

The Borough of Sayreville

TAX ASSESSOR'S OFFICE

167 MAIN STREET • SAYREVILLE, NJ 08872
TEL: 732-399-7800 • FAX 732-651-3189

List of property owners within a 200' radius of Block 439.01 Lot 1 (Gonzalez vs Sacha):

Block	Lot	Current Owner	Block	Lot	Current Owner
412.01	18	112 Bordentown Avenue Parlin, NJ 08859	442.03	6	112 Bordentown Avenue Parlin, NJ 08859
412.04	6	117 Bordentown Avenue Parlin, NJ 08859	442.03	7	114 Bordentown Avenue Parlin, NJ 08859
412.04	7	1125 Bordentown Avenue Parlin, NJ 08859	442.03	8	114 Bordentown Avenue Parlin, NJ 08859
412.04	8	1125 Bordentown Avenue Parlin, NJ 08859	442.06	191	42 Albert Drive Parlin, NJ 08859
439.01	2	1124 Bordentown Avenue Parlin, NJ 08859	442.07	42	39 Albert Drive Parlin, NJ 08859
439.01	2.01	1122 Bordentown Avenue Parlin, NJ 08859	442.07	43	41 Albert Drive Parlin, NJ 08859
439.01	3	1126 Bordentown Avenue Parlin, NJ 08859	442.07	44	43 Albert Drive Parlin, NJ 08859
439.01	6	Sayreville Plaza, LLC 275 North Franklin Turnpike Ramsey, NJ 07446	442.07	45	46 Albert Drive Parlin, NJ 08859
442.03	5	1110 Bordentown Avenue Parlin, NJ 08859	442.07	46	48 Albert Drive Parlin, NJ 08859
			442.07	47	50 Albert Drive Parlin, NJ 08859
			442.07	48	52 Albert Drive Parlin, NJ 08859

Sayreville, NJ

Approved by an Equal Opportunity Employer
www.sayreville.com

-3-

Block	Lot	442.21	4	Borough of Sayreville - Mira Street Area 167 Main Street Sayreville, NJ 08872
Block	Lot	442.21	5	Outdoor Systems, Inc. 185 Highway 46 Fairfield, NJ 07004

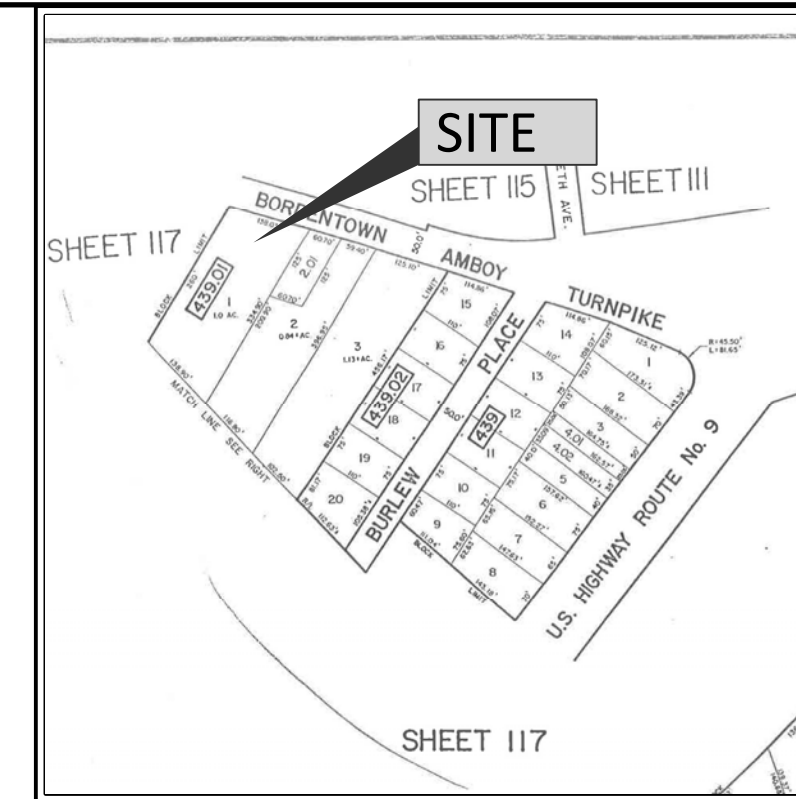
RIGHT OF WAY
Jersey Central Power and Light Company
Tax Department
800 Cabin Hill Drive
Greensburg, PA 15601

This is to certify that the preceding list of names, addresses and block and lot numbers are, to the best of my knowledge, within a 200' radius of property known as Block 439.01 Lot 1, on the Official Borough of Sayreville Tax Map.

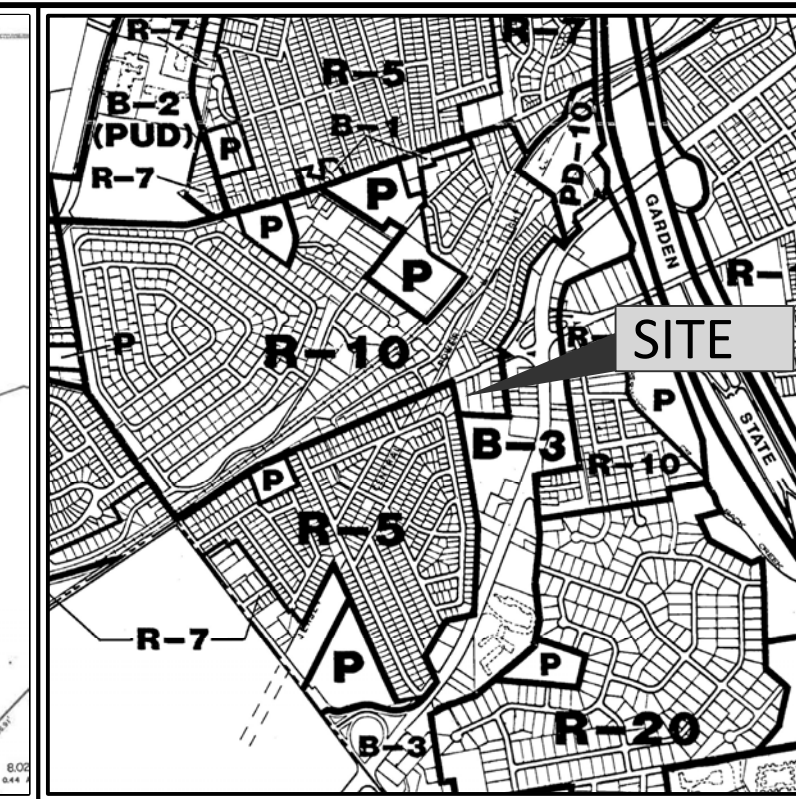
Dated: December 19, 2023
Rebecca J. Jelinek
Deputy Tax Assessor

Be advised that this record may contain information governed by L. 2015, c. 238 and L. 2020, c. 128, which include civil and criminal penalties for improper disclosure.

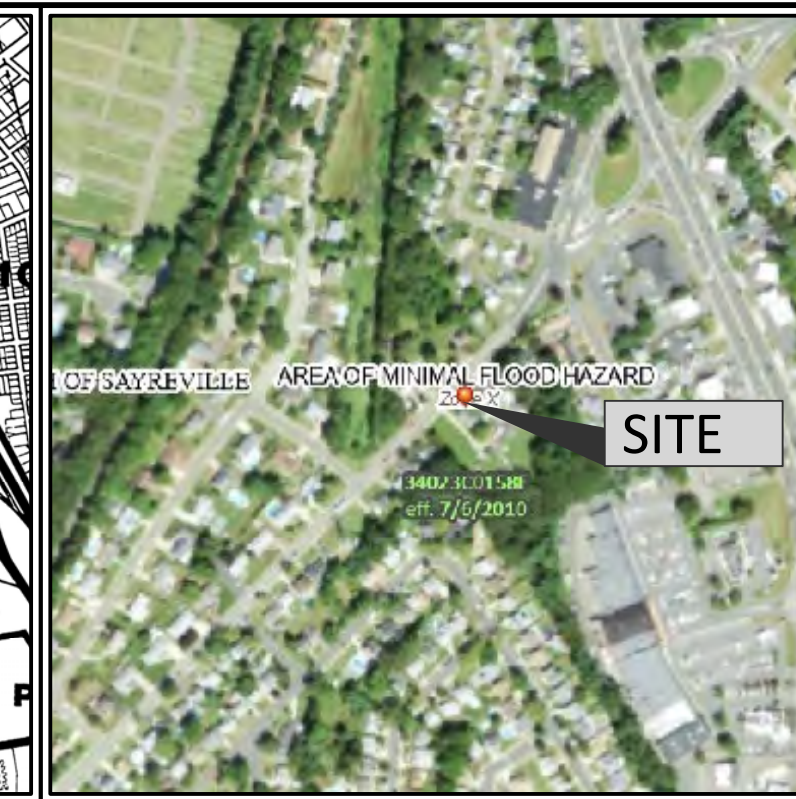
200' PROPERTY OWNER LIST



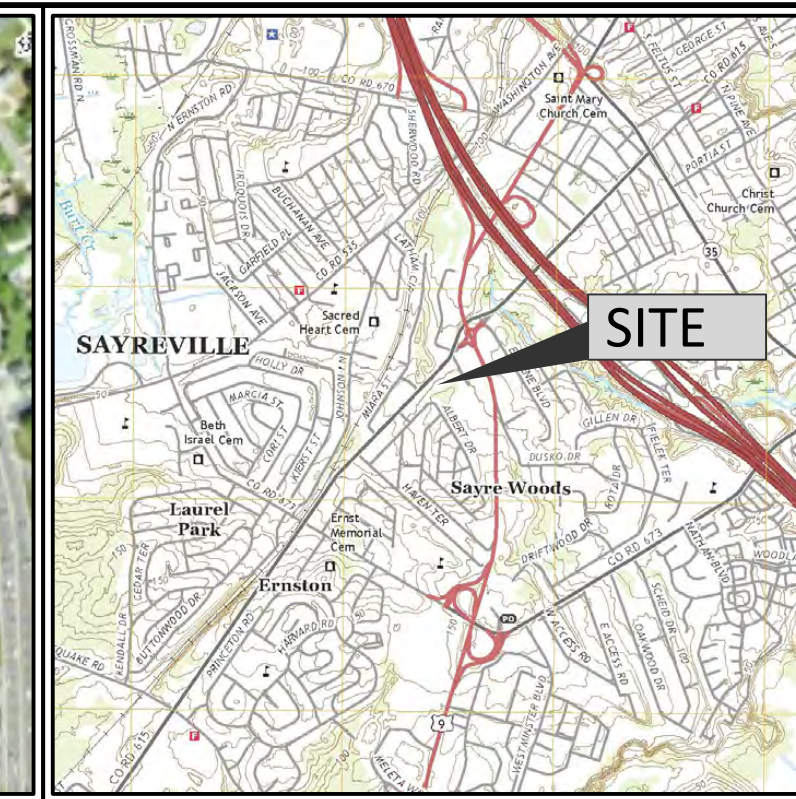
TAX MAP
N.T.S.



ZONING MAP
N.T.S.



FLOOD MAP
ZONE X
N.T.S.



USGS KEY MAP
N.T.S.

MINOR SUBDIVISION OF #1120 BORDENTOWN AVENUE BLOCK 439.01, LOT 1 BOROUGH OF SAYREVILLE MIDDLESEX COUNTY, NEW JERSEY



200' RADIUS MAP
N.T.S.

APPROVAL OF THIS MINOR SUBDIVISION PLAN WITH THE LAND USE BOARD OF THE BOROUGH OF SAYREVILLE ON _____.

CHAIR _____ DATE _____

SECRETARY _____ DATE _____

MUNICIPAL ENGINEER _____ DATE _____

SUBDIVISION IS TO BE FILED BY DEED.

OWNER/APPLICANT:
ERIK GONZALEZ
1120 BORDENTOWN AVENUE
SAYREVILLE, NJ 08859

I HEREBY CERTIFY THAT I AM THE OWNER OF RECORD OF THE PLAN HEREIN DEPICTED AND THAT I CONCUR WITH THE PLAN.

OWNER _____ DATE _____

MINOR SUBDIVISION CHECKLIST NOTES:

- 10. THERE ARE NO ADJOINING MUNICIPALITIES WITHIN 200 FEET.
- 18. THERE ARE NO FLOOD PLAINS OR WETLANDS AREA.
- 24. PROPERTY IS NOT LOCATED WITHIN ANY SPECIAL AREA.

MINOR SUBDIVISION CHECKLIST WAIVERS:

- 11.m. LIGHTING INCLUDING PHOTOMETRIC AND LANDSCAPING -NA
- 11.n. SIGNAGE INCLUDING DETAILS -NA
- 11.o. REFUSE AREAS -NA
- 11.r. SUBSURFACE STRUCTURES DEMOLITION -NA
- 11.s. TREE SAVE PLAN-NA

RSIS NOTES:

SECTION 5:21-4.14 TABLE 4.4
SINGLE FAMILY DWELLING
2 BEDROOM = 1.5 SPACES
3 BEDROOM = 2.0 SPACES
4 BEDROOM = 2.5 SPACES

NO TREES WILL BE REMOVED AS A RESULT OF CONSTRUCTION, THEREFORE A TREE REMOVAL PLAN IS NOT REQUIRED.

OWNER/APPLICANT:
ERIK GONZALEZ
1120 BORDENTOWN AVENUE
SAYREVILLE, NJ 08859

COVER SHEET
FOR MINOR SUBDIVISION OF #1120 BORDENTOWN AVENUE
BLOCK 439.01, LOT 1
BOROUGH OF SAYREVILLE
MIDDLESEX COUNTY, NEW JERSEY



Engineers • Surveyors • Planners
Since 1977
51 Gerard Avenue, Matawan, New Jersey 07747
(732)290-9600
Certificate of Authorization No. 24CA28050100

Date	File No.	CAD File	Field Book
5/2/2022	K022-009	022009SUB	---
Designed By	Drawn By	Ckd. By	Sheet No.
RTK Jr.	RTKIII	RTK JR.	1 of 8

ROBERT T. KEE, JR.
Professional Engineer & Land Surveyor
New Jersey License No. 24GB02320600

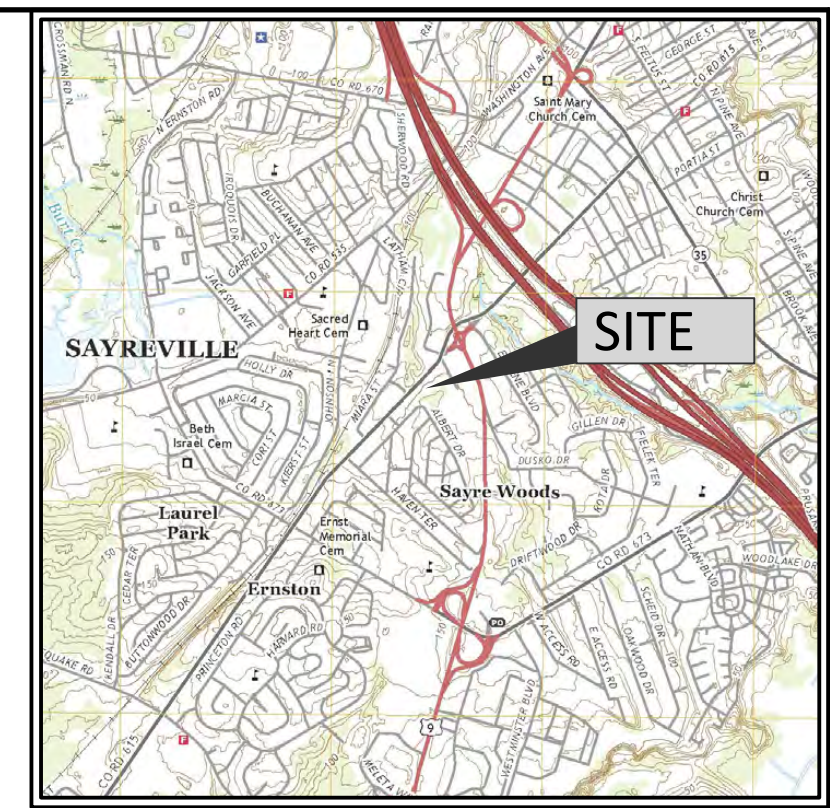
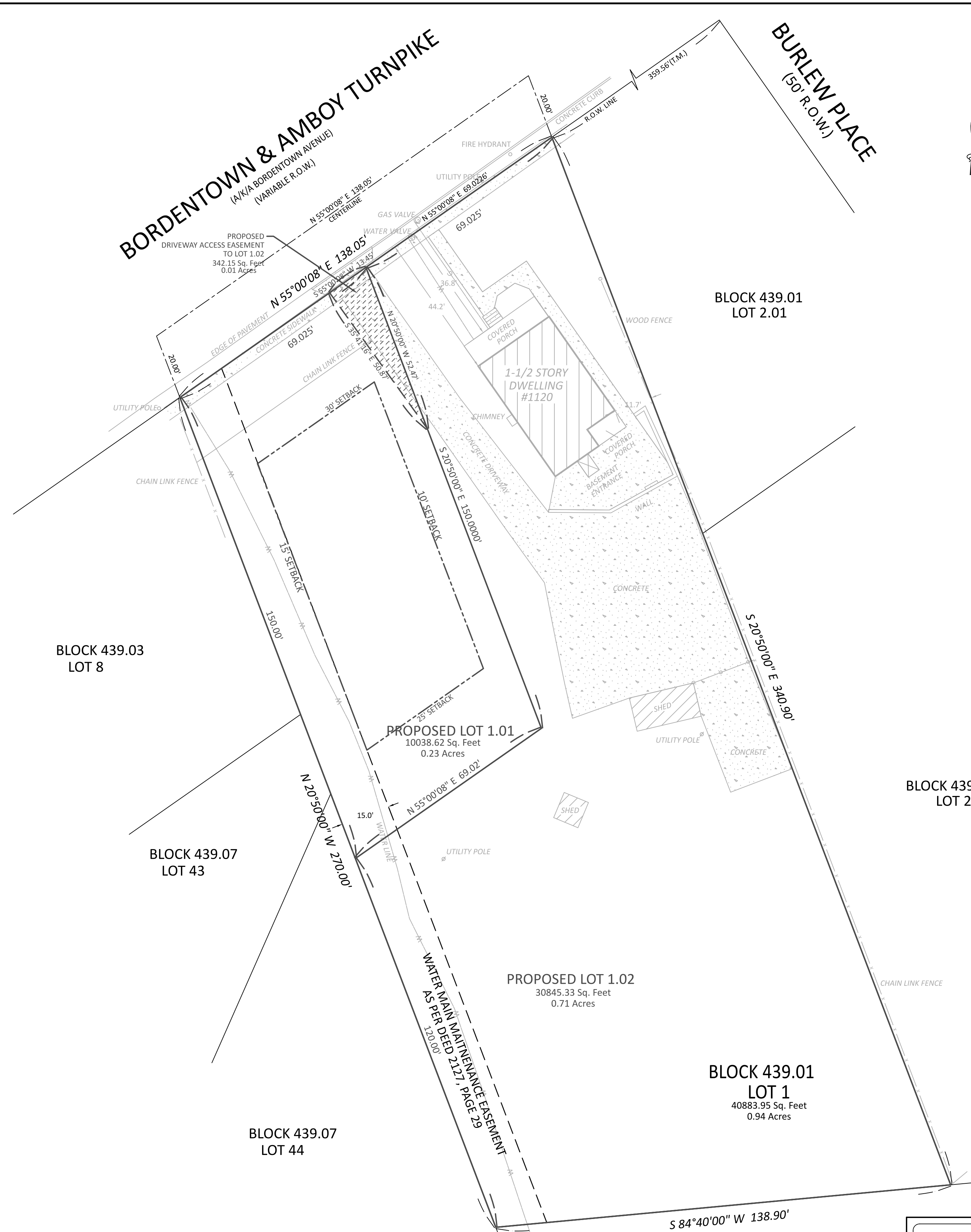
No.	Revisions	Date
2	AS PER CME LETTER 1/31/2024	3/15/2024
1	AS PER CME LETTER 5/17/2023	1/2/2024

THIS PLAN WAS PREPARED USING THE FOLLOWING INFORMATION:

1. SURVEY PREPARED BY CONTROL LAYOUTS, INC. ON 12/6/2004.
2. DEED BOOK 17044, PAGE 749.
3. TITLE SEARCH PREPARED BY CHICAGO TITLE INSURANCE COMPANY AND IS KNOWN AS FILE NO. 1728-110325.
4. THE OFFICIAL TAX MAPS FOR THE BOROUGH OF SAYREVILLE, MIDDLESEX COUNTY, N.J.
5. FIELD WORK BY KEE ENGINEERING ENTERPRISES, INC. ON 5/2/2022.
6. BOUNDARY & TOPOGRAPHIC SURVEY PREPARED BY MARTIN A GRANT SURVEYING, INC. ON 6/26/2021.

