'

NOTES

1. OUTBOUND INFORMATION TAKEN FROM A PLAN ENTITLED "ALTA/ACSM (1999) LAND TITLE SURVEY, CENTURA, BLOCK 433.20, P/O LOT 1, BROWNING LANE, CHERRY HILL TOWNSHIP, CAMDEN COUNTY, STATE OF NEW JERSEY", PREPARED BY TAYLOR WISEMAN TAYLOR, DATED 10/14/05 AND REVISED TO 05/24/10, AS PROVIDED BY CLIENT.
2. HORIZONTAL DATUM: N.J.P.C.S. NAD 83, AS INDICATED ON A PLAN ENTITLED "ALTA/ACSM (1999) LAND TITLE SURVEY, CENTURA, BLOCK 433.20, P/O LOT 1, BROWNING LANE, CHERRY HILL TOWNSHIP, CAMDEN COUNTY, STATE OF NEW JERSEY", PREPARED BY TAYLOR WISEMAN TAYLOR, DATED 10/14/05 AND REVISED TO 11/09/05, AS PROVIDED BY CLIENT.
3. TOPOGRAPHY AND VERTICAL DATUM PROVIDED BY THE CLIENT AND SUPPLEMENTED BY CLANCY & ASSOCIATES, INC.
4. UTILITY ASBUILT INFORMATION PROVIDED BY THE CLIENT AND SUPPLEMENTED BY CLANCY & ASSOCIATES, INC.
5. ENTIRE AREA = 9.403+/- ACRES (INCLUDING AREA WITHIN CANTERBURY WAY EASEMENT - 32' WIDE, EASEMENT AREA = 0.545+/- ACRES).

DAM DECOMMISSION NOTE

THE APPLICANT WILL SEEK PERMISSION FROM NJDEP TO DECOMMISSION THE EXISTING DAM OR TO PARTIALLY DECOMMISSION SAID DAM AS A CONDITION OF APPROVAL. THE APPLICANT WILL INCLUDE THE DEPARTMENT OF COMMUNITY DEVELOPMENT AND PLANNING BOARD ENGINEER ON ALL CORRESPONDENCE WITH NJDEP WITH REGARDS TO ITS EFFORTS CONCERNING THE DAM.

STANDARD PLAN LEGEND

- PROPERTY OUTBOUNDS LINE
- CENTER LINE
- EASEMENT LINE
- GAS LINE
- SANITARY SEWER LINE
- WATER LINE
- OVERHEAD WIRES
- WETLANDS LINE
- EDGE OF PAVING
- RIPARIAN LINE
- FLOODWAY LIMIT LINE (100 YR)
- FLOOD HAZARD AREA LINE
- PHASE LIMIT LINE
- LIMIT OF DISTURBANCE
- FENCES
- EXISTING CONTOUR
- PROPOSED CONTOUR
- × 100.6 EXISTING SPOT ELEVATION
- × 101.3 PROPOSED SPOT ELEVATION
- VEGETATION LINE
- TEST PIT / SOIL BORING
- GV WV VALVES
- WM GM METERS
- SIGNS
- UTILITY POLES
- LIGHT POLES
- FIRE HYDRANT
- CLEANOUT
- USPS MAIL BOXES
- × CROSS CUT
- DRILL HOLE W/ WINGS
- □ FOUND MONUMENT
- ■ SET MONUMENT
- ○ FOUND IRON ROD/PIPE
- ● SET IRON ROD/PIPE
- INLETS
- MANHOLES
- TRAFFIC SIGNAL

811
Know what's below.
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GRAPHIC SCALE
40 0 20 40 80 160
1 INCH = 40 FEET

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28017600

41 SOUTH ROUTE 73, BUILDING 1, SUITE 201
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CENTURA – PHASE 1 AND 2

TAX MAP SHEET 234, BLOCK 433.20, LOT 15.01 & 16.01, FORMERLY BLOCK 433.20, LOT 1
CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

EXISTING CONDITIONS AND DEMOLITION PLAN

DEVEL, LLC.
C/O STEPHEN D. SAMOST, ESQUIRE 479 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043

DATE	ISSUE	REVISION	BY	APPR.
03/10/2022	6	ISSUED FOR FINAL SITE PLAN COMPLIANCE	TJK	RJC
07/02/2020	5	SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK	RJC
01/13/20	4	REV PER TWP PUBLIC WORKS ENGR.; SHOW EX SEWER MAIN CONNECT. TO BROWNING	GMM	RJC
07/16/19	3	ADD DAM DECOMMISSIONING NOTE	TJK	RJC
10/2/18	2	NO CHANGE THIS SHEET	GMM	RJC
12/12/17	1	NOT PART OF INITIAL SUBMISSION	TJK	RJC

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200
Richard J Clemson 03/10/2022
DATE

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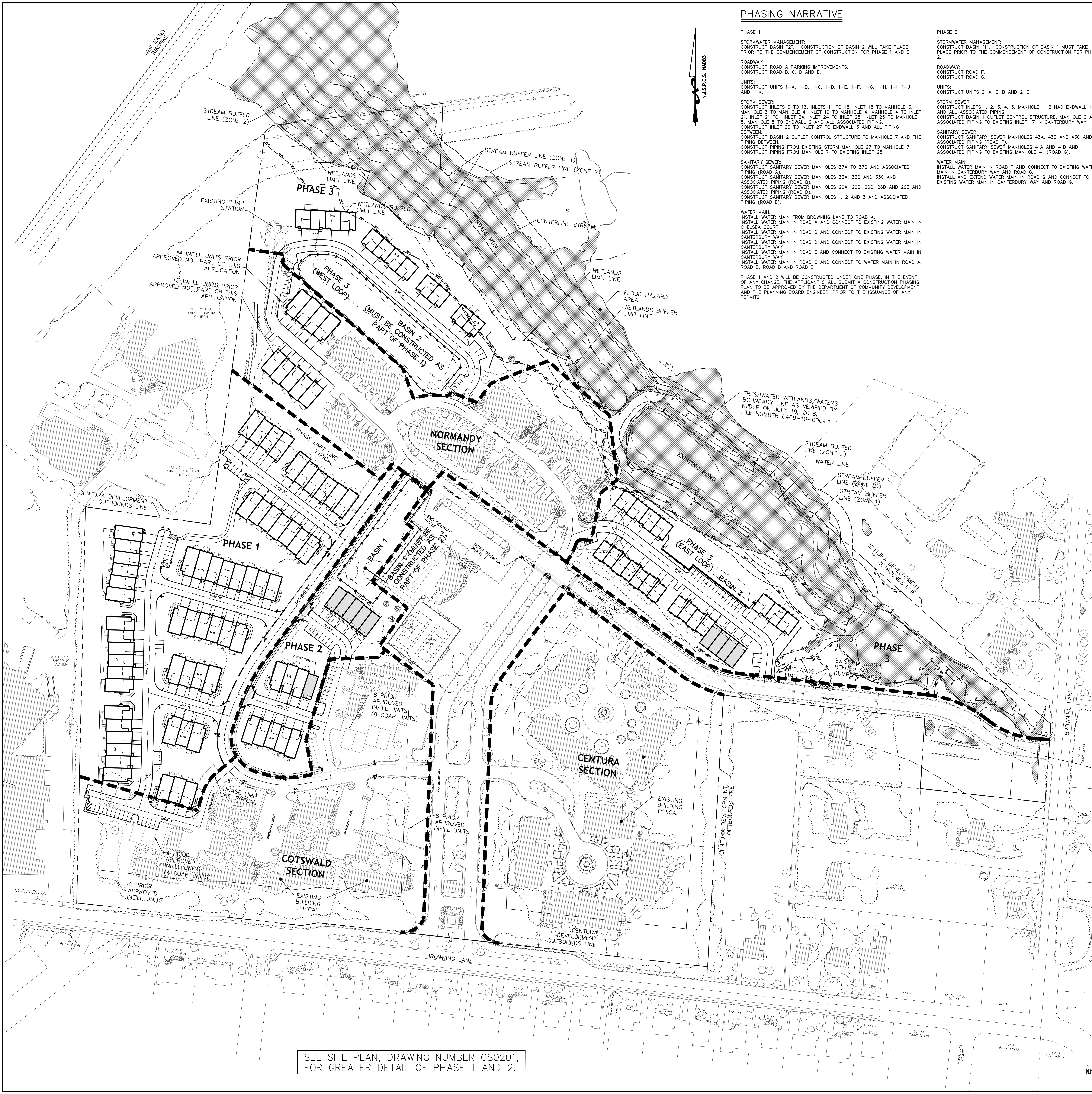
DRAWN BY TJK	APPROVED BY RJC
SCALE 1"=40'	DATE 12/12/17
JOB NUMBER 3487	SHEET NO. 3 OF 26

CS0101

Z:\CHERRY HILL LAND DEVELOPMENT GROUP\3487 CENTURA PHASE 1 & 2\DRAWINGS\CENTURA\CS0101.DWG

CREATED ON 04/01/2022, LAST MODIFIED ON 04/01/2022


NEW JERSEY TURNPIKE
N.J.S.P.C.S. NAD83
STREAM BUFFER LINE (ZONE 2)
STREAM BUFFER LINE (ZONE 1)
STREAM BUFFER LINE (ZONE 2)
WETLANDS LIMIT LINE
PHASE 3
EXISTING PUMP STATION
WETLANDS BUFFER LIMIT LINE
TINDALE RUN
CENTERLINE STREAM
*4 INFILL UNITS PRIOR APPROVED NOT PART OF THIS APPLICATION
*5 INFILL UNITS PRIOR APPROVED NOT PART OF THIS APPLICATION
PHASE 3 (WEST LOOP)
BASIN 2 (MUST BE CONSTRUCTED AS PART OF PHASE 1)
WETLANDS LIMIT LINE
FLOOD HAZARD AREA
WETLANDS BUFFER LIMIT LINE
CHERRY HILL CHINESE CHRISTIAN CHURCH
FRESHWATER WETLANDS/WATERS BOUNDARY LINE AS VERIFIED BY NJDEP ON JULY 19, 2018, FILE NUMBER 0409-10-0004.1
NORMANDY SECTION
EXISTING POND
PHASE LIMIT LINE TYPICAL
STREAM BUFFER LINE (ZONE 2)
WATER LINE
STREAM BUFFER LINE (ZONE 2)
STREAM BUFFER LINE (ZONE 1)
CENTURA DEVELOPMENT OUTBOUNDS LINE
PHASE 1
BASIN 1
BASIN 1 (MUST BE CONSTRUCTED AS PART OF PHASE 2)
PHASE 3 (EAST LOOP)
BASIN 3
PHASE LIMIT LINE TYPICAL
WOODCREST SHOPPING CENTER
PHASE 2
PHASE 3
EXISTING TRASH, REFUSE AND DUMPSTER AREA
WETLANDS LIMIT LINE
8 PRIOR APPROVED INFILL UNITS (8 COAH UNITS)
CENTURA SECTION
EXISTING BUILDING TYPICAL
CENTURA DEVELOPMENT OUTBOUNDS LINE
PHASE LIMIT LINE TYPICAL
8 PRIOR APPROVED INFILL UNITS
4 PRIOR APPROVED INFILL UNITS (4 COAH UNITS)
COTSWALD SECTION
6 PRIOR APPROVED INFILL UNITS
EXISTING BUILDING TYPICAL
CENTURA DEVELOPMENT OUTBOUNDS LINE
BROWNING LANE
BROWNING LANE
PROVIDENCE DRIVE
CANTERBURY WAY

SEE SITE PLAN, DRAWING NUMBER CS0201, FOR GREATER DETAIL OF PHASE 1 AND 2.

PHASING NARRATIVE

PHASE 1

STORMWATER MANAGEMENT:
CONSTRUCT BASIN "2". CONSTRUCTION OF BASIN 2 WILL TAKE PLACE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION FOR PHASE 1 AND 2

ROADWAY:
CONSTRUCT ROAD A PARKING IMPROVEMENTS.
CONSTRUCT ROAD B, C, D AND E.

UNITS:
CONSTRUCT UNITS 1–A, 1–B, 1–C, 1–D, 1–E, 1–F, 1–G, 1–H, 1–I, 1–J AND 1–K.

STORM SEWER:
CONSTRUCT INLETS 6 TO 13, INLETS 11 TO 18, INLET 18 TO MANHOLE 3, MANHOLE 3 TO MANHOLE 4, INLET 19 TO MANHOLE 4, MANHOLE 4 TO INLET 21, INLET 21 TO INLET 24, INLET 24 TO INLET 25, INLET 25 TO MANHOLE 5, MANHOLE 5 TO ENDWALL 2 AND ALL ASSOCIATED PIPING.
CONSTRUCT INLET 26 TO INLET 27 TO ENDWALL 3 AND ALL PIPING BETWEEN.
CONSTRUCT BASIN 2 OUTLET CONTROL STRUCTURE TO MANHOLE 7 AND THE PIPING BETWEEN.
CONSTRUCT PIPING FROM EXISTING STORM MANHOLE 27 TO MANHOLE 7.
CONSTRUCT PIPING FROM MANHOLE 7 TO EXISTING INLET 28.

SANITARY SEWER:
CONSTRUCT SANITARY SEWER MANHOLES 37A TO 37B AND ASSOCIATED PIPING (ROAD A).
CONSTRUCT SANITARY SEWER MANHOLES 33A, 33B AND 33C AND ASSOCIATED PIPING (ROAD B).
CONSTRUCT SANITARY SEWER MANHOLES 26A. 26B, 26C, 26D AND 26E AND ASSOCIATED PIPING (ROAD D).
CONSTRUCT SANITARY SEWER MANHOLES 1, 2 AND 3 AND ASSOCIATED PIPING (ROAD E).

WATER MAIN:
INSTALL WATER MAIN FROM BROWNING LANE TO ROAD A.
INSTALL WATER MAIN IN ROAD A AND CONNECT TO EXISTING WATER MAIN IN CHELSEA COURT.
INSTALL WATER MAIN IN ROAD B AND CONNECT TO EXISTING WATER MAIN IN CANTERBURY WAY.
INSTALL WATER MAIN IN ROAD D AND CONNECT TO EXISTING WATER MAIN IN CANTERBURY WAY.
INSTALL WATER MAIN IN ROAD E AND CONNECT TO EXISTING WATER MAIN IN CANTERBURY WAY.
INSTALL WATER MAIN IN ROAD C AND CONNECT TO WATER MAIN IN ROAD A, ROAD B, ROAD D AND ROAD E.

PHASE 1 AND 2 WILL BE CONSTRUCTED UNDER ONE PHASE. IN THE EVENT OF ANY CHANGE, THE APPLICANT SHALL SUBMIT A CONSTRUCTION PHASING PLAN TO BE APPROVED BY THE DEPARTMENT OF COMMUNITY DEVELOPMENT AND THE PLANNING BOARD ENGINEER, PRIOR TO THE ISSUANCE OF ANY PERMITS.

PHASE 2

STORMWATER MANAGEMENT:
CONSTRUCT BASIN "1". CONSTRUCTION OF BASIN 1 MUST TAKE PLACE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION FOR PHASE 2.

ROADWAY:
CONSTRUCT ROAD F.
CONSTRUCT ROAD G..

UNITS:
CONSTRUCT UNITS 2–A, 2–B AND 2–C.

STORM SEWER:
CONSTRUCT INLETS 1, 2, 3, 4, 5, MANHOLE 1, 2 NAD ENDWALL 1 AND ALL ASSOCIATED PIPING.
CONSTRUCT BASIN 1 OUTLET CONTROL STRUCTURE, MANHOLE 6 AND ASSOCIATED PIPING TO EXISTING INLET 17 IN CANTERBURY WAY.

SANITARY SEWER:
CONSTRUCT SANITARY SEWER MANHOLES 43A, 43B AND 43C AND ASSOCIATED PIPING (ROAD F).
CONSTRUCT SANITARY SEWER MANHOLES 41A AND 41B AND ASSOCIATED PIPING TO EXISTING MANHOLE 41 (ROAD G).

WATER MAIN:
INSTALL WATER MAIN IN ROAD F AND CONNECT TO EXISTING WATER MAIN IN CANTERBURY WAY AND ROAD G.
INSTALL AND EXTEND WATER MAIN IN ROAD G AND CONNECT TO EXISTING WATER MAIN IN CANTERBURY WAY AND ROAD G.

GENERAL NOTES TOTAL DEVELOPMENT:

1. THE MAXIMUM GROSS RESIDENTIAL DENSITY SHALL BE TEN (10) UNITS PER USABLE ACRE.
2. NO MORE THAN EIGHT (8) TOWNHOUSES MAY BE ATTACHED TO ONE (1) GROUP.
3. NO MORE THAN TWENTY (20) UNITS MAY BE IN ONE (1) GROUP APARTMENT STRUCTURE.
4. TOTAL NUMBER OF UNITS FOR PHASE 1 & 2:
   NUMBER OF 22' WIDE UNITS (COAH) = 12
   NUMBER OF 24' WIDE UNITS = 8
   NUMBER OF 26' WIDE UNITS = 40
   NUMBER OF 28' WIDE UNITS = 19
   TOTAL NUMBER OF UNITS = 79

   TOTAL NUMBER OF UNITS FOR PHASE 3:
   NUMBER OF 22' WIDE UNITS (COAH) = 8
   NUMBER OF 22' WIDE UNITS (NON COAH) = 11
   NUMBER OF 32' WIDE UNITS = 19
   TOTAL NUMBER OF UNITS = 38
5. A RESIDENTIAL BUFFER STRIP IS NOT REQUIRED.
6. THE BUILDING COVERAGE AND VEHICULAR SURFACES SHALL NOT EXCEED FIFTY (50%) PRECENT OF THE GROSS USABLE ACREAGE.
7. MINIMUM LOT AREA AND SET BACK REQUIREMENTS MAY BE WAIVED FOR PROJECTS WHICH HAVE RECEIVED FINAL APPROVAL TO ENABLE THE DEVELOPER TO MARKET INDIVIDUAL UNITS ON A FEE SIMPLE, COOPERATIVE, OR CONDOMINIUM BASIS. WAIVER OF THESE REQUIREMENTS SHALL BE SUBJECT TO PLANNING BOARD APPROVAL OF A PLAT FOR FILING WITH THE REGISTRAR OF DEEDS.
8. ALL TELEPHONE AND ELECTRICAL UTILITIES SHALL BE UNDERGROUND.
9. PER THE FLOOD INSURANCE RATE MAP (FIRM) PANEL NO. 34007C0044E PANEL 44 OF 305 AND PANEL NO. 34007C0063E PANEL 63 OF 305 THE PHASE 1 & 2 SECTIONS OF THE PROJECT ARE LOCATED IN ZONE X (OTHER AREAS) FOR AREAS DETERMINED TO BE OUTSIDE THE 0.2% CHANCE FLOODPLAIN.
10. BASED ON THE NJDEP–I–MAP, THE PHASE 1 & 2 SECTIONS OF THE PROJECT DO NOT CONTAIN ANY MAPPED WETLANDS OR WETLANDS BUFFERS.
11. EXISTING SIGNS SHALL BE REPLACED AT THE DISCRETION OF THE TOWNSHIP ENGINEER OR TOWNSHIP INSPECTOR AT THE TIME OF CONSTRUCTION.
12. THE PHASE 1 AND 2 HOMEOWNER'S ASSOCIATION SHALL ASSUME THE RESPONSIBILITY FOR MAINTAINING THE INFILTRATION BASINS 1 AND 2 AND THE STORM SEWER CONVEYANCE SYSTEM. THE PHASE 3 HOMEOWNERS ASSOCIATION SHALL ASSUME THE RESPONSIBILITY FOR MAINTAINING THE INFILTRATION BASIN 3 AND ITS STORM SEWER CONVEYANCE SYSTEM.
13. ALL UNITS SHALL HAVE A 2 CAR GARAGE EXCEPT FOR THE FOLLOWING UNITS:
    BUILDING 2B = 2 COAH UNITS WITH NO GARAGE AND 1 DRIVEWAY EACH UNIT
    BUILDING 2C = 10 COAH UNITS NO GARAGES AND 1 DRIVEWAY EACH UNIT
    ALL DOUBLE DRIVEWAYS SHALL BE 18' WIDE.
    ALL SINGLE DRIVEWAYS SHALL BE 10' WIDE.
14. PARKING SCHEDULE FOR PHASES 1 AND 2 SHALL BE AS FOLLOWS:

    3 BEDROOM TOWNHOUSE UNITS REQUIRE 2.4 PARKING SPACES PER UNIT AND 0.5 SPACES PER UNIT FOR GUEST PARKING.
    2 BEDROOM COAH UNITS REQUIRE 2.0 PARKING SPACES PER UNIT AND 0.5 SPACES PER UNIT FOR GUEST PARKING. GUEST PARKING SHALL BE PROVIDED ON–STREET AND/OR WITHIN AN OFF–STREET COMMON PARKING AREA.

    REQUIRED PARKING (3 BEDROOM TOWNHOUSE)
    67 UNITS x 2.4 = 161 SPACES
    67 UNITS x 0.5 = 33 SPACES

    REQUIRED PARKING (2 BEDROOM COAH UNITS)
    12 UNITS x 2.0 = 24 SPACES
    12 UNITS x 0.5 = 6 SPACES
    TOTAL REQUIRED = 224 SPACES

    PROPOSED PARKING
    67 3–BEDROOM UNITS WITH TWO CAR GARAGE AND DRIVEWAY COMBINATION AT 3.5 SPACES PER UNIT = 234 SPACES
    12 2–BEDROOM COAH UNITS WITH ONE CAR DRIVEWAY = 12 SPACES
    OFF–STREET PARKING 2–BEDROOM COAH UNIT AT 9'x18' SPACES = 12 SPACES
    OFF–STREET PARKING (GUEST) 9'x18' SPACES = 43 SPACES
    TOTAL SPACES PROPOSED = 301 SPACES
15. ALL CROSSWALKS SHALL BE LONG LIFE EPOXY OR THERMOPLASTIC.
16. ALL EXISTING AND PROPOSED ROADS ARE AND WILL BE PRIVATELY OWNED AND MAINTAINED.
17. THE APPLICANT'S FAIR SHARE CONTRIBUTION, AS DETERMINED BY CAMDEN COUNTY, HAS ALREADY BEEN PAID.

CONTAMINANT NOTE

THE APPLICANT WILL TEST FOR CONTAMINATES AND ENVIRONMENTALLY SENSITIVE AREAS AT THE SITE AND SUBMIT SAID REPORT TO THE DEPARTMENT OF COMMUNITY DEVELOPMENT AND THE PLANNING BOARD ENGINEER FOR REVIEW AND APPROVAL.

ADA PARKING REQUIREMENTS

THE APPLICANT WILL COORDINATE WITH THE CHERRY HILL TOWNSHIP DEPARTMENT OF COMMUNITY DEVELOPMENT AND THE PLANNING BOARD ENGINEER IN ESTABLISHING THE REQUIRED NUMBER OF ADA PARKING SPACES AND THEIR LOCATION.

HOUSING UNIT CHART

TOTAL UNITS APPROVED PER PRIOR RESOLUTIONS FOR CENTURA PHASES 1, 2 AND 3 = 175 UNITS

EXISTING UNITS:	
CENTURA	72
COTSWALDS	49
NORMANDY	34
TOTAL EXISTING	155

PROPOSED UNITS PHASES 1, 2 & 3:	
PHASES 1 & 2	79 (12 UNITS COAH)
PHASE 3	38 (8 UNITS COAH)
TOTAL PROPOSED	117 (20 UNITS COAH)

FUTURE INFILL UNITS PROPOSED = 35 UNITS (12 UNITS COAH)

TOTAL EXISTING + TOTAL PROPOSED = 307 UNITS (32 UNITS COAH)

COAH UNITS TO BE CONSTRUCTED IN PHASE 1 AND 2 SHALL BE 12 UNITS, COAH UNITS TO BE CONSTRUCTED IN PHASE 3 WILL BE 8 UNITS AND COAH UNITS TO BE CONSTRUCTED FOR THE FUTURE INFILL UNITS WILL BE 12 UNITS FOR A TOTAL OF 32 COAH UNITS TO BE CONSTRUCTED.

PHASE AREAS

PHASE 1 = 7.3 ACRES
PHASE 2 = 2.1 ACRES
PHASE 3 = 13.4 ACRES
TOTAL = 22.8 ACRES

SECONDARY ACCESS NOTE

FOR PHASES 1 AND 2, THE SECONDARY ACCESS, BROWNING LANE, WILL BE FOR CONSTRUCTION. UPON COMPLETION OF PHASE 3, THE SECONDARY ACCESS WILL BE OPENED FOR RESIDENTIAL USE BY RESIDENTS ONLY.

DAM DECOMMISSION NOTE

THE APPLICANT HAS CONSTRUCTED A TEMPORARY BREACH IN ACCORDANCE WITH APPROVED NJDEP, DAM SAFETY APPROVED PLANS. THE APPLICANT IS IN THE PROCEES OF SEEKING APPROVAL TO CONVERT THE TEMPORARY BREACH INTO A PERMANENT BREACH.

* PERMIT PLANS AND GRADING PLANS FOR FUTURE INFILL UNITS TO BE SUBMITTED UNDER SEPARATE APPLICATION AND SHOWN FOR INFORMATIONAL PURPOSES ONLY.

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

GRAPHIC SCALE
80 0 40 80 160 320
1 INCH = 80 FEET

DATE	ISSUE	REVISION	BY	APPR.
03/10/2022	6	ISSUED FOR FINAL SITE PLAN COMPLIANCE	TJK	RJC
07/02/2020	5	SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK	RJC
01/13/20	4	NO CHANGE THIS SHEET	GMM	RJC
07/16/19	3	ADD NOTES; UPDATE PARKING ANALYSIS	TJK	RJC
10/2/18	2	REV. SIDEWALK, PARKING, ADD COAH UNITS, REV. WETLANDS NOTE, ADD SECONDARY ACCESS NOTE	GMM	RJC
12/12/17	1	NOT PART OF INITIAL SUBMISSION	TJK	RJC

JSA INC.

TELEPHONE (609) 704-1155
FAX (609) 704-1166
www.jsaengineering.com

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HAMMONTON, NEW JERSEY 08037

CENTURA – PHASE 1 AND 2

TAX MAP SHEET 234, BLOCK 433.20, LOT 15.01 & 16.01, FORMERLY BLOCK 433.20, LOT 1
CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

OVERALL AND PHASING PLAN

DEVEL, LLC.
C/O STEPHEN D. SAMOST, ESQUIRE 479 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28017600

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200
Richard J Clemson 03/10/2022
DATE

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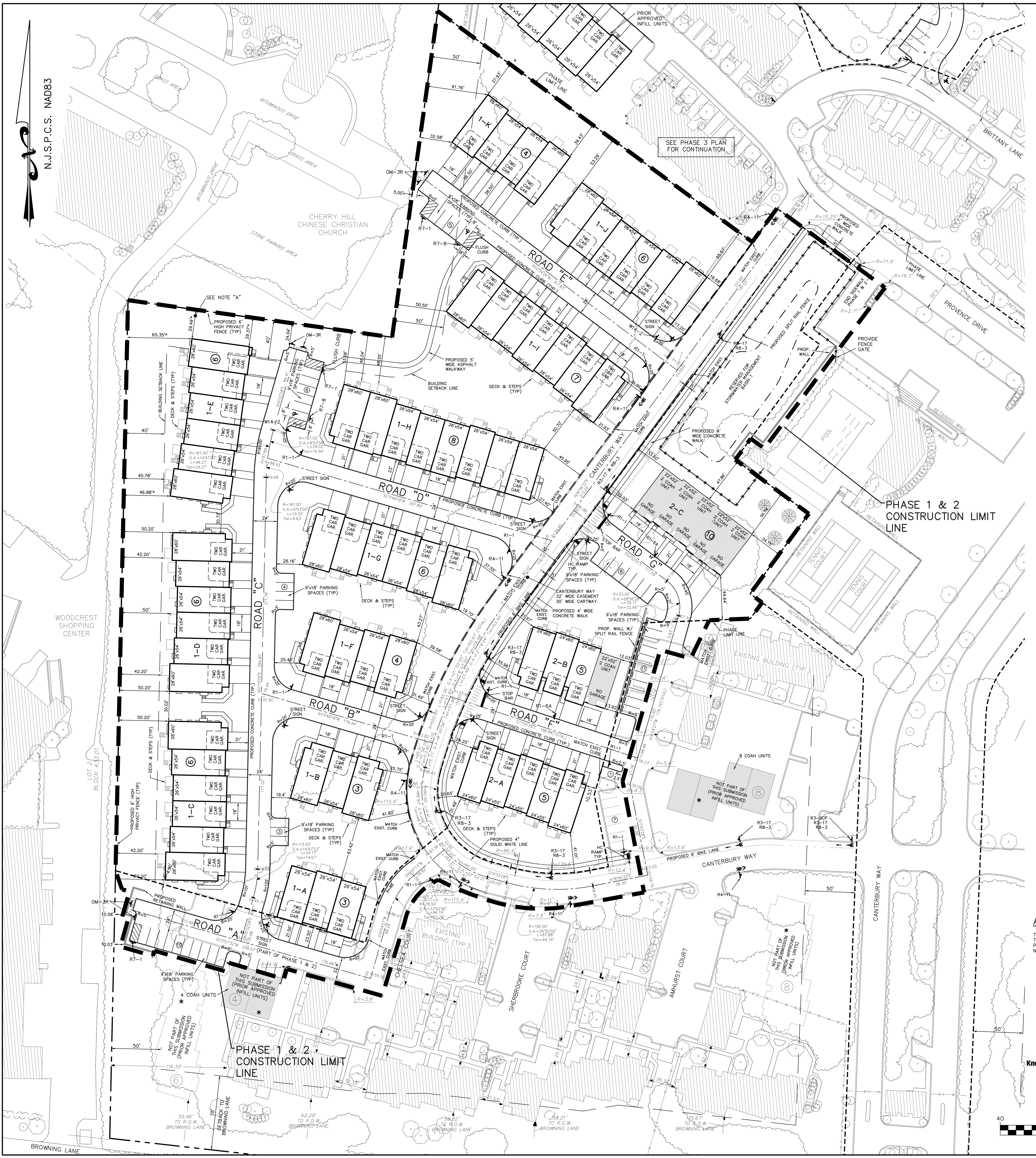
DRAWN BY	APPROVED BY
TJK	RJC
SCALE	DATE
1"=80'	12/12/17
JOB NUMBER	SHEET NO.
3487	4 OF 26

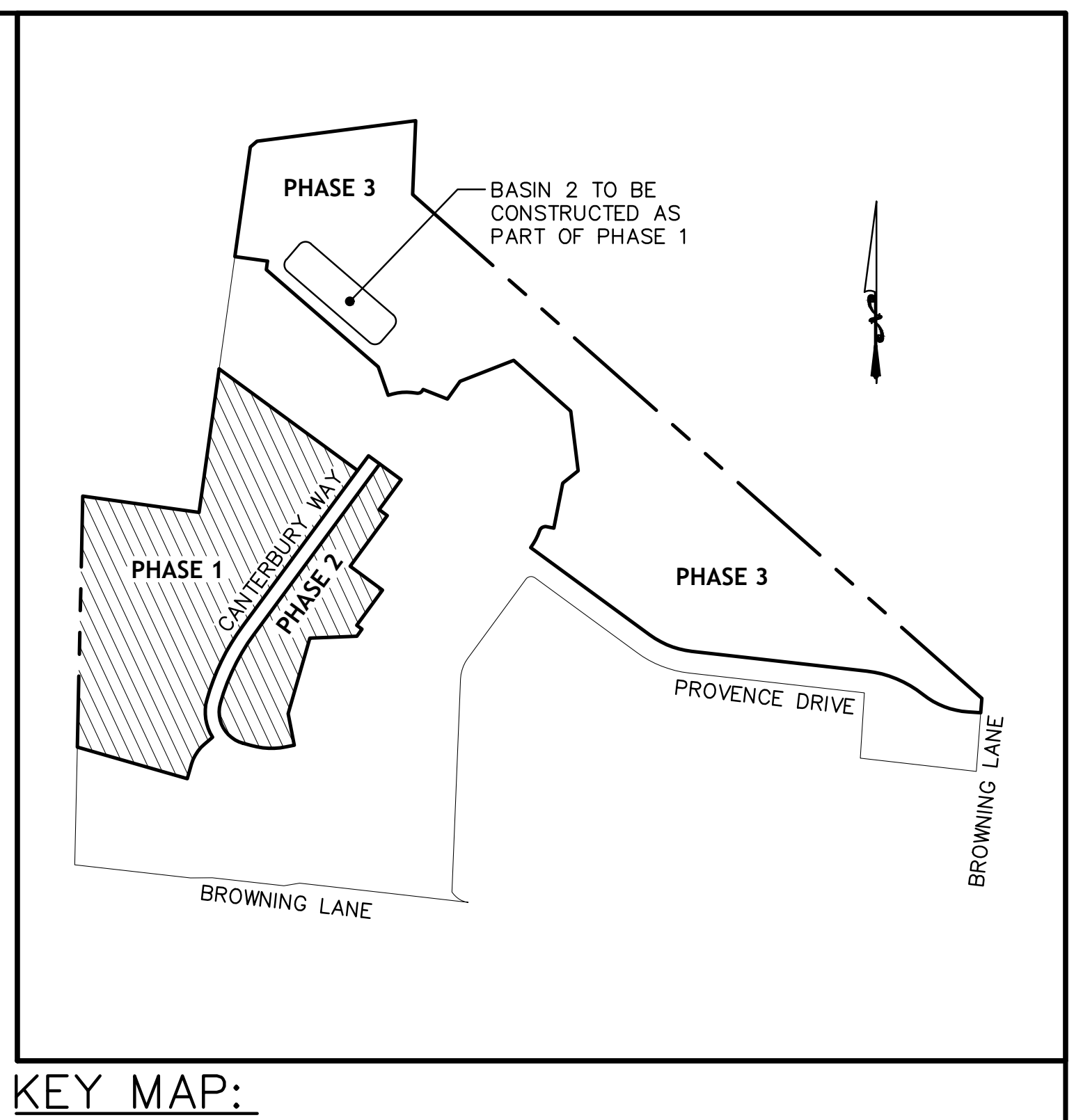
CS0200

Z:\CHERRY HILL LAND DEVELOPMENT GROUP\3487 CENTURA PHASE 1 & 2\DRAWINGS\CENTURA\CS0200.DWG



STANDARD PLAN LEGEND

- PROPERTY OUTBOUNDS LINE
- CENTER LINE
- EASEMENT LINE
- GAS LINE
- SANITARY SEWER LINE
- WATER LINE
- OVERHEAD WIRES
- WETLANDS LINE
- EDGE OF PAVING
- RIPARIAN LINE
- FLOODWAY LIMIT LINE (100 YR)
- FLOOD HAZARD AREA LINE
- PHASE LIMIT LINE
- LIMIT OF DISTURBANCE
- FENCES
- 100 EXISTING CONTOUR
- 101 PROPOSED CONTOUR
- × 100.6 EXISTING SPOT ELEVATION
- × 101.3 PROPOSED SPOT ELEVATION
- VEGETATION LINE
- TEST PIT / SOIL BORING
- GV WV VALVES
- WM GM METERS
- SIGNS
- UTILITY POLES
- LIGHT POLES
- F FIRE HYDRANT
- ⊙ CLEANOUT
- USPS MAIL BOXES
- × CROSS CUT
- DRILL HOLE W/ WINGS
- □ FOUND MONUMENT
- ■ SET MONUMENT
- ○ FOUND IRON ROD/PIPE
- ● SET IRON ROD/PIPE
- INLETS
- MANHOLES
- TRAFFIC SIGNAL
- ▨ SHADED UNITS ARE COAH UNITS
- 2-A = BUILDING NUMBER
- ③ = NUMBER OF UNITS IN BUILDING



KEY MAP:

SCALE: 1"=400'

TRASH/RECYCLING NARRATIVE

Trash removal for all proposed townhomes and all existing units in Phases I, II & III will be street side collections as currently exists. Frequency of collection will remain at once a week for solid refuse. Centura Association will continue to utilize dumpsters (3) on relocated pad sites per plans. (Note: normal household refuse is taken down to receptacles in the basements of each "building" and from there daily removed to the existing dumpsters.) Based on fiscal year 2010 figures supplied by Cherry Hill Township Public Works, the average amount of waste generated per residence is approximately 33 pounds/week or 1,714 pounds per year. The project will be developed in phases which will allow for a gradual increase in the addition municipal service requirement.

Recycling for all Proposed Townhouses will be conducted curbside as an extension of the current recycling/credit program. Re-cycling in the existing Centura Association buildings is accomplished in the same manner as trash removal. (The entire Centura project is a participant in the Benchmark/incentive program.) Frequency of collection will remain at once a week. Based on fiscal year 2010 figures supplied by Cherry Hill Township Public Works, the average amount of waste generated per residence is approximately 16 pounds/week or 816 pounds per year. The project will be developed in phases which will allow for a gradual increase in the addition municipal service requirement.

Centura Home Owner Associations with individual trash/recycling collection have regulations requiring all trash and/or recyclables to be stored indoors. In addition, Home Owners Associations rules prohibit the placing of materials to be collected outside prior to 7:00 p.m. the night before pick-up and further require that containers be removed from street side prior to 4:00 p.m. the day of collection.

PHASE 1 AND 2 NOTES

1. THE MAXIMUM GROSS RESIDENTIAL DENSITY SHALL BE TEN (10) UNITS PER USABLE ACRE.
2. NO MORE THAN EIGHT (8) TOWNHOUSES MAY BE ATTACHED TO ONE (1) GROUP.
3. NO MORE THAN TWENTY (20) UNITS MAY BE IN ONE (1) GROUP APARTMENT STRUCTURE.
4. TOTAL NUMBER OF UNITS FOR PHASE 1 & 2:

NUMBER OF 22' WIDE UNITS (COAH)	= 12
NUMBER OF 24' WIDE UNITS	= 8
NUMBER OF 26' WIDE UNITS	= 40
NUMBER OF 28' WIDE UNITS	= 19
TOTAL NUMBER OF UNITS	= 79

5. A RESIDENTIAL BUFFER STRIP IS NOT REQUIRED.
6. THE BUILDING COVERAGE AND VEHICULAR SURFACES SHALL NOT EXCEED FIFTY (50%) PERCENT OF THE GROSS USABLE ACREAGE.
7. MINIMUM LOT AREA AND SET BACK REQUIREMENTS MAY BE WAIVED FOR PROJECTS WHICH HAVE RECEIVED FINAL APPROVAL TO ENABLE THE DEVELOPER TO MARKET INDIVIDUAL UNITS ON A FEE SIMPLE, COOPERATIVE, OR CONDOMINIUM BASIS. WAIVER OF THESE REQUIREMENTS SHALL BE SUBJECT TO PLANNING BOARD APPROVAL OF A PLAT FOR FILING WITH THE REGISTRAR OF DEEDS.
8. ALL TELEPHONE AND ELECTRICAL UTILITIES SHALL BE UNDERGROUND.
9. PER THE FLOOD INSURANCE RATE MAP (FIRM) PANEL NO. 34007C0044E PANEL 44 OF 305 AND PANEL NO. 34007C0063E PANEL 63 OF 305 THE PHASE 1 & 2 SECTIONS OF THE PROJECT ARE LOCATED IN ZONE X (OTHER AREAS) FOR AREAS DETERMINED TO BE OUTSIDE THE 0.2% CHANCE FLOODPLAIN.
10. BASED ON THE NJDEP-I-MAP, THE PHASE 1 & 2 SECTIONS OF THE PROJECT DO NOT CONTAIN ANY MAPPED WETLANDS OR WETLANDS BUFFERS.
11. EXISTING SIGNS SHALL BE REPLACED AT THE DISCRETION OF THE TOWNSHIP ENGINEER OR TOWNSHIP INSPECTOR AT THE TIME OF CONSTRUCTION.
12. THE PHASE 1 AND 2 HOMEOWNER'S ASSOCIATION SHALL ASSUME THE RESPONSIBILITY FOR MAINTAINING THE INFILTRATION BASINS 1 AND 2 AND THE STORM SEWER CONVEYANCE SYSTEM.
13. ALL UNITS SHALL HAVE A 2 CAR GARAGE EXCEPT FOR THE FOLLOWING UNITS:
    BUILDING 2B = 2 COAH UNITS, NO GARAGES AND 1 DRIVEWAY SPACE EACH UNIT
    BUILDING 2C = 10 COAH UNITS, NO GARAGES AND 1 DRIVEWAY SPACE EACH UNIT
    ALL DOUBLE DRIVEWAYS SHALL BE 18' WIDE.
    ALL SINGLE DRIVEWAYS SHALL BE 10' WIDE.
14. PARKING SCHEDULE FOR PHASES 1 AND 2 SHALL BE AS FOLLOWS:

    3 BEDROOM TOWNHOUSE UNITS REQUIRE 2.4 PARKING SPACES PER UNIT AND 0.5 SPACES PER UNIT FOR GUEST PARKING.
    2 BEDROOM COAH UNITS REQUIRE 2.0 PARKING SPACES PER UNIT AND 0.5 SPACES PER UNIT FOR GUEST PARKING. GUEST PARKING SHALL BE PROVIDED ON-STREET AND/OR WITHIN AN OFF-STREET COMMON PARKING AREA.

REQUIRED PARKING (3 BEDROOM TOWNHOUSE)	
67 UNITS x 2.4	= 161 SPACES
67 UNITS x 0.5	= 33 SPACES

REQUIRED PARKING (2 BEDROOM COAH UNITS)	
12 UNITS x 2.0	= 24 SPACES
12 UNITS x 0.5	= 6 SPACES
TOTAL REQUIRED	= 224 SPACES

PROPOSED PARKING	
67 3-BEDROOM UNITS WITH TWO CAR GARAGE AND DRIVEWAY COMBINATION AT 3.5 SPACES PER UNIT	= 234 SPACES
12 2-BEDROOM COAH UNITS WITH ONE CAR DRIVEWAY	= 12 SPACES
OFF-STREET PARKING 2-BEDROOM COAH UNIT AT 9'x18' SPACES	= 12 SPACES
OFF-STREET PARKING (GUEST) 9'x18' SPACES	= 43 SPACES
TOTAL SPACES PROPOSED	= 301 SPACES

15. ALL EXISTING AND PROPOSED ROADS AND IMPROVEMENTS ARE AND WILL BE PRIVATELY OWNED AND MAINTAINED.
16. BITUMINOUS CONCRETE SURFACE COURSE HAS NOT BEEN CONSTRUCTED WITHIN CANTERBURY WAY FROM STATION 0+70 +/- TO STATION 7+57 +/-. BITUMINOUS SURFACE COURSE TO BE CONSTRUCTED AS PART OF PHASE 1 AND 2 PROJECT.
17. ALL CROSSWALKS SHALL BE LONG LIFE EPOXY OR THERMOPLASTIC.
18. THE APPLICANT'S FAIR SHARE CONTRIBUTION, AS DETERMINED BY CAMDEN COUNTY, HAS ALREADY BEEN PAID.

NOTE "A"

DIMENSIONS HIGHLIGHTED WITH AN ASTERISK 29.37* HAVE RECEIVED PRIOR VARIANCE APPROVAL FOR BUILDING SETBACK ENCROACHMENTS

CONTRACTORS RESPONSIBILITY

LOCATIONS OF UTILITIES SHOWN ON THIS PLAN AREA NOT NECESSARILY COMPLETE. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES OPERATING WITHIN THE CONSTRUCTION AREA AND AT HIS OWN EXPENSE VERIFY THE LOCATION, SIZE, TYPE AND ELEVATION OF ANY UTILITIES PRIOR TO CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE OWNER AND/OR CONTRACTOR TO CALL 1-800-272-1000 FOR FIELD LOCATION OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.

SITE SAFETY

THE OWNER, OR HIS REPRESENTATIVE IS TO DESIGNATE AN INDIVIDUAL RESPONSIBLE FOR CONSTRUCTION SITE SAFETY DURING THE COURSE OF SITE IMPROVEMENTS PURSUANT TO N.J.A.C. 5:23-2.21(e) OF THE NJ UNIFORM CONSTRUCTION CODE AND CFR 1926.32(f) (OSHA COMPETENT PERSON)

SECONDARY ACCESS NOTE

FOR PHASES 1 AND 2, THE SECONDARY ACCESS, BROWNING LANE, WILL BE FOR CONSTRUCTION. UPON COMPLETION OF PHASE 3, THE SECONDARY ACCESS WILL BE OPENED FOR RESIDENTIAL USE BY RESIDENTS ONLY.

DAM DECOMMISSION NOTE

THE APPLICANT HAS CONSTRUCTED A TEMPORARY BREACH IN ACCORDANCE WITH APPROVED NJDEP, DAM SAFETY APPROVED PLANS. THE APPLICANT IS IN THE PROCEES OF SEEKING APPROVAL TO CONVERT THE TEMPORARY BREACH INTO A PERMANENT BREACH.

CONTAMINANT NOTE

THE APPLICANT WILL TEST FOR CONTAMINATES AND ENVIRONMENTALLY SENSITIVE AREAS AT THE SITE AND SUBMIT SAID REPORT TO THE DEPARTMENT OF COMMUNITY DEVELOPMENT AND THE PLANNING BOARD ENGINEER FOR REVIEW AND APPROVAL.

ADA PARKING REQUIREMENTS

THE APPLICANT WILL COORDINATE WITH THE CHERRY HILL TOWNSHIP DEPARTMENT OF COMMUNITY DEVELOPMENT AND THE PLANNING BOARD ENGINEER IN ESTABLISHING THE REQUIRED NUMBER OF ADA PARKING SPACES AND THEIR LOCATION.

* PERMIT PLANS AND GRADING PLANS FOR FUTURE INFILL UNITS TO BE SUBMITTED UNDER SEPARATE APPLICATION AND SHOWN FOR INFORMATIONAL PURPOSES ONLY.

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

GRAPHIC SCALE

40 0 20 40 80 160

1 INCH = 40 FEET

DATE	ISSUE	REVISION	BY	APPR.
03/10/2022	6	ISSUED FOR FINAL SITE PLAN COMPLIANCE	TJK	RJC
07/02/2020	5	SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK	RJC
01/13/20	4	LABELED R7-1 SIGN ROAD C END OF BUILDING 1-H	GMM	RJC
07/16/19	3	ADD ADDITIONAL PARKING; ADD NOTES; UPDATE PARKING ANALYSIS	TJK	RJC
10/2/18	2	REV. SIDEWALK, ADD COAH UNITS, ADD SECONDARY ACCESS NOTE	GMM	RJC
12/12/17	1	NOT PART OF INITIAL SUBMISSION	TJK	RJC

CENTURA - PHASE 1 AND 2

TAX MAP SHEET 234, BLOCK 433.20, LOT 15.01 & 16.01, FORMERLY BLOCK 433.20, LOT 1
CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

SITE PLAN

DEVEL, LLC.

C/O STEPHEN D. SAMOST, ESQUIRE 479 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28017600

41 SOUTH ROUTE 73, BUILDING 1, SUITE 201
HAMMONTON, NEW JERSEY 08037

TELEPHONE (609) 704-1155
FAX (609) 704-1166
www.jsaengineering.com

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200

Richard J Clemson 03/10/2022
DATE

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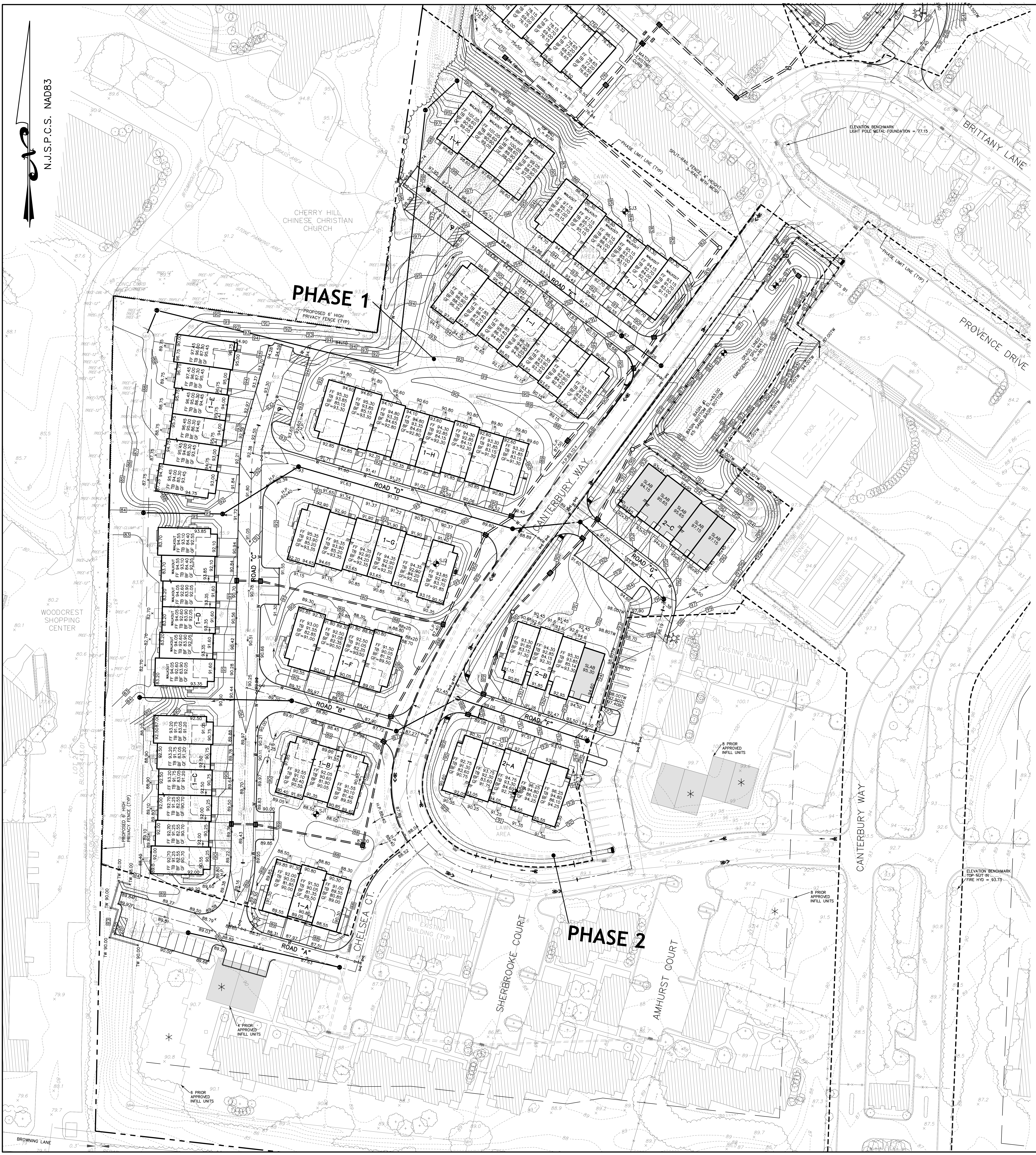
DRAWN BY	APPROVED BY
TJK	RJC
SCALE	DATE
1"=40'	12/12/17
JOB NUMBER	SHEET NO.
3487	5 OF 26

CS0201



STANDARD PLAN LEGEND

- PROPERTY OUTBOUNDS LINE
- CENTER LINE
- EASEMENT LINE
- GAS LINE
- SANITARY SEWER LINE
- WATER LINE
- OVERHEAD WIRES
- WETLANDS LINE
- EDGE OF PAVING
- RIPARIAN LINE
- FLOODWAY LIMIT LINE (100 YR)
- FLOOD HAZARD AREA LINE
- PHASE LIMIT LINE
- LIMIT OF DISTURBANCE
- FENCES
- 100 EXISTING CONTOUR
- 101 PROPOSED CONTOUR
- × 100.6 EXISTING SPOT ELEVATION
- × 101.3 PROPOSED SPOT ELEVATION
- VEGETATION LINE
- TEST PIT / SOIL BORING
- GV WV VALVES
- WM GM METERS
- SIGNS
- UTILITY POLES
- LIGHT POLES
- FIRE HYDRANT
- CLEANOUT
- USPS MAIL BOXES
- × CROSS CUT
- DRILL HOLE W/ WINGS
- □ FOUND MONUMENT
- ■ SET MONUMENT
- ○ FOUND IRON ROD/PIPE
- ● SET IRON ROD/PIPE
- INLETS
- MANHOLES
- TRAFFIC SIGNAL
- ▨ SHADED UNITS ARE COAH UNITS

GRADING LEGEND

TB 72.40 PROPOSED TOP OF BLOCK ELEVATION
BF 64.70 PROPOSED BASEMENT FLOOR ELEVATION
GF 74.00 PROPOSED GARAGE FLOOR ELEVATION
70.00 BC PROPOSED BOTTOM OF CURB ELEVATION
69.53 HP PROPOSED HIGH POINT ELEVATION
69.83 LP PROPOSED LOW POINT ELEVATION
62.50 TW PROPOSED TOP OF WALL ELEVATION
62.00 BW PROPOSED BOTTOM OF WALL ELEVATION
71.45 x PROPOSED SPOT ELEVATION
---72--- EXISTING CONTOUR LINE
—72— PROPOSED CONTOUR LINE

LONG TERM MAINTENANCE OF STORMWATER MANAGEMENT SYSTEM

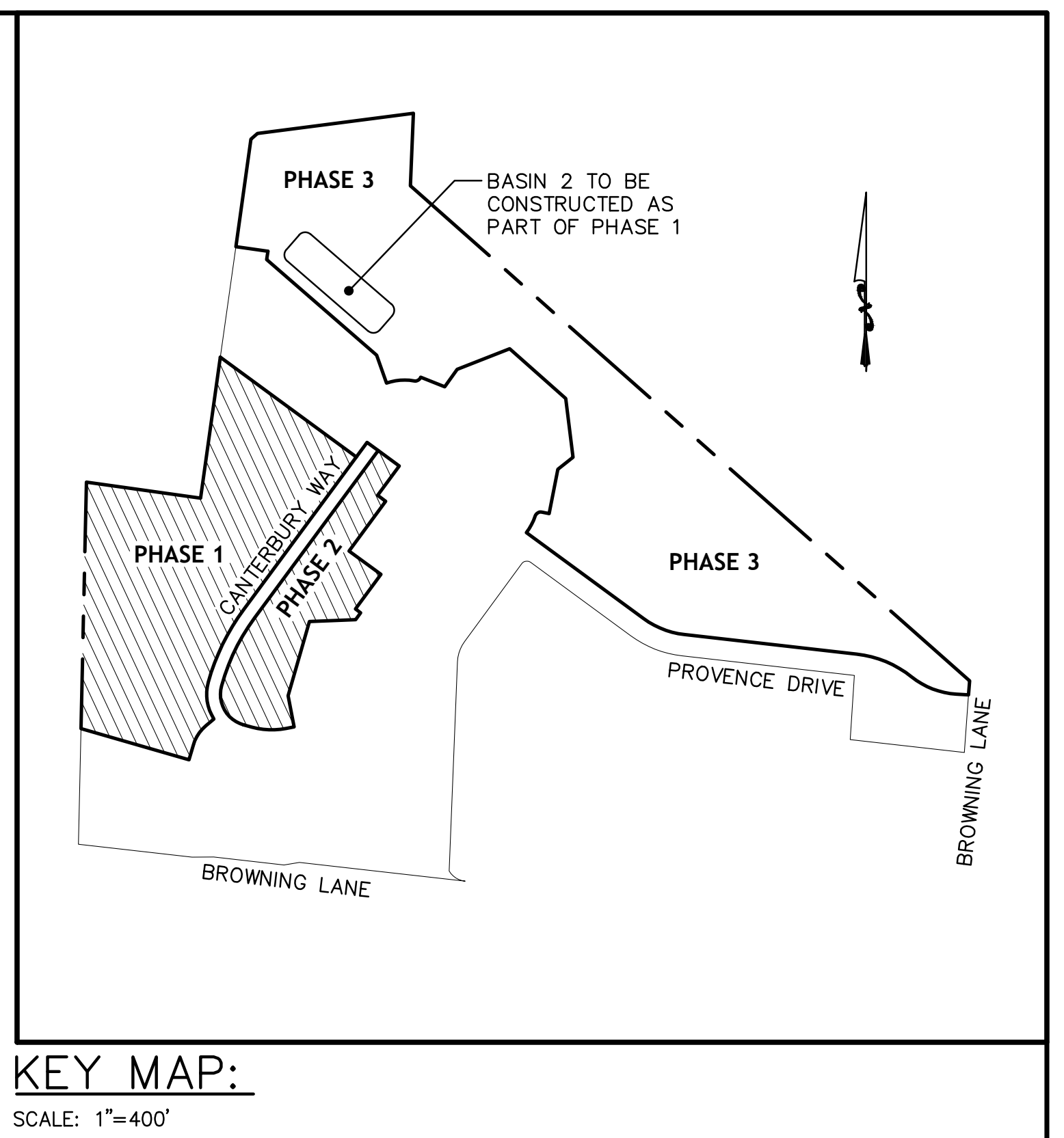
THE PROPERTY SHALL BE DEED RESTRICTED TO REQUIRE THE OWNER TO MAINTAIN THE STORMWATER MANAGEMENT SYSTEM IN PERPETUITY IN ACCORDANCE WITH THE STORMWATER MAINTENANCE PLAN. THE DEED RESTRICTION REQUIRING MAINTENANCE SHALL INCLUDE A PROVISION WHICH, IN THE CASE THE OWNER FAILS TO MAINTAIN THE SYSTEM, ALLOWS, BUT DOES NOT OBLIGATE, THE TOWNSHIP TO ENTER UPON THE PROPERTY TO PERFORM REQUIRED MAINTENANCE AT THE OWNERS EXPENSE.

ADA COMPLIANCE NOTE

THE GENERAL CONTRACTOR, CONSTRUCTION MANAGER OR OWNER SHALL INSTRUCT THE CONCRETE CONTRACTOR TO TAKE CARE IN SETTING FORMS FOR PEDESTRIAN AREAS TO INSURE THAT THEY CONFORM TO THE CURRENT ADA BARRIER FREE CODES. PRIOR TO POURING CONCRETE WITHIN THE BARRIER FREE WALKS AND RAMPS ALL FORMS SHALL BE INSPECTED BY THE CHERRY HILL TOWNSHIP ENGINEER TO INSURE PROPER SLOPES AND ELEVATIONS CONFORMING TO THE CURRENT ADA CODES.

* PERMIT PLANS AND GRADING PLANS FOR FUTURE INFILL UNITS TO BE SUBMITTED UNDER SEPARATE APPLICATION AND SHOWN FOR INFORMATIONAL PURPOSES ONLY.

* ALL PROPOSED CURB ELEVATIONS SHOWN REPRESENT TOP OF CURB UNLES OTHERWISE NOTED.



KEY MAP:

SCALE: 1"=400'

TEST PIT DATA

TEST PIT #SJ7 DEPTH	PROPOSED BASIN AREA ELEVATION 84.45 DESCRIPTION	
0"–3"	TOPSOIL	
2"–144"	YELLOWISH RED FINE LOAMY SAND / SANDY LOAM; SUB-ANGULAR BLOCKY, FRIABLE	
	MOTTLES: GRAY & YELLOW MANY DISTINCT @ 125"	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER-TABLE –125"	(ELEV. 74.05)

TEST PIT #SJ6 DEPTH	PROPOSED BASIN AREA ELEVATION 87.46 DESCRIPTION	
0"–3"	TOPSOIL	
3"–150"	YELLOWISH RED FINE LOAMY SAND / SANDY LOAM; SUB-ANGULAR BLOCKY, FRIABLE	
	MOTTLES: GRAY & YELLOW MANY DISTINCT @ 127"	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER-TABLE –127"	(ELEV. 76.86)

TEST PIT #SJ3 DEPTH	PROPOSED TOWNHOME ELEVATION 86.39 DESCRIPTION	
0"–3"	TOPSOIL	
3"–26"	YELLOWISH RED FINE SANDY LOAM; SUB-ANGULAR BLOCKY, FRIABLE	
26"–140"	REDDISH BROWN FINE SANDY LOAM SUB-ANGULAR BLOCKY, FRIABLE, GRAVEL 15%	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER-TABLE – ≥140"	(ELEV. 74.69)

TEST PIT #SJ5 DEPTH	PROPOSED TOWNHOME ELEVATION 91.34 DESCRIPTION	
0"–4"	TOPSOIL	
4"–132"	YELLOWISH RED FINE SANDY LOAM; SUB-ANGULAR BLOCKY, FRIABLE	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER-TABLE – ≥132"	(ELEV. 80.34)

TEST PIT #SJ2 DEPTH	PROPOSED TOWNHOME ELEVATION 90.57 DESCRIPTION	
0"–11"	FILL MATERIAL CONSISTING OF LOAMY SAND	
11"–56"	STRONG BROWN LOAM / SANDY CLAY LOAM; SUB-ANGULAR BLOCKY, FRIABLE	
	SILT INCLUSIONS THROUGHOUT	
56"–140"	STRONG BROWN FINE SANDY LOAM; SUB-ANGULAR BLOCKY, FRIABLE, STICKY	
	MOTTLES: GRAY & YELLOW FEW FAINT @ 114"	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER-TABLE –114"	(ELEV. 81.07)

TEST PIT #SJ1 DEPTH	PROPOSED TOWNHOME ELEVATION 91.53 DESCRIPTION	
0"–50"	YELLOWISH RED SANDY CLAY LOAM; SUB-ANGULAR BLOCKY, FRIABLE, SLIGHTLY STICKY	
50"–62"	LIGHT GRAY SILTY CLAY LOAM; MASSIVE, FIRM	
62"–96"	REDDISH BROWN FINE SANDY LOAM / SANDY CLAY LOAM; SUB-ANGULAR BLOCKY, FRIABLE, STICKY	
96"–114"	REDDISH BROWN FINE SANDY LOAM; ANGULAR BLOCKY, FRIABLE	
114"–154"	REDDISH BROWN FINE LOAMY SAND MOTTLES: GRAY & YELLOW MANY DISTINCT BANDS @ 132"	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER-TABLE – ≥ 132"	(ELEV. 80.53)

TEST PIT #SJ4 DEPTH	PROPOSED TOWNHOME ELEVATION 92.59 DESCRIPTION	
0"–6"	TOPSOIL	
6"–42"	MISCELLANEOUS FILL CONSISTING OF BRICK, LUMBER, & LOAM	
42"–88"	REDDISH GRAY SILTY CLAY LOAM; MASSIVE, FIRM	
88"–103"	REDDISH BROWN SANDY CLAY LOAM; SUB-ANGULAR BLOCKY, FRIABLE, STICKY	
103"–132"	REDDISH BROWN FINE SANDY LOAM; SUB-ANGULAR, BLOCKY, FRIABLE, SLIGHTLY STICKY	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER-TABLE – ≥ 132"	(ELEV. 81.59)

TEST PIT #SJ8 DEPTH	PROPOSED BASIN AREA ELEVATION 68.87 DESCRIPTION	
0"–6"	TOPSOIL	
6"–61"	YELLOWISH RED FINE TO VERY FINE LOAMY SAND; SUB-ANGULAR BLOCKY, FRIABLE	
61"–80"	REDDISH BROWN FINE LOAMY SAND; SUB-ANGULAR BLOCKY, FRIABLE	
80"–97"	PALE BROWN FINE SAND / LOAMY SAND; SUB-ANGULAR BLOCKY, FRIABLE	
	MOTTLES: YELLOW FEW FAINT @ 96"	
97"–132"	REDDISH BROWN FINE LOAMY SAND; SUB-ANGULAR BLOCKY, FRIABLE	
132"–150"	REDDISH BROWN SILTY SANDL; SUB-ANGULAR BLOCKY, FRIABLE	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER-TABLE –97"	(ELEV. 60.77)

TEST PIT #SJ9 DEPTH	PROPOSED BASIN AREA ELEVATION 69.48 DESCRIPTION	
0"–4"	TOPSOIL	
4"–28"	STRONG BROWN FINE SANDY LOAM / LOAM; SUB-ANGULAR BLOCKY, FRIABLE, STICKY	
28"–90"	MISC. FILL CONSISTING OF BRICK, TRASH DEBRIS, TERRA COTTA PIPE, & ORGANIC SILT	
90"–153"	LIGHT GRAY FINE TO VERY FINE SAND /LOAMY SAND; SUB-ANGULAR BLOCKY, FRIABLE	
	MOTTLES; YELLOWISH RED COMMON DISTINCT @ 102"	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER-TABLE –102"	(ELEV. 60.98)

TEST PIT #SJ10 DEPTH	PROPOSED BASIN AREA ELEVATION 70.25 DESCRIPTION	
0"–36"	FILL MATERIAL CONSISTING OF ORGANICS & LOAMY SAND / SANDY LOAM	
36"–65"	YELLOWISH BROWN FINE LOAMY SAND; SUB-ANGULAR BLOCKY, FRIABLE	
65"–144"	LIGHT GRAY FINE TO VERY FINE LOAMY SAND; SUB-ANGULAR BLOCKY, FRIABLE	
	MOTTLES; YELLOWISH RED MANY DISTINCT @ 125"	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER-TABLE –125"	(ELEV. 59.85)

TEST PIT #SJ13 DEPTH	PROPOSED TOWNHOME ELEVATION 80.75 DESCRIPTION	
0"–4"	TOPSOIL	
4"–31"	YELLOWISH BROWN LOAM; SUB-ANGULAR BLOCKY, FRIABLE	
31"–90"	YELLOWISH RED FINE SANDY LOAM / LOAMY SAND; SUB-ANGULAR BLOCKY, FRIABLE	
90"–132"	REDDISH BROWN FINE SANDY LOAM; ANGULAR BLOCKY, FRIABLE	
114"–154"	LIGHT BROWN FINE LOAMY SAND; SUB-ANGULAR BLOCKY, FRIABLE	
	MOTTLES: GRAY & YELLOW FEW FAINT @ 133"	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER-TABLE – 133"	(ELEV. 69.65)

TEST PIT #SJ14 DEPTH	PROPOSED TOWNHOME ELEVATION 73.25 DESCRIPTION	
0"–5"	TOPSOIL	
5"–68"	YELLOWISH BROWN SANDY LOAM; SUB-ANGULAR BLOCKY, FRIABLE	
68"–90"	YELLOWISH RED FINE SANDY LOAM / LOAMY SAND; SUB-ANGULAR BLOCKY, FRIABLE	
90"–120"	GRAYISH BROWN FINE SANDY LOAM / LOAMY SAND; ANGULAR BLOCKY, FRIABLE	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER-TABLE – 120"	(ELEV. 63.25)

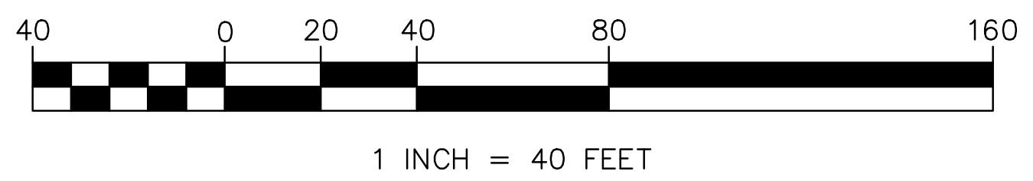
TEST PIT #SJ11 DEPTH	PROPOSED BASIN AREA ELEVATION 67.20 DESCRIPTION	
0"–3"	TOPSOIL	
3"–27"	YELLOWISH RED FINE LOAMY SAND/SANDY LOAM; SUB-ANGULAR BLOCKY, FRIABLE	
27"–47"	DARK GRAY ORGANIC SILT; ANGULAR BLOCKY, STICKY	
47"–132"	YELLOWISH RED FINE LOAMY SAND; SUB-ANGULAR BLOCKY, FRIABLE	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER-TABLE – ≥ 132"	(ELEV. 56.20)

TEST PIT #SJ12 DEPTH	PROPOSED BASIN AREA ELEVATION 69.78 DESCRIPTION	
0"–2"	TOPSOIL	
2"–44"	GRAY FINE FINE SAND / LOAMY SAND; SUB-ANGULAR BLOCKY, FRIABLE	
44"–66"	DARK GRAY ORGANIC SILT; ANGULAR BLOCKY, STICKY	
66"–144"	YELLOWISH RED FINE LOAMY SAND; SUB-ANGULAR BLOCKY, FRIABLE	
	MOTTLES: GRAY & YELLOW FEW FAINT @ 132"	
	GROUNDWATER NOT ENCOUNTERED	
	ESTIMATED SEASONAL HIGH WATER-TABLE – ≥ 132"	(ELEV. 58.78)

NOTE: TEST PITS SJ #11, #12, #12 AND #14 ARE LOCATED WITHIN PHASE 3. REFER TO THE PHASE 3 SITE DEVELOPMENT PLANS FOR LOCATIONS.

Know what's below. Call before you dig.

GRAPHIC SCALE



1 INCH = 40 FEET

DATE	ISSUE	REVISION	BY	APPR.
03/10/2022	6	ISSUED FOR FINAL SITE PLAN COMPLIANCE	TJK	RJC
07/02/2020	5	SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK	RJC
01/13/20	4	REVISED PER COMMENTS FROM CHERRY HILL TOWNSHIP PUBLIC WORKS ENGINEER	GMM	RJC
07/16/19	3	ADD PARKING; REVISE GRADING AT END UNIT BUILDING 2–B	TJK	RJC
10/2/18	2	REVISE SIDEWALK, ADD COAH UNITS REVISE COAH UNIT DRIVE GRADING	GMM	RJC
12/12/17	1	NOT PART OF INITIAL SUBMISSION	TJK	RJC

CENTURA – PHASE 1 AND 2

TAX MAP SHEET 234, BLOCK 433.20, LOT 15.01 & 16.01, FORMERLY BLOCK 433.20, LOT 1
CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

GRADING AND DRAINAGE PLAN

DEVEL, LLC.

C/O STEPHEN D. SAMOST, ESQUIRE 479 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043

JAMES SASSANO ASSOCIATES, INC.
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www.jsaengineering.com

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200
Richard J Clemson 03/10/2022
DATE

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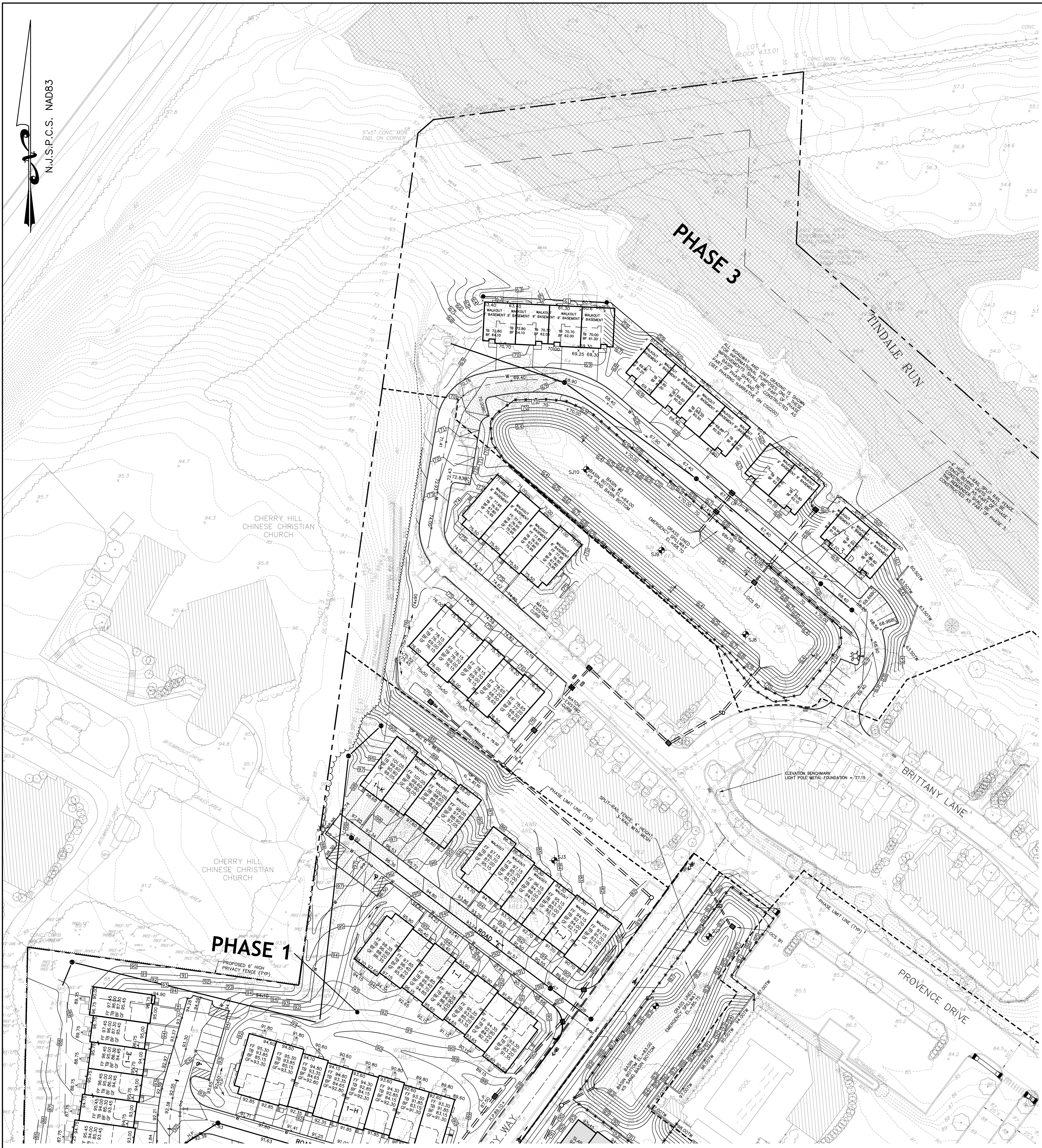
DRAWN BY	APPROVED BY
TJK	RJC
SCALE	DATE
1"=40'	12/12/17
JOB NUMBER	SHEET NO.
3487	6 OF 26

CS0301


N.J.S.P.C.S. NAD83
PHASE 3
PHASE 1
TINDALE RUN
ALL ROADWAY AND UNIT GRADING IS SHOWN FOR INFORMATIONAL PURPOSES ONLY. THESE IMPROVEMENTS SHALL BE PART OF PHASE 3. BASIN 2 SHALL BE CONSTRUCTED AS PART OF PHASE 1 AND 2 (SEE PHASING NARRATIVE ON CS0200)
4' HIGH, 3-RAIL SPLIT RAIL FENCE. FENCE BEHIND UNITS SHALL BE CONSTRUCTED AS PART OF PHASE 1. THE REMAINDER SHALL BE CONSTRUCTED AS PART OF PHASE 3.
CHERRY HILL CHINESE CHRISTIAN CHURCH
BRITTANY LANE
PROVENCE DRIVE
PHASE LIMIT LINE (TYP)
PROPOSED 6' HIGH PRIVACY FENCE (TYP)
ELEVATION BENCHMARK LIGHT POLE METAL FOUNDATION = 77.15
LOT 4 BLOCK 433.01
WALKOUT 9' BASEMENT
EMERGENCY ACCESS
MATCH CURB

STANDARD PLAN LEGEND

- PROPERTY OUTBOUNDS LINE
- CENTER LINE
- EASEMENT LINE
- GAS LINE
- SANITARY SEWER LINE
- WATER LINE
- OVERHEAD WIRES
- WETLANDS LINE
- EDGE OF PAVING
- RIPARIAN LINE
- FLOODWAY LIMIT LINE (100 YR)
- FLOOD HAZARD AREA LINE
- PHASE LIMIT LINE
- LIMIT OF DISTURBANCE
- FENCES
- EXISTING CONTOUR
- PROPOSED CONTOUR
- × 100.6 EXISTING SPOT ELEVATION
- × 101.3 PROPOSED SPOT ELEVATION
- VEGETATION LINE
- TEST PIT / SOIL BORING
- GV WV VALVES
- WM GM METERS
- SIGNS
- UTILITY POLES
- LIGHT POLES
- FIRE HYDRANT
- CLEANOUT
- USPS MAIL BOXES
- × CROSS CUT
- DRILL HOLE W/ WINGS
- □ FOUND MONUMENT
- ■ SET MONUMENT
- ○ FOUND IRON ROD/PIPE
- ● SET IRON ROD/PIPE
- INLETS
- MANHOLES
- TRAFFIC SIGNAL
- SHADED UNITS ARE COAH UNITS

GRADING LEGEND

TB 72.40	PROPOSED TOP OF BLOCK ELEVATION
BF 64.70	PROPOSED BASEMENT FLOOR ELEVATION
GF 74.00	PROPOSED GARAGE FLOOR ELEVATION
70.00 BC	PROPOSED BOTTOM OF CURB ELEVATION
69.53 HP	PROPOSED HIGH POINT ELEVATION
69.83 LP	PROPOSED LOW POINT ELEVATION
62.50 TW	PROPOSED TOP OF WALL ELEVATION
62.00 BW	PROPOSED BOTTOM OF WALL ELEVATION
71.45 x	PROPOSED SPOT ELEVATION
---72---	EXISTING CONTOUR LINE
72	PROPOSED CONTOUR LINE

LONG TERM MAINTENANCE OF STORMWATER MANAGEMENT SYSTEM

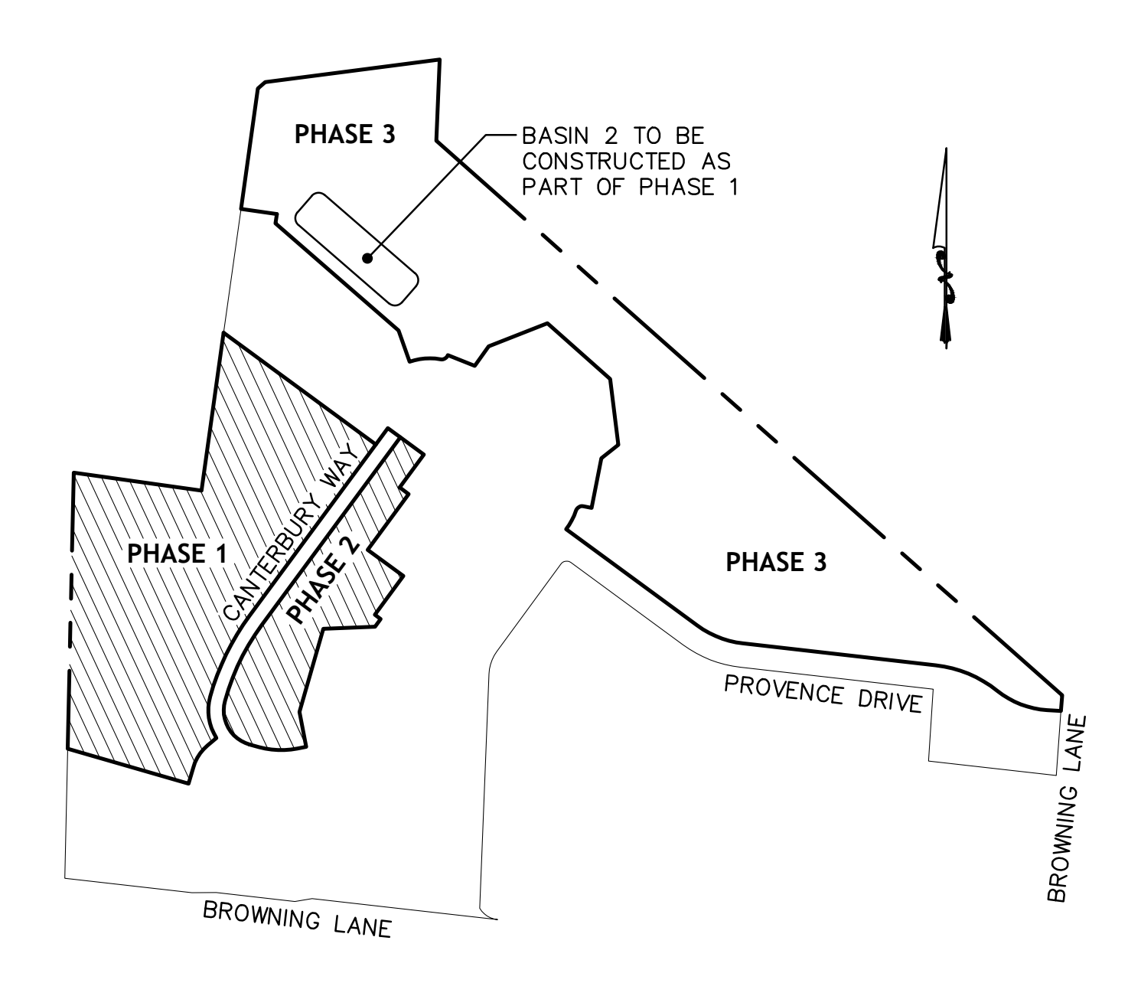
THE PROPERTY SHALL BE DEED RESTRICTED TO REQUIRE THE OWNER TO MAINTAIN THE STORMWATER MANAGEMENT SYSTEM IN PERPETUITY IN ACCORDANCE WITH THE STORMWATER MAINTENANCE PLAN. THE DEED RESTRICTION REQUIRING MAINTENANCE SHALL INCLUDE A PROVISION WHICH, IN THE CASE THE OWNER FAILS TO MAINTAIN THE SYSTEM, ALLOWS, BUT DOES NOT OBLIGATE, THE TOWNSHIP TO ENTER UPON THE PROPERTY TO PERFORM REQUIRED MAINTENANCE AT THE OWNERS EXPENSE.

* FUTURE INFILL UNITS TO BE SUBMITTED UNDER SEPARATE SITE PLAN APPLICATION AND SHOWN FOR INFORMATIONAL PURPOSES ONLY.

ADA COMPLIANCE NOTE

THE GENERAL CONTRACTOR, CONSTRUCTION MANAGER OR OWNER SHALL INSTRUCT THE CONCRETE CONTRACTOR TO TAKE CARE IN SETTING FORMS FOR PEDESTRIAN AREAS TO INSURE THAT THEY CONFORM TO THE CURRENT ADA BARRIER FREE CODES. PRIOR TO POURING CONCRETE WITHIN THE BARRIER FREE WALKS AND RAMPS ALL FORMS SHALL BE INSPECTED BY THE CHERRY HILL TOWNSHIP ENGINEER TO INSURE PROPER SLOPES AND ELEVATIONS CONFORMING TO THE CURRENT ADA CODES.

* ALL PROPOSED CURB ELEVATIONS SHOWN REPRESENT TOP OF CURB UNLES OTHERWISE NOTED.



KEY MAP:

SCALE: 1"=400'

TEST PIT DATA

TEST PIT #SJ7 DEPTH	PROPOSED BASIN AREA ELEVATION 84.45 DESCRIPTION
0"–3"	TOPSOIL
2"–144"	YELLOWISH RED FINE LOAMY SAND / SANDY LOAM; SUB–ANGULAR BLOCKY, FRIABLE MOTTLES: GRAY & YELLOW MANY DISTINCT @ 125" GROUNDWATER NOT ENCOUNTERED ESTIMATED SEASONAL HIGH WATER–TABLE –125" (ELEV. 74.05)

TEST PIT #SJ6 DEPTH	PROPOSED BASIN AREA ELEVATION 87.46 DESCRIPTION
0"–3"	TOPSOIL
3"–150"	YELLOWISH RED FINE LOAMY SAND / SANDY LOAM; SUB–ANGULAR BLOCKY, FRIABLE MOTTLES: GRAY & YELLOW MANY DISTINCT @ 127" GROUNDWATER NOT ENCOUNTERED ESTIMATED SEASONAL HIGH WATER–TABLE –127" (ELEV. 76.86)

TEST PIT #SJ3 DEPTH	PROPOSED TOWNHOME ELEVATION 86.39 DESCRIPTION
0"–3"	TOPSOIL
3"–26"	YELLOWISH RED FINE SANDY LOAM; SUB–ANGULAR BLOCKY, FRIABLE
26"–140"	REDDISH BROWN FINE SANDY LOAM SUB–ANGULAR BLOCKY, FRIABLE, GRAVEL 15% GROUNDWATER NOT ENCOUNTERED ESTIMATED SEASONAL HIGH WATER–TABLE – ≥140" (ELEV. 74.69)

TEST PIT #SJ5 DEPTH	PROPOSED TOWNHOME ELEVATION 91.34 DESCRIPTION
0"–4"	TOPSOIL
4"–132"	YELLOWISH RED FINE SANDY LOAM; SUB–ANGULAR BLOCKY, FRIABLE GROUNDWATER NOT ENCOUNTERED ESTIMATED SEASONAL HIGH WATER–TABLE – ≥132" (ELEV. 80.34)

TEST PIT #SJ2 DEPTH	PROPOSED TOWNHOME ELEVATION 90.57 DESCRIPTION
0"–11"	FILL MATERIAL CONSISTING OF LOAMY SAND
11"–56"	STRONG BROWN LOAM / SANDY CLAY LOAM; SUB–ANGULAR BLOCKY, FRIABLE SILT INCLUSIONS THROUGHOUT
56"–140"	STRONG BROWN FINE SANDY LOAM; SUB–ANGULAR BLOCKY, FRIABLE, STICKY MOTTLES: GRAY & YELLOW FEW FAINT @ 114" GROUNDWATER NOT ENCOUNTERED ESTIMATED SEASONAL HIGH WATER–TABLE –114" (ELEV. 81.07)

TEST PIT #SJ1 DEPTH	PROPOSED TOWNHOME ELEVATION 91.53 DESCRIPTION
0"–50"	YELLOWISH RED SANDY CLAY LOAM; SUB–ANGULAR BLOCKY, FRIABLE, SLIGHTLY STICKY
50"–62"	LIGHT GRAY SILTY CLAY LOAM; MASSIVE, FIRM
62"–96"	REDDISH BROWN FINE SANDY LOAM / SANDY CLAY LOAM; SUB–ANGULAR BLOCKY, FRIABLE, STICKY
96"–114"	REDDISH BROWN FINE SANDY LOAM; ANGULAR BLOCKY, FRIABLE
114"–154"	REDDISH BROWN FINE LOAMY SAND MOTTLES: GRAY & YELLOW MANY DISTINCT BANDS @ 132" GROUNDWATER NOT ENCOUNTERED ESTIMATED SEASONAL HIGH WATER–TABLE – ≥ 132" (ELEV. 80.53)

TEST PIT #SJ4 DEPTH	PROPOSED TOWNHOME ELEVATION 92.59 DESCRIPTION
0"–6"	TOPSOIL
6"–42"	MISCELLANEOUS FILL CONSISTING OF BRICK, LUMBER, & LOAM
42"–88"	REDDISH GRAY SILTY CLAY LOAM; MASSIVE, FIRM
88"–103"	REDDISH BROWN SANDY CLAY LOAM; SUB–ANGULAR BLOCKY, FRIABLE, STICKY
103"–132"	REDDISH BROWN FINE SANDY LOAM; SUB–ANGULAR, BLOCKY, FRIABLE, SLIGHTLY STICKY GROUNDWATER NOT ENCOUNTERED ESTIMATED SEASONAL HIGH WATER–TABLE – ≥ 132" (ELEV. 81.59)

TEST PIT #SJ8 DEPTH	PROPOSED BASIN AREA ELEVATION 68.87 DESCRIPTION
0"–6"	TOPSOIL
6"–61"	YELLOWISH RED FINE TO VERY FINE LOAMY SAND; SUB–ANGULAR BLOCKY, FRIABLE
61"–80"	REDDISH BROWN FINE LOAMY SAND; SUB–ANGULAR BLOCKY, FRIABLE
80"–97"	PALE BROWN FINE SAND / LOAMY SAND; SUB–ANGULAR BLOCKY, FRIABLE MOTTLES: YELLOW FEW FAINT @ 96"
97"–132"	REDDISH BROWN FINE LOAMY SAND; SUB–ANGULAR BLOCKY, FRIABLE
132"–150"	REDDISH BROWN SILTY SANDL; SUB–ANGULAR BLOCKY, FRIABLE GROUNDWATER NOT ENCOUNTERED ESTIMATED SEASONAL HIGH WATER–TABLE –97" (ELEV. 60.77)

TEST PIT #SJ9 DEPTH	PROPOSED BASIN AREA ELEVATION 69.48 DESCRIPTION
0"–4"	TOPSOIL
4"–28"	STRONG BROWN FINE SANDY LOAM / LOAM; SUB–ANGULAR BLOCKY, FRIABLE, STICKY
28"–90"	MISC. FILL CONSISTING OF BRICK, TRASH DEBRIS, TERRA COTTA PIPE, & ORGANIC SILT
90"–153"	LIGHT GRAY FINE TO VERY FINE SAND /LOAMY SAND; SUB–ANGULAR BLOCKY, FRIABLE MOTTLES; YELLOWISH RED COMMON DISTINCT @ 102" GROUNDWATER NOT ENCOUNTERED ESTIMATED SEASONAL HIGH WATER–TABLE –102" (ELEV. 60.98)

TEST PIT #SJ10 DEPTH	PROPOSED BASIN AREA ELEVATION 70.25 DESCRIPTION
0"–36"	FILL MATERIAL CONSISTING OF ORGANICS & LOAMY SAND / SANDY LOAM
36"–65"	YELLOWISH BROWN FINE LOAMY SAND; SUB–ANGULAR BLOCKY, FRIABLE
65"–144"	LIGHT GRAY FINE TO VERY FINE LOAMY SAND; SUB–ANGULAR BLOCKY, FRIABLE MOTTLES; YELLOWISH RED MANY DISTINCT @ 125" GROUNDWATER NOT ENCOUNTERED ESTIMATED SEASONAL HIGH WATER–TABLE –125" (ELEV. 59.85)

TEST PIT #SJ13 DEPTH	PROPOSED TOWNHOME ELEVATION 80.75 DESCRIPTION
0"–4"	TOPSOIL
4"–31"	YELLOWISH BROWN LOAM; SUB–ANGULAR BLOCKY, FRIABLE
31"–90"	YELLOWISH RED FINE SANDY LOAM / LOAMY SAND; SUB–ANGULAR BLOCKY, FRIABLE
90"–132"	REDDISH BROWN FINE SANDY LOAM; ANGULAR BLOCKY, FRIABLE
114"–154"	LIGHT BROWN FINE LOAMY SAND; SUB–ANGULAR BLOCKY, FRIABLE MOTTLES: GRAY & YELLOW FEW FAINT @ 133" GROUNDWATER NOT ENCOUNTERED ESTIMATED SEASONAL HIGH WATER–TABLE – 133" (ELEV. 69.65)

TEST PIT #SJ14 DEPTH	PROPOSED TOWNHOME ELEVATION 73.25 DESCRIPTION
0"–5"	TOPSOIL
5"–68"	YELLOWISH BROWN SANDY LOAM; SUB–ANGULAR BLOCKY, FRIABLE
68"–90"	YELLOWISH RED FINE SANDY LOAM / LOAMY SAND; SUB–ANGULAR BLOCKY, FRIABLE
90"–120"	GRAYISH BROWN FINE SANDY LOAM / LOAMY SAND; ANGULAR BLOCKY, FRIABLE GROUNDWATER NOT ENCOUNTERED ESTIMATED SEASONAL HIGH WATER–TABLE – 120" (ELEV. 63.25)

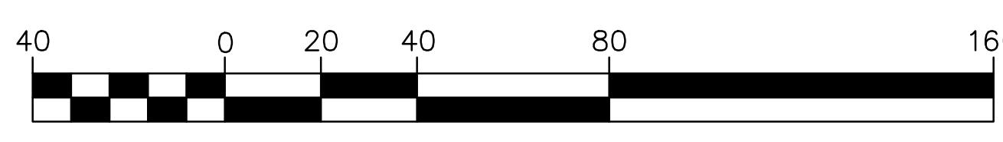
TEST PIT #SJ11 DEPTH	PROPOSED BASIN AREA ELEVATION 67.20 DESCRIPTION
0"–3"	TOPSOIL
3"–27"	YELLOWISH RED FINE LOAMY SAND/SANDY LOAM; SUB–ANGULAR BLOCKY, FRIABLE
27"–47"	DARK GRAY ORGANIC SILT; ANGULAR BLOCKY, STICKY
47"–132"	YELLOWISH RED FINE LOAMY SAND; SUB–ANGULAR BLOCKY, FRIABLE GROUNDWATER NOT ENCOUNTERED ESTIMATED SEASONAL HIGH WATER–TABLE – ≥ 132" (ELEV. 56.20)

TEST PIT #SJ12 DEPTH	PROPOSED BASIN AREA ELEVATION 69.78 DESCRIPTION
0"–2"	TOPSOIL
2"–44"	GRAY FINE FINE SAND / LOAMY SAND; SUB–ANGULAR BLOCKY, FRIABLE
44"–66"	DARK GRAY ORGANIC SILT; ANGULAR BLOCKY, STICKY
66"–144"	YELLOWISH RED FINE LOAMY SAND; SUB–ANGULAR BLOCKY, FRIABLE MOTTLES: GRAY & YELLOW FEW FAINT @ 132" GROUNDWATER NOT ENCOUNTERED ESTIMATED SEASONAL HIGH WATER–TABLE – ≥ 132" (ELEV. 58.78)

NOTE: TEST PITS SJ #11, #12, #12 AND #14 ARE LOCATED WITHIN PHASE 3. REFER TO THE PHASE 3 SITE DEVELOPMENT PLANS FOR LOCATIONS.

Know what's below.
Call before you dig.

