

PRELIMINARY MAJOR SUBDIVISION PLAN AND FINAL CONSTRUCTION PLANS

PREPARED FOR

LOT 45.01 IN BLOCK 204

SITUATED IN

HILLSBOROUGH TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

GENERAL NOTES

- SUBJECT PROPERTY IS KNOWN AS BLOCK 204, LOTS 45.01 AND 45.02 AS SHOWN SHEET #123 OF THE OFFICIAL TAX MAP OF HILLSBOROUGH TOWNSHIP.
- BOUNDARY AND TOPOGRAPHIC INFORMATION OBTAINED FROM PLAN TITLED "MINOR SUBDIVISION AND VARIANCE PLAN "GREEN CARE FARMS", BLOCK 204, LOTS 45.01 & 45.02" PREPARED BY ENGINEERING & LAND PLANNING ASSOCIATES, INC., WAYNE J. INGRAM, N.J.P.E. & L.S. LIC. # 24GB04268200, LAST REVISED 01/13/2022, SHEET 2.
- THERE ARE NO FLOODING CRITICAL AREAS ON THE SITE PER FEMA FIRM MAP #34035C0251E, EFF. DATE 9/28/2007.
- ALL PROPOSED UTILITIES ARE TO BE LOCATED UNDERGROUND AND SHALL BE APPROVED BY THE APPLICABLE AGENCIES AND UTILITY COMPANY.
- EXISTING UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS APPROXIMATE AND IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION PRIOR TO BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL CONTACT ON CALL SERVICE AT 811 (OR 1-800-272-1000) AND OTHER LOCAL UTILITY COMPANIES AS REQUIRED FOR MARKOUT PRIOR TO ANY EXCAVATION. WHERE EXISTING UNDERGROUND UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTION, TEST PITS SHALL BE DUG BY THE CONTRACTOR PRIOR TO CONSTRUCTION TO ASCERTAIN EXISTING LOCATIONS, ELEVATIONS, MATERIALS AND SIZES. TEST PIT INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION TO PERMIT ADJUSTMENT AS REQUIRED TO AVOID CONFLICTS.
- PROPOSED UTILITY LOCATIONS SHOWN HEREON ARE FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT REPRESENT ALL REQUIRED UTILITY RELOCATIONS. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING AND/OR COORDINATING ALL REQUIRED UTILITY RELOCATIONS IN COOPERATION WITH THE RESPECTIVE UTILITY COMPANY/AUTHORITIES.
- THERE SHALL BE NO ON-SITE BURIAL OF CONSTRUCTION MATERIAL, TREES, TREE STUMPS, BRUSH OR OTHER SURPLUS MATERIAL. ALL SUCH MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.
- MAXIMUM PROPOSED GRADING SLOPE ON SITE IS 3:1 UNLESS OTHERWISE NOTED.
- ALL WHEELCHAIR ACCESSIBLE RAMPS AND PARKING SPACES SHALL MEET THE REQUIREMENTS OF CURRENT ADA STANDARDS FOR ACCESSIBLE DESIGN.
- TRAFFIC SIGNAGE AND STRIPING SHALL CORRESPOND TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), LATEST EDITION. SIGNS SHALL CONFORM TO STANDARD MUTCD SIZES UNLESS OTHERWISE APPROVED BY THE GOVERNING AUTHORITY.
- ALL CONSTRUCTION IS TO BE PERFORMED IN STRICT COMPLIANCE WITH ALL APPLICABLE MUNICIPAL, COUNTY AND STATE AGENCY REQUIREMENTS.
- CONSTRUCTION MATERIALS AND METHODS NOT OTHERWISE SPECIFIED OR SHOWN HEREIN SHALL CONFORM TO NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION AND AMENDMENTS).
- SITE AND UTILITY WORK ARE TO BE PERFORMED IN A MANNER TO MINIMIZE DAMAGE TO EXISTING VEGETATION AND TREES. ALL AREAS NOT AFFECTED BY CONSTRUCTION ARE TO REMAIN NATURAL, AND PROTECTED BY APPROPRIATE FENCING.
- TREE CLEARING SHALL BE MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE AND SHALL INCLUDE THE REMOVAL FROM THE SITE OF ALL STUMPS, ROOTS AND VEGETATIVE DEBRIS REMNANTS.
- COMPACTION OF FILL AREAS, BACKFILL FOR PROPOSED UTILITIES AND UNDER CONCRETE STRUCTURES, SHALL MEET ALL CODE REQUIREMENTS AND BE EQUAL TO A MINIMUM 95% MODIFIED PROCTOR DENSITY.
- ALL TRENCHES SHALL BE BACKFILLED WITHOUT DELAY. OPEN TRENCHES SHALL BE KEPT TO A MINIMUM. OPEN TRENCHES SHALL BE STEEL PLATED AND/OR BARRICADED WHEN WORK IS NOT IN PROGRESS.
- ALL EXISTING CONTOUR LINES, PROFILES AND SPOT ELEVATIONS ARE APPROXIMATE. ALL PROPOSED CONTOURS SHALL BE GRADED TO BLEND EVENLY WITH EXISTING CONTOURS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO SURROUNDING PROPERTY AND SHALL RESTORE ANY PROPERTY DAMAGED AS A RESULT OF HIS OPERATIONS. ALL RESTORATION COSTS WILL BE BORNE BY THE CONTRACTOR AT NO ADDITIONAL COST.
- APPLICANT SHALL COORDINATE A PRE-CONSTRUCTION MEETING WITH THE MUNICIPAL ENGINEER'S OFFICE AND PROVIDE MINIMUM 48 HOURS NOTICE PRIOR TO COMMENCING CONSTRUCTION.
- THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL RESPONSIBLE FOR CONSTRUCTION SITE SAFETY DURING THE COURSE OF SITE IMPROVEMENTS PURSUANT TO NJAC 5:28-2.21 OF THE NJ UNIFORM CONSTRUCTION CODE AND CFR 1926.32(F) (OSHA COMPETENT PERSON).
- THIS SET OF PLANS HAS BEEN PREPARED FOR THE PURPOSES OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL APPROVALS HAVE BEEN SATISFIED AND PLANS MARKED AS "ISSUED FOR CONSTRUCTION".
- ANY DISCREPANCIES ENCOUNTERED BETWEEN FIELD CONDITIONS AND DESIGN PLANS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO INSTALLATION OF IMPROVEMENTS.
- THESE GENERAL NOTES SHALL APPLY TO ALL SHEETS IN THE SET.



Hillsborough Township Tax Map Sheets No. 121, 123 & 134

KEY MAP
SCALE: 1"=400'

AGENCIES / UTILITY OWNERS

COMCAST CABLE
BUSINESS MANAGER
279 AMWELL ROAD
HILLSBOROUGH, NJ 08844

SOMERSET COUNTY
PO BOX 3000
SOMERVILLE, NJ 08876

PRELIMINARY MAJOR SUBDIVISION PLAN AND FINAL CONSTRUCTION PLANS

LOT 45.01 IN BLOCK 204

HILLSBOROUGH TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

INDEX OF SHEETS

- COVER SHEET
- EXISTING FEATURES PLAN
- PRELIMINARY SUBDIVISION PLAT
- GRADING, DRAINAGE, UTILITY & SOIL EROSION PLAN
- TREE MITIGATION PLAN
- LANDSCAPING PLAN
- 7-9. BASIN DETAILS
- MISCELLANEOUS PROFILES
- SOIL EROSION & SEDIMENT CONTROL DETAILS
- CONSTRUCTION DETAILS
- CONSTRUCTION DETAILS
- FIRETRUCK TURNING TEMPLATE

APPLICANT/
OWNER OF LOT 45.01:

RAJIV SINGH
GREEN CARE FARM, LLC
2230 ROUTE 206,
BELLE MEAD, NJ 08502
908-359-0893



VAN CLEEF ENGINEERING ASSOCIATES, LLC
32 BROWER LANE, HILLSBOROUGH, NJ 08844
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (908) 359-8291
CERT. OF AUTHORIZATION NO. 24GA28132300

HILLSBOROUGH TOWNSHIP APPROVALS

APPLICATION NO. _____
APPROVED BY:

CHAIRPERSON - PLANNING BOARD _____ DATE _____

SECRETARY - PLANNING BOARD _____ DATE _____

BOARD ENGINEER _____ DATE _____



REV/DESCRIPTION AUTH DATE

SERIAL NO. _____



GRAPHIC SCALE
(AS NOTED)

PLAN NOTATION
ONLY THOSE PLANS WHICH CONTAIN A DIGITAL IMPRESSED, OR COLORIZED INK SEAL OF THE RESPONSIBLE PROFESSIONAL, SHALL BE CONSIDERED VALID. THIS PLAN HAS BEEN SPECIFICALLY PREPARED FOR THE OWNER DESIGNATED HEREON. ANY MODIFICATION, REVISION, DUPLICATION OR USE WITHOUT THE WRITTEN CONSENT OF VAN CLEEF ENGINEERING ASSOCIATES IS PROHIBITED. RELIANCE ON THIS PLAN FOR ANY PURPOSE OTHER THAN THAT WHICH IS INTENDED SHALL BE AT THE SOLE DISCRETION AND LIABILITY OF THE APPLICABLE PARTY.

Michael K. Ford
MICHAEL K. FORD DATE _____
NEW JERSEY PROFESSIONAL ENGINEER NUMBER 34722



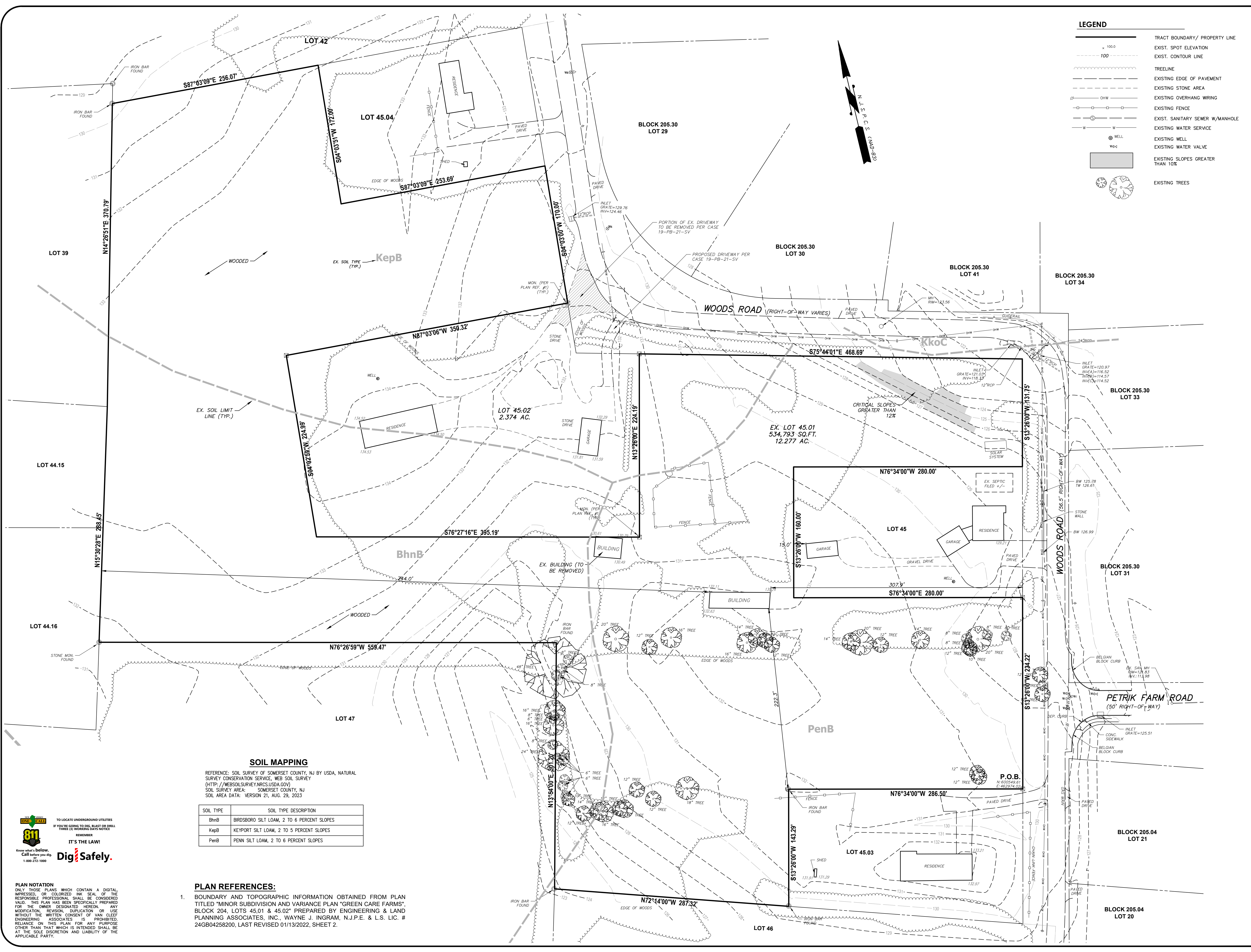
COVER SHEET

GREEN CARE FARMS
201 WOODS ROAD

DATE: OCTOBER 11, 2024
SCALE: 1"=50'
DESIGNED BY: M.K.F.
DRAWN BY: A.B.
CHECKED BY: M.K.F.
JOB NUMBER: 1863H

BLOCK 204 LOT 45.01

HILLSBOROUGH TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY



LEGEND

- TRACT BOUNDARY/ PROPERTY LINE
- EXIST. SPOT ELEVATION
- EXIST. CONTOUR LINE
- TREELINE
- EXISTING EDGE OF PAVEMENT
- EXISTING STONE AREA
- EXISTING OVERHANG WIRING
- EXISTING FENCE
- EXIST. SANITARY SEWER W/MANHOLE
- EXISTING WATER SERVICE
- EXISTING WELL
- EXISTING WATER VALVE
- EXISTING SLOPES GREATER THAN 10%
- EXISTING TREES

SOIL MAPPING
REFERENCE: SOIL SURVEY OF SOMERSET COUNTY, NJ BY USDA, NATURAL SURVEY CONSERVATION SERVICE, WEB SOIL SURVEY (HTTP://WEBSOILSURVEY.NRCS.USDA.GOV)
SOIL SURVEY AREA: SOMERSET COUNTY, NJ
SOIL AREA DATA: VERSION 21, AUG. 29, 2023

SOIL TYPE	SOIL TYPE DESCRIPTION
BhnB	BIRDSBORO SILT LOAM, 2 TO 6 PERCENT SLOPES
KepB	KEYPORT SILT LOAM, 2 TO 5 PERCENT SLOPES
PenB	PENN SILT LOAM, 2 TO 6 PERCENT SLOPES

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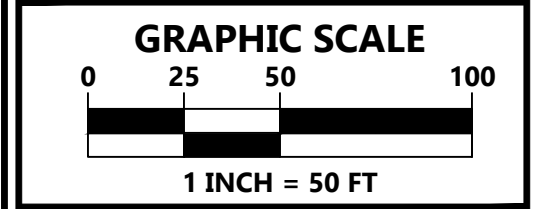
TO LOCATE UNDERGROUND UTILITIES IF YOU'RE GOING TO DIG, BLAST OR DRILL THREE (3) WORKING DAYS NOTICE

811

IT'S THE LAW!

Know what's below. Call before you dig. 1-800-272-1000

Dig Safely.



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Michael K. Ford
MICHAEL K. FORD
NEW JERSEY PROFESSIONAL ENGINEER NUMBER 34722

Van Cleef
ENGINEERING WITH FOCUS

VAN CLEEF ENGINEERING ASSOCIATES, LLC
32 BROWER LANE, HILLSBOROUGH, NJ 08844
WEB: WWW.VANCLEEFENGINEERING.COM
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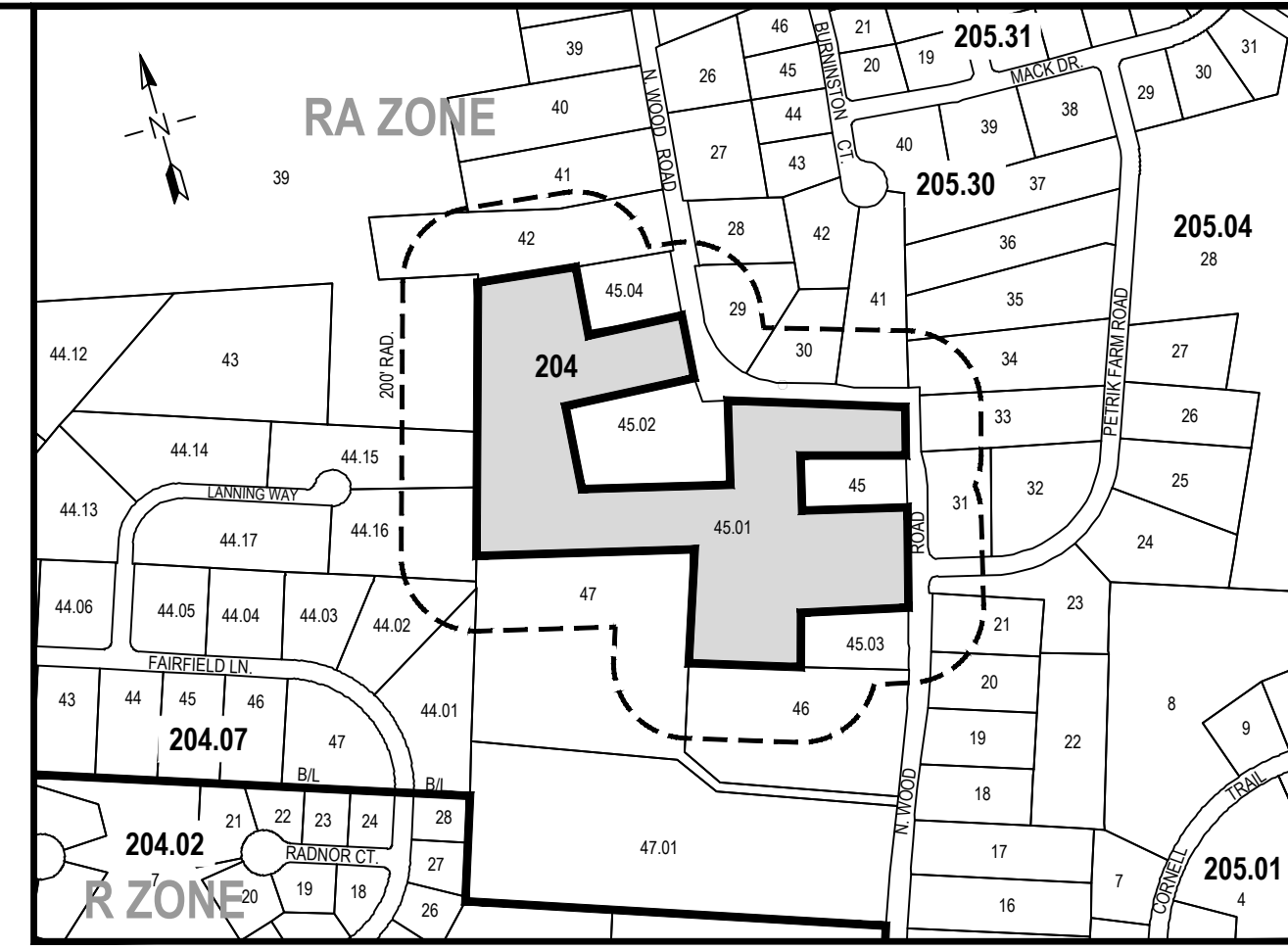
EXISTING FEATURES PLAN

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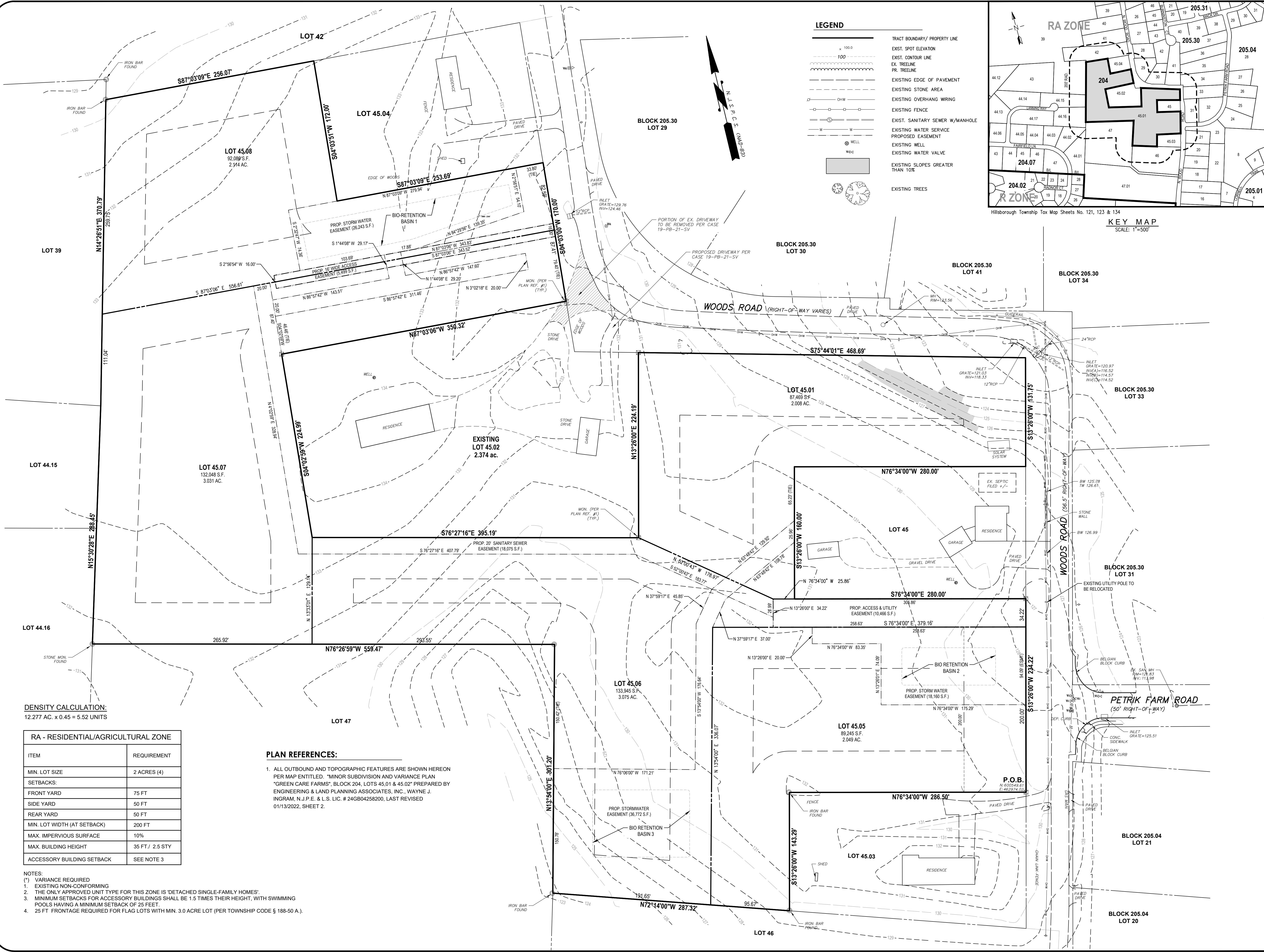
BLOCK 204 LOT 45.01
HILLSBOROUGH TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

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LEGEND

- TRACT BOUNDARY / PROPERTY LINE
- EXST. SPOT ELEVATION
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- EX. TREELINE
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- EXISTING WELL
- EXISTING WATER VALVE
- EXISTING SLOPES GREATER THAN 10%
- EXISTING TREES



DENSITY CALCULATION:
12.277 AC. x 0.45 = 5.52 UNITS

RA - RESIDENTIAL/AGRICULTURAL ZONE	
ITEM	REQUIREMENT
MIN. LOT SIZE	2 ACRES (4)
SETBACKS:	
FRONT YARD	75 FT
SIDE YARD	50 FT
REAR YARD	50 FT
MIN. LOT WIDTH (AT SETBACK)	200 FT
MAX. IMPERVIOUS SURFACE	10%
MAX. BUILDING HEIGHT	35 FT./ 2.5 STY
ACCESSORY BUILDING SETBACK	SEE NOTE 3

PLAN REFERENCES:

- ALL OUTBOUND AND TOPOGRAPHIC FEATURES ARE SHOWN HEREON PER MAP ENTITLED, "MINOR SUBDIVISION AND VARIANCE PLAN "GREEN CARE FARMS", BLOCK 204, LOTS 45.01 & 45.02" PREPARED BY ENGINEERING & LAND PLANNING ASSOCIATES, INC., WAYNE J. INGRAM, N.J.P.E. & L.S. LIC. # 24GB04258200, LAST REVISED 01/13/2022, SHEET 2.

- NOTES:
(*) VARIANCE REQUIRED
- EXISTING NON-CONFORMING
 - THE ONLY APPROVED UNIT TYPE FOR THIS ZONE IS "DETACHED SINGLE-FAMILY HOMES".
 - MINIMUM SETBACKS FOR ACCESSORY BUILDINGS SHALL BE 1.5 TIMES THEIR HEIGHT, WITH SWIMMING POOLS HAVING A MINIMUM SETBACK OF 25 FEET.
 - 25 FT FRONTAGE REQUIRED FOR FLAG LOTS WITH MIN. 3.0 ACRE LOT (PER TOWNSHIP CODE § 188-50 A).

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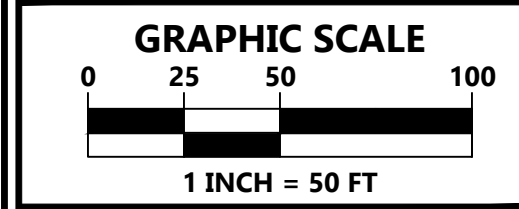
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Janella L. Mathews
JANELLA L. MATHEWS,
NEW JERSEY PROFESSIONAL ENGINEER
AND LAND SURVEYOR NO. 41181

PRELIMINARY PLAT

GREEN CARE FARMS
201 WOODS ROAD

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BLOCK 204 LOT 45.01
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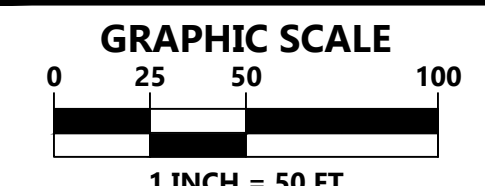
GENERAL NOTES

- ALL UTILITIES ARE TO BE PLACED UNDERGROUND.
- LOTS ARE TO BE SERVICED BY SANITARY SEWER AND PUBLIC WATER.
- PAVED DRIVEWAY APRONS TO BE CONSTRUCTED AS PER TOWNSHIP STANDARDS. MINIMUM APRON LENGTH TO BE 20 FEET.
- ALL SEEDED AREAS TO BE MULCHED.
- FOUNDATION LOCATION SURVEY WITH THE GARAGE FLOOR ELEVATIONS REQUIRED PRIOR TO FRAMING.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST HILLSBOROUGH TOWNSHIP STANDARDS. SHOULD DISCREPANCIES EXIST, HILLSBOROUGH TOWNSHIP STANDARDS WILL PREVAIL.
- ALL TREES TO BE SAVED SHALL REQUIRE SNOW FENCE PROTECTION AROUND THE DRIPLINE.
- INDIVIDUAL SUBSURFACE SOIL INVESTIGATIONS ARE TO BE PERFORMED AND SEALED COPIES OF SAID REPORT ARE TO BE SUBMITTED WITH INDIVIDUAL LOT GRADING PLANS. THE REPORT SHALL CONTAIN THE FOLLOWING INFORMATION, AT A MINIMUM:
 - DATE OF TEST, WEATHER CONDITIONS AND TEMPERATURE
 - DEPTH OF TEST HOLE; ELEVATIONS FOR BOTTOM OF TEST HOLE, PROPOSED BASEMENT, GARAGE, FIRST FLOOR AND BOTTOM OF FOOTING.
 - DEPTH TO GROUNDWATER (IF ENCOUNTERED)-DESCRIPTION OF FOUNDATION SOIL (INCLUDING MOTTLING, IF ANY) AND SOIL BEARING CAPACITY.
 - LOCATION OF TEST PIT (PIT TO BE LOCATED IN THE HOUSE OR IMMEDIATE VICINITY).
- NOTES FOR INDIVIDUAL LOTS:
 - PROPOSED GRADING AS SHOWN ON THIS PLAN IS FOR SUBDIVISION PURPOSES ONLY. INDIVIDUAL PLOT PLANS DETAILING THE PROPOSED LOT GRADING TO BE SUBMITTED TO THE HILLSBOROUGH TOWNSHIP ENGINEERING DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO THE ISSUANCE OF A BUILDING PERMIT.
 - ON SITE GRADING TO BE LIMITED TO A MINIMUM SLOPE OF 2.00% AND A MAXIMUM SLOPE OF 3.1.
 - AS-BUILT GRADING PLANS TO BE SUBMITTED TO THE HILLSBOROUGH TOWNSHIP ENGINEERING DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO THE ISSUANCE OF A C.O.
 - FINISHED BASEMENT FLOOR ELEVATIONS TO BE SET 2' MIN. ABOVE WATER TABLE OR 8" MIN. WHERE FOUNDATION DRAINS ARE PROVIDED AND DISCHARGED INTO THE STORM SEWER SYSTEM OR AT GRADE DISCHARGE.
 - WHERE BASEMENTS ARE TO BE PROVIDED FOR PROPOSED BUILDINGS, THE DEVELOPER SHALL, BY BORING OR BY TEST PIT, DETERMINE THE DEPTH TO GROUNDWATER AT THE LOCATION OF THE PROPOSED BUILDING. WHERE GROUNDWATER IS ENCOUNTERED IN THE BASEMENT AREA, BASEMENTS WILL NOT BE INSTALLED UNLESS SPECIAL CONSTRUCTION METHODS ARE UTILIZED, REVIEWED AND APPROVED BY THE TOWNSHIP CONSTRUCTION CODE OFFICIAL.
 - THE USE OF LIGHTWEIGHT, LOW IMPACT EARTH MOVING EQUIPMENT FOR SITE GRADING OF ALL PROPOSED LAWN AREAS IS REQUIRED IN ORDER TO CONFORM TO THE NON-STRUCTURAL STRATEGIES POINT SYSTEM. TO QUALIFY AS LIGHTWEIGHT AND LOW IMPACT, THE EQUIPMENT MUST EXERT A MAXIMUM PRESSURE OF EIGHT POUNDS PER SQUARE INCH ON THE GROUND SURFACE DURING GRADING OPERATIONS OF PROPOSED LAWN AREAS, SUCH AS OVER SIZED WIDE TRACKED EARTH MOVING EQUIPMENT. RUBBER Tired EARTH MOVING EQUIPMENT NOT ACCEPTABLE.



REV/DESCRIPTION	AUTH	DATE

TO LOCATE UNDERGROUND UTILITIES IF YOU'RE GOING TO DIG, BLAST OR DRILL, CALL 811 THREE (3) WORKING DAYS IN ADVANCE. IT'S THE LAW! Dig Safely. Know what's below. Call before you dig. 1-800-277-1000



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Michael K. Ford
MICHAEL K. FORD DATE
NEW JERSEY PROFESSIONAL ENGINEER NUMBER 34722

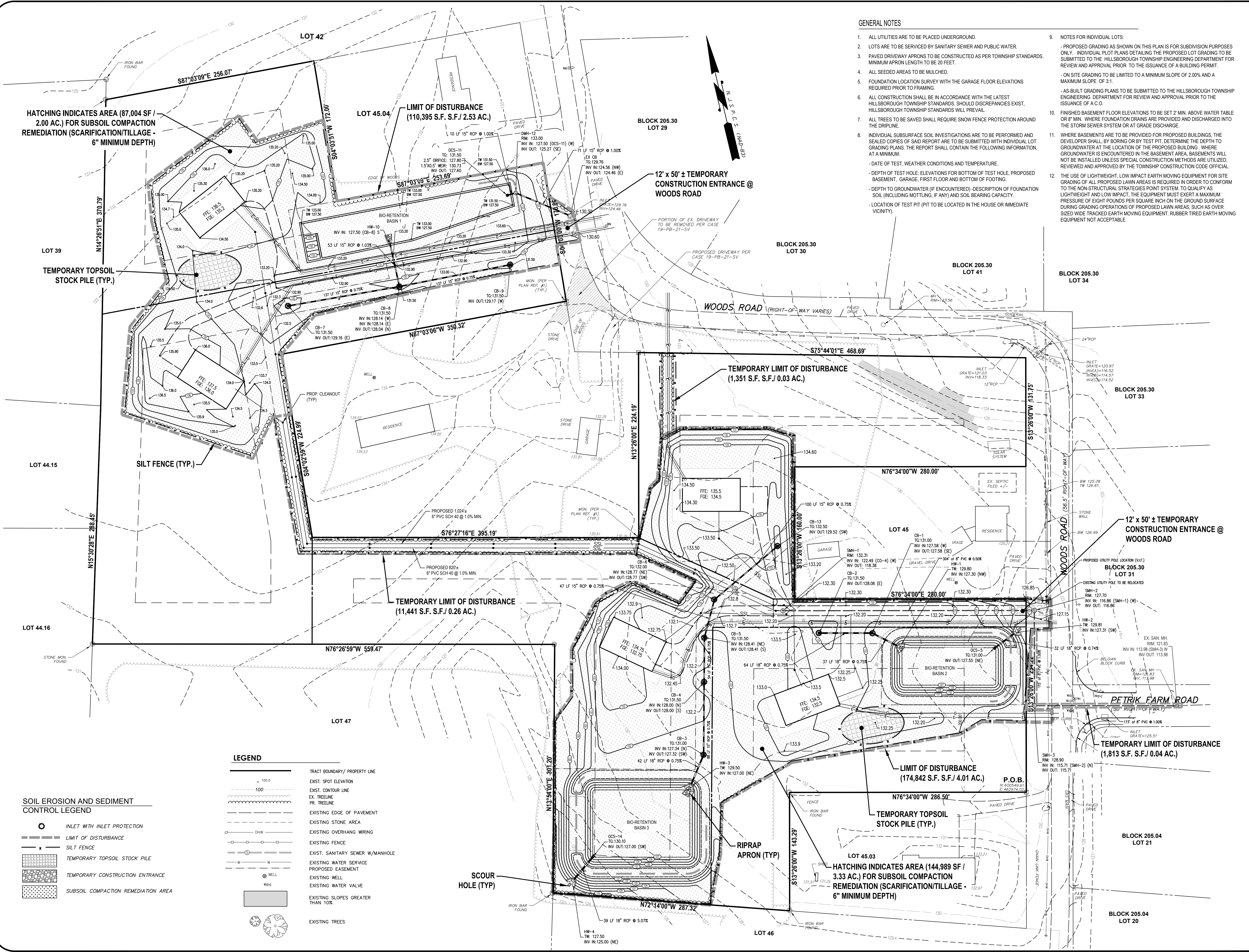


GRADING, DRAINAGE, UTILITY & SOIL EROSION PLAN

GREEN CARE FARMS 201 WOODS ROAD

DATE: OCTOBER 11, 2024
SCALE: 1" = 50'
DESIGNED BY: M.K.F.
DRAWN BY: A.B.
CHECKED BY: M.K.F.
JOB NUMBER: 1863H

BLOCK 204 LOT 45.01
HILLSBOROUGH TOWNSHIP, SOMERSET COUNTY, NEW JERSEY



HATCHING INDICATES AREA (87,004 SF / 2.00 AC.) FOR SUBSOIL COMPACTION REMEDIATION (SCARIFICATION/TILLAGE - 6" MINIMUM DEPTH)

LOT 45.04 LIMIT OF DISTURBANCE (110,395 S.F. S.F./ 2.53 AC.)

12' x 50' ± TEMPORARY CONSTRUCTION ENTRANCE @ WOODS ROAD

TEMPORARY LIMIT OF DISTURBANCE (1,351 S.F. S.F./ 0.03 AC.)

12' x 50' ± TEMPORARY CONSTRUCTION ENTRANCE @ WOODS ROAD

TEMPORARY LIMIT OF DISTURBANCE (11,441 S.F. S.F./ 0.26 AC.)

LIMIT OF DISTURBANCE (174,842 S.F. S.F./ 4.01 AC.)

TEMPORARY LIMIT OF DISTURBANCE (1,813 S.F. S.F./ 0.04 AC.)

SOIL EROSION AND SEDIMENT CONTROL LEGEND

- INLET WITH INLET PROTECTION
- LIMIT OF DISTURBANCE
- SILT FENCE
- TEMPORARY TOPSOIL STOCK PILE
- TEMPORARY CONSTRUCTION ENTRANCE
- SUBSOIL COMPACTION REMEDIATION AREA

LEGEND

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- EXISTING SLOPES GREATER THAN 10%
- EXISTING TREES

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TREE MITIGATION REQUIREMENTS
(PER HILLSBOROUGH CHAPTER 188-ARTICLE IX, SECTION 188-164)
6-12" CALIPER TREES = 2 TREES PER EACH ONE REMOVED
13-24" CALIPER TREES = 4 TREES PER EACH ONE REMOVED
25"+ CALIPER TREES = 6 TREES PER EACH ONE REMOVED

ISOLATE TREES

SIZE:	TO BE REMOVED
6-12" CALIPER TREES	250 TREES
13-24" CALIPER TREES	61 TREES
25"+ CALIPER TREES	18 TREES

SITE TREE MITIGATION FOR TREES TO BE REMOVED

250	(6-12" TREES) x 2	=	500
61	(13-24" TREES) x 4	=	244
18	(25"+ TREES) x 6	=	108

TOTAL TREES TO BE REPLACED: = 852 TREES REQUIRED
119 TREES REQUIRED PER HARDSHIP WAIVER
119 TREES PROVIDED

WOODED AREA CALCULATION:
TOTAL EXISTING TREES ON SITE = 9.26 A.C. WOODED AREA
TOTAL TREES TO BE REMOVED = 4.85 A.C. WOODED AREA
(52% OF TREES REMOVED MAXIMUM 60% ALLOWED)



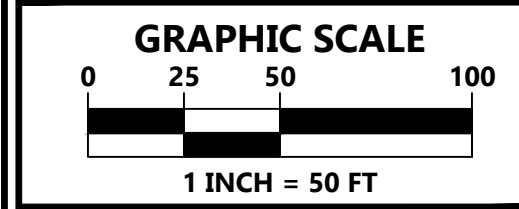
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	EXISTING SLOPES GREATER THAN 10%
	EXISTING TREES
	WOODED AREA TO BE REMOVED
	EXISTING TREE TO BE SAVED W/ TREE PROTECTION FENCING
	EXISTING TREE LINE TO REMAIN
	PROPOSED TREE LINE

REV/DESCRIPTION AUTH DATE

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TREE MITIGATION PLAN

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DESIGNED BY: M.K.F.
DRAWN BY: A.B.
CHECKED BY: M.K.F.
JOB NUMBER: 1863H

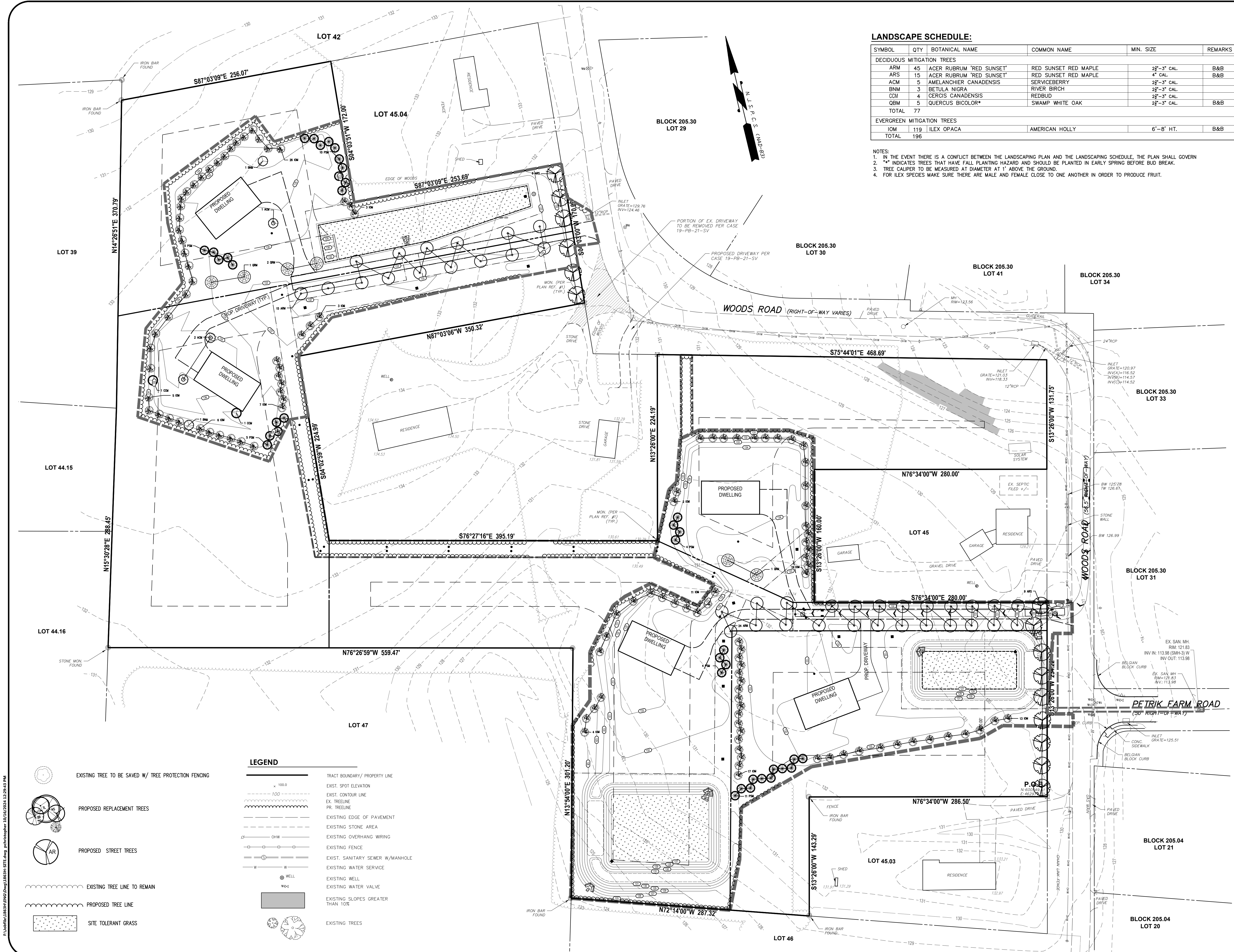
BLOCK 204 LOT 45.01
HILLSBOROUGH TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

LANDSCAPE SCHEDULE:

SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	MIN. SIZE	REMARKS
DECIDUOUS MITIGATION TREES					
ARM	45	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2"-3" CAL.	B&B
ARS	15	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	4" CAL.	B&B
ACM	5	AMELANCHIER CANADENSIS	SERVICEBERRY	2 1/2"-3" CAL.	
BNM	3	BETULA NIGRA	RIVER BIRCH	2 1/2"-3" CAL.	
CCM	4	CERCIS CANADENSIS	REDBUD	2 1/2"-3" CAL.	
QBM	5	QUERCUS BICOLOR*	SWAMP WHITE OAK	2 1/2"-3" CAL.	B&B
TOTAL 77					
EVERGREEN MITIGATION TREES					
LOM	119	ILEX OPACA	AMERICAN HOLLY	6"-8" HT.	B&B
TOTAL 196					

NOTES:

1. IN THE EVENT THERE IS A CONFLICT BETWEEN THE LANDSCAPING PLAN AND THE LANDSCAPING SCHEDULE, THE PLAN SHALL GOVERN
2. "*" INDICATES TREES THAT HAVE FALL PLANTING HAZARD AND SHOULD BE PLANTED IN EARLY SPRING BEFORE BUD BREAK.
3. TREE CALIPER TO BE MEASURED AT DIAMETER AT 1' ABOVE THE GROUND.
4. FOR ILEX SPECIES MAKE SURE THERE ARE MALE AND FEMALE CLOSE TO ONE ANOTHER IN ORDER TO PRODUCE FRUIT.



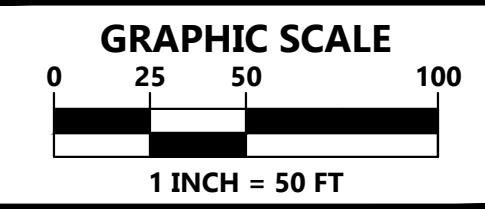
LEGEND

	EXISTING TREE TO BE SAVED W/ TREE PROTECTION FENCING		TRACT BOUNDARY/ PROPERTY LINE
	PROPOSED REPLACEMENT TREES		EXIST. SPOT ELEVATION
	PROPOSED STREET TREES		EXIST. CONTOUR LINE
	EXISTING TREE LINE TO REMAIN		EX. TREELINE
	PROPOSED TREE LINE		FR. TREELINE
	SITE TOLERANT GRASS		EXISTING EDGE OF PAVEMENT
	EXISTING TREES		EXISTING STONE AREA
	EXISTING OVERHANG WIRING		EXISTING FENCE
	EXISTING WELL		EXIST. SANITARY SEWER W/MANHOLE
	EXISTING WATER VALVE		EXISTING WATER SERVICE
	EXISTING SLOPES GREATER THAN 10%		EXISTING WELL
	EXISTING WATER VALVE		EXISTING WATER VALVE

REV/DESCRIPTION AUTH DATE

811
Know what's below.
Call before you dig.
1-800-272-1000

TO LOCATE UNDERGROUND UTILITIES IF YOU'RE GOING TO DIG, BLAST OR DRILL THREE (3) WORKING DAYS NOTICE REMEMBER IT'S THE LAW!
Dig Safely.



PLAN NOTATION
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Michael K. Ford
MICHAEL K. FORD DATE
NEW JERSEY PROFESSIONAL ENGINEER NUMBER 34722

Van Cleef
ENGINEERING WITH FOCUS

VAN CLEEF ENGINEERING ASSOCIATES, LLC
32 BROWER LANE, HILLSBOROUGH, NJ 08844
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (908) 359-8291

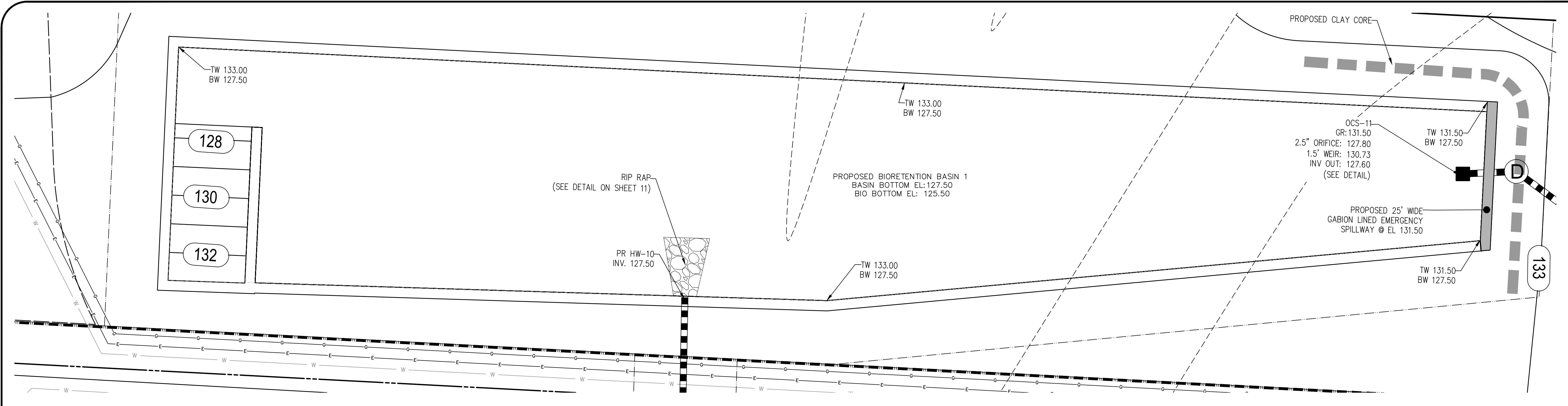
LANDSCAPING PLAN

**GREEN CARE FARMS
201 WOODS ROAD**

DATE: OCTOBER 11, 2024
SCALE: 1" = 50'
DESIGNED BY: M.K.F.
DRAWN BY: A.B.
CHECKED BY: M.K.F.
JOB NUMBER: 1863H

BLOCK 204 LOT 45.01

HILLSBOROUGH TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY



BIO-RETENTION BASIN (BIO-BASIN 1) PLAN
SCALE: 1"=10'

EMBANKMENT AND DETENTION BASIN CLAY CORE

1. THE CLAY CORE SHALL CONSIST OF COMPACTED CLAY MATERIAL (UNIFIED SOIL CLASSIFICATION "CL").
2. THE FILL MATERIAL IN ALL EARTH DAMS AND EMBANKMENTS SHALL BE COMPACTED TO AT LEAST 95% OF THE MAXIMUM DENSITY OBTAINED FROM COMPACTION TESTS PERFORMED BY THE APPROPRIATE METHOD IN ASTM D698.
3. TREES AND OTHER VEGETATION WITH LARGE EXTENSIVE ROOT STRUCTURE SHALL NOT BE PERMITTED ON ANY DAM OR EMBANKMENT.
4. THE BASIN IS TO BE TOPSOILED WITH A MINIMUM OF 4 INCHES OF TOPSOIL AND SEEDED, INCLUDING THE SIDE SLOPES AND ALL EARTHEN DAMS AND EMBANKMENTS. "TOPSOIL" IS DEFINED AS THE NATURAL UNDISTURBED SURFACE LAYER OF SOIL HAVING MORE ORGANIC MATTER THAN SUBSEQUENT LAYERS SUITABLE FOR SATISFACTORY GROWTH AND MAINTENANCE OF PERMANENT, LOCALLY ADAPTED VEGETATION. THE MATERIAL MUST BE FRIABLE, LOAMY SOIL, REASONABLY FREE OF DEBRIS, OBJECTIONABLE WEEDS, LUMPS, ROOTS, STONES OR SIMILAR OBJECTS LARGER THAN 2 INCHES IN ANY DIMENSION; HAVE A NATURAL PH OF 5.0 TO 7.5; HAVE AN ORGANIC MATTER CONTENT GREATER THAN 2.00% AND CONTAIN NO TOXIC SUBSTANCES WHICH MAY BE HARMFUL TO PLANT GROWTH. THE SEEDING SHALL AS A MINIMUM, CONFORM TO TYPE "A" GRASS SEED MIXTURE AS DEFINED IN THE NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

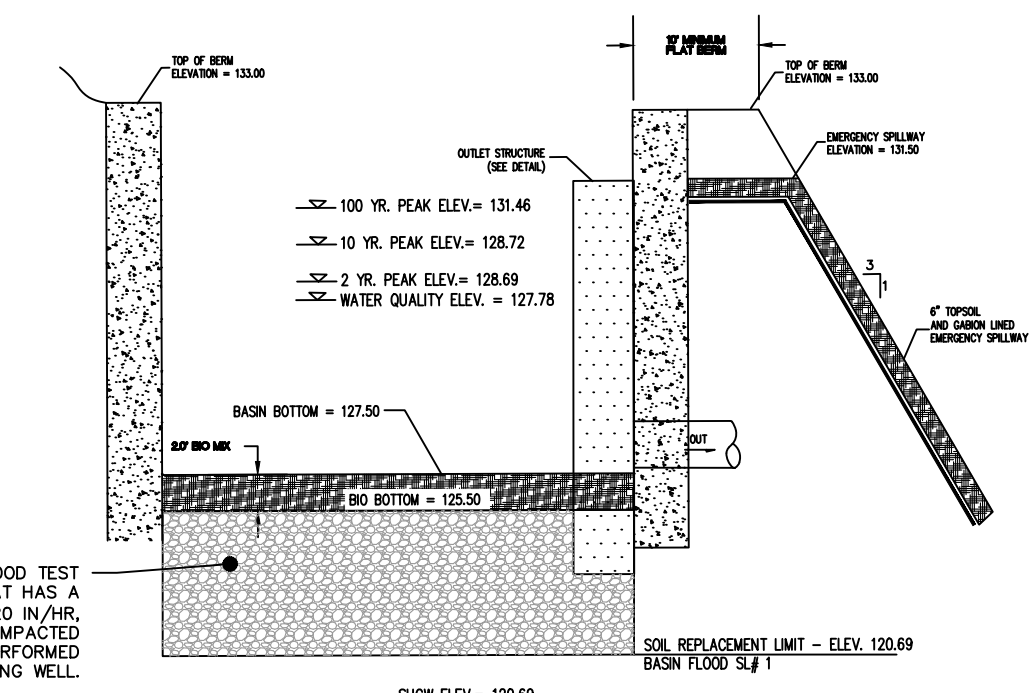
BIORETENTION BASIN NOTES:

BIO MIX NOTES:

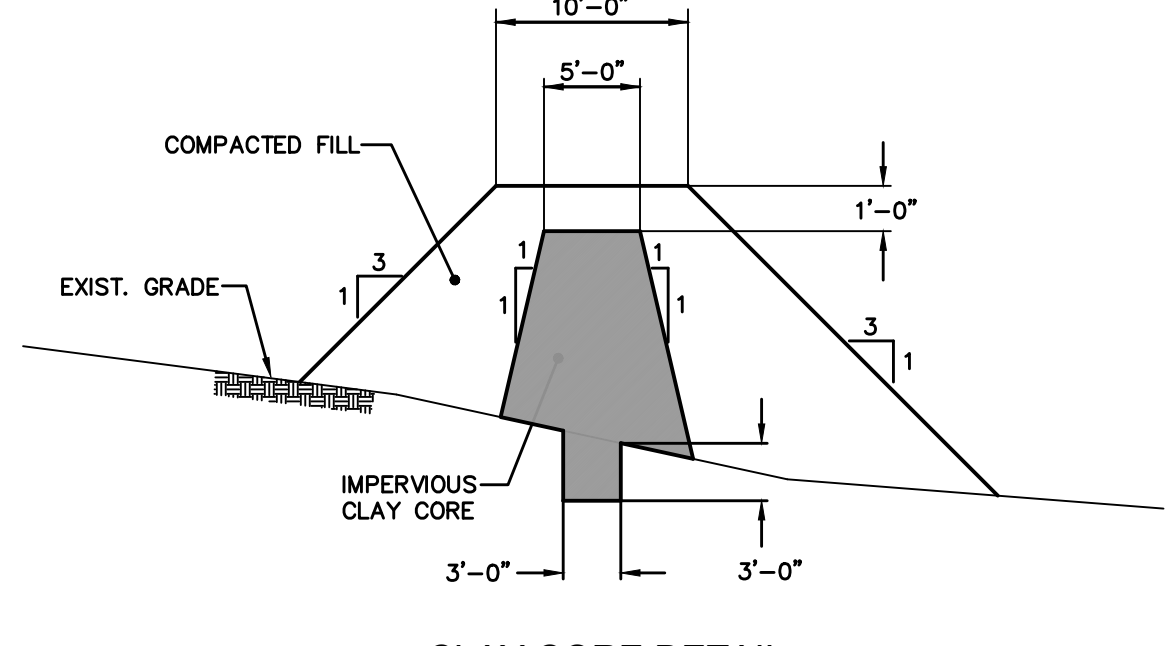
1. THE SOIL BED MUST BE A MINIMUM 18 INCHES.
2. THE SOIL BED MATERIAL MUST CONSIST OF THE FOLLOWING MIX, BY VOLUME : 85 TO 95% SAND, WITH NO MORE THAN 25% OF THE SAND AS FINE OR VERY FINE SANDS; NO MORE THAN 15% SILT AND CLAY WITH 2% TO 5% CLAY CONTENT. THE ENTIRE MIX MUST THEN BE AMENDED WITH 3 TO 7% ORGANICS, BY WEIGHT.
3. THE SOIL BED MATERIAL SHALL BE FREE OF CONTAMINANTS.
4. THE PRE-MIXED SOIL MUST BE CERTIFIED TO BE CONSISTENT WITH THE REQUIREMENT ABOVE BY EITHER THE VENDOR OR BY A PROFESSIONAL ENGINEER LICENSED BY THE STATE OF NEW JERSEY; IN ADDITION, THE ENGINEER MUST BE PRESENT WHILE THE SOIL IS MIXED.
5. THE PH OF THE SOIL BED IS RECOMMENDED TO RANGE FROM 5.5 TO 6.5.
6. FOR THE CALCULATION OF RUNOFF RETENTION, THE POROSITY, THE FIELD CAPACITY AND THE WILTING POINT OF THE SOIL BED MATERIAL MUST BE OBTAINED EITHER FROM A PUBLISHED RESEARCH ARTICLE OR TESTED IN ACCORDANCE WITH THE ASTM D-6836 METHOD OR THE SOIL SURVEY INVESTIGATIONS REPORT NO.42, KELLOGG SOIL SURVEY LABORATORY METHODS MANUAL, PUBLISHED BY NRCS.
7. THE SIL BED MATERIAL MUST BE PLACED IN LIFTS NOT TO EXCEED 6 INCHES. ADDITIONAL MATERIALS MAY BE NECESSARY TO ACCOUNT FOR SETTLING OVER TIME.

CONSTRUCTION REQUIREMENTS:

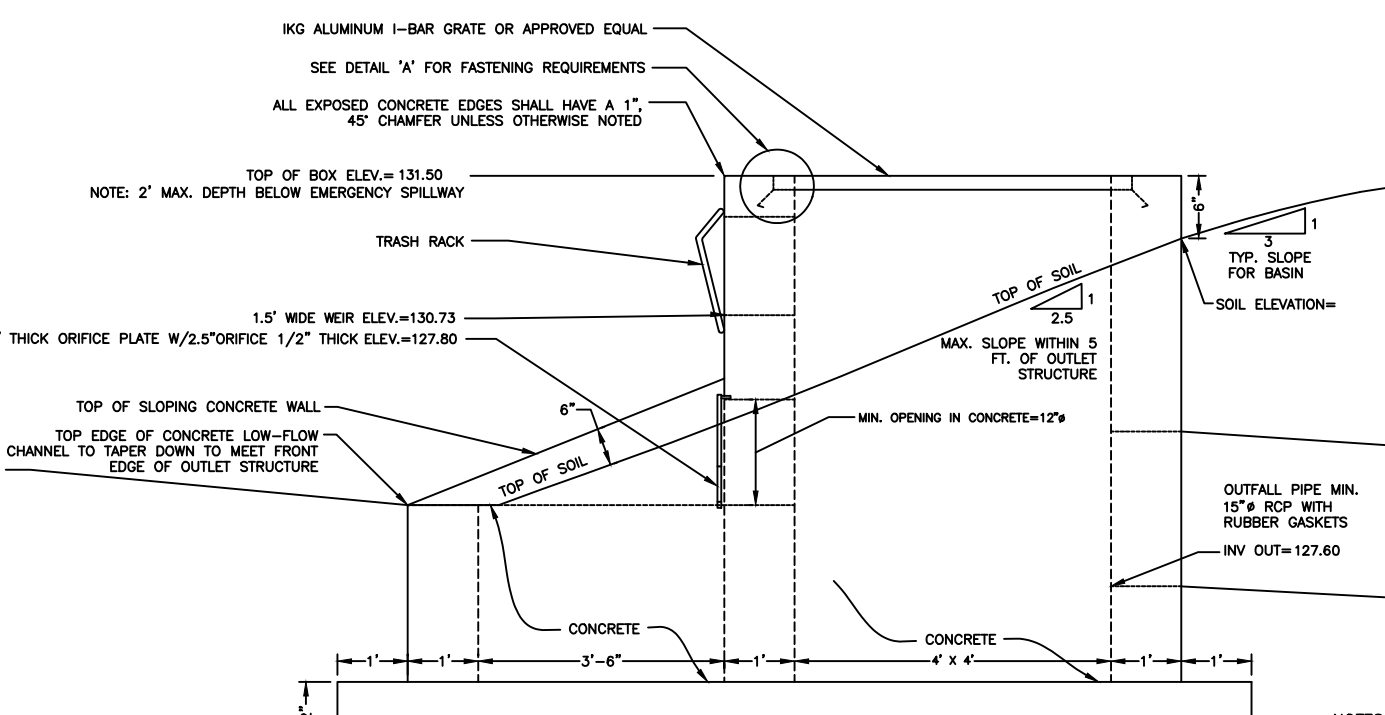
1. DURING CLEARING AND GRADING OF THE SITE, MEASURES MUST BE TAKEN TO ELIMINATE SOIL COMPACTION AT THE LOCATION OF THE PROPOSED SMALL-SCALE BIORETENTION SYSTEM.
2. THE LOCATION OF THE PROPOSED SMALL-SCALE BIORETENTION SYSTEM MUST BE CORRODED OFF DURING CONSTRUCTION TO PREVENT COMPACTION OF THE SUBSOIL BY CONSTRUCTION EQUIPMENT STOCKPILES.
3. EXCAVATION AND CONSTRUCTION OF A SMALL-SCALE BIORETENTION SYSTEM DESIGNED TO INFILTRATE MUST BE PERFORMED WITH EQUIPMENT PLACED OUTSIDE THE LIMITS OF THE BASIN.
4. THE LOCATION OF THE PROPOSED SMALL-SCALE BIORETENTION SYSTEM SHOULD NOT BE USED TO PROVIDE SEDIMENT CONTROL DURING CONSTRUCTION; HOWEVER, WHEN UNAVOIDABLE, THE BOTTOM OF THE SEDIMENT CONTROL BASIN SHOULD BE AT LEAST 2 FEET ABOVE THE FINAL DESIGN ELEVATION OF THE BOTTOM OF THE SOIL BED IN THE SMALL-SCALE BIORETENTION BASIN.
5. THE EXCAVATION TO THE FINAL DESIGN ELEVATION OF THE SMALL-SCALE BIORETENTION SYSTEM BOTTOM MAY ONLY OCCUR AFTER ALL CONSTRUCTION WITHIN ITS CONTRIBUTORY DRAINAGE AREA IS COMPLETED AND THE DRAINAGE AREA IS STABILIZED. IF CONSTRUCTION OF THE SMALL-SCALE BIORETENTION SYSTEM CANNOT BE DELAYED, BERMS MUST BE PLACED AROUND THE PERIMETER OF THE SYSTEM DURING ALL PHASES OF CONSTRUCTION TO DIVERT ALL FLOWS AWAY FROM THE BIORETENTION SYSTEM. THE BERMS MAY NOT BE REMOVED UNTIL ALL CONSTRUCTION WITHIN THE DRAINAGE AREA IS COMPLETED AND THE AREA IS STABILIZED.
6. THE CONTRIBUTING DRAINAGE AREA MUST BE COMPLETELY STABILIZED PRIOR TO BIORETENTION SYSTEM USE.
7. POST-CONSTRUCTION TESTING MUST BE PERFORMED ON THE AS-BUILT SMALL-SCALE BIORETENTION SYSTEM IN ACCORDANCE WITH THE CONSTRUCTION AND POST-CONSTRUCTION OVERSIGHT AND SOIL PERMEABILITY TESTING SECTION IN CHAPTER 12: SOIL TESTING CRITERIA OF THIS MANUAL, TO ENSURE THAT THE AS-BUILT SYSTEM FUNCTIONS AS DESIGNED. POST-CONSTRUCTION TESTING MUST INCLUDE A DETERMINATION OF THE PERMEABILITY RATES OF THE SOIL BED AND THE HYDRAULIC CAPACITY OF THE UNDERDRAIN, IN UNDERDRAIN SYSTEMS, OR THE PERMEABILITY OF THE SUBSOIL, IN INFILTRATED SYSTEMS, WHERE AS-BUILT TESTING RESULTS IN LONGER DRAIN TIMES THAN DESIGNED, CORRECTIVE ACTION MUST BE TAKEN. THE DRAIN TIME IS DEFINED AS THE TIME IT TAKES TO FULLY INFILTRATE THE MAXIMUM DESIGN STORM RUNOFF VOLUME THROUGH THE OBT HYDRAULICALLY RESTRICTIVE LAYER.



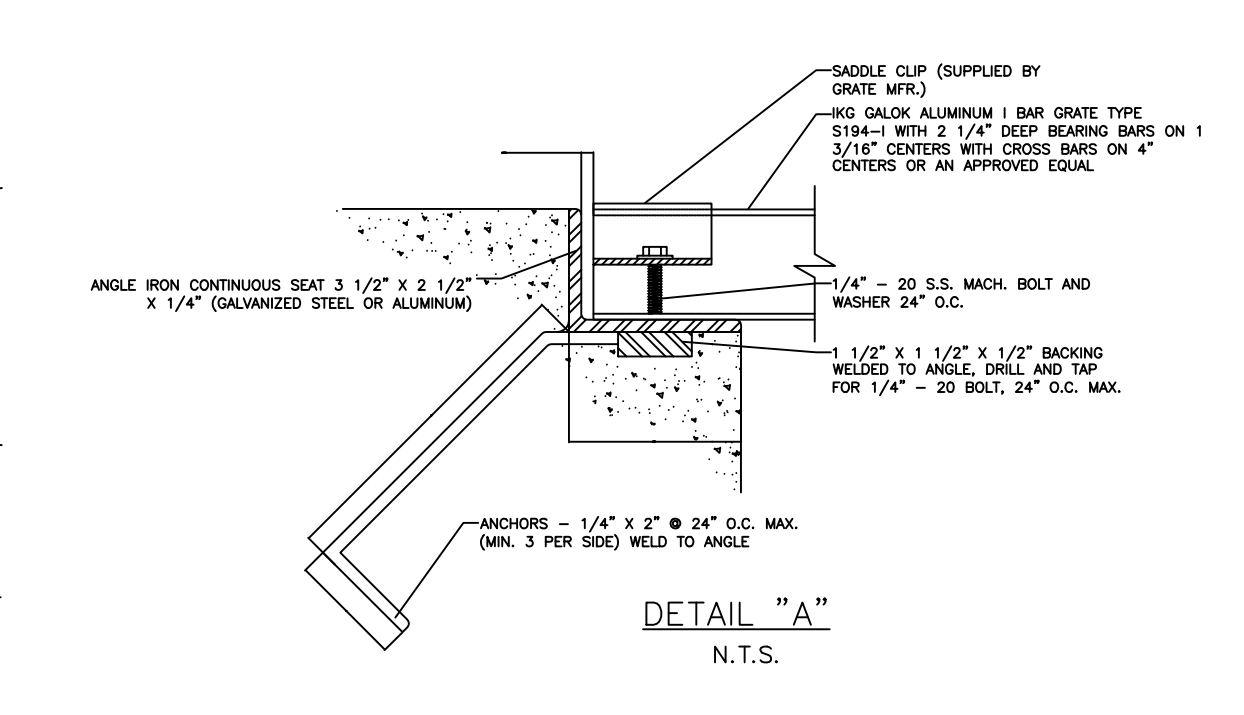
BIORETENTION BASIN #1 CROSS SECTION
N.T.S.



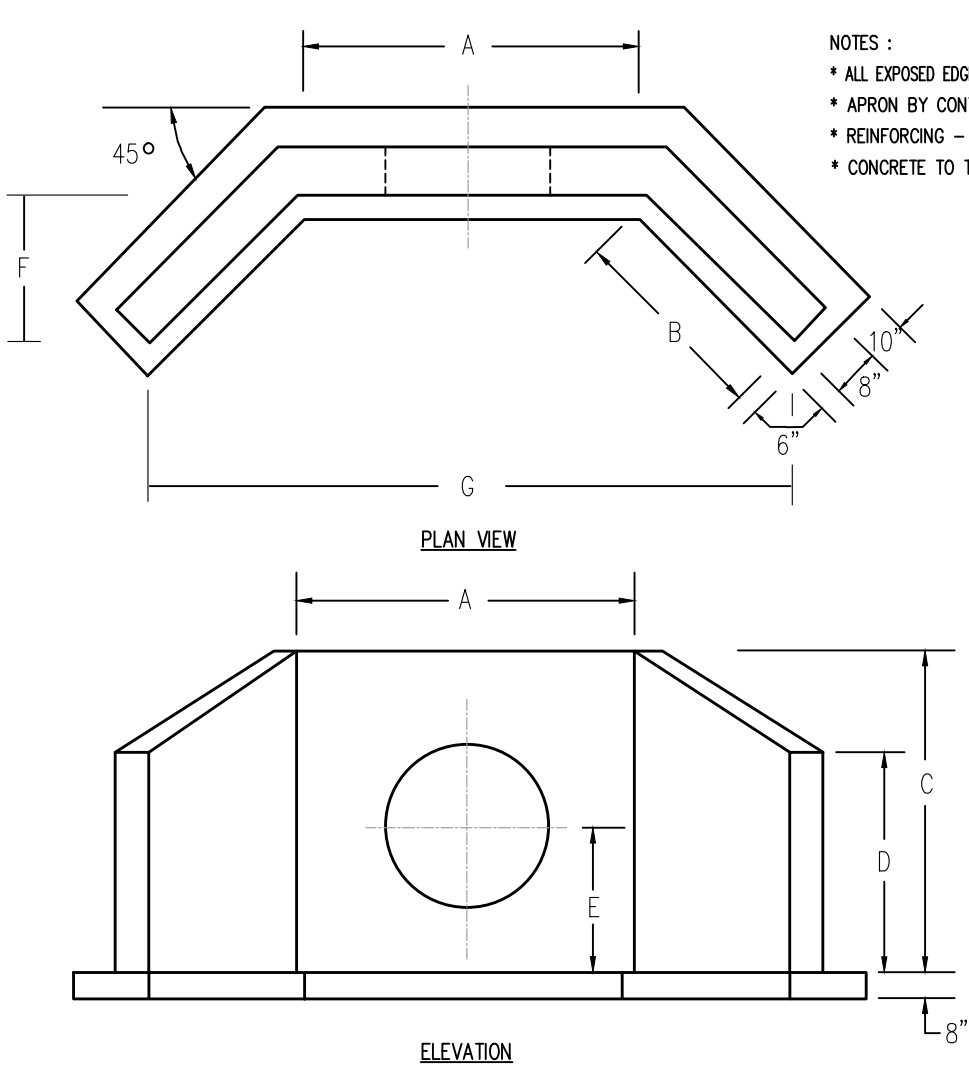
CLAY CORE DETAIL
N.T.S.



OUTLET CONTROL STRUCTURE SIDE VIEW
NOT TO SCALE



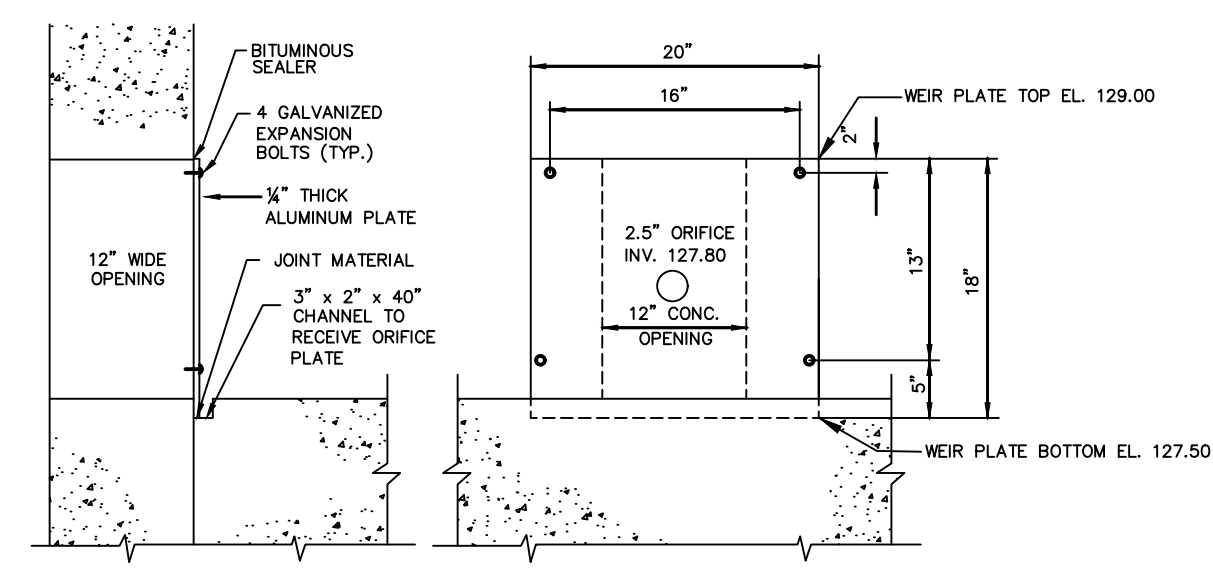
DETAIL "A"
N.T.S.



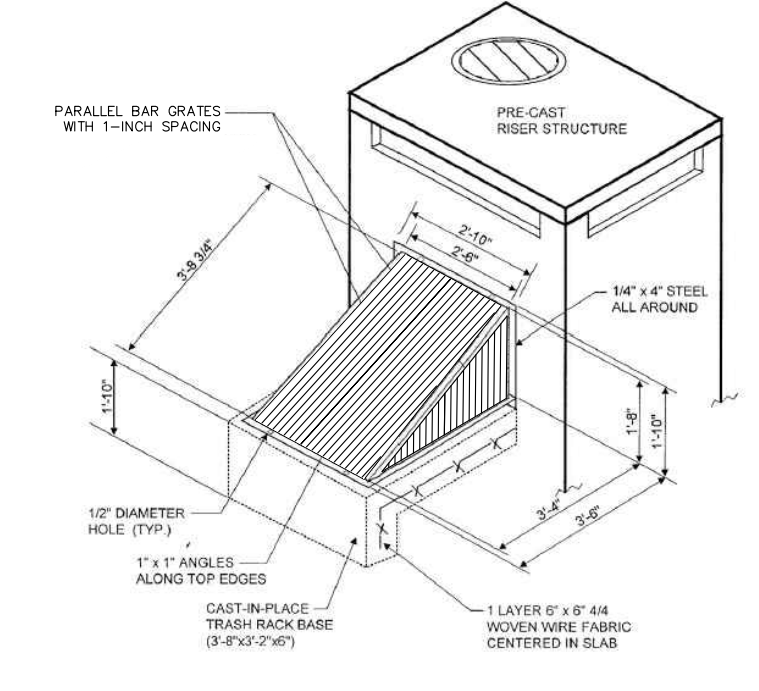
WINGWALL WITH FOOTING DETAIL
N.T.S.

PIPE DIA.	A	B	C	D	E	F	G	APPROX. WEIGHT
12"	36"	30"	54"	40"	36"	22"	78"	5445 LBS.
15"	48"	30"	60"	45"	37.5"	22"	92"	6400 LBS.
18"	48"	30"	60"	45"	39"	22"	92"	6400 LBS.
24"	60"	36"	64"	48"	42"	26"	112"	7250 LBS.
30"	72"	36"	72"	54"	45"	26"	124"	9276 LBS.
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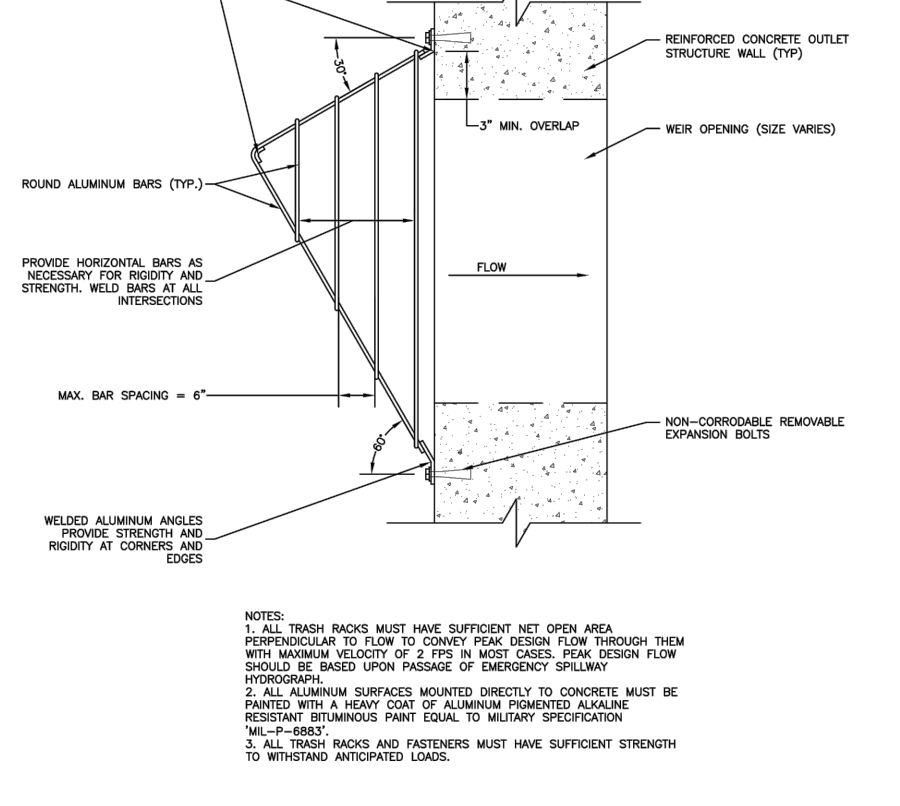
SPECIAL SIZES NOT LISTED CAN BE MFG. UPON REQUEST



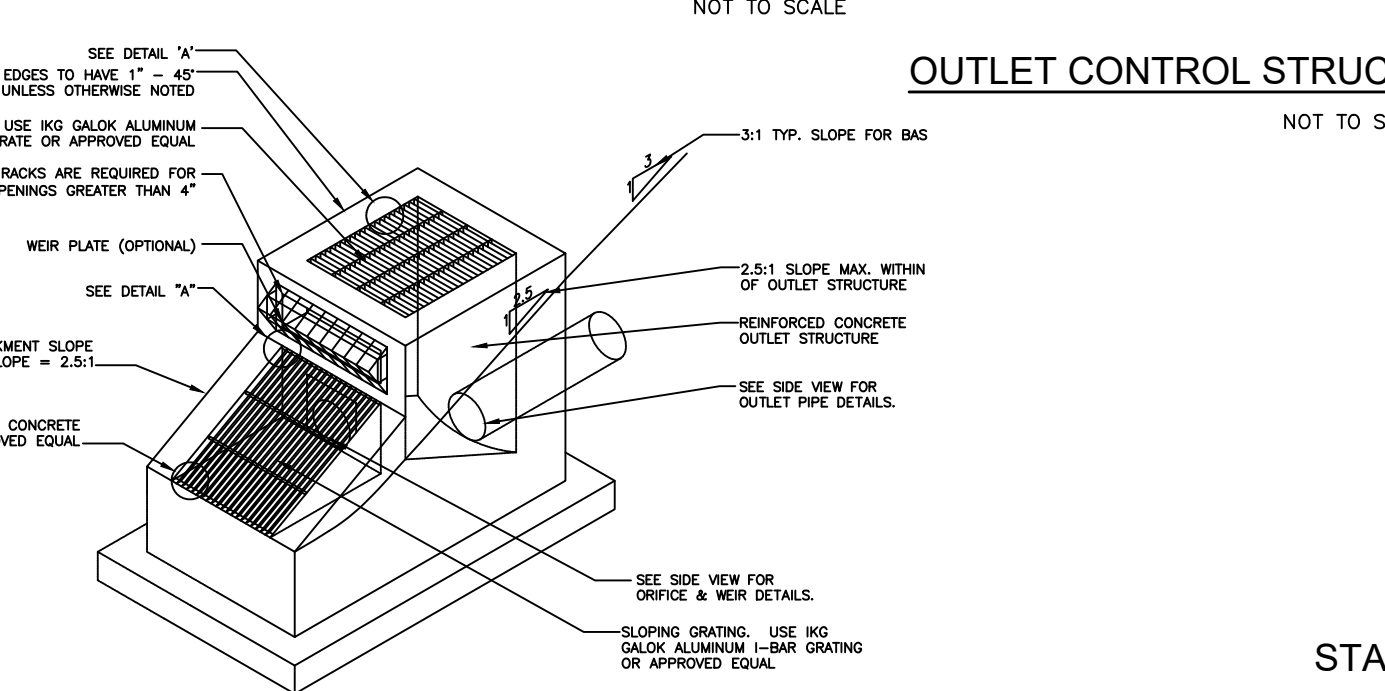
ORIFICE PLATE DETAIL
NOT TO SCALE



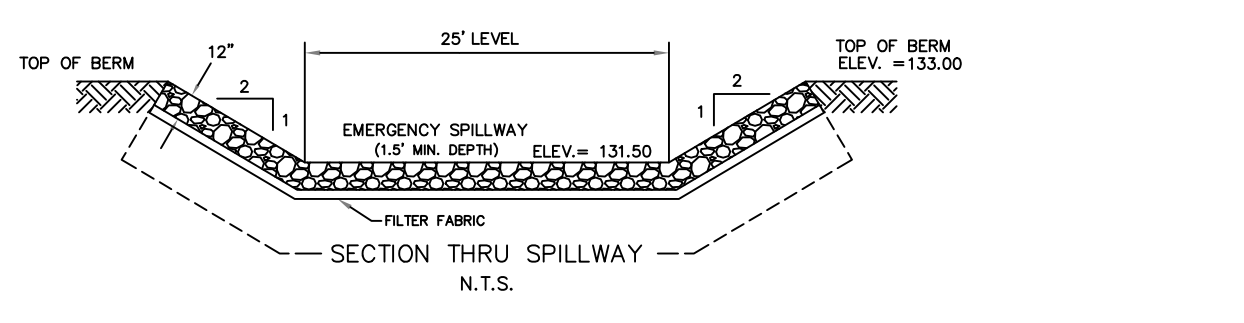
ORIFICE TRASH RACK DETAIL
N.T.S.



SECONDARY WEIR TRASH RACK DETAIL
N.T.S.



OUTLET CONTROL STRUCTURE - 8 (BIO-BASIN 1)
NOT TO SCALE



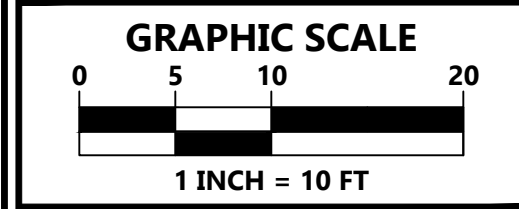
STABILIZED EMERGENCY SPILLWAY DETAIL (BIO-BASIN 1)
N.T.S.

REV/DESCRIPTION	AUTH	DATE
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811 Know what's below. Call before you dig. 1-800-272-1000

TO LOCATE UNDERGROUND UTILITIES IF YOU'RE GOING TO DIG, BLAST OR DRILL. THREE (3) WORKING DAYS NOTICE. REMEMBER IT'S THE LAW!

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Michael K. Ford
MICHAEL K. FORD
NEW JERSEY PROFESSIONAL ENGINEER NUMBER 34722

Van Cleef
ENGINEERING WITH FOCUS

VAN CLEEF ENGINEERING ASSOCIATES, LLC
32 BROWER LANE, HELLSBOROUGH, NJ 08844
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (908) 359-8291

BASIN DETAILS

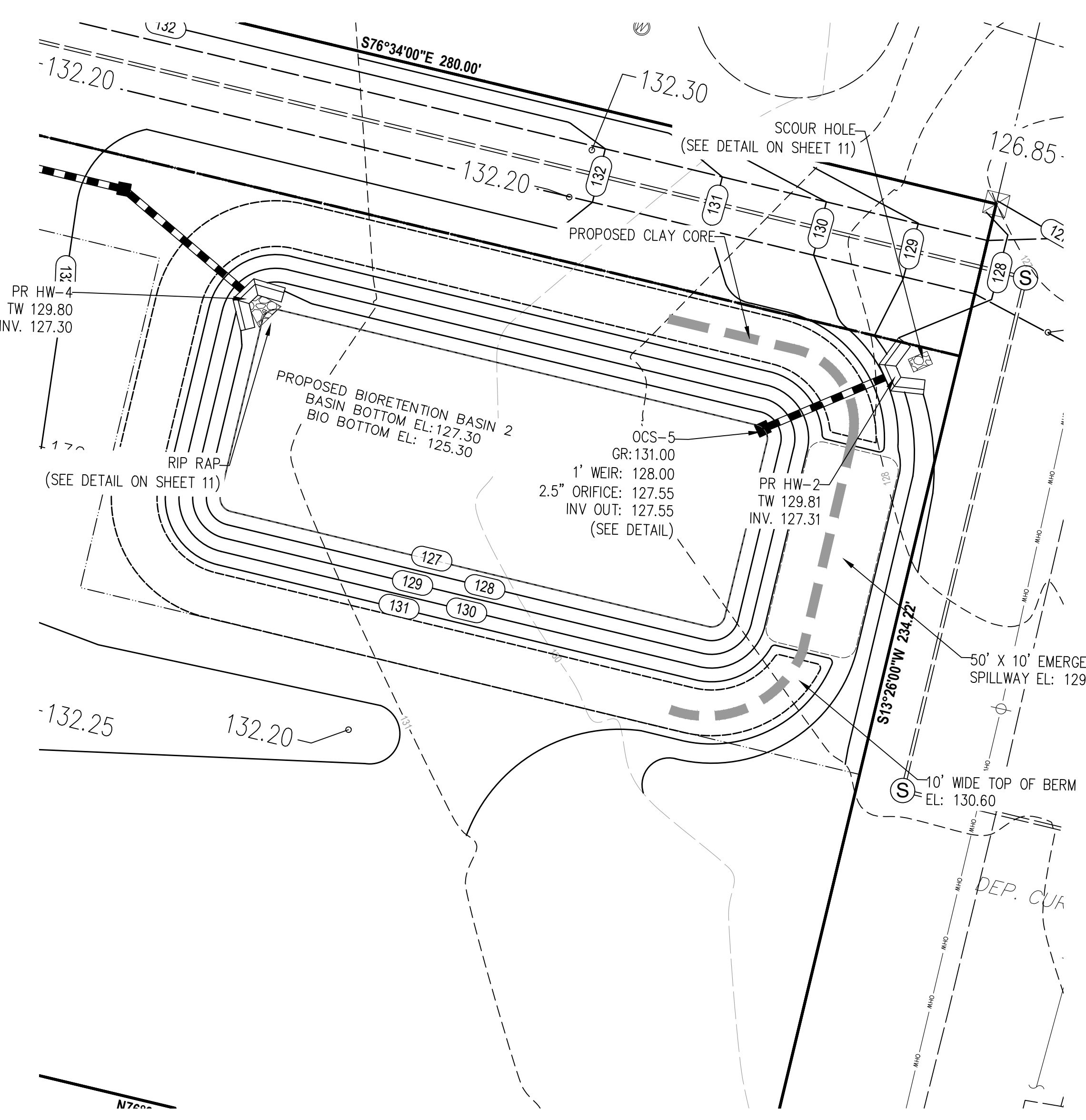
GREEN CARE FARMS
201 WOODS ROAD

DATE: OCTOBER 11, 2024
SCALE: 1"=50'
DESIGNED BY: M.K.F.
DRAWN BY: A.B.
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BLOCK 204 LOT 45.01

HILLSBOROUGH TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

File Path: I:\GIS\Projects\2024\11\1808\DWG\1808111808.DWG Date: 11/11/2024 11:08 AM



BIO-RETENTION BASIN (BIO-BASIN 2) PLAN
SCALE: 1" = 10'

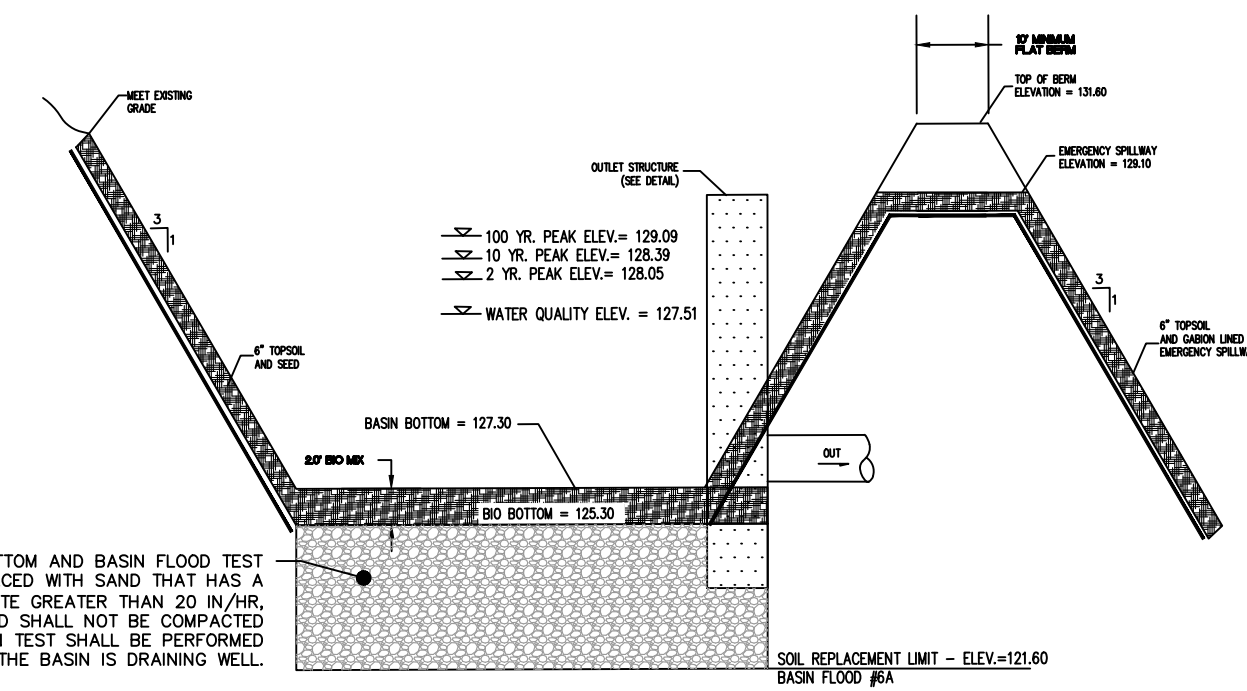
BIORETENTION BASIN NOTES:

BIOMIX NOTES:

1. THE SOIL BED MUST BE A MINIMUM 18 INCHES.
2. THE SOIL BED MATERIAL MUST CONSIST OF THE FOLLOWING MIX, BY VOLUME: 85 TO 95% SAND, WITH NO MORE THAN 25% OF THE SAND AS FINE OR VERY FINE SANDS; NO MORE THAN 15% SILT AND CLAY WITH 2% TO 5% CLAY CONTENT; THE ENTIRE MIX MUST THEN BE AMENDED WITH 3 TO 7% ORGANICS, BY WEIGHT.
3. THE SOIL BED MATERIAL SHALL BE FREE OF CONTAMINANTS.
4. THE PRE-MIXED SOIL MUST BE CERTIFIED TO BE CONSISTENT WITH THE REQUIREMENT ABOVE BY EITHER THE VENDOR OR BY A PROFESSIONAL ENGINEER LICENSED BY THE STATE OF NEW JERSEY; IN ADDITION, THE ENGINEER MUST BE PRESENT WHILE THE SOIL IS MIXED.
5. THE PH OF THE SOIL BED IS RECOMMENDED TO RANGE FROM 5.5 TO 6.5.
6. FOR THE CALCULATION OF RUNOFF RETENTION, THE POROSITY, THE FIELD CAPACITY AND THE WILTING POINT OF THE SOIL BED MATERIAL MUST BE OBTAINED EITHER FROM A PUBLISHED RESEARCH ARTICLE OR TESTED IN ACCORDANCE WITH THE ASTM D-6836 METHOD OR THE SOIL SURVEY INVESTIGATIONS REPORT NO.42, KELLOGG SOIL SURVEY LABORATORY METHODS MANUAL, PUBLISHED BY NRCS.
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CONSTRUCTION REQUIREMENTS:

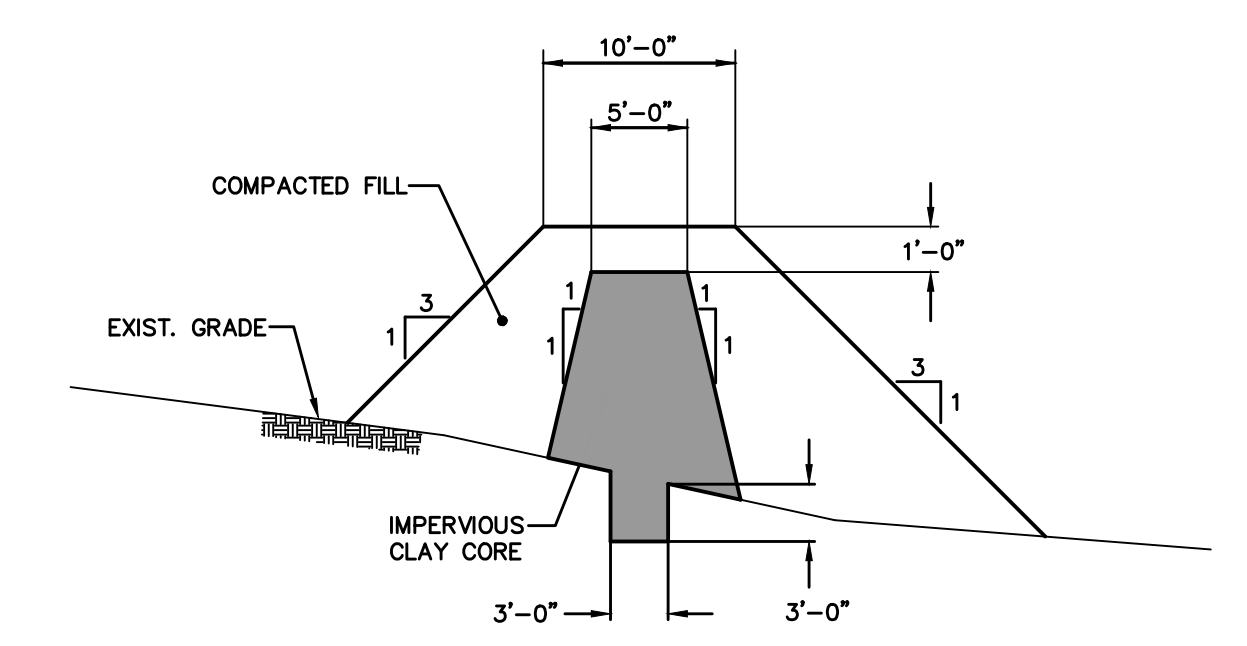
1. DURING CLEARING AND GRADING OF THE SITE, MEASURES MUST BE TAKEN TO ELIMINATE SOIL COMPACTION AT THE LOCATION OF THE PROPOSED SMALL-SCALE BIORETENTION SYSTEM.
2. THE LOCATION OF THE PROPOSED SMALL-SCALE BIORETENTION SYSTEM MUST BE CORDONED OFF DURING CONSTRUCTION TO PREVENT COMPACTION OF THE SUBSOIL BY CONSTRUCTION EQUIPMENT STOCKPILES.
3. EXCAVATION AND CONSTRUCTION OF A SMALL-SCALE BIORETENTION SYSTEM DESIGNED TO INFILTRATE MUST BE PERFORMED WITH EQUIPMENT PLACED OUTSIDE THE LIMITS OF THE BASIN.
4. THE LOCATION OF THE PROPOSED SMALL-SCALE BIORETENTION SYSTEM SHOULD NOT BE USED TO PROVIDE SEDIMENT CONTROL DURING CONSTRUCTION; HOWEVER, WHEN UNAVOIDABLE, THE BOTTOM OF THE SEDIMENT CONTROL BASIN SHOULD BE AT LEAST 2 FEET ABOVE THE FINAL DESIGN ELEVATION OF THE BOTTOM OF THE SOIL BED IN THE SMALL-SCALE BIORETENTION BASIN.
5. THE EXCAVATION TO THE FINAL DESIGN ELEVATION OF THE SMALL-SCALE BIORETENTION SYSTEM BOTTOM MAY ONLY OCCUR AFTER ALL CONSTRUCTION WITHIN ITS CONTRIBUTORY DRAINAGE AREA IS COMPLETED AND THE DRAINAGE AREA IS STABILIZED. IF CONSTRUCTION OF THE SMALL-SCALE BIORETENTION SYSTEM CANNOT BE DELAYED, BERMS MUST BE PLACED AROUND THE PERIMETER OF THE SYSTEM DURING ALL PHASES OF CONSTRUCTION TO DIVERT ALL FLOWS AWAY FROM THE BIORETENTION SYSTEM. THE BERMS MAY NOT BE REMOVED UNTIL ALL CONSTRUCTION WITHIN THE DRAINAGE AREA IS COMPLETED AND THE AREA IS STABILIZED.
6. THE CONTRIBUTORY DRAINAGE AREA MUST BE COMPLETELY STABILIZED PRIOR TO BIORETENTION SYSTEM USE.
7. POST-CONSTRUCTION TESTING MUST BE PERFORMED ON THE AS-BUILT SMALL-SCALE BIORETENTION SYSTEM IN ACCORDANCE WITH THE CONSTRUCTION AND POST-CONSTRUCTION OVERSIGHT AND SOIL PERMEABILITY TESTING SECTION IN CHAPTER 12: SOIL TESTING CRITERIA OF THIS MANUAL, TO ENSURE THAT THE AS-BUILT SYSTEM FUNCTIONS AS DESIGNED. POST-CONSTRUCTION TESTING MUST INCLUDE A DETERMINATION OF THE PERMEABILITY RATES OF THE SOIL BED AND THE HYDRAULIC CAPACITY OF THE UNDERDRAIN, IN UNDERDRAIN SYSTEMS, OR THE PERMEABILITY OF THE SUBSOIL, IN INFILTRATED SYSTEMS. WHERE AS-BUILT TESTING RESULTS IN LONGER DRAIN TIMES THAN DESIGNED, CORRECTIVE ACTION MUST BE TAKEN. THE DRAIN TIME IS DEFINED AS THE TIME IT TAKES TO FULLY INFILTRATE THE MAXIMUM DESIGN STORM RUNOFF VOLUME THROUGH THE MOST HYDRAULICALLY RESTRICTIVE LAYER.



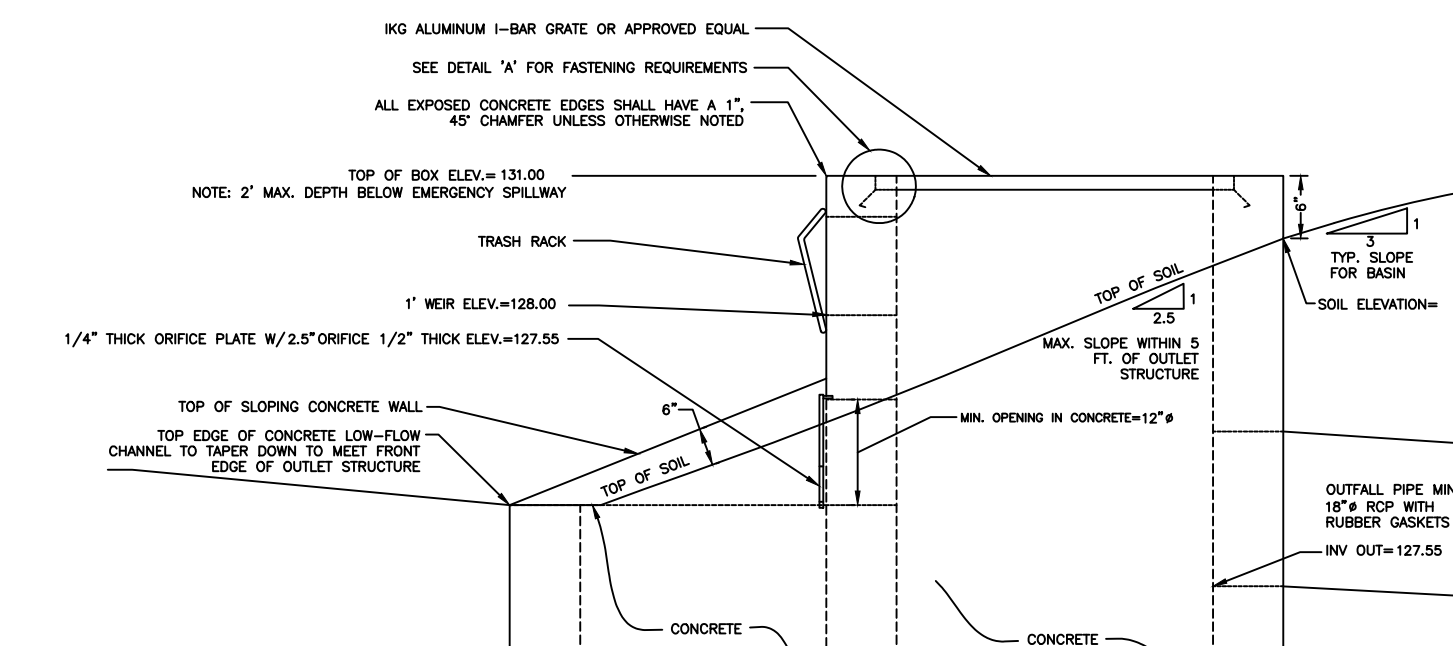
BIORETENTION BASIN #2 CROSS SECTION
N.T.S.

EMBANKMENT AND DETENTION BASIN CLAY CORE

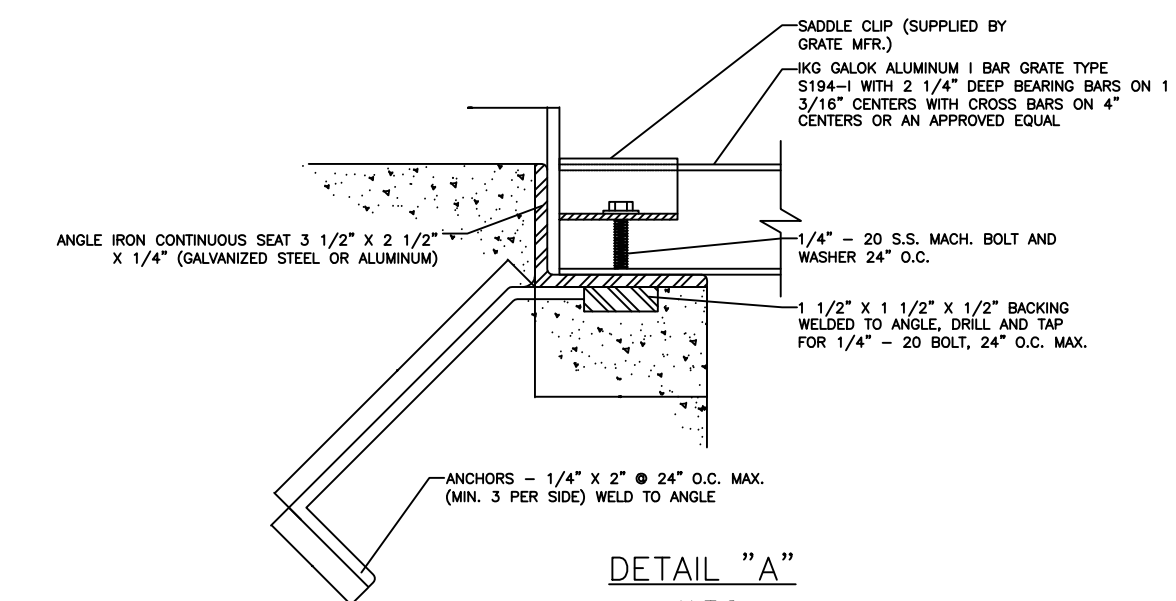
1. THE CLAY CORE SHALL CONSIST OF COMPACTED CLAY MATERIAL (UNIFIED SOIL CLASSIFICATION "CL").
2. THE FILL MATERIAL IN ALL EARTH DAMS AND EMBANKMENTS SHALL BE COMPACTED TO AT LEAST 90% OF THE MAXIMUM DENSITY OBTAINED FROM COMPACTION TESTS PERFORMED BY THE APPROPRIATE METHOD IN ASTM D698.
3. TREES AND OTHER VEGETATION WITH LARGE EXTENSIVE ROOT STRUCTURE SHALL NOT BE PERMITTED ON ANY DAM OR EMBANKMENT.
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CLAY CORE DETAIL
N.T.S.



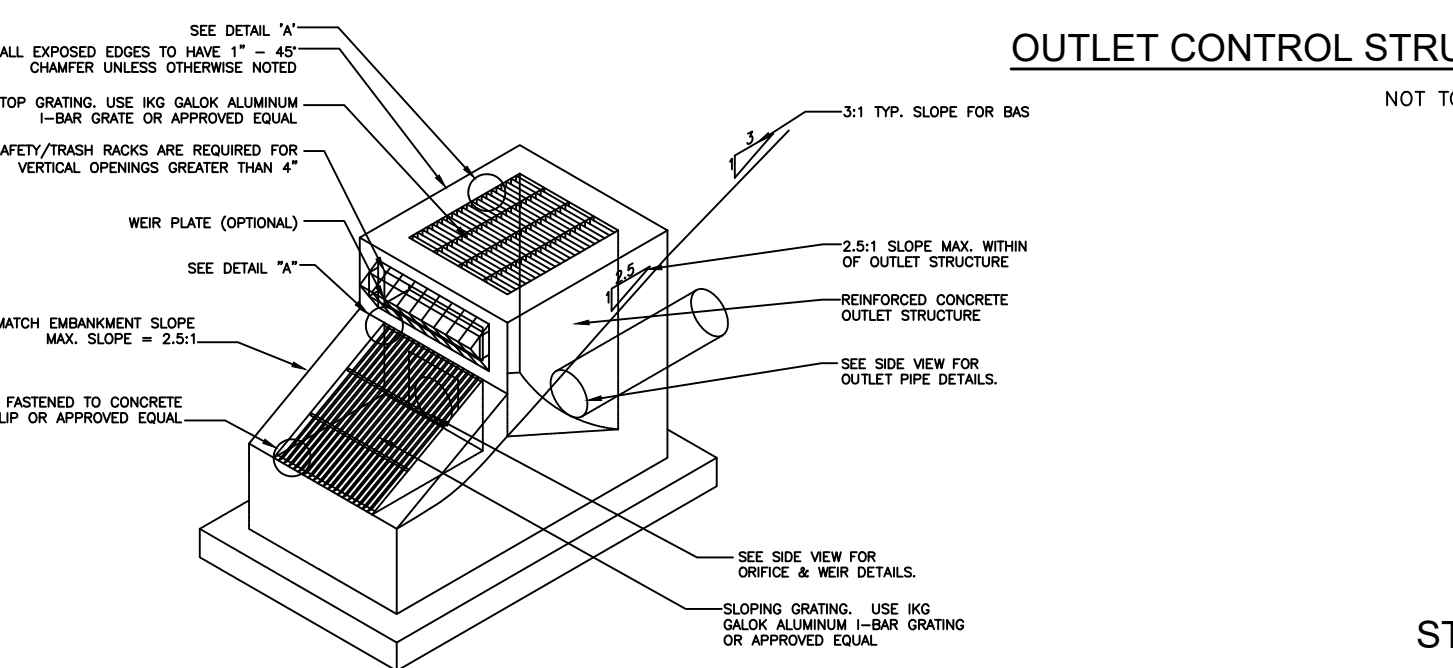
OUTLET CONTROL STRUCTURE SIDE VIEW
NOT TO SCALE



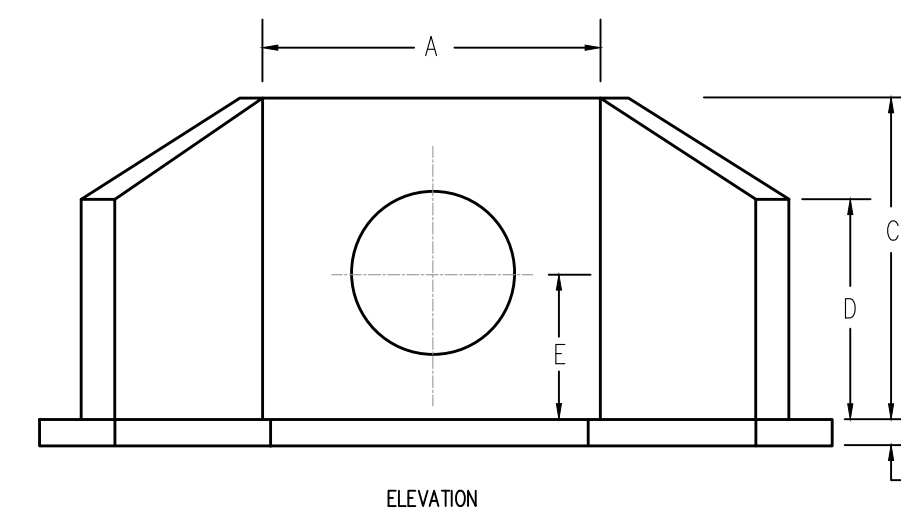
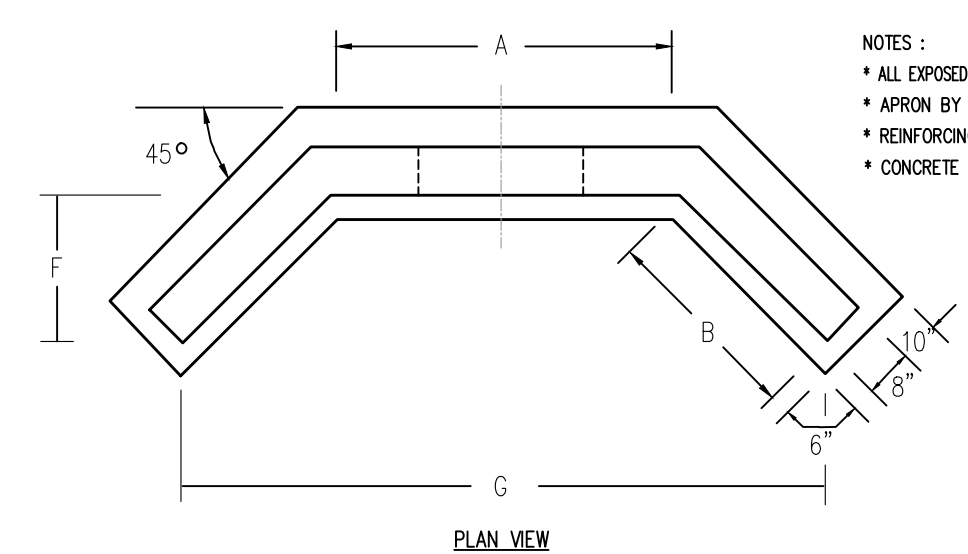
DETAIL "A"
N.T.S.

NOTES:

1. STRUCTURAL CALCULATIONS AND SHOP DRAWINGS SHALL BE SUBMITTED TO THE COUNTY ENGINEERING DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
2. THE MINIMUM WALL THICKNESS SHALL BE 2\"/>



OUTLET CONTROL STRUCTURE - 8 (BIO-BASIN 1)
NOT TO SCALE

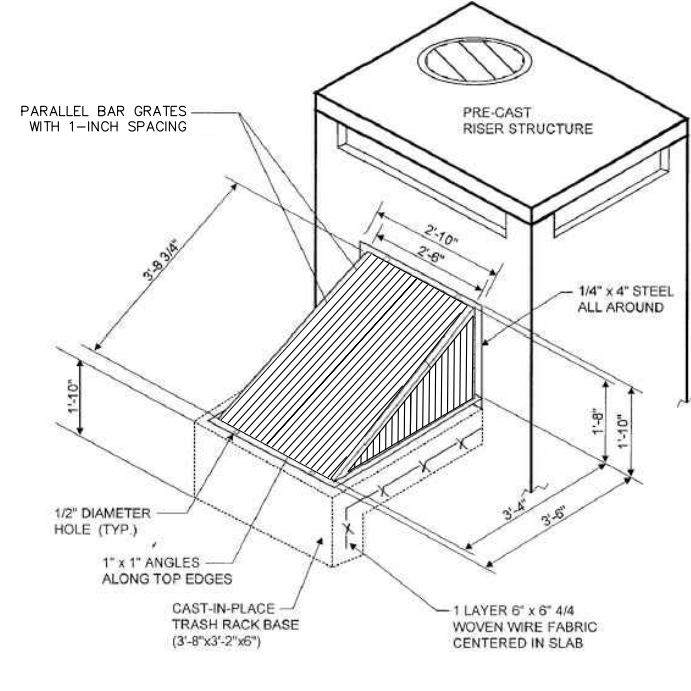


WINGWALL WITH FOOTING DETAIL
N.T.S.

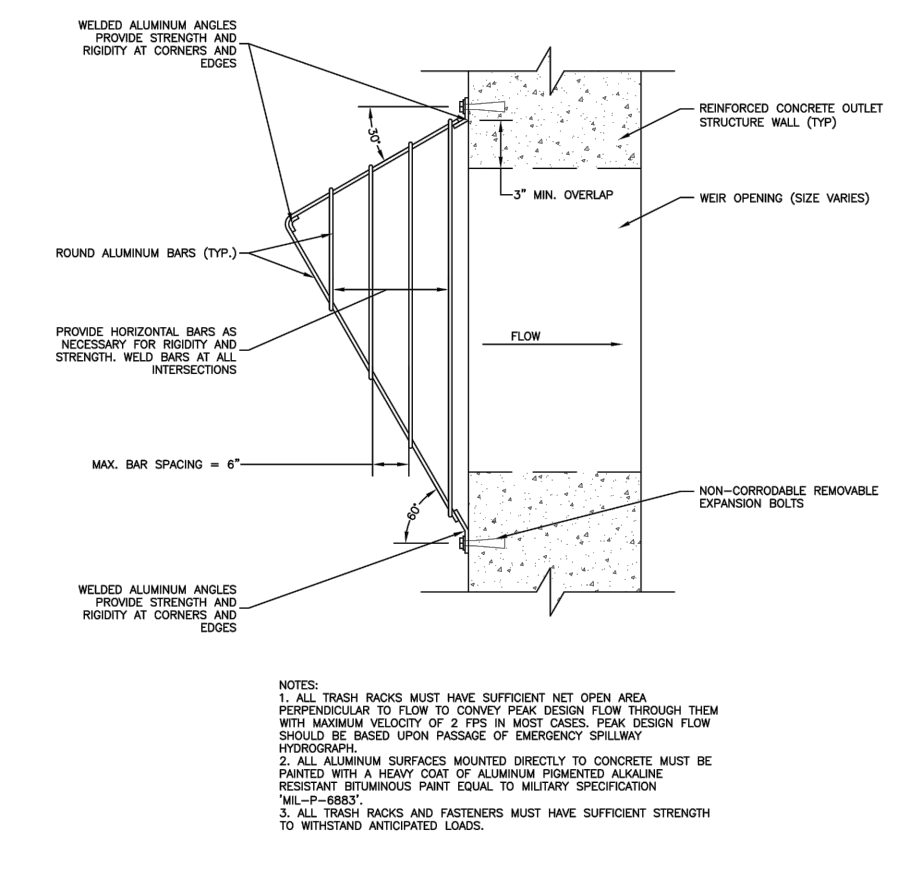
DMENSION SCHEDULE

PIPE DIA.	A	B	C	D	E	F	G	APPROX. WEIGHT
12"	36"	30"	54"	42"	36"	22"	78"	5445 LBS.
15"	48"	30"	60"	45"	37.5"	22"	92"	6400 LBS.
18"	48"	30"	60"	45"	39"	22"	92"	6400 LBS.
24"	60"	36"	64"	48"	42"	26"	112"	7250 LBS.
30"	72"	36"	72"	54"	45"	26"	124"	9276 LBS.
36"	78"	48"	78"	60"	48"	35"	144"	11623 LBS.
48"	84"	48"	90"	66"	54"	35"	150"	12402 LBS.

SPECIAL SIZES NOT LISTED CAN BE MFG. UPON REQUEST



ORIFICE TRASH RACK DETAIL
N.T.S.



SECONDARY WEIR TRASH RACK DETAIL
N.T.S.

REV/DESCRIPTION AUTH DATE

SERIAL NO. _____

TO LOCATE UNDERGROUND UTILITIES
IF YOU'RE GOING TO DIG, BLAST OR DRILL
THREE (3) WORKING DAYS NOTICE
REMEMBER
IT'S THE LAW!
Dig Safely.
Call before you dig.
1-800-272-1000

GRAPHIC SCALE
0 5 10 20
1 INCH = 10 FT

PLAN NOTATION
ONLY THOSE PLANS WHICH CONTAIN A DIGITAL IMPRESSED, OR COLORIZED INK SEAL OF THE RESPONSIBLE PROFESSIONAL, SHALL BE CONSIDERED VALID. THIS PLAN HAS BEEN SPECIALLY PREPARED FOR THE OWNER DESIGNATED HEREON. ANY MODIFICATION, REVISION, DUPLICATION OR USE WITHOUT THE WRITTEN CONSENT OF VAN CLEEF ENGINEERING ASSOCIATES IS PROHIBITED. RELIANCE ON THIS PLAN FOR ANY PURPOSE OTHER THAN THAT WHICH IS INTENDED SHALL BE AT THE SOLE DISCRETION AND LIABILITY OF THE APPLICABLE PARTY.

Michael K. Ford
MICHAEL K. FORD
NEW JERSEY PROFESSIONAL
ENGINEER NUMBER 34722

Van Cleef
ENGINEERING WITH FOCUS

VAN CLEEF ENGINEERING ASSOCIATES, LLC
32 BROWER LANE, HILLSBOROUGH, NJ 08844
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (908) 359-8291

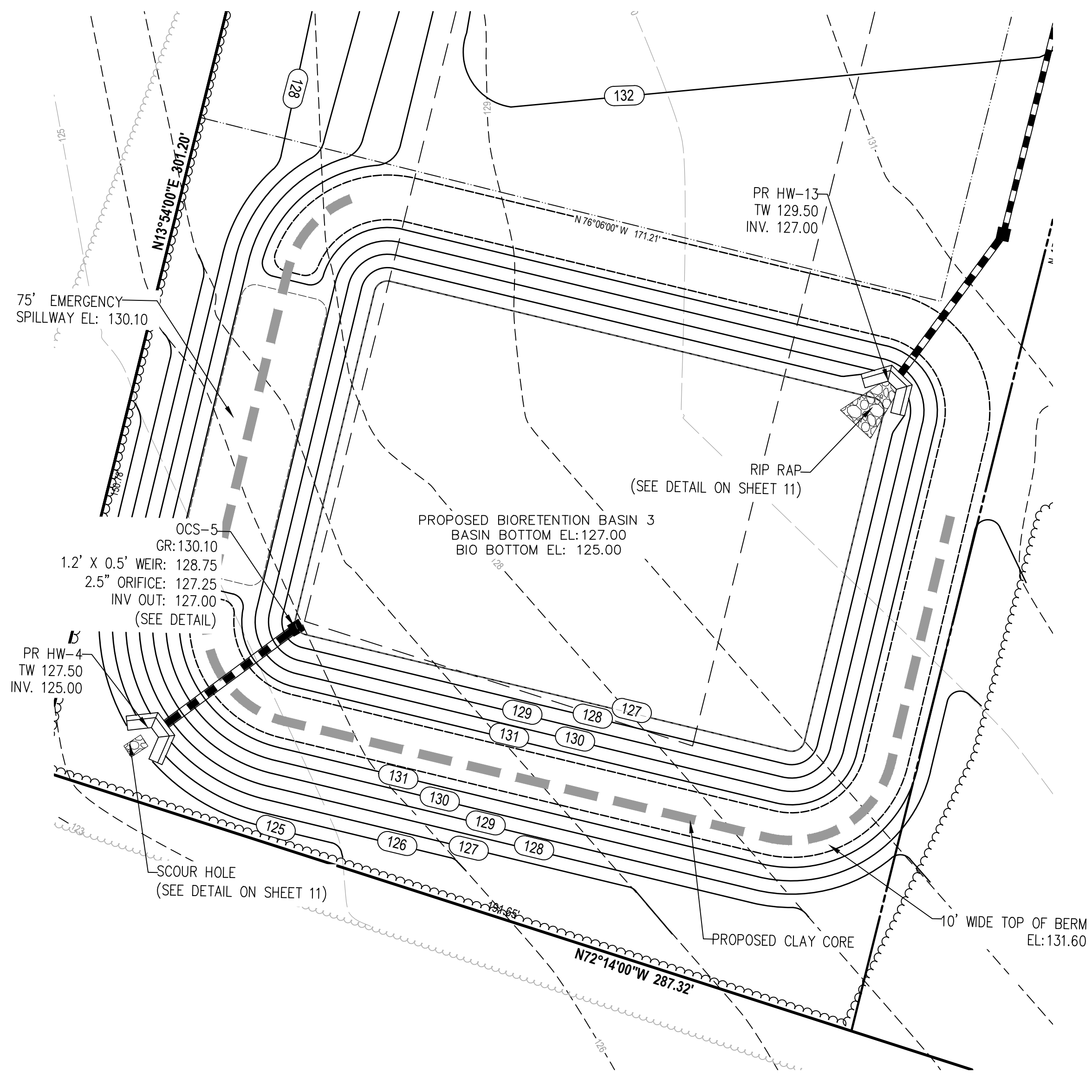
BASIN DETAILS

GREEN CARE FARMS
201 WOODS ROAD

DATE: OCTOBER 11, 2024
SCALE: 1" = 50'
DESIGNED BY: M.K.F.
DRAWN BY: A.B.
CHECKED BY: M.K.F.
JOB NUMBER: 1863H

BLOCK 204 LOT 45.01

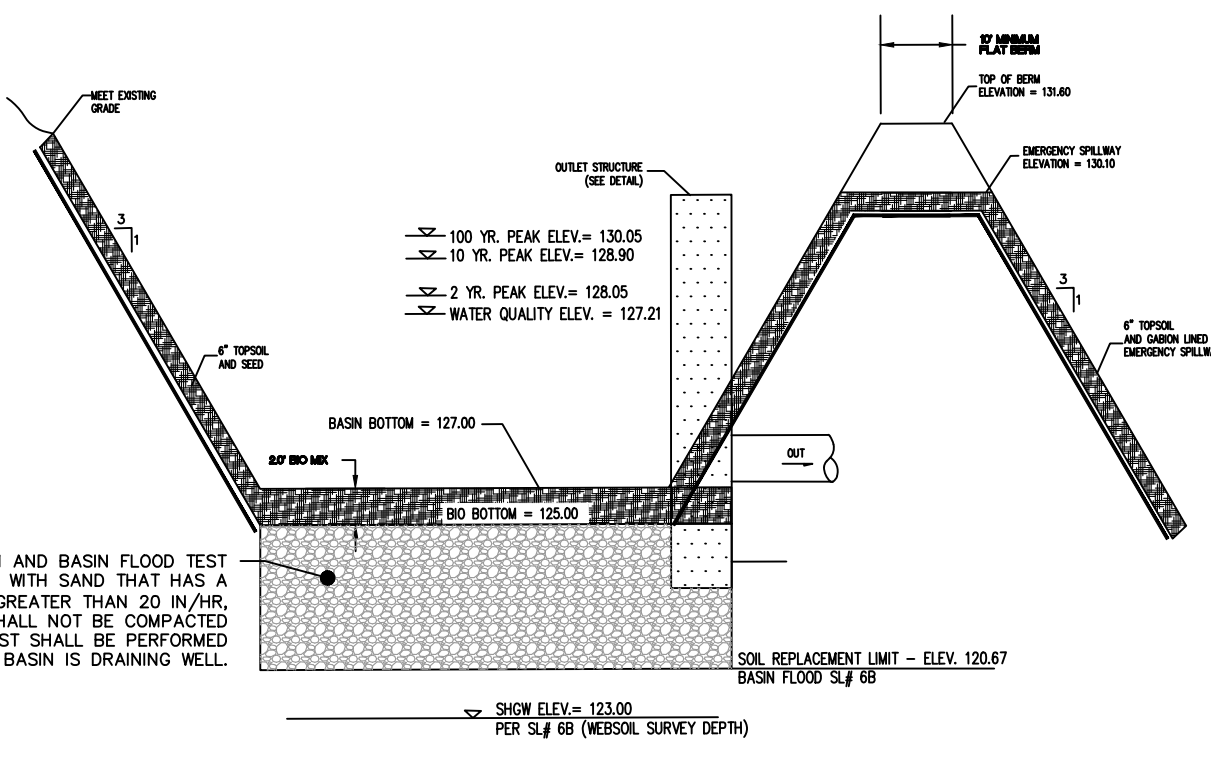
HILLSBOROUGH TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY



BIO-RETENTION BASIN (BIO-BASIN 2) PLAN
SCALE: 1" = 10'

BIORETENTION BASIN NOTES:

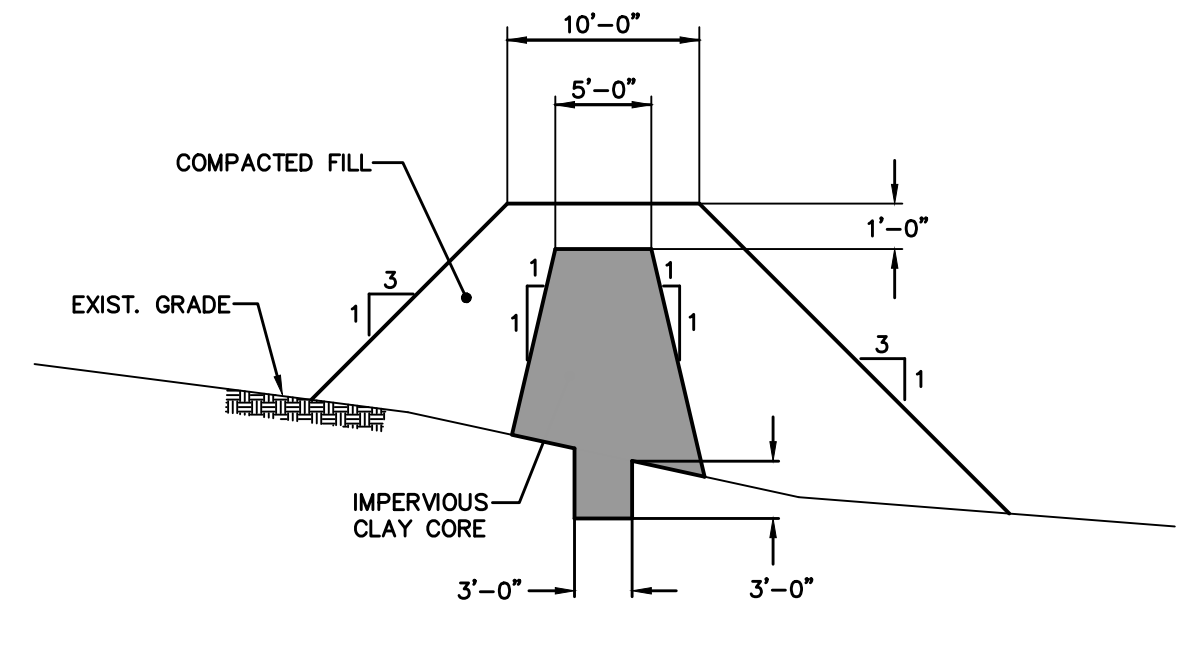
- BIO MIX NOTES:**
1. THE SOIL BED MUST BE A MINIMUM 18 INCHES.
 2. THE SOIL BED MATERIAL MUST CONSIST OF THE FOLLOWING MIX, BY VOLUME: 85 TO 95% SAND, WITH NO MORE THAN 25% OF THE SAND AS FINE OR VERY FINE SANDS; NO MORE THAN 15% SILT AND CLAY WITH 2% TO 5% CLAY CONTENT; THE ENTIRE MIX MUST THEN BE AMENDED WITH 3 TO 7% ORGANICS, BY WEIGHT.
 3. THE SOIL BED MATERIAL SHALL BE FREE OF CONTAMINANTS.
 4. THE PRE-MIXED SOIL MUST BE CERTIFIED TO BE CONSISTENT WITH THE REQUIREMENT ABOVE BY EITHER THE VENDOR OR BY A PROFESSIONAL ENGINEER LICENSED BY THE STATE OF NEW JERSEY; IN ADDITION, THE ENGINEER MUST BE PRESENT WHILE THE SOIL IS MIXED.
 5. THE PH OF THE SOIL BED IS RECOMMENDED TO RANGE FROM 5.5 TO 6.5.
 6. FOR THE CALCULATION OF RUNOFF RETENTION, THE POROSITY, THE FIELD CAPACITY AND THE WILTING POINT OF THE SOIL BED MATERIAL MUST BE OBTAINED EITHER FROM A PUBLISHED RESEARCH ARTICLE OR TESTED IN ACCORDANCE WITH THE ASTM D-6836 METHOD OR THE SOIL SURVEY INVESTIGATIONS REPORT NO.42, KELLOGG SOIL SURVEY LABORATORY METHODS MANUAL, PUBLISHED BY NRCS.
 7. THE SOIL BED MATERIAL MUST BE PLACED IN LIFTS NOT TO EXCEED 6 INCHES. ADDITIONAL MATERIALS MAY BE NECESSARY TO ACCOUNT FOR SETTLING OVER TIME.
- CONSTRUCTION REQUIREMENTS:**
1. DURING CLEARING AND GRADING OF THE SITE, MEASURES MUST BE TAKEN TO ELIMINATE SOIL COMPACTION AT THE LOCATION OF THE PROPOSED SMALL-SCALE BIORETENTION SYSTEM.
 2. THE LOCATION OF THE PROPOSED SMALL-SCALE BIORETENTION SYSTEM MUST BE CORDONED OFF DURING CONSTRUCTION TO PREVENT COMPACTION OF THE SUBSOIL BY CONSTRUCTION EQUIPMENT STOCKPILES.
 3. EXCAVATION AND CONSTRUCTION OF A SMALL-SCALE BIORETENTION SYSTEM DESIGNED TO INFILTRATE MUST BE PERFORMED WITH EQUIPMENT PLACED OUTSIDE THE LIMITS OF THE BASIN.
 4. THE LOCATION OF THE PROPOSED SMALL-SCALE BIORETENTION SYSTEM SHOULD NOT BE USED TO PROVIDE SEDIMENT CONTROL DURING CONSTRUCTION; HOWEVER, WHEN UNAVOIDABLE, THE BOTTOM OF THE SEDIMENT CONTROL BASIN SHOULD BE AT LEAST 2 FEET ABOVE THE FINAL DESIGN ELEVATION OF THE BOTTOM OF THE SOIL BED IN THE SMALL-SCALE BIORETENTION BASIN.
 5. THE EXCAVATION TO THE FINAL DESIGN ELEVATION OF THE SMALL-SCALE BIORETENTION SYSTEM BOTTOM MAY ONLY OCCUR AFTER ALL CONSTRUCTION WITHIN ITS CONTRIBUTORY DRAINAGE AREA IS COMPLETED AND THE DRAINAGE AREA IS STABILIZED. IF CONSTRUCTION OF THE SMALL-SCALE BIORETENTION SYSTEM CANNOT BE DELAYED, BERMS MUST BE PLACED AROUND THE PERIMETER OF THE SYSTEM DURING ALL PHASES OF CONSTRUCTION TO DIVERT ALL FLOWS AWAY FROM THE BIORETENTION SYSTEM. THE BERMS MAY NOT BE REMOVED UNTIL ALL CONSTRUCTION WITHIN THE DRAINAGE AREA IS COMPLETED AND THE AREA IS STABILIZED.
 6. THE CONTRIBUTORY DRAINAGE AREA MUST BE COMPLETELY STABILIZED PRIOR TO BIORETENTION SYSTEM USE.
 7. POST-CONSTRUCTION TESTING MUST BE PERFORMED ON THE AS-BUILT SMALL-SCALE BIORETENTION SYSTEM IN ACCORDANCE WITH THE CONSTRUCTION AND POST-CONSTRUCTION OVERSIGHT AND SOIL PERMEABILITY TESTING SECTION IN CHAPTER 12: SOIL TESTING CRITERIA OF THIS MANUAL, TO ENSURE THAT THE AS-BUILT SYSTEM FUNCTIONS AS DESIGNED. POST-CONSTRUCTION TESTING MUST INCLUDE A DETERMINATION OF THE PERMEABILITY RATES OF THE SOIL BED AND THE HYDRAULIC CAPACITY OF THE UNDERDRAIN, IN UNDERDRAIN SYSTEMS, OR THE PERMEABILITY OF THE SUBSOIL, IN INFILTRATED SYSTEMS. WHERE AS-BUILT TESTING RESULTS IN LONGER DRAIN TIMES THAN DESIGNED, CORRECTIVE ACTION MUST BE TAKEN. THE DRAIN TIME IS DEFINED AS THE TIME IT TAKES TO FULLY INFILTRATE THE MAXIMUM DESIGN STORM RUNOFF VOLUME THROUGH THE OST HYDRAULICALLY RESTRICTIVE LAYER.



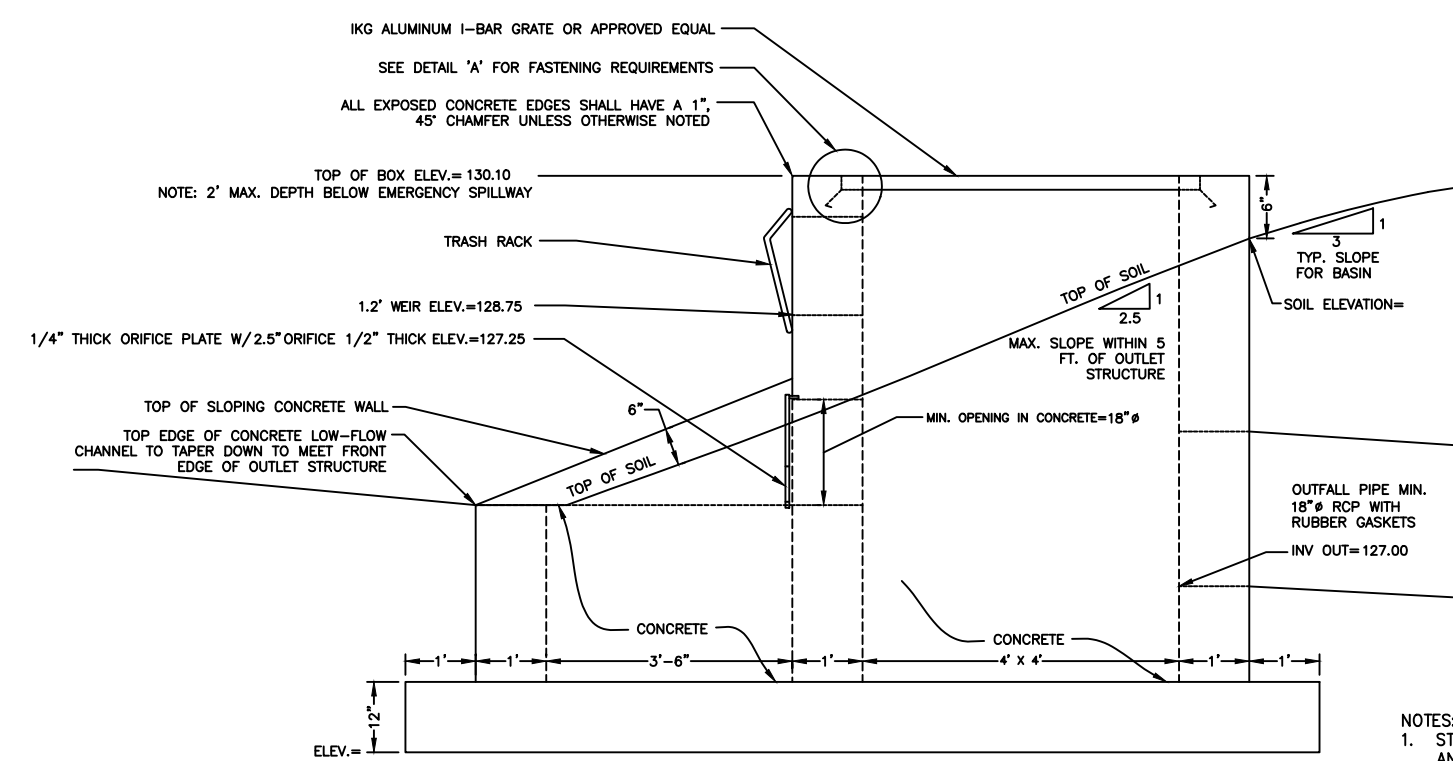
BIORETENTION BASIN #2 CROSS SECTION
N.T.S.

EMBANKMENT AND DETENTION BASIN CLAY CORE

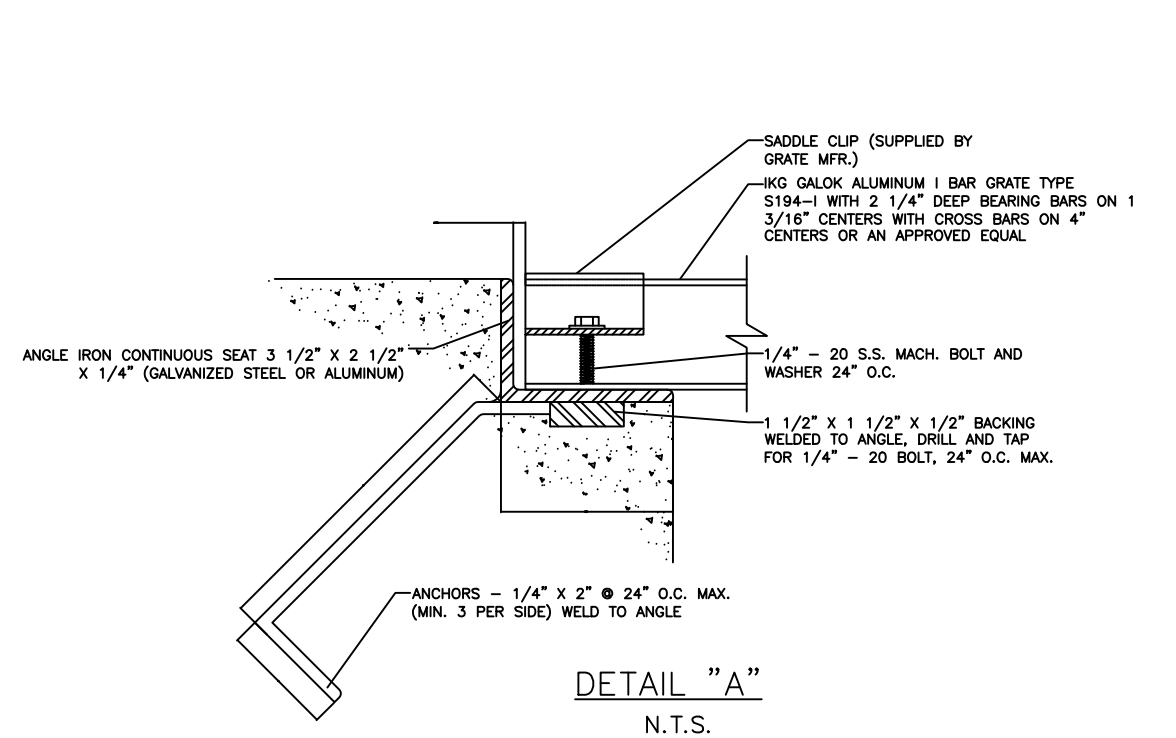
1. THE CLAY CORE SHALL CONSIST OF COMPACTED CLAY MATERIAL (UNIFIED SOIL CLASSIFICATION "CL")
2. THE FILL MATERIAL IN ALL EARTH DAMS AND EMBANKMENTS SHALL BE COMPACTED TO AT LEAST 90% OF THE MAXIMUM DENSITY OBTAINED FROM COMPACTION TESTS PERFORMED BY THE APPROPRIATE METHOD IN ASTM D698.
3. TREES AND OTHER VEGETATION WITH LARGE EXTENSIVE ROOT STRUCTURE SHALL NOT BE PERMITTED ON ANY DAM OR EMBANKMENT.
4. THE BASIN IS TO BE TOPSOILED WITH A MINIMUM OF 4 INCHES OF TOPSOIL AND SEEDED, INCLUDING THE SIDE SLOPES AND ALL EARTHEN DAMS AND EMBANKMENTS. "TOPSOIL" IS DEFINED AS THE NATURAL UNDISTURBED SURFACE LAYER OF SOIL HAVING MORE ORGANIC MATTER THAN SUBSEQUENT LAYERS SUITABLE FOR SATISFACTORY GROWTH AND MAINTENANCE OF PERMANENT, LOCALLY ADAPTED VEGETATION. THE MATERIAL MUST BE FRAGILE, LOAMY SOIL REASONABLE FREE OF DEBRIS, OBJECTIONABLE WEEDS, LUMPS, ROOTS, STONES OR SIMILAR OBJECTS LARGER THAN 2 INCHES IN ANY DIMENSION, HAVE A NATURAL PH OF 5.0 TO 7.5; HAVE AN ORGANIC MATTER CONTENT GREATER THAN 2.00% AND CONTAIN NO TOXIC SUBSTANCES WHICH MAY BE HARMFUL TO PLANT GROWTH. THE SEEDING SHALL, AS A MINIMUM, CONFORM TO TYPE "A" GRASS SEED MIXTURE AS DEFINED IN THE NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.



CLAY CORE DETAIL
N.T.S.

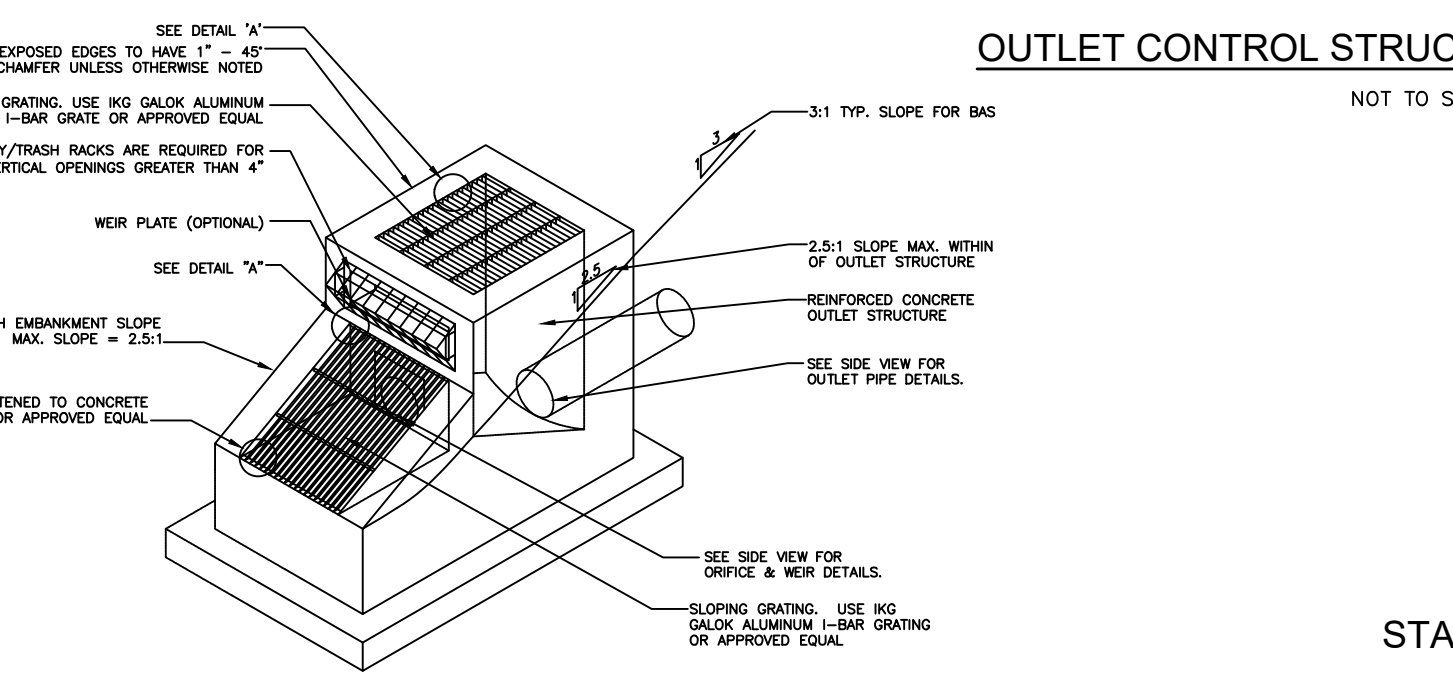


OUTLET CONTROL STRUCTURE SIDE VIEW
NOT TO SCALE

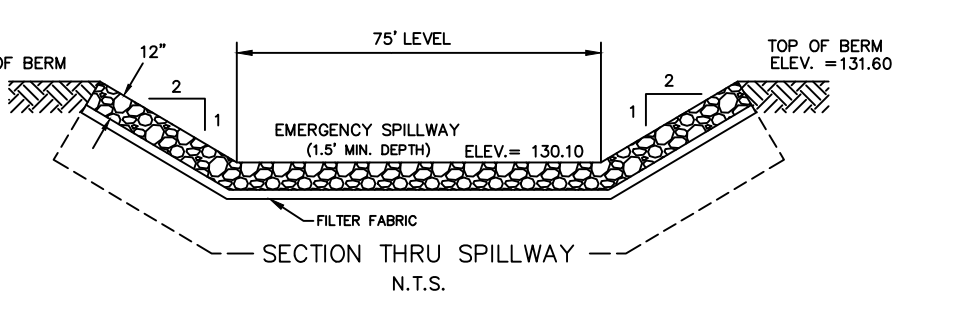


DETAIL "A"
N.T.S.

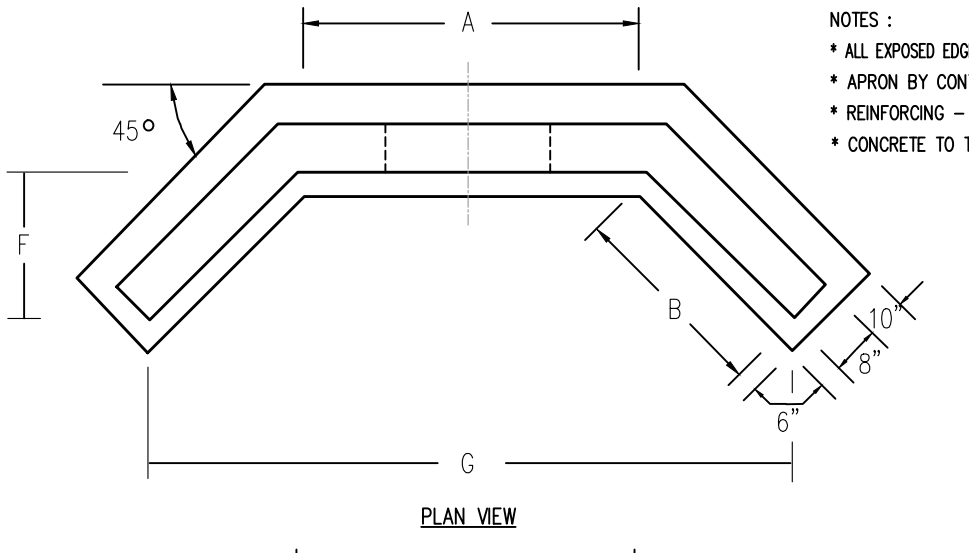
- NOTES:**
1. STRUCTURAL CALCULATIONS AND SHOP DRAWINGS SHALL BE SUBMITTED TO THE COUNTY ENGINEERING DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
 2. THE MINIMUM WALL THICKNESS SHALL BE 2" TO FACILITATE THE PLACEMENT OF CONCRETE.
 3. ALL CONSTRUCTION JOINTS ARE TO BE WATER-TIGHT. ALL PIPES, STUBS, AND/OR FITTINGS ARE TO BE CAST MONOLITHICALLY IN THE STRUCTURE.



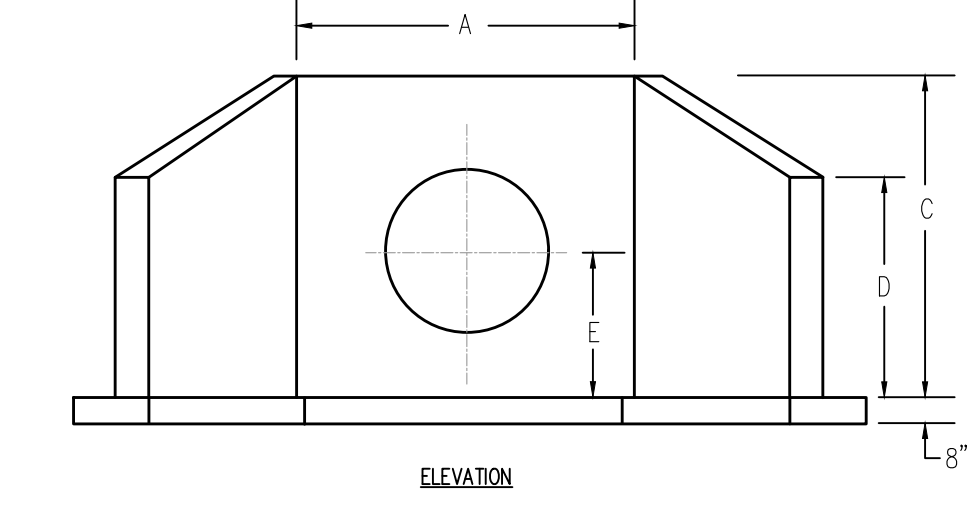
OUTLET CONTROL STRUCTURE - 8 (BIO-BASIN 1)
NOT TO SCALE



STABILIZED EMERGENCY SPILLWAY DETAIL (BIO-BASIN 1)
N.T.S.



PLAN VIEW

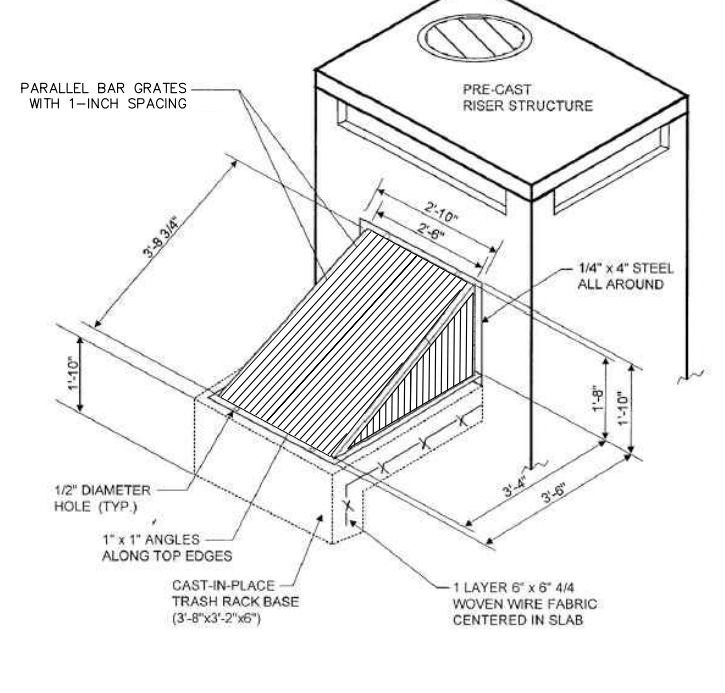


ELEVATION

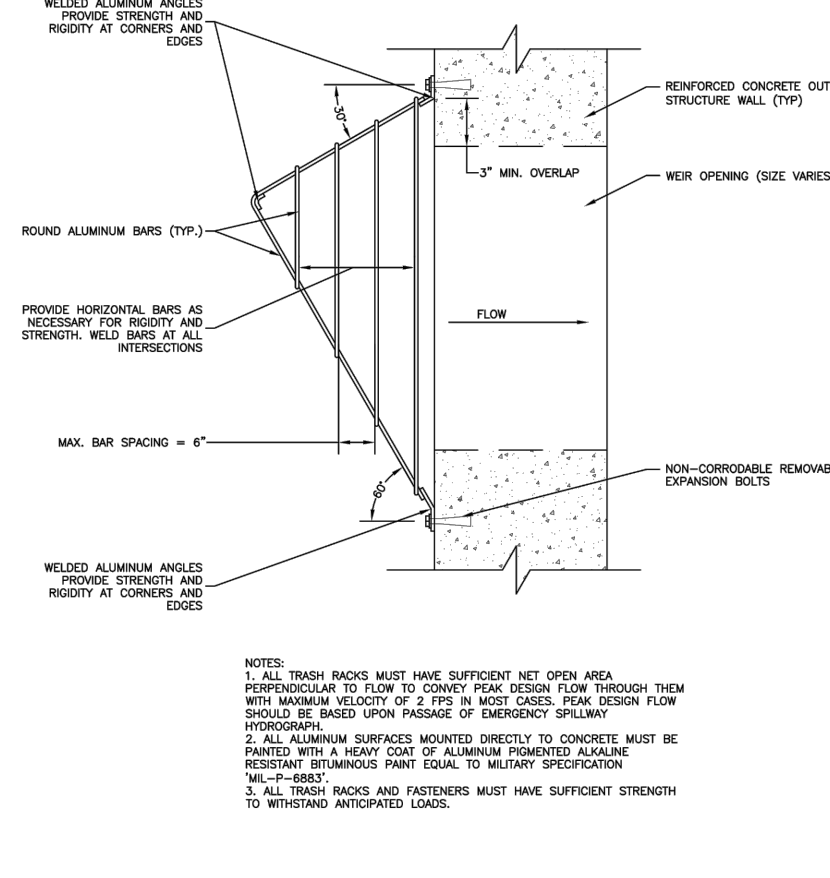
WINGWALL WITH FOOTING DETAIL
N.T.S.

PIPE DIA.	A	B	C	D	E	F	G	APPROX. WEIGHT
12"	36"	30"	54"	42"	36"	22"	78"	5445 LBS.
15"	48"	30"	60"	45"	37.5"	22"	92"	6400 LBS.
18"	48"	30"	60"	45"	39"	22"	92"	6400 LBS.
24"	60"	36"	64"	48"	42"	26"	112"	7250 LBS.
30"	72"	36"	72"	54"	45"	26"	124"	9276 LBS.
36"	78"	48"	78"	60"	48"	35"	144"	11623 LBS.
48"	84"	48"	90"	66"	54"	35"	150"	12402 LBS.

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ORIFICE TRASH RACK DETAIL
N.T.S.



SECONDARY WEIR TRASH RACK DETAIL
N.T.S.

REV/DESCRIPTION AUTH DATE

SERIAL NO. _____

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811 IT'S THE LAW!

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Dig Safely.

GRAPHIC SCALE

0 5 10 20

1 INCH = 10 FT

PLAN NOTATION

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Michael K. Ford

MICHAEL K. FORD DATE _____

NEW JERSEY PROFESSIONAL ENGINEER NUMBER 34722

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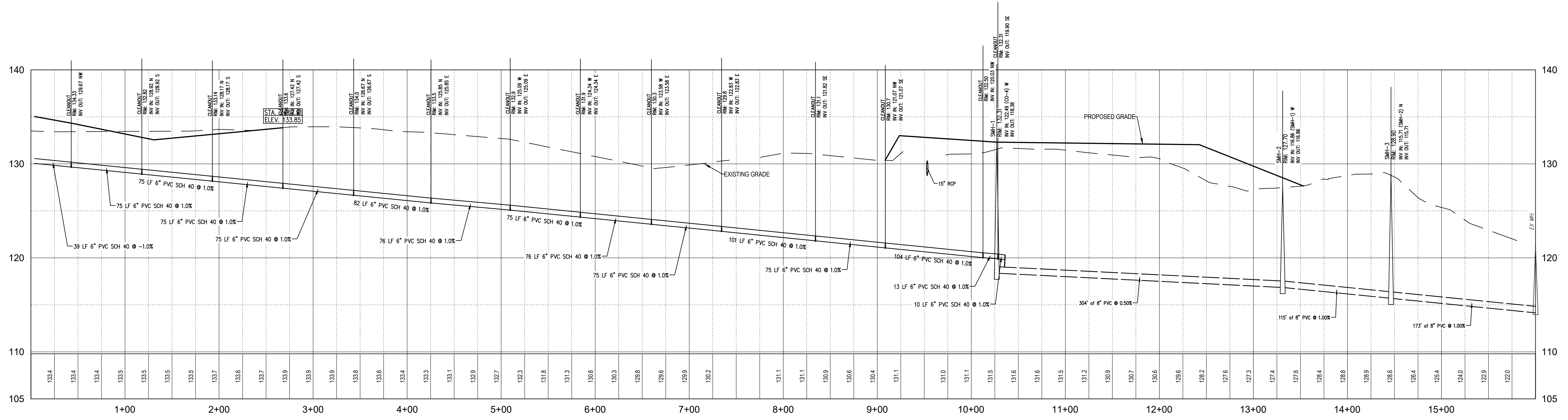
BASIN DETAILS

GREEN CARE FARMS
201 WOODS ROAD

DATE: OCTOBER 11, 2024
SCALE: 1" = 50'
DESIGNED BY: M.K.F.
DRAWN BY: A.B.
CHECKED BY: M.K.F.
JOB NUMBER: 1863H

BLOCK 204 LOT 45.01

HILLSBOROUGH TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY



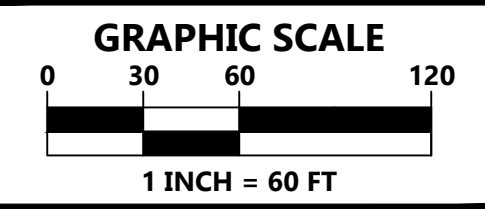
SANITARY PROFILE PROPOSED HOUSE (LOT 45.08) TO EX SMH

HORIZONTAL SCALE: 1" = 60'
VERTICAL SCALE: 1" = 6'

REV/DESCRIPTION	AUTH	DATE
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MICHAEL K. FORD DATE
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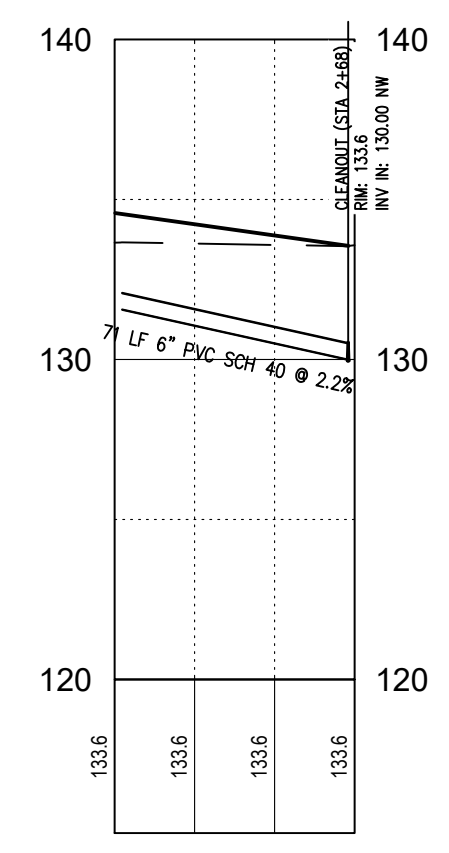
VAN CLEEF ENGINEERING ASSOCIATES, LLC
32 BROWER LANE, HILLSBOROUGH, NJ 08844
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GRADING, DRAINAGE & SOIL EROSION PLAN

GREEN CARE FARMS
201 WOODS ROAD

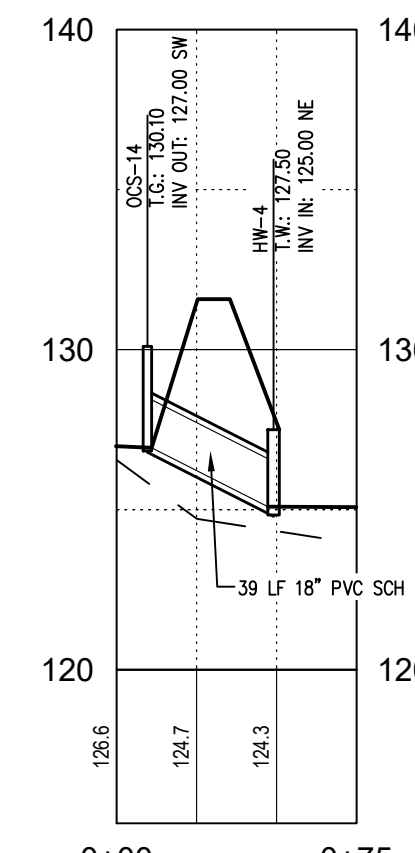
DATE: OCTOBER 11, 2024
SCALE: 1" = 60'
DESIGNED BY: M.K.F.
DRAWN BY: A.B.
CHECKED BY: M.K.F.
JOB NUMBER: 1863H

BLOCK 204 LOT 45.01
HILLSBOROUGH TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY



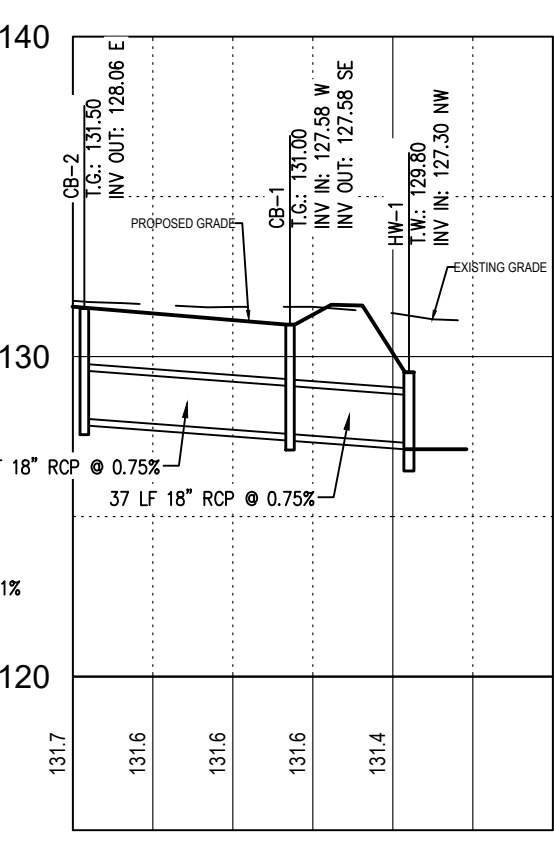
SANITARY PROFILE PROPOSED HOUSE (LOT 45.07) TO CLEANOUT

HORIZONTAL SCALE: 1" = 60'
VERTICAL SCALE: 1" = 6'



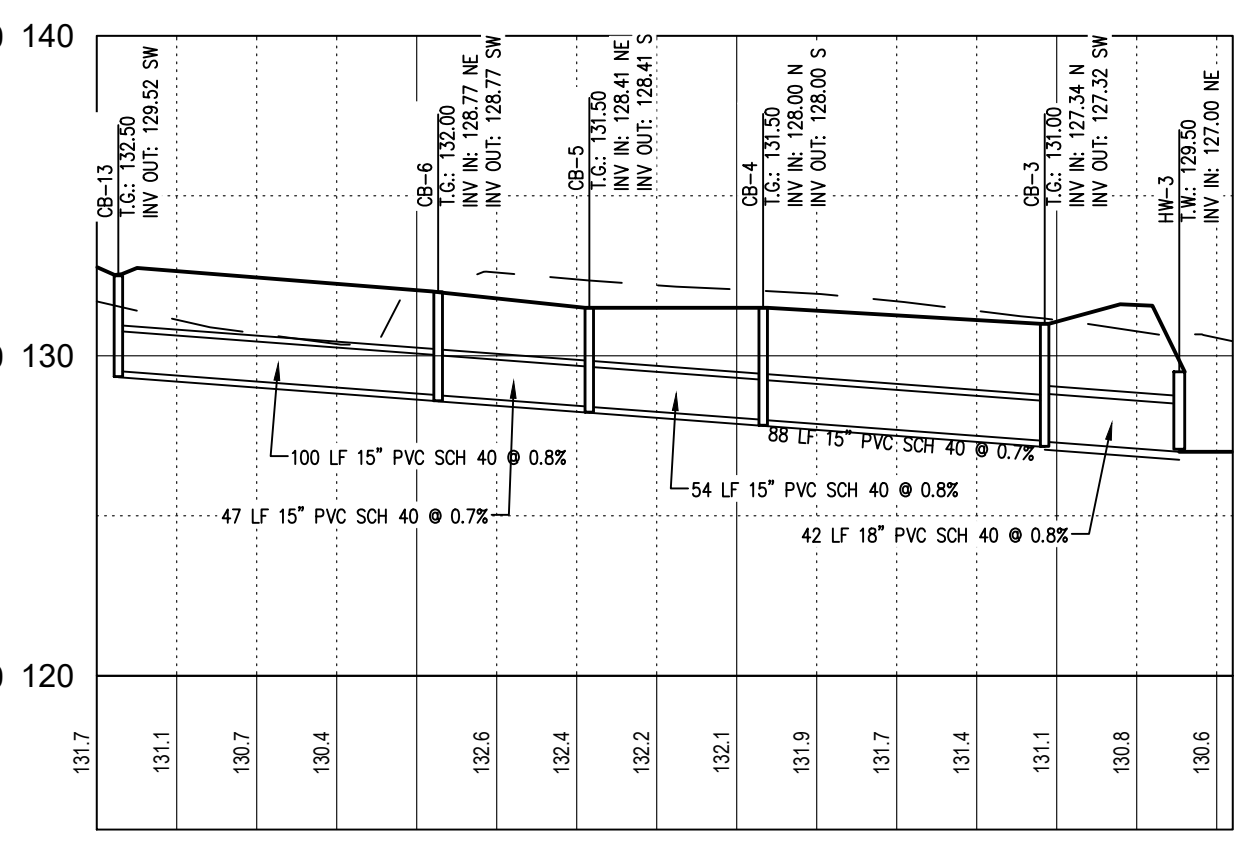
STORM PROFILE OCS-14 TO HW-15

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VERTICAL SCALE: 1" = 6'



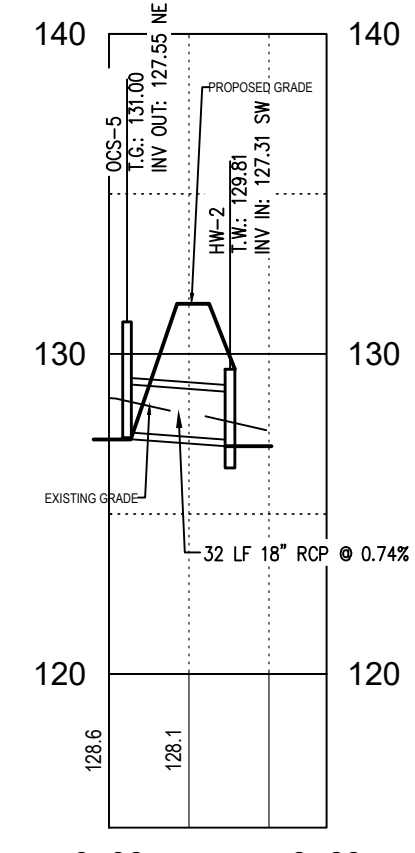
STORM PROFILE CB-2 TO HW-4

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VERTICAL SCALE: 1" = 6'



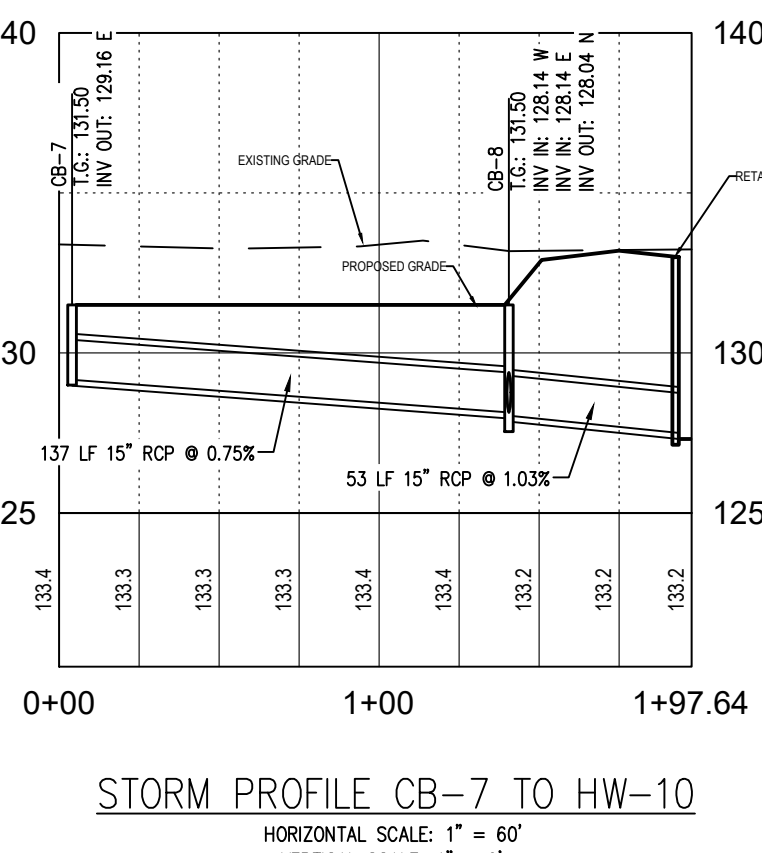
STORM PROFILE OCS-5 TO HW-6

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VERTICAL SCALE: 1" = 6'



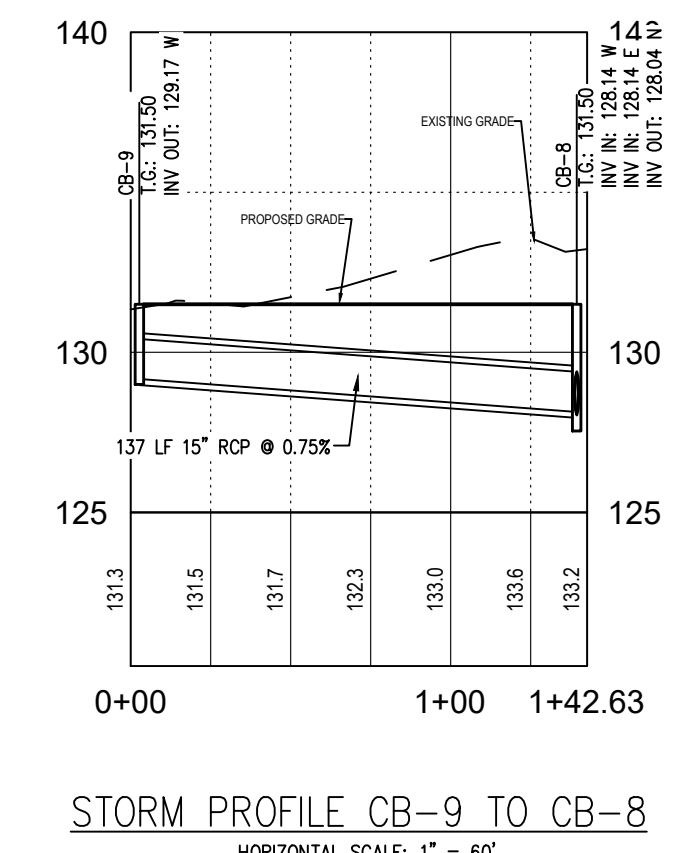
STORM PROFILE OCS-5 TO HW-6

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VERTICAL SCALE: 1" = 6'



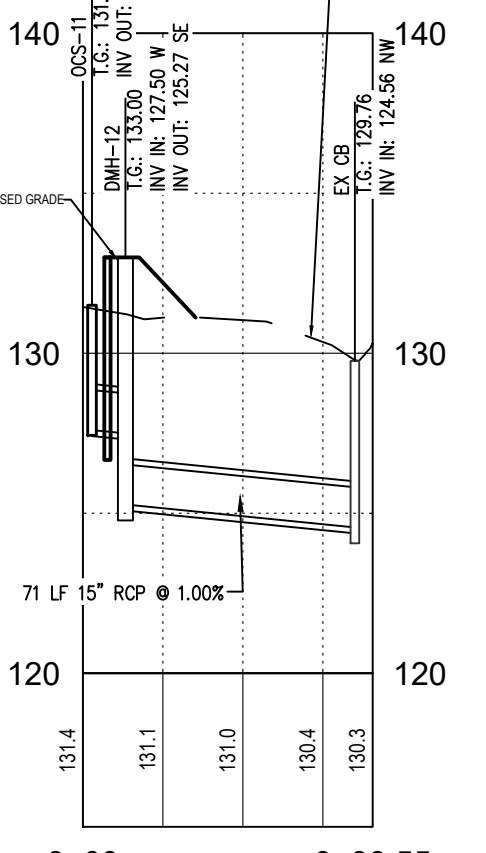
STORM PROFILE CB-7 TO HW-10

HORIZONTAL SCALE: 1" = 60'
VERTICAL SCALE: 1" = 6'



STORM PROFILE CB-9 TO CB-8

HORIZONTAL SCALE: 1" = 60'
VERTICAL SCALE: 1" = 6'



STORM PROFILE OCS-11 TO EX CB

HORIZONTAL SCALE: 1" = 60'
VERTICAL SCALE: 1" = 6'

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GENERAL NOTES FOR SOIL EROSION AND SEDIMENT CONTROL PLANS

- 1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCES...

- I. SITE PREPARATION
A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDED PREPARATION...

- II. SEEDED PREPARATION
A. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS...

- III. SEEDING
A. SEE AGRONOMIC RECOMMENDATIONS OR USE MIXTURE RECOMMENDED BY THE COOPERATIVE EXTENSION SERVICE...

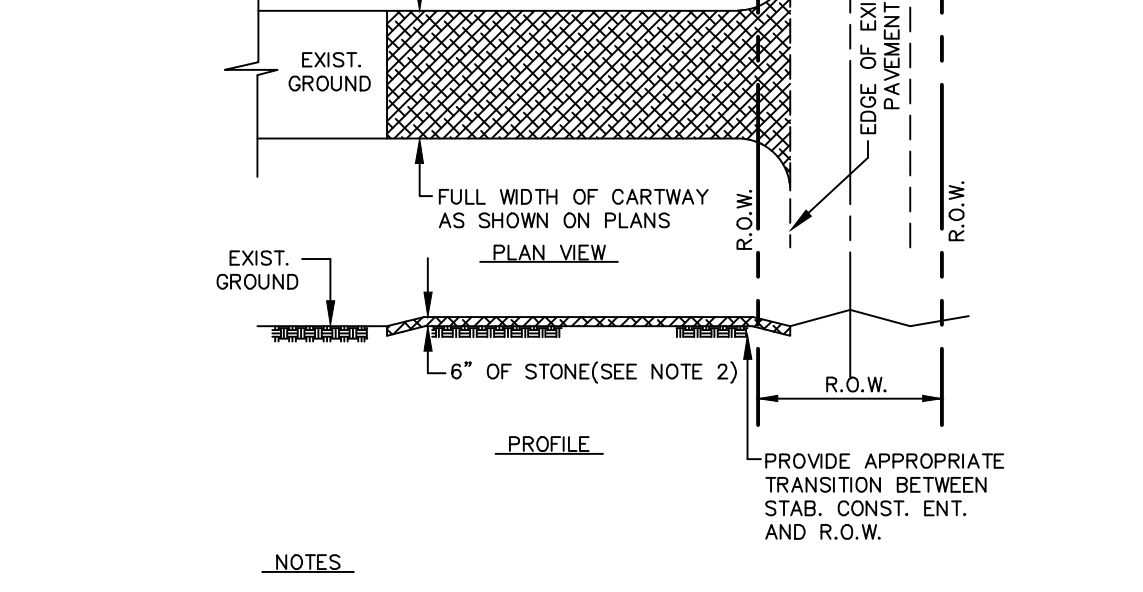
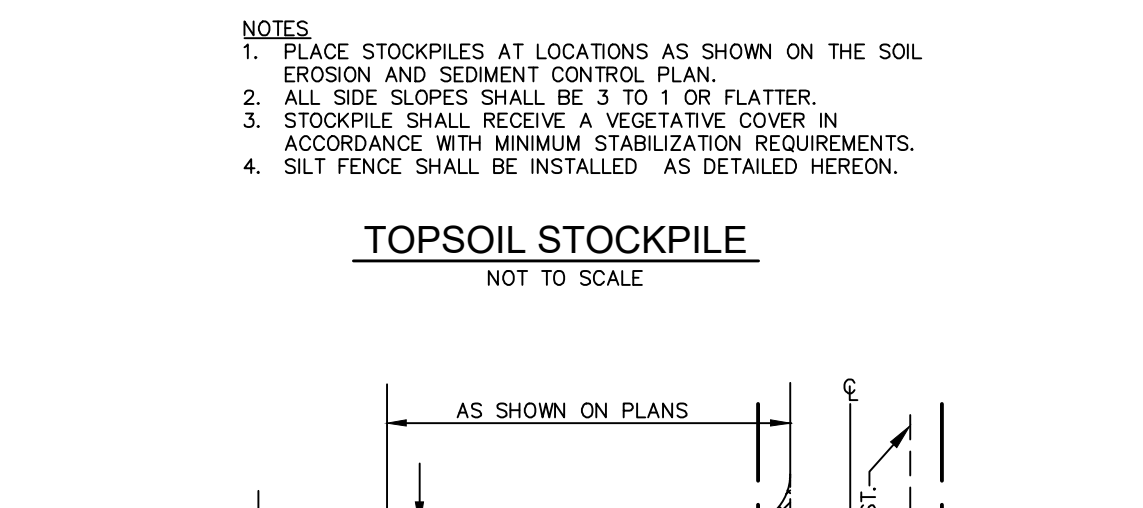
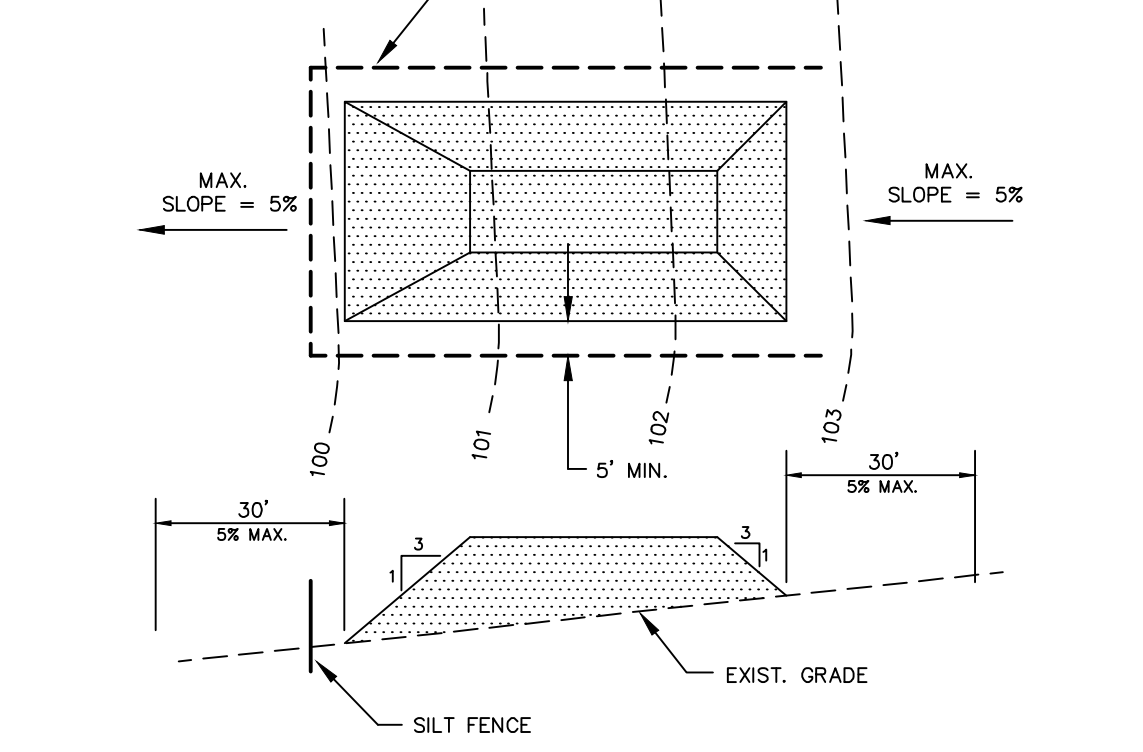
- IV. MULCHING
A. MULCH MATERIALS SHOULD BE UNROTTED SMALL GRAINS OF STRAW, HAY FREE OF SEEDS OR SALT...

- SEED, FERTILIZE, LIME AND TOPSOIL (IF REQUIRED) ALL SCALPED AREAS IMMEDIATELY AFTER FINISHED GRADING IS COMPLETED...

- V. IRRIGATION (WHERE FEASIBLE)
IF SOIL MOISTURE IS DEFICIENT AND MULCH IS NOT USED, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER...

- VI. TOPDRESSING
A. SPRING SEEDINGS WILL REQUIRE AN APPLICATION OF FERTILIZER SUCH AS 10-10-10 OR EQUIVALENT...

MINIMUM STABILIZATION REQUIREMENTS
TABLE WITH COLUMNS: SOIL TEXTURE, TONS/ACRE, LBS./1,000 SQ. FT.
Rows include: CLAY, CLAY LOAM AND HIGH ORGANIC SOIL, SANDY LOAM, LOAM, SILT LOAM, LOAMY SAND.



SCOUR HOLE DETAIL
PLAN and SECTION A-A diagrams. TABLE: OUTLET, Do, W0, BOTTOM LENGTH, BOTTOM WIDTH, TOP LENGTH, TOP WIDTH, D, D50, T, FILTER FABRIC.

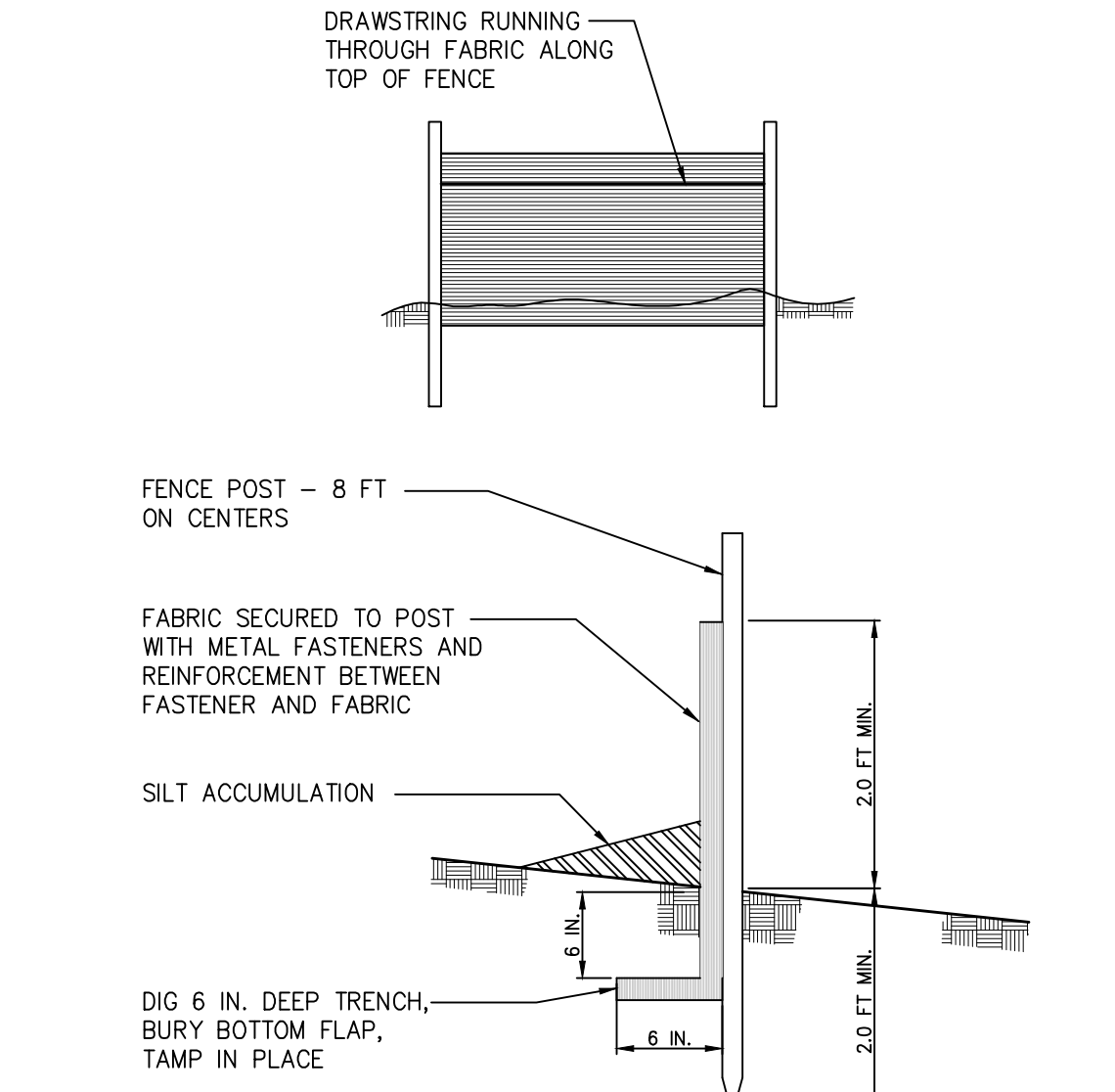
GRADING AND SOIL PROTECTION (§ 188-52. DESIGN AND PERFORMANCE STANDARDS)
a. TOPSOIL PROTECTION. NO TOPSOIL SHALL BE REMOVED FROM THE SITE OR USED AS SPILL.

Soil De-compaction and Testing Requirements
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...

Compaction Testing Methods
A. Probing Wire Test (see detail)
B. Hand-held Penetrometer Test (see detail)
C. Tube Bulk Density Test (licensed professional engineer required)

Simplified Testing Methods
Probing Wire Test- 15.5 ga steel wire (survey flag)
Note: soil should be moist but not saturated. Do not test when soil is excessively dry or subject to freezing temperatures.

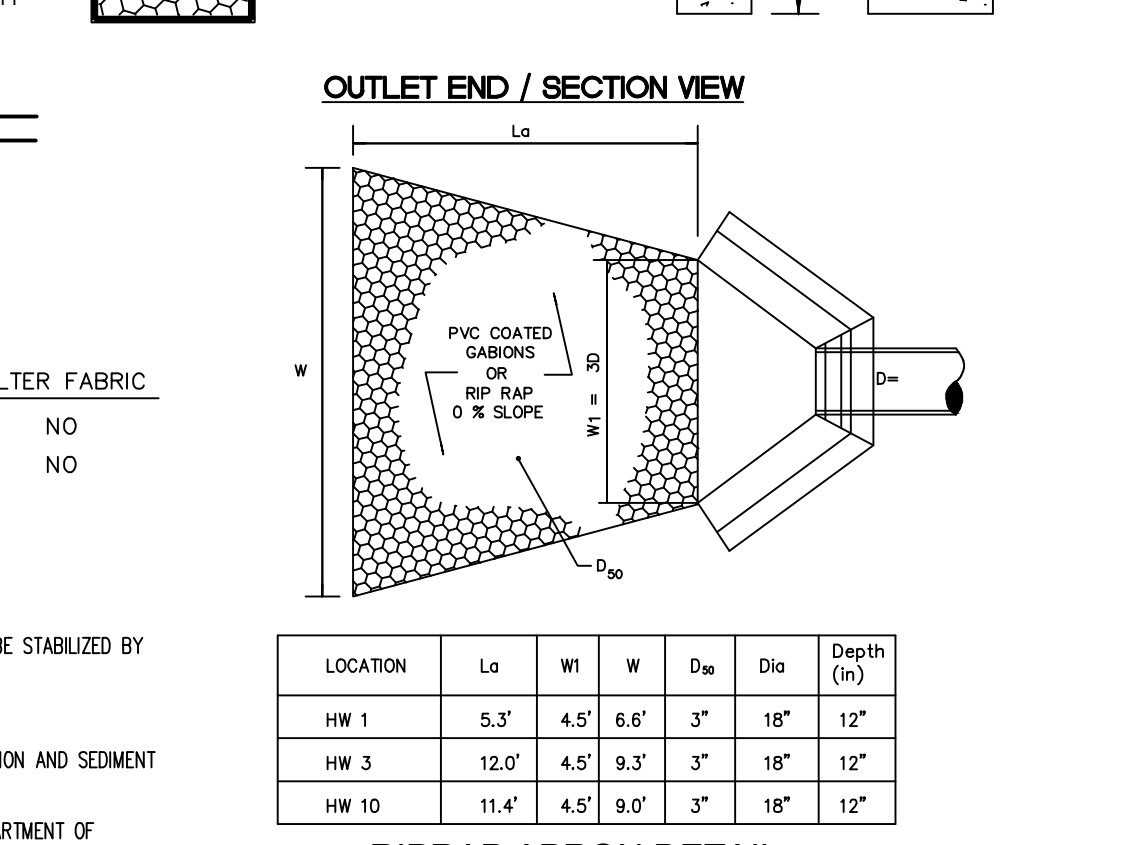
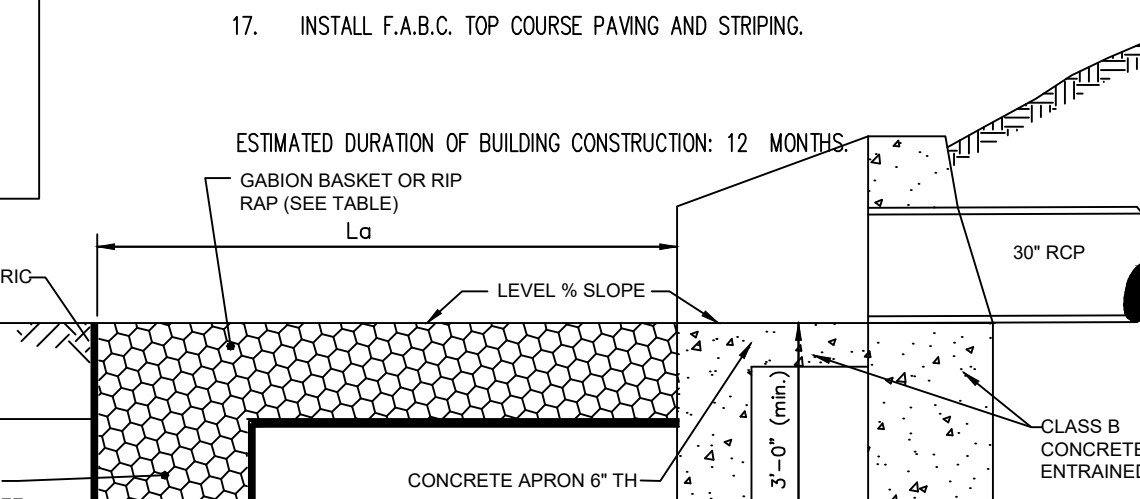
Handheld Soil Penetrometer Test
Note: soil should be moist but not saturated. Do not test when soil is excessively dry or subject to freezing temperatures.



NOTES
1. PLACE SILT FENCE AT LOCATIONS AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.

SEQUENCE OF CONSTRUCTION
1. INSTALL ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON PLANS.

- 2. INSTALL STABILIZED CONSTRUCTION ENTRANCE AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLANS AND DETAILS.



Van Cleef ENGINEERING WITH FOCUS
Local/Regional Planning
Municipal Engineering
Construction Inspection
Environmental
Geotechnical/Dams
Landscaping Architecture
Surveying/Aerial Drone/GIS
Water/Wastewater

Revision table with columns: REV, DESCRIPTION, AUTH, DATE

811 Dig Safely logo and text: Know what's below. Call before you dig. 1-800-272-7100

GRAPHIC SCALE (AS NOTED)

PLAN NOTATION
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Michael K. Ford
MICHAEL K. FORD DATE
NEW JERSEY PROFESSIONAL ENGINEER NUMBER 34722

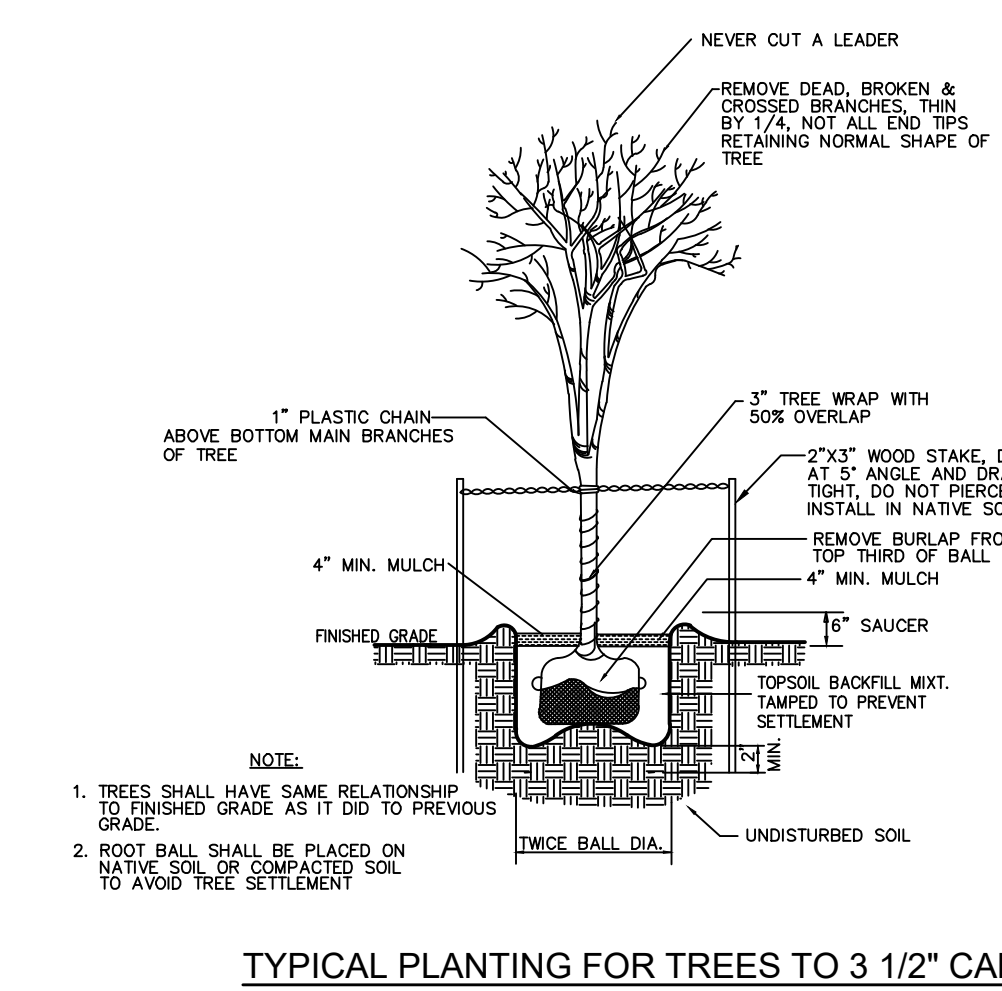
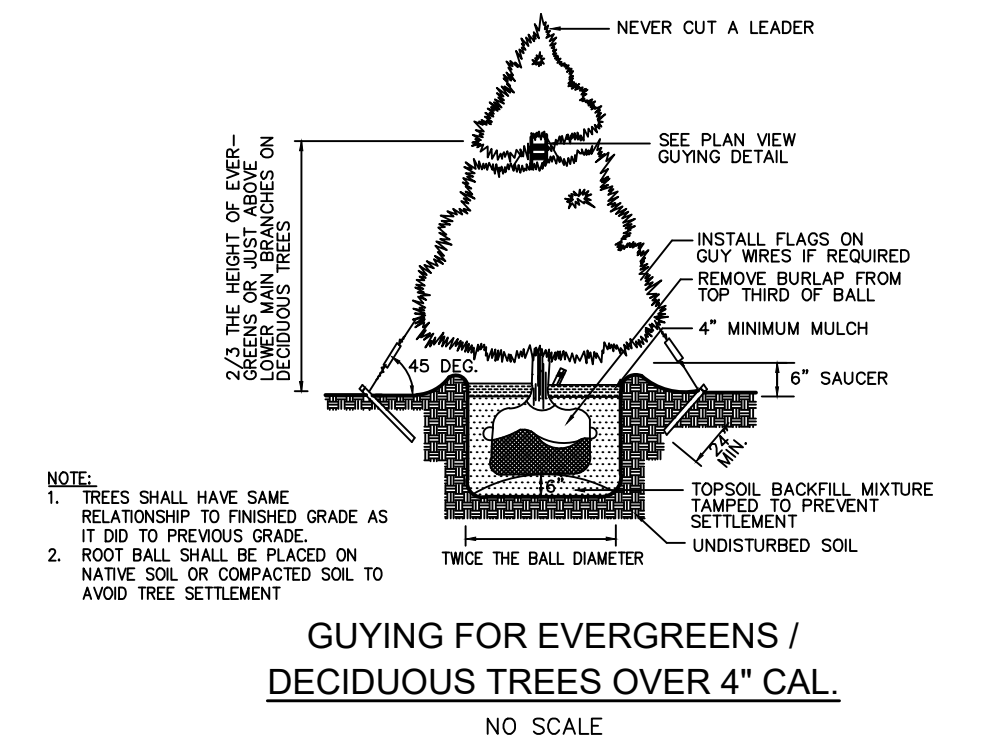
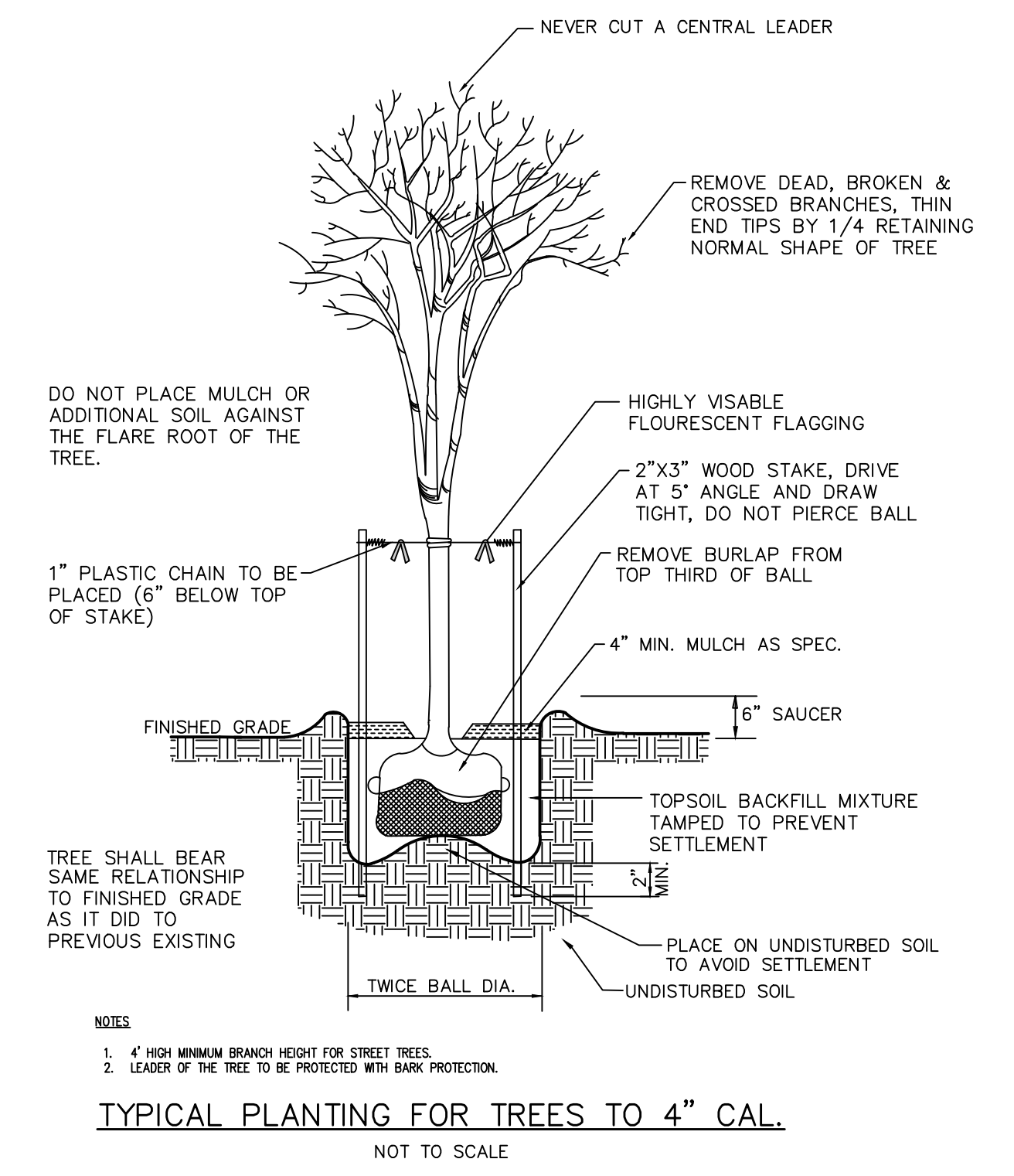
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SOIL EROSION & SEDIMENT CONTROL DETAILS

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201 WOODS ROAD

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BLOCK 204 LOT 45.01
HILLSBOROUGH TOWNSHIP, SOMERSET COUNTY, NEW JERSEY



GENERAL LANDSCAPING NOTES:

- ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY; AND SHALL HAVE NORMAL, WELL-DEVELOPED BRANCHES AND VIGOROUS FIBROUS ROOT SYSTEMS. ALL PLANTS SHALL BE NURSERY-GROWN UNLESS OTHERWISE STATED; THEY SHALL HAVE BEEN GROWING UNDER THE SAME CLIMATE CONDITIONS AS THE MUNICIPALITY FOR AT LEAST TWO (2) YEARS PRIOR TO DATE OF PLANTING. ALL PLANTS WHICH ARE FOUND UNSUITABLE IN GROWTH OR CONDITION OR WHICH ARE NOT TRUE TO NAME SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE PLANTS.
- ALL PLANT MATERIAL SHALL BE TWICE TRANSPLANTED, NURSERY-GROWN OF 5 SPECIMEN QUALITY. THEY SHALL BE OF SYMMETRICAL GROWTH OR TYPICAL OF THE VARIETY AND SUPPLIED FROM SOURCES IN THE SAME HARDINESS ZONE AS THE DEVELOPMENT IS LOCATED AND FREE OF INSECT AND DISEASE PROBLEMS OR OBJECTIONABLE DISFIGUREMENTS. ALL PLANT MATERIAL SHALL CONFORM TO THE STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN.
- ALL PRECAUTIONS CUSTOMARY IN GOOD TRADE PRACTICE SHALL BE TAKEN IN PREPARING PLANTS FOR MOVING. ALL BALLED AND BURLAPPED PLANTS SHALL BE DUG TO MEET OR EXCEED THE USDA STANDARDS FOR NURSERY STOCK.
- ALL PLANT MATERIAL SHALL MEET THE STANDARDS OF AMERICAN STANDARD FOR NURSERY STOCK, BY THE AMERICAN ASSOCIATION OF NURSERYMEN (1990), OR MOST RECENT EDITION, AND THE HEIGHT, SPREAD AND/OR CALIPER FOR TREES AND SHRUBS LISTED IN SECTION 5.15.1., RECOMMENDED PLANT LIST.
- PLANTS SHALL BE PACKED, TRANSPORTED AND HANDLED WITH UTMOST CARE TO INSURE ADEQUATE PROTECTION AGAINST INJURY.
- ANY PLANT MATERIAL WHICH DOES NOT SURVIVE SHALL BE REPLACED BY THE DEVELOPER. FINANCIAL SECURITY SHALL BE POSTED WITH THE TOWNSHIP IN AN AMOUNT EQUAL TO THE ESTIMATED COST OF TREES AND PLANTINGS, TO BE RELEASED TWENTY FOUR (24) MONTHS FROM TOWNSHIP ACCEPTANCE OF THE INSTALLATION AND SATISFACTORY REPLACEMENT OF ALL DEAD PLANTINGS.
- ONLY THIS PLAN SHALL BE USED FOR LANDSCAPE PLANTING LAYOUT PURPOSES. PROPOSED TREES SHALL NOT BE PLANTED WITHIN TEN (10) FEET OF UNDERGROUND UTILITIES AND FIFTEEN (15) FEET OF OVERHEAD UTILITIES.
- NO PLANT SUBSTITUTIONS WILL BE MADE WITHOUT PERMISSION FROM THE TOWNSHIP ENGINEER. THERE WILL BE NO PRIOR APPROVAL TO MODIFICATIONS OCCURRING IN THE FIELD.
- THE PLANTING PLAN SHALL TAKE PRECEDENCE OVER THE PLANT SCHEDULE SHOULD ANY PLANT QUANTITY DISCREPANCIES OCCUR.
- ALL SHADE TREES PLANTED NEAR PEDESTRIAN OR VEHICULAR ACCESS SHOULD NOT BE BRANCHED LOWER THAN 7'-0" ABOVE GRADE. ALL SHRUBBERY MATERIAL LOCATED WITHIN SIGHT TRIANGLES SHALL NOT EXCEED A MATURE HEIGHT OF 3' ABOVE THE ELEVATION OF THE ADJACENT CURB. ALL SHADE TREES PLANTED OR EXISTING IN SIGHT TRIANGLES SHALL BE PRUNED SO AS NOT TO HAVE BRANCHES BELOW 7'-0".
- ALL PLANT MATERIAL SHALL BE PROPERLY GUYED, STAKED, WRAPPED AND PLANTED IN CONFORMANCE WITH THE TYPICAL PLANTING DETAILS. 1" PLASTIC CHAINS SHALL BE ATTACHED TO THE TREE AT TWO-THIRDS THE HEIGHT OF THE TREE AND SHOULD BE LOCATED AT POINTS SO AS NOT TO SPLIT THE TRUNKS OF MULTI-STEMMED TREES. PROVIDE TWO TO THREE TREE STAKES PER TREE AS NOTED ON THE PLANS. INSTALL ALL PLANT MATERIAL ON UNDISTURBED GRADE. PROVIDE TREE WRAP WITH A 50% OVERLAP. CUT AND REMOVE BURLAP FROM THE TOP 1/3 OF THE ROOT BALL.
- PROVIDE PLANTING PITS AS INDICATED ON PLANTING DETAILS. BACKFILL PLANTING PITS WITH ONE PART EACH OF TOPSOIL, PEAT MOSS AND PARENT MATERIAL. IF WET SOIL CONDITIONS EXIST, THEN PLANTING PITS SHALL BE EXCAVATED AN ADDITIONAL 12" AND FILLED WITH SAND.
- ALL PLANT MATERIAL SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS IT DID TO EXISTING GRADE.
- NEWLY INSTALLED PLANT MATERIAL SHALL BE WATERED AT THE TIME OF INSTALLATION. REGULAR WATERING ALL PLANT MATERIAL SHALL BE PROVIDED TO ENSURE THE ESTABLISHMENT, GROWTH AND SURVIVAL OF ALL PLANTS.
- ALL DISTURBED LAWN AREAS SHALL BE STABILIZED WITH SEED AS INDICATED ON THE LANDSCAPE PLANS. SEED MIXTURE SHALL BE AS LISTED IN THE SEEDING SCHEDULE. PRIOR TO LAWN INSTALLATION.
- ALL PLANTING BEDS SHALL RECEIVE MINIMUM NATURAL 4" DEPTH OF SHREDDED HARDWOOD BARK.
- ALL SHRUB MASSES SHALL BE PLANTED IN CONTINUOUS MULCHED BEDS.

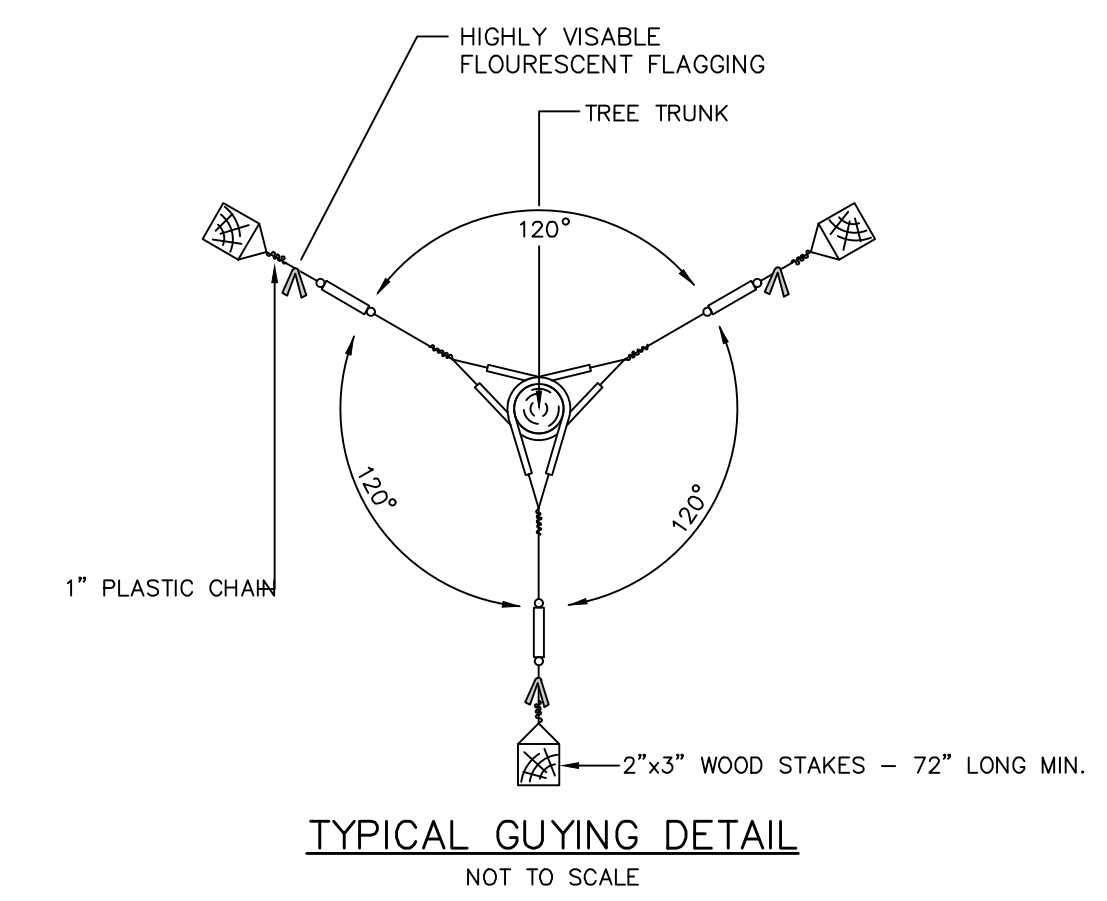
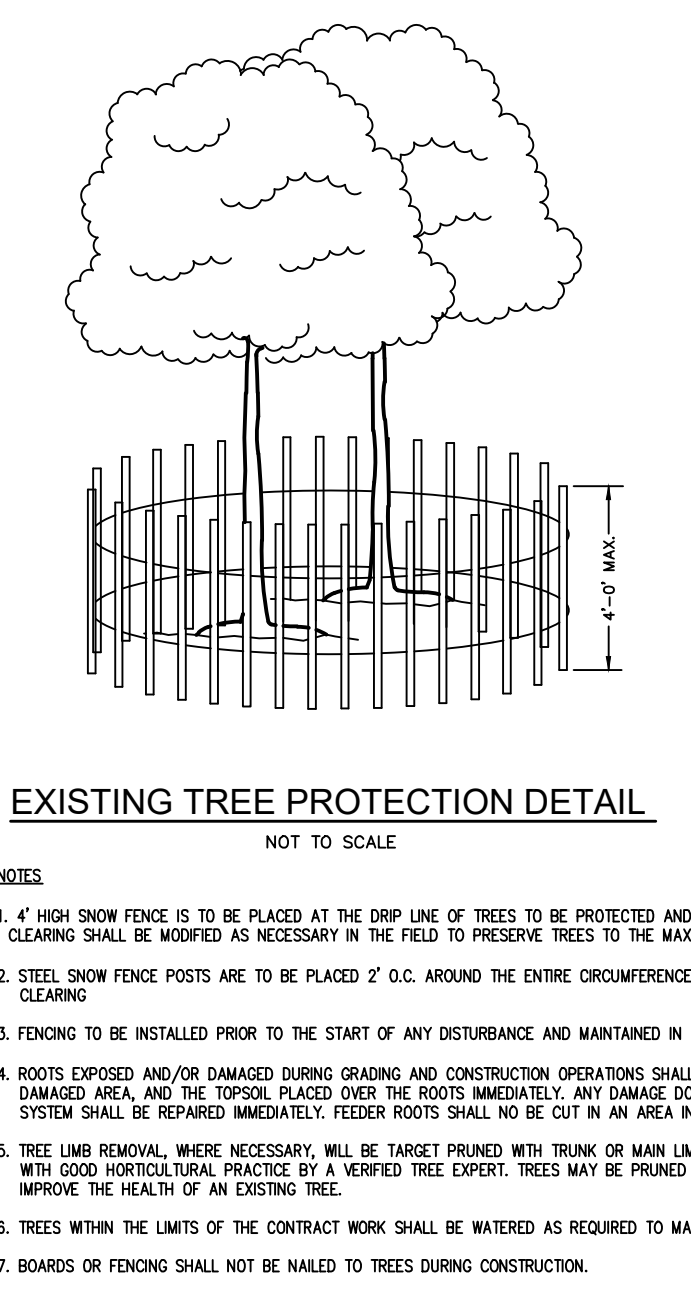
Leonard Tree Bark Protectors
Deer, squirrels, rabbits and woodchucks cannot bite or rub tree bark through this rigid plastic mesh. Trunks are shielded by open mesh, which prevents moisture and mildew buildup. Also, the protectors won't harbor insects and animals, and won't inhibit growth. These tubes are more attractive than other solutions and designed to blend in. Flexible and easy to install, in three lengths, 4" diameter. Sold as a bundle of 5 protectors, priced per bundle.

Item	Length	Ship Wt.	1-49	50+
B624	2'	2 lb	\$14.99	\$11.99
B636	3'	3 lb	\$21.49	\$17.99
B648	4'	5 lb	\$25.49	\$21.49

NO ANTLER RUB DAMAGE!
NO RABBIT DAMAGE!

BARK PROTECTION DETAIL
NOT TO SCALE

Note: Due to nested packaging, outer guards will need to be compressed back into shape during installation. Tying them together with a twist-tie will do the trick.



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REV	DESCRIPTION	AUTH	DATE

SERIAL NO. _____

811 Dig Safely
Know what's below. Call before you dig. 1-800-272-1000

TO LOCATE UNDERGROUND UTILITIES IF YOU'RE GOING TO DIG, BLAST OR DRILL, CALL 811 OR VISIT WWW.DIGSAFELY.COM. REMEMBER IT'S THE LAW!

GRAPHIC SCALE (AS NOTED)

PLAN NOTATION
ONLY THOSE PLANS WHICH CONTAIN A DIGITAL IMPRESSED, OR COLORIZED INK SEAL OF THE RESPONSIBLE PROFESSIONAL SHALL BE CONSIDERED VALID. THIS PLAN HAS BEEN SPECIFICALLY PREPARED FOR THE OWNER DESIGNATED HEREON. ANY MODIFICATION, REVISION, DUPLICATION OR USE WITHOUT THE WRITTEN CONSENT OF VAN CLEEF ENGINEERING ASSOCIATES IS PROHIBITED. RELIANCE ON THIS PLAN FOR ANY PURPOSE OTHER THAN THAT WHICH IS INTENDED SHALL BE AT THE SOLE DISCRETION AND LIABILITY OF THE APPLICABLE PARTY.

Michael K. Ford
MICHAEL K. FORD DATE
NEW JERSEY PROFESSIONAL ENGINEER NUMBER 34722

Van Cleef
ENGINEERING WITH FOCUS

VAN CLEEF ENGINEERING ASSOCIATES, LLC
32 BROWER LANE, HILLSBOROUGH, NJ 08844
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (908) 359-8291

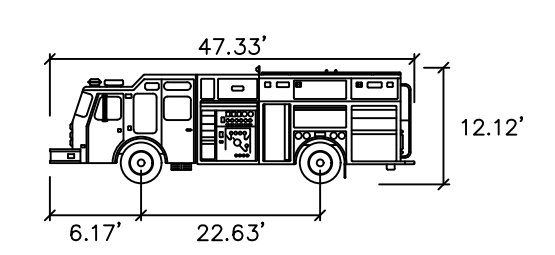
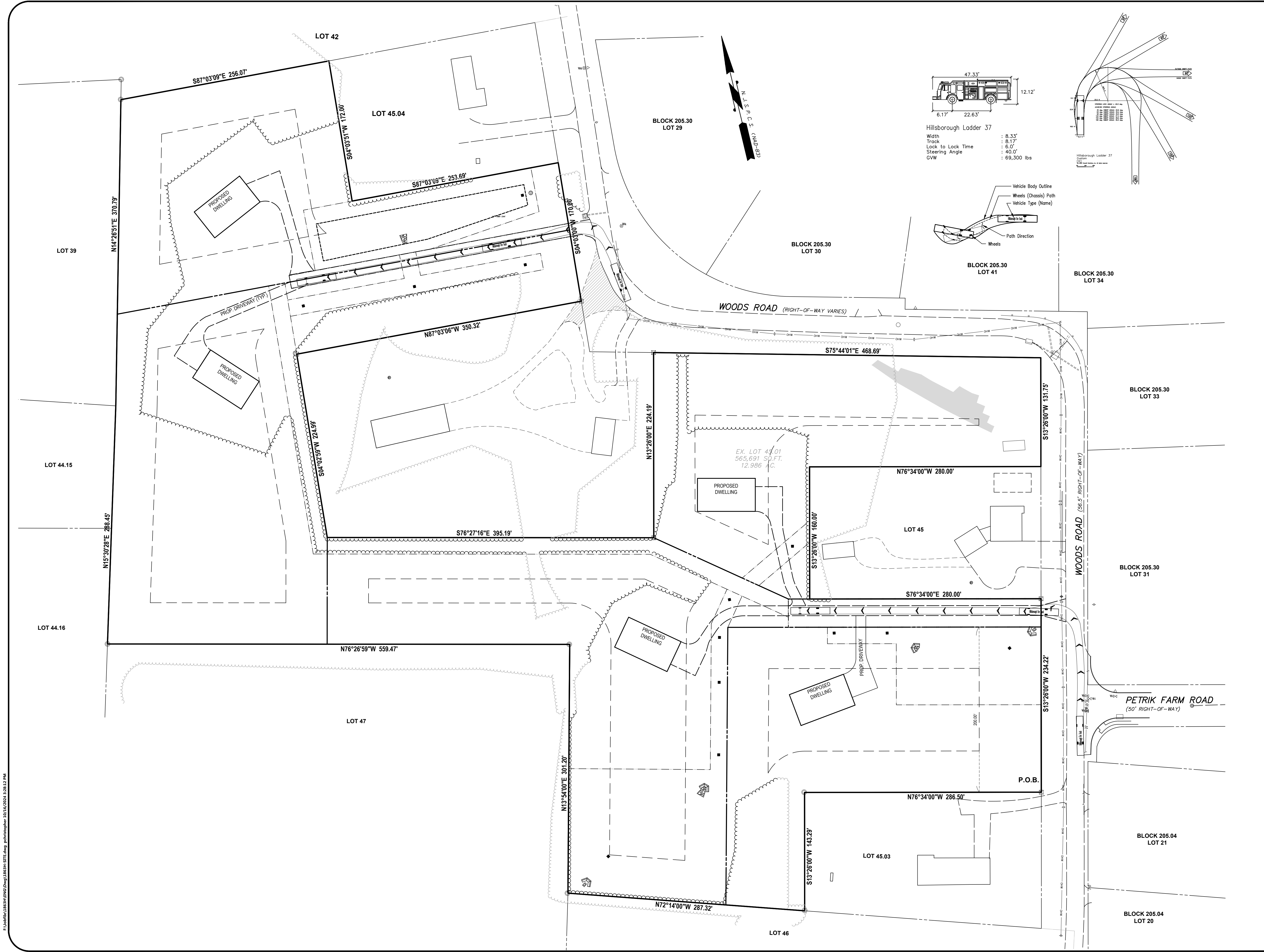
CONSTRUCTION DETAILS

GREEN CARE FARMS
201 WOODS ROAD

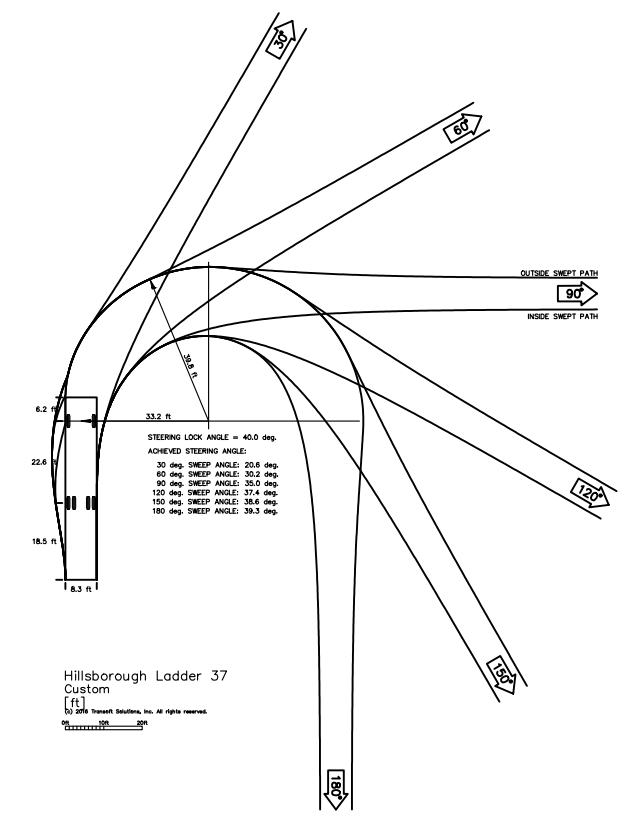
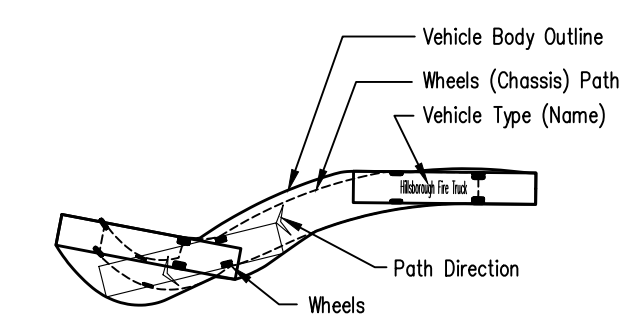
DATE:	OCTOBER 11, 2024
SCALE:	1" = 50'
DESIGNED BY:	M.K.F.
DRAWN BY:	A.B.
CHECKED BY:	M.K.F.
JOB NUMBER:	1863H

BLOCK 204 LOT 45.01

HILLSBOROUGH TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY



Hillsborough Ladder 37
 Width : 8.33'
 Track : 8.17'
 Lock to Lock Time : 6.0"
 Steering Angle : 40.0°
 GVW : 69,300 lbs



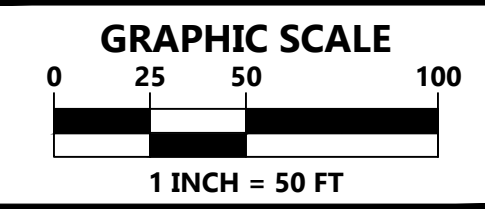
REV/DESCRIPTION	AUTH	DATE

SERIAL NO. _____

TO LOCATE UNDERGROUND UTILITIES
 IF YOU'RE GOING TO DIG, BLAST OR DRILL
 THREE (3) WORKING DAYS NOTICE
 REMEMBER
IT'S THE LAW!

Know what's below.
 Call before you dig.
 1-800-272-1000

Dig Safely.



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 ONLY THOSE PLANS WHICH CONTAIN A DIGITAL IMPRESSED, OR COLORED INK SEAL OF THE RESPONSIBLE PROFESSIONAL SHALL BE CONSIDERED VALID. THIS PLAN HAS BEEN SPECIFICALLY PREPARED FOR THE OWNER DESIGNATED HEREON. ANY MODIFICATION, REVISION, DUPLICATION OR USE WITHOUT THE WRITTEN CONSENT OF VAN CLEEF ENGINEERING ASSOCIATES, LLC IS PROHIBITED. RELIANCE ON THIS PLAN FOR ANY PURPOSE OTHER THAN THAT WHICH IS INTENDED SHALL BE AT THE SOLE DISCRETION AND LIABILITY OF THE APPLICABLE PARTY.

Michael K. Ford
MICHAEL K. FORD DATE
 NEW JERSEY PROFESSIONAL ENGINEER NUMBER 34722

Van Cleef
 ENGINEERING WITH FOCUS

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 32 BROWER LANE, HILLSBOROUGH, NJ 08844
 WEB: WWW.VANCLEEFENGINEERING.COM
 PHONE (908) 359-8291

FIRE TRUCK TURNING EXHIBIT

GREEN CARE FARMS
 201 WOODS ROAD

DATE: OCTOBER 11, 2024
 SCALE: 1" = 50'
 DESIGNED BY: M.K.F.
 DRAWN BY: A.B.
 CHECKED BY: M.K.F.
 JOB NUMBER: 1863H

BLOCK 204 LOT 45.01

HILLSBOROUGH TOWNSHIP,
 SOMERSET COUNTY, NEW JERSEY

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