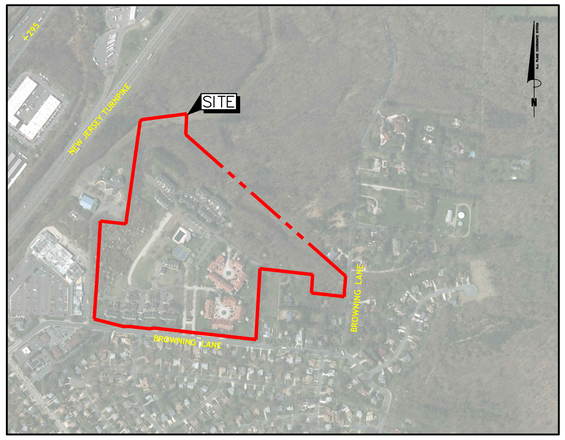
DRAWN ON 05/12/2020, LAST MODIFIED ON 05/19/2022

CENTURA - PHASE 3

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

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, 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 3 CONTAINS 13.4 +/– ACRES OF LAND.
4. THE PROPOSED DEVELOPMENT WILL BE SERVICED BY PUBLIC WATER TO BE SUPPLIED BY NEW JERSEY AMERICAN WATER. DOMESTIC WASTEWATER WILL BE TREATED AND MANAGED BY CHERRY HILL TOWNSHIP.
5. THE PROPOSED DEVELOPMENT (PHASE 3) SHALL COMPLY WITH THE CURRENT RECYCLING PROGRAM IN EFFECT IN CHERRY HILL TOWNSHIP.
6. THE PROPOSED DEVELOPMENT (PHASE 3) WILL CONSIST OF 8 BUILDINGS (37 TOWNHOUSE UNITS OF WHICH 8 UNITS WILL BE COAH UNITS). A TOTAL OF 149 PARKING SPACES ARE PROPOSED. ONE (1) ON-SITE STORMWATER MANAGEMENT FACILITY IS PROPOSED WHICH SHALL BE OWNED AND MAINTAINED BY AN APPROVED HOMEOWNERS ASSOCIATION. A TOTAL OF TWO (2) NEW PRIVATE COURTS ARE BEING PROPOSED.
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	NEW SUBMISSION
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

CHERRY HILL LAND DEVELOPMENT GROUP, LLC.
P.O. BOX 130, 216 COOPER ROAD
WEST BERLIN, NEW JERSEY 08091

PHONE: 856-768-3800

PROJECT SHEET INDEX

SHEET NO.	DWG. NO.	SHEET TITLE
1 OF 28	CS0001	COVER SHEET
2 OF 28	CS0002	INFORMATION SHEET
3 OF 28	CS0101	EXISTING CONDITIONS AND DEMOLITION PLAN
4 OF 28	CS0102	EXISTING CONDITIONS AND DEMOLITION PLAN
5 OF 28	CS0200	OVERALL AND PHASING PLAN
6 OF 28	CS0201	SITE PLAN
7 OF 28	CS0202	SITE PLAN
8 OF 28	CS0301	GRADING AND DRAINAGE PLAN
9 OF 28	CS0302	GRADING AND DRAINAGE PLAN
10 OF 28	CS0401	UTILITY PLAN
11 OF 28	CS0402	UTILITY PLAN
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13 OF 28	CS0601	LANDSCAPING PLAN
14 OF 28	CS0602	LANDSCAPING PLAN
15 OF 28	CS0701	LIGHTING PLAN
16 OF 28	CS0702	LIGHTING PLAN
17 OF 28	CS0801	LANDSCAPING AND LIGHTING DETAILS
18 OF 28	CS0901	SITE CONSTRUCTION DETAIL SHEET
19 OF 28	CS1001	STORM SEWER DETAIL SHEET
20 OF 28	CS1002	STORMWATER MANAGEMENT DETAIL SHEET
21 OF 28	CS1101	SANITARY SEWER DETAIL SHEET
22 OF 28	CS1201	WATER DETAIL SHEET
23 OF 28	CS1301	EROSION AND SEDIMENT CONTROL PLAN
24 OF 28	CS1302	EROSION AND SEDIMENT CONTROL PLAN
25 OF 28	CS1303	SOIL MANAGEMENT AND PREPARATION PLAN
26 OF 28	CS1304	SOIL MANAGEMENT AND PREPARATION PLAN
27 OF 28	CS1401	EROSION AND SEDIMENT CONTROL NARRATIVE SHEET
28 OF 28	CS1402	EROSION AND SEDIMENT CONTROL DETAIL SHEET
1 OF 1	CS4002	INTERNAL VARIANCE PLAN

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

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28017500

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

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

DATE	ISSUE	REVISION	BY	APPR.
05/20/2022	6	REVISE UNITS AND SUBMITTED FOR FINAL	TJK	RJC
07/02/2020	5	SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK	RJC
10/7/19	4	NO CHANGE THIS SHEET	CMM	RJC
10/03/19	3	REVISE PER CHERRY HILL REQUEST, ADD INDEX	CMM	RJC
10/03/18	2	UPDATE APPROVALS AND PERMIT NOTES, REVISE GENERAL SITE NOTES	CMM	RJC
01/03/18	1	NOT PART OF INITIAL SUBMISSION	TJK	RJC

CENTURA – PHASE 3
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

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200
5/20/2022
DATE

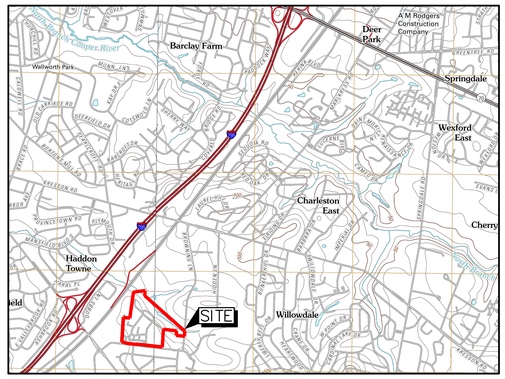
ALL DOCUMENTS PREPARED BY JSA ARE INSTRUMENTS OF SERVICE IN RESPECT TO THE SPECIFIC SITE WHICH IS INTENDED FOR THE PROJECT AND ARE NOT TO BE REUSED BY OWNER TO OTHERS OR EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT, ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY JSA FOR THE SPECIFIC PURPOSE 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 OF RESULTING THEREFROM.

DRAWN BY	APPROVED BY
CMM	RJC
SCALE	DATE
AS SHOWN	05/17/19
JOB NUMBER	SHEET NO.
3506	1 OF 28

CS0001

Z:\CHERRY HILL LAND DEVELOPMENT GROUP\3506 CENTURA PHASE 3\DRAWINGS\CS0001.DWG

CREATED ON 05/16/2022, LAST MODIFIED ON 05/16/2022



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 NECESSITIES.
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 OWNER SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY.
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 COUNTY 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

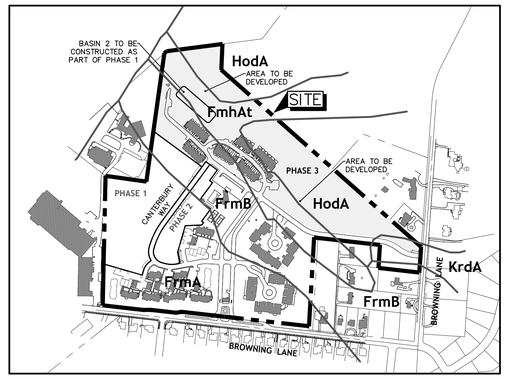
1. ALL PROPOSED UTILITIES SHALL BE INSTALLED UNDERGROUND.
2. ALL MATERIALS, METHODS AND DETAILS OF IMPROVEMENT CONSTRUCTION SHALL CONFORM TO THE REGULATIONS OF THE TOWNSHIP OF CHERRY HILL, THE NEW JERSEY DEPARTMENT OF TRANSPORTATION, CAMDEN COUNTY AND/OR THE APPROPRIATE UTILITY COMPANY, WHICHEVER REGULATION 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 IN 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 IN 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 WATER USAGE.
10. DECORATIVE LIGHTING IS 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, CHAPTER 9, REQUIREMENTS FOR STORMWATER MANAGEMENT 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 BASIN AS WELL AS THE STORM SEWER 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 LIMITS 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.

BASIN MAINTENANCE NOTES

BASIN 3 TO BE OWNED AND MAINTAINED BY AN APPROPRIATE HOMEOWNERS ASSOCIATION.



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 TESTED TO PRESSURES OF 400 PSI. VALVES SHALL BE DESIGNED OPERATED IN THE VERTICAL POSITION. VALVE ENDS SHALL BE MECHANICAL JOINT IN ACCORDANCE WITH AWWA C111. STEM SEALS SHALL BE DOUBLE O-RING, SQUARE CROSS-SECTION COMPLYING WITH 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 SUPER CENTURION 250, WATEROUS PACIFIC 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. WHERE OVER 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 READ TYPE, PROVIDED BY THE OWNER.
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, CLASS 52 CEMENT MORTAR LINED PIPE, COATED 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 ANS/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 48 TO 66 INCHES. ACCEPTABLE MANUFACTURERS ARE BRUNING & TAYLOR, MUELLER, MCGUIRE INDUSTRIES, CLAY & BAILY, A.Y. MCDONALD OR QUALITY WATER PRODUCTS.
30. CORPORATION STOPS SHALL BE FULL OPENING, 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—B SERIES, MUELLER—H-15000 SERIES OR A.Y. MCDONALD—4701 SERIES.
31. CURB STOPS SHALL BE BRONZE BODY CONSTRUCTION, BALL VALVE, WITH DOUBLE "O" RING STEM SEALS MANUFACTURED IN ACCORDANCE WITH AWWA STANDARD C800. THE INLET CONNECTION SHALL BE 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 SHALL INCLUDE 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 FREE FROM SILT AND OTHER 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 TIME 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 BOUNDING 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, OR 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 AS FAR AS PRACTICABLE TO ASSIST IN OBTAINING THE REQUIRED COMPACTION. 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.

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

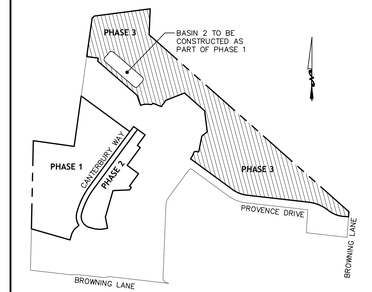
1. EROSION AND SEDIMENT CONTROL SHALL BE IN ACCORDANCE WITH ALL APPLICABLE RULES AND REGULATIONS SET FORTH

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.
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4. UTILITY ASBUILT INFORMATION PROVIDED BY THE CLIENT AND SUPPLEMENTED BY CLANCY & ASSOCIATES, INC.
5. AREA (PHASE 3) = 13.4 ACRES MORE OR LESS.

STANDARD PLAN LEGEND

- PROPERTY 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
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- VEGETATION LINE
- TEST PIT / SOIL BORING
- VALVES
- METERS
- SIGNS
- UTILITY POLES
- LIGHT POLES
- FIRE HYDRANT
- CLEANOUT
- MAIL BOXES
- CROSS CUT
- DRILL HOLE W/ WINGS
- FOUND MONUMENT
- SET MONUMENT
- FOUND IRON ROD/PIPE
- SET IRON ROD/PIPE
- INLETS
- MANHOLES
- TRAFFIC SIGNAL



KEY MAP:

SCALE: 1"=400'

TEST PIT DATA

TEST PIT #5@8 PROPOSED BASIN AREA ELEVATION 68.87
DEPTH 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 @ 95"
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 #5@9 PROPOSED BASIN AREA ELEVATION 69.48
DEPTH 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 #5@10 PROPOSED BASIN AREA ELEVATION 70.25
DEPTH 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)

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 PROCESS OF SEEKING APPROVAL TO CONVERT THE TEMPORARY BREACH INTO A PERMANENT BREACH.

DEMOLITION LEGEND

- BITUMINOUS PAVING TO BE REMOVED
- SANITARY SEWER/MH TO BE REMOVED
- STORM SEWER/INLET TO BE REMOVED
- TREES TO REMAIN
- TREES AND CLUSTERING TO BE REMOVED

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

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JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28019500

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

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

ISSUE	DATE	BY	APPR.
1	01/03/18	T.K	R.J.C
		NOT PART OF INITIAL SUBMISSION	
2	01/03/18	T.K	R.J.C
		REVISE WETLANDS NOTE, ADD DAM NOTE, REVISE LIMIT OF DISTURB TO BE REMOVED	
3	10/02/18	DMM	R.J.C
		NO CHANGE THIS SHEET	
4	10/7/19	DMM	R.J.C
		REVISE UNITS AND SUBMITTED FOR FINAL	
5	07/02/2020	T.K	R.J.C
		SUBMITTED FOR PRELIMINARY COMPLIANCE	
6	05/20/2022	T.K	R.J.C

CENTURA – PHASE 3
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
479 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043
C/O STEPHEN D. SAMOST, ESQUIRE

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200
5/20/2022
DATE

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DRAWN BY	APPROVED BY
TJK	RJC
SCALE	DATE
1"=30'	05/17/19
JOB NUMBER	SHEET NO.
3506	3 OF 28

CS0101

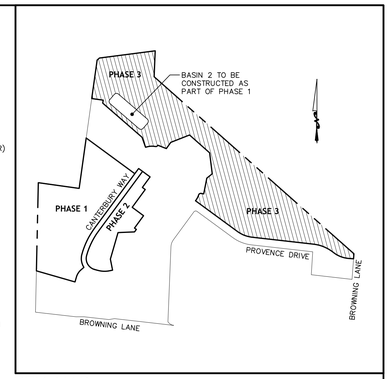
CREATED ON 12/27/2016, LAST MODIFIED ON 05/19/2022
Z:\CHERRY HILL LAND DEVELOPMENT GROUP\3506 CENTURA PHASE 3\DRAWINGS\3506TP3.DWG

NOTES

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- FLOODWAY LIMIT LINE (100 YR)
- FLOOD HAZARD AREA LINE
- PHASE LIMIT LINE
- LIMIT OF DISTURBANCE
- FENCES
- EXISTING CONTOUR (100)
- PROPOSED CONTOUR (101)
- EXISTING SPOT ELEVATION (102.6)
- PROPOSED SPOT ELEVATION (101.3)
- VEGETATION LINE
- TEST PIT / SOIL BORING
- VALVES (GV, WV)
- METERS (WM, GM)
- SIGNS
- UTILITY POLES
- LIGHT POLES
- FIRE HYDRANT
- CLEANOUT
- MAIL BOXES (USPS)
- CROSS CUT
- DRILL HOLE W/ WINGS
- FOUND MONUMENT
- SET MONUMENT
- FOUND IRON ROD/PIPE
- SET IRON ROD/PIPE
- INLETS
- MANHOLES
- TRAFFIC SIGNAL



KEY MAP:

SCALE: 1"=400'

TEST PIT DATA

TEST PIT #5@1 — PROPOSED BASIN AREA — ELEVATION 67.20

DEPTH	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 #5@2 — PROPOSED BASIN AREA — ELEVATION 69.78

DEPTH	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)

TEST PIT #5@3 — PROPOSED TOWNHOME — ELEVATION 80.75

DEPTH	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 @ 132" GROUNDWATER NOT ENCOUNTERED ESTIMATED SEASONAL HIGH WATER-TABLE – 133" (ELEV. 69.65)

TEST PIT #5@4 — PROPOSED TOWNHOME — ELEVATION 73.25

DEPTH	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)

WETLANDS

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

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DEMOLITION LEGEND

- BITUMINOUS PAVING TO BE REMOVED
- TREES TO REMAIN
- TREES AND CLUSTERING TO BE REMOVED

GRAPHIC SCALE

30 0 15 30 60 120

1 INCH = 30 FEET

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CERTIFICATE OF AUTHORIZATION NO. 24GA28019600

ISSUE	DATE	BY	REVISION
1	01/03/18	TJK	NOT PART OF INITIAL SUBMISSION
2	10/02/18	DMM	REVISE WETLANDS NOTE, AND DAM DECOMMISSION NOTE
3	10/17/19	DMM	REVISE WETLANDS BUFFER LINE, LIMIT OF DISTURB TO BE REMOVED
4	07/02/2020	TJK	SUBMITTED FOR PRELIMINARY COMPLIANCE NO CHANGE THIS SHEET
5	05/20/2022	TJK	REVISE UNITS AND SUBMITTED FOR FINAL
6			

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TAX MAP SHEET 234, BLOCK 433.20, LOT 15.01 & 16.01, FORMERLY BLOCK 433.20, LOT 1
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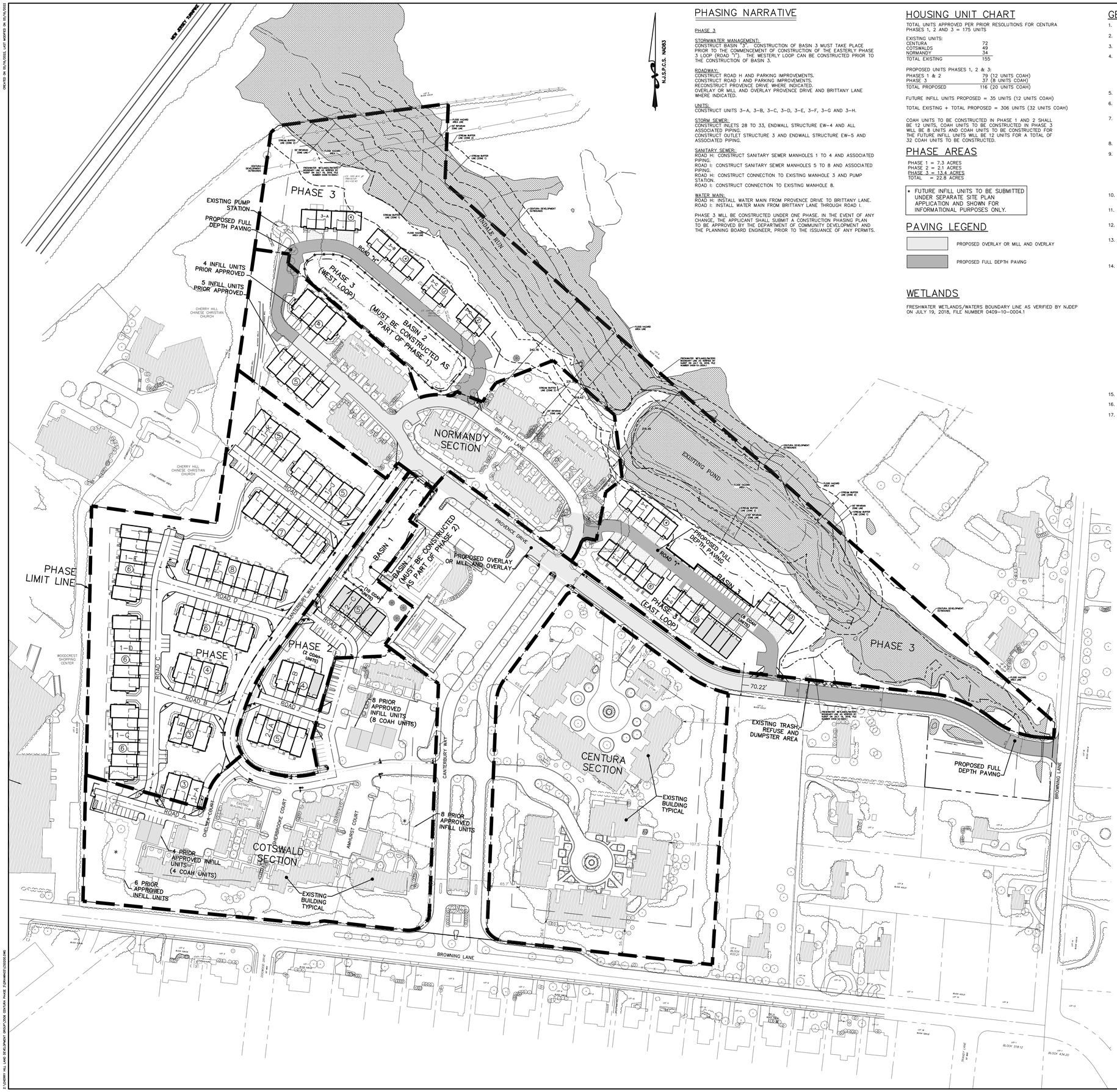
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5/20/2022
DATE

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DRAWN BY	APPROVED BY
TJK	RJC
SCALE	DATE
1"=30'	05/17/19
JOB NUMBER	SHEET NO.
3506	4 OF 28

CS0102

C:\CHERRY HILL LAND DEVELOPMENT GROUP\3506 CENTURA PHASE 3\DRAWINGS\3506DEM.DWG
CREATED ON: 05/27/2015, LAST MODIFIED ON: 05/19/2022


NEW JERSEY TRANSIT
N.J.S.P.C.S. NAD83
PHASE 3
EXISTING PUMP STATION
PROPOSED FULL DEPTH PAVING
4 INFILL UNITS PRIOR APPROVED
5 INFILL UNITS PRIOR APPROVED
PHASE 3 (WEST LOOP)
BASIN 2 (MUST BE CONSTRUCTED AS PART OF PHASE 1)
ROAD 3
ROAD 4
ROAD 5
ROAD 6
ROAD 7
ROAD 8
ROAD 9
ROAD 10
ROAD 11
ROAD 12
ROAD 13
ROAD 14
ROAD 15
ROAD 16
ROAD 17
ROAD 18
ROAD 19
ROAD 20
ROAD 21
ROAD 22
ROAD

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.

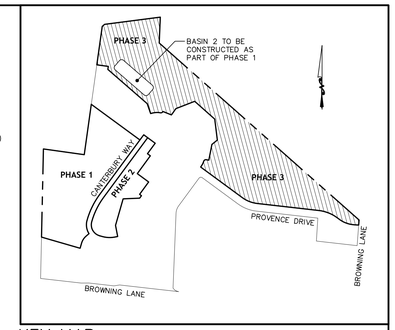
Recycling for all Proposed Townhouses will be conducted curbside as an extension of the current recycling/credit program. Re-cycling in the existing Centura Association buildings is accomplished in the same manner as trash removal. (The entire Centura project is a participant in the Benchmark/incentive 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.

STANDARD PLAN LEGEND

- PROPERTY 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
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
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- CROSS CUT
- DRILL HOLE W/ WINGS
- FOUND MONUMENT
- SET MONUMENT
- FOUND IRON ROD/PIPE
- SET IRON ROD/PIPE
- INLETS
- MANHOLES
- TRAFFIC SIGNAL

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



KEY MAP:

SCALE: 1"=400'

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 3 EQUAL 37.
   NUMBER OF 22' WIDE UNITS (COAH) = 8
   NUMBER OF 24' WIDE UNITS = 10
   NUMBER OF 32' WIDE UNITS = 19
   TOTAL NUMBER OF UNITS PHASE 3 = 37
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 3 SECTION OF THE PROJECT ARE LOCATED IN ZONE X (OTHER AREAS) FOR AREAS DETERMINED TO BE OUTSIDE THE 0.2% CHANCE FLOODPLAIN, HOWEVER SOME PORTIONS OF THE PHASE 3 SECTION ARE LOCATED IN ZONE X (OTHER FLOOD AREAS) FOR AREAS OF 0.2% ANNUAL CHANCE FLOOD AND 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN ONE FOOT OR WITH DRAINAGE AREAS LESS THAN ONE SQUARE MILE, AND AREA PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD.
10. EXISTING SIGNS SHALL BE REPLACED AT THE DISCRETION OF THE TOWNSHIP ENGINEER OR TOWNSHIP INSPECTOR AT THE TIME OF CONSTRUCTION.
11. THE HOMEOWNER'S ASSOCIATION SHALL ASSUME THE RESPONSIBILITY FOR MAINTAINING THE INFILTRATION BASINS AND THE STORM SEWER CONVEYANCE SYSTEM.
12. ALL UNITS SHALL HAVE A 2 CAR GARAGE EXCEPT FOR COAH UNITS. COAH UNITS WILL NOT HAVE GARAGES, ONLY DRIVEWAYS.
13. PARKING SCHEDULE FOR PHASE 3 EAST LOOP ROAD (ROAD I) SHALL BE AS FOLLOWS
    3 BEDROOM TOWNHOUSE UNITS REQUIRE 2.4 PARKING SPACES PER UNIT AND 0.5 SPACES PER UNIT FOR GUEST PARKING.
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    REQUIRED PARKING (3-BEDROOM TOWNHOUSE)
    17 UNITS x 2.4 = 41 SPACES
    17 UNITS x 0.5 = 9 SPACES
    REQUIRED = 50 SPACES

    REQUIRED PARKING (2 BEDROOM COAH UNITS)
    8 UNITS x 2.0 = 16 SPACES
    8 UNITS x 0.5 = 4 SPACES
    REQUIRED = 20 SPACES

    TOTAL REQUIRED = 70 SPACES

    PROPOSED PARKING
    17 3-BEDROOM UNITS WITH TWO CAR GARAGE AND DRIVEWAY COMBINATION
    AT 3.5 SPACES PER UNIT = 51 SPACES
    8 2-BEDROOM COAH UNITS WITH ONE CAR DRIVEWAY
    AT 1 SPACE PER UNIT = 8 SPACES
    OFF-STREET PARKING 2-BEDROOM COAH UNIT AT 9'x18' SPACES = 8 SPACES
    OFF-STREET PARKING (GUEST) 9'x18' SPACES = 15 SPACES
    TOTAL SPACES PROPOSED = 82 SPACES
14. PARKING SCHEDULE FOR PHASE 3 WEST LOOP ROAD (ROAD H) SHALL BE AS FOLLOWS
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15. ALL CROSSWALKS SHALL BE LONG LIFE EPOXY OR THERMOPLASTIC.
16. ALL EXISTING AND PROPOSED ROADS AND IMPROVEMENTS ARE AND WILL BE PRIVATELY OWNED AND MAINTAINED.
17. THE APPLICANT'S FAIR SHARE CONTRIBUTION, AS DETERMINED BY CAMDEN COUNTY, HAS ALREADY BEEN PAID.

ADA PARKING REQUIREMENTS

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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.

SITE SAFETY

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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 PROCESS OF SEEKING APPROVAL TO CONVERT THE TEMPORARY BREACH INTO A PERMANENT BREACH.

GRAPHIC SCALE

30 0 15 30 60 120

1 INCH = 30 FEET

Know what's below. Call before you dig.

ISSUE	DATE	REVISION	BY	APPR.
1	01/03/18	NOT PART OF INITIAL SUBMISSION	TJK	RJC
2	10/02/18	REV. SIDEWALK, PARKING, ADD COAH UNITS, REV. WETLANDS NOTE AND REVISE NOTES	CMM	RJC
3	10/17/19	ADD NOTE TO PLANS	DMM	RJC
4	05/19/20	NO CHANGE THIS SHEET	TJK	RJC
5	07/02/2020	SUBMITTED FOR PREJUMINARY COMPLIANCE	TJK	RJC
6	05/20/2022	REVISE UNITS AND SUBMITTED FOR FINAL	TJK	RJC

JSA INC.

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

CENTURA – PHASE 3
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 679 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. 24GA28015500

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200
5/20/2022
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DRAWN BY	APPROVED BY
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SCALE	DATE
1"=30'	05/17/19
JOB NUMBER	SHEET NO.
3506	6 OF 28

CS0201

CREATED ON 05/16/2022, LAST MODIFIED ON 05/17/2022
Z:\CHERRY HILL LAND DEVELOPMENT GROUP\2006 CENTURA PHASE 3\DRAWINGS\2020\2.DWG

TRASH/RECYCLING NARRATIVE

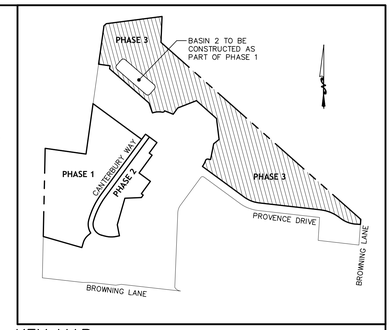
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SECONDARY ACCESS NOTE

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.

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

Know what's below. Call before you dig.

BY	DATE	ISSUE
TJK	01/03/18	1
	NOT PART OF INITIAL SUBMISSION	
TJK	10/03/18	2
DMM	REV. SIDEWALK, PARKING, ADD COAH UNITS, REV. WETLANDS NOTE AND REVISE NOTES	
DMM	10/7/19	3
DMM	ADD NOTES, ADD ADA PARKING ANALYSIS	
RJC	07/02/2020	5
RJC	REVISE UNITS AND SUBMITTED FOR FINAL	
RJC	05/20/2022	6
RJC	SUBMITTED FOR PRELIMINARY COMPLIANCE	
BY	REVISION	

JSA INC.

TELEPHONE (609) 704-1155
FAX (609) 704-1166
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CENTURA – PHASE 3
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

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

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ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28019500

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1"=30'	05/17/19
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3506	7 OF 28

CS0202

CREATED ON 05/16/2022, LAST MODIFIED ON 05/17/2022
Z:\CHERRY HILL LAND DEVELOPMENT GROUP\3506 CENTURA PHASE 3\DRAWINGS\CS0202.DWG

CREATED ON 05/19/2021, LAST MODIFIED ON 05/19/2022

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

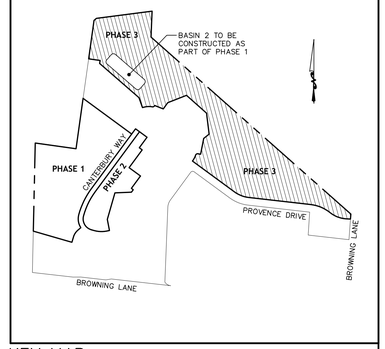
LONG TERM MAINTENANCE OF STORMWATER MANAGEMENT SYSTEM

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.

STANDARD PLAN LEGEND

PROPERTY 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
EXISTING SPOT ELEVATION
PROPOSED SPOT ELEVATION
VEGETATION LINE
TEST PIT / SOIL BORING
VALVES
METERS
SIGNS
UTILITY POLES
LIGHT POLES
FIRE HYDRANT
CLEANOUT
MAIL BOXES
CROSS CUT
DRILL HOLE W/ WINGS
FOUND MONUMENT
SET MONUMENT
FOUND IRON ROD/PIPE
SET IRON ROD/PIPE
INLETS
MANHOLES
TRAFFIC SIGNAL



KEY MAP:

SCALE: 1"=400'

TEST PIT DATA

TEST PIT #5@ PROPOSED BASIN AREA ELEVATION 68.87
DEPTH 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 #5@ PROPOSED BASIN AREA ELEVATION 69.48
DEPTH 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 #5@ PROPOSED BASIN AREA ELEVATON 70.25
DEPTH 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)

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

N.J.S.P.C.S. NAD83

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

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

ISSUE	DATE	REVISION	BY	APPR.
1	01/03/18	NOT PART OF INITIAL SUBMISSION	TJK	RJC
2	01/22/18	REV. PARKING, WETLANDS NOTE AND ADD PVC COLLECTION HEADER AT BLDGS 3A, 3B, 3C & 3D	GMM	RJC
3	10/7/19	REVISED PER COMMENTS FROM CHERRY HILL TOWNSHIP PUBLIC WORKS ENGINEER	GMM	RJC
4	07/02/2020	SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK	RJC
5	05/20/2022	REVISE UNITS AND SUBMITTED FOR FINAL	TJK	RJC
6				

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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

CENTURA – PHASE 3

GRADING AND DRAINAGE 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. 24GA28015600

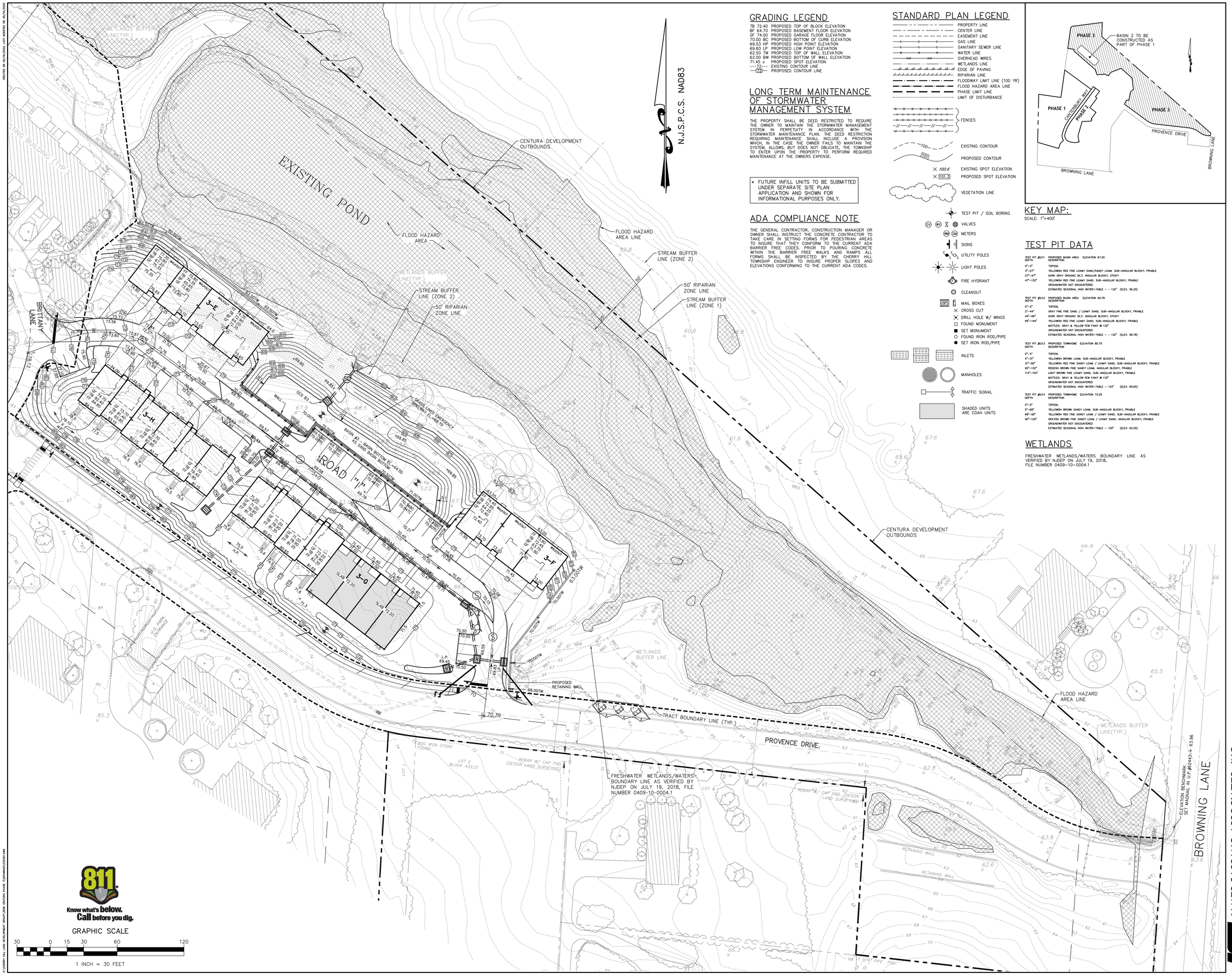
RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200
5/20/2022
DATE

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DRAWN BY	APPROVED BY
TJK	RJC
SCALE	DATE
1"=30'	05/17/19
JOB NUMBER	SHEET NO.
3506	8 OF 28

CS0301

J:\CHERRY HILL LAND DEVELOPMENT GROUP\3506 CENTURA PHASE 3\DRAWINGS\CS0301.DWG



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

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RIPARIAN LINE
FLOODWAY LIMIT LINE (100 YR)
FLOOD HAZARD AREA LINE
PHASE LIMIT LINE
LIMIT OF DISTURBANCE
FENCES
100 EXISTING CONTOUR
101 PROPOSED CONTOUR
× 102.6 EXISTING SPOT ELEVATION
× 101.3 PROPOSED SPOT ELEVATION
VEGETATION LINE
TEST PIT / SOIL BORING
VALVES
METERS
SIGNS
UTILITY POLES
LIGHT POLES
FIRE HYDRANT
CLEANOUT
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

KEY MAP:

SCALE: 1"=400'

TEST PIT DATA

TEST PIT #5@1 PROPOSED BASIN AREA ELEVATION 67.20
DEPTH 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 #5@2 PROPOSED BASIN AREA ELEVATION 69.78
DEPTH 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)

TEST PIT #5@3 PROPOSED TOWNHOME ELEVATION 80.75
DEPTH 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 @ 132"
GROUNDWATER NOT ENCOUNTERED
ESTIMATED SEASONAL HIGH WATER-TABLE – 133" (ELEV. 69.65)

TEST PIT #5@4 PROPOSED TOWNHOME ELEVATION 73.25
DEPTH 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)

WETLANDS

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

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

JAMES SASSANO ASSOCIATES, INC.
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CERTIFICATE OF AUTHORIZATION NO. 24GA28017000
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BY	APPR.	REVISION	DATE
TJK	RJC	REVISE UNITS AND SUBMITTED FOR FINAL	05/20/2022
TJK	RJC	SUBMITTED FOR PRELIMINARY COMPLIANCE	07/02/2020
DMM	RJC	REVISED PER COMMENTS FROM CHERRY HILL TOWNSHIP PUBLIC WORKS ENGINEER	10/7/19
DMM	RJC	REVISED PER COMMENTS FROM CHERRY HILL TOWNSHIP ENGINEER	10/02/18
DMM	RJC	REV. SIDEWALK, PARKING, ADD COAH UNITS, REV. METLANDS NOTE AND REVISE BASIN 3 GRADING	01/03/18
TJK	RJC	NOT PART OF INITIAL SUBMISSION	12/19/17

CENTURA – PHASE 3

TAX MAP SHEET 234; BLOCK 433.20, LOT 15.01 & 16.01, FORMERLY BLOCK 433.21, LOT 1
CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

GRADING AND DRAINAGE PLAN

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DRAWN BY	APPROVED BY
TJK	RJC
SCALE	DATE
1"=30'	05/17/19
JOB NUMBER	SHEET NO.
3506	9 OF 28

CS0302

CREATED ON: 05/16/2022, LAST MODIFIED ON: 05/16/2022
Z:\CHERRY HILL LAND DEVELOPMENT GROUP\3506 -CENTURA PHASE 3\DRAWINGS\3506SD.DWG

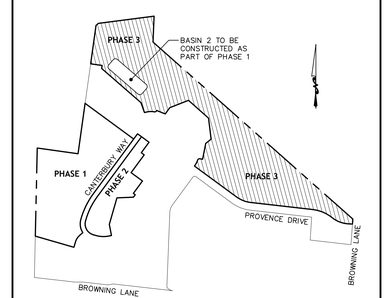
CREATED ON: 05/16/2022, LAST MODIFIED ON: 05/16/2022

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N.J.S.P.C.S. NAD83

STANDARD PLAN LEGEND

- PROPERTY LINE
- CENTER LINE
- EASEMENT LINE
- GAS LINE
- SANITARY SEWER LINE
- WATER LINE
- OVERHEAD WIRES
- WETLANDS LINE
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- FLOODWAY LIMIT LINE (100 YR)
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- VEGETATION LINE
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- UTILITY POLES
- LIGHT POLES
- FIRE HYDRANT
- CLEANOUT
- MAIL BOXES
- CROSS CUT
- DRILL HOLE W/ WNGS
- FOUND MONUMENT
- SET MONUMENT
- FOUND IRON ROD/PIPE
- SET IRON ROD/PIPE
- INLETS
- MANHOLES
- TRAFFIC SIGNAL



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 AND THAT SAID CONSTRUCTION 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.

NOTE: SEE TYPICAL SANITARY SEWER LATERAL AND WATER SERVICE LOCATION PLAN ON DRAWINGS CS1101 AND CS1201

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

GRAPHIC SCALE

30 0 15 30 60 120

1 INCH = 30 FEET

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BY	APPR.
TJK	RJC
TJK	RJC
DMM	RJC
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6	05/20/2022	

CENTURA – PHASE 3

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

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TJK	RJC
SCALE	DATE
1"=30'	05/17/19
JOB NUMBER	SHEET NO.
3506	10 OF 28

CS0401

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N.J.S.P.C.S. NAD83

WETLANDS BUFFER LINE(TYP.)

EDGE OF WATER

EX. SAN M.H. #8
RIM=72.93
INV=61.52 (N)
INV=61.56 (E)

INV=61.56

EXISTING POND

CONSTRUCT WATER MAIN ABOVE SANITARY SEWER MAIN AT CROSSING (SEE ROAD PROFILE-1)

PROP. SAN. MANHOLE #5
RIM=72.51
INV=61.88

FLOOD HAZARD AREA

CENTURA DEVELOPMENT OUTBOUNDS

FLOOD HAZARD AREA LINE

STREAM BUFFER LINE (ZONE 2)

WATER LINE

50' RIPARIAN ZONE LINE

STREAM BUFFER LINE (ZONE 1)

WETLANDS BUFFER LINE(TYP.)

STREAM BUFFER LINE (ZONE 2)

50' RIPARIAN ZONE LINE

BRITTANY LANE

PROP. 10 L.F. 15" RCP CL. III @ 0.1%

PROP. STORM MANHOLE #8
RIM=67.00
INV. IN=64.25
INV. OUT=59.10

PROP. 25 L.F. 15" RCP CL. III @ 0.1%

PROP. ENDWALL 5
INV=53.90

PROP. ENDWALL 4
INV=64.50

PROP. OUTLET CONTROL STRUCTURE B3
GR=68.60
INV=66.50(0.25' RECTANGULAR WEIR)
INV=64.50(15" RCP)

PROP. TYPE B INLET 33
GR=69.12
INV=65.70(IN)
INV=64.70(OUT)

PROP.101 L.F. 8" PVC @ 0.32%

PROP. 8" C.L.D.I.P. W.M.

PROP. 177 L.F. 8" PVC @ 0.32%

PROP. 9 L.F. 15" RCP CL. III @ 2.2%

PROP. 24 L.F. 15" RCP CL. III @ 1%

PROP. SAN. MANHOLE #6
RIM=69.57
INV=62.45

PROP. TYPE B INLET 32
GR=69.12
INV=65.94

PROP. 200 L.F. 8" PVC @ 0.69%

PROP. 78 L.F. 15" RCP CL. III @ 4%

PROP. SAN. MANHOLE #7
RIM=70.22
INV=63.83

PROP. 222 L.F. 15" RCP CL. III @ 0.35%

PROP. 40 L.F. 8" PVC @ 1.0%

PROP. TYPE B INLET 30
GR=70.01
INV=66.72

PROP. 50 L.F. 15" RCP CL. IV @ 0.35%

PROP. SAN. MANHOLE #8
RIM=69.91
INV=64.23

STORM MANHOLE
RIM=78.53
INV. IN=74.63
INV. OUT=72.89

EX. "B" INLET #17A
GR=75.35
INV=75.35
INV=72.93

PROP. TYPE E INLET 31
GR=74.50
INV=69.06

WETLANDS BUFFER LINE

HEAD WALL
T.G.W.= 67.33
INV.=58.75

EXISTING BUILDING (TYP.)

TRACT BOUNDARY LINE (TYP.)

PROVENCE DRIVE

WETLANDS BUFFER LINE(TYP.)

EX. "E" INLET #17A
GR.=71.73
INV.=67.28 IN
INV.=66.78 IN
INV.=66.68 OUT

CONSTRUCT "DOGHOUSE" TYPE B2 INLET GR=MATCH EXIST. BC (INV=63.44 (CONTRACTOR TO VERIFY)

PROP. TYPE E INLET 29A
GR=69.45
INV=67.00

PROP. 29 L.F. 15" RCP CL. IV @ 0.35%

PROP. TYPE B INLET 28
GR=69.59
INV=66.98

PROP. TYPE E INLET 29
GR=69.59
INV=66.90

PROP. 24 L.F. 15" RCP CL. IV @ 0.35%

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

REBAR W/ CAP "END OF DESIGN LAND SURVEYING"

RETAINING WALL

RETAINING WALL

BROWNING LANE

FLOOD HAZARD AREA LINE

WETLANDS BUFFER LINE(TYP.)

CENTURA DEVELOPMENT OUTBOUNDS

Know what's below. Call before you dig.

GRAPHIC SCALE

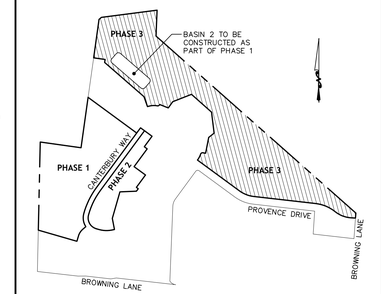
30 0 15 30 60 120

1 INCH = 30 FEET

NOTE: SEE TYPICAL SANITARY SEWER LATERAL AND WATER SERVICE LOCATION PLAN ON DRAWINGS CS1101 AND CS1201

STANDARD PLAN LEGEND

- PROPERTY 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
- X 100.6 EXISTING SPOT ELEVATION
- X 101.3 PROPOSED SPOT ELEVATION
- VEGETATION LINE
- TEST PIT / SOIL BORING
- CV WV VALVES
- MM GM METERS
- SIGNS
- UTILITY POLES
- LIGHT POLES
- FH FIRE HYDRANT
- CO 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



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 AND THAT SAID CONSTRUCTION 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.

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28015600

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

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

BY	APPR.	REVISION	DATE	ISSUE
TJK	RJC	REVISE UNITS AND SUBMITTED FOR FINAL	05/20/2022	6
TJK	RJC	SUBMITTED FOR PRELIMINARY COMPLIANCE	07/02/2020	5
DMM	RJC	REVISED PER COMMENTS FROM CHERRY HILL TOWNSHIP PUBLIC WORKS ENGINEER	10/7/19	4
DMM	RJC	REV. SIDEWALK, PARKING, WETLANDS NOTE & BASIN 3 GRADING	10/02/19	3
TJK	RJC	NOT PART OF INITIAL SUBMISSION	10/03/18	2
TJK	RJC	INITIAL SUBMISSION	01/03/18	1

CENTURA – PHASE 3
TAX MAP SHEET #34, 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
479 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043
C/O STEPHEN D. SAMOST, ESQUIRE

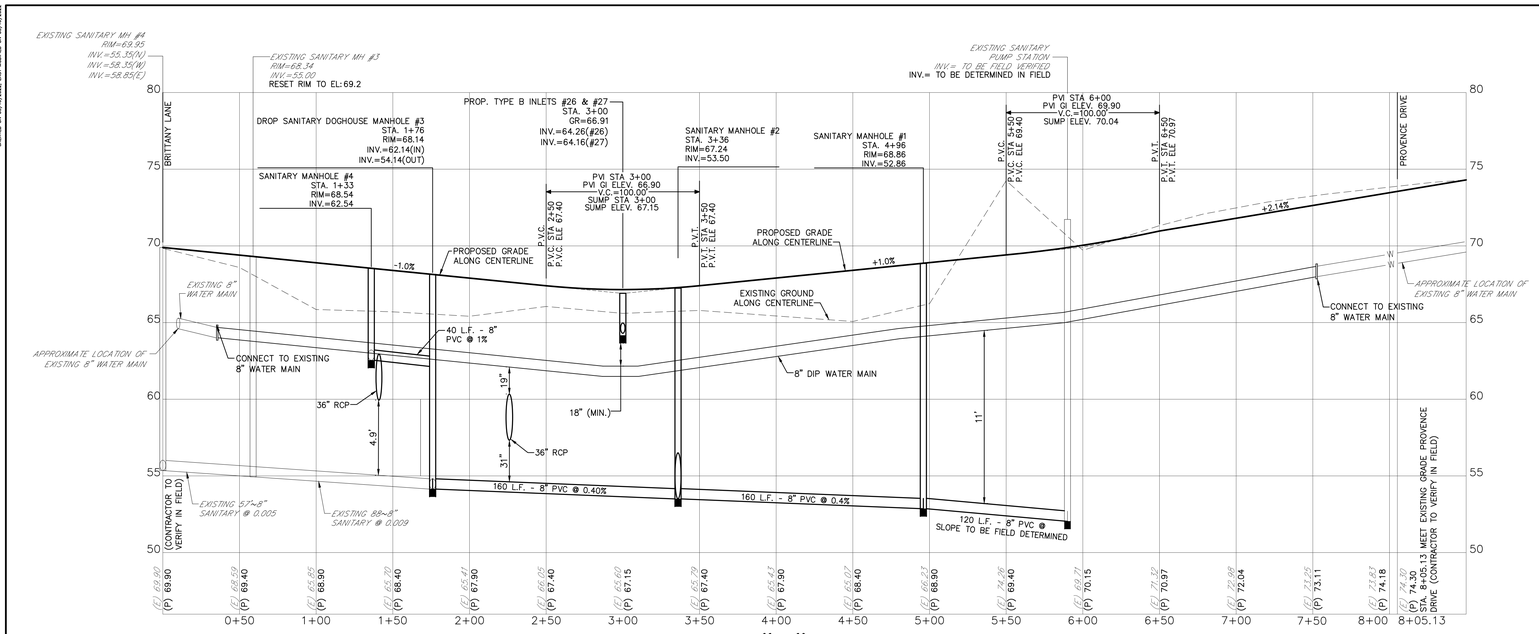
RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200
5/20/2022
DATE

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DRAWN BY	APPROVED BY
TJK	RJC
SCALE	DATE
1"=30'	05/17/19
JOB NUMBER	SHEET NO.
3506	11 OF 28

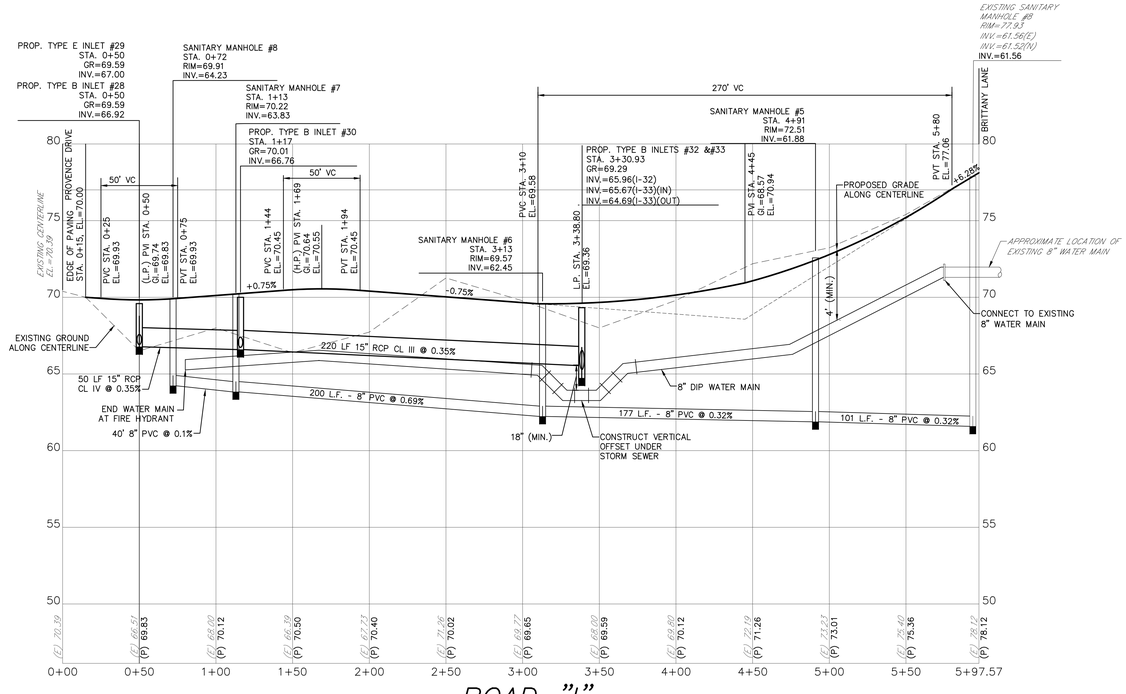
CS0402

Z:\CHERRY HILL LAND DEVELOPMENT_GROUP_DOCS_CENTURA PHASE 3\DRAWINGS\CS0402.DWG



ROAD "H"

(PRIVATE ROAD)
VERTICAL SCALE: 1" = 4'
HORIZONTAL SCALE: 1" = 40'



ROAD "I"

(PRIVATE ROAD)
VERTICAL SCALE: 1" = 4'
HORIZONTAL SCALE: 1" = 40'

Know what's below. Call before you dig.

GRAPHIC SCALE
40 0 20 40
1 INCH = 40 FEET

GRAPHIC SCALE
4 0 2 4
1 INCH = 4 FEET

BY	APPR.	ISSUE	DATE
TJK	RJC	1	01/03/18
TJK	RJC	2	10/02/18
DMM	RJC	3	10/17/19
TJK	RJC	4	10/7/19
TJK	RJC	5	07/02/2020
TJK	RJC	6	05/20/2022

REVISE UNITS AND SUBMITTED FOR FINAL
SUBMITTED FOR PRELIMINARY COMPLIANCE
REVISED PER COMMENTS FROM CHERRY HILL TOWNSHIP PUBLIC WORKS ENGINEER
REVISE INLET 33 GRATE AND INVERT ELEVATIONS, ADD INLET 29A
NOT PART OF INITIAL SUBMISSION
REVISION

JSA INC.

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. 24GA28019500

CENTURA – PHASE 3
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
5/20/2022
DATE

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DRAWN BY	APPROVED BY
TJK	RJC
SCALE	DATE
AS SHOWN	05/17/19
JOB NUMBER	SHEET NO.
3506	12 OF 28

CS0501

DRAWN ON 05/16/2022, LAST MODIFIED ON 05/16/2022
Z:\CHERRY HILL LAND DEVELOPMENT GROUP\3506 CENTURA PHASE 3\DRAWINGS\CS0501.DWG

PLANTING SCHEDULE PHASE 3 TOTAL

LARGE & MEDIUM TREES

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
AR	16	ACER RUBRUM "OCTOBER GLORY"	"OCTOBER GLORY" RED MAPLE	3" MIN. 13'-15'	B & B
GD	4	GYMNOCLADUS DIOICUS	KENTUCKY COFFEE TREE	3" MIN. 13'-15'	B & B
QC*	7	QUERCUS COCCINEA	SCARLET OAK	3" MIN. 11'-13'	B & B
QP*	9	QUERCUS PHELLOS	SCARLET OAK	3" MIN. 11'-13'	B & B
UA	12	ULMUS AMERICANA	AMERICAN ELM	3" MIN. 13'-15'	B & B

TOTAL = 48

GRASSES AND ANNUALS

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
DH	30	HEMEROCALLIS	DAYLILIES	1 GALLON CONTAINER	
GR	26	RUDBECKIA HIRTA	GLORIOSA DAISY	3" POTS	
LM	33	LIRIOPE MUSCARI "GOLD BONDED"	BANDED LIRIOPE	4" POTS	
PS	26	PENNISETUM SETACEUM "RUBRUM" DWARF	DWARF PURPLE FOUNTAIN GRASS	1 GALLON CONTAINER	

TOTAL = 115

SHRUBS

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
AA	10	ARONIA ARBUTIFOLIA	RED CHOKEBERRY	30" MIN.	B & B
AF	10	AZALEA CALENDULACEA CARAT	FLAME AZALEA	30" MIN.	B & B
BM	5	BUXUS MICROPHYLLA JAPONICA	JAPANESE BOXWOOD	30" MIN.	B & B
CA	9	CLETHRA ANIFOLIA "RUBY SPICE"	SUMMERSWEET CLETHRA	30" MIN.	B & B
FS	3	FORSYTHIA INTERMEDIA SPECTABILIS	SHOWY BORDER FORSYTHIA	30" MIN.	B & B
HV	4	HAMAMELIS VIRGINIANA	WITCHHAZEL	30" MIN.	B & B HEAVY
IH	4	ILEX x MESERVEAE "GOLDEN GIRL"	GOLDEN GIRL HOLLY	30" MIN.	B & B
IM	6	ILEX x MESERVEAE "BLUE PRINCESS"	BLUE PRINCESS HOLLY	30" MIN.	B & B
JC	49	JUNIPERUS CHINENSIS SARGENTI	SARGENT JUNIPER	15" -18"	#2 CAN
PJ	5	PIERIS JAPONICA	JAPANESE ANDROMEDA	30" MIN.	B & B
RM	5	RHODODENDRON "OLGA MEZITT"	RHODODENDRON	30" MIN.	B & B
SB	5	SPIRAEA x BUMALDA "ANTHONY WATERER"	BUMALD SPIREA	30" MIN.	B & B
SJ	5	SPIRAEA JAPONICA "NORMAN"	JAPONESE SPIREA	30" MIN.	B & B
VP	3	VIBURNUM PRAGENSE	PRAGUE VIBURNUM	30" MIN.	B & B
VR	3	VIBURNUM RHYTIDOPHYLLUM	LEATHERLEAF VIBURNUM	30" MIN.	B & B

TOTAL = 126

SMALL & ORNAMENTAL TREES

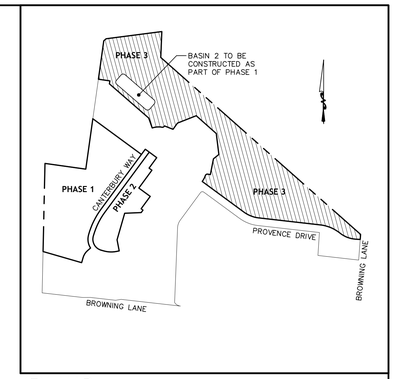
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
AC	4	AMELANCHIER CANADENSIS	DOWNY SHADBLOW	8'	B & B HEAVY
AG	2	AMELANCHIER x GRANDIFLORA "AUTUMN BRILLIANCE"	"AUTUMN BRILLIANCE" SERVICEBERRY	8'	B & B HEAVY
CC	6	CERCIS CANADENSIS	REDBUD	8'	B & B HEAVY
CK*	2	CORNUS KOUSA	KOUSA DOGWOOD	8'	B & B HEAVY
KP	4	KOELREUTERIA PANICULATA	GOLDEN RAIN TREE	3" 9'-11'	B & B
MB	4	MALUS BACCATA "WALTERS"	WALTERS SIBERIAN CRABAPPLE	8'	B & B
MV	2	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	8'	B & B HEAVY
PA	3	PRUNUS SERRULATA AMANOGAWA	AMANOGAWA CHERRY	8'	B & B HEAVY
PT	2	PRUNUS CERASIFERA "THUNDERCLOUD"	THUNDERCLOUD PLUM	8'	B & B HEAVY
SR	4	SYRINGA RETICULATA "IVORY SILK"	JAPANESE LILAC TREE	8'	B & B HEAVY

TOTAL = 33

EVERGREEN TREES

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
IN	8	ILEX x "NELLIE R. STEVENS"	"NELLIE R. STEVENS" HOLLY	6' – 7'	B & B
IO	10	ILEX OPACA	AMERICAN HOLLY	6' – 7'	B & B HEAVY
PC	4	PICEA ABIES "CUPRESSINA"	COLUMNAR NORWAY SPRUCE	6' – 7'	B & B
PE	6	PICEA EXCELSA (ABIES)	NORWAY SPRUCE	6' – 7'	B & B
PO	6	PICEA OMORIKA	SERBIAN SPRUCE	6' – 7'	B & B
PP	6	PICEA PUNGENS	COLORADO BLUE SPRUCE	6' – 7'	B & B
TC	3	TSUGA CANADENSIS	CANADIAN HEMLOCK	6' – 7'	B & B HEAVY
TP	12	THUJA PLICATA ATROVIRENS	ATROVIRENS GIANT ARBORVITAE	5' – 6'	B & B HEAVY

TOTAL = 55



KEY MAP:

SCALE: 1"=400'

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.
3. ALL LANDSCAPING DESIGN AND PLANTING IS TO BE IN ACCORDANCE WITH STANDARDS SET FORTH BY CHERRY HILL TOWNSHIP.
4. PRIOR TO FINAL APPROVAL A TYPICAL FOUNDATION PLANTING DESIGN AND DETAIL WILL BE SUBMITTED FOR EACH DWELLING UNIT.
5. THE CONTRACTOR SHALL ENSURE THAT THERE ARE NO CONFLICTS BETWEEN PROPOSED UTILITIES, UTILITY SERVICES AND LANDSCAPING IMPROVEMENTS.
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.

PLANTING SCHEDULE NOTES

1. ALL PLANT MATERIAL MARKED WITH "*" HAVE A POOR SURVIVAL RATE WHEN DUG FOR FALL PLANTING. FOR THESE PLANTS SECURE SPRING DUG MATERIAL ONLY.
2. ALL PLANT MATERIAL SIZES AND CALIPERS LISTED WITHIN THE PLANTING SCHEDULE IS AT THE TIME OF PLANTING.
3. SHOULD DISCREPANCIES OCCUR BETWEEN THE THE PLANT COUNT WITHIN THE PLANTING SCHEDULE AND PLANT MATERIAL INDICATED ON THE LANDSCAPING PLAN, THE LANDSCAPING PLAN SHALL TAKE PRECEDENCE.
4. ONLY WITH THE WRITTEN PERMISSION FROM THE TOWNSHIP ENGINEER WILL SUBSTITUTION OF PLANT MATERIAL BE ACCEPTED.
5. NO SHADE TREES SHALL BE PLANTED IN CONFLICT WITH ANY STORM SEWER, SANITARY SEWER OR WATER MAIN.
6. MINIMUM TREE CALIPER SIZE SHALL BE MEASURED 12" ABOVE THE GROUND.
7. ALL TREES SHALL BE BROUGHT TO THE SITE BALLED AND BURLAPPED OR BY OTHER ACCEPTABLE MEANS, FREE FROM INSECTS AND DISEASE AND TRUE TO SPECIES AND AND VARIETY.

PLANT MAINTENANCE GUARANTEE

ALL PLANT MATERIAL SHALL HAVE A MAINTENANCE GUARANTEED BY THE CONTRACTOR TO BE IN VIGOROUS GROWING CONDITION. PROVISION SHALL BE FOR A GROWTH GUARANTEE OF AT LEAST TWO (2) YEARS. REPLACEMENT SHALL BE MADE AT THE BEGINNING OF THE FIRST SUCCEEDING PLANT SEASON. ALL REPLACEMENTS SHALL HAVE A GUARANTEE EQUAL TO THAT STATED ABOVE.

LEGEND

- STREET/SHADE TREE
- EVERGREEN TREE
- ORNAMENTAL TREE
- SHRUB MASS
- FLOWERS
- LOW JUNIPER
- GRASS
- TREE PROTECTION FENCE
- TREES TO REMAIN (PRIMARY SPECIES INCLUDE MAPLE, OAK, BEACH & SASSAFRASS)
- TREES & CLUSTERS TO BE REMOVED

N.J.S.P.C.S. NAD83

GRAPHIC SCALE

30 0 15 30 60 120

1 INCH = 30 FEET

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

BY	APPR.	REVISION	DATE	ISSUE
TJK	RJC	REVISE UNITS AND SUBMITTED FOR FINAL	05/20/2022	6
TJK	RJC	SUBMITTED FOR PRELIMINARY COMPLIANCE	07/02/2020	5
DMM	RJC	REVISE LANDSCAPING AND PLANTING SCHEDULE	10/7/19	4
DMM	RJC	REV. SIDEWALK, PARKING, REVISE LANDSCAPING SCHEDULE & ADD PLANT GUARANTEE NOTE	10/02/19	3
TJK	RJC	NOT PART OF INITIAL SUBMISSION	01/03/18	2
TJK	RJC	INITIAL SUBMISSION	01/03/18	1

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28001600

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 3
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 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
5/20/2022
DATE

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DRAWN BY	APPROVED BY
TJK	RJC
SCALE	DATE
1"=30'	05/17/19
JOB NUMBER	SHEET NO.
3506	13 OF 28

CS0601

DRAWN ON 05/17/2022, LAST MODIFIED ON 05/17/2022
Z:\CHERRY HILL LAND DEVELOPMENT GROUP\3506 CENTURA PHASE 3\DWG\CS0601.DWG

PLANTING SCHEDULE PHASE 3 TOTAL

LARGE & MEDIUM TREES

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
AR	16	ACER RUBRUM "OCTOBER GLORY"	"OCTOBER GLORY" RED MAPLE	3" MIN. 13'-15'	B & B
GD	4	GYMNOCLADUS DIOICUS	KENTUCKY COFFEETREE	3" MIN. 13'-15'	B & B
QC*	7	QUERCUS COCCINEA	SCARLET OAK	3" MIN. 11'-13'	B & B
QP*	9	QUERCUS PHELLOS	SCARLET OAK	3" MIN. 11'-13'	B & B
UA	12	ULMUS AMERICANA	AMERICAN ELM	3" MIN. 13'-15'	B & B
TOTAL =	48				

GRASSES AND ANNUALS

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
DH	30	HEMEROCALLIS	DAYLILIES	1 GALLON CONTAINER	
GR	26	RUDBECKIA HIRTA	GLORIOSA DAISY	3" POTS	
LM	33	LIRIOPE MUSCARI "GOLD BONDED"	BANDED LIRIOPE	4" POTS	
PS	26	PENNISETUM SETACEUM "RUBRUM" DWARF	DWARF PURPLE FOUNTAIN GRASS	1 GALLON CONTAINER	
TOTAL =	115				

SHRUBS

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
AA	10	ARONIA ARBUTIFOLIA	RED CHOKEBERRY	30" MIN.	B & B
AF	10	AZALEA CALENDULACEA CARAT	FLAME AZALEA	30" MIN.	B & B
BM	5	BUXUS MICROPHYLLA JAPONICA	JAPANESE BOXWOOD	30" MIN.	B & B
CA	9	CLETHRA ANIFOLIA "RUBY SPICE"	SUMMERSWEET CLETHRA	30" MIN.	B & B
FS	3	FORSYTHIA INTERMEDIA SPECTABILIS	SHOWY BORDER FORSYTHIA	30" MIN.	B & B
HV	4	HAMAMELIS VIRGINIANA	WITCHHAZEL	30" MIN.	B & B HEAVY
IH	4	ILEX x MESERVEAE "GOLDEN GIRL"	GOLDEN GIRL HOLLY	30" MIN.	B & B
IM	6	ILEX x MESERVEAE "BLUE PRINCESS"	BLUE PRINCESS HOLLY	30" MIN.	B & B
JC	49	JUNIPERUS CHINENSIS SARGENTI	SARGENT JUNIPER	15" -18"	#2 CAN
PJ	5	PIERIS JAPONICA	JAPANESE ANDROMEDA	30" MIN.	B & B
RM	5	RHODODENDRON "OLGA MEZITT"	RHODODENDRON	30" MIN.	B & B
SB	5	SPIRAEA x BUMALDA "ANTHONY WATERER"	BUMALD SPIREA	30" MIN.	B & B
SJ	5	SPIRAEA JAPONICA "NORMAN"	JAPONESE SPIREA	30" MIN.	B & B
VP	3	VIBURNUM PRAGENSEI	PRAGUE VIBURNUM	30" MIN.	B & B
VR	3	VIBURNUM RHYTIDOPHYLLUM	LEATHERLEAF VIBURNUM	30" MIN.	B & B
TOTAL =	126				

SMALL & ORNAMENTAL TREES

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
AC	4	AMELANCHIER CANADENSIS	DOWNY SHADBLOW	8'	B & B HEAVY
AG	2	AMELANCHIER x GRANDIFLORA "AUTUMN BRILLIANCE"	"AUTUMN BRILLIANCE" SERVICEBERRY	8'	B & B HEAVY
CC	6	CERCIS CANADENSIS	REDBUD	8'	B & B HEAVY
CK*	2	CORNUS KOUSA	KOUSA DOGWOOD	8'	B & B HEAVY
KP	4	KOELREUTERIA PANICULATA	GOLDEN RAIN TREE	3" 9'-11'	B & B
MB	4	MALUS BACCATA "WALTERS"	WALTERS SIBERIAN CRABAPPLE	8'	B & B
MV	2	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	8'	B & B HEAVY
PA	3	PRUNUS SERRULATA AMANOGAWA	AMANOGAWA CHERRY	8'	B & B HEAVY
PT	2	PRUNUS CERASIFERA "THUNDERCLOUD"	THUNDERCLOUD PLUM	8'	B & B HEAVY
SR	4	SYRINGA RETICULATA "IVORY SILK"	JAPANESE LILAC TREE	8'	B & B
TOTAL =	33				

EVERGREEN TREES

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
IN	8	ILEX x "NELLIE R. STEVENS"	"NELLIE R. STEVENS" HOLLY	6' – 7'	B & B
IO	10	ILEX OPACA	AMERICAN HOLLY	6' – 7'	B & B HEAVY
PC	4	PICEA ABIES "CUPRESSINA"	COLUMNAR NORWAY SPRUCE	6' – 7'	B & B
PE	6	PICEA EXCELSA (ABIES)	NORWAY SPRUCE	6' – 7'	B & B
PO	6	PICEA OMORIKA	SERBIAN SPRUCE	6' – 7'	B & B
PP	6	PICEA PUNGENS	COLORADO BLUE SPRUCE	6' – 7'	B & B
TC	3	TSUGA CANADENSIS	CANADIAN HEMLOCK	6' – 7'	B & B HEAVY
TP	12	THUJA PLICATA ATROVIRENS	ATROVIRENS GIANT ARBORVITAE	5' – 6'	B & B HEAVY
TOTAL =	55				

KEY MAP:

SCALE: 1"=400'

NOTES

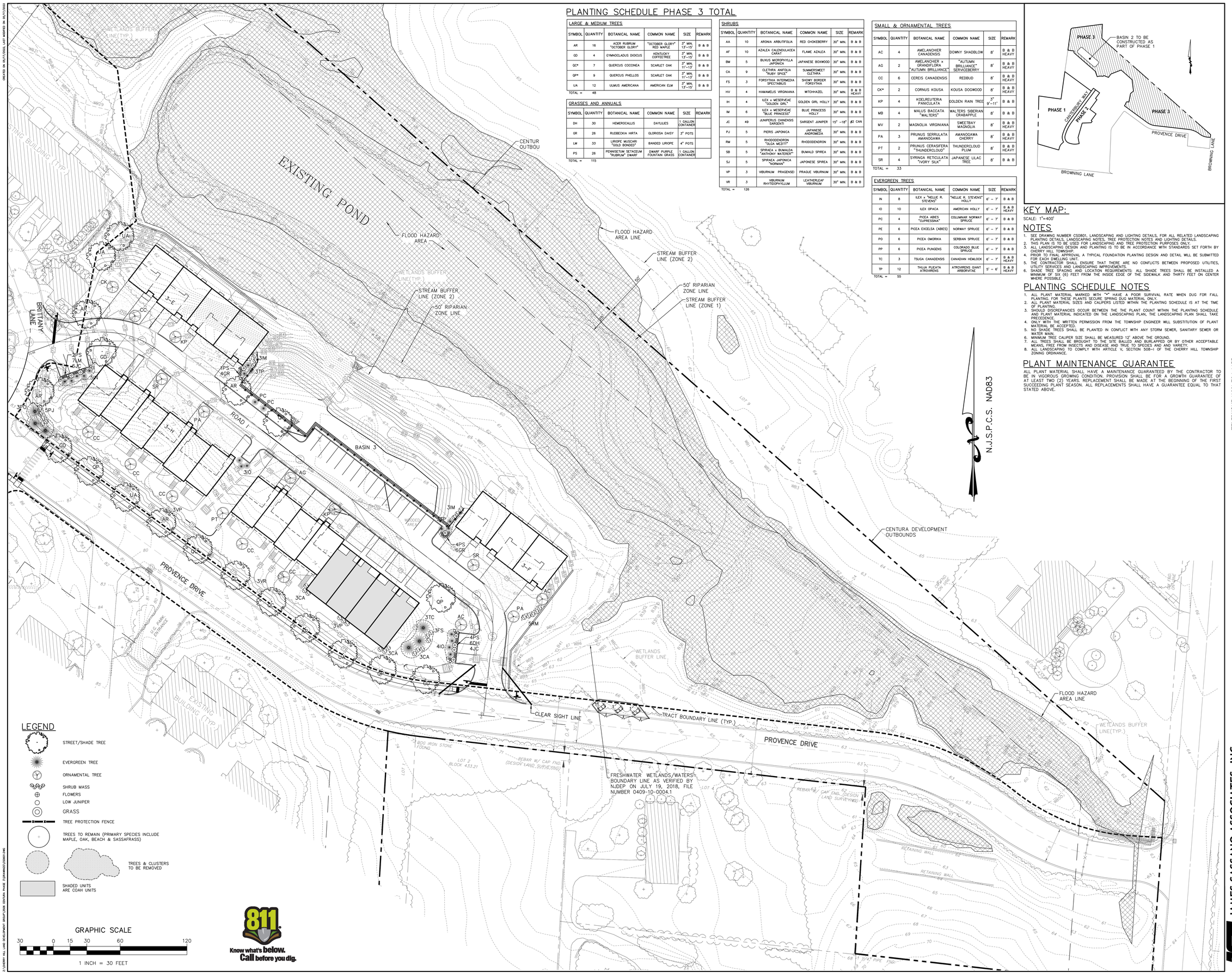
1. SEE DRAWING NUMBER CS0801, LANDSCAPING AND LIGHTING DETAILS, FOR ALL RELATED LANDSCAPING PLANTING DETAILS, LANDSCAPING NOTES, TREE PROTECTION NOTES AND LIGHTING DETAILS.
2. THIS PLAN IS TO BE USED FOR LANDSCAPING AND TREE PROTECTION PURPOSES ONLY.
3. ALL LANDSCAPING DESIGN AND PLANTING IS TO BE IN ACCORDANCE WITH STANDARDS SET FORTH BY CHERRY HILL TOWNSHIP.
4. PRIOR TO FINAL APPROVAL A TYPICAL FOUNDATION PLANTING DESIGN AND DETAIL WILL BE SUBMITTED FOR EACH DWELLING UNIT.
5. THE CONTRACTOR SHALL ENSURE THAT THERE ARE NO CONFLICTS BETWEEN PROPOSED UTILITIES, UTILITY SERVICES AND LANDSCAPING IMPROVEMENTS.
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.

PLANTING SCHEDULE NOTES

1. ALL PLANT MATERIAL MARKED WITH "*" HAVE A POOR SURVIVAL RATE WHEN DUG FOR FALL PLANTING. FOR THESE PLANTS SECURE SPRING DUG MATERIAL ONLY.
2. ALL PLANT MATERIAL SIZES AND CALIPERS LISTED WITHIN THE PLANTING SCHEDULE IS AT THE TIME OF PLANTING.
3. SHOULD DISCREPANCIES OCCUR BETWEEN THE THE PLANT COUNT WITHIN THE PLANTING SCHEDULE AND PLANT MATERIAL INDICATED ON THE LANDSCAPING PLAN, THE LANDSCAPING PLAN SHALL TAKE PRECEDENCE.
4. ONLY WITH THE WRITTEN PERMISSION FROM THE TOWNSHIP ENGINEER WILL SUBSTITUTION OF PLANT MATERIAL BE ACCEPTED.
5. NO SHADE TREES SHALL BE PLANTED IN CONFLICT WITH ANY STORM SEWER, SANITARY SEWER OR WATER MAIN.
6. MINIMUM TREE CALIPER SIZE SHALL BE MEASURED 12" ABOVE THE GROUND.
7. ALL TREES SHALL BE BROUGHT TO THE SITE BALLED AND BURLAPPED OR BY OTHER ACCEPTABLE MEANS, FREE FROM INSECTS AND DISEASE AND TRUE TO SPECIES AND AND VARIETY.
8. ALL LANDSCAPING TO COMPLY WITH ARTICLE V, SECTION 508-I OF THE CHERRY HILL TOWNSHIP ZONING ORDINANCE.

PLANT MAINTENANCE GUARANTEE

ALL PLANT MATERIAL SHALL HAVE A MAINTENANCE GUARANTEED BY THE CONTRACTOR TO BE IN VIGOROUS GROWING CONDITION. PROVISION SHALL BE FOR A GROWTH GUARANTEE OF AT LEAST TWO (2) YEARS. REPLACEMENT SHALL BE MADE AT THE BEGINNING OF THE FIRST SUCCEEDING PLANT SEASON. ALL REPLACEMENTS SHALL HAVE A GUARANTEE EQUAL TO THAT STATED ABOVE.



LEGEND

- STREET/SHADE TREE
- EVERGREEN TREE
- ORNAMENTAL TREE
- SHRUB MASS
- FLOWERS
- LOW JUNIPER
- GRASS
- TREE PROTECTION FENCE
- TREES TO REMAIN (PRIMARY SPECIES INCLUDE MAPLE, OAK, BEACH & SASSAFRASS)
- TREES & CLUSTERS TO BE REMOVED
- SHADED UNITS ARE COAH UNITS

GRAPHIC SCALE

30 0 15 30 60 120

1 INCH = 30 FEET

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

DATE	ISSUE	REVISION	BY	APPR.
			TJK	RJC
		REVISE UNITS AND SUBMITTED FOR FINAL	TJK	RJC
		SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK	RJC
10/7/19	4	REVISE LANDSCAPING AND PLANTING SCHEDULE	DMM	RJC
01/03/19	3		DMM	RJC
10/02/18	2	REVISE SIDEWALK, PARKING, LANDSCAPING, NOTE SCHEDULE & REVISE BASIN 3 GRADING	DMM	RJC
01/03/18	1	NOT PART OF INITIAL SUBMISSION	TJK	RJC
05/20/2022	6			
07/02/2020	5			

JSA INC.

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

CENTURA – PHASE 3

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 PLAN

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

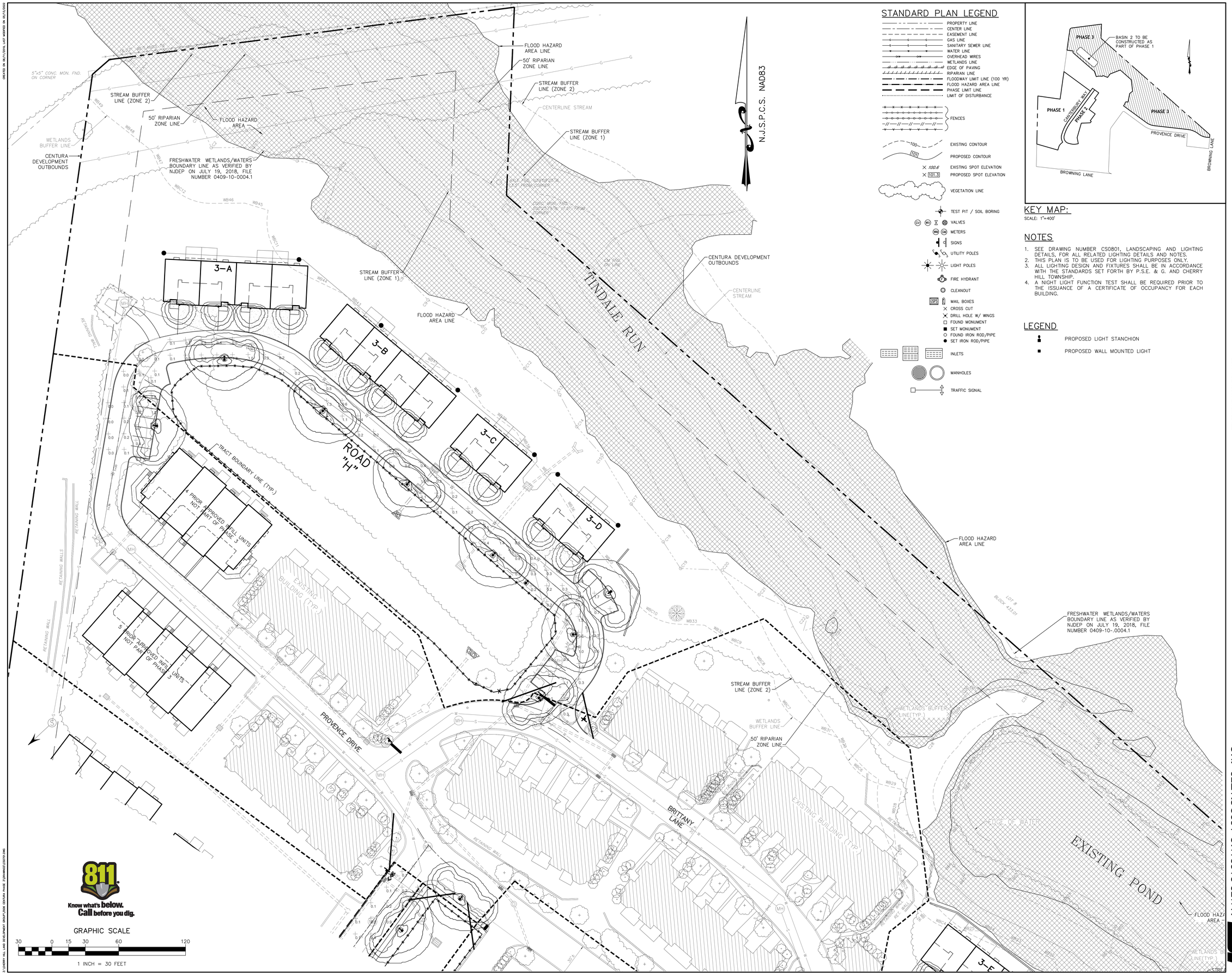
RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200
5/20/2022
DATE

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 OR 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 OWNER'S 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	APPROVED BY
TJK	RJC
SCALE	DATE
1"=30'	05/17/19
JOB NUMBER	SHEET NO.
3506	14 OF 28

CS0602

CREATED ON 05/17/2022, LAST MODIFIED ON 05/17/2022
Z:\CHERRY HILL LAND DEVELOPMENT GROUP\3506 CENTURA PHASE 3\DRAWINGS\CS0602.DWG



STANDARD PLAN LEGEND

- PROPERTY 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
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- VEGETATION LINE
- TEST PIT / SOIL BORING
- VALVES
- METERS
- SIGNS
- UTILITY POLES
- LIGHT POLES
- FIRE HYDRANT
- CLEANOUT
- MAIL BOXES
- CROSS CUT
- DRILL HOLE W/ WINGS
- FOUND MONUMENT
- SET MONUMENT
- FOUND IRON ROD/PIPE
- SET IRON ROD/PIPE
- INLETS
- MANHOLES
- TRAFFIC SIGNAL

KEY MAP:

SCALE: 1"=400'

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.
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4. A NIGHT LIGHT FUNCTION TEST SHALL BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR EACH BUILDING.

LEGEND

- PROPOSED LIGHT STANCHION
- PROPOSED WALL MOUNTED LIGHT

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

ISSUE	DATE	REVISION	BY	APPR.
1	01/03/18	NOT PART OF INITIAL SUBMISSION	TJK	RJC
2	10/03/18	REVISE LIGHTING DISTRIBUTION	DMM	RJC
3	10/07/19	REVISE LIGHTING DISTRIBUTION	DMM	RJC
4	10/7/19	NO CHANGE THIS SHEET	DMM	RJC
5	07/02/2020	SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK	RJC
6	05/20/2022	REVISE UNITS AND SUBMITTED FOR FINAL	TJK	RJC

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CENTURA – PHASE 3

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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. 24GA28075600

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200
5/20/2022
DATE

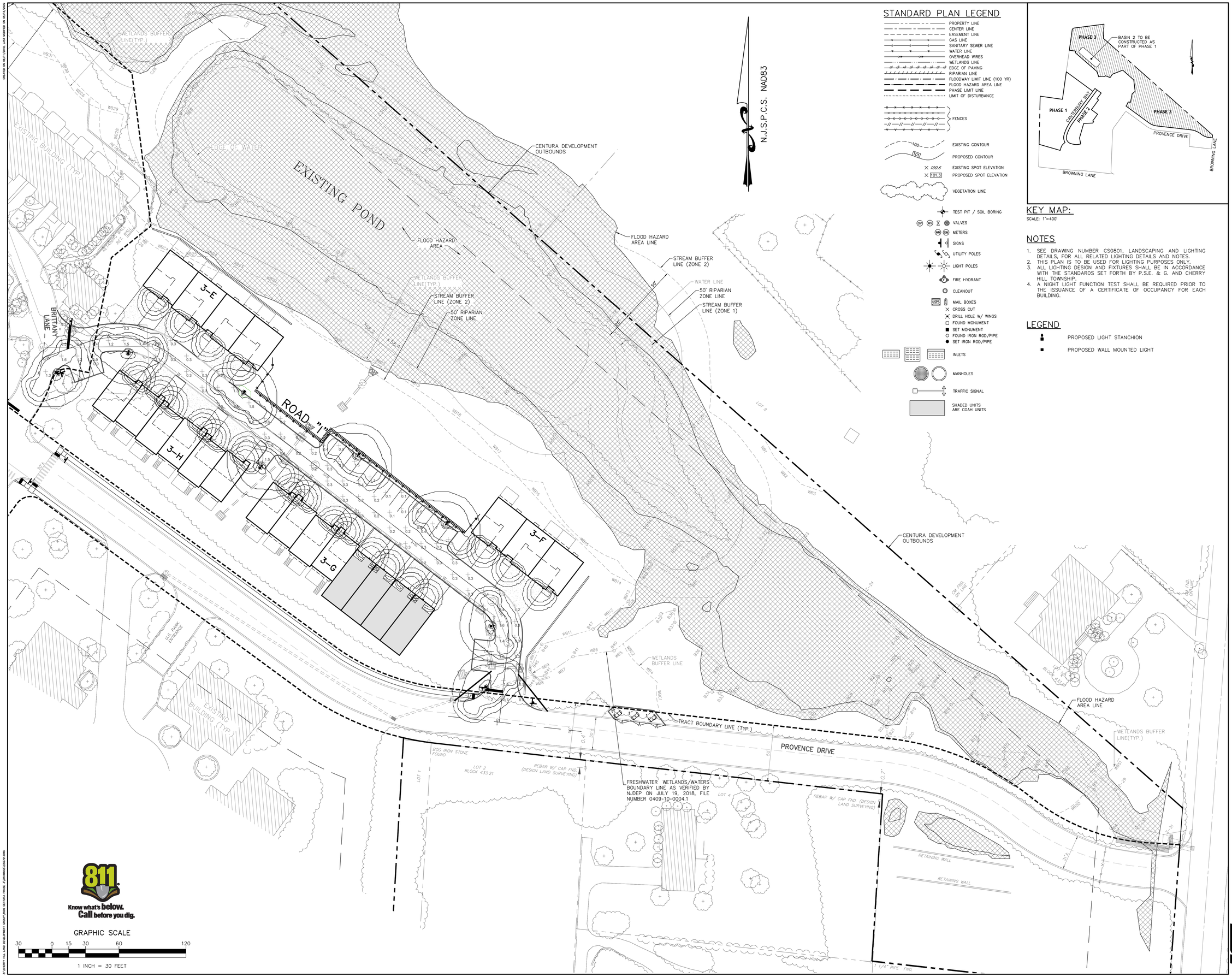
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DRAWN BY	APPROVED BY
TJK	RJC
SCALE	DATE
1"=30'	05/17/19
JOB NUMBER	SHEET NO.
3506	15 OF 28

CS0701

CREATED ON 06/17/2019, LAST MODIFIED ON 05/13/2022

Z:\CHERRY HILL LAND DEVELOPMENT GROUP\2506 CENTURA PHASE 3\DRAWINGS\CS0701.DWG



STANDARD PLAN LEGEND

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- SHADED UNITS ARE COAH UNITS

KEY MAP:

SCALE: 1"=400'

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- PROPOSED LIGHT STANCHION
- PROPOSED WALL MOUNTED LIGHT

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

GRAPHIC SCALE

30 0 15 30 60 120

1 INCH = 30 FEET

CREATED ON: 06/17/2019, LAST MODIFIED ON: 05/13/2022

Z:\JOBS\Y-R\LAND DEVELOPMENT GROUP\3506 CENTURA PHASE 3\DRAWINGS\CS0702.DWG

JAMES SASSANO ASSOCIATES, INC.
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CERTIFICATE OF AUTHORIZATION NO. 24GA28070600

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CENTURA – PHASE 3

TAX MAP SHEET 234, BLOCK 433.20, LOT 15.01 & 16.01, FORMERLY BLOCK 433.20, LOT 1
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LIGHTING PLAN

DEVEL, LLC
C/O STEPHEN D. SAMOST, ESQUIRE
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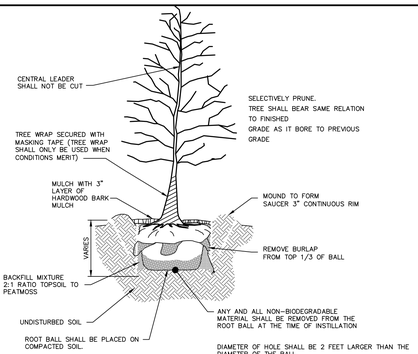
RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200
5/20/2022
DATE

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DRAWN BY	APPROVED BY
TJK	RJC
SCALE	DATE
1"=30'	05/17/19
JOB NUMBER	SHEET NO.
3506	16 OF 28

CS0702

CREATED ON 05/17/2022, LAST MODIFIED ON 05/17/2022

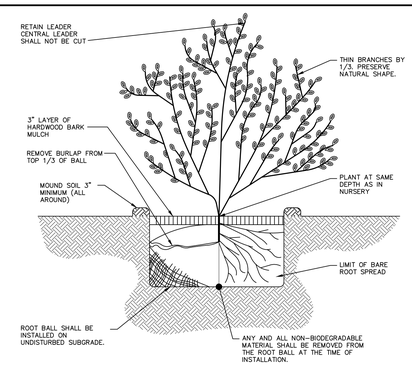


DECIDUOUS TREE DETAIL

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.

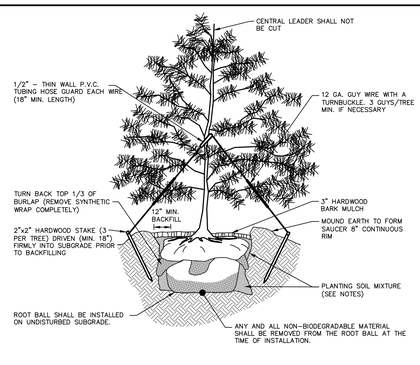


SHRUB DETAIL

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.



EVERGREEN TREE DETAIL

N.T.S.

EVERGREEN TREE NOTES

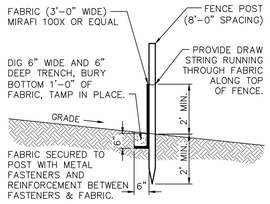
1. THE ROOT BALL DEPTH SHALL NOT BE LESS THAN 60% OF THE BALL DIAMETER. BARE ROOT MATERIAL WILL NOT BE ACCEPTED.
2. DIG HOLE 2.5 TO 3 TIMES THE WIDTH AND AS DEEP AS THE ROOT BALL.
3. BACKFILL WITH NATIVE/EXISTING SOIL, REMOVING ANY LARGE DEBRIS.
4. ALWAYS REMOVE NURSERY STAKE.
5. GENERAL TREE STAKING/GUYING 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

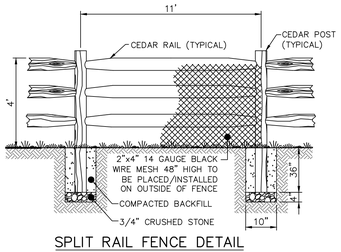
1. ALL PLANT MATERIAL SHALL BE FURNISHED AND INSTALLED AS INDICATED INCLUDING ALL LABOR, MATERIAL, PLANTS, EQUIPMENT, INCIDENTALS AND CLEAN UP.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTING AT CORRECT GRADES AND ALIGNMENTS. PLANTING OPERATIONS SHALL BE PREFORMED DURING PERIODS WITHIN THE PLANTING 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.

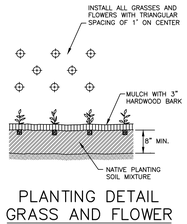


REGULAR SILT FENCE



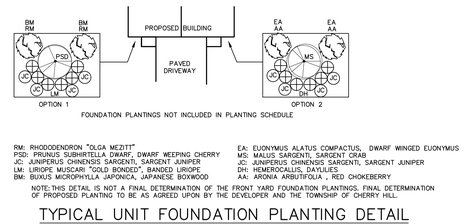
SPLIT RAIL FENCE DETAIL

N.T.S.



PLANTING DETAIL GRASS AND FLOWER

N.T.S.



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 WINGED 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 PULLED 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.

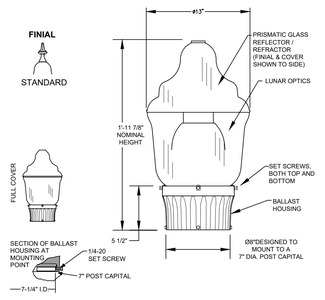
TREE PROTECTION FENCE DETAIL

N.T.S.

GRANVILLE® SERIES LUMINAIRE

FLUTED STYLE CASTING with LUNAR OPTICS ™

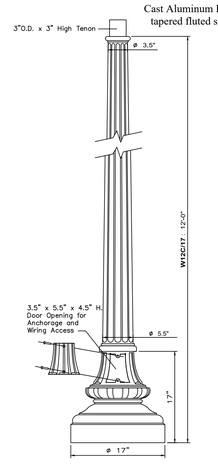
MAXIMUM WEIGHT - 45 lbs.
MAXIMUM EFFECTIVE PROJECTED AREA - 1.26 sq. ft.



GRANVILLE ISOLUX PATTERN DETAIL

N.T.S.

Cast Aluminum Posts tapered fluted shafts



LIGHT POLE DETAIL

N.T.S.

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	-	

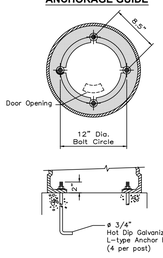
Post (check appropriate boxes)

Catalog #	Heights
☐ W12C/17	12'-0"

Material/Finish

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

ANCHORAGE GUIDE





FEATURES & SPECIFICATIONS

INTENDED USE — The OLWP provides years of maintenance–free general illumination for commercial or residential outdoor applications such as driveways, patios, loading areas and warehouses.

CONSTRUCTION — Rugged cast–aluminum, corrosion–resistant rear mounting plate.
Impact resistant polycarbonate front cover/diffuser resists fading and cracking.
Driver operates at 120V.
Operating temperature -40°C to 40°C.

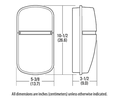
OPTICS — High–performance LED modules 70% of light output at 60,000 hours of service. (L70 lifespan based on ASTM LM–80–08 results and calculated per IESNA TM–21–11 methodology.)
Lenses are engineered for superior lighting distribution, uniformity and fixture spacing.
See Lighting Facts Labels for specific fixture performances.

INSTALLATION — Designed for wall mounting more than 8' above the ground. Mounts to a recessed junction box (by others).

LISTINGS — UL Listed to US and Canadian safety standards for wet locations.

WARRANTY — 5–year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end–user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 °C.
Specifications subject to change without notice.



All dimensions are inches (centimeters) unless otherwise indicated.

ORDERING INFORMATION	All configurations of this product are considered "standard" and have short lead times.		Example: OLWP LED P1 40K 120 PE BZ		
OLWP LED	P1 40K	120	PE	BZ	
Series	Lumens / Color temperature (CCT)*	Voltage	Control	Finish	
OLWP LED	P1 40K 1414 lumens / 4000K	120 120V	PE Button photocell	BZ Bronze	

Notes:
1 Nominal Correlated Color Temperature (CCT) per ANSI C78.377-2008.

DECORATIVE INDOOR & OUTDOOR — OLWP 11

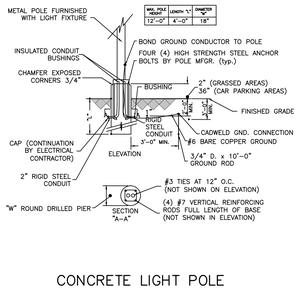
WALL MOUNT DETAIL

N.T.S.

Schedule										
Symbol	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
■	16	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
■	33	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

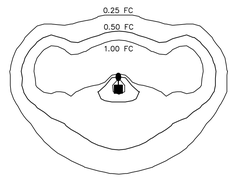
LIGHTING STATISTICS TABLE

N.T.S.



CONCRETE LIGHT POLE FOUNDATION DETAIL

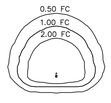
N.T.S.



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

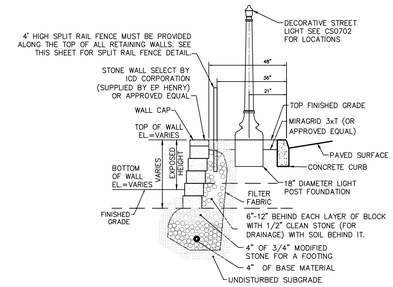
N.T.S.



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

GRANVILLE ISOLUX DETAIL

N.T.S.



SECTION

BLOCK RETAINING WALL SECTION DETAIL

N.T.S.

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28019600
41 SOUTH ROUTE 73, BUILDING 1, SUITE 201
HAMMONTON, NEW JERSEY 08037
TELEPHONE (609) 704-1155
FAX (609) 704-1166
www.jsaengineering.com

	DATE	ISSUE	BY	APPR.
REVISE UNITS AND SUBMITTED FOR FINAL	05/20/2022	6	TJK	RJC
SUBMITTED FOR PRELIMINARY COMPLIANCE	07/02/2020	5	TJK	RJC
NO CHANGE THIS SHEET	10/7/19	4	DMM	RJC
UPDATE ISOLUX DATA BASED ON LED LIGHTING SET & ADD SIGN TABLE	10/17/19	3	DMM	RJC
REVISE LIGHTING SET & ADD SIGN TABLE	10/03/18	2	DMM	RJC
NOT PART OF INITIAL SUBMISSION	01/03/18	1	TJK	RJC
REVISION	DATE	ISSUE	BY	APPR.

CENTURA – PHASE 3
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

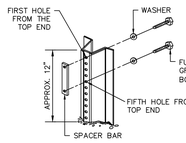
DEVEL, LLC
C/O STEPHEN D. SAMOST ESQUIRE, 479 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043

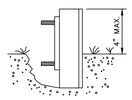
RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200

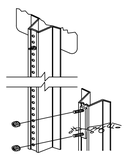
5/20/2022
DATE

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CREATED ON: 07/15/2019, LAST MODIFIED ON: 05/17/2022



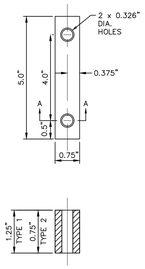




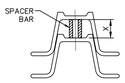
ANCHOR POST ASSEMBLY SIGN SUPPORTS

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.

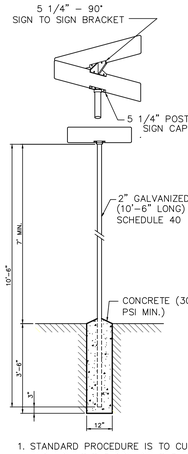


SECTION A–A



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

BREAKAWAY SIGN POST DETAILS
N.T.S.



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.

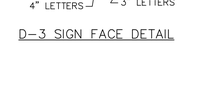
STREET SIGN DETAIL
N.T.S.



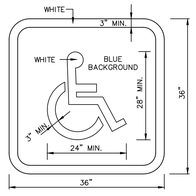
12"x36"

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.

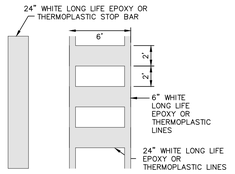


D–3 SIGN FACE DETAIL



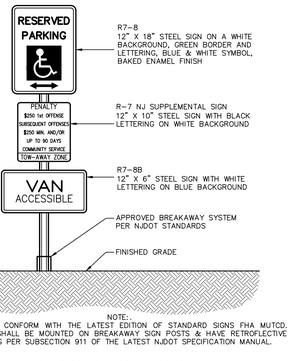
LONG LIFE EPOXY OR THERMOPLASTIC (BLUE) HANDICAPPED SYMBOL AND STRIPING.
EMBLEM SHALL CONFORM TO THE LATEST MUTCD STANDARDS FOR INTERNATIONAL SYMBOL OF ACCESSABILITY PARKING SPACE MARKINGS

BARRIER FREE PARKING SPACE EMBLEM DETAIL
N.T.S.



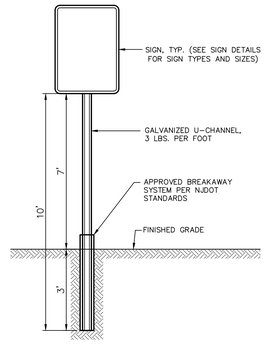
MAINTENANCE AND UPKEEP OF THE CROSSWALKS & STOP BARS SHALL BE THE RESPONSIBILITY OF THE APPLICANT AND/OR RELEVANT HOMEOWNERS ASSOCIATION.

CROSSWALK DETAIL
N.T.S.

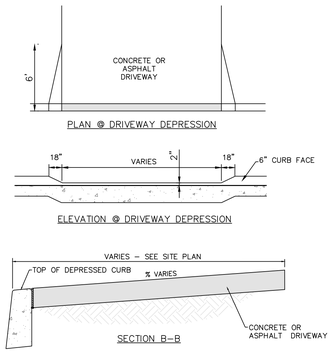


NOTE:
SIGNAGE TO CONFORM WITH THE LATEST EDITION OF STANDARD SIGNS FHA MUTCD. ALL SIGNS SHALL BE MOUNTED ON BREAKAWAY SIGN POSTS & HAVE RETROFLECTIVE SHEETING PER SUBSECTION 911 OF THE LATEST NJDOT SPECIFICATION MANUAL.

BARRIER FREE SIGN
N.T.S.



SIGN POST DETAIL
N.T.S.



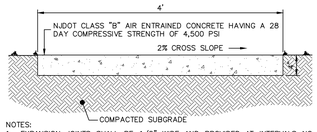
DEPRESSED DRIVEWAY CURB DETAIL
N.T.S.

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 MEETRSIS STANDARDS OF 4,500 PSI AT 28 DAYS.

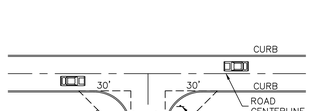
SIGNAGE AND STRIPING NOTES

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.

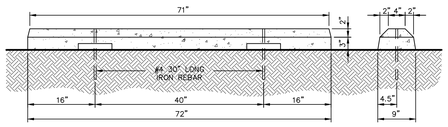


NOTES:
1. EXPANSION JOINTS SHALL BE 1/2" WIDE AND PROVIDED AT INTERVALS NO GREATER THAN 20 FEET AND SHALL BE FILLED WITH 1/2" THICK CELLULAR COMPRESSION MATERIAL TO WITHIN 1/4" OF TOP OF WALK.
2. SURFACE GROVES SHALL BE CUT AT LEAST 1/4" DEEP AT RIGHT ANGLES TO THE LINE OF THE WALK AND AT INTERVALS EQUAL 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.

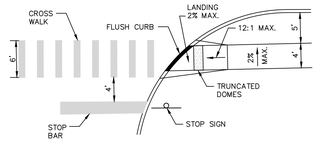
CONCRETE SIDEWALK DETAIL
N.T.S.



SIGHT DISTANCE FOR STOP CONTROL INTERSECTIONS
N.T.S.



PRECAST CONCRETE WHEEL STOP DETAIL
N.T.S.



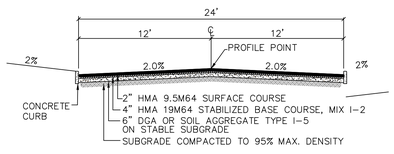
BARRIER FREE RAMP DETAIL
N.T.S.



BACKGROUND: RED RETROREFLECTIVE
LEGEND: WHITE RETROREFLECTIVE

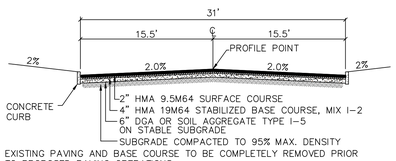
NOTE:
SIGNAGE SHALL CONFORM WITH THE LATEST EDITION OF THE STANDARD SIGNS FHA MUTCD. ALL SIGNS SHALL BE MOUNTED ON BREAKAWAY SIGN POSTS.

R1–1 STOP SIGN
N.T.S.



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.

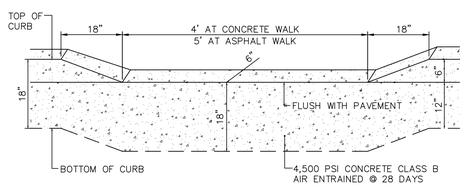
INTERNAL COURT CROSS SECTION DETAIL
N.T.S.



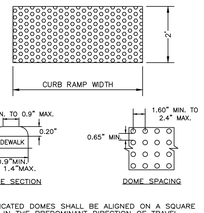
EXISTING PAVING AND BASE COURSE TO BE COMPLETELY REMOVED PRIOR TO PROPOSED PAVING OPERATIONS.

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.

PROVENCE DRIVE FULL RECONSTRUCTION SECTION DETAIL
N.T.S.

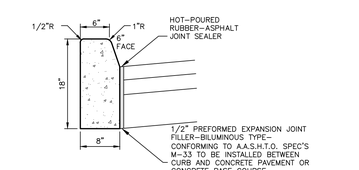


FLUSH CURB DETAIL @ BARRIER FREE RAMP
N.T.S.



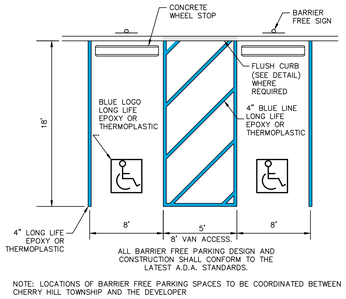
TRUNCATED DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL.

TRUNCATED DOMES DETAIL
N.T.S.



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.

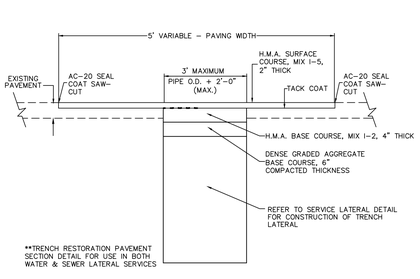
CONCRETE CURB DETAIL
N.T.S.



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

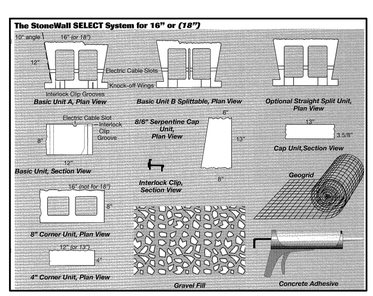
NOTE: LOCATIONS OF BARRIER FREE PARKING SPACES TO BE COORDINATED BETWEEN CHERRY HILL TOWNSHIP AND THE DEVELOPER

TYPICAL BARRIER FREE PARKING DETAIL
N.T.S.

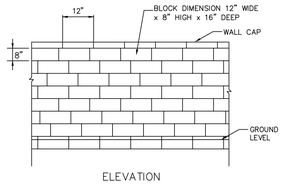


**TRENCH RESTORATION PAVEMENT SECTION DETAIL FOR USE IN BOTH WATER & SEWER LATERAL SERVICES

ROADWAY TRENCH RESTORATION PAVEMENT DETAIL
N.T.S.

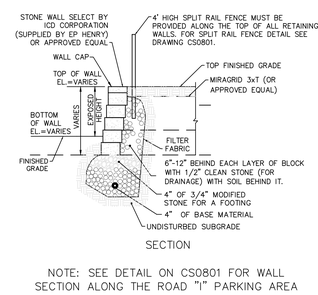


NOTE: IF THE EXPOSED HEIGHT EXCEEDS 4'–0", DRAWING DETAILS AND COMPUTATIONS WILL BE REQUIRED AND INSPECTION BY CODE ENFORCEMENT DEPARTMENT WILL BE NEEDED.



ELEVATION

BLOCK RETAINING WALL DETAIL
N.T.S.



SECTION

NOTE: SEE DETAIL ON CS0801 FOR WALL SECTION ALONG THE ROAD "I" PARKING AREA

Z:\CHERRY HILL LAND DEVELOPMENT GROUP\3506 CENTURA PHASE 3\DRAWINGS\CS0901.DWG

JSA INC.
TELEPHONE (609) 704-1155
FAX (609) 704-1166
www.jsaengineering.com
41 SOUTH ROUTE 73, BUILDING 1, SUITE 201
HAMMONTON, NEW JERSEY 08037

ISSUE	DATE	BY	APPR.
1	01/03/18	TJK	RJC
NOT PART OF INITIAL SUBMISSION			
2	10/02/18	CMM	RJC
REVISE CONCRETE CLASS TO 4500 PSI & ADD LONG LIFE EPOXY TO STRIPING DETAILS			
3	10/7/19	CMM	RJC
NO CHANGE THIS SHEET			
4	10/7/19	DMM	RJC
SUBMITTED FOR PRELIMINARY COMPLIANCE			
5	07/02/2020	TJK	RJC
REVISE UNITS AND SUBMITTED FOR FINAL			
6	05/20/2022	TJK	RJC

CENTURA – PHASE 3
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

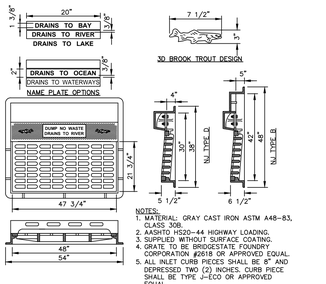
JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA00031600

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200
5/20/2022
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 OR 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 AT OWNER'S 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	APPROVED BY
TJK	RJC
SCALE	DATE
AS SHOWN	05/17/19
JOB NUMBER	SHEET NO.
3506	18 OF 28

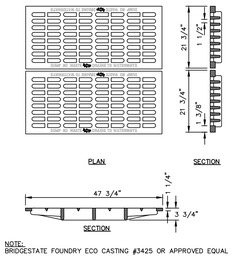
CS0901



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

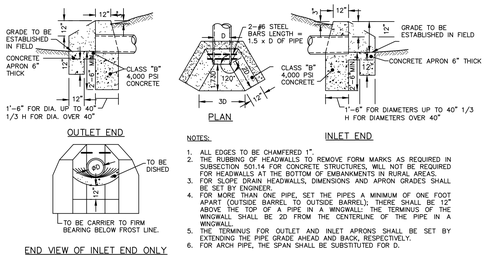
N.T.S.



NOTE:
BRIDGESTATE FOUNDRY ECO CASTING #3425 OR APPROVED EQUAL

TYPE "E" BICYCLE SAFE 'ECO' GRATE DETAIL

N.T.S.



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 NO. 5 AND APRON 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 AND 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.

TYPE "B" NJDOT INLET DETAIL

N.T.S.

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.

RCP STORM SEWER BEDDING FOR SUITABLE MATERIAL DETAIL

N.T.S.

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

ALUMINUM MANHOLE STEP DETAIL

N.T.S.

GENERAL NOTES:
1. THE FINISHING OF CONCRETE HEADWALLS WILL NOT BE REQUIRED FOR HEADWALLS AT THE BOTTOM OF EMBANKMENTS IN RURAL AREAS.
2. ALL EDGES TO BE CHAMFERED 1 INCH.
3. FOR ARCH PIPE USE LENGTH OF HEADWALL AS 3H + SPAN.
4. FOR MORE THAN ONE PIPE, SET THE PIPE A MINIMUM OF ONE FOOT APART (OUTSIDE BARREL TO OUTSIDE BARREL), THE ENDS OF THE HEADWALL TO BE SET 2 x DIAMETER OFF THE CENTERLINE OF THE CONTROLLING PIPE.

CONCRETE HEADWALL NO. 4 AND APRON DETAIL

N.T.S.

INLET TYPE	DIMENSION A	DIMENSION B
B1	4'-6"	1'-0"
B2	5'-6"	2'-0"

NOTES:
1. FOUNDATION AND INVERT TO BE CONSTRUCTED IN TWO STAGES. TOP SURFACE OF STAGE 1 TO BE LEFT ROUGH.
2. INLETS TYPE B1 OR TYPE B2 SHALL BE OF SAME CONSTRUCTION AND DIMENSIONS AS INLET TYPE B, EXCEPT AS OTHERWISE INDICATED BELOW.

TYPE "B1" & "B2" NJDOT INLET DETAIL

N.T.S.

UNDERDRAIN IS LOCATED TO THE REAR OF BUILDINGS 3A, 3B, 3C AND 3D

UNDERDRAIN CLEANOUT & BEDDING DETAIL

N.T.S.

	DATE	ISSUE	BY	APPR.
	05/20/2022	6	TJK	RJC
	07/02/2020	5	REVISE UNITS AND SUBMITTED FOR FINAL	
	10/7/19	4	TJK	RJC
	05/17/19	3	SUBMITTED FOR PRELIMINARY COMPLIANCE	
	10/02/18	2	DMM	RJC
	01/03/18	1	ADDED HADDONHAM DETAIL	
	DATE	ISSUE	REVISE STORM SEWER NOTES	
			TJK	RJC
			NOT PART OF INITIAL SUBMISSION	
			BY	APPR.
			REVISION	

JSA INC.

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CENTURA – PHASE 3
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 979 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. 24GA28017000

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200
5/20/2022
DATE

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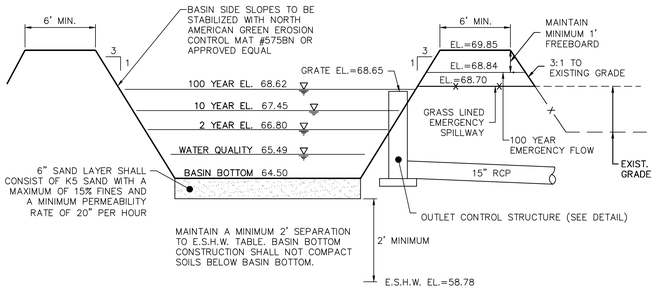
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TJK	RJC
SCALE	DATE
AS SHOWN	05/17/19
JOB NUMBER	SHEET NO.
3506	19 OF 28

CS1001

CREATED ON 05/17/2022, LAST MODIFIED ON 05/17/2022

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CREATED ON 05/17/2022, LAST MODIFIED ON 05/17/2022

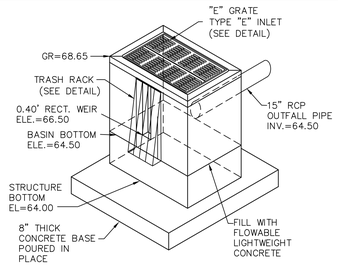


BASIN NOTES

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.

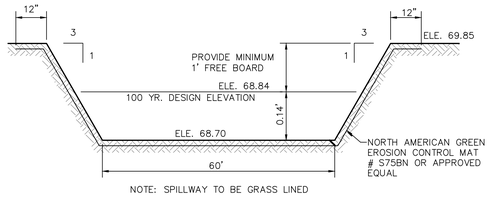
INFILTRATION/DETENTION BASIN 3 TYPICAL SECTION DETAIL

N.T.S.



BASIN 3 OUTLET STRUCTURE DETAIL (OCS-3)

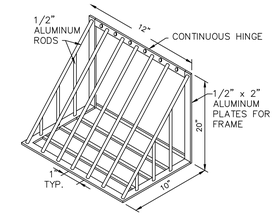
N.T.S.



NOTE: SPILLWAY TO BE GRASS LINED

BASIN 3 EMERGENCY SPILLWAY DETAIL

N.T.S.



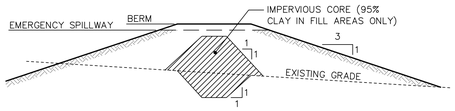
TRASH GRATE TO BE FACTORY MANUFACTURED AND ATTACHED ON SITE.

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

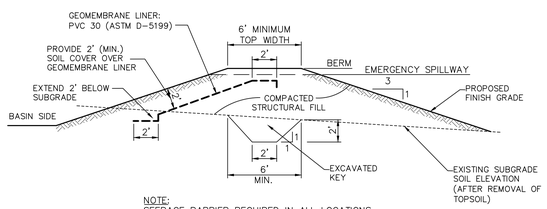
N.T.S.



TO BE CONSTRUCTED IN FILL AREAS ONLY.

IMPERVIOUS BASIN CORE DETAIL

N.T.S.



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.

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 AND 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 BASIN 3

INSPECTION

ROUTINE INSPECTION OF THE INFILTRATION/DETENTION BASIN 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. THE BASIN 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.

BY	APPR.	DATE	ISSUE
TJK	RJC	05/20/2022	6
TJK	RJC	07/02/2020	5
DMM	RJC	10/7/19	4
DMM	RJC	10/02/19	3
DMM	RJC	10/02/18	2
TJK	RJC	01/03/18	1
BY	APPR.	DATE	REVISION

REVISE UNITS AND SUBMITTED FOR FINAL
SUBMITTED FOR PREJMINARY COMPLIANCE
NO CHANGE THIS SHEET
REVISE BASIN 3 O.C.S. & BASIN SECTION
ADDED ALTERNATE BASIN SEEPAGE BARRIER DETAIL
REVISE BASIN 3 100 YEAR STORM ELEVATION
NOT PART OF INITIAL SUBMISSION

JAMES SASSANO ASSOCIATES, INC.
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CERTIFICATE OF AUTHORIZATION NO. 24GA0031900

41 SOUTH ROUTE 73, BUILDING 1, SUITE 201
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CENTURA - PHASE 3
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

STORMWATER MANAGEMENT DETAIL SHEET

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

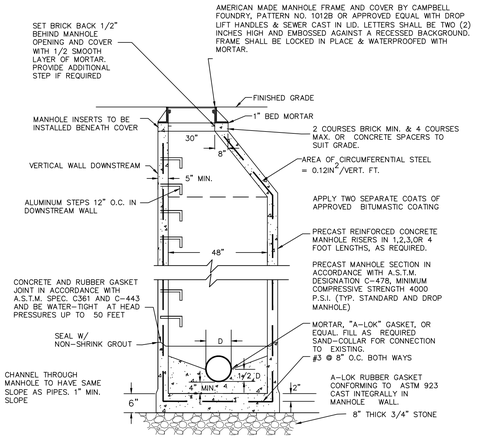
RICHARD J. CLEMSON, P.E.
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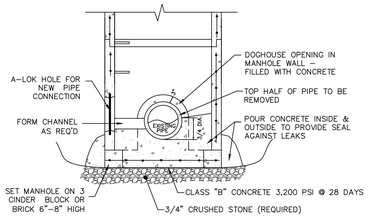
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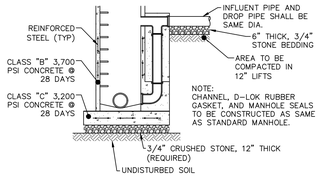
STANDARD 4'-0" DIAMETER PRECAST SANITARY MANHOLE DETAIL

N.T.S.



SANITARY SEWER DOGHOUSE MANHOLE DETAIL

N.T.S.



MANHOLE DROP CONNECTION DETAIL

N.T.S.

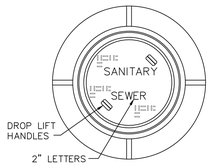
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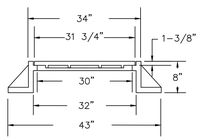
STANDARD MANHOLE FRAMES & COVERS SHALL BE USED ON ALL MANHOLES NOT LOCATED WITHIN EASEMENTS UNLESS DIRECTED OTHERWISE BY THE ENGINEER.

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.



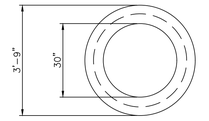


CAMPBELL MODEL #1012B

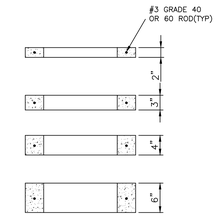
MANHOLE RIM DETAIL

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)



PLAN VIEW



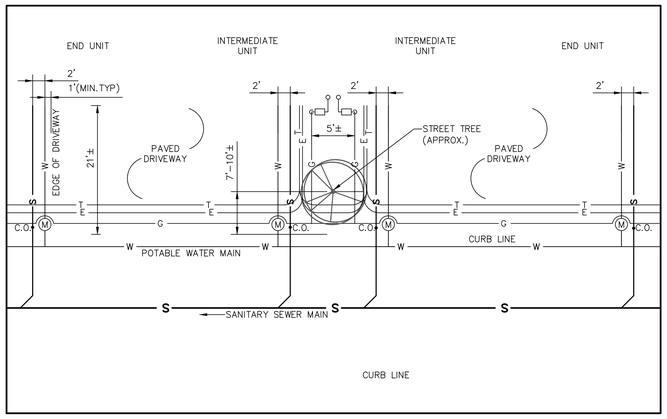
SECTION VIEW

STANDARD MANHOLE GRADE RING DETAIL

N.T.S.

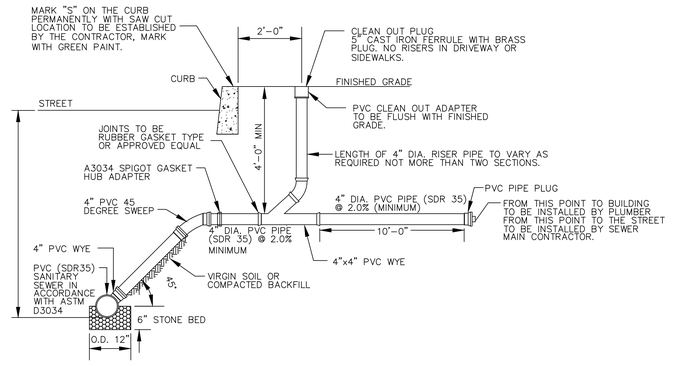
CHERRY HILL TOWNSHIP SAN. SEWER NOTES

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 D3034, 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 THE 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 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.



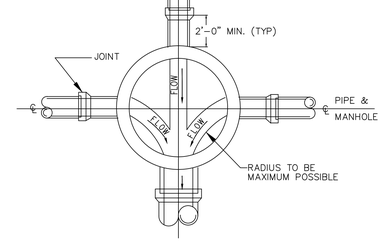
TYPICAL UTILITY SERVICE CONNECTION DETAIL

SCALE 1" = 10'



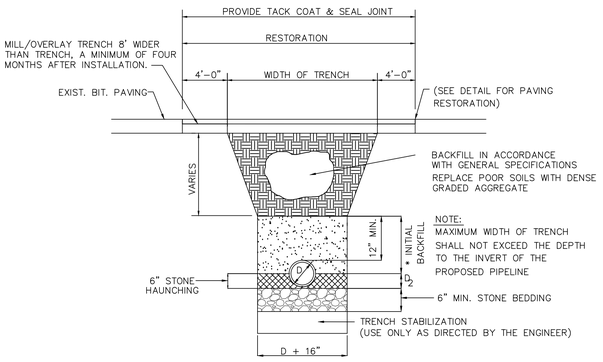
SANITARY SEWER TYPICAL LATERAL DETAIL

N.T.S.



MANHOLE CHANNELING DETAIL

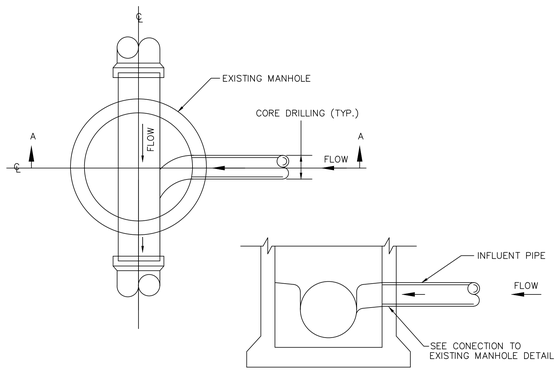
N.T.S.



*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.

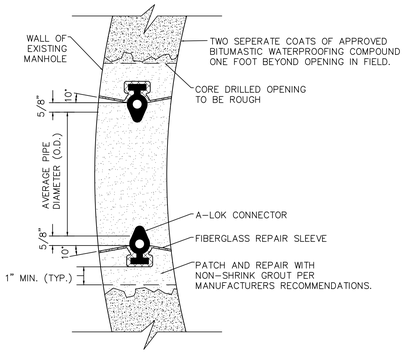


PLAN SECTION A-A

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

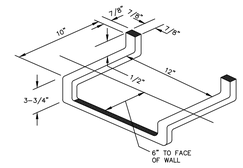
N.T.S.



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.



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

ALUMINUM MANHOLE STEP DETAIL

N.T.S.

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ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28019600

ISSUE	DATE	REVISION	BY	APPR.
1	01/03/18	NOT PART OF INITIAL SUBMISSION	TJK	RJC
2	01/03/18	REVISE CHERRY HILL TOWNSHIP SANITARY SEWER NOTES	CMM	RJC
3	10/03/18	REVISED PER COMMENTS FROM CHERRY HILL TOWNSHIP PUBLIC WORKS ENGINEER	CMM	RJC
4	10/7/19	SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK	RJC
5	07/02/2020	REVISE UNITS AND SUBMITTED FOR FINAL	TJK	RJC
6	05/20/2022			

CENTURA - PHASE 3
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
479 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043
C/O STEPHEN D. SAMOST, ESQUIRE

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200
5/20/2022
DATE

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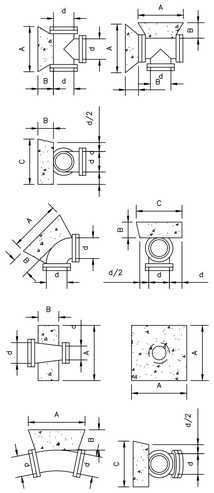
DRAWN BY	APPROVED BY
TJK	RJC
SCALE	DATE
AS SHOWN	05/17/19
JOB NUMBER	SHEET NO.
3506	21 OF 28

CS1101

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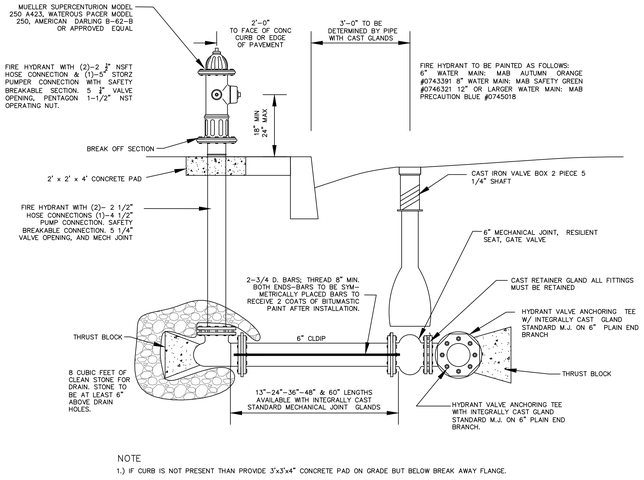
ORIGINAL ON 05/17/2022, LAST MODIFIED ON 05/17/2022

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"



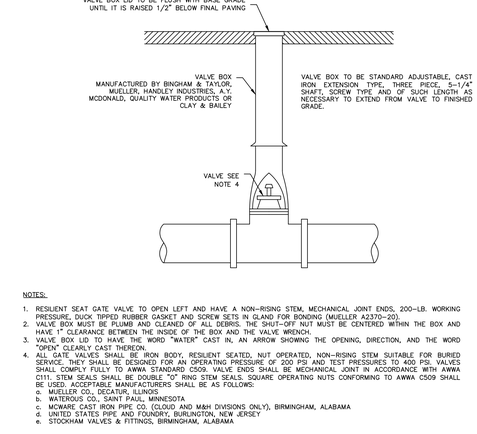
NOTES:
1. ALL CONCRETE TO BE CLASS "C" (3,200 PSI @ 28 DAYS).
2. ALL FITTINGS TO BE WRAPPED IN VISQUENE AT THE THRUST BLOCK.

THRUST BLOCK DETAILS
N.T.S.



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.



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 A-2370-20).
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. MCWANE 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 EXCAVATED 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 MANUFACTURERS 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 MANUFACTURERS 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 MANUFACTURERR 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.

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.

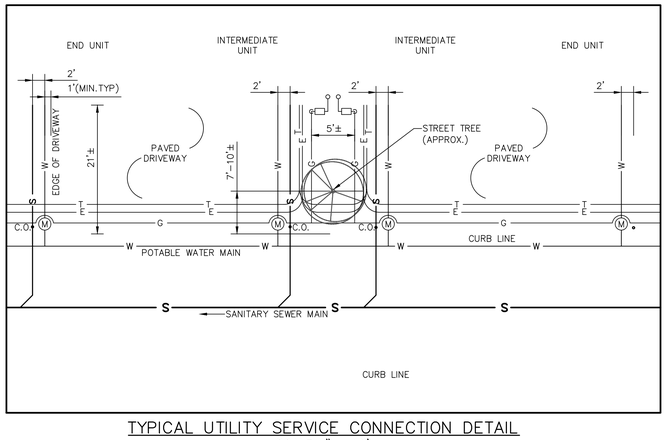
BRASS SHALL BE AS SUPPLIED BY EITHER McDONALD, MUELLER OR FORD

WATER SERVICE CONNECTION DETAIL
N.T.S.

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.

WETTAP CONNECTION DETAIL
N.T.S.



TYPICAL UTILITY SERVICE CONNECTION DETAIL
SCALE 1" = 10'

05/20/2022	6	REVISE UNITS AND SUBMITTED FOR FINAL	TJK RJC
07/02/2020	5	SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK RJC
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01/03/18	1	REVISION	TJK APPR.
DATE	ISSUE		BY

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CENTURA – PHASE 3
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WATER DETAIL SHEET

DEVEL, LLC
C/O STEPHEN D. SAMOST, ESQUIRE 479 CENTENNIAL BOULEVARD
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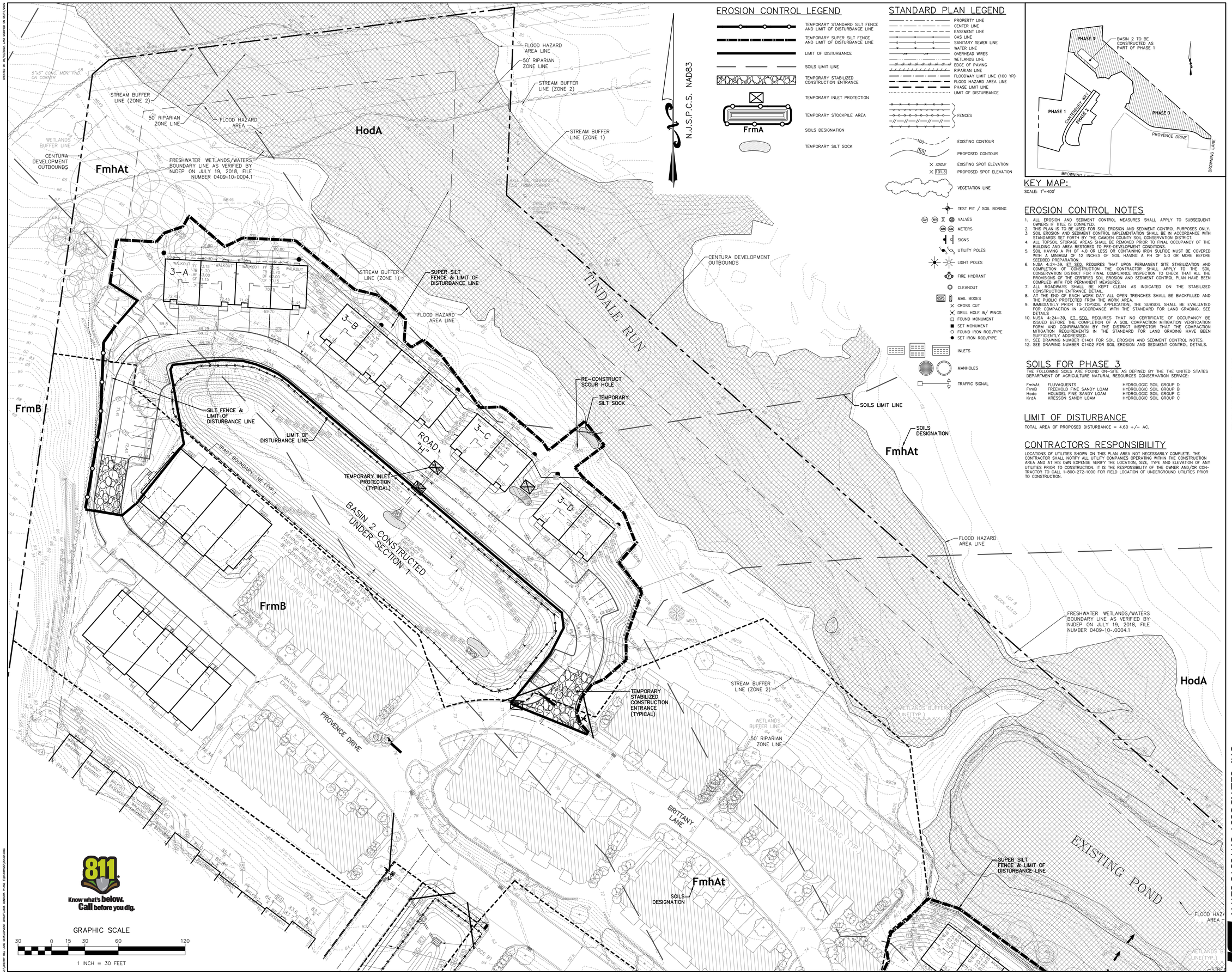
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SCALE	DATE
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3506	22 OF 28

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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
- SOILS DESIGNATION
- TEMPORARY SILT SOCK

STANDARD PLAN LEGEND

- PROPERTY 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
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- VEGETATION LINE
- TEST PIT / SOIL BORING
- VALVES
- METERS
- SIGNS
- UTILITY POLES
- LIGHT POLES
- FIRE HYDRANT
- CLEANOUT
- MAIL BOXES
- CROSS CUT
- DRILL HOLE W/ WINGS
- FOUND MONUMENT
- SET MONUMENT
- FOUND IRON ROD/PIPE
- SET IRON ROD/PIPE
- INLETS
- MANHOLES
- TRAFFIC SIGNAL

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. ALL ROADWAYS SHALL BE KEPT CLEAN AS INDICATED ON THE STABILIZED CONSTRUCTION ENTRANCE DETAIL.
8. AT THE END OF EACH WORK DAY ALL OPEN TRENCHES SHALL BE BACKFILLED AND THE PUBLIC PROTECTED FROM THE WORK AREA.
9. IMMEDIATELY PRIOR TO TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING. SEE DETAILS
10. 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 STANDARD FOR LAND GRADING HAVE BEEN SUFFICIENTLY ADDRESSED.
11. SEE DRAWING NUMBER C1401 FOR SOIL EROSION AND SEDIMENT CONTROL NOTES.
12. SEE DRAWING NUMBER C1402 FOR SOIL EROSION AND SEDIMENT CONTROL DETAILS.

SOILS FOR PHASE 3

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
FrmB	FREEHOLD FINE SANDY LOAM	HYDROLOGIC SOIL GROUP B
Hodo	HOLMDEL FINE SANDY LOAM	HYDROLOGIC SOIL GROUP C
KrdA	KRESSON SANDY LOAM	HYDROLOGIC SOIL GROUP C

LIMIT OF DISTURBANCE

TOTAL AREA OF PROPOSED DISTURBANCE = 4.60 +/- 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 CONTRACTOR TO CALL 1-800-272-1000 FOR FIELD LOCATION OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.

JSA INC.

DATE	ISSUE	REVISION	BY	APPR.
01/03/18	1	NOT PART OF INITIAL SUBMISSION	TJK	RJC
10/02/19	2	REVISE WALKS AND PARKING & ADD PVC COLLECTION HEADER BEHIND BUILDINGS 3A, 3B, 3C AND 3D	CMM	RJC
10/7/19	3	ADDED SILT SOCK LOCATIONS	DMM	RJC
07/02/2020	4	SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK	RJC
05/20/2022	5	REVISE UNITS AND SUBMITTED FOR FINAL	TJK	RJC
07/07/2022	6	REVISE PER TOWNSHIP COMMENTS	TJK	RJC

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

CENTURA – PHASE 3

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

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

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28013500

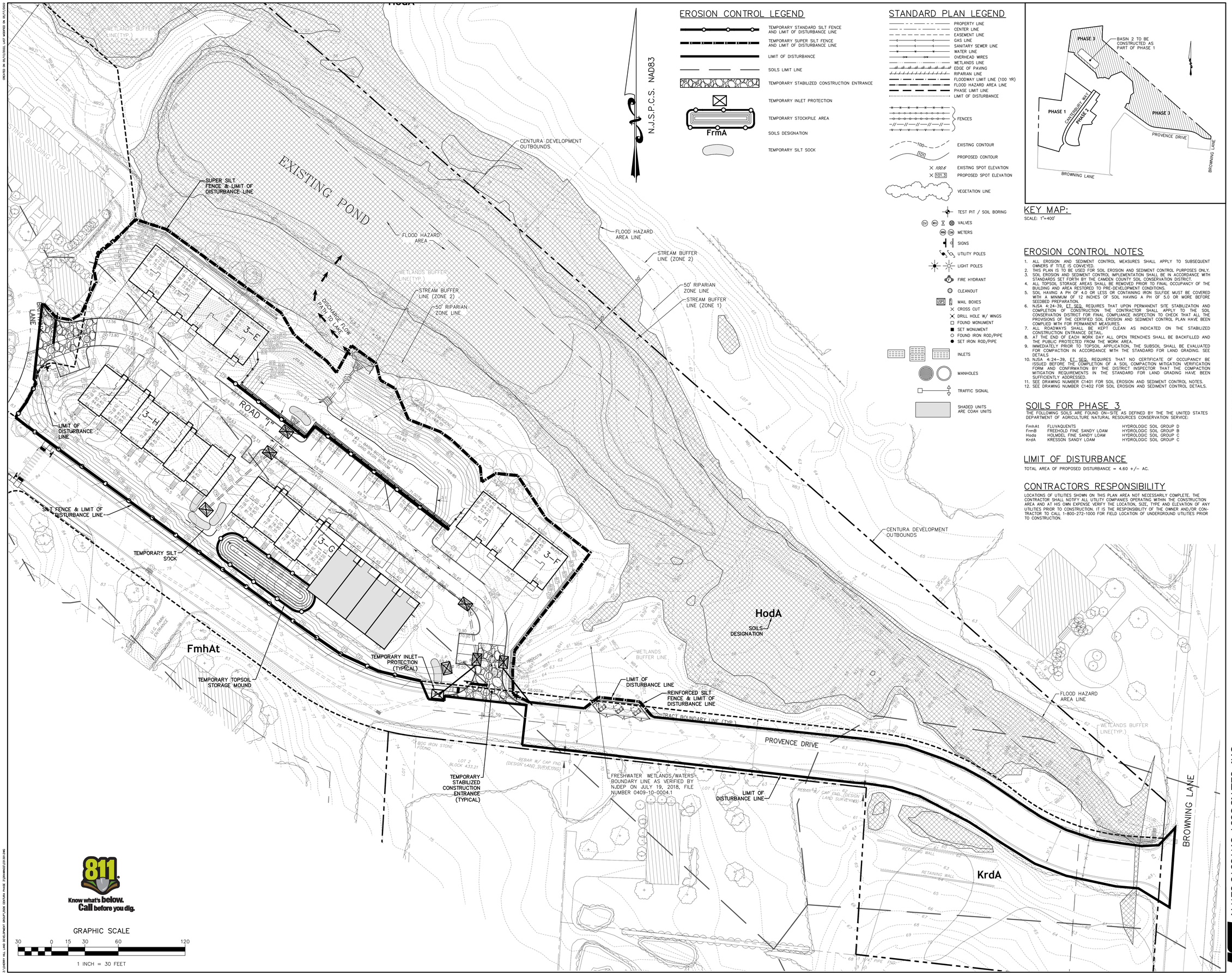
RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200
5/20/2022
DATE

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DRAWN BY TJK	APPROVED BY RJC
SCALE 1"=30'	DATE 05/17/19
JOB NUMBER 3506	SHEET NO. 23 OF 28

CS1301

CREATED ON 05/17/2022, LAST MODIFIED ON 05/17/2022
Z:\ENTIRE ALL LAND DEVELOPMENT GROUP\2506 CENTURA PHASE 3\DRAWINGS\2506.DWG



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
- SOILS DESIGNATION (FrmA)
- TEMPORARY SILT SOCK

STANDARD PLAN LEGEND

- PROPERTY 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 (100)
- PROPOSED CONTOUR (101)
- EXISTING SPOT ELEVATION (100.6)
- PROPOSED SPOT ELEVATION (101.3)
- VEGETATION LINE
- TEST PIT / SOIL BORING
- VALVES (CV, WV)
- METERS (RM, GM)
- SIGNS
- UTILITY POLES
- LIGHT POLES
- FIRE HYDRANT
- CLEANOUT
- 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

KEY MAP:

SCALE: 1"=400'

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12. SEE DRAWING NUMBER C1402 FOR SOIL EROSION AND SEDIMENT CONTROL DETAILS.

SOILS FOR PHASE 3

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FmhAt	FLUVAQUENTS	HYDROLOGIC SOIL GROUP D
FrmB	FREEHOLD FINE SANDY LOAM	HYDROLOGIC SOIL GROUP B
Hods	HOLMDEL FINE SANDY LOAM	HYDROLOGIC SOIL GROUP C
KrdA	KRESSON SANDY LOAM	HYDROLOGIC SOIL GROUP C

LIMIT OF DISTURBANCE

TOTAL AREA OF PROPOSED DISTURBANCE = 4.60 +/- AC.

CONTRACTORS RESPONSIBILITY

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Know what's below. Call before you dig.

GRAPHIC SCALE

30 0 15 30 60 120

1 INCH = 30 FEET

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CERTIFICATE OF AUTHORIZATION NO. 24GA0070500

BY	APPR.
TJK	RJC
TJK	RJC
DMM	RJC
DMM	RJC
TJK	RJC
TJK	RJC

ISSUE	DATE	REVISION
1	10/03/18	NOT PART OF INITIAL SUBMISSION
2	10/22/18	REVISE WALKS AND PARKING, REVISE GRADING TO BASIN 3
3	01/03/19	ADDED SILT SOCK LOCATIONS
4	10/7/19	REVISE UNITS AND SUBMITTED FOR FINAL
5	07/02/2020	SUBMITTED FOR PRELIMINARY COMPLIANCE
6	05/20/2022	REVISE UNITS AND SUBMITTED FOR FINAL

CENTURA – PHASE 3
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. SAMOSTI ESQUIRE, 479 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200
5/20/2022
DATE

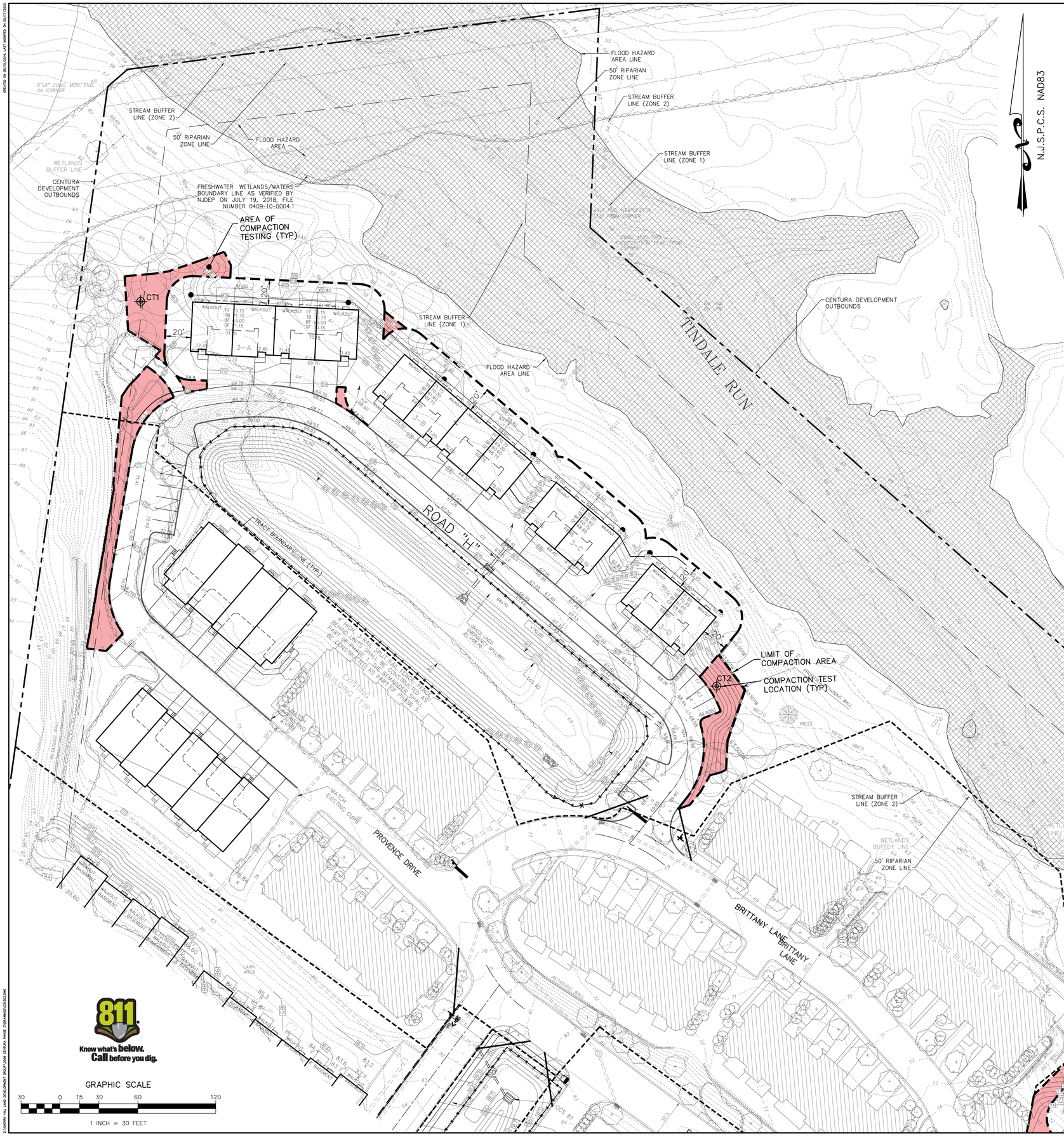
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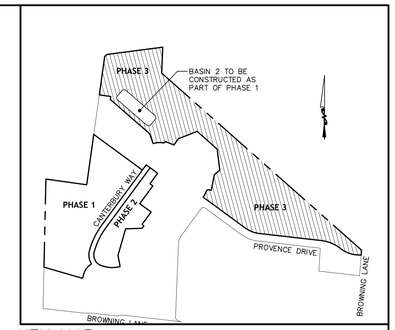
DRAWN BY	APPROVED BY
TJK	RJC
SCALE	DATE
1"=30'	05/17/19
JOB NUMBER	SHEET NO.
3506	24 OF 28

CS1302

CREATED ON 05/12/2021, LAST MODIFIED ON 05/17/2022
Z:\CHERRY HILL LAND DEVELOPMENT (GROUP)\3506 CENTURA PHASE 3\DRAWINGS\3506-SWM

CREATED ON: 08/15/2019, LAST MODIFIED ON: 05/17/2022





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

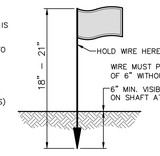
THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.

COMPACTION TEST LOCATION REQUIREMENTS

PERVIOUS COVER SUBJECT TO COMPACTION TESTING = 0.9 ACRES
1 COMPACTION TEST LOCATION PER 0.5 ACRES APPROXIMATE.
0.9 ACRES/0.5 = 1.8 OR 2 COMPACTION TEST LOCATIONS REQUIRED.
NUMBER OF COMPACTION TESTS PROPOSED = 4

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

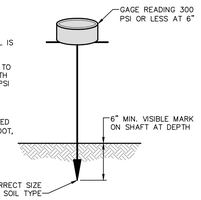


PROBING WIRE TEST
15.5 GUAGE STEEL WIRE (SURVEY FLAG) DETAIL

N.T.S.

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



HANDHELD SOIL
PENETROMETER TEST DETAIL

N.T.S.

LEGEND

LIMIT OF COMPACTION AREA
COMPACTION TEST LOCATION TP3
AREA OF COMPACTION TESTING

ISSUE	DATE	BY	APPR.
1	01/03/18	TJK	RJC
2	10/02/18	DMM	RJC
3	10/7/19	TJK	RJC
4	11/07/19	DMM	RJC
5	07/02/2020	TJK	RJC
6	05/20/2022	TJK	RJC

REVISION

REVISE UNITS AND SUBMITTED FOR FINAL
SUBMITTED FOR PRELIMINARY COMPLIANCE
REVISED PER COMMENTS FROM CHERRY HILL TOWNSHIP PUBLIC WORKS ENGINEER
FINAL SUBMISSION
NOT PART OF INITIAL SUBMISSION
NOT PART OF INITIAL SUBMISSION

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CENTURA – PHASE 3
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 979 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043

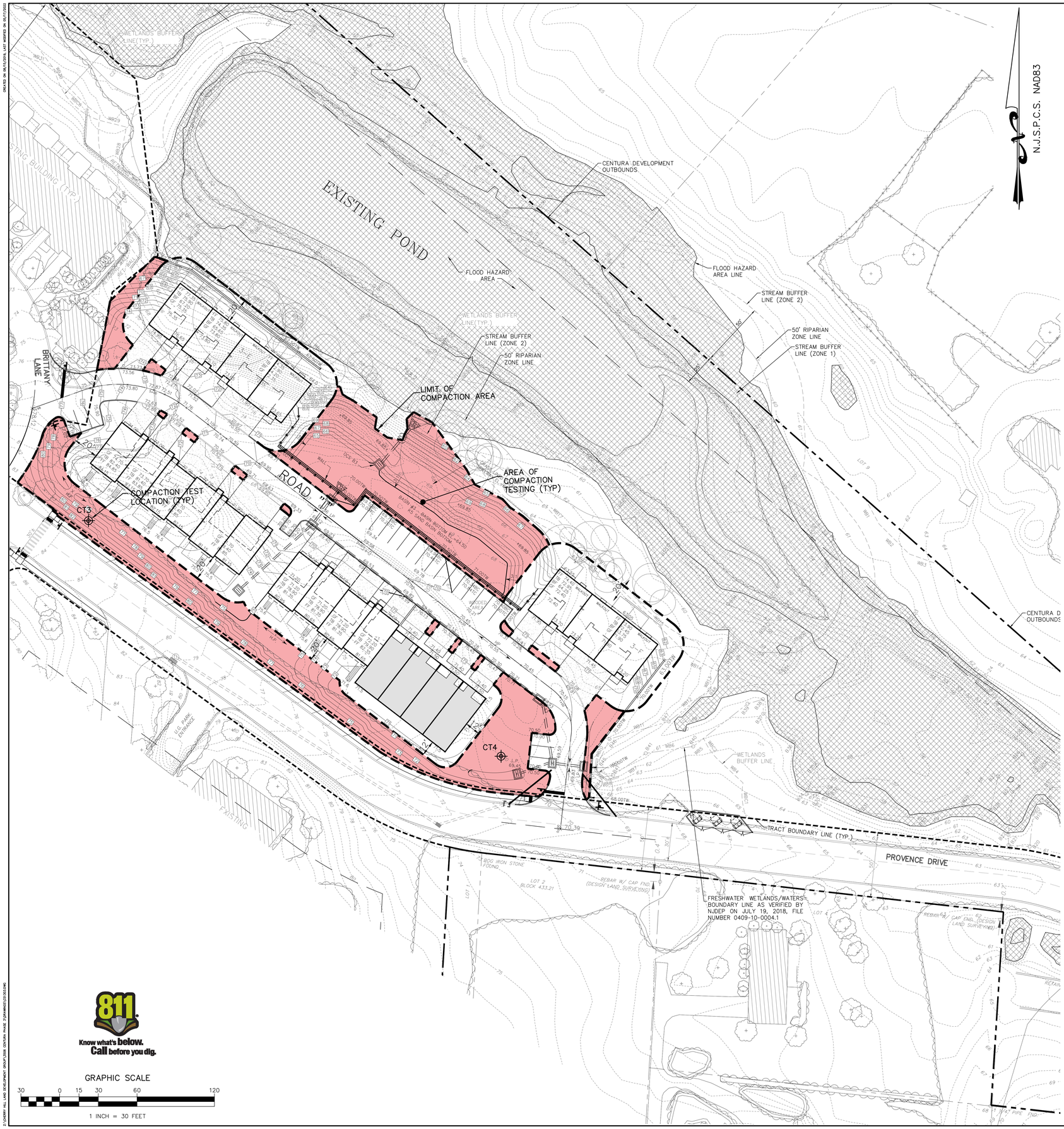
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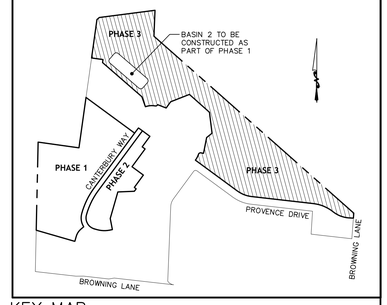
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PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200
5/20/2022
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DRAWN BY	APPROVED BY
TJK	RJC
SCALE	DATE
1"=30'	05/17/19
JOB NUMBER	SHEET NO.
3506	25 OF 28

CS1303





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 AREAS), 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

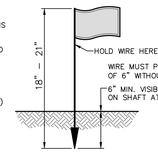
THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.

COMPACTION TEST LOCATION REQUIREMENTS

PERVIOUS COVER SUBJECT TO COMPACTION TESTING = 0.9 ACRES
1 COMPACTION TEST LOCATION PER 0.5 ACRES APPROXIMATE.
0.9 ACRES/0.5 = 1.8 OR 2 COMPACTION TEST LOCATIONS REQUIRED.
NUMBER OF COMPACTION TESTS PROPOSED = 4

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

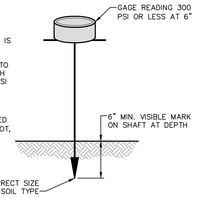


PROBING WIRE TEST
15.5 GUAGE STEEL WIRE (SURVEY FLAG) DETAIL

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



HANDHELD SOIL
PENETROMETER TEST DETAIL

N.T.S.

LEGEND

LIMIT OF COMPACTION AREA

COMPACTION TEST LOCATION — TP3

AREA OF COMPACTION TESTING

Know what's below. Call before you dig.

GRAPHIC SCALE

30 0 15 30 60 120

1 INCH = 30 FEET

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28017500
41 SOUTH ROUTE 73, BUILDING 1, SUITE 201
HAMMONTON, NEW JERSEY 08037
TELEPHONE (609) 704-1155
FAX (609) 704-1166
www.jsaengineering.com

DATE	ISSUE	BY	APPR.
05/20/2022	6	TJK	RJC
REVISE UNITS AND SUBMITTED FOR FINAL			
07/02/2020	5	TJK	RJC
SUBMITTED FOR PRELIMINARY COMPLIANCE			
10/7/19	4	DMM	RJC
REVISED PER COMMENTS FROM CHERRY HILL TOWNSHIP PUBLIC WORKS ENGINEER			
10/02/19	3	DMM	RJC
NOT PART OF INITIAL SUBMISSION			
01/03/18	2	DMM	RJC
NOT PART OF INITIAL SUBMISSION			
01/03/18	1	TJK	RJC
REVISION			

CENTURA – PHASE 3
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

5/20/2022
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 OR 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 AT OWNER'S 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	APPROVED BY
TJK	RJC
SCALE	DATE
1"=30'	05/17/19
JOB NUMBER	SHEET NO.
3506	26 OF 28

CS1304

CREATED ON: 05/12/2019, LAST MODIFIED ON: 05/17/2022
Z:\CHERRY HILL, LAND DEVELOPMENT GROUP\3506 CENTURA PHASE 3\DRAWINGS\CS1303.DWG

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/OR 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 IN 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 MANUFACTURERS 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 DRUG, 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. 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 70 TO 90 POUNDS PER 1000 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 TACKIFYING 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 MANUFACTURERS 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 DRUG, 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. NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A RECOMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS.
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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

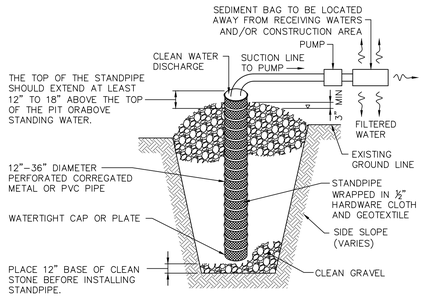
IF HYDROSEEDING IS USED ALL SEEDING RATES SHALL BE INCREASED BY 25%; IF SODDING IS USED SEE SOD SPECIFICATIONS.

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 SP

CREATED ON: 10/04/2019, LAST MODIFIED ON: 05/17/2022

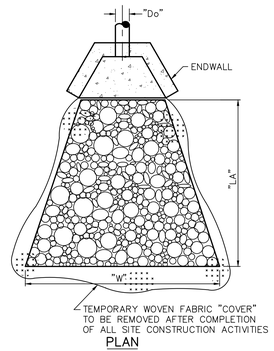


CONSTRUCTION SPECIFICATIONS

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.

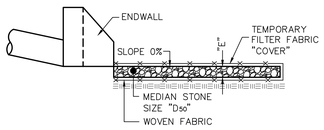
TEMPORARY SUMP PIT DURING CONSTRUCTION DETAIL

N.T.S.



PLAN

CONDUIT OUTLET PROTECTION TABLE						
ENDWALL	LA	W	C	Do	D50	E
EW-4	15'	10'	3.75'	1.25'	6"	12"
EW-5	13'	16'	3.75'	1.25'	6"	12"



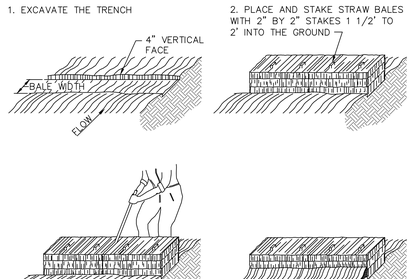
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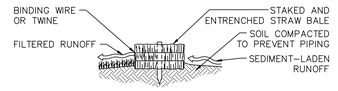
NOTES

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.



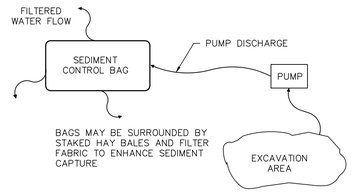


HAY BALE DAM DETAIL

N.T.S.

SOIL EROSION AND SEDIMENT CONTROL NOTES

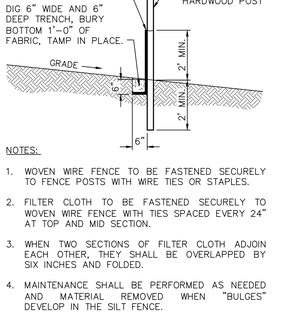
1. ALL SOIL EROSION DESIGN AND IMPLEMENTATION SHALL BE IN ACCORDANCE WITH STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY AND BY THE CAMDEN COUNTY SOIL CONSERVATION DISTRICT.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL APPLY TO SUBSEQUENT OWNERS IF TITLE IS CONVEYED.
3. ALL TOPSOIL 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.



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.



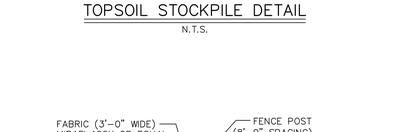
ELEVATION

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.

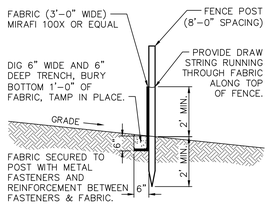


NOTES

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.

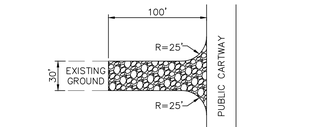
TOPSOIL STOCKPILE DETAIL

N.T.S.



REGULAR SILT FENCE DETAIL

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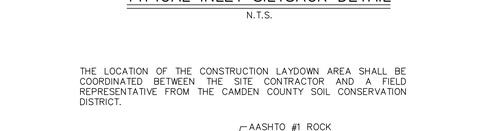
SECTION

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

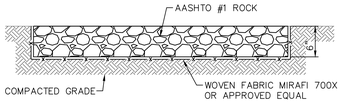
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TYPICAL INLET SILTSACK DETAIL

N.T.S.

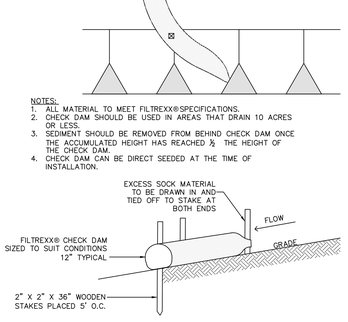
THE LOCATION OF THE CONSTRUCTION LAYDOWN AREA SHALL BE COORDINATED BETWEEN THE SITE CONTRACTOR AND A FIELD REPRESENTATIVE FROM THE CAMDEN COUNTY SOIL CONSERVATION DISTRICT.



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

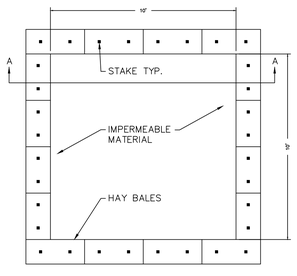
N.T.S.



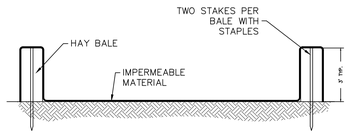
NOTES:
1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.
2. CHECK DAM SHOULD BE USED IN AREAS THAT DRAIN 10 ACRES OR LESS.
3. SEDIMENT SHOULD BE REMOVED FROM BEHIND CHECK DAM ONCE THE ACCUMULATED HEIGHT HAS REACHED ½ THE HEIGHT OF THE CHECK DAM.
4. CHECK DAM CAN BE DIRECT SEEDED AT THE TIME OF INSTALLATION.

SILT SOCK CHECK DAM DETAIL

N.T.S.



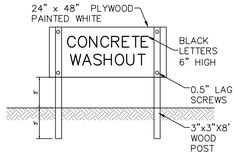
PLAN



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.

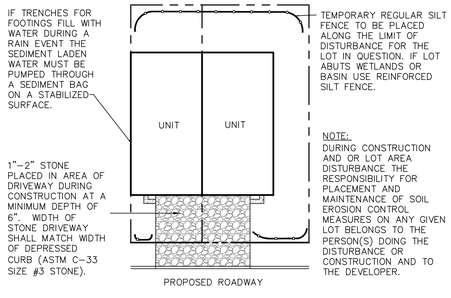
SECTION A-A



SIGN ELEVATION

CONCRETE WASHOUT AREA AND SIGN DETAIL

N.T.S.



INDIVIDUAL LOT TREATMENT DETAIL

N.T.S.

JSA INC.
TELEPHONE (609) 704-1155
FAX (609) 704-1166
www.jsaengineering.com
41 SOUTH ROUTE 73, BUILDING 1, SUITE 201
HAMMONTON, NEW JERSEY 08037

DATE	ISSUE	REVISION	BY	APPR.
01/03/18	1	NOT PART OF INITIAL SUBMISSION	TJK	RJC
10/02/18	2	NO CHANGE THIS SHEET	CMM	RJC
10/7/19	3	ADDED SILT SOCK DETAIL	CMM	RJC
07/02/2020	4	SUBMITTED FOR PRELIMINARY COMPLIANCE	TJK	RJC
05/20/2022	5	REVISE UNITS AND SUBMITTED FOR FINAL	TJK	RJC

CENTURA – PHASE 3
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 DETAIL SHEET

DEVEL, LLC
C/O STEPHEN D. SAMOST, ESQUIRE 979 CENTENNIAL BOULEVARD
VOORHEES, NEW JERSEY 08043

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28017500

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200
5/20/2022
DATE

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DRAWN BY	APPROVED BY
TJK	RJC
SCALE	DATE
AS SHOWN	05/17/19
JOB NUMBER	SHEET NO.
3506	28 OF 28

CS1402

Z:\CHERRY HILL LAND DEVELOPMENT GROUP\3506 CENTURA PHASE 3\DRAWINGS\CS1402.DWG

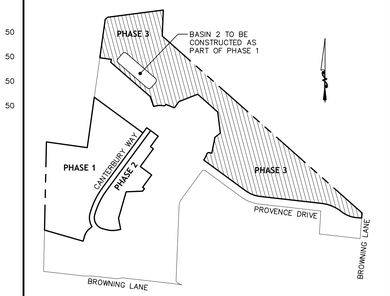
CREATED ON 08/14/2019, LAST MODIFIED ON 07/02/2020

INTERNAL VARIANCE REQUESTS PHASE 3

THE APPLICANT IS REQUESTING THE FOLLOWING INTERNAL VARIANCES FOR PHASE 3.

1. FROM SECTION 408. E. 1 TO PERMIT A 13.05 FOOT SIDE YARD SETBACK WHERE A MINIMUM OF 50 FEET IS REQUIRED RELATING TO BUILDING 3–E.
2. FROM SECTION 408. E. 1 TO PERMIT A 20.70 FOOT SIDE YARD SETBACK WHERE A MINIMUM OF 50 FEET IS REQUIRED RELATING TO BUILDING 3–H.
3. FROM SECTION 408. E. 1 TO PERMIT A 44.28 FOOT REAR YARD SETBACK WHERE A MINIMUM OF 50 FEET IS REQUIRED RELATING TO BUILDING 3–H.
4. FROM SECTION 408. E. 1 TO PERMIT A 20.22 FOOT REAR YARD SETBACK WHERE A MINIMUM OF 50 FEET IS REQUIRED RELATING TO BUILDING 3–G.

NOTE: THE VARIANCES INDICATED ABOVE HAVE BEEN GRANTED BY RESOLUTION OF APPROVAL 18–P–0002.



KEY MAP:
SCALE: 1"=400'

GRAPHIC SCALE
40 0 20 40 80 160
1 INCH = 40 FEET

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

	DATE	ISSUE	BY	APPR.
			TJK	RJC
	07/02/2020	2	TJK	RJC
	07/16/2019	1		

SUBMITTED FOR PRELIMINARY COMPLIANCE
INITIAL SUBMISSION
REVISION

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28017000
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CENTURA – PHASE 3
TAX MAP SHEET 234, BLOCK 433.20, LOT 1
CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

INTERNAL VARIANCE PLAN

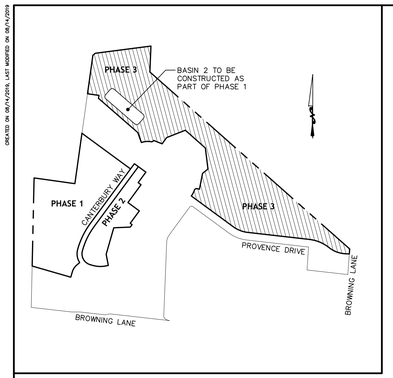
CHERRY HILL LAND DEVELOPMENT GROUP, LLC.
P.O. BOX 130, 216 COOPER ROAD
WEST BERLIN, NEW JERSEY 08091

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200
7/2/2020
DATE

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DRAWN BY	APPROVED BY
TJK	RJC
SCALE	DATE
1"=40'	07/16/2019
JOB NUMBER	SHEET NO.
3506	1 OF 1

CS4002



KEY MAP:

SCALE: 1"=400'

DRAINAGE AREAS DA1 AND DA2 TO TINDALE RUN

DRAINAGE AREA DA1 (CLOUD 3 IN REPORT)

STORM	PEAK RATE
2 YEAR	0.66CFS
10 YEAR	2.15CFS
100 YEAR	6.08CFS

DRAINAGE AREA DA2 (CLOUD 6 IN REPORT)

STORM	PEAK RATE
2 YEAR	2.00CFS
10 YEAR	5.37CFS
100 YEAR	16.05CFS

COMPOSITE DRAINAGE AREA DA1 & DA2 (CLOUD 7 IN REPORT)

STORM	PEAK RATE
2 YEAR	2.57CFS
10 YEAR	7.52CFS
100 YEAR	22.07CFS

DRAINAGE AREAS 1 AND 2 CONVEY STORMWATER RUNOFF TO AN EXISTING STORM SEWER SYSTEM WHICH DISCHARGES TO TINDALE RUN AT A SINGLE POINT. THEREFORE A COMPOSITE DISCHARGE HYDROGRAPH WAS COMPUTED BY ADDING THE RUNOFF RATES FOR DRAINAGE AREAS 1 AND 2. POST DEVELOPMENT PEAK RUNOFF RATES WILL BE BASED ON THE COMPOSITE HYDROGRAPH. THESE ALLOWABLE DISCHARGE RATES ARE LISTED BELOW.

ALLOWABLE POST DEVELOPMENT PEAK DISCHARGE RATES FOR DRAINAGE AREA DA1 & DA2

STORM	PEAK RATE
2 YEAR	2.57CFS x 50% = 1.29 CFS
10 YEAR	7.52CFS x 75% = 5.64 CFS
100 YEAR	22.07CFS x 80% = 17.66 CFS

DRAINAGE AREA DA3 TO TINDALE RUN

COMPOSITE DRAINAGE AREA DA3 (CLOUD 32 IN REPORT)

STORM	PEAK RATE
2 YEAR	0.72CFS
10 YEAR	2.13CFS
100 YEAR	5.68CFS

ALLOWABLE POST DEVELOPMENT PEAK DISCHARGE RATES FOR DRAINAGE AREA DA3

STORM	PEAK RATE
2 YEAR	0.75CFS x 50% = 0.36 CFS
10 YEAR	2.13CFS x 75% = 1.60 CFS
100 YEAR	5.68CFS x 80% = 4.54 CFS

DRAINAGE AREA DA4

DRAINAGE AREA DA4 (CLOUD 40 IN REPORT)

STORM	PEAK RATE
2 YEAR	0.38CFS
10 YEAR	1.86CFS
100 YEAR	6.55CFS

ALLOWABLE POST DEVELOPMENT PEAK DISCHARGE RATES FOR DRAINAGE AREA DA4

STORM	PEAK RATE
2 YEAR	0.38CFS x 50% = 0.19 CFS
10 YEAR	1.86CFS x 75% = 1.40 CFS
100 YEAR	6.55CFS x 80% = 5.24 CFS

N.J.S.P.C.S. NAD83

REPRESENTS LIMIT OF DISTURBANCE OF PROPOSED IMPROVEMENTS

SOILS LIMIT LINE

PRE-DEVELOPMENT DRAINAGE AREA 2 7.25 Ac.

PRE-DEVELOPMENT DRAINAGE AREA 4 4.28 Ac.

PRE-DEVELOPMENT DRAINAGE AREA 1 2.10 Ac.

PRE-DEVELOPMENT DRAINAGE AREA 3 2.46 Ac.

SEGMENT 1 150 LF WOODS @ 6.3%

SEGMENT 2 130 LF UNPAVED @ 3.5%

SEGMENT 3 275 LF PAVED @ 3%

SEGMENT 4 PIPE FLOW

TC FOR IMPERVIOUS ASSUMED TO BE 5 MINUTES

TC PATH PERVIOUS

SEGMENT 1 150 LF WOODS @ 1.3%

SEGMENT 2 250 LF UNPAVED @ 2%

SEGMENT 1 150 LF LAWN @ 4.4%

SEGMENT 2 57 LF UNPAVED @ 5.1%

SEGMENT 3 PIPE FLOW

SEGMENT 1 15 LF WOODS @ 20%

SEGMENT 2 135 LF WOODS @ 4%

SEGMENT 3 375 LF UNPAVED @ 4%

SOILS DESIGNATION

FrmA

FrmB

FmhAt

HodA

CANTERBURY WAY (30' WIDE)

CANTERBURY WAY EASEMENT (32' WIDE EASEMENT) (30' WIDE CARTWAY)

TINDALE RUN

PROVENCE DRIVE

BRITTANY LANE

CHELSEA COURT

SHERBORNE COURT

AMHERST COURT

TRACT BOUNDARY LINE (TYP.)

STREAM BUFFER LINE (ZONE 1)

STREAM BUFFER LINE (ZONE 2)

WETLANDS BUFFER LINE(TYP.)

50' RIPARIAN ZONE LINE

FLOOD HAZARD AREA LINE

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

EXISTING POND

EDGE OF WATER

CENTURA DEVELOPMENT OUTBOUNDS

CENTERLINE STREAM

WETLANDS BUFFER LINE

CHERRY HILL CHINESE CHRISTIAN CHURCH

WOODCREST SHOPPING CENTER

EXISTING BUILDING (TYP.)

EXISTING POOL

EXISTING TENNIS COURTS

LEGEND

DRAINAGE AREA LIMIT LINE

TIME OF CONCENTRATION PATH

NOTES

1. THIS PLAN SHALL BE USED FOR PRE-DEVELOPMENT DRAINAGE AREA PURPOSES ONLY.
2. SEE STORMWATER MANAGEMENT COMPLIANCE REPORT FOR COMPREHENSIVE PRE-DEVELOPMENT CALCULATIONS.
3. DRAINAGE AREA LIMIT LINES SHOWN FOR PRE-DEVELOPMENT ARE AREAS THAT MATCH POST-DEVELOPMENT DRAINAGE AREA LIMIT LINES SO THAT ONLY DISTURBED AREAS UNDER POST-DEVELOPMENT CONDITIONS AND OFFSITE AREAS WILL BE ANALYZED.

GRAPHIC SCALE

50 0 25 50 100 200

1 INCH = 50 FEET

Know what's below. Call before you dig.

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28019600

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

DATE	ISSUE	REVISION	BY	APPR.
07/16/19	3	REVISE PRE DEVELOPMENT AREA 3	TJK	RJC
10/2/18	2	NO CHANGE THIS SHEET	TJK	RJC
12/29/17	1	INITIAL SUBMISSION	TJK	RJC

CENTURA – PHASE 3
TAX MAP SHEET 234, BLOCK 433.20, LOT 1
CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

PRE-DEVELOPMENT DRAINAGE AREA PLAN FOR PHASES 1, 2, AND 3

CHERRY HILL LAND DEVELOPMENT GROUP, LLC.
P.O. BOX 130, 216 COOPER ROAD
WEST BERLIN, NEW JERSEY 08091

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200
5/20/2022
DATE

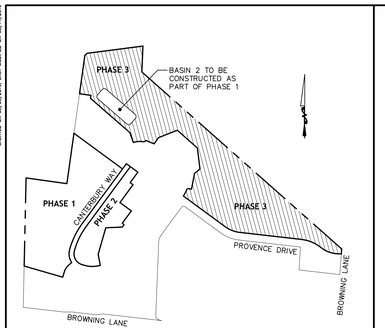
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DRAWN BY	APPROVED BY
TJK	RJC
SCALE	DATE
1"=50'	12/29/17
JOB NUMBER	SHEET NO.
3506	1 OF 3

CS2101

CREATED ON: 08/14/2019, LAST MODIFIED ON: 08/14/2019
Z:\CHERRY HILL LAND DEVELOPMENT GROUP\3506 CENTURA PHASE 2\DRAWINGS\3506.DWG

CREATED ON: 05/02/2018, LAST MODIFIED ON: 09/14/2018



KEY MAP:
SCALE: 1"=400'

STORM SEWER RUNOFF DATA

DRAINAGE AREA NO.	DRAINAGE AREA (AC.)	RUNOFF (CFS)
I-1	0.19	1.03
I-2	0.17	0.95
I-3	0.23	0.66
I-4	0.08	0.43
I-5	0.24	1.07
I-6	0.33	1.84
I-7	0.05	0.31
I-8	0.34	0.97
I-9	0.17	0.74
I-10	0.26	1.19
I-11	0.34	1.86
I-12	0.10	0.29
I-13	0.35	1.30
I-14	0.27	1.45
I-15	0.42	2.15
I-16	0.81	2.35
I-17	0.34	1.75
I-18	0.43	2.19
I-19	0.34	0.87
I-20	0.72	2.15
I-21	0.15	0.61
I-22	0.03	0.05
I-23	0.23	1.27
I-24	0.15	0.74
I-25	0	0*
I-26	1.17	4.62
I-27	0.41	1.69
I-28	0.18	0.96
I-29A	0.22	0.66
I-29	0.09	0.45
I-30	0.07	0.39
I-31	0.31	0.80
I-32	0.60	2.62
I-33	0.36	2.02

* INLET I-25 USED AS A JUNCTION INLET ONLY AND RECEIVES NO FLOW.

N.J.S.P.C.S. NAD83

LEGEND

DRAINAGE AREA LIMIT LINE

AREA I-30 DRAINAGE AREA NUMBER

NOTES

1. THIS PLAN SHALL BE USED FOR STORM SEWER DRAINAGE AREA PURPOSES ONLY.
2. SEE STORMWATER MANAGEMENT COMPLIANCE REPORT FOR COMPLETE STORM SEWER DESIGN AND STORMWATER MANAGEMENT ANALYSIS.
3. TIME OF CONCENTRATION VALUES FOR ALL STORM SEWER CALCULATIONS WERE ASSUMED TO BE 10 MINUTES.

GRAPHIC SCALE
50 0 25 50 100 200
1 INCH = 50 FEET

Know what's below. Call before you dig.

DATE	ISSUE	BY	APPR.
	REVISION		
12/29/17	1	TJK	RJC
	INITIAL SUBMISSION		
10/2/18	2	TJK	RJC
	NO CHANGE THIS SHEET		
07/16/19	3	TJK	RJC
	REVISE DRAINAGE AREAS FOR BASIN 3		

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA27019600

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TELEPHONE (609) 704-1155
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CENTURA – PHASE 3
TAX MAP SHEET 234, BLOCK 433.20, LOT 1
CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

STORM SEWER DRAINAGE AREA PLAN
FOR PHASES 1, 2, AND 3

CHERRY HILL LAND DEVELOPMENT GROUP, LLC.
P.O. BOX 130, 216 COOPER ROAD
WEST BERLIN, NEW JERSEY 08091

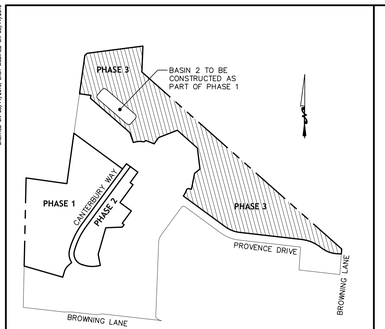
RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200
7/20/2022
DATE

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DRAWN BY	APPROVED BY
TJK	RJC
SCALE	DATE
1"=50'	12/29/17
JOB NUMBER	SHEET NO.
3506	2 OF 3

CS2102

Z:\CHERRY HILL LAND DEVELOPMENT GROUP\DOS CENTURA PHASE 2\DRAWINGS\CS2102.DWG



KEY MAP:
SCALE: 1"=400'

N.J.S.P.C.S. NAD83

POST DEVELOPMENT QUANTITY ANALYSIS SUMMARY

POST DEVELOPMENT DRAINAGE AREA SUMMARY TO BASIN 1

COMPOSITE RUNOFF TO BASIN 1
(CLOUD 12 IN REPORT)

STORM EVENT	RUNOFF
2 YEAR	1.50CFS
10 YEAR	2.89CFS
100 YEAR	6.05CFS

BASIN 1 ROUTING (CLOUD 13 IN REPORT)

STORM EVENT	PEAK IN	PEAK OUT	PEAK EL	PEAK STORAGE VOL
2 YEAR	1.50CFS	DCFS	84.30	8,106CF
10 YEAR	2.89CFS	0.19CFS	84.67	10,841CF
100 YEAR	6.05CFS	1.12 CFS	85.51	17,773CF

COMPOSITE DIRECT RUNOFF DRAINAGE AREA DA1
(CLOUD 16 IN REPORT)

STORM EVENT	RUNOFF
2 YEAR	0.58CFS
10 YEAR	1.15CFS
100 YEAR	2.55CFS

TOTAL COMPOSITE DIRECT RUNOFF DRAINAGE AREA DA1 + BASIN 1 ROUTING
(CLOUD 17 IN REPORT)

STORM EVENT	RUNOFF
2 YEAR	0.58CFS
10 YEAR	1.15CFS
100 YEAR	2.65CFS

POST DEVELOPMENT DRAINAGE AREA SUMMARY TO BASIN 2

COMPOSITE RUNOFF TO BASIN 2
(CLOUD 24 IN REPORT)

STORM EVENT	RUNOFF
2 YEAR	8.42CFS
10 YEAR	15.53CFS
100 YEAR	31.55CFS

BASIN 2 ROUTING (CLOUD 25 IN REPORT)

STORM EVENT	PEAK IN	PEAK OUT	PEAK EL	PEAK STORAGE VOL
2 YEAR	8.42CFS	0.24CFS	66.49	48,437CF
10 YEAR	15.53CFS	1.22CFS	67.45	71,034CF
100 YEAR	31.55CFS	11.78 CFS	68.70	103,890CF

DIRECT RUNOFF DRAINAGE AREA DA2A PERVIOUS
(CLOUD 26 IN REPORT)

STORM EVENT	RUNOFF
2 YEAR	0.11CFS
10 YEAR	0.37CFS
100 YEAR	1.10CFS

DIRECT RUNOFF DRAINAGE AREA DA2A IMPERVIOUS
(CLOUD 27 IN REPORT)

STORM EVENT	RUNOFF
2 YEAR	0.56CFS
10 YEAR	0.87CFS
100 YEAR	1.47CFS

DIRECT RUNOFF DRAINAGE AREA DA2B
(CLOUD 28 IN REPORT)

STORM EVENT	RUNOFF
2 YEAR	0.17CFS
10 YEAR	0.60CFS
100 YEAR	1.77CFS

COMPOSITE POST DEVELOPMENT RUNOFF RATE SUMMARY FROM BASIN 1 & 2 ROUTINGS PLUS DIRECT DISCHARGE

TOTAL COMPOSITE SUMMARY
(CLOUD 29 IN REPORT)

STORM EVENT	RUNOFF
2 YEAR	1.29CFS
10 YEAR	2.84CFS
100 YEAR	14.84CFS

POST DEVELOPMENT VS ALLOWABLE DISCHARGE

STORM EVENT	POST RUNOFF	ALLOWABLE RUNOFF
2 YEAR	1.29CFS	1.29CFS*
10 YEAR	2.84CFS	5.64CFS*
100 YEAR	14.84CFS	17.66CFS*

* SEE PRE-DEVELOPMENT DRAINAGE AREA PLAN.

POST DEVELOPMENT DRAINAGE AREA SUMMARY TO BASIN 3

COMPOSITE RUNOFF TO BASIN 3
(CLOUD 36 IN REPORT)

STORM EVENT	RUNOFF
2 YEAR	2.23CFS
10 YEAR	3.90CFS
100 YEAR	7.55CFS

BASIN 3 ROUTING (CLOUD 37 IN REPORT)

STORM EVENT	PEAK IN	PEAK OUT	PEAK EL	PEAK STORAGE VOL
2 YEAR	2.23CFS	0.22CFS	66.80	11,087CF
10 YEAR	3.90CFS	1.24CFS	67.45	15,003CF
100 YEAR	7.55CFS	4.20 CFS	68.62	22,698CF

COMPOSITE DIRECT RUNOFF DRAINAGE AREA DA3
(CLOUD 38 IN REPORT)

STORM EVENT	RUNOFF
2 YEAR	0.26CFS
10 YEAR	0.59CFS
100 YEAR	1.33CFS

TOTAL COMPOSITE DIRECT RUNOFF DRAINAGE AREA DA3 + BASIN 3 ROUTING
(CLOUD 39 IN REPORT)

STORM EVENT	RUNOFF
2 YEAR	0.26CFS
10 YEAR	1.35CFS
100 YEAR	4.52CFS

POST DEVELOPMENT VS ALLOWABLE DISCHARGE

STORM EVENT	POST RUNOFF	ALLOWABLE RUNOFF
2 YEAR	0.26CFS	0.36CFS*
10 YEAR	1.35CFS	1.60CFS*
100 YEAR	4.52CFS	4.54CFS*

* SEE PRE-DEVELOPMENT DRAINAGE AREA PLAN.

POST DEVELOPMENT DRAINAGE AREA DA4 SUMMARY

DIRECT RUNOFF DRAINAGE AREA DA4
(CLOUD 41 IN REPORT)

STORM EVENT	RUNOFF
2 YEAR	0.29CFS
10 YEAR	1.09CFS
100 YEAR	3.30CFS

POST DEVELOPMENT VS ALLOWABLE DISCHARGE

STORM EVENT	POST RUNOFF	ALLOWABLE RUNOFF
2 YEAR	0.29CFS	0.19CFS*
10 YEAR	1.09CFS	1.40CFS*
100 YEAR	3.30CFS	5.24CFS*

* SEE PRE-DEVELOPMENT DRAINAGE AREA PLAN.

POST DEVELOPMENT QUALITY ANALYSIS SUMMARY

BASIN WATER QUALITY SUMMARY
IN ACCORDANCE WITH N.J.A.C. 7:8-5.5, THE WATER QUALITY REGULATIONS REQUIRE THE REMOVAL OF 80% OF THE TOTAL SUSPENDED SOLIDS (TSS) FROM THE WATER QUALITY STORM (DEFINED AS 1.25 INCHES OF RAINFALL OVER 2 HOURS), AND THE REMOVAL OF NUTRIENTS TO THE MAXIMUM EXTENT FEASIBLE. THE TSS AND NUTRIENT REMOVAL CAN BE ACCOMPLISHED WITH A VARIETY OF STRUCTURAL AND NON-STRUCTURAL BEST MANAGEMENT PRACTICES (BMPS) PROVIDED IN THE REGULATIONS.

INFILTRATION BASIN 1
DRAINAGE AREA TO BASIN 1
AREA = 1.55 ACRES

RUNOFF RATE = 0.83 CFS RUNOFF VOLUME GENERATED = 1,925 CF

BASIN 1 WQ ROUTING

STORM EVENT	PEAK RATE IN	PEAK RATE OUT	PEAK ELEVATION	PEAK STORAGE	PEAK TIME
WQ	0.83 CFS	0 CFS	83.32	1,925 CF	1.17 HRS.

INFILTRATION BASIN 2
IMPERVIOUS COVER AREA TO BASIN 2
AREA = 9.05 ACRES

RUNOFF RATE = 4.40 CFS RUNOFF VOLUME GENERATED = 13,044 CF

INFILTRATION BASIN 2 WQ ROUTING

STORM EVENT	PEAK RATE IN	PEAK RATE OUT	PEAK ELEVATION	PEAK STORAGE	PEAK TIME
WQ	4.40 CFS	0 CFS	64.75	13,044 CF	1.17 HRS.

INFILTRATION BASIN 3
IMPERVIOUS COVER AREA TO BASIN 3
AREA = 2.16 ACRES

RUNOFF RATE = 1.01 CFS RUNOFF VOLUME GENERATED = 3,187 CF

BASIN 3 WQ ROUTING

STORM EVENT	PEAK RATE IN	PEAK RATE OUT	PEAK ELEVATION	PEAK STORAGE	PEAK TIME
WQ	1.01 CFS	0 CFS	63.26	3,187 CF	1.33 HRS.

INFILTRATION BASINS 1, 2 AND 3 EACH PROVIDE A TSS REMOVAL RATE OF 80% AS DEMONSTRATED WATER QUALITY HAS BEEN CONTROLLED IN ACCORDANCE WITH N.J.A.C. 7:8-5.4 (A) 3 III.

NOTES

1. THIS PLAN SHALL BE USED FOR STORMWATER MANAGEMENT DRAINAGE AREA PURPOSES ONLY.
2. SEE STORMWATER MANAGEMENT COMPLIANCE REPORT FOR COMPREHENSIVE DRAINAGE AREAS, CN VALUES AND TIME OF CONCENTRATION ANALYSIS.

LEGEND

DRAINAGE AREA LIMIT LINE

TIME OF CONCENTRATION PATH

GRAPHIC SCALE
50 0 25 50 100 200
1 INCH = 50 FEET

Know what's below. Call before you dig.

JAMES SASSANO ASSOCIATES, INC.
ENGINEERING • SURVEYING • CONSTRUCTION LAYOUT
CERTIFICATE OF AUTHORIZATION NO. 24GA28019600
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HAMMONTON, NEW JERSEY 08037
TELEPHONE (609) 704-1155
FAX (609) 704-1166
www.jsaengineering.com

DATE	ISSUE	REVISION	BY	APPR.
07/16/19	3	REVISE DRAINAGE AREAS FOR BASIN 3	TJK	R.J.C.
10/2/18	2	NO CHANGE THIS SHEET	TJK	R.J.C.
12/29/17	1	INITIAL SUBMISSION	TJK	R.J.C.

CENTURA – PHASE 3
TAX MAP SHEET 234, BLOCK 433.20, LOT 1
CHERRY HILL TOWNSHIP, CAMDEN COUNTY, NEW JERSEY

STORM WATER MANAGEMENT DRAINAGE AREA PLAN
FOR PHASES 1, 2, AND 3

CHERRY HILL LAND DEVELOPMENT GROUP, LLC.
P.O. BOX 130, 216 COOPER ROAD
WEST BERLIN, NEW JERSEY 080091

RICHARD J. CLEMSON, P.E.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE03911200
5/20/2022
DATE

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DRAWN BY	APPROVED BY
TJK	RJC
SCALE	DATE
1"=50'	12/29/17
JOB NUMBER	SHEET NO.
3506	3 OF 3

CS2103