GRAPHIC SCALE



1 INCH = 40 FEET

DATE	ISSUE	REVISION	BY	APPR.
03/10/2022	6	ISSUED FOR FINAL SITE PLAN COMPLIANCE	TJK	RJC
07/02/2020	5	SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK	RJC
01/13/20	4	REVISED PER COMMENTS FROM CHERRY HILL TOWNSHIP PUBLIC WORKS ENGINEER	GMM	RJC
07/16/19	3	ADD PHASE LABELS	TJK	RJC
10/2/18	2	REV. WALKS, PARKING & ADD SUMP PUMP COLLECTION HEADER REAR OF BLDG. 3A, 3B, 3C & 3D	GMM	RJC
12/12/17	1	NOT PART OF INITIAL SUBMISSION	TJK	RJC

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28017600

41 SOUTH ROUTE 73, BUILDING 1, SUITE 201
HAMMONTON, NEW JERSEY 08037

TELEPHONE (609) 704-1155
FAX (609) 704-1166
www.jsaengineering.com

CENTURA – PHASE 1 AND 2

TAX MAP SHEET 234, BLOCK 433.20, LOT 15.01 & 16.01, FORMERLY BLOCK 433.20, LOT 1
CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

GRADING AND DRAINAGE PLAN

DEVEL, LLC.
C/O STEPHEN D. SAMOST, ESQUIRE 479 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043

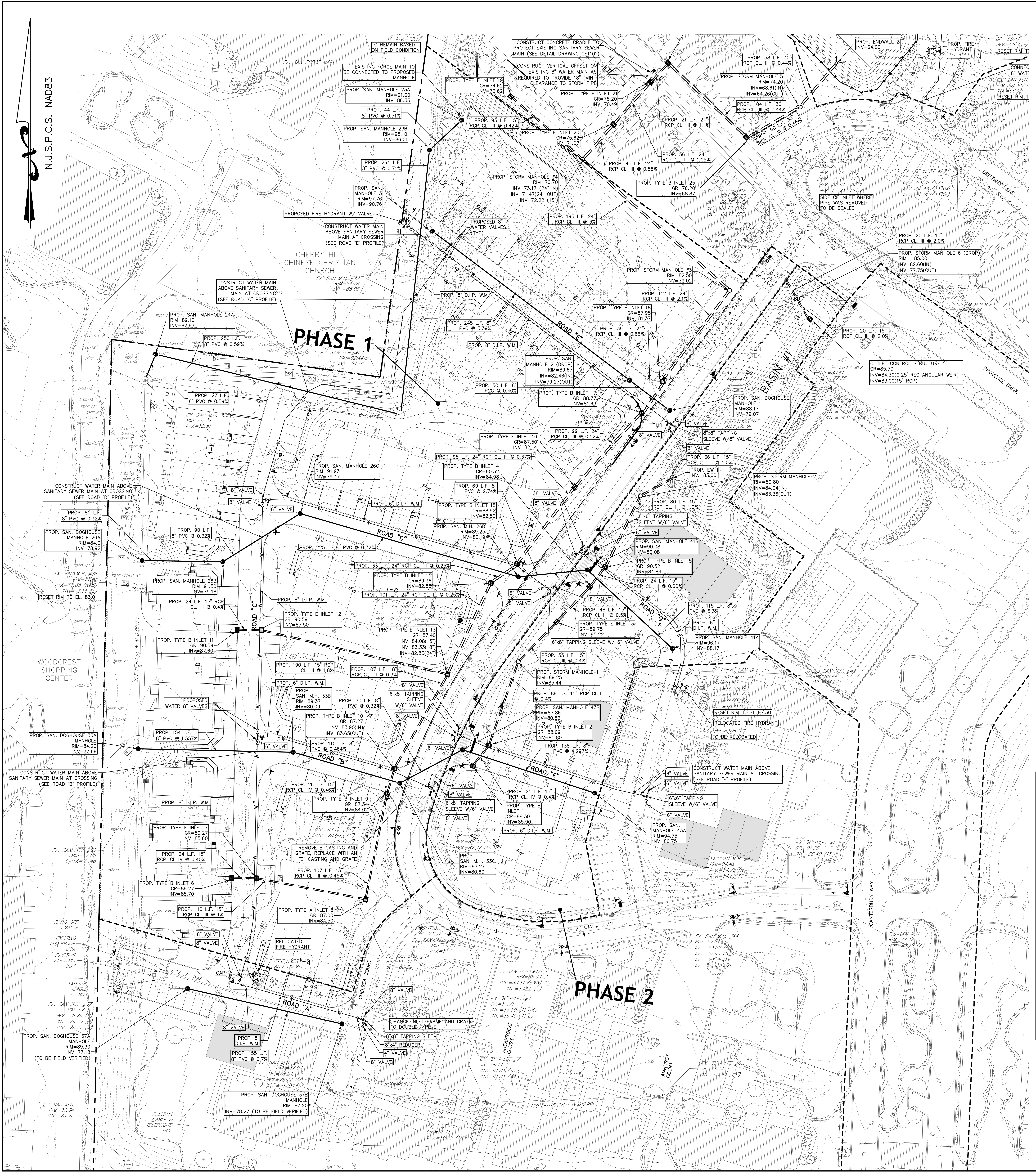
RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200

Richard J Clemson
03/10/2022
DATE

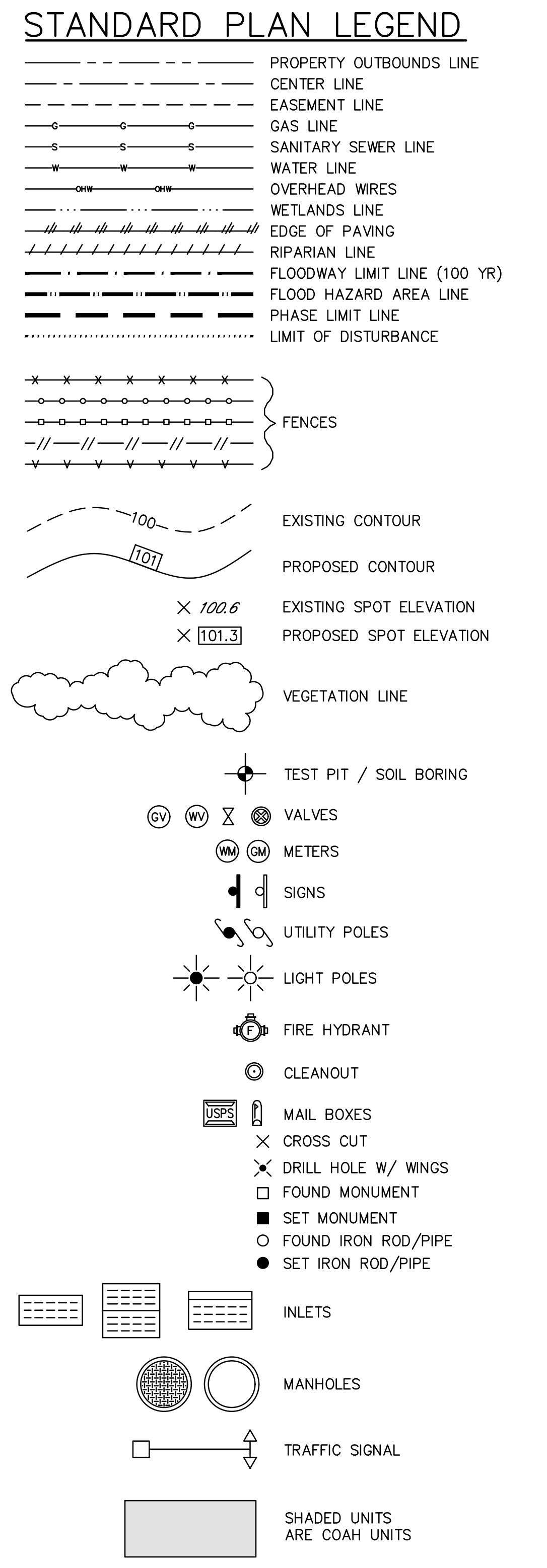
ALL DOCUMENTS PREPARED BY JSA. ARE INSTRUMENTS OF SERVICE IN RESPECT TO THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER TO OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY JSA. FOR THE SPECIFIC PURPOSE INTENDED WILL BE OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO JSA. AND SHALL INDEMNIFY AND HOLD HARMLESS JSA FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY TJK	APPROVED BY RJC
SCALE 1"=40'	DATE 12/12/17
JOB NUMBER 3487	SHEET NO. 7 OF 26

CS0302


N.J.S.P.C.S. NAD83
PHASE 1
PHASE 2
ROAD "A"
ROAD "B"
ROAD "C"
ROAD "D"
ROAD "E"
ROAD "F"
ROAD "G"
CANTERBURY WAY
CHELSEA COURT
SHERBROOKE COURT
AMHURST COURT
PROVENCE DRIVE
BRITTANY LANE
BASIN #1
CHERRY HILL CHINESE CHRISTIAN CHURCH
WOODCREST SHOPPING CENTER
PROPOSED WATER 8" VALVES
CONSTRUCT WATER MAIN ABOVE SANITARY SEWER MAIN AT CROSSING (SEE ROAD "C" PROFILE)
CONSTRUCT WATER MAIN ABOVE SANITARY SEWER MAIN AT CROSSING (SEE ROAD "D" PROFILE)
CONSTRUCT WATER MAIN ABOVE SANITARY SEWER MAIN AT CROSSING (SEE ROAD "B" PROFILE)
CONSTRUCT WATER MAIN ABOVE SANITARY SEWER MAIN AT CROSSING (SEE ROAD "F" PROFILE)
CONSTRUCT WATER MAIN ABOVE SANITARY SEWER MAIN AT CROSSING (SEE ROAD "E" PROFILE)
PROPOSED FIRE HYDRANT W/ VALVE
RELOCATED FIRE HYDRANT
OUTLET CONTROL STRUCTURE 1 RIM=85.70 INV=84.30(0.25' RECTANGULAR WEIR) INV=83.00(15" RCP)
PROP. SAN. DOGHOUSE MANHOLE 1 RIM=88.17 INV=79.07
PROP. STORM MANHOLE-2 RIM=89.80 INV=84.04(IN) INV=83.36(OUT)
PROP. SAN. DOGHOUSE 37A MANHOLE RIM=89.30 INV=77.18 (TO BE FIELD VERIFIED)
PROP. SAN. DOGHOUSE 37B MANHOLE RIM=87.20 INV=78.27 (TO BE FIELD VERIFIED)
REMOVE B CASTING AND GRATE, REPLACE WITH AN "E" CASTING AND GRATE
CHANGE INLET FRAME AND GRATE TO DOUBLE TYPE E
SIDE OF INLET WHERE PIPE WAS REMOVED TO BE SEALED
TO REMAIN BASED ON FIELD CONDITION
EXISTING FORCE MAIN TO BE CONNECTED TO PROPOSED MANHOLE
CONSTRUCT CONCRETE CRADLE TO PROTECT EXISTING SANITARY SEWER MAIN (SEE DETAIL DRAWING CS1101)
CONSTRUCT VERTICAL OFFSET ON EXISTING 8" WATER MAIN AS REQUIRED TO PROVIDE 18" (MIN.) CLEARANCE TO STORM PIPE

STANDARD PLAN LEGEND


PROPERTY OUTBOUNDS LINE
CENTER LINE
EASEMENT LINE
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SANITARY SEWER LINE
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EDGE OF PAVING
RIPARIAN LINE
FLOODWAY LIMIT LINE (100 YR)
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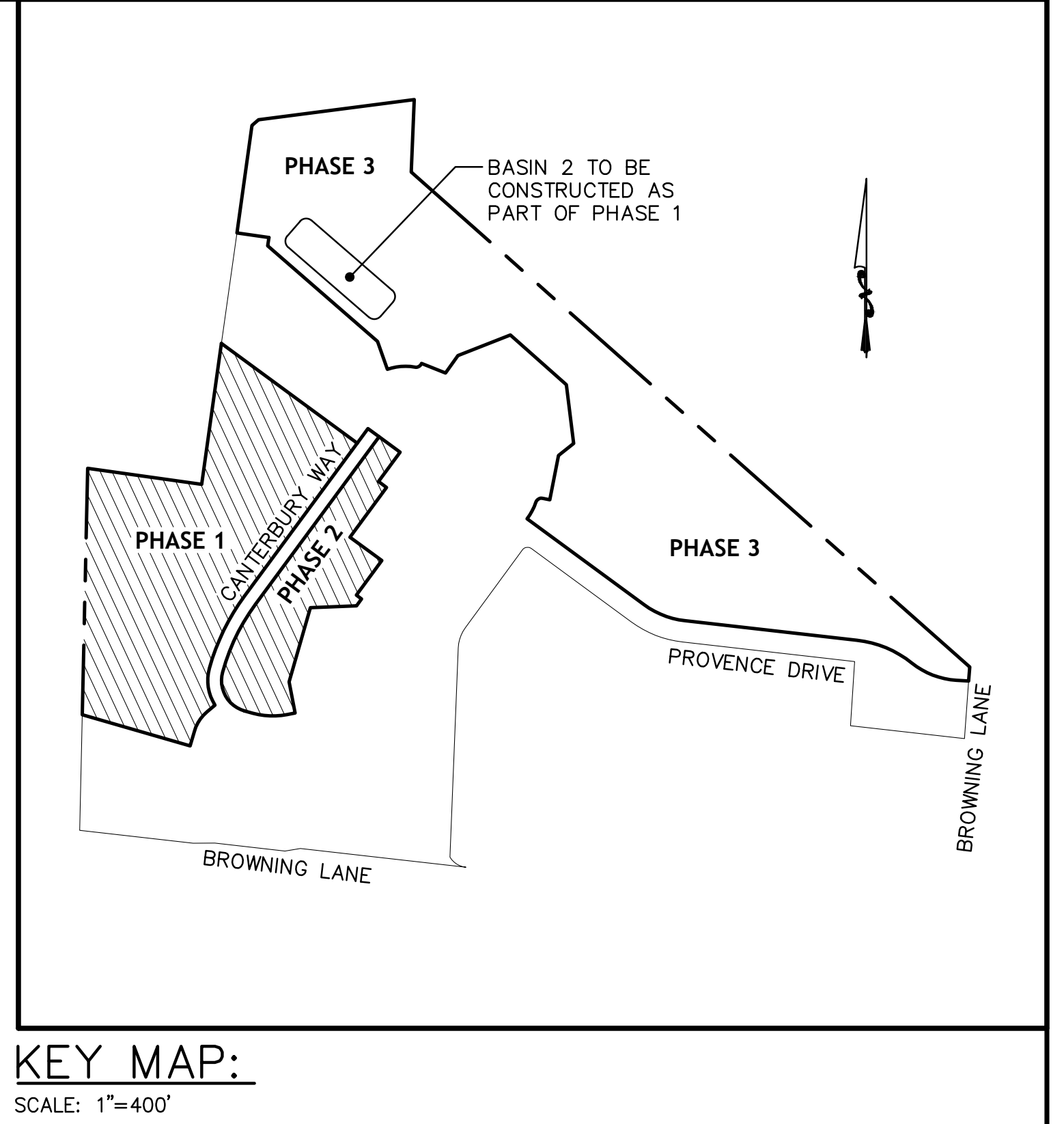

PHASE 3
BASIN 2 TO BE CONSTRUCTED AS PART OF PHASE 1
PHASE 1
PHASE 2
PHASE 3
CANTERBURY WAY
PROVENCE DRIVE
BROWNING LANE
BROWNING LANE

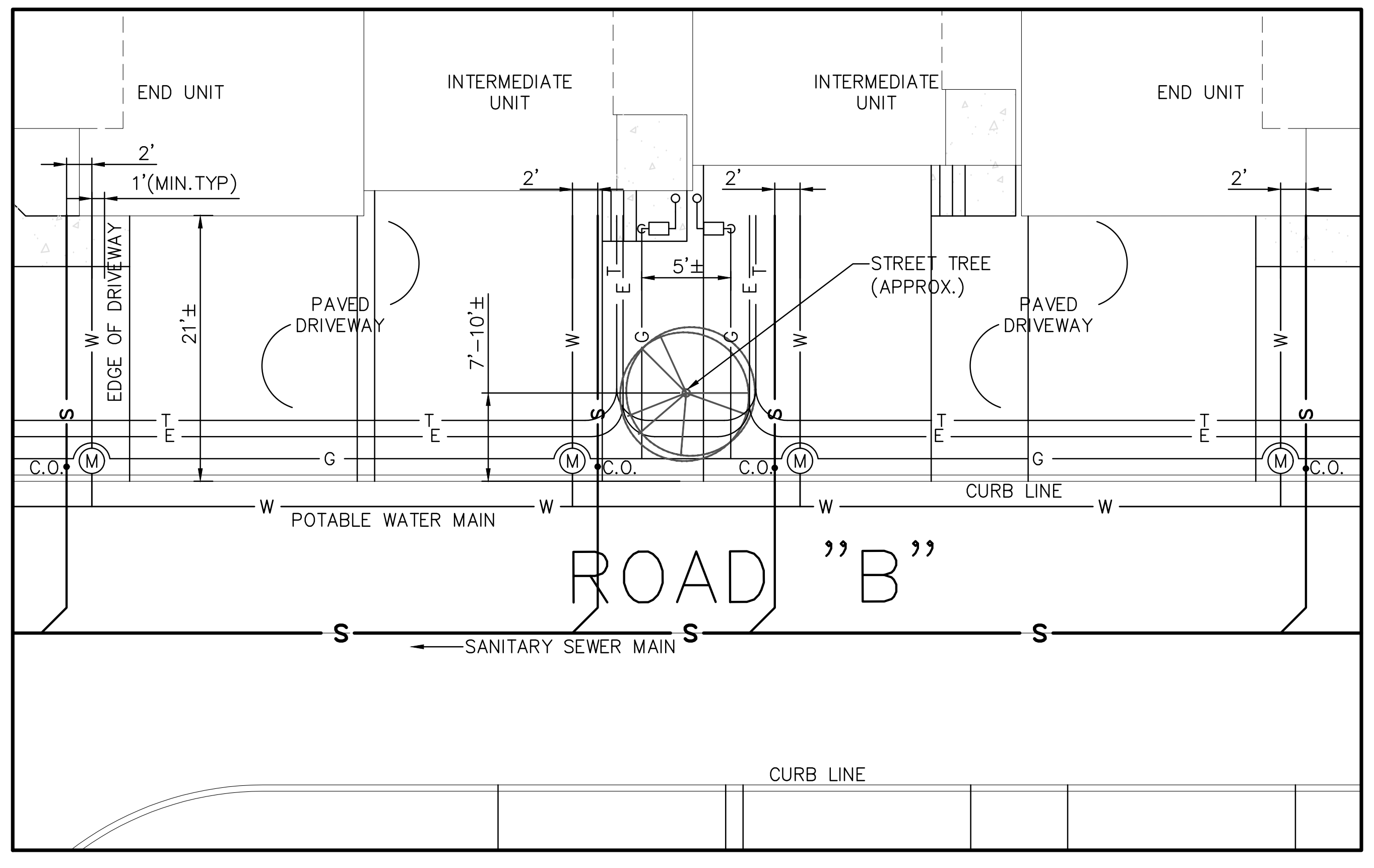
KEY MAP:

SCALE: 1"=400'

* FUTURE INFILL UNITS TO BE SUBMITTED UNDER SEPARATE SITE PLAN APPLICATION AND SHOWN FOR INFORMATIONAL PURPOSES ONLY.

GENERAL UTILITY NOTES

1. ALL PROPOSED UTILITIES SHALL BE INSTALLED UNDERGROUND.
2. ALL WATER MAIN CONSTRUCTION SHALL CONFORM TO THE STANDARDS, RULES AND REGULATIONS OF NEW JERSEY AMERICAN WATER.
3. ALL STORM SEWER CONSTRUCTION SHALL CONFORM TO THE STANDARDS, RULES AND REGULATIONS OF CHERRY HILL TOWNSHIP.
4. ALL SANITARY SEWER CONSTRUCTION SHALL CONFORM TO THE STANDARDS, RULES AND REGULATIONS OF THE CHERRY HILL TOWNSHIP PUBLIC WORKS SEWER DEPARTMENT.
5. ALL SANITARY SERVICE LATERALS SHALL HAVE A CLEANOUT (SEE DRAWING CS1101 FOR DETAIL).
6. ALL EXISTING INLETS WITHIN THE PHASE 1 & 2 PROJECT SHALL BE RETROFITTED TO COMPLY WITH NJPDES/NJDEP & NJDOT REGULATIONS I.E. A BICYCLE SAFE GRATE SHALL BE INSTALLED IF NEEDED ON EACH INLET AND THE EXISTING INLET HEAD PIECE SHALL BE RETROFITTED WITH AN S-SERIES ECO PLATE (SEE DRAWING CS1001 FOR DETAIL).
7. STORMWATER MANAGEMENT BASINS 1 AND 2 ARE COMBINATION INFILTRATION AND DETENTION FACILITIES.
8. BASIN 2 WILL BE CONSTRUCTED AS PART OF PHASE 1. CONSTRUCTION OF BASIN 2 WILL TAKE PLACE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION FOR PHASE 1 AND 2.
9. ALL MATERIALS, METHODS AND DETAILS OF IMPROVEMENT CONSTRUCTION SHALL CONFORM TO THE REGULATIONS OF THE TOWNSHIP OF CHERRY HILL, THE NEW JERSEY DEPARTMENT OF TRANSPORTATION, CAMDEN COUNTY AND/OR THE APPROPRIATE UTILITY COMPANY, WHICHEVER REGULATION TAKES PRECEDENCE.
10. WHERE IT IS NECESSARY TO CONNECT TO EXISTING UTILITIES WITHIN THE EXISTING ROADWAYS, THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAW CUTTING FOR WATER AND SEWER SERVICE. TRENCHING, BACKFILL, COMPACTION AND PAVING SHALL BE IN ACCORDANCE WITH THE TOWNSHIP OF CHERRY HILL, CAMDEN COUNTY AND THE NEW JERSEY DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, AS APPLICABLE.
11. ALL PIPE LENGTHS AND GRADIENTS ARE CALCULATED TO THE CENTERLINE OF THE SANITARY SEWER STRUCTURES. ACTUAL PIPE LENGTHS MAY BE LESS THAN THE CALCULATED LENGTH, AND SHOULD BE COMPUTED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
12. EXISTING UTILITY INFORMATION SHOWN ON THIS PLAN IS FURNISHED BY THE UTILITY COMPANIES OR SURVEY PLAN BY THE SURVEYOR. IT IS THE RESPONSIBILITY OF THE OWNER AND/OR CONTRACTOR TO CALL 811 FOR ACCURATE FIELD LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF THE EXACT LOCATION OF ALL UTILITIES AND THE DISTRIBUTION SERVICES TO THE BUILDINGS AS NEEDED FOR THE PROJECT. IF THERE ARE ANY CONFLICTS, NOTIFY THE ENGINEER IMMEDIATELY, IN WRITING, PRIOR TO INSTALLATION.
14. WHEREVER THE TRENCH BOTTOM DOES NOT AFFORD SUFFICIENT BEARING STRENGTH TO SUSTAIN THE WEIGHT OF THE PIPE AND SUPERIMPOSED LOADS, IT SHALL BE OVER EXCAVATED AND STABILIZED WITH A 12 INCH THICK MINIMUM LAYER OF DENSE GRADED AGGREGATE (DGA).
15. ALL WATER AND SEWER METERS FOR THE NEW UNITS IN THE COTSWOLD AND NORMANDY SECTIONS WILL BE METERED SEPARATELY AND BILLED TO THE INDIVIDUAL HOMEOWNER. THE APPLICANT WILL ESTABLISH A SEPARATE WATER METER FOR THE IRRIGATION SYSTEM TO BE INSTALLED FOR THE COTSWOLD AND NORMANDY SECTIONS WHICH WILL BE BILLED TO THE HAMLETS HOMEOWNERS ASSOCIATION.
16. IN ADDITION TO PROVIDING SEPARATE WATER AND SEWER METERS FOR THE NEW UNITS IN COTSWOLD AND NORMANDY, THE APPLICANT WILL ALSO ATTEMPT TO SEPARATE THE WATER AND SEWER METERS FOR THE EXISTING UNITS IN COTSWOLD AND NORMANDY SO THAT EACH UNIT WILL BE BILLED SEPARATELY FOR ITS OWN USAGE.
17. DECORATIVE LIGHTING WILL BE UTILIZED ON TWELVE (12) FOOT HIGH POLES AT AN INTERVAL OF 100 FEET ALONG CANTERBURY WAY AND ROADS H AND I.


END UNIT
INTERMEDIATE UNIT
INTERMEDIATE UNIT
END UNIT
2'
1'(MIN. TYP)
EDGE OF DRIVEWAY
21'±
PAVED DRIVEWAY
7'-10"±
2'
2'
5'±
STREET TREE (APPROX.)
PAVED DRIVEWAY
2'
C.O.
C.O.
C.O.
C.O.
POTABLE WATER MAIN
CURB LINE
ROAD "B"
SANITARY SEWER MAIN
CURB LINE

TYPICAL UTILITY SERVICE CONNECTION DETAIL

SCALE 1" = 10'

Know what's below. Call before you dig.

GRAPHIC SCALE

40
0
20
40
80
160

1 INCH = 40 FEET

DATE	ISSUE	REVISION	BY	APPR.
03/10/2022	6	ISSUED FOR FINAL SITE PLAN COMPLIANCE	TJK	RJC
07/02/2020	5	SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK	RJC
01/13/20	4	REV PER COMMENTS FROM CHERRY HILL TWP PUBLIC WORKS ENGINEER; ADDED WATER VALVE IDENTIFICATIONS	GMM	RJC
07/16/19	3	ADD NOTES	TJK	RJC
10/2/18	2	REVISE SIDEWALKS, PARKING AND ADD COAH UNITS	GMM	RJC
12/12/17	1	NOT PART OF INITIAL SUBMISSION	TJK	RJC

CENTURA – PHASE 1 AND 2

TAX MAP SHEET 234, BLOCK 433.20, LOT 15.01 & 16.01, FORMERLY BLOCK 433.20, LOT 1
CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

UTILITY PLAN

DEVEL, LLC.
C/O STEPHEN D. SAMOST, ESQUIRE 479 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043

JSA INC.
JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28017600
41 SOUTH ROUTE 73, BUILDING 1, SUITE 201
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RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200

Richard J. Clemson 03/10/2022
DATE

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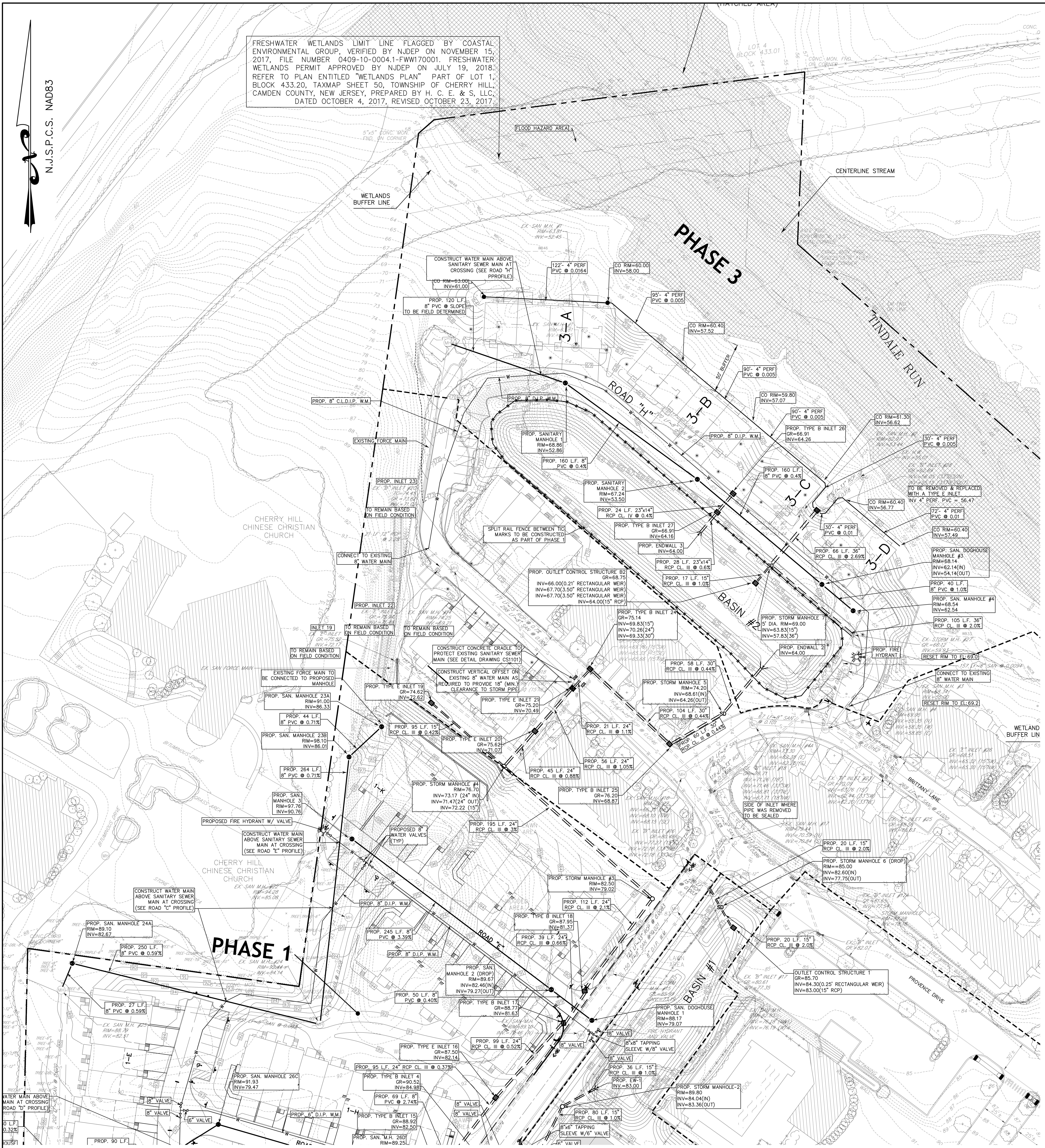
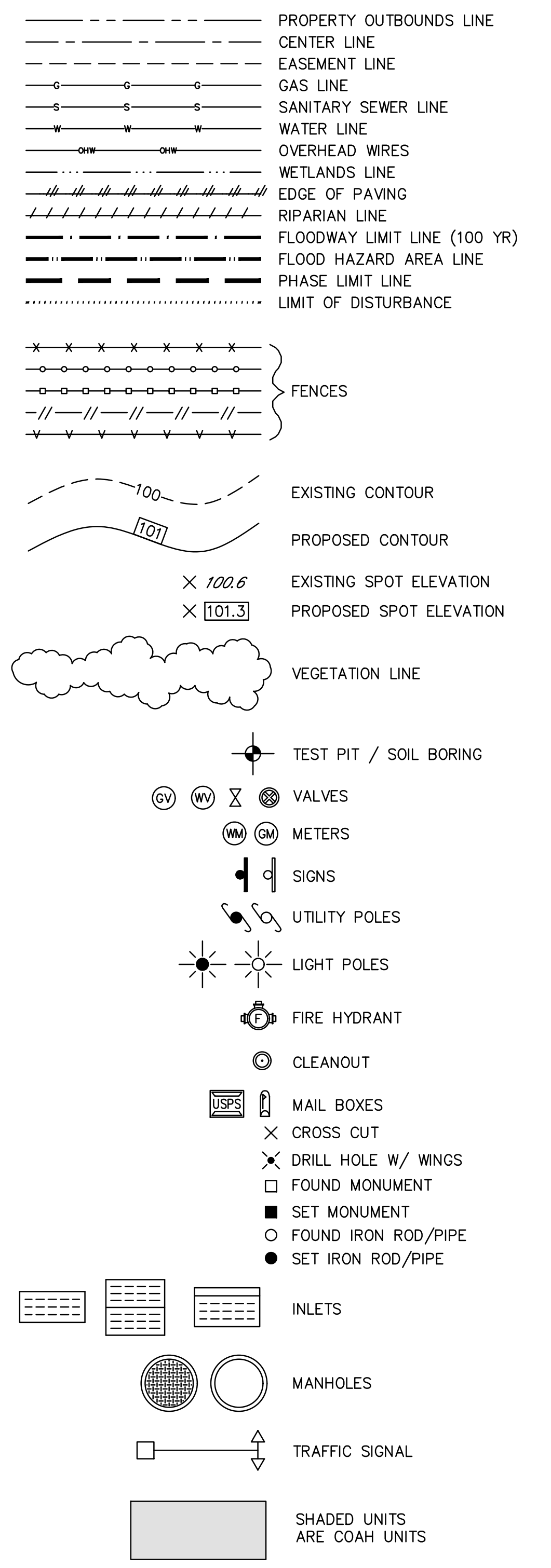
DRAWN BY	APPROVED BY
TJK	RJC
SCALE 1"=40'	DATE 12/12/17
JOB NUMBER 3487	SHEET NO. 8 OF 26

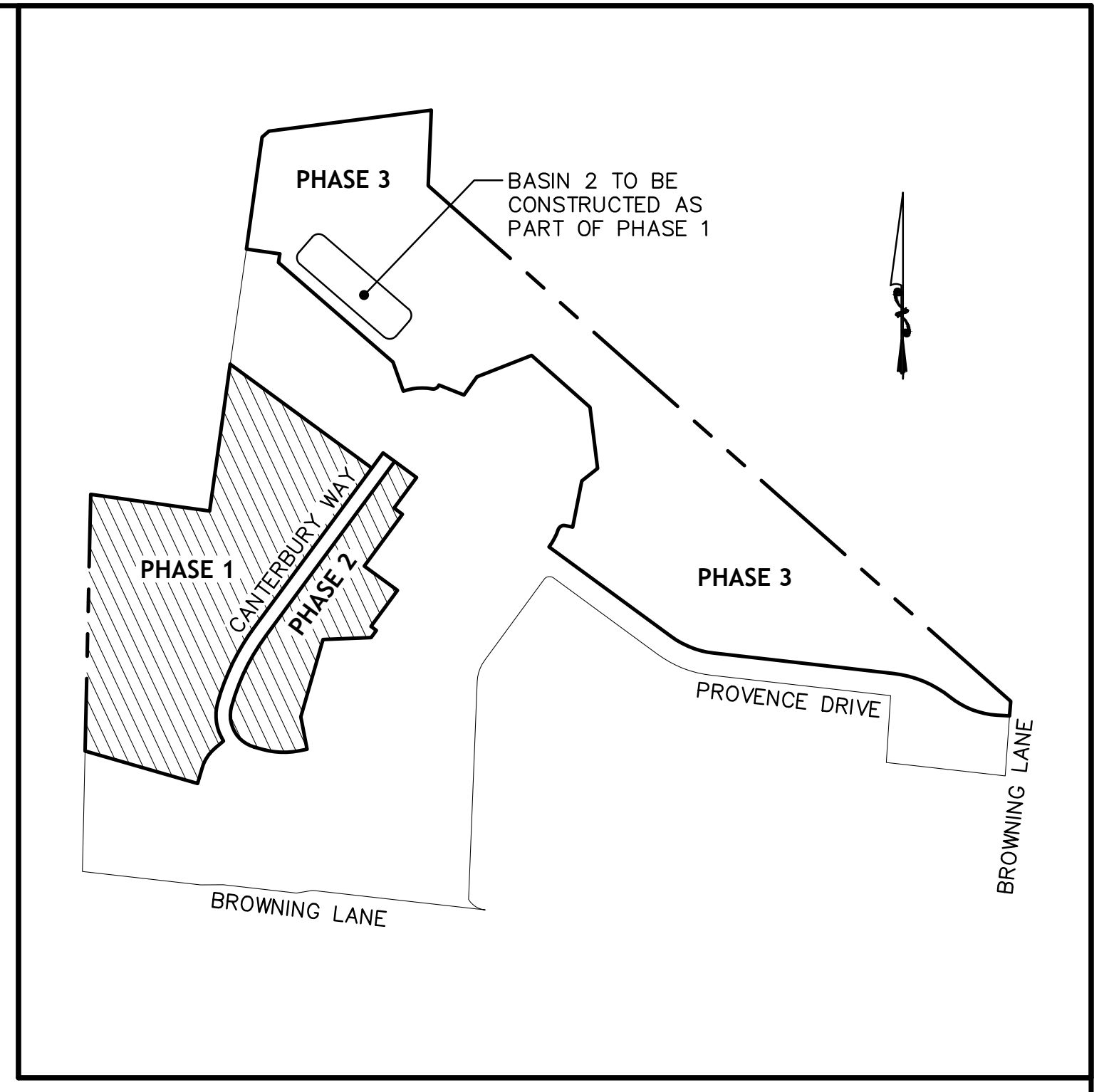
CS0401


N.J.S.P.C.S. NAD83
FRESHWATER WETLANDS LIMIT LINE FLAGGED BY COASTAL ENVIRONMENTAL GROUP, VERIFIED BY NJDEP ON NOVEMBER 15, 2017, FILE NUMBER 0409-10-0004.1-FWW170001. FRESHWATER WETLANDS PERMIT APPROVED BY NJDEP ON JULY 19, 2018. REFER TO PLAN ENTITLED "WETLANDS PLAN" PART OF LOT 1, BLOCK 433.20, TAXMAP SHEET 50, TOWNSHIP OF CHERRY HILL, CAMDEN COUNTY, NEW JERSEY, PREPARED BY H. C. E. & S, LLC, DATED OCTOBER 4, 2017, REVISED OCTOBER 23, 2017.
FLOOD HAZARD AREA
CENTERLINE STREAM
WETLANDS BUFFER LINE
PHASE 3
TINDALE RUN
50' BUFFER
CONSTRUCT WATER MAIN ABOVE SANITARY SEWER MAIN AT CROSSING (SEE ROAD "H" PPROFILE)
CO RIM=63.00 INV=61.00
122'- 4" PERF PVC @ 0.0164
CO RIM=60.00 INV=58.00
95'- 4" PERF PVC @ 0.005
PROP. 120 L.F. 8" PVC @ SLOPE TO BE FIELD DETERMINED
CO RIM=60.40 INV=57.52
90'- 4" PERF PVC @ 0.005
CO RIM=59.80 INV=57.07
90'- 4" PERF PVC @ 0.005
CO RIM=61.30 INV=56.62
30'- 4" PERF PVC @ 0.005
TO BE REMOVED & REPLACED WITH A TYPE E INLET
INV 4" PERF. PVC = 56.47
CO RIM=60.40 INV=56.77
72'- 4" PERF PVC @ 0.01
30'- 4" PERF PVC @ 0.01
CO RIM=60.40 INV=57.49
3-A
3-B
3-C
3-D
ROAD "H"
PROP. 8" C.L.D.I.P. W.M.
PROP. 8" D.I.P. W.M.
EXISTING FORCE MAIN
PROP. SANITARY MANHOLE 1 RIM=68.86 INV=52.86
PROP. 160 L.F. 8" PVC @ 0.4%
PROP. TYPE B INLET 26 GR=66.91 INV=64.26
PROP. 160 L.F. 8" PVC @ 0.4%
PROP. SANITARY MANHOLE 2 RIM=67.24 INV=53.50
PROP. INLET 23
TO REMAIN BASED ON FIELD CONDITION
PROP. 24 L.F. 23"x14" RCP CL. IV @ 0.4%
PROP. TYPE B INLET 27 GR=66.91 INV=64.16
PROP. ENDWALL 3 INV=64.00
PROP. 66 L.F. 36" RCP CL. III @ 2.69%
PROP. SAN. DOGHOUSE MANHOLE #3 RIM=68.14 INV=62.14(IN) INV=54.14(OUT)
SPLIT RAIL FENCE BETWEEN TIC MARKS TO BE CONSTRUCTED AS PART OF PHASE 1
CHERRY HILL CHINESE CHRISTIAN CHURCH
CONNECT TO EXISTING 8" WATER MAIN
PROP. 28 L.F. 23"x14" RCP CL. III @ 0.6%
PROP. 17 L.F. 15" RCP CL. III @ 1.0%
PROP. 40 L.F. 8" PVC @ 1.0%
PROP. OUTLET CONTROL STRUCTURE B2 GR=68.75 INV=66.00(0.21' RECTANGULAR WEIR) INV=67.70(3.50" RECTANGULAR WEIR) INV=67.70(3.50" RECTANGULAR WEIR) INV=64.00(15" RCP)
PROP. SAN. MANHOLE #4 RIM=68.54 INV=62.54
BASIN #2
PROP. INLET 22
PROP. TYPE B INLET 24 GR=75.14 INV=69.83(15") INV=70.26(24") INV=69.33(30")
PROP. STORM MANHOLE 7 5' DIA. RIM=69.00 INV=63.83(15") INV=57.83(36")
PROP. 105 L.F. 36" RCP CL. III @ 2.0%
INLET 19
TO REMAIN BASED ON FIELD CONDITION
PROP. ENDWALL 2 INV=64.00
PROP. FIRE HYDRANT
RESET RIM TO EL:69.0
CONSTRUCT CONCRETE CRADLE TO PROTECT EXISTING SANITARY SEWER MAIN (SEE DETAIL DRAWING CS1101)
TO REMAIN BASED ON FIELD CONDITION
EXISTING FORCE MAIN TO BE CONNECTED TO PROPOSED MANHOLE
CONSTRUCT VERTICAL OFFSET ON EXISTING 8" WATER MAIN AS REQUIRED TO PROVIDE 18" (MIN.) CLEARANCE TO STORM PIPE
PROP. 58 L.F. 30" RCP CL. III @ 0.44%
CONNECT TO EXISTING 8" WATER MAIN
RESET RIM TO EL:69.2
PROP. TYPE E INLET 19 GR=74.62 INV=72.62
PROP. STORM MANHOLE 5 RIM=74.20 INV=68.61(IN) INV=64.26(OUT)
PROP. SAN. MANHOLE 23A RIM=91.00 INV=86.33
PROP. TYPE E INLET 21 GR=75.20 INV=70.49
PROP. 104 L.F. 30" RCP CL. III @ 0.44%
PROP. 44 L.F. 8" PVC @ 0.71%
PROP. 95 L.F. 15" RCP CL. III @ 0.42%
PROP. 21 L.F. 24" RCP CL. III @ 1.1%
PROP. 60 L.F. 30" RCP CL. III @ 0.44%
WETLAND BUFFER LINE
PROP. SAN. MANHOLE 23B RIM=98.10 INV=86.01
PROP. TYPE E INLET 20 GR=75.62 INV=71.07
PROP. 56 L.F. 24" RCP CL. III @ 1.05%
PROP. 264 L.F. 8" PVC @ 0.71%
PROP. 45 L.F. 24" RCP CL. III @ 0.88%
PROP. TYPE B INLET 25 GR=76.20 INV=68.87
BRITTANY LANE
PROP. STORM MANHOLE #4 RIM=76.70 INV=73.17 (24" IN) INV=71.47(24" OUT) INV=72.22 (15")
PROP. SAN. MANHOLE 3 RIM=97.76 INV=90.76
SIDE OF INLET WHERE PIPE WAS REMOVED TO BE SEALED
PROPOSED FIRE HYDRANT W/ VALVE
PROPOSED 8" WATER VALVES (TYP)
PROP. 195 L.F. 24" RCP CL. III @ 3%
1-K
CONSTRUCT WATER MAIN ABOVE SANITARY SEWER MAIN AT CROSSING (SEE ROAD "E" PROFILE)
PROP. 20 L.F. 15" RCP CL. III @ 2.0%
PROP. STORM MANHOLE 6 (DROP) RIM=85.00 INV=82.60(IN) INV=77.75(OUT)
CHERRY HILL CHINESE CHRISTIAN CHURCH
PROP. STORM MANHOLE #3 RIM=82.50 INV=79.02
CONSTRUCT WATER MAIN ABOVE SANITARY SEWER MAIN AT CROSSING (SEE ROAD "C" PROFILE)
PROP. 8" D.I.P. W.M.
PROP. 112 L.F. 24" RCP CL. III @ 2.1%
PROP. SAN. MANHOLE 24A RIM=89.10 INV=82.67
PROP. 245 L.F. 8" PVC @ 3.39%
PROP. TYPE B INLET 18 GR=87.95 INV=81.37
PROP. 250 L.F. 8" PVC @ 0.59%
PHASE 1
PROP. 8" D.I.P. W.M.
ROAD "E"
PROP. 39 L.F. 24" RCP CL. III @ 0.66%
PROP. 20 L.F. 15" RCP CL. III @ 2.0%
PROP. SAN. MANHOLE 2 (DROP) RIM=89.67 INV=82.46(IN) INV=79.27(OUT)
OUTLET CONTROL STRUCTURE 1 GR=85.70 INV=84.30(0.25' RECTANGULAR WEIR) INV=83.00(15" RCP)
PROVENCE DRIVE
BASIN #1
PROP. 27 L.F. 8" PVC @ 0.59%
PROP. 50 L.F. 8" PVC @ 0.40%
PROP. TYPE B INLET 17 GR=88.77 INV=81.63
PROP. SAN. DOGHOUSE MANHOLE 1 RIM=88.17 INV=79.07
8" VALVE
8"x8" TAPPING SLEEVE W/8" VALVE
FIRE HYDRANT AND VALVE
PROP. 99 L.F. 24" RCP CL. III @ 0.52%
8" VALVE
8" VALVE
1-E
PROP. TYPE E INLET 16 GR=87.50 INV=82.14
PROP. 36 L.F. 15" RCP CL. III @ 1.0%
PROP. SAN. MANHOLE 26C RIM=91.93 INV=79.47
PROP. 95 L.F. 24" RCP CL. III @ 0.37%
PROP. EW-1 INV.=83.00
PROP. TYPE B INLET 4 GR=90.52 INV=84.98
PROP. STORM MANHOLE-2 RIM=89.80 INV=84.04(IN) INV=83.36(OUT)
PROP. 69 L.F. 8" PVC @ 2.74%
8" VALVE
8" VALVE
WATER MAIN ABOVE MAIN AT CROSSING ROAD "D" PROFILE)
8" VALVE
8" VALVE
6" VALVE
PROP. 6" D.I.P. W.M.
1-H
PROP. TYPE B INLET 15 GR=88.92 INV=82.50
PROP. 80 L.F. 15" RCP CL. III @ 1.0%
8"x6" TAPPING SLEEVE W/6" VALVE
6" VALVE
PROP. 90 L.F.
PROP. SAN. M.H. 26D RIM=89.25

STANDARD PLAN LEGEND


PROPERTY OUTBOUNDS LINE
CENTER LINE
EASEMENT LINE
GAS LINE
SANITARY SEWER LINE
WATER LINE
OVERHEAD WIRES
WETLANDS LINE
EDGE OF PAVING
RIPARIAN LINE
FLOODWAY LIMIT LINE (100 YR)
FLOOD HAZARD AREA LINE
PHASE LIMIT LINE
LIMIT OF DISTURBANCE
FENCES
EXISTING CONTOUR
PROPOSED CONTOUR
100
101
100.6
101.3
EXISTING SPOT ELEVATION
PROPOSED SPOT ELEVATION
VEGETATION LINE
TEST PIT / SOIL BORING
GV
WV
VALVES
WM
GM
METERS
SIGNS
UTILITY POLES
LIGHT POLES
FIRE HYDRANT
CLEANOUT
USPS
MAIL BOXES
CROSS CUT
DRILL HOLE W/ WINGS
FOUND MONUMENT
SET MONUMENT
FOUND IRON ROD/PIPE
SET IRON ROD/PIPE
INLETS
MANHOLES
TRAFFIC SIGNAL
SHADED UNITS ARE COAH UNITS

* FUTURE INFILL UNITS TO BE SUBMITTED UNDER SEPARATE SITE PLAN APPLICATION AND SHOWN FOR INFORMATIONAL PURPOSES ONLY.

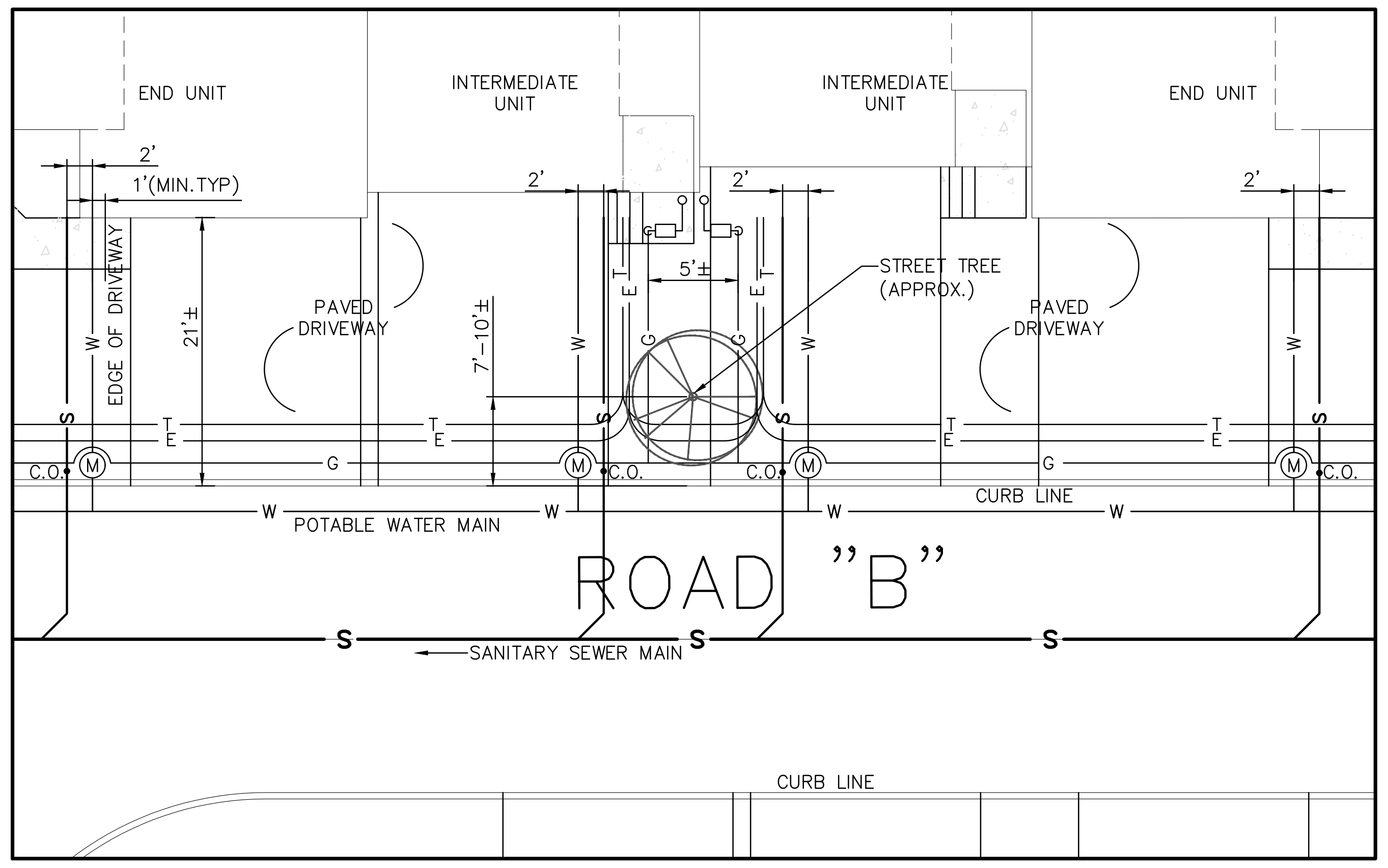

PHASE 3
BASIN 2 TO BE CONSTRUCTED AS PART OF PHASE 1
PHASE 1
CANTERBURY WAY
PHASE 2
PHASE 3
PROVENCE DRIVE
BROWNING LANE
BROWNING LANE

KEY MAP:

SCALE: 1"=400'

GENERAL UTILITY NOTES

1. ALL PROPOSED UTILITIES SHALL BE INSTALLED UNDERGROUND.
2. ALL WATER MAIN CONSTRUCTION SHALL CONFORM TO THE STANDARDS, RULES AND REGULATIONS OF NEW JERSEY AMERICAN WATER.
3. ALL STORM SEWER CONSTRUCTION SHALL CONFORM TO THE STANDARDS, RULES AND REGULATIONS OF CHERRY HILL TOWNSHIP.
4. ALL SANITARY SEWER CONSTRUCTION SHALL CONFORM TO THE STANDARDS, RULES AND REGULATIONS OF THE CHERRY HILL TOWNSHIP PUBLIC WORKS SEWER DEPARTMENT.
5. ALL SANITARY SERVICE LATERALS SHALL HAVE A CLEANOUT (SEE DRAWING CS1101 FOR DETAIL).
6. ALL EXISTING INLETS WITHIN THE PHASE 1 & 2 PROJECT SHALL BE RETROFITTED TO COMPLY WITH NJPDES/NJDEP & NJDOT REGULATIONS I.E. A BICYCLE SAFE GRATE SHALL BE INSTALLED IF NEEDED ON EACH INLET AND THE EXISTING INLET HEAD PIECE SHALL BE RETROFITTED WITH AN S-SERIES ECO PLATE (SEE DRAWING CS1001 FOR DETAIL).
7. STORMWATER MANAGEMENT BASINS 1 AND 2 ARE COMBINATION INFILTRATION AND DETENTION FACILITIES.
8. BASIN 2 WILL BE CONSTRUCTED AS PART OF PHASE 1. CONSTRUCTION OF BASIN 2 WILL TAKE PLACE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION FOR PHASE 1 AND 2.
9. ALL MATERIALS, METHODS AND DETAILS OF IMPROVEMENT CONSTRUCTION SHALL CONFORM TO THE REGULATIONS OF THE TOWNSHIP OF CHERRY HILL, THE NEW JERSEY DEPARTMENT OF TRANSPORTATION, CAMDEN COUNTY AND/OR THE APPROPRIATE UTILITY COMPANY, WHICHEVER REGULATION TAKES PRECEDENCE.
10. WHERE IT IS NECESSARY TO CONNECT TO EXISTING UTILITIES WITHIN THE EXISTING ROADWAYS, THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAW CUTTING FOR WATER AND SEWER SERVICE. TRENCHING, BACKFILL, COMPACTION AND PAVING SHALL BE IN ACCORDANCE WITH THE TOWNSHIP OF CHERRY HILL, CAMDEN COUNTY AND THE NEW JERSEY DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, AS APPLICABLE.
11. ALL PIPE LENGTHS AND GRADIENTS ARE CALCULATED TO THE CENTERLINE OF THE SANITARY SEWER STRUCTURES. ACTUAL PIPE LENGTHS MAY BE LESS THAN THE CALCULATED LENGTH, AND SHOULD BE COMPUTED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
12. EXISTING UTILITY INFORMATION SHOWN ON THIS PLAN IS FURNISHED BY THE UTILITY COMPANIES OR SURVEY PLAN BY THE SURVEYOR. IT IS THE RESPONSIBILITY OF THE OWNER AND/OR CONTRACTOR TO CALL 811 FOR ACCURATE FIELD LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF THE EXACT LOCATION OF ALL UTILITIES AND THE DISTRIBUTION SERVICES TO THE BUILDINGS AS NEEDED FOR THE PROJECT. IF THERE ARE ANY CONFLICTS, NOTIFY THE ENGINEER IMMEDIATELY, IN WRITING, PRIOR TO INSTALLATION.
14. WHEREVER THE TRENCH BOTTOM DOES NOT AFFORD SUFFICIENT BEARING STRENGTH TO SUSTAIN THE WEIGHT OF THE PIPE AND SUPERIMPOSED LOADS, IT SHALL BE OVER EXCAVATED AND STABILIZED WITH A 12 INCH THICK MINIMUM LAYER OF DENSE GRADED AGGREGATE (DGA).
15. ALL WATER AND SEWER METERS FOR THE NEW UNITS IN THE COTSWOLD AND NORMANDY SECTIONS WILL BE METERED SEPARATELY AND BILLED TO THE INDIVIDUAL HOMEOWNER. THE APPLICANT WILL ESTABLISH A SEPARATE WATER METER FOR THE IRRIGATION SYSTEM TO BE INSTALLED FOR THE COTSWOLD AND NORMANDY SECTIONS WHICH WILL BE BILLED TO THE HAMLETS HOMEOWNERS ASSOCIATION.
16. IN ADDITION TO PROVIDING SEPARATE WATER AND SEWER METERS FOR THE NEW UNITS IN COTSWOLD AND NORMANDY, THE APPLICANT WILL ALSO ATTEMPT TO SEPARATE THE WATER AND SEWER METERS FOR THE EXISTING UNITS IN COTSWOLD AND NORMANDY SO THAT EACH UNIT WILL BE BILLED SEPARATELY FOR ITS OWN USAGE.
17. DECORATIVE LIGHTING WILL BE UTILIZED ON TWELVE (12) FOOT HIGH POLES AT AN INTERVAL OF 100 FEET ALONG CANTERBURY WAY AND ROADS H AND I.


END UNIT
INTERMEDIATE UNIT
INTERMEDIATE UNIT
END UNIT
2'
1'(MIN.TYP)
2'
2'
2'
EDGE OF DRIVEWAY
21'±
PAVED DRIVEWAY
7'-10"±
5'±
STREET TREE (APPROX.)
PAVED DRIVEWAY
C.O.
M
G
C.O.
C.O.
M
C.O.
CURB LINE
POTABLE WATER MAIN
ROAD "B"
SANITARY SEWER MAIN
CURB LINE
W
S
E

TYPICAL UTILITY SERVICE CONNECTION DETAIL

SCALE 1" = 10'

Know what's below. Call before you dig.

GRAPHIC SCALE

40 0 20 40 80 160

1 INCH = 40 FEET

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41 SOUTH ROUTE 73, BUILDING 1, SUITE 201
HAMMONTON, NEW JERSEY 08037

DATE	ISSUE	REVISION	BY	APPR.
03/10/2022	6	ISSUED FOR FINAL SITE PLAN COMPLIANCE	TJK	RJC
07/02/2020	5	SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK	RJC
01/13/20	4	REV PER COMMENTS FROM CHERRY HILL TWP. PUBLIC WORKS ENGINEER; ID STORM MH #7 AS 5 FT DIA. MANHOLE	GMM	RJC
07/16/19	3	ADD NOTES	TJK	RJC
10/2/18	2	REV. WALKS, PARKING & ADD SUMP PUMP COLLECTION HEADER REAR OF BLDG. 3A, 3B, 3C & 3D	GMM	RJC
12/12/17	1	NOT PART OF INITIAL SUBMISSION	TJK	RJC

CENTURA – PHASE 1 AND 2

TAX MAP SHEET 234, BLOCK 433.20, LOT 15.01 & 16.01, FORMERLY BLOCK 433.20, LOT 1
CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

UTILITY PLAN

DEVEL, LLC.

C/O STEPHEN D. SAMOST, ESQUIRE 479 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043

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Richard J Clemson 03/10/2022
DATE

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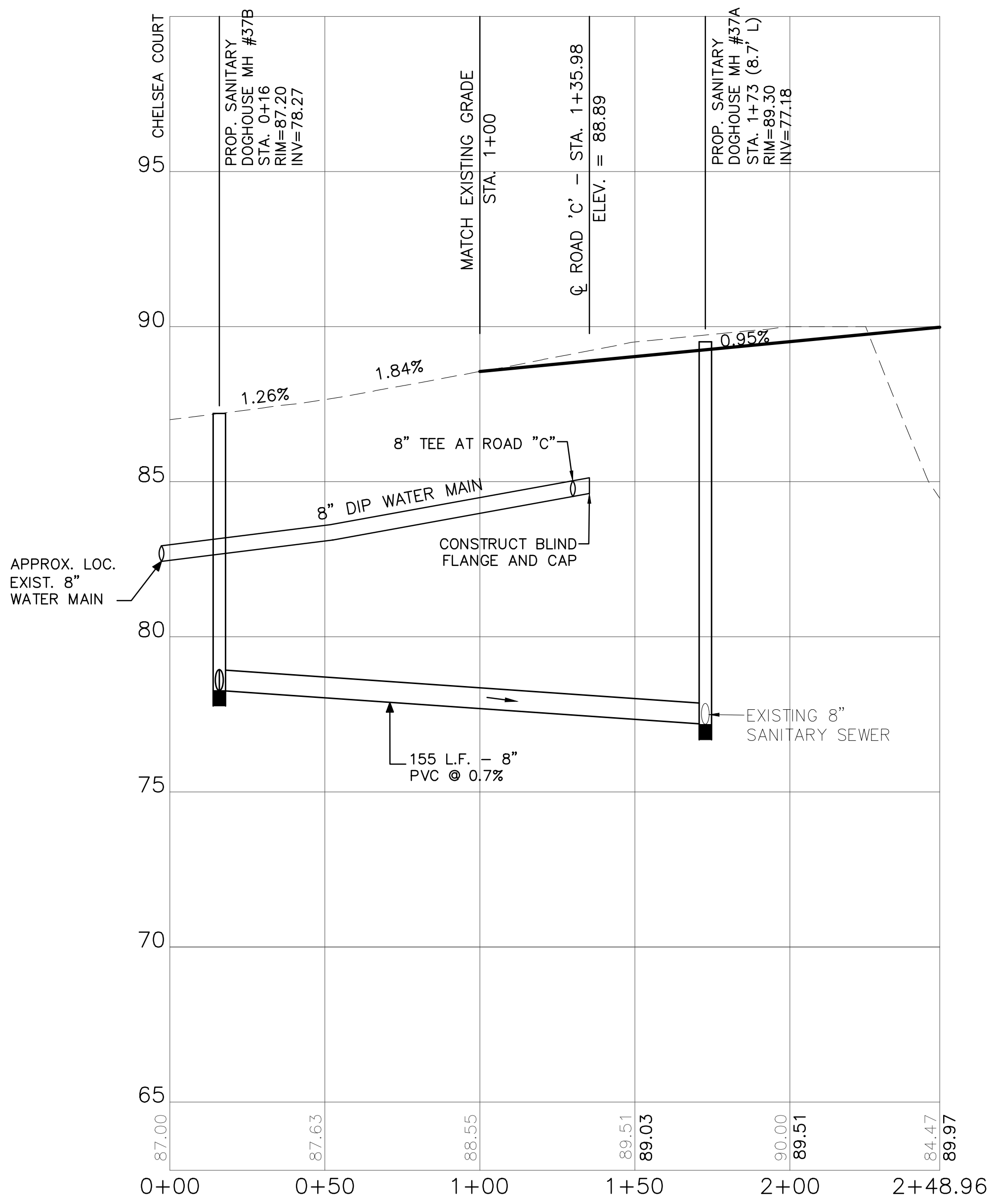
DRAWN BY	APPROVED BY
TJK	RJC
SCALE 1"=40'	DATE 12/12/17
JOB NUMBER 3487	SHEET NO. 9 OF 26

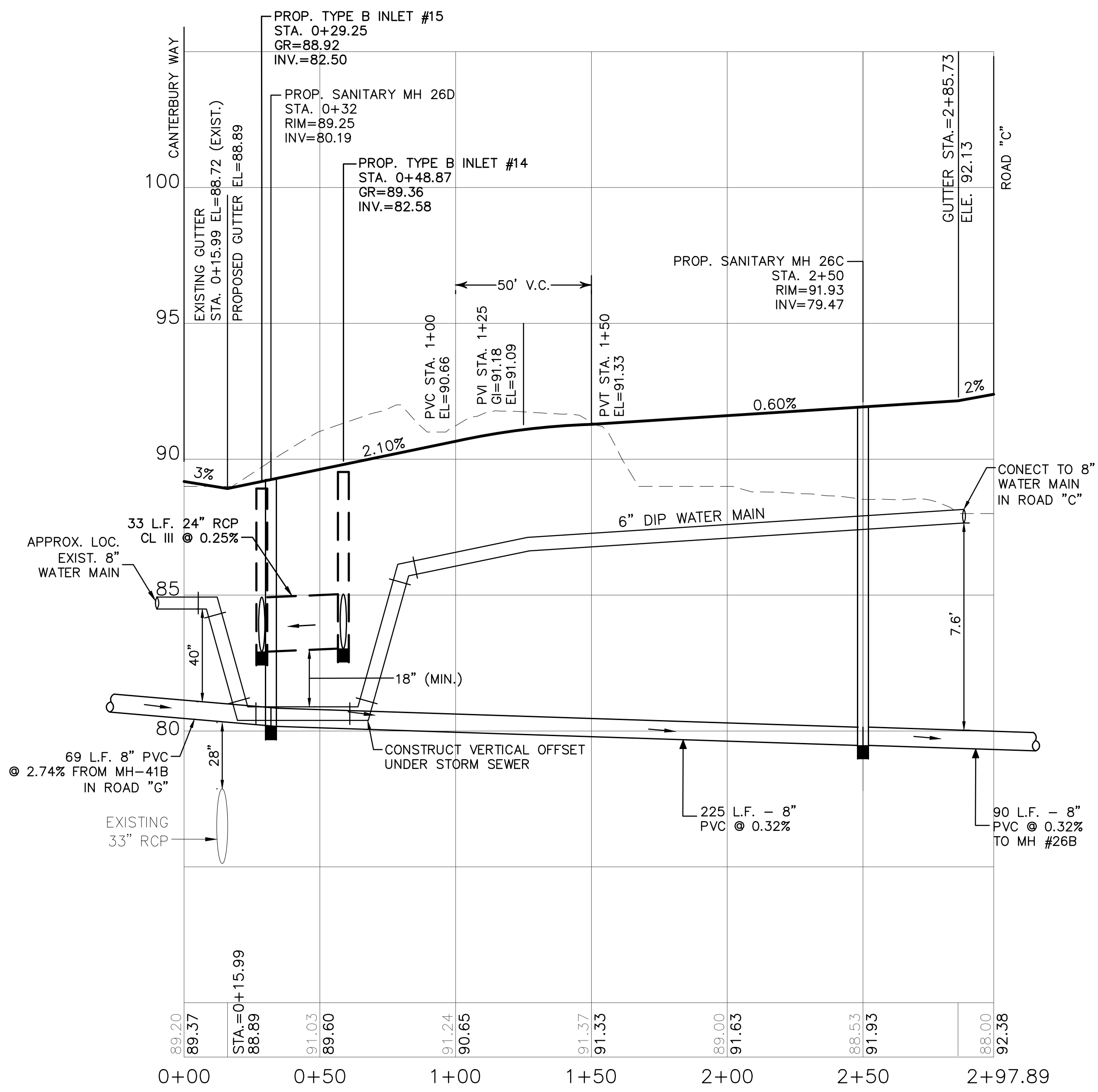
CS0402

CREATED ON 01/26/2022, LAST MODIFIED ON 01/26/2022


CHELSEA COURT
PROP. SANITARY DOGHOUSE MH #37B STA. 0+16 RIM=87.20 INV=78.27
MATCH EXISTING GRADE STA. 1+00
℄ ROAD 'C' – STA. 1+35.98 ELEV. = 88.89
PROP. SANITARY DOGHOUSE MH #37A STA. 1+73 (8.7' L) RIM=89.30 INV=77.18
1.26%
1.84%
0.95%
8" TEE AT ROAD "C"
8" DIP WATER MAIN
CONSTRUCT BLIND FLANGE AND CAP
APPROX. LOC. EXIST. 8" WATER MAIN
EXISTING 8" SANITARY SEWER
155 L.F. – 8" PVC @ 0.7%
95
90
85
80
75
70
65
87.00
87.63
88.55
89.51 89.03
90.00 89.51
84.47 89.97
0+00
0+50
1+00
1+50
2+00
2+48.96

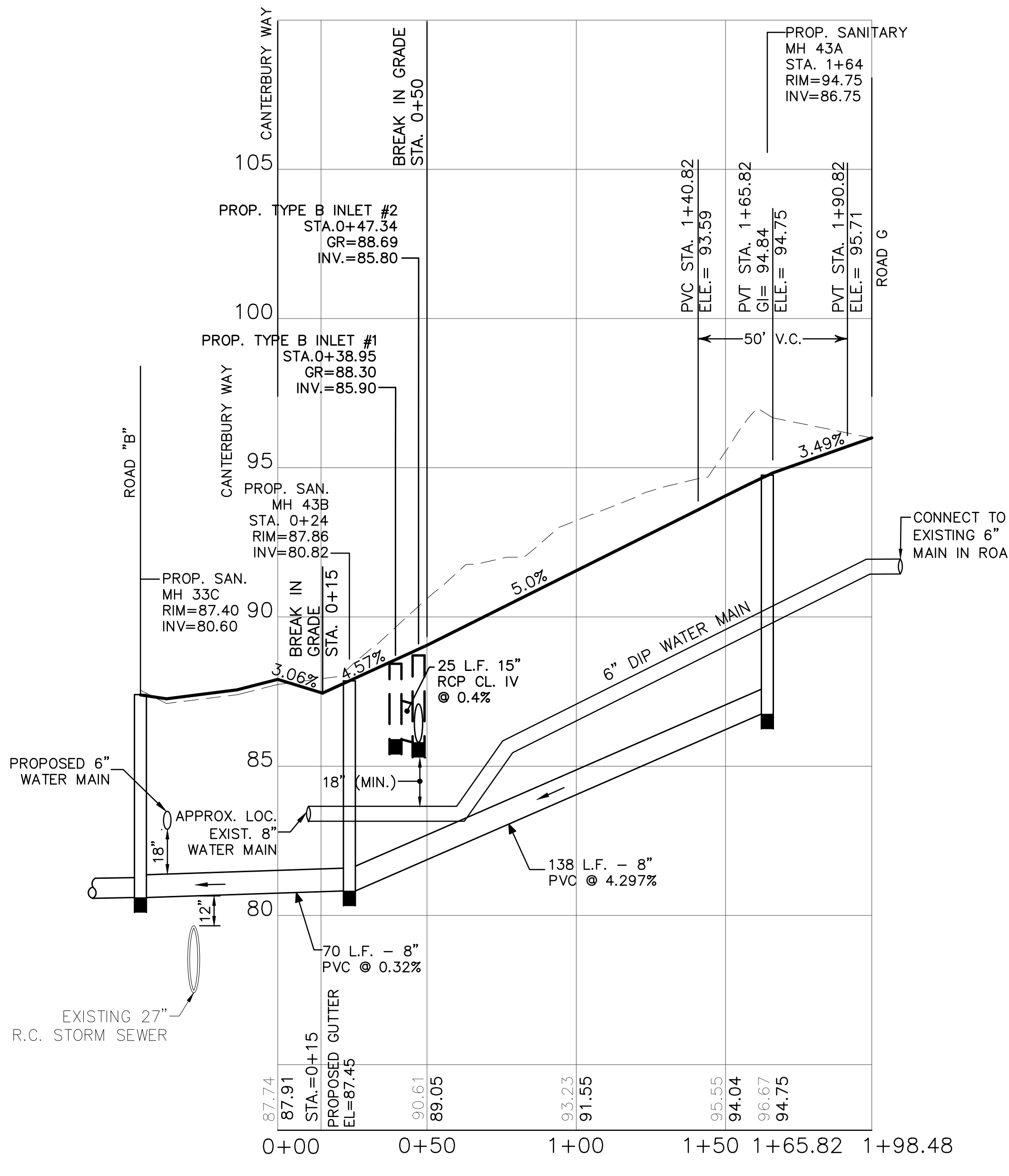
ROAD "A"

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


CANTERBURY WAY
EXISTING GUTTER STA. 0+15.99 EL=88.72 (EXIST.)
PROPOSED GUTTER EL=88.89
PROP. TYPE B INLET #15 STA. 0+29.25 GR=88.92 INV.=82.50
PROP. SANITARY MH 26D STA. 0+32 RIM=89.25 INV=80.19
PROP. TYPE B INLET #14 STA. 0+48.87 GR=89.36 INV.=82.58
50' V.C.
PVC STA. 1+00 EL=90.66
PVI STA. 1+25 GI=91.18 EL=91.09
PVT STA. 1+50 EL=91.33
PROP. SANITARY MH 26C STA. 2+50 RIM=91.93 INV=79.47
GUTTER STA.=2+85.73 ELE. 92.13
ROAD "C"
3%
2.10%
0.60%
2%
33 L.F. 24" RCP CL III @ 0.25%
APPROX. LOC. EXIST. 8" WATER MAIN
6" DIP WATER MAIN
CONECT TO 8" WATER MAIN IN ROAD "C"
40"
18" (MIN.)
7.6'
28"
69 L.F. 8" PVC @ 2.74% FROM MH–41B IN ROAD "G"
EXISTING 33" RCP
CONSTRUCT VERTICAL OFFSET UNDER STORM SEWER
225 L.F. – 8" PVC @ 0.32%
90 L.F. – 8" PVC @ 0.32% TO MH #26B
STA.=0+15.99 88.89
100
95
90
85
80
89.20 89.37
91.03 89.60
91.24 90.65
91.37 91.33
89.00 91.63
88.53 91.93
88.00 92.38
0+00
0+50
1+00
1+50
2+00
2+50
2+97.89

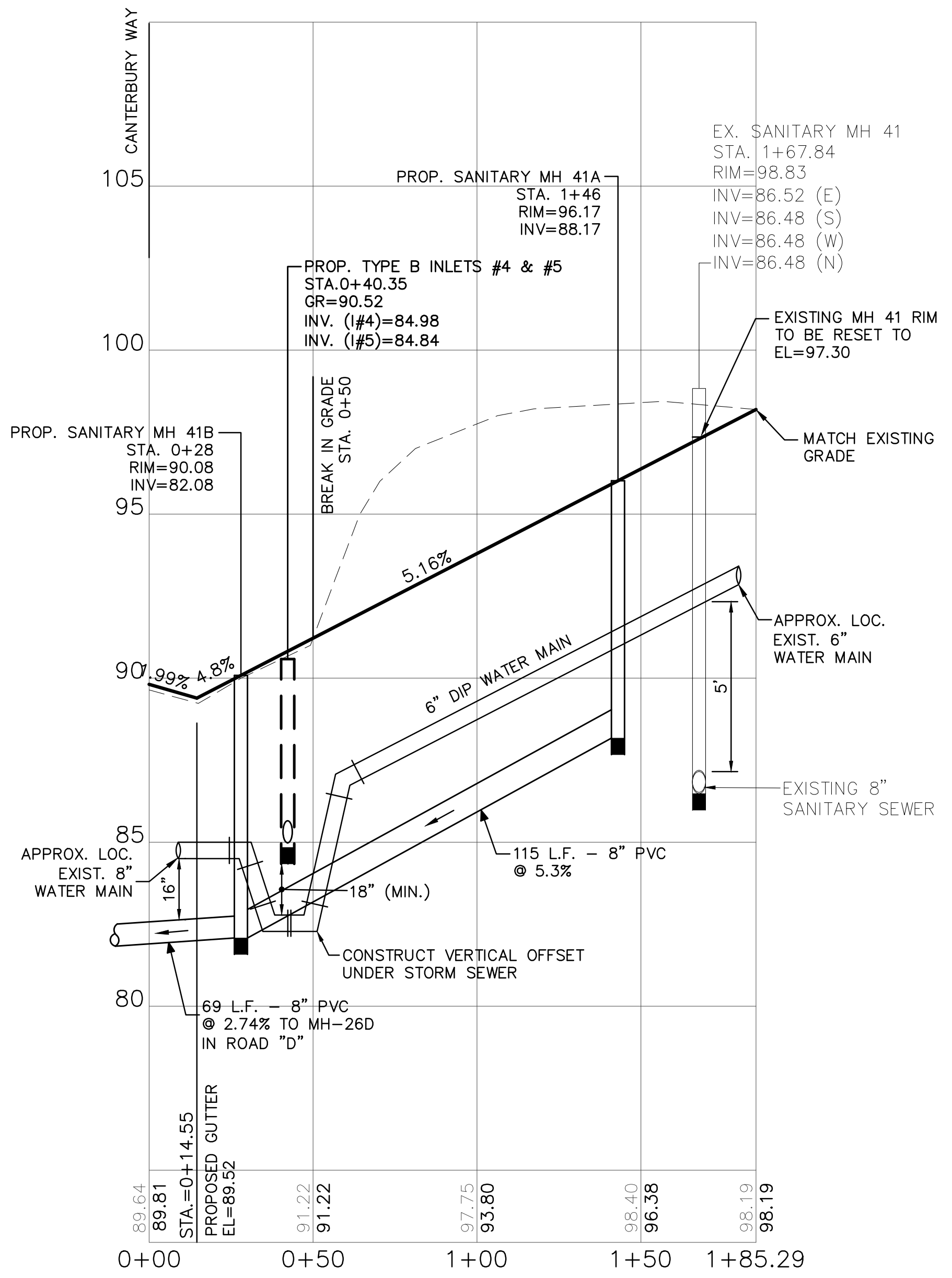
ROAD "D"

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


CANTERBURY WAY
BREAK IN GRADE STA. 0+50
PROP. SANITARY MH 43A STA. 1+64 RIM=94.75 INV=86.75
PROP. TYPE B INLET #2 STA.0+47.34 GR=88.69 INV.=85.80
PROP. TYPE B INLET #1 STA.0+38.95 GR=88.30 INV.=85.90
PVC STA. 1+40.82 ELE.= 93.59
PVT STA. 1+65.82 GI= 94.84 ELE.= 94.75
PVT STA. 1+90.82 ELE.= 95.71
ROAD G
50' V.C.
ROAD "B"
CANTERBURY WAY
PROP. SAN. MH 43B STA. 0+24 RIM=87.86 INV=80.82
PROP. SAN. MH 33C RIM=87.40 INV=80.60
BREAK IN GRADE STA. 0+15
3.06%
4.57%
5.0%
3.49%
25 L.F. 15" RCP CL. IV @ 0.4%
6" DIP WATER MAIN
CONNECT TO EXISTING 6" WATER MAIN IN ROAD "G"
PROPOSED 6" WATER MAIN
APPROX. LOC. EXIST. 8" WATER MAIN
18" (MIN.)
18"
12"
138 L.F. – 8" PVC @ 4.297%
70 L.F. – 8" PVC @ 0.32%
EXISTING 27" R.C. STORM SEWER
STA.=0+15 PROPOSED GUTTER EL=87.45
105
100
95
90
85
80
87.74 87.91
90.61 89.05
93.23 91.55
95.55 94.04
96.67 94.75
0+00
0+50
1+00
1+50
1+65.82
1+98.48

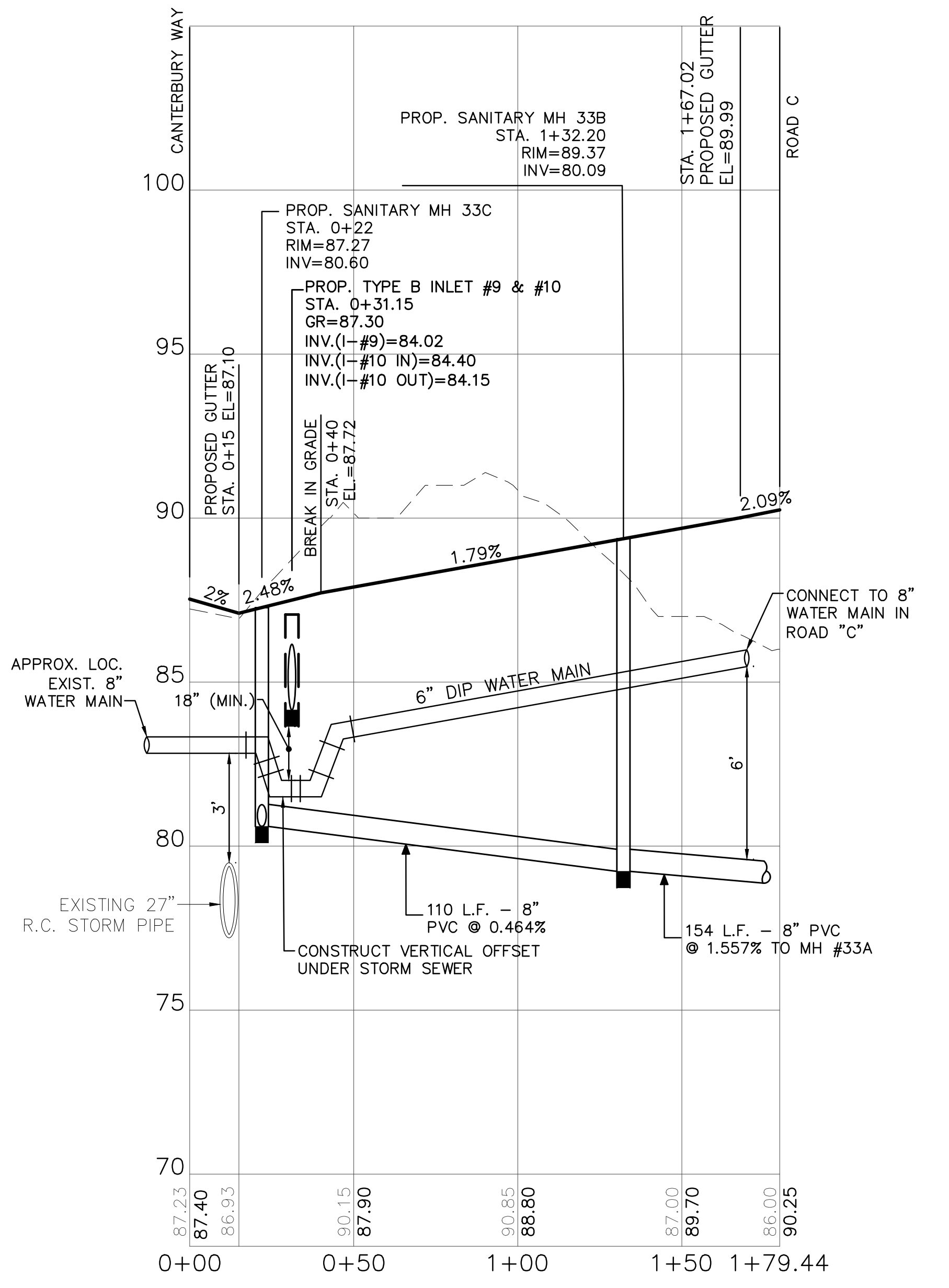
ROAD "F"

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


CANTERBURY WAY
EX. SANITARY MH 41 STA. 1+67.84 RIM=98.83 INV=86.52 (E) INV=86.48 (S) INV=86.48 (W) INV=86.48 (N)
PROP. SANITARY MH 41A STA. 1+46 RIM=96.17 INV=88.17
PROP. TYPE B INLETS #4 & #5 STA.0+40.35 GR=90.52 INV. (I#4)=84.98 INV. (I#5)=84.84
EXISTING MH 41 RIM TO BE RESET TO EL=97.30
MATCH EXISTING GRADE
PROP. SANITARY MH 41B STA. 0+28 RIM=90.08 INV=82.08
BREAK IN GRADE STA. 0+50
1.99%
4.8%
5.16%
6" DIP WATER MAIN
APPROX. LOC. EXIST. 6" WATER MAIN
5'
EXISTING 8" SANITARY SEWER
APPROX. LOC. EXIST. 8" WATER MAIN
16"
18" (MIN.)
115 L.F. – 8" PVC @ 5.3%
CONSTRUCT VERTICAL OFFSET UNDER STORM SEWER
69 L.F. – 8" PVC @ 2.74% TO MH–26D IN ROAD "D"
STA.=0+14.55 PROPOSED GUTTER EL=89.52
105
100
95
90
85
80
89.64 89.81
91.22 91.22
97.75 93.80
98.40 96.38
98.19 98.19
0+00
0+50
1+00
1+50
1+85.29

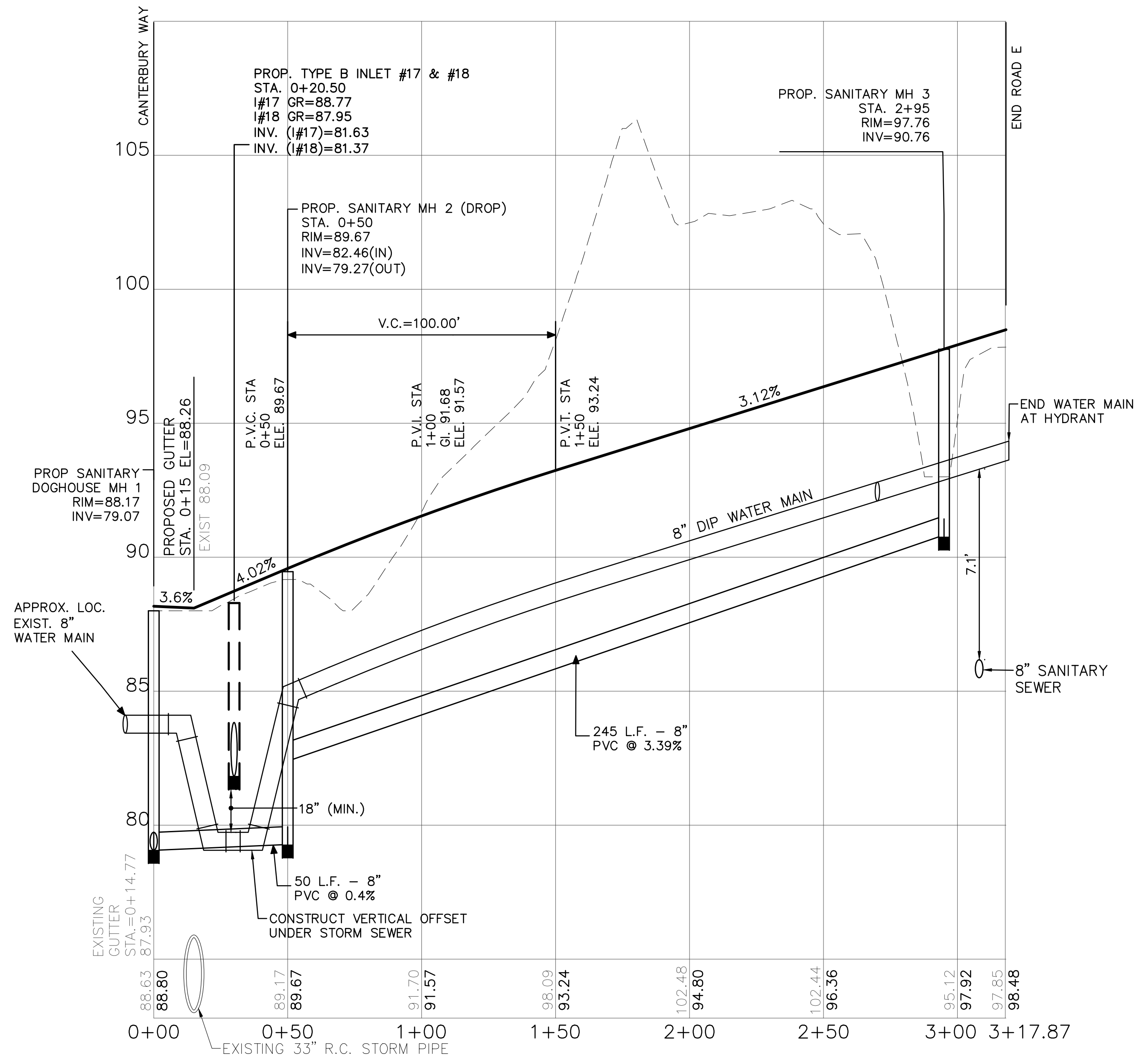
ROAD "G"

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


CANTERBURY WAY
PROP. SANITARY MH 33B STA. 1+32.20 RIM=89.37 INV=80.09
STA. 1+67.02 PROPOSED GUTTER EL=89.99
ROAD C
PROP. SANITARY MH 33C STA. 0+22 RIM=87.27 INV=80.60
PROP. TYPE B INLET #9 & #10 STA. 0+31.15 GR=87.30 INV.(I–#9)=84.02 INV.(I–#10 IN)=84.40 INV.(I–#10 OUT)=84.15
PROPOSED GUTTER STA. 0+15 EL=87.10
BREAK IN GRADE STA. 0+40 EL.=87.72
2%
2.48%
1.79%
2.09%
CONNECT TO 8" WATER MAIN IN ROAD "C"
APPROX. LOC. EXIST. 8" WATER MAIN
18" (MIN.)
6" DIP WATER MAIN
3'
6'
EXISTING 27" R.C. STORM PIPE
110 L.F. – 8" PVC @ 0.464%
154 L.F. – 8" PVC @ 1.557% TO MH #33A
CONSTRUCT VERTICAL OFFSET UNDER STORM SEWER
100
95
90
85
80
75
70
87.23 87.40 86.93
90.15 87.90
90.85 88.80
87.00 89.70
86.00 90.25
0+00
0+50
1+00
1+50
1+79.44

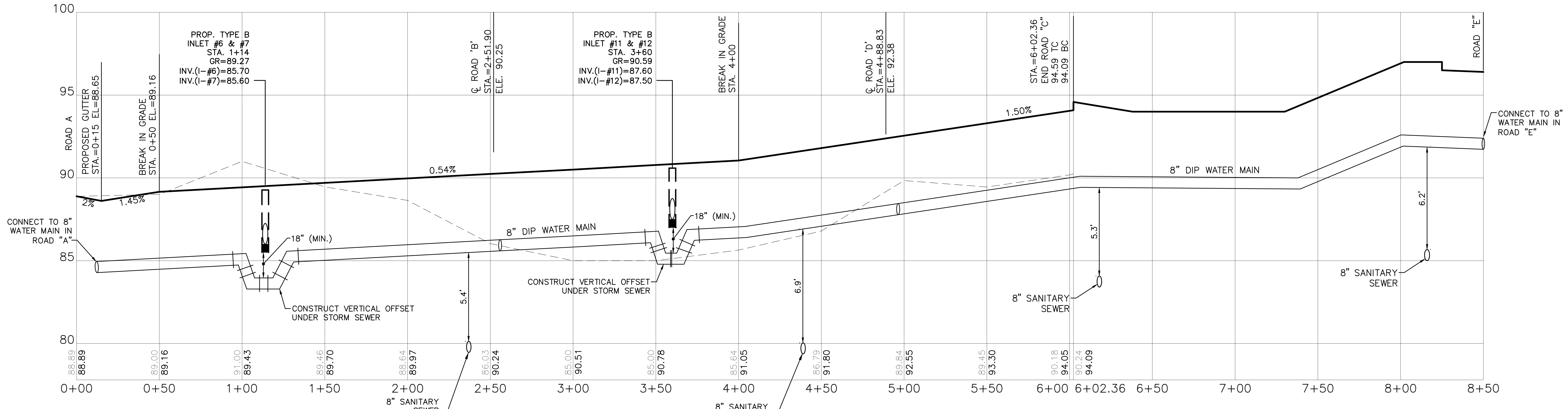
ROAD "B"

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


CANTERBURY WAY
PROP. TYPE B INLET #17 & #18 STA. 0+20.50 I#17 GR=88.77 I#18 GR=87.95 INV. (I#17)=81.63 INV. (I#18)=81.37
PROP. SANITARY MH 3 STA. 2+95 RIM=97.76 INV=90.76
END ROAD E
PROP. SANITARY MH 2 (DROP) STA. 0+50 RIM=89.67 INV=82.46(IN) INV=79.27(OUT)
V.C.=100.00'
P.V.C. STA 0+50 ELE. 89.67
P.V.I. STA 1+00 GI. 91.68 ELE. 91.57
P.V.T. STA 1+50 ELE. 93.24
PROP SANITARY DOGHOUSE MH 1 RIM=88.17 INV=79.07
PROPOSED GUTTER STA. 0+15 EL=88.26
EXIST 88.09
3.6%
4.02%
3.12%
END WATER MAIN AT HYDRANT
8" DIP WATER MAIN
APPROX. LOC. EXIST. 8" WATER MAIN
7.1'
8" SANITARY SEWER
245 L.F. – 8" PVC @ 3.39%
18" (MIN.)
50 L.F. – 8" PVC @ 0.4%
CONSTRUCT VERTICAL OFFSET UNDER STORM SEWER
EXISTING GUTTER STA.=0+14.77 87.93
EXISTING 33" R.C. STORM PIPE
105
100
95
90
85
80
88.63 88.80
89.17 89.67
91.70 91.57
98.09 93.24
102.48 94.80
102.44 96.36
95.12 97.92
97.85 98.48
0+00
0+50
1+00
1+50
2+00
2+50
3+00
3+17.87

ROAD "E"

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


ROAD A
PROPOSED GUTTER STA.=0+15 EL=88.65
BREAK IN GRADE STA. 0+50 EL.=89.16
PROP. TYPE B INLET #6 & #7 STA. 1+14 GR=89.27 INV.(I–#6)=85.70 INV.(I–#7)=85.60
℄ ROAD 'B' STA.=2+51.90 ELE. 90.25
PROP. TYPE B INLET #11 & #12 STA. 3+60 GR=90.59 INV.(I–#11)=87.60 INV.(I–#12)=87.50
BREAK IN GRADE STA. 4+00
℄ ROAD 'D' STA.=4+88.83 ELE. 92.38
STA.=6+02.36 END ROAD "C" 94.59 TC 94.09 BC
ROAD "E"
2%
1.45%
0.54%
1.50%
CONNECT TO 8" WATER MAIN IN ROAD "A"
18" (MIN.)
8" DIP WATER MAIN
CONSTRUCT VERTICAL OFFSET UNDER STORM SEWER
CONNECT TO 8" WATER MAIN IN ROAD "E"
5.4'
6.9'
5.3'
6.2'
8" SANITARY SEWER
100
95
90
85
80
88.89 88.89
89.00 89.16
91.00 89.43
89.46 89.70
88.64 89.97
86.03 90.24
85.00 90.51
85.00 90.78
85.64 91.05
86.79 91.80
89.84 92.55
89.45 93.30
90.18 94.05
90.24 94.09
0+00
0+50
1+00
1+50
2+00
2+50
3+00
3+50
4+00
4+50
5+00
5+50
6+00
6+02.36
6+50
7+00
7+50
8+00
8+50

ROAD "C"

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

Z:\CHERRY HILL LAND DEVELOPMENT GROUP\3487 CENTURA PHASE 1 & 2\DRAWINGS\CENTURA\CS0501.DWG

811
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GRAPHIC SCALE
40 0 20 40
1 INCH = 40 FEET

GRAPHIC SCALE
4 0 2 4
1 INCH = 4 FEET

DATE	ISSUE	REVISION	BY	APPR.
03/10/2022	6	ISSUED FOR FINAL SITE PLAN COMPLIANCE	TJK	RJC
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07/16/19	3	NO CHANGE THIS SHEET	TJK	RJC
10/2/18	2	NO CHANGE THIS SHEET	GMM	RJC
12/12/17	1	NOT PART OF INITIAL SUBMISSION	TJK	RJC

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HAMMONTON, NEW JERSEY 08037

CENTURA – PHASE 1 AND 2

TAX MAP SHEET 234, BLOCK 433.20, LOT 15.01 & 16.01, FORMERLY BLOCK 433.20, LOT 1
CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

ROAD AND UTILITY PROFILES

DEVEL, LLC.

C/O STEPHEN D. SAMOST, ESQUIRE 479 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200

Richard J Clemson 03/10/2022
DATE

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28017600

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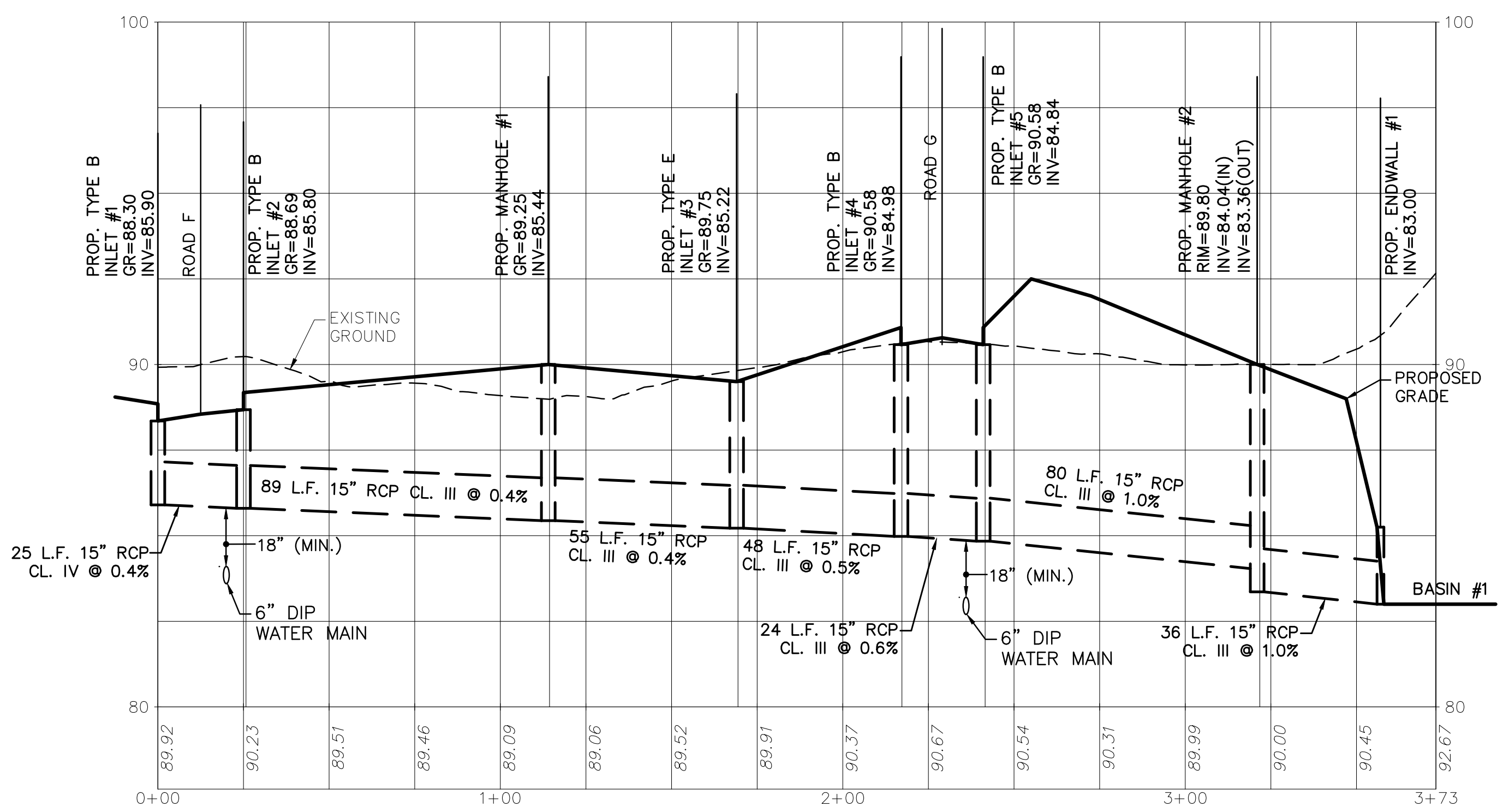
DRAWN BY TJK	APPROVED BY RJC
SCALE AS SHOWN	DATE 12/12/17
JOB NUMBER 3487	SHEET NO. 10 OF 26

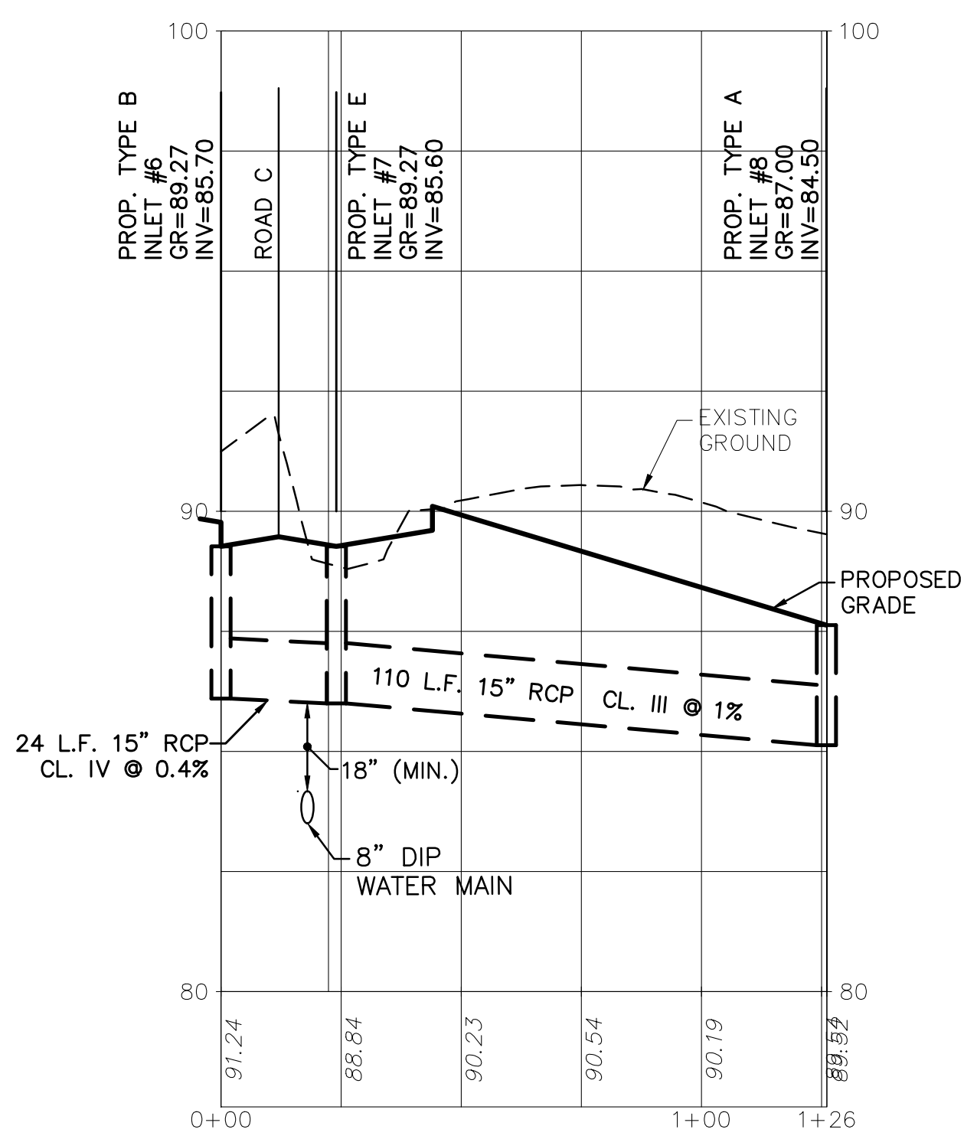
CS0501

CREATED ON 01/26/2022, LAST MODIFIED ON 01/26/2022


PROP. TYPE B INLET #1 GR=88.30 INV=85.90
ROAD F
PROP. TYPE B INLET #2 GR=88.69 INV=85.80
PROP. MANHOLE #1 GR=89.25 INV=85.44
PROP. TYPE E INLET #3 GR=89.75 INV=85.22
PROP. TYPE B INLET #4 GR=90.58 INV=84.98
ROAD G
PROP. TYPE B INLET #5 GR=90.58 INV=84.84
PROP. MANHOLE #2 RIM=89.80 INV=84.04(IN) INV=83.36(OUT)
PROP. ENDWALL #1 INV=83.00
EXISTING GROUND
PROPOSED GRADE
89 L.F. 15" RCP CL. III @ 0.4%
80 L.F. 15" RCP CL. III @ 1.0%
25 L.F. 15" RCP CL. IV @ 0.4%
18" (MIN.)
6" DIP WATER MAIN
55 L.F. 15" RCP CL. III @ 0.4%
48 L.F. 15" RCP CL. III @ 0.5%
24 L.F. 15" RCP CL. III @ 0.6%
18" (MIN.)
6" DIP WATER MAIN
36 L.F. 15" RCP CL. III @ 1.0%
BASIN #1
100
90
80
89.92 90.23 89.51 89.46 89.09 89.06 89.52 89.91 90.37 90.67 90.54 90.31 89.99 90.00 90.45 92.67
0+00 1+00 2+00 3+00 3+73

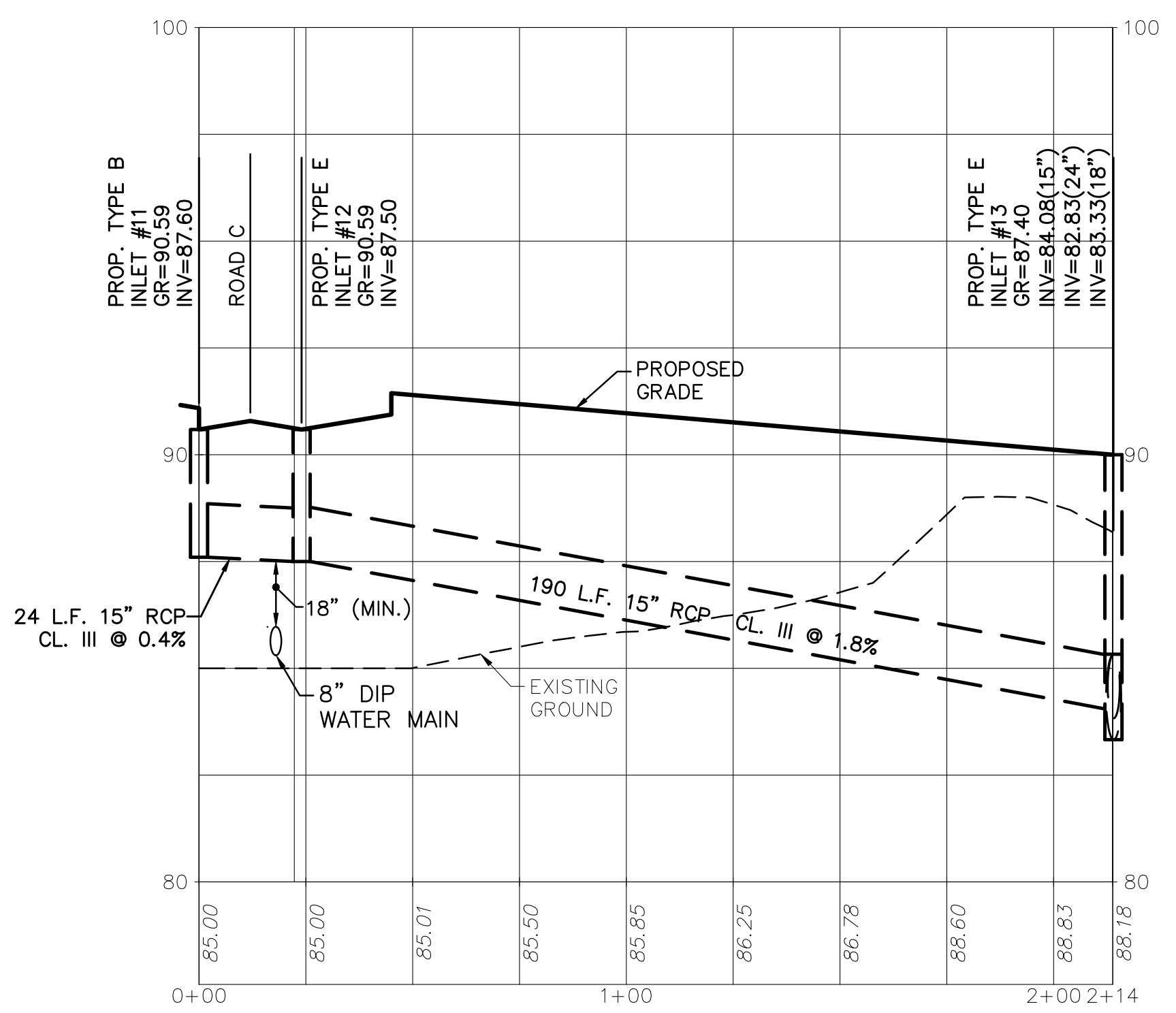
I-1 ~ EW-1

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


PROP. TYPE B INLET #6 GR=89.27 INV=85.70
ROAD C
PROP. TYPE E INLET #7 GR=89.27 INV=85.60
PROP. TYPE A INLET #8 GR=87.00 INV=84.50
EXISTING GROUND
PROPOSED GRADE
110 L.F. 15" RCP CL. III @ 1%
24 L.F. 15" RCP CL. IV @ 0.4%
18" (MIN.)
8" DIP WATER MAIN
100
90
80
91.24 88.84 90.23 90.54 90.19 89.54
0+00 1+00 1+26

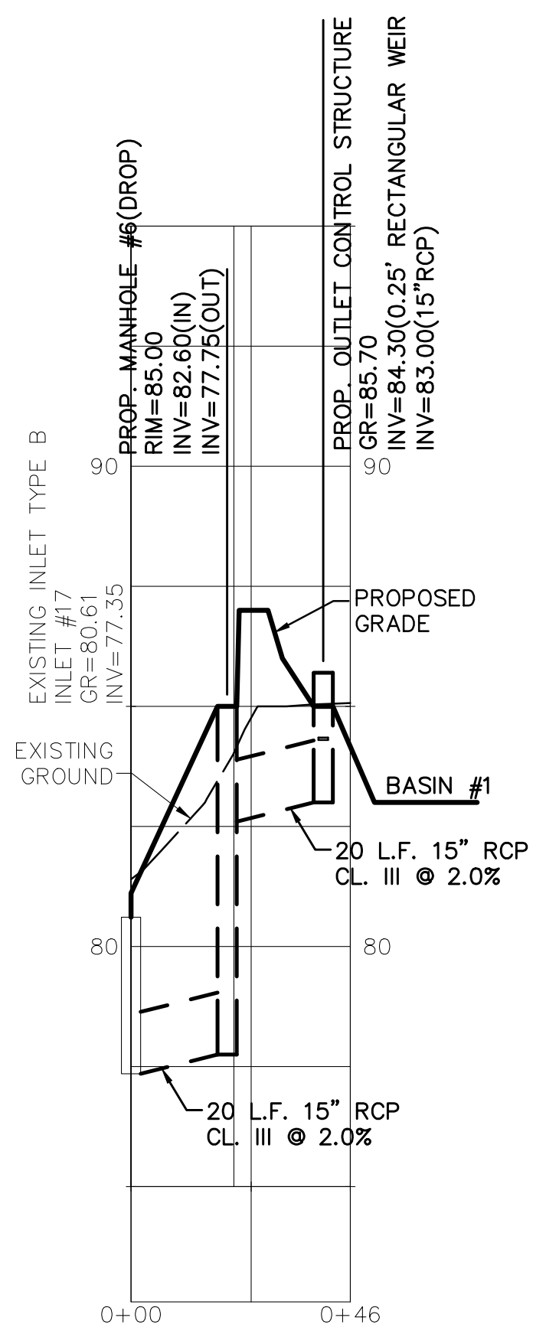
I-6 ~ I-8

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


PROP. TYPE B INLET #11 GR=90.59 INV=87.60
ROAD C
PROP. TYPE E INLET #12 GR=90.59 INV=87.50
PROP. TYPE E INLET #13 GR=87.40 INV=84.08(15") INV=82.83(24") INV=83.33(18")
PROPOSED GRADE
190 L.F. 15" RCP CL. III @ 1.8%
24 L.F. 15" RCP CL. III @ 0.4%
18" (MIN.)
8" DIP WATER MAIN
EXISTING GROUND
100
90
80
85.00 85.00 85.01 85.50 85.85 86.25 86.78 88.60 88.83 88.18
0+00 1+00 2+00 2+14

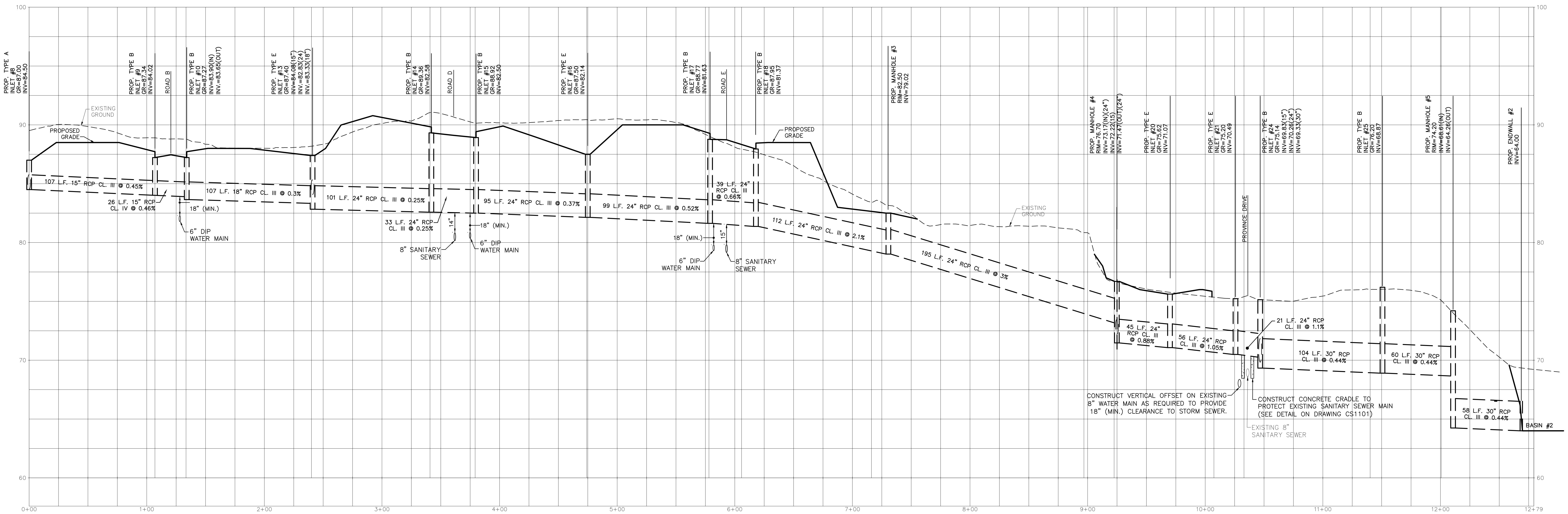
I-11 ~ I-13

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


EXISTING INLET TYPE B INLET #17 GR=80.61 INV=77.35
PROP. MANHOLE #6(DROP) RIM=85.00 INV=82.60(IN) INV=77.75(OUT)
PROP. OUTLET CONTROL STRUCTURE GR=85.70 INV=84.30(0.25' RECTANGULAR WEIR INV=83.00(15"RCP)
EXISTING GROUND
PROPOSED GRADE
BASIN #1
20 L.F. 15" RCP CL. III @ 2.0%
20 L.F. 15" RCP CL. III @ 2.0%
90
80
0+00 0+46

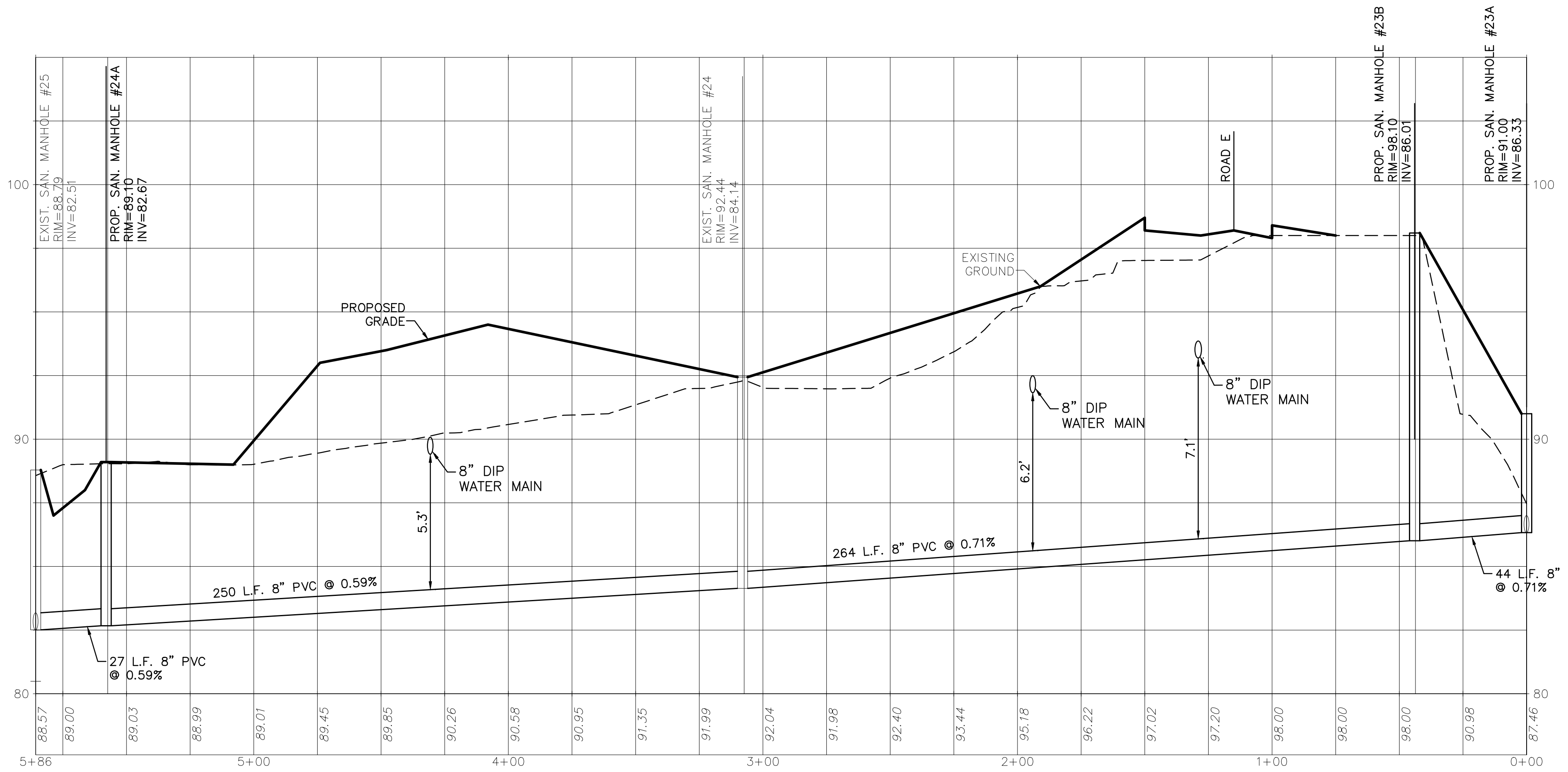
EXISTING INLET ~ OCS

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


PROP. TYPE A INLET #8 GR=87.00 INV=84.50
PROP. TYPE B INLET #9 GR=87.34 INV=84.02
ROAD B
PROP. TYPE B INLET #10 GR=87.27 INV.=83.90(IN) INV.=83.65(OUT)
PROP. TYPE E INLET #13 GR=87.40 INV.=84.08(15") INV.=82.83(24) INV.=83.33(18")
PROP. TYPE B INLET #14 GR=89.36 INV=82.58
ROAD D
PROP. TYPE B INLET #15 GR=88.92 INV=82.50
PROP. TYPE E INLET #16 GR=87.50 INV=82.14
PROP. TYPE B INLET #17 GR=88.77 INV=81.63
ROAD E
PROP. TYPE B INLET #18 GR=87.95 INV=81.37
PROP. MANHOLE #3 RIM=82.50 INV=79.02
PROP. MANHOLE #4 RIM=76.70 INV=73.17(IN)(24") INV=72.22(15) INV=71.47(OUT)(24")
PROP. TYPE E INLET #20 GR=75.62 INV=71.07
PROP. TYPE E INLET #21 GR=75.20 INV=70.49
PROVINCE DRIVE
PROP. TYPE B INLET #24 GR=75.14 INV=69.83(15") INV=70.26(24") INV=69.33(30")
PROP. TYPE B INLET #25 GR=76.20 INV=68.87
PROP. MANHOLE #5 RIM=74.20 INV=68.61(IN) INV=64.26(OUT)
PROP. ENDWALL #2 INV=64.00
EXISTING GROUND
PROPOSED GRADE
107 L.F. 15" RCP CL. III @ 0.45%
26 L.F. 15" RCP CL. IV @ 0.46%
107 L.F. 18" RCP CL. III @ 0.3%
18" (MIN.)
6" DIP WATER MAIN
101 L.F. 24" RCP CL. III @ 0.25%
33 L.F. 24" RCP CL. III @ 0.25%
14"
8" SANITARY SEWER
18" (MIN.)
6" DIP WATER MAIN
95 L.F. 24" RCP CL. III @ 0.37%
99 L.F. 24" RCP CL. III @ 0.52%
39 L.F. 24" RCP CL. III @ 0.66%
18" (MIN.)
15"
6" DIP WATER MAIN
8" SANITARY SEWER
112 L.F. 24" RCP CL. III @ 2.1%
195 L.F. 24" RCP CL. III @ 3%
45 L.F. 24" RCP CL. III @ 0.88%
56 L.F. 24" RCP CL. III @ 1.05%
21 L.F. 24" RCP CL. III @ 1.1%
104 L.F. 30" RCP CL. III @ 0.44%
60 L.F. 30" RCP CL. III @ 0.44%
58 L.F. 30" RCP CL. III @ 0.44%
BASIN #2
CONSTRUCT VERTICAL OFFSET ON EXISTING 8" WATER MAIN AS REQUIRED TO PROVIDE 18" (MIN.) CLEARANCE TO STORM SEWER.
CONSTRUCT CONCRETE CRADLE TO PROTECT EXISTING SANITARY SEWER MAIN (SEE DETAIL ON DRAWING CS1101)
EXISTING 8" SANITARY SEWER
100
90
80
70
60
0+00 1+00 2+00 3+00 4+00 5+00 6+00 7+00 8+00 9+00 10+00 11+00 12+00 12+79

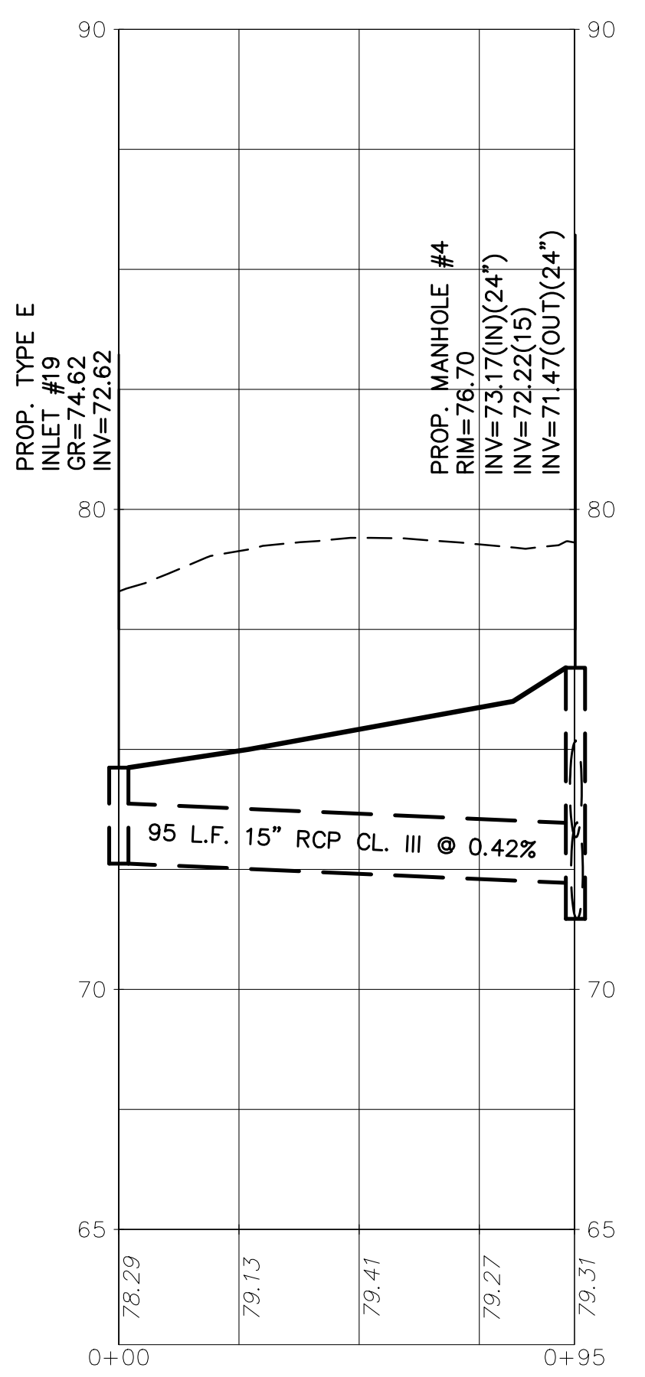
I-8 ~ EW-2

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


EXIST. SAN. MANHOLE #25 RIM=88.79 INV=82.51
PROP. SAN. MANHOLE #24A RIM=89.10 INV=82.67
EXIST. SAN. MANHOLE #24 RIM=92.44 INV=84.14
ROAD E
PROP. SAN. MANHOLE #23B RIM=98.10 INV=86.01
PROP. SAN. MANHOLE #23A RIM=91.00 INV=86.33
PROPOSED GRADE
EXISTING GROUND
8" DIP WATER MAIN
8" DIP WATER MAIN
8" DIP WATER MAIN
5.3'
6.2'
7.1'
250 L.F. 8" PVC @ 0.59%
264 L.F. 8" PVC @ 0.71%
27 L.F. 8" PVC @ 0.59%
44 L.F. 8" PVC @ 0.71%
100
90
80
88.57 89.00 89.03 88.99 89.01 89.45 89.85 90.26 90.58 90.95 91.35 91.99 92.04 91.98 92.40 93.44 95.18 96.22 97.02 97.20 98.00 98.00 98.00 90.98 87.46
5+86 5+00 4+00 3+00 2+00 1+00 0+00

MH-23A ~ MH-25

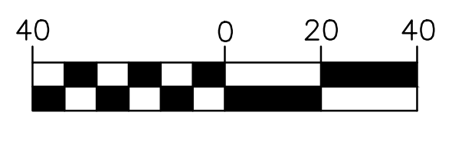
VERTICAL SCALE: 1" = 4'
HORIZONTAL SCALE: 1" = 40'


PROP. TYPE E INLET #19 GR=74.62 INV=72.62
PROP. MANHOLE #4 RIM=76.70 INV=73.17(IN)(24") INV=72.22(15) INV=71.47(OUT)(24")
95 L.F. 15" RCP CL. III @ 0.42%
90
80
70
65
78.29 79.13 79.41 79.27 79.31
0+00 0+95

I-19 to MH-4

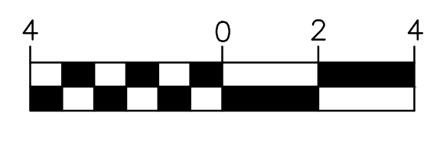
Know what's below. Call before you dig.

GRAPHIC SCALE



1 INCH = 40 FEET

GRAPHIC SCALE



1 INCH = 4 FEET

DATE	ISSUE	REVISION	BY	APPR.
03/10/2022	6	ISSUED FOR FINAL SITE PLAN COMPLIANCE	TJK	RJC
07/02/2020	5	SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK	RJC
01/13/20	4	REVISED PER COMMENTS FROM CHERRY HILL TOWNSHIP PUBLIC WORKS ENGINEER	GMM	RJC
07/16/19	3	NO CHANGE THIS SHEET	TJK	RJC
10/2/18	2	NO CHANGE THIS SHEET	GMM	RJC
12/12/17	1	NOT PART OF INITIAL SUBMISSION	TJK	RJC

CENTURA – PHASE 1 AND 2

TAX MAP SHEET 234, BLOCK 433.20, LOT 15.01 & 16.01, FORMERLY BLOCK 433.20, LOT 1
CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

UTILITY PROFILES

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CERTIFICATE OF AUTHORIZATION NO. 24GA28017600

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200

Richard J Clemson 03/10/2022
DATE

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DRAWN BY	APPROVED BY
TJK	RJC
SCALE AS SHOWN	DATE 12/12/17
JOB NUMBER 3487	SHEET NO. 11 OF 26

CS0502

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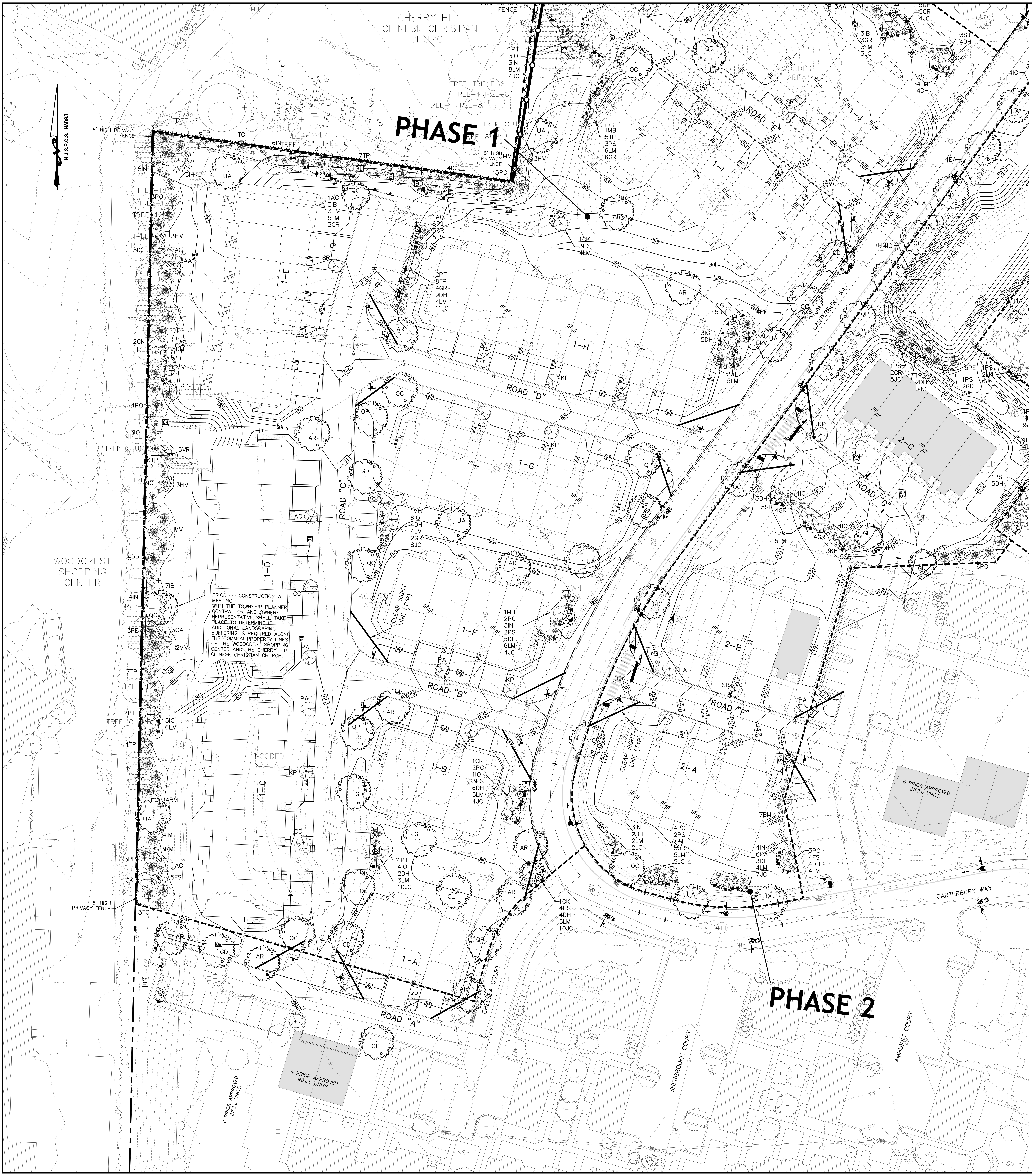

PRIOR TO CONSTRUCTION A MEETING WITH THE TOWNSHIP PLANNER, CONTRACTOR AND OWNERS REPRESENTATIVE SHALL TAKE PLACE TO DETERMINE IF ADDITIONAL LANDSCAPING BUFFERING IS REQUIRED ALONG THE COMMON PROPERTY LINES OF THE WOODCREST SHOPPING CENTER AND THE CHERRY HILL CHINESE CHRISTIAN CHURCH.

NOTES

1. SEE DRAWING NUMBER CS0801, LANDSCAPING AND LIGHTING DETAILS, FOR ALL RELATED LANDSCAPING PLANTING DETAILS, LANDSCAPING NOTES, TREE PROTECTION NOTES AND LIGHTING DETAILS.
2. THIS PLAN IS TO BE USED FOR LANDSCAPING AND TREE PROTECTION PURPOSES ONLY.
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6. SHADE TREE SPACING AND LOCATION REQUIREMENTS: ALL SHADE TREES SHALL BE INSTALLED A MINIMUM OF SIX (6) FEET FROM THE INSIDE EDGE OF THE SIDEWALK AND THIRTY FEET ON CENTER WHERE POSSIBLE.

LEGEND

- STREET/SHADE TREE
- EVERGREEN TREE
- ORNAMENTAL TREE
- SHRUB MASS
- ⊕ FLOWERS
- ○ LOW JUNIPER
- ◎ GRASS
- TREE PROTECTION FENCE
- 50W PROPOSED LIGHT STANCHION WITH WATTAGE
- TREES TO REMAIN (PRIMARY SPECIES INCLUDE MAPLE, OAK, BEACH & SASSAFRASS)
- TREES & CLUSTERS TO BE REMOVED
- ▨ SHADED UNITS ARE COAH UNITS

PLANTING SCHEDULE

TOTAL FOR PHASE 1 AND PHASE 2

LARGE & MEDIUM TREES

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
AR	11	ACER RUBRUM "OCTOBER GLORY"	"OCTOBER GLORY" RED MAPLE	3" MIN. 13'–15'	B & B
GD	9	GYMNOCLADUS DIOICUS	KENTUCKY COFFEETREE	3" MIN. 13'–15'	B & B
GL	4	CLADRASTIS LUTEA (TINCTORIA)	YELLOWWOOD	3" 10'–12'	B & B
QC*	13	QUERCUS COCCINEA	SCARLET OAK	3" MIN. 11'–13'	B & B
QP*	10	QUERCUS PHELLOS	SCARLET OAK	3" MIN. 11'–13'	B & B
UA	14	ULMUS AMERICANA	AMERICAN ELM	3" MIN. 13'–15'	B & B

TOTAL = 61

EVERGREEN TREES

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
IN	36	ILEX x "NELLIE R. STEVENS"	"NELLIE R. STEVENS" HOLLY	6' – 7'	B & B
IO	47	ILEX OPACA	AMERICAN HOLLY	6' – 7'	B & B HEAVY
PC	38	PICEA ABIES "CUPRESSINA"	COLUMNAR NORWAY SPRUCE	6' – 7'	B & B
PE	18	PICEA EXCELSA (ABIES)	NORWAY SPRUCE	6' – 7'	B & B
PO	21	PICEA OMORIKA	SERBIAN SPRUCE	6' – 7'	B & B
PP	14	PICEA PUNGENS	COLORADO BLUE SPRUCE	6' – 7'	B & B
TC	16	TSUGA CANADENSIS	CANADIAN HEMLOCK	6' – 7'	B & B HEAVY
TP	48	THUJA PLIEATA ATROVIRENS	ATROVIRENS GIANT ARBORVITAE	5' – 6'	B & B HEAVY

TOTAL = 238

SMALL & ORNAMENTAL TREES

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
AC	5	AMELANCHIER CANADENSIS	DOWNY SHADBLOW	8'	B & B HEAVY
AG	5	AMELANCHIER x GRANDIFLORA "AUTUMN BRILLIANCE"	"AUTUMN BRILLIANCE" SERVICEBERRY	8'	B & B HEAVY
CC	5	CEREIS CANADENSIS	REDBUD	8'	B & B HEAVY
CK*	11	CORNUS KOUSA	KOUSA DOGWOOD	8'	B & B HEAVY
KP	9	KOELREUTERIA PANICULATA	GOLDEN RAIN TREE	3" 9'–11'	B & B
MB	5	MALUS BACCATA "WALTERS"	WALTERS SIBERIAN CRABAPPLE	8'	B & B
MV	5	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	8'	B & B HEAVY
PA	7	PRUNUS SERRULATA AMANOGAWA	AMANOGAWA CHERRY	8'	B & B HEAVY
PT	12	PRUNUS CERASIFERA "THUNDERCLOUD"	THUNDERCLOUD PLUM	8'	B & B HEAVY
SR	4	SYRINGA RETICULATA "IVORY SILK"	JAPANESE LILAC TREE	8'	B & B

TOTAL = 68

SHRUBS

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
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CA	12	CLETHRA ANIFOLIA "RUBY SPICE"	SUMMERSWEET CLETHRA	30" MIN.	B & B
EA	14	EUONYMUS ALATUS COMPACTUS	"BURNING BUSH" DWARF WINGED EUONYMUS	30" MIN.	B & B
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HV	15	HAMAMELIS VIRGINIANA	WITCHHAZEL	30" MIN.	B & B HEAVY
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PJ	9	PIERIS JAPONICA	JAPANESE ANDROMEDA	30" MIN.	B & B
RM	12	RHODODENDRON "OLGA MEZITT"	RHODODENDRON	30" MIN.	B & B
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SJ	6	SPIRAEA JAPONICA "NORMAN"	JAPONESE SPIREA	30" MIN.	B & B
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VR	5	VIBURNUM RHYTIDOPHYLLUM	LEATHERLEAF VIBURNUM	30" MIN.	B & B

TOTAL = 266

GRASSES AND ANNUALS

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
DH	82	HEMEROCALLIS	DAYLILIES	1 GALLON CONTAINER	
GR	56	RUDBECKIA HIRTA	GLORIOSA DAISY	3" POTS	
LM	124	LIRIOPE MUSCARI "GOLD BONDED"	BANDED LIRIOPE	4" POTS	
PS	34	PENNISETUM SETACEUM "RUBRUM" DWARF	DWARF PURPLE FOUNTAIN GRASS	1 GALLON CONTAINER	

TOTAL = 296

PLANTING SCHEDULE NOTES

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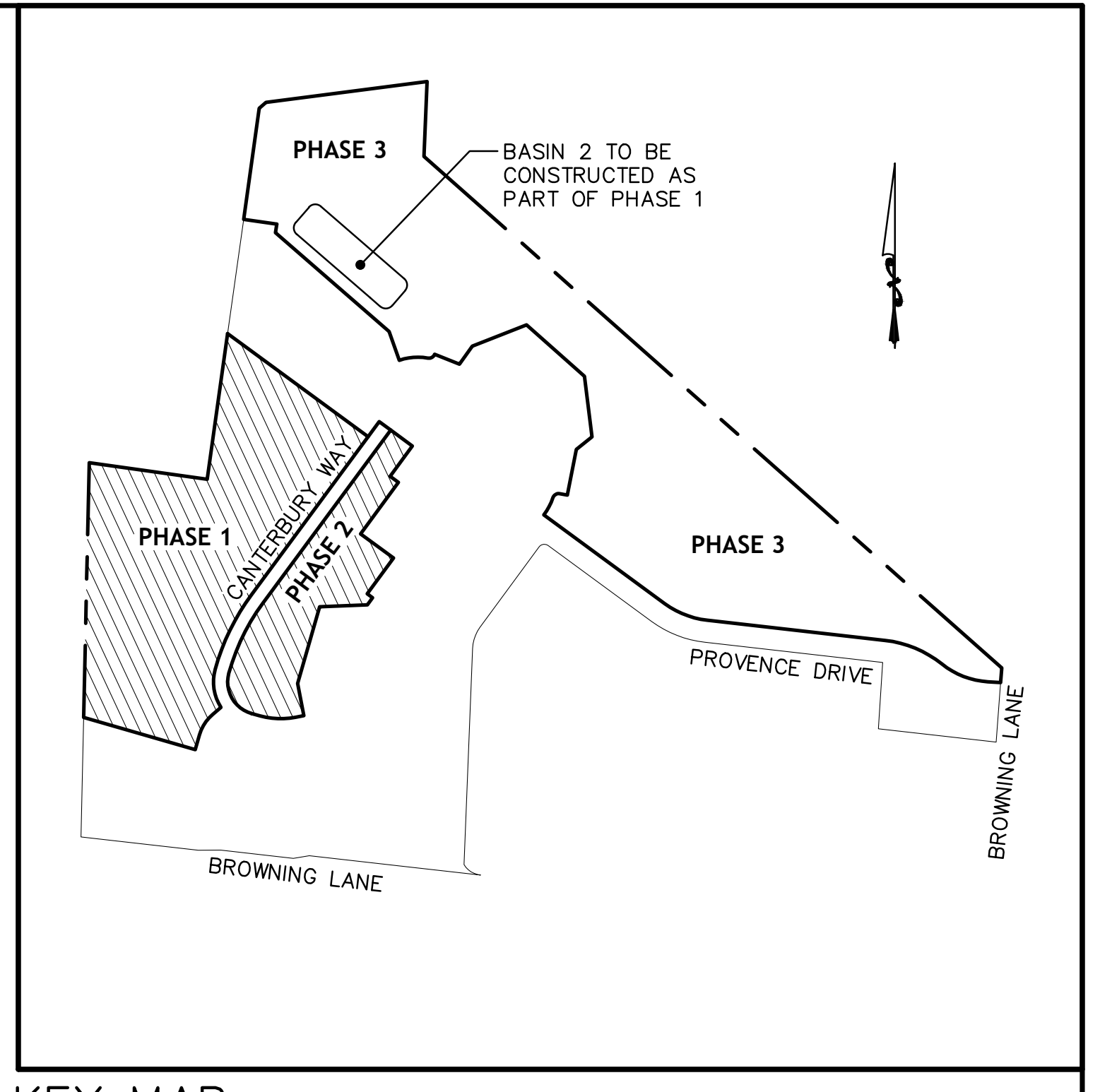

KEY MAP:

SCALE: 1"=400'

811
Know what's below.
Call before you dig.

GRAPHIC SCALE
30 0 15 30 60 120
1 INCH = 30 FEET

DATE	ISSUE	REVISION	BY	APPR.
03/10/2022	6	ISSUED FOR FINAL SITE PLAN COMPLIANCE	TJK	RJC
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12/12/17	1	NOT PART OF INITIAL SUBMISSION	TJK	RJC

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HAMMONTON, NEW JERSEY 08037

TELEPHONE (609) 704-1155
FAX (609) 704-1166
www.jsaengineering.com

CENTURA – PHASE 1 AND 2

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ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28017600

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200

Richard J Clemson 03/10/2022
DATE

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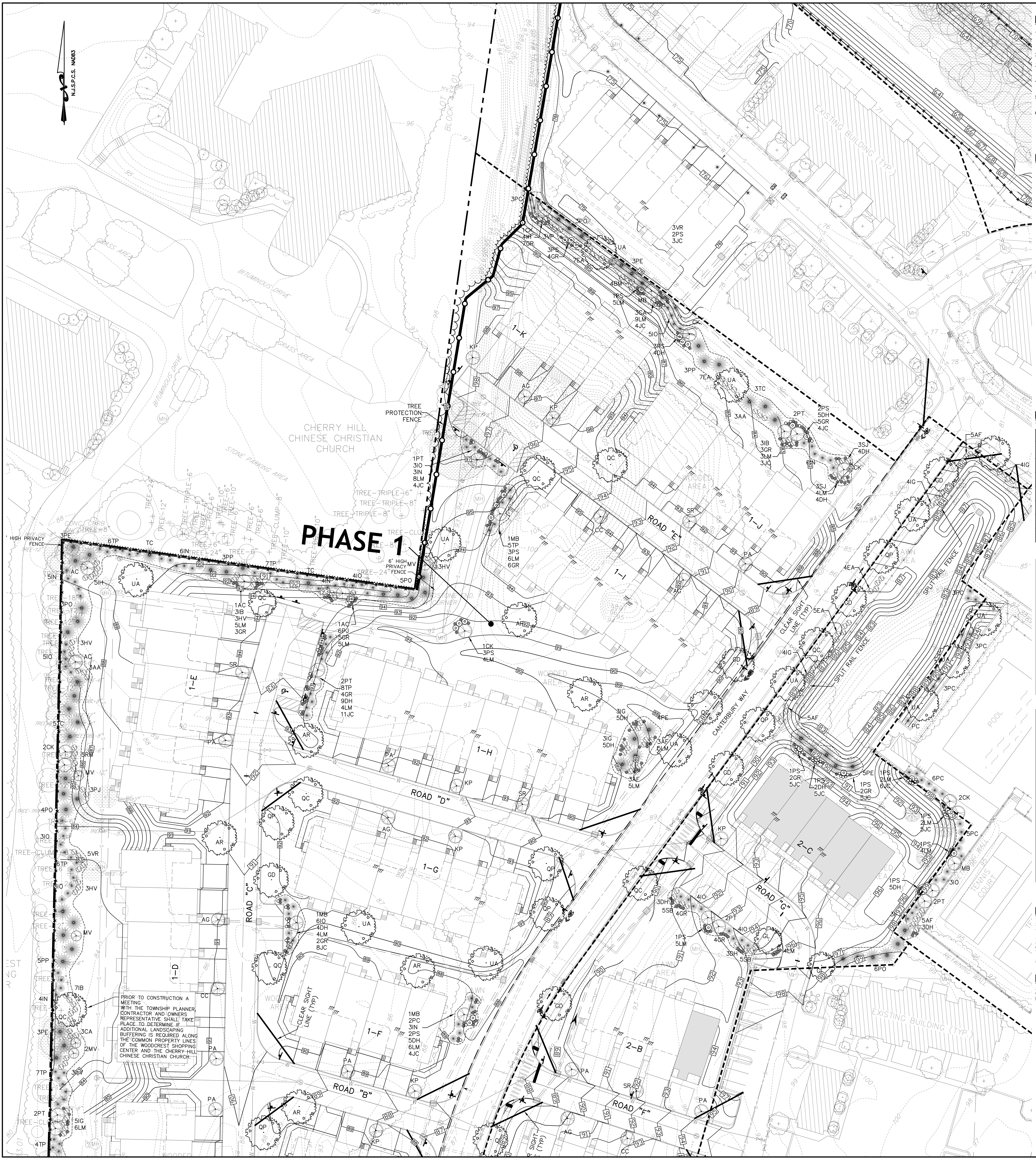
DRAWN BY	APPROVED BY
TJK	RJC
SCALE	DATE
1"=30'	12/12/17
JOB NUMBER	SHEET NO.
3487	12 OF 26

CS0601



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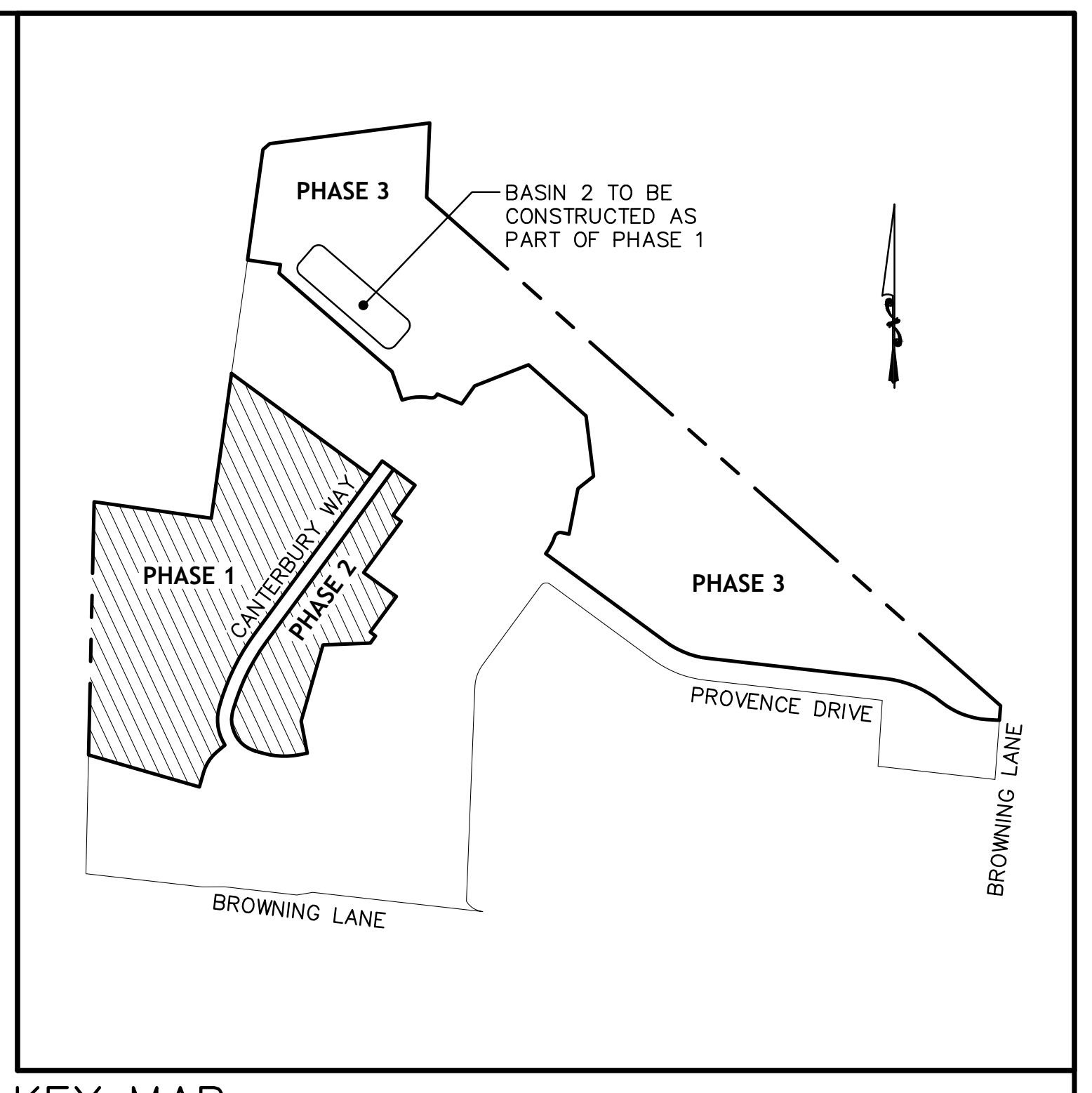

KEY MAP:

SCALE: 1"=400'

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TOTAL FOR PHASE 1 AND PHASE 2

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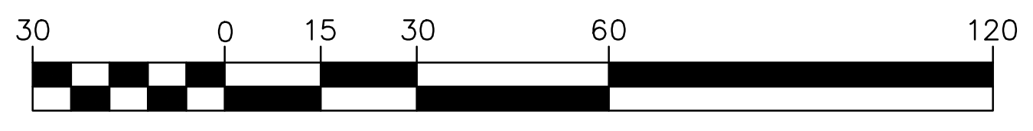
GRAPHIC SCALE



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CENTURA – PHASE 1 AND 2

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VOORHEES, NEW JERSEY 08043

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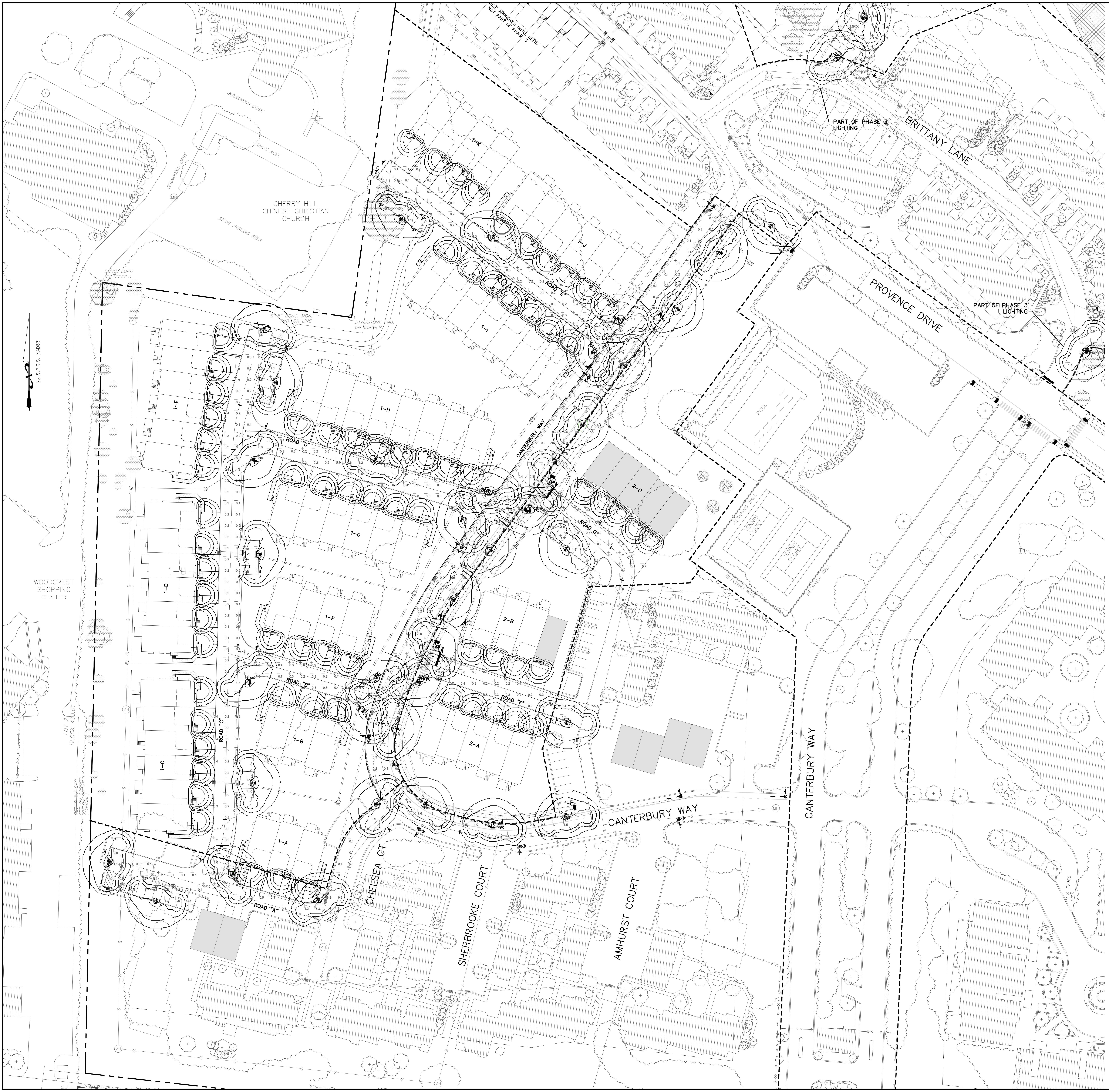
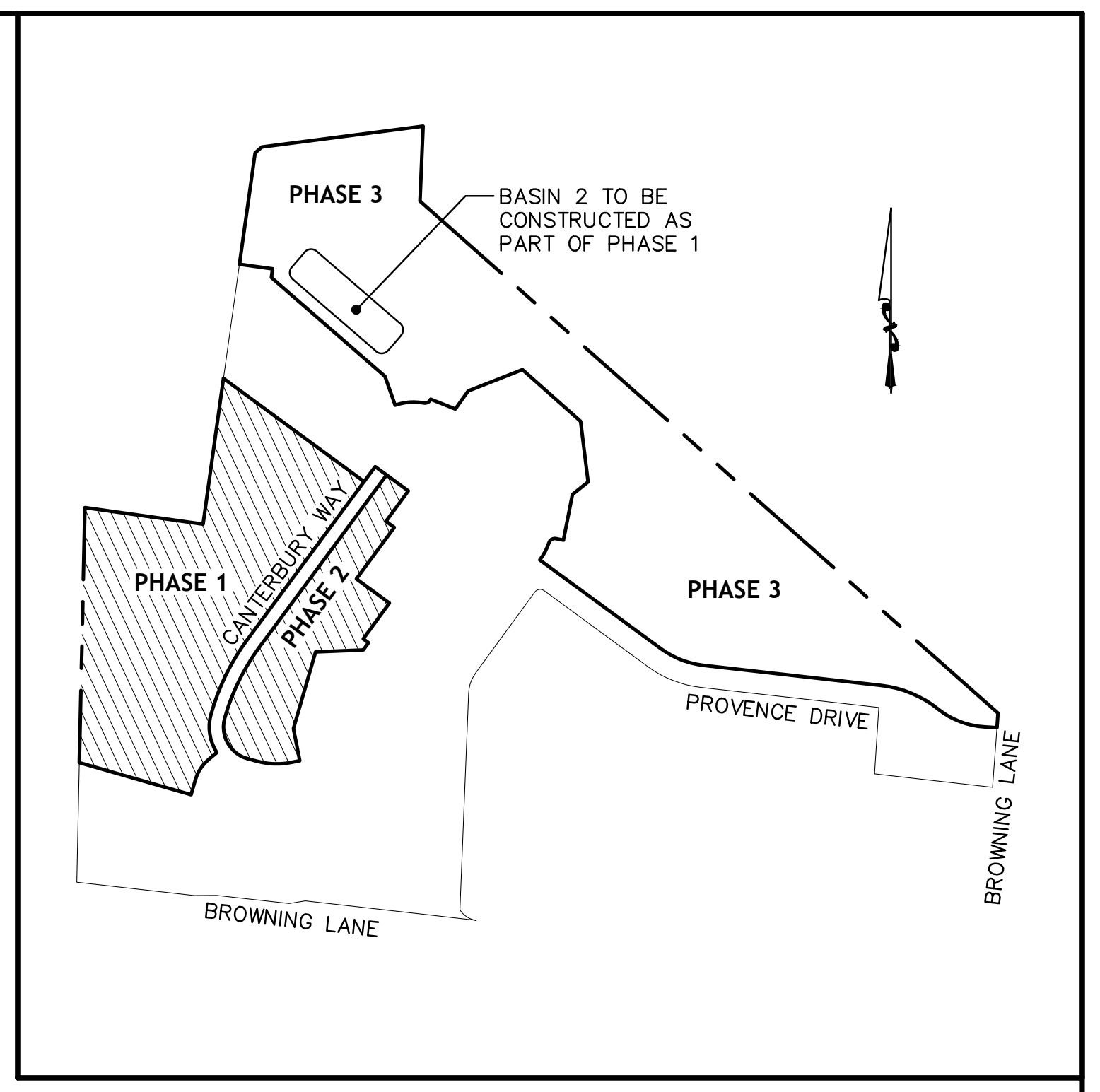
SCALE	DATE
1"=30'	12/12/17
JOB NUMBER	SHEET NO.
3487	13 OF 26

CS0602


CHERRY HILL CHINESE CHRISTIAN CHURCH
WOODCREST SHOPPING CENTER
N.J.S.P.C.S. NAD83
BRITTANY LANE
PROVENCE DRIVE
CANTERBURY WAY
CANTERBURY WAY
CANTERBURY WAY
CHELSEA CT
SHERBROOKE COURT
AMHURST COURT
ROAD "A"
ROAD "B"
ROAD "C"
ROAD "D"
ROAD "E"
ROAD "F"
ROAD "G"
1-A
1-B
1-C
1-D
1-E
1-F
1-G
1-H
1-I
1-J
1-K
2-A
2-B
2-C
PART OF PHASE 3 LIGHTING
PART OF PHASE 3 LIGHTING
POOL
TENNIS COURT
TENNIS COURT
RETAINING WALL
EXISTING BUILDING (TYP)
LOT 2 BLOCK 433.01
PROPOSED INFILL UNITS NOT PART OF PHASE


PHASE 3
BASIN 2 TO BE CONSTRUCTED AS PART OF PHASE 1
PHASE 1
CANTERBURY WAY
PHASE 2
PHASE 3
PROVENCE DRIVE
BROWNING LANE
BROWNING LANE

KEY MAP:

SCALE: 1"=400'

STANDARD PLAN LEGEND

- PROPERTY OUTBOUNDS LINE
- CENTER LINE
- EASEMENT LINE
- GAS LINE
- SANITARY SEWER LINE
- WATER LINE
- OVERHEAD WIRES
- WETLANDS LINE
- EDGE OF PAVING
- RIPARIAN LINE
- FLOODWAY LIMIT LINE (100 YR)
- FLOOD HAZARD AREA LINE
- PHASE LIMIT LINE
- LIMIT OF DISTURBANCE
- FENCES
- EXISTING CONTOUR
- PROPOSED CONTOUR
- × 100.6 EXISTING SPOT ELEVATION
- × 101.3 PROPOSED SPOT ELEVATION
- VEGETATION LINE
- TEST PIT / SOIL BORING
- GV WV VALVES
- WM GM METERS
- SIGNS
- UTILITY POLES
- LIGHT POLES
- F FIRE HYDRANT
- CLEANOUT
- USPS MAIL BOXES
- × CROSS CUT
- DRILL HOLE W/ WINGS
- □ FOUND MONUMENT
- ■ SET MONUMENT
- ○ FOUND IRON ROD/PIPE
- ● SET IRON ROD/PIPE
- INLETS
- MANHOLES
- TRAFFIC SIGNAL
- ▨ SHADED UNITS ARE COAH UNITS

NOTES

1. SEE DRAWING NUMBER CS0801, LANDSCAPING AND LIGHTING DETAILS, FOR ALL RELATED LIGHTING DETAILS AND NOTES.
2. THIS PLAN IS TO BE USED FOR LIGHTING PURPOSES ONLY.
3. ALL LIGHTING DESIGN AND FIXTURES SHALL BE IN ACCORDANCE WITH THE STANDARDS SET FORTH BY P.S.E. & G. AND CHERRY HILL TOWNSHIP.
4. A NIGHT LIGHT FUCTION TEST SHALL BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR EACH BUILDING.

LEGEND

- PROPOSED LIGHT STANCHION
- ■ PROPOSED WALL MOUNTED LIGHT

Know what's below. Call before you dig.

GRAPHIC SCALE

40 0 20 40 80 160

1 INCH = 40 FEET

DATE	ISSUE	REVISION	BY	APPR.
03/10/2022	6	ISSUED FOR FINAL SITE PLAN COMPLIANCE	TJK	RJC
07/02/2020	5	SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK	RJC
01/13/20	4	NO CHANGE THIS SHEET	GMM	RJC
07/16/19	3	ADD NOTE #4; UPDATE ISOLUX PATTERN; ADD POINT DATA	TJK	RJC
10/2/18	2	REVISE WALKS, PARKING, ADD COAH UNITS AND REVISE LIGHTING DISTRIBUTION	GMM	RJC
12/12/17	1	NOT PART OF INITIAL SUBMISSION	TJK	RJC

CENTURA – PHASE 1 AND 2

TAX MAP SHEET 234, BLOCK 433.20, LOT 15.01 & 16.01, FORMERLY BLOCK 433.20, LOT 1
CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

LIGHTING PLAN

DEVEL, LLC.
C/O STEPHEN D. SAMOST, ESQUIRE 479 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28017600
41 SOUTH ROUTE 73, BUILDING 1, SUITE 201
HAMMONTON, NEW JERSEY 08037
TELEPHONE (609) 704-1155
FAX (609) 704-1166
www.jsaengineering.com

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200

Richard J Clemson 03/10/2022
DATE

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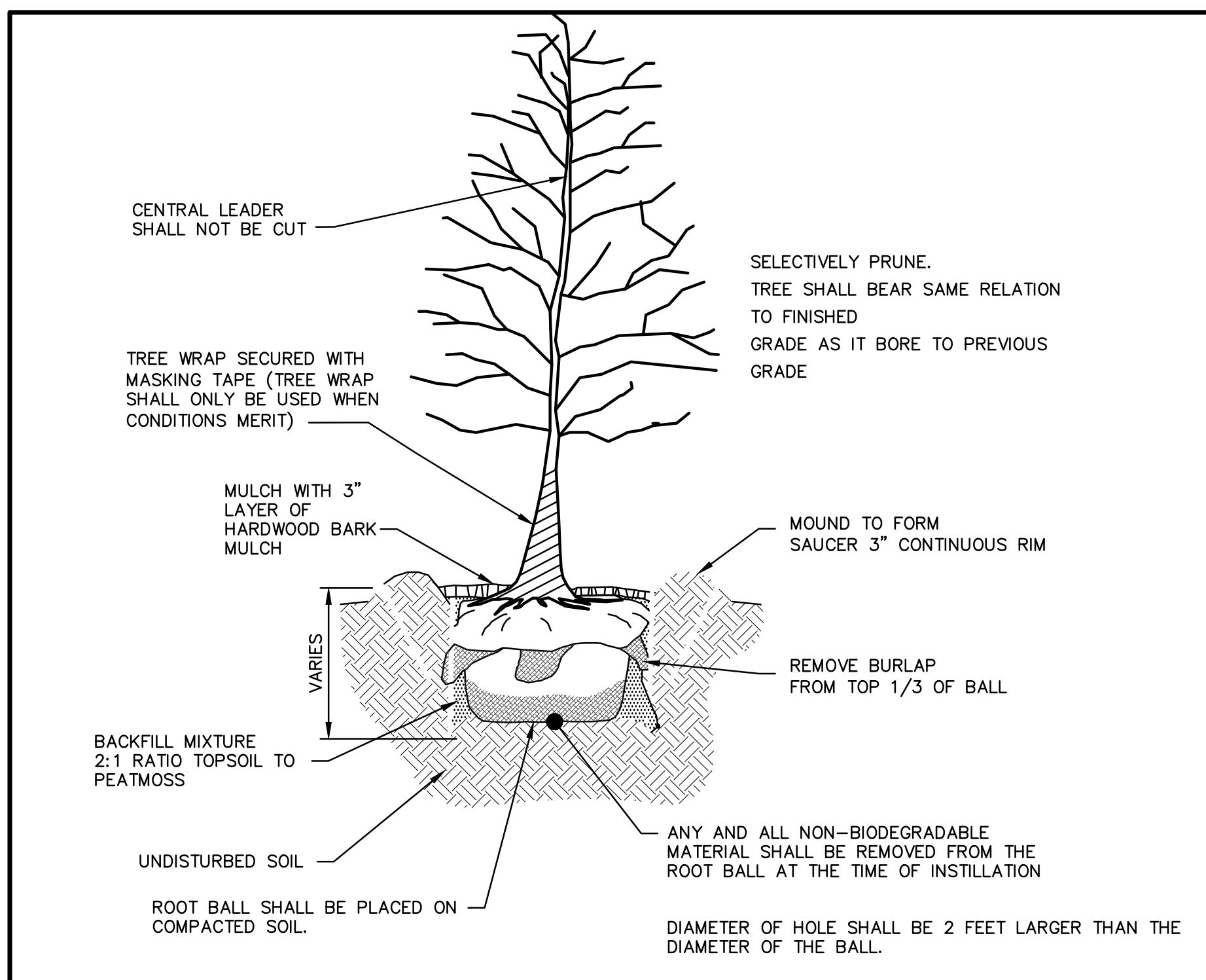
DRAWN BY	APPROVED BY
TJK	RJC
SCALE	**DATE**
1"=40'	12/12/17
JOB NUMBER	**SHEET NO.**
3487	14 OF 26

CS0701

CREATED ON 05/21/2019, LAST MODIFIED ON 02/01/2022

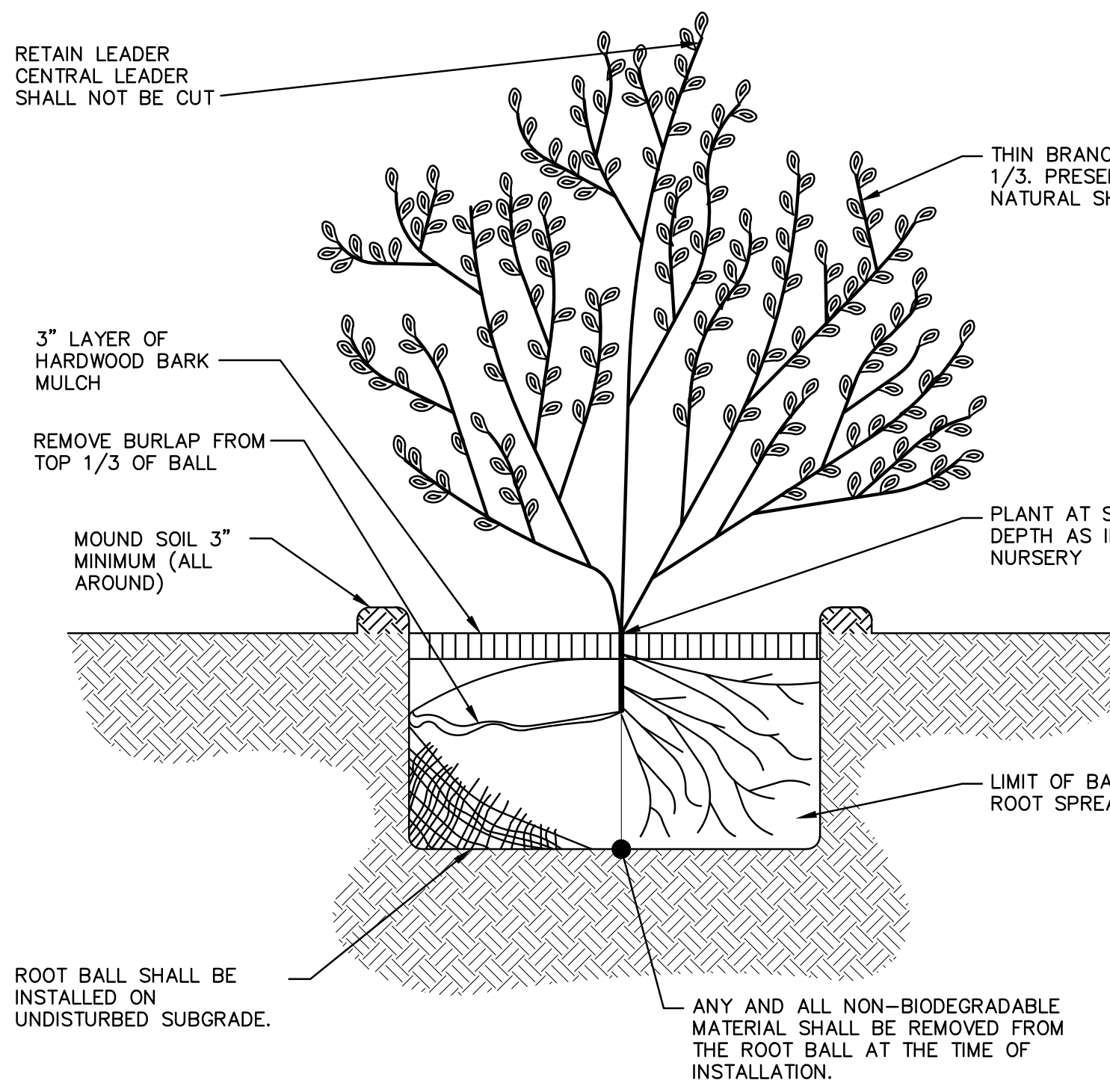

CENTRAL LEADER SHALL NOT BE CUT
SELECTIVELY PRUNE.
TREE SHALL BEAR SAME RELATION TO FINISHED GRADE AS IT BORE TO PREVIOUS GRADE
TREE WRAP SECURED WITH MASKING TAPE (TREE WRAP SHALL ONLY BE USED WHEN CONDITIONS MERIT)
MULCH WITH 3" LAYER OF HARDWOOD BARK MULCH
MOUND TO FORM SAUCER 3" CONTINUOUS RIM
VARIES
REMOVE BURLAP FROM TOP 1/3 OF BALL
BACKFILL MIXTURE 2:1 RATIO TOPSOIL TO PEATMOSS
UNDISTURBED SOIL
ANY AND ALL NON-BIODEGRADABLE MATERIAL SHALL BE REMOVED FROM THE ROOT BALL AT THE TIME OF INSTILLATION
ROOT BALL SHALL BE PLACED ON COMPACTED SOIL.
DIAMETER OF HOLE SHALL BE 2 FEET LARGER THAN THE DIAMETER OF THE BALL.

DECIDUOUS TREE DETAIL

N.T.S.

DECIDUOUS TREE NOTES

1. THE ROOT BALL DEPTH SHALL NOT BE LESS THAN 60% OF THE BALL DIAMETER. BARE ROOT MATERIAL WILL NOT BE ACCEPTED.
2. DIG HOLE 2 FEET LARGER THAN THE DIAMETER OF THE ROOT BALL.
3. BACKFILL WITH NATIVE/EXISTING SOIL, REMOVING ANY LARGE DEBRIS.
4. ALWAYS REMOVE NURSERY STAKE.
5. GENERAL TREE STAKING/GUYING IS NOT RECOMMENDED EXCEPT FOR THE FOLLOWING:
   - A. WHERE THE TREE FALLS OVER AFTER THE NURSERY STAKES ARE REMOVED.
   - B. HIGH WIND AREA.
   - C. IF REQUIRED STAKING/GUYING SHALL FOLLOW BEST CURRENT PRACTICES AS APPROVED BY THE TOWNSHIP PLANT EXPERT.
6. DO NOT MULCH AGAINST TREE TRUNK. PLACE MULCH 4"–6" AWAY FROM THE TREE TRUNK FLARE.
7. ALL SHADE/STREET TREES SHALL HAVE A MINIMUM PLANTING CALIPER OF 2 1/2– 3 INCHES AT THE TIME OF PLANTING.
8. ALL ORNAMENTAL TREES SHALL HAVE A MINIMUM PLANTING HEIGHT OF 8 FEET AT HE TIME OF PLANTING.

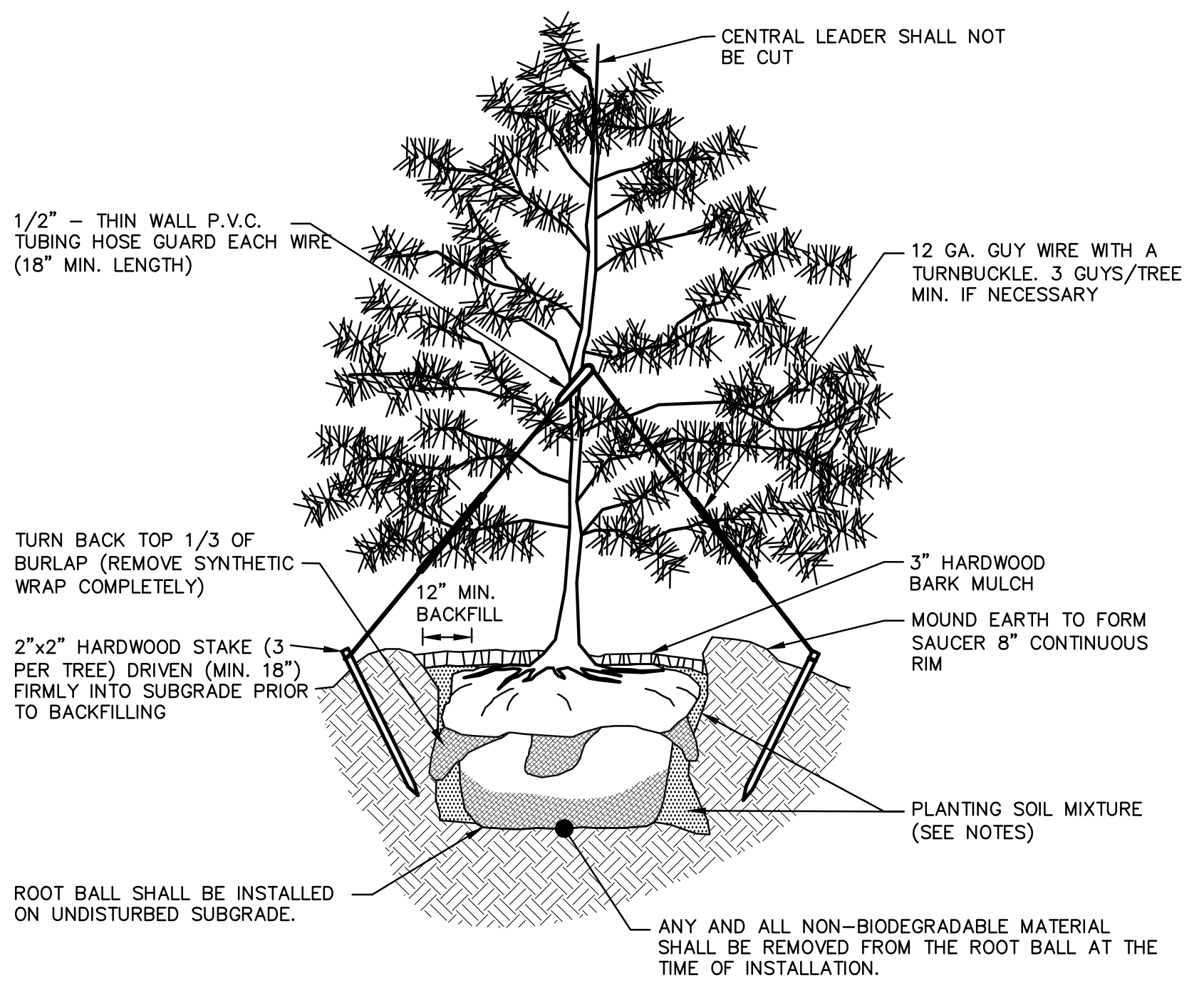

RETAIN LEADER CENTRAL LEADER SHALL NOT BE CUT
THIN BRANCHES BY 1/3. PRESERVE NATURAL SHAPE.
3" LAYER OF HARDWOOD BARK MULCH
REMOVE BURLAP FROM TOP 1/3 OF BALL
MOUND SOIL 3" MINIMUM (ALL AROUND)
PLANT AT SAME DEPTH AS IN NURSERY
LIMIT OF BARE ROOT SPREAD
ROOT BALL SHALL BE INSTALLED ON UNDISTURBED SUBGRADE.
ANY AND ALL NON-BIODEGRADABLE MATERIAL SHALL BE REMOVED FROM THE ROOT BALL AT THE TIME OF INSTALLATION.

SHRUB DETAIL

N.T.S.

SHRUB NOTES

1. DIG HOLE 12 TO 18 INCHES LARGER THAN THE ROOT BALL.
2. BACKFILL WITH NATIVE/EXISTING SOIL, REMOVING ANY LARGE DEBRIS.
3. DO NOT MULCH AGAINST TREE TRUNK. PLACE MULCH 4"–6" AWAY FROM THE TREE TRUNK FLARE.
4. ALL SHRUBS SHALL HAVE MINIMUM PLANTING SIZE HEIGHT OF 2 ½ – 3 FEET, EXCEPT AS NOTED, AT THE TIME OF PLANTING.


CENTRAL LEADER SHALL NOT BE CUT
1/2" – THIN WALL P.V.C. TUBING HOSE GUARD EACH WIRE (18" MIN. LENGTH)
12 GA. GUY WIRE WITH A TURNBUCKLE. 3 GUYS/TREE MIN. IF NECESSARY
TURN BACK TOP 1/3 OF BURLAP (REMOVE SYNTHETIC WRAP COMPLETELY)
12" MIN. BACKFILL
3" HARDWOOD BARK MULCH
2"x2" HARDWOOD STAKE (3 PER TREE) DRIVEN (MIN. 18") FIRMLY INTO SUBGRADE PRIOR TO BACKFILLING
MOUND EARTH TO FORM SAUCER 8" CONTINUOUS RIM
PLANTING SOIL MIXTURE (SEE NOTES)
ROOT BALL SHALL BE INSTALLED ON UNDISTURBED SUBGRADE.
ANY AND ALL NON-BIODEGRADABLE MATERIAL SHALL BE REMOVED FROM THE ROOT BALL AT THE TIME OF INSTALLATION.

EVERGREEN TREE DETAIL

N.T.S.

EVERGREEN TREE NOTES

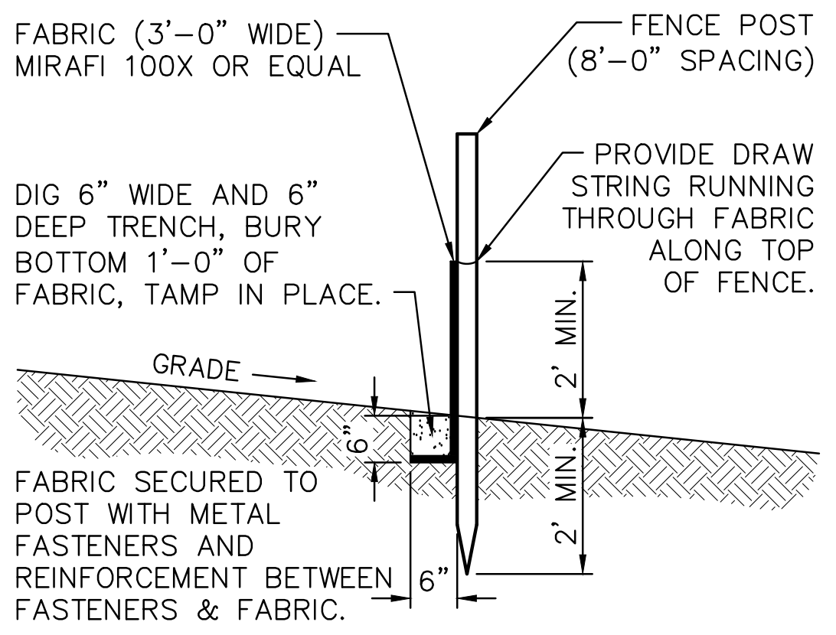
1. THE ROOT BALL DEPTH SHALL NOT BE LESS THAN 60% OF THE BALL DIAMETER. BARE ROOT MATERIAL WILL NOT BE ACCEPTED.
2. DIG HOLE 2.5 TO 3 TIMES THE WIDTH AND AS DEEP AS THE ROOT BALL.
3. BACKFILL WITH NATIVE/EXISTING SOIL, REMOVING ANY LARGE DEBRIS.
4. ALWAYS REMOVE NURSERY STAKE.
5. GENERAL TREE STAKING/GUYING IS NOT RECOMMENDED EXCEPT FOR THE FOLLOWING:
   - A. WHERE THE TREE FALLS OVER AFTER THE NURSERY STAKES ARE REMOVED.
   - B. HIGH WIND AREA.
   - C. IF REQUIRED STAKING/GUYING SHALL FOLLOW BEST CURRENT PRACTICES AS APPROVED BY THE TOWNSHIP PLANT EXPERT.
6. DO NOT MULCH AGAINST TREE TRUNK. PLACE MULCH 4"–6" AWAY FROM THE TREE TRUNK FLARE.
7. ALL EVERGREEN TREES SHALL HAVE A MINIMUM PLANTING HEIGHT OF 6–8 FEET AT THE TIME OF PLANTING.

PLANTING NOTES

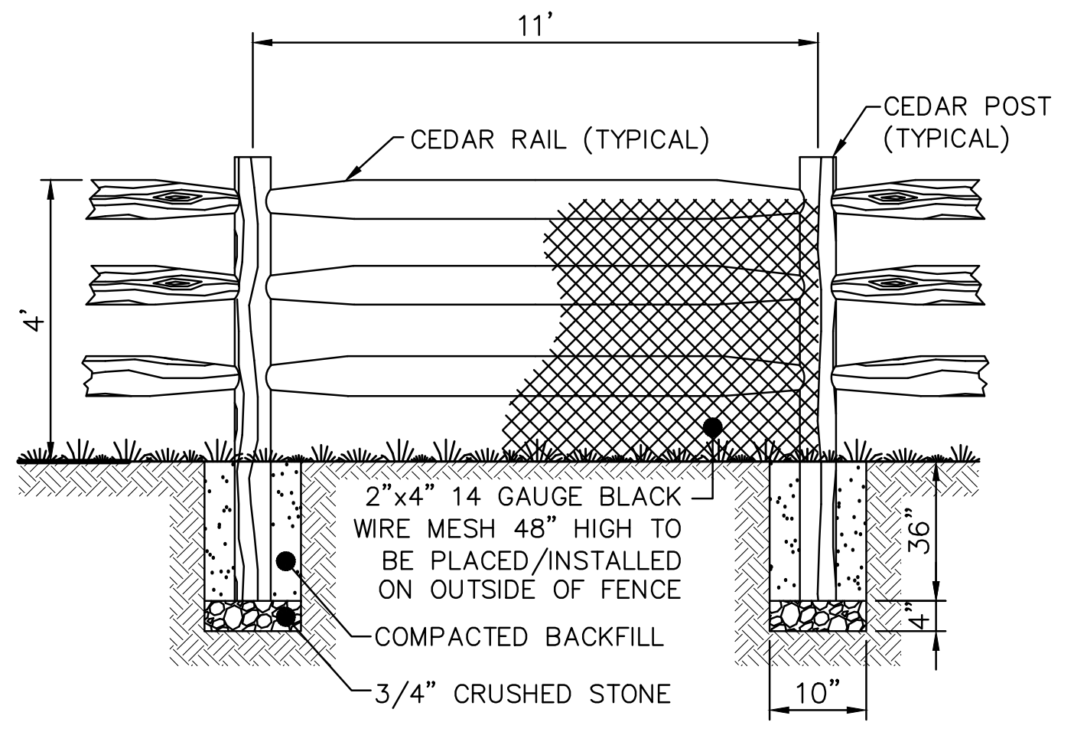
1. ALL PLANT MATERIAL SHALL BE FURNISHED AND INSTALLED AS INDICATED INCLUDING ALL LABOR, MATERIAL, PLANTS, EQUIPMENT, INCIDENTALS AND CLEAN UP.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTING AT CORRECT GRADES AND ALIGNMENTS. PLANTING OPERATIONS SHALL BE PREFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICES.
3. ALL PLANTS SHALL BE OF NURSERY–GROWN STOCK TYPICAL OF THEIR SPECIES AND VARIETY, HAVE NORMAL GROWTH HABITS, WELL DEVELOPED BRANCHES, DENSELY–FOLIATED VIGOROUS ROOT SYSTEM AND BE FREE FROM DEFECTS, INJURIES, INSECTS AND DISEASE. ALL ROOT BALLS SHOULD BE INSPECTED TO INSURE THAT THEY ARE UNDAMAGED AND CONTAIN GOOD QUALITY SOIL AND THAT IT ENCOMPASSES THE ENTIRE ROOT SYSTEM.
4. THE CONTRACTOR SHALL REPORT ANY SOIL DRAINAGE CONDITION CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL.
5. ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR TO BE IN VIGOROUS GROWING CONDITION. PROVISION SHALL BE FOR A GROWTH GUARANTEE OF AT LEAST TWO (2) YEARS FOR TREES AND A MINIMUM OF TWO (2) GROWING SEASON FOR SHRUBS. REPLACEMENT SHALL BE MADE AT THE BEGINNING OF THE FIRST SUCCEEDING PLANT SEASON. ALL REPLACEMENTS SHALL HAVE A GUARANTEE EQUAL TO THAT STATED ABOVE.
6. INSOFAR AS IT IS PRACTICAL, PLANT MATERIALS SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL PROTECT STOCK NOT PLANTED. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE (3) DAY PERIOD AFTER DELIVERY.
7. QUALITY AND SIZE OF PLANTS, SPREAD ROOTS, AND SIZE OF BALLS SHALL BE IN ACCORDANCE WITH AANI Z60.1–2004 (OR CURRENT EDITION) AMERICAN STANDARD FOR NURSERY STOCK AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
8. ALL PLANTS SHALL BE PLANTED IN TOPSOIL THAT IS THOROUGHLY WATERED AND TAMPED AS BACK FILLING PROGRESSES. NOTHING BUT SUITABLE TOPSOIL, FREE OF DRY SOD, STIFF CLAY, LITTER, ETC. SHALL BE USED FOR PLANTING.
9. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK AND BREAK BRANCHES. PLANTS SHALL BE HANDLED FROM THE BOTTOM OF THE BALL ONLY.
10. NO PLANT, EXCEPT GROUND COVERS, SHALL BE PLANTED LESS THAN TWO (2) FEET FROM EXISTING STRUCTURES AND SIDEWALKS.
11. SET ALL PLANTS PLUMB AND STRAIGHT AND AT SUCH LEVEL THAT, AFTER SETTLEMENT, A NORMAL OR NATURAL RELATIONSHIP TO THE CROWN OF THE PLANT WITH THE GROUND'S SURFACE WILL BE ESTABLISHED. LOCATE PLANT IN THE CENTER OF THE PIT.
12. ALL INJURED ROOTS SHALL BE PRUNED TO MAKE CLEAN ENDS BEFORE PLANTING. IT IS ADVISABLE TO PRUNE APPROXIMATELY 1/3" OF THE GROWTH OF LARGE TREES (2" CALIPER AND OVER) BY THE REMOVAL OF BRANCHES, THOSE WHICH CROSS, THOSE WHICH RUN PARALLEL, ETC. MAIN LEADER OF TREES MUST NOT BE CUT BACK. LONG SIDE BRANCHES, HOWEVER, MUST BE SHORTENED.
13. EACH TREE AND SHRUB SHALL BE PRUNED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICE TO PRESERVE NATURAL CHARACTER OF PLANT. PRUNING SHALL BE WITH CLEAN SHARP TOOLS. CUTS OVER 3/4" IN DIAMETER SHALL BE PAINTED WITH SUITABLE TREE DRESSING.
14. ALL TREES SHALL BE SUPPORTED IMMEDIATELY AFTER PLANTING. GUYING WIRES AND STAKES SHALL BE INSTALLED AS INDICATED ON THE PLANS AND DETAILS.
15. THE DRAWINGS SHALL BE SCALED FOR PURPOSES OF LOCATING SOIL BERMS, PLANT MATERIAL, PLANTING BEDS, GROUND COVER AREAS AND OTHER SITE AMENITIES SHOWN. DRAWINGS ARE DIAGRAMMATIC; PLANT MATERIAL IS SUBJECT TO FIELD ADJUSTMENT.
16. ALL PLANT MATERIAL TO BE SET IN PREPARED MULCHED BEDS. FINAL BED LINES TO BE APPROVED IN THE FIELD BY THE LANDSCAPE ARCHITECT OR THE OWNER'S REPRESENTATIVE.
17. ALL PLANTING BEDS TO RECEIVE 3" OF HARDWOOD BARK MULCH AS INDICATED ON THE PLANTING DETAILS. FINAL LOCATION OF PLANT MATERIAL TO BE DETERMINED IN THE FIELD BY THE LANDSCAPE ARCHITECT OR THE OWNER'S REPRESENTATIVE.
18. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION ACTIVITIES.
19. NO DECIDUOUS SHADE TREES WILL BE LOCATED CLOSER THAN 10 FEET TO ANY SANITARY SEWER MAIN OR STORM SEWER PIPE. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFICATIONS OF ALL PLANTED MATERIAL QUANTITIES. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT. PLAN HOLDS PRECEDENCE.
20. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH APPROPRIATE TOWNSHIP AGENCIES AND UTILITY COMPANIES AND SHALL REPORT ANY SOIL OR DRAINAGE CONDITION DETRIMENTAL TO THE GROWTH OF THE PLANT MATERIAL.
21. ALL STREET TREES SHALL HAVE A MINIMUM CLEARANCE HEIGHT OF SEVEN (7) FEET ABOVE GRADE BEFORE BRANCHING BEGINS.
22. VEGETATION MATERIAL SHALL NOT BE PERMITTED WITHIN UTILITY EASEMENTS.
23. IN AREAS CONTAINING INVASIVE OR NOXIOUS WEED PLANTS, THE DEVELOPER SHALL BE ENCOURAGED TO REMOVE AND DESTROY SUCH PLANTS TO MAINTAIN THE HEATH OF THE EXISTING VEGETATED AREA.
24. ONLY HARDWOOD BARK MULCH SHALL BE USED FOR PLANT MULCHING MATERIAL.
25. ALL STUMPS AND OTHER TREE PARTS, LITTER, BRUSH, WEEDS, EXCESS OR SCRAP BUILDING MATERIALS OR OTHER DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION REGULATIONS. NO TREE STUMPS, PORTIONS OF TREE TRUNKS OR LIMBS SHALL BE BURIED ANYWHERE IN THE DEVELOPMENT. ALL DEAD OR DYING TREES, STANDING OR FALLEN, SHALL BE REMOVED FROM THE SITE. IF TREES OR LIMBS ARE REDUCED TO CHIPS, THEY MAY, SUBJECT TO APPROVAL OF THE TOWNSHIP ENGINEER, BE USED AS MULCH IN LANDSCAPED AREAS, PROVIDED THEY HAVE BEEN PROPERLY COMPOSTED.
26. ALL LAWN AREA SHALL RECEIVE FIVE (5) INCHES OF TOPSOIL AND BE SEEDED IN ACCORDANCE WITH THE PERMANENT VEGETATION SPECIFICATIONS OUTLINED ON THE EROSION AND SEDIMENT CONTROL NARRATIVE SHEET.
27. ANY PLANTINGS LOCATED WITHIN THE SIGHT TRIANGLE SHALL HAVE A MAXIMUM MATURE HEIGHT OF 30 INCHES AND ALL STREET TREE LIMBS SHALL BE PRUNED TO A DISTANCE OF SEVEN (7) FEET FROM FINISHED GRADE/GROUND.
28. IRRIGATION SHALL BE REQUIRED. AN IRRIGATION PLAN SHALL BE SUBMITTED TO CHERRY HILL TOWNSHIP FOR REVIEW AND APPROVAL.
29. ANY TREES SCHEDULED TO REMAIN SHALL BE PROTECTED BY TREE PROTECTION FENCE.

LIGHTING NOTES

1. ALL LIGHTING DESIGN AND FIXTURES SHALL BE IN ACCORDANCE WITH THE STANDARDS SET FORTH BY P.S.E. & G. AND CHERRY HILL TOWNSHIP.
2. ALL LUMINAIRE FIXTURES SHALL BE 100 WATT HPS GRANVILLE FIXTURES OR APPROVED EQUAL.
3. LIGHT POLES TO BE MANUFACTURED BY WADSWORTH AND BE TWELVE (12) FEET HIGH CAST ALUMINUM OR APPROVED EQUAL.
4. GRASS AREA LIGHTS SHALL BE AT LEAST TWENTY–FOUR (24) INCHES FROM ANY EDGE OF PAVING.
5. ALL EXPOSED CONCRETE SHALL HAVE A RUBBED OR BRUSHED FINISH. ALL UTILITY LINES WILL BE PROVIDED BY UNDERGROUND WIRES IN ACCORDANCE WITH P. S. E. & G. REGULATIONS.

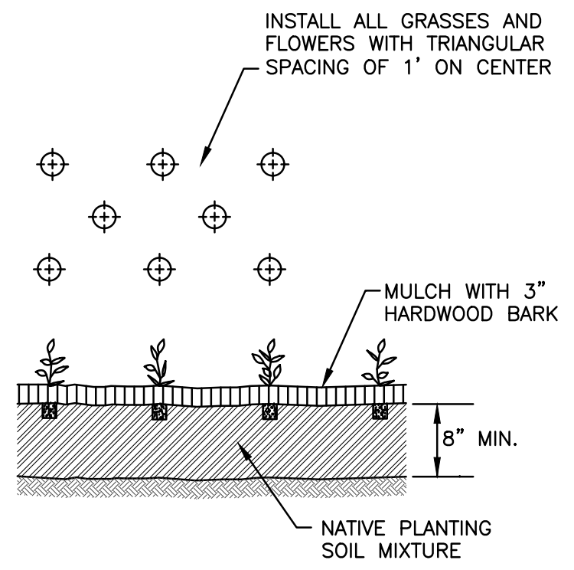

FABRIC (3'–0" WIDE) MIRAFI 100X OR EQUAL
FENCE POST (8'–0" SPACING)
DIG 6" WIDE AND 6" DEEP TRENCH, BURY BOTTOM 1'–0" OF FABRIC, TAMP IN PLACE.
PROVIDE DRAW STRING RUNNING THROUGH FABRIC ALONG TOP OF FENCE.
GRADE
2' MIN.
6"
2' MIN.
FABRIC SECURED TO POST WITH METAL FASTENERS AND REINFORCEMENT BETWEEN FASTENERS & FABRIC.
6"

REGULAR SILT FENCE


11'
CEDAR RAIL (TYPICAL)
CEDAR POST (TYPICAL)
4'
2"x4" 14 GAUGE BLACK WIRE MESH 48" HIGH TO BE PLACED/INSTALLED ON OUTSIDE OF FENCE
COMPACTED BACKFILL
3/4" CRUSHED STONE
36"
4"
10"

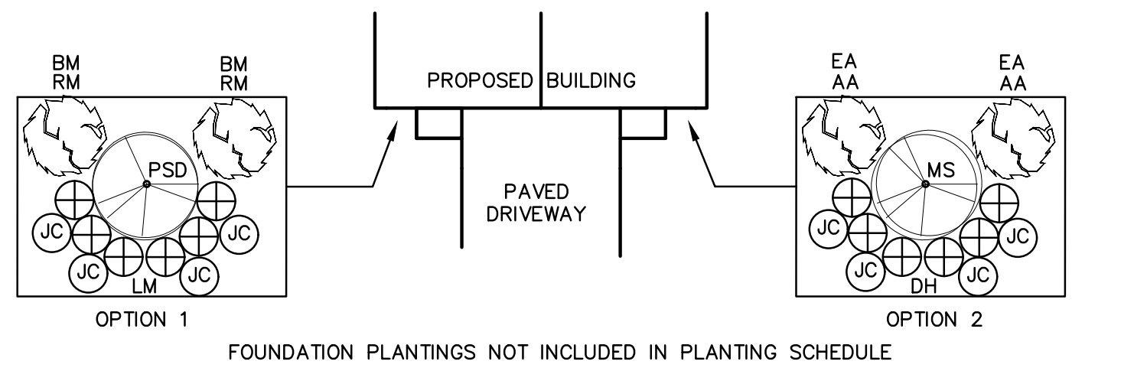
SPLIT RAIL FENCE DETAIL

N.T.S.


INSTALL ALL GRASSES AND FLOWERS WITH TRIANGULAR SPACING OF 1' ON CENTER
MULCH WITH 3" HARDWOOD BARK
8" MIN.
NATIVE PLANTING SOIL MIXTURE

PLANTING DETAIL GRASS AND FLOWER

N.T.S.


BM RM
BM RM
PSD
JC
LM
OPTION 1
PROPOSED BUILDING
PAVED DRIVEWAY
EA AA
EA AA
MS
JC
DH
OPTION 2

FOUNDATION PLANTINGS NOT INCLUDED IN PLANTING SCHEDULE

RM: RHODODENDRON "OLGA MEZITT"
PSD: PRUNUS SUBHIRTELLA DWARF, DWARF WEEPING CHERRY
JC: JUNIPERUS CHINENSIS SARGENTI, SARGENT JUNIPER
LM: LIRIOPE MUSCARI "GOLD BONDED", BANDED LIRIOPE
BM: BUXUS MICROPHYLLA JAPONICA, JAPANESE BOXWOOD

EA: EUONYMUS ALATUS COMPACTUS, DWARF WIINGED EUONYMUS
MS: MALUS SARGENTI, SARGENT CRAB
JC: JUNIPERUS CHINENSIS SARGENTI, SARGENT JUNIPER
DH: HEMEROCALLIS, DAYLILIES
AA: ARONIA ARBUTIFOLIA , RED CHOKEBERRY

NOTE: THIS DETAIL IS NOT A FINAL DETERMINATION OF THE FRONT YARD FOUNDATION PLANTINGS. FINAL DETERMINATION OF PROPOSED PLANTING TO BE AS AGREED UPON BY THE DEVELOPER AND THE TOWNSHIP OF CHERRY HILL.

TYPICAL UNIT FOUNDATION PLANTING DETAIL

N.T.S.

TREE PROTECTION NOTES

1. ALL TREES SCHEDULED TO BE REMOVED SHALL BE MARKED; WHERE GROUPINGS EXIST, ONLY THE TREES ON THE EDGE NEED TO BE MARKED.
2. WHEN THE FENCING HAS BEEN INSTALLED, IT SHALL BE INSPECTED AND APPROVED BY THE TOWNSHIP PRIOR TO COMMENCING ANY CLEARING OPERATIONS AND FURTHER CONSTRUCTION.THE FENCING SHALL BE MAINTAINED AT ALL TIMES UNTIL ALL WORK AND CONSTRUCTION HAS BEEN COMPLETED. ANY DAMAGES TO THE FENCE SHALL BE REPAIRED OR REPLACED BEFORE FURTHER CONSTRUCTION SHALL BEGIN.
3. TREES BEING REMOVED SHALL NOT BE FELLED, PUSHED OR POLLED INTO A TREE PROTECTION AREA.
4. GRADE CHANGES AND EXCAVATION SHALL NOT ENCROACH UPON THE TREE PROTECTION AREA.
5. NO TOXIC MATERIALS SHALL BE STORED WITHIN 100 FEET OF A TREE PROTECTION AREA, INCLUDING PETROLEUM BASED AND/OR DERIVED PRODUCTS.
6. THE TREE PROTECTION AREA SHALL NOT BE BUILT UPON NOR SHALL ANY MATERIALS BE STORED EITHER TEMPORARILY OR PERMANENTLY. VEHICLES AND EQUIPMENT SHALL NOT BE PARKED IN THE TREE PROTECTION AREA.
7. WHEN TREE STUMPS ARE LOCATED WITHIN 10 FEET OF THE TREE PROTECTION AREA, THE STUMPS SHALL BE REMOVED BY MEANS OF A STUMP GRINDER.
8. TREE ROOTS WHICH MUST BE SEVERED SHALL BE CUT BY A BACKHOE OR SIMILAR EQUIPMENT WITH ITS CUTTING BLADE ALIGNED PERPENDICULAR TO A RADIAL LINE FROM THE TREE.
9. WITHIN 4 HOURS OF ANY SEVERANCE OF ROOTS, ALL TREE ROOTS THAT HAVE BEEN EXPOSED AND/OR DAMAGED SHALL BE TRIMMED CLEANLY AND COVERED TEMPORARILY WITH MOIST PEAT MOSS, BURLAP OR OVER BIODEGRADABLE MATERIAL TO KEEP THEM FROM DRYING OUT UNTIL PERMANENT COVER CAN BE INSTALLED.
10. SEDIMENT OR STORMWATER MANAGEMENT BASINS SHALL NOT DISCHARGE TO TREE PROTECTION AREAS NOR SHALL THEY BE LOCATED WITHIN THE TREE PROTECTION AREA.
11. TREES WITHIN THE TREE PROTECTION AREA SHALL NOT BE USED FOR ROPING, CABLES, SIGNS OR FENCING. NAILS AND SPIKES SHALL NOT BE DRIVEN INTO TREES.
12. TREE TRUNKS AND EXPOSED ROOTS DAMAGED DURING CONSTRUCTION SHALL BE PROTECTED FROM FURTHER DAMAGE. DAMAGED BRANCHES SHALL BE PRUNED ACCORDING TO NATIONAL ARBORIST ASSOCIATION STANDARDS. ALL CUTS SHALL BE MADE SUFFICIENTLY CLOSE TO THE TRUNK OR PARENT LIMB BUT WITHOUT CUTTING INTO THEE BRANCH COLLAR OR LEAVING PROTRUDING STUBS. ALL NECESSARY PRUNING CUTS MUST BE MADE TO PREVENT BARK FROM BEING TORN FROM THE TREE AND TO FACILITATE RAPID HEALING.
13. ALL TREES WHICH HAVE BEEN DISTURBED OR HAVE EXPERIENCED DAMAGE TO THEIR ROOTS OR BRANCHES SHALL BE FERTILIZED. TREES SHALL BE FERTILIZED IN EARLY FALL OR MID–SPRING. FERTILIZER GRADE SHALL HAVE APPROXIMATELY 3 PARTS NITROGEN TO 1 PART PHOSPHORUS AND POTASSIUM. FERTILIZER SHALL BE BROADCAST OVER THE SOIL SURFACE IN AN AREA TWICE THE SIZE OF THE TREE PROTECTION AREA AT A RATE OF 1 POUND OF NITROGEN PER 1,000 SQUARE FEET.
14. NO TREE SHOWN TO REMAIN ON APPROVED SUBDIVISION OR LAND DEVELOPMENT PLAN SHALL BE REMOVED WITHOUT PRIOR TOWNSHIP APPROVAL UNLESS IT IS THE CAUSE OF IMMEDIATE DANGER TO LIFE OR PROPERTY.
15. NO TREE SHOWN TO REMAIN ON APPROVED SUBDIVISION OR LAND DEVELOPMENT PLAN OTHER THAN THAT WHICH IS THE CAUSE OF IMMEDIATE DANGER TO LIFE OR PROPERTY SHALL BE REMOVED WITHOUT TOWNSHIP APPROVAL BASED UPON A DETERMINATION THAT ANY OF THE FOLLOWING CONSIDERATIONS EXIST:
    - A. AFFLICTION BY A DISEASE WHICH THREATENS INJURY OR DESTRUCTION OF OTHER TREES.
    - B. FEDERAL, STATE OR TOWNSHIP LAWS, ORDINANCES OR REGULATIONS SUPERSEDING THE LAND DEVELOPMENT ORDINANCE.
    - C. THE TREE HAS BEEN SUBSTANTIALLY DAMAGED OR HAS DIED.

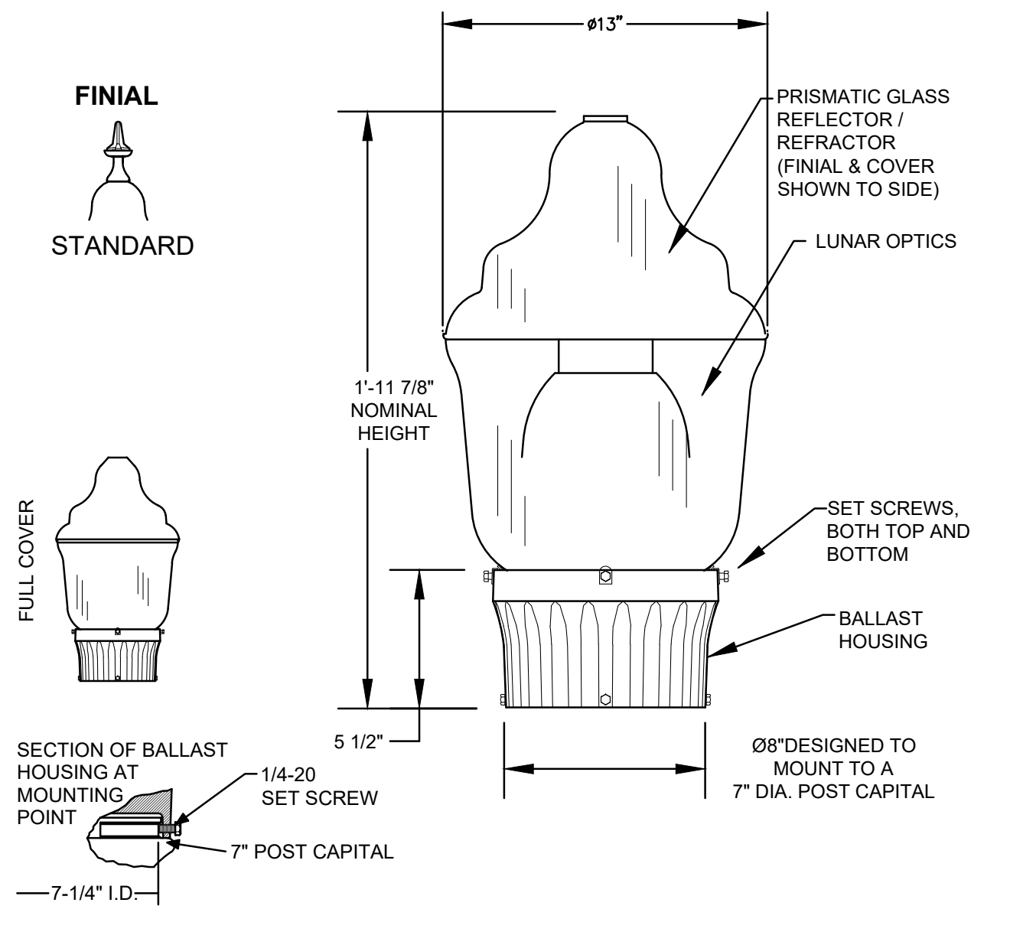
TREE PROTECTION FENCE DETAIL

N.T.S.

GRANVILLE® SERIES LUMINAIRE

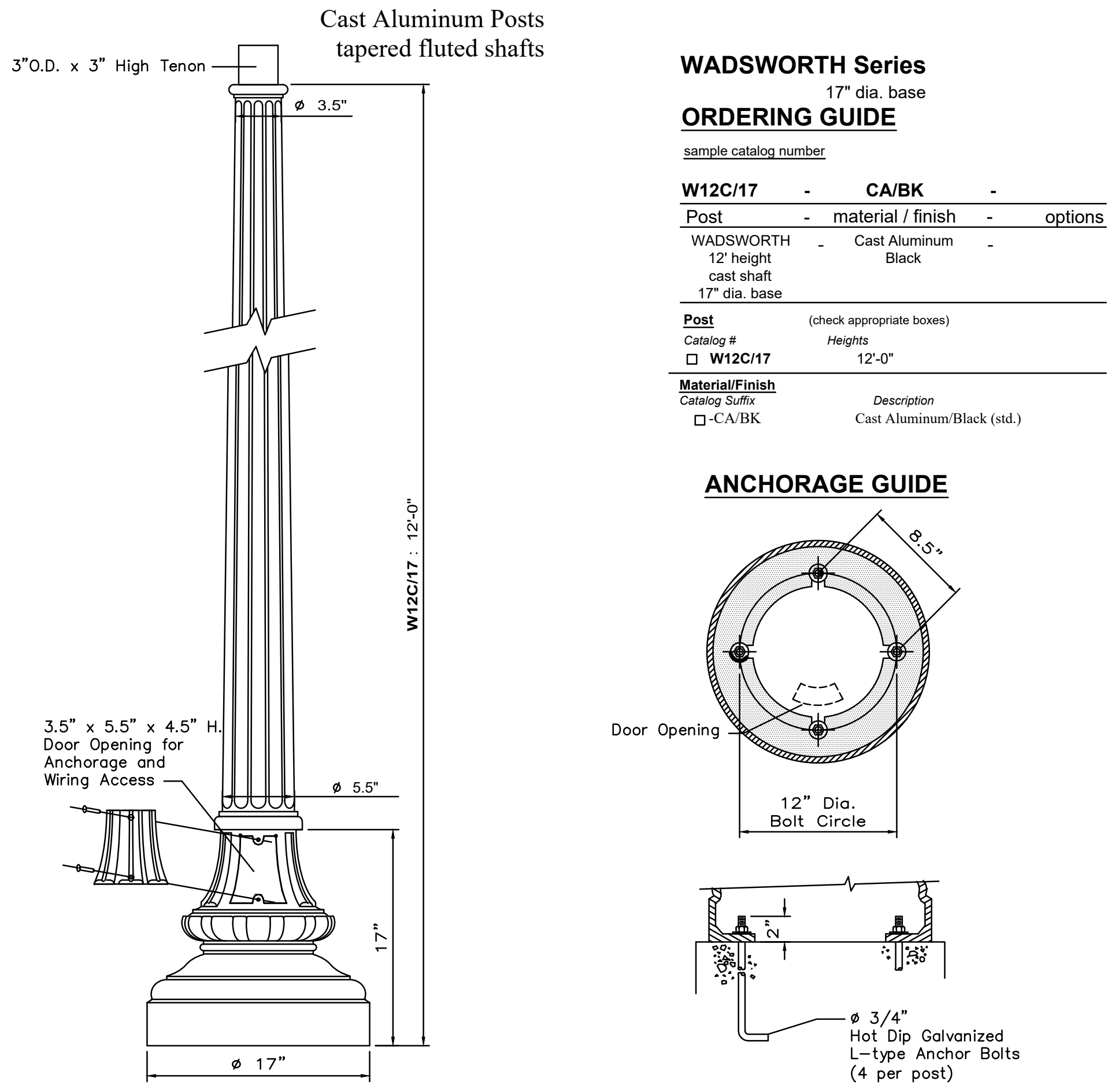
FLUTED STYLE CASTING with LUNAR OPTICS ™

MAXIMUM WEIGHT - 45 lbs.
MAXIMUM EFFECTIVE PROJECTED AREA - 1.26 sq. ft.


FINIAL
STANDARD
FULL COVER
ø13"
PRISMATIC GLASS REFLECTOR / REFRACTOR (FINIAL & COVER SHOWN TO SIDE)
LUNAR OPTICS
1'-11 7/8" NOMINAL HEIGHT
SET SCREWS, BOTH TOP AND BOTTOM
BALLAST HOUSING
5 1/2"
Ø8"DESIGNED TO MOUNT TO A 7" DIA. POST CAPITAL
SECTION OF BALLAST HOUSING AT MOUNTING POINT
1/4-20 SET SCREW
7" POST CAPITAL
7-1/4" I.D.

GRANVILLE ISOLUX PATTERN DETAIL

N.T.S.


Cast Aluminum Posts tapered fluted shafts
3"O.D. x 3" High Tenon
ø 3.5"
W12C/17 : 12'-0"
3.5" x 5.5" x 4.5" H. Door Opening for Anchorage and Wiring Access
ø 5.5"
17"
ø 17"
ANCHORAGE GUIDE
8.5"
Door Opening
12" Dia. Bolt Circle
2"
ø 3/4" Hot Dip Galvanized L–type Anchor Bolts (4 per post)

WADSWORTH Series
17" dia. base

ORDERING GUIDE

sample catalog number

W12C/17	-	CA/BK	-	
Post	-	material / finish	-	options
WADSWORTH 12' height cast shaft 17" dia. base	-	Cast Aluminum Black	-	

Post (check appropriate boxes)

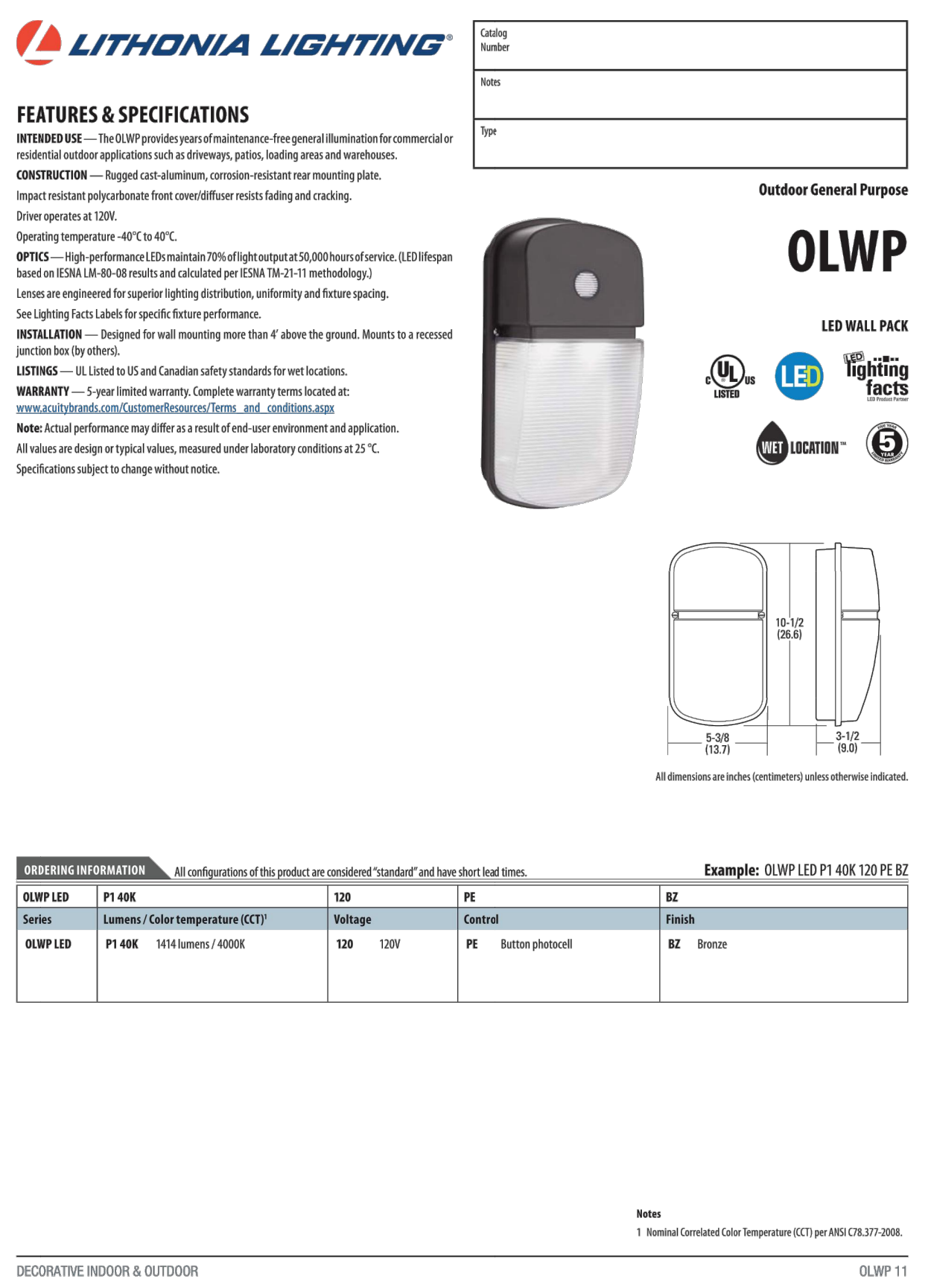
Catalog #	Heights
☐ W12C/17	12'-0"

Material/Finish

Catalog Suffix	Description
☐ -CA/BK	Cast Aluminum/Black (std.)

LIGHT POLE DETAIL

N.T.S.


LITHONIA LIGHTING
FEATURES & SPECIFICATIONS
Outdoor General Purpose
OLWP
LED WALL PACK
DECORATIVE INDOOR & OUTDOOR
OLWP 11

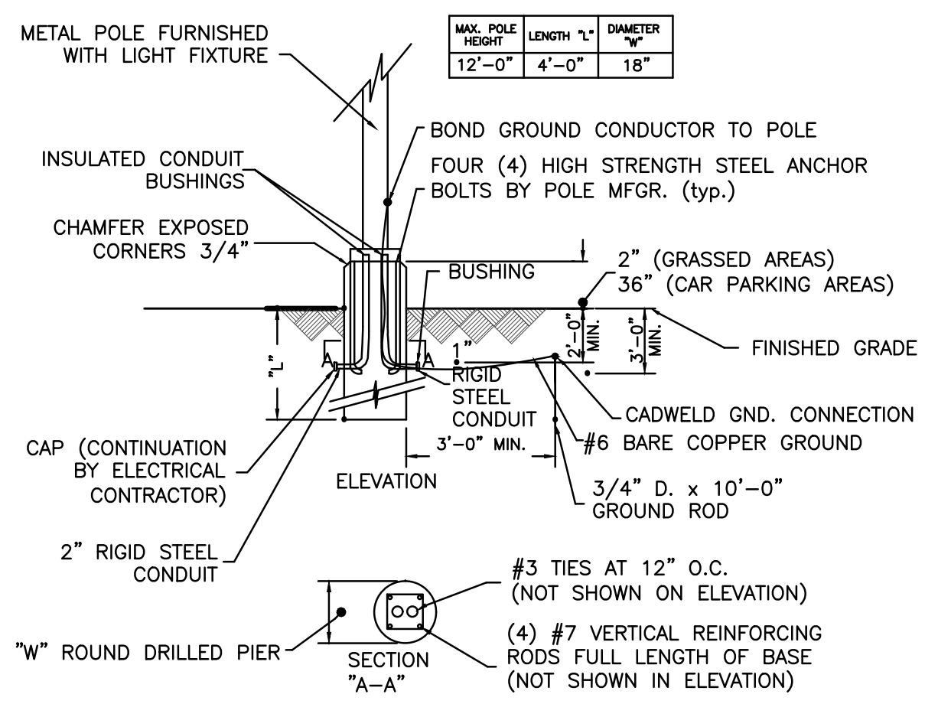
WALL MOUNT DETAIL

N.T.S.

Schedule										
Symbol	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
■	37	Holophane	GVD2 P40 40K AS 6 N SINGLE 12 FT POLE	GranVille II LED, LED Package 40, 81W, 4000K, 120-277v, Type 3 distribution with Lunar optic, No trim	LED	1	GVD2_P40_40K_AS_6_N.ies	3920	0.9	81
■	73	Lithonia Lighting	OLWP 11 SINGLE WALL MOUNT 10 FT WALL MOUNT HEIGHT	OUTDOOR LED WALLPACK WITH 4000K LEDS AND POLYCARBONATE COVER/DIFFUSER	LED	1	OLWP_11.ies	1111	0.85	20.41

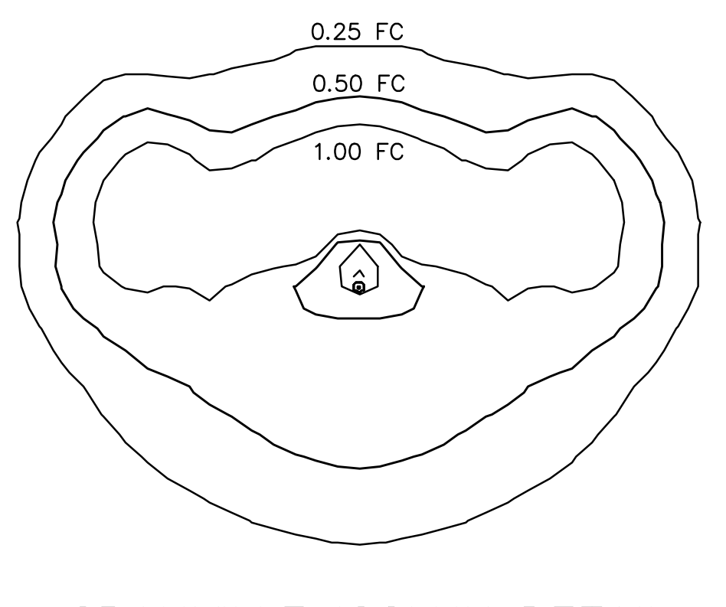
LIGHTING STATISTICS TABLE

N.T.S.


METAL POLE FURNISHED WITH LIGHT FIXTURE
MAX. POLE HEIGHT | LENGTH "L" | DIAMETER "W"
12'–0" | 4'–0" | 18"
BOND GROUND CONDUCTOR TO POLE
INSULATED CONDUIT BUSHINGS
FOUR (4) HIGH STRENGTH STEEL ANCHOR BOLTS BY POLE MFGR. (typ.)
CHAMFER EXPOSED CORNERS 3/4"
BUSHING
2" (GRASSED AREAS)
36" (CAR PARKING AREAS)
FINISHED GRADE
1" RIGID STEEL CONDUIT
2'–0" MIN.
3'–0" MIN.
"L"
CADWELD GND. CONNECTION
#6 BARE COPPER GROUND
CAP (CONTINUATION BY ELECTRICAL CONTRACTOR)
3'–0" MIN.
ELEVATION
3/4" D. x 10'–0" GROUND ROD
2" RIGID STEEL CONDUIT
#3 TIES AT 12" O.C. (NOT SHOWN ON ELEVATION)
"W" ROUND DRILLED PIER
SECTION "A–A"
(4) #7 VERTICAL REINFORCING RODS FULL LENGTH OF BASE (NOT SHOWN IN ELEVATION)

CONCRETE LIGHT POLE FOUNDATION DETAIL

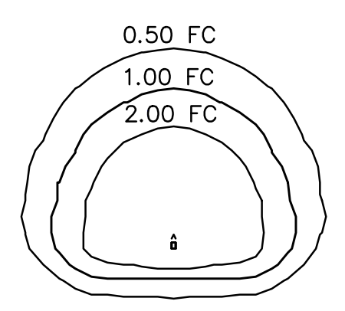
N.T.S.


0.25 FC
0.50 FC
1.00 FC

HOLOPHANE LIGHTING
"GRANVILLE GVD 2 LED"
P40 PERFORMANCE
80W LED
4,000K CCT
TYPE 6 LUNAR OPTIC
0 UPLIGHT
SINGLE POSTOP
12 FOOT POLE HEIGHT

GRANVILLE ISOLUX DETAIL

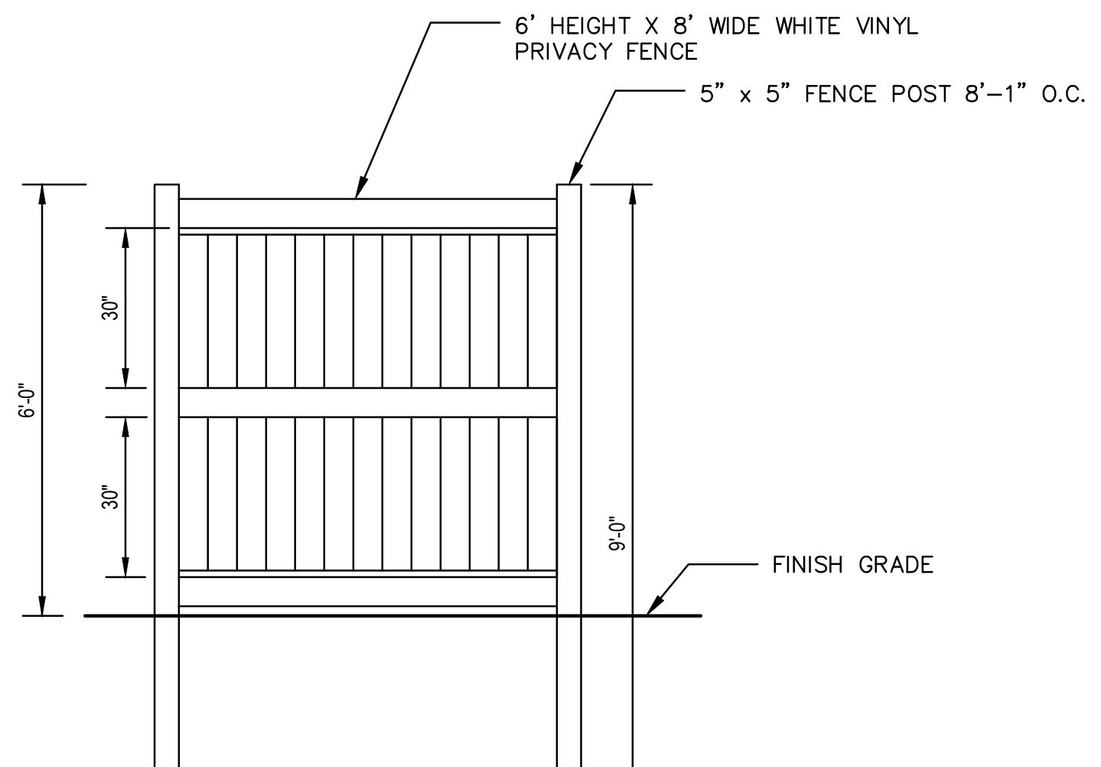
N.T.S.


0.50 FC
1.00 FC
2.00 FC

LITHONIA LIGHTING
"OLWP 11 WALL SCONCE LED"
20W LED
4,000K CCT
SINGLE POSTOP
10 WALL MOUNT HEIGHT

WALL MOUNT ISOLUX DETAIL

N.T.S.


6' HEIGHT X 8' WIDE WHITE VINYL PRIVACY FENCE
5" x 5" FENCE POST 8'–1" O.C.
6'-0"
30"
30"
9'-0"
FINISH GRADE

VINYL PRIVACY FENCE DETAIL

N.T.S.

Z:\CHERRY HILL LAND DEVELOPMENT GROUP\3487 CENTURA PHASE 1 & 2\DRAWINGS\CENTURA\CS0801.DWG

6	03/10/2022	ISSUED FOR FINAL SITE PLAN COMPLIANCE	TJK	RJC
5	07/02/2020	SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK	RJC
4	01/13/20	NO CHANGE THIS SHEET	GMM	RJC
3	07/16/19	UPDATE ISOLUX PATTERN BASED ON LED LUMINAIRE; ADD FENCE DETAIL	TJK	RJC
2	10/2/18	REVISE LIGHTING STATISTICS TABLE AND PLANTING NOTES	GMM	RJC
1	12/12/17	NOT PART OF INITIAL SUBMISSION	TJK	RJC
ISSUE	DATE	REVISION	BY	APPR.

TELEPHONE (609) 704-1155
FAX (609) 704-1166
www.jsaengineering.com

41 SOUTH ROUTE 73, BUILDING 1, SUITE 201
HAMMONTON, NEW JERSEY 08037

CENTURA – PHASE 1 AND 2

TAX MAP SHEET 234, BLOCK 433.20, LOT 15.01 & 16.01, FORMERLY BLOCK 433.20, LOT 1
CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

LANDSCAPING AND LIGHTING DETAILS

DEVEL, LLC.
C/O STEPHEN D. SAMOST, ESQUIRE 479 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200

Richard J Clemson 03/10/2022
DATE

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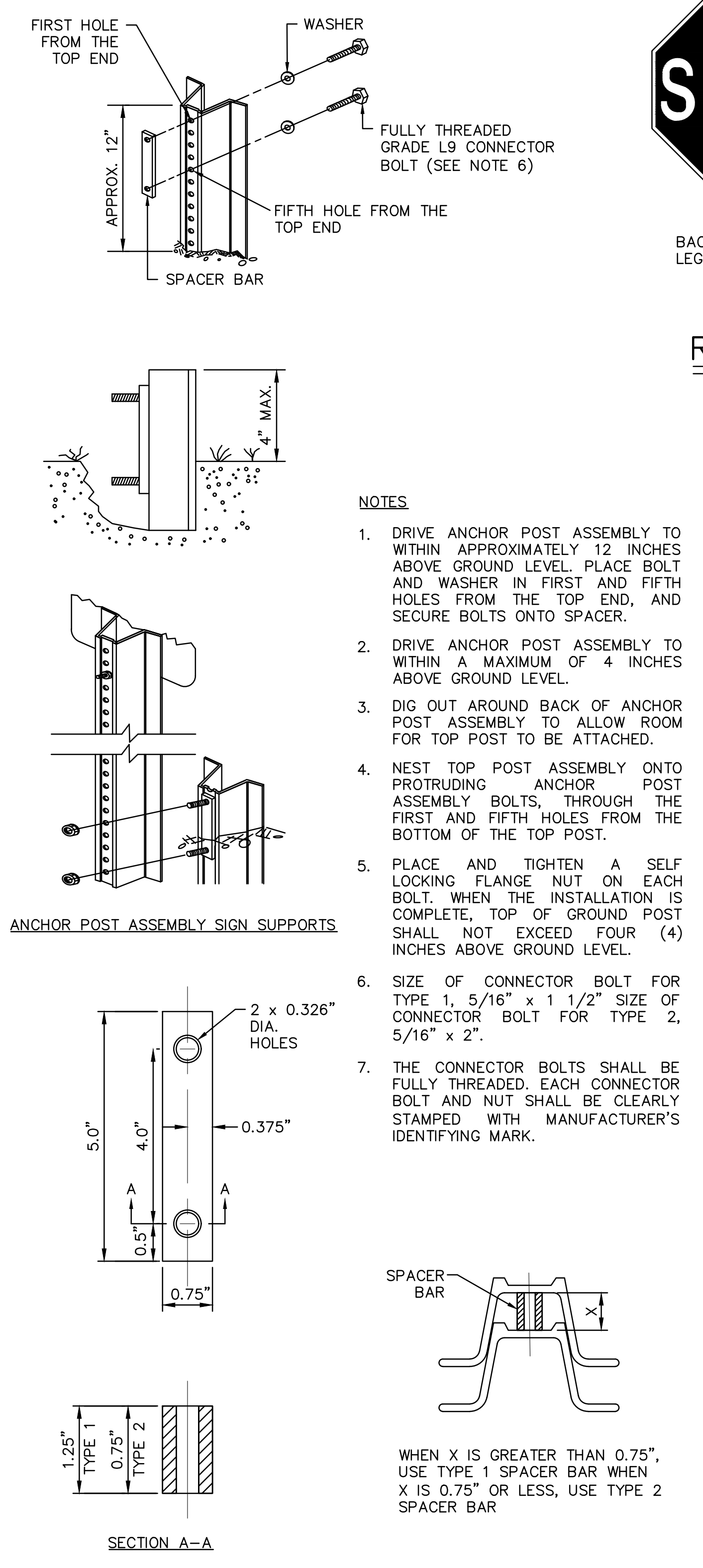
DRAWN BY TJK	APPROVED BY RJC
SCALE AS SHOWN	DATE 12/12/17
JOB NUMBER 3487	SHEET NO. 15 OF 26

CS0801

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28017600

CREATED ON 04/01/2022, LAST MODIFIED ON 04/01/2022


FIRST HOLE FROM THE TOP END
WASHER
FULLY THREADED GRADE L9 CONNECTOR BOLT (SEE NOTE 6)
APPROX. 12"
FIFTH HOLE FROM THE TOP END
SPACER BAR
4" MAX.
2 x 0.326" DIA. HOLES
0.375"
5.0"
4.0"
0.5"
0.75"
A
SPACER BAR
X
1.25" TYPE 1
0.75" TYPE 2

ANCHOR POST ASSEMBLY SIGN SUPPORTS

NOTES

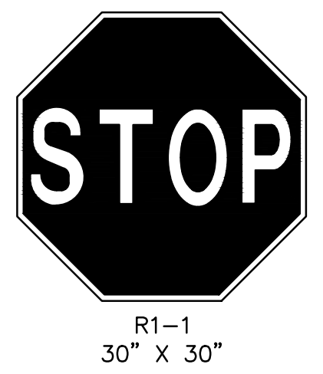
1. DRIVE ANCHOR POST ASSEMBLY TO WITHIN APPROXIMATELY 12 INCHES ABOVE GROUND LEVEL. PLACE BOLT AND WASHER IN FIRST AND FIFTH HOLES FROM THE TOP END, AND SECURE BOLTS ONTO SPACER.
2. DRIVE ANCHOR POST ASSEMBLY TO WITHIN A MAXIMUM OF 4 INCHES ABOVE GROUND LEVEL.
3. DIG OUT AROUND BACK OF ANCHOR POST ASSEMBLY TO ALLOW ROOM FOR TOP POST TO BE ATTACHED.
4. NEST TOP POST ASSEMBLY ONTO PROTRUDING ANCHOR POST ASSEMBLY BOLTS, THROUGH THE FIRST AND FIFTH HOLES FROM THE BOTTOM OF THE TOP POST.
5. PLACE AND TIGHTEN A SELF LOCKING FLANGE NUT ON EACH BOLT. WHEN THE INSTALLATION IS COMPLETE, TOP OF GROUND POST SHALL NOT EXCEED FOUR (4) INCHES ABOVE GROUND LEVEL.
6. SIZE OF CONNECTOR BOLT FOR TYPE 1, 5/16" x 1 1/2" SIZE OF CONNECTOR BOLT FOR TYPE 2, 5/16" x 2".
7. THE CONNECTOR BOLTS SHALL BE FULLY THREADED. EACH CONNECTOR BOLT AND NUT SHALL BE CLEARLY STAMPED WITH MANUFACTURER'S IDENTIFYING MARK.

WHEN X IS GREATER THAN 0.75", USE TYPE 1 SPACER BAR WHEN X IS 0.75" OR LESS, USE TYPE 2 SPACER BAR

SECTION A–A

BREAKAWAY SIGN POST DETAILS

N.T.S.



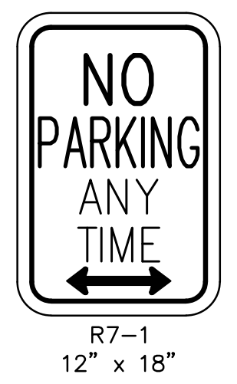
R1–1
30" X 30"

NOTE:
SIGNAGE SHALL CONFORM WITH THE LATEST EDITION OF THE STANDARD SIGNS FHA MUTCD. ALL SIGNS SHALL BE MOUNTED ON BREAKAWAY SIGN POSTS.

BACKGROUND: RED RETROREFLECTIVE
LEGEND: WHITE RETROREFLECTIVE

R1–1 STOP SIGN

N.T.S.

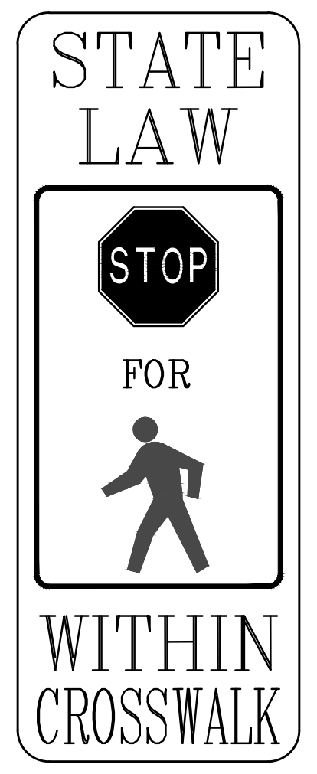

NO
PARKING
ANY
TIME

R7–1
12" x 18"

NOTE:
SIGNAGE SHALL CONFORM WITH THE LATEST EDITION OF STANDARD SIGNS FHA MUTCD. ALL SIGNS SHALL BE MOUNTED ON BREAKAWAY SIGN POSTS.

R7–1 NO PARKING ANYTIME SIGN

N.T.S.

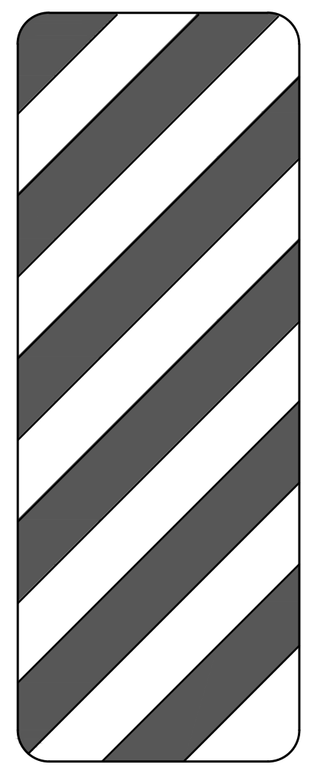

STATE
LAW
STOP
FOR
WITHIN
CROSSWALK

12"x36"

LEGEND: BLACK
BACKGROUND: YELLOW RETROREFLECTIVE
STOP SYMBOL: RED ON WHITE RETROREFLECTIVE
PED. SYMBOL: BLACK ON WHITE RETROREFLECTIVE

R1–6A STOP FOR PEDESTRIANS IN CROSSWALK SIGN

N.T.S.

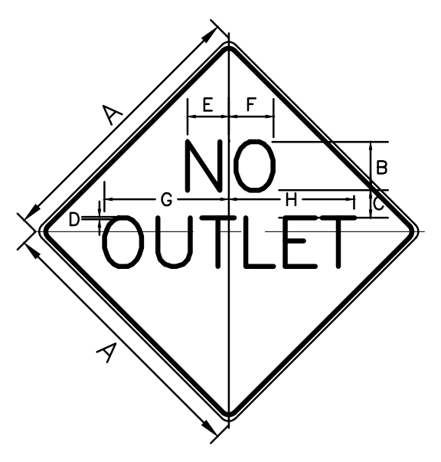


12"x36"

STRIPES: BLACK
BACKGROUND: YELLOW RETROREFLECTIVE

OM–3R REFLECTOR SIGN DETAIL

N.T.S.


NO
OUTLET
A
B
C
D
E
F
G
H

LEGEND AND BORDER BACKGROUND

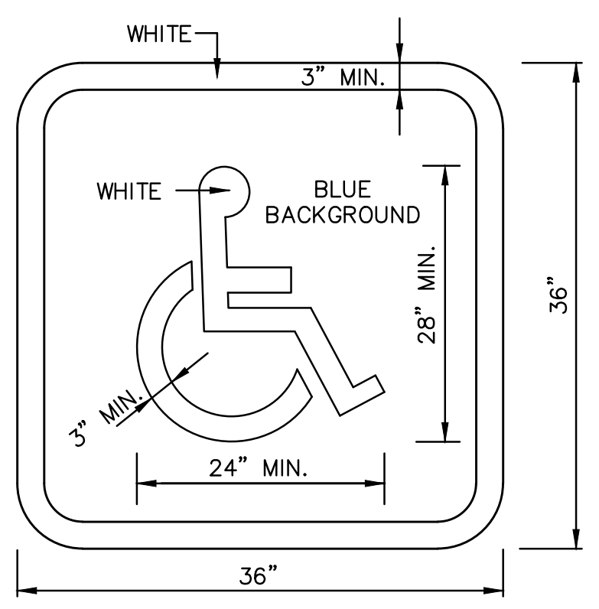
BLACK (NON–REFLECTORIZED) YELLOW (REFLECTORIZED)

SIGN TO BE 3M DG3 REFLECTIVE SHEETING

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
30 x 30	30	6	4	$\frac{15}{16}$	5	$5\frac{3}{8}$	$13\frac{15}{16}$	$14\frac{1}{2}$

W14–2 NO OUTLET SIGN DETAIL

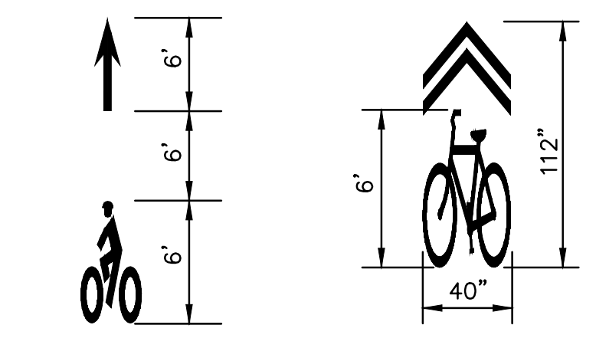
N.T.S.


WHITE
3" MIN.
WHITE
BLUE BACKGROUND
28" MIN.
36"
3" MIN.
24" MIN.
36"

LONG LIFE EPOXY OR THERMOPLASTIC HANDICAPPED SYMBOL AND STRIPING. EMBLEM SHALL CONFORM TO THE LATEST MUTCD STANDARDS FOR INTERNATIONAL SYMBOL OF ACCESSABILITY PARKING SPACE MARKINGS

BARRIER FREE PARKING SPACE EMBLEM DETAIL

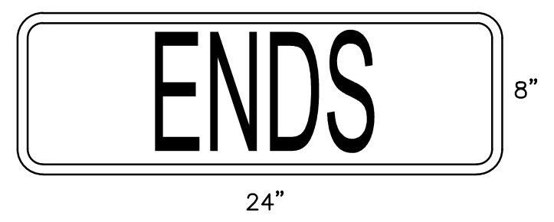
N.T.S.



STRIPING TO BE LONG LIFE EPOXY OR THERMOPLASTIC AS DIRECTED BY CHERRY HILL TOWNSHIP

BIKE LANE STRIPING DETAIL

N.T.S.



BACKGROUND: WHITE RETROREFLECTIVE
LEGEND: BLACK

R3–17BP ENDS SIGN

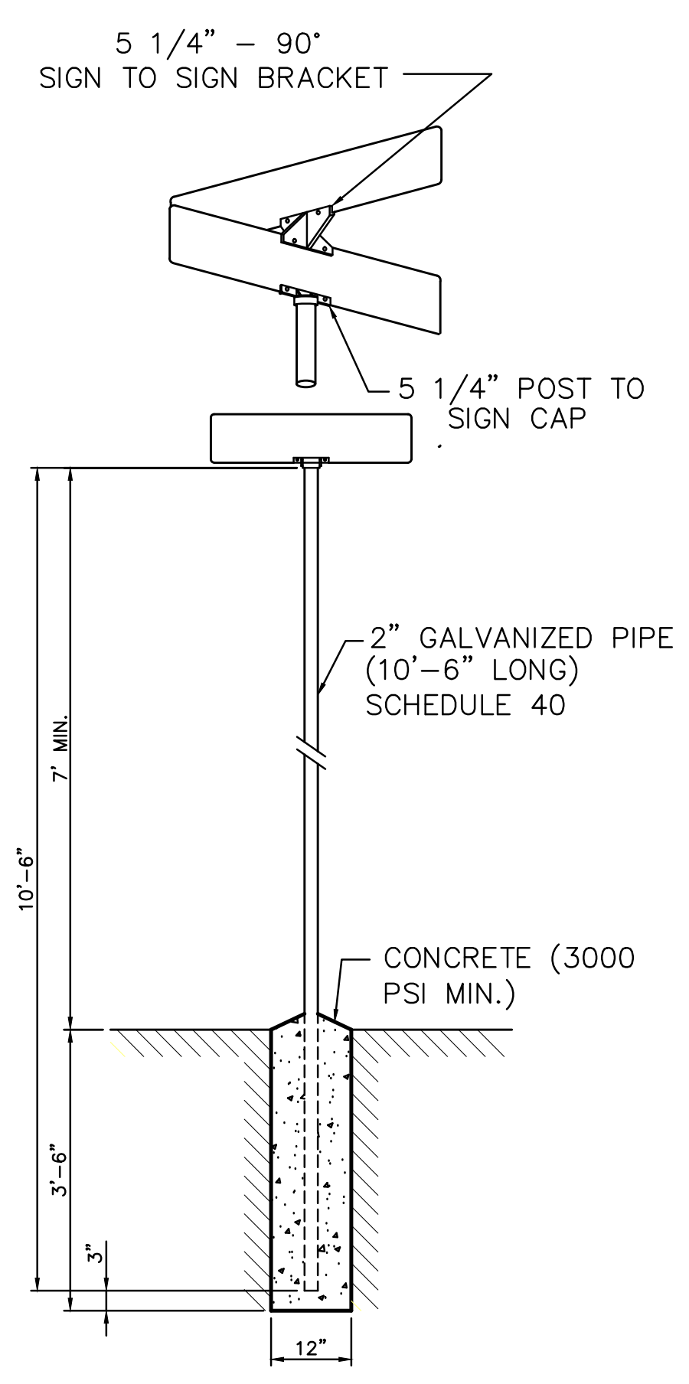
N.T.S.

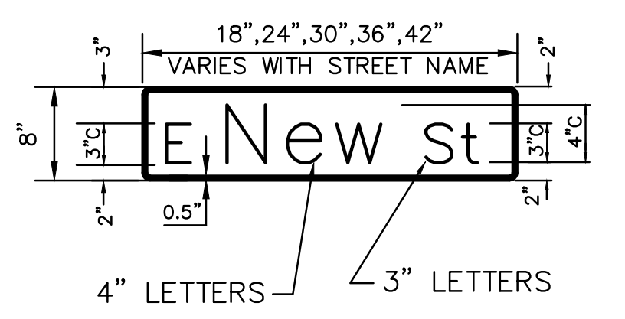
PAVING AND ROADWAY NOTES

1. ALL INTERNAL PAVING DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH STANDARDS SET FORTH BY CHERRY HILL TOWNSHIP AND NJDOT.
2. ALL BARRIER FREE DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH CHERRY HILL TOWNSHIP AND THE LATEST REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT.
3. ALL CONCRETE SHALL MEET RSIS STANDARDS OF 4,500 PSI AT 28 DAYS.

SIGNAGE AND STRIPING NOTES

1. ALL SIGNS SHALL BE IN ACCORDANCE WITH STANDARDS SET FORTH BY CHERRY HILL TOWNSHIP AND MUTCD AND THE LATEST REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT.
2. ALL SIGNS SHALL BE PROVIDED WITH BREAKAWAY POST SYSTEMS.
3. ALL INTERNAL STRIPING SHALL BE LONG LIFE EPOXY OR THERMOPLASTIC AS DIRECTED BY CHERRY HILL TOWNSHIP.
4. ALL SIGNS SHOULD MEET THE CURRENT RETRO–REFLECTIVITY STANDARDS OF THE MUTCD. THE DATE OF MANUFACTURE SHALL BE PERMANENTLY AFFIXED TO THE BACK OF THE SIGN.
5. MAINTENANCE AND UPKEEP OF ALL TRAFFIC SIGNAGE AND STRIPING SHALL BE THE RESPONSIBILITY OF THE APPLICANT AND/OR RELEVANT HOMEOWNERS ASSOCIATION.


5 1/4" – 90° SIGN TO SIGN BRACKET
5 1/4" POST TO SIGN CAP
2" GALVANIZED PIPE (10'–6" LONG) SCHEDULE 40
CONCRETE (3000 PSI MIN.)
7' MIN.
10'–6"
3'–6"
3"
12"

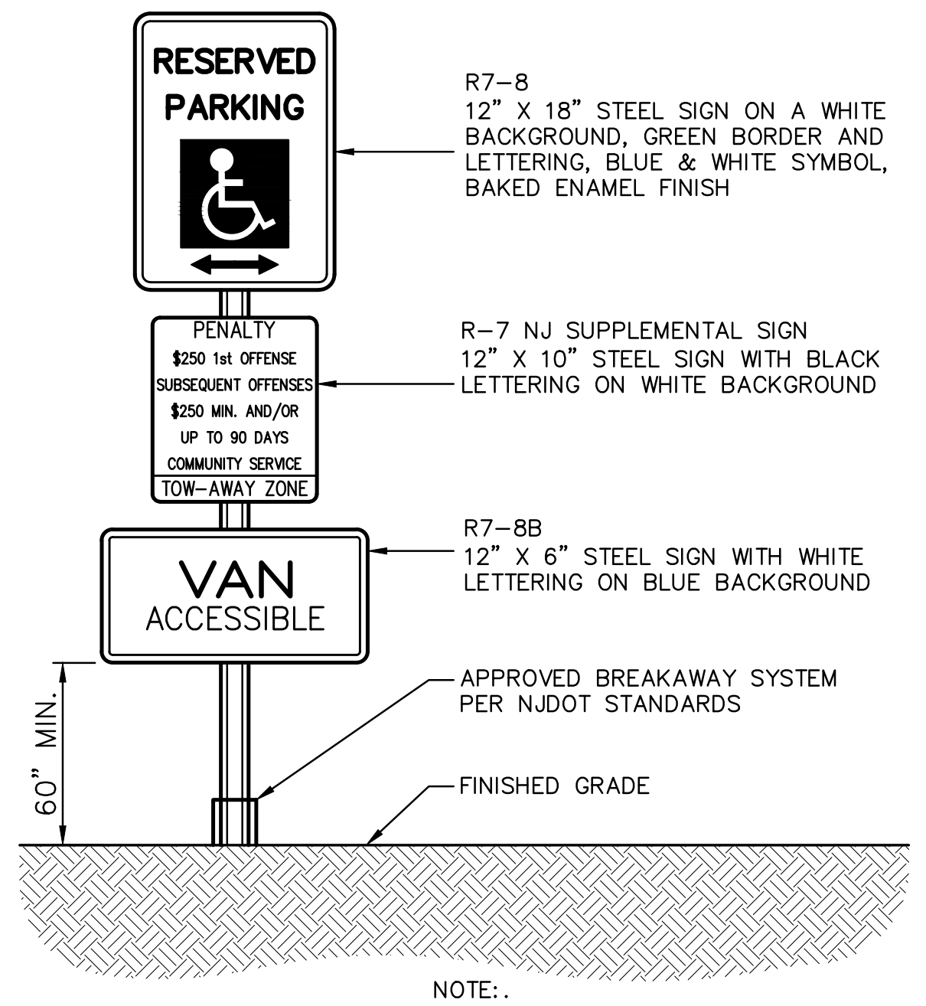

18",24",30",36",42"
VARIES WITH STREET NAME
E New St
8"
3"C
4"C
2"
0.5"
4" LETTERS
3" LETTERS

D–3 SIGN FACE DETAIL

1. STANDARD PROCEDURE IS TO CUT IN HALF A 21 FOOT STANDARD GALVANIZED PIPE AND MOUNT THE SIGN ON THE UNTHREADED END BY THE 5 1/4" CAP USING FOUR 5/16" SET SCREWS.
2. SIGN BLADES TO BE REFLECTORIZED ALUMINUM.
3. SIGN FACE TO BE GREEN BACKGROUND WITH WHITE LETTERING.
4. SPECIFICATIONS FOR PAINT SURFACE LETTERING AND HARDWARE AS PER CHERRY HILL TOWNSHIP REQUIREMENTS.

STREET SIGN DETAIL

N.T.S.


RESERVED
PARKING
PENALTY
$250 1st OFFENSE
SUBSEQUENT OFFENSES
$250 MIN. AND/OR
UP TO 90 DAYS
COMMUNITY SERVICE
TOW–AWAY ZONE
VAN
ACCESSIBLE
60" MIN.

R7–8
12" X 18" STEEL SIGN ON A WHITE BACKGROUND, GREEN BORDER AND LETTERING, BLUE & WHITE SYMBOL, BAKED ENAMEL FINISH

R–7 NJ SUPPLEMENTAL SIGN
12" X 10" STEEL SIGN WITH BLACK LETTERING ON WHITE BACKGROUND

R7–8B
12" X 6" STEEL SIGN WITH WHITE LETTERING ON BLUE BACKGROUND

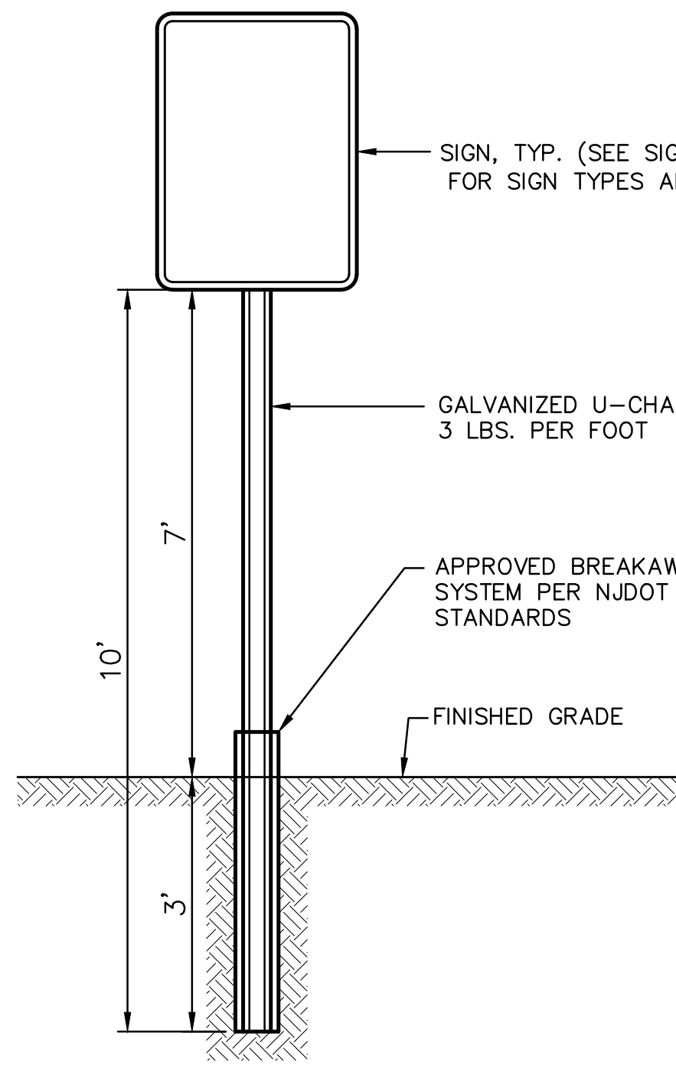
APPROVED BREAKAWAY SYSTEM PER NJDOT STANDARDS

FINISHED GRADE

NOTE:.
SIGNAGE TO CONFORM WITH THE LATEST EDITION OF STANDARD SIGNS FHA MUTCD. ALL SIGNS SHALL BE MOUNTED ON BREAKAWAY SIGN POSTS & HAVE RETROFLECTIVE SHEETING PER SUBSECTION 911 OF THE LATEST NJDOT SPECIFICATION MANUAL.

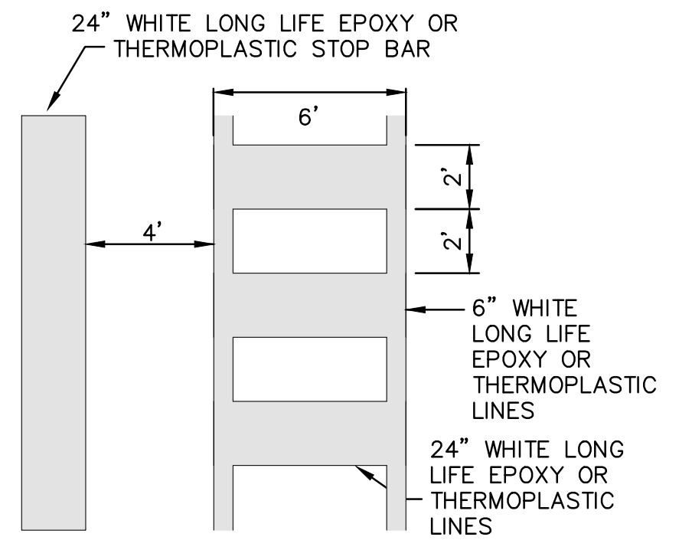
BARRIER FREE SIGN

N.T.S.


SIGN, TYP. (SEE SIGN DETAILS FOR SIGN TYPES AND SIZES)
GALVANIZED U–CHANNEL, 3 LBS. PER FOOT
APPROVED BREAKAWAY SYSTEM PER NJDOT STANDARDS
FINISHED GRADE
7'
10'
3'

SIGN POST DETAIL

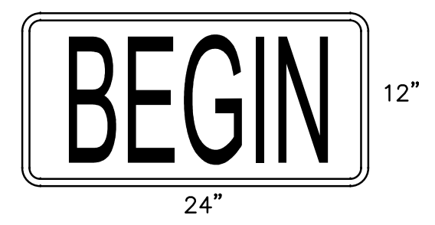
N.T.S.


24" WHITE LONG LIFE EPOXY OR THERMOPLASTIC STOP BAR
6'
4'
2'
2'
6" WHITE LONG LIFE EPOXY OR THERMOPLASTIC LINES
24" WHITE LONG LIFE EPOXY OR THERMOPLASTIC LINES

MAINTENANCE AND UPKEEP OF THE CROSSWALKS & STOP BAR SHALL BE THE RESPONSIBILITY OF THE APPLICANT AND/OR RELEVANT HOMEOWNERS ASSOCIATION.

CROSSWALK DETAIL

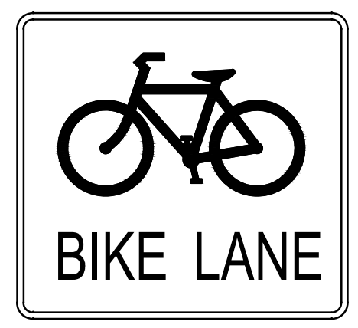
N.T.S.



BACKGROUND: WHITE RETROREFLECTIVE
LEGEND: BLACK

R3–9CP BEGIN SIGN

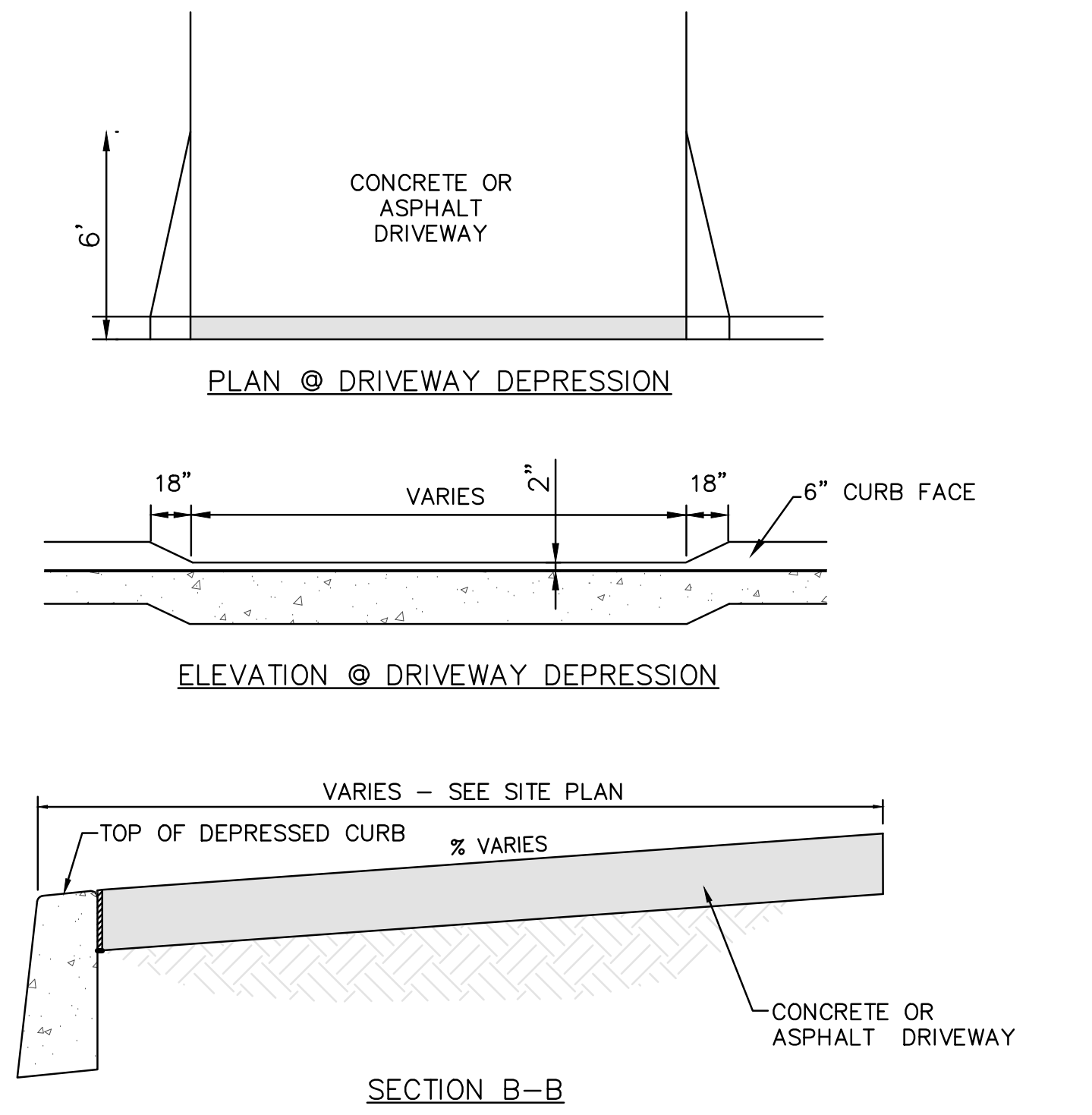
N.T.S.


BIKE LANE
24"
30"

BACKGROUND: WHITE RETROREFLECTIVE
LEGEND: BLACK

R3–17 BIKE LANE SIGN

N.T.S.


6'
CONCRETE OR ASPHALT DRIVEWAY
18"
VARIES
2"
18"
6" CURB FACE
VARIES – SEE SITE PLAN
TOP OF DEPRESSED CURB
% VARIES
CONCRETE OR ASPHALT DRIVEWAY

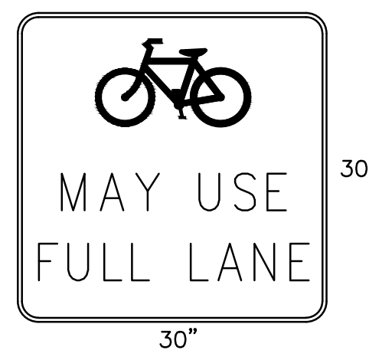
PLAN @ DRIVEWAY DEPRESSION

ELEVATION @ DRIVEWAY DEPRESSION

SECTION B–B

DEPRESSED DRIVEWAY CURB DETAIL

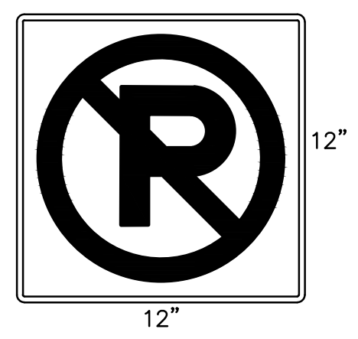
N.T.S.


MAY USE
FULL LANE
30"
30"

BACKGROUND: WHITE RETROREFLECTIVE
LEGEND: BLACK

R4–11 BIKE LANE SIGN

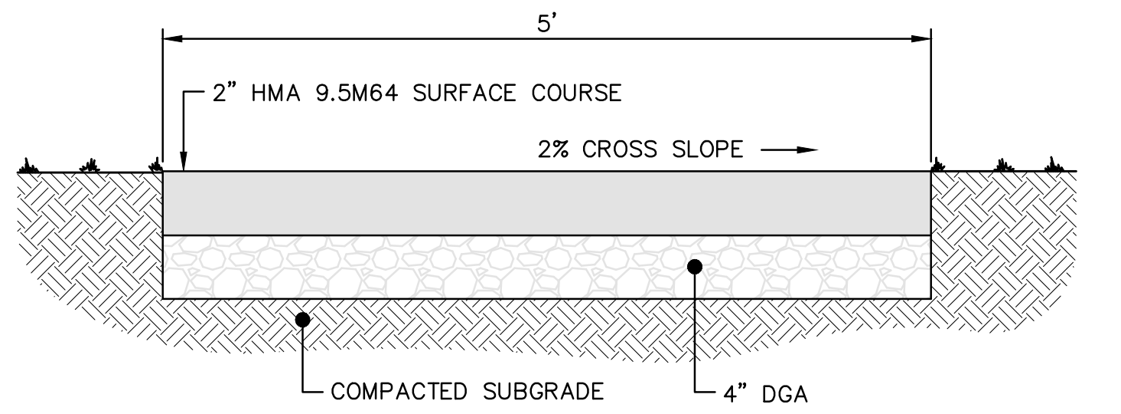
N.T.S.



BACKGROUND: WHITE RETROREFLECTIVE
LETTER BORDER: BLACK
CIRCLE & DIAGONAL: RED RETROEFLECTIVE

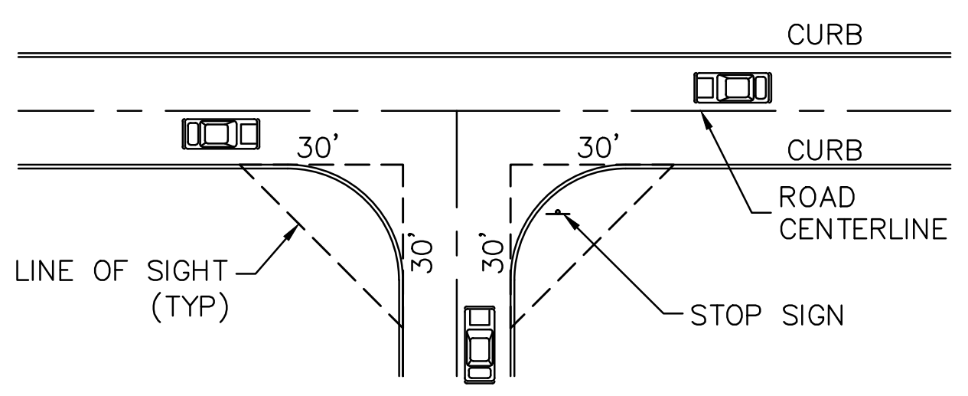
R8–3 NO PARKING SIGN

N.T.S.


5'
2" HMA 9.5M64 SURFACE COURSE
2% CROSS SLOPE
COMPACTED SUBGRADE
4" DGA

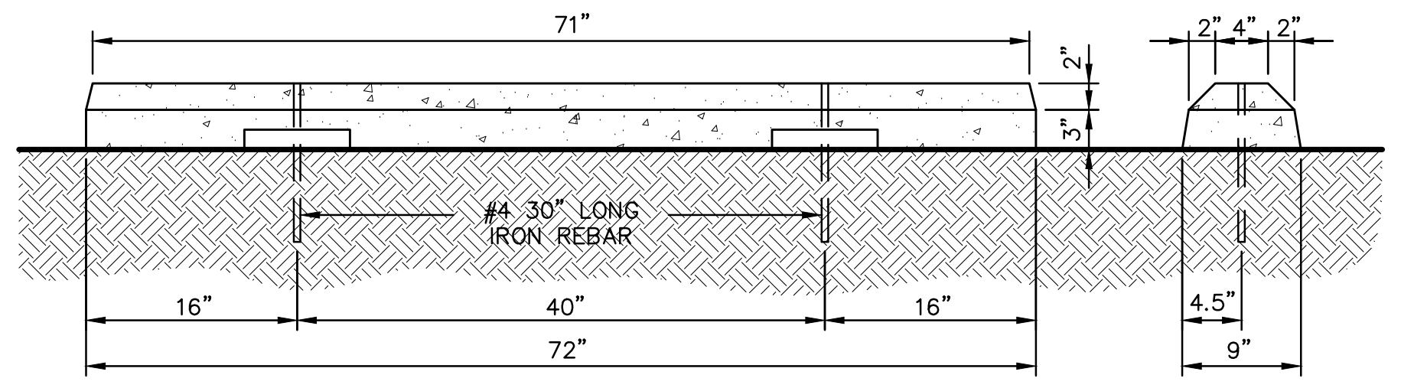
ASPHALT WALK DETAIL

N.T.S.


CURB
30'
30'
CURB
ROAD CENTERLINE
LINE OF SIGHT (TYP)
30'
30'
STOP SIGN

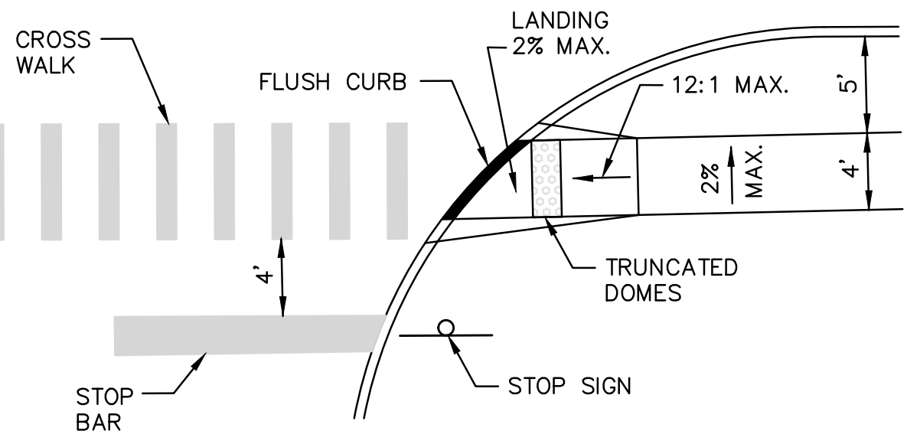
SIGHT DISTANCE FOR STOP CONTROL INTERSECTIONS

N.T.S.


71"
2"
3"
2" 4" 2"
#4 30" LONG IRON REBAR
16"
40"
16"
72"
4.5"
9"

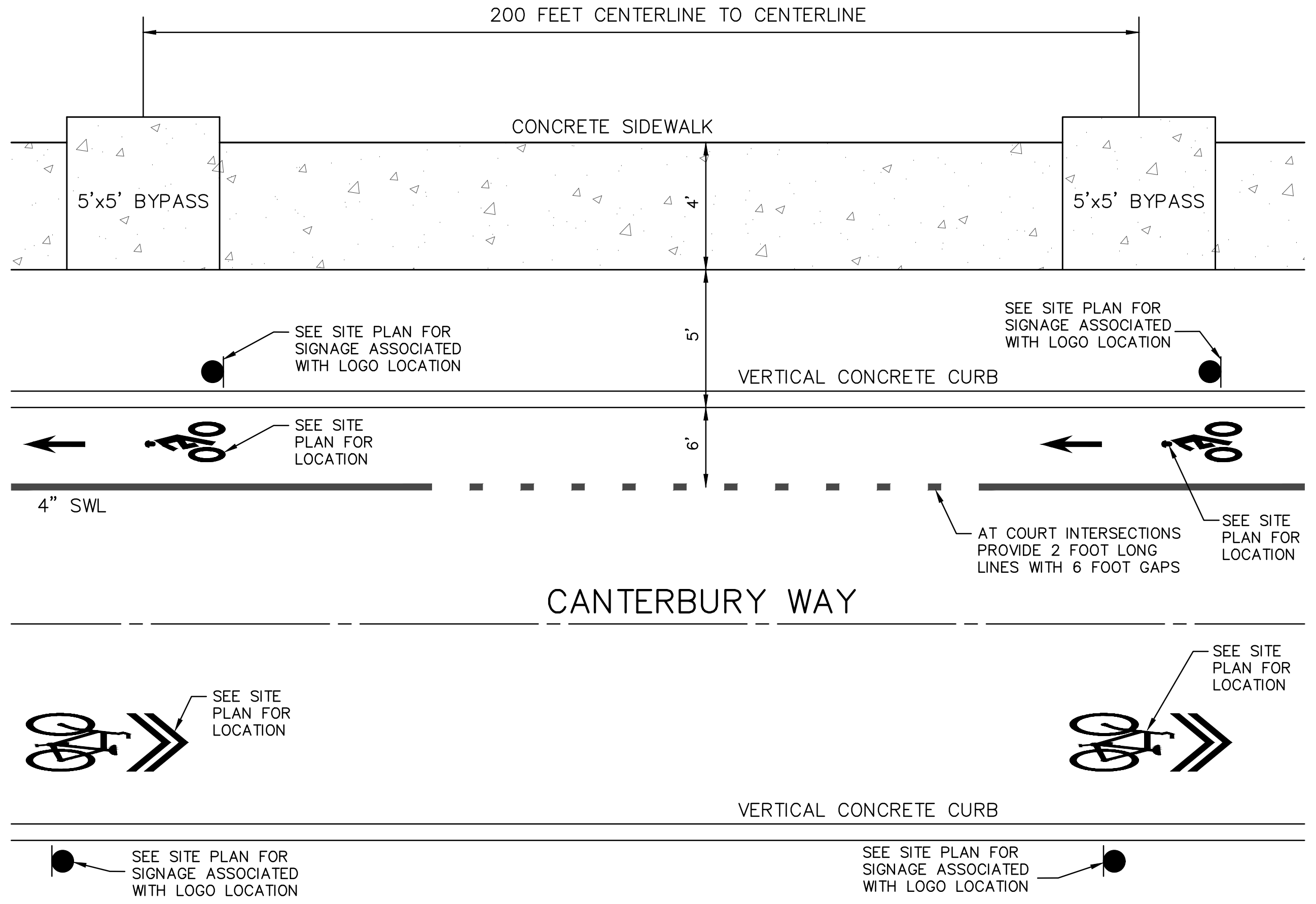
PRECAST CONCRETE WHEEL STOP DETAIL

N.T.S.


CROSS WALK
FLUSH CURB
LANDING 2% MAX.
12:1 MAX.
5'
4'
2% MAX.
6'
4'
TRUNCATED DOMES
STOP BAR
STOP SIGN

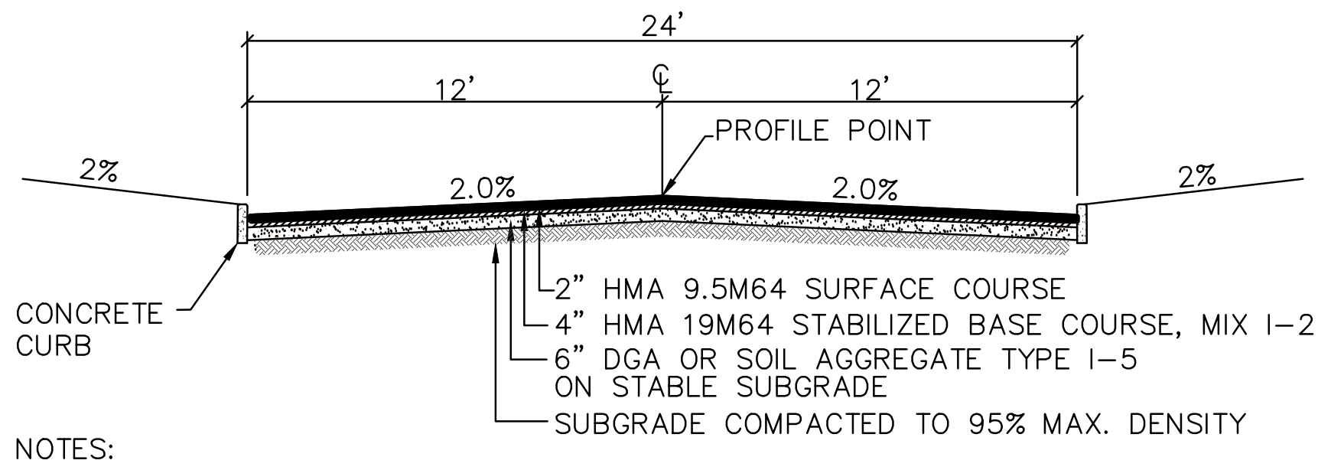
BARRIER FREE RAMP DETAIL

N.T.S.


200 FEET CENTERLINE TO CENTERLINE
CONCRETE SIDEWALK
5'x5' BYPASS
5'x5' BYPASS
4'
5'
6'
SEE SITE PLAN FOR SIGNAGE ASSOCIATED WITH LOGO LOCATION
SEE SITE PLAN FOR SIGNAGE ASSOCIATED WITH LOGO LOCATION
VERTICAL CONCRETE CURB
SEE SITE PLAN FOR LOCATION
SEE SITE PLAN FOR LOCATION
4" SWL
AT COURT INTERSECTIONS PROVIDE 2 FOOT LONG LINES WITH 6 FOOT GAPS
CANTERBURY WAY
SEE SITE PLAN FOR LOCATION
SEE SITE PLAN FOR LOCATION
VERTICAL CONCRETE CURB
SEE SITE PLAN FOR SIGNAGE ASSOCIATED WITH LOGO LOCATION
SEE SITE PLAN FOR SIGNAGE ASSOCIATED WITH LOGO LOCATION

CURB, SIDEWALK, BARRIER FREE BYPASS AND BIKE LANE STRIPING ALONG CANTERBURY WAY DETAIL

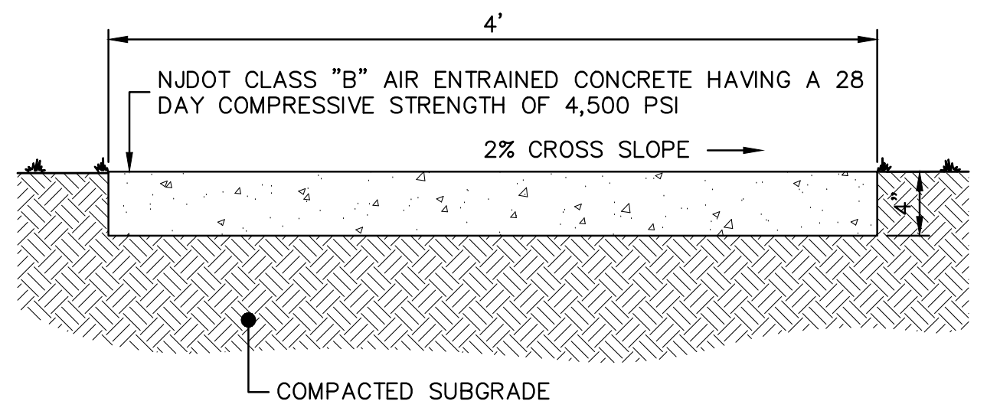
N.T.S.


24'
12'
12'
PROFILE POINT
2%
2.0%
2.0%
2%
CONCRETE CURB
2" HMA 9.5M64 SURFACE COURSE
4" HMA 19M64 STABILIZED BASE COURSE, MIX I–2
6" DGA OR SOIL AGGREGATE TYPE I–5 ON STABLE SUBGRADE
SUBGRADE COMPACTED TO 95% MAX. DENSITY

NOTES:
1. SHOULD THE APPLICANT WISH TO REDUCE THIS PAVEMENT SECTION, THE FOLLOWING MUST BE FORWARDED TO THE TOWNSHIP ENGINEER FOR APPROVAL:
   A. INFORMATION REGARDING SUBGRADE, DESIGN CALCULATIONS AND LAB RESULTS OF C.B.R. TESTS.
2. PAVING SECTION BASED ON A C.B.R. BETWEEN 2 AND 4 AND IS BASED UPON POOR SUBGRADE AS DEFINED BY THE RSIS.
3. PRIME COAT TO BE APPLIED AT A RATE OF 0.25 GAL./S.Y.
4. TACK COAT TO BE APPLIED AT A RATE OF 0.10 GAL./S.Y.

INTERNAL COURT CROSS SECTION DETAIL

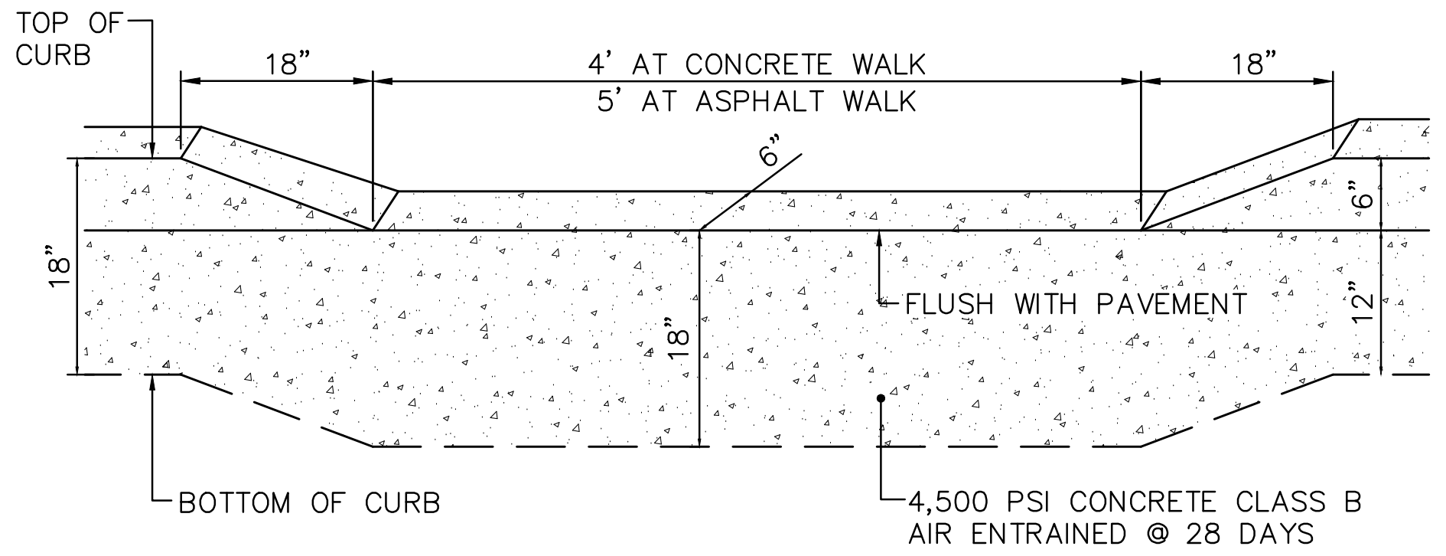
N.T.S.


4'
NJDOT CLASS "B" AIR ENTRAINED CONCRETE HAVING A 28 DAY COMPRESSIVE STRENGTH OF 4,500 PSI
2% CROSS SLOPE
4"
COMPACTED SUBGRADE

NOTES:
1. EXPANSION JOINTS SHALL BE 1/2" WIDE AND PROVIDED AT INTERVALS NO GREATER THAN 20 FEET AND SHALL BE FILLED WITH 1/2" THICK CELLULAR COMPRESSION MATERIAL TO WITHIN 1/4" OF TOP OF WALK.
2. SURFACE GROVES SHALL BE CUT AT LEAST 1/4" DEEP AT RIGHT ANGLES TO THE LINE OF THE SIDEWALK AND AT INTERVALS EQUAL TO SIDEWALK WIDTH.
3. SURFACE EDGES SHALL BE ROUNDED TO 1/4" RADIUS.
4. FINISH SHALL BE WOOD FLOAT, FOLLOWED BY BROOMING TO A NEAT, WORKMANLIKE SURFACE.

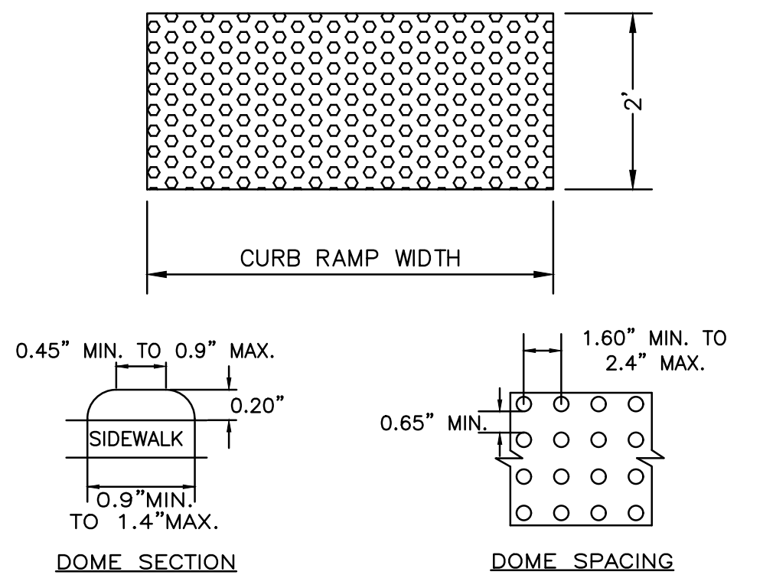
CONCRETE SIDEWALK DETAIL

N.T.S.


TOP OF CURB
18"
4' AT CONCRETE WALK
5' AT ASPHALT WALK
18"
6"
6"
18"
18"
12"
FLUSH WITH PAVEMENT
BOTTOM OF CURB
4,500 PSI CONCRETE CLASS B AIR ENTRAINED @ 28 DAYS

FLUSH CURB DETAIL @ BARRIER FREE RAMP

N.T.S.


2'
CURB RAMP WIDTH
0.45" MIN. TO 0.9" MAX.
0.20"
SIDEWALK
0.9"MIN. TO 1.4"MAX.
1.60" MIN. TO 2.4" MAX.
0.65" MIN.

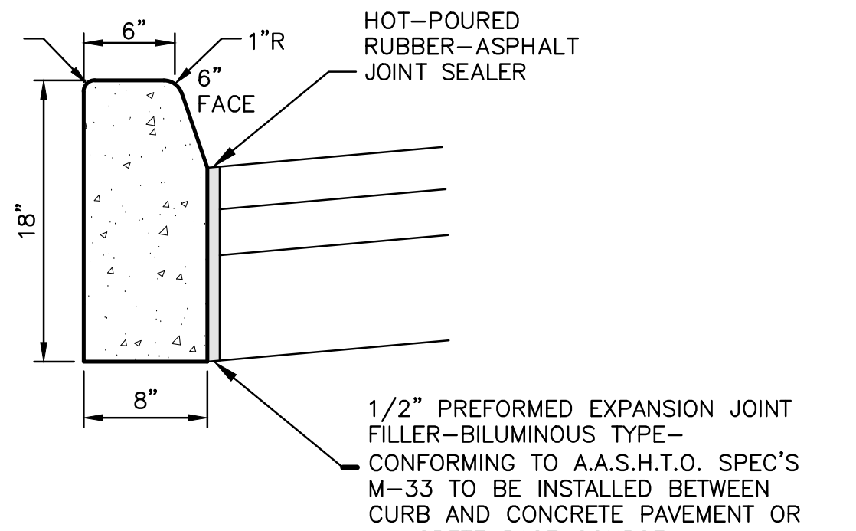
DOME SECTION

DOME SPACING

TRUNCATED DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL.

TRUNCATED DOMES DETAIL

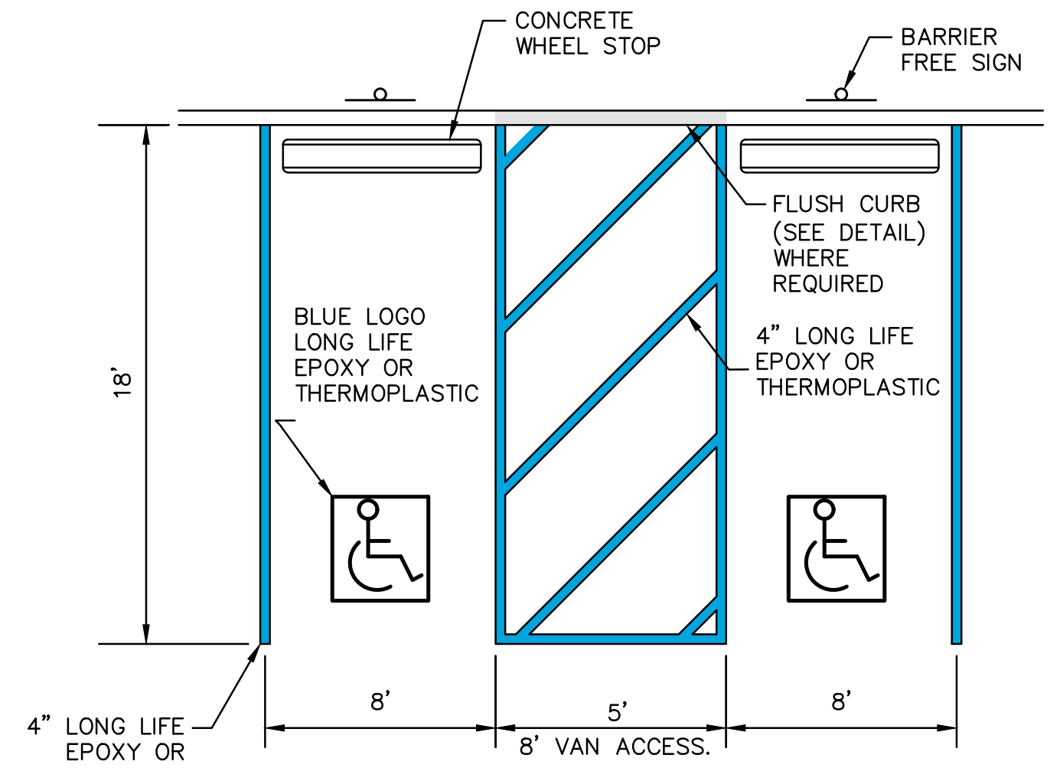
N.T.S.


1/2"R
6"
1"R
6" FACE
HOT–POURED RUBBER–ASPHALT JOINT SEALER
18"
8"
1/2" PREFORMED EXPANSION JOINT FILLER–BILUMINOUS TYPE– CONFORMING TO A.A.S.H.T.O. SPEC'S M–33 TO BE INSTALLED BETWEEN CURB AND CONCRETE PAVEMENT OR CONCRETE BASE COURSE.

1. TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN CURB 20'–0" APART & SHALL BE FILLED WITH PREFORMED BITUMINOUS– IMPREGNATED FIBER JOINT FILLER, COMPLYING WITH THE REQUIREMENTS OF A.A.S.H.O. SPEC M–213, RECESSED 1/4" IN FROM THE FRONT FACE AND TOP OF CURB.
2. HALF–DEPTH CONTRACTION JOINTS SHALL BE PROVIDED EVERY 10 FEET.
3. WIDTH OF JOINT FILLER STRIP EQUAL TO THE THICKNESS OF THE PAVEMENT LESS 1/2".
4. CONCRETE CURB TO BE CLASS B CONCRETE, 4.500 PSI @ 28 DAYS, AIR ENTRAINED.

CONCRETE CURB DETAIL

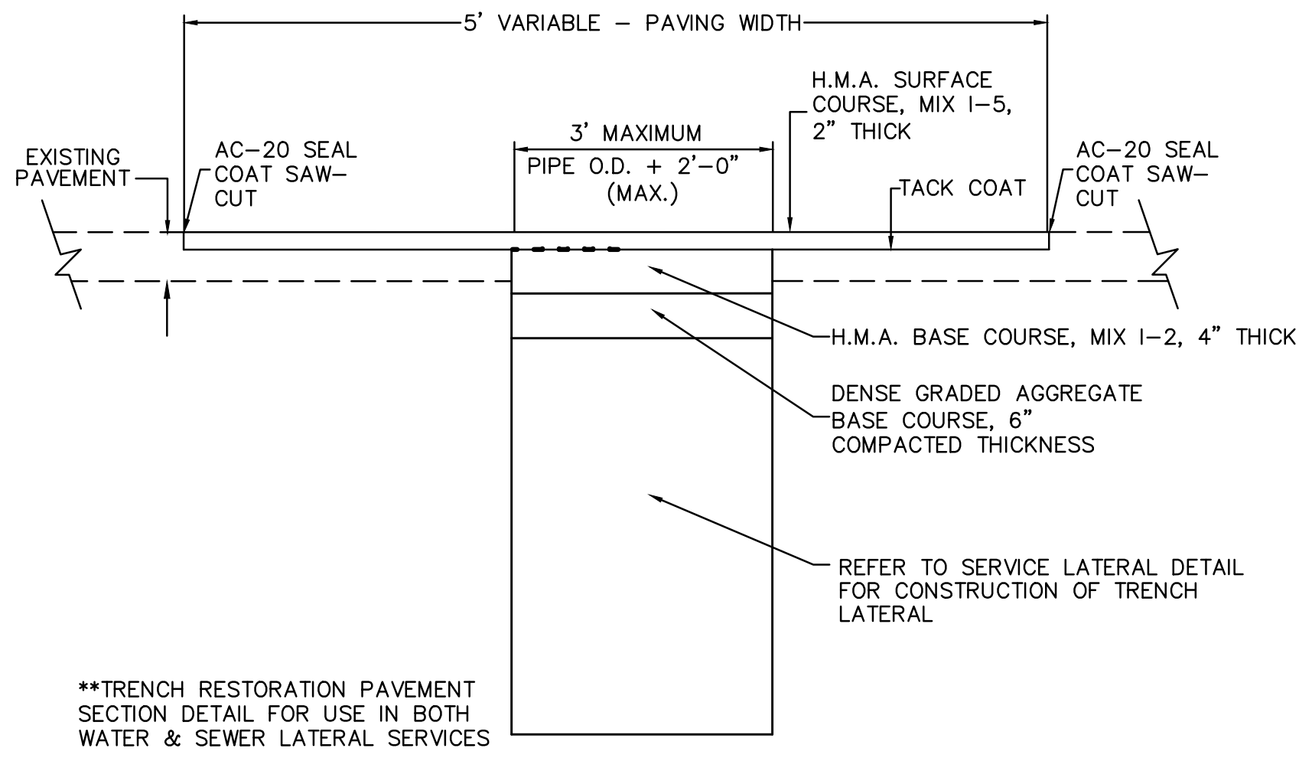
N.T.S.


CONCRETE WHEEL STOP
BARRIER FREE SIGN
FLUSH CURB (SEE DETAIL) WHERE REQUIRED
BLUE LOGO LONG LIFE EPOXY OR THERMOPLASTIC
4" LONG LIFE EPOXY OR THERMOPLASTIC
18'
4" LONG LIFE EPOXY OR THERMOPLASTIC
8'
5'
8' VAN ACCESS.
8'

ALL BARRIER FREE PARKING DESIGN AND CONSTRUCTION SHALL CONFORM TO THE LATEST A.D.A. STANDARDS.

TYPICAL BARRIER FREE PARKING DETAIL

N.T.S.

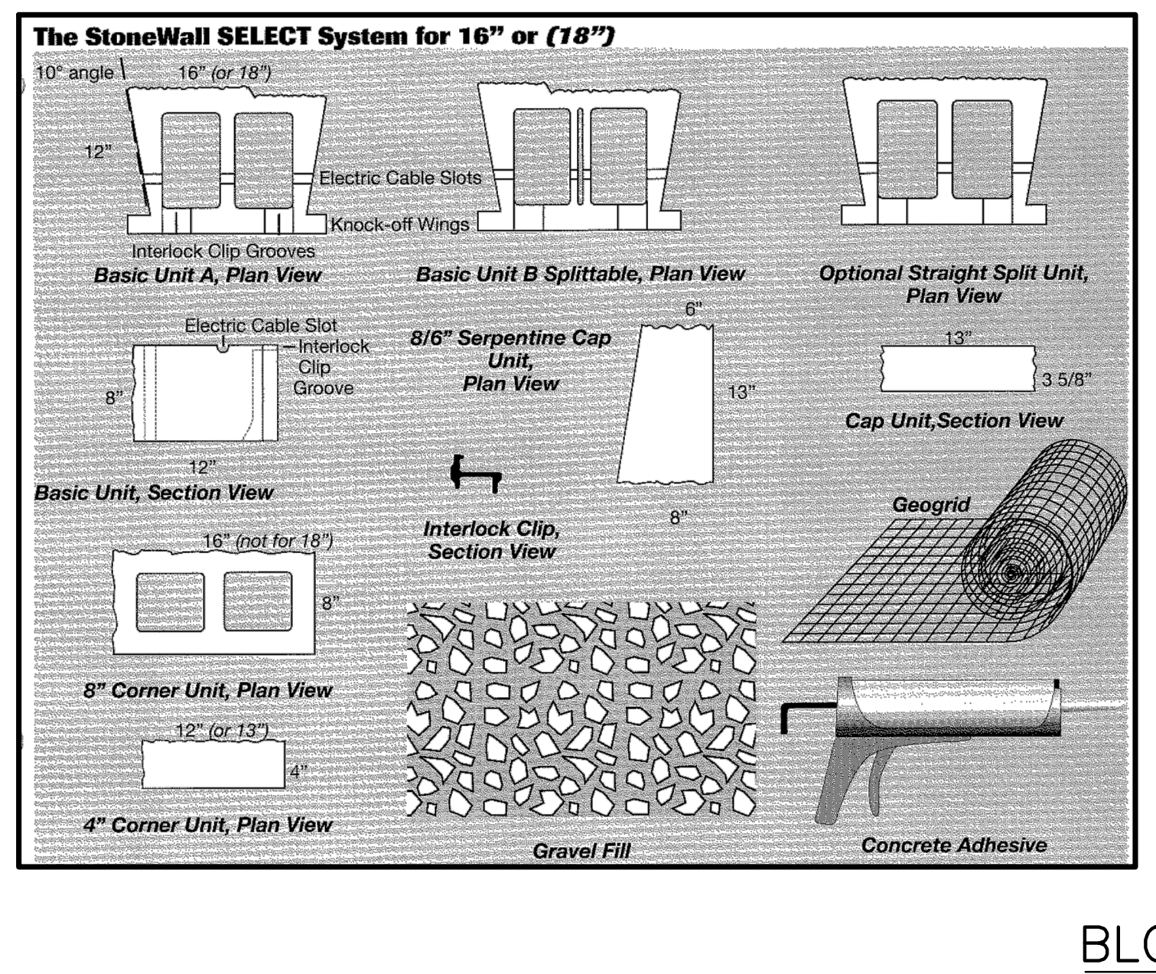

5' VARIABLE – PAVING WIDTH
EXISTING PAVEMENT
AC–20 SEAL COAT SAW– CUT
3' MAXIMUM
PIPE O.D. + 2'–0" (MAX.)
H.M.A. SURFACE COURSE, MIX I–5, 2" THICK
TACK COAT
AC–20 SEAL COAT SAW– CUT
H.M.A. BASE COURSE, MIX I–2, 4" THICK
DENSE GRADED AGGREGATE BASE COURSE, 6" COMPACTED THICKNESS
REFER TO SERVICE LATERAL DETAIL FOR CONSTRUCTION OF TRENCH LATERAL

**TRENCH RESTORATION PAVEMENT SECTION DETAIL FOR USE IN BOTH WATER & SEWER LATERAL SERVICES

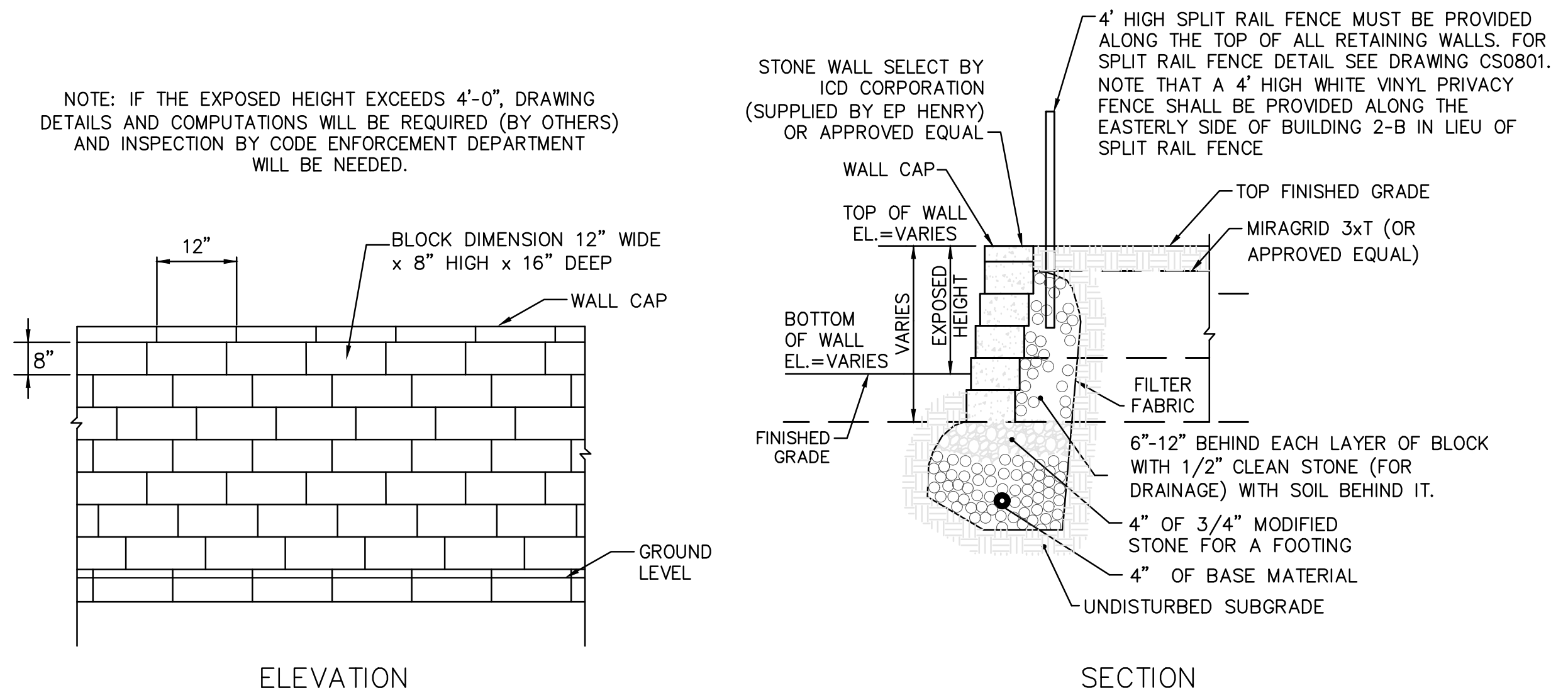
ROADWAY TRENCH RESTORATION PAVEMENT DETAIL

N.T.S.

The StoneWall SELECT System for 16" or *(18")*


10° angle
16" (or 18")
12"
Electric Cable Slots
Knock-off Wings
Interlock Clip Grooves
Basic Unit A, Plan View
Basic Unit B Splittable, Plan View
Optional Straight Split Unit, Plan View
Electric Cable Slot
Interlock Clip Groove
8"
12"
Basic Unit, Section View
8/6" Serpentine Cap Unit, Plan View
6"
13"
8"
13"
3 5/8"
Cap Unit,Section View
Interlock Clip, Section View
Geogrid
16" (not for 18")
8"
8" Corner Unit, Plan View
12" (or 13")
4"
4" Corner Unit, Plan View
Gravel Fill
Concrete Adhesive

NOTE: IF THE EXPOSED HEIGHT EXCEEDS 4'-0", DRAWING DETAILS AND COMPUTATIONS WILL BE REQUIRED (BY OTHERS) AND INSPECTION BY CODE ENFORCEMENT DEPARTMENT WILL BE NEEDED.


12"
BLOCK DIMENSION 12" WIDE x 8" HIGH x 16" DEEP
WALL CAP
8"
GROUND LEVEL
STONE WALL SELECT BY ICD CORPORATION (SUPPLIED BY EP HENRY) OR APPROVED EQUAL
4' HIGH SPLIT RAIL FENCE MUST BE PROVIDED ALONG THE TOP OF ALL RETAINING WALLS. FOR SPLIT RAIL FENCE DETAIL SEE DRAWING CS0801. NOTE THAT A 4' HIGH WHITE VINYL PRIVACY FENCE SHALL BE PROVIDED ALONG THE EASTERLY SIDE OF BUILDING 2-B IN LIEU OF SPLIT RAIL FENCE
WALL CAP
TOP OF WALL EL.=VARIES
TOP FINISHED GRADE
MIRAGRID 3xT (OR APPROVED EQUAL)
BOTTOM OF WALL EL.=VARIES
VARIES
EXPOSED HEIGHT
FILTER FABRIC
FINISHED GRADE
6"-12" BEHIND EACH LAYER OF BLOCK WITH 1/2" CLEAN STONE (FOR DRAINAGE) WITH SOIL BEHIND IT.
4" OF 3/4" MODIFIED STONE FOR A FOOTING
4" OF BASE MATERIAL
UNDISTURBED SUBGRADE

ELEVATION

SECTION

BLOCK RETAINING WALL DETAIL

N.T.S.

Z:\CHERRY HILL LAND DEVELOPMENT GROUP\3487 CENTURA PHASE 1 & 2\DRAWINGS\CENTURA\CS0901.DWG

DATE	ISSUE	REVISION	BY	APPR.
03/10/2022	6	ISSUED FOR FINAL SITE PLAN COMPLIANCE	TJK	RJC
07/02/2020	5	SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK	RJC
01/13/20	4	NO CHANGE THIS SHEET	GMM	RJC
07/16/19	3	UPDATE NOTES AND DETAILS	TJK	RJC
10/2/18	2	REVISE CONCRETE CLASS TO 4500 PSI & ADD LONG LIFE EPOXY TO STRIPING DETAILS	GMM	RJC
12/12/17	1	NOT PART OF INITIAL SUBMISSION	TJK	RJC

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28017600
41 SOUTH ROUTE 73, BUILDING 1, SUITE 201
HAMMONTON, NEW JERSEY 08037
TELEPHONE (609) 704-1155
FAX (609) 704-1166
www.jsaengineering.com

CENTURA – PHASE 1 AND 2

TAX MAP SHEET 234, BLOCK 433.20, LOT 15.01 & 16.01, FORMERLY BLOCK 433.20, LOT 1
CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

SITE CONSTRUCTION DETAIL SHEET

DEVEL, LLC.
C/O STEPHEN D. SAMOST, ESQUIRE 479 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200

Richard J Clemson 03/10/2022
DATE

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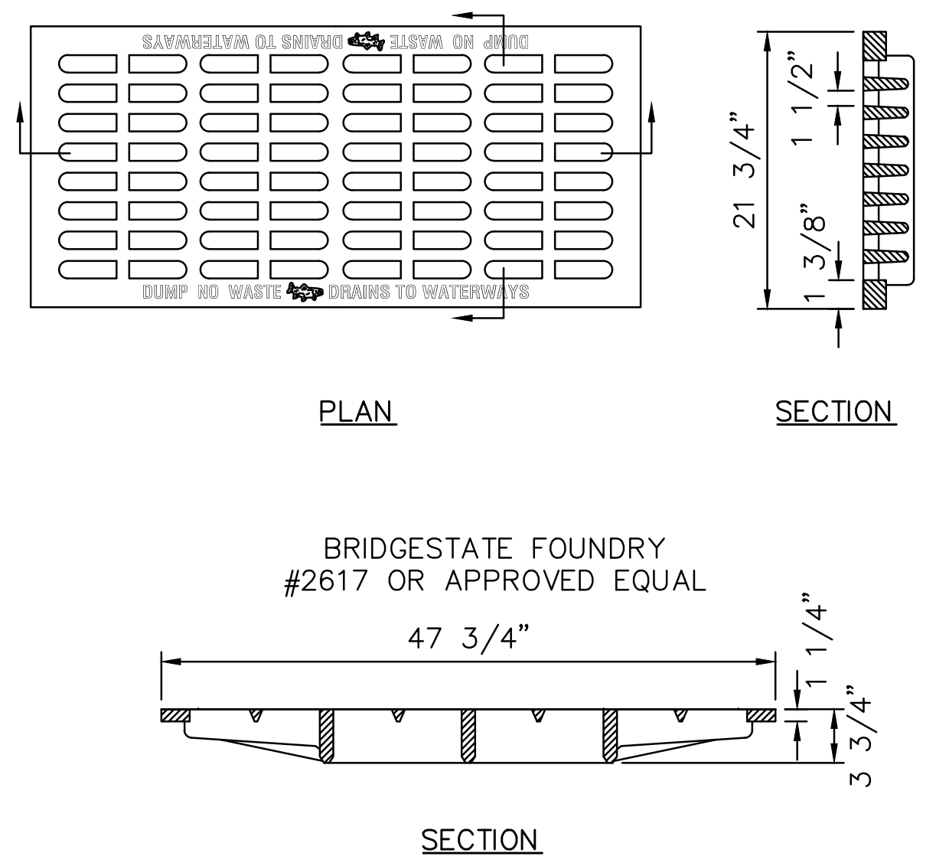
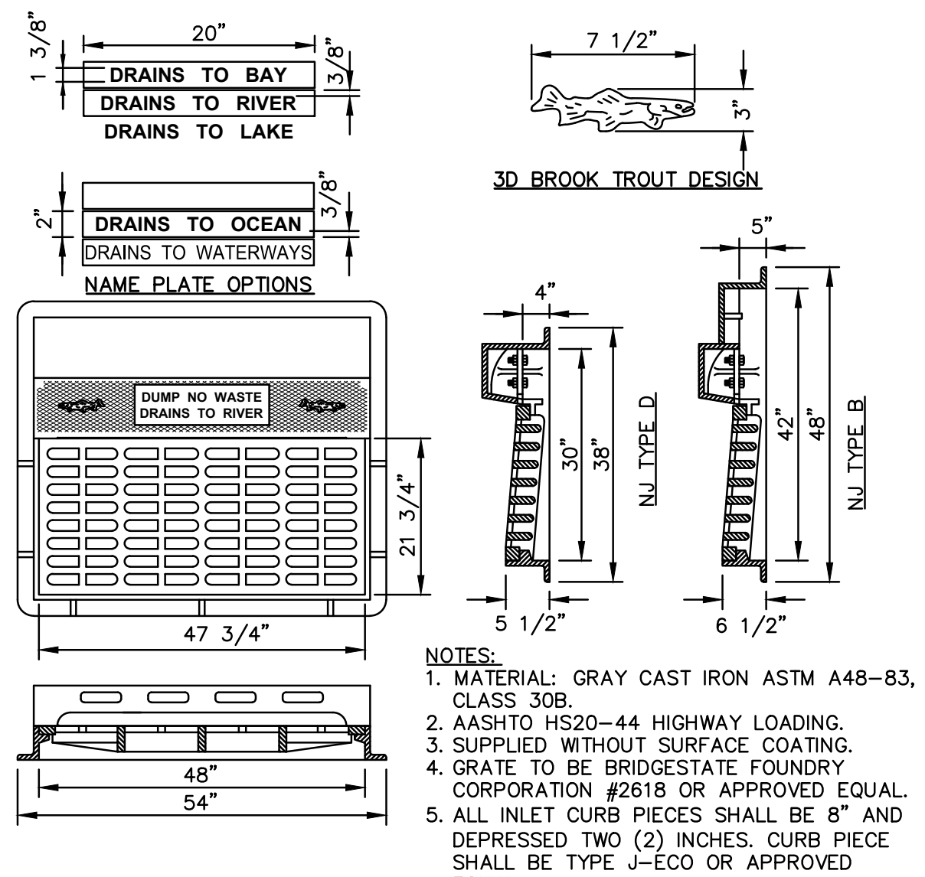
DRAWN BY	APPROVED BY
TJK	RJC
SCALE	DATE
AS SHOWN	12/12/17
JOB NUMBER	SHEET NO.
3487	16 OF 26

CS0901


DUMP NO WASTE DRAINS TO WATERWAYS
DUMP NO WASTE DRAINS TO WATERWAYS
PLAN
21 3/4"
1 1/2"
1 3/8"
SECTION
BRIDGESTATE FOUNDRY
#2617 OR APPROVED EQUAL
47 3/4"
1 1/4"
3 3/4"
SECTION

TYPE "A" BICYCLE SAFE "ECO" GRATE DETAIL

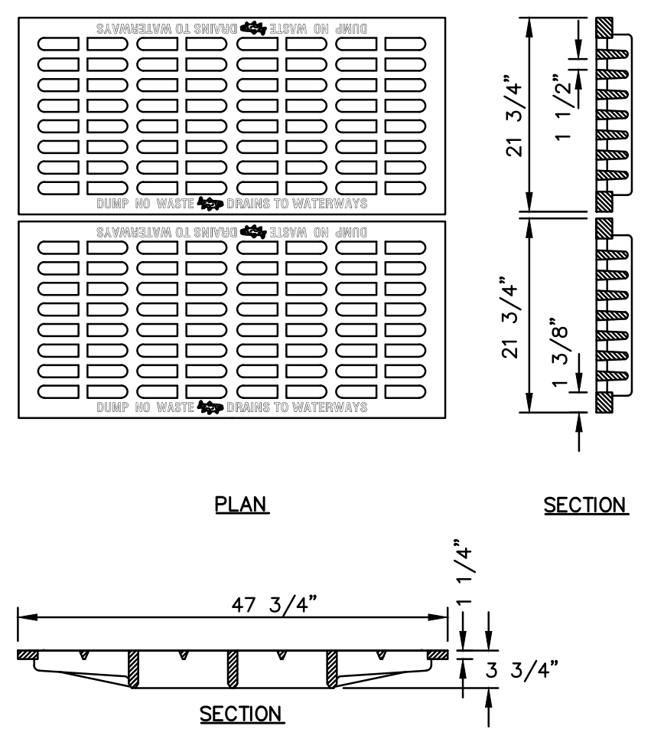
N.T.S.


20"
1 3/8"
3/8"
DRAINS TO BAY
DRAINS TO RIVER
DRAINS TO LAKE
2"
3/8"
DRAINS TO OCEAN
DRAINS TO WATERWAYS
NAME PLATE OPTIONS
7 1/2"
3"
3D BROOK TROUT DESIGN
DUMP NO WASTE
DRAINS TO RIVER
21 3/4"
47 3/4"
48"
54"
4"
30"
38"
NJ TYPE D
5 1/2"
5"
42"
48"
NJ TYPE B
6 1/2"

NOTES:
1. MATERIAL: GRAY CAST IRON ASTM A48-83, CLASS 30B.
2. AASHTO HS20-44 HIGHWAY LOADING.
3. SUPPLIED WITHOUT SURFACE COATING.
4. GRATE TO BE BRIDGESTATE FOUNDRY CORPORATION #2618 OR APPROVED EQUAL.
5. ALL INLET CURB PIECES SHALL BE 8" AND DEPRESSED TWO (2) INCHES. CURB PIECE SHALL BE TYPE J-ECO OR APPROVED EQUAL.

TYPE "B" BICYCLE SAFE GRATE & TYPE 'N-ECO' CURB PIECE DETAIL

N.T.S.


DUMP NO WASTE DRAINS TO WATERWAYS
DUMP NO WASTE DRAINS TO WATERWAYS
DUMP NO WASTE DRAINS TO WATERWAYS
DUMP NO WASTE DRAINS TO WATERWAYS
21 3/4"
1 1/2"
21 3/4"
1 3/8"
PLAN
SECTION
47 3/4"
1 1/4"
3 3/4"
SECTION

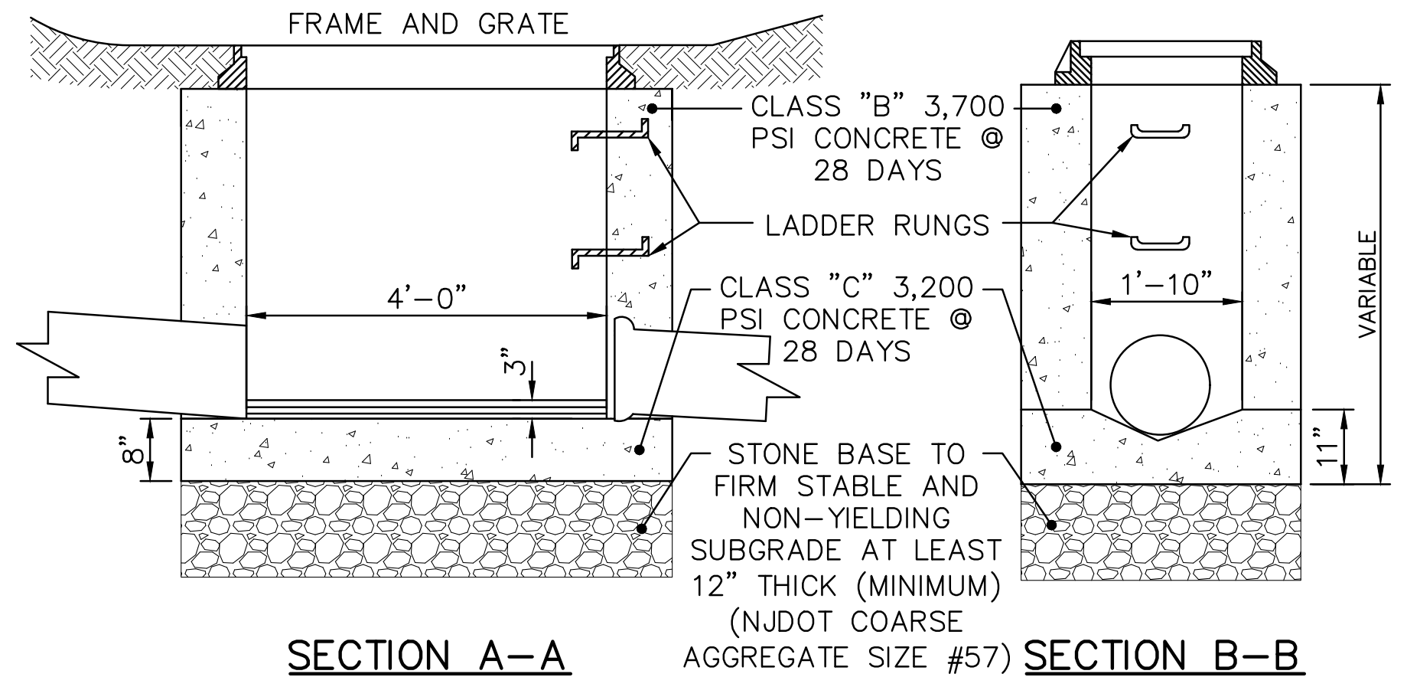
NOTE:
BRIDGESTATE FOUNDRY ECO CASTING #3425 OR APPROVED EQUAL

TYPE "E" BICYCLE SAFE 'ECO' GRATE DETAIL

N.T.S.

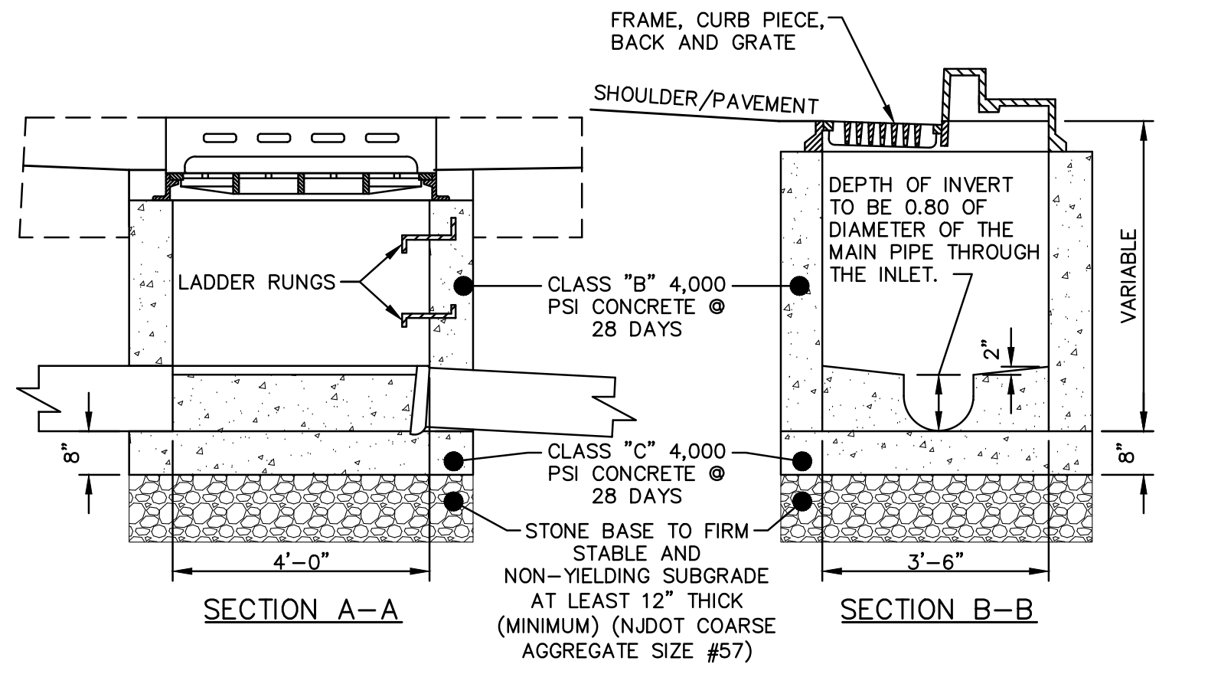
STORM SEWER NOTES

1. STORM SEWER DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH STANDARDS SET FORTH BY CHERRY HILL TOWNSHIP AND NEW JERSEY ADMINISTRATIVE CODE 7:8.
2. ALL RCP (REINFORCED CONCRETE PIPE) SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-76, CLASS III, IV OR V AS INDICATED. ALL REINFORCE CONCRETE PIPE SHALL HAVE EITHER RUBBER GASKET OR BUTYL TAPE JOINTS AND BE WRAPPED WITH MORTAR AND FABRIC ON THE OUTSIDE.
3. ALL DRAINAGE STRUCTURES, I.E. INLETS, MANHOLES OR ENDWALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARDS.
4. ALL INLETS SHALL BE INSTALLED WITH BICYCLE SAFE GRATES.
5. BEDDING AND BACKFILL FOR ALL STORM SEWER SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
6. MAINTENANCE OF ALL STORMWATER MANAGEMENT FACILITIES SHALL BE IN ACCORDANCE WITH THE STORMWATER FACILITIES INSPECTION, MAINTENANCE AND REPAIR PLAN PREPARED FOR THIS PROJECT.


FRAME AND GRATE
CLASS "B" 3,700 PSI CONCRETE @ 28 DAYS
LADDER RUNGS
CLASS "C" 3,200 PSI CONCRETE @ 28 DAYS
STONE BASE TO FIRM STABLE AND NON-YIELDING SUBGRADE AT LEAST 12" THICK (MINIMUM) (NJDOT COARSE AGGREGATE SIZE #57)
4'-0"
3"
8"
1'-10"
VARIABLE
11"
SECTION A-A
SECTION B-B

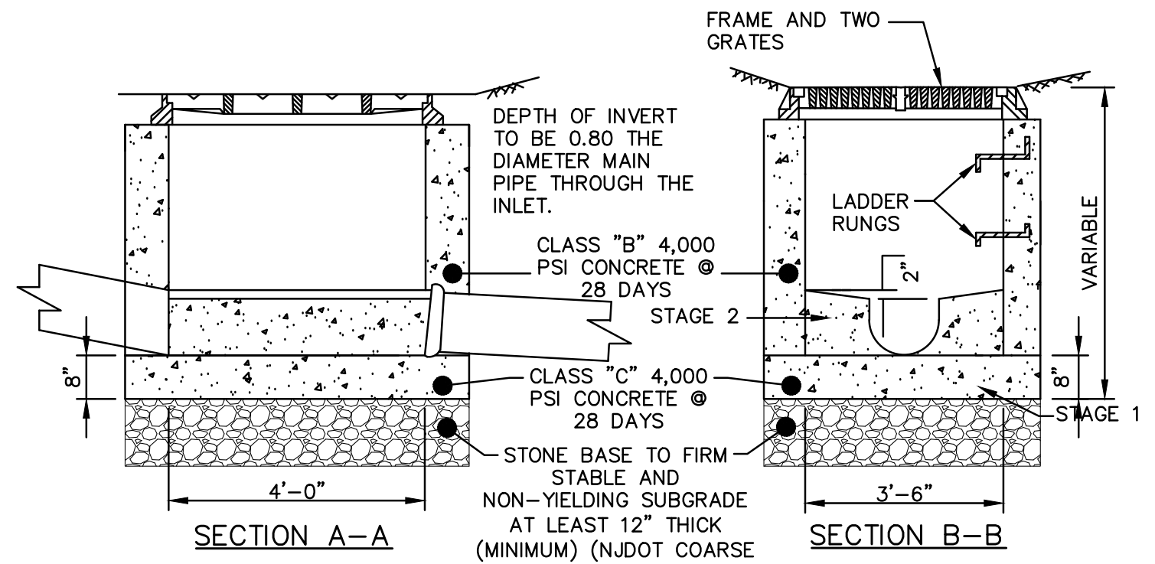
TYPE "A" NJDOT INLET DETAIL

N.T.S.


FRAME, CURB PIECE, BACK AND GRATE
SHOULDER/PAVEMENT
LADDER RUNGS
CLASS "B" 4,000 PSI CONCRETE @ 28 DAYS
CLASS "C" 4,000 PSI CONCRETE @ 28 DAYS
STONE BASE TO FIRM STABLE AND NON-YIELDING SUBGRADE AT LEAST 12" THICK (MINIMUM) (NJDOT COARSE AGGREGATE SIZE #57)
DEPTH OF INVERT TO BE 0.80 OF DIAMETER OF THE MAIN PIPE THROUGH THE INLET.
2"
8"
VARIABLE
8"
4'-0"
3'-6"
SECTION A-A
SECTION B-B

TYPE "B" NJDOT INLET DETAIL

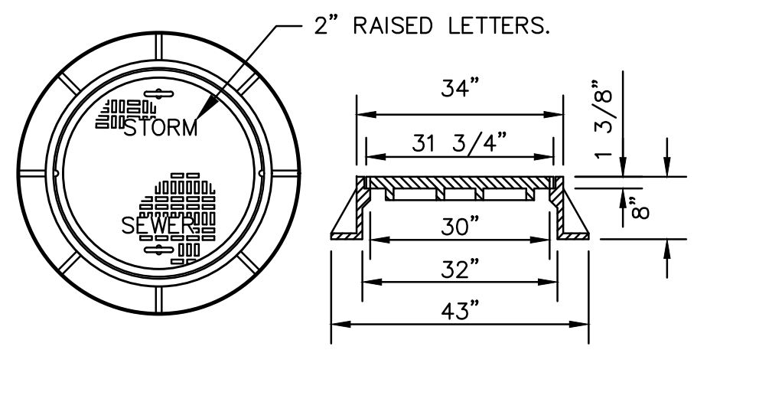
N.T.S.


FRAME AND TWO GRATES
DEPTH OF INVERT TO BE 0.80 THE DIAMETER MAIN PIPE THROUGH THE INLET.
LADDER RUNGS
CLASS "B" 4,000 PSI CONCRETE @ 28 DAYS
STAGE 2
CLASS "C" 4,000 PSI CONCRETE @ 28 DAYS
STAGE 1
STONE BASE TO FIRM STABLE AND NON-YIELDING SUBGRADE AT LEAST 12" THICK (MINIMUM) (NJDOT COARSE AGGREGATE SIZE #57)
2"
8"
8"
VARIABLE
4'-0"
3'-6"
SECTION A-A
SECTION B-B

NOTE:
FOUNDATION AND INVERT TO BE CONSTRUCTED IN 2 STAGES. TOP SURFACE OF STAGE 1 TO BE LEFT ROUGH.

TYPE "E" NJDOT INLET DETAIL

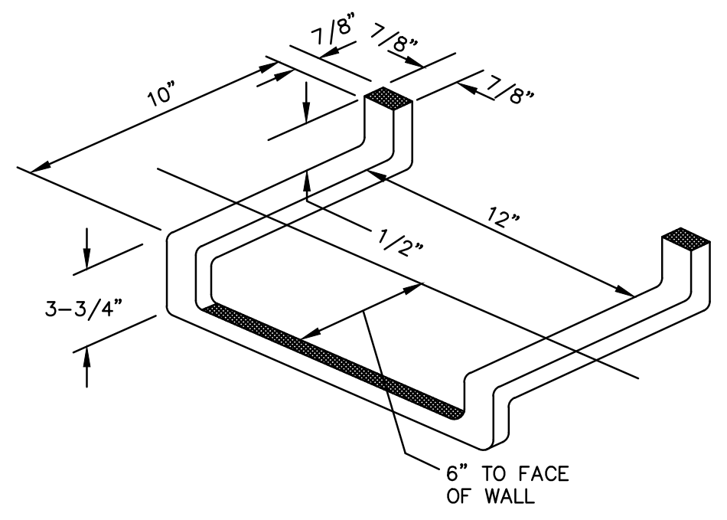
N.T.S.


2" RAISED LETTERS.
STORM
SEWER
34"
31 3/4"
1 3/8"
8"
30"
32"
43"

BRIDGESTATE FOUNDRY OR APPROVED EQUAL
ROUND FLANGE PATTERN NUMBER 1012B

MANHOLE RIM DETAIL

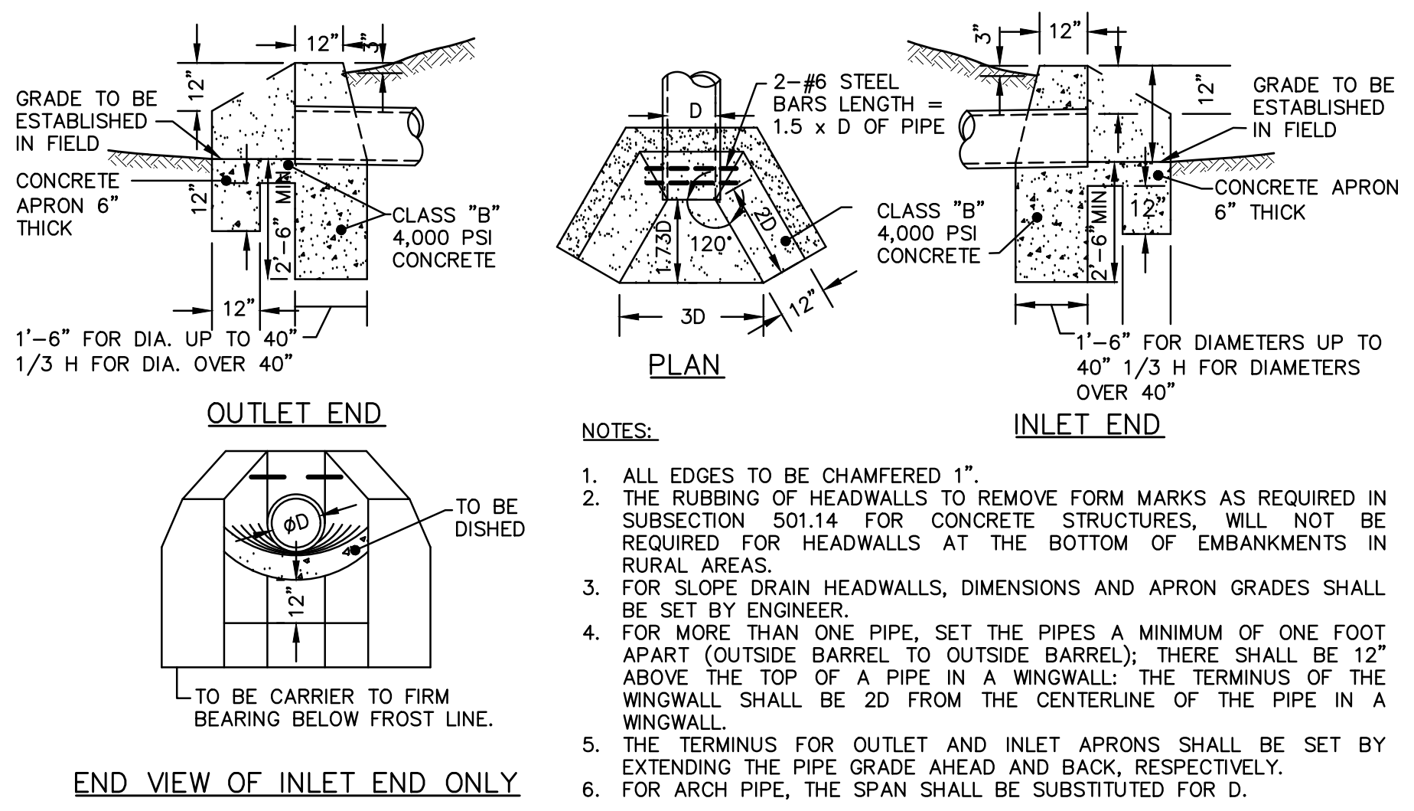
N.T.S.


7/8"
7/8"
7/8"
10"
12"
1/2"
3-3/4"
6" TO FACE OF WALL

PORTION EMBEDDED IN MASONRY TO BE COATED WITH COAL TAR, PITCH, VARNISH OR OTHER SPECIFIED MATERIAL.

ALUMINUM MANHOLE STEP DETAIL

N.T.S.

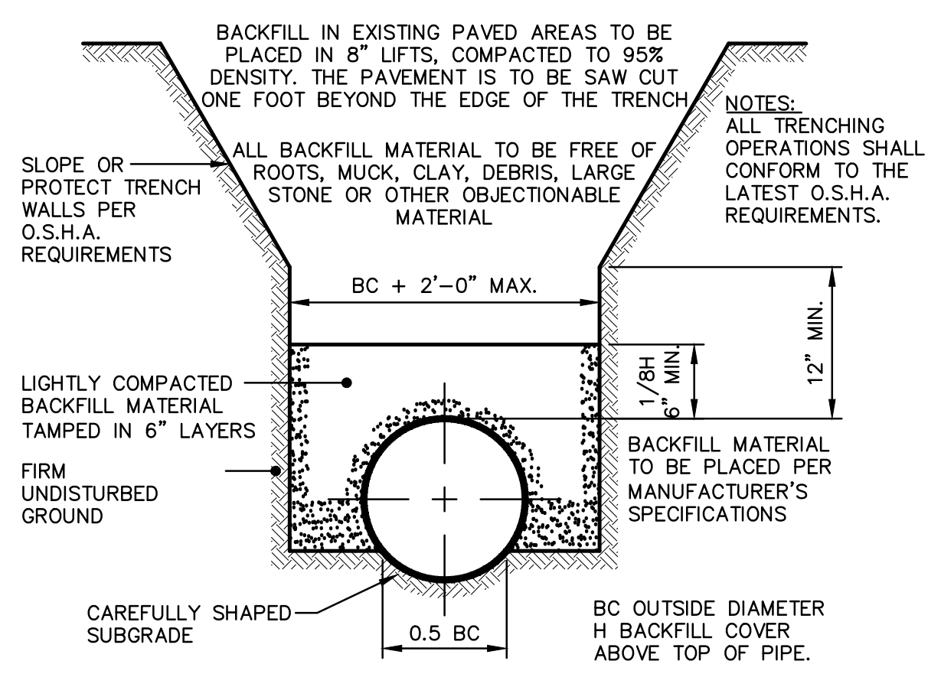

GRADE TO BE ESTABLISHED IN FIELD
CONCRETE APRON 6" THICK
12"
12"
3"
12"
2'-6" MIN
CLASS "B" 4,000 PSI CONCRETE
12"
1'-6" FOR DIA. UP TO 40"
1/3 H FOR DIA. OVER 40"
OUTLET END
2-#6 STEEL BARS LENGTH = 1.5 x D OF PIPE
D
1.73D
120°
2D
3D
12"
PLAN
CLASS "B" 4,000 PSI CONCRETE
3"
12"
12"
GRADE TO BE ESTABLISHED IN FIELD
CONCRETE APRON 6" THICK
2'-6" MIN
12"
1'-6" FOR DIAMETERS UP TO 40" 1/3 H FOR DIAMETERS OVER 40"
INLET END
ØD
TO BE DISHED
12"
TO BE CARRIER TO FIRM BEARING BELOW FROST LINE.
END VIEW OF INLET END ONLY

NOTES:

1. ALL EDGES TO BE CHAMFERED 1".
2. THE RUBBING OF HEADWALLS TO REMOVE FORM MARKS AS REQUIRED IN SUBSECTION 501.14 FOR CONCRETE STRUCTURES, WILL NOT BE REQUIRED FOR HEADWALLS AT THE BOTTOM OF EMBANKMENTS IN RURAL AREAS.
3. FOR SLOPE DRAIN HEADWALLS, DIMENSIONS AND APRON GRADES SHALL BE SET BY ENGINEER.
4. FOR MORE THAN ONE PIPE, SET THE PIPES A MINIMUM OF ONE FOOT APART (OUTSIDE BARREL TO OUTSIDE BARREL); THERE SHALL BE 12" ABOVE THE TOP OF A PIPE IN A WINGWALL: THE TERMINUS OF THE WINGWALL SHALL BE 2D FROM THE CENTERLINE OF THE PIPE IN A WINGWALL.
5. THE TERMINUS FOR OUTLET AND INLET APRONS SHALL BE SET BY EXTENDING THE PIPE GRADE AHEAD AND BACK, RESPECTIVELY.
6. FOR ARCH PIPE, THE SPAN SHALL BE SUBSTITUTED FOR D.

CONCRETE HEADWALL AND APRON DETAIL

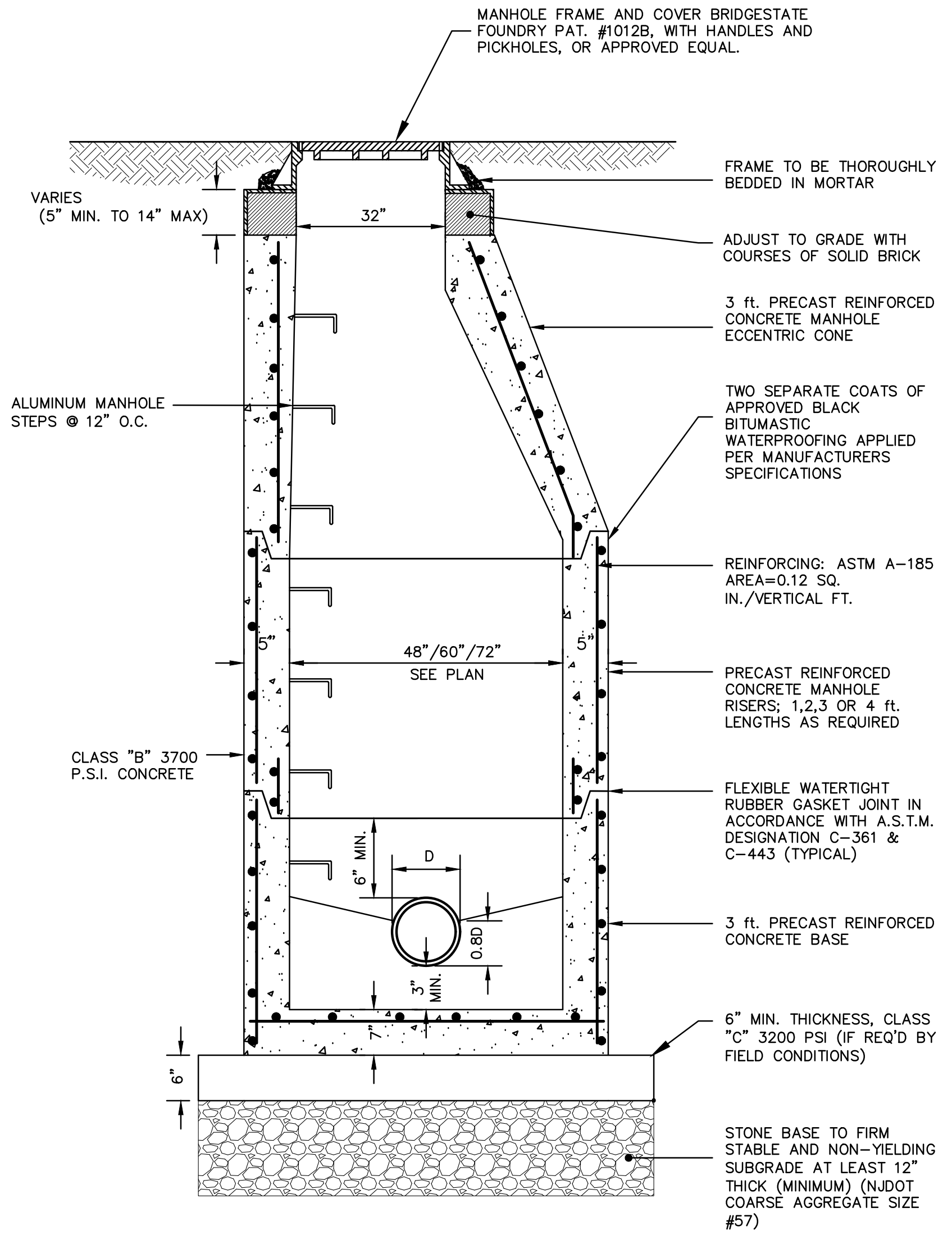
N.T.S.


BACKFILL IN EXISTING PAVED AREAS TO BE PLACED IN 8" LIFTS, COMPACTED TO 95% DENSITY. THE PAVEMENT IS TO BE SAW CUT ONE FOOT BEYOND THE EDGE OF THE TRENCH
ALL BACKFILL MATERIAL TO BE FREE OF ROOTS, MUCK, CLAY, DEBRIS, LARGE STONE OR OTHER OBJECTIONABLE MATERIAL
SLOPE OR PROTECT TRENCH WALLS PER O.S.H.A. REQUIREMENTS
BC + 2'-0" MAX.
12" MIN.
1/8H 6" MIN.
LIGHTLY COMPACTED BACKFILL MATERIAL TAMPED IN 6" LAYERS
FIRM UNDISTURBED GROUND
BACKFILL MATERIAL TO BE PLACED PER MANUFACTURER'S SPECIFICATIONS
CAREFULLY SHAPED SUBGRADE
0.5 BC
BC OUTSIDE DIAMETER
H BACKFILL COVER ABOVE TOP OF PIPE.

NOTES:
ALL TRENCHING OPERATIONS SHALL CONFORM TO THE LATEST O.S.H.A. REQUIREMENTS.

RCP STORM SEWER BEDDING FOR SUITABLE MATERIAL DETAIL

N.T.S.


MANHOLE FRAME AND COVER BRIDGESTATE FOUNDRY PAT. #1012B, WITH HANDLES AND PICKHOLES, OR APPROVED EQUAL.
VARIES (5" MIN. TO 14" MAX)
32"
FRAME TO BE THOROUGHLY BEDDED IN MORTAR
ADJUST TO GRADE WITH COURSES OF SOLID BRICK
3 ft. PRECAST REINFORCED CONCRETE MANHOLE ECCENTRIC CONE
ALUMINUM MANHOLE STEPS @ 12" O.C.
TWO SEPARATE COATS OF APPROVED BLACK BITUMASTIC WATERPROOFING APPLIED PER MANUFACTURERS SPECIFICATIONS
REINFORCING: ASTM A-185 AREA=0.12 SQ. IN./VERTICAL FT.
5"
48"/60"/72"
SEE PLAN
5"
PRECAST REINFORCED CONCRETE MANHOLE RISERS; 1,2,3 OR 4 ft. LENGTHS AS REQUIRED
CLASS "B" 3700 P.S.I. CONCRETE
FLEXIBLE WATERTIGHT RUBBER GASKET JOINT IN ACCORDANCE WITH A.S.T.M. DESIGNATION C-361 & C-443 (TYPICAL)
6" MIN.
D
0.8D
3" MIN.
3 ft. PRECAST REINFORCED CONCRETE BASE
7"
6"
6" MIN. THICKNESS, CLASS "C" 3200 PSI (IF REQ'D BY FIELD CONDITIONS)
STONE BASE TO FIRM STABLE AND NON-YIELDING SUBGRADE AT LEAST 12" THICK (MINIMUM) (NJDOT COARSE AGGREGATE SIZE #57)

NOTES:

1. ALL MANHOLES SHALL BE CONSTRUCTED WATERTIGHT.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING ADEQUATE BALLAST TO OFFSET FLOATATION FORCES ACTING ON MANHOLES CONSTRUCTED IN WET AREAS.

STORM SEWER MANHOLE DETAIL

N.T.S.

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03/10/2022	6	ISSUED FOR FINAL SITE PLAN COMPLIANCE	TJK	RJC
07/02/2020	5	SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK	RJC
01/13/20	4	NO CHANGE THIS SHEET	GMM	RJC
07/16/19	3	NO CHANGE THIS SHEET	TJK	RJC
10/2/18	2	REVISE STORM SEWER NOTES	GMM	RJC
12/12/17	1	NOT PART OF INITIAL SUBMISSION	TJK	RJC

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CENTURA – PHASE 1 AND 2

TAX MAP SHEET 234, BLOCK 433.20, LOT 15.01 & 16.01, FORMERLY BLOCK 433.20, LOT 1
CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

STORM SEWER DETAIL SHEET

DEVEL, LLC.

C/O STEPHEN D. SAMOST, ESQUIRE 479 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043

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RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200

Richard J Clemson 03/10/2022
DATE

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28017600

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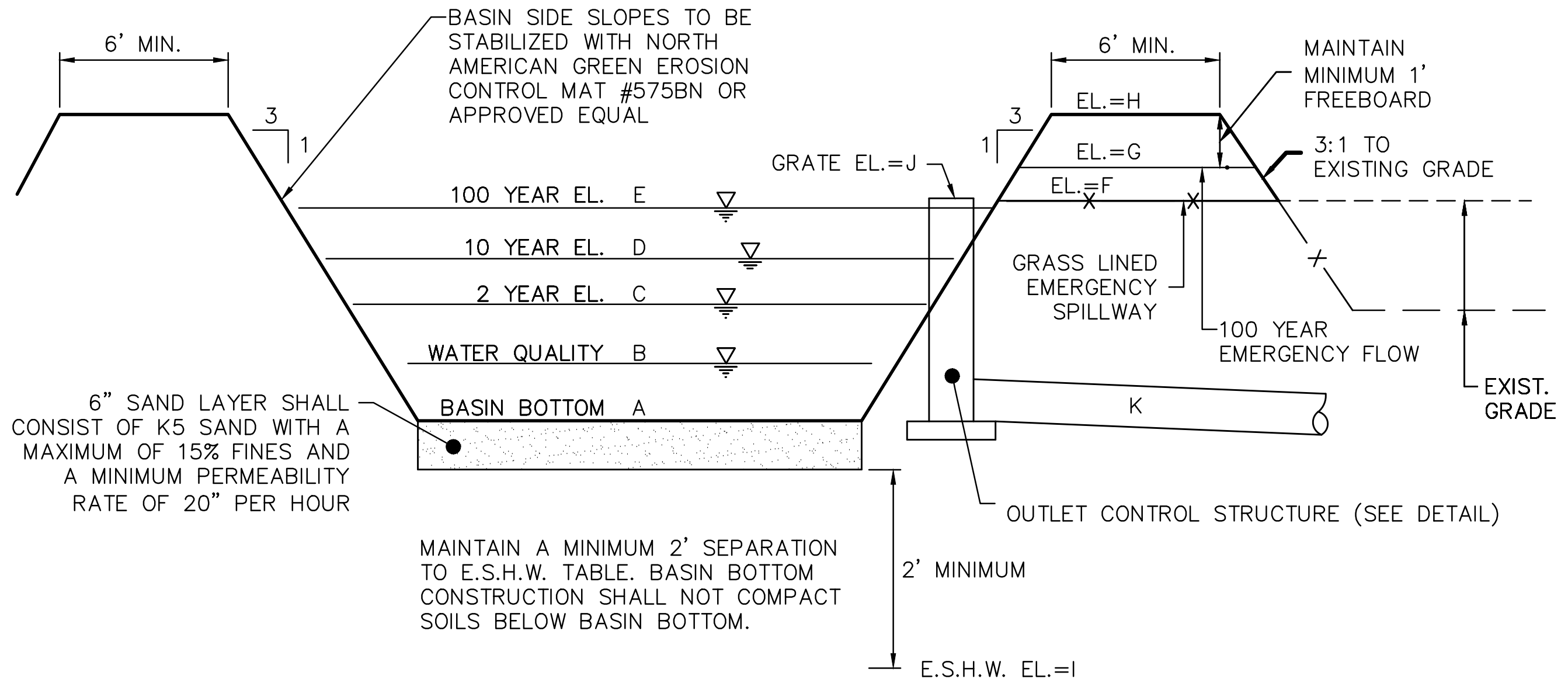
DRAWN BY	APPROVED BY
TJK	RJC
SCALE	DATE
AS SHOWN	12/12/17
JOB NUMBER	SHEET NO.
3487	17 OF 26

CS1001


6' MIN.
BASIN SIDE SLOPES TO BE STABILIZED WITH NORTH AMERICAN GREEN EROSION CONTROL MAT #575BN OR APPROVED EQUAL
3
1
100 YEAR EL. E
10 YEAR EL. D
2 YEAR EL. C
WATER QUALITY B
BASIN BOTTOM A
6" SAND LAYER SHALL CONSIST OF K5 SAND WITH A MAXIMUM OF 15% FINES AND A MINIMUM PERMEABILITY RATE OF 20" PER HOUR
GRATE EL.=J
6' MIN.
EL.=H
EL.=G
EL.=F
MAINTAIN MINIMUM 1' FREEBOARD
3:1 TO EXISTING GRADE
GRASS LINED EMERGENCY SPILLWAY
100 YEAR EMERGENCY FLOW
K
EXIST. GRADE
OUTLET CONTROL STRUCTURE (SEE DETAIL)
MAINTAIN A MINIMUM 2' SEPARATION TO E.S.H.W. TABLE. BASIN BOTTOM CONSTRUCTION SHALL NOT COMPACT SOILS BELOW BASIN BOTTOM.
2' MINIMUM
E.S.H.W. EL.=I

BASIN	A	B	C	D	E	F	G	H	I	J	K
1	83.00	83.32	84.30	84.67	85.51	85.75	85.95	87.00	76.86	85.70	15"
2	64.00	64.75	66.49	67.45	68.70	68.70	69.00	70.00	60.98	68.75	15"

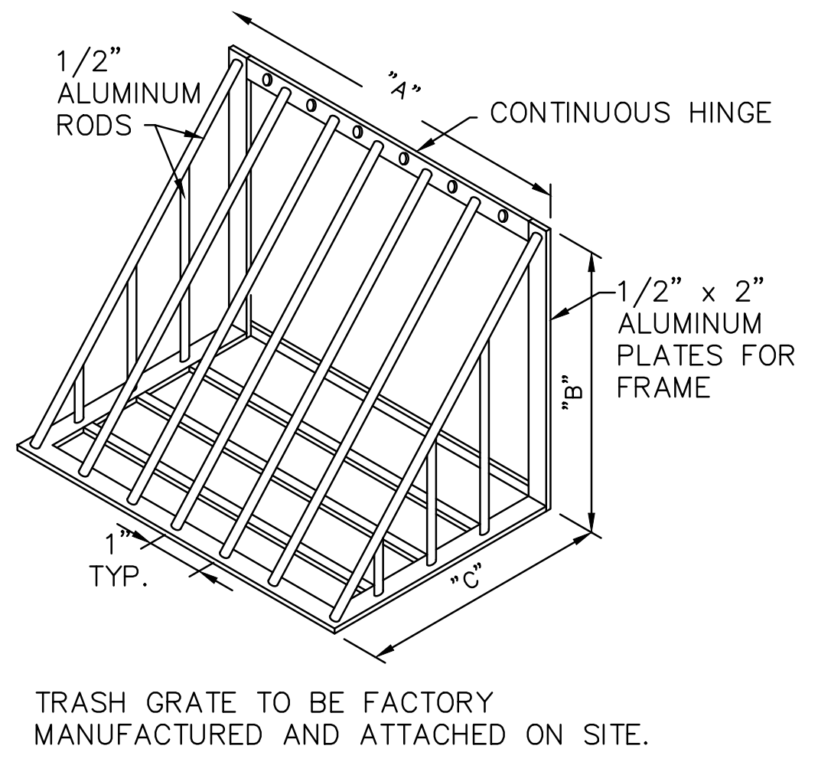
BASIN NOTES

1. THE BASINS SHALL BE EXCAVATED TO FINAL GRADE AND SHALL BE IMMEDIATELY STABILIZED IN ACCORDANCE WITH THE STANDARDS FOR PERMANENT VEGETATION, AS OUTLINED IN THE NJ STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL.
2. TO PREVENT COMPACTION OF THE SOIL BELOW ONLY LIGHT, EARTH MOVING EQUIPMENT WITH WIDE TRACKS SHALL BE UTILIZED FOR CONSTRUCTION.
3. THE BASIN SHALL FUNCTION AS A SEDIMENT BASIN UNTIL ALL CONSTRUCTION WITHIN IT'S DRAINAGE AREA IS COMPLETED AND THE AREA STABILIZED TO THE SATISFACTION OF THE CAMDEN COUNTY SOIL CONSERVATION DISTRICT.
4. AFTER THE SITE CONSTRUCTION WITHIN THE INFILTRATION BASIN DRAINAGE AREA IS COMPLETE AND THE AREA STABILIZED, THE INFILTRATION BASIN BOTTOM SHALL BE EXCAVATED TO DEPTH OF SIX (6) INCHES BELOW THE DESIGN INVERT. DESCRIBED EXCAVATION SHALL ONLY TAKE PLACE WHEN THE BASIN IS THOROUGHLY DRY. DISPOSAL OF EXCAVATED SOIL/SEDIMENT SHALL BE DONE AT A SUITABLE DISPOSAL/RECYCLING SITE AND IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL WASTE REGULATIONS.
5. A SIX (6) INCH THICK SAND LAYER SHALL BE CONSTRUCTED AT THE BOTTOM OF THE INFILTRATION/SEDIMENT FOREBAY AREA, AND SHALL CONSIST OF K5 SAND WITH NO MORE THAN 15% FINES AND SHALL HAVE A MINIMUM INFILTRATION RATE OF 20 INCHES PER HOUR. SAND MUST BE CERTIFIED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW JERSEY.
6. ONCE FINAL CONSTRUCTION OF THE INFILTRATION/SEDIMENT FOREBAY AREA IS COMPLETE, THE BOTTOM OF THE BASIN MUST BE DEEPLY TILLED WITH A ROTARY OR DISC HARROW AND SMOOTHED OVER WITH A LEVELING DRAG OR EQUIVALENT GRADING EQUIPMENT.

INFILTRATION AND DETENTION BASINS 1 AND 2 TYPICAL SECTION DETAIL

N.T.S.

STRUCTURE #	A	B	C
1	12"	12"	10"
2 RACK A	12"	30"	10"
2 RACK B	48"	12"	10"


1/2" ALUMINUM RODS
"A"
CONTINUOUS HINGE
1/2" x 2" ALUMINUM PLATES FOR FRAME
"B"
"C"
1" TYP.

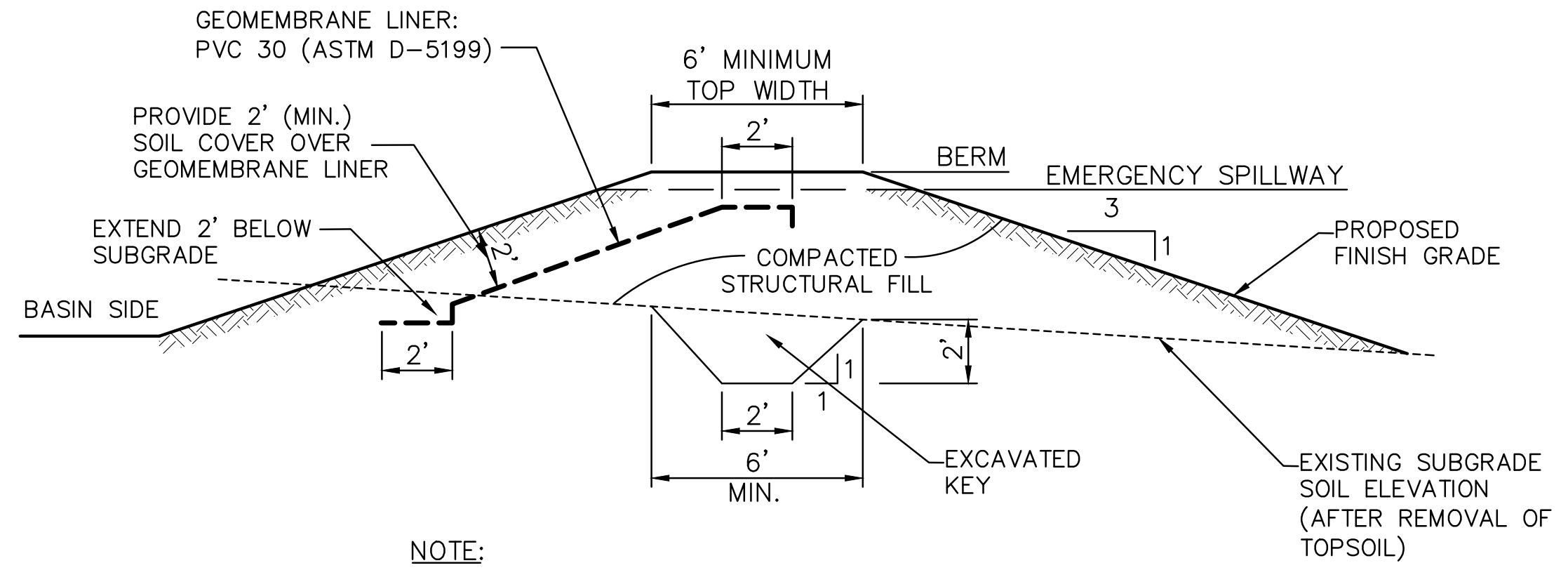
TRASH GRATE TO BE FACTORY MANUFACTURED AND ATTACHED ON SITE.

TRASH GRATE NOTES

1. PARALLEL BAR SPACING AT 1" INTERVALS UP TO THE ELEVATION OF THE WATER QUALITY STORM.
2. MINIMUM BAR SPACING IS 1" FOR ELEVATIONS IN EXCESS OF THE WATER QUALITY DESIGN STORM.
3. MAXIMUM BAR SPACING IS 1/3 DIAMETER OF THE ORIFICE OR 1/3 WIDTH OF WEIR WITH A MAXIMUM SPACING OF 6" FOR ELEVATIONS IN EXCESS OF THE WATER QUALITY STORM
4. MAXIMUM AVERAGE VELOCITY THROUGH CLEAN RACK=2.5 FT/SEC, UNDER FULL RANGE OF STAGE AND DISCHARGE, COMPUTED ON THE BASIS OF THE NET AREA OF OPENING THROUGH RACK.
5. CONSTRUCTED OF RIGID, DURABLE AND CORROSIVE RESISTANT MATERIAL.
6. DESIGNED TO WITHSTAND A PERPENDICULAR LIVE LOAD OF 300LB/SF.
7. SHOP DRAWINGS FOR THE TRASH GRATE RACK TO BE SUBMITTED TO THE TOWNSHIP ENGINEER.
8. TRASH GRATE TO BE FACTORY MANUFACTURED AND ATTACHED ON SITE.

TRASH GRATE DETAIL

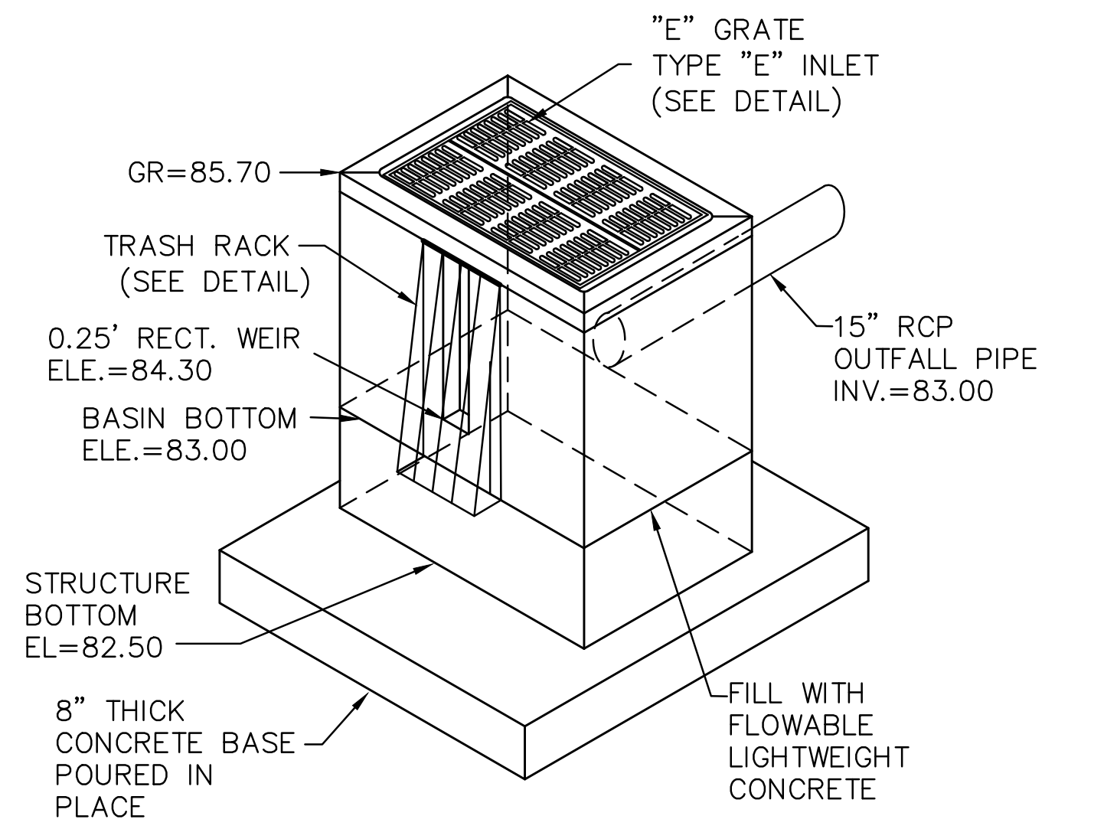
N.T.S.


GEOMEMBRANE LINER: PVC 30 (ASTM D-5199)
6' MINIMUM TOP WIDTH
2'
PROVIDE 2' (MIN.) SOIL COVER OVER GEOMEMBRANE LINER
BERM
EMERGENCY SPILLWAY
3
1
EXTEND 2' BELOW SUBGRADE
COMPACTED STRUCTURAL FILL
PROPOSED FINISH GRADE
BASIN SIDE
2'
2'
1
1
2'
6' MIN.
EXCAVATED KEY
EXISTING SUBGRADE SOIL ELEVATION (AFTER REMOVAL OF TOPSOIL)

NOTE:
SEEPAGE BARRIER REQUIRED IN ALL LOCATIONS WHERE BERM IS REQUIRED TO BE CONSTRUCTED ABOVE EXISTING SUBGRADE SOIL.

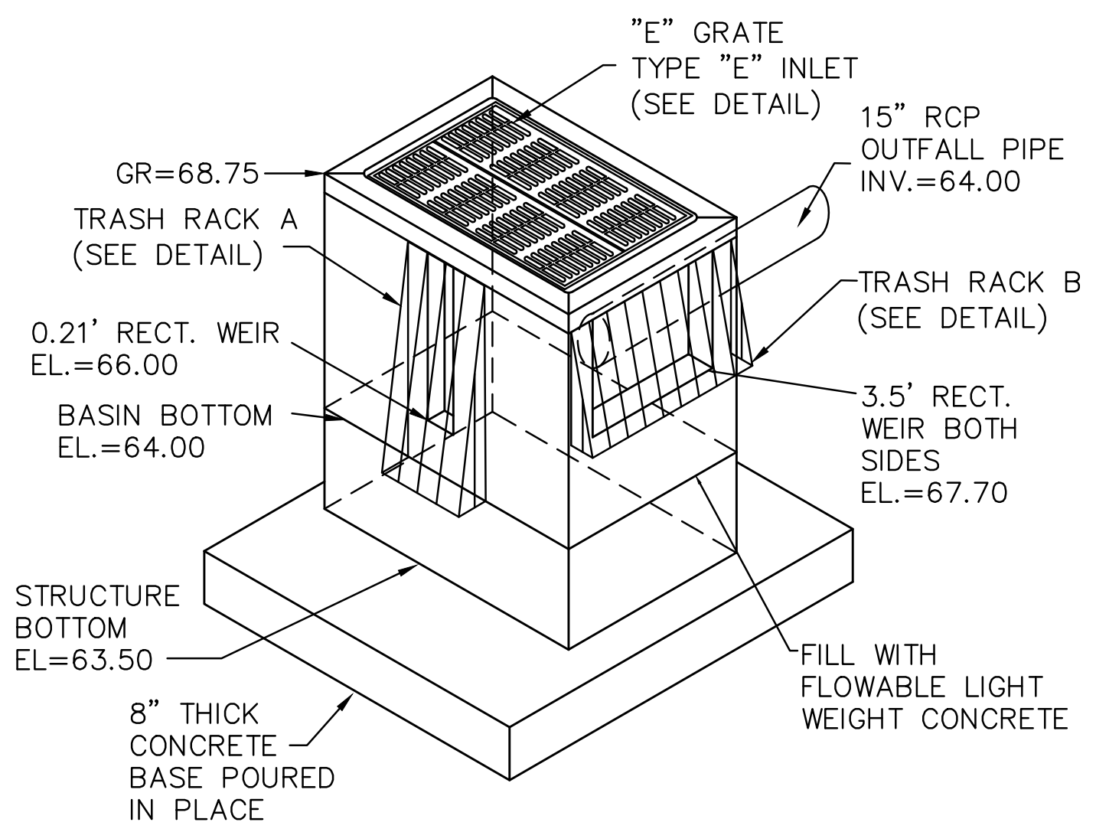
ALTERNATE BASIN SEEPAGE BARRIER DETAIL

N.T.S.


"E" GRATE TYPE "E" INLET (SEE DETAIL)
GR=85.70
TRASH RACK (SEE DETAIL)
0.25' RECT. WEIR ELE.=84.30
BASIN BOTTOM ELE.=83.00
15" RCP OUTFALL PIPE INV.=83.00
STRUCTURE BOTTOM EL=82.50
8" THICK CONCRETE BASE POURED IN PLACE
FILL WITH FLOWABLE LIGHTWEIGHT CONCRETE

BASIN 1 OUTLET STRUCTURE DETAIL (OCS-1)

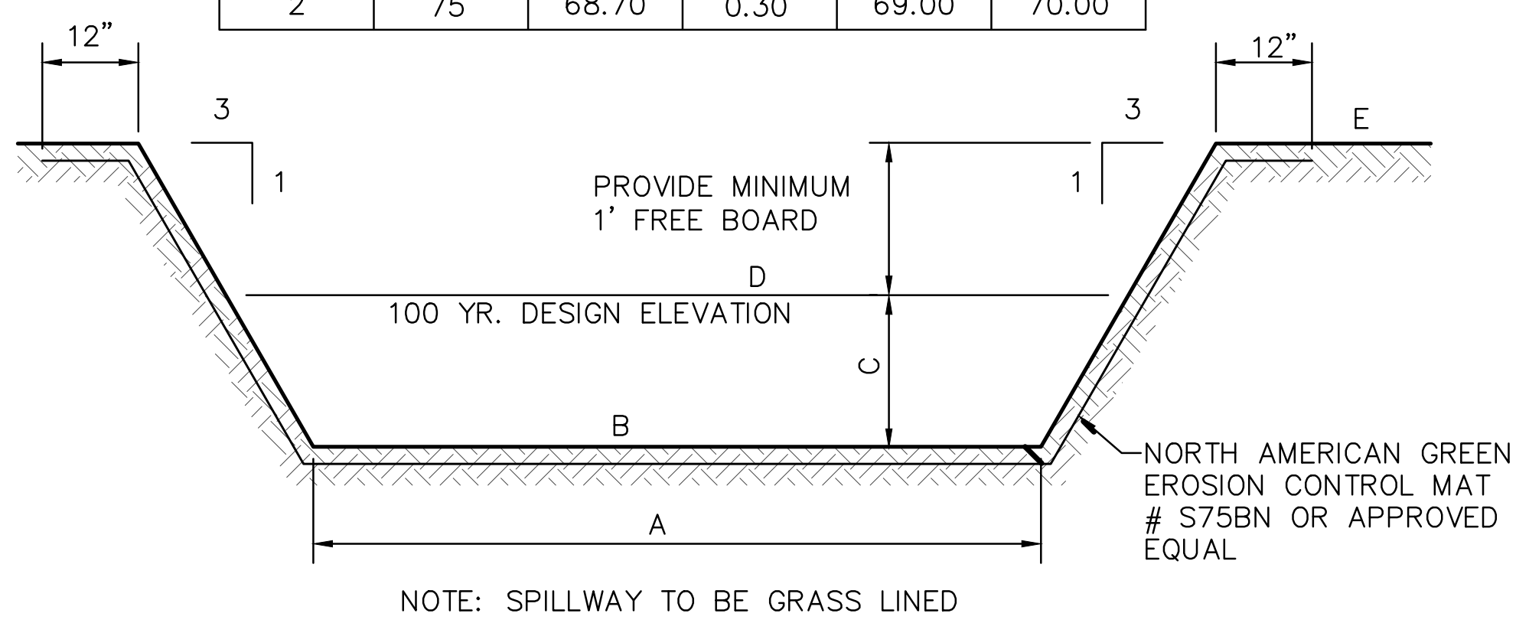
N.T.S.


"E" GRATE TYPE "E" INLET (SEE DETAIL)
GR=68.75
15" RCP OUTFALL PIPE INV.=64.00
TRASH RACK A (SEE DETAIL)
TRASH RACK B (SEE DETAIL)
0.21' RECT. WEIR EL.=66.00
BASIN BOTTOM EL.=64.00
3.5' RECT. WEIR BOTH SIDES EL.=67.70
STRUCTURE BOTTOM EL=63.50
8" THICK CONCRETE BASE POURED IN PLACE
FILL WITH FLOWABLE LIGHT WEIGHT CONCRETE

BASIN 2 OUTLET STRUCTURE DETAIL (OCS-2)

N.T.S.

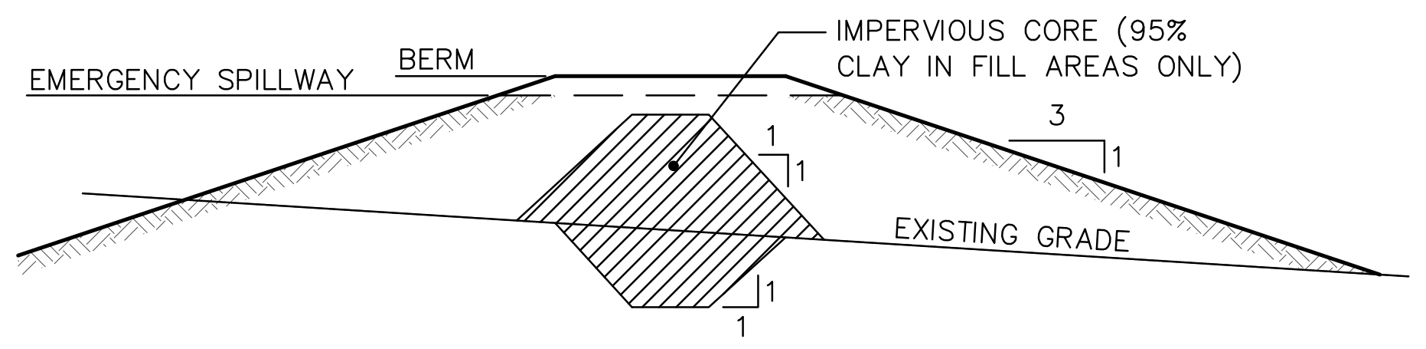
BASIN #	A	B	C	D	E
1	35'	85.75	0.20'	85.95	87.00
2	75'	68.70	0.30'	69.00	70.00


12"
3
1
PROVIDE MINIMUM 1' FREE BOARD
D
100 YR. DESIGN ELEVATION
C
B
A
12"
E
3
1
NORTH AMERICAN GREEN EROSION CONTROL MAT # S75BN OR APPROVED EQUAL

NOTE: SPILLWAY TO BE GRASS LINED

BASIN 1 AND 2 EMERGENCY SPILLWAY DETAIL

N.T.S.


IMPERVIOUS CORE (95% CLAY IN FILL AREAS ONLY)
EMERGENCY SPILLWAY
BERM
3
1
1
1
1
1
EXISTING GRADE

TO BE CONSTRUCTED IN FILL AREAS ONLY.

IMPERVIOUS BASIN CORE DETAIL

N.T.S.

STORMWATER MANAGEMENT NOTES

1. STORM SEWER DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH STANDARDS SET FORTH BY CHERRY HILL TOWNSHIP TOWNSHIP AND NEW JERSEY ADMINISTRATIVE CODE 7:8.
2. ALL RCP (REINFORCED CONCRETE PIPE) SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-76, CLASS III, IV OR V AS INDICATED. ALL REINFORCE CONCRETE PIPE SHALL HAVE EITHER RUBBER GASKET OR BUTYL TAPE JOINTS AND BE WRAPPED WITH MORTAR AND FABRIC ON THE OUTSIDE.
3. ALL DRAINAGE STRUCTURES, I.E. INLETS, MANHOLES OR ENDWALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARDS.
4. ALL INLETS SHALL BE INSTALLED WITH BICYCLE SAFE GRATES.
5. BEDDING AND BACKFILL FOR ALL STORM SEWER SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
6. MAINTENANCE OF ALL STORMWATER MANAGEMENT FACILITIES SHALL BE IN ACCORDANCE WITH THE STORMWATER FACILITIES INSPECTION, MAINTENANCE AND REPAIR PLAN PREPARED FOR UNDER THIS PROJECT.

MAINTENANCE OF BASINS 1 AND 2

INSPECTION

ROUTINE INSPECTION OF ALL INFILTRATION BASINS SHALL BE PERFORMED AT LEAST FOUR TIMES ANNUALLY AND FOLLOWING ALL STORMS EXCEEDING ONE INCH OF RAINFALL. INSPECTED COMPONENTS SHALL INCLUDE BASIN BOTTOM, RIP-RAP APRONS, HEADWALLS, OUTLET STRUCTURES AND TRASH RACKS.

TURF MAINTENANCE

ALL TURF SHALL BE ACTIVELY MAINTAINED THROUGHOUT THE GROWING SEASON. AS A MINIMUM, GRASS AREAS SHALL BE MOWED TWICE A MONTH DURING THE GROWING SEASON. ALL GRASS CLIPPINGS SHALL BE MULCHED IN PLACE. VEGETATED AREAS MUST BE INSPECTED AT LEAST ONCE ANNUALLY FOR EROSION, SCOUR AND UNWANTED WOODY GROWTH. THEY SHALL BE INSPECTED TWICE ANNUALLY, DURING BOTH THE GROWING SEASON AND NON-GROWING SEASON FOR VEGETATION HEALTH, DENSITY AND DIVERSITY. VEGETATIVE COVER SHOULD BE MAINTAINED AT 85 PERCENT. IF VEGETATION HAS GREATER THAN 50% DAMAGE, THE AREA SHOULD BE REESTABLISHED IN ACCORDANCE WITH THE ORIGINAL SPECIFICATIONS AND INSPECTION REQUIREMENTS. FERTILIZERS, MECHANICAL TREATMENTS, PESTICIDES AND OTHER MEANS TO ASSURE OPTIMUM VEGETATION HEALTH SHALL NOT BE USED INDISCRIMINATELY. SOIL TESTING SHOULD BE PERFORMED BEFORE APPLICATION.

SEDIMENT CONTROL

ALL ACCUMULATED SEDIMENT SHALL BE REMOVED FROM ALL PIPING, STRUCTURES, CHANNELS, RIP RAP, APRONS AND BASINS TO PROVIDE UNOBSTRUCTED FLOW INTO AND OUT OF THE BASIN. SEDIMENT REMOVAL SHALL TAKE PLACE WHEN BASIN IS THOROUGHLY DISPOSAL OF DEBRIS, TRASH, SEDIMENT AND OTHER WASTE SHOULD BE DONE AT A SUITABLE DISPOSAL/RECYCLING SITE AND IN COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL WASTE REGULATIONS.

EROSION CONTROL

ANY ERODED AREAS AND ANY AREAS OF TURF FAILURE SHALL BE FILLED AND REVEGETATED AS SOON AS WITNESSED. GROUND COVER SHALL BE REESTABLISHED THROUGH SEEDING, FERTILIZING, LIME APPLICATION AND MULCHING. ANY PROBLEM AREAS SHALL BE REWORKED UNTIL STABILITY IS PROVIDED BY THE ESTABLISHMENT OF A HEALTHY TURF. FERTILIZER AND LIME APPLICATION SHOULD BE BASED ON SOIL TESTING RESULTS.

GENERAL NOTES

1. CONSISTENT AND MODERATE SOIL MOISTURE SHOULD BE MAINTAINED FOR THE FIRST SIX WEEKS AFTER SEEDING TO PRODUCE OPTIMUM VEGETATIVE GROWTH. WHEN ESTABLISHING OR RESTORING VEGETATION, BIWEEKLY INSPECTIONS OF VEGETATION HEALTH SHOULD BE PERFORMED FOR THE FIRST GROWING SEASON OR UNTIL VEGETATION IS ESTABLISHED.

2. THE BASIN BOTTOM SAND LAYER SHOULD BE INSPECTED AT LEAST MONTHLY AS WELL AS AFTER EVERY STORM EXCEEDING ONE INCH OF RAINFALL.

3. ANNUAL TILLING OF THE BASIN BOTTOM SAND LAYER SHOULD BE PERFORMED BY LIGHT EQUIPMENT TO ASSIST IN MAINTAINING INFILTRATION CAPACITY AND TO BREAK UP CLOGGED SURFACES.

4. ALL BASINS SHALL BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION.

LONG TERM MAINTENANCE OF STORMWATER MANAGEMENT SYSTEM

THE PROPERTY SHALL BE DEED RESTRICTED TO REQUIRE THE OWNER TO MAINTAIN THE STORMWATER MANAGEMENT SYSTEM IN PERPETUITY IN ACCORDANCE WITH THE STORMWATER MAINTENANCE PLAN. THE DEED RESTRICTION REQUIRING MAINTENANCE SHALL INCLUDE A PROVISION WHICH, IN THE CASE THE OWNER FAILS TO MAINTAIN THE SYSTEM, ALLOWS, BUT DOES NOT OBLIGATE, THE TOWNSHIP TO ENTER UPON THE PROPERTY TO PERFORM REQUIRED MAINTENANCE AT THE OWNERS EXPENSE.

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10/2/18	2	REVISE STORMWATER MANAGEMENT NOTES	GMM	RJC
12/12/17	1	NOT PART OF INITIAL SUBMISSION	TJK	RJC

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STORMWATER MANAGEMENT DETAIL SHEET

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RICHARD J. CLEMSON, P.E.
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Richard J Clemson 03/10/2022
DATE

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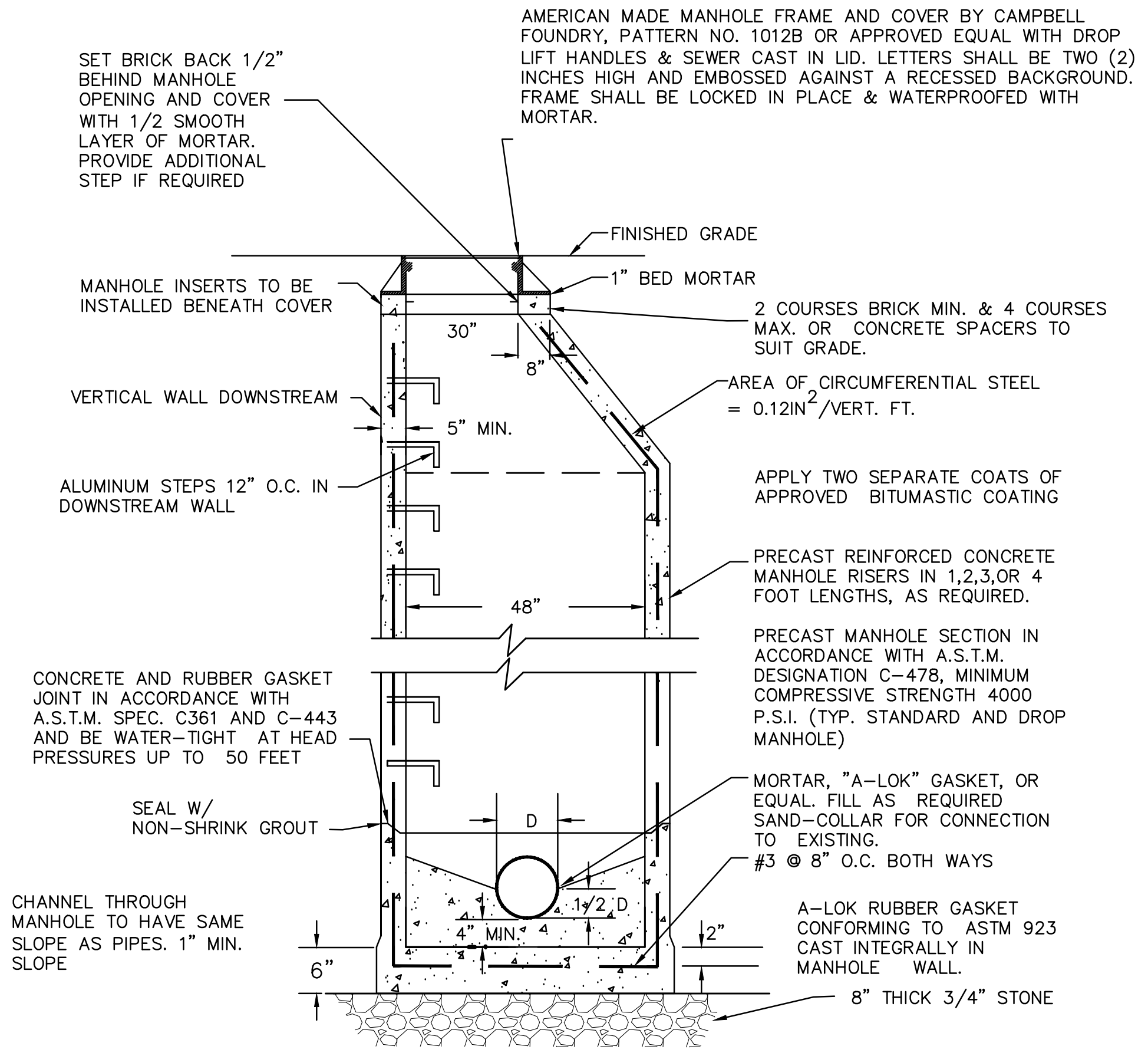
DRAWN BY TJK	APPROVED BY RJC
SCALE AS SHOWN	DATE 12/12/17
JOB NUMBER 3487	SHEET NO. 18 OF 26

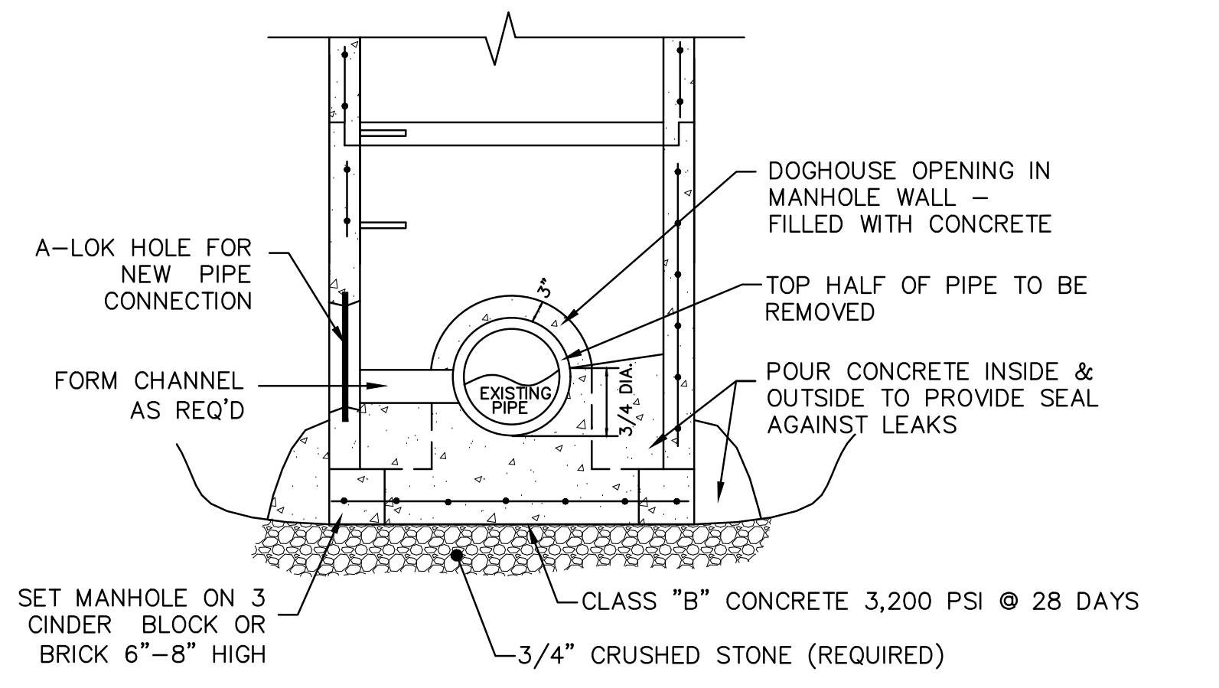
CS1002

CREATED ON 01/14/2020, LAST MODIFIED ON 01/26/2022


AMERICAN MADE MANHOLE FRAME AND COVER BY CAMPBELL FOUNDRY, PATTERN NO. 1012B OR APPROVED EQUAL WITH DROP LIFT HANDLES & SEWER CAST IN LID. LETTERS SHALL BE TWO (2) INCHES HIGH AND EMBOSSED AGAINST A RECESSED BACKGROUND. FRAME SHALL BE LOCKED IN PLACE & WATERPROOFED WITH MORTAR.
SET BRICK BACK 1/2" BEHIND MANHOLE OPENING AND COVER WITH 1/2 SMOOTH LAYER OF MORTAR. PROVIDE ADDITIONAL STEP IF REQUIRED
FINISHED GRADE
1" BED MORTAR
MANHOLE INSERTS TO BE INSTALLED BENEATH COVER
2 COURSES BRICK MIN. & 4 COURSES MAX. OR CONCRETE SPACERS TO SUIT GRADE.
30"
8"
VERTICAL WALL DOWNSTREAM
5" MIN.
AREA OF CIRCUMFERENTIAL STEEL = 0.12IN²/VERT. FT.
ALUMINUM STEPS 12" O.C. IN DOWNSTREAM WALL
APPLY TWO SEPARATE COATS OF APPROVED BITUMASTIC COATING
PRECAST REINFORCED CONCRETE MANHOLE RISERS IN 1,2,3,OR 4 FOOT LENGTHS, AS REQUIRED.
48"
PRECAST MANHOLE SECTION IN ACCORDANCE WITH A.S.T.M. DESIGNATION C-478, MINIMUM COMPRESSIVE STRENGTH 4000 P.S.I. (TYP. STANDARD AND DROP MANHOLE)
CONCRETE AND RUBBER GASKET JOINT IN ACCORDANCE WITH A.S.T.M. SPEC. C361 AND C-443 AND BE WATER-TIGHT AT HEAD PRESSURES UP TO 50 FEET
SEAL W/ NON-SHRINK GROUT
D
MORTAR, "A-LOK" GASKET, OR EQUAL. FILL AS REQUIRED SAND-COLLAR FOR CONNECTION TO EXISTING.
#3 @ 8" O.C. BOTH WAYS
1/2 D
4" MIN.
CHANNEL THROUGH MANHOLE TO HAVE SAME SLOPE AS PIPES. 1" MIN. SLOPE
6"
2"
A-LOK RUBBER GASKET CONFORMING TO ASTM 923 CAST INTEGRALLY IN MANHOLE WALL.
8" THICK 3/4" STONE

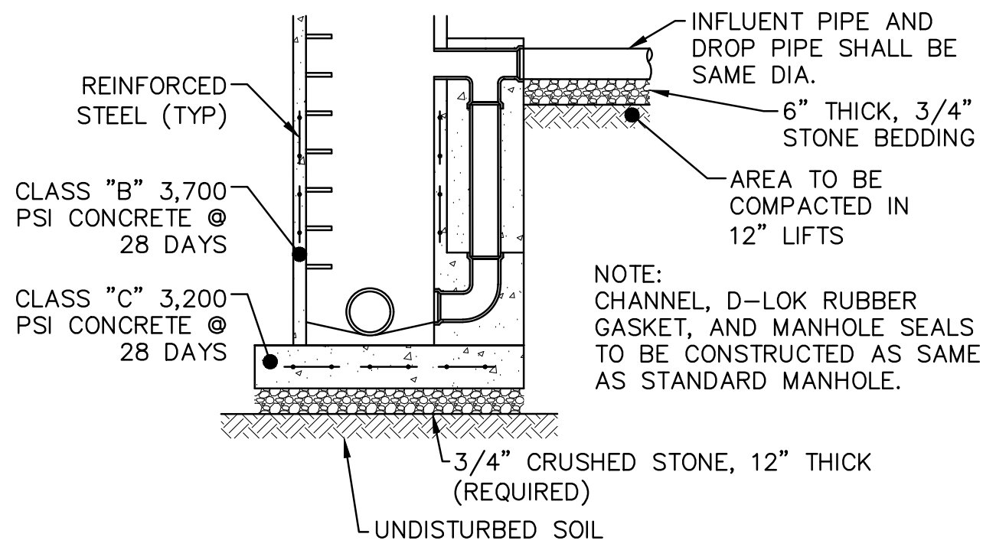
STANDARD 4'-0" DIAMETER PRECAST SANITARY MANHOLE DETAIL

N.T.S.


A-LOK HOLE FOR NEW PIPE CONNECTION
DOGHOUSE OPENING IN MANHOLE WALL – FILLED WITH CONCRETE
3"
TOP HALF OF PIPE TO BE REMOVED
FORM CHANNEL AS REQ'D
EXISTING PIPE
3/4 DIA.
POUR CONCRETE INSIDE & OUTSIDE TO PROVIDE SEAL AGAINST LEAKS
SET MANHOLE ON 3 CINDER BLOCK OR BRICK 6"-8" HIGH
CLASS "B" CONCRETE 3,200 PSI @ 28 DAYS
3/4" CRUSHED STONE (REQUIRED)

SANITARY SEWER DOGHOUSE MANHOLE DETAIL

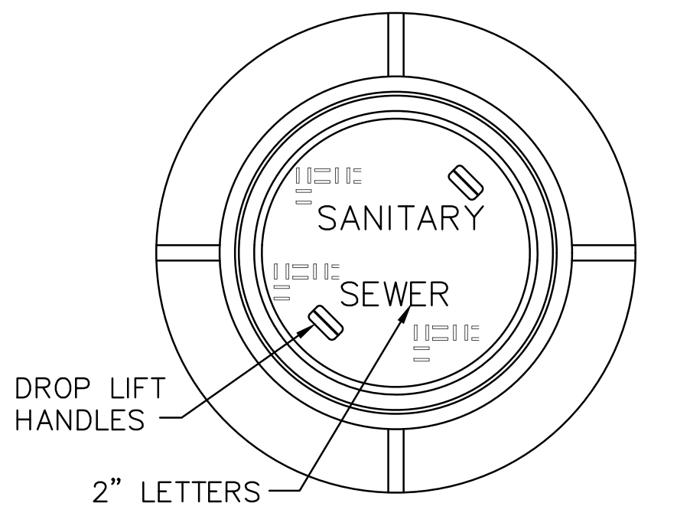
N.T.S.


REINFORCED STEEL (TYP)
CLASS "B" 3,700 PSI CONCRETE @ 28 DAYS
CLASS "C" 3,200 PSI CONCRETE @ 28 DAYS
INFLUENT PIPE AND DROP PIPE SHALL BE SAME DIA.
6" THICK, 3/4" STONE BEDDING
AREA TO BE COMPACTED IN 12" LIFTS
3/4" CRUSHED STONE, 12" THICK (REQUIRED)
UNDISTURBED SOIL

NOTE:
CHANNEL, D-LOK RUBBER GASKET, AND MANHOLE SEALS TO BE CONSTRUCTED AS SAME AS STANDARD MANHOLE.

MANHOLE DROP CONNECTION DETAIL

N.T.S.


SANITARY
SEWER
DROP LIFT HANDLES
2" LETTERS

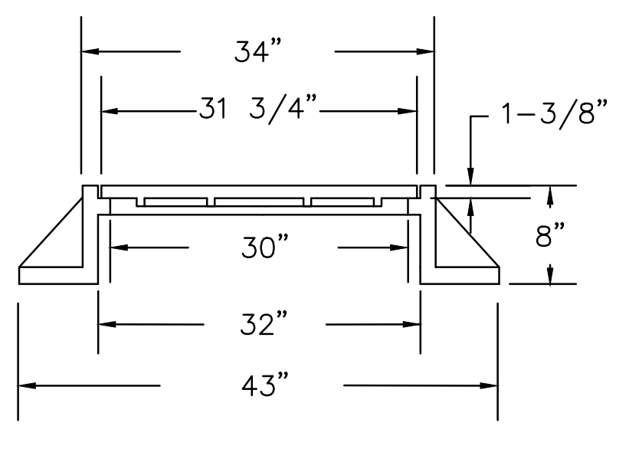
NOTES:

STANDARD MANHOLE FRAMES & COVERS SHALL BE USED ON ALL MANHOLES NOT LOCATED WITHIN EASEMENTS UNLESS DIRECTED OTHERWISE BY THE ENGINEER.

STANDARD MANHOLE FRAME & COVER SHALL BE BRIDGESTATE PATTERN #1012B, OR APPROVED EQUAL, WITH NON-PENETRATING PICK HOLES AND DROP LIFT HANDLES.

"FLOW-SEAL" MANHOLE COVERS SHALL BE USED ON MANHOLES LOCATED WITHIN EASEMENTS, IN UNPAVED AREAS, AND OUTSIDE OF THE CENTERLINE OF PAVED ROADS.

ALL MANHOLE FRAME AND COVERS SHALL BE MADE IN THE USA.

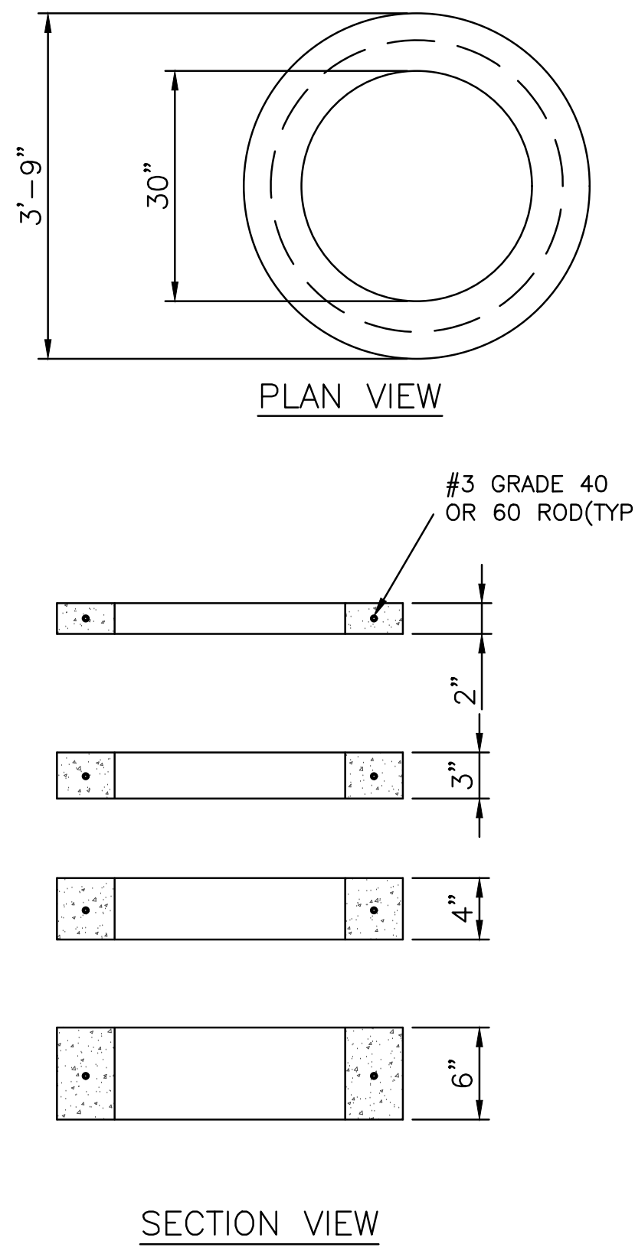

34"
31 3/4"
1-3/8"
30"
8"
32"
43"

CAMPBELL MODEL #1012B

MANHOLE RIM DETAIL

N.T.S.

1. CONCRETE: 4,000 P.S.I @ 28 DAYS.
2. CEMENT: PORTLAND TYPE III PER ASTM C150-81
3. REINFORCING: CONFORMS TO ASTM C-478
4. DESIGN LOADING: (H-20)

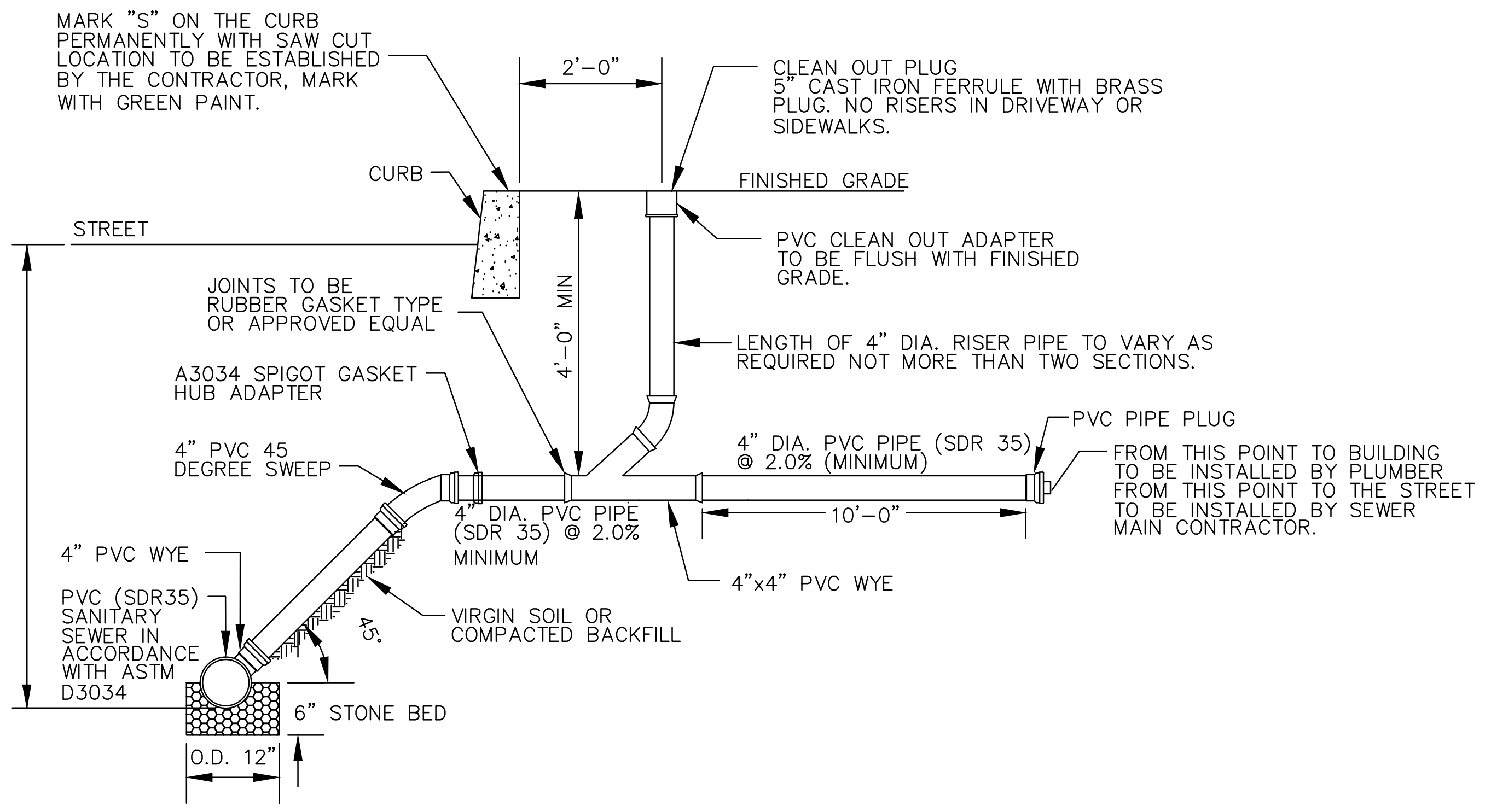

3'-9"
30"
PLAN VIEW
#3 GRADE 40 OR 60 ROD(TYP)
2"
3"
4"
6"
SECTION VIEW

STANDARD MANHOLE GRADE RING DETAIL

N.T.S.

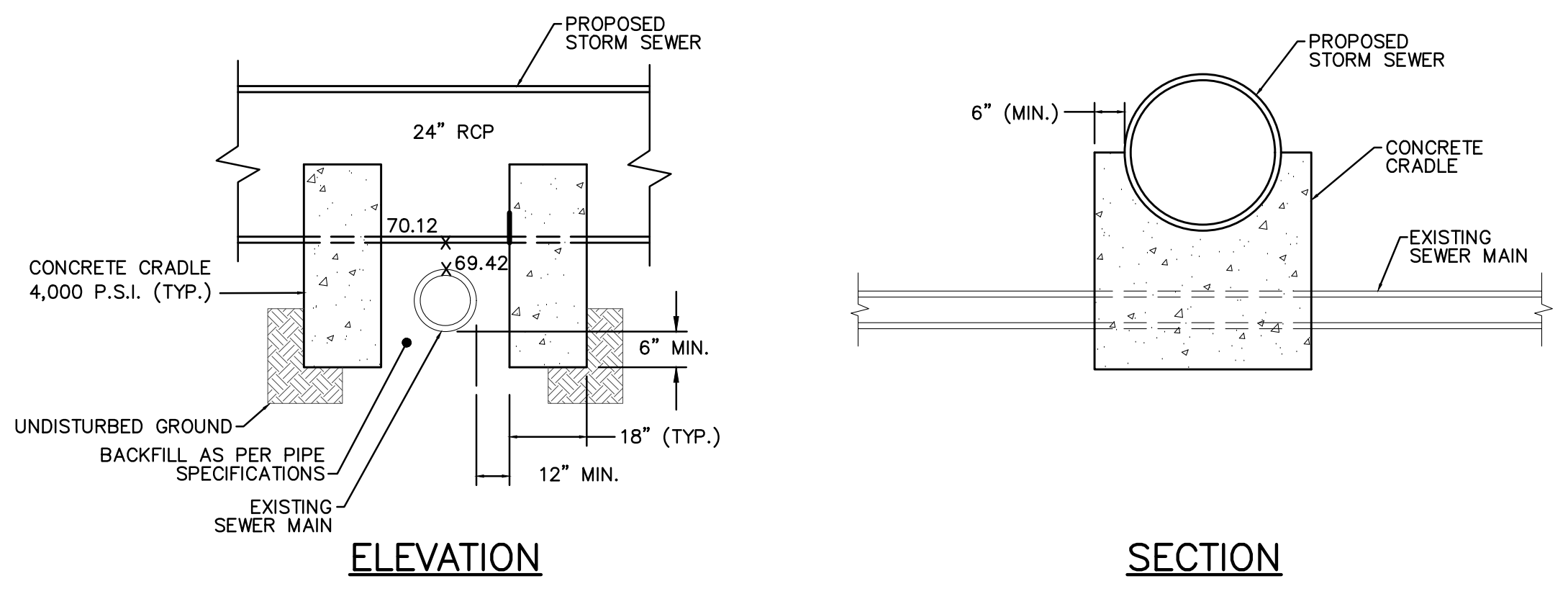
CHERRY HILL TOWNSHIP SAN. SEWER NOTES

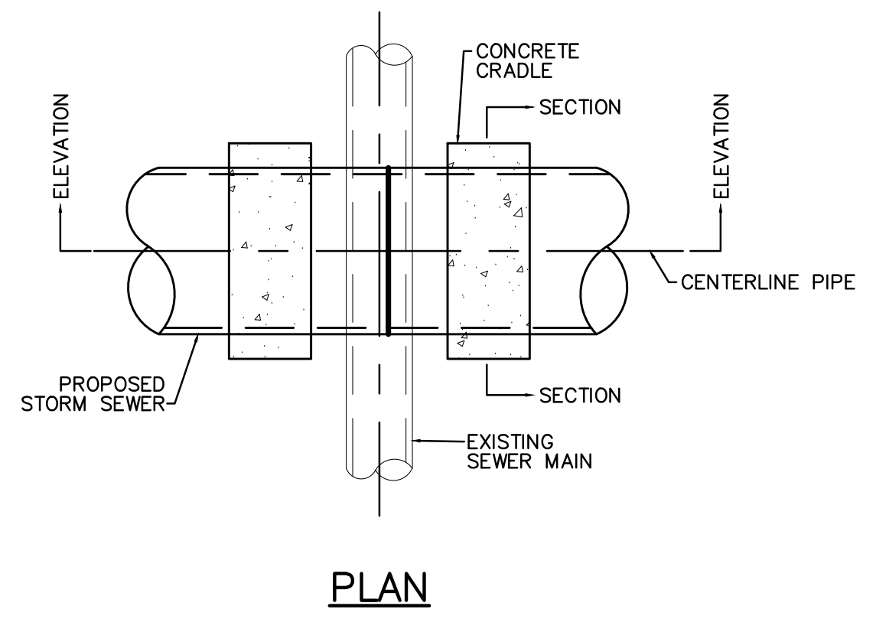
1. SANITARY SEWER CONSTRUCTION, MATERIALS AND TESTING SHALL BE SUBJECT TO THE APPROVAL OF AN INSPECTION BY THE CHERRY HILL TOWNSHIP ENGINEER AND SUBJECT TO RATES, RULES AND REGULATIONS BY CHERRY HILL TOWNSHIP.
2. ALL CONSTRUCTION, MATERIALS RESTORATION AND METHODS OF INSTALLATION IN TOWNSHIP ROADS SHALL BE SUBJECT TO THE REQUIREMENTS AND APPROVAL OF THE TOWNSHIP OF CHERRY HILL.
3. SANITARY SEWER MAINS SHALL BE PVC.
4. A MINIMUM SIZE OF 8" POLYVINYL CHLORIDE (PVC) PIPE (MEETING ASTM 03034, SDR 35 & 26 SPECIFICATIONS) WITH A MINIMUM OF THREE (3) FEET OF COVER. PVC PIPE SHALL HAVE BELL AND SPIGOT ENDS AND "O" RING RUBBER GASKET JOINTS.
5. THE MINIMUM SLOPE ALLOWABLE FOR EIGHT (8) INCH PVC IS 0.004.
6. ALL MANHOLES SHALL BE PRECAST REINFORCED CONCRETE IN ACCORDANCE WITH ASTM C-478.
7. NO SANITARY SEWER LATERALS SHALL BE CONNECTED DIRECTLY INTO ANY MANHOLE.
8. SANITARY SEWER LATERALS SHALL BE FOUR (4) INCH PVC WITH A MINIMUM SLOPE OF 1/4 INCH PER FOOT AND INSTALLED AT 90 DEGREES TO THE MAIN BY MEANS OF A WYE CONNECTION ONLY. THE MINIMUM COVER OVER ANY SANITARY SEWER LATERAL SHALL BE 36 INCHES.
9. SANITARY SEWER RISERS SHALL NOT BE INSTALLED IN DRIVEWAYS OR SIDEWALKS (NO EXCEPTIONS).
10. ALL SANITARY SEWERS SHALL BE CONSTRUCTED WITH CLASS "B" MODIFIED BEDDING UNLESS OTHERWISE NOTED.
11. WHEREVER THE TRENCH BOTTOM DOES NOT AFFORD SUFFICIENT BEARING STRENGTH TO SUSTAIN THE WEIGHT OF THE PIPE AND SUPERIMPOSED LOADS, IT SHALL BE OVER EXCAVATED AND STABILIZED WITH A 12" THICK MINIMUM LAYER OF CRUSHED STONE.
12. ALL SEWER INSTALLATIONS SHALL CONFORM TO THE REQUIREMENTS OF THE TESTING AND INSPECTING PROCEDURES OF CHERRY HILL TOWNSHIP.
13. SANITARY SEWER CONNECTION TO EXISTING MANHOLE CORE SHALL BE OVERSIZED. FILL VOIDS AT CONNECTION WITH NON-SHRINK GROUT AS SPECIFIED BY THE CHERRY HILL TOWNSHIP ENGINEER. EXISTING FLOW SHALL NOT BE INTERRUPTED DURING THE PROPOSED CONNECTION AND CONSTRUCTION.
14. THE APPLICANT/OWNER SHALL BE AWARE AND AGREES THAT THE REVIEW BY CHERRY HILL TOWNSHIP ENGINEER IS BASED UPON THE BEST INFORMATION AVAILABLE AND IN NO WAY DOES IT GUARANTEE THE EXISTENCE OF, OR NON-EXISTANCE OF SANITARY SEWER AND OR APPURTENANCES. IT IS THE RESPONSIBILITY OF THE APPLICANT/OWNER TO VERIFY THE LOCATION OF SUCH MAINS/APPURTENANCES.
15. ACCEPTANCE OF THE SEWER MAINS AT THE TIME OF BASE PAVING DOES NOT ABSOLVE THE DEVELOPER OF ANY RESPONSIBILITY FOR SETTLEMENT OR FAILURES BETWEEN BASE PAVING AND FINAL PAVING OPERATIONS.
16. SANITARY SEWER AND WATER MAINS SHALL BE SEPARATED BY TEN (10) FEET HORIZONTALLY WHEREVER POSSIBLE. OTHERWISE, THE SEWER AND WATER SHALL BE IN SEPARATE TRENCHES WITH THE SEWER 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN. AT WATER AND SEWER CROSSINGS, THE SEWER SHALL BE 18 INCHES MINIMUM BELOW THE WATER OR SEWER MAIN SHALL BE DUCTILE IRON PIPE WITH SLIP-ON JOINT FOR TEN (10) FEET MINIMUM OF EACH SIDE OF THE CROSSING. JOINT MUST BE TEN (10) FEET FROM EXISTING.
17. SANITARY SEWER LATERALS SHALL BE SEPARATED A DISTANCE OF AT LEAST FIVE (5) FEET HORIZONTALLY FROM ANY PROPERTY LINE.
18. PRESSURE TESTING, LAMPING AND VERTICAL SURVEY AS-BUILT OF THE SEWER SYSTEM SHALL BE PERFORMED BY THE DEVELOPER AND REVIEWED BY THE CHERRY HILL TOWNSHIP ENGINEER PRIOR TO AUTHORIZING ANY BASE PAVING. THE TOWNSHIP ENGINEER AND SUPERINTENDENT, PRIOR TO AUTHORIZING ANY PAVING OPERATIONS SHALL REVIEW AND ACCEPT LAMPING, PRESSURE TEST RESULTS, SLOPES AND DEPTHS OF NEW MAINS.
19. NO UNDERDRAIN, CONDUIT AND OR CABLES OF ANY NATURE SHALL BE INSTALLED IN THE SAME TRENCH WITH SANITARY SEWER.
20. WHEN A NEW SANITARY SEWER LINE IS CONSTRUCTED AND TIES INTO AN ACTIVE MANHOLE, THE NEW LINE WILL BE PLUGGED AND REMAINED PLUGGED UNTIL ALL TESTING HAS BEEN COMPLETED AND APPROVED BY CHERRY HILL TOWNSHIP.
21. ALL SANITARY SEWER LATERALS THAT ARE SCHEDULED FOR CONNECTION TO A SPECIFIC SEWER MAIN MUST BE CONNECTED AND EXTENDED TO THE CURBLINE PRIOR TO THE ACCEPTANCE TESTING ON THAT LINE.
22. NEITHER REPAIR CLAMPS NOR SADDLES ARE PERMITTED TO BE USED ON NEW SANITARY SEWERS WITHIN THE JURISDICTION OF CHERRY HILL TOWNSHIP. THESE ARE ONLY TO BE USED IN CASES OF EMERGENCY, AND THEN ONLY WITH THE PRIOR WRITTEN APPROVAL OF CHERRY HILL TOWNSHIP. IF AND WHEN SADDLES ARE APPROVED, THEY WILL BE OF THE STRAP-ON TPYE; NO BOLT-ON SADDLES WILL BE PERMITTED.
23. THE MAXIMUM MANHOLE SPACING SHALL BE 400 FEET.
24. THE MINIMUM MANHOLE DIAMETER SHALL BE 4 FEET WITH A MINIMUM ACCESS DIAMETER OF 30 INCHES.
25. THE FLOW CHANNEL THROUGH THE MANHOLE SHALL BE MADE TO CONFORM IN SHAPE AND SLOPE TO THAT OF THE SEWERS.
26. DSA SHALL BE CAST IN THE LIDS OF ALL SANITARY MANHOLES.
27. ALL PIPE PENETRATIONS INTO THE MANHOLE SHALL BE NO LESS THAN 90 DEGREES TO THE CENTER OF THE DOWNSTREAM MAIN.
28. CHERRY HILL TOWNSHIP SHALL ASSUME OWNERSHIP OF THE PROPOSED SANITARY SEWER UPON RELEASE OF THE PERFORMANCE BOND.
29. PIPES INSTALLED AT DEPTHS GREATER THAN 10 FEET BUT LESS THAN 20 FEET SHALL BE SDR-26.


MARK "S" ON THE CURB PERMANENTLY WITH SAW CUT LOCATION TO BE ESTABLISHED BY THE CONTRACTOR, MARK WITH GREEN PAINT.
2'-0"
CLEAN OUT PLUG 5" CAST IRON FERRULE WITH BRASS PLUG. NO RISERS IN DRIVEWAY OR SIDEWALKS.
CURB
FINISHED GRADE
STREET
PVC CLEAN OUT ADAPTER TO BE FLUSH WITH FINISHED GRADE.
JOINTS TO BE RUBBER GASKET TYPE OR APPROVED EQUAL
4'-0" MIN
LENGTH OF 4" DIA. RISER PIPE TO VARY AS REQUIRED NOT MORE THAN TWO SECTIONS.
A3034 SPIGOT GASKET HUB ADAPTER
PVC PIPE PLUG
4" PVC 45 DEGREE SWEEP
4" DIA. PVC PIPE (SDR 35) @ 2.0% (MINIMUM)
FROM THIS POINT TO BUILDING TO BE INSTALLED BY PLUMBER FROM THIS POINT TO THE STREET TO BE INSTALLED BY SEWER MAIN CONTRACTOR.
4" DIA. PVC PIPE (SDR 35) @ 2.0% MINIMUM
10'-0"
4" PVC WYE
4"x4" PVC WYE
PVC (SDR35) SANITARY SEWER IN ACCORDANCE WITH ASTM D3034
VIRGIN SOIL OR COMPACTED BACKFILL
45°
6" STONE BED
O.D. 12"

SANITARY SEWER TYPICAL LATERAL DETAIL

N.T.S.


PROPOSED STORM SEWER
24" RCP
70.12
69.42
CONCRETE CRADLE 4,000 P.S.I. (TYP.)
6" MIN.
UNDISTURBED GROUND
BACKFILL AS PER PIPE SPECIFICATIONS
18" (TYP.)
12" MIN.
EXISTING SEWER MAIN
ELEVATION
6" (MIN.)
PROPOSED STORM SEWER
CONCRETE CRADLE
EXISTING SEWER MAIN
SECTION

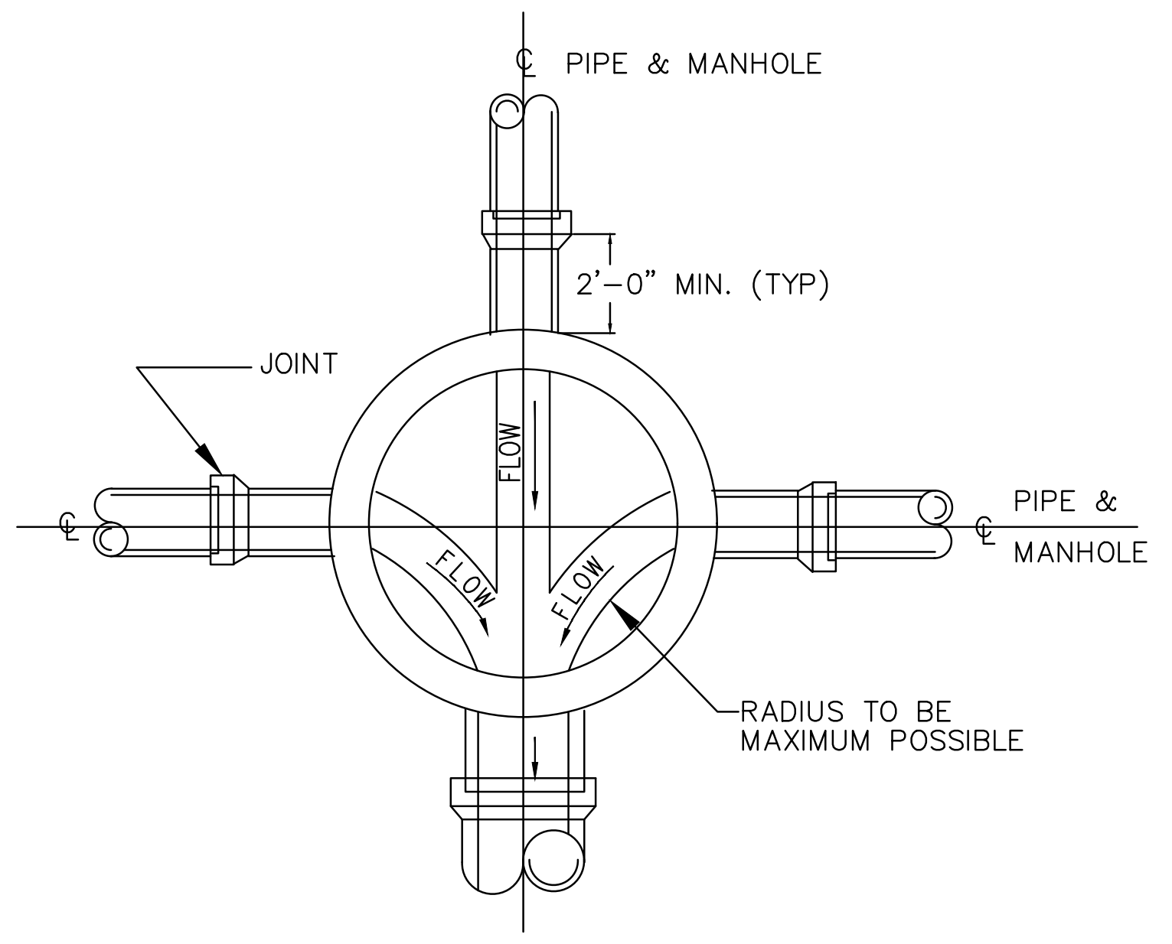

CONCRETE CRADLE
SECTION
ELEVATION
ELEVATION
CENTERLINE PIPE
PROPOSED STORM SEWER
SECTION
EXISTING SEWER MAIN
PLAN

CONCRETE CRADLE NOTE:

USE CONCRETE CRADLES WHERE LESS THEN 18" VERTICAL SEPARATION IS PROVIDED BETWEEN THE OUTSIDE WALLS OF THE SEWER MAIN AND ANY PIPE CROSSING ABOVE.

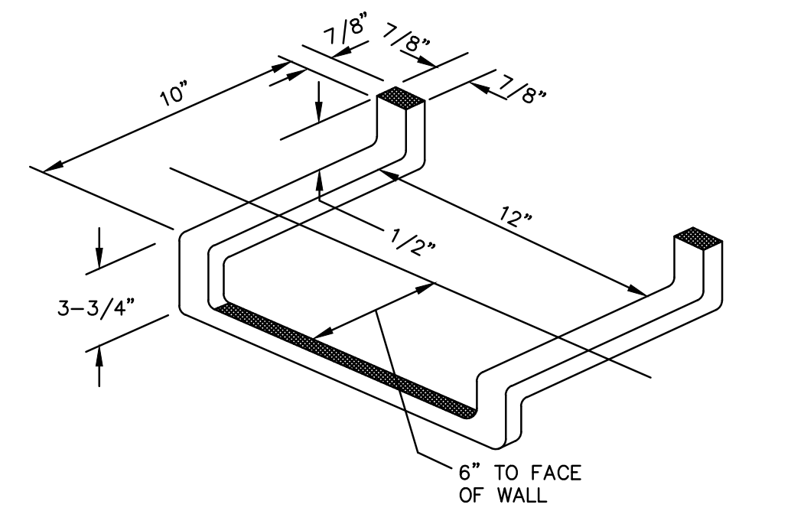
CONCRETE CRADLE DETAIL

N.T.S.


℄ PIPE & MANHOLE
2'-0" MIN. (TYP)
JOINT
FLOW
FLOW
FLOW
PIPE & MANHOLE
RADIUS TO BE MAXIMUM POSSIBLE

MANHOLE CHANNELING DETAIL

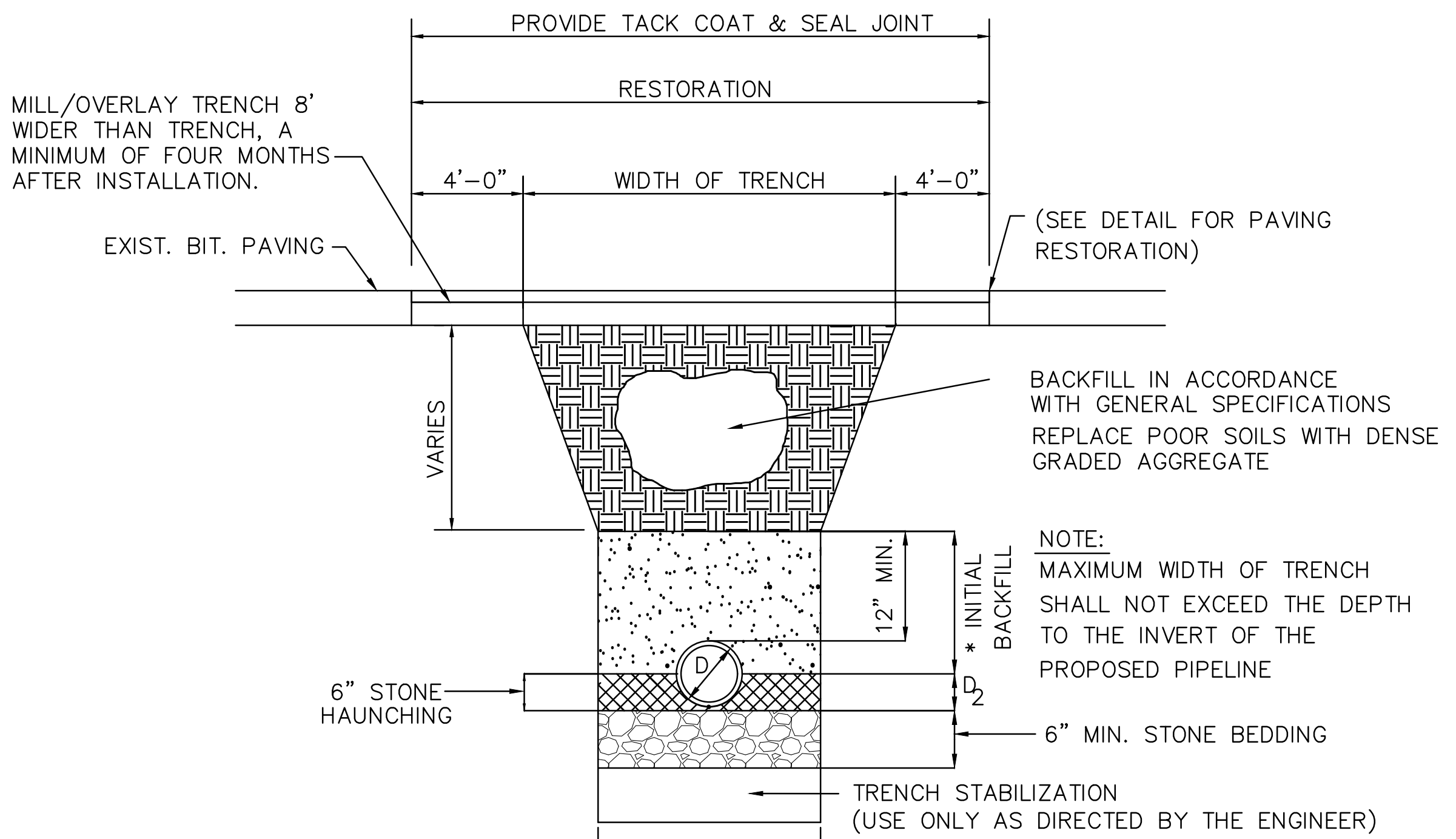
N.T.S.


7/8"
7/8"
7/8"
10"
12"
1/2"
3-3/4"
6" TO FACE OF WALL

PORTION EMBEDDED IN MASONRY TO BE COATED WITH COAL TAR, PITCH, VARNISH OR OTHER SPECIFIED MATERIAL.

ALUMINUM MANHOLE STEP DETAIL

N.T.S.

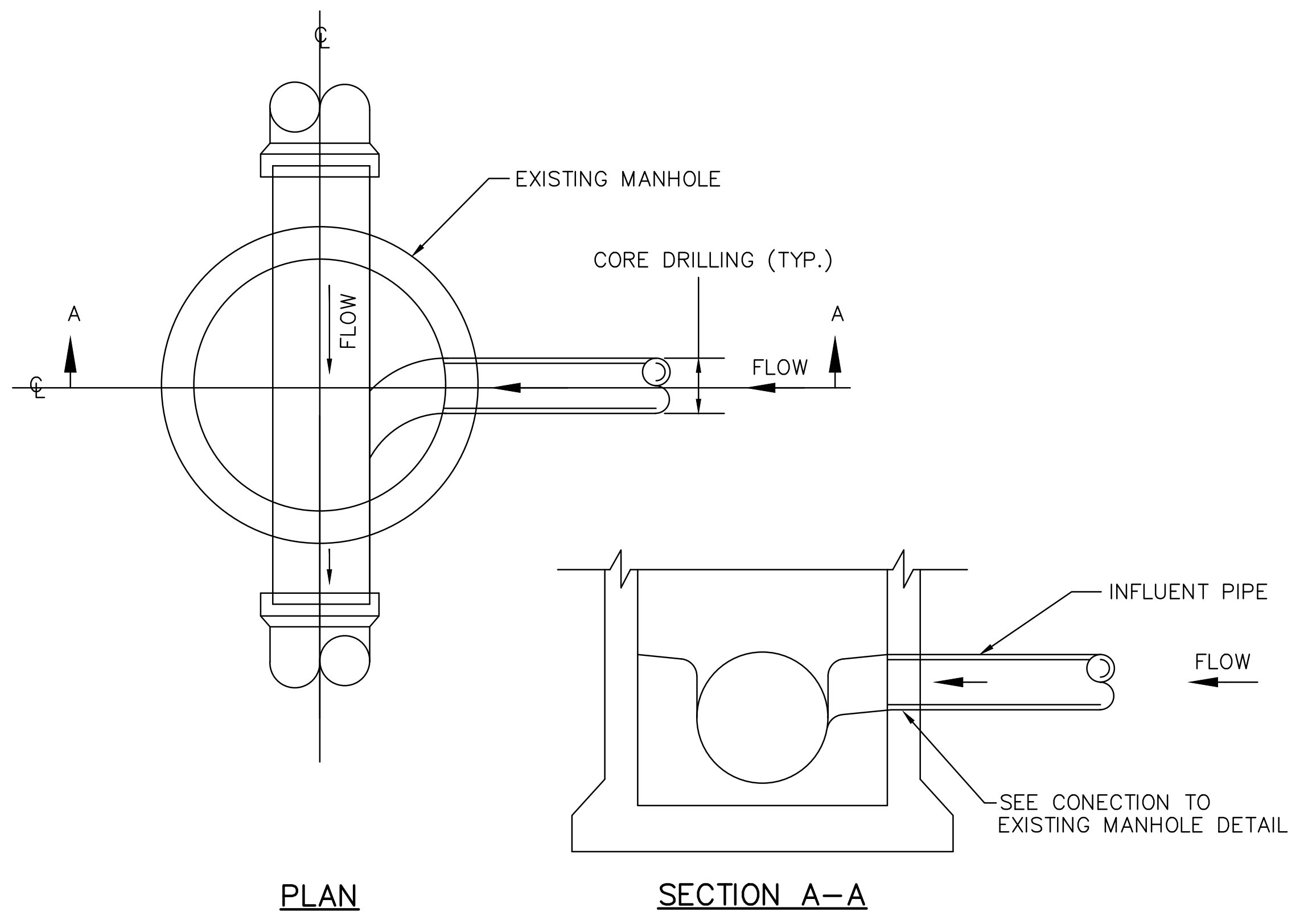

PROVIDE TACK COAT & SEAL JOINT
RESTORATION
MILL/OVERLAY TRENCH 8' WIDER THAN TRENCH, A MINIMUM OF FOUR MONTHS AFTER INSTALLATION.
4'-0"
WIDTH OF TRENCH
4'-0"
EXIST. BIT. PAVING
(SEE DETAIL FOR PAVING RESTORATION)
BACKFILL IN ACCORDANCE WITH GENERAL SPECIFICATIONS
REPLACE POOR SOILS WITH DENSE GRADED AGGREGATE
VARIES
12" MIN.
* INITIAL BACKFILL
D
D/2
6" STONE HAUNCHING
6" MIN. STONE BEDDING
TRENCH STABILIZATION (USE ONLY AS DIRECTED BY THE ENGINEER)
D + 16"

NOTE:
MAXIMUM WIDTH OF TRENCH SHALL NOT EXCEED THE DEPTH TO THE INVERT OF THE PROPOSED PIPELINE

*INITIAL BACKFILL AND BEDDING MATERIAL SHALL BE SOIL AGGREGATE DESIGNATION I – 8 CONFORMING TO THE REQUIREMENTS OF SECTION 901.09 TABLE 901-2 OF THE NJDOT STANDARD SPECIFICATIONS, LATEST REVISION, OR STONE CRUSHING TO CONFORM WITH A.A.S.H.T.O. DESIGNATION M-43-54 (1974)(A.S.T.M. DESIGNATION D448-54), SIZE NO. 8, 1/8" TO 3/8" CLEAN, FREE FLOWING AND SHALL MEET ALL A.S.T.M. C-33 FOR QUALITY AND SOUNDNESS.

SANITARY SEWER BEDDING

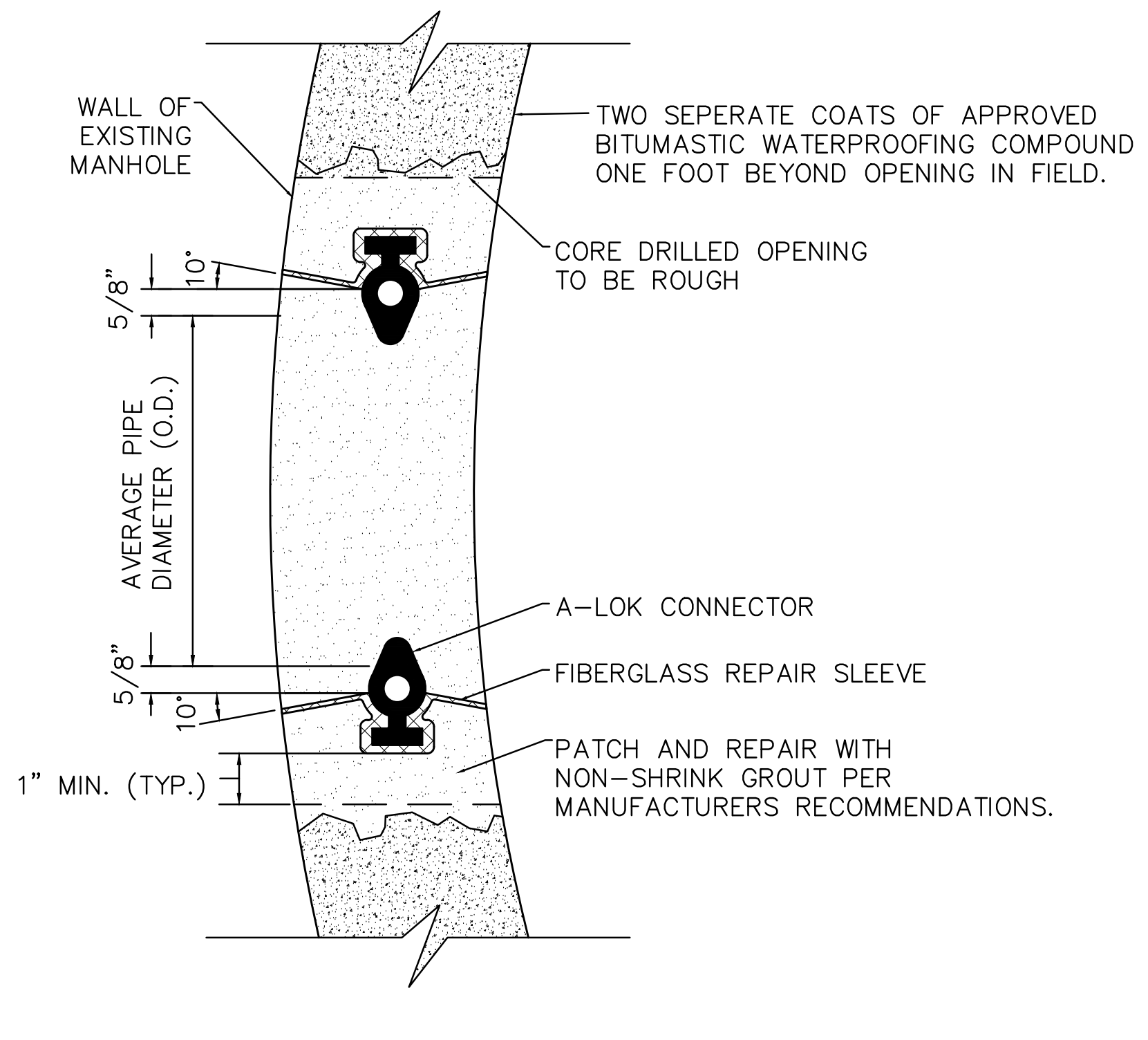
N.T.S.


℄
EXISTING MANHOLE
CORE DRILLING (TYP.)
A
A
FLOW
FLOW
℄
INFLUENT PIPE
FLOW
SEE CONECTION TO EXISTING MANHOLE DETAIL
PLAN
SECTION A-A

1. THE CONNECTION TO THE EXISTING MANHOLE SHOULD BE MADE WITH A CORING MACHINE.
2. IF THE PROPOSED PIPE COINCIDES WITH THE EXISTING MANHOLE RUNGS, THE EXISTING MANHOLE OPENING AND CONE SECTION SHALL BE REALIGNED WITH THE PROPOSED ACCESS LADDER. THE EXISTING MANHOLE RUNGS WITHIN THE CONE SECTION MAY REMAIN AND ALL OTHERS ARE TO BE REMOVED. A NEW STAINLESS STEEL ACCESS LADDER WITH 1" DIAMETER RUNGS (MIN) X 12" WIDE (MIN) @ 12" ON CENTER SHALL BE INSTALLED 7" FROM THE MANHOLE WALL TO THE CENTER OF THE RUNGS AND ANCHORED TO THE MANHOLE WALL WITH STAINLESS STEEL HARDWARE.

MANHOLE CORING DETAIL

N.T.S.


WALL OF EXISTING MANHOLE
TWO SEPERATE COATS OF APPROVED BITUMASTIC WATERPROOFING COMPOUND ONE FOOT BEYOND OPENING IN FIELD.
CORE DRILLED OPENING TO BE ROUGH
10°
5/8"
AVERAGE PIPE DIAMETER (O.D.)
A-LOK CONNECTOR
5/8"
FIBERGLASS REPAIR SLEEVE
10°
PATCH AND REPAIR WITH NON-SHRINK GROUT PER MANUFACTURERS RECOMMENDATIONS.
1" MIN. (TYP.)

NOTE: CLEAN AND LUBRICATE A-LOK CONNECTOR AND THE PIPE END WHICH WILL BE INSERTED INTO A-LOK PRIOR TO MAKING CONNECTION

CONNECTION TO EXISTING MANHOLE DETAIL

N.T.S.

Z:\CHERRY HILL LAND DEVELOPMENT GROUP\3487 CENTURA PHASE 1 & 2\DRAWINGS\CENTURA\CS1101.DWG

DATE	ISSUE	REVISION	BY	APPR.
03/10/2022	6	ISSUED FOR FINAL SITE PLAN COMPLIANCE	TJK	RJC
07/02/2020	5	SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK	RJC
01/13/20	4	REVISED PER COMMENTS FROM CHERRY HILL TOWNSHIP PUBLIC WORKS ENGINEER	GMM	RJC
07/16/19	3	NO CHANGE THIS SHEET	TJK	RJC
10/2/18	2	REVISE CHERRY HILL TOWNSHIP SANITARY SEWER NOTES	GMM	RJC
12/12/17	1	NOT PART OF INITIAL SUBMISSION	TJK	RJC

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www.jsaengineering.com

CENTURA – PHASE 1 AND 2

TAX MAP SHEET 234, BLOCK 433.20, LOT 15.01 & 16.01, FORMERLY BLOCK 433.20, LOT 1
CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

SANITARY SEWER DETAIL SHEET

DEVEL, LLC.
C/O STEPHEN D. SAMOST, ESQUIRE 479 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043

41 SOUTH ROUTE 73, BUILDING 1, SUITE 201
HAMMONTON, NEW JERSEY 08037

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200

Richard J Clemson 03/10/2022
DATE

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28017600

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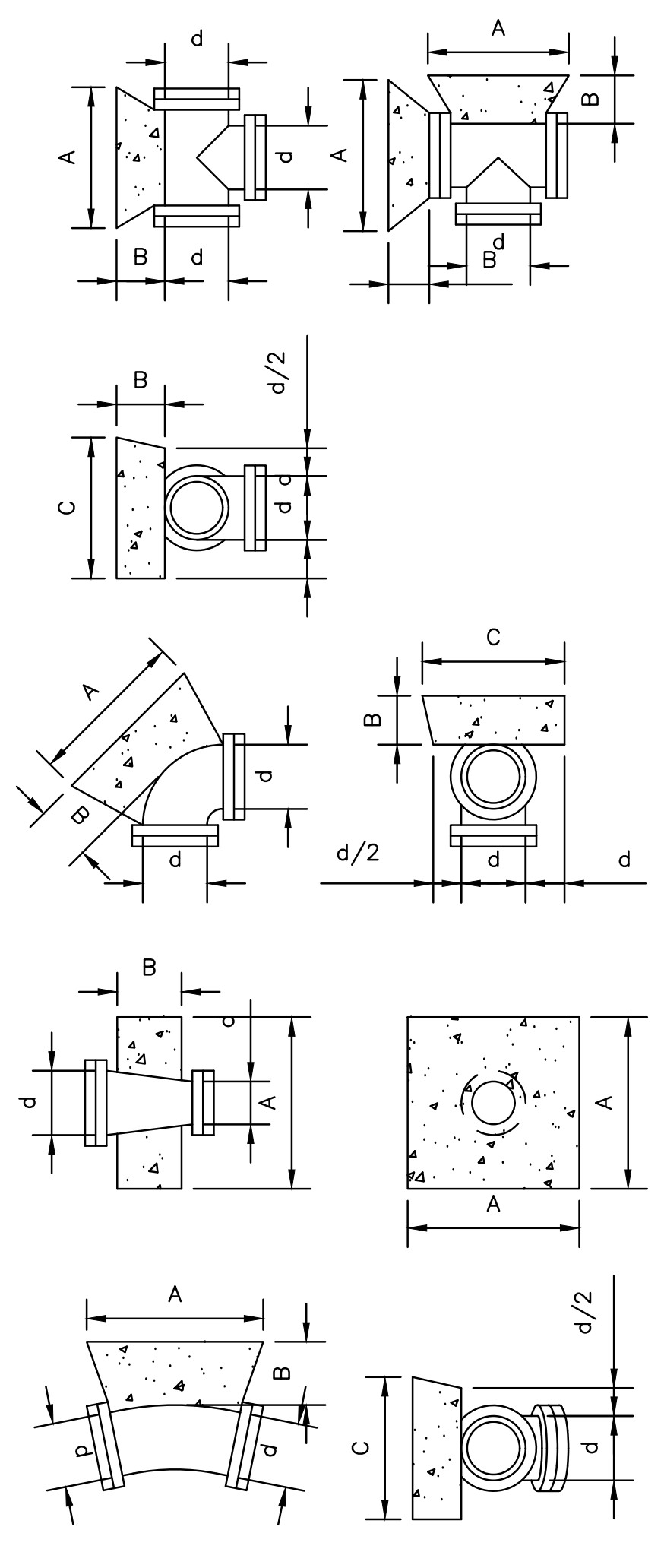
DRAWN BY TJK	APPROVED BY RJC
SCALE AS SHOWN	DATE 12/12/17
JOB NUMBER 3487	SHEET NO. 19 OF 26

CS1101

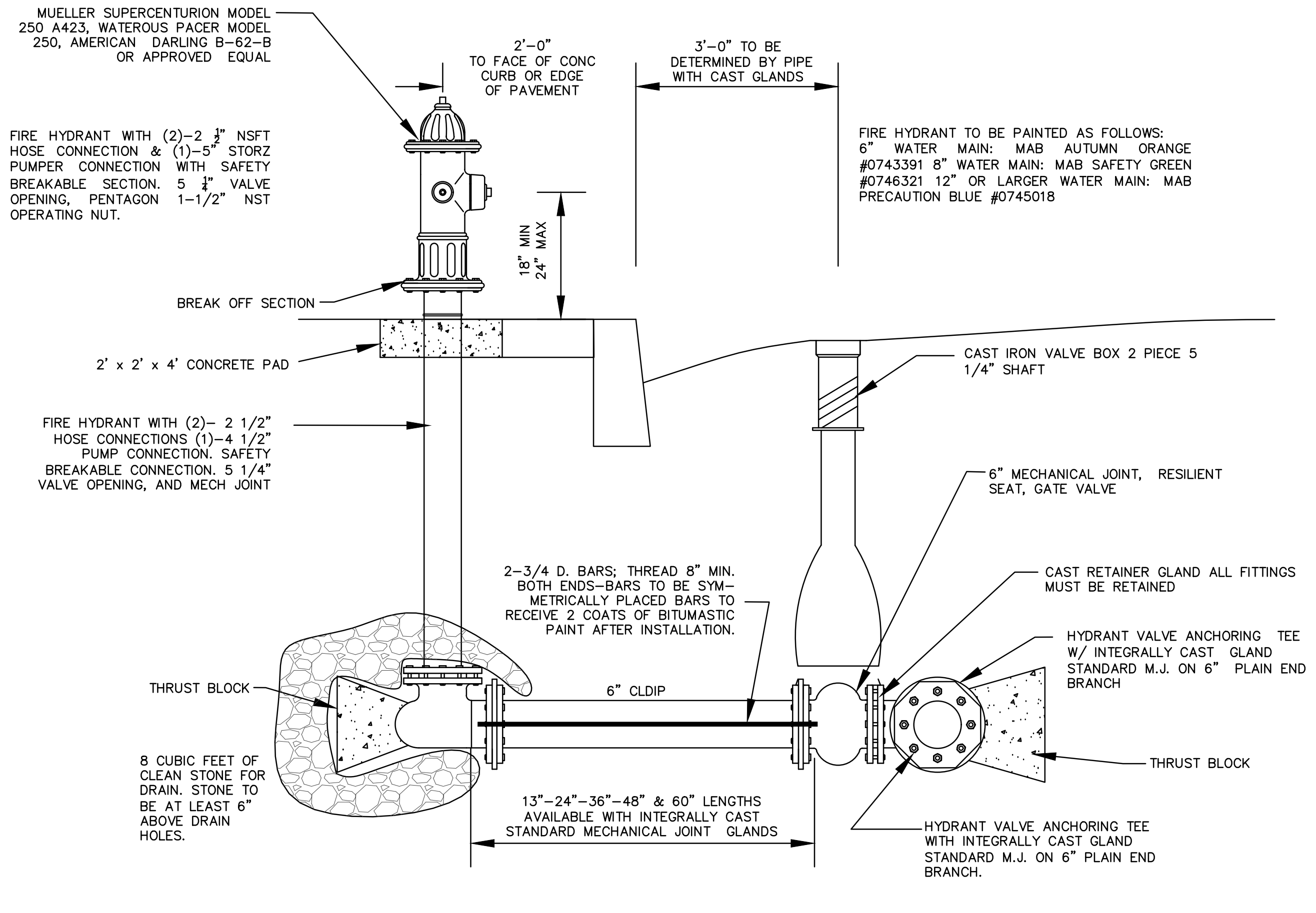
MINIMUM SIZE OF CONCRETE THRUST BLOCKS				
d	6"	8"	10"	12"
TEES & CROSSES				
A	2'–0"	2'–6"	3'–0"	3'–6"
B	8"	8"	10"	10"
C	1'–3"	1'–6"	2'–0"	2'–6"
90° BENDS				
A	2'–6"	3'–0"	3'–6"	3'–9"
B	8"	8"	10"	10"
C	1'–3"	1'–6"	2'–0"	2'–9"
45° BENDS				
A	1'–6"	1'–6"	2'–3"	2'–3"
B	8"	8"	10"	10"
C	1'–3"	1'–9"	2'–0"	2'–6"
22.5° & 11.25° BENDS				
A	1'–6"	1'–6"	1'–6"	1'–6"
B	8"	8"	10"	10"
C	1'–3"	1'–9"	2'–0"	2'–6"
REDUCERS				
dxd	6"x4"	8"x4"	10"x6"	10"x8"
A	1'–6"	2'–0"	2'–4"	2'–6"
B	1'–0"	1'–0"	1'–3"	1'–6"

NOTES:
1. ALL CONCRETE TO BE CLASS "C" (3,200 PSI @ 28 DAYS).
2. ALL FITTINGS TO BE WRAPPED IN VISQUENE AT THE THRUST BLOCK.



THRUST BLOCK DETAILS

N.T.S.

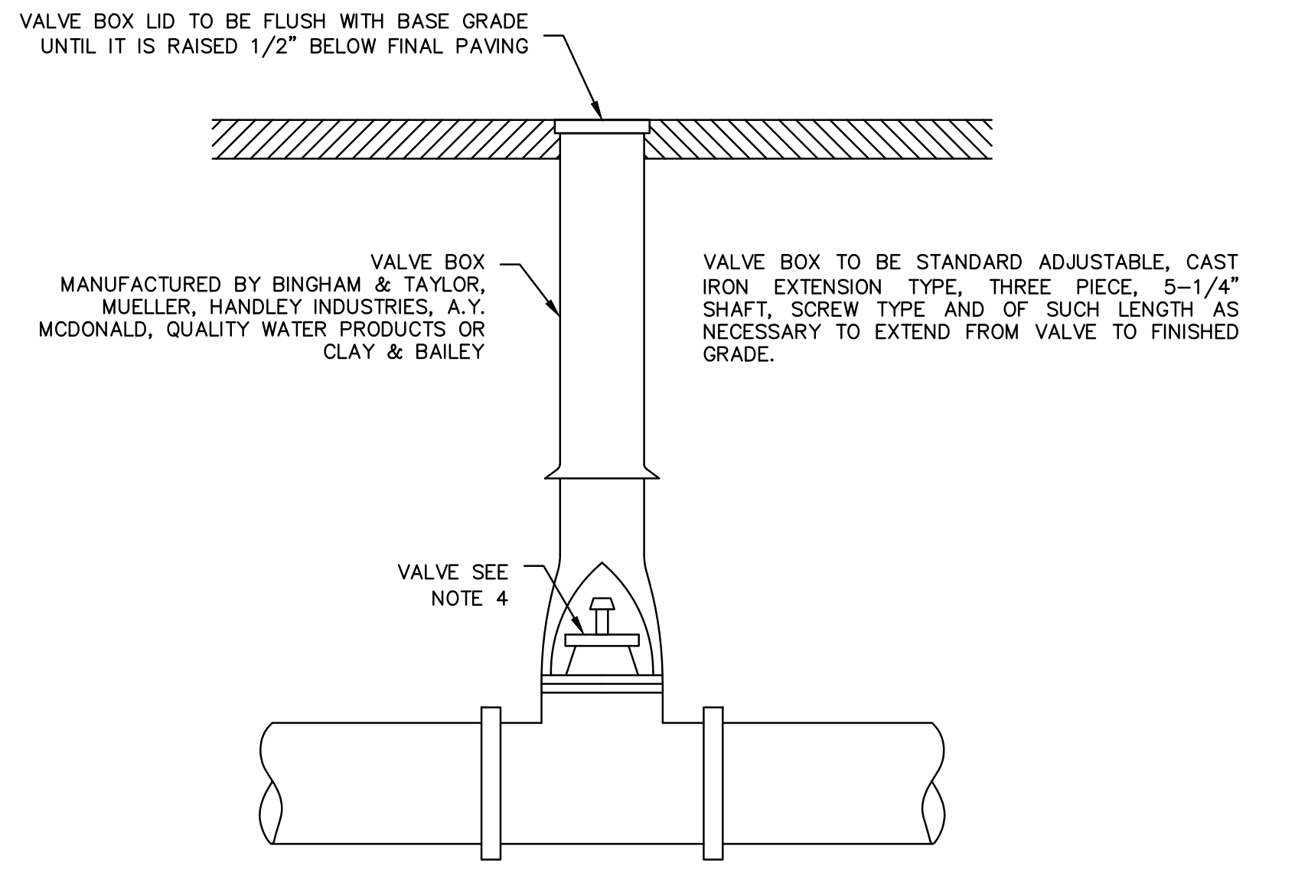

MUELLER SUPERCENTURION MODEL 250 A423, WATEROUS PACER MODEL 250, AMERICAN DARLING B–62–B OR APPROVED EQUAL
2'–0" TO FACE OF CONC CURB OR EDGE OF PAVEMENT
3'–0" TO BE DETERMINED BY PIPE WITH CAST GLANDS
FIRE HYDRANT WITH (2)–2 ½" NSFT HOSE CONNECTION & (1)–5" STORZ PUMPER CONNECTION WITH SAFETY BREAKABLE SECTION. 5 ¼" VALVE OPENING, PENTAGON 1–1/2" NST OPERATING NUT.
FIRE HYDRANT TO BE PAINTED AS FOLLOWS: 6" WATER MAIN: MAB AUTUMN ORANGE #0743391 8" WATER MAIN: MAB SAFETY GREEN #0746321 12" OR LARGER WATER MAIN: MAB PRECAUTION BLUE #0745018
18" MIN 24" MAX
BREAK OFF SECTION
2' x 2' x 4' CONCRETE PAD
CAST IRON VALVE BOX 2 PIECE 5 1/4" SHAFT
FIRE HYDRANT WITH (2)– 2 1/2" HOSE CONNECTIONS (1)–4 1/2" PUMP CONNECTION. SAFETY BREAKABLE CONNECTION. 5 1/4" VALVE OPENING, AND MECH JOINT
6" MECHANICAL JOINT, RESILIENT SEAT, GATE VALVE
2–3/4 D. BARS; THREAD 8" MIN. BOTH ENDS–BARS TO BE SYM–METRICALLY PLACED BARS TO RECEIVE 2 COATS OF BITUMASTIC PAINT AFTER INSTALLATION.
CAST RETAINER GLAND ALL FITTINGS MUST BE RETAINED
HYDRANT VALVE ANCHORING TEE W/ INTEGRALLY CAST GLAND STANDARD M.J. ON 6" PLAIN END BRANCH
THRUST BLOCK
6" CLDIP
THRUST BLOCK
8 CUBIC FEET OF CLEAN STONE FOR DRAIN. STONE TO BE AT LEAST 6" ABOVE DRAIN HOLES.
13"–24"–36"–48" & 60" LENGTHS AVAILABLE WITH INTEGRALLY CAST STANDARD MECHANICAL JOINT GLANDS
HYDRANT VALVE ANCHORING TEE WITH INTEGRALLY CAST GLAND STANDARD M.J. ON 6" PLAIN END BRANCH.

NOTE

1.) IF CURB IS NOT PRESENT THAN PROVIDE 3'x3'x4" CONCRETE PAD ON GRADE BUT BELOW BREAK AWAY FLANGE.

FIRE HYDRANT ASSEMBLY DETAIL

N.T.S.


VALVE BOX LID TO BE FLUSH WITH BASE GRADE UNTIL IT IS RAISED 1/2" BELOW FINAL PAVING
VALVE BOX MANUFACTURED BY BINGHAM & TAYLOR, MUELLER, HANDLEY INDUSTRIES, A.Y. MCDONALD, QUALITY WATER PRODUCTS OR CLAY & BAILEY
VALVE BOX TO BE STANDARD ADJUSTABLE, CAST IRON EXTENSION TYPE, THREE PIECE, 5–1/4" SHAFT, SCREW TYPE AND OF SUCH LENGTH AS NECESSARY TO EXTEND FROM VALVE TO FINISHED GRADE.
VALVE SEE NOTE 4

NOTES:

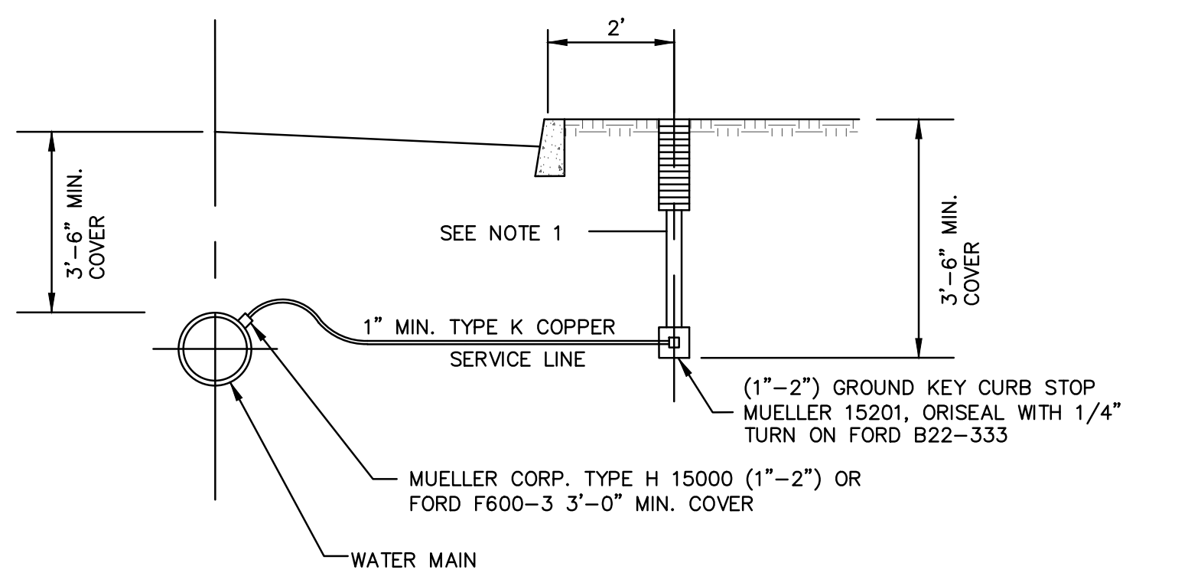
1. RESILIENT SEAT GATE VALVE TO OPEN LEFT AND HAVE A NON–RISING STEM, MECHANICAL JOINT ENDS, 200–LB. WORKING PRESSURE, DUCK TIPPED RUBBER GASKET AND SCREW SETS IN GLAND FOR BONDING (MUELLER A2370–20).
2. VALVE BOX MUST BE PLUMB AND CLEANED OF ALL DEBRIS. THE SHUT–OFF NUT MUST BE CENTERED WITHIN THE BOX AND HAVE 1" CLEARANCE BETWEEN THE INSIDE OF THE BOX AND THE VALVE WRENCH.
3. VALVE BOX LID TO HAVE THE WORD "WATER" CAST IN, AN ARROW SHOWING THE OPENING, DIRECTION, AND THE WORD "OPEN" CLEARLY CAST THEREON.
4. ALL GATE VALVES SHALL BE IRON BODY, RESILIENT SEATED, NUT OPERATED, NON–RISING STEM SUITABLE FOR BURIED SERVICE. THEY SHALL BE DESIGNED FOR AN OPERATING PRESSURE OF 200 PSI AND TEST PRESSURES TO 400 PSI. VALVES SHALL COMPLY FULLY TO AWWA STANDARD C509. VALVE ENDS SHALL BE MECHANICAL JOINT IN ACCORDANCE WITH AWWA C111. STEM SEALS SHALL BE DOUBLE "O" RING STEM SEALS. SQUARE OPERATING NUTS CONFORMING TO AWWA C509 SHALL BE USED. ACCEPTABLE MANUFACTURERS SHALL BE AS FOLLOWS:
   a. MUELLER CO., DECATUR, ILLINOIS
   b. WATEROUS CO., SAINT PAUL, MINNESOTA
   c. MCWARE CAST IRON PIPE CO. (CLOUD AND M&H DIVISIONS ONLY), BIRMINGHAM, ALABAMA
   d. UNITED STATES PIPE AND FOUNDRY, BURLINGTON, NEW JERSEY
   e. STOCKHAM VALVES & FITTINGS, BIRMINGHAM, ALABAMA

GATE VALVE AND BOX DETAIL

N.T.S.

NEW JERSEY AMERICAN WATER NOTES

1. ALL CONSTRUCTION, MATERIALS RESTORATION AND METHODS OF WATER MAIN INSTALLATION SHALL BE IN ACCORDANCE WITH RULES, REGULATIONS AND TECHNICAL SPECIFICATIONS OF NEW JERSEY AMERICAN WATER.
2. WATER MAIN DISINFECTION SHALL BE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS OF NEW JERSEY AMERICAN WATER.
3. WATER PRESSURE AND LEAKAGE TESTS SHALL BE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS OF NEW JERSEY AMERICAN WATER.
4. WATER MAIN SHALL NOT BE PLACED IN COMMON TRENCHES WITH OTHER UNDERGROUND UTILITIES.
5. IN–LINE VALVES SHALL BE INSTALLED AT EVERY POINT WHERE THE PIPELINES INTERSECT, IN EVERY DIRECTION.
6. THE MINIMUM PIPELINE COVER SHALL BE FORTY–EIGHT (48) INCHES.
7. SELECT BACKFILL–A MINIMUM OF SIX (6) INCHES OF BEDDING AND TWELVE (12) INCHES OF COVER SHALL BE REQUIRED FOR ALL MAINS AND SERVICES IN ACCORDANCE WITH ALL MATERIAL, CONSTRUCTION METHODS AND PROCEDURES OUTLINED IN THE LATEST EDITION OF THE WATER MAIN TECHNICAL SPECIFICATIONS OF NEW JERSEY AMERICAN WATER. FOR WATER MAINS WITHIN AND ALONG PROPOSED ROADWAYS AS WELL AS OUTSIDE OF PAVEMENT AREAS, 100% SELECT BACKFILL IS RECOMMENDED WHICH SHALL BE COMPACTED A MINIMUM OF 90% OF OPTIMUM COMPACTION. IF ANY SOIL IS FOUND THAT IS NOT SIMILAR TO THE MATERIAL APPROVED FOR USE FOR BACKFILL BY THE GOVERNING ENTITY THAT HAS JURISDICTION OF RIGHT OF WAY OR IF THE SOIL IS TOO WET OR HAS A HIGH ORGANIC CONTENT OR CANNOT BE PROPERLY COMPACTED, THIS SOIL SHALL BE REPLACED BY 100% SELECT BACKFILL WHICH SHALL BE COMPACTED TO A MINIMUM OF 90% OF OPTIMUM COMPACTION. ADDITIONALLY NEW JERSEY AMERICAN WATER RESERVES THE RIGHT TO REQUIRE 100 % SELECT BACKFILL, WHICH SHALL BE COMPACTED TO A MINIMUM OF 90% OF THE OPTIMUM COMPACTION OR REJECT ANY MATERIAL IT DEEMS UNSUITABLE.
8. MATERIAL FOR BACKFILLING SHALL BE EARTH MATERIALS ENTIRELY FREE FROM VEGETATION, TRASH, LUMBER, FROZEN, SOFT OR ORGANIC MATERIALS. NO STONES OR ROCKS LARGER THAN ONE (1) INCH FOR COMMON FILL–TYPE A OR FOUR (4) INCHES FOR COMMON FILL–TYPE B SHALL BE PERMITTED IN THE BACKFILL. COMMON FILL MATERIAL MAY BE OBTAINED FROM THE EXCAVATION PROVIDED THAT IT HAS BEEN TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 2210.1.01 OF THE SPECIFICATIONS OF NEW JERSEY AMERICAN WATER. IF APPROVED MATERIAL OBTAINED FROM THE TRENCH EXCAVATION IS INSUFFICIENT TO COMPLETE THE BACKFILL, THE CONTRACTOR SHALL OBTAIN THE NECESSARY APPROVED FILL MATERIAL FROM AN OFF–SITE SOURCE.
9. MATERIAL USED FOR BEDDING AND THE HAUNCH AROUND THE PIPE SHALL BE A COURSE TO FINE SANDY MATERIAL WITH MAXIMUM STONE SIZE OF ONE (1) INCH. THE MATERIAL SHALL CONFORM TO ASTM D2487 "STANDARD METHOD FOR CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES". BEDDING MATERIAL MAY BE OBTAINED FROM THE EXCAVATION PROVIDED THAT IT HAS BEEN TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 2210.1.01 OF THE SPECIFICATIONS OF NEW JERSEY AMERICAN WATER. IF APPROVED MATERIAL OBTAINED FROM THE TRENCH EXCAVATION IS INSUFFICIENT TO COMPLETE THE BEDDING, THE CONTRACTOR SHALL OBTAIN THE NECESSARY APPROVED FILL MATERIAL FROM AN OFF–SITE SOURCE.
10. ALL FIRE HYDRANT LOCATIONS SHALL BE APPROVED BY THE CHERRY HILL TOWNSHIP FIRE MARSHALL.
11. WATER MAINS AND SANITARY SEWER SHALL BE SEPARATED TEN (10) FEET HORIZONTALLY WHEREVER POSSIBLE. OTHERWISE, THE SEWER AND WATER SHALL BE IN SEPARATE TRENCHES WITH THE SEWER 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN. AT WATER AND SEWER CROSSINGS, THE SEWER SHALL BE 18 INCHES MINIMUM BELOW THE WATER OR SEWER MAIN SHALL BE DUCTILE IRON PIPE WITH SLIP–ON JOINT FOR TEN (10) FEET MINIMUM OF EACH SIDE OF THE CROSSING. JOINT MUST BE TEN (10) FEET FROM EXISTING.
12. TRENCH WIDTHS SHALL BE OUTSIDE DIAMETER OF PIPE PLUS EIGHT (8) INCHES, FOUR (4) INCHES EACH SIDE.
13. ALL VALVES SHALL COMPLY FULLY WITH AWWA STANDARD C509. VALVES SHALL BE IRON BODY, RESILIENT–SEALED, NUT OPERATED, NON–RISING STEM, GATE VALVES SUITABLE FOR BURIED SERVICE. VALVES SHALL BE DESIGNATED FOR AN OPERATING PRESSURE OF 200 PSI AND TEST PRESSURES TO 400 PSI AND SHALL BE DESIGNED TO OPERATE IN THE VERTICAL POSITION. VALVE ENDS SHALL BE MECHANICAL JOINT IN ACCORDANCE WITH AWWA C111. STEM SEALS SHALL BE DOUBLE "O" RING. SQUARE OPERATING NUTS SHALL CONFORM TO AWWA C509 AND SHALL OPEN RIGHT OR LEFT. ACCEPTABLE MANUFACTURES ARE MUELLER COMPANY, WATEROUS COMPANY, MCWANE CAST IRON PIPE COMPANY (CLOW AND M&H DIVISIONS ONLY), UNITED STATES PIPE AND FOUNDRY AND STOCKHAM VALVES AND FITTINGS.
14. FIRE HYDRANTS SHALL BE MUELLER SUPERCENTURION MODEL #250 A423, WATEROUS PACER MODEL 250, AMERICAN DARLING B–62–B OR APPROVED EQUAL. ALL HYDRANT LOCATIONS MUST BE APPROVED BY THE CHERRY HILL TOWNSHIP FIRE MARSHALL.
15. TAPPING SLEEVES SHALL BE DUCTILE IRON OR CAST IRON DUAL COMPRESSION TYPE. THE HORIZONTAL TAPPING VALVE SHALL CONFORM TO APPLICABLE REQUIREMENTS OF AWWA C509. THE TAPPING VALVE SHALL HAVE FLANGED INLETS WITH MECHANICAL JOINT OUTLETS, ENCLOSED BEVEL GEARS, BYPASS VALVE, ROLLERS, TRACKS AND SCRAPERS. ACCEPTABLE MANUFACTURES SHALL BE MUELLER, MCWANE, U.S. PIPE AND WATEROUS. TAPPING SADDLES SHALL CONSIST OF DUCTILE IRON CASTINGS, ATTACHED TO THE PIPELINE WITH HIGH STRENGTH STEEL STRAPS. CASTINGS SHALL BE SEALED TO PIPELINE WITH "O" RING SEALS. SADDLES SHALL HAVE ANSI A21.10 FLANGED OUTLETS COUNTERBORED FOR USE WITH TAPPING VALVES AND TAPPING EQUIPMENT.
16. WHEREVER THE TRENCH BOTTOM DOES NOT AFFORD SUFFICIENT BEARING STRENGTH TO SUSTAIN THE WEIGHT OF THE PIPE AND SUPERIMPOSED LOADS, IT SHALL BE OVER EXCAVATED AND STABILIZED WITH A 12" THICK MINIMUM LAYER OF CRUSHED STONE.
17. THE OWNER/APPLICANT SHALL BE AWARE AND AGREES THAT THE REVIEW BY NEW JERSEY AMERICAN WATER IS BASED UPON THE BEST INFORMATION AVAILABLE AND IN NO WAY DOES IT GUARANTEE THE EXISTENCE OF, OR NON–EXISTANCE OF WATER MAIN AND OR APPURTENANCES. IT IS THE RESPONSIBILITY OF THE APPLICANT/OWNER TO VERIFY THE LOCATION OF SUCH MAINS/APPURTENANCES.
18. NO WATER MAIN SHALL BE INSTALLED BENEATH THE CURB.
19. ALL WATER METERS SHALL BE RADIO READ WATER METERS.
20. A WATER METER SHALL BE INSTALLED FOR EACH HOUSE IN ACCORDANCE WITH NEW JERSEY AMERICAN WATER RATES, RULES AND REGULATIONS. THE METER SHALL BE RADIO FREQUENCY TYPE FOR BILLING PURPOSES.
21. WATER SERVICE LINES SHALL BE SEPARATED A DISTANCE OF AT LEAST FIVE (5) FEET HORIZONTALLY FROM ANY SANITARY SEWER LATERAL.
22. WATER SERVICE LINES SHALL BE SEPARATED A DISTANCE OF AT LEAST FIVE (5) FEET HORIZONTALLY FROM ANY PROPERTY LINE.
23. ALL PROPOSED WATER MAINS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 36" TO ANY UTILITY POLE OF STORM DRAINAGE STRUCTURE OR PIPE.
24. ALL PROPOSED WATER MAINS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 36" TO ANY FACE OF CURB.
25. WATER MAIN SHALL BE CLASS 50 DUCTILE IRON PIPE, COATED ON THE OUTSIDE WITH A BITUMINOUS COATING, CONFORMING TO ANSI/AWWA C151/A21.51. THE PIPE INTERIOR SHALL BE CEMENT MORTAR LINED AND SEAL COATED IN COMPLIANCE WITH THE LATEST REVISION OF ANSI/AWWA C104/A21.4. THE CEMENT MORTAR LINING SHALL BE DOUBLE THICKNESS.
26. JOINTS SHALL BE MECHANICAL AND PUSH–ON CONFORMING TO ANSI/AWWA C111/A21.11.
27. FITTINGS SHALL BE DUCTILE IRON CONFORMING TO ANSI/AWWA C110/A21.10.
28. WATER SERVICE LATERALS SHALL BE ONE (1) INCH TYPE "L" OR TYPE "K" COPPER MEETING THE REQUIREMENTS OF ASTM STANDARD B88.
29. CURB BOXES SHALL BE STANDARD 1 OR 2–1/2 INCH, CAST IRON, SLIDING OR SCREW TYPE, COMPLETE WITH LID AND HEAD BOLT, ADJUSTABLE FROM 18 TO 66 INCHES. ACCEPTABLE MANUFACTURERS ARE BINGHAM & TAYLOR, MUELLER, HANDLEY INDUSTRIES, CLAY & BAILY, A.Y. MCDONALD OR QUALITY WATER PRODUCTS.
30. CORPORATION STOPS SHALL BE BRASS, BALL VALVE TYPE MANUFACTURED IN ACCORDANCE WITH AWWA STANDARD C800. THE INLET CONNECTION SHALL HAVE STANDARD AWWA TAPERED THREADS UNLESS OTHERWISE REQUIRED. THE OUTLET CONNECTION SHALL BE FLARED COPPER CONNECTION END. ACCEPTABLE MANUFACTURER AND MODEL NUMBERS ARE, FORD METER BOX COMPANY–FB400 THROUGH FB1600, MUELLER–H–15000 SERIES OR A.Y. MCDONALD–6000 SERIES.
31. CURB STOPS SHALL BE BRONZE BODY CONSTRUCTION, BALL VALVE, WITH DOUBLE "O" RING STEM SEALS MANUFACTURED IN ACCORDANCE WITH AWWA STANDARD C800. END CONNECTIONS SHALL BE SUITABLE FOR FLARED COPPER CONNECTION END. ACCEPTABLE MANUFACTURER AND MODEL NUMBERS ARE, FORD METER BOX COMPANY–B SERIES, MUELLER–H–15000 SERIES OR A.Y. MCDONALD–4701 SERIES.
32. MISCELLANEOUS SERVICE FITTINGS SUCH AS COUPLINGS, ADAPTERS, SADDLES, BENDS, PLUGS, ETC. SHALL CONFORM TO AWWA SPECIFICATION C800. ACCEPTABLE MANUFACTURERS ARE, FORD METER BOX COMPANY, MUELLER OR A.Y. MCDONALD.

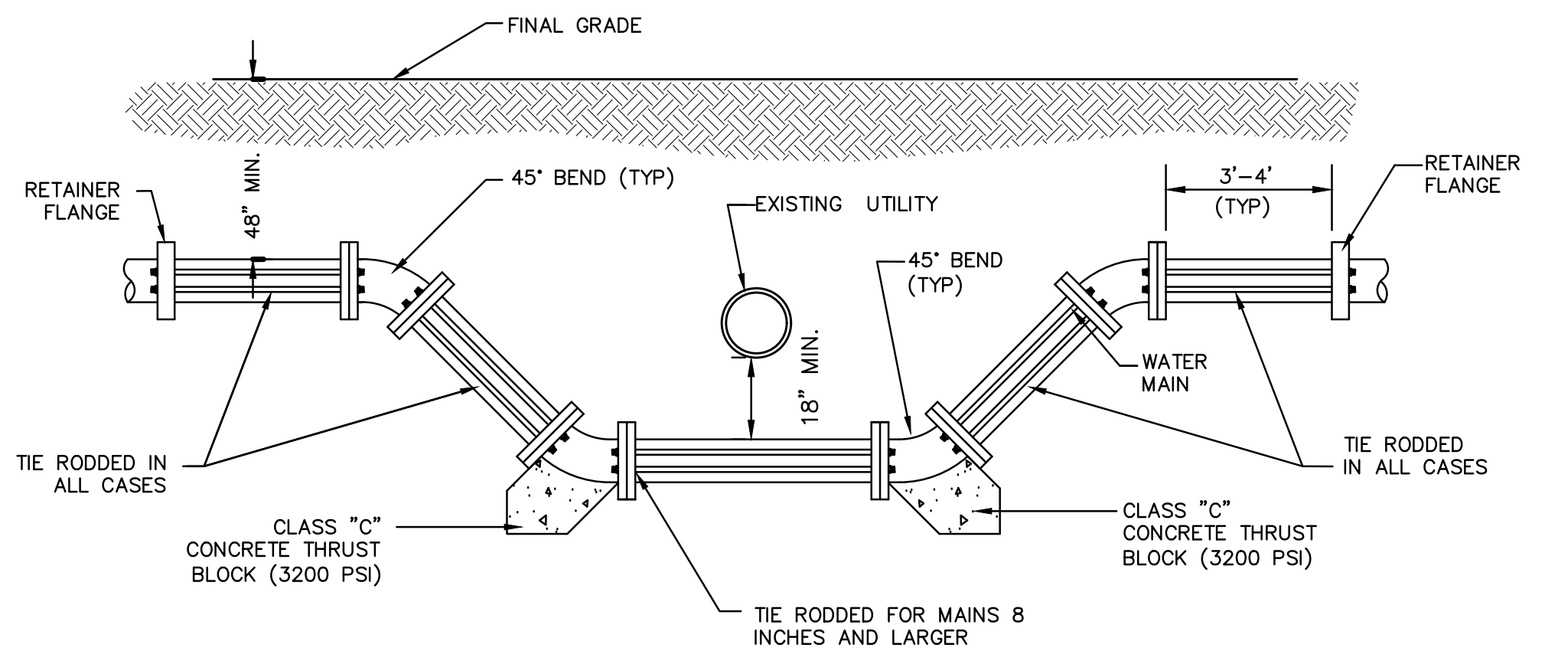

2'
3'–6" MIN. COVER
SEE NOTE 1
3'–6" MIN. COVER
1" MIN. TYPE K COPPER SERVICE LINE
(1"–2") GROUND KEY CURB STOP MUELLER 15201, ORISEAL WITH 1/4" TURN ON FORD B22–333
MUELLER CORP. TYPE H 15000 (1"–2") OR FORD F600–3 3'–0" MIN. COVER
WATER MAIN

CURB BOX TO BE TYLER SERIES 6500 CURB BOX– 93D (36"–48") COMPLETE WITH LID MARKED "WATER" (3/4" TO 1–1/4" SERVICE). FOR LARGER THAN 1–1/4" UP TO 2" SERVICE USE ENLARGED BASE, SERIES 6500 (BUFFALO STYLE) OR APPROVED EQUAL.

BRASS SHALL BE AS SUPPLIED BY EITHER McDONALD, MUELLER OR FORD

WATER SERVICE CONNECTION DETAIL

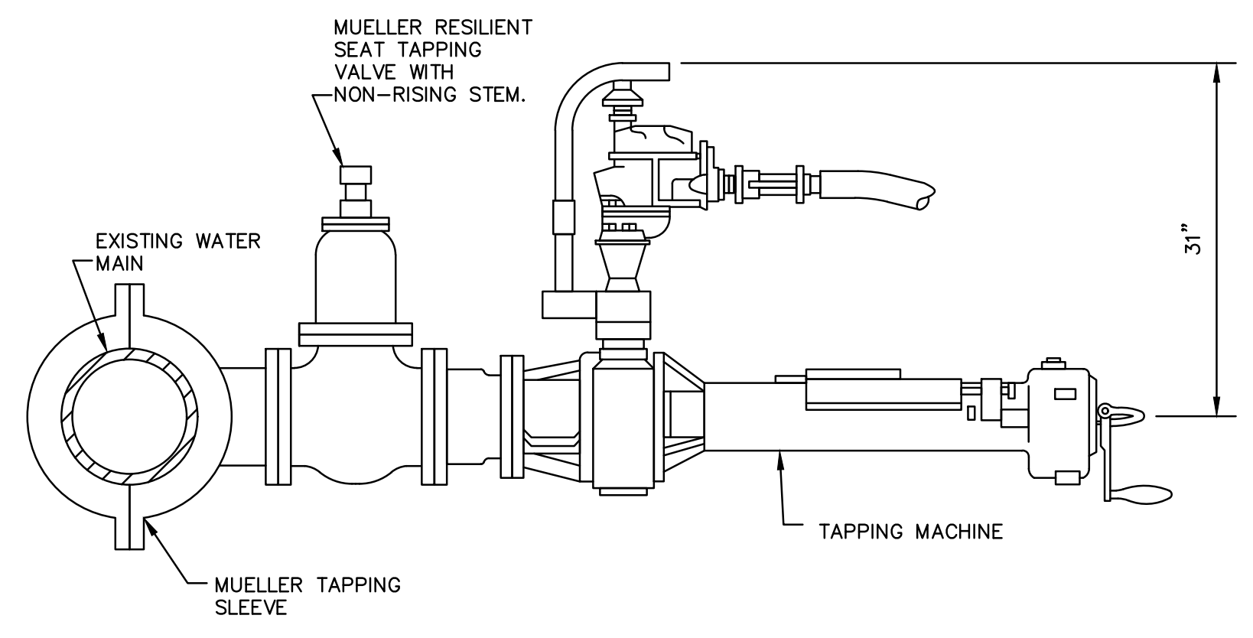
N.T.S.


FINAL GRADE
RETAINER FLANGE
48" MIN.
45° BEND (TYP)
EXISTING UTILITY
45° BEND (TYP)
3'–4' (TYP)
RETAINER FLANGE
18" MIN.
WATER MAIN
TIE RODDED IN ALL CASES
TIE RODDED IN ALL CASES
CLASS "C" CONCRETE THRUST BLOCK (3200 PSI)
CLASS "C" CONCRETE THRUST BLOCK (3200 PSI)
TIE RODDED FOR MAINS 8 INCHES AND LARGER

WATER MAIN OFFSETS SHALL NOT BE CONSTRUCTED WITHOUT PRIOR APPROVAL OF THE NEW JERSEY AMERICAN WATER. EVERY EFFORT SHALL BE MADE TO COORDINATE UTILITY CONSTRUCTION SO AS TO AVOID THE NEED FOR OFF–SETS IN THE WATER MAIN.

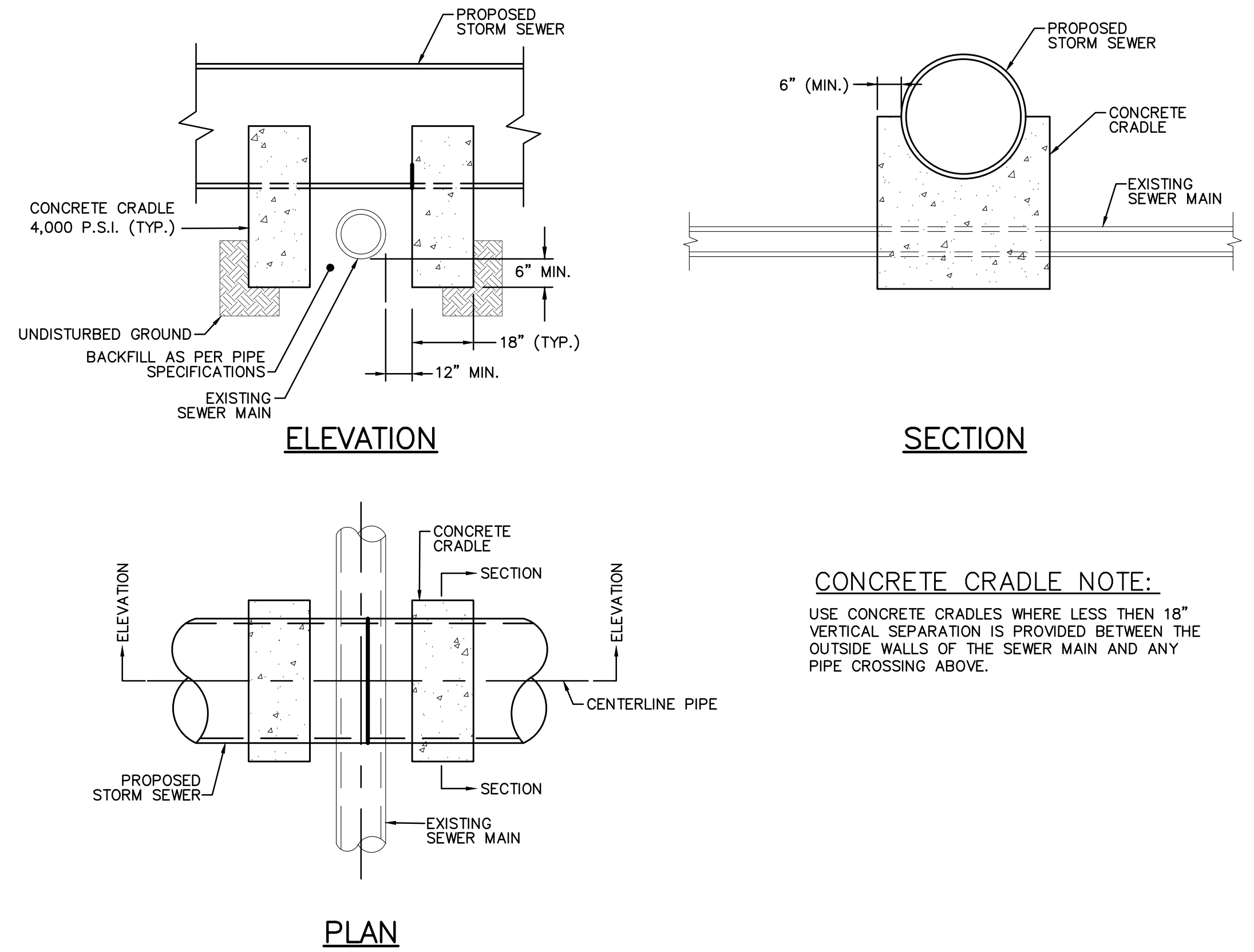
WATER MAIN OFFSET DETAIL

N.T.S.


MUELLER RESILIENT SEAT TAPPING VALVE WITH NON–RISING STEM.
EXISTING WATER MAIN
31"
TAPPING MACHINE
MUELLER TAPPING SLEEVE

WET TAP CONNECTION DETAIL

N.T.S.


PROPOSED STORM SEWER
CONCRETE CRADLE 4,000 P.S.I. (TYP.)
6" MIN.
18" (TYP.)
12" MIN.
UNDISTURBED GROUND
BACKFILL AS PER PIPE SPECIFICATIONS
EXISTING SEWER MAIN
ELEVATION
6" (MIN.)
PROPOSED STORM SEWER
CONCRETE CRADLE
EXISTING SEWER MAIN
SECTION
CONCRETE CRADLE
SECTION
ELEVATION
ELEVATION
CENTERLINE PIPE
SECTION
PROPOSED STORM SEWER
EXISTING SEWER MAIN
PLAN

CONCRETE CRADLE NOTE:

USE CONCRETE CRADLES WHERE LESS THEN 18" VERTICAL SEPARATION IS PROVIDED BETWEEN THE OUTSIDE WALLS OF THE SEWER MAIN AND ANY PIPE CROSSING ABOVE.

CONCRETE CRADLE DETAIL

N.T.S.

DATE	ISSUE	REVISION	BY	APPR.
03/10/2022	6	ISSUED FOR FINAL SITE PLAN COMPLIANCE	TJK	RJC
07/02/2020	5	SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK	RJC
01/13/20	4	REMOVE TYPICAL SANITARY SEWER LATERAL AND WATER SERVICE LOCATION DETAIL	GMM	RJC
07/16/19	3	NO CHANGE THIS SHEET	TJK	RJC
10/2/18	2	REVISE NEW JERSEY AMERICAN WATER NOTES	GMM	RJC
12/12/17	1	NOT PART OF INITIAL SUBMISSION	TJK	RJC

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FAX (609) 704-1166
www.jsaengineering.com

CENTURA – PHASE 1 AND 2

TAX MAP SHEET 234, BLOCK 433.20, LOT 15.01 & 16.01, FORMERLY BLOCK 433.20, LOT 1
CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

WATER DETAIL SHEET

DEVEL, LLC.
C/O STEPHEN D. SAMOST, ESQUIRE 479 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043

41 SOUTH ROUTE 73, BUILDING 1, SUITE 201
HAMMONTON, NEW JERSEY 08037

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28017600

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200

Richard J Clemson 03/10/2022
DATE

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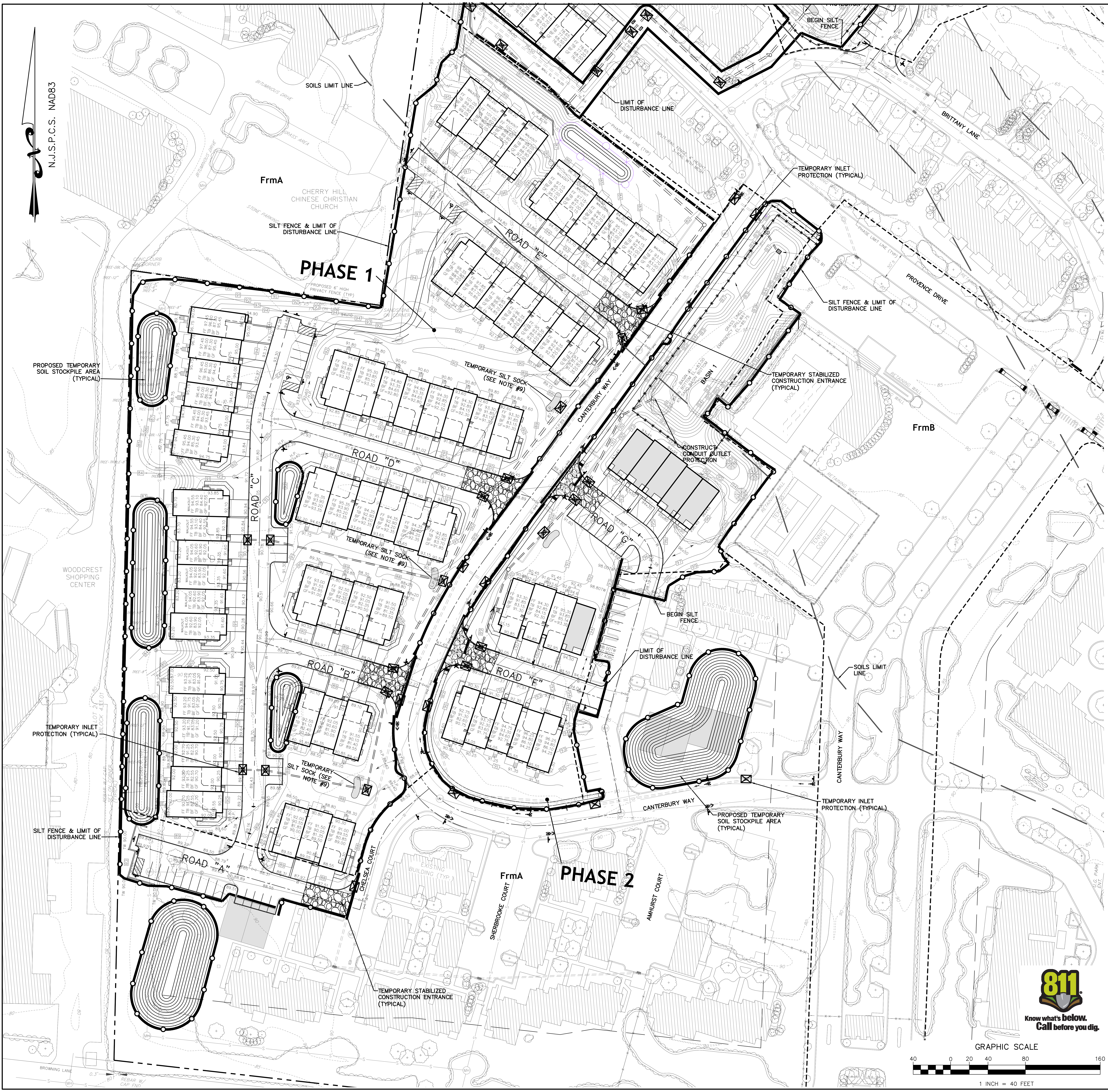
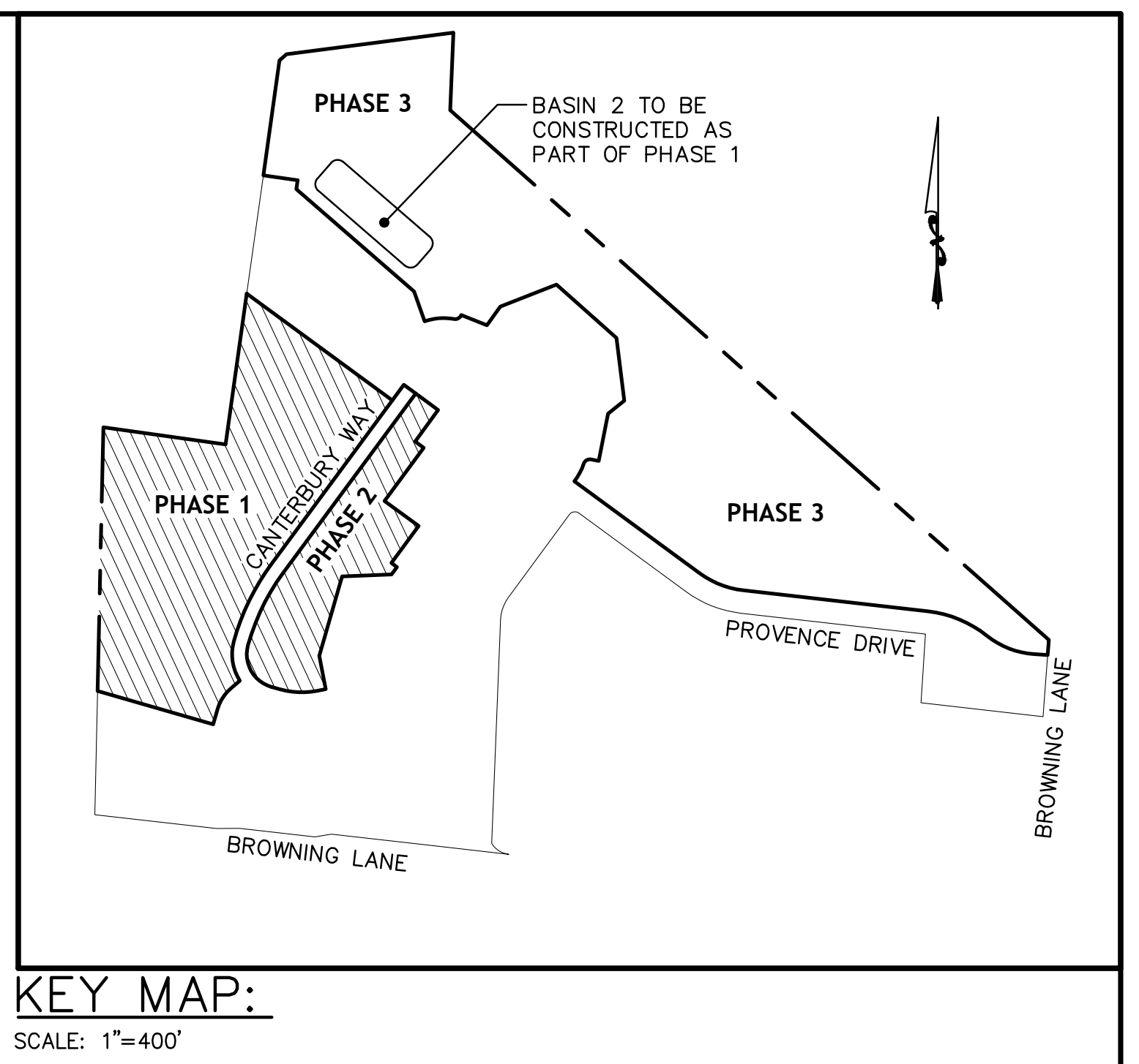
DRAWN BY TJK	APPROVED BY RJC
SCALE AS SHOWN	DATE 12/12/17
JOB NUMBER 3487	SHEET NO. 20 OF 26
CS1201	

CREATED ON 02/01/2022, LAST MODIFIED ON 02/04/2022


N.J.S.P.C.S. NAD83
PHASE 1
PHASE 2
SOILS LIMIT LINE
LIMIT OF DISTURBANCE LINE
BEGIN SILT FENCE
TEMPORARY INLET PROTECTION (TYPICAL)
FrmA
FrmB
CHERRY HILL CHINESE CHRISTIAN CHURCH
SILT FENCE & LIMIT OF DISTURBANCE LINE
PROPOSED 6' HIGH PRIVACY FENCE (TYP)
PROPOSED TEMPORARY SOIL STOCKPILE AREA (TYPICAL)
TEMPORARY SILT SOCK (SEE NOTE #9)
TEMPORARY STABILIZED CONSTRUCTION ENTRANCE (TYPICAL)
CONSTRUCT CONDUIT OUTLET PROTECTION
BASIN 1
ROAD "A"
ROAD "B"
ROAD "C"
ROAD "D"
ROAD "E"
ROAD "F"
ROAD "G"
CANTERBURY WAY
BRITTANY LANE
PROVENCE DRIVE
BROWNING LANE
CHELSEA COURT
SHERBROOKE COURT
AMHURST COURT
WOODCREST SHOPPING CENTER
SOILS LIMIT LINE
EXISTING BUILDING (TYP)
GRAPHIC SCALE
40 0 20 40 80 160
1 INCH = 40 FEET
811
Know what's below. Call before you dig.


PHASE 3
BASIN 2 TO BE CONSTRUCTED AS PART OF PHASE 1
PHASE 1
PHASE 2
PHASE 3
CANTERBURY WAY
PROVENCE DRIVE
BROWNING LANE
BROWNING LANE

KEY MAP:

SCALE: 1"=400'

EROSION CONTROL NOTES

1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL APPLY TO SUBSEQUENT OWNERS IF TITLE IS CONVEYED.
2. THIS PLAN IS TO BE USED FOR SOIL EROSION AND SEDIMENT CONTROL PURPOSES ONLY.
3. SOIL EROSION AND SEDIMENT CONTROL IMPLEMENTATION SHALL BE IN ACCORDANCE WITH STANDARDS SET FORTH BY THE CAMDEN COUNTY SOIL CONSERVATION DISTRICT.
4. ALL TOPSOIL STORAGE AREAS SHALL BE REMOVED PRIOR TO FINAL OCCUPANCY OF THE BUILDING AND AREA RESTORED TO PRE–DEVELOPMENT CONDITIONS.
5. SOIL HAVING A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE MUST BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5.0 OR MORE BEFORE SEEDBED PREPARATION.
6. NJSA 4:24–39, ET SEQ. REQUIRES THAT UPON PERMANENT SITE STABILIZATION AND COMPLETION OF CONSTRUCTION THE CONTRACTOR SHALL APPLY TO THE SOIL CONSERVATION DISTRICT FOR FINAL COMPLIANCE INSPECTION TO CHECK THAT ALL THE PROVISIONS OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN HAVE BEEN COMPLIED WITH FOR PERMANENT MEASURES.
7. IMMEDIATELY PRIOR TO TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARDS FOR LAND GRADING. SEE DETAILS ON DRAWINGS CS1305 – CS1308.
8. NJSA 4:24–39, ET SEQ. REQUIRES THAT NO CERTIFICATE OF OCCUPANCY BE ISSUED BEFORE THE COMPLETION OF A SOIL COMPACTION MITIGATION VERIFICATION FORM AND CONFIRMATION BY THE DISTRICT INSPECTOR THAT THE COMPACTION MITIGATION REQUIREMENTS IN THE STANDARDS FOR LAND GRADING HAVE BEEN SUFFICIENTLY ADDRESSED.
9. USE TEMPORARY SILT SOCK TO PROVIDE CONTAINMENT AND SEDIMENT BARRIER DURING CONSTRUCTION. THE INTENT IS TO PROHIBIT SEDIMENT LADEN RUNOFF FROM ENTERING EXISTING STREAM CHANNEL DURING CONSTRUCTION OF NEW OUTFALL AND TO NOT BLOCK FLOW WITHIN EXISTING CHANNEL. SILT SOCK LOCATION MAY BE CHANGED AT THE DIRECTION OF THE DISTRICT INSPECTOR.
10. SEE DRAWING NUMBER C1401 FOR SOIL EROSION AND SEDIMENT CONTROL NOTES.
11. SEE DRAWING NUMBER C1402 FOR SOIL EROSION AND SEDIMENT CONTROL DETAILS.

SOILS FOR PHASES 1 AND 2

THE FOLLOWING SOILS ARE FOUND ON–SITE AS DEFINED BY THE THE UNITED STATES DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE:

FmhAt	FLUVAQUENTS	HYDROLOGIC SOIL GROUP D
FrmA	FREEHOLD FINE SANDY LOAM	HYDROLOGIC SOIL GROUP B
FrmB	FREEHOLD FINE SANDY LOAM	HYDROLOGIC SOIL GROUP B

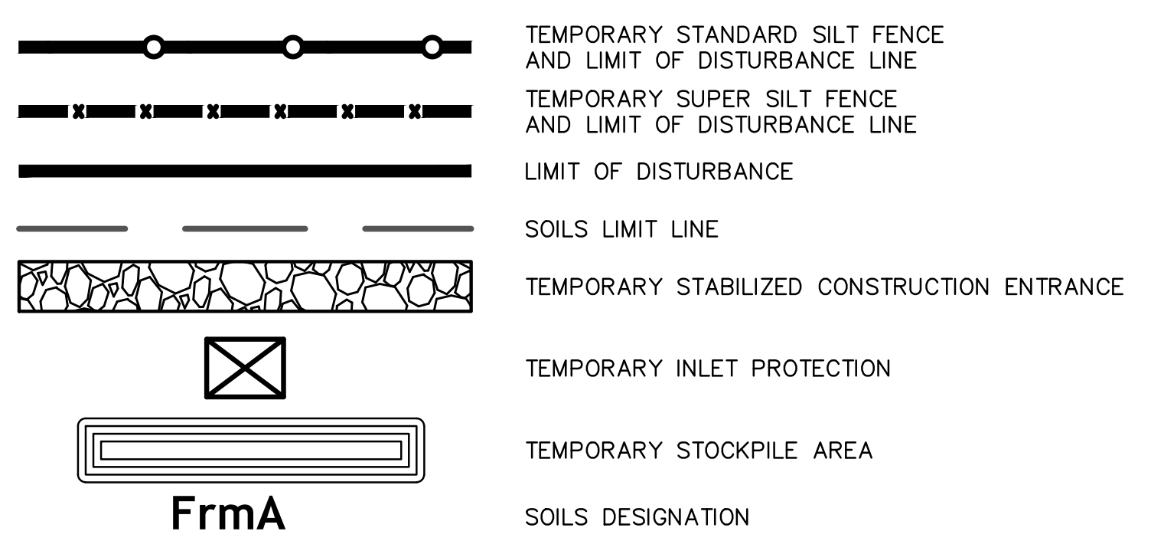
LIMIT OF DISTURBANCE

TOTAL AREA OF PROPOSED DISTURBANCE = 10.61 AC.

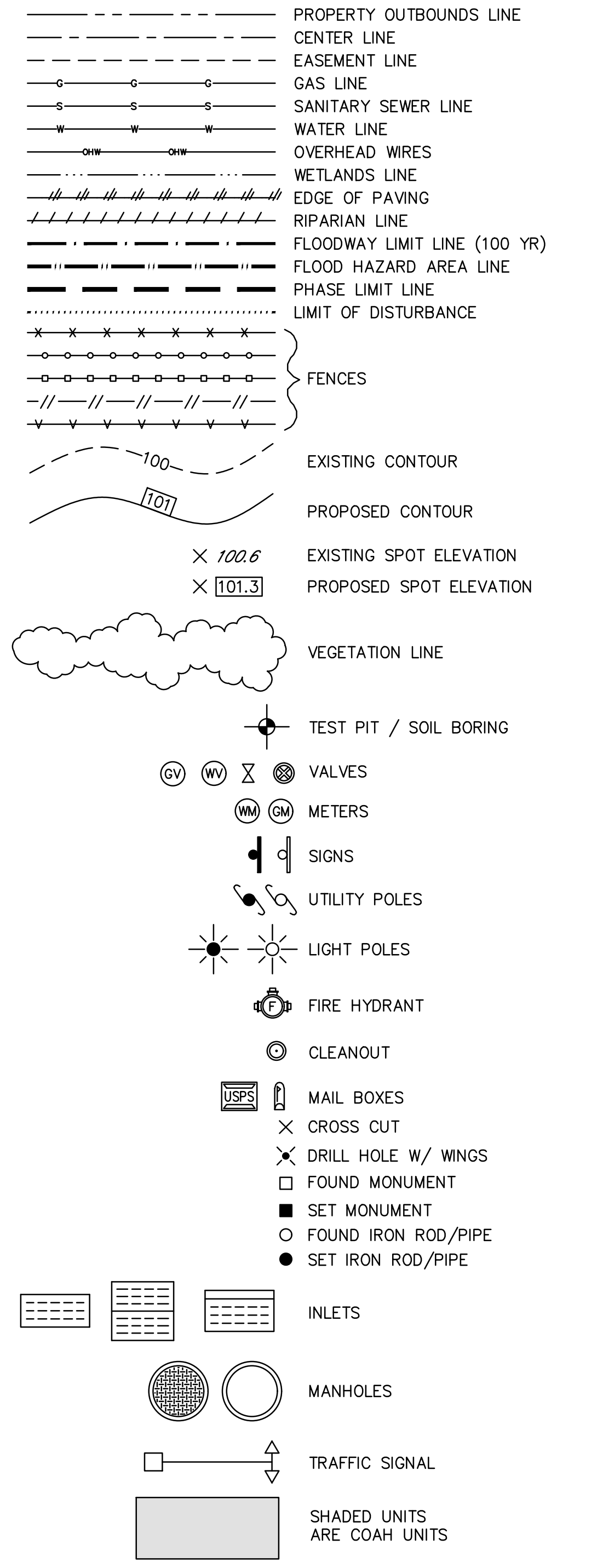
CONTRACTORS RESPONSIBILITY

LOCATIONS OF UTILITIES SHOWN ON THIS PLAN AREA NOT NECESSARILY COMPLETE. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES OPERATING WITHIN THE CONSTRUCTION AREA AND AT HIS OWN EXPENSE VERIFY THE LOCATION, SIZE, TYPE AND ELEVATION OF ANY UTILITIES PRIOR TO CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE OWNER AND/OR CON- TRACTOR TO CALL 1-800-272-1000 FOR FIELD LOCATION OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.

EROSION CONTROL LEGEND


TEMPORARY STANDARD SILT FENCE AND LIMIT OF DISTURBANCE LINE
TEMPORARY SUPER SILT FENCE AND LIMIT OF DISTURBANCE LINE
LIMIT OF DISTURBANCE
SOILS LIMIT LINE
TEMPORARY STABILIZED CONSTRUCTION ENTRANCE
TEMPORARY INLET PROTECTION
TEMPORARY STOCKPILE AREA
FrmA
SOILS DESIGNATION

STANDARD PLAN LEGEND


PROPERTY OUTBOUNDS LINE
CENTER LINE
EASEMENT LINE
G
GAS LINE
S
SANITARY SEWER LINE
W
WATER LINE
OHW
OVERHEAD WIRES
WETLANDS LINE
EDGE OF PAVING
RIPARIAN LINE
FLOODWAY LIMIT LINE (100 YR)
FLOOD HAZARD AREA LINE
PHASE LIMIT LINE
LIMIT OF DISTURBANCE
FENCES
100
EXISTING CONTOUR
101
PROPOSED CONTOUR
100.6
EXISTING SPOT ELEVATION
101.3
PROPOSED SPOT ELEVATION
VEGETATION LINE
TEST PIT / SOIL BORING
GV
WV
VALVES
WM
GM
METERS
SIGNS
UTILITY POLES
LIGHT POLES
F
FIRE HYDRANT
CLEANOUT
USPS
MAIL BOXES
CROSS CUT
DRILL HOLE W/ WINGS
FOUND MONUMENT
SET MONUMENT
FOUND IRON ROD/PIPE
SET IRON ROD/PIPE
INLETS
MANHOLES
TRAFFIC SIGNAL
SHADED UNITS ARE COAH UNITS

DATE	ISSUE	REVISION	BY	APPR.
03/10/2022	6	ISSUED FOR FINAL SITE PLAN COMPLIANCE	TJK	RJC
07/02/2020	5	SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK	RJC
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07/16/19	3	ADD PHASE LABELS	TJK	RJC
10/2/18	2	REVISE WALKS, PARKING, ADD COAH UNITS, REVISE LIMIT OF DISTURBANCE LINE	GMM	RJC
12/12/17	1	NOT PART OF INITIAL SUBMISSION	TJK	RJC

CENTURA – PHASE 1 AND 2

TAX MAP SHEET 234, BLOCK 433.20, LOT 15.01 & 16.01, FORMERLY BLOCK 433.20, LOT 1
CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

EROSION AND SEDIMENT CONTROL PLAN

DEVEL, LLC.

C/O STEPHEN D. SAMOST, ESQUIRE 479 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28017600

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RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200

Richard J Clemson 03/10/2022
DATE

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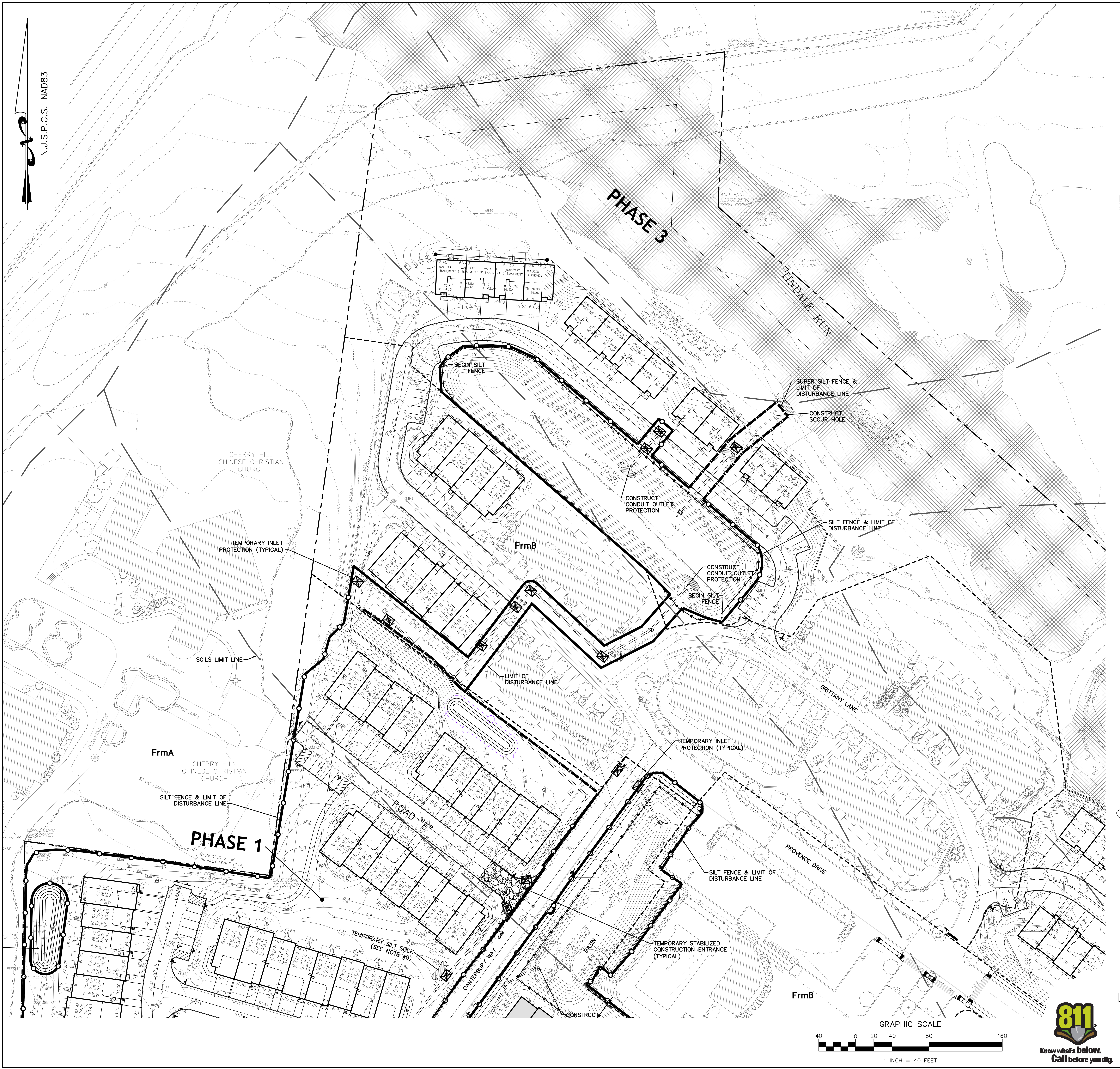
DRAWN BY TJK	APPROVED BY RJC
SCALE 1"=40'	DATE 12/12/17
JOB NUMBER 3487	SHEET NO. 21 OF 26

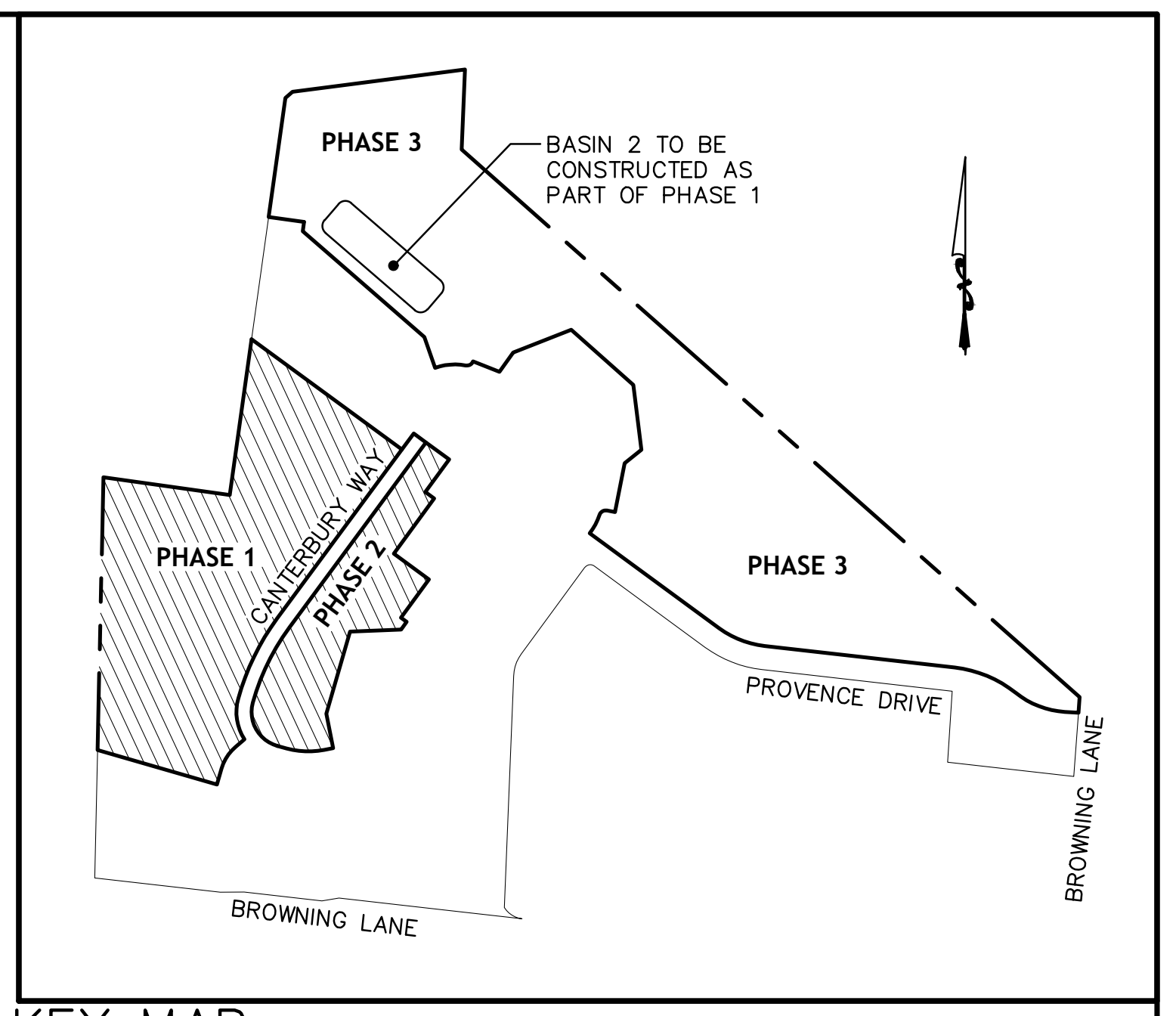
CS1301

Z:\CHERRY HILL LAND DEVELOPMENT GROUP\3487 CENTURA PHASE 1 & 2\DRAWINGS\CENTURA\CS1301.DWG

CREATED ON 02/01/2022, LAST MODIFIED ON 02/04/2022


N.J.S.P.C.S. NAD83
PHASE 3
TINDALE RUN
PHASE 1
FrmB
FrmA
FrmB
CHERRY HILL CHINESE CHRISTIAN CHURCH
CHERRY HILL CHINESE CHRISTIAN CHURCH
BEGIN SILT FENCE
SUPER SILT FENCE & LIMIT OF DISTURBANCE LINE
CONSTRUCT SCOUR HOLE
CONSTRUCT CONDUIT OUTLET PROTECTION
SILT FENCE & LIMIT OF DISTURBANCE LINE
TEMPORARY INLET PROTECTION (TYPICAL)
CONSTRUCT CONDUIT OUTLET PROTECTION
BEGIN SILT FENCE
SOILS LIMIT LINE
LIMIT OF DISTURBANCE LINE
TEMPORARY INLET PROTECTION (TYPICAL)
SILT FENCE & LIMIT OF DISTURBANCE LINE
SILT FENCE & LIMIT OF DISTURBANCE LINE
BRITTANY LANE
PROVENCE DRIVE
ROAD "E"
CANTERBURY WAY
BASIN 1
TEMPORARY SILT SOCK (SEE NOTE #9)
TEMPORARY STABILIZED CONSTRUCTION ENTRANCE (TYPICAL)
CONSTRUCT
LOT 4 BLOCK 433.01
GRAPHIC SCALE
40 0 20 40 80 160
1 INCH = 40 FEET

Know what's below. Call before you dig.


PHASE 3
BASIN 2 TO BE CONSTRUCTED AS PART OF PHASE 1
PHASE 1
CANTERBURY WAY
PHASE 2
PHASE 3
PROVENCE DRIVE
BROWNING LANE
BROWNING LANE

KEY MAP:

SCALE: 1"=400'

EROSION CONTROL NOTES

1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL APPLY TO SUBSEQUENT OWNERS IF TITLE IS CONVEYED.
2. THIS PLAN IS TO BE USED FOR SOIL EROSION AND SEDIMENT CONTROL PURPOSES ONLY.
3. SOIL EROSION AND SEDIMENT CONTROL IMPLEMENTATION SHALL BE IN ACCORDANCE WITH STANDARDS SET FORTH BY THE CAMDEN COUNTY SOIL CONSERVATION DISTRICT.
4. ALL TOPSOIL STORAGE AREAS SHALL BE REMOVED PRIOR TO FINAL OCCUPANCY OF THE BUILDING AND AREA RESTORED TO PRE–DEVELOPMENT CONDITIONS.
5. SOIL HAVING A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE MUST BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5.0 OR MORE BEFORE SEEDBED PREPARATION.
6. NJSA 4:24–39, ET SEQ. REQUIRES THAT UPON PERMANENT SITE STABILIZATION AND COMPLETION OF CONSTRUCTION THE CONTRACTOR SHALL APPLY TO THE SOIL CONSERVATION DISTRICT FOR FINAL COMPLIANCE INSPECTION TO CHECK THAT ALL THE PROVISIONS OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN HAVE BEEN COMPLIED WITH FOR PERMANENT MEASURES.
7. IMMEDIATELY PRIOR TO TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARDS FOR LAND GRADING. SEE DETAILS ON DRAWINGS CS1305 – CS1308.
8. NJSA 4:24–39, ET SEQ. REQUIRES THAT NO CERTIFICATE OF OCCUPANCY BE ISSUED BEFORE THE COMPLETION OF A SOIL COMPACTION MITIGATION VERIFICATION FORM AND CONFIRMATION BY THE DISTRICT INSPECTOR THAT THE COMPACTION MITIGATION REQUIREMENTS IN THE STANDARDS FOR LAND GRADING HAVE BEEN SUFFICIENTLY ADDRESSED.
9. USE TEMPORARY SILT SOCK TO PROVIDE CONTAINMENT AND SEDIMENT BARRIER DURING CONSTRUCTION. THE INTENT IS TO PROHIBIT SEDIMENT LADEN RUNOFF FROM ENTERING EXISTING STREAM CHANNEL DURING CONSTRUCTION OF NEW OUTFALL AND TO NOT BLOCK FLOW WITHIN EXISTING CHANNEL. SILT SOCK LOCATION MAY BE CHANGED AT THE DIRECTION OF THE DISTRICT INSPECTOR.
10. SEE DRAWING NUMBER C1401 FOR SOIL EROSION AND SEDIMENT CONTROL NOTES.
11. SEE DRAWING NUMBER C1402 FOR SOIL EROSION AND SEDIMENT CONTROL DETAILS.

SOILS FOR PHASES 1 AND 2

THE FOLLOWING SOILS ARE FOUND ON–SITE AS DEFINED BY THE THE UNITED STATES DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE:

FmhAt	FLUVAQUENTS	HYDROLOGIC SOIL GROUP D
FrmA	FREEHOLD FINE SANDY LOAM	HYDROLOGIC SOIL GROUP B
FrmB	FREEHOLD FINE SANDY LOAM	HYDROLOGIC SOIL GROUP B

LIMIT OF DISTURBANCE

TOTAL AREA OF PROPOSED DISTURBANCE = 10.61 AC.

CONTRACTORS RESPONSIBILITY

LOCATIONS OF UTILITIES SHOWN ON THIS PLAN AREA NOT NECESSARILY COMPLETE. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES OPERATING WITHIN THE CONSTRUCTION AREA AND AT HIS OWN EXPENSE VERIFY THE LOCATION, SIZE, TYPE AND ELEVATION OF ANY UTILITIES PRIOR TO CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE OWNER AND/OR CON- TRACTOR TO CALL 1-800-272-1000 FOR FIELD LOCATION OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.

EROSION CONTROL LEGEND

TEMPORARY STANDARD SILT FENCE AND LIMIT OF DISTURBANCE LINE
TEMPORARY SUPER SILT FENCE AND LIMIT OF DISTURBANCE LINE
LIMIT OF DISTURBANCE
SOILS LIMIT LINE
TEMPORARY STABILIZED CONSTRUCTION ENTRANCE
☒ TEMPORARY INLET PROTECTION
TEMPORARY STOCKPILE AREA
FrmA SOILS DESIGNATION

STANDARD PLAN LEGEND

PROPERTY OUTBOUNDS LINE
CENTER LINE
EASEMENT LINE
G GAS LINE
S SANITARY SEWER LINE
W WATER LINE
OHW OVERHEAD WIRES
WETLANDS LINE
EDGE OF PAVING
RIPARIAN LINE
FLOODWAY LIMIT LINE (100 YR)
FLOOD HAZARD AREA LINE
PHASE LIMIT LINE
LIMIT OF DISTURBANCE
FENCES
100 EXISTING CONTOUR
101 PROPOSED CONTOUR
× 100.6 EXISTING SPOT ELEVATION
× 101.3 PROPOSED SPOT ELEVATION
VEGETATION LINE
TEST PIT / SOIL BORING
GV WV VALVES
WM GM METERS
SIGNS
UTILITY POLES
LIGHT POLES
F FIRE HYDRANT
CLEANOUT
USPS MAIL BOXES
× CROSS CUT
DRILL HOLE W/ WINGS
□ FOUND MONUMENT
■ SET MONUMENT
○ FOUND IRON ROD/PIPE
● SET IRON ROD/PIPE
INLETS
MANHOLES
TRAFFIC SIGNAL
SHADED UNITS ARE COAH UNITS

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CENTURA – PHASE 1 AND 2

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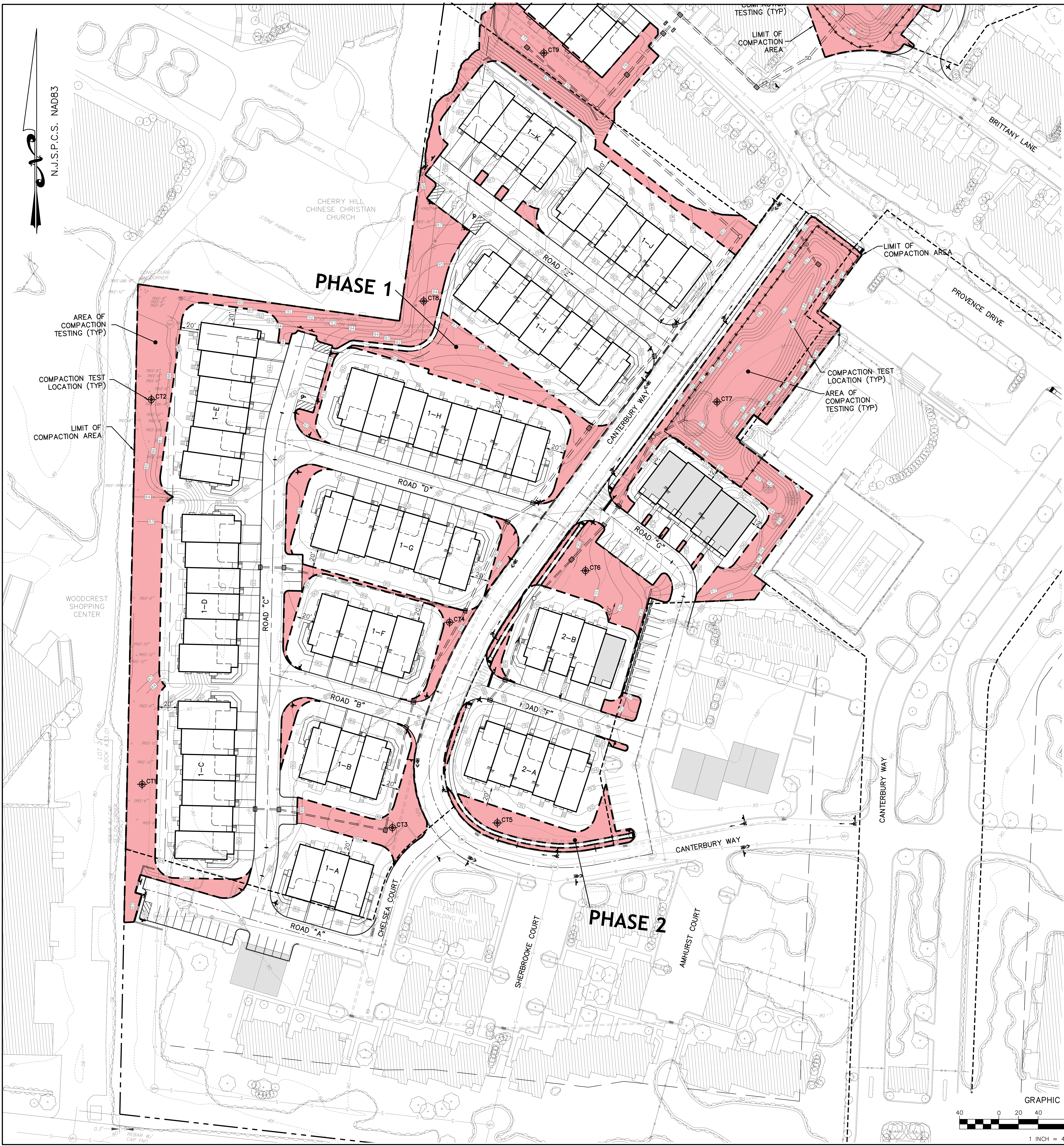
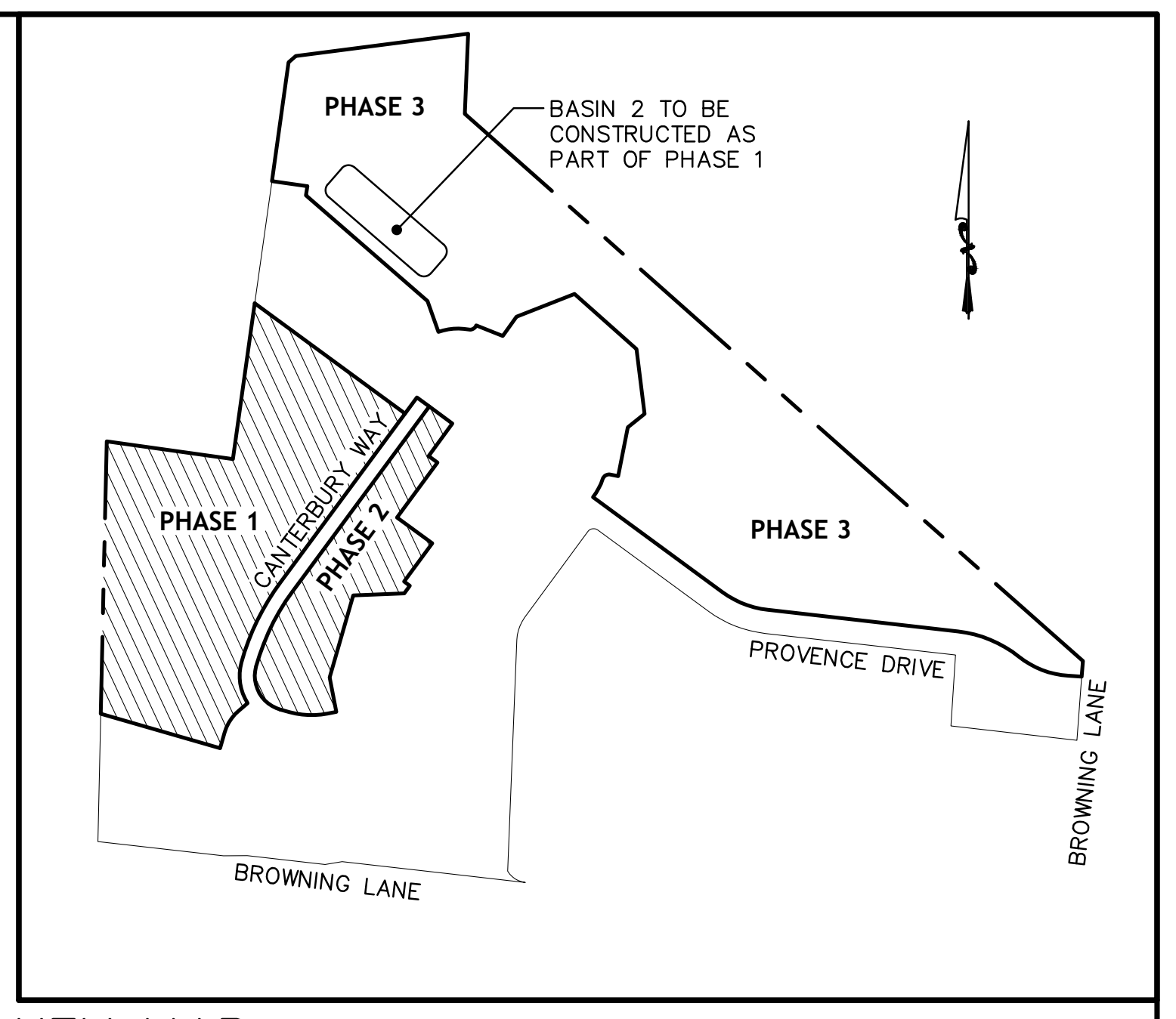
DRAWN BY	APPROVED BY
TJK	RJC
SCALE	DATE
1"=40'	12/12/17
JOB NUMBER	SHEET NO.
3487	22 OF 26

CS1302

Z:\CHERRY HILL LAND DEVELOPMENT GROUP\3487 CENTURA PHASE 1 & 2\DRAWINGS\CENTURA\CS1301.DWG





KEY MAP:

SCALE: 1"=400'

SOIL DE-COMPACTION AND TESTING REQUIREMENTS

A. SOIL COMPACTION TESTING REQUIREMENTS

1. SUBGRADE SOILS PRIOR TO THE APPLICATION OF TOPSOIL (SEE PERMANENT SEEDING AND STABILIZATION NOTES FOR TOPSOIL REQUIREMENTS) SHALL BE FREE OF EXCESSIVE COMPACTION TO A DEPTH OF 6 INCHES TO ENHANCE THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.
2. AREAS OF THE SITE WHICH ARE SUBJECT TO COMPACTION TESTING AND/OR MITIGATION ARE GRAPHICALLY DENOTED ON THE CERTIFIED SOIL EROSION PLAN.
3. COMPACTION TESTING LOCATIONS ARE DENOTED ON THIS PLAN. LOCATION ID'S SHALL BE USED TO COMPLETE THE COMPACTION REMEDIATION FORM, AVAILABLE FROM THE LOCAL SOIL CONSERVATION DISTRICT. THIS FORM MUST BE FILED OUT AND SUBMITTED PRIOR TO RECEIVING A CERTIFICATE OF COMPLIANCE FROM THE DISTRICT.
4. IN THE EVENT THAT TESTING INDICATES COMPACTION IN EXCESS OF THE MAXIMUM THRESHOLDS INDICATED FOR THE SIMPLIFIED TESTING METHODS (SEE DETAILS BELOW), THE CONTRACTOR/OWNER SHALL HAVE THE OPTION TO PERFORM EITHER (1) COMPACTION MITIGATION OVER THE ENTIRE MITIGATION AREA DENOTED ON THIS PLAN (EXCLUDING EXEMPT RAEAS), OR (2) PERFORM ADDITIONAL, MORE DETAILED TESTING TO ESTABLISH THE LIMITS OF EXCESSIVE COMPACTION WHEREUPON ONLY THE EXCESSIVELY COMPACTED AREAS WOULD REQUIRE COMPACTION MITIGATION. ADDITIONAL DETAILED TESTING SHALL BE PERFORMED BY A TRAINED, LICENSED PROFESSIONAL.

B. COMPACTION TESTING METHODS

1. PROBING WIRE TEST (SEE DETAIL)
2. HAND-HELD PENETROMETER TEST (SEE DETAIL)
3. TUBE BULK DENSITY TEST (LICENSED PROFESSIONAL REQUIRED)
4. NUCLEAR DENSITY TEST (LICENSED PROFESSIONAL REQUIRED)
5. ADDITIONAL TESTING METHODS WHICH CONFORM TO ASTM STANDARDS AND SPECIFICATIONS, AND WHICH PRODUCE A DRY WEIGHT, SOIL BULK DENSITY MEASUREMENT MAY BE ALLOWED SUBJECT TO DISTRICT APPROVAL.
6. DETAILED REQUIREMENTS FOR EACH COMPACTION TESTING METHOD CAN BE FOUND IN SECTION 19 "STANDARDS FOR LAND GRADING" OF THE NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL, LATEST EDITION.
7. SOIL COMPACTION TESTING IS NOT REQUIRED IF'WHEN SUBSOIL COMPACTION REMEDIATION (SCARIFICATION/TILLAGE (6 INCH MINIMUM DEPTH) OR SIMILAR) IS PROPOSEDAS PART OF THE SEQUENCE OF CONSTRUCTION.

GENERAL NOTES

1. SUBGRADE SOILS PRIOR TO THE APPLICATION OF TOPSOIL SHALL BE FREE OF EXCESSIVE COMPACTION TO A DEPTH OF 6.0 INCHES TO ENHANCE THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.
2. TIMBER, LOGS, BRUSH, RUBBISH, ROCKS, STUMPS AND VEGETATIVE MATTER WHICH WILL INTERFERE WITH THE GRADING OPERATION OR AFFECT THE PLANNED STABILITY OR FILL AREAS SHALL BE REMOVED AND DISPOSED OF ACCORDING TO THE PLAN.
3. TOPSOIL IS TO BE STRIPPED AND STOCKPILED IN AMOUNTS NECESSARY TO COMPLETE FINISH GRADING OF ALL EXPOSED AREAS REQUIRING TOPSOIL.
4. FILL MATERIAL IS TO BE FREE OF BRUSH, RUBBISH, TIMBER, LOGS, VEGETATIVE MATTER AND STUMPS IN AMOUNTS THAT WILL BE DETRIMENTAL TO CONSTRUCTING STABLE FILLS.
5. ALL STRUCTURAL FILLS SHALL BE COMPACTED AS DETERMINED BY STRUCTURAL ENGINEERING REQUIREMENTS FOR THEIR INTENDED PURPOSE AND AS REQUIRED TO REDUCE SLIPPING, EROSION OR EXCESSIVE SATURATION.
6. ALL DISTURBED AREAS SHALL BE LEFT WITH A NEAT FINISHED APPEARANCE AND SHALL BE PROTECTED FROM EROSION. SEE STANDARDS FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION.
7. TREES TO BE RETAINED SHALL BE PROTECTED IF NECESSARY IN ACCORDANCE WITH THE STANDARD FOR TREE PROTECTION DURING CONSTRUCTION.
8. THE CUT FACE OF EARTH EXCAVATIONS AND FILLS SHALL BE NO STEEPER THAN THE SAFE ANGLE OF REPOSE FOR THE MATERIALS ENCOUNTERED AND FLAT ENOUGH FOR PROPER MAINTENANCE.
9. THE PERMANENTLY EXPOSED FACES OF EARTH CUTS AND FILLS SHALL BE VEGETATED OR OTHERWISE PROTECTED FROM EROSION.
10. PROVISIONS SHALL BE MADE TO SAFELY CONDUCT SURFACE WATER TO STORM DRAINS OR SUITABLE WATER COURSES AND TO PREVENT SURFACE RUNOFF FROM DAMAGING CUT FACES AND FILL SLOPES.
11. SUBSURFACE DRAINAGE IS TO BE PROVIDED IN AREAS HAVING A HIGH WATER TABLE, TO INTERCEPT SEEPAGE THAT WOULD ADVERSELY AFFECT SLOPE STABILITY, BUILDING FOUNDATIONS TO CREATE UNDESIRABLE WETNESS. SEE STANDARD FOR SUBSURFACE DRAINAGE.
12. ADJOINING PROPERTY SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS.
13. FILL SHALL NOT BE PLACED ADJACENT TO THE BANK OF A STREAM OR CHANNEL, UNLESS PROVISIONS ARE MADE TO PROTECT THE HYDRAULIC, BIOLOGICAL, AESTHETIC AND OTHER ENVIRONMENTAL FUNCTIONS OF THE STREAM.

REPORT OF COMPLIANCE

A REPORT OF COMPLIANCE MUST BE OBTAINED FROM THE DISTRICT PRIOR TO RECEIVING A CERTIFICATE OF OCCUPANCY FROM THE MUNICIPALITY. A REQUEST FOR A DISTRICT INSPECTION FOR THE RELEASE OF A REPORT OF COMPLIANCE MUST BE MADE FIV (5) WORKING DAYS IN ADVANCE. THIS APPLIES TO BOTH COMPLETE (FINAL) AND CONDITIONAL (TEMPORARY) CERTIFICATES.

STREET CLEANING

REMOVE ANY SEDIMENT THAT MAY BE SPILLED, DROPPED OR TRACKED OF THE PROJECT SITE. ALL PAVED RIGHT OF WAYS ADJACENT TO THE PROJECT SITE MUST BE MAINTAINED IN A CLEAN, SWEPT CONDITION THROUGHOUT CONSTRUCTION. INSTALL CRUSHED STONE PAD TO HELP REDUCE OFF-SITE TRACKING OF SEDIMENT.

MAINTENANCE BELOW STORMWATER OUTFALLS

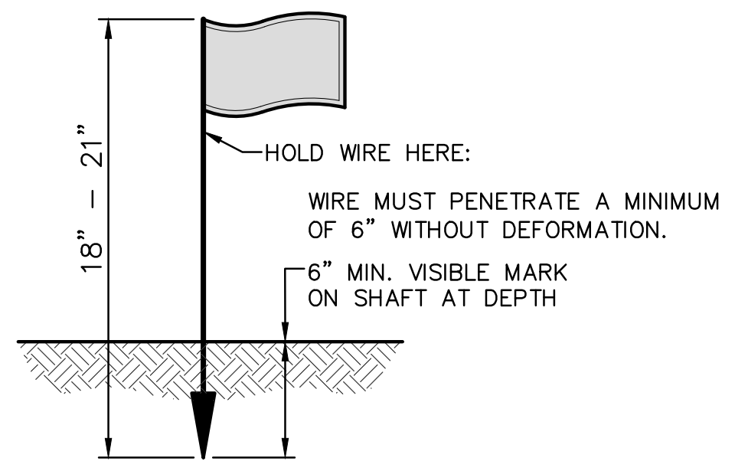
THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.

COMPACTION TEST LOCATION REQUIREMENTS

PERVIOUS COVER SUBJECT TO COMPACTION TESTING = 3.6 ACRES
1 COMPACTION TEST LOCATION PER 0.5 ACRES APPROXIMATE.
3.6 ACRES/0.5 = 7.2 OR 8 COMPACTION TEST LOCATIONS REQUIRED.
NUMBER OF COMPACTION TEST LOCATIONS PROPOSED = 9

NOTE:
SOIL SHOULD BE MOIST BUT NOT SATURATED. DO NOT TEST WHEN SOIL IS EXCESSIVELY DRY OR SUBJECT TO FREEZING TEMPERATURES. SLOW, STEADY DOWNWARD PRESSURE USED TO ADVANCE THE WIRE.

* WIRE MAY BE RE-INSERTED IF/WHEN AN OBSTRUCTION (ROCK, ROOT, DEBRIS) IS ENCOUNTERED

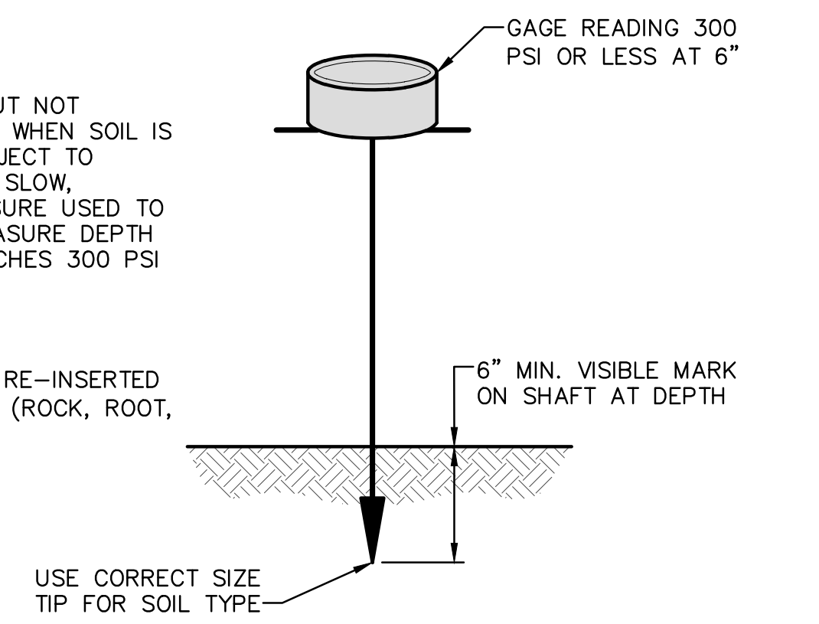

18" – 21"
HOLD WIRE HERE:
WIRE MUST PENETRATE A MINIMUM OF 6" WITHOUT DEFORMATION.
6" MIN. VISIBLE MARK ON SHAFT AT DEPTH

PROBING WIRE TEST
15.5 GUAGE STEEL WIRE (SURVEY FLAG) DETAIL

N.T.S.

NOTE:
SOIL SHOULD BE MOIST BUT NOT SATURATED. DO NOT TEST WHEN SOIL IS EXCESSIVELY DRY OR SUBJECT TO FREEZING TEMPERATURES. SLOW, STEADY DOWNWARD PRESSURE USED TO ADVANCE THE PROBE. MEASURE DEPTH WHEN GAGE READING REACHES 300 PSI OR DEPTH OF 6"

* PENETROMETER MAY BE RE-INSERTED IF/WHEN AN OBSTRUCTION (ROCK, ROOT, DEBRIS) IS ENCOUNTERED


GAGE READING 300 PSI OR LESS AT 6"
6" MIN. VISIBLE MARK ON SHAFT AT DEPTH
USE CORRECT SIZE TIP FOR SOIL TYPE

HANDHELD SOIL PENETROMETER TEST DETAIL

N.T.S.

GRAPHIC SCALE

40 0 20 40 80 160

1 INCH = 40 FEET

LEGEND

LIMIT OF COMPACTION AREA	▬ ▬ ▬ ▬
COMPACTION TEST LOCATION	⌖ TP3
AREA OF COMPACTION TESTING	🟥

Know what's below.
Call before you dig.

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SOIL MANAGEMENT AND PREPARATION PLAN

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C/O STEPHEN D. SAMOST, ESQUIRE 479 CENTENNIAL BOULEVARD
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CERTIFICATE OF AUTHORIZATION NO. 24GA28017600

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
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Richard J Clemson 03/10/2022
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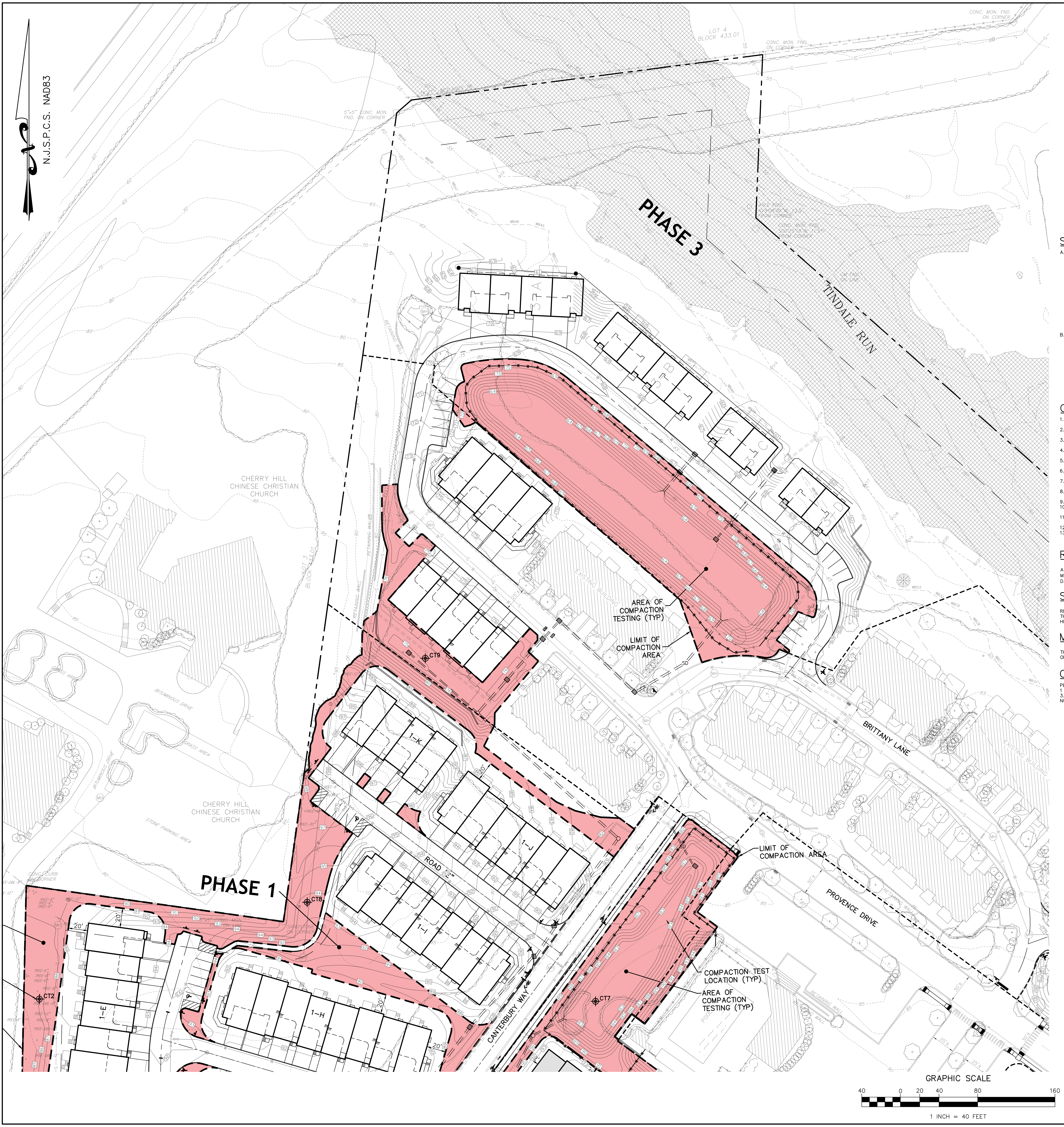
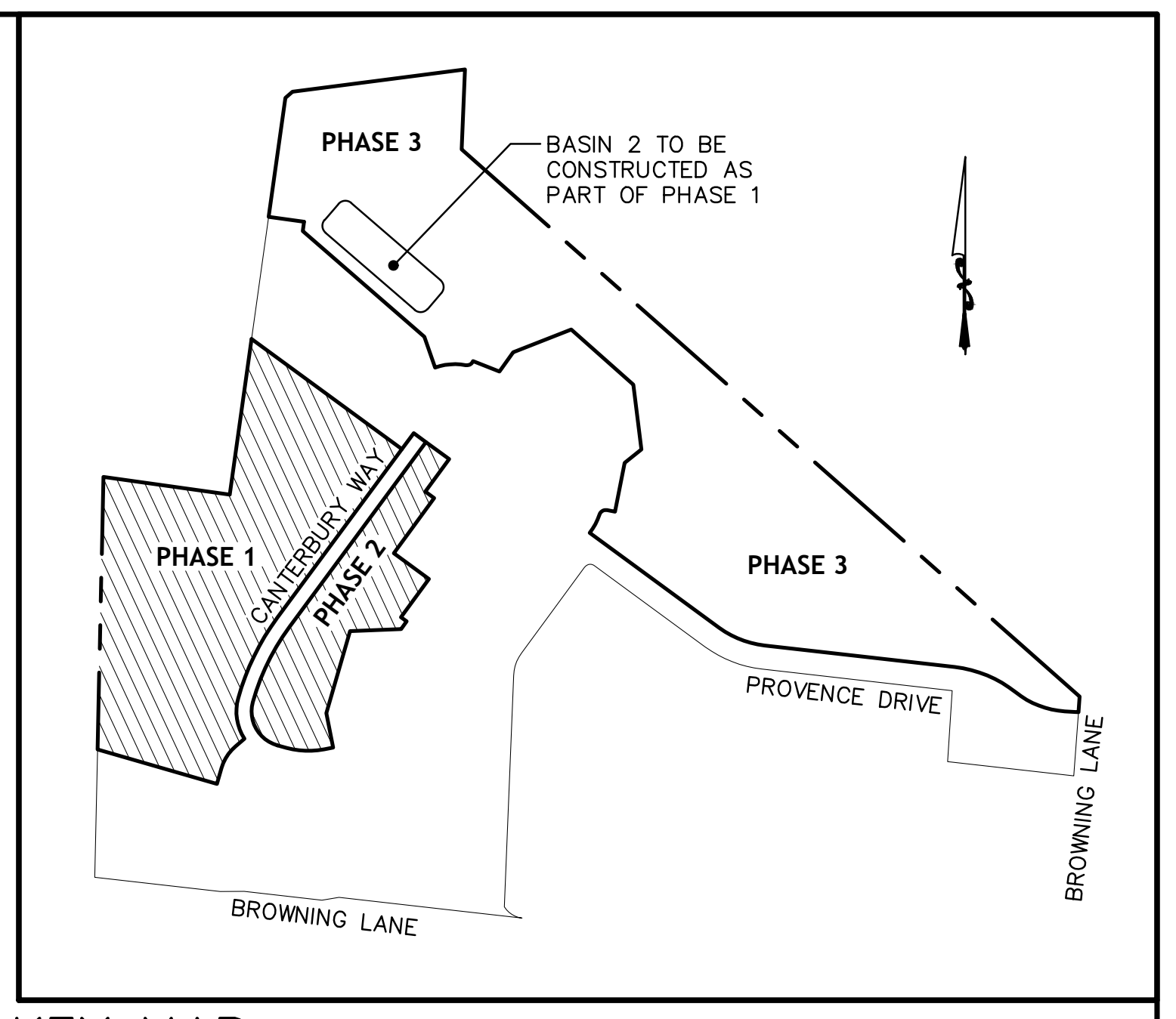
DRAWN BY TJK	APPROVED BY RJC
SCALE 1"=40'	DATE 12/12/17
JOB NUMBER 3487	SHEET NO. 23 OF 26

CS1303

CREATED ON 01/10/2022, LAST MODIFIED ON 02/01/2022





KEY MAP:

SCALE: 1"=400'

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1. SUBGRADE SOILS PRIOR TO THE APPLICATION OF TOPSOIL (SEE PERMANENT SEEDING AND STABILIZATION NOTES FOR TOPSOIL REQUIREMENTS) SHALL BE FREE OF EXCESSIVE COMPACTION TO A DEPTH OF 6 INCHES TO ENHANCE THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.
2. AREAS OF THE SITE WHICH ARE SUBJECT TO COMPACTION TESTING AND/OR MITIGATION ARE GRAPHICALLY DENOTED ON THE CERTIFIED SOIL EROSION PLAN.
3. COMPACTION TESTING LOCATIONS ARE DENOTED ON THIS PLAN. LOCATION ID'S SHALL BE USED TO COMPLETE THE COMPACTION REMEDIATION FORM, AVAILABLE FROM THE LOCAL SOIL CONSERVATION DISTRICT. THIS FORM MUST BE FILED OUT AND SUBMITTED PRIOR TO RECEIVING A CERTIFICATE OF COMPLIANCE FROM THE DISTRICT.
4. IN THE EVENT THAT TESTING INDICATES COMPACTION IN EXCESS OF THE MAXIMUM THRESHOLDS INDICATED FOR THE SIMPLIFIED TESTING METHODS (SEE DETAILS BELOW), THE CONTRACTOR/OWNER SHALL HAVE THE OPTION TO PERFORM EITHER (1) COMPACTION MITIGATION OVER THE ENTIRE MITIGATION AREA DENOTED ON THIS PLAN (EXCLUDING EXEMPT RAEAS), OR (2) PERFORM ADDITIONAL, MORE DETAILED TESTING TO ESTABLISH THE LIMITS OF EXCESSIVE COMPACTION WHEREUPON ONLY THE EXCESSIVELY COMPACTED AREAS WOULD REQUIRE COMPACTION MITIGATION. ADDITIONAL DETAILED TESTING SHALL BE PERFORMED BY A TRAINED, LICENSED PROFESSIONAL.

B. COMPACTION TESTING METHODS

1. PROBING WIRE TEST (SEE DETAIL)
2. HAND–HELD PENETROMETER TEST (SEE DETAIL)
3. TUBE BULK DENSITY TEST (LICENSED PROFESSIONAL REQUIRED)
4. NUCLEAR DENSITY TEST (LICENSED PROFESSIONAL REQUIRED)
5. ADDITIONAL TESTING METHODS WHICH CONFORM TO ASTM STANDARDS AND SPECIFICATIONS, AND WHICH PRODUCE A DRY WEIGHT, SOIL BULK DENSITY MEASUREMENT MAY BE ALLOWED SUBJECT TO DISTRICT APPROVAL.
6. DETAILED REQUIREMENTS FOR EACH COMPACTION TESTING METHOD CAN BE FOUND IN SECTION 19 "STANDARDS FOR LAND GRADING" OF THE NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL, LATEST EDITION.
7. SOIL COMPACTION TESTING IS NOT REQUIRED IF'WHEN SUBSOIL COMPACTION REMEDIATION (SCARIFICATION/TILLAGE (6 INCH MINIMUM DEPTH) OR SIMILAR) IS PROPOSEDAS PART OF THE SEQUENCE OF CONSTRUCTION.

GENERAL NOTES

1. SUBGRADE SOILS PRIOR TO THE APPLICATION OF TOPSOIL SHALL BE FREE OF EXCESSIVE COMPACTION TO A DEPTH OF 6.0 INCHES TO ENHANCE THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.
2. TIMBER, LOGS, BRUSH, RUBBISH, ROCKS, STUMPS AND VEGETATIVE MATTER WHICH WILL INTERFERE WITH THE GRADING OPERATION OR AFFECT THE PLANNED STABILITY OR FILL AREAS SHALL BE REMOVED AND DISPOSED OF ACCORDING TO THE PLAN.
3. TOPSOIL IS TO BE STRIPPED AND STOCKPILED IN AMOUNTS NECESSARY TO COMPLETE FINISH GRADING OF ALL EXPOSED AREAS REQUIRING TOPSOIL.
4. FILL MATERIAL IS TO BE FREE OF BRUSH, RUBBISH, TIMBER, LOGS, VEGETATIVE MATTER AND STUMPS IN AMOUNTS THAT WILL BE DETRIMENTAL TO CONSTRUCTING STABLE FILLS.
5. ALL STRUCTURAL FILLS SHALL BE COMPACTED AS DETERMINED BY STRUCTURAL ENGINEERING REQUIREMENTS FOR THEIR INTENDED PURPOSE AND AS REQUIRED TO REDUCE SLIPPING, EROSION OR EXCESSIVE SATURATION.
6. ALL DISTURBED AREAS SHALL BE LEFT WITH A NEAT FINISHED APPEARANCE AND SHALL BE PROTECTED FROM EROSION. SEE STANDARDS FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION.
7. TREES TO BE RETAINED SHALL BE PROTECTED IF NECESSARY IN ACCORDANCE WITH THE STANDARD FOR TREE PROTECTION DURING CONSTRUCTION.
8. THE CUT FACE OF EARTH EXCAVATIONS AND FILLS SHALL BE NO STEEPER THAN THE SAFE ANGLE OF REPOSE FOR THE MATERIALS ENCOUNTERED AND FLAT ENOUGH FOR PROPER MAINTENANCE.
9. THE PERMANENTLY EXPOSED FACES OF EARTH CUTS AND FILLS SHALL BE VEGETATED OR OTHERWISE PROTECTED FROM EROSION.
10. PROVISIONS SHALL BE MADE TO SAFELY CONDUCT SURFACE WATER TO STORM DRAINS OR SUITABLE WATER COURSES AND TO PREVENT SURFACE RUNOFF FROM DAMAGING CUT FACES AND FILL SLOPES.
11. SUBSURFACE DRAINAGE IS TO BE PROVIDED IN AREAS HAVING A HIGH WATER TABLE, TO INTERCEPT SEEPAGE THAT WOULD ADVERSELY AFFECT SLOPE STABILITY, BUILDING FOUNDATIONS TO CREATE UNDESIRABLE WETNESS. SEE STANDARD FOR SUBSURFACE DRAINAGE.
12. ADJOINING PROPERTY SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS.
13. FILL SHALL NOT BE PLACED ADJACENT TO THE BANK OF A STREAM OR CHANNEL, UNLESS PROVISIONS ARE MADE TO PROTECT THE HYDRAULIC, BIOLOGICAL, AESTHETIC AND OTHER ENVIRONMENTAL FUNCTIONS OF THE STREAM.

REPORT OF COMPLIANCE

A REPORT OF COMPLIANCE MUST BE OBTAINED FROM THE DISTRICT PRIOR TO RECEIVING A CERTIFICATE OF OCCUPANCY FROM THE MUNICIPALITY. A REQUEST FOR A DISTRICT INSPECTION FOR THE RELEASE OF A REPORT OF COMPLIANCE MUST BE MADE FIV (5) WORKING DAYS IN ADVANCE. THIS APPLIES TO BOTH COMPLETE (FINAL) AND CONDITIONAL (TEMPORARY) CERTIFICATES.

STREET CLEANING

REMOVE ANY SEDIMENT THAT MAY BE SPILLED, DROPPED OR TRACKED OF THE PROJECT SITE. ALL PAVED RIGHT OF WAYS ADJACENT TO THE PROJECT SITE MUST BE MAINTAINED IN A CLEAN, SWEPT CONDITION THROUGHOUT CONSTRUCTION. INSTALL CRUSHED STONE PAD TO HELP REDUCE OFF–SITE TRACKING OF SEDIMENT.

MAINTENANCE BELOW STORMWATER OUTFALLS

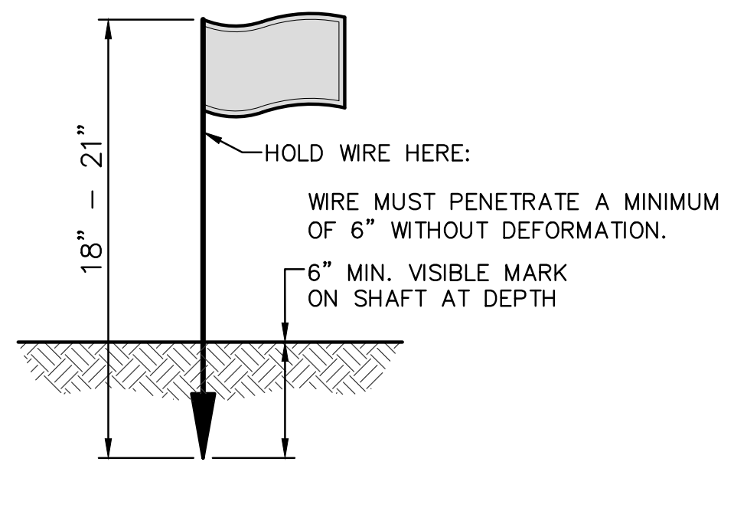
THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.

COMPACTION TEST LOCATION REQUIREMENTS

PERVIOUS COVER SUBJECT TO COMPACTION TESTING = 3.6 ACRES
1 COMPACTION TEST LOCATION PER 0.5 ACRES APPROXIMATE.
3.6 ACRES/0.5 = 7.2 OR 8 COMPACTION TEST LOCATIONS REQUIRED.
NUMBER OF COMPACTION TEST LOCATIONS PROPOSED = 9

NOTE:
SOIL SHOULD BE MOIST BUT NOT SATURATED. DO NOT TEST WHEN SOIL IS EXCESSIVELY DRY OR SUBJECT TO FREEZING TEMPERATURES. SLOW, STEADY DOWNWARD PRESSURE USED TO ADVANCE THE WIRE.

* WIRE MAY BE RE–INSERTED IF/WHEN AN OBSTRUCTION (ROCK, ROOT, DEBRIS) IS ENCOUNTERED

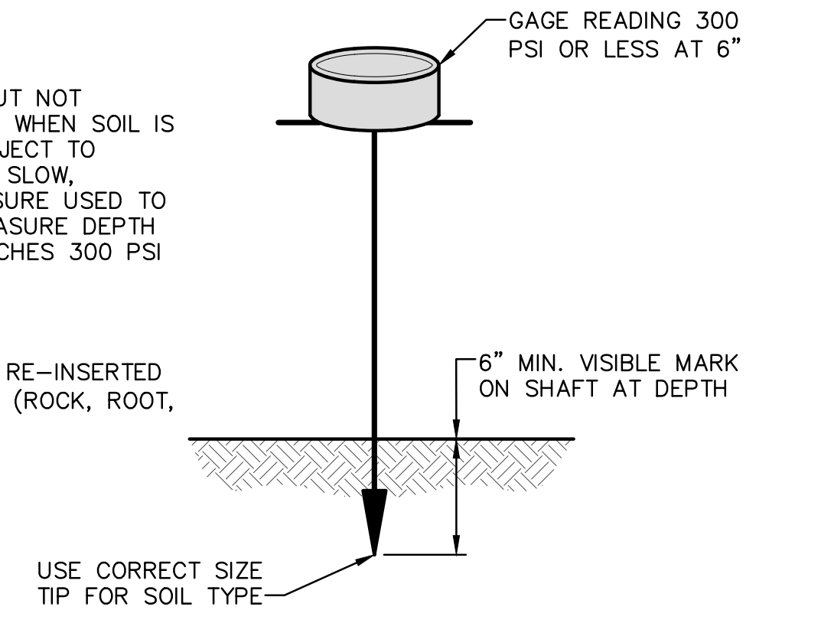

18" – 21"
HOLD WIRE HERE:
WIRE MUST PENETRATE A MINIMUM OF 6" WITHOUT DEFORMATION.
6" MIN. VISIBLE MARK ON SHAFT AT DEPTH

PROBING WIRE TEST
15.5 GUAGE STEEL WIRE (SURVEY FLAG) DETAIL

N.T.S.

NOTE:
SOIL SHOULD BE MOIST BUT NOT SATURATED. DO NOT TEST WHEN SOIL IS EXCESSIVELY DRY OR SUBJECT TO FREEZING TEMPERATURES. SLOW, STEADY DOWNWARD PRESSURE USED TO ADVANCE THE PROBE. MEASURE DEPTH WHEN GAGE READING REACHES 300 PSI OR DEPTH OF 6"

* PENETROMETER MAY BE RE–INSERTED IF/WHEN AN OBSTRUCTION (ROCK, ROOT, DEBRIS) IS ENCOUNTERED


GAGE READING 300 PSI OR LESS AT 6"
6" MIN. VISIBLE MARK ON SHAFT AT DEPTH
USE CORRECT SIZE TIP FOR SOIL TYPE

HANDHELD SOIL
PENETROMETER TEST DETAIL

N.T.S.

811
Know what's below.
Call before you dig.

LEGEND

LIMIT OF COMPACTION AREA	▬ ▬ ▬ ▬
COMPACTION TEST LOCATION	⌖ TP3
AREA OF COMPACTION TESTING	🟥

DATE	ISSUE	REVISION	BY	APPR.
03/10/2022	6	ISSUED FOR FINAL SITE PLAN COMPLIANCE	TJK	RJC
07/02/2020	5	SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK	RJC
01/13/20	4	REVISED PER COMMENTS FROM CHERRY HILL TOWNSHIP PUBLIC WORKS ENGINEER	GMM	RJC
07/16/19	3	INITIAL SUBMISSION	TJK	RJC
10/2/18	2	NOT PART OF INITIAL SUBMISSION	GMM	RJC
12/12/17	1	NOT PART OF INITIAL SUBMISSION	TJK	RJC

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HAMMONTON, NEW JERSEY 08037

CENTURA – PHASE 1 AND 2

TAX MAP SHEET 234, BLOCK 433.20, LOT 15.01 & 16.01, FORMERLY BLOCK 433.20, LOT 1
CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

SOIL MANAGEMENT AND PREPARATION PLAN

DEVEL, LLC.

C/O STEPHEN D. SAMOST, ESQUIRE 479 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200

Richard J Clemson 03/10/2022
DATE

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28017600

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DRAWN BY TJK	APPROVED BY RJC
SCALE 1"=40'	DATE 12/12/17
JOB NUMBER 3487	SHEET NO. 24 OF 26

CS1304

Z:\CHERRY HILL LAND DEVELOPMENT GROUP\3487 CENTURA PHASE 1 & 2\DRAWINGS\CENTURA\CS1303.DWG

CREATED ON 07/25/2019, LAST MODIFIED ON 07/02/2020

GENERAL NOTES

1. ALL APPLICABLE EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN PLACE PRIOR TO ANY GRADING OPERATION AND/OR INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES.
2. SOIL EROSION AND SEDIMENT CONTROL PRACTICES ON THIS PLAN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.
3. APPLICABLE EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE LEFT IN PLACE UNTIL CONSTRUCTION IS COMPLETED AND/OR THE AREA IS STABILIZED.
4. THE CONTRACTOR SHALL PERFORM ALL WORK, FURNISH ALL MATERIALS AND INSTALL ALL MEASURES REQUIRED TO REASONABLY CONTROL SOIL EROSION RESULTING FROM CONSTRUCTION OPERATIONS AND PREVENT EXCESSIVE FLOW OF SEDIMENT FROM THE CONSTRUCTION SITE.
5. ANY DISTURBED AREA THAT IS TO BE LEFT EXPOSED FOR MORE THAN THIRTY (30) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING AND FERTILIZATION IN ACCORDANCE WITH THE NEW JERSEY STANDARDS AND THEIR RATES SHOULD BE INCLUDED IN THE NARRATIVE. IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREAS WILL BE MULCHED WITH SALT HAY OR EQUIVALENT AND ANCHORED IN ACCORDANCE WITH THE NEW JERSEY STANDARDS (I.E. PEG AND TWINE, MULCH NETTING OR LIQUID MULCH BINDER).
6. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO PROVIDE CONFIRMATION OF LIME, FERTILIZER AND SEED APPLICATION AND RATES OF APPLICATION AT THE REQUEST OF THE CAMDEN COUNTY SOIL CONSERVATION DISTRICT.
7. ALL CRITICAL AREAS SUBJECT TO EROSION WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH AT A RATE OF 2 TONS PER ACRE, ACCORDING TO THE NEW JERSEY STANDARDS IMMEDIATELY FOLLOWING ROUGH GRADING.
8. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORMWATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
9. ALL SEDIMENTATION STRUCTURES WILL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS AND AFTER EVERY STORM EVENT.
10. A CRUSHED STONE, TIRE CLEANING PAD WILL BE INSTALLED WHEREVER A CONSTRUCTION ACCESS EXISTS. THE STABILIZED PAD WILL BE INSTALLED ACCORDING TO THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS.
11. ALL DRIVEWAYS MUST BE STABILIZED WITH 2–1/2 CRUSHED STONE OR SUBBASE PRIOR TO INDIVIDUAL LOT CONSTRUCTION.
12. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.
13. ALL CATCH BASIN INLETS WILL BE PROTECTED ACCORDING TO THE CERTIFIED PLAN.
14. ALL STORM DRAINAGE OUTLETS WILL BE STABILIZED, AS REQUIRED, BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.
15. ALL DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT FILTER AREA. THE SEDIMENT FILTER SHOULD BE COMPOSED OF A SUITABLE SEDIMENT FILTER FABRIC. (SEE DETAIL) THE BASIN MUST BE DEWATERED TO NORMAL POOL WITHIN 10 DAYS OF THE DESIGN STORM.
16. NJSA 4:24–39, ET SEQ. REQUIRES THAT NO CERTIFICATE OF OCCUPANCY BE ISSUED BEFORE ALL PROVISIONS OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN HAVE BEEN COMPLIED WITH FOR PERMANENT MEASURES. ALL SITE WORK FOR THE PROJECT MUST BE COMPLETED PRIOR TO THE DISTRICT ISSUING A REPORT OF COMPLIANCE AS A PREREQUISITE TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE MUNICIPALITY.
17. MULCHING IS REQUIRED ON ALL SEEDED AREAS TO INSURE AGAINST EROSION BEFORE GRASS IS ESTABLISHED TO PROMOTE EARLIER VEGETATION COVER.
18. OFFSITE SEDIMENT DISTURBANCE MAY REQUIRE ADDITIONAL CONTROL MEASURES TO BE DETERMINED BY THE EROSION CONTROL INSPECTOR.
19. A COPY OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN MUST BE MAINTAINED ON THE PROJECT SITE DURING CONSTRUCTION.
20. THE CAMDEN COUNTY SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED 72 HOURS PRIOR TO ANY LAND DISTURBANCE.
21. ANY CONVEYANCE OF THIS PROJECT PRIOR TO ITS COMPLETION WILL TRANSFER FULL RESPONSIBILITY FOR COMPLIANCE WITH THE CERTIFIED PLAN TO ANY SUBSEQUENT OWNERS.
22. IMMEDIATELY AFTER THE COMPLETION OF STRIPPING AND STOCKPILING OF TOPSOIL, THE STOCKPILE MUST BE STABILIZED ACCORDING TO THE STANDARD FOR TEMPORARY VEGETATIVE COVER. STABILIZE TOPSOIL PILE WITH STRAW MULCH FOR PROTECTION IF THE SEASON DOES NOT PERMIT THE APPLICATION AND ESTABLISHMENT OF TEMPORARY SEEDING. ALL SOIL STOCKPILES ARE NOT TO BE LOCATED WITHIN FIFTY (50) FEET OF A FLOODPLAIN, SLOPE, ROADWAY OR DRAINAGE FACILITY AND THE BASE MUST BE PROTECTED WITH A SEDIMENT BARRIER.
23. ANY CHANGES TO THE SITE PLAN WILL REQUIRE THE SUBMISSION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLAN TO THE CAMDEN COUNTY SOIL CONSERVATION DISTRICT. THE REVISED PLAN MUST BE IN ACCORDANCE WITH THE CURRENT NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL.
24. METHODS FOR THE MANAGEMENT OF HIGH ACID PRODUCING SOILS SHALL BE IN ACCORDANCE WITH THE STANDARDS. HIGH ACID PRODUCING SOILS ARE THOSE FOUND TO CONTAIN IRON SULFIDES OR HAVE A PH OF 4 OR LESS.
25. TEMPORARY AND PERMANENT SEEDING MEASURES MUST BE APPLIED ACCORDING TO THE NEW JERSEY STANDARDS, AND MULCHED WITH SALT HAY OR EQUIVALENT AND ANCHORED IN ACCORDANCE WITH THE NEW JERSEY STANDARDS (I.E. PEG AND TWINE, MULCH NETTING OR LIQUID MULCH BINDER).
26. MAXIMUM SIDE SLOPES OF ALL EXPOSED SURFACES SHALL NOT BE CONSTRUCTED STEEPER THAN 3:1 UNLESS OTHERWISE APPROVED BY THE DISTRICT.
27. DUST IS TO BE CONTROLLED BY AN APPROVED METHOD ACCORDING TO THE NEW JERSEY STANDARDS AND MAY INCLUDE WATERING WITH A SOLUTION OF CALCIUM CHLORIDE AND WATER.
28. ADJOINING PROPERTIES SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS ON THE PROPOSED SITE.
29. USE STAGED CONSTRUCTION METHODS TO MINIMIZE EXPOSED SURFACES, WHERE APPLICABLE.
30. ALL VEGETATIVE MATERIAL SHALL BE SELECTED IN ACCORDANCE WITH AMERICAN STANDARDS FOR NURSERY STOCK OF THE AMERICAN ASSOCIATION OF THE NURSERYMEN AND IN ACCORDANCE WITH THE NEW JERSEY STANDARDS.
31. NATURAL VEGETATION AND SPECIES SHALL BE RETAINED WHERE SPECIFIED ON THE LANDSCAPE PLAN.
32. THE SOIL EROSION INSPECTOR MAY REQUIRE ADDITIONAL SOIL EROSION MEASURES TO BE INSTALLED, AS DIRECTED BY THE DISTRICT INSPECTOR.

CAMDEN COUNTY SOIL CONSERVATION DISTRICT
423 COMMERCE LANE, SUITE 1,
WEST BERLIN NEW JERSEY 08091
PHONE: (856) 767–6299 FAX: (856) 767–1676

WORK HOURS AND NOISE CONTROL

1. CONSTRUCTION HOURS
   A. MONDAY THRU FRIDAY: 7:00AM–4:00PM
   B. SATURDAY: 8:00AM–4:30PM (IF REQUIRED)
   C. SUNDAY: NO WORK TO BE PERFORMED UNLESS NECESSARY.
   D. THE HOURS STATED SHALL BE ADHERED TO UNLESS DUE TO WEATHER AND OR SCHEDULE CHANGES. THE TOWNSHIP SHALL BE NOTIFIED OF ALL TIME CHANGES.
2. NOISE CONTROL EQUIPMENT TO BE UTILIZED SHALL BE STANDARD EARTH MOVING EQUIPMENT, CRANES, MIXERS, ETC. WHICH MEET STANDARDS ESTABLISHED BY STATE AND FEDERAL LAWS REGARDING THE AMOUNT OF NOISE PRODUCED.

CONSTRUCTION SEQUENCE

1. CONSTRUCT TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES FOR ENTIRE PROJECT.
   A. PLACE STABILIZED CONSTRUCTION ENTRANCE WHERE INDICATED ON PLAN.
   B. PLACE SILT FENCE AND TREE PROTECTION FENCE WHERE INDICATED ON PLAN.
   C. ESTABLISH CONSTRUCTION LAYDOWN AREA AND CONCRETE WASHOUT AREA. CONTRACTOR TO COORDINATE EXACT LOCATION WITH THE CAMDEN COUNTY SOIL CONSERVATION DISTRICT.
2. CLEAR AND GRUB CONSTRUCTION AREA.
   A. PLACE TOPSOIL STOCKPILE AREAS WHERE INDICATED ON PLAN.
3. CONSTRUCT STORMWATER BASIN.
4. ROUGH GRADE CONSTRUCTION AREA.
5. GRADE ROADS, CONSTRUCT UTILITIES AND INSTALL INLET PROTECTION. INLET PROTECTION TO REMAIN IN PLACE UNTIL ALL SEEDED AREAS ARE STABILIZED.
6. CONSTRUCT CURBING.
7. PLACE ROADS AND PARKING AREA SUBBASE AND STABILIZED BASE COURSE.
8. CONSTRUCT BUILDINGS, SIDEWALK AND INSTALL LANDSCAPING.
9. ESTABLISH FINAL GRADING, CLEANUP AND COLLECT ALL SILT AND SEDIMENT AND DISPOSE LEGALLY.
10. INSTALL FINAL PAVING AND REMOVE CONSTRUCTION LAYDOWN AREA. AFTER EQUIPMENT, CONSTRUCTION MATERIAL AND STONE HAS BEEN REMOVED THE LAYDOWN AREA SHALL BE STABILIZED AS INDICATED WITHIN THE PERMANENT VEGETATION NARRATIVE.

TEMPORARY VEGETATION

1. TEMPORARY VEGETATIVE COVER: PRIOR TO HALTING CONSTRUCTION FOR PERIODS LONGER THAN 60 DAYS AND DURING THE OFF SEASON, THE CONTRACTOR SHALL STABILIZE ALL EXPOSED AND DISTURBED SOILS WITH TEMPORARY VEGETATIVE COVER.
2. SEEDBED PREPARATION – THE CONTRACTOR SHALL APPLY PULVERIZED DOLOMITIC LIMESTONE AT THE RATE OF 90 POUNDS PER 1000 SQUARE FEET. APPLY 10–20–10 FERTILIZER AT THE RATE OF 14 POUNDS PER 1000 SQUARE FEET. THE LIME AND FERTILIZER SHALL THEN BE "WORKED" INTO THE SOIL TO A DEPTH OF 4" WITH A DISC, SPRINGTOOTH HARROW OR OTHER SUITABLE EQUIPMENT.
3. SEEDING – SEEDING SHALL CONSIST OF PERENNIAL RYEGRASS, DURING COOL SEASON APPLIED AT THE RATE OF 1 POUND PER 1000 SQUARE FEET OR 100 LBS. PER ACRE. OR WEEPING LOVEGRASS AT 5 LBS. PER ACRE DURING WARM SEASON PLANTING.
4. MULCHING – THE CONTRACTOR SHALL MULCH ALL NEWLY SEEDED AREAS WITH SALT HAY OR SMALL GRAINED STRAW, AT THE RATE OF 70 TO 90 POUNDS PER 1000 SQUARE FEET. IT SHALL BE ANCHORED THROUGH THE USE OF ONE OF THE FOLLOWING BELOW.
5. 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 MAULCH–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.
6. MULCH 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.
7. 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 SLOPE, AND COSTS.
8. 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 DIRECTION. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRIS–CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
9. MULCH NETTING. STAPLE PAPER JUTE, COTTON, OR PLASTIC NETTING TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
10. CRIMPER (MULCH ANCHORING COULTER TOOL). A TRACTOR–DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE IN THE COUNTER OF SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED.
11. LIQUID MULCH BINDERS. – MAY BE USED TO ANCHOR SALT HAY, HAY OR STRAW MULCH. APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND MAY CATCH THE MULCH, IN VALLEYS, AND AT CREST OF BANKS. THE REMAINDER OF THE AREA SHOULD BE UNIFORM IN APPEARANCE.
12. EMULSIFIED ASPHALT – (SS–1, CSS–1, CMS–2, MS–2, RS–1, RS–2, CRS–1, AND CRS–2). APPLY 0.04 GAL./SQ./YD. OR 194 GAL./ACRE. THESE MATERIALS MAY BE DIFFICULT TO APPLY UNIFORMLY AND WILL DISCOLOR SURFACES.
13. ORGANIC AND VEGETABLE BASED BINDERS – NATURALLY OCCURRING, POWDER BASED, HYDROPHILIC MATERIALS WHEN MIXED WITH WATER FORM MEMBRANED NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN PHYTOTOXIC EFFECTS OR IMPEDE GROWTH OF TURFGRASS. USE AT RATES AND WEATHER CONDITIONS AS RECOMMENDED BY THE MANUFACTURE TO ANCHOR MULCH MATERIALS. MANY NEW PRODUCTS AREA AVAILABLE, SOME OF WHICH MAY NEED FURTHER EVALUATION FOR USE IN THIS STATE.
14. SYNTHETIC BINDERS – HIGH POLYMER SYNTHETIC EMULSION, MISCIBLE WITH WATER WHEN DILUTED AND FOLLOWING APPLICATION TO MULCH, DRYING AND CURING SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. IT SHALL BE APPLIED AT RATES RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL GERMINATION OF GRASS. ALL NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A RECOMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS.
15. WOOD–FIBER OR PAPER FIBER MULCH. SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS, USED AT THE RATE OF 1,500 POUNDS PER ACRE (OR AS RECOMMENDED BE THE PRODUCT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. THIS MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.
16. PELLETIZED MULCH. COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCTS, WHICH MAY CONTAIN CO–POLYMERS, TACKIFIERS, FERTILIZERS AND COLORING AGENTS. THE DRY PELLETS, WHEN APPLIED TO A SEEDED AREA AND WATERED, FORM A MULCH MAT. PELLETIZED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURES RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60–75 LBS/1,000 SQUARE FEET AND ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS, SEEDED AREAS WHERE WEED–SEED FREE MULCH IS DESIRED OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENTS ARE NOT PRACTICAL OR DESIRABLE.
17. APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.

TOPSOIL SPECIFICATIONS

1. TOPSOIL SHOULD BE FRIABLE, LOAMY, FREE OF DEBRIS, OBJECTIONABLE WEEDS AND STONE, 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 MILLIHOS MAY DESICATE SEEDLINGS AND ADVERSELY IMPACT GROWTH). TOPSOIL HAULED IN FROM OFFSITE SHOULD HAVE A MINIMUM ORGANIC MATTER CONTENT OF 2.75 PERCENT. ORGANIC MATTER CONTENT MAY BE RAISED BY ADDITIVES.
2. TOPSOIL SUBSTITUTES MAY BE UTILIZED ON SITES WITH INSUFFICIENT TOPSOIL FOR ESTABLISHING PERMANENT VEGETATION. TOPSOIL SUBSTITUTE IS A SOIL MATERIAL WHICH MAY HAVE BEEN AMENDED WITH SAND, SILT, CLAY, ORGANIC MATERIAL. FERTILIZER OR LIME AND HAS THE APPEARANCE OF TOPSOIL. ALL TOPSOIL SUBSTITUTE MATERIALS SHALL MEET THE REQUIREMENTS OF TOPSOIL NOTED IN NOTE 1. SOIL TESTS SHALL BE PERFORMED TO DETERMINE THE COMPONENTS OF SAND, SILT, CLAY, ORGANIC MATTER, SOLUBLE SALTS AND PH LEVEL.
3. FIELD EXPLORATION SHOULD BE MADE TO DETERMINE WHETHER QUANTITY AND OR QUALITY OF SURFACE SOIL JUSTIFIES STRIPPING.
4. STRIPPING SHOULD BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA.
5. WHERE FEASIBLE, LIME MAY BE APPLIED BEFORE STRIPPING AT A RATE DETERMINED BY SOIL TESTS TO BRING THE SOIL PH TO APPROXIMATELY 6.5. IN LIEU OF SOIL TESTS, SEE LIME RATE GUIDE IN SEEDBED PREPARATION FOR PERMANENT VEGETATIVE COVER.
6. A 4–6 INCH STRIPPING DEPTH IS COMMON, BUT MAY VARY DEPENDING ON THE PARTICULAR SOIL.
7. STOCKPILES SHOULD BE SITUATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OF CAUSE OFFSITE ENVIRONMENTAL DAMAGE.
8. TOCKPILES SHALL BE VEGETATED PER TEMPORARY OR PERMANENT VEGETATION SPECIFICATIONS. WEEDS SHOULD NOT BE ALLOWED TO GROW IN STOCKPILES.
9. 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 ESTABLISH VEGETATIVE COVER IN ACCORDANCE WITH THE SPECIFIED SEED MIXTURES.
10. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION. SEEDING, MULCHING, ANCHORING AND MAINTENANCE.
11. SUBSOIL SHOULD BE TESTED FOR FOR LIME REQUIREMENTS. LIMESTONE, IF REQUIRED, SHOULD BE APPLIED TO BRING THE SOIL PH TO APPROXIMATELY 6.5 AND INCORPORATED INTO SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES.
12. IMMEDIATELY PRIOR TO TOPSOILING, THE SURFACE SHOULD BE SCARIFIED 6–12 INCHES WHERE THE SOIL HAS BEEN COMPACTED (PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES.
13. EMPLOY NEEDED EROSION CONTROL MEASURES AS INDICATED ON THE PLANS.
14. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE.
15. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS RECOMMENDED. SOILS WITH 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.
16. TOPSOIL SHALL CONTAIN NO STONES, LUMPS, ROOTS OR SIMILAR OBJECTS LARGER THAN TWO (2) INCHES IN ANY DIMENSION, AND SHALL HAVE A PH VALUE OF NOT LESS THAN 5.8 NOR MORE THAN 6.5. WHEN THE PH VALUE OF THE TOPSOIL IS LESS THAN 5.8, IT SHALL BE INCREASED BY APPLYING GROUND LIMESTONE AT A RATE NECESSARY TO ATTAIN A PH VALUE OF 6.5.
17. TOPSOIL SHALL HAVE A MINIMUM ORGANIC CONTENT OF NOT LESS THAN 2.75% BY WEIGHT. WHEN THE ORGANIC CONTENT OF THE TOPSOIL IS LESS THAN 2.75% IT SHALL BE INCREASED BY ADDING PEAT AT A RATE NECESSARY TO ATTAIN THE MINIMUM ORGANIC CONTENT.

PERMANENT VEGETATION

1. PERMANENT VEGETATION: IMMEDIATELY FOLLOWING THE COMPLETION OF CONSTRUCTION ACTIVITIES AT THE SITE, THE CONTRACTOR SHALL STABILIZE ALL EXPOSED AND DISTURBED SOILS WITH PERMANENT VEGETATIVE COVER.
2. TOPSOILING – THE CONTRACTOR SHALL PREPARE AREAS TO BE STABILIZED WITH PERMANENT VEGETATIVE COVER BY APPLYING TOPSOIL TO A UNIFORM DEPTH OF 5", UNSETTLED. TOPSOIL SHALL BE FRIABLE AND LOAMY AND OF GOOD QUALITY.
3. SEEDBED PREPARATION – IMMEDIATELY FOLLOWING TOPSOILING, THE CONTRACTOR SHALL APPLY PULVERIZED DOLOMITIC LIMESTONE AT THE RATE OF 90 POUNDS PER 1,000 SQUARE FEET AND FERTILIZER (10–20–10) AT THE RATE OF 14 POUNDS PER 1000 SQUARE FEET. THE LIME AND FERTILIZER SHALL THEN BE "WORKED" INTO THE SOIL TO A DEPTH OF 4" WITH DISC, SPRINGTOOTH HARROW OR OTHER SUITABLE EQUIPMENT.
4. SEEDING – USE #16 MIXTURE SEED FOR ALL LAWN AND OPEN SPACE AREAS AND USE #17 MIXTURE SEED FOR BASIN SIDE SLOPES. (SEE BELOW).
5. MULCHING – THE CONTRACTOR SHALL MULCH ALL NEWLY SEEDED AREAS WITH HAY, AT THE RATE OF 90 TO 115 POUNDS PER 1,000 SQUARE FEET. IT SHALL BE ANCHORED THROUGH THE USE OF ONE OF THE FOLLOWING BELOW.
6. 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 MAULCH–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.
7. 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.
8. 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 SLOPE, AND COSTS.
9. 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 DIRECTION. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRIS–CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
10. MULCH NETTING. STAPLE PAPER JUTE, COTTON, OR PLASTIC NETTING TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
11. CRIMPER (MULCH ANCHORING COULTER TOOL). A TRACTOR–DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE IN THE COUNTER OF SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TRACIFYING OR ADHESIVE AGENT IS REQUIRED.
12. LIQUID MULCH BINDERS. – MAY BE USED TO ANCHOR SALT HAY, HAY OR STRAW MULCH. APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND MAY CATCH THE MULCH, IN VALLEYS, AND AT CREST OF BANKS. THE REMAINDER OF THE AREA SHOULD BE UNIFORM IN APPEARANCE.
13. EMULSIFIED ASPHALT – (SS–1, CSS–1, CMS–2, MS–2, RS–1, RS–2, CRS–1, AND CRS–2). APPLY 0.04 GAL./SQ./YD. OR 194 GAL./ACRE. THESE MATERIALS MAY BE DIFFICULT TO APPLY UNIFORMLY AND WILL DISCOLOR SURFACES.
14. ORGANIC AND VEGETABLE BASED BINDERS – NATURALLY OCCURRING, POWDER BASED, HYDROPHILIC MATERIALS WHEN MIXED WITH WATER FORM MEMBRANED NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN PHYTOTOXIC EFFECTS OR IMPEDE GROWTH OF TURFGRASS. USE AT RATES AND WEATHER CONDITIONS AS RECOMMENDED BY THE MANUFACTURE TO ANCHOR MULCH MATERIALS. MANY NEW PRODUCTS AREA AVAILABLE, SOME OF WHICH MAY NEED FURTHER EVALUATION FOR USE IN THIS STATE.
15. SYNTHETIC BINDERS – HIGH POLYMER SYNTHETIC EMULSION, MISCIBLE WITH WATER WHEN DILUTED AND FOLLOWING APPLICATION TO MULCH, DRYING AND CURING SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. IT SHALL BE APPLIED AT RATES RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL GERMINATION OF GRASS. ALL NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A RECOMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS.
16. WOOD–FIBER OR PAPER FIBER MULCH. SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS, USED AT THE RATE OF 1,500 POUNDS PER ACRE (OR AS RECOMMENDED BE THE PRODUCT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. THIS MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.
17. PELLETIZED MULCH. COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCTS, WHICH MAY CONTAIN CO–POLYMERS, TACKIFIERS, FERTILIZERS AND COLORING AGENTS. THE DRY PELLETS, WHEN APPLIED TO A SEEDED AREA AND WATERED, FORM A MULCH MAT. PELLETIZED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURES RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60–75 LBS/1,000 SQUARE FEET AND ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS, SEEDED AREAS WHERE WEED–SEED FREE MULCH IS DESIRED OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENTS ARE NOT PRACTICAL OR DESIRABLE.
18. APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.

SEE MIXTURES IDENTIFIED BELOW ARE IN ACCORDANCE WITH THOSE SPECIFIED WITH–IN THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.

#16 MIXTURE (LAWNS)	LBS/ACRE	LBS/1000 S.F.
HARD FESCUE	175	4.0
KENTUCKY BLUEGRASS (BLEND)	20	0.5
PERENNIAL RYEGRASS	20	0.5

OPTIMAL SEEDING DATES 3/1 TO 4/30 AND 8/15 TO 11/15

IF HYDROSEEDING IS USED ALL SEEDING RATES SHALL BE INCREASED BY 25%; IF SODDING IS USED SEE SOD SPECIFICATIONS.

#17 MIXTURE (BASIN SIDE SLOPES)	LBS/ACRE	LBS/1000 S.F.
HARD FESCUE	175	4
CREEPING FESCUE	30	0.7
PERENNIAL RYEGRASS	10	0.25

OPTIMAL SEEDING DATES 3/1 TO 4/30 AND 8/15 TO 11/15

IF HYDROSEEDING IS USED ALL SEEDING RATES SHALL BE INCREASED BY 25%; IF SODDING IS USED SEE SOD SPECIFICATIONS.

DUST CONTROL:

DUST CONTROL SHALL BE ACCOMPLISHED BY THE METHODS DESCRIBED BELOW:

MATERIAL	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLONS/AC
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 ALSO BE USED AS AN ADDITIVE TO SEDIMENT BASINS TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS. SEE SEDIMENT BASIN STANDARD, P. 26–1		
ACIDULATED SOY BEAN SOAP STICK	NONE	COARSE SPRAY	1200

TILLAGE: TO ROUGHEN SURFACE AND BRING 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 PLACED ABOUT 12 INCHES APART, AND SPRING TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED 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 SLOPES, THEN USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS, OR ACCUMULATION AROUND PLANTS.

STONE: COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

SOD (IF SOD IS USED THE FOLLOWING SPECIFICATION SHALL BE USED)

1. CULTIVATED SOD IS PREFERRED OVER NATIVE SOD. SPECIFY "CERTIFIED SOD", OR OTHER HIGH QUALITY CULTIVATED SOD.
2. SOD SHOULD BE FREE OF WEEDS AND UNDESIRABLE COARSE WEEDY GRASSES.
3. SOD SHOULD BE OF UNIFORM THICKNESS, APPROXIMATELY 5/8 INCH, PLUS OR MINUS 1/4 INCH, AT TIME OF CUTTING. (EXCLUDES TOP GROWTH).
4. 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 OR TORN OR UNEVEN ENDS WILL NOT BE ACCEPTED.
5. FOR DROUGHTY SITES, A SOD OF KENTUCKY 31 TALL FESCUE AND BLUEGRASS IS PREFERRED OVER A STRAIGHT BLUEGRASS SOD. SOD SHALL HAVE NO MORE THAN 10% KENTUCKY BLUE GRASS.
6. ONLY MOIST, FRESH, UNHEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 36 HOURS.
7. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR LIMING, FERTILIZING, AND SOIL PREPARATION. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING, PAGE 4.11 IN THE NEW JERSEY SOIL EROSION CONTROL MANUAL.
8. INSTALL NEEDED EROSION CONTROL PRACTICES AND FACILITIES, SUCH AS INTERCEPTOR DITCHES, DIKES AND TERRACES, EROSION STOPS AND DESILTING BASINS. SEE STANDARDS 4.2 THROUGH 4.16 IN THE NEW JERSEY SOIL EROSION CONTROL MANUAL.
9. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TESTS SUCH AS THOSE OFFERED BY RUTGERS UNIVERSITY SOIL TESTING LABORATORY. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL COOPERATIVE EXTENSION SERVICE OFFICE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10–20–10 OR EQUIVALENT. IN ADDITION, 300 POUNDS 38–0–0 PER ACRE OR EQUIVALENT OF SLOW RELEASE NITROGEN MAY BE USED IN LIEU OF TOPDRESSING. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDES) AS FOLLOWS:

SOIL TEXTURE	TONS / ACRE
CLAY, CLAY LOAM & HIGH ORGANIC SOIL	4
SANDY LOAM, LOAM & SILT LOAM	3
LOAMY SAND, SAND	2

10. 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 DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FIRM SEEDBED IS PREPARED.
11. REMOVE FROM THE SURFACE ALL OBJECTS THAT WOULD PREVENT GOOD SOD TO SOIL CONTACT AND REMOVE ALL OTHER DEBRIS SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.
12. INSPECT SITE JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AND FIRMED AS ABOVE.
13. 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.
14. PLACE SOD STRIPS WITH SNUG, EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES INVITE EROSION.
15. 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.
16. ON SLOPES GREATER THAN 3:1, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES, OR SPLIT SHINGLES (8" TO 10" LONG BY 3/4" WIDE).
17. 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.
18. IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL MOISTURE PENETRATES THE SOIL LAYER BENEATH SOD TO A DEPTH OF 4 INCHES. MAINTAIN OPTIMUM MOISTURE FOR AT LEAST TWO WEEKS.
19. IF SLOW RELEASE NITROGEN (300 POUNDS 38–0–0 PER ACRE OR EQUIVALENT) IS USED IN ADDITION TO SUGGESTED FERTILIZER, THEN A FOLLOW–UP OF TOPDRESSING IS NOT MANDATORY.
20. FALL INSTALLATION OF SOD WILL REQUIRE AN APPLICATION OF FERTILIZER SUCH AS 10–20–10 OR EQUIVALENT AT 400 POUNDS PER ACRE OR 10 POUNDS PER 1000 SQUARE FEET BETWEEN SEPTEMBER 1 AND OCTOBER 15.

STOCKPILE STABILIZATION NOTE:

IF STOCKPILES ARE LEFT IN PLACE AND EXPOSED FOR A PERIOD OF SIX (6) MONTHS OR MORE, TEMPORARY VEGETATION STANDARDS WILL NOT APPLY, INSTEAD THE CONTRACTOR SHALL APPLY PERMANENT VEGETATION AS SPECIFIED BELOW.

DEWATERING

IF DEWATERING IS NECESSARY DURING THE DURATION OF CONSTRUCTION, DEWATERING OF THE BASIN OR BUILDING FOUNDATIONS SHALL BE ACCOMPLISHED BY THE FOLLOWING METHODS:

1. SUCTION FILTRATION
   A. A SUMP PIT SHALL BE INSTALLED WHERE INDICATED ON THE PLANS AND AS DETAILED.

ALL DEWATERING OPERATIONS SHALL BE IN ACCORDANCE WITH STANDARDS UNDER SECTION 14–1 FOR STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.

REPORT OF COMPLIANCE

A REPORT OF COMPLIANCE MUST BE OBTAINED FROM THE DISTRICT PRIOR TO RECEIVING A CERTIFICATE OF OCCUPANCY FROM THE MUNICIPALITY. A REQUEST FOR A DISTRICT INSPECTION FOR THE RELEASE OF A REPORT OF COMPLIANCE MUST BE MADE TWO (2) WORKING DAYS IN ADVANCE. THIS APPLIES TO BOTH COMPLETE (FINAL) AND CONDITIONAL (TEMPORARY) CERTIFICATES.

CONSTRUCTION LAYDOWN AREA

1. PRIOR TO MOVING ANY EQUIPMENT ONTO THE CONSTRUCTION SITE, THE CONTRACTOR SHALL VISUALLY INSPECT EACH PIECE OF EQUIPTMENT FOR CRACKS, EXCESSIVE CORROSION, OR OTHER FLAWS THAT MAY COMPROMISE THE INTEGRITY OF ITS FUEL, HYDRAULIC, OR COOLING SYSTEMS. THE CONTRACTOR SHALL MAKE THE NECESSARY REPAIRS OR REPLACE LEAKING EQUIPMENT IMMEDIATELY AFTER A LEAK IS DETECTED.
2. FUEL SUCH AS, BUT NOT LIMITED TO, GASOLINE, DIESEL OR EQUIPMENT OIL SHALL NOT BE STORED WITHIN THE SITE OR THE CONSTRUCTION LAYDOWN AREA. ANY OTHER PETROLEUM PRODUCTS, HERBICIDES OR HAZARDOUS MATERIALS SHALL BE STORED IN A SAFE SECONDARY CONTAINER OR CONTAINMENT STRUCTURE. SECONDARY CONTAINMENT STRUCTURES SHOULD BE LOCATED WITHIN A BERMED AREA LINED WITH IMPERVIOUS MATERIAL EQUAL TO 150% OF THE LARGEST STORAGE VESSEL VOLUME. SPILL KITS SHALL BE STORED IN READILY ACCESSIBLE AREAS FOR QUICK USE IN THE EVENT THAT THEY ARE NEEDED.
3. NO CONTAINMENT AREAS SHALL BE LOCATED WIHTIN ANY WETLANDS AREA OR WETLANDS BUFFER AREA.
4. ROUTINE EQUIPMENT MAINTENANCE OF WHEEL MOUNTED VEHICLES SUCH AS OIL CHANGES WILL NOT BE PERMITTED WITHIN THE LAYDOWN AREA OR WITHIN THE SITE. ALL VEHICLE MAINTENANCE SHALL BE PREFORMED OFF SITE WITHIN THE THE CONTRACTORS YARD.
5. THE SURFACE OF THE CONSTRUCTION LAYDOWN AREA SHALL CONSIST OF A MINIMUM OF SIX (6) INCHES OF AASHTO #1 ROCK ON TOP OF A WOVEN FABRIC. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO MAINTAIN THE THICKNESS. ADDITIONAL ROCK STORAGE AREAS SHALL BE LOCATED WITHIN THE LAYDOWN AREA TO BE USED AS REQUIRED.
6. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO MINIMIZE THE AMOUNT OF SILT AND SEDIMENT BUILDUP WITHIN THE LAYDOWN AREA. EXCESSIVE ACCUMULATED SEDIMENT BUILDUP SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, COUNTY, FEDERAL OR STATE REQUIREMENTS.
7. THERE SHALL BE NO STORAGE OF CONSTRUCTION WASTE SUCH AS BUT NOT LIMITED TO TREE STUMPS, TREE BRANCHES, LEAVES, DEBRIS OR SCRAP LUMBER FROM HOME OR CURB CONSTRUCTION. THESE MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, COUNTY, FEDERAL OR STATE REQUIREMENTS.
8. AFTER THE SITE IS STABILIZED AND THE FINAL CONSTRUCTION ACTIVITIES ARE COMPLETE THE CONSTRUCTION LAYDOWN AREA SHALL BE REMOVED AND THE AREA SHALL BE STABILIZED TO A LAWN CONDITION USING THE PERMANENT VEGETATION SPECIFICATION REFERENCED WITHIN THIS NARRATIVE SHEET.

CONCRETE WASHOUT FACILITIES

1. THE WASHOUT FACILITY SHALL BE LOCATED ON LEVEL GROUND AND BE A MINIMUM OF 50 FEET FROM STORM DRAIN INLETS AND ALL OPEN DRAINAGE FACILITIES, WETLANDS AND WETLANDS BUFFERS.
2. THE WASHOUT FACILITY SHALL BE SUPPLIED IN SUFFICIENT QUANTITY AND SIZE TO MANAGE ALL LIQUID AND SOLID WASTES GENERATED BY THE FACILITY.
3. WASHOUT WATER FROM LOW VOLUME FACILITIES SHALL BE ALLOWED TO EVAPORATE AND NOT BE DISCHARGED INTO THE ENVIRONMENT.
4. THE WASHOUT FACILITY SHALL BE LOCATED IN AN AREA PROTECTED FROM POSSIBLE DAMAGE FROM CONSTRUCTION TRAFFIC AND HAVE A STABILIZED ACCESS TO PREVENT TRACKING ONTO STREETS.
5. SIGNAGE SHALL BE PROVIDED TO INDICATE THE LOCATION OF THE CONCRETE WASHOUT FACILITY.
6. WASHOUT FROM HIGH VOLUME SHALL BE REMOVED WITH A VACUUM TRUCK AND TAKEN BACK TO THE BATCH PLANT. WASHOUT WATER SHALL NOT BE DISCHARGED INTO THE ENVIRONMENT.
7. THE WASHOUT FACILTY SHALL BE INSPECTED DAILY TO ENSURE THAT IT IS NOT LEAKING OR NEARING TWO–THIRDS CAPACITY OF EITHER SOLIDS OR LIQUIDS OR A COMBINATION OF BOTH.
8. SOLIDIFIED CONCRETE WASTE FROM THE FACILITY SHALL BE CONSIDERED CLEAN CONSTRUCTION OR DEMOLITION DEBRIS AND DISPOSED OF ACCORDINGLY.
9. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. LINERS SHALL BE 10 MIL OR THICKER AND BE UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT MAY COMPROMISE IMPERMEABILITY OF THE MATERIAL.
10. KEEP CONCRETE WASHOUT FACILITY WATER TIGHT. REPLACE LINER IF DAMAGED, RIPPED OR PUNCTURED. DO NOT REUSE LINERS. WET VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER. PRIOR TO FORECASTED RAINSTORMS, REMOVE LIQUID OR COVER FACILITY TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING.

DATE	ISSUE	REVISION	BY	APPR.
03/10/2022	6	ISSUED FOR FINAL SITE PLAN COMPLIANCE	TJK	RJC
07/02/2020	5	SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK	RJC
01/13/20	4	NO CHANGE THIS SHEET	GMM	RJC
07/16/19	3	ADD REPORT OF COMPLIANCE NOTE	TJK	RJC
10/2/18	2	NO CHANGE THIS SHEET	GMM	RJC
12/12/17	1	NOT PART OF INITIAL SUBMISSION	TJK	RJC

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28017600

41 SOUTH ROUTE 73, BUILDING 1, SUITE 201
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CENTURA – PHASE 1 AND 2

TAX MAP SHEET 234, BLOCK 433.20, LOT 15.01 & 16.01, FORMERLY BLOCK 433.20, LOT 1
CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

EROSION AND SEDIMENT CONTROL NARRATIVE SHEET

DEVEL, LLC.
C/O STEPHEN D. SAMOST, ESQUIRE 479 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200

Richard J Clemson 03/10/2022
DATE

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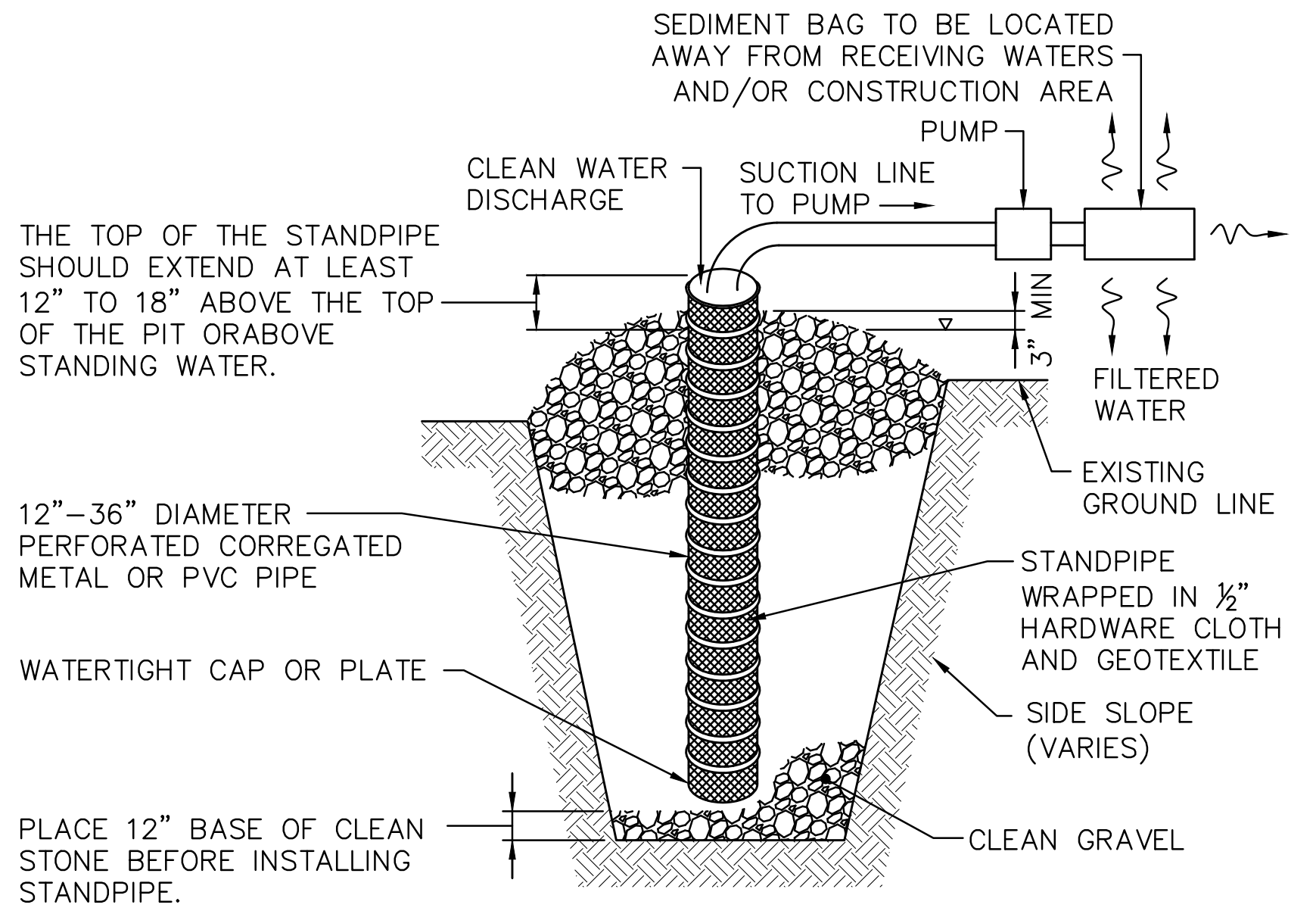
DRAWN BY TJK	APPROVED BY RJC
SCALE AS SHOWN	DATE 12/12/17
JOB NUMBER 3487	SHEET NO. 25 OF 26

CS1401

Z:\CHERRY HILL LAND DEVELOPMENT GROUP\3487 CENTURA PHASE 1 & 2\DRAWINGS\CENTURA\CS1401.DWG

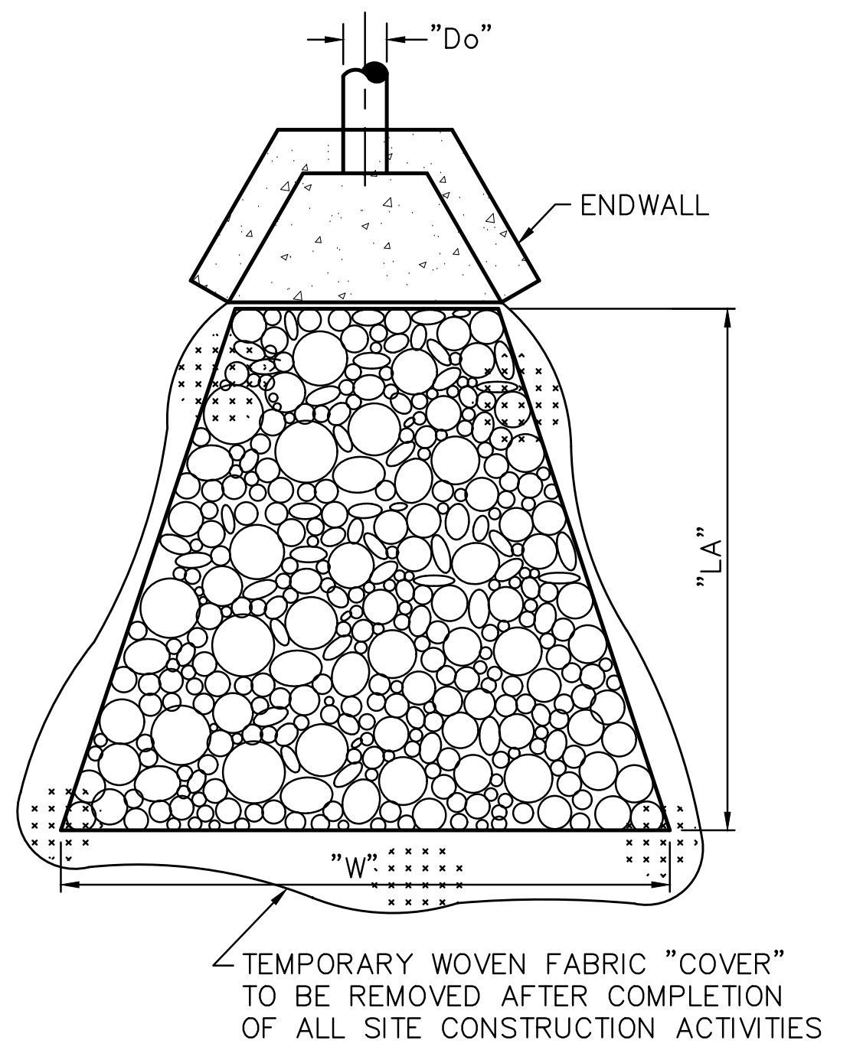

SEDIMENT BAG TO BE LOCATED AWAY FROM RECEIVING WATERS AND/OR CONSTRUCTION AREA
PUMP
CLEAN WATER DISCHARGE
SUCTION LINE TO PUMP
THE TOP OF THE STANDPIPE SHOULD EXTEND AT LEAST 12" TO 18" ABOVE THE TOP OF THE PIT ORABOVE STANDING WATER.
3" MIN
FILTERED WATER
EXISTING GROUND LINE
12"–36" DIAMETER PERFORATED CORREGATED METAL OR PVC PIPE
STANDPIPE WRAPPED IN ½" HARDWARE CLOTH AND GEOTEXTILE
WATERTIGHT CAP OR PLATE
SIDE SLOPE (VARIES)
PLACE 12" BASE OF CLEAN STONE BEFORE INSTALLING STANDPIPE.
CLEAN GRAVEL

CONSTRUCTION SPECIFICATIONS

1. PIT DIMENSIONS ARE VARIABLE, WITH THE MINIMUM DIAMETER BEING 2 TIMES THE STANDPIPE DIAMETER.
2. THE STANDPIPE SHOULD BE CONSTRUCTED BY PERFORATING A 12" TO 24" DIAMETER CORRUGATED OR PVC PIPE. THEN WRAPPING WITH 1/2" HARDWARE CLOTH AND GEATEXTILE FABRIC. THE PERFORATIONS SHALL BE 1/2" x 6" SLITS OR 1" DIAMETER HOLES.
3. A BASE FILTER MATERIAL CONSISTING OF CLEAN GRAVEL OR ASTM C 33 STONE SHOULD BE PLACED IN THE PIT TO A DEPTH OF 12". AFTER INSTALLING THE STANDPIPE, THE PIT SURROUNDING THE STANDPIPE SHOULD THEN BE BACKFILLED WITH THE SAME FILTER MATERIAL.
4. THE STANDPIPE SHOULD EXTEND 12" TO 18" ABOVE THE LIP OF THE PIT OR THE RISER CREST ELEVATION (BASIN DEWATERING ONLY) AND THE FILTER MATERIAL SHOULD EXTEND 3" MINIMUM ABOVE THE ANTICIPATED STANDING WATER ELEVATION.
5. ▿ = WATER SURFACE ELEVATION.
6. SEDIMENT CONTROL BAGS MUST BE DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS. BAGS MAY NOT BE REUSED.

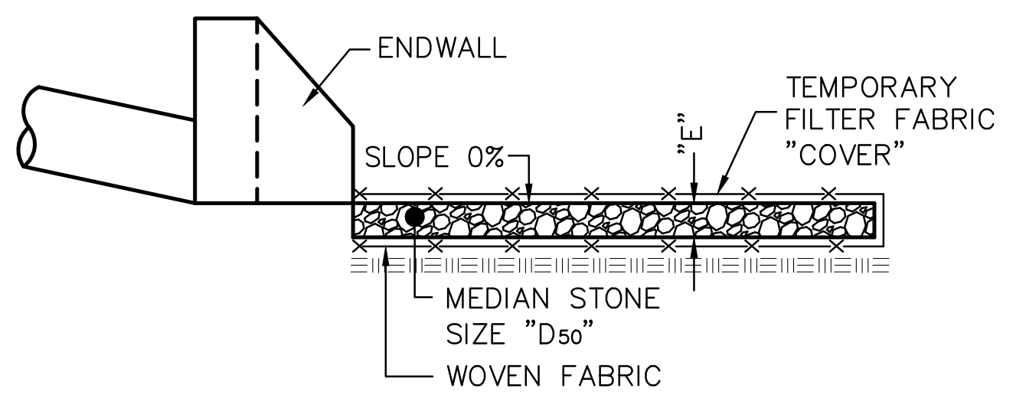
TEMPORARY SUMP PIT DURING CONSTRUCTION DETAIL

N.T.S.


"Do"
ENDWALL
"LA"
"W"
TEMPORARY WOVEN FABRIC "COVER" TO BE REMOVED AFTER COMPLETION OF ALL SITE CONSTRUCTION ACTIVITIES

PLAN

CONDUIT OUTLET PROTECTION TABLE						
ENDWALL	LA	W	C	Do	D50	E
EW–1	9'	8'	3.75'	1.25'	6"	12"
EW–2	17'	15'	7.50'	2.50'	6"	12"
EW–3	10'	10'	3.51'	1.17'	6"	12"


ENDWALL
TEMPORARY FILTER FABRIC "COVER"
SLOPE 0%
"E"
MEDIAN STONE SIZE "D50"
WOVEN FABRIC

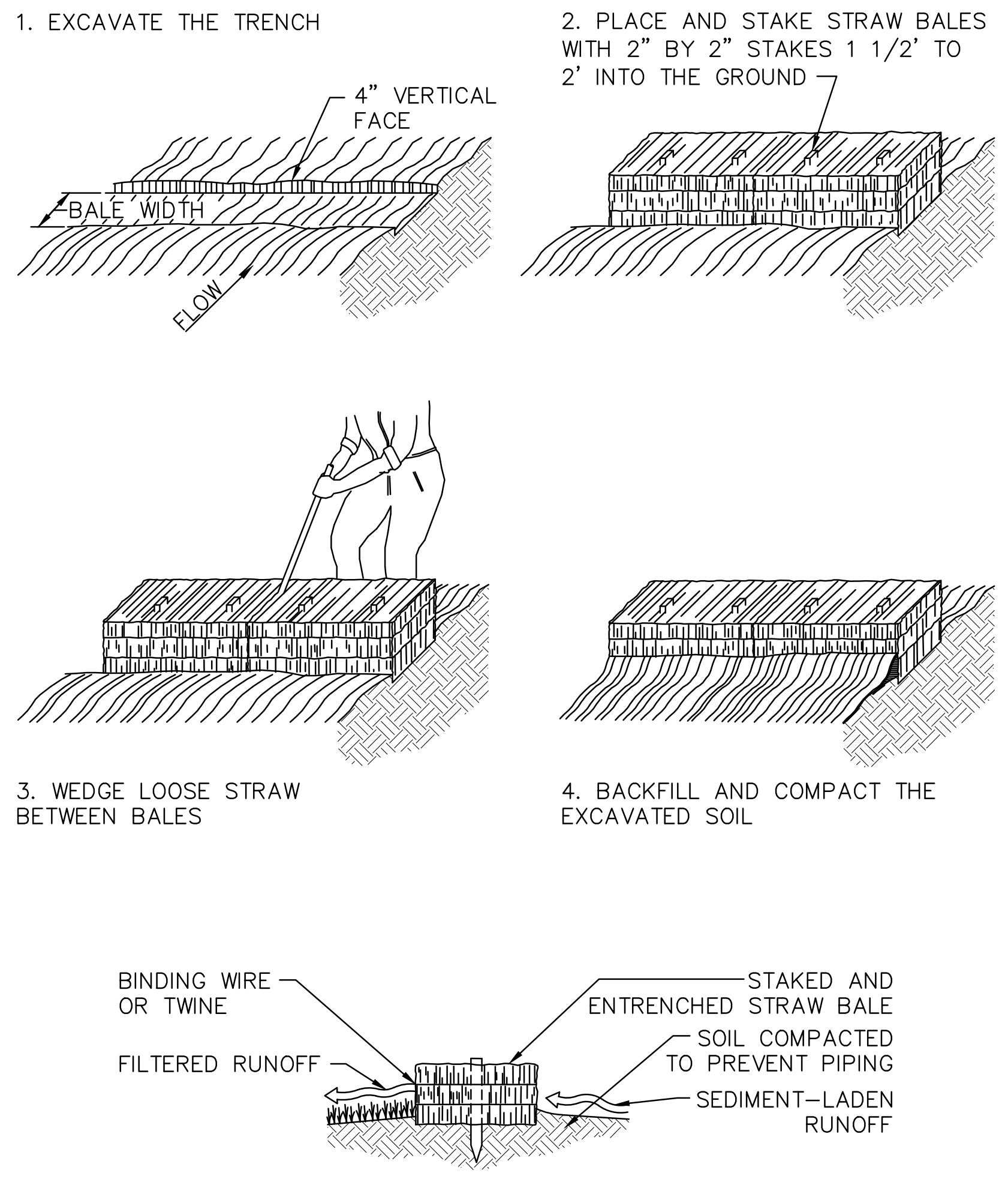
SECTION

NOTES

1. SLOPE OF RIP–RAP SHALL BE 0%.
2. SIDE SLOPES SHALL BE 2:1 OR FLATTER.
3. THERE SHALL BE NO OVERFALL AT THE END OF THE APRON OR AT THE END OF THE CULVERT.
4. WHERE THERE IS A WELL DEFINED CHANNEL DOWNSTREAM OF THE APRON, THE BOTTOM WIDTH OF THE APRON SHALL BE AT LEAST EQUAL TO THE BOTTOM WIDTH OF THE CHANNEL. THE STRUCTURAL LINING SHALL EXTEND AT LEAST ONE FOOT ABOVE THE TAILWATER ELEVATION BUT NO LOWER THAN TWO–THIRDS OF THE VERTICAL CONDUIT DIMENSION ABOVE THE CONDUIT INVERT.
5. THERE SHALL BE NO BENDS OR CURVES AT THE INTERSECTION OF THE CONDUIT AND APRON.
6. FIFTY PERCENT, BY WEIGHT, OF THE RIP–RAP MIXTURE SHALL BE SMALLER THAN MEDIAN STONE SIZE DESIGNATED AS D_{50}. THE LARGEST STONE SIZE IN THE MIXTURE SHALL BE 1.5 TIMES THE D_{50} SIZE. THE RIP–RAP SHALL BE REASONABLY WELL GRADED.
7. WOVEN FABRIC SHALL BE PROVIDED UNDER RIP–RAP LINING. FABRIC SHALL BE MIRAFI 700X OR APPROVED EQUAL.
8. WOVEN FABRIC SHALL BE PLACED ON TOP OF RIP–RAP LINING FOR THE DURATION OF THE CONSTRUCTION PROCESS.

CONDUIT OUTLET PROTECTION DETAIL

N.T.S.


1. EXCAVATE THE TRENCH
4" VERTICAL FACE
BALE WIDTH
FLOW
2. PLACE AND STAKE STRAW BALES WITH 2" BY 2" STAKES 1 1/2' TO 2' INTO THE GROUND
3. WEDGE LOOSE STRAW BETWEEN BALES
4. BACKFILL AND COMPACT THE EXCAVATED SOIL
BINDING WIRE OR TWINE
FILTERED RUNOFF
STAKED AND ENTRENCHED STRAW BALE
SOIL COMPACTED TO PREVENT PIPING
SEDIMENT–LADEN RUNOFF

HAY BALE DAM DETAIL

N.T.S.

SOIL EROSION AND SEDIMENT CONTROL NOTES

1. ALL SOIL EROSION DESIGN AND IMPLEMENTATION SHALL BE IN ACCORDANCE WITH STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY AND BY THE CAMDEN COUNTY SOIL CONSERVATION DISTRICT.

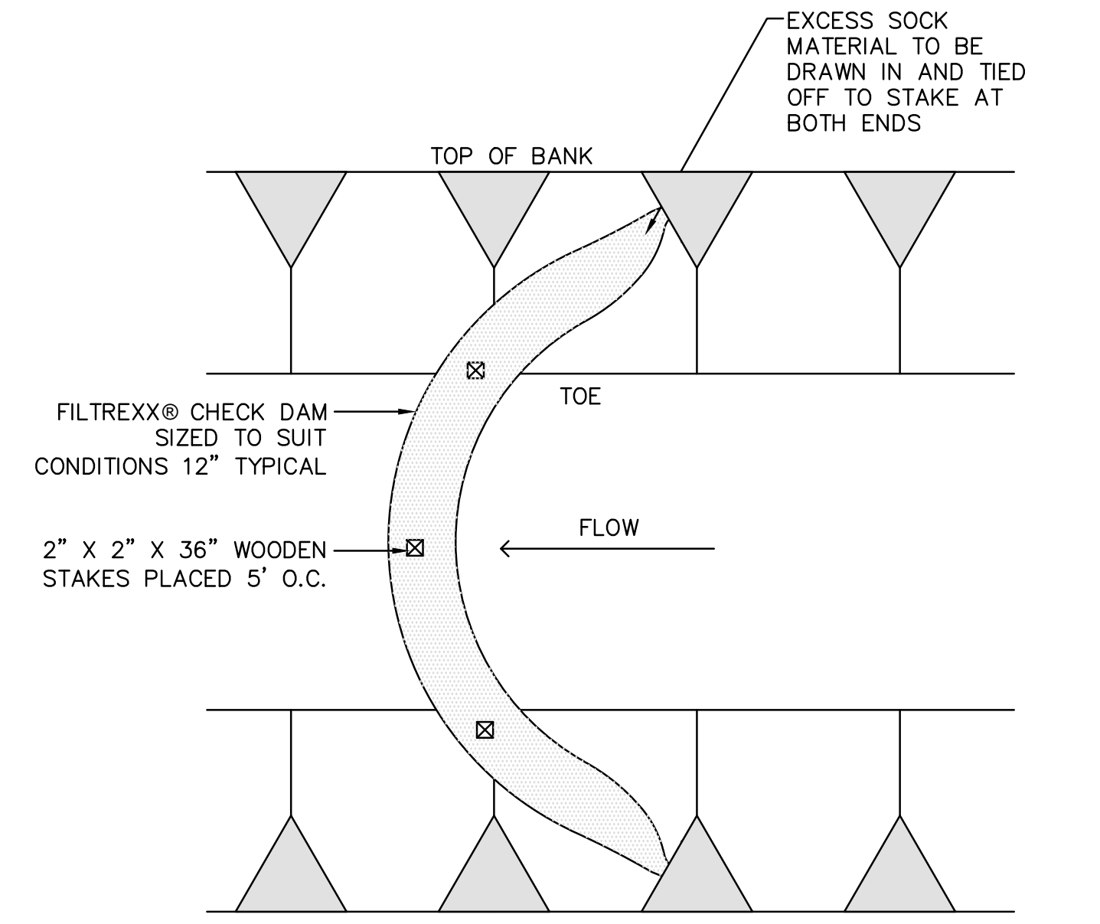
2. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL APPLY TO SUBSEQUENT OWNERS IF TITLE IS CONVEYED.

3. ALL TOPSOIL STORAGE AREAS SHALL BE REMOVED PRIOR TO FINAL OCCUPANCY OF THE BUILDING.

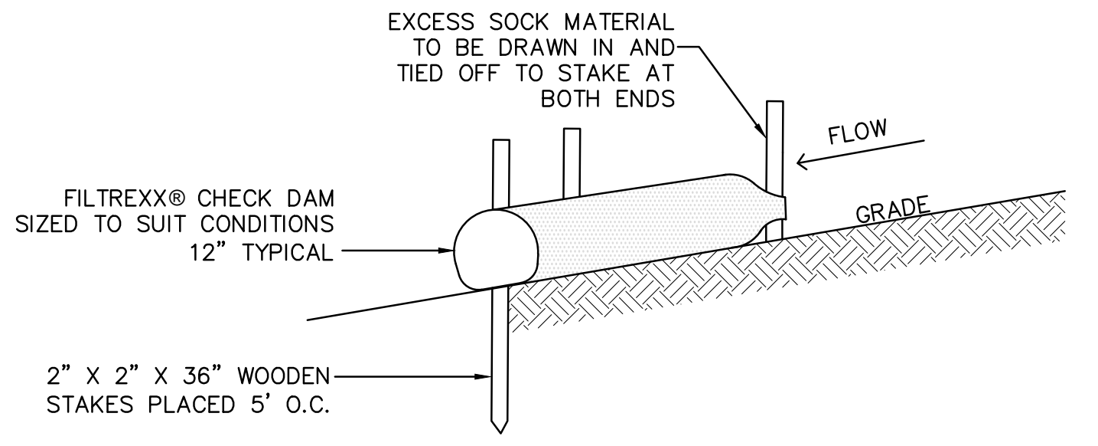
4. NJSA 4:24–39, ET. SEQ. REQUIRES THAT UPON PERMANENT SITE STABILIZATION AND COMPLETION OF CONSTRUCTION THE CONTRACTOR SHALL APPLY TO THE SOIL CONSERVATION DISTRICT FOR FINAL COMPLIANCE INSPECTION TO CHECK THAT ALL THE PROVISIONS OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN HAVE BEEN COMPLIED WITH FOR PERMANENT MEASURES.

5. SOIL HAVING A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE MUST BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5.0 OR MORE BEFORE SEEDBED PREPARATION.

6. SEE DRAWING NUMBER CS1401 FOR EROSION AND SEDIMENT CONTROL NARRATIVE.

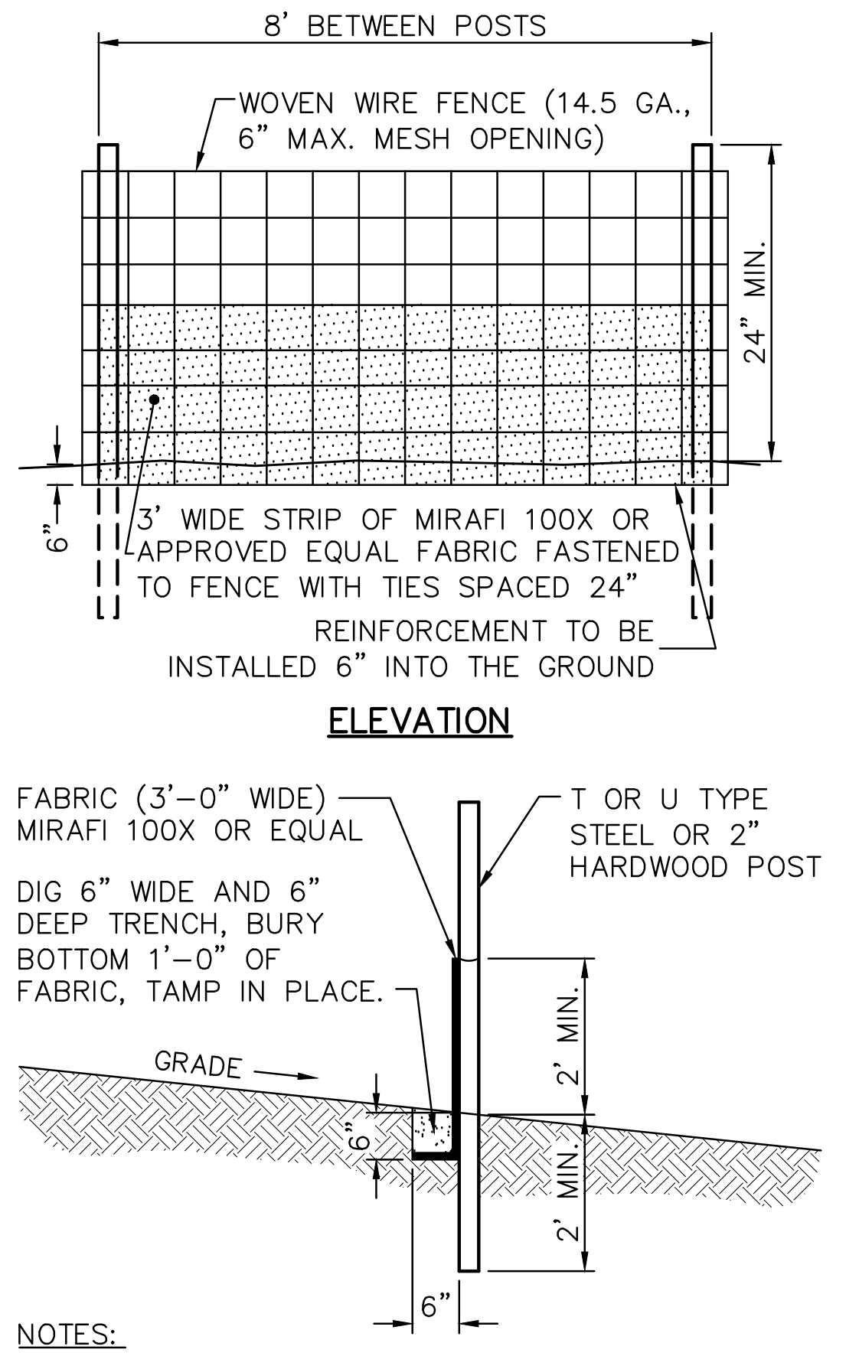

EXCESS SOCK MATERIAL TO BE DRAWN IN AND TIED OFF TO STAKE AT BOTH ENDS
TOP OF BANK
TOE
FILTREXX® CHECK DAM SIZED TO SUIT CONDITIONS 12" TYPICAL
FLOW
2" X 2" X 36" WOODEN STAKES PLACED 5' O.C.

NOTES:
1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.
2. CHECK DAM SHOULD BE USED IN AREAS THAT DRAIN 10 ACRES OR LESS.
3. SEDIMENT SHOULD BE REMOVED FROM BEHIND CHECK DAM ONCE THE ACCUMULATED HEIGHT HAS REACHED ½ THE HEIGHT OF THE CHECK DAM.
4. CHECK DAM CAN BE DIRECT SEEDED AT THE TIME OF INSTALLATION.


EXCESS SOCK MATERIAL TO BE DRAWN IN AND TIED OFF TO STAKE AT BOTH ENDS
FLOW
GRADE
FILTREXX® CHECK DAM SIZED TO SUIT CONDITIONS 12" TYPICAL
2" X 2" X 36" WOODEN STAKES PLACED 5' O.C.

SILT SOCK CHECK DAM DETAIL

N.T.S.


8' BETWEEN POSTS
WOVEN WIRE FENCE (14.5 GA., 6" MAX. MESH OPENING)
24" MIN.
6"
3' WIDE STRIP OF MIRAFI 100X OR APPROVED EQUAL FABRIC FASTENED TO FENCE WITH TIES SPACED 24"
REINFORCEMENT TO BE INSTALLED 6" INTO THE GROUND
ELEVATION
FABRIC (3'–0" WIDE) MIRAFI 100X OR EQUAL
T OR U TYPE STEEL OR 2" HARDWOOD POST
DIG 6" WIDE AND 6" DEEP TRENCH, BURY BOTTOM 1'–0" OF FABRIC, TAMP IN PLACE.
GRADE
6"
2' MIN.
2' MIN.
6"

NOTES:

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.

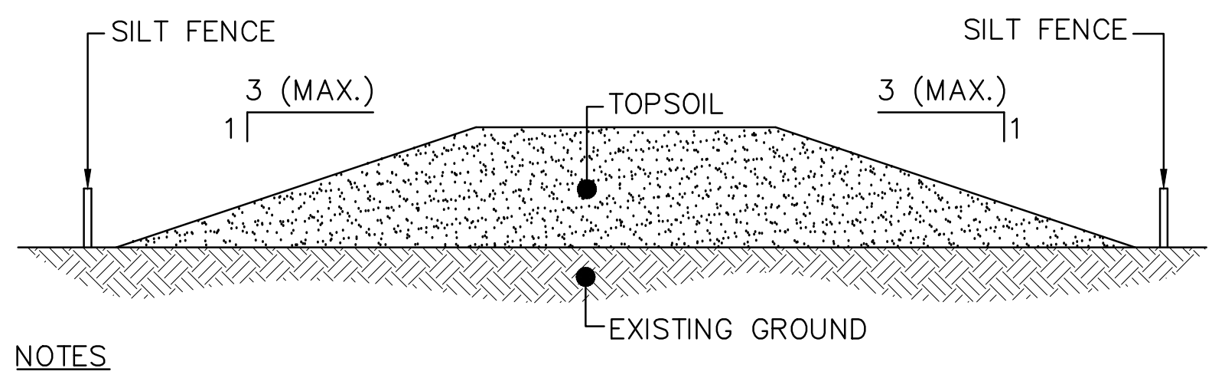
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.

3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.

4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

SUPER SILT FENCE DETAIL

N.T.S.


SILT FENCE
SILT FENCE
3 (MAX.)
1
3 (MAX.)
1
TOPSOIL
EXISTING GROUND

NOTES

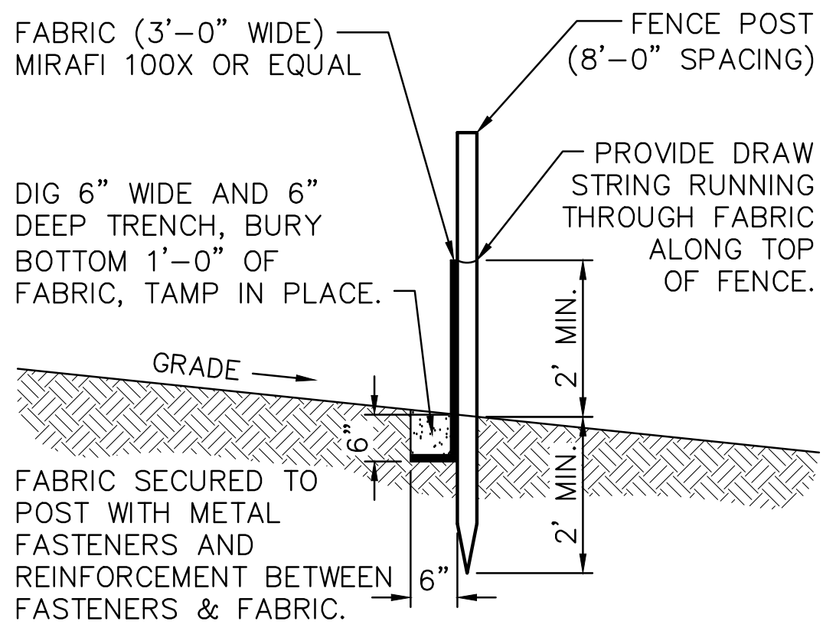
1. TOPSOIL STOCKPILE SHALL BE SURROUNDED BY SILT FENCE.

2. STOCKPILE SHALL RECEIVE TEMPORARY VEGETATIVE STABILIZATION IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY IMMEDIATELY AFTER COMPLETION OF STOCKPILE.

3. STOCKPILES ARE NOT TO BE LOCATED WITHIN FIFTY FEET OF A FLOODPLAIN, SLOPES, ROADWAY, OR DRAINAGE FACILITY.

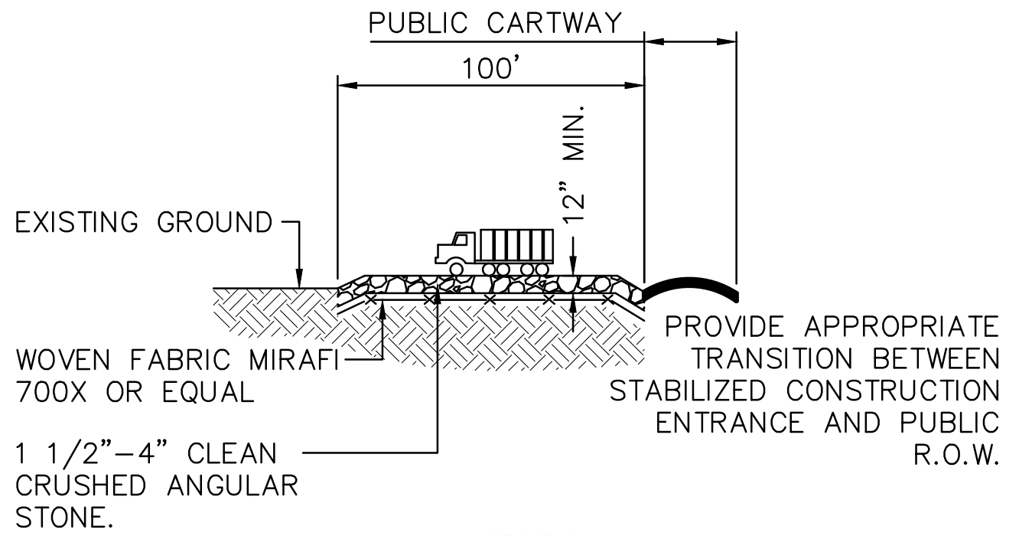
TOPSOIL STOCKPILE DETAIL

N.T.S.

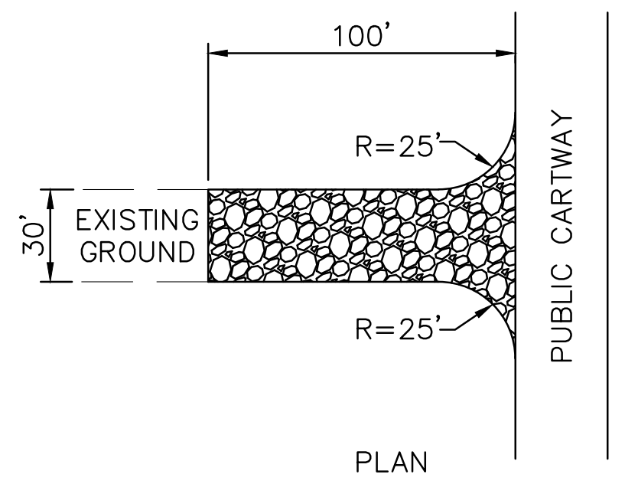

FABRIC (3'–0" WIDE) MIRAFI 100X OR EQUAL
FENCE POST (8'–0" SPACING)
PROVIDE DRAW STRING RUNNING THROUGH FABRIC ALONG TOP OF FENCE.
DIG 6" WIDE AND 6" DEEP TRENCH, BURY BOTTOM 1'–0" OF FABRIC, TAMP IN PLACE.
GRADE
6"
2' MIN.
2' MIN.
FABRIC SECURED TO POST WITH METAL FASTENERS AND REINFORCEMENT BETWEEN FASTENERS & FABRIC.
6"

REGULAR SILT FENCE DETAIL

N.T.S.


PUBLIC CARTWAY
100'
12" MIN.
EXISTING GROUND
WOVEN FABRIC MIRAFI 700X OR EQUAL
1 1/2"–4" CLEAN CRUSHED ANGULAR STONE.
PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND PUBLIC R.O.W.

SECTION

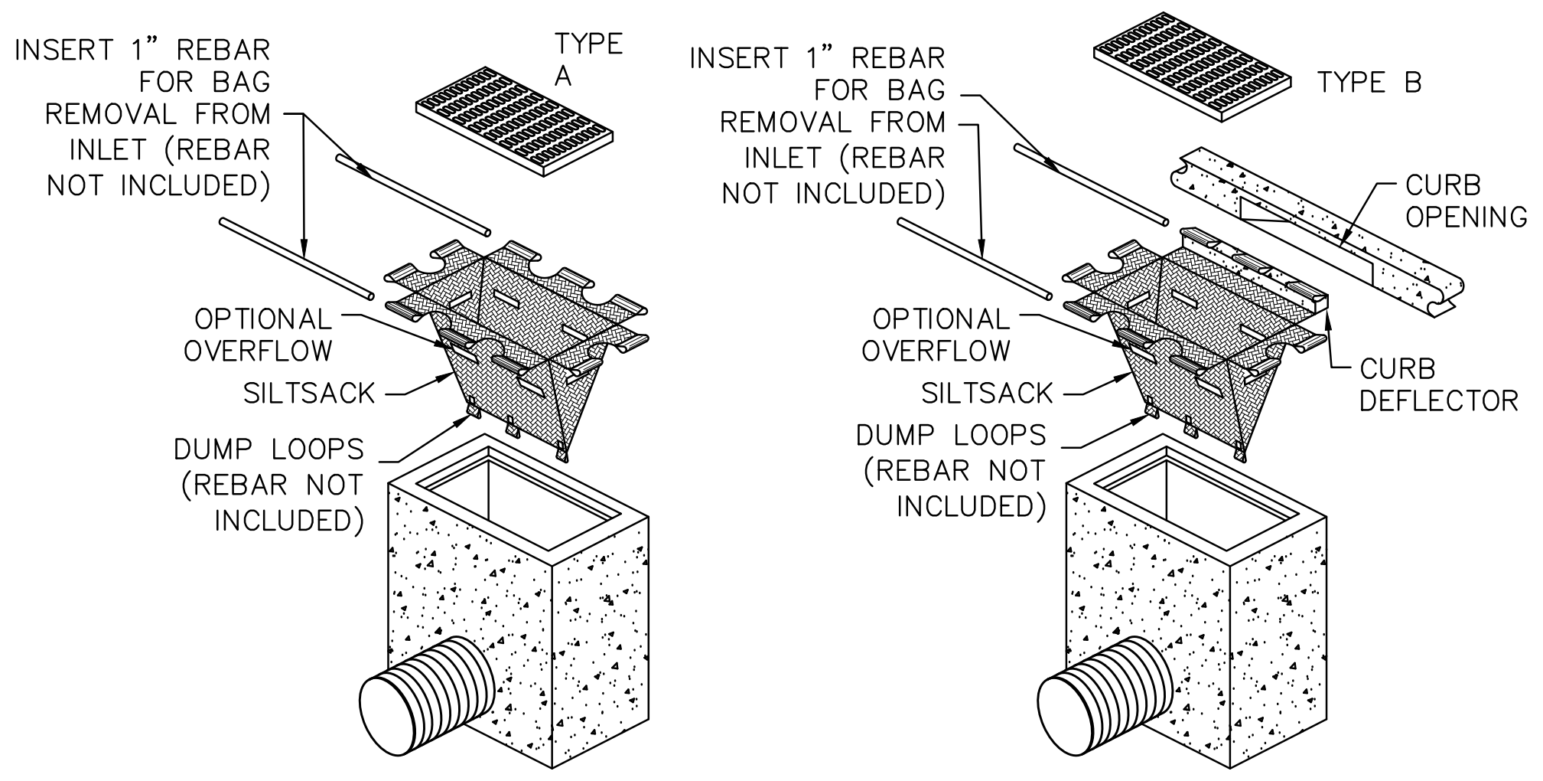

100'
R=25'
30'
EXISTING GROUND
R=25'
PUBLIC CARTWAY

PLAN

MAINTENANCE
THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED IMMEDIATELY.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

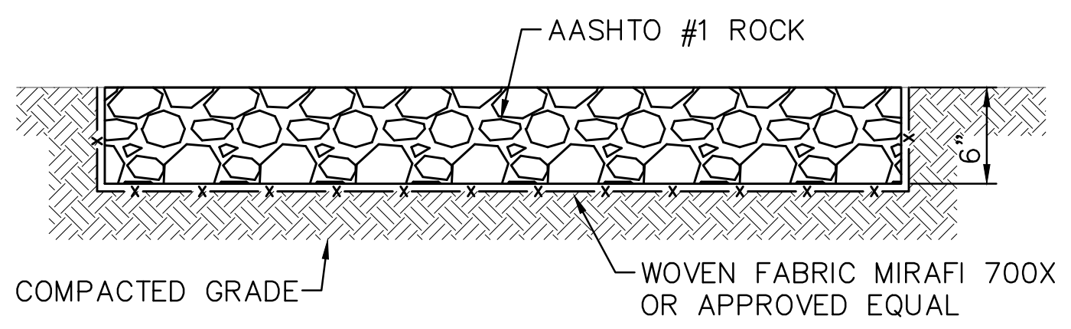
N.T.S.


INSERT 1" REBAR FOR BAG REMOVAL FROM INLET (REBAR NOT INCLUDED)
TYPE A
OPTIONAL OVERFLOW
SILTSACK
DUMP LOOPS (REBAR NOT INCLUDED)
INSERT 1" REBAR FOR BAG REMOVAL FROM INLET (REBAR NOT INCLUDED)
TYPE B
CURB OPENING
CURB DEFLECTOR
OPTIONAL OVERFLOW
SILTSACK
DUMP LOOPS (REBAR NOT INCLUDED)

TYPICAL INLET SILTSACK DETAIL

N.T.S.

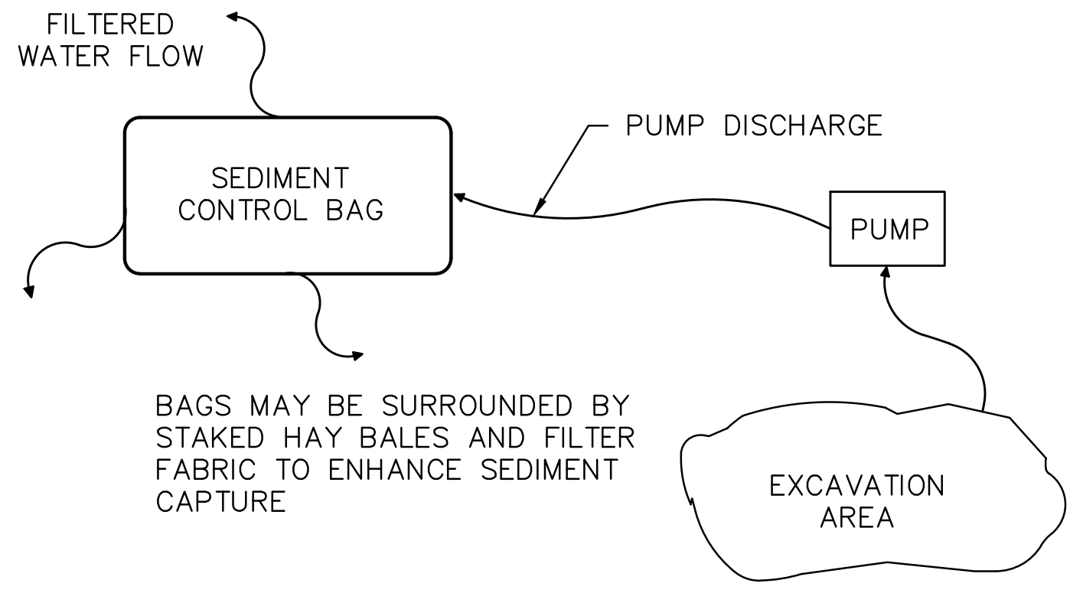
THE LOCATION OF THE CONSTRUCTION LAYDOWN AREA SHALL BE COORDINATED BETWEEN THE SITE CONTRACTOR AND A FIELD REPRESENTATIVE FROM THE CAMDEN COUNTY SOIL CONSERVATION DISTRICT.


AASHTO #1 ROCK
6"
COMPACTED GRADE
WOVEN FABRIC MIRAFI 700X OR APPROVED EQUAL

NOTES
1. SEE DRAWING NUMBER CS1402 FOR ALL CONSTRUCTION LAYDOWN AREA NOTES.
2. CONTRACTOR SHALL KEEP A SUPPLY OF STONE ON–SITE TO REPLENISH AREAS THAT HAVE BEEN DAMAGED, WORN AWAY OR ERODED. THIS STONE STORAGE AREA SHALL BE LOCATED WITHIN THE CONFINES OF THE LAY DOWN AREA.

CONSTRUCTION STAGING AREA DETAIL

N.T.S.

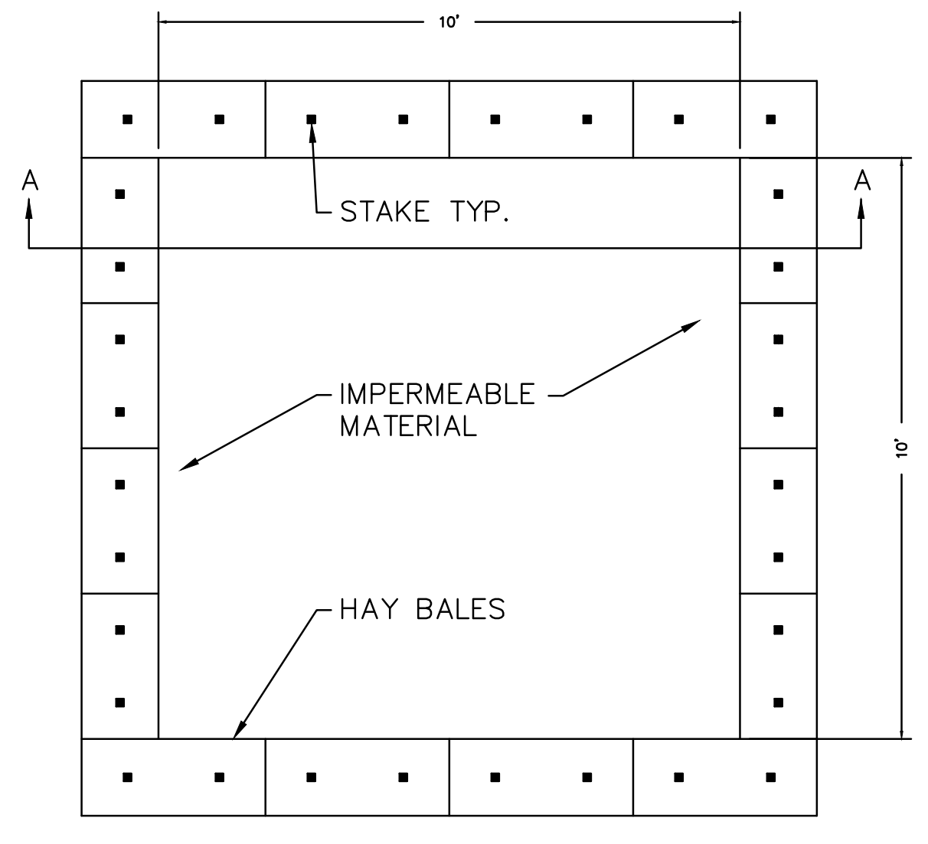

FILTERED WATER FLOW
SEDIMENT CONTROL BAG
PUMP DISCHARGE
PUMP
EXCAVATION AREA

BAGS MAY BE SURROUNDED BY STAKED HAY BALES AND FILTER FABRIC TO ENHANCE SEDIMENT CAPTURE

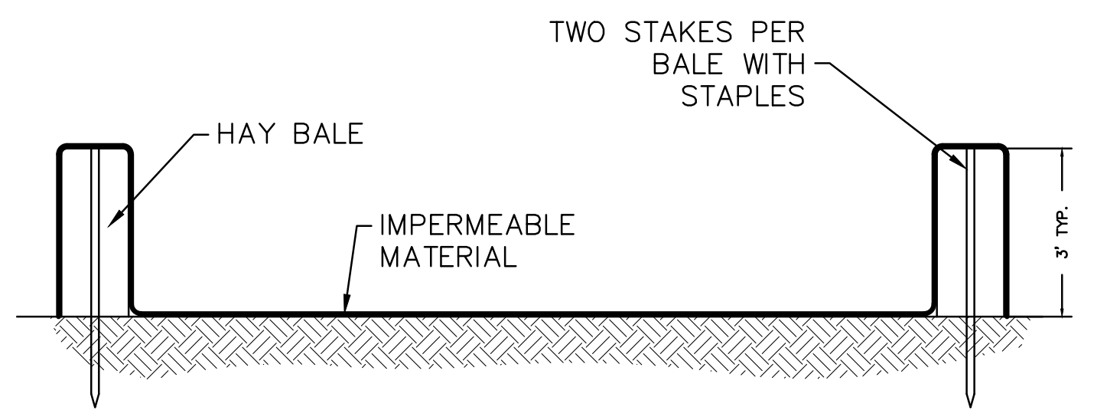
NOTES:
1. BAG MUST BE LOCATED AWAY FROM RECEIVING WATERS AND/OR CONSTRUCTION ACTIVITIES.
2. BAG MUST BE DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS. BAGS MAY NOT BE REUSED.

SEDIMENT CONTROL DEWATERING BAG DETAIL

N.T.S.


10'
A
A
STAKE TYP.
IMPERMEABLE MATERIAL
HAY BALES
10'

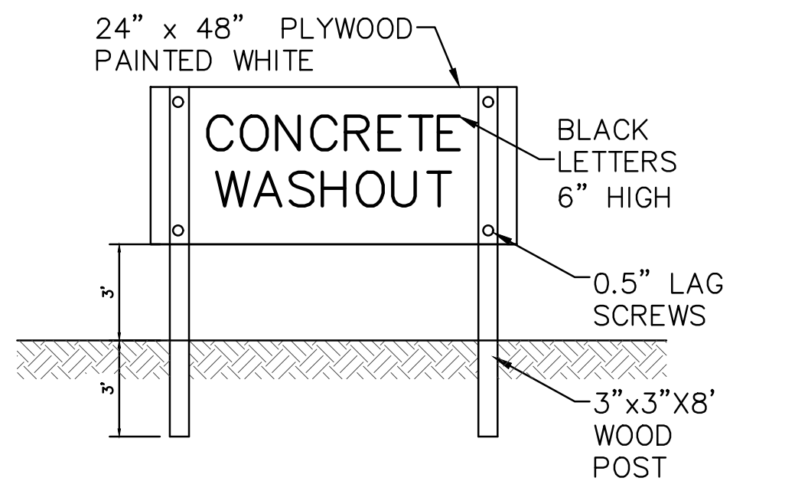
PLAN


TWO STAKES PER BALE WITH STAPLES
HAY BALE
IMPERMEABLE MATERIAL
3' TYP.

SEE DRAWING NUMBER CS0401, EROSION AND SEDIMENT CONTROL NARRATIVE, FOR ALL RELATED CONCRETE WASHOUT NOTES, SPECIFICATIONS AND MAINTENANCE PROCEDURES.

BALES CAN BE STACKED TWO HIGH OR PARTIALLY EXCAVATED TO REACH THREE (3) FOOT DEPTH.

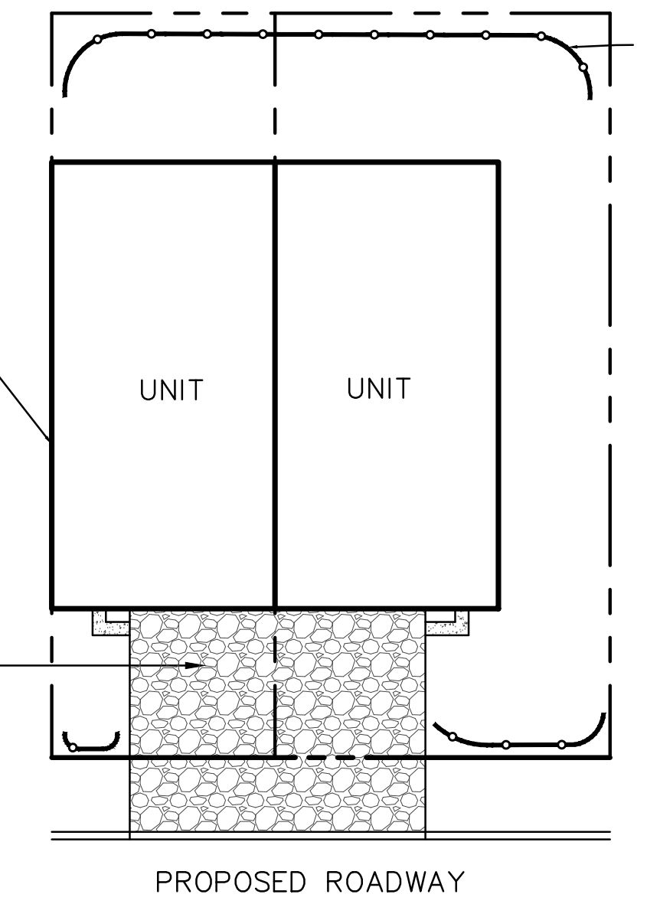
SECTION A–A


24" x 48" PLYWOOD PAINTED WHITE
CONCRETE WASHOUT
BLACK LETTERS 6" HIGH
0.5" LAG SCREWS
3'
3'
3"x3"X8' WOOD POST

SIGN ELEVATION

CONCRETE WASHOUT AREA AND SIGN DETAIL

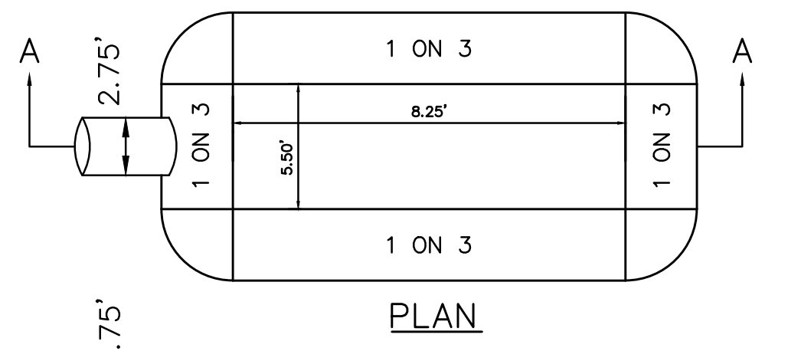
N.T.S.


IF TRENCHES FOR FOOTINGS FILL WITH WATER DURING A RAIN EVENT THE SEDIMENT LADEN WATER MUST BE PUMPED THROUGH A SEDIMENT BAG ON A STABILIZED SURFACE.
TEMPORARY REGULAR SILT FENCE TO BE PLACED ALONG THE LIMIT OF DISTURBANCE FOR THE LOT IN QUESTION. IF LOT ABUTS WETLANDS OR BASIN USE REINFORCED SILT FENCE.
UNIT
UNIT
1"–2" STONE PLACED IN AREA OF DRIVEWAY DURING CONSTRUCTION AT A MINIMUM DEPTH OF 6". WIDTH OF STONE DRIVEWAY SHALL MATCH WIDTH OF DEPRESSED CURB (ASTM C–33 SIZE #3 STONE).
PROPOSED ROADWAY

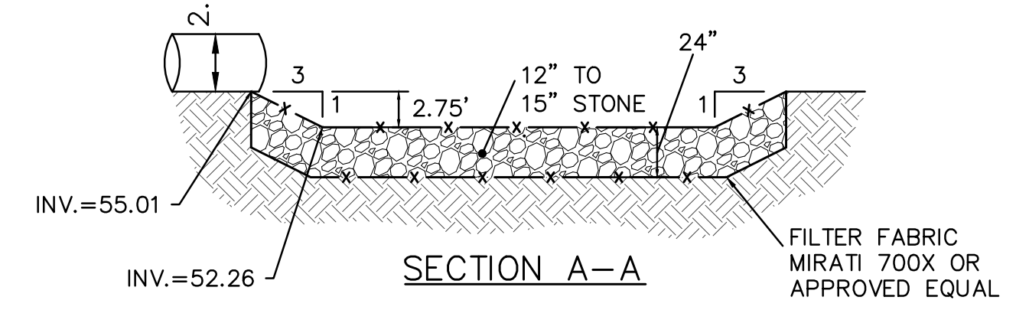
NOTE:
DURING CONSTRUCTION AND OR LOT AREA DISTURBANCE THE RESPONSIBILITY FOR PLACEMENT AND MAINTENANCE OF SOIL EROSION CONTROL MEASURES ON ANY GIVEN LOT BELONGS TO THE PERSON(S) DOING THE DISTURBANCE OR CONSTRUCTION AND TO THE DEVELOPER.

INDIVIDUAL LOT TREATMENT DETAIL

N.T.S.


A
A
2.75'
1 ON 3
1 ON 3
1 ON 3
1 ON 3
8.25'
5.50'

PLAN


2.75'
3
1
2.75'
12" TO 15" STONE
24"
3
1
INV.=55.01
INV.=52.26
FILTER FABRIC MIRATI 700X OR APPROVED EQUAL

SECTION A–A

NOTES
1. SLOPE OF RIP–RAP SHALL BE 0%.
2. THE RIP–RAP SHALL BE REASONABLY WELL GRADED.
3. FILTER FABRIC SHALL BE PROVIDED UNDER RIP–RAP LINING. FABRIC SHALL BE MIRAFI 700X OR APPROVED EQUAL.
4. FILTER FABRIC SHALL BE PLACED ON TOP OF RIP–RAP LINING FOR THE DURATION OF THE CONSTRUCTION PROCESS.

FES–2 SCOUR HOLE DETAIL

N.T.S.

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CENTURA – PHASE 1 AND 2

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EROSION AND SEDIMENT CONTROL DETAIL SHEET

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RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200

Richard J Clemson 03/10/2022
DATE

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28017600

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