NOTES:

1. ALL CONSTRUCTION IS TO BE PERFORMED IN STRICT CONFORMANCE WITH ALL APPLICABLE MUNICIPAL, COUNTY, STATE AND ANY OTHER GOVERNING BODIES STANDARDS. ANY CHANGES OR MODIFICATIONS FROM THIS PLAN MUST BE APPROVED BY THE REVIEWING AGENCIES PRIOR TO CONSTRUCTION.
2. THIS PLAN INDICATES THE APPROXIMATE LOCATION OF EXISTING SUBSURFACE UTILITIES IN THE VICINITY OF THE PROJECT AND ARE NOT GUARANTEED FOR ACCURACY AND/OR COMPLETENESS. CONTRACTOR TO VERIFY DEPTH AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. ANY CONFLICTS WITH PROPOSED CONSTRUCTION ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER. ALL EXISTING UTILITIES THAT ARE TO BE RELOCATED OR ALTERED IN ANY MANNER ARE TO BE DONE IN ACCORDANCE WITH THE RESPECTIVE UTILITY COMPANIES STANDARDS. ALL EXISTING UTILITIES EXPOSED DURING CONSTRUCTION ARE TO BE SUPPORTED UNTIL BACK FILL IS IN PLACE ANY CROSSING LESS THAN ONE FOOT CLEAR TO BE SUPPORTED WITH A SADDLE (CONCRETE OR SAND AS NOTED).
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13. TOPOGRAPHY SHOWN HEREON IS ON AN NAVD88.



USGS KEY MAP
N.T.S.

DESCRIPTION	REQUIRED	EXISTING	PROPOSED LOT 1.01	PROPOSED LOT 1.02
MIN AREA	10000 SF	40883 SF	10038.6 SF	30845.3 SF
LOT WIDTH	100 FT	133 FT	69.025 FT -V	69.025 FT -V
LOT DEPTH	100 FT	207 FT	150.0 FT	340.9 FT
MIN SETBACKS				
FRONT YARD	30 FT	44.2 FT	30 FT	44.2 FT
ONE SIDE	10 FT	11.7 FT	10 FT	11.7 FT
TOTAL	25 FT	109.9 FT	25 FT	32.9 FT
REAR YARD	25 FT	225.7 FT	25 FT	225.7 FT
MAX BULK REQUIREMENTS				
HEIGHT	35 FT	25± FT	35 FT	25± FT
STORIES	2.5 STORIES	1.5 STORIES	2.5 STORIES	1.5 STORIES
DENSITY	NA	NA	NA	NA
MAX LOT COVERAGE				
BUILDING	20 PERCENT	3.6 PERCENT	20 PERCENT	4.1 PERCENT
BUILDING & PAVEMENT	40 PERCENT	17.9 PERCENT	40 PERCENT	27.9 PERCENT

R-10 ZONING SCHEDULE
V = VARIANCE REQUIRED

VARIANCE REQUIRED FOR SECTION 26-82.6.a.6. Accessory buildings in residential zones shall be no greater than one hundred fifty (150) square feet in area.

OWNER/APPLICANT:
ERIK GONZALEZ
1120 BORDENTOWN AVENUE
SAYREVILLE, NJ 08859

SUBDIVISION IS TO BE FILED BY DEED.

MINOR SUBDIVISION PLAT
FOR MINOR SUBDIVISION OF #1120 BORDENTOWN AVENUE
BLOCK 439.01, LOT 1
BOROUGH OF SAYREVILLE
MIDDLESEX COUNTY, NEW JERSEY

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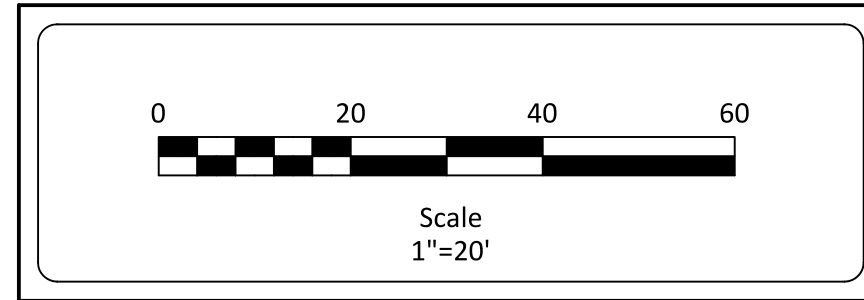
Date 5/2/2022	File No. K022-009	CAD File 022009SUB	Field Book ---
Designed By RTK Jr.	Drawn By RTKIII	Ckd. By RTK JR.	Sheet No. 2 of 8

ROBERT T. KEE, JR.
Professional Engineer & Land Surveyor
New Jersey License No. 24GB02320600

LEGEND

50 - - - - -	EXISTING CONTOURS
X 52.20	EXISTING SPOT ELEVATIONS
- - - - -	EXISTING UTILITY LINE
⊕	EXISTING TREE
- - - - -	EXISTING FENCE
50	PROPOSED CONTOUR
X 52.20	PROPOSED SPOT ELEVATION
→	PROPOSED FLOW ARROW
- - - - -	PROPOSED UTILITY LINE

Know what's below.
Call before you dig.
or
1-800-272-1000
NEW JERSEY ONE CALL



No.	Revisions	Date
2	AS PER CME LETTER 1/31/2024	3/15/2024
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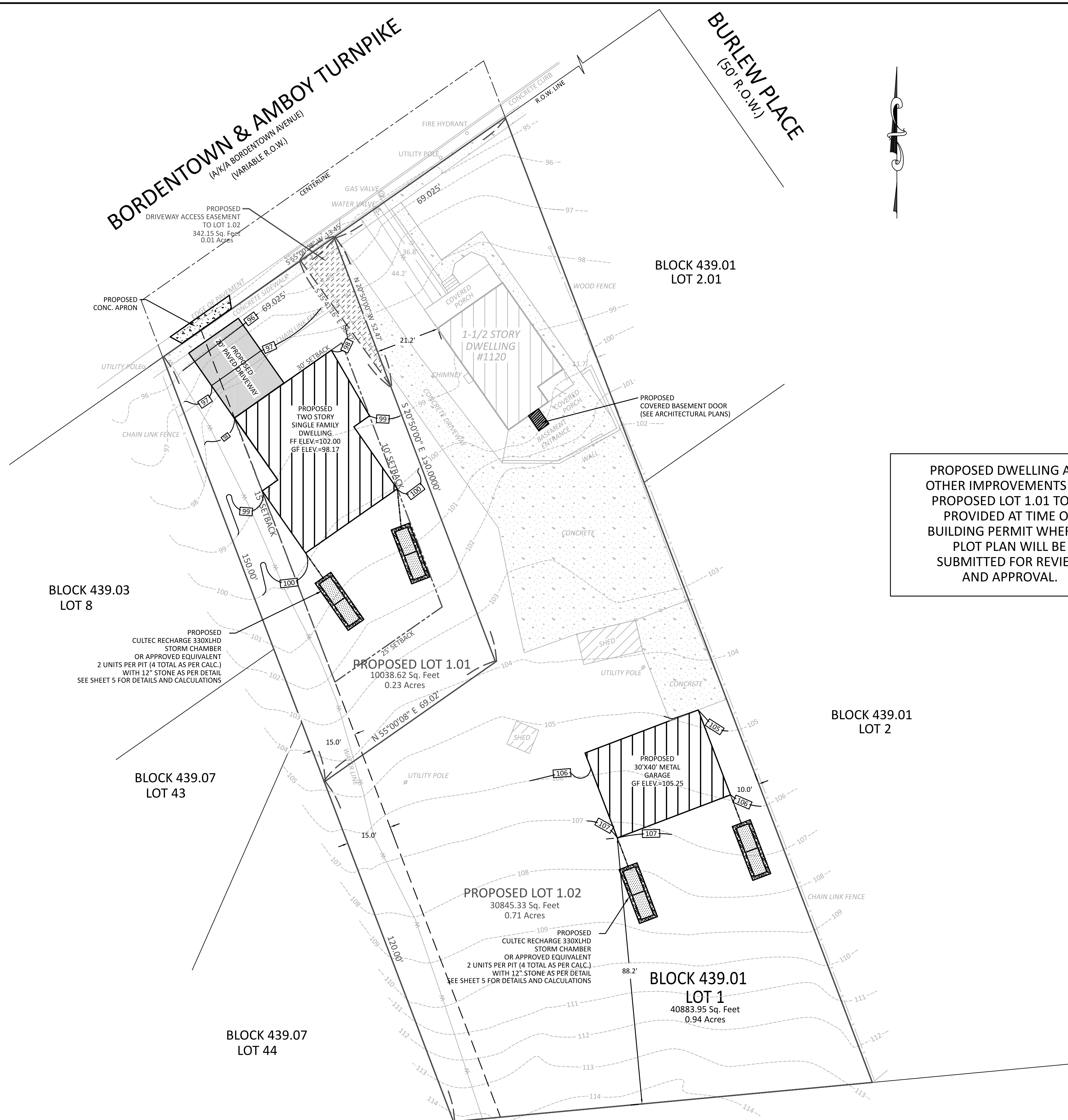
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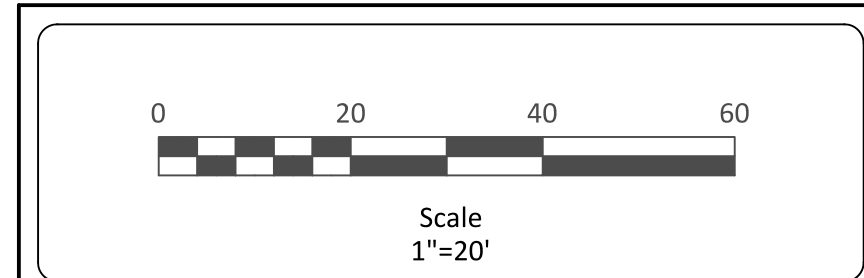
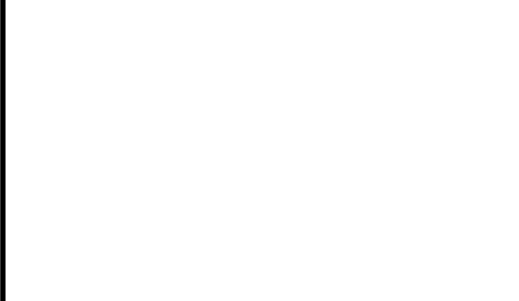
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PROPOSED DWELLING AND OTHER IMPROVEMENTS FOR PROPOSED LOT 1.01 TO BE PROVIDED AT TIME OF BUILDING PERMIT WHERE A PLOT PLAN WILL BE SUBMITTED FOR REVIEW AND APPROVAL.

- LEGEND**
- 50 --- EXISTING CONTOURS
 - X 52.20 EXISTING SPOT ELEVATIONS
 - S-W-G- EXISTING UTILITY LINE
 - ⊕ EXISTING TREE
 - x-x-x-x- EXISTING FENCE
 - 50 --- PROPOSED CONTOUR
 - X 52.20 PROPOSED SPOT ELEVATION
 - PROPOSED FLOW ARROW
 - S-W-G- PROPOSED UTILITY LINE



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ERIK GONZALEZ
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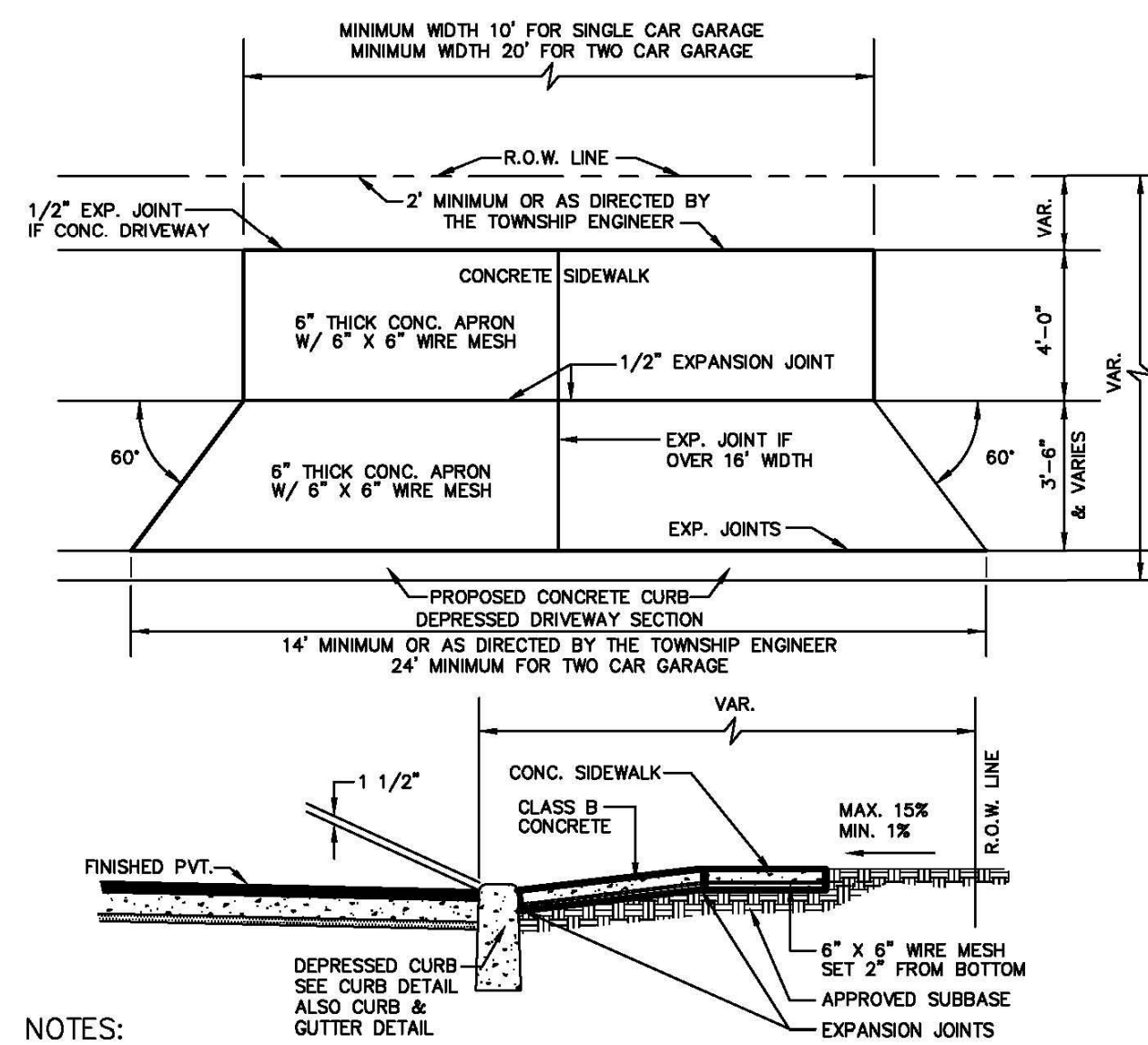
GRADING PLAN
FOR MINOR SUBDIVISION OF #1120 BORDENTOWN AVENUE
BLOCK 439.01, LOT 1
BOROUGH OF SAYREVILLE
MIDDLESEX COUNTY, NEW JERSEY

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Designed By RTK Jr.	Drawn By RTKIII	Ckd. By RTK JR.	Sheet No. 3 of 8

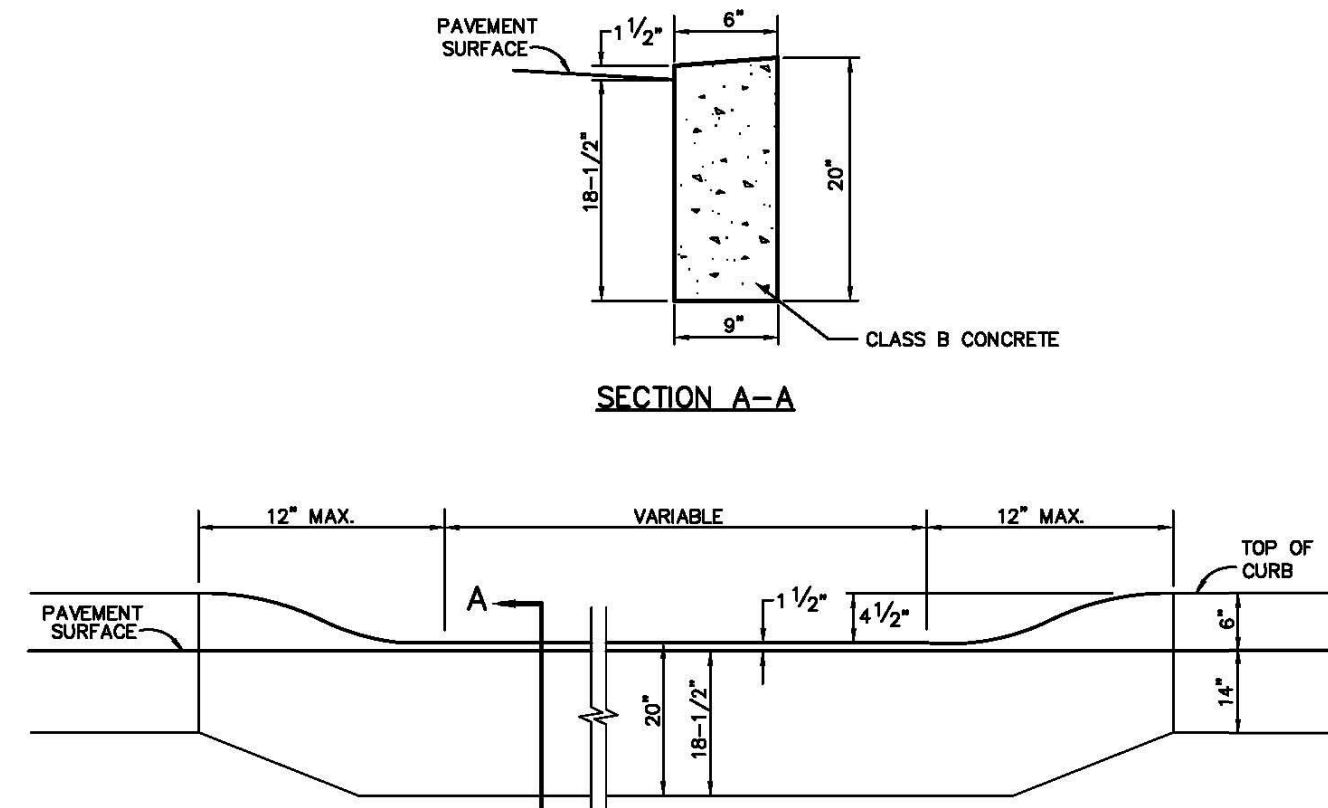
ROBERT T. KEE, JR.
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- NOTES:**
1. CONCRETE TO TEST 4500 POUNDS PER SQUARE INCH MINIMUM ON 28 DAY COMPRESSIVE TEST.
 2. ALL CONCRETE IS TO BE PROPERLY CURED USING A CURING COMPOUND, SALT HAY, BURLAP OR OTHER METHOD ACCEPTABLE TO TOWNSHIP ENGINEER.
 3. CONCRETE SLUMP TO BE 3 (+/- 1) INCHES OR AS DIRECTED BY THE TOWNSHIP ENGINEER.
 4. A HALF INCH EXPANSION JOINT OF A NON-EXTRUDABLE, BITUMASTIC MATERIAL SHALL BE PLACED AS SHOWN.
 5. CONTRACTOR TO NOTIFY TOWNSHIP ENGINEER 24 HOURS PRIOR TO POURING.

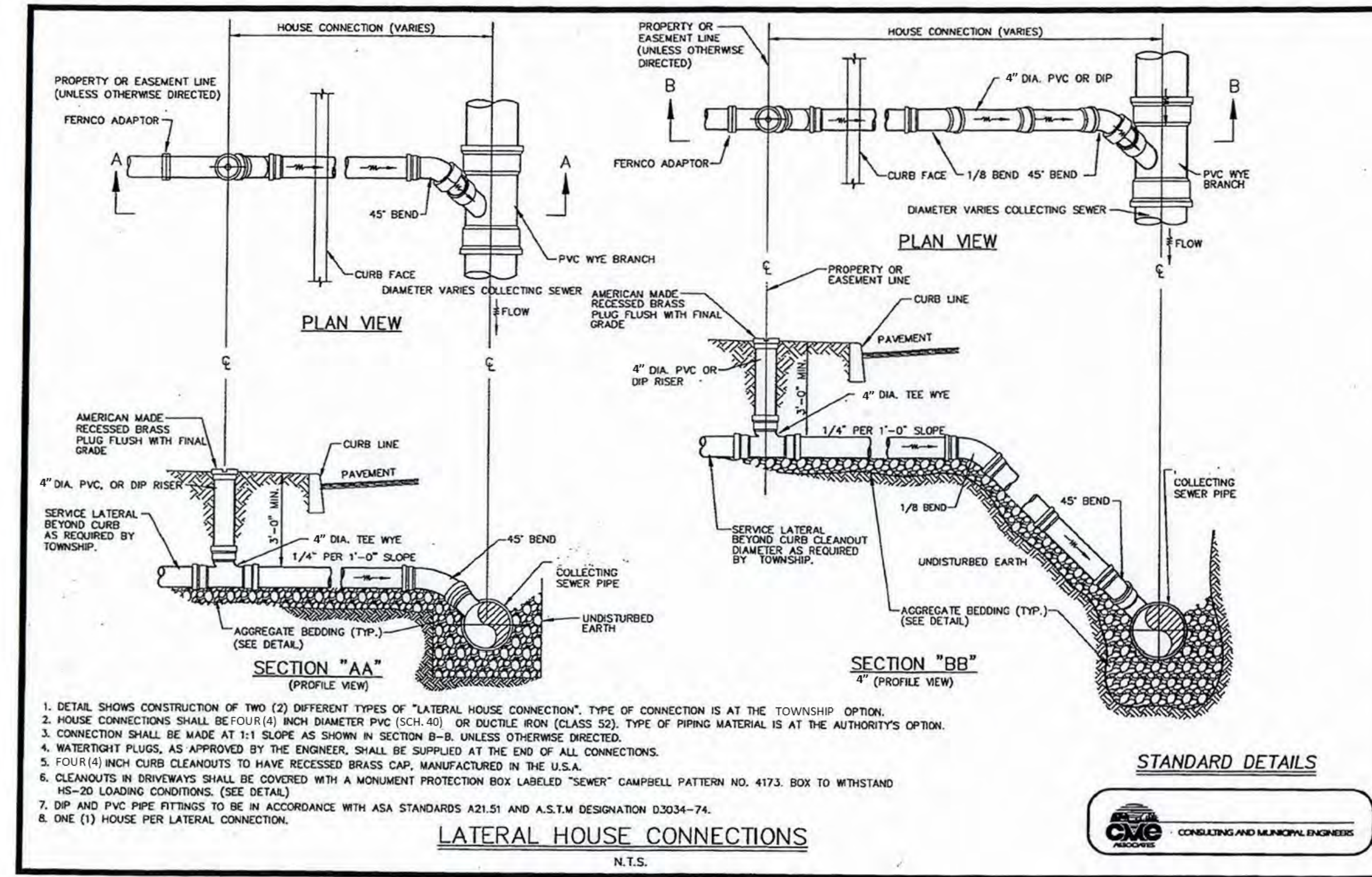
CONCRETE DRIVEWAY APRON



DEPRESSING CURB AT DRIVEWAYS

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 3. CONCRETE SLUMP TO BE 4 (+/- 1) INCHES OR AS DIRECTED BY THE TOWNSHIP ENGINEER.
 4. STEEL SEPARATORS SHALL BE USED WITH ALL THE FORMS TO CREATE A CONSTRUCTION JOINT EVERY 10 FEET ALONG THE CURB.
 5. A HALF INCH EXPANSION JOINT OF A NON-EXTRUDABLE, BITUMASTIC MATERIAL SHALL BE PLACED ON 20 FT. CENTERS MAXIMUM.
 6. CONTRACTOR TO NOTIFY TOWNSHIP ENGINEER 24 HOURS PRIOR TO POURING.

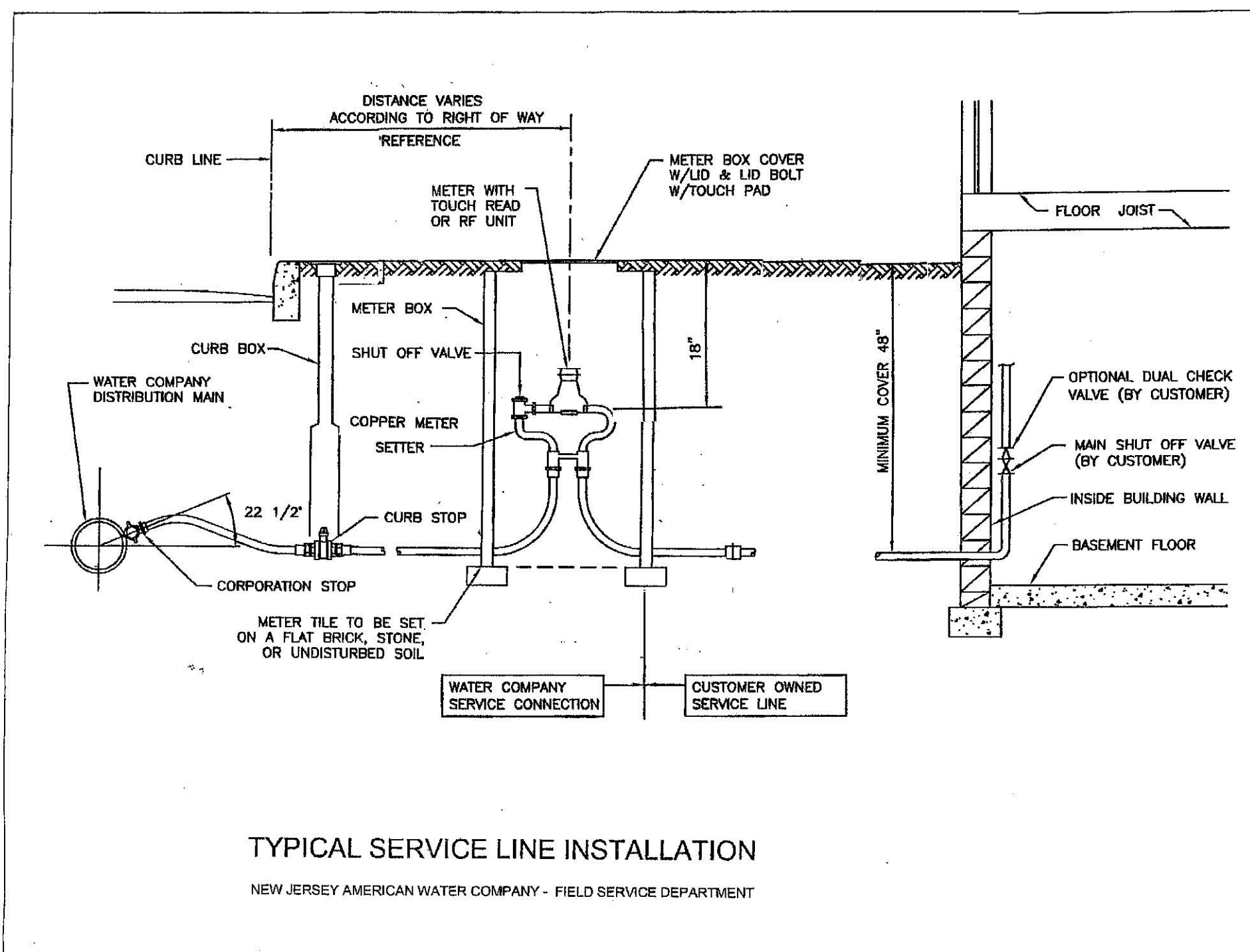
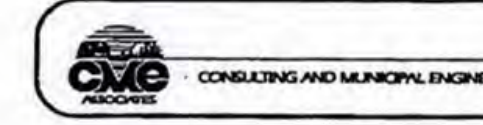
DEPRESSING CURB AT DRIVEWAYS



LATERAL HOUSE CONNECTIONS

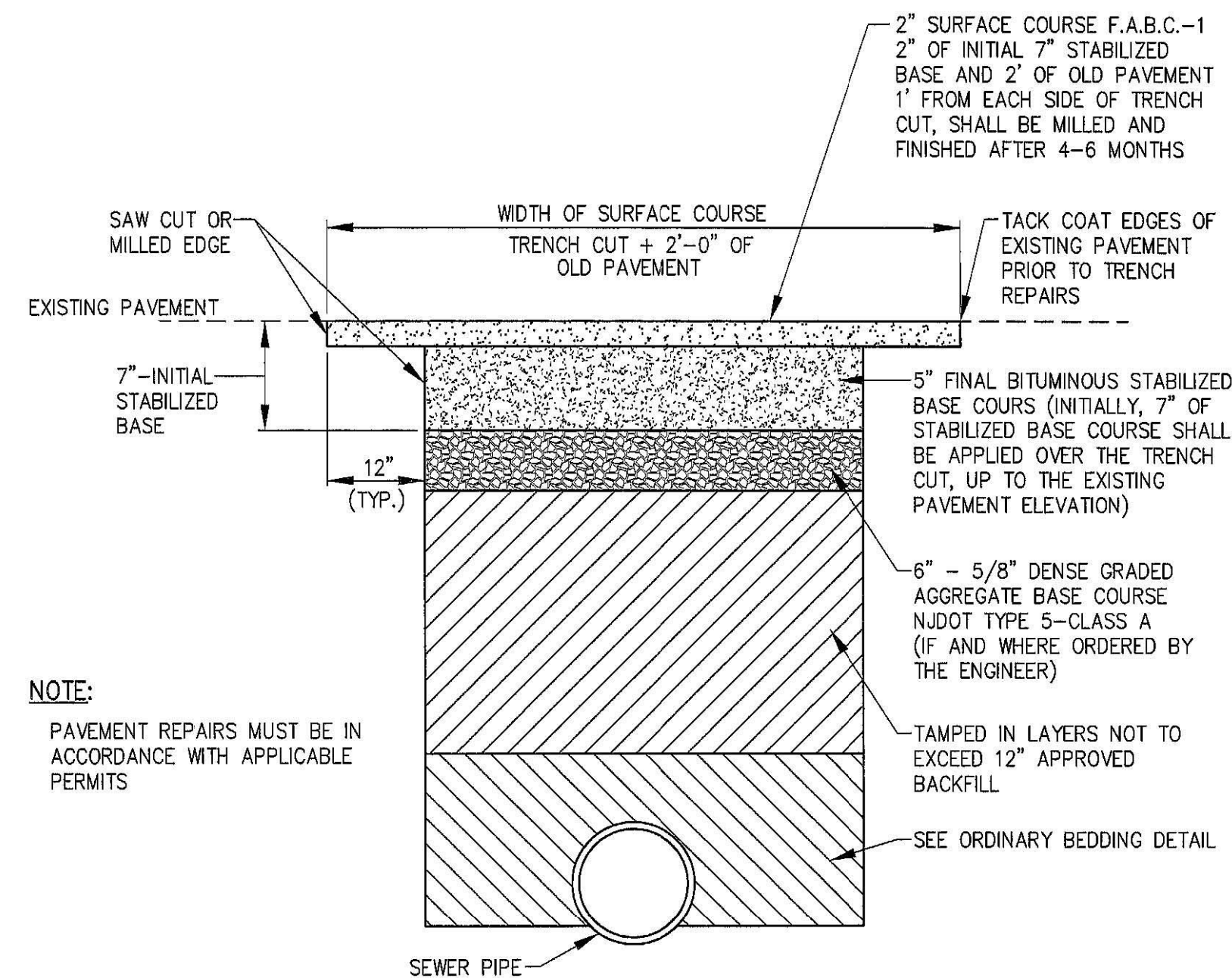
1. DETAIL SHOWS CONSTRUCTION OF TWO (2) DIFFERENT TYPES OF "LATERAL HOUSE CONNECTION". TYPE OF CONNECTION IS AT THE TOWNSHIP OPTION.
2. HOUSE CONNECTIONS SHALL BE FOUR (4) INCH DIAMETER PVC (SCH. 40) OR DUCTILE IRON (CLASS 52). TYPE OF PIPING MATERIAL IS AT THE AUTHORITY'S OPTION.
3. CONNECTION SHALL BE MADE AT 1:1 SLOPE AS SHOWN IN SECTION B-B UNLESS OTHERWISE DIRECTED.
4. WATER TIGHT PLUGS, AS APPROVED BY THE ENGINEER, SHALL BE SUPPLIED AT THE END OF ALL CONNECTIONS.
5. FOUR (4) INCH CURB CLEANOUTS TO HAVE RECESSED BRASS CAP, MANUFACTURED IN THE U.S.A.
6. CLEANOUTS IN DRIVEWAYS SHALL BE COVERED WITH A MONUMENT PROTECTION BOX LABELED "SEWER" CAMPBELL PATTERN NO. 4173. BOX TO WITHSTAND HS-20 LOADING CONDITIONS. (SEE DETAIL).
7. DP AND PVC PIPE FITTINGS TO BE IN ACCORDANCE WITH ASA STANDARDS A21.51 AND A.S.T.M. DESIGNATION D3034-74.
8. ONE (1) HOUSE PER LATERAL CONNECTION.

STANDARD DETAILS



TYPICAL SERVICE LINE INSTALLATION

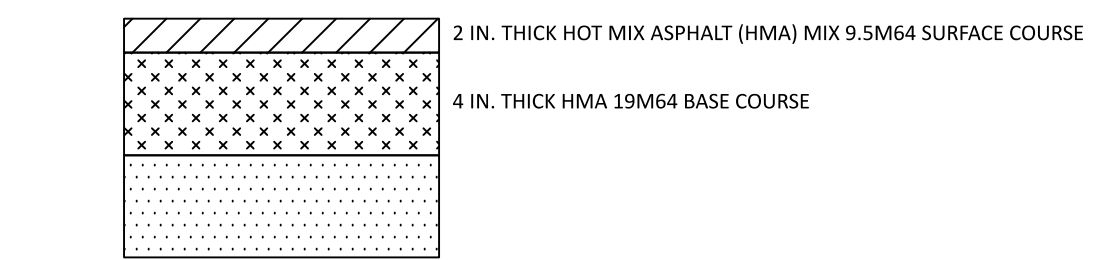
NEW JERSEY AMERICAN WATER COMPANY - FIELD SERVICE DEPARTMENT



- NOTE:**
- PAVEMENT REPAIRS MUST BE IN ACCORDANCE WITH APPLICABLE PERMITS

PAVEMENT REPLACE MUNICIPAL ROADS

N.T.S.



DRIVEWAY PAVEMENT DETAIL

N.T.S.

OWNER/APPLICANT:
ERIK GONZALEZ
1120 BORDENTOWN AVENUE
SAYREVILLE, NJ 08859

CONSTRUCTION DETAILS
FOR MINOR SUBDIVISION OF #1120 BORDENTOWN AVENUE
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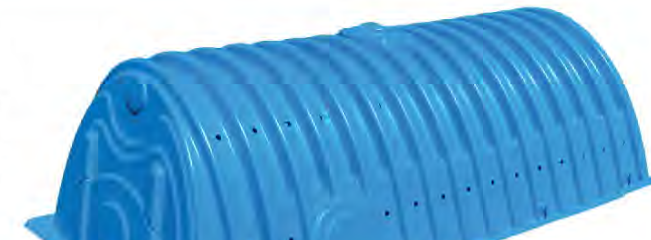
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1	AS PER CME LETTER 5/17/2023	1/2/2024

The Recharger® 330XLHD is a 30.5" (775 mm) tall, high capacity chamber. Typically when using this model, fewer chambers are required resulting in less labor and a smaller installation area. The Recharger® 330XLHD has the side portal internal manifold feature. HVLV® FC-24 Feed Connectors are inserted into the side portals to create the internal manifold.



Size (L x W x H)	8.5' x 52" x 30.5"
Installed Length	2.59 m x 1321 mm x 775 mm
Length Adjustment per Run	7"
Chamber Storage	2.13 m³
Length Adjustment per Run	1.50'
Chamber Storage	0.46 m³
Chamber Storage	7.46 ft³/ft
Chamber Storage	0.69 m³/m
Chamber Storage	52.21 ft³/unit
Chamber Storage	1.48 m³/unit
Min. Installed Storage	11.32 ft³/ft
Min. Installed Storage	1.05 m³/m
Min. Installed Storage	79.26 ft³/unit
Min. Installed Storage	2.24 m³/unit
Min. Area Required	33.83 ft²
Min. Area Required	3.14 m²
Chamber Weight	73.0 lbs
Chamber Weight	33.11 kg
Shipping	30 chambers/field
Shipping	2,325 lbs/field
Shipping	10 skids/48' flatbed
Min. Center-to-Center Spacing	4.83'
Min. Center-to-Center Spacing	1.47 m
Max. Allowable Cover	12'
Max. Allowable Cover	3.66 m
Max. Inlet Opening in End Wall	24" HDPE, PVC
Max. Inlet Opening in End Wall	600 mm HDPE, PVC
Max. Allowable O.D. in Side Portal	10" HDPE, 12" PVC
Max. Allowable O.D. in Side Portal	250 mm HDPE, 300 mm PVC
Compatible Feed Connector	HVLV FC-24 Feed Connector

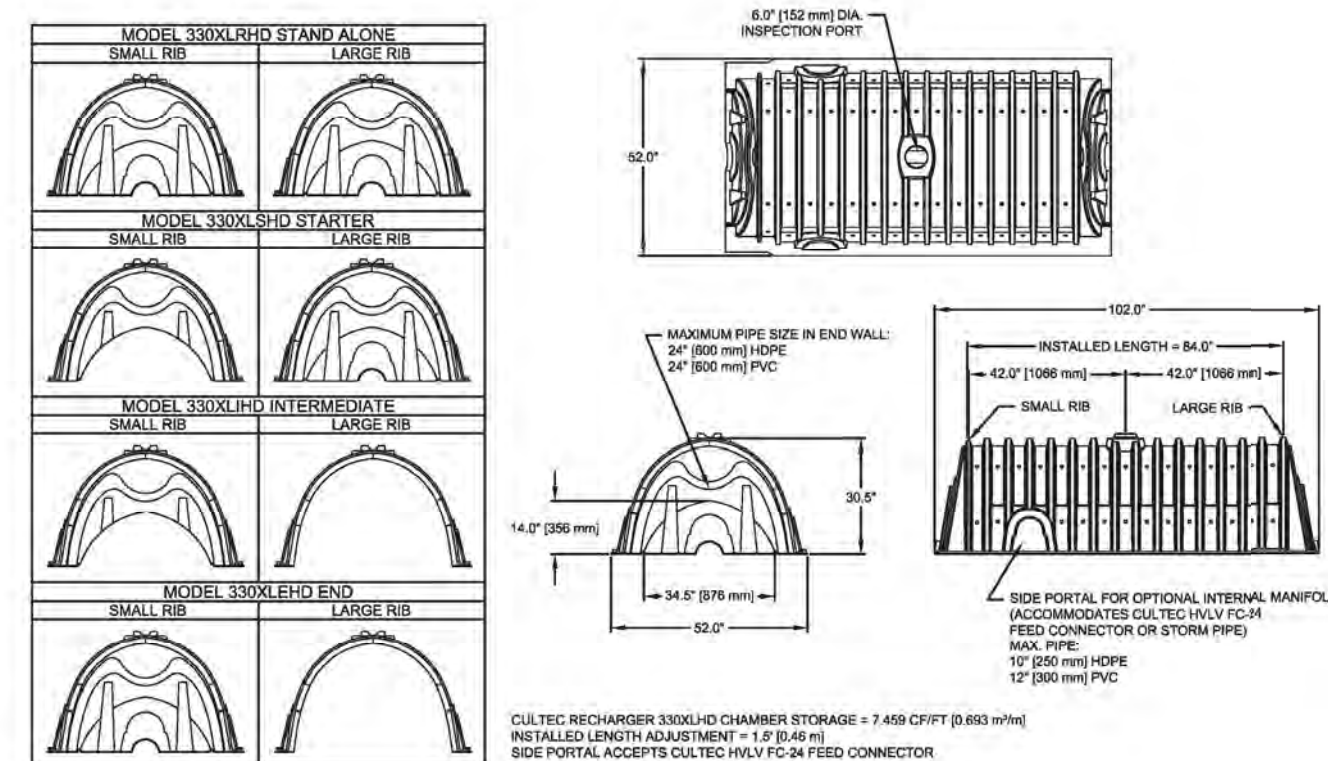
Elevation	Incremental Storage Volume			Cumulative Storage		
	ft.	m	ft³	m³	ft.	m
30.5	775	0.000	0.000	0.000	32.213	1.479
30	762	0.010	0.002	0.133	0.004	32.213
29	737	0.051	0.005	0.337	0.010	32.080
28	711	0.084	0.008	0.588	0.017	31.723
27	686	0.124	0.012	0.868	0.025	31.135
26	660	0.150	0.014	1.05	0.030	30.397
25	635	0.173	0.016	1.211	0.034	29.417
24	609	0.191	0.018	1.337	0.038	28.006
23	584	0.207	0.019	1.440	0.041	26.669
22	559	0.221	0.021	1.547	0.044	25.220
21	533	0.233	0.022	1.631	0.046	23.673
20	508	0.244	0.022	1.708	0.048	22.042
19	483	0.254	0.024	1.778	0.050	20.234
18	457	0.264	0.025	1.848	0.052	18.256
17	432	0.271	0.025	1.899	0.054	16.008
16	406	0.283	0.026	1.981	0.056	14.611
15	381	0.294	0.027	2.058	0.058	13.030
14	356	0.296	0.027	2.072	0.059	10.372
13	330	0.299	0.028	2.093	0.059	8.700
12	305	0.301	0.028	2.107	0.060	7.027
11	279	0.303	0.028	2.121	0.060	5.400
10	254	0.304	0.028	2.128	0.060	3.919
9	229	0.306	0.028	2.142	0.061	2.514
8	203	0.313	0.029	2.191	0.062	1.209
7	178	0.321	0.030	2.247	0.064	0.158
6	152	0.322	0.030	2.254	0.064	0.000
5	127	0.323	0.030	2.261	0.064	0.000
4	102	0.324	0.030	2.268	0.064	0.000
3	76	0.325	0.030	2.275	0.064	0.000
2	51	0.327	0.030	2.289	0.065	0.000
1	25	0.332	0.031	2.324	0.066	0.000
Total		7.459	0.659	32.213	1.479	1.479

Calculations are based on installed chamber length.
 All above values are nominal.
 Min. installed storage includes 6" (152 mm) above base, 6" (152 mm) stone above crown of chamber and typical stone amount at 50' (1.52 m) center to center spacing.
 Stone void calculated at 40%.

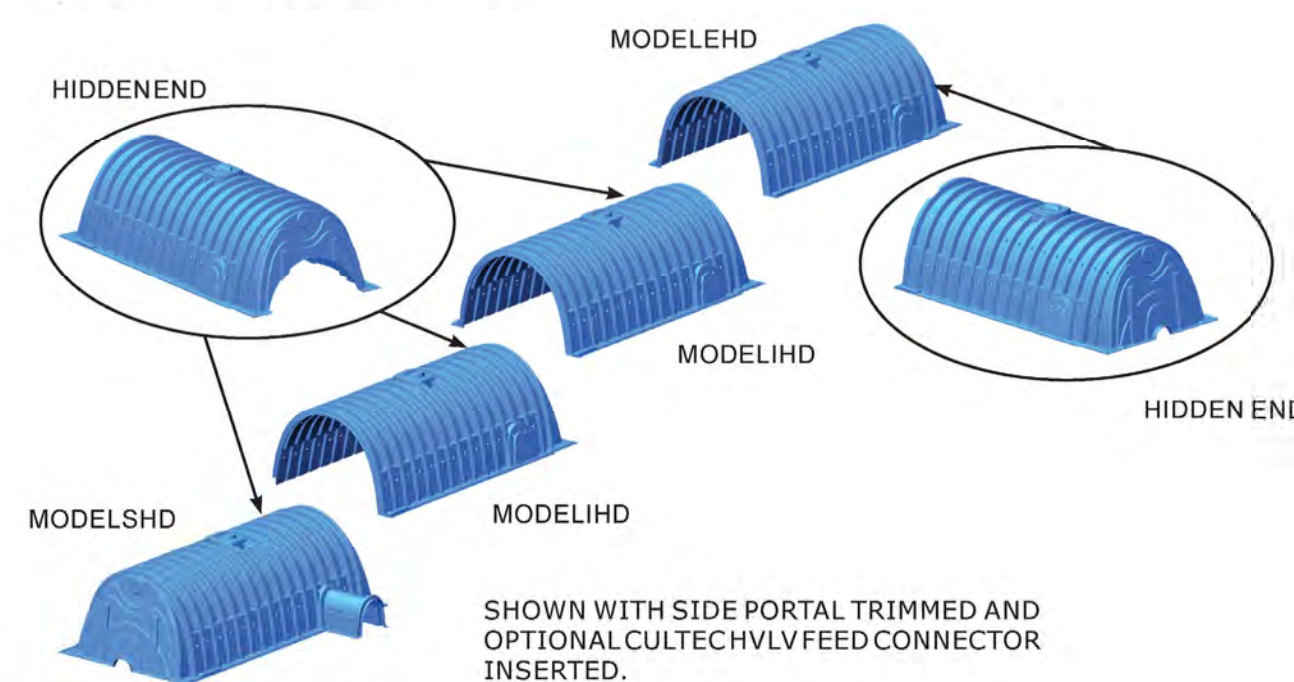
Stone Foundation Depth	6"		12"		18"	
	152 mm	305 mm	457 mm	152 mm	305 mm	457 mm
Chamber and Stone Storage Per Chamber	79.26 ft³	86.03 ft³	92.79 ft³			
Chamber	2.24 m³	2.44 m³	2.63 m³			
Min. Effective Depth	3.54'	4.04'	4.54'			
Stone Required Per Chamber	2.50 yd³	3.13 yd³	3.76 yd³			
	1.91 m³	2.39 m³	2.87 m³			

Visit <http://cultec.com/downloads/> for Product Downloads and CAD details.

Three View Drawing

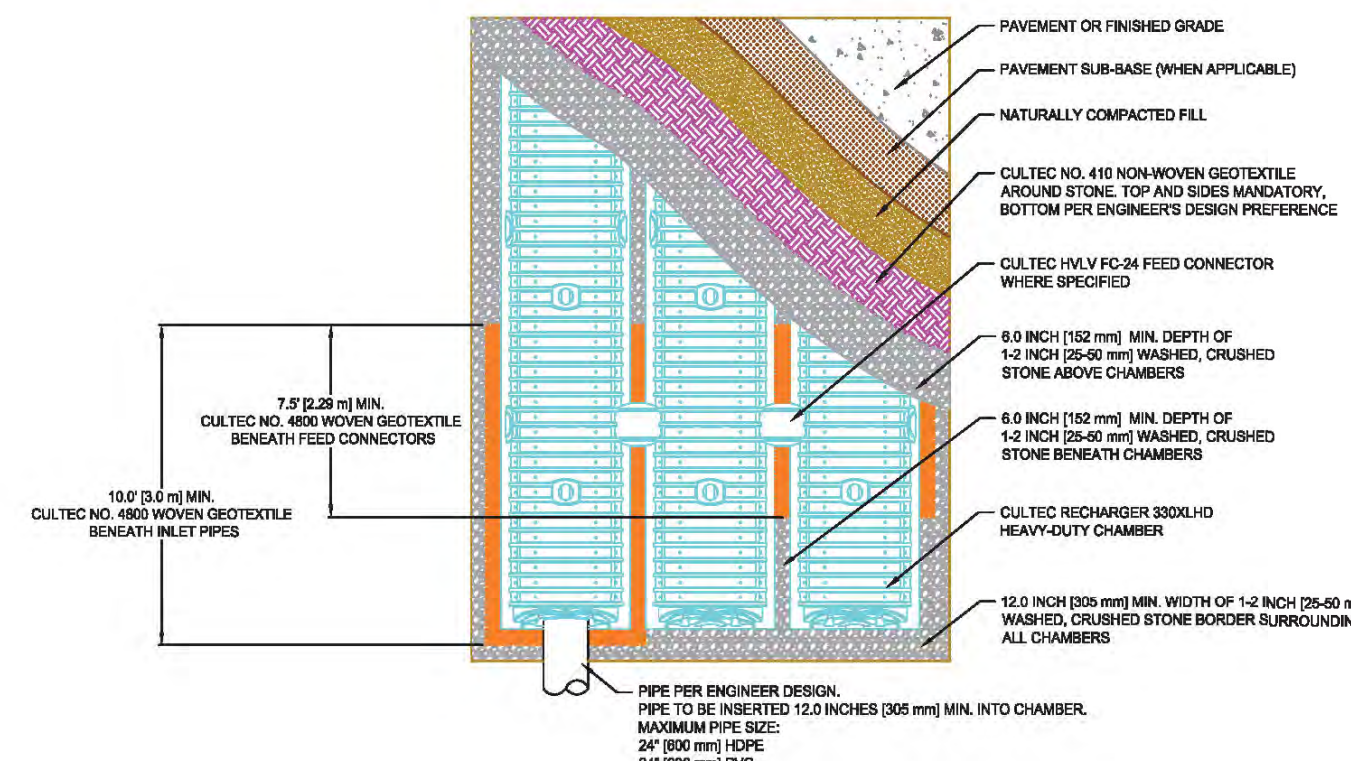


Typical Interlock Installation

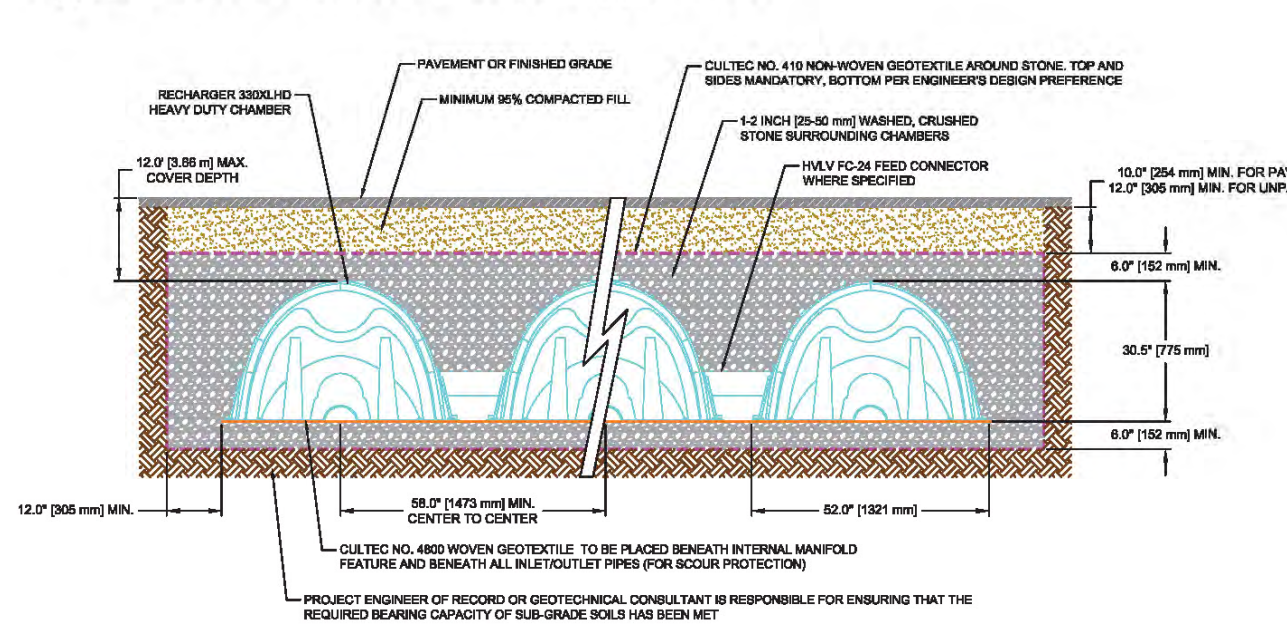


For more information, contact CULTEC at (203) 775-4416 or visit www.cultec.com.

Plan View Drawing



Typical Cross Section for Traffic Application



For more information, contact CULTEC at (203) 775-4416 or visit www.cultec.com.

CULTEC Recharger® 330XLHD Specifications

- GENERAL**
 CULTEC Recharger® 330XLHD chambers are designed for underground stormwater management. The chambers may be used for retention, recharging, detention or controlling the flow of on-site stormwater runoff.
- CHAMBER PARAMETERS**
- The chambers shall be manufactured in the U.S.A. by CULTEC, Inc. of Brookfield, CT (cultec.com, 203-775-4416).
 - The chamber shall be vacuum thermoformed of polyethylene with a black interior and blue exterior.
 - The chamber shall be arched in shape.
 - The chamber shall be open-bottomed.
 - The chamber shall be joined using an interlocking overlapping rib method. Connections must be fully shouldered overlapping ribs, having no separate couplings or separate end walls.
 - The nominal chamber dimensions of the CULTEC Recharger® 330XLHD shall be 30.5 inches (775 mm) tall, 52 inches (1321 mm) wide and 8.5 feet (2.59 m) long. The installed length of a joined Recharger® 330XLHD shall be 7 feet (2.13 m).
 - Maximum inlet opening on the chamber end wall is 24 inches (600 mm) HDPE, PVC.
 - The chamber shall have two side portals to accept CULTEC HVLV® FC-24 Feed Connectors to create an internal manifold. Maximum allowable O.D. in the side portal is 10 inches (250 mm) HDPE and 12 inches (300 mm) PVC.
 - The nominal chamber dimensions of the CULTEC HVLV® FC-24 Feed Connector shall be 12 inches (305 mm) tall, 16 inches (406 mm) wide and 24.2 inches (614 mm) long.
 - The nominal storage volume of the Recharger® 330XLHD chamber shall be 7.459 ft³ / ft (0.693 m³ / m) - without stone. The nominal storage volume of a single Recharger® 330XLHD Stand Alone unit shall be 63.40 ft³ (1.80 m³) - without stone. The nominal storage volume of a joined Recharger® 330XLHD Intermediate unit shall be 52.213 ft³ (1.478 m³) - without stone. The nominal storage volume of the length adjustment amount per run shall be 11.19 ft³ (1.04 m³) - without stone.
 - The nominal storage volume of the HVLV® FC-24 Feed Connector shall be 0.913 ft³ / ft (0.026 m³ / m) - without stone.
 - The Recharger® 330XLHD chamber shall have 16 corrugations.
 - The end wall of the chamber, when present, shall be an integral part of the continuously formed unit. Separate end plates cannot be used with this unit.
 - The Recharger® 330XLHD Stand Alone unit must be formed as a whole chamber having two fully formed integral end walls and having no separate end plates or separate end walls.
 - The Recharger® 330XLHD Starter unit must be formed as a whole chamber having one fully formed integral end wall and one partially formed integral end wall with a lower transfer opening of 14 inches (356 mm) high x 34.5 inches (876 mm) wide.
 - The Recharger® 330XLHD Intermediate unit must be formed as a whole chamber having one fully open end wall and one partially formed integral end wall with a lower transfer opening of 14 inches (356 mm) high x 34.5 inches (876 mm) wide.
 - The Recharger® 330XLHD End unit must be formed as a whole chamber having one fully formed integral end wall and one fully open end wall and having no separate end plates or end walls.
 - The HVLV® FC-24 Feed Connector must be formed as a whole chamber having two open end walls and having no separate end plates or separate end walls. The unit shall fit into the side portals of the Recharger® 330XLHD and act as cross feed connections.
 - Chambers must have horizontal stiffening flex reduction steps between the ribs.
 - The chamber shall have a raised integral cap at the top of the arch in the center of each unit to be used as an optional inspection port or clean-out.
 - The units may be trimmed to custom lengths by cutting back to any corrugation on the large rib end.
 - The chamber shall be manufactured in an ISO 9001:2015 certified facility.
 - The chamber shall be designed and manufactured to meet the material and structural requirements of IAPMO PS 63-2019, including resistance to AASHTO H-10 and H-20 highway live loads, when installed in accordance with CULTEC's installation instructions.
 - The chamber shall be designed and manufactured in accordance with the specifications of NSAI Irish Agreement Board Certificate for Cultec Attenuation and Infiltration.
 - Maximum allowable cover over the top of the chamber shall be 12' (3.66 m).
 - The chamber shall be designed to withstand traffic loads when installed according to CULTEC's recommended installation instructions.

For more information, contact CULTEC at (203) 775-4416 or visit www.cultec.com.



CULTEC Drywell Calculator PROPOSED GARAGE

Impervious area	1200	SF
Rainfall event requirement	2	inches
Stone amounts (Select One)	Typ. Stone	
Storage Required	200.00	CF
	1496	gal.

Model	Storage Volume per Installed Unit		Number of Units	Storage Volume Provided	
	CF	gal.		pcs	CF
Contactor 100HD	30.73	230	7	215	1609
Recharger 150XLHD	53.84	403	4	215	1611
Recharger 280HD	73.67	551	3	221	1653
Recharger 330XLHD	96.24	720	3	289	2160
Recharger 902HD	111.92	837	2	224	1674

The Recharger 902HD requires separate end caps. The storage volume listed does not include end caps. Please contact CULTEC for more information at 203-775-4416.

[More information on residential drainage.](#)

Questions?
 Call: 203-775-4416
 Email: tech@cultec.com



CULTEC Drywell Calculator PROPOSED HOUSE

Impervious area	1800	SF
Rainfall event requirement	2	inches
Stone amounts (Select One)	Typ. Stone	
Storage Required	300.00	CF
	2244	gal.

Model	Storage Volume per Installed Unit		Number of Units	Storage Volume Provided	
	CF	gal.		pcs	CF
Contactor 100HD	30.73	230	10	307	2299
Recharger 150XLHD	53.84	403	6	323	2417
Recharger 280HD	73.67	551	5	368	2795
Recharger 330XLHD	96.24	720	4	385	2880
Recharger 902HD	111.92	837	3	336	2512

The Recharger 902HD requires separate end caps. The storage volume listed does not include end caps. Please contact CULTEC for more information at 203-775-4416.

[More information on residential drainage.](#)

Questions?
 Call: 203-775-4416
 Email: tech@cultec.com

CALCULATIONS MAY NEED TO BE ADJUSTED AT TIME OF BUILDING PERMIT TO REFLECT THE ACTUAL HOUSE PLANS.

CULTEC, Inc.
 P.O. Box 280
 Brookfield, CT 06804
 Phone: 203-775-4416
 Fax: 203-775-1462
www.cultec.com

CULTEC Drywell Calculator v.042015

CULTEC, Inc.
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 Brookfield, CT 06804
 Phone: 203-775-4416
 Fax: 203-775-1462
www.cultec.com

CULTEC Drywell Calculator v.042015

OWNER/APPLICANT:
 ERIK GONZALEZ
 1120 BORDENTOWN AVENUE
 SAYREVILLE, NJ 08859

STORM WATER MANAGEMENT DETAILS
 FOR MINOR SUBDIVISION OF #1120 BORDENTOWN AVENUE
 BLOCK 439.01, LOT 1
 BOROUGH OF SAYREVILLE
 MIDDLESEX COUNTY, NEW JERSEY



Engineers • Surveyors • Planners
 Since 1977
 51 Gerard Avenue, Matawan, New Jersey 07747
 (732)290-0600
 Certificate of Authorization No. 24CA28050100

Date	File No.	CAD File	Field Book
5/2/2022	K022-009	022009SUB	---
Designed By	Drawn By	Ckd. By	Sheet No.
RTK Jr.	RTKIII	RTK JR.	5 of 8

ROBERT T. KEE, JR.
 Professional Engineer & Land Surveyor
 New Jersey License No. 24GB02320600

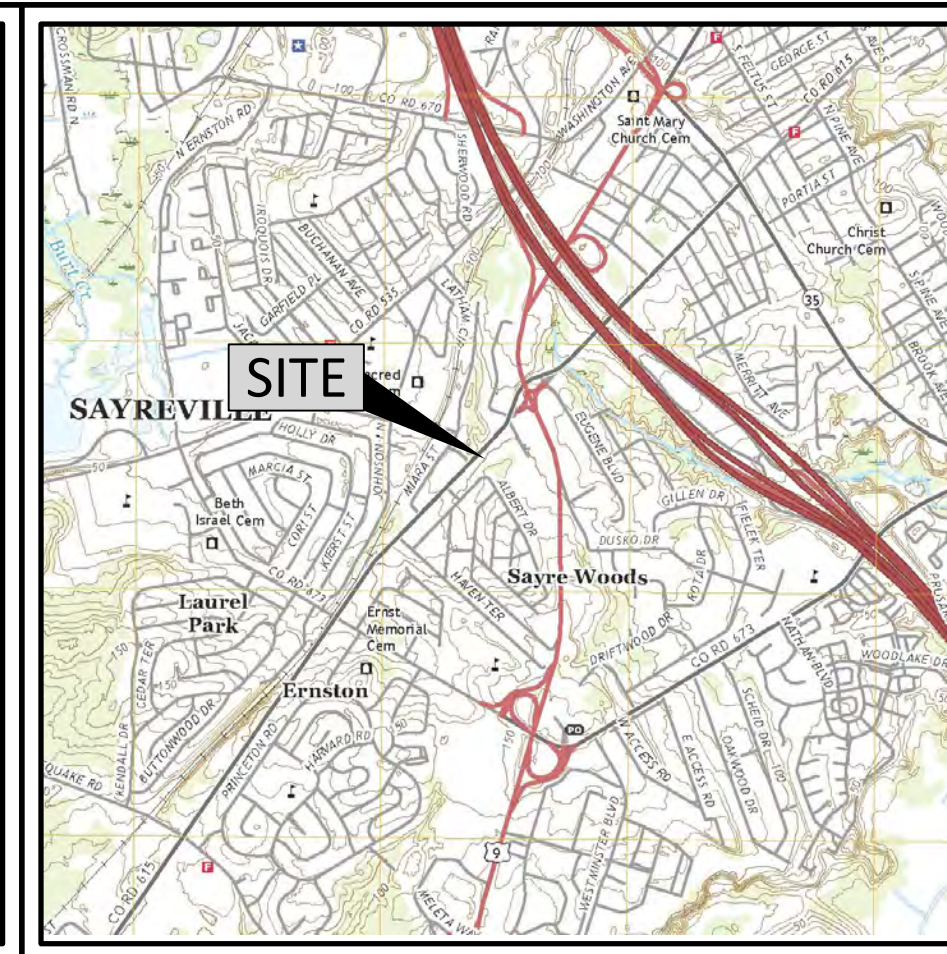
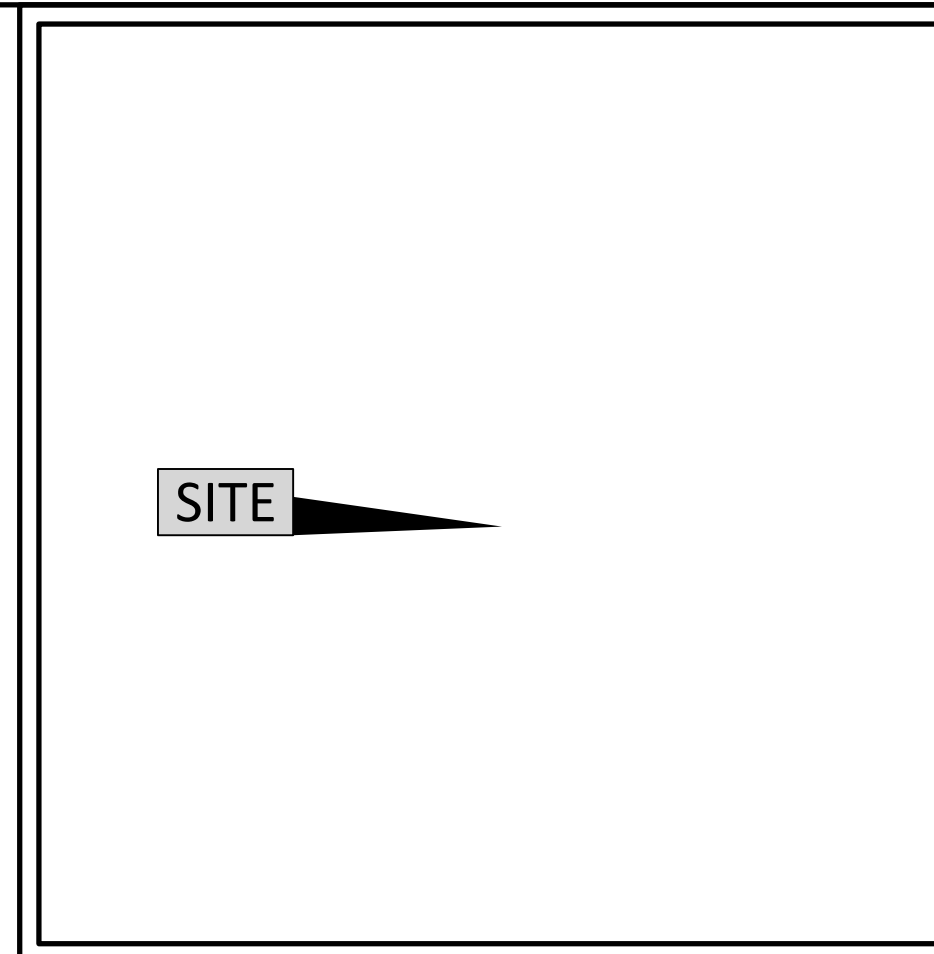
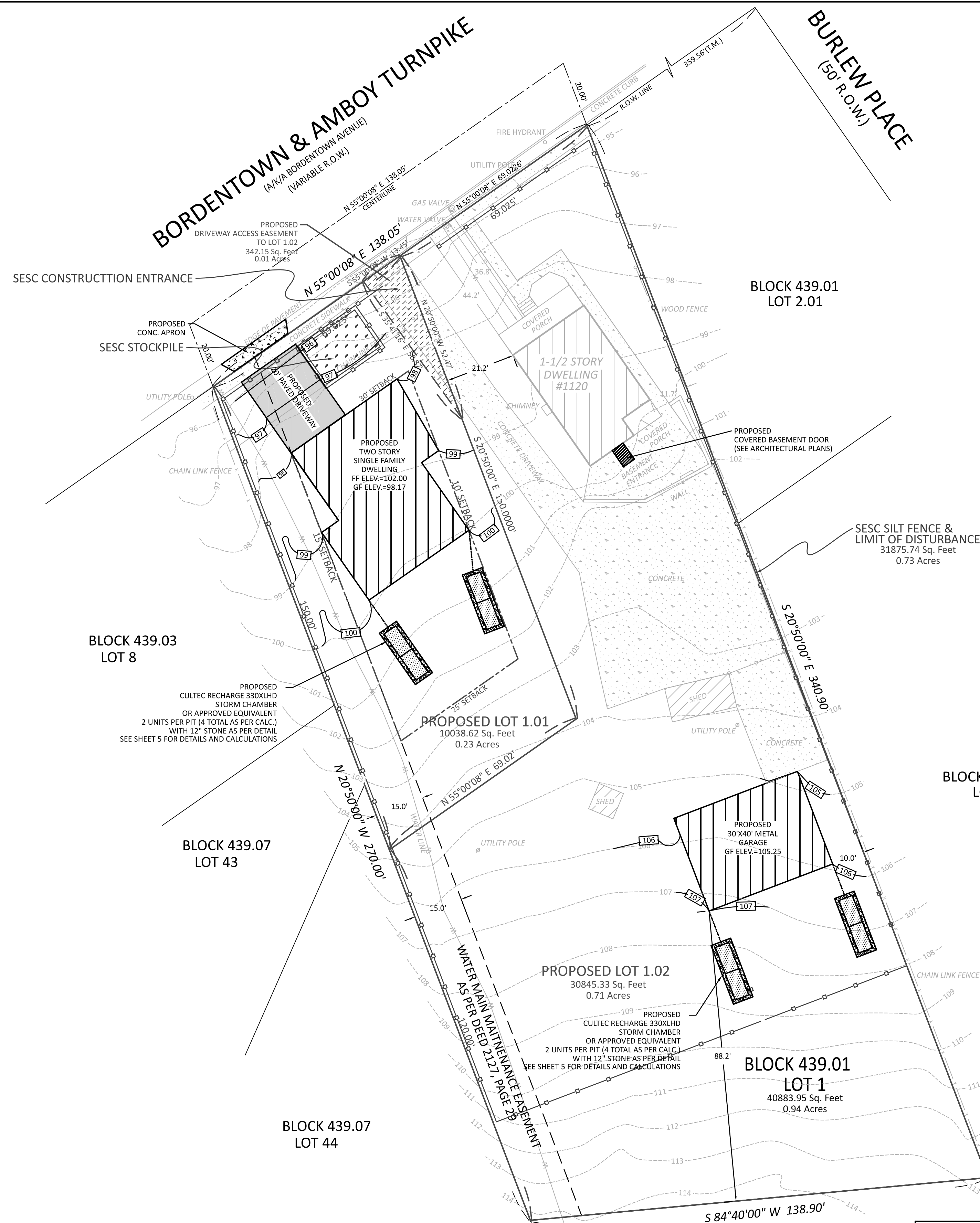
No.	Revisions	Date
2	AS PER CME LETTER 1/31/2024	3/15/2024
1	AS PER CME LETTER 5/17/2023	1/2/2024

THIS PLAN WAS PREPARED USING THE FOLLOWING INFORMATION:

1. SURVEY PREPARED BY CONTROL LAYOUTS, INC. ON 12/6/2004.
2. DEED BOOK 17044, PAGE 749.
3. TITLE SEARCH PREPARED BY CHICAGO TITLE INSURANCE COMPANY AND IS KNOWN AS FILE NO. 1728-110325.
4. THE OFFICIAL TAX MAPS FOR THE BOROUGH OF SAYREVILLE, MIDDLESEX COUNTY, N.J.
5. FIELD WORK BY KEE ENGINEERING ENTERPRISES, INC. ON 5/2/2022.
6. BOUNDARY & TOPOGRAPHIC SURVEY PREPARED BY MARTIN A GRANT SURVEYING, INC. ON 6/26/2021.

NOTES:

1. ALL CONSTRUCTION IS TO BE PERFORMED IN STRICT CONFORMANCE WITH ALL APPLICABLE MUNICIPAL, COUNTY, STATE AND ANY OTHER GOVERNING BODIES STANDARDS. ANY CHANGES OR MODIFICATIONS FROM THIS PLAN MUST BE APPROVED BY THE REVIEWING AGENCIES PRIOR TO CONSTRUCTION.
2. THIS PLAN INDICATES THE APPROXIMATE LOCATION OF EXISTING SUBSURFACE UTILITIES IN THE VICINITY OF THE PROJECT AND ARE NOT GUARANTEED FOR ACCURACY AND/OR COMPLETENESS. CONTRACTOR TO VERIFY DEPTH AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. ANY CONFLICTS WITH PROPOSED CONSTRUCTION ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER. ALL EXISTING UTILITIES THAT ARE TO BE RELOCATED OR ALTERED IN ANY MANNER ARE TO BE DONE IN ACCORDANCE WITH THE RESPECTIVE UTILITY COMPANIES STANDARDS. ALL EXISTING UTILITIES EXPOSED DURING CONSTRUCTION ARE TO BE SUPPORTED UNTIL BACK FILL IS IN PLACE ANY CROSSING LESS THEN ONE FOOT CLEAR TO BE SUPPORTED WITH A SADDLE (CONCRETE OR SAND AS NOTED).
3. DESIGN AND INSTALLATION OF ELECTRIC, GAS, TELEPHONE AND CABLE TO BE PROVIDED BY RESPECTIVE UTILITY COMPANIES.
4. PROPOSED WATER AND SEWER CONNECTIONS MUST COMPLY WITH MUNICIPAL DETAILS AND REQUIREMENTS INCLUDING PAYMENT OF METER AND CONNECTION FEES.
5. SIZE, TYPE AND EXACT LOCATION OF ALL UTILITIES TO BE INSTALLED IN ACCORDANCE WITH ALL MUNICIPAL, COUNTY, STATE AND FEDERAL REGULATIONS.
6. CONSTRUCTION MATERIAL AND METHODS NOT OTHERWISE SPECIFIED OR SHOWN HEREON SHALL CONFORM TO NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARDS SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. (THE LATEST EDITION AND AMENDMENTS)
7. SITE GRADING 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 UNDISTURBED.
8. ALL EXISTING OR PROJECT GENERATED DEBRIS IS TO BE REMOVED AND PROPERLY DISPOSED ACCORDING TO ALL APPLICABLE REGULATIONS.
9. NO ON-SITE SOIL TESTING HAS BEEN PERFORMED ON THIS PROJECT BY THE DESIGN ENGINEER. IT SHALL BE THE OWNERS AND/OR CONTRACTORS RESPONSIBILITY TO CONDUCT SOIL TESTING TO CONFIRM APPLICABILITY OF PROPOSED IMPROVEMENTS AND CONSTRUCTION TECHNIQUES WITH RESPECT TO SUBSURFACE SOIL AND GROUNDWATER CONDITIONS.
10. COMPACTING IN FILL ARE AS BENEATH ALL PROPOSED UTILITIES AND STRUCTURES SHOULD MEET ALL MANUFACTURES AND MUNICIPAL REQUIREMENTS AND BE EQUAL TO THE MINIMUM 95% MODIFIED PROCTOR DENSITY.
11. THIS PLAN IS BASED ON A FIELD SURVEY PERFORMED ON 1/2/2021.
12. THIS PLAN WAS PREPARED ONLY USING THE ABOVE REFERENCED DOCUMENTS AND NO FURTHER RESEARCH WAS PERFORMED ON THIS PROPERTY. THIS OFFICE IS NOT RESPONSIBLE FOR ANY EASEMENTS, RESTRICTIONS OR COVENANTS THAT ARE NOT PROVIDED BY THE CLIENT. FURTHER, NO DETERMINATION OF THE EXISTING OR LACK OF FRESHWATER WETLANDS OR ANY ENVIRONMENTAL CONDITIONS HAS BEEN PERFORMED, UNLESS OTHERWISE NOTED ABOVE.
13. TOPOGRAPHY SHOWN HEREON IS ON AN NAVD88.



SOILS MAP
N.T.S.

KEY MAP
N.T.S.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres In AOI	Percent of AOI
A000	Aspen/Maple/Red Spruce Maple complex, 0 to 1 percent slopes, very poorly forested	24.2	23.2%
AlaA	Alston sand, 0 to 2 percent slopes, Northern Coastal Plain	4.3	4.1%
ElkaA	Elkton loam, 0 to 2 percent slopes, rarely flooded	0.2	0.2%
HmbB	Hamorton loamy sand, 0 to 5 percent slopes	32.4	31.1%
HrbB	Hamorton urban sand complex, 0 to 5 percent slopes	10.2	9.8%
KHbB	Kie loamy sand-urban sand complex, 0 to 5 percent slopes	23.7	22.7%
Pggb	Pemberton loamy sand, 0 to 5 percent slopes	1.4	1.3%
USKLEA	Urban land-Kie complex, 0 to 2 percent slopes	7.9	7.5%
Totals for Area of Interest		104.4	100.0%

PROPOSED DWELLING AND
OTHER IMPROVEMENTS FOR
PROPOSED LOT 1.01 TO BE
PROVIDED AT TIME OF
BUILDING PERMIT WHERE A
PLOT PLAN WILL BE
SUBMITTED FOR REVIEW
AND APPROVAL.

SESC SEQUENCE OF CONSTRUCTION

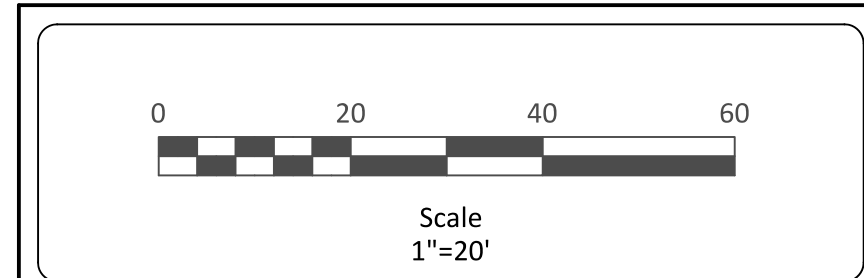
1. INSTALL SESC MEASURES. 1 WEEK
2. PREPARE THE SITE. 2 WEEKS
3. CONSTRUCT FOUNDATION. 2 WEEKS
4. INSTALL UTILITIES & ROUGH GRADING. 1 MONTH
5. CONSTRUCT DWELLINGS & OTHER IMPROVEMENTS AS SHOWN. >6 MONTHS
6. FINAL LOT GRADING & INSTALL SOIL STABILIZATION MEASURES. 1 MONTH
7. CLEAN SITE. 1 WEEK
8. REMOVE SESC MEASURES. 1 WEEK

SESC APPLICATION NOTES:

1. THERE ARE NO EXISTING OR PROPOSED DRAINS OR CULVERTS ON THE SITE.
2. THERE ARE NO STREAMS, WETLANDS OR SIGNIFICANT NATURAL FEATURES WITHIN THE PROJECT AREA.
3. THE PROJECT AREA IS LOCATED IN A RESIDENTIAL AREA.
4. SESC AREA OF DISTURBANCE: 19283.31 SF OR 0.44 ACRES

LEGEND

50	EXISTING CONTOURS
x 52.20	EXISTING SPOT ELEVATIONS
-S-W-G-	EXISTING UTILITY LINE
○	EXISTING TREE
-x-x-x-	EXISTING FENCE
50	PROPOSED CONTOUR
x 52.20	PROPOSED SPOT ELEVATION
→	PROPOSED FLOW ARROW
-S-W-G-	PROPOSED UTILITY LINE



No.	Revisions	Date
2	AS PER CME LETTER 1/31/2024	3/15/2024
1	AS PER CME LETTER 5/17/2023	1/2/2024

OWNER/APPLICANT:
ERIK GONZALEZ
1120 BORDENTOWN AVENUE
SAYREVILLE, NJ 08859

SUBDIVISION IS TO BE FILED BY DEED.

SOIL EROSION & SEDIMENT CONTROL PLAN
FOR MINOR SUBDIVISION OF #1120 BORDENTOWN AVENUE
BLOCK 439.01, LOT 1
BOROUGH OF SAYREVILLE
MIDDLESEX COUNTY, NEW JERSEY

Date 5/2/2022	File No. K022-009	CAD File 022009SUB	Field Book ---
Designed By RTK Jr.	Drawn By RTKIII	Ckd. By RTK JR.	Sheet No. 6 of 8

ROBERT T. KEE, JR.
Professional Engineer & Land Surveyor
New Jersey License No. 24GB02320600

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STANDARD FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

Methods and Materials

1. Site Preparation

A. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with Standard for Land Grading.

B. Immediately prior to seeding and topsoil application, the subsoil shall be evaluated for compaction in accordance with the Standard for Land Grading.

C. Topsoil should be handled only when it is dry enough to work without damaging the soil structure. A uniform application to a depth of 5 inches (unsettled) is required on all sites. Topsoil shall be amended with organic matter, as needed, in accordance with the Standard for Topsoiling.

D. Install needed erosion control practices or facilities such as diversions, grade-stabilization structures, channel stabilization measures, sediment basins, and waterways.

2. Seedbed Preparation

A. Uniformly apply ground limestone and fertilizer to topsoil which has been spread and firmed, according to soil test recommendations such as offered by Rutgers Co-operative Extension Soil sample matters are available from the local Rutgers Cooperative Extension offices (<http://njaes.rutgers.edu/county/>). Fertilizer shall be applied at the rate of 500 pounds per acre or 11 pounds per 1,000 square feet of 10-10-10 or equivalent with 50% water insoluble nitrogen unless a soil test indicates otherwise and incorporated into the surface 4 inches. If fertilizer is not incorporated, apply one-half the rate described above during seedbed preparation and repeat another one-half rate application of the same fertilizer within 3 to 5 weeks after seeding.

B. Work lime and fertilizer into the topsoil as nearly as practical to a depth of 4 inches with a disc, spring-tooth harrow, or other suitable equipment. The final harrowing or disking operation should be on the general contour. Continue tillage until a reasonable uniform seedbed is prepared.

C. High acid producing soil. Soils having a pH of 4 or less or containing iron sulfide shall be covered with a minimum of 12 inches of soil having a pH of 5 or more before initiating seedbed preparation. See Standard for Management of High Acid-Producing Soils for specific requirements.

3. Seeding

A. Use seed mixture #10. Tall fescue (turf type) at a rate of 265 lbs/acre or 6 lbs/1000 s.f. or Perennial ryegrass at a rate of 20 lb/acre or 5 lb/1000 s.f. Planting season shall be between March 1st and October 1st.

B. Conventional Seeding is performed by applying seed uniformly by hand, cyclone (centrifugal) seeder, drop seeder, drill or cultipacker seeder. Except for drilled, hydroseeded or cultipacked seedings, seed shall be incorporated into the soil within 24 hours of seedbed preparation to a depth of 1/4 to 1/2 inch, by raking or dragging. Depth of seed placement may be 1/4 inch deeper on coarse-textured soil.

C. After seeding, firming the soil with a corrugated roller will assure good seed-to-soil contact, restore capillarity, and improve seedling emergence. This is the preferred method. When performed on the contour, sheet erosion will be minimized and water conservation on site will be maximized.

D. Hydroseeding is a broadcast seeding method usually involving a truck, or trailer-mounted tank, with an agitation system and hydraulic pump for mixing seed, water and fertilizer and spraying the mix onto the prepared seedbed. Mulch shall not be included in the tank with seed. Short-fibered mulch may be applied with a hydroseeder following seeding. (also see Section 4-Mulching below). Hydroseeding is not a preferred seeding method because seed and fertilizer are applied to the surface and not incorporated into the soil. When used prior to soil contact occurs, there is a reduced seed germination and growth.

4. Mulching

Mulching is required on all seeding. Mulch will protect against erosion before grass is established and will promote faster and earlier establishment. The existence of vegetation sufficient to control soil erosion shall be deemed compliance with this mulching requirement.

A. Straw or Hay. Unrotted small grain straw, hay free of seeds, to be applied at the rate of 1-1/2 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch-binder (tackifying or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper-blowers must not grind the mulch. Hay mulch is not recommended for establishing fine turf or lawns due to the presence of weed seed.

Application - Spread mulch uniformly by hand or mechanically so that at least 85% of the soil surface is 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. Anchoring shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs.

1. Peg and Twine. Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a criss-cross and a square pattern. Secure twine around each peg with two or more round turns.

2. Mulch Nettings - Staple paper, jute, cotton, or plastic nettings to the soil surface. Use a degradable netting in areas to be mowed.

3. Crimper (mulch anchoring coupler 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 on the contour of slopes. Straw mulch rate must be 3 tons per acre. No tackifying or adhesive agent is required.

4. Liquid Mulch-Binders - May be used to anchor salt hay, hay or straw mulch.

a. Applications should be heavier at edges where wind may catch the mulch, in valleys, and at crests of banks. The remainder of the area should be uniform in appearance.

b. Use one of the following:
 (1) Organic and Vegetable Based Binders - Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membraned networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turf grass. Use at rates and weather conditions as recommended by the manufacturer to anchor mulch materials. Many new products are available, some of which may need further evaluation for use in this state.
 (2) Synthetic Binders - High polymer synthetic emulsion, miscible with water when diluted and, following application of mulch, drying and curing, shall no longer be soluble or dispersible in water. Binder shall be applied at rates recommended by the manufacturer and remain tacky until germination of grass.
 Note: All names given above are registered trade names. This does not constitute a recommendation of these products to the exclusion of other products.

B. Wood-fiber or paper-fiber mulch - shall be made from wood, plant fibers or paper containing no Standards for Soil Erosion and Sediment Control in New Jersey January 2014 growth or germination inhibiting materials, used at the rate of 1,500 pounds per acre (or as recommended by the product manufacturer) and may be applied by a hydroseeder. Mulch shall not be mixed in the tank with seed. Use is limited to flatter slopes and during optimums in spring and fall.

C. Pelletized mulch-compressed and extruded paper and/or wood fiber product, which may contain co-polymers, tackifiers, fertilizers, and coloring agents. The dry pellets, when applied to a seeded area and watered, form a Multi mat. Pelletized mulch shall be applied in accordance with the manufacturer's 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, on sites where straw mulch and tackifier agent are not practical or desirable. Applying the full 0.2 to 0.4 inches of water after spreading pelletized mulch on the seedbed is extremely important for sufficient activation and expansion of the mulch to provide soil coverage.

5. Irrigation (where feasible)

If soil moisture is deficient supply new seeding with adequate water (a minimum of 1/4 inch applied up to twice a day until vegetation is well established). This is especially true when seedings are made in abnormally dry or hot weather or on droughty sites.

6. Topdressing

Since soil organic matter content and slow release nitrogen/fertilizer (water insoluble) are prescribed in section 2A-Seedbed Preparation in this Standard, no follow-up of topdressing is mandatory. An exception may be made where gross nitrogen deficiency exists in the soil to the extent that turf failure may develop. In that instance, topdress with 10-10-10 or equivalent at 300 pounds per acre or 7 pounds per 1,000 square feet every 3 to 5 weeks until the gross nitrogen deficiency in the turf is ameliorated.

7. Establishing Permanent Vegetative Stabilization

The quality of permanent vegetation rests with the contractor. The timing of seeding, preparing the seedbed, applying nutrients, mulch and other management are essential. The seed application rates in Table 4-3 are required when a Report of Compliance is requested prior to actual establishment of permanent vegetation. Up to 50% reduction in application rates may be used when permanent vegetation is established prior to requesting a Report of Compliance from the district. These rates apply to all methods of seeding. Establishing permanent vegetation means 80% vegetative cover (of the seeded species) and mowed once. Note this designation of mowed once does not guarantee the permanency of the turf should other maintenance factors be neglected or otherwise mismanaged.

TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

Methods and Materials

1. Site Preparation

A. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with Standards for Land Grading, pg. 19-1.

B. Install needed erosion control practices or facilities such as diversions, grade stabilization structures, channel stabilization measures, sediment basins, and waterways. See Standards 11 through 42.

C. Immediately prior to seeding, the surface should be scarified 6" to 12" where there has been soil compaction. This practice is permissible only where there is no danger to underground utilities (cables, irrigation systems, etc.). If na

2. Seedbed Preparation

A. As per the 2014 New Jersey Erosion Control Standards Errata dated March 4, 2014. Liming rates shall be established via soil testing.

B. Work lime and fertilizer into the soil as nearly as practical to a depth of 4 inches with a disc, springtooth harrow, or other suitable equipment. The final harrowing or disking operation should be on the general contour. Continue tillage until a reasonable uniform seedbed is prepared.

C. Inspect seedbed just before seeding. If traffic has left the soil compacted, the area must be retilled in accordance with the above.

D. Soils high in sulfides or having a pH of 4 or less refer to Standard for Management of High Acid Producing Soils, pg. 1-1.

3. Seeding (Zone 6b)

A. Use Perennial ryegrass at a rate of 100 lb/acre or 1.0 lb/1000 s.f. Planting season shall be between March 1st through May 15th and August 15th and October 1st. Or Annual ryegrass at a rate of 100 lb/acre or 1.0 lb/1000 s.f. Planting season shall be between March 15th through June 1st and August 1st through September 15th.

B. Conventional Seeding. Apply seed uniformly by hand, cyclone (centrifugal) seeder, drop seeder, drill or cultipacker seeder. Except for drilled, hydroseeded or cultipacked seedings, seed shall be incorporated into the soil, to a depth of 1/4 to 1/2 inch, by raking or dragging. Depth of seed placement may be 1/4 inch deeper on coarse textured soil.

C. Hydroseeding is a broadcast seeding method usually involving a truck or trailer mounted tank, with an agitation system and hydraulic pump for mixing seed, water and fertilizer and spraying the mix onto the prepared seedbed. Mulch shall not be included in the tank with seed. Short fibered mulch may be applied with a hydroseeder following seeding. (also see Section IV Mulching) Hydroseeding is not a preferred seeding method because seed and fertilizer are applied to the surface and not incorporated into the soil. Poor seed to soil contact occurs reducing seed germination and growth. Hydroseeding may be used for areas too steep for conventional equipment to traverse or too obstructed with rocks, stumps, etc.

D. After seeding, firming the soil with a corrugated roller will assure good seed-to-soil contact, restore capillarity, and improve seedling emergence. This is the preferred method. When performed on the contour, sheet erosion will be minimized and water conservation on site will be maximized.

4. Mulching

Mulching is required on all seeding. Mulch will insure against erosion before grass is established and will promote faster and earlier establishment. The existence of vegetation sufficient to control soil erosion shall be deemed compliance with this mulching requirement.

A. Straw or Hay. Unrotted small grain straw, hay free of seeds, applied at the rate of 1-1/2 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch-binder (tackifying or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper-blowers must not grind the mulch. Hay mulch is not recommended for establishing fine turf or lawns due to the presence of weed seed.

Application. Spread mulch uniformly by hand or mechanically so that approximately 95% 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.

Anchoring shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs.

1. Peg and Twine. Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a criss-cross and a square pattern. Secure twine around each peg with two or more round turns.

2. Mulch Nettings. Staple paper, jute, cotton, or plastic nettings to the soil surface. Use a degradable netting in areas to be mowed.

3. Crimper (mulch anchoring 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 on the contour of slopes. Straw mulch rate must be 3 tons per acre. No tackifying or adhesive agent is required.

4. Liquid Mulch-Binders - May be used to anchor hay or straw mulch.

a. Applications should be heavier at edges where wind may catch the mulch, in valleys, and at crests of banks. The remainder of the area should be uniform in appearance.

b. Use one of the following:
 (1) Organic and Vegetable Based Binders - Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membraned networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turfgrass. Use at rates and weather conditions as recommended by the manufacturer to anchor mulch materials. Many new products are available, some of which may need further evaluation for use in this state.
 (2) Synthetic Binders - High polymer synthetic emulsion, miscible with water when diluted and following application of mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates recommended by the manufacturer and remain tacky until germination of grass.
 Note: All names give above are registered trade names. This does not constitute a commendation of these products to the exclusion of other products.

B. 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 by the project 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.

C. Pelletized mulch. Compressed and extruded paper and/or wood fiber product, which may contain co-polymers, tackifiers, fertilizers and coloring agents. The dry pellets, when applied to a seeded area and watered, forms mulch mat. Pelletized mulch shall be applied in accordance with the manufacturer's recommendations for fertilizer. 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 agent are not practical or desirable.

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.

STANDARDS FOR TOPSOIL

Methods and Materials

1. Materials

A. Topsoil should be friable, loamy, free of debris, objectionable weeds and stones, and contain no toxic substance or adverse chemical or physical condition that may be harmful to plant growth. Soluble salts should not be excessive (conductivity less than 0.5 millimhos per centimeter. More than 0.5 millimhos may desiccate seedlings and adversely impact growth). Imported topsoil shall have a minimum organic matter content of 2.75 percent. Organic matter content may be raised by additives.

B. Topsoil substitute is a soil material which may have been amended with sand, silt, clay, organic matter, fertilizer or lime and has the appearance of topsoil. Topsoil substitutes may be utilized on sites with insufficient topsoil for establishing permanent vegetation. All topsoil substitute materials shall meet the requirements of topsoil noted above. Soil tests shall be performed to determine the components of sand, silt, clay, organic matter, soluble salts and pH level.

2. Stripping and Stockpiling

A. Field exploration should be made to determine whether quantity and or quality of surface soil justifies stripping.

B. Stripping shall be confined to the immediate construction area.

C. Where feasible, lime may be applied before stripping at a rate determined by soil tests to bring the soil pH to approximately 6.5.

D. 4-6 inch stripping depth is common, but may vary depending on the particular soil.

E. Stockpiles of topsoil should be situated so as not to obstruct natural drainage or cause off-site environmental damage.

F. Stockpiles should be vegetated in accordance with standards previously described herein; see standards for Permanent (pg. 4-1) or Temporary (pg. 7-1) Vegetative Cover for Soil Stabilization. Weeds should not be allowed to grow on stockpiles.

3. Site Preparation

A. Grade at the onset of the optimal seeding period so as to minimize the duration and area of exposure of disturbed soil to erosion. Immediately proceed to establish vegetative cover in accordance with the specified seed mixture. Time is of the essence

B. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application and anchoring, and maintenance. See the Standard for Land Grading, pg. 19-1.

C. As guidance for ideal conditions, subsoil should be tested for lime requirement. Limestone, if needed, should be applied to bring soil to a pH of approximately 6.5 and incorporated into the soil as nearly as practical to a depth of 4 inches.

D. Prior to topsoiling, the subsoil shall be in compliance with the Standard for Land Grading, pg. 19-1.

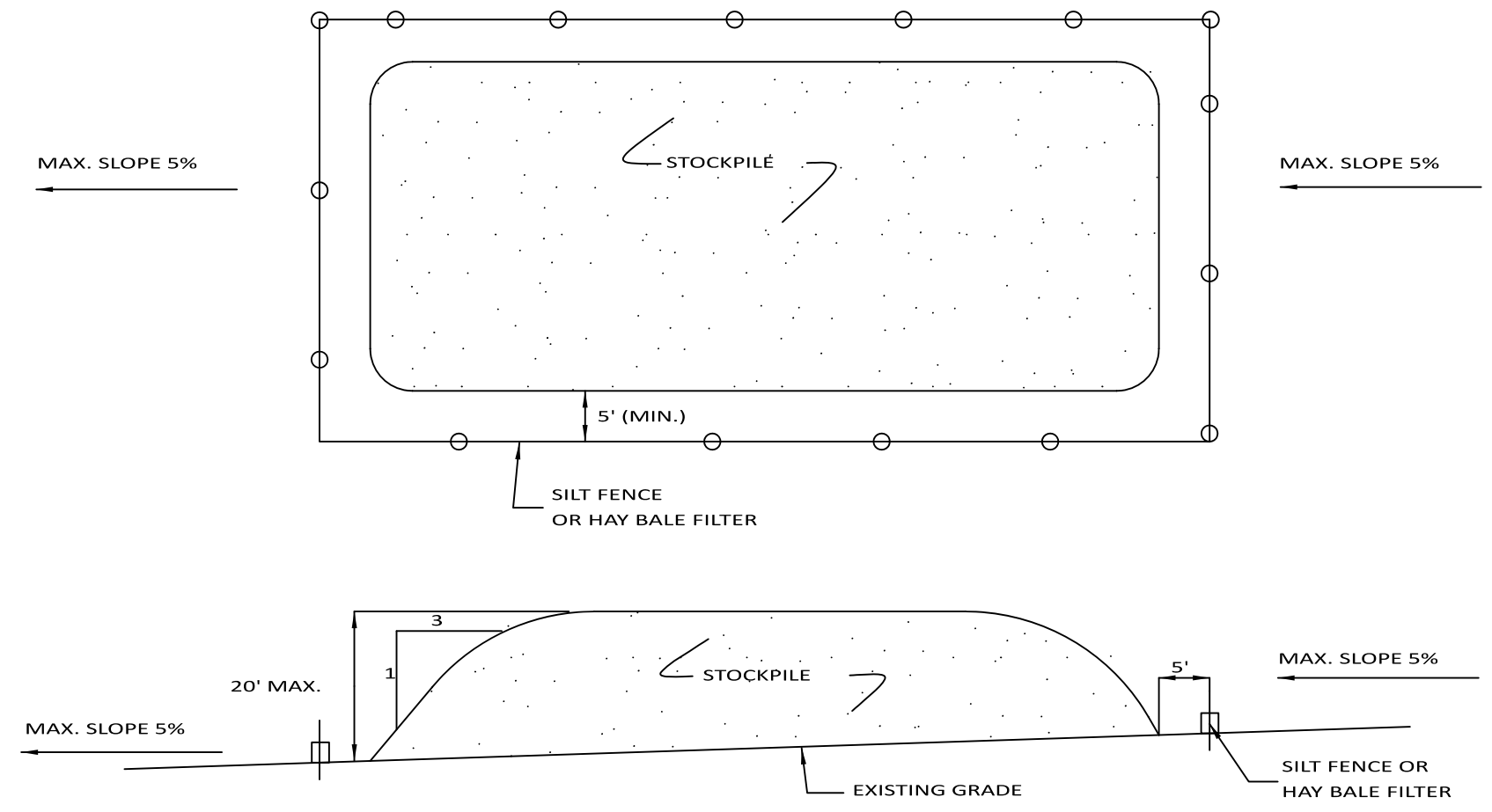
E. Employ needed erosion control practices such as diversions, grade stabilization structures, channel stabilization measures, sedimentation basins, and waterways. See Standards 11 through 42.

4. Applying Topsoil

A. Topsoil should be handled only when it is dry enough to work without damaging soil structure; i.e., less than field capacity (see glossary).

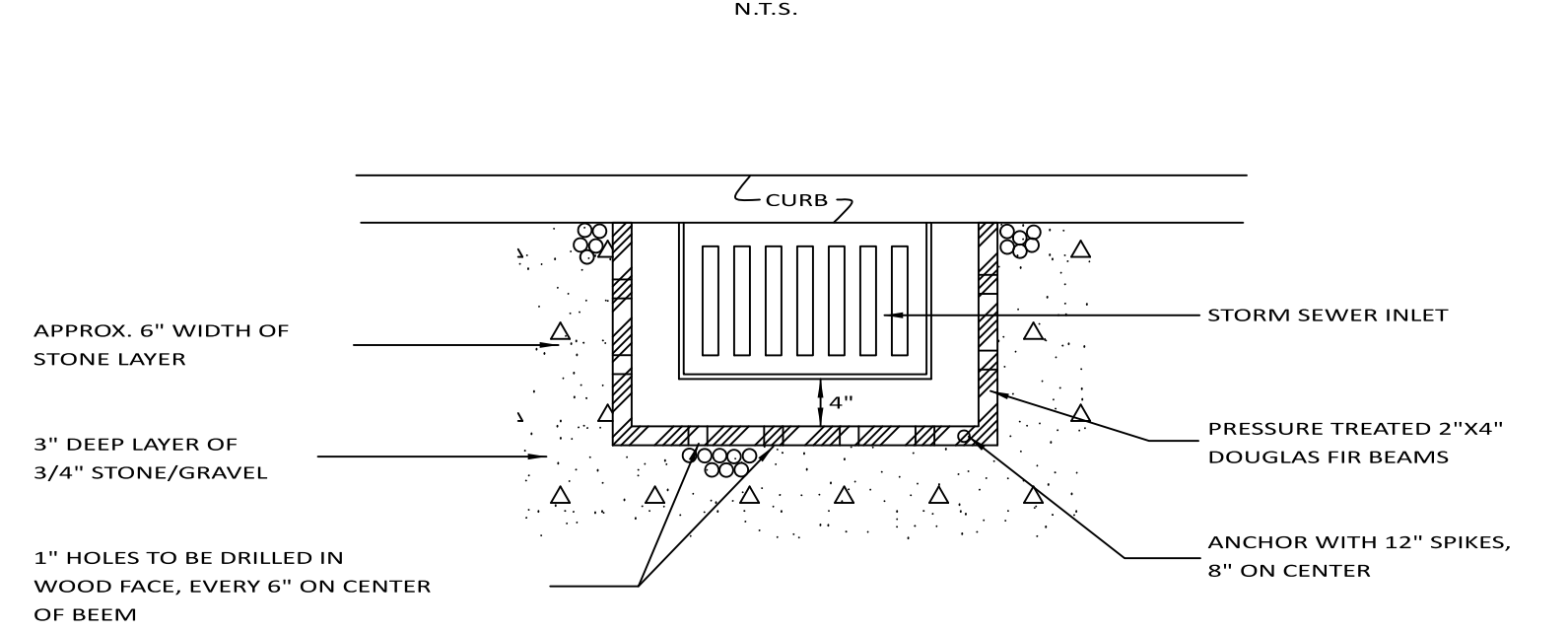
B. A uniform application to an average depth of 5.0 inches, minimum of 4 inches, firmed in place is required. Alternative depths may be considered where special regulatory and/or industry design standards are appropriate such as on golf courses, sports fields, landfill capping, etc. Soils with a pH of 4.0 or less or containing iron sulfide shall be covered with a minimum depth of 12 inches of soil having a pH of 5.0 or more, in accordance with the Standard for Management of High Acid Producing Soil (pg. 1-1).

C. Pursuant to the requirements in Section 7 of the Standard for Permanent Vegetative Stabilization, the contractor is responsible to ensure that permanent vegetative cover becomes established on at least 80% of the soils to be stabilized with vegetation. Failure to achieve the minimum coverage may require additional work to be performed by the contractor to include some or all of the following: supplemental seeding, re-application of lime and fertilizers, and/or the addition of organic matter (i.e. compost) as a top dressing. Such additional measures shall be based on soil tests such as those offered by Rutgers Cooperative Extension Service or other approved laboratory facility qualified to test soil samples for agronomic properties.

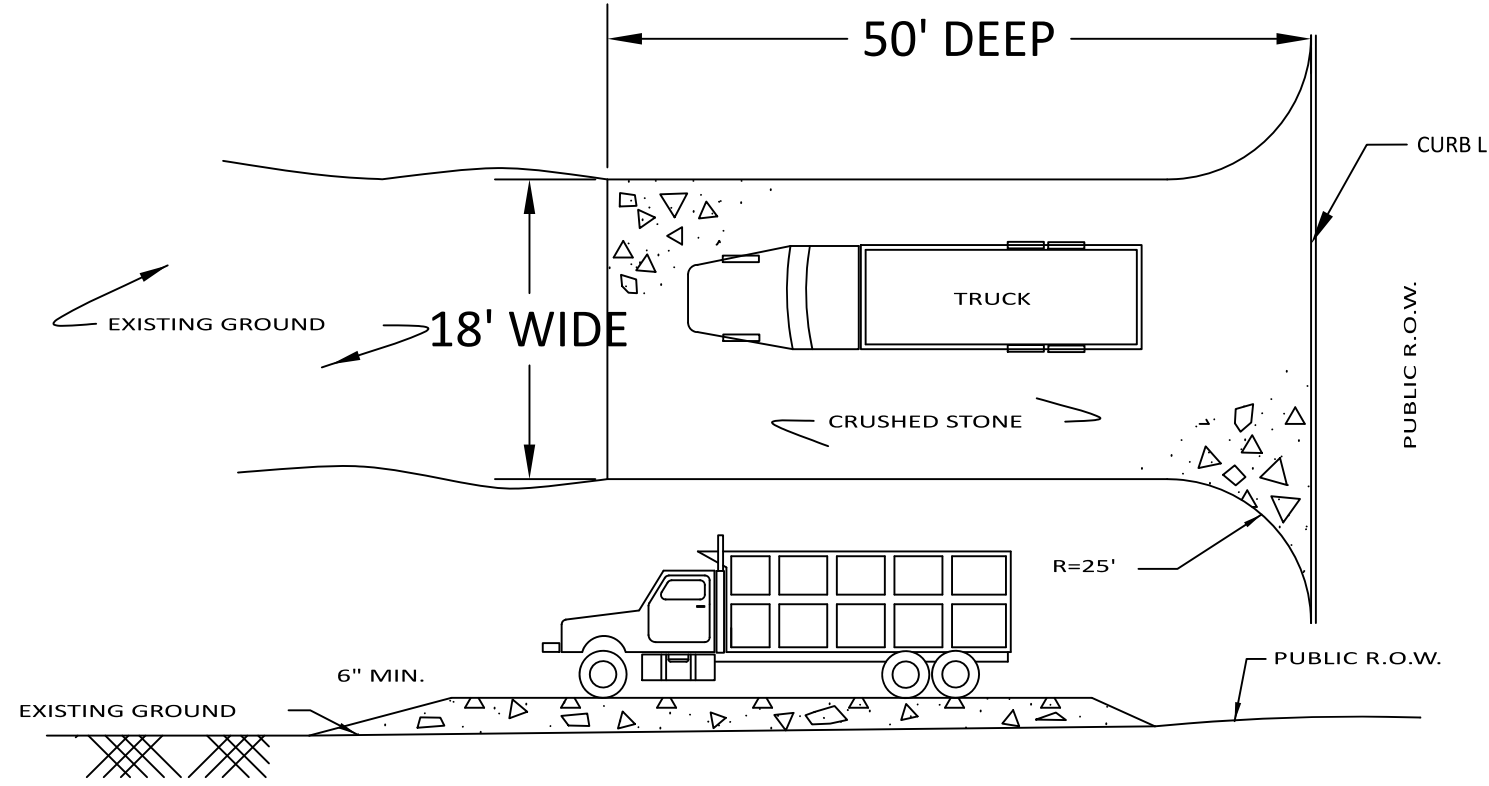
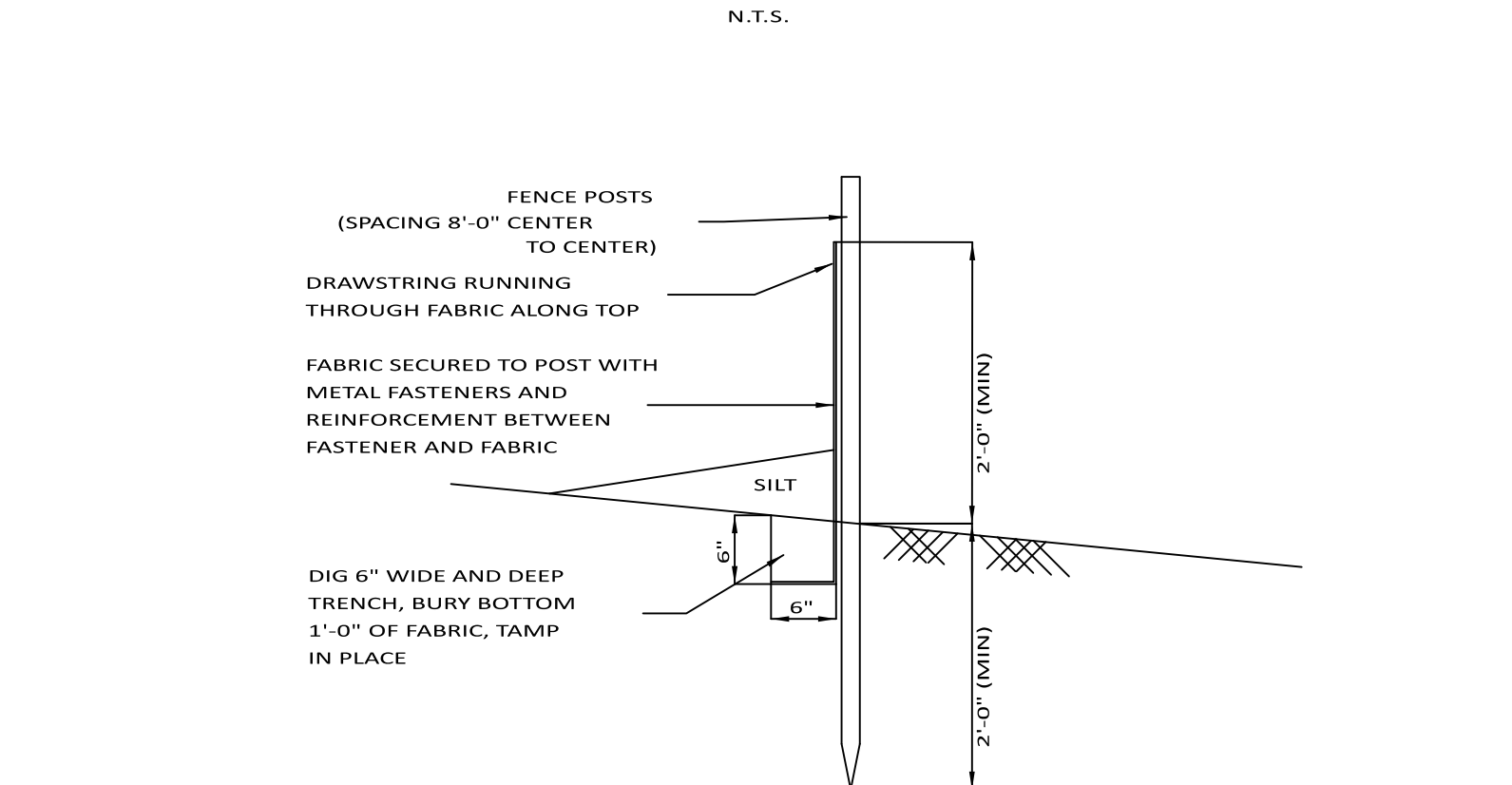


- NOTES:
1. ALL STOCKPILES SHALL BE 3 TO 1 OR GREATER.
 2. STOCKPILE SHALL RECEIVE A VEGETATIVE COVER IN ACCORDANCE WITH MINIMUM STABILIZATION REQUIREMENTS.
 3. SILT FENCE OR HAY BALE FILTER SHALL BE INSTALLED AS DETAILED HEREON.
 4. HEIGHT SHALL NOT BE GREATER THEN 20'.

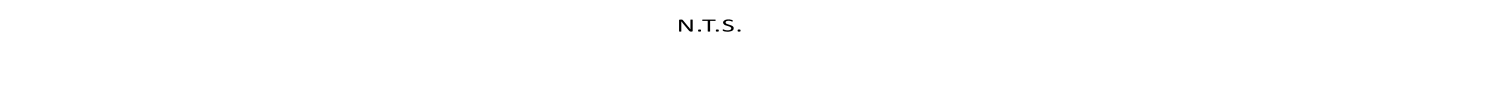
TEMPORARY STOCKPILE DETAIL



INLET PROTECTION



STABILIZED CONSTRUCTION ENTRANCE



No.	Revisions	Date
2	AS PER CME LETTER 1/31/2024	3/15/2024
1	AS PER CME LETTER 5/17/2023	1/2/2024

SOIL EROSION & SEDIMENT CONTROL DETAILS & NOTES
FOR MINOR SUBDIVISION OF #1120 BORDENTOWN AVENUE
BLOCK 439.01, LOT 1
BOROUGH OF SAYREVILLE
MIDDLESEX COUNTY, NEW JERSEY

OWNER/APPLICANT:
ERIK GONZALEZ
 1120 BORDENTOWN AVENUE
 SAYREVILLE, NJ 08859

Date 5/2/2022	File No. K022-009	CAD File 022009SUB	Field Book ---
Designed By RTK Jr.	Drawn By RTKIII	Ckd. By RTK JR.	Sheet No. 7 of 8

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Soil Compaction Testing Requirements

- 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 6.0 inches to enhance the establishment of permanent vegetative cover.
- Areas of the site which are subject to compaction testing and/or mitigation are graphically denoted on the certified soil erosion control plan.
- Compaction testing locations are denoted on the plan. A copy of the plan or portion of the plan shall be used to mark locations of tests, and attached to the compaction mitigation verification form, available from the local soil conservation district. This form must be filled out and submitted prior to receiving a certificate of compliance from the district.
- 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 the 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.

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)
- D. Nuclear Density Test (licensed professional engineer required)

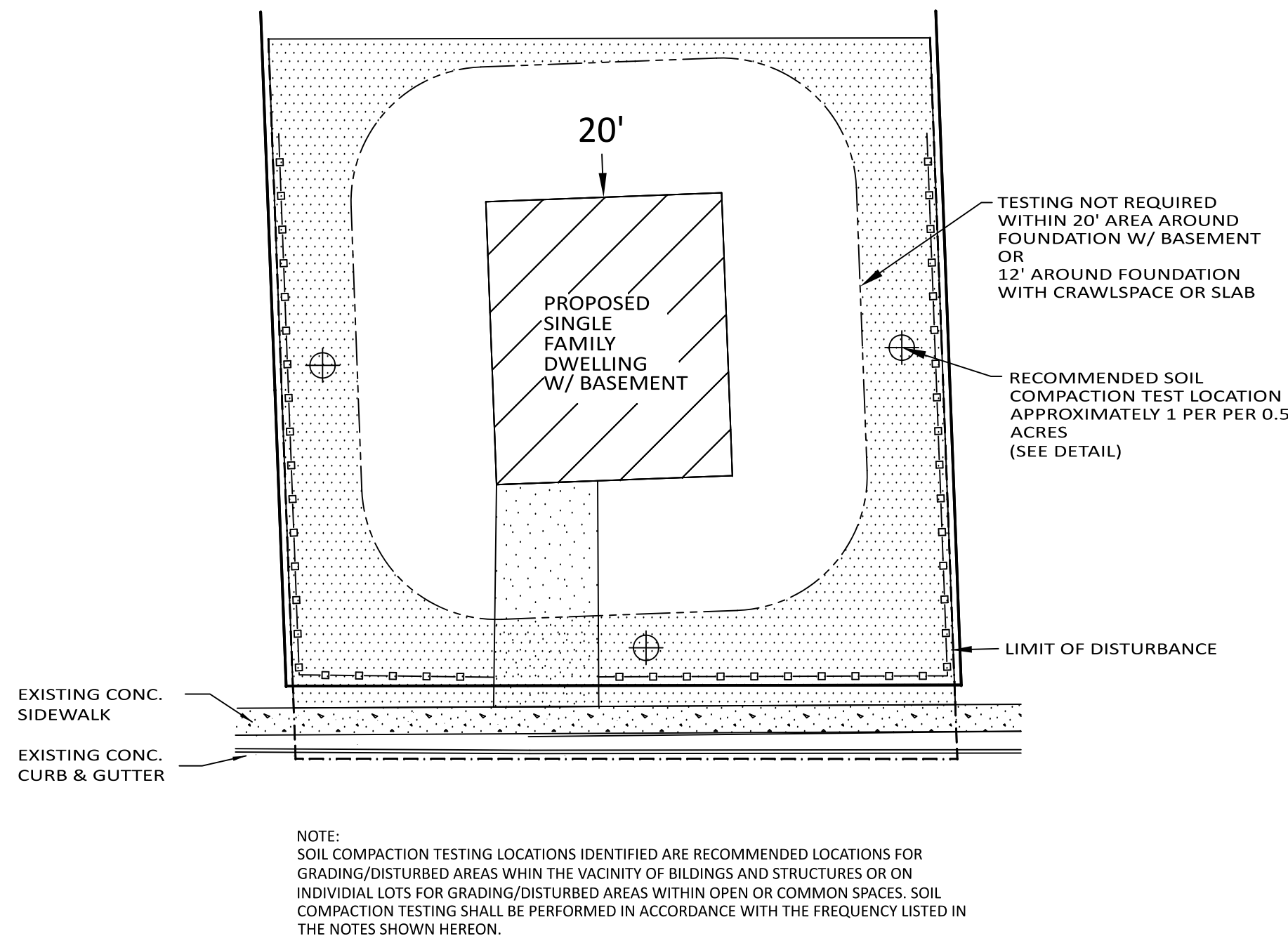
Note: Additional testing methods which conform to ASTM standards and specifications, and which produce a dry weight, soil bulk density measurement may be allowed subject to District approval.

Soil compaction testing is not required if/when subsoil compaction remediation (scarification/tillage (6" minimum depth) or similar) is proposed as part of the sequence of construction.

Procedures for Soil Compaction Mitigation

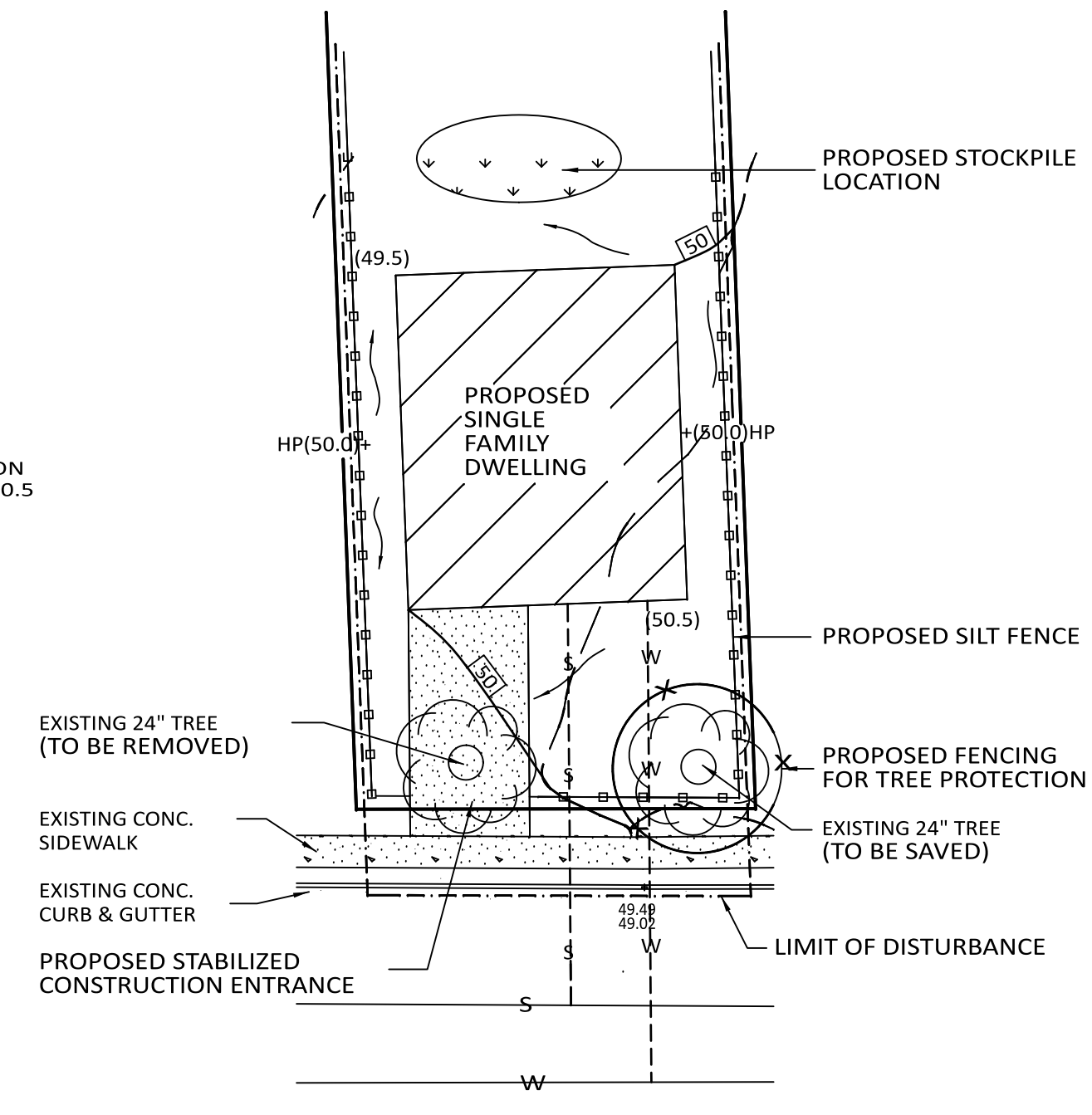
Procedures shall be used to mitigate excessive soil compaction prior to placement of topsoil and establishment of permanent vegetative cover.

Restoration of compacted soils shall be through deep scarification/tillage (6" minimum depth) where there is no danger to underground utilities (cables, irrigation systems, etc.). In the alternative, another method as specified by a New Jersey Licensed Professional Engineer maybe substituted subject to District Approval.



TYPICAL SOIL COMPACTION TESTING LOCATIONS

N.T.S.



INDIVIDUAL LOT DETAIL

N.T.S.

NOTE: THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL PERMANENT SOIL EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION. THE PROPERTY OWNER SHALL ASSUME THIS RESPONSIBILITY AFTER CONSTRUCTION HAS BEEN COMPLETED AND CERTIFICATE OF OCCUPANCY ARE ISSUED.

S.E.S.C. MEASURES SHALL BE INSTALLED FOR INDIVIDUAL HOUSES AFTER COMPETITION OF THE BASE COURSE ROAD IMPROVEMENTS.

SOIL EROSION AND SEDIMENT CONTROL NOTES

- The Freehold Soil Conservation District shall be notified forty-eight (48) hours in advance of any soil disturbing activity.
- All Soil Erosion and Sediment Control practices are to be installed prior to soil disturbance, or in their proper sequence, and maintained until permanent protection is established.
- Any changes to the Certified Soil Erosion and Sediment Control Plans will require the submission of revised Soil Erosion and Sediment Control Plans to the District for re-certification. The revised plans must meet all current State Soil Erosion and Sediment Control Standards.
- N.J.S.A 4:24-39 et. Seq. requires that no Certificates of Occupancy be issued before the District determines that a project or portion thereof is in full compliance with the Certified Plan and Standards for Soil Erosion and Sediment Control in New Jersey and a Report of Compliance has been issued. Upon written request from the applicant, the District may issue a Report of Compliance with conditions on a lot-by-lot or section-by-section basis, provided that the project or portion thereof is in satisfactory compliance with the sequence of development and temporary measures for soil erosion and sediment control have been implemented, including provisions for stabilization and site work.
- Any disturbed areas that will be left exposed more than sixty (60) days, and not subject to construction traffic, will immediately receive a temporary seeding. If the season prevents the establishment of temporary cover, the disturbed areas will be mulched with straw, or equivalent material, at a rate of 2 to 2 1/2 tons per acre, according to the Standard for Stabilization with Mulch Only.
- Immediately following initial disturbance or rough grading, all critical areas subject to erosion (i.e. soil stockpiles, steep slopes and roadway embankments) will receive temporary seeding in combination with straw mulch or a suitable equivalent, and a mulch anchor, in accordance with State Standards.
- A sub-base course will be applied immediately following rough grading and installation of improvements to stabilize streets, roads, driveways, and parking areas. In areas where no utilities are present, the sub-base shall be installed within fifteen (15) days of the preliminary grading.
- The Standard for Stabilized Construction Access requires the installation of a pad of clean crushed stone at points where traffic will be accessing the construction site. After interior roadways are paved, individual lots require a stabilized construction access consisting of one inch to two inch (1" - 2") stone for a minimum length of ten feet (10') equal to the lot entrance width. All other access points shall be blocked off.
- All soil washed, dropped, spilled, or tracked outside the limit of disturbance or onto public right-of-ways will be removed immediately.
- Permanent vegetation is to be seeded or sodded on all exposed areas within ten (10) days after final grading.
- At the time that site preparation for permanent vegetative stabilization is going to be accomplished, any soil that will not provide a suitable environment to support adequate vegetative ground cover shall be removed or treated in such a way that it will permanently adjust the soil conditions and render it suitable for vegetative ground cover. If the removal or treatment of the soil will not provide suitable conditions, non-vegetative means of permanent ground stabilization will have to be employed.
- In accordance with the Standard for Management of High Acid Producing Soils, any soil having a pH of 4 or less or containing iron sulfides shall be ultimately placed or buried with limestone applied at the rate of 10 tons/acre. (or 450 lbs/1,000 sq ft of surface area) and covered with a minimum of 12" of settled soil with a pH of 5 or more, or 24" where trees or shrubs are to be planted.
- Conduit Outlet Protection must be installed at all required outfalls prior to the drainage system becoming operational.
- Unfiltered dewatering is not permitted. Necessary precautions must be taken during all dewatering operations to minimize sediment transfer. Any dewatering methods used must be in accordance with the Standard for Dewatering.
- Should the control of dust at the site be necessary, the site will be sprinkled until the surface is wet, temporary vegetative cover shall be established or mulch shall be applied as required by the Standard for Dust Control.
- Stockpile and staging locations established in the field shall be placed within the limit of disturbance according to the certified plan. Staging and stockpiles not located within the limit of disturbance will require certification of a revised Soil Erosion and Sediment Control Plan. Certification of a new Soil Erosion and Sediment Control Plan may be required for these activities if an area greater than 5,000 square feet is disturbed.
- All soil stockpiles are to be temporarily stabilized in accordance with Soil Erosion and Sediment Control note #6.
- 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.

Freehold Soil Conservation District
4000 Kozloski Road, Freehold, NJ 07728-5033, (732) 683-8500, fax (732) 683-9140, Email: info@freeholdscd.org.

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. Slow, steady downward pressure used to advance the wire.

Wire may be re-inserted if/when an obstruction (rock, root, debris) is encountered.

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. Slow, steady downward pressure used to advance the probe. Probe must penetrate at least 6" with less than 300 psi reading on the gauge.

Penetrometer may be re-inserted if/when an obstruction (rock, root, debris) is encountered.

*Use correct size tip for soil type

Standards for Soil Erosion and Sediment Control in New Jersey January 2014

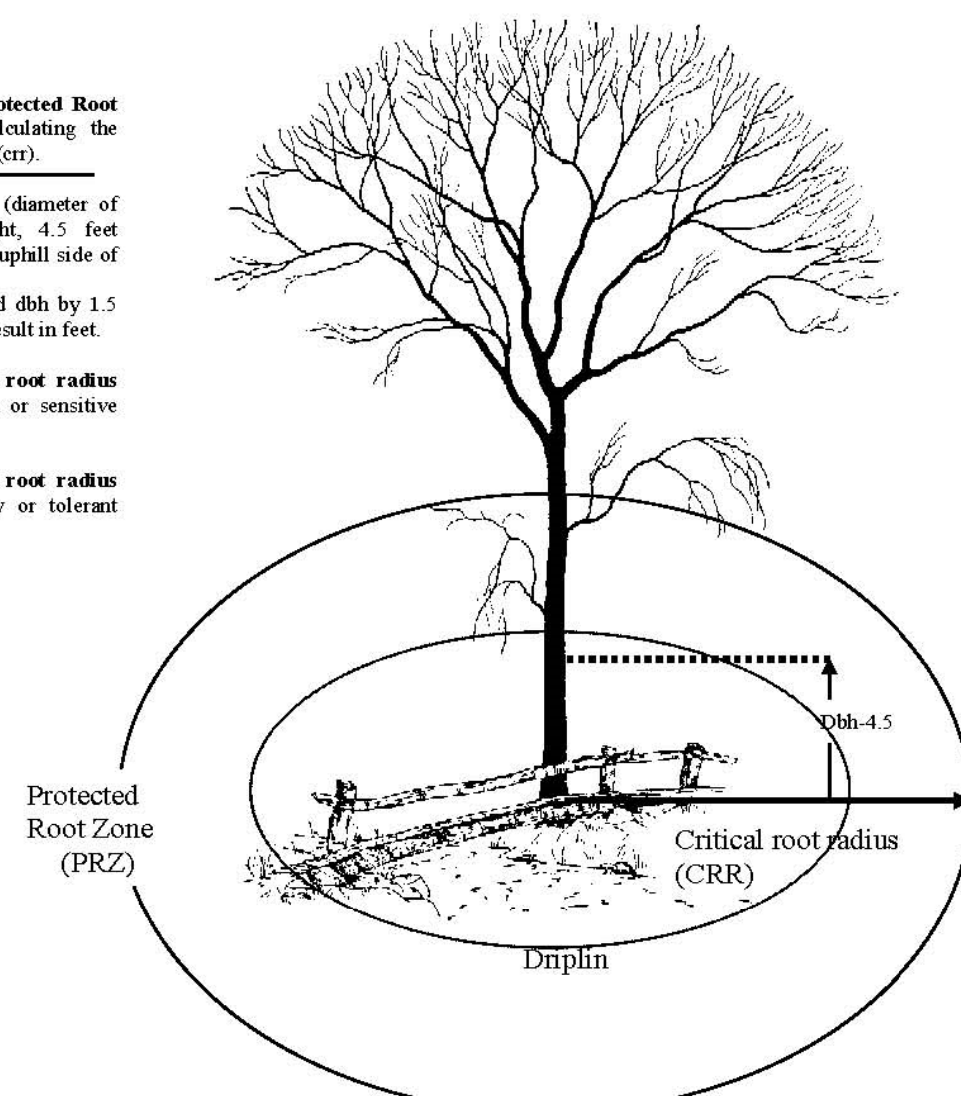
Figure 9-3: Root Protection During Construction Guide

Estimate a tree's Protected Root Zone (PRZ) by calculating the Critical Root Radius (CRR).

- Measure the dbh (diameter of tree at breast height, 4.5 feet above ground on the uphill side of tree) in inches.
- Multiply measured dbh by 1.5 or 1.0. Express the result in feet.

Dbh x 1.5: Critical root radius for older, unhealthy, or sensitive species.

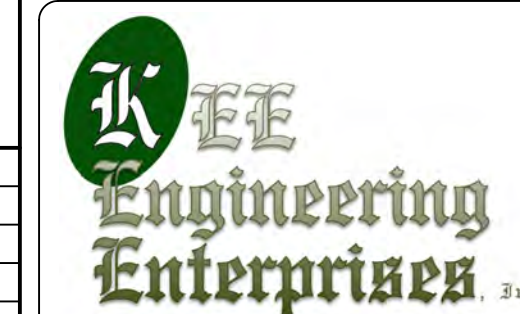
Dbh x 1.0: Critical root radius for younger, healthy or tolerant species.



1. Protecting Trees from Construction Damage - A Homeowners Guide, Gary R. Johnson, University of Minnesota Extension Service, Saint Paul, MN, 1999.

OWNER/APPLICANT:
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1120 BORDENTOWN AVENUE
SAYREVILLE, NJ 08859

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