PRELIMINARY AND FINAL MAJOR SITE PLANS FOR

THE GREENS AT MENDHAM VILLAGE

BLOCK 1801, LOT 5

TAX MAP SHEET 18

BOROUGH OF MENDHAM
MORRIS COUNTY, NEW JERSEY

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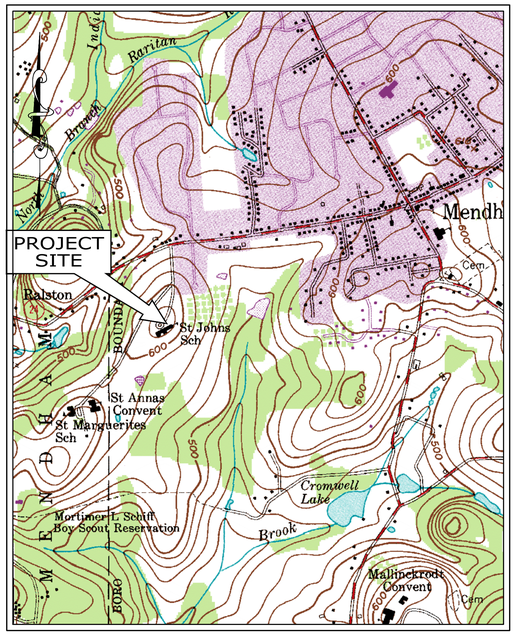

LOCATION MAP
SCALE: 1"= 2,000'

APPROVALS:

I HAVE REVIEWED THIS SITE PLAN AND CERTIFY THAT IT COMPLIES WITH ALL APPROVALS GRANTED BY THE APPROVING AUTHORITY .

_____ _____
BOROUGH ENGINEER DATE

APPROVED BY THE JOINT LAND USE BOARD OF THE BOROUGH OF MENDHAM

_____ _____
CHAIRMAN DATE

_____ _____
SECRETARY DATE

OWNER:

St. John the Baptist School
P.O. Box 240
Mendham, NJ 07945

APPLICANT:

80-88 W. Main, LLC
1625 Route 10
Morris Plains, New Jersey 07950

SEE SHEET 2 OF THIS SET FOR GENERAL NOTES AND REFERENCES

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

PLANS ARE FINAL FOR SANITARY SEWER AND WATER MAIN DESIGN

PRELIMINARY AND FINAL MAJOR SITE PLAN FOR
THE GREENS AT MENDHAM VILLAGE
COVER SHEET
BLOCK 1801, LOT 5
BOROUGH OF MENDHAM, MORRIS COUNTY, NEW JERSEY

SHEET No. 1 OF 28

	REVISION	DATE	CHKD
12			
11			
10			
9			
8			
7			

	REVISION	DATE	CHKD
6			
5			
4			
3			
2			
1			

PROJ.: 081228-RS-002
DATE: 02/17/26
CHKD:

THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN IS THE PROPERTY OF THE WORK WAS CONTRACTED OR THE PROJECT FOR WHICH IT WAS PREPARED. IT MAY NOT BE COPIED, REUSED, DISCLOSED, DISTRIBUTED OR RELIED UPON FOR ANY PURPOSE WITHOUT THE EXPRESS WRITTEN CONSENT OF BOWMAN CONSULTING GROUP, LTD. © BOWMAN CONSULTING GROUP, LTD. ALL RIGHTS RESERVED

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N.J. Certificate of Authorization No. 24GA28226000

ERIC L. KELLER, N.J. Professional Engineer, Lic. 24GE03205400

V:\081228 - Dayton-West Main St-Mendham\081228-01-001 (ENG)\Engineering\Engineering Plans\04 Site Plan\081228-SP-COV.dwg 02/17/26 01:21:44PM, pdeighton, LAYOUT:COV

GENERAL NOTES

1. Boundary and Topographic Information, shown hereon taken from a map entitled "Boundary & Topographic Survey, 80-88 W. Main, LLC, Block 1801, Lot 5, 80-88 West Main Street (a.k.a. County Route 24), Borough of Mendham, Morris County, New Jersey" prepared for 80-88 W. Main, LLC by Bowman Consulting Group, dated 12/2/2022 Vertical Datum NAVD 88. Datum conversion: NAVD88 = NGVD29 + 0.83 Ft.
2. Limits of Freshwater Wetlands and/or Wetland Transition Areas shown hereon are as delineated by Environmental Technology, Inc., August 19,2022 and verified by the NJDEP Letter of Interpretation issued on Feb. 19, 2025 (File and Activity No.: 1418-04-0003.1 FWW230001)
3. The site lies outside the regulated Flood Hazard area per FEMA Map No. 340540 0003 A.
4. Underground utilities shown hereon are approximate and based solely upon above ground observations, mark-outs and/or plans provided by utility companies. The accuracy or completeness of the information shown regarding underground utilities is not guaranteed by the engineer. Connections between structures, if and where shown, may not represent actual below ground conditions. Contractor and subcontractors are responsible for ordering mark-outs, coordination with the various utility companies and for making their own determination as to the location and depth of all underground utilities prior to any construction to assure disturbance and/or disruption of existing utilities is avoided where possible and minimized in all cases. As the exact elevation of existing utilities may be unknown to engineer, contractor is advised that the potential for conflicts with proposed work may exist. Exploratory excavations, contract contingencies or exclusions with Owner should be made to accommodate such an event. In the event the Contractor identifies a conflict between the proposed work and existing utilities, the conflict shall be brought to the attention of Bowman Consulting Group and the Owner prior to any work being performed.
   a. The Contractor shall determine the location and depth of the existing utility to which connection is being made before laying any pipe, conduit, etc. Discrepancies shall be reported to Bowman Consulting Group.
   a. Any temporary interruption of service to the site and/or adjacent properties shall be pre-approved in writing (email) by the respective utility.
   b. Electric, telephone, cable television and all other utility services shall be installed underground at locations determined by each respective utility entity, subject to any required municipal approval, regardless of whether or not the utilities are shown on the plans. The Contractor shall coordinate the construction of all utility mains and services with each utility entity and provide whatever construction support is required for achieving utility service. The Contractor is advised to contact each respective utility company prior to construction to identify and coordinate any scheduling requirements.
   c. Should it be required to excavate one or more trenches in existing roadways, backfilling and pavement replacement/repair shall be in accordance with the specifications of the municipality or county, as applicable. Verification of backfill requirements shall be made prior to bid.
5. Refer to the report by M&Z Engineering Associates dated 11/15/2022 concerning subsurface soils conditions.
6. The proposed buildings shown hereon are as taken from plans/CADD files prepared by Barton Partners dated 07/13/2023.
7. The engineer signing this plan is not qualified to make a determination as to the presence or absence of contamination or other environmental conditions on the site. Therefore, no statement is being made or implied by the fact that no evidence of contamination or other environmental conditions is shown on this plan.
8. The Owner shall provide a copy of all permits and approvals issued for the project to the Contractor. The Contractor shall be responsible for reading and complying with the terms and conditions of all permits, approvals and authorizations issued by the various regulatory authorities for the project. The Contractor is also responsible for confirming with the Engineer that the permits and approvals provided by the Owner is complete.

   Responsibility for any additional permits required as construction progresses, such as building permits (including building permits for retaining walls) and road opening permits shall be coordinated between the Contractor and Owner.
9. Prior to any construction or site preparation activity, the Contractor shall complete the following:
   - Verify the plans contain the raised seal of the engineer and display the latest revision as "Issued for Construction." The use of any other plans is at the Contractor's risk.
   - Verify the information shown on these plans is consistent with the information shown on all other plans (architectural, landscaping, etc.) being used for construction of the project. Also, verify the plans are consistent with all conditions and requirements set forth in the permits. Report any discrepancies/inconsistencies to the Owner and Bowman Consulting Group prior to any construction.
   - Determine all applicable specifications, as well as all requirements for shop drawings, inspections and testing applicable to project by contacting the local building official, municipal engineer and each affected utility company (or agency). In the event of a conflict between any specifications and the information shown on these plans, Bowman Consulting Group and the Owner shall be notified in order to resolve the conflict prior to any construction.
   - Contact the local police department relevant to any work to be performed in or near public streets, as well as ingress and egress requirements during construction. Traffic control requirements shall be established between the Contractor and police department at this time.
10. These plans are intended specifically and solely for the subject project and shall not be used for any other purpose. The copying or modification of these plans or any portion thereof is a violation of copyright law.
11. Contractor shall consider the information provided on the full set of plans for the construction of all project elements. Notes and information provided on one drawing may also be relevant to information or details provided on another drawing.
12. Relevant documentation pertaining to any product proposed by the Contractor on the basis of an "approved equal" shall be submitted to the municipal engineer and Bowman Consulting Group at least two weeks in advance of ordering product. The product must be approved for incorporation into the project by both the municipal engineer and Bowman Consulting Group.
13. All confirmations/verifications between the Contractor, Owner and/or Engineer shall be via email or other written form(s) of communication.
14. Contractor to notify the applicable Soil Conservation District in writing at least 72 hours prior to any site preparation or construction activities.
15. Contractor to call the New Jersey One Call System (800-272-1000) to have all underground utilities located prior to any site disturbance.
16. The Contractor shall provide the Owner and Bowman Consulting Group with a list of all shop drawings, inspections, testing, certifications, as-built plans and similar post-construction approval requirements pertaining to the project. The list shall also identify the specific individual responsible for performing each test and/or providing each certification and/or as-built map. In particular, should NJDEP permits apply to any utility construction and should the permit require a certification of the work upon completion, the Contractor shall determine the individual responsible for providing the certification. The Contractor shall then be responsible for coordinating with each individual identified on the list and scheduling his work to assure each individual has sufficient opportunity to conduct the required tests, obtain required measurements and/or perform any services or work required to prepare the required post-construction approval documents.
17. Contractor to coordinate all work with all utility companies and/or public agencies providing utility service, as applicable, and abide by all of their requirements relevant to the performance and inspection of all work affecting their utilities, including complying with any and all testing requirements. In the event requirements or specifications of the utility company or public authority conflict with the plans, the municipal requirements shall govern. In such case, the Contractor shall advise the Owner and Engineer prior to proceeding with any work.
18. In addition to the inspections required by the municipality and utility entities, the stormwater management facilities designed to infiltrate runoff shall also be inspected by Bowman Consulting Group in accordance with the provisions specified on the details for such systems and in accordance with requirements of the NJDEP BMP Manual, Chapter 12. The Contractor shall contact Bowman Consulting Group to coordinate the scheduling of such inspections at least two weeks prior to the commencement of construction for such facilities.
19. As this project disturbs more than one acre, all work is subject to an NJDEP SG3 Construction Activity General Permit. A Stormwater Pollution Prevention Plan (SWPPP) has been prepared by, (or on behalf of), the Owner. Prior to any construction, the Contractor shall obtain and read the SWPPP. Prior to any site disturbance, the Owner and Contractor must execute the SWPPP Agreements which assign responsibility for compliance with the General Permit.
20. Contractor to coordinate with the Owner relevant to the scheduling of all work and any restrictions thereto, (such as maintaining operations at the site or ingress/egress restrictions, etc.). Any requirements for phasing and/or multiple mobilizations shall be identified and resolved prior to commencement of the work.
21. It is the Contractor's responsibility to protect all property markers and monuments from disturbance throughout construction. Notify the Owner immediately should any property markers or monuments be inadvertently disturbed or damaged.
22. Prior to any construction, the horizontal limits of the work (Limits of Disturbance - LOD) shall be established and delineated on-site. Disturbance beyond these permitted limits exposes the contractor to fines and penalties by regulatory agencies.
23. The exact location of all work shall be established from the control points and all stakeout shall be referenced from baselines established from the control points. All dimensions and distances, both horizontal and vertical, shall be verified for consistency with the plans by the entity responsible for layout prior to the construction of each project element. In the event of any discrepancies between the layout and dimensions/distances shown on the plans, the layout entity shall notify Bowman Consulting Group for resolution of the discrepancy prior to any construction for the specific element.
24. Information for field layout shall be taken from the plans. Graphical information as may also be provided via electronic files is intended as drawing data only and is not to serve as basis for survey layout. Standard practice requires the layout entity check dimensional data for consistency and to make survey calculations as customary for layout.
25. The location and inverts of all existing storm and sanitary sewers shown hereon shall be verified by the Contractor prior to any construction. Any discrepancies shall be reported to Bowman Consulting Group immediately and no construction shall commence until any such discrepancies are resolved. Storm and sanitary sewer layout and construction shall proceed from downstream to upstream throughout the entire project.
26. The intent of the plans is to provide a smooth transition, maintaining effective positive drainage, at all locations where the proposed construction is to connect to existing infrastructure, such as for curb, pavement, and sidewalk. The entity responsible for stakeout shall--prior to any construction---verify the intended smooth connections will be achieved. Unless otherwise noted on the plans or directed by the inspecting authority, smooth transitions shall be considered to meet the following minimum criteria:
   - No low points or "bird baths" will be created, except at locations where drainage inlets exist or will be constructed.
   - All final grades will have a minimum slope of 0.5%.
   - Abrupt changes in grade are avoided, except as dictated by curb ramp details. Slope changes exceeding 2.0% shall be considered abrupt for the purpose of this requirement.

   In the event the entity responsible for layout should determine a smooth transition cannot be achieved at one or more locations, Bowman Consulting Group shall be notified for resolution prior to any construction.
27. Contractor is responsible for their own verification of existing topographic information, should there be any suspected discrepancies with the topography depicted on the plans and actual physical conditions. Any confirmed discrepancy identified by the Contractor's verification shall be reported to the Engineer for resolution prior to any site disturbance. Once any site disturbance occurs, the Contractor shall have no claim for extra work based upon suspected or confirmed topographic discrepancies.
28. The Contractor is solely responsible for construction site safety and for determining the means and methods for all construction activities. All safety precautions must be undertaken and maintained as required by local, State and Federal codes.
29. Contractor to comply with the traffic control plan, if provided. If a traffic control plan is not provided, the Contractor shall determine and comply with any and all traffic control requirements of the local police department and any public agency having jurisdiction relevant to any construction in or near public streets as well as for ingress and egress during construction.
30. The Contractor shall provide necessary barricades, sufficient lights, signs, and other traffic control measures as may be necessary within the project for the protection and safety of the public. All such traffic control devices shall be maintained in satisfactory condition throughout the construction period.
31. The plan has been designed with the intent to comply with all applicable requirements for barrier free access, including the satisfying of all requirements of the New Jersey International Building Code, Chapter 11, the Americans with Disabilities Act (ADA), and or the Fair Housing Act. In general, barrier free accesses for site construction is to be provided for, but not limited to the following: between all parking spaces designated as accessible and the front door of adjacent buildings, from all accessible buildings to the public ROW and to amenity and common use areas. However, prior to construction, the Contractor shall verify the routes required to be barrier free with the local building code official. Should any identified routes conflict with the grading shown on the plans, the Contractor shall notify Bowman Consulting Group for resolution prior to any construction.
32. The Contractor is responsible for the completed construction along barrier free routes complying with all applicable requirements of NJIBC Chap 11, whether specifically stated on the plans or not. In particular, the following requirements are noted:
   a. Slopes within accessible parking spaces and adjacent access aisles shall not exceed two percent (2.0%) in any direction.
   b. Slopes for curb ramps shall not exceed 1:12 (8.3%)
   c. The exterior side of all doorways and both sides of accessible gates shall have a landing sloped for positive drainage at two percent (2.0%) max. For doors & gates with a straight approach sidewalk, the landing shall be a minimum of 5' long before breaking grade to a sloped sidewalk. The width shall be as shown on the plans. If there is a discrepancy between architectural plans and site plans, the contractor shall notify Bowman Consulting Group for resolution of the discrepancy prior to any construction for the landing or associated walkway. Note that the width is not necessarily centered on the door or gate, as minimum clearances are required on the handle side (opposite the hinge side).
   d. Each barrier free route shall provide for a minimum four foot unobstructed (car overhangs at curbs must be considered) width with a longitudinal (direction of route) slope no greater than 1:20 (5%). Cross slope shall not exceed two percent (2.0%). In turning areas, cross slope must be less than 2.0 % in all directions. Where shown on the plans and/or where the grading along the path of travel exceeds 5%, a ramp with a maximum slope of 1:12 (8.3%) shall be constructed, having a maximum rise of 30 inches. Hand rails complying with NJIBC Chap 11 requirements shall be installed for all such ramps, except curb ramps at pavement edges.
   e. Refer to the detail sheets for landings at curb ramps. All other ramps shall be provided with landings at each end and each landing shall be at least five feet long with a width matching the width of the ramp. Landings shall slope no more than two percent (2.0%) in any direction.

   The Contractor is responsible for assuring all construction along barrier free routes complies with all requirements.
33. Prior to the actual pouring of concrete along barrier free routes, the Contractor shall check all formwork to verify compliance with the applicable barrier free requirements and request confirmation of same by the inspecting authority.
34. Unless indicated otherwise in the plan, all sidewalk shall be a minimum of four feet wide, except adjacent to the end of parking stalls where sidewalk shall be a minimum of six feet in width.
35. The details shown on these plans for retaining walls have been prepared for the purpose of Preliminary/Final Municipal agency review and approval. Structural designs for all walls must be procured by the Contractor (or Owner) and prepared by an engineer licensed in New Jersey. The wall design must abide by any specifications relevant to type of wall, color and/or texture. A building permit is required for any wall exceeding four feet in height.
36. A building permit is required for all walls four or more feet in height. Contractor (Owner) is responsible for securing said permit(s).
37. Bottom of wall elevations (BW) shown on the plans indicate ground elevation at toe of wall upon completion of construction. Footing elevations to be taken from the structural plans procured by the Contractor (Owner).
38. It is not the intent of these plans to provide structural design for any pre-cast or cast in place concrete structure. All structural design of pre-cast and/or cast-in-place concrete structures shall be prepared by a Professional Engineer retained by the Contractor.
39. Post-construction certification as to the construction of a retaining wall or other structural components to be provided by a professional engineer engaged by the Contractor (Owner).
40. Where shop drawings are specified on the plans or required by an inspecting authority, at least three copies of the drawings shall be provided to Bowman Consulting Group for approval. Contractor to determine the number of copies required by the inspecting authority. All shop drawings are to be prepared by a New Jersey professional engineer.
41. All construction shall conform to the requirements of any applicable Federal, State or Local law, regulation and/or ordinance.
42. Unless otherwise noted, all materials and workmanship shall conform to the New Jersey Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition.
43. Contractor shall complete all work in a workmanlike manner to the full satisfaction of the Owner.
44. Contractor shall be responsible for site clean-up following completion of construction. All disposal of debris shall be in accordance with applicable local, county, state and federal regulations.
45. Any damage to existing infrastructure, including but not limited to, pavement, sidewalks, curb, lighting facilities, utilities, or landscaping, due to the actions of the Contractor shall be repaired by the Contractor (at his sole expense) to the satisfaction of the owner of the damaged item.
46. All equipment, materials, etc. shall be confined to the project site. No encroachment onto public right-of-ways or adjacent properties is permitted unless specified on the plans or granted to the Contractor in writing.
47. Any omissions in the standard details or lack of information must be brought to the attention of Bowman Consulting Group prior to construction.
48. Existing pavement shall be saw cut in straight lines to the full depth of the existing asphalt (except at the edge of butt joints).
49. The frame and grates of all inlets, manholes and sewer cleanout boxes shall be adjusted as necessary to match proposed grades. All such elevation adjustments shall be performed in accordance with all applicable specifications and regulations.
50. All on-site water main shall have a minimum cover of 4 feet.
51. Sanitary sewer shall be separated from water mains by a distance of at least 10 feet horizontally or 18-inches vertically, if horizontal separation is not possible.
52. All storm and sanitary sewer pipe lengths shown hereon are from center of structure to center of structure, unless otherwise indicated.
53. All materials and construction shall conform to the requirements specified in the Residential Site Improvement Standards (NJAC 5:21), latest edition.
54. All RCP to be reinforced concrete pipe conforming to ASTM C-76, Class III, Wall B, unless otherwise indicated.
55. All HDPE to be N-12 double walled, (soil tight, water tight) corrugated pipe as manufactured by Advanced Drainage Systems, or approved equal.
56. All PVC sanitary sewer pipe shall be SDR-35. Service connections shall be SDR-35.
57. All water main pipe shall be cement lined ductile iron pipe, Class 52, unless otherwise noted on the plan or required by the water purveyor.
58. All roof leader drains to be 6-inch Schedule 40 PVC, unless otherwise noted on the plans. All leader drains to be installed with two foot minimum cover.
59. All roof drains shall be connected to the storm sewer system unless otherwise shown on the plans.
60. All pipe shall be installed in accordance to applicable manufacturers' specifications.
61. Fire lanes shall be provided in accordance with fire official's requirements.
62. No project sign is proposed at this time.

PROPERTY OWNERS WITHIN 200 FEET & UTILITIES TO BE CONTACTED

PARCELS WITHIN RANGE OF TARGETED PROPERTIES:

1418_1801_10	1.1600	7 LINDEN LN	TIEDE, BRETT RUSSO	7 LINDEN LN MENDHAM, NJ 07945
1418_1801_16_QFARM	101.9610	W MAIN ST	MT. HERMON HILLS CO LLC	323 MAIN ST., 2ND FL. CHATHAM, NJ 07928
1418_1801_2.01	1.8800	94 W MAIN ST	PARKS, JOSHUA	94 W MAIN ST MENDHAM, NJ 07945
1418_1801_38.01	undefined		unmatched parcel	undefined undefined
1418_1801_5	19.0000	80-88 WEST MAIN ST	ST JOHN THE BAPTIST SCHOOL	PO BOX 240 MENDHAM, NJ 07945
1418_1801_5.01	5.7700	W MAIN ST	ST JOHN BAPTIST, COMMUNITY OF	REV MOTHER, PO BOX 240 MENDHAM, NJ 07945
1418_1801_5.01_CT-1	0.3100	W MAIN ST	ST JOHN BAPTIST, COMMUNITY OF	REV MOTHER, PO BOX 240 MENDHAM, NJ 07945
1418_1801_5.01_CT-2	0.0000	W MAIN ST	ST JOHN BAPTIST, COMMUNITY OF	REV MOTHER, PO BOX 240 MENDHAM, NJ 07945
1418_1801_5.01_CT-3	0.0000	W MAIN ST	ST JOHN BAPTIST, COMMUNITY OF	REV MOTHER, PO BOX 240 MENDHAM, NJ 07945
1418_1801_5.01_CT-4	0.0000	W MAIN ST	ST JOHN BAPTIST, COMMUNITY OF	REV MOTHER, PO BOX 240 MENDHAM, NJ 07945
1418_1801_5.01_CT-5	0.0000	W MAIN ST	ST JOHN BAPTIST, COMMUNITY OF	REV MOTHER, PO BOX 240 MENDHAM, NJ 07945
1418_1801_5.01_QFARM	14.7200	W MAIN ST	ST JOHN BAPTIST, COMMUNITY OF	REV MOTHER, PO BOX 240 MENDHAM, NJ 07945
1418_1801_5_QFARM	2.5000	80-88 WEST MAIN ST	ST JOHN THE BAPTIST SCHOOL	PO BOX 240 MENDHAM, NJ 07945
1418_1801_5_X	5.0000	80-88 WEST MAIN ST	ST JOHN THE BAPIST SCHOOL	PO BOX 240 MENDHAM, NJ 07945
1418_1801_6	1.1700	88 W MAIN ST	GRACIE, PAUL	88 W MAIN ST MENDHAM, NJ 07945
1418_1801_6.01	1.8330	88A W. MAIN ST	HOGOBOOM, JOHN D & GRIFFITH, DANA L	88A W. MAIN ST MENDHAM, NJ 07945
1418_1801_7	1.1700	1 LINDEN LN	GERBER, ROBERT C & BONNIE R	1 LINDEN LN MENDHAM, NJ 07945
1418_1801_8	1.2000	3 LINDEN LN	DECKER, MARK R/CECILIA	3 LINDEN LN MENDHAM, NJ 07945
1418_1801_9	1.1600	5 LINDEN LN	SIEGEL, STEVEN A/BONNIE F	5 LINDEN LN MENDHAM, NJ 07945
1418_201_12.01	2.1100	2 FARM HOUSE LN	DE CRESCENZO, PAOLA/MC CLURE, KEN	2 FARM HOUSE LN MENDHAM, NJ 07945
1418_201_12.03	1.4800	1 FARM HOUSE LN	DALY, IRENAEUS/CAROLYN	1 FARM HOUSE LN MENDHAM, NJ 07945
1418_201_19	1.8000	89 W MAIN ST	NEFF, CHRISTOPHER & SHINO TAKIZAWA	89 W MAIN ST MENDHAM, NJ 07945
1418_201_20	1.3340	85 W MAIN ST	NOSTA, JOHN J	85 W MAIN ST MENDHAM, NJ 07945
1418_201_21	0.5130	83 W MAIN ST	HANSEN, WARREN/ELSIE MC CORKELL	83 W. MAIN ST MENDHAM, NJ 07945
1418_201_22	0.2600	81 W MAIN ST	Q81 WEST MAIN LLC	81 W MAIN ST MENDHAM, NJ 07945
1418_201_23	0.6240	79 W MAIN ST	KLEBAUR, PATRICK/SHELBY	79 W MAIN ST MENDHAM, NJ 07945
1418_201_24	0.4000	77 W MAIN ST	MARTINO,FERDINANDO/FOSSATI,GABRIELA	77 W MAIN ST MENDHAM, NJ 07945
1418_201_25	0.5000	75 W MAIN ST	WOLFMEYER, DAVID/WIATROSKI,CATALINA	75 W MAIN ST MENDHAM, NJ 07945
1418_201_26	1.1200	71 W MAIN ST	AGUDELO, JOHANNA	71 W MAIN ST MENDHAM, NJ 07945

JCP&L, c/o FE Serv. Tax Dept.
P.O. Box 1911
Morristown, NJ 07962-1911

Verizon, c/o Duff & Phelps
PO Box 2749
Addison, TX 75001

AT&T
900 Route 202/206 North
Bedminster, NJ 07921

Public Service Electric & Gas Co.
80 Park Plaza
Newark, NJ 07102

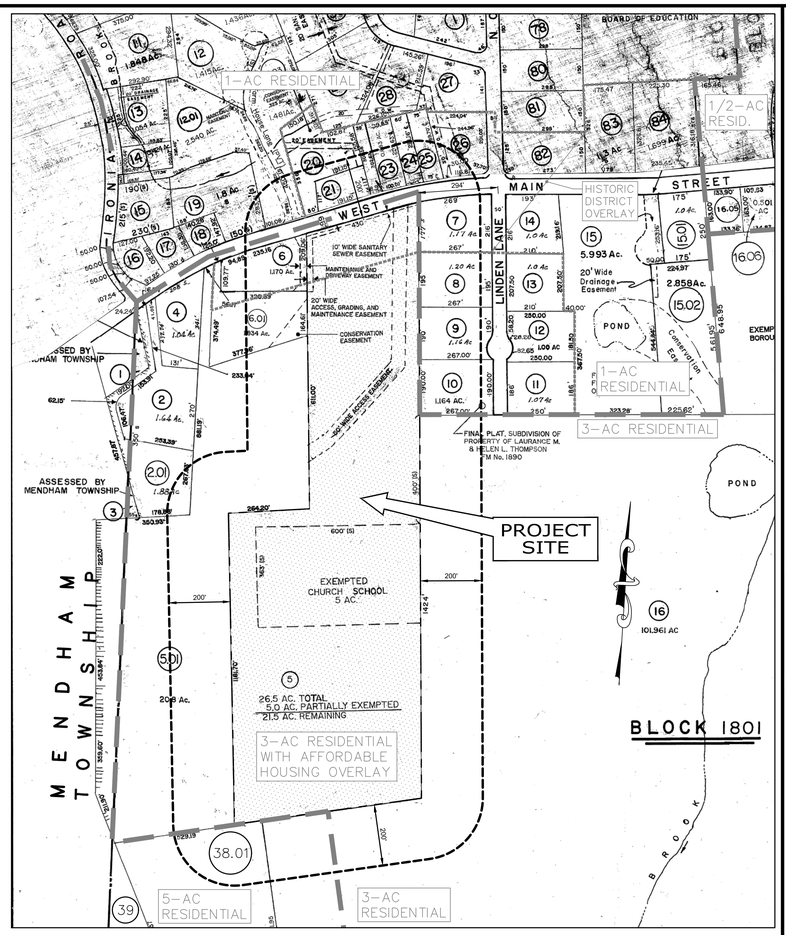
Morris County Planning Board
PO Box 900
Morristown, NJ 07963-0900

American Water SSC/General Tax Dept.
PO Box 5627
Cherry Hill, NJ 08034

Mendham Borough Sewer Utility
35 Ironia Rd.
Mendham, NJ 07945

Comcast
300 Rahway Ave.
Union, NJ 07083

Cablevision
683 Route 10
Randolph, NJ 07869



Unit Summary	Building count	Building Number	Units per Building	Total Units	Market-Rate Units (total)			Affordable Units (total)		
					1-BR units	2-BR units	3-BR units	1-BR units	2-BR units	3-BR units
Rear-loaded Townhomes (with Garage only)	1	#22	2-unit	2	0	0	2	0	0	0
	17	#1-13, 16-18, 23	4-unit	68	0	0	68	0	0	0
	3	#20, 21, 24	6-unit	18	0	0	18	0	0	0
Front-loaded Townhomes (with Garage and Driveway)	3	#27, 28, 32	4-unit	12	0	0	12	0	0	0
	3	#29, 30, 31	6-unit	18	0	0	18	0	0	0
Affordable Townhome Units (No Garage or Driveway)	2	#15, 25	4-unit	8	0	0	0	6	2	
	0		6-unit	0	0	0	0	0	0	
	3	#14, 19, 26	7-unit	21	0	0	0	17	4	
	0		8-unit	0	0	0	0	0	0	
Total Townhome Units	32	#1-32		147	0	0	118	0	23	6

PARKING REQUIREMENTS PER RSIS						
Unit Type	Unit Count	Spaces Required per Unit per RSIS	Required Spaces	Parking Provided at Unit, per unit*	Net (Surface) Parking Requirement, per unit**	Net (Surface) Parking Requirement
3-BR Townhome, Rear-Loaded, Garage Only	88	2.4	211.2	2.0	0.5	44.0
3-BR Townhome, Front-Loaded, Garage & Driveway	30	2.4	72.0	3.5	0.5	15.0
2-BR Townhome, no garage or driveway	23	2.3	52.9	0.0	2.3	52.9
3-BR Townhome, no garage or driveway	6	2.4	14.4	0.0	2.4	14.4
Total	147		350.5			126.3
*private garages and driveways, as per RSIS **minimum 0.5 visitor space per unit						

PROPOSED PARKING	
Surface parking*	145
Private Garage & Driveways	281
Total	426
* not counting 1 space near project entrance for hot box maintenance	

NOTE:
REQUIRED EV CHARGING SPACES: 351 x 0.15 = 52.65 (53 SPACES)
EV SPACES PROVIDED: ALL GARAGES TO HAVE 220 POWER FOR EV CHARGING
PLUS 6 SPACES - SURFACE LOTS

ZONING TABLE		
BLOCK 1801, LOT 5		
Underlying Zone: 3 Acre residential		
Overlay Zone: Affordable Housing Overlay - AHO Zone		
Lot Size: 1,130,282 S.F. (25.9477 Ac.)		
ITEM	REQUIRED / ALLOWED PER AHO ZONE	PROPOSED
Bulk Standards § 215-65 B		
Density (du/acre)	6	5.7 (147 units/25.9 Ac.)
Front to Building Front	80 Ft.	80 Ft.
Front to Building Side	50 Ft.	57.5 Ft.
Side to Building Rear	30 Ft.	35 Ft.
Side to Building Side	20 Ft.	30 Ft.
Wall containing a window to another wall containing a window	30 Ft.	30 Ft
Min. Building Depth Through the Short Axis	30 Ft.	32 Ft.
Max Building Length Through the Long Axis	180 Ft.	170 Ft.
Max. Building Height Townhouses	35 Ft. / 3 Stories	30.16 Ft / 3 Stories
Max. Height Accessory Buildings	30 Ft. / 2 Stories	Complies (Pump Station Bldg)
Building Setback from the Edge of Roadway Paving or Curbing	10 Ft.	15 Ft.
Affordable Housing § 215-66	20% of units (29 Units)*	29 Units
Max. Bldg. Coverage	30%	17.9%
Max. Lot Coverage	65%	42.0%
Min. Perimeter Buffer § 215-68 A	30 Ft.	30 Ft.
Min. Landscape Buffer § 215-68 B	20 Ft.	20 Ft.
Max Basement Wall Exposure	80%	Complies
PARKING, § 215-67		
Per RSIS	350.5 Spaces (per RSIS)	422 provided (2.87/unit)
* 147 units x .02 = 29.4. Per ordinance, if less than 0.5 round down, If over 0.5 round up		
** Buffer includes portions of stormwater basins, retaining walls and roadway		

SEE SHEET 2 OF THIS SET FOR GENERAL NOTES AND REFERENCES

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

PLANS ARE FINAL FOR SANITARY SEWER AND WATER MAIN DESIGN

PRELIMINARY AND FINAL MAJOR SITE PLAN FOR

THE GREENS AT MENDHAM VILLAGE

KEY MAP

BLOCK 1801, LOT 5
BOROUGH OF MENDHAM, MORRIS COUNTY, NEW JERSEY

REVISION	DATE	CHKD
12		
11		
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PROJ.: 081228-05-002
DATE: 02/17/26
CHKD:

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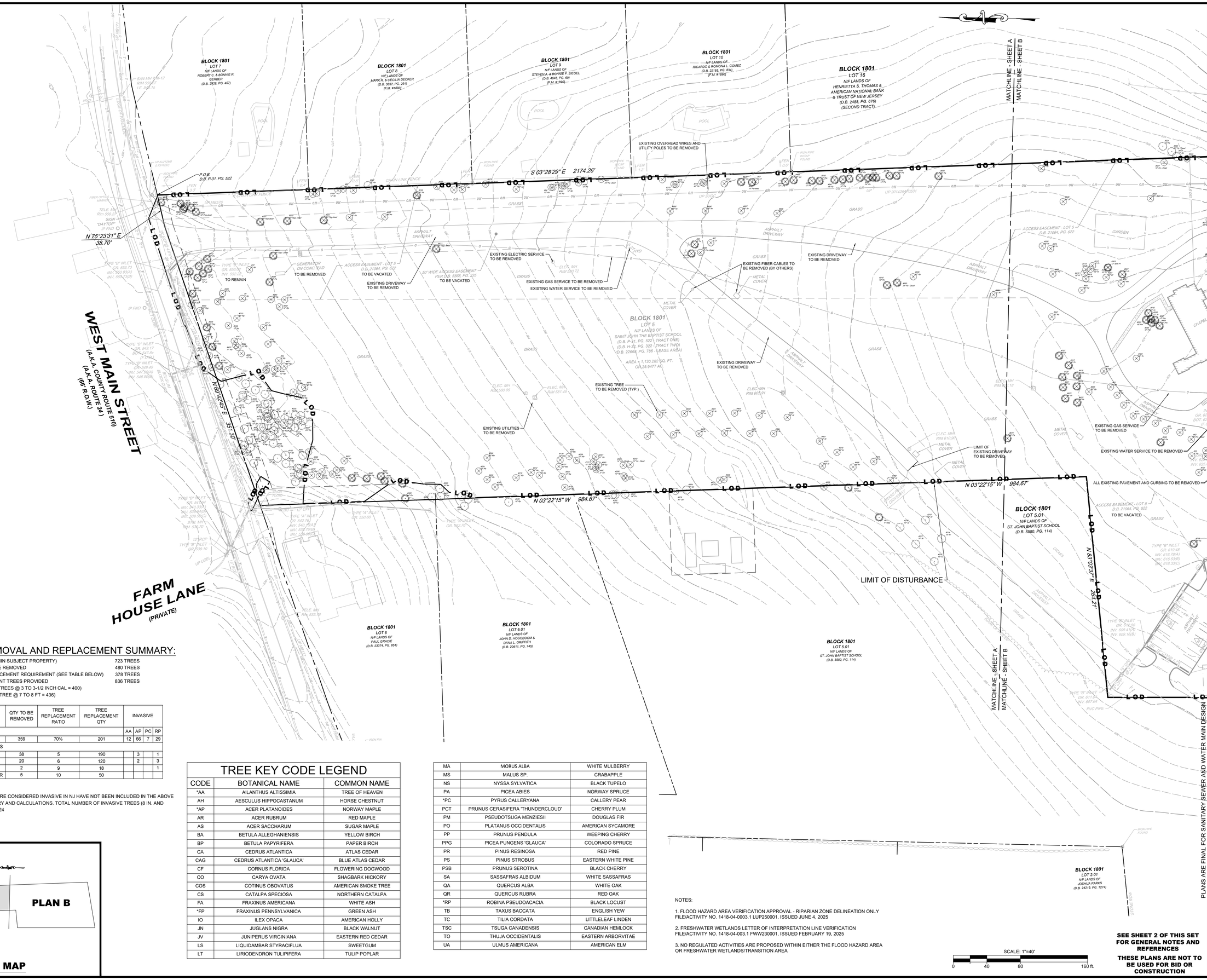
E-mail: PJ@bowman.com
ERIC L. KELLER, N.J. Professional Engineer, Lic. 24GE03205400

SHEET No.
2
OF
28

x:\081228 - Doytog-West Main St-Mendham\081228-01-001 (ENG)\Engineering\Engineering Plans\04 Site Plan\081228-SP-KEY.dwg 02/17/26 01:21:56PM, pdalghan, LAYOUT:KEY


WEST MAIN STREET
(A.K.A. COUNTY ROUTE 510)
(A.K.A. ROUTE 24)
(66' R.O.W.)
FARM HOUSE LANE
(PRIVATE)
MAIN ST
BLOCK 1801
LOT 7
N/F LANDS OF
ROBERT C. & BONNIE R. GERBER
(D.B. 2828, PG. 407)
BLOCK 1801
LOT 8
N/F LANDS OF
MARK R. & CECILIA DECKER
(D.B. 3837, PG. 291)
(F.M. #1896)
BLOCK 1801
LOT 9
N/F LANDS OF
STEVEN A. & BONNIE F. SIEGEL
(D.B. 4646, PG. 59)
(F.M. #1894)
BLOCK 1801
LOT 10
N/F LANDS OF
RICARDO & ROMONA L. GOMEZ
(D.B. 22165, PG. 834)
(F.M. #1896)
BLOCK 1801
LOT 16
N/F LANDS OF
HENRIETTA S. THOMAS &
AMERICAN NATIONAL BANK
& TRUST OF NEW JERSEY
(D.B. 2488, PG. 676)
(SECOND TRACT)
BLOCK 1801
LOT 5
N/F LANDS OF
SAINT JOHN THE BAPTIST SCHOOL
(D.B. P-31, PG. 522 - TRACT ONE)
(D.B. H-30, PG. 322 - TRACT TWO)
(D.B. 22664, PG. 786 - LEASE AREA)
AREA = 1,130,282 SQ. FT.
OR 25.9477 AC
BLOCK 1801
LOT 5.01
N/F LANDS OF
ST. JOHN BAPTIST SCHOOL
(D.B. 5580, PG. 114)
BLOCK 1801
LOT 6
N/F LANDS OF
PAUL GRACIE
(D.B. 23374, PG. 851)
BLOCK 1801
LOT 6.01
N/F LANDS OF
JOHN D. HOGOBOOM &
DANA L. GRIFFITH
(D.B. 20611, PG. 745)
BLOCK 1801
LOT 2.01
N/F LANDS OF
JOSHUA PARKS
(D.B. 24219, PG. 1274)
MATCHLINE - SHEET A
MATCHLINE - SHEET B
P.O.B.
D.B. P.31, PG. 522
S 03°28'29" E 2174.26'
N 75°23'31" E
38.70'
N 69°42'45" E 351.30'
N 03°22'15" W 984.67'
N 03°22'15" W 984.67'
N 83°53'45" E 224.31'
LOD
LIMIT OF DISTURBANCE
EXISTING OVERHEAD WIRES AND UTILITY POLES TO BE REMOVED
EXISTING ELECTRIC SERVICE TO BE REMOVED
EXISTING GAS SERVICE TO BE REMOVED
EXISTING WATER SERVICE TO BE REMOVED
EXISTING FIBER CABLES TO BE REMOVED (BY OTHERS)
EXISTING DRIVEWAY TO BE REMOVED
EXISTING DRIVEWAY TO BE VACATED
EXISTING TREE TO BE REMOVED (TYP.)
EXISTING UTILITIES TO BE REMOVED
LIMIT OF EXISTING DRIVEWAY TO BE REMOVED
ALL EXISTING PAVEMENT AND CURBING TO BE REMOVED
ACCESS EASEMENT - LOT 5
D.B. 21064, PG. 622
TO BE VACATED
50' WIDE ACCESS EASEMENT
PER DB. 5568, PG. 235
TO BE VACATED
GENERATOR ON CONC. PAD
TO BE REMOVED
TO REMAIN
SIGN "DAYTOP"
GARDEN
CHAPEL
GRASS
ASPHALT DRIVEWAY
METAL COVER
CHAIN LINK FENCE
WOOD FENCE
POOL
IRON PIPE FOUND
IP FND.
SAN MH CON-12
RIM 550.07
I.E. 540.11
TYPE "B" INLET
GR. 553.73
INV. 550.93(A)
INV. 550.73(B)
TYPE "B" INLET
GR. 550.70
INV. 550.23
TYPE "B" INLET
GR. 549.17
INV. 547.81
TYPE "B" INLET
GR. 549.46
INV. 547.26(A)
INV. 546.90(B)
TYPE "A" INLET
GR. 550.88
TYPE "A" INLET
GR. 542.70
INV. 540.76(A)
INV. 539.76(B)
INV. 539.46(C)
STM. MH
INV. 539.76
12"RCP
TYPE "B" INLET
GR. 539.10
TYPE "A" INLET
GR. 560.75
ELEC. MH
RIM 535.76
ELEC. MH
RIM 590.85
ELEC. MH
RIM 581.48
ELEC. MH
RIM 610.00
ELEC. MH
RIM 603.91
ELEC. MH
RIM 618.18
TYPE "B" INLET
GR. 619.48
INV. 616.76(A)
INV. 616.53(B)
INV. 616.33(C)
TYPE "B" INLET
GR. 616.96
INV. 609.41(A)
INV. 609.16(B)
TYPE "B" INLET
GR. 611.04
INV. 607.64
PVC PIPE
STONE HWY
UP 30142/M10531
UP 30142/M10532
UP 30142/M10533
UP 30142/M10534
UP 30142/M10535
UP 30142/M10536
UP 30142/M10537
UP 30142/M10538
UP 30142/M10539
UP 30142/M10540
UP 30142/M10541
UP 30142/M10542
UP 30142/M10543
UP 30142/M10544
UP 30142/M10545
UP 30142/M10546
UP 30142/M10547
UP 30142/M10548
UP 30142/M10549
UP 30142/M10550
UP

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081228-Base.dwg
081228-TNL-SP.dwg

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V:\081228 - Dayton - West Main St-Mendham\081228-01-000 (ENG)\Engineering\Engineering Plans\04 Site Plan\081228-SP-DWG.dwg 02/17/26 02:08:17PM maryam.ziroli, LAYOUT:B

BLOCK 1801
LOT 16
N/F LANDS OF
HENRIETTA S. THOMAS &
AMERICAN NATIONAL BANK
& TRUST OF NEW JERSEY
(D.B. 2488, PG. 676)
(SECOND TRACT)

MATCHLINE - SHEET A
MATCHLINE - SHEET B

BLOCK 1801
LOT 16
N/F LANDS OF
HENRIETTA S. THOMAS &
AMERICAN NATIONAL BANK
& TRUST OF NEW JERSEY
(D.B. 2488, PG. 676)
(SECOND TRACT)

S 03°28'29" E 2174.26'

LOD

GRASS
GARDEN
ACCESS EASEMENT - LOT 5
D.B. 21064, PG. 622
ASPHALT DRIVEWAY
CHAPEL
GENERATOR AREA
CONC WALK
3 STORY MASONRY BUILDING
CONC STEPS
BRICK STEPS
APPROX. LOC. 4" PVC PIPE PER REF. #10
APPROX. LOC. SEPTIC FIELD PER REF. #10
BASKETBALL COURT REMAINS (BROKEN ASPHALT)
CHAIN LINK FENCE
ISOLATED WETLAND
BLOCK 1801
LOT 5
N/F LANDS OF
SAINT JOHN THE BAPTIST SCHOOL
(D.B. P-31, PG. 322 - TRACT ONE)
(D.B. H-32, PG. 322 - TRACT TWO)
(D.B. 22668, PG. 786 - LEASE AREA)
AREA = 1,130,282 SQ. FT.
OR 25.9477 AC.
WOODED AREA
EDGE OF WOODS
EXISTING TREE TO BE REMOVED (TYP.)
LIMIT OF DISTURBANCE
150'
S 79°20'20" W 687.46'
WETLAND FLAG PER NOTES #2
W.S.E. 571.8
MAN MADE POND
WF-1 to WF-6
WF-A to WF-E
WF-W-1 to WF-W-8
WF-C-1 to WF-C-36
TYP1
TYP2

LIMIT OF EXISTING DRIVEWAY TO BE REMOVED
EXISTING GAS SERVICE TO BE REMOVED
EXISTING WATER SERVICE TO BE REMOVED
ALL EXISTING PAVEMENT AND CURBING TO BE REMOVED
ALL EXISTING BUILDINGS AND SIDEWALKS TO BE REMOVED
ACCESS EASEMENT - LOT 5
D.B. 21064, PG. 622
TO BE VACATED

N 03°22'15" W 984.67'
N 83°03'37" E 284.21'
N 01°23'17" W 1153.69'

BLOCK 1801
LOT 5.01
N/F LANDS OF
ST. JOHN BAPTIST SCHOOL
(D.B. 5580, PG. 114)

BLOCK 1801
LOT 2.01
N/F LANDS OF
JOSHUA PARKS
(D.B. 24219, PG. 1274)

IRON PIPE FOUND

CONTRIBUTORY DRAINAGE AREA = 12.07 AC (525,802 SF) Per Flood Hazard Area Verification Approval – Delineation of Riparian Zone Only Dated 6/4/25 File and Activity No.: 1418-04-0003.1 LUP250001

TREE REMOVAL NOTE:
1. **SEE SITE PREPARATION PLAN "A" FOR TREE REMOVAL AND REPLACEMENT SUMMARY AND LIST OF TREE CODES.**

SEE SHEET 2 OF THIS SET FOR GENERAL NOTES AND REFERENCES

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

SCALE: 1"=40'
0 40 80 160 ft.

KEY MAP
PLAN A | PLAN B
MAIN ST

NO.	REVISION	DATE	CHKD
12			
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PROJ.: 081228-05-002
DATE: 02/26/26
CHKD:

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ERIC L. KELLER, N.J. Professional Engineer, Lic. 24GE03205400

PRELIMINARY AND FINAL MAJOR SITE PLAN FOR
THE GREENS AT MENDHAM VILLAGE
SITE PREPARATION PLAN B
BLOCK 1801, LOT 5
BOROUGH OF MENDHAM, MORRIS COUNTY, NEW JERSEY

PLANS ARE FINAL FOR SANITARY SEWER AND WATER MAIN DESIGN

SHEET No. 4 OF 28

XREFs: 081228-BASE.dwg
081228-Plans.dwg
081228-TNL-SP.dwg
081228-TNL-SP-Overall.dwg

BLOCK 1801
LOT 7
N/F LANDS OF
ROBERT C. & BONNIE R. GERBER
(D.B. 2928, PG. 407)

BLOCK 1801
LOT 8
N/F LANDS OF
MARK R. & CECILIA DECKER
(D.B. 3837, PG. 291)
[F.M. #1890]

BLOCK 1801
LOT 9
N/F LANDS OF
STEVEN A. & BONNIE F. SIEGEL
(D.B. 4646, PG. 69)
[F.M. #1890]

BLOCK 1801
LOT 10
N/F LANDS OF
RICARDO & ROMONA L. GOMEZ
(D.B. 22165, PG. 834)
[F.M. #1890]

BLOCK 1801
LOT 16
N/F LANDS OF
HENRIETTA S. THOMAS & AMERICAN NATIONAL BANK & TRUST OF NEW JERSEY
(D.B. 2488, PG. 676)
(SECOND TRACT)

MATCHLINE - SHEET A
MATCHLINE - SHEET B

SAN MH WM-12
RIM 558.27
24 E. 548.1±

EDGE OF PAVEMENT

POOL

PROPOSED RETAINING WALL (FACE OF WALL TO BE SET 4' FROM RIGHT-OF-WAY LINE)

PROPOSED CHAIN-LINK FENCE, 4' HIGH, AT TOP OF WALL

SIGHT LINE

IP NJ212MB (LIGHTED)

IRON PIPE FOUND 6.2'

P.O.B.
D.B. P.31, PG. 522

FEN 3.3'

FEN 0.4'

FEN 0.8'

CHAIN LINK FENCE

IRON PIPE FOUND

FEN 1.7'

S 03°28'29" E 2174.26'

IRON PIPE W/CAP FOUND

FEN 1.2'

FEN 0.6'

IRON PIPE W/CAP FOUND

3.1'

10' CURB END SECTION

TELE. MH
Rim 556.27

UNDERGROUND WATER METER CHAMBER

ABOVE-GROUND HEATED ENCLOSURE FOR WATER BACKFLOW PREVENTION DEVICE

30' BUFFER

IP FND

N 75°23'31" E
38.70'

SINGLE PARKING SPACE FOR MAINTENANCE VEHICLE AT HOT BOX

STOP SIGN (R1-1) & 24" STOP BAR

TYPE "B" INLET
GR. 553.73
INV. 550.93(A)
INV. 550.73(B)

R20'

R116'

W14-2

R84'

ROAD A

6' WIDE MOUNTABLE CURB BOULEVARD ISLAND (TYP.)

BLDG NO. 1

BLDG NO. 2

BLDG NO. 3

BLDG NO. 4

BLDG NO. 5

BLDG NO. 6

4' (TYP)

LAND-SCAPE WALLS

"NO PARKING IN ALLEY" SIGN & "ACCESS TO GARAGES ONLY" SIGN (TYP. AT EACH ALLEY ENTRANCE)

REINFORCED CONCRETE DRIVEWAY APRON (TYP.)

REINFORCED CONCRETE SIMILAR TO DRIVEWAY APRON AT BASIN ACCESS CROSSING

ASPHALT CURB

IP FND

TYPE "B" INLET
GR. 549.17
BOT. 547.8±
(F.O.D.)

TYPE "B" INLET
GR. 549.40
INV. 547.20(A)
INV. 546.90(B)

BELGIUM BLOCK CURB

ASPHALT CURB

2+00

3+00

4+00

5+00

6+00

7+00

8+00

9+00

10+00

ROAD A

R116'

R84'

W11-2 & W16-7p

STRIPED CROSSWALK

PROPOSED ACCESS EASEMENT

5' WIDE CONCRETE SIDEWALK

5' WIDE CONCRETE SIDEWALK

BOLLARD AND CHAIN GATE

N 69°42'42" E 351.30'

79' FRONT YARD SETBACK

PORCH (TYP.)

STEPS (TYP.)

BLDG NO. 7

BLDG NO. 8

BLDG NO. 9

BLDG NO. 10

BLDG NO. 11

BLDG NO. 12

4' (TYP)

PROPOSED VAR. WIDTH ACCESS EASEMENT

PAINTED CROSSWALK

W11-2 & W16-7p

5' WIDE CONCRETE SIDEWALK

30.2'

30.2'

PROPOSED ACCESS EASEMENT

10" WIDE SANITARY SEWER EASEMENT PER D.B. 6137, PG. 97

REBAR FOUND

30' BUFFER

20'

25' SIDE YARD SETBACK

N 03°22'15" W 984.67'

3' WIDE, 1.5' DEEP CONCRETE VALLEY GUTTER (TYP.)

N 03°22'15" W 984.67'

GRASS PAVER DRIVEWAY

TYPE "B" INLET
GR. 541.54
INV. 540.33(A)
INV. 539.94(B)
INV. 539.59(C)

STM. MH
RIM 539.70
SIGHT LINE

12" RCP
TYPE "B" INLET
GR. 539.10

UP USGEL

(B) 12" CPP

TYPE "A" INLET
GR. 542.76
INV. 540.16(A)
INV. 538.76(B)
INV. 538.66(C)

TYPE "A" INLET
GR. 550.88

TYPE "A" INLET
GR. 562.76

20' WIDE ACCESS, GRADING & MAINTENANCE EASEMENT PER D.B. 6137, PG. 95

25' SIDE YARD SETBACK

Tower

APPROX. LOC. MEMORANDUM OF LEASE AGREEMENT PER D.B. 4425, PG. 78

(100'X100' PARCEL - CELL TOWER)

BLOCK 1801
LOT 6
N/F LANDS OF
PAUL GRACIE
(D.B. 23374, PG. 851)

BLOCK 1801
LOT 6.01
N/F LANDS OF
JOHN D. HOGOBOOM & DANA L. GRIFFITH
(D.B. 20611, PG. 745)

BLOCK 1801
LOT 5.01
N/F LANDS OF
ST. JOHN BAPTIST SCHOOL
(D.B. 5580, PG. 114)

GRASS

EDGE OF WOODS

TELE. MH
Rim 535.76

IRON PIN W/CAP FOUND (YVA CHESTER)

MONUMENT W/CAP YVA

WEST MAIN STREET
(A.K.A. COUNTY ROUTE 510)
(A.K.A. ROUTE 24)
(66' R.O.W.)

FARM HOUSE LANE
(PRIVATE)

PROPOSED LEGEND
GRANITE BLOCK CURB
CONCRETE CURB
DEPRESSED CURB
FLUSH CURB
MOUNTABLE CURB
RETAINING WALL
FENCE
SIGN
GRADE BREAK
CURB RAMP
S INLET
RESET INLET
HYDRANT
E INLET
MANHOLE
HEADWALL

SCALE: 1"=30'
0 30 60 120 ft.

SEE SHEET 2 OF THIS SET FOR GENERAL NOTES AND REFERENCES

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

PLANS ARE FINAL FOR SANITARY SEWER AND WATER MAIN DESIGN

MATCHLINE - SHEET A
MATCHLINE - SHEET B

KEY MAP
PLAN A
PLAN B
MAIN ST

NO.	REVISION	DATE	CHKD
12			
11			
10			
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PROJ.: 081228-05-002
DWG.: 081228
CHKD:

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Bowman

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NJ Certificate of Authorization No. 24GA28222600
E-mail: NJ@bowman.com

ERIC L. KELLER, N.J. Professional Engineer, Lic. 24GE03205400

PRELIMINARY AND FINAL MAJOR SITE PLAN FOR
THE GREENS AT MENDHAM VILLAGE
LAYOUT & DIMENSIONING PLAN A
BLOCK 1801, LOT 5
BOROUGH OF MENDHAM, MORRIS COUNTY, NEW JERSEY

SHEET No. 5 OF 28

PageSetUp: DWG to PDF_3042_PlotStyleTable: BCG-NJ.ctb
V:\081228 - Boylog-West Main St-Mendham\081228-01-001 (ENG)\Engineering\Engineering Plans\04 Site Plan\081228-SP-ST.dwg 02/17/26 01:23:34PM, jdelaghan, LAYOUT-A

XREFs: 081228-KEYBASE.dwg
081228-Plans.dwg
081228-ALT_SP.dwg
081228-TNL_SP.dwg

MATCHLINE - SHEET A
MATCHLINE - SHEET B

LOT 16
N/F LANDS OF
HENRIETTA S. THOMAS &
AMERICAN NATIONAL BANK
& TRUST OF NEW JERSEY
(D.B. 2488, PG. 676)
(SECOND TRACT)

S 03°28'29" E 2174.26'

MAIN ST

PLAN A | PLAN B

KEY MAP

TRASH ENCLOSURE

25' SIDE YARD SETBACK

BLDG NO. 13
BLDG NO. 14
BLDG NO. 15
BLDG NO. 16
BLDG NO. 17
BLDG NO. 18
BLDG NO. 19
BLDG NO. 20
BLDG NO. 21
BLDG NO. 22
BLDG NO. 23
BLDG NO. 24
BLDG NO. 25
BLDG NO. 26
BLDG NO. 27
BLDG NO. 28
BLDG NO. 29
BLDG NO. 30
BLDG NO. 31
BLDG NO. 32

R7-8, R7-8p & R7-8A SIGNS
W11-2 & W16-7p
EV SIGNS
R1-1 STOP BAT TO BE LOCATED 4' BEHIND EDGE OF CROSSWALK (TYP)
5' WIDE CONCRETE SIDEWALK
STREET NAME SIGNS
PROPOSED VAR. WIDTH ACCESS EASEMENT
PAINTED CROSSWALK
5' WIDE CONCRETE SIDEWALK
DIRECTIONAL SIGNAGE
PROPOSED 68'X100' ACCESS EASEMENT
MEET EXISTING PAVEMENT
TYPE "B" INLET GR. 611.04 INV. 607.64
PVC PIPE
10' CURB END SECTIONS
GRANITE BLOCK CURB (FULL HEIGHT)
DEPRESSED CURB AT DRIVEWAYS (TYP.)
REINFORCE CONCRETE APRON (TYP.)
BOLLARD AND CHAIN GATE
PUMP STATION SHED
GRASS PAVER ACCESS PATH TO BASINS
150' WETLANDS TRANSITION AREA
DECK ABOVE PATIO, TYP.
30' BUFFER
25' SIDE YARD SETBACK
40'

BLOCK 1801
LOT 5.01
N/F LANDS OF
ST. JOHN BAPTIST SCHOOL
(D.B. 5580, PG. 114)

N 83°03'37" E 284.21'
S 22°15" W 984.67'
N 01°23'17" W 1153.69'

PROPOSED LEGEND
GRANITE BLOCK CURB
CONCRETE CURB
DEPRESSED CURB
FLUSH CURB
MOUNTABLE CURB
RETAINING WALL
FENCE
SIGN
GRADE BREAK
CURB RAMP
B INLET
RESET INLET
HYDRANT
E INLET
MANHOLE
HEADWALL

SCALE: 1"=30'
0 30 60 120 ft.

SEE SHEET 2 OF THIS SET FOR GENERAL NOTES AND REFERENCES

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

NO.	REVISION	DATE	CHKD
12			
11			
10			
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ERIC L. KELLER, N.J. Professional Engineer, Lic. 24GE03205400

PRELIMINARY AND FINAL MAJOR SITE PLAN FOR
THE GREENS AT MENDHAM VILLAGE

LAYOUT & DIMENSIONING PLAN B

BLOCK 1801, LOT 5
BOROUGH OF MENDHAM, MORRIS COUNTY, NEW JERSEY

PLANS ARE FINAL FOR SANITARY SEWER AND WATER MAIN DESIGN

SHEET No. 6 OF 28

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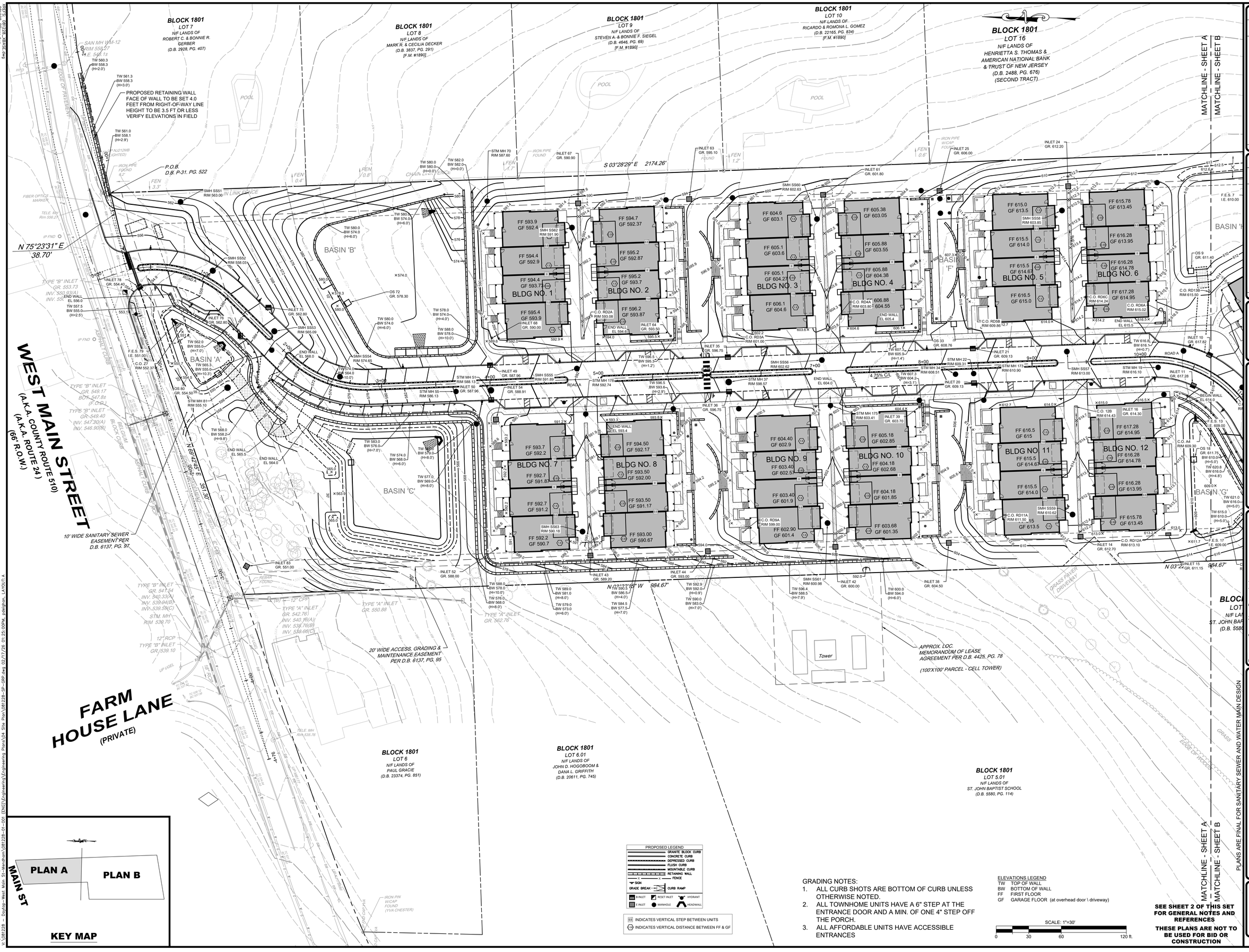

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PRELIMINARY AND FINAL MAJOR SITE PLAN FOR
THE GREENS AT MENDHAM VILLAGE
GRADING PLAN A
BLOCK 1801, LOT 5
BOROUGH OF MENDHAM, MORRIS COUNTY, NEW JERSEY

PLANS ARE FINAL FOR SANITARY SEWER AND WATER MAIN DESIGN

SHEET No. 7 OF 28

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MATCHLINE - SHEET A

MATCHLINE - SHEET B

BLOCK 1801
LOT 5.01
N/F LANDS OF
ST. JOHN BAPTIST SCHOOL
(D.B. 5580, PG. 114)

N/F LANDS OF
HENRIETTA S. THOMAS & AMERICAN NATIONAL COMMUNITY BANK & TRUST OF NEW JERSEY
(D.B. 2488, PG. 676)
(SECOND TRACT)
LOT 16

PROPOSED LEGEND

- CONCRETE CURB
- DEPRESSED CURB
- MOUNTABLE CURB
- RETAINING WALL
- SIGN
- CURB BREAK
- CURB RAMP
- INLET
- INLET TYPE
- MANHOLE
- HYDRANT
- MATERIALS

INDICATES VERTICAL STEP BETWEEN UNITS

INDICATES VERTICAL DISTANCE BETWEEN FF & GF

ELEVATIONS LEGEND
TW TOP OF WALL
BW BOTTOM OF WALL
FF FIRST FLOOR
GF GARAGE FLOOR (at overhead door \ driveway)

GRADING NOTES:

1. ALL CURB SHOTS ARE BOTTOM OF CURB UNLESS OTHERWISE NOTED.
2. ALL TOWNHOME UNITS HAVE A 6" STEP AT THE ENTRANCE DOOR AND A MIN. OF ONE 4" STEP OFF THE PORCH.
3. ALL AFFORDABLE UNITS HAVE ACCESSIBLE ENTRANCES

BLDG NO. 22 — FF 617.09 / GF 614.7
BLDG NO. 23 — FF 616.2 / GF 614.2
BLDG NO. 20 — FF 622.53 / GF 620.03
BLDG NO. 16 — FF 624.53 / GF 622.23
BLDG NO. 17 — FF 626.87 / GF 622.87
BLDG NO. 18 — FF 612.35 / GF 610.0
BLDG NO. 15 — FF 614.3 / GF 613.8
BLDG NO. 14 — FF 616.6 / GF 614.1
BLDG NO. 19 — FF 609.9 / GF 609.4
BLDG NO. 21 — FF 609.9 / GF 607.4
BLDG NO. 25 — FF 606.7 / GF 605.7
BLDG NO. 26 — FF 605.0 / GF 604.5
BLDG NO. 24 — FF 606.67 / GF 604.33
BLDG NO. 27 — FF 607.88 / GF 606.88 / BF 598.88
BLDG NO. 28 — FF 607.05 / GF 606.38 / BF 598.38
BLDG NO. 29 — FF 605.70 / GF 603.37 / BF 595.03
BLDG NO. 30 — FF 597.10 / GF 594.43 / BF 586.43
BLDG NO. 31 — FF 593.93 / GF 592.45 / BF 583.20
BLDG NO. 32 — FF 600.06 / GF 597.88 / BF 589.39

BASIN 'G' — BASIN 'H' — BASIN 'I' — BASIN 'J' — BASIN 'K' — BASIN 'L' — BASIN 'M' — BASIN 'N' — BASIN 'P' — BASIN 'R'

N 83°03'37" E 264.21'

N 01°23'17" W 1153.69'

S 03°29'29" E 2174.26'

MATCHLINE — SEE ABOVE

INSET

MATCHLINE — SEE INSET BELOW

0 30 60 120 ft.

SCALE: 1"=30'

PLANS ARE FINAL FOR SANITARY SEWER AND WATER MAIN DESIGN

SEE SHEET 2 OF THIS SET FOR GENERAL NOTES AND REFERENCES

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

SHEET No. 8 OF 28

PRELIMINARY AND FINAL MAJOR SITE PLAN FOR
THE GREENS AT MENDHAM VILLAGE

GRADING PLAN B

BLOCK 1801, LOT 5
BOROUGH OF MENDHAM, MORRIS COUNTY, NEW JERSEY

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PRELIMINARY AND FINAL MAJOR SITE PLAN FOR

THE GREENS AT MENDHAM VILLAGE

DRAINAGE PLAN A

BLOCK 1801, LOT 5

BOROUGH OF MENDHAM, MORRIS COUNTY, NEW JERSEY

SHEET No. 9 OF 28

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Construction@BowmanConsulting.com
NJ Certificate of Authorization No. 24GA28222600

ERIC L. KELLER, N.J. Professional Engineer, Lic. 24GE03205400

PLANS ARE FINAL FOR SANITARY SEWER AND WATER MAIN DESIGN

SEE SHEET 2 OF 28 FOR GENERAL NOTES AND REFERENCES

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

DRAINAGE PLAN NOTES:
1. DOWNSPOUTS SHALL HAVE LEAF SCREENS OR FIRST-FLUSH DIVERTERS.

SCALE: 1"=30'

0 30 60 120 ft.

MATCHLINE - SHEET A

MATCHLINE - SHEET B

MATCHLINE - SHEET B

MATCHLINE - SHEET A

BLOCK 1801
LOT 16
NF LANDS OF
HENRIETTA S. THOMAS &
AMERICAN HERITAGE NATIONAL BANK
REMAINDER OF LOT
& PART OF NEW JERSEY
(D.B. 2488, PG. 676)
(SECOND TRACT)

BLOCK 1801
LOT 10
NF LANDS OF
RICARDO & ROMONA L. GOMEZ
(D.B. 22165, PG. 834)
[F.M. #1890]

BLOCK 1801
LOT 9
NF LANDS OF
STEVEN A. & KATE E. SIEGEL
(D.B. 4644, PG. 69)
[F.M. #1890]

BLOCK 1801
LOT 8
NF LANDS OF
MARK A. & CHERYL DECKER
(D.B. 3837, PG. 291)
[F.M. #1890]

BLOCK 1801
LOT 7
NF LANDS OF
ROBERT C. & JEANNE R.
GRIMES
(D.B. 2928, PG. 407)

BLOCK 1801
LOT 6.01
NF LANDS OF
JOHN D. HOGARTH &
ANNA L. GRAHAM
(D.B. 20911, PG. 745)

BLOCK 1801
LOT 6
NF LANDS OF
PAUL GRACIE
(D.B. 23374, PG. 851)

BLOCK 1801
LOT 5.01
NF LANDS OF
ST. JOHN BAPTIST SCHOOL
(D.B. 5000, PG. 141)

BLOCK 1801
LOT 12
NF LANDS OF
ST. JOHN BAPTIST SCHOOL
(D.B. 5588, PG. 1)

P.O.B.
D.B. P.31, PG. 522

N 75°23'31" E
38.70'

N 69°42'45" E
351.30'

N 03°22'15" W
984.07'

WEST MAIN STREET
(A.K.A. COUNTY ROUTE 510)
(A.K.A. ROUTE 24)
(66' R.O.W.)

FARM
HOUSE LANE
(PRIVATE)

BASIN 'A'
BASIN 'B'
BASIN 'C'

BLDG NO. 1
FF 594.4
GF 592.87

BLDG NO. 2
FF 595.2
GF 592.87

BLDG NO. 3
FF 604.6
GF 603.40

BLDG NO. 4
FF 606.8
GF 605.40

BLDG NO. 5
FF 615.5
GF 613.90

BLDG NO. 6
FF 614.95
GF 613.34

BLDG NO. 7
FF 592.7
GF 590.7

BLDG NO. 9
FF 603.40
GF 602.5

BLDG NO. 10
602.85
FF 606.85
GF 605.25

BLDG NO. 11
FF 617.28
GF 614.95

BLDG NO. 12
FF 617.28
GF 614.95

BIORETENTION BASIN 'A'
13,937 SF FOOTPRINT
BOTTOM ELEV. 574.43
WQ ELEV. = 574.44

BIORETENTION BASIN 'B'
13,937 SF FOOTPRINT
BOTTOM ELEV. 574.43
WQ ELEV. = 574.44

BIORETENTION BASIN 'C'
UNDERGROUND
BOTTOM ELEV. 569.0
WQ ELEV. = 569.01

BIORETENTION BASIN 'D'
UNDERGROUND
BOTTOM ELEV. 569.0
WQ ELEV. = 569.40

UNDERGROUND
INFILTRATION BASIN 'F'
STORMBLOC 1.5 SIZE
CHAMBERS
9 ROWS x 36 CHAMBERS
BOTTOM ELEV. 599.2

KEY MAP

PLAN A

PLAN B

MAIN ST

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PRELIMINARY AND FINAL MAJOR SITE PLAN FOR

THE GREENS AT MENDHAM VILLAGE

DRAINAGE PLAN B

BLOCK 1801, LOT 5

BOROUGH OF MENDHAM, MORRIS COUNTY, NEW JERSEY

SHEET No. 10 OF 28

ERIC L. KELLER, N.J. Professional Engineer, Lic. 24GE03205400

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KEY MAP

PLAN A | PLAN B

MAIN ST

PLANS ARE FINAL FOR SANITARY SEWER AND WATER MAIN DESIGN

SEE SHEET 2 OF THIS SET FOR GENERAL NOTES AND REFERENCES

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

SCALE: 1"=30'

0 30 60 120 ft.

MATCHLINE - SHEET A

MATCHLINE - SHEET B

MATCHLINE - SHEET A

MATCHLINE - SHEET B

LOT 16
N/F LANDS OF
HENRIETTA S. THOMAS &
AMERICAN NATIONAL BANK
& TRUST OF NEW JERSEY
(D.B. 2488, PG. 616)
(SECOND TRACT)

BLOCK 1801
LOT 5.01
N/F LANDS OF
ST. JOHN BAPTIST SCHOOL
(D.B. 5580, PG. 114)

N 83°03'37" E 264.21'

S 01°23'25" E 2174.26'

N 01°23'17" W 1153.69'

S 02°15'17" W 984.67'

XREFS: 081228_XBASE.dwg
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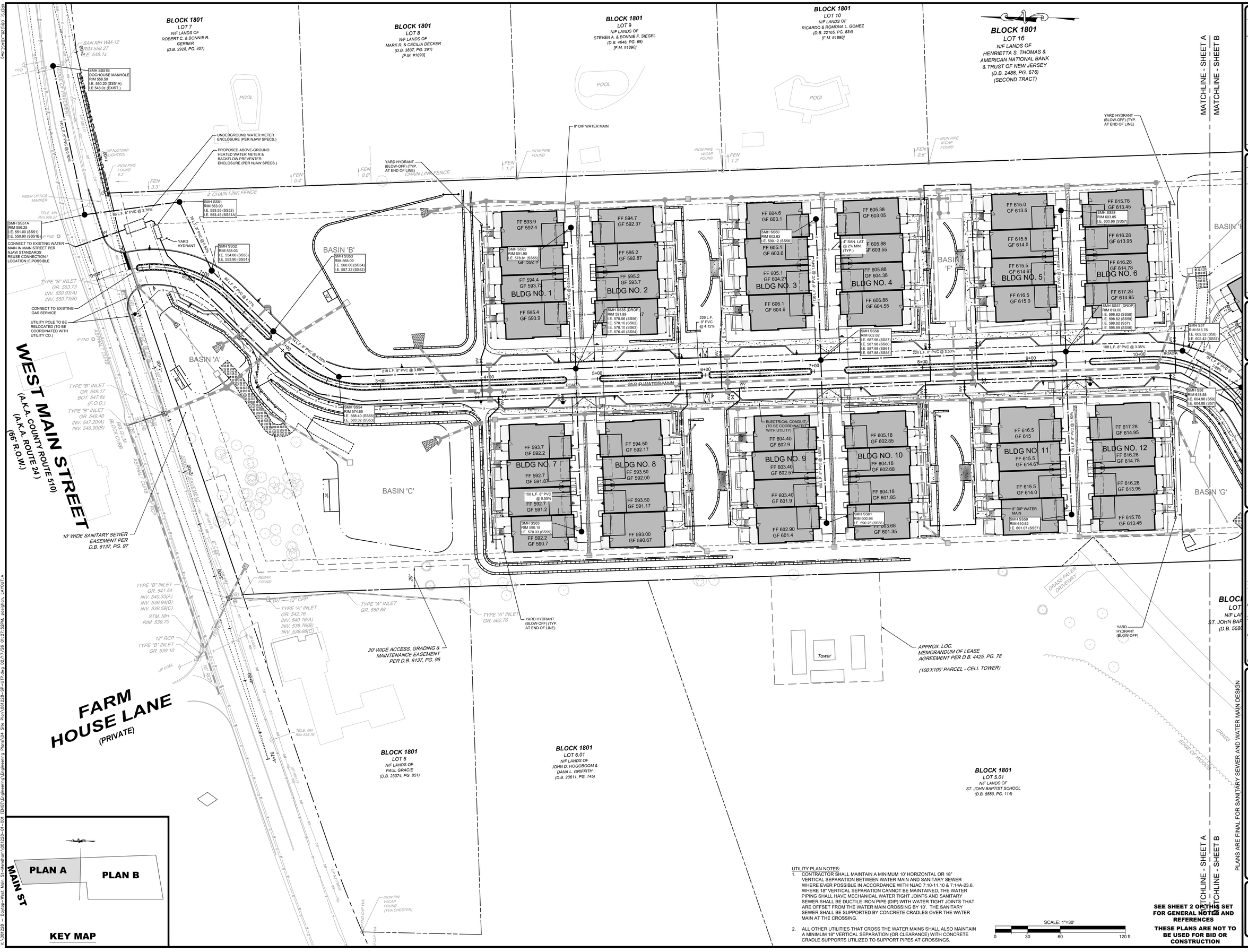

UTILITY PLAN NOTES:

1. CONTRACTOR SHALL MAINTAIN A MINIMUM 10' HORIZONTAL OR 18" VERTICAL SEPARATION BETWEEN WATER MAIN AND SANITARY SEWER WHERE EVER POSSIBLE IN ACCORDANCE WITH NJAC 7:10-11.10 & 7:14A-23.6. WHERE 18" VERTICAL SEPARATION CANNOT BE MAINTAINED, THE WATER PIPING SHALL HAVE MECHANICAL WATER TIGHT JOINTS AND SANITARY SEWER SHALL BE DUCTILE IRON PIPE (DIP) WITH WATER TIGHT JOINTS THAT ARE OFFSET FROM THE WATER MAIN CROSSING BY 10'. THE SANITARY SEWER SHALL BE SUPPORTED BY CONCRETE CRADLES OVER THE WATER MAIN AT THE CROSSING.
2. ALL OTHER UTILITIES THAT CROSS THE WATER MAINS SHALL ALSO MAINTAIN A MINIMUM 18" VERTICAL SEPARATION (OR CLEARANCE) WITH CONCRETE CRADLE SUPPORTS UTILIZED TO SUPPORT PIPES AT CROSSINGS.

SCALE: 1"=30'
0 30 60 120 ft.

SEE SHEET 2 OF THIS SET FOR GENERAL NOTES AND REFERENCES

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

MATCHLINE - SHEET A
MATCHLINE - SHEET B

PLANS ARE FINAL FOR SANITARY SEWER AND WATER MAIN DESIGN

PRELIMINARY AND FINAL MAJOR SITE PLAN FOR
THE GREENS AT MENDHAM VILLAGE
UTILITY PLAN A
BLOCK 1801, LOT 5
BOROUGH OF MENDHAM, MORRIS COUNTY, NEW JERSEY

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SHEET No.
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OF
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MATCHLINE - SHEET A
MATCHLINE - SHEET B

MATCHLINE - SHEET A
MATCHLINE - SHEET B

BLOCK 1801
LOT 5.01
N/F LANDS OF
ST. JOHN BAPTIST SCHOOL
(D.B. 5580, PG. 114)

LOT 16
N/F LANDS OF
HEMRETTA S. THOMAS &
AMERICAN HOMELAND BANK
& TRUST OF NEW JERSEY
(D.B. 2488, PG. 676)
(SECOND TRACT)

BASIN 'G'
BASIN 'H'
BASIN 'I'
BASIN 'J'
BASIN 'K'
BASIN 'N'
BASIN 'P'
BASIN 'R'
BASIN 'M'

BLDG NO. 14
BLDG NO. 15
BLDG NO. 16
BLDG NO. 17
BLDG NO. 18
BLDG NO. 19
BLDG NO. 20
BLDG NO. 21
BLDG NO. 22
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BLDG NO. 26
BLDG NO. 27
BLDG NO. 28
BLDG NO. 29
BLDG NO. 30
BLDG NO. 31
BLDG NO. 32

MATCHLINE
SEE ABOVE

INSET

MATCHLINE
SEE INSET BELOW

0 30 60 120 ft.
SCALE 1"=30'

SEE SHEET 2 OF THIS SET FOR GENERAL NOTES AND REFERENCES

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

PLANS ARE FINAL FOR SANITARY SEWER AND WATER MAIN DESIGN

SHEET No. 12 OF 28

PRELIMINARY AND FINAL MAJOR SITE PLAN FOR
THE GREENS AT MENDHAM VILLAGE

UTILITY PLAN B

BLOCK 1801, LOT 5
BOROUGH OF MENDHAM, MORRIS COUNTY, NEW JERSEY

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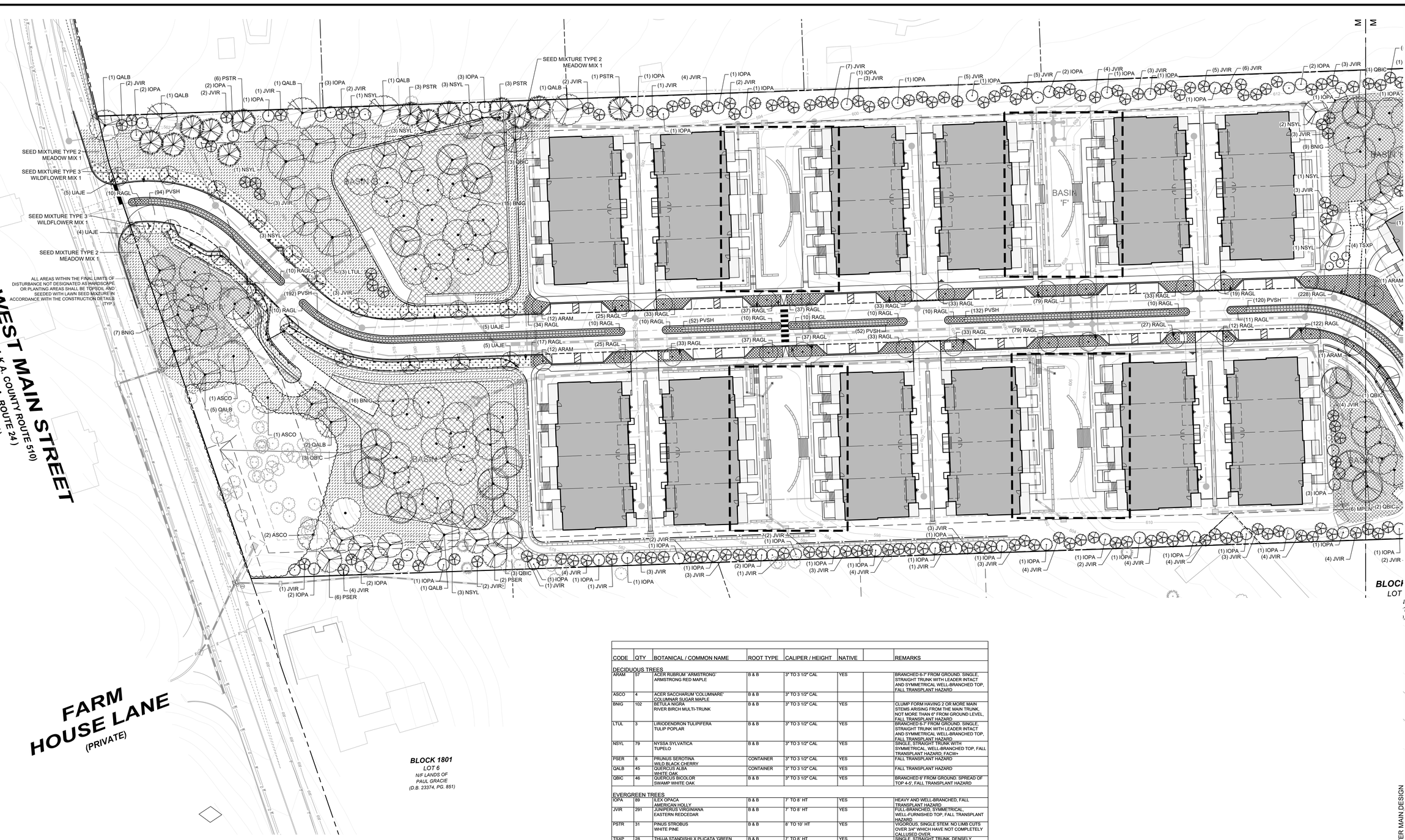

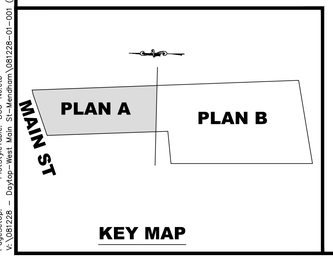

KEY MAP

CODE	QTY	BOTANICAL / COMMON NAME	ROOT TYPE	CALIPER / HEIGHT	NATIVE		REMARKS
DECIDUOUS TREES							
ARAM	57	ACER RUBRUM 'ARMSTRONG' ARMSTRONG RED MAPLE	B & B	3" TO 3 1/2" CAL	YES		BRANCHED 6-7' FROM GROUND. SINGLE, STRAIGHT TRUNK WITH LEADER INTACT AND SYMMETRICAL, WELL-BRANCHED TOP, FALL TRANSPLANT HAZARD
ASCO	4	ACER SACCHARUM 'COLUMNARE' COLUMNAR SUGAR MAPLE	B & B	3" TO 3 1/2" CAL			
BNIG	102	BETULA NIGRA RIVER BIRCH MULTI-TRUNK	B & B	3" TO 3 1/2" CAL	YES		CLUMP FORM HAVING 2 OR MORE MAIN STEMS ARISING FROM THE MAIN TRUNK, NOT MORE THAN 6" FROM GROUND LEVEL, FALL TRANSPLANT HAZARD
LTUL	3	LIRIODENDRON TULIPIFERA TULIP POPLAR	B & B	3" TO 3 1/2" CAL	YES		BRANCHED 6-7' FROM GROUND. SINGLE, STRAIGHT TRUNK WITH LEADER INTACT AND SYMMETRICAL, WELL-BRANCHED TOP, FALL TRANSPLANT HAZARD
NSYL	79	NYSSA SYLVATICA TUPELO	B & B	3" TO 3 1/2" CAL	YES		SINGLE, STRAIGHT TRUNK WITH SYMMETRICAL, WELL-BRANCHED TOP, FALL TRANSPLANT HAZARD; FACW+
PSER	8	PRUNUS SEROTINA WILD BLACK CHERRY	CONTAINER	3" TO 3 1/2" CAL	YES		FALL TRANSPLANT HAZARD
QALB	45	QUERCUS ALBA WHITE OAK	CONTAINER	3" TO 3 1/2" CAL	YES		FALL TRANSPLANT HAZARD
QBIC	46	QUERCUS BICOLOR SWAMP WHITE OAK	B & B	3" TO 3 1/2" CAL	YES		BRANCHED 6' FROM GROUND. SPREAD OF TOP 4-5', FALL TRANSPLANT HAZARD
EVERGREEN TREES							
IOPA	89	ILEX OPACA AMERICAN HOLLY	B & B	7' TO 8' HT	YES		HEAVY AND WELL-BRANCHED, FALL TRANSPLANT HAZARD
JVIR	291	JUNIPERUS VIRGINIANA EASTERN REDCEDAR	B & B	7' TO 8' HT	YES		FULL-BRANCHED, SYMMETRICAL, WELL-FURNISHED TOP, FALL TRANSPLANT HAZARD
PSTR	31	PINUS STROBUS WHITE PINE	B & B	8' TO 10' HT	YES		VIGOROUS, SINGLE STEM. NO LIMB CUTS OVER 3/4" WHICH HAVE NOT COMPLETELY CALLUSED OVER.
TSXP	28	THUJA STANDISHII X PLICATA 'GREEN GIANT' GREEN GIANT ARBORVITAE	B & B	7' TO 8' HT	YES		SINGLE, STRAIGHT TRUNK. DENSELY BRANCHED, FULL TOP. SPECIMEN QUALITY.
ORNAMENTAL TREES							
BPOW	58	BETULA POPULIFOLIA 'WHITESPIRE' WHITESPIRE GRAY BIRCH	B & B	8' TO 10' HT	YES		
CODE	QTY	BOTANICAL / COMMON NAME	ROOT TYPE	HEIGHT / WIDTH	NATIVE	SPACING	REMARKS
DECIDUOUS SHRUBS							
AMEL	1,976	ARONIA MELANOCARPA BLACK CHOKEBERRY	CONTAINER	#5	YES	48" o.c.	SYMMETRICAL WITH HEAVY, WELL-BRANCHED TOP.
CSER	10	CORNUS SERICEA RED TWIG DOGWOOD	CONTAINER	24" TO 30"	YES	60" o.c.	HEAVY, WELL-BRANCHED TOP.
HSIK	450	HYDRANGEA QUERCIFOLIA 'SIKE'S DWARF' SIKE'S DWARF OAKLEAF HYDRANGEA	CONTAINER	#3		48" o.c.	
HYHH	569	HYDRANGEA ARBORESCENS 'HAAS' HALO' HAAS' HALO SMOOTH HYDRANGEA	CONTAINER	#3		60" o.c.	
MPEN	92	MYRICA PENSYLVANICA NORTHERN BAYBERRY	CONTAINER	24" TO 30"	YES	60" o.c.	SYMMETRICAL WITH HEAVY, WELL-BRANCHED TOP.
VAAN	40	VACCINIUM ANGUSTIFOLIUM LOWBUSH BLUEBERRY	CONTAINER			36" o.c.	
EVERGREEN SHRUBS							
IGGB	120	ILEX GLABRA 'SMNIGAB17' GEM BOX® INKBERRY HOLLY	CONTAINER	15" TO 18"	YES	42" o.c.	HEAVY, WELL-BRANCHED TOP.
IGSH	7	ILEX GLABRA 'SHAMROCK' SHAMROCK INKBERRY HOLLY	CONTAINER	18" TO 24"	YES	48" o.c.	HEAVY, WELL-BRANCHED TOP.
ORNAMENTAL GRASSES							
PVSH	1,338	PANICUM VIRGATUM 'SHENANDOAH' SHENANDOAH SWITCH GRASS	CONTAINER	#3	YES	30" o.c.	WELL-ESTABLISHED IN CONTAINER.
CODE	QTY	BOTANICAL / COMMON NAME	ROOT TYPE	SIZE	NATIVE	SPACING	REMARKS
GROUND COVERS							
CAPE	7,505	CAREX PENSYLVANICA PENNSYLVANIA SEDGE	CONTAINER	4" POT	YES	12" o.c.	WELL-ESTABLISHED IN CONTAINER
DPUN	2,653	DENNSTAEDTIA PUNCTILOBULA HAY-SCENTED FERN	CONTAINER	#1	YES	30" o.c.	WELL-ESTABLISHED IN CONTAINER.
RAGL	1,214	RHUS AROMATICA 'GRO-LOW' GRO-LOW FRAGRANT SUMAC	CONTAINER	15" TO 18"	YES	36" o.c.	

LANDSCAPE PLAN NOTES:

1. THIS PLAN IS TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY.
2. REFER TO LANDSCAPE DETAILS FOR ADDITIONAL NOTES, DETAILS, AND PLANT SCHEDULES INCLUDING BIO-RETENTION PLANTINGS.
3. ALL NON PLANTED AREAS OUTSIDE BEDLINES SHALL BE SEEDED AS LAWN USING SEED MIXTURE LISTED IN THE CONSTRUCTION DETAILS.
4. ALL PLANT MATERIALS THAT DO NOT SURVIVE THE FIRST 24 MONTHS AFTER INSTALLATION SHALL BE REPLACED.

SCALE: 1"=30'
0 30 60 120 ft.

SEE SHEET 2 OF THIS SET FOR GENERAL NOTES AND REFERENCES

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

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N.J. Certificate of Authorization No. 24GA28229500

ERIC L. KELLER, N.J. Professional Engineer, Lic. 24GE03205400

PLANS ARE FINAL FOR SANITARY SEWER AND WATER MAIN DESIGN

PRELIMINARY AND FINAL MAJOR SITE PLAN FOR
THE GREENS AT MENDHAM VILLAGE

LANDSCAPE PLAN A

BLOCK 1801, LOT 5
BOROUGH OF MENDHAM, MORRIS COUNTY, NEW JERSEY

SHEET No. 13 OF 28

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081228-TM-SP.dwg

MATCHLINE - SHEET A

MATCHLINE - SHEET B

BLOCK 1801
LOT 16
N/F LANDS OF
HENRIETTA S. THOMAS &
AMERICAN NATIONAL BANK
& TRUST OF NEW JERSEY
(D.B. 2488, PG. 676)
(SECOND TRACT)

ALL AREAS WITHIN THE FINAL LIMITS OF DISTURBANCE NOT DESIGNATED AS HARDSCAPE OR PLANTING AREAS SHALL BE TOPSOIL AND SEEDED WITH LAWN SEED MIXTURE IN ACCORDANCE WITH THE CONSTRUCTION DETAILS (TYP.)

LANDSCAPE PLAN NOTES:

1. THIS PLAN IS TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY.
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3. ALL NON PLANTED AREAS OUTSIDE BEDLINES SHALL BE SEEDED AS LAWN USING SEED MIXTURE LISTED IN THE CONSTRUCTION DETAILS.
4. ALL PLANT MATERIALS THAT DO NOT SURVIVE THE FIRST 24 MONTHS AFTER INSTALLATION SHALL BE REPLACED.

MAIN ST

PLAN A

PLAN B

KEY MAP

(7) IGSH

(5) MPEN

(11) RAGL

(6) MPEN

(5) CSER

(66) MPEN

BASIN I

BASIN II

BASIN III

BASIN IV

BASIN V

BASIN VI

BASIN VII

EV EV

150'

50'

BLOCK 1801
LOT 5.01
N/F LANDS OF
ST. JOHN BAPTIST SCHOOL
(D.B. 5580, PG. 114)

ALL AREAS WITHIN THE FINAL LIMITS OF DISTURBANCE NOT DESIGNATED AS HARDSCAPE OR PLANTING AREAS SHALL BE TOPSOIL AND SEEDED WITH LAWN SEED MIXTURE IN ACCORDANCE WITH THE CONSTRUCTION DETAILS (TYP.)

LANDSCAPE NOTE:
1. SEE LANDSCAPE PLAN "A" FOR OVERALL SITE PLANT SCHEDULE.

SEE SHEET 2 OF THIS SET FOR GENERAL NOTES AND REFERENCES

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

SCALE: 1"=30'
0 30 60 120 ft.

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ERIC L. KELLER, N.J. Professional Engineer, Lic. 24GE03205400

PLANS ARE FINAL FOR SANITARY SEWER AND WATER MAIN DESIGN

PRELIMINARY AND FINAL MAJOR SITE PLAN FOR
THE GREENS AT MENDHAM VILLAGE
LANDSCAPE PLAN B
BLOCK 1801, LOT 5
BOROUGH OF MENDHAM, MORRIS COUNTY, NEW JERSEY

SHEET No. 14 OF 28

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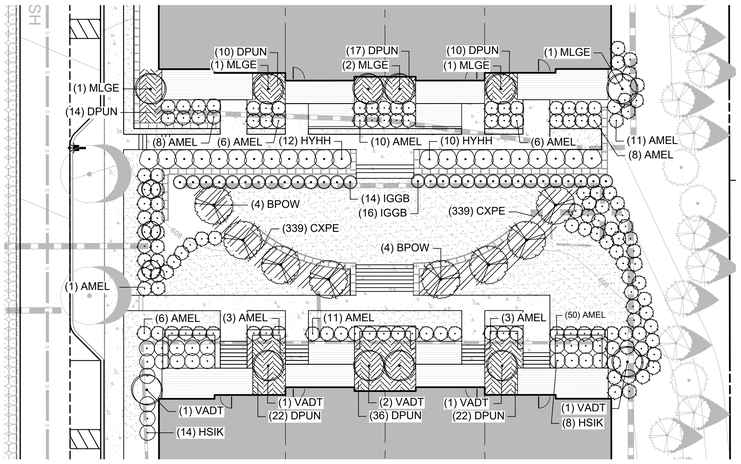
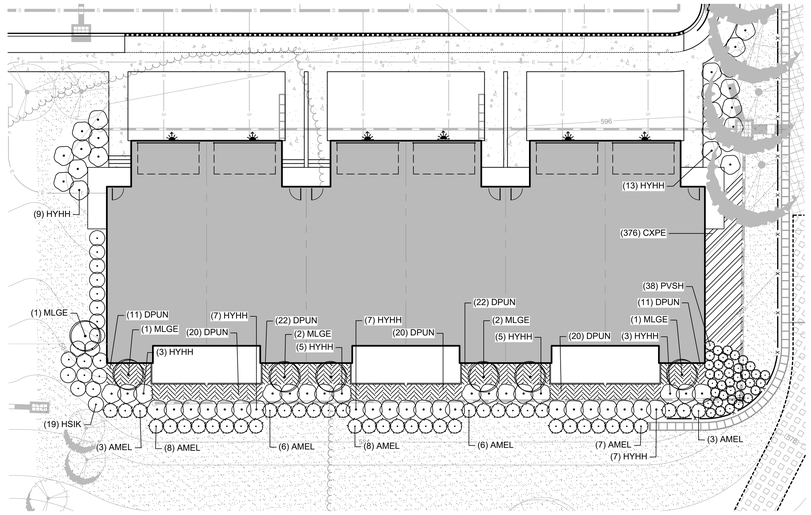


TOWNHOME COURTYARD

SCALE: 1/16" = 1'-0"



FRONT LOADED TOWNHOME (NORTH FACING) BLDG 27, 28, 29, 30, 31

SCALE: 1/16" = 1'-0"

LANDSCAPE PLAN NOTES:

1. THIS PLAN IS TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY.
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3. ALL NON PLANTED AREAS OUTSIDE BEDLINES SHALL BE SEEDED AS LAWN USING SEED MIXTURE LISTED IN THE CONSTRUCTION DETAILS.
4. ALL PLANT MATERIALS THAT DO NOT SURVIVE THE FIRST 24 MONTHS AFTER INSTALLATION SHALL BE REPLACED.

PLANT SCHEDULE ENLARGEMENTS

CODE	BOTANICAL / COMMON NAME
DECIDUOUS TREES	
LSTY	LIQUIDAMBAR STYRACIFLUA 'SLENDER SILHOUETTE' / SLENDER SILHOUETTE SWEET GUM
MLGE	MAGNOLIA GRANDIFLORA 'LITTLE GEM' / LITTLE GEM DWARF SOUTHERN MAGNOLIA
VADT	VIBURNUM PRUNIFOLIUM 'VPHDARTOW' / DARK TOWER™ BLACKHAW VIBURNUM
ORNAMENTAL TREES	
BPOW	BETULA POPULIFOLIA 'WHITESPIRE' / WHITESPIRE GRAY BIRCH
DECIDUOUS SHRUBS	
AMEL	AMSONIA MELANOCARPA / BLACK CHOKEBERRY
HSIK	HYDRANGEA QUERCIFOLIA 'SIKE'S DWARF' / SIKE'S DWARF OAKLEAF HYDRANGEA
HYHH	HYDRANGEA ARBORESCENS 'HAAS' HALO' / HAAS' HALO SMOOTH HYDRANGEA
VAAN	VACCINIUM ANGUSTIFOLIUM / LOWBUSH BLUEBERRY
EVERGREEN SHRUBS	
IGGB	ILEX GLABRA 'SMNGAB17' / GEM BOX® INKBERRY HOLLY
ORNAMENTAL GRASSES	
PVSH	PANICUM VIRGATUM 'SHENANDOAH' / SHENANDOAH SWITCH GRASS
GROUND COVERS	
CXPE	CAREX PENSYLVANICA / PENNSYLVANIA SEDGE
DPUN	DENNSTAEDTIA PUNCTILOBULA / HAY-SCENTED FERN
RAGL	RHUS AROMATICA 'GRO-LOW' / GRO-LOW FRAGRANT SUMAC

FRONT LOADED TOWNHOME (SOUTH-WEST-EAST FACING) BLDG 32

SCALE: 1/16" = 1'-0"

REAR LOADED TOWNHOME (NORTH FACING) BLDG. 1,3,5,7,9,11,13,16,18,22

SCALE: 1/16" = 1'-0"

REAR LOADED TOWNHOME (NORTH FACING) BLDG. 1,3,5,7,9,11,13,16,18,22

SCALE: 1/16" = 1'-0"

AFFORDABLE TOWNHOME (NORTH FACING) BLDG. 15,19,26

SCALE: 1/16" = 1'-0"

AFFORDABLE TOWNHOME (SOUTH-WEST-EAST FACING) BLDG. 14, 25

SCALE: 1/16" = 1'-0"

SEE SHEET 2 OF THIS SET FOR GENERAL NOTES AND REFERENCES

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

PLANS ARE FINAL FOR SANITARY SEWER AND WATER MAIN DESIGN

PRELIMINARY AND FINAL MAJOR SITE PLAN FOR

THE GREENS AT MENDHAM VILLAGE

TYPICAL FOUNDATION PLANTING

BLOCK 1801, LOT 5

BOROUGH OF MENDHAM, MORRIS COUNTY, NEW JERSEY

SHEET No. 15 OF 28

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BLOCK 1801
LOT 7
N/F LANDS OF
ROBERT C. & BONNIE R. GERBER
(D.B. 2928, PG. 407)

BLOCK 1801
LOT 8
N/F LANDS OF
MARK R. & CECILIA DECKER
(D.B. 3837, PG. 291)
[F.M. #1890]

BLOCK 1801
LOT 9
N/F LANDS OF
STEVEN A. & BONNIE F. SIEGEL
(D.B. 4646, PG. 69)
[F.M. #1890]

BLOCK 1801
LOT 10
N/F LANDS OF
RICARDO & ROMONA L. GOMEZ
(D.B. 22165, PG. 834)
[F.M. #1890]

BLOCK 1801
LOT 16
N/F LANDS OF
HENRIETTA S. THOMAS &
AMERICAN NATIONAL BANK
& TRUST OF NEW JERSEY
(D.B. 2488, PG. 676)
(SECOND TRACT)

MATCHLINE - SHEET A
MATCHLINE - SHEET B

WEST MAIN STREET
(A.K.A. COUNTY ROUTE 510)
(A.K.A. ROUTE 24)
(66' R.O.W.)

FARM HOUSE LANE
(PRIVATE)

BLOCK 1801
LOT 5.01
N/F LANDS OF
ST. JOHN BAPTIST SCHOOL
(D.B. 5580, PG. 114)

CALCULATION SUMMARY	
INTERNAL SITE DRIVEWAY 1545 points at z=0, sp 10ft by 10ft HORIZONTAL FOOTCANDLES	ALLEYWAYS 20 points at z=0, sp 10ft by 10ft HORIZONTAL FOOTCANDLES
Average 1.1	Average 1.2
Maximum 3.3	Maximum 2.7
Minimum 0.2	Minimum 0.2
Avg/Min 10.69	Avg/Min 13.50
Max/Min 32.50	Max/Min 13.50
Coef.Var 0.52	Coef.Var 0.55
UnifGrad 7.78	UnifGrad 4.50

CALCULATION SUMMARY				
BLDG 14 PARKING LOT 67 points at z=0, sp 10ft by 10ft HORIZONTAL FOOTCANDLES	BLDG 15 PARKING LOT 24 points at z=0, sp 10ft by 10ft HORIZONTAL FOOTCANDLES	BLDG 18&19 PARKING LOT 52 points at z=0, sp 10ft by 10ft HORIZONTAL FOOTCANDLES	BLDG 25&26 PARKING LOT 71 points at z=0, sp 10ft by 10ft HORIZONTAL FOOTCANDLES	BLDG 32 PARKING LOT 26 points at z=0, sp 10ft by 10ft HORIZONTAL FOOTCANDLES
Average 1.1	Average 1.7	Average 1.0	Average 1.2	Average 1.4
Maximum 1.6	Maximum 2.5	Maximum 3.4	Maximum 1.9	Maximum 3.0
Minimum 0.4	Minimum 0.8	Minimum 0.3	Minimum 0.6	Minimum 0.2
Avg/Min 2.78	Avg/Min 2.12	Avg/Min 3.33	Avg/Min 3.33	Avg/Min 6.50
Max/Min 4.00	Max/Min 3.13	Max/Min 11.33	Max/Min 3.17	Max/Min 15.00
Coef.Var 0.20	Coef.Var 0.29	Coef.Var 0.64	Coef.Var 0.21	Coef.Var 0.44
UnifGrad 1.75	UnifGrad 1.55	UnifGrad 8.01	UnifGrad 1.44	UnifGrad 2.50

LIGHTING PLAN NOTES:

1. THIS PLAN IS TO BE UTILIZED FOR LIGHTING PURPOSES ONLY. (REFER TO ELECTRIC ENGINEERING PLANS FOR CIRCUITRY DESIGN AND SPECIFICATIONS)
2. REFER TO CIVIL PLANS FOR AREAS NOT SHOWN BEYOND THE LIMIT OF DISTURBANCE.
3. LIGHT SCHEDULE SHOWN HEREON INCLUDES QUANTITIES FOR ENTIRE PROJECT.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL. SUBSTITUTIONS REQUEST MUST BE ACCOMPANIED BY A PHOTOMETRIC STUDY DEMONSTRATING THAT THE FIXTURE(S) SUGGESTED FOR SUBSTITUTION WILL MEET THE DESIGN INTENT OF THIS PLAN. SUBSTITUTION REQUESTS WITHOUT A PHOTOMETRIC STUDY WILL BE REJECTED.
6. LIGHTS TO BE OPERATED FROM DUSK TO DAWN.
7. REFER TO LIGHTING DETAILS SHEET FOR LIGHT FIXTURE DETAILS AND ADDITIONAL NOTES.

* BELOW LUMINAIRE SCHEDULE INCLUDES QUANTITIES FOR ENTIRE PROJECT SITE

LUMINAIRE SCHEDULE

SYMBOL	ARRANGEMENT	LABEL	QTY	MANUFACTURER	LUM. MODEL #	POLE/ARM MODEL #	CCT	LUM. WATTS	ARR. WATTS	LUM. LUMENS	LLF	MOUNTING HEIGHT (AFG)
	SINGLE	P1	39	ARCHITECTURAL AREA LIGHTING	UCM2-ANG-36L-325-3K7-3	POLE: BEACON RSS-B16-40 A-DT-MERM-4-BLT	3000K	40	40	4522	0.90	15'-4"
	SINGLE	P2	38	ARCHITECTURAL AREA LIGHTING	UCM2-ANG-36L-325-3K7-4W	POLE: BEACON RSS-B16-40 A-DT-MERM-4-BLT	3000K	40	40	4572	0.90	15'-4"
	WALL MOUNT	W1	112	ANP LIGHTING	MBVF14M016LDDW40K	ARM: SLIPS OVER 4" POLE, SLA20C	3000K	10.9	10.9	1571	0.90	9'-6"
	SINGLE	B1	73	EWO	ewo_PM387185_Round-BD_AP06-4led_80CRI-3000K-700mA-571m	N/A	3000K	11.7	11.7	1603	0.90	3'-6"

PLAN A | PLAN B
MAIN ST
KEY MAP

SCALE: 1"=30'
0 30 60 120 ft.

SEE SHEET 2 OF THIS SET FOR GENERAL NOTES AND REFERENCES

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

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E-mail: NJ@bowman.com
ERIC L. KELLER, N.J. Professional Engineer, Lic. 24GE03205400

PRELIMINARY AND FINAL MAJOR SITE PLAN FOR
THE GREENS AT MENDHAM VILLAGE
LIGHTING PLAN A
BLOCK 1801, LOT 5
BOROUGH OF MENDHAM, MORRIS COUNTY, NEW JERSEY

PLANS ARE FINAL FOR SANITARY SEWER AND WATER MAIN DESIGN

SHEET No. 16 OF 28

CALCULATION SUMMARY			
INTERNAL SITE DRIVEWAY 1545 points at z=0, sp 10ft by 10ft HORIZONTAL FOOTCANDLES Average 1.1 Maximum 5.1 Minimum 0.2 Avg:Min 10.89 Max:Min 33.00 Coef Var 0.52 UnifGrad 7.78	ALLEYWAYS 22 points at z=0, sp 10ft by 10ft HORIZONTAL FOOTCANDLES Average 1.2 Maximum 1.7 Minimum 0.2 Avg:Min 5.84 Max:Min 13.50 Coef Var 0.55 UnifGrad 4.50		

CALCULATION SUMMARY									
BLDG 14 PARKING LOT 67 points at z=0, sp 10ft by 10ft HORIZONTAL FOOTCANDLES Average 1.1 Maximum 1.6 Minimum 0.4 Avg:Min 2.78 Max:Min 4.00 Coef Var 0.20 UnifGrad 1.75	BLDG 15 PARKING LOT 24 points at z=0, sp 10ft by 10ft HORIZONTAL FOOTCANDLES Average 1.2 Maximum 2.5 Minimum 0.8 Avg:Min 2.14 Max:Min 3.12 Coef Var 0.26 UnifGrad 1.55	BLDG 18&19 PARKING LOT 52 points at z=0, sp 10ft by 10ft HORIZONTAL FOOTCANDLES Average 1.1 Maximum 3.4 Minimum 0.3 Avg:Min 3.50 Max:Min 11.33 Coef Var 0.64 UnifGrad 8.01	BLDG 25&26 PARKING LOT 71 points at z=0, sp 10ft by 10ft HORIZONTAL FOOTCANDLES Average 1.3 Maximum 1.9 Minimum 0.9 Avg:Min 1.53 Max:Min 2.39 Coef Var 0.21 UnifGrad 1.44	BLDG 32 PARKING LOT 26 points at z=0, sp 10ft by 10ft HORIZONTAL FOOTCANDLES Average 1.4 Maximum 3.0 Minimum 0.2 Avg:Min 6.94 Max:Min 15.00 Coef Var 0.44 UnifGrad 2.50				

LIGHTING PLAN NOTES:

1. THIS PLAN IS TO BE UTILIZED FOR LIGHTING PURPOSES ONLY. (REFER TO ELECTRIC ENGINEERING PLANS FOR CIRCUITRY DESIGN AND SPECIFICATIONS)
2. REFER TO CIVIL PLANS FOR AREAS NOT SHOWN BEYOND THE LIMIT OF DISTURBANCE.
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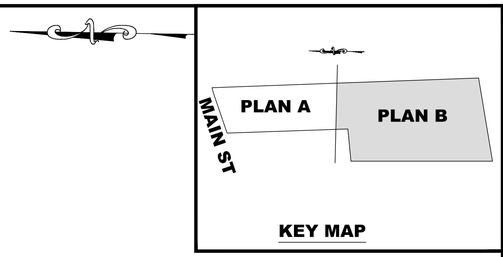
6. LIGHTS TO BE OPERATED FROM DUSK TO DAWN.
7. REFER TO LIGHTING DETAILS SHEET FOR LIGHT FIXTURE DETAILS AND ADDITIONAL NOTES.

* BELOW LUMINAIRE SCHEDULE INCLUDES QUANTITIES FOR ENTIRE PROJECT SITE

LUMINAIRE SCHEDULE

SYMBOL	ARRANGEMENT	LABEL	QTY	MANUFACTURER	LUM. MODEL #	POLE/ARM MODEL #	CCT	LUM. WATTS	ARR. WATTS	LUM. LUMENS	LLF	MOUNTING HEIGHT (AFG)
	SINGLE	P1	39	ARCHITECTURAL AREA LIGHTING	UCM2-ANG-36L-325-3K7-3	POLE: BEACON RSS-B16-40'-A-OT-MERM-4-BLT	3000K	40	40	4522	0.90	15'-4"
	SINGLE	P2	38	ARCHITECTURAL AREA LIGHTING	UCM2-ANG-36L-325-3K7-4W	POLE: BEACON RSS-B16-40'-A-OT-MERM-4-BLT	3000K	40	40	4572	0.90	15'-4"
	WALL MOUNT	W1	112	ANP LIGHTING	MBVF14M016LDDW40K	ARM: SLIPS OVER 4" POLE, SLA20C	3000K	10.9	10.9	1571	0.90	9'-6"
	SINGLE	B1	73	EWO	ewo_RM387185_ifround-BD_AP06-4led_80CRI-3000K-700mA-571lm	N/A	3000K	11.7	11.7	1603	0.90	3'-6"



KEY MAP

BLOCK 1801
LOT 16
N/F LANDS OF
HENRIETTA S. THOMAS &
AMERICAN NATIONAL BANK
& TRUST OF NEW JERSEY
(D.B. 2488, PG. 676)
(SECOND TRACT)

BLOCK 1801
LOT 5.01
N/F LANDS OF
ST. JOHN BAPTIST SCHOOL
(D.B. 5580, PG. 114)

MATCHLINE - SHEET A

MATCHLINE - SHEET B

SEE SHEET 2 OF THIS SET FOR GENERAL NOTES AND REFERENCES

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

PLANS ARE FINAL FOR SANITARY SEWER AND WATER MAIN DESIGN

SCALE: 1"=30'
0 30 60 120 ft.

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E-mail: NJ@bowman.com

ERIC L. KELLER, N.J. Professional Engineer, Lic. 24GE03205400

PRELIMINARY AND FINAL MAJOR SITE PLAN FOR
THE GREENS AT MENDHAM VILLAGE
LIGHTING PLAN B
BLOCK 1801, LOT 5
BOROUGH OF MENDHAM, MORRIS COUNTY, NEW JERSEY

SHEET No. 17 OF 28

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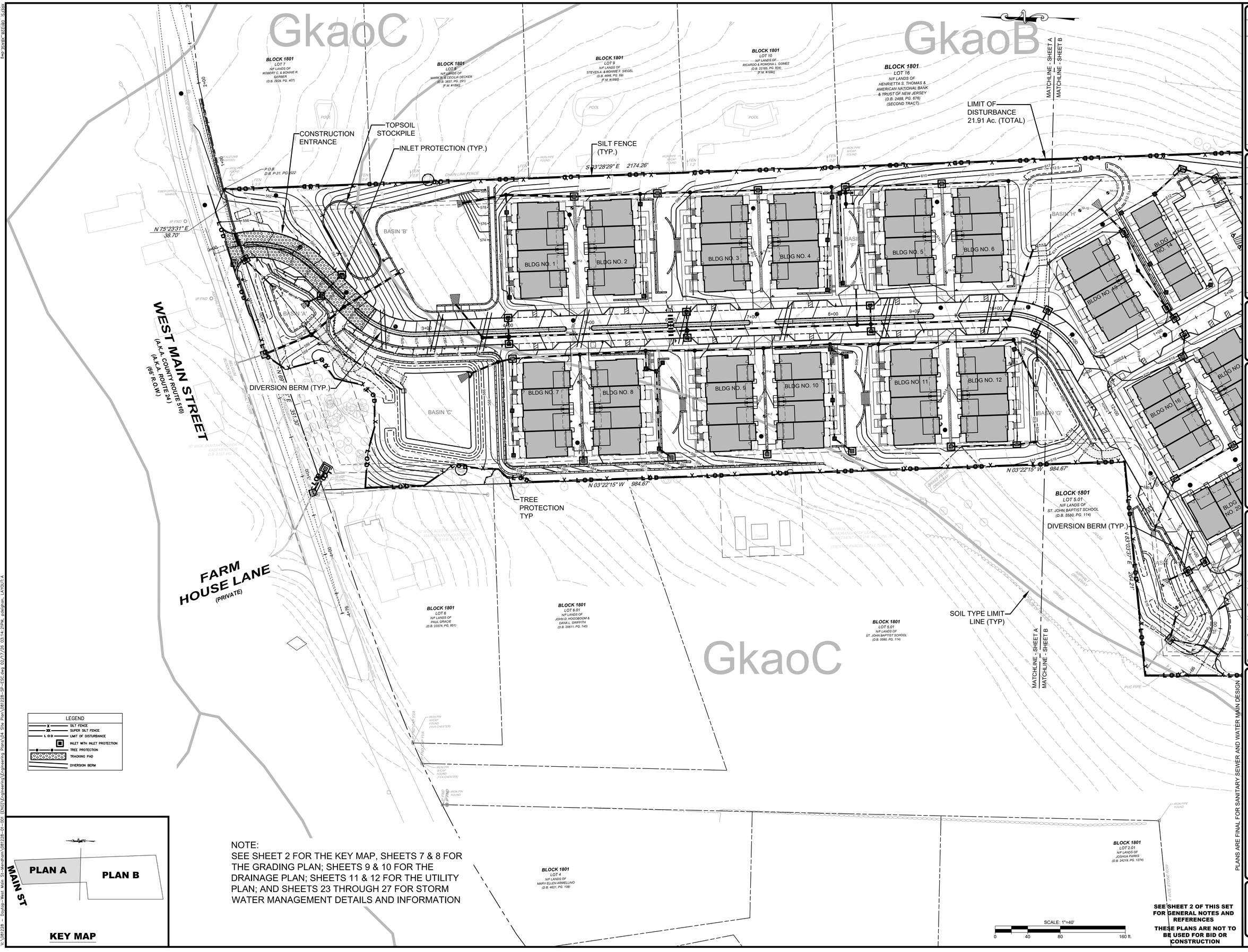

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ERIC L. KELLER, N.J. Professional Engineer, Lic. 24GE03205400

PRELIMINARY AND FINAL MAJOR SITE PLAN FOR
THE GREENS AT MENDHAM VILLAGE
SOIL EROSION AND SEDIMENT CONTROL PLAN A
BLOCK 1801, LOT 5
BOROUGH OF MENDHAM, MORRIS COUNTY, NEW JERSEY

SHEET No. 18 OF 28

PageSetUp: DWG to PDF 3042 PlotStyleTable: BOC-NJ.ctb
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GkaoC

GkaoD

BLOCK 1801
LOT 16
N/F LANDS OF
HENRIETTA S. THOMAS &
AMERICAN NATIONAL BANK
& TRUST OF NEW JERSEY
(D.B. 2488, PG. 676)
(SECOND TRACT)

BLOCK 1801
LOT 16
N/F LANDS OF
HENRIETTA S. THOMAS &
AMERICAN NATIONAL BANK
& TRUST OF NEW JERSEY
(D.B. 2488, PG. 676)
(SECOND TRACT)

MATCHLINE - SHEET A
MATCHLINE - SHEET B

LIMIT OF DISTURBANCE 21.91 Ac. (TOTAL)

SILT FENCE (TYP.)

TOPSOIL STOCKPILE

TREE PROTECTION TYP

S 03°28'29" E 2174.26'

BASIN 'N'

BASIN 'P'

BASIN 'R'

BASIN 'M'

BASIN 'H'

BASIN 'G'

BASIN 'J'

BASIN 'K'

BLDG NO. 5
BLDG NO. 6
BLDG NO. 11
BLDG NO. 12
BLDG NO. 13
BLDG NO. 14
BLDG NO. 15
BLDG NO. 16
BLDG NO. 17
BLDG NO. 18
BLDG NO. 19
BLDG NO. 20
BLDG NO. 21
BLDG NO. 22
BLDG NO. 23
BLDG NO. 24
BLDG NO. 25
BLDG NO. 26
BLDG NO. 27
BLDG NO. 28
BLDG NO. 29
BLDG NO. 30
BLDG NO. 31
BLDG NO. 32

N 03°22'15" W 984.67'

BLOCK 1801
LOT 5.01
N/F LANDS OF
ST. JOHN BAPTIST SCHOOL
(D.B. 5580, PG. 114)

DIVERSION BERM (TYP.)

N 03°03'37" E 264.21'

SOIL TYPE LIMIT LINE (TYP)

MATCHLINE - SHEET A
MATCHLINE - SHEET B

BLOCK 1801
LOT 5.01
N/F LANDS OF
ST. JOHN BAPTIST SCHOOL
(D.B. 5580, PG. 114)

WETLAND FLAG PER NOTES #2
W.S.E. 571.8

MAN MADE POND

TREE PROTECTION TYP

S 79°08'20" W 687.48'

N 01°23'17" W 1153.69'

SILT FENCE (TYP.)

INLET PROTECTION (TYP.)

BLOCK 1801
LOT 5.01
N/F LANDS OF
ST. JOHN BAPTIST SCHOOL
(D.B. 5580, PG. 114)

BLOCK 1801
LOT 2.01
N/F LANDS OF
JOSHUA PARKS
(D.B. 24219, PG. 1274)

IRON PIPE FOUND

4" WIDE CONCRETE

PLAN A
PLAN B
MAIN ST

KEY MAP

LEGEND

- SILT FENCE
- SUPER SILT FENCE
- LOD — LIMIT OF DISTURBANCE
- INLET WITH INLET PROTECTION
- TREE PROTECTION
- TRACKING PAD
- DIVERSION BERM

NOTE:
SEE SHEET 2 FOR THE KEY MAP, SHEETS 7 & 8 FOR THE GRADING PLAN; SHEETS 9 & 10 FOR THE DRAINAGE PLAN; SHEETS 11 & 12 FOR THE UTILITY PLAN; AND SHEETS 23 THROUGH 27 FOR STORM WATER MANAGEMENT DETAILS AND INFORMATION

SCALE: 1"=40'
0 40 80 160 ft.

SEE SHEET 2 OF THIS SET FOR GENERAL NOTES AND REFERENCES

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ERIC L. KELLER, N.J. Professional Engineer, Lic. 24GE03205400

PRELIMINARY AND FINAL MAJOR SITE PLAN FOR
THE GREENS AT MENDHAM VILLAGE
SOIL EROSION AND SEDIMENT CONTROL PLAN B
BLOCK 1801, LOT 5
BOROUGH OF MENDHAM, MORRIS COUNTY, NEW JERSEY

PLANS ARE FINAL FOR SANITARY SEWER AND WATER MAIN DESIGN

SHEET No. 19 OF 28

XREFs: 081228-XBASE.dwg
081228-Plans.dwg
081228-TNJ-SP.dwg
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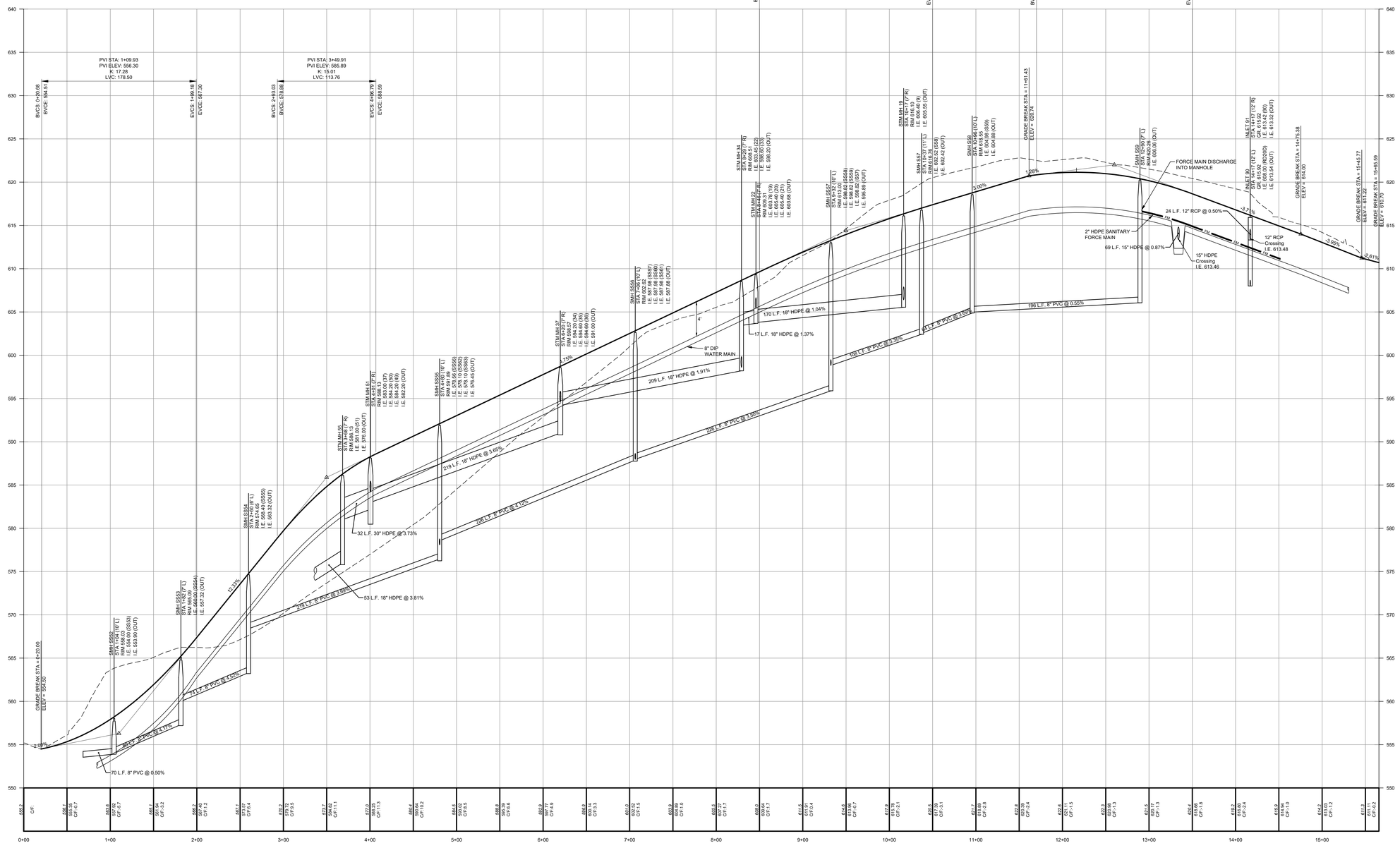
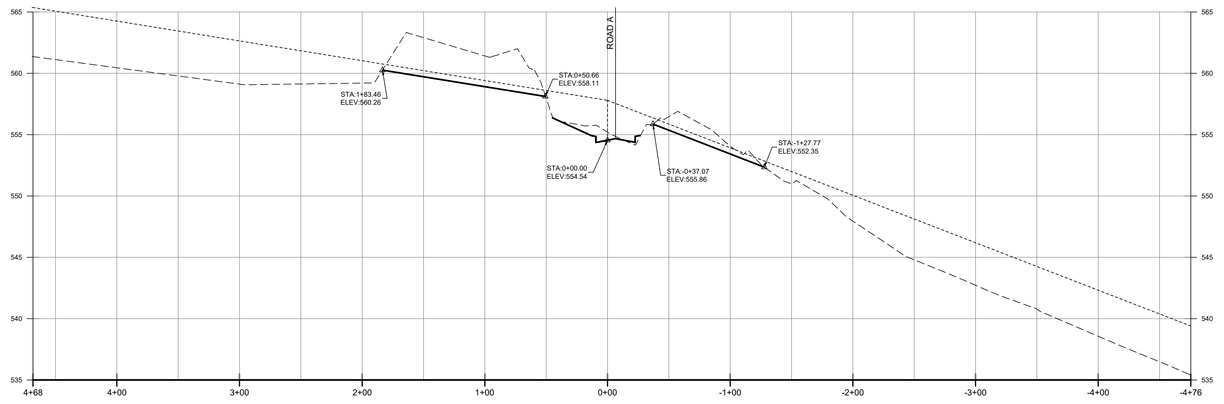


ROAD A PROFILE



SIGHT DISTANCE AT MAIN STREET PROFILE

SCALE: 1"=50'
0 50 100 200 ft.

SEE SHEET 2 OF THIS SET FOR GENERAL NOTES AND REFERENCES

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PLANS ARE FINAL FOR SANITARY SEWER AND WATER MAIN DESIGN

PRELIMINARY AND FINAL MAJOR SITE PLAN FOR
THE GREENS AT MENDHAM VILLAGE

PROFILES SHEET A

BLOCK 1801, LOT 5
BOROUGH OF MENDHAM, MORRIS COUNTY, NEW JERSEY

SHEET No. 20 OF 28

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ERIC L. KELLER, N.J. Professional Engineer, Lic. 24GE02205400

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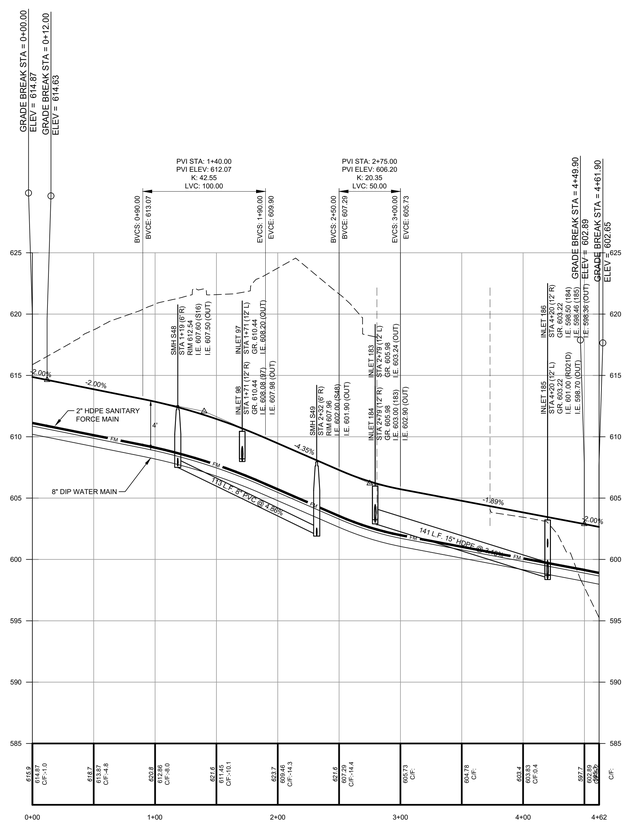

SCALE: 1"=50' HORIZ., 1"=5' VERT.

0 5 10 20 ft.

0 50 100 200 ft.

SEE SHEET 2 OF THIS SET FOR GENERAL NOTES AND REFERENCES

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

PLANS ARE FINAL FOR SANITARY SEWER AND WATER MAIN DESIGN

PRELIMINARY AND FINAL MAJOR SITE PLAN FOR

THE GREENS AT MENDHAM VILLAGE

PROFILES SHEET B

BLOCK 1801, LOT 5

BOROUGH OF MENDHAM, MORRIS COUNTY, NEW JERSEY

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SHEET No. 21 OF 28

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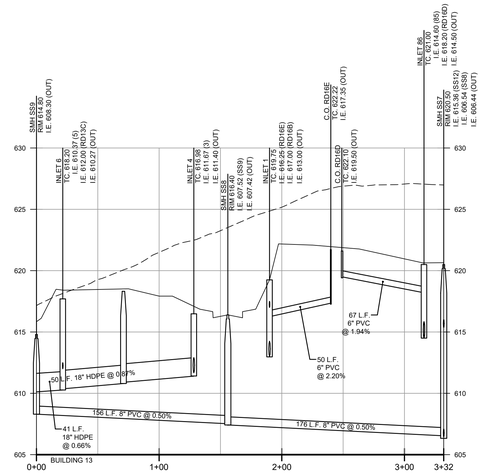

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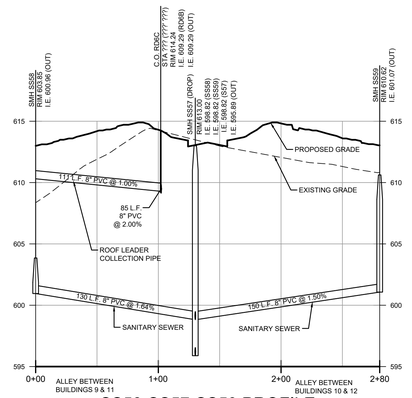

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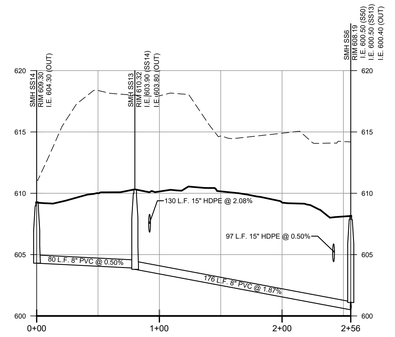

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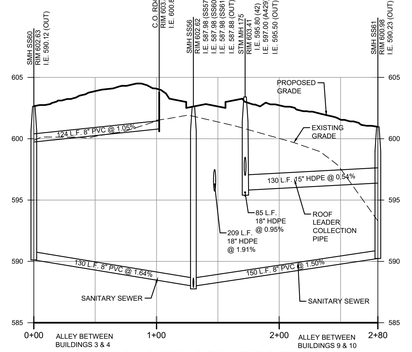
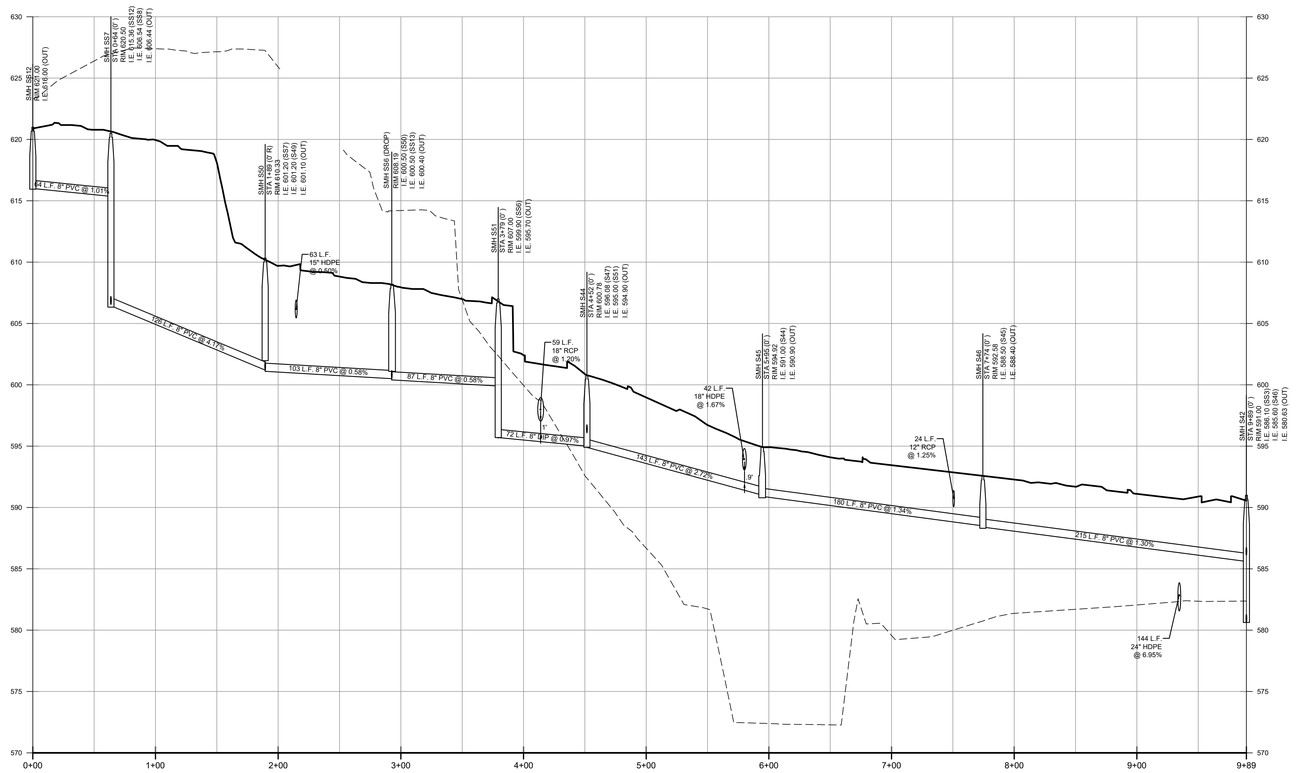


SS60-SS56-SS61 PROFILE



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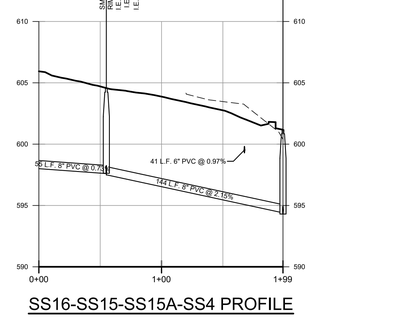
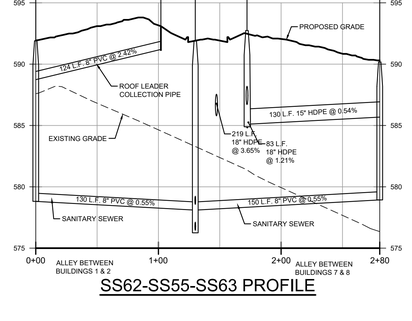


SS16-SS15-SS15A-SS4 PROFILE



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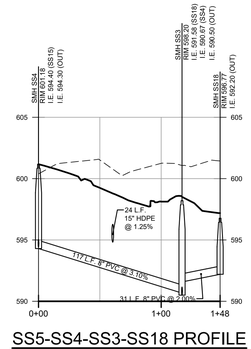

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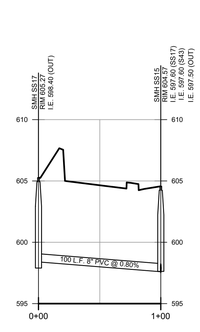

SS17-SS15 PROFILE

SCALE: 1"=50' HORIZ., 1"=5' VERT.

0 5 10 20 ft.
0 50 100 200 ft.

SEE SHEET 2 OF THIS SET FOR GENERAL NOTES AND REFERENCES

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PLANS ARE FINAL FOR SANITARY SEWER AND WATER MAIN DESIGN

PRELIMINARY AND FINAL MAJOR SITE PLAN FOR
THE GREENS AT MENDHAM VILLAGE
PROFILES SHEET C
BLOCK 1801, LOT 5
BOROUGH OF MENDHAM, MORRIS COUNTY, NEW JERSEY

SHEET No. 22 OF 28

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ERIC L. KELLER, N.J. Professional Engineer, Lic. 24GE03205400

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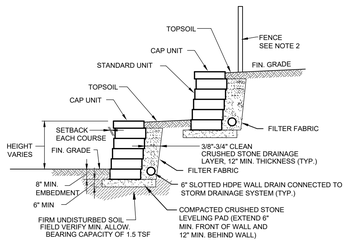
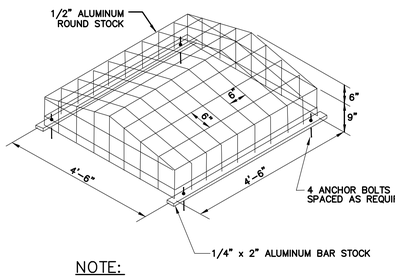


NOTES:

1. STABILITY CALCULATIONS PREPARED BY A P.E. TO BE PROVIDED TO THE MUNICIPAL ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

2. FOR WALLS 30" OR HIGHER (MEASURED WITHIN 36" OF WALL) PROVIDE FENCE MEETING IBC GUARD REQUIREMENT

MODULAR RETAINING WALL DETAIL

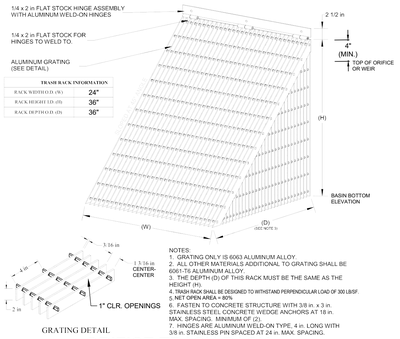


NOTE:

ALL JOINTS SHALL BE WELDED

TOP OF STRUCTURE TRASH RACK

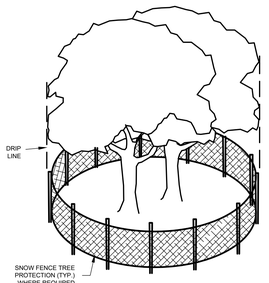
NOT TO SCALE



NOTES:
1. GRATING ONLY IS 6063 ALUMINUM ALLOY.
2. ALL OTHER MATERIALS ADDITIONAL TO GRATING SHALL BE 6061-T6 ALUMINUM ALLOY.
3. THE DEPTH (D) OF THIS RACK MUST BE THE SAME AS THE HEIGHT (H).
4. TRASH RACK SHALL BE DESIGNED TO WITHSTAND PERPENDICULAR LOAD OF 300 LBS/F.
5. NET OPEN AREA = 80%
6. FASTEN TO CONCRETE STRUCTURE WITH 3/8 in. x 3 in. STAINLESS STEEL CONCRETE WEDGE ANCHORS AT 18 in. MAX. SPACING. MINIMUM OF (2).
7. HINGES ARE ALUMINUM WELD-ON TYPE, 4 in. LONG WITH 3/8 in. STAINLESS PIN SPACED AT 24 in. MAX. SPACING.

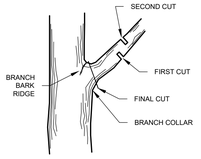
ORIFICE TRASH RACK

SCALE: NTS



TREE PROTECTION DETAIL

REFER TO STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY. 9.1



REMOVAL OF TREE LIMB

DUST CONTROL NOTES

STANDARD FOR DUST CONTROL (Per Standards... Dust Control 16-1, May 2012)

DEFINITION-The control of dust on construction sites and roads.

PURPOSE- To prevent blowing and movement of dust from exposed soil surfaces, reduce on and off-site damage and health hazards, and improve traffic safety.

CONDITION WHERE PRACTICE APPLIES- This practice is applicable to areas subject to dust blowing and movement where on- and off-site damage is likely without treatment. Consult with local municipal ordinances on any restrictions.

WATER QUALITY ENHANCEMENT-Sediments deposited as "dust" are often fine colloidal material which is extremely difficult to remove from water once it becomes suspended. Use of this standard will help to control the generation of dust from construction Sites and subsequent blowing and deposition into local surface water resources.

PLANNING CRITERIA- The following methods should be considered for controlling dust:

Mulches-See Standards for Stabilization with mulches Only (p. 5-1)

Vegetative Cover-See Standards for Temporary Vegetative Cover (p. 7-1), Permanent Vegetative Cover for Soil Stabilization (p. 4-1) and Permanent Stabilization with Sod (p. 6-1)

Spray-on Adhesives-On mineral soils (not effective on muck soils). Keep traffic off these areas.

Table 16-1: Dust Control Materials:

	Water Dilution	Type of Nozzle	Gal./Acre
Anionic asphalt emulsion	7:1	Coarse Spray	1,200
Latex Emulsion	12.5:1	Fine Spray	235
Resin in Water	4:1	Fine Spray	300
Polyacrylamide (PAM) - spray on	Apply according to manufacturer's instructions.		
Polyacrylamide (PAM) - dry spray	May also be used as an additive to sediment basins to flocculate and precipitate suspended colloids. See Sediment Basin standard (pg 2D-1).		
Acidulated Soy Bean Soap Stick	None	Coarse Spray	1,200

Tillage: To roughen surface and bring clods to the surface. This is a temporary emergency measure which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12 inches apart, and spring-toothed harrows are examples of equipment which may produce the desired effect.

Sprinkling: Site is sprinkled until the surface is wet.

Barriers: Solid board fences, snow fences, burlap fences, crate walls, bales of hay, and similar material can be used to control air currents and soil blowing.

Calcium Chloride: Shall be in the form of loose, dry granules of flakes fine enough to feed through commonly used spreaders at a rate that will keep surface moist but not cause pollution or plant damage. If used on steeper slopes, then use other practices to prevent washing into streams or accumulation around plants.

Stone: Cover surface with crushed stone or coarse gravel. for Dewatering.

TOPSOIL STOCKPILE PROTECTION

a) Apply ground limestone at a rate of 90 lbs/1000 S.F.
b) Apply fertilizer (10-20-10) at a rate of 11 lbs/1000 S.F.
c) Apply Perennial Rye grass seed at a rate of 1 lb/1000 S.F. and Annual Rye grass at 1lb/1000 S.F.
d) Mulch stockpile with straw or hay at a rate of 90 lbs/1000 S.F.
e) Apply a liquid mulch binder or tack to straw or hay mulch.
f) Properly entrench a silt fence at the bottom of the stockpile.

TEMPORARY STABILIZATION SPECIFICATIONS

a) Apply ground limestone, lime rates are to be applied following soil test recommendations.
b) Apply fertilizer (10-20-10) at a rate of 11 lbs/1000 S.F.
c) Apply Perennial Rye grass at 1 Lb/1000 S.F.and Annual Rye grass at 1 Lb/1000 S.F.
d) Mulch stockpile with straw or hay at a rate of 90 lbs/1000 S.F.
e) Apply a liquid mulch binder or tack to straw or hay mulch.

PERMANENT STABILIZATION SPECIFICATIONS

a) Apply topsoil to a depth of 5 inches (unsettled).
b) Apply ground limestone, lime rates are to be applied following soil test recommendations, and work four inches into soil.
c) Apply fertilizer (10-10-10) at a rate of 11 lbs/1000 S.F.
d) Permanent seeding to be accomplished wit the following mixture:
   - Hard Fescue seed at 3.0 lbs/1000 S.F.
   - Chewing Fescue 1.0 lbs/1000 S.F.
   - Creeping Red Fescue seed at 1.0 lbs/1000 S.F.
   - Perennial Ryegrass seed at 0.25 lbs/1000 S.F.
d) Detention Basin seeding to be accomplished wit the following mixture:
   - Deertongue seed at 0.45 lbs/1000 S.F.
   - Red Top seed at 0.05 lbs/1000 S.F.
   - Wild Rye seed at 0.35 lbs/1000 S.F.
   - Switch Grass seed at 0.60 lbs/1000 S.F.
e) Acceptable seeding dates are between March 1 and April 30, Optimum seeding dates are between August 15 and October 15.
f) Mulch stockpile with straw or hay at a rate of 90 lbs/1000 S.F.
g) Apply a liquid mulch binder or tack to straw or hay mulch

STABILIZATION WITH MULCH ONLY (NON-GROWING SEASON)

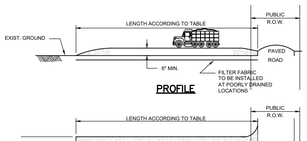
1. Grade area to be stabilized in accordance with Standards for Land Grading, pg. 19-1.
2. Uniformly spread unrotted small-grain straw or salt hay at 2.0 to 2.5 tons per acre (90 to 115 pounds per 1000 square feet) and anchor with a mulch anchoring tool, liquid mulch binders or netting tie down. Other protective materials may be used in accordance with NJ Standards, pg. 5-1.
3. Mulch anchoring shall be applied immediately after placement of hay or straw mulch to minimize loss by wind or water. Applications shall be heavier at the edges where wind catches the mulch (e.g. in valleys and at crests of banks). Liquid mulch binder shall be one of the following:
   a. Organic and Vegetable Based Binders - Naturally occurring, powder based, hydrophilic materials that when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phyto-toxic effect or impede growth of turfgrass. Vegetable based gels shall be applied at rates and weather conditions recommended by the manufacturer.
   b. Synthetic Binders - High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until the germination of grass.

SOIL COMPACTION MITIGATION NOTE:

ALL DISTURBED AREAS SHALL BE MITIGATED THROUGH USE OF DEEP SCARIFICATION OR TILLAGE BEFORE THE PLACEMENT OF TOPSOIL TO A DEPTH OF AT LEAST 6".

COMPACTION MITIGATION IS NOT REQUIRED IN THE FOLLOWING AREAS (AS NOTED BY SHADING ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN):

1. Within 12 feet from slab or crawl space construction or within 20 feet of a basement.
2. Where soils or gravel surfaces will be required to support post-construction vehicular traffic loads such as roads, parking lots and driveways (including gravel surfaces), bicycle paths or pedestrian walkways (sidewalks etc)
3. Airports, railways or other transportation facilities
4. Areas requiring industry or government specified soil designs, including golf courses, landfills, wetland restoration, septic disposal fields, wet/lined ponds, etc.
5. Areas governed or regulated by other local, state or federal regulations which dictate soil conditions
6. Brownfields (capped uses), urban redevelopment areas, in-fill areas, recycling yards, junk yards, and quarries
7. Slopes determined to be inappropriate for safe operation of equipment
8. Portions of a site where no heavy equipment travel or other disturbance has taken place
9. Areas receiving temporary vegetative stabilization in accordance with the Standard.
10. Where the area available for remediation practices is 500 square feet or less in size.
11. Locations containing shallow (close to the surface) bedrock conditions.
12. Where underground utilities may be endangered by mitigation operations.



NOTES

STONE SIZE 1 1/2" - 2 1/2" CRUSHED STONE

WIDTH NOT LESS THAN FULL WIDTH AT POINTS OF EGRESS AND INGRESS.

WASHING: WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC R.O.W. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN.

MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC R.O.W.. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRAPPED ONTO PUBLIC R.O.W. MUST BE REMOVED IMMEDIATELY.

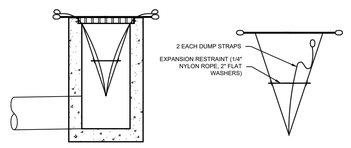
WHEN THE CONSTRUCTION ACCESS EXITS ONTO A MAJOR ROADWAY, A PAVED TRANSITION AREA MAY BE INSTALLED BETWEEN THE MAJOR ROADWAY AND THE STONED ENTRANCE TO PREVENT LOOSE STONES FROM BEING TRANSPORTED OUT ONTO THE ROADWAY BY HEAVY EQUIPMENT ENTERING OR LEAVING THE SITE.

PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIRED	
	COARSE GRAINED SOILS	FINE GRAINED SOILS
0 TO 2%	50 ft.	100ft.
2 TO 5%	100ft.	200ft.
>5%	ENTIRE SURFACE STABILIZED WITH HMA BASE COURSE MIX I-2	1

1. AS PRESCRIBED BY LOCAL ORDINANCE OR OTHER GOVERNING AUTHORITY

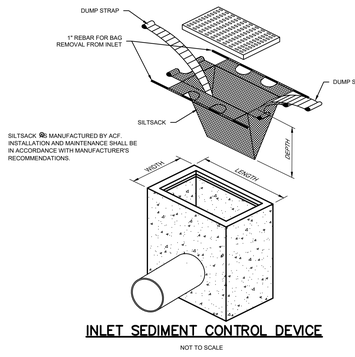
STABILIZED CONSTRUCTION ENTRANCE

N.T.S



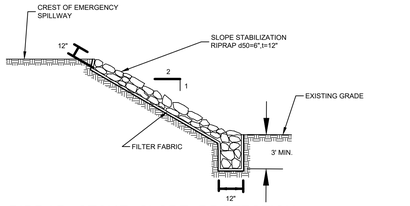
INSTALLATION DETAIL

BAG DETAIL



INLET SEDIMENT CONTROL DEVICE

NOT TO SCALE



RIPRAP STONE SLOPE PROTECTION

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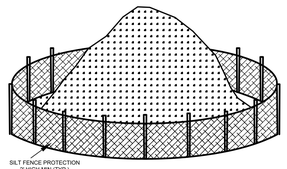
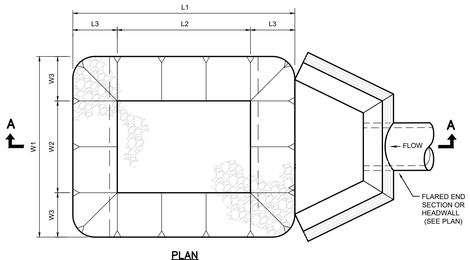
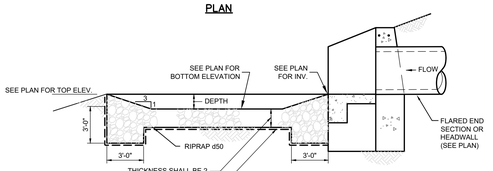


TOPSOIL STOCK PILE DETAIL

REFER TO STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY - 8-1



PLAN



SECTION A–A

NOTE:
RIPRAP SHALL CONFORM TO "STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY."
STONE SIZE - USE D_{50} = 6".

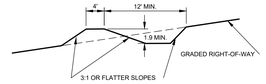
SCOUR HOLE DIMENSIONS

FOR SCOUR HOLE DEPTH = 1/2 PIPE DIAMETER

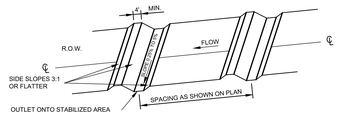
PIPE SIZE (IN.)	DEPTH (FT.)	L1 (FT.)	L2 (FT.)	L3 (FT.)	W1 (FT.)	W2 (FT.)	W3 (FT.)
24	2	18	6	6	16	4	6
36	3	27	9	9	24	6	9

PREFORMED SCOUR HOLE DETAIL

N.T.S.



CROSS–SECTION OF DIVERSION



PERSPECTIVE

DESIGN CRITERIA

TOP WIDTH - 4 FT. MIN.
HEIGHT - 1.9 FT. MIN. (HEIGHT MEASURED FROM THE UPSLOPE TOE TO TOP OF THE DIKE.
SIDE SLOPE - 3:1 OR FLATTER (FLAT ENOUGH TO ALLOW CONSTRUCTION TRAFFIC TO CROSS IF DESIRED).
SPACING TO VARY WITH ROAD GRADE

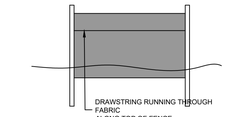
ROAD GRADE	1%	2%	5%	10%	15%	20%	25%	30%
SPACING	400 FT	245 FT	125 FT	78 FT	58 FT	47 FT	40 FT	35 FT

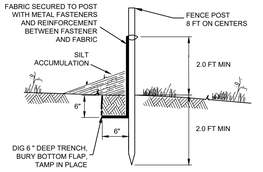
GENERAL NOTES

1. TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER, IF DESIRED.
2. DIVERTED RUNOFF SHALL OUTLET ONTO AN UNDISTURBED STABLE AREA, OR ONTO AN AREA THAT HAS BEEN STABILIZED.
3. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED.

DIVERSION BERM

N.T.S.





SILT FENCE DETAIL

N.T.S.

Morris County Soil Conservation District Soil Erosion and Sediment Control Notes

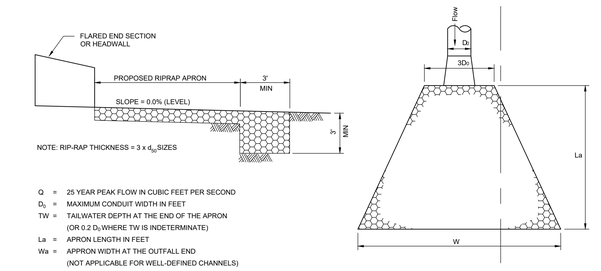
1. All Soil Erosion and Sediment Control Practices will be installed in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey, and will be in place prior to any major soil disturbance, or in their proper sequence and maintained until permanent protection is established.
2. 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. If the season prohibits temporary seeding, the disturbed areas will be mulched with straw or hay and tacked in accordance with the New Jersey Standards. See Note 21 below.
3. Permanent vegetation is to be established on exposed areas within ten (10) days after final grading. Mulch is to be used for protection until vegetation is established. See Note 22 below.
4. Immediately following initial disturbance or rough grading. All critical areas (steep slopes, sandy soils, wet conditions) subject to erosion will receive a temporary seeding in accordance with Note 21 below.
5. Temporary Diversion Berms are to be installed on all cleared roadways and easement areas. See the Diversion Detail.
6. Permanent Seeding and stabilization to be in accordance with the "Standards for Permanent Vegetative Cover for Soil Stabilization Cover". Specified rates and locations shall be on the approved Soil Erosion and Sediment Control Plan.
7. The site shall at all times be graded and maintained so that all stormwater runoff is diverted to Soil Erosion and Sediment Control facilities.
8. All sedimentation structures (silt fence, inlet filters, and sediment basins) will be inspected and maintained daily.
9. Stockpiles shall not be located within 50' of a floodplain, slope, drainage facility, or roadway. All stockpiles bases shall have a silt fence properly entrenched at the toe of slope.
10. A Stabilized Construction Access will be installed, whenever an earthen road intersects with a paved road. See the Stabilized Construction Access detail and chart for dimensions.
11. All new roadways will be treated with suitable subbase upon establishment of final grade elevations.
12. Paved roadways must be kept clean at all times.
13. Before discharge points become operational, all storm drainage outlets will be stabilized as required.
14. All dewatering operations must be discharged directly into a sediment filter area. The filter should be composed of a fabric or approved material. See the Dewatering detail.
15. All sediment basins will be cleaned when the capacity has been reduced by 50%. A clean out elevation will be identified on the plan and a marker installed on the site.
16. During and after construction, the applicant will be responsible for the maintenance and upkeep of the drainage structures, vegetation cover, and any other measures deemed appropriate by the District. Said responsibility will end when completed work is approved by the Morris County Soil Conservation District.
17. All trees outside the disturbance limit indicated on the subject plan or those trees within the disturbance area which are designated to remain after construction are to be protected with tree protection devices. See the Tree Protection detail.
18. The Morris County Soil Conservation District may request additional measures to minimize on site or off site erosion problems during construction.
19. The Morris County Soil Conservation District must be notified, in writing, at least 72 hours prior to any land disturbance, and a pre-construction meeting held.
20. Contractor to set up a meeting with the inspector for periodic inspections of the Temporary Sediment Basin prior to and during its construction.
21. **Topsoil Stockpile Protection**
    a) Apply Ground Limestone at a rate of 90 lbs per 1000 sq. ft.
    b) Apply fertilizer (10-20-10) at a rate of 11 lbs. per 1000 sq. ft.
    c) Apply Perennial Ryegrass seed at 1 lb. per 1000 sq. ft. and Annual Ryegrass at 1 lb. per 1000 sq. ft.
    d) Mulch stockpile with straw or hay at a rate of 90 lbs. per 1000 sq. ft.
    e) Apply a liquid mulch binder or tack to straw or hay mulch.
    f) Property entrench a silt fence at the bottom of the stockpile.
22. **Temporary Stabilization Specifications**
    a) Apply Ground Limestone at a rate of 90 lbs per 1000 sq. ft.
    b) Apply fertilizer (10-20-10) at a rate of 11 lbs. per 1000 sq. ft.
    c) Apply Perennial Ryegrass seed at 1 lb. per 1000 sq. ft. and Annual Ryegrass at 1 lb. per 1000 sq. ft.
    d) Mulch stockpile with straw or hay at a rate of 90 lbs. per 1000 sq. ft.
    e) Apply a liquid mulch binder or tack to straw or hay mulch.
23. **Permanent Stabilization Specifications**
    a) Apply topsoil to a depth of 5 inches (unsettled).
    b) Apply Ground Limestone at a rate of 90 lbs per 1000 sq. ft. and work four inches into soil.
    c) Apply fertilizer (10-20-10) at a e of rate 11 lbs. per 1000 sq. ft.
    d) Apply Hard Fescue seed at 2.7 lbs. per 1000 sq. ft. and Creeping Red Fescue seed at 0.7 lbs per 1000 sq. ft. and Perennial Ryegrass seed at 0.25 lbs per 1000 sq. ft.
    e) Mulch stockpile with straw or hay at a rate of 90 lbs. per 1000 sq. ft.
    f) Apply a liquid mulch binder or tack to straw or hay mulch.

***NOTE: 48 HOURS PRIOR TO ANY SOIL DISTURBANCE, NOTICE IN WRITING, SHALL BE GIVEN TO THE MORRIS COUNTY SOIL CONSERVATION DISTRICT AND A PRE-CONSTRUCTION MEETING HELD.**

January 2015

SEQUENCE OF CONSTRUCTION

ITEM #		DURATION
1.	INSTALL SOIL EROSION AND SEDIMENT CONTROL DEVICES INCLUDING SILT FENCE, INLET FILTERS, TREE PROTECTION, AND STABILIZED CONSTRUCTION ENTRANCE	2 WEEK
2.	DEMOLISH EXISTING BUILDINGS, SEPTIC SYSTEMS AND PAVED/GRAVEL DRIVES MAINTAIN EXISTING MAIN PAVED DRIVEWAY	1 MONTH
3.	CLEAR TREES AND REMOVE TREE STUMPS WITHIN LIMITS OF DISTURBANCE	2 WEEKS
4.	STRIP & STOCKPILE TOPSOIL	1 WEEK
5.	CLEAR AND ROUGH GRADE SITE; INSTALL DIVERSION BERMS WITHIN DISTURBANCE LIMITS	2 MONTHS
6.	ROUGH GRADE SURFACE BIO-RETENTION BASINS & ESTABLISH INTERIM GRADE ELEVATIONS (PLANTING SOIL BED MIX TO BE INSTALLED ONLY WHEN UPSTREAM AREAS ARE STABILIZED)	1 MONTH
7.	INSTALL OUTLET STRUCTURES WITH TEMPORARY SEDIMENT BASIN RISERS (AS APPLICABLE)	2 WEEKS
8.	CONSTRUCT STORMWATER STRUCTURES, PIPING AND OUTFALLS, INSTALL INLET FILTERS AS STRUCTURES ARE COMPLETED, STABILIZE BASINS UPON COMPLETION	2 MONTHS
9.	INSTALL SANITARY SYSTEM, WATER MAINS AND UNDERGROUND UTILITIES	2 MONTHS
10.	CONSTRUCT INTERNAL ROADWAYS, INSTALL CURBING AND BITUMINOUS BASE COURSE	6 WEEKS
11.	CONSTRUCT RETAINING WALLS	4 WEEKS
12.	TEMPORARY SEED ALL AREAS TO BE LEFT EXPOSE FOR MORE THAN 30 DAYS	1 WEEK
13.	CONSTRUCT BUILDINGS, ALLEYS AND INDIVIDUAL DRIVEWAYS	24 MONTHS
14.	CONSTRUCT PARKING LOTS, INSTALL CURBING & BITUMINOUS BASE COURSE	1 MONTH
15.	CONSTRUCT SIDEWALKS	3 WEEKS
16.	FINE GRADE AROUND BUILDINGS, LANDSCAPE AREAS AND OPEN SPACE AREAS	6 WEEKS
17.	SCARIFY ALL PLANTING AREAS (6" MIN. DEPTH) PRIOR TO INSTALLING TOPSOIL TO MITIGATE SOIL DECOMPACTