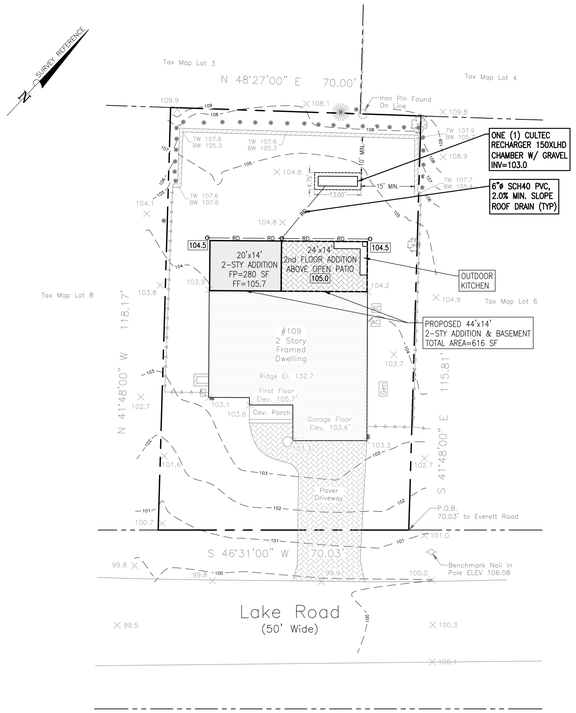
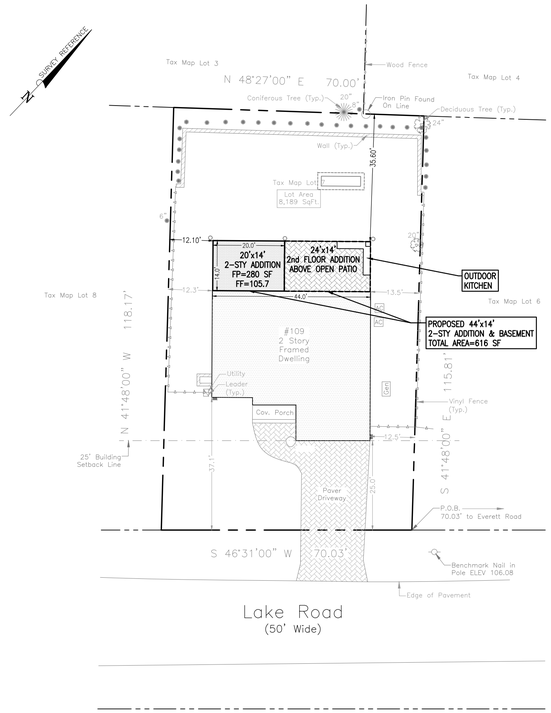


PROPOSED GRADING PLAN

0 20 40

SCALE: 1"=20'



PROPOSED SITE PLAN

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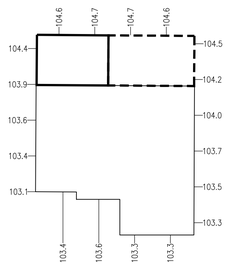
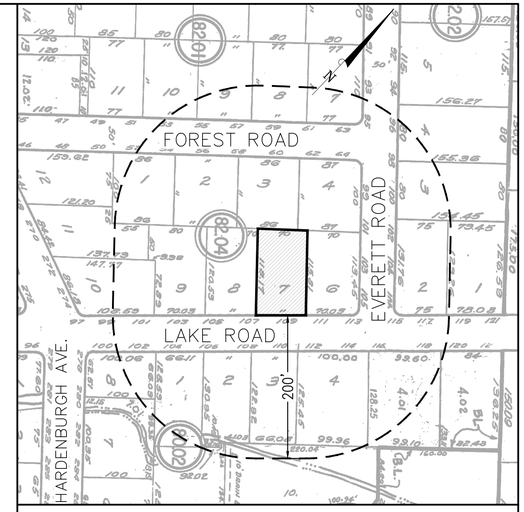
SCALE: 1"=20'



PROPOSED BUILDING HEIGHT CALC'S

RIDGE HEIGHT (NO CHANGE)	=	132.7 FT
AVERAGE NATURAL GRADE	=	103.9 FT
TOTAL	=	28.8 FT



EXISTING BUILDING COVERAGE CALC'S

DWELLING	=	1,589 SF
COVERED PORCH	=	49 SF
STEPS & WALKS	=	132 SF
TOTAL	=	1,770 SF/8,189 SF = 21.61%

EXISTING IMPROVED LOT COVERAGE CALC'S

BUILDING COVERAGE	=	1,770 SF
DRIVEWAY	=	462 SF
WALL	=	100 SF
AC UNITS & GENERATOR	=	22 SF
WINDOW WELL	=	14 SF
PATIO (TBR)	=	226 SF
TOTAL	=	2,594 SF/8,189 SF = 31.68%

EXISTING PRINCIPAL RESIDENCE/PARKING COVERAGE CALC'S

BUILDING COVERAGE	=	1,770 SF
DRIVEWAY	=	462 SF
TOTAL	=	2,232 SF/8,189 SF = 27.26%

PROPOSED BUILDING COVERAGE CALC'S

DWELLING	=	1,589 SF
PROPOSED ADDITION	=	616 SF
COVERED PORCH	=	49 SF
STEPS & WALKS	=	132 SF
WINDOW WELL	=	14 SF
TOTAL	=	2,400 SF/8,189 SF = 29.31%

PROPOSED IMPROVED LOT COVERAGE CALC'S

BUILDING COVERAGE	=	2,400 SF
DRIVEWAY	=	462 SF
WALL	=	100 SF
AC UNITS & GENERATOR	=	22 SF
TOTAL	=	2,984 SF/8,189 SF = 36.44%

PROPOSED PRINCIPAL RESIDENCE/PARKING COVERAGE CALC'S

BUILDING COVERAGE	=	2,400 SF
DRIVEWAY	=	462 SF
TOTAL	=	2,862 SF/8,189 SF = 34.95%

ESTIMATED SOIL MOVING CUT/FILL CALCULATIONS

PROPOSED BASEMENT ADDITION	=	616 SF x 10' = 6,160 CF
PROPOSED STORMWATER CHAMBER	=	4.75'x13.0'x4.21' = 260 CF
TOTAL CUT VOLUME	=	6,420 CF/27 = 237.8 CY
TOTAL FILL VOLUME	=	0 CF/27 = 0.0 CY

(LESS THAN 250 CY OF SOIL MOVING, PERMIT NOT REQUIRED)

ZONING NOTES

ZONE R-D

	REQUIRED	EXISTING	PROPOSED
MIN LOT AREA	10,000 SF	8,189 SF (1)	NO CHANGE
MIN LOT FRONTAGE	100 FT	70.03 FT (1)	NO CHANGE
MIN LOT DEPTH	100 FT	117.14 FT	NO CHANGE
MIN FRONT YARD	25 FT	25.00 FT	NO CHANGE
MIN SIDE YARD	10 FT	12.30 FT	12.10 FT.
MIN REAR YARD	30 FT	49.60 FT	35.60 FT.
MAX BUILDING COVERAGE	20%	21.61%	29.31% *
MAX IMPROVED LOT COVERAGE	30%	31.68% (1)	36.44% *
MAX PARKING COVERAGE	25%	27.26% (1)	34.95% *
MAX BUILDING HEIGHT	30 FT	<30 FT	28.8 FT.

* VARIANCE REQUIRED

(1) EXISTING, NON-CONFORMING CONDITION

GENERAL NOTES:

1. TOTAL LOT AREA = 8,189 SF (0.188 AC)
2. TOTAL IMPERVIOUS COVERAGES:
   EXISTING = 2,594 SF
   PROPOSED = 2,984 SF
   TOTAL INCREASE = 390 SF
3. PROPERTY OWNER/APPLICANT:
   JONATHAN & LINDSAY KESTENBAUM
   109 LAKE ROAD
   DEMAREST, NJ 07627
4. CONTRACTOR TO LOCATE AND VERIFY ALL UNDERGROUND/ABOVEGROUND UTILITIES AND ANY OTHER SUBSURFACE CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR IS REQUIRED TO LOCATE UTILITIES PRIOR TO ANY EXCAVATION.
5. NJ ONE CALL: NEW JERSEY LAW REQUIRES ANYONE DIGGING TO CALL AT LEAST THREE FULL BUSINESS DAYS (EXCLUDING WEEKENDS AND HOLIDAYS) PRIOR TO BEGINNING WORK. THIS INCLUDES EXCAVATORS AS WELL AS PROPERTY AND HOME OWNERS' CONTRACTORS. CONTACT NEW JERSEY ONE CALL AT 811 OR 800-272-1000 ANY TIME, DAY OR NIGHT.
6. ANY REMOVED FILL, STRUCTURE, DEBRIS, OR EXCAVATED MATERIAL IS TO BE LAWFULLY DISPOSED OF & OUTSIDE OF ANY REGULATED AREAS IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY PROTECTION TO ANY SITE FEATURES THAT MAY BE DAMAGED DURING CONSTRUCTION, RELOCATION OF ANY UTILITIES/STORMWATER/SUBSURFACE COMPONENTS ENCOUNTERED, ENSURING THAT THE PROPOSED IMPROVEMENTS DO NOT CAUSE ANY ADVERSE DRAINAGE ISSUES, AND RESTORATION OF ANY DAMAGE CAUSED DURING CONSTRUCTION.
8. SILT FENCING MUST BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE AND THE PROPERTY HAS BEEN FULLY STABILIZED. ANY SOIL TRACKED OR WASHED ONTO THE STREET MUST BE IMMEDIATELY REMOVED.
9. ALL NEW ROOF LEADERS/DRAINS SHALL BE CONNECTED TO THE STORMWATER SYSTEM CHAMBERS/SEEPAGE PITS. OVERFLOW TEE CONNECTIONS AND SPLASH BLOCKS TO BE INSTALLED AT ALL NEW ROOF LEADER DRAIN DOWNSPOUTS.
10. CONTRACTOR SHALL COMPLY WITH ALL APPROVED PERMIT CONDITIONS/REQUIREMENTS AND APPLICABLE NOTICE REQUIREMENTS.

REFERENCES

1. EXISTING CONDITIONS & TOPOGRAPHY REFERENCES A SURVEY PREPARED BY SCHMIDT SURVEYING, 49 SULLIVAN STREET, WESTWOOD, NJ 07675. TITLED: "TOPOGRAPHIC SURVEY", DATED: 7-9-2024.
2. ELEVATIONS ARE BASED ON AN ASSUMED DATUM.
3. ARCHITECTURAL PLANS PREPARED BY MARIO NAVEDO, 1208 LANSDOWNE TER., PLAINFIELD, NJ 07062. TITLED "ADDITION TO: 109 LAKE RD., DEMAREST, NJ 07627", DATED 8-14-2024.

SITE PLAN

No.	DATE	REVISIONS
1	2-26-2025	REVISED PER REVIEW COMMENTS & ZBA COMMENTS

PROPOSED ADDITION
109 LAKE ROAD
LOT 7 – BLOCK 82.04
BOROUGH OF DEMAREST
BERGEN COUNTY NEW JERSEY

PAUL R. ERCOLANO PE, PP
PROFESSIONAL ENGINEER & PLANNER
NJPE #24GE05356900 NJPP #33LI00649200

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826A LINCOLN AVENUE
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201-477-8361
WWW.ERCOLANOENGINEERING.COM
NJ CERTIFICATE OF AUTHORIZATION: 24GA28381500

CHECK: PRE
DRAWN: ADJ
DATE: 8-28-2024
FILE No. 0084

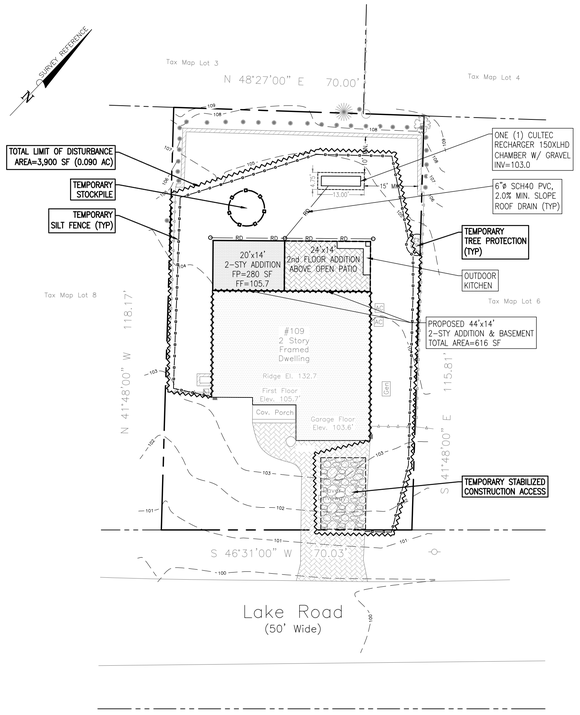
01

BERGEN COUNTY SOIL CONSERVATION DISTRICT
SOIL EROSION & SEDIMENT CONTROL NOTES

1. All soil erosion and sediment control practices will be installed in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey (NJ Standards), and will be installed in proper sequence and maintained until permanent stabilization is established.
2. Any disturbed area that will be left exposed for more than thirty (30) days and not subject to construction traffic shall immediately receive a temporary seeding and mulching. If the season prohibits temporary seeding, the disturbed area will be mulched with unrotted straw at a rate of 2 tons per acre anchored by approved methods (i.e. peg and twine, mulch netting, or liquid mulch binder).
3. Immediately following initial disturbance or rough grading, all critical areas subject to erosion will receive a temporary seeding in combination with straw mulch or a suitable equivalent, at a rate of 2 tons per acre, according to the NJ Standards.
4. Stabilization Specifications:
   A. Temporary Seeding and Mulching:
      Ground Limestone – Applied uniformly according to soil test recommendations.
      Fertilizer – Apply 11lbs. /1,000 sf of 10–20–10 or equivalent with 50% water insoluble nitrogen (unless a soil test indicates otherwise) worked into the soil a minimum of 4".
      Seed – perennial ryegrass 100 lbs. /acre (2.3 lbs. /1,000 sf) or other approved seed; plant between March 1 and May 15 or between August 15 and October 1.
      Mulch – Unrotted straw or hay at a rate of 70 to 90 lbs. /1,000 sf applied to achieve 95% soil surface coverage. Mulch shall be anchored by approved methods (i.e. peg and twine, mulch netting, or liquid mulch binder).
   B. Permanent Seeding and Mulching:
      Topsoil – A uniform application to an average depth of 5", minimum of 4" firmed in place is required.
      Ground Limestone – Applied uniformly according to soil test recommendations.
      Fertilizer – Apply 11 lbs. /1,000 sf of 10–10–10 or equivalent with 50% water insoluble nitrogen (unless a soil test indicates otherwise) worked into the soil a minimum of 4".
      Seed – Turf type tall fescue (blend of 3 cultivars) 350 lbs. /acre (8 lbs. /1,000 sf) or other approved seed; plant between March 1 and October 1 (summer seeding requires irrigation)
      Mulch – Unrotted straw or hay at a rate of 70 to 90 lbs. /1,000 sf applied to achieve 95% soil surface coverage. Mulch shall be anchored by approved methods (i.e. peg and twine, mulch netting, or liquid mulch binder).
5. The site shall at all times be graded and maintained such that all stormwater runoff is diverted to soil erosion and sediment control facilities.
6. Soil erosion and sediment control measures will be inspected and maintained on a regular basis, including after every storm event.
7. Stockpiles are not to be located within 50' of a floodplain, slope, roadway or drainage facility. The base of all stockpiles shall be contained by a haybale sediment barrier or silt fence.
8. A crushed stone, vehicle wheel–cleaning blanket will be installed wherever a construction access road intersects any paved roadway. Said blanket will be composed of 1" – 2½" crushed stone, 6" thick, will be at least 30' x 100' and should be underlain with a suitable synthetic sediment filter fabric and maintained.
9. Maximum side slopes of all exposed surfaces shall not exceed 3:1 unless otherwise approved by the District.
10. Driveways must be stabilized with 1" – 2½" crushed stone or subbase prior to individual lot construction.
11. All soil washed, dropped, spilled or tracked outside the limit of disturbance or onto public right– of–ways, will be removed immediately. Paved roadways must be kept clean at all times.
12. Catch basin inlets will be protected with an inlet filter designed in accordance with Section 28–1 of the NJ Standards.
13. Storm drainage outlets will be stabilized, as required, before the discharge points become operational.
14. Dewatering operations must discharge directly into a sediment control bag or other approved filter in accordance with Section 14–1 of the NJ Standards.
15. Dust shall be controlled via the application of water, calcium chloride or other approved method in accordance with Section 16–1 of the NJ Standards.
16. Trees to remain after construction are to be protected with a suitable fence installed at the drip line or beyond in accordance with Section 9–1 of the NJ Standards.
17. The project owner shall be responsible for any erosion or sedimentation that may occur below stormwater outfalls or off–site as a result of construction of the project.

Revised 12/7/17

NOTE: SOIL COMPACTION IS NOT APPLICABLE TO THIS PROJECT BECAUSE THE DISTURBED AREAS ARE LOCATED IN PREVIOUSLY DEVELOPED AREAS RESULTING IN MINIMAL IMPACTS TO VEGETATION.



SOIL EROSION & SEDIMENT CONTROL PLAN

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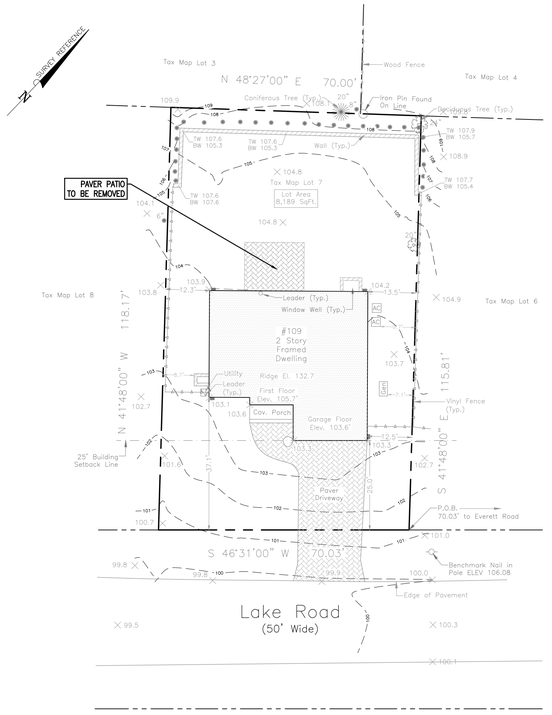
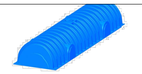
SCALE: 1"=20'



EXISTING CONDITIONS & DEMOLITION PLAN

0 20 40
SCALE: 1"=20'

Recharger 150XLHD Chamber Specifications		
Height	18.5	inches
Width	33.0	inches
Length	11.00	feet
Installed Length	10.25	feet
Bare Chamber Volume	27.19	cu. feet
Installed Chamber Volume	85.29	cu. feet



Breakdown of Storage Provided by Recharger 150XLHD Stormwater System		
Within Chambers	29.18	cu. feet
Within Feed Connectors	-	cu. feet
Within Stone	75.81	cu. feet
Total Storage Provided	**105.0**	**cu. feet**
Total Storage Required	43.00	cu. feet

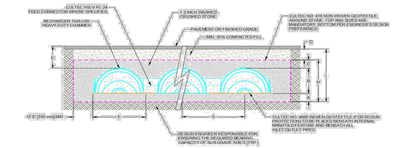
Materials List

Recharger 150XLHD			
Total Number of Chambers Required	**1**	**pieces**	Separator Row Qty. Included in Total
Separator Row Chambers	1	pieces	
Starter Chambers	1	pieces	
Intermediate Chambers	0	pieces	
End Chambers	0	pieces	Based on 1 Internal Manifold
HVLV FC–24 Feed Connectors	0	pieces	
CULTEC No. 410 Non–Woven Geotextile	35	sq. yards	
CULTEC No. 4800 Woven Geotextile	17	feet	
Stone	7	cu. yards	

Bed Detail

Bed Layout Information		
Number of Rows Wide	1	pieces
Number of Chambers Long	1	pieces
Chamber Row Width	2.75	feet
Chamber Row Length	11.00	feet
Bed Width	4.75	feet
Bed Length	13.00	feet
Bed Area Required	61.75	sq. feet
Length of Separator Row	11.00	feet

Bed detail for reference only. Not project specific. Not to scale.



Conceptual graphic only. Not job specific.

Cross Section Table Reference			
A	Depth of Stone Base	12.0	inches
B	Chamber Height	18.5	inches
C	Depth of Stone Above Units	12.0	inches
D	Depth of 95% Compacted Fill	8.0	inches
E	Max. Depth Allowed Above the Chamber	12.00	feet
F	Chamber Width	33.0	inches
G	Center to Center Spacing	4.75	feet
H	Effective Depth	3.54	feet
I	Bed Depth	4.31	feet

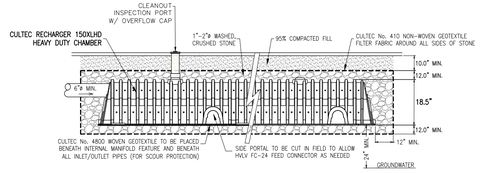
CULTEC CHAMBER STORAGE VOLUME CALCULATIONS
N.T.S.

Drainage Calculations

Description	Quantity
Existing Impervious Area	2,594 SF
Proposed Impervious Area	2,984 SF
Net Increase in Impervious Area	**390 SF**
Runoff Depth = 2.0 in	
Required Storage Volume	**65 CF**
Provided Storage Volume	**105 CF**

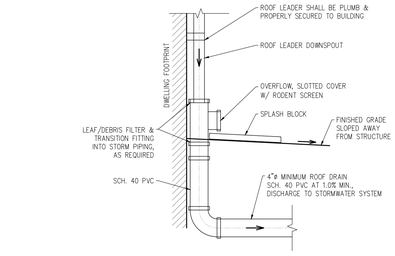
Drainage Calculations

Description	Quantity
Proposed Addition (14'x44')	616 SF
Total New Impervious Area	**616 SF**
Runoff Depth = 2.0 in	
Required Storage Volume	**103 CF**
Provided Storage Volume	**105 CF**



STORMWATER SYSTEM NOTES:
1. CULTEC RECHARGER CHAMBER OR APPROVED EQUAL, SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS GUIDELINES.
2. GEOTEXTILE FILTER FABRIC: CULTEC No. 410 NON–WOVEN GEOTEXTILE OR APPROVED EQUAL SHALL ENCASE ALL SIDES OF STONE.
3. EXCAVATION SHALL NOT BE WITHIN TEN (10) FEET OF A PROPERTY LINE.
4. TYPICAL STORMWATER SYSTEM CONSTRUCTION NOTES, UNLESS OTHERWISE SPECIFIED:
   4.A. ROOF DRAINS SHALL UTILIZE MIN. 4"ø SDR35 OR SCH. 40 PVC
   4.B. STORMWATER PIPES SHALL UTILIZE 6"ø HDPE PIPE
   4.C. MINIMUM 1% PITCH FOR ANY STORMWATER PIPES.
5. PROPERTY OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE AND CONTINUED OPERATION OF THE DRAINAGE SYSTEM. INLETS SHALL BE CLEANED PERIODICALLY AND AFTER EACH MAJOR STORM EVENT. STORMWATER SYSTEM AND ITS COMPONENTS SHALL BE INSPECTED AT A MINIMUM OF ONCE PER YEAR.
6. PRIOR TO CONSTRUCTION OF THE STORMWATER SYSTEM, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO SCHEDULE TEST PIT EXCAVATIONS IN THE LOCATION OF THE PROPOSED STORMWATER SYSTEM FOR SOIL SAMPLING TO DETERMINE SOIL PERMEABILITY, IF REQUIRED.
7. CONTRACTOR SHALL NOTIFY BOROUGH ENGINEER 48–HOURS PRIOR TO STORMWATER SYSTEM INSTALLATION FOR INSPECTION.

STORMWATER SYSTEM DETAIL–CULTEC RECHARGER CHAMBER
N.T.S.



NOTE:
1. OVERFLOW TEE CONNECTIONS WITH SPLASH BLOCKS SHALL BE INSTALLED AT ALL NEW ROOF LEADER DOWNSPOUTS AND SHALL DISCHARGE TO THE STORMWATER SYSTEM CHAMBERS/SEEPAGE PITS, AS SPECIFIED.

ROOF DRAIN OVERFLOW DETAIL (TYP)
N.T.S.

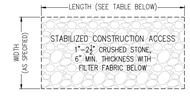


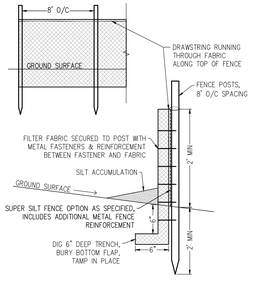
TABLE: LENGTHS OF CONSTRUCTION EXITS ON SLOPING ROADBEDS

ROADWAY SLOPE	LENGTH OF STONE REQUIRED	
(%)	COARSE GRAINED SOILS	FINE GRAINED SOILS
0 – 2%	50'	100'
2 – 5%	100'	200'
>5%	ENTIRE SURFACE STABILIZED WITH HMA BASE COURSE	

* REFER TO "STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY"

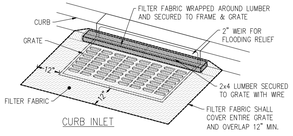
NOTE:
1. STABILIZED CONSTRUCTION ACCESS MEASURES SHALL BE PROVIDED AT ANY POINTS OF CONSTRUCTION INGRESS/EGRESS WHERE SEDIMENT MAY BE TRACKED, OR FLOW OFF, THE SITE.
2. CRUSHED STONE: 6" MINIMUM THICKNESS WITH FILTER FABRIC BELOW CONSISTING OF ASTM C–33, SIZE No. 2 (2½ – 1½ IN) OR No. 3 (2 – 1 IN). USE CLEAN CRUSHED ANGULAR STONE. CRUSHED CONCRETE OF SIMILAR SIZE MAY BE SUBSTITUTED BUT WILL REQUIRE MORE FREQUENT UPGRADING AND MAINTENANCE.
3. WIDTH: NOT LESS THAN FULL WIDTH OF POINTS OF INGRESS OR EGRESS. WIDTH OF THE STONE INGRESS/EGRESS SHALL BE EQUAL TO LOT ENTRANCE WIDTH AND SHALL BE A MINIMUM OF (10') TEN FEET IN LENGTH FOR INDIVIDUAL LOT INGRESS/EGRESS.

STABILIZED CONSTRUCTION ACCESS (TYP)
N.T.S.



NOTES:
1. FILTER FABRIC: MIRAFI 100X OR EQUIVALENT
2. FABRIC MUST BE SECURELY FASTENED TO THE POSTS WITH METAL FASTENERS (NAILS OR STAPLES) AND HIGH STRENGTH REINFORCEMENT MATERIAL (NYLON WEBBING, GROMMETS, WASHERS, ETC.) PLACE BETWEEN THE FASTENER AND GEOTEXTILE FILTER FABRIC. FILTER FABRIC FASTENING SYSTEM SHALL RESIST TEARING AWAY FROM THE POST AND INCORPORATE A DRAWSTRING IN THE TOP PORTION OF THE FENCE FOR ADDED STRENGTH.
3. FENCE POST SPACING SHALL BE 8 FEET O/C OR LESS EXTENDING AT LEAST 2 FEET INTO THE GROUND AND AT LEAST 2 FEET ABOVE GROUND. POSTS SHALL BE CONSTRUCTED OF METAL OR HARDWOOD WITH A MINIMUM THICKNESS OF 1½ INCHES.
4. SUPER SILT FENCE OPTION AS SPECIFIED: ADDITIONALLY INCLUDE A METAL FENCE WITH 6 INCH OR SMALLER MESH OPENINGS EXTENDING AT LEAST 2 FEET HIGH AND FASTENED TO THE FENCE POSTS TO PROVIDE REINFORCEMENT FOR THE GEOTEXTILE FABRIC.

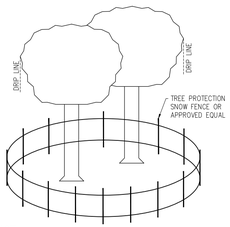
SEDIMENT SILT FENCE (TYP)
N.T.S.



CURB INLET

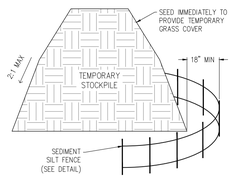
NOTE:
1. CONTRACTOR IS TO CLEAN INLET FILTER AFTER EVERY STORM AND AS NECESSARY THROUGHOUT CONSTRUCTION.
2. FILTER FABRIC: MIRAFI 100X OR EQUIVALENT.
3. PROVIDE 12"–72" CLEAN STONE OVER FILTER FABRIC WITHIN TRAVELED WAYS AND AS NECESSARY.
4. CONTRACTOR TO REMOVE INLET PROTECTION FILTER COMPONENTS, FABRIC, & LUMBER PRIOR TO PAVING, IF APPLICABLE.
5. CONTRACTOR SHALL INSTALL INLET PROTECTION FILTER TO REMAIN SECURED AND SAFELY PASS FLOWS DURING FLOOD EVENTS.
6. INLET PROTECTION FILTER IS DESIGNED TO FILTER CAPTURED RUNOFF FROM THE 1 YR–24 HOUR STORM EVENT AND SAFELY CONVEY FLOWS VIA WEIR OPENINGS AS SHOWN DURING FLOOD EVENTS.

INLET PROTECTION FILTER (TYP)
N.T.S.



NOTE:
1. PLACE FENCE A MINIMUM OF 1' OUTSIDE DRIP LINE OF EXISTING TREE.
2. FEEDER ROOTS WITHIN THE DRIPLINE OF THE TREE BRANCHES SHALL NOT BE CUT.

TREE PROTECTION (TYP)
N.T.S.



TEMPORARY STOCKPILE (TYP)
N.T.S.

REFERENCES

1. EXISTING CONDITIONS & TOPOGRAPHY REFERENCES A SURVEY PREPARED BY SCHMIDT SURVEYING, 49 SULLIVAN STREET, WESTWOOD, NJ 07675. TITLED: "TOPOGRAPHIC SURVEY", DATED: 7–8–2024.
2. ELEVATIONS ARE BASED ON AN ASSUMED DATUM.
3. ARCHITECTURAL PLANS PREPARED BY MARIO NAVEDO, 120B LANSDOWNE TER., PLAINFIELD, NJ 07062. TITLED "ADDITION TO: 109 LAKE RD., DEMAREST, NJ 07627", DATED 8–14–2024.

SOIL EROSION & SEDIMENT CONTROL PLAN

PROPOSED ADDITION
109 LAKE ROAD
LOT 7 – BLOCK 82.04
BOROUGH OF DEMAREST
BERGEN COUNTY NEW JERSEY

No.	DATE	REVISIONS
1	2–26–2025	REVISED PER REVIEW COMMENTS & ZBA COMMENTS

PAUL R. ERCOLANO PE, PP
PROFESSIONAL ENGINEER & PLANNER
NJPE #24GE05356900 NJPP #33LI00649200

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201–477–8361
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NJ CERTIFICATE OF AUTHORIZATION: 24GA28381500

CHECK: PRE
DRAWN: ADJ
DATE: 8–28–2024
FILE No. 0084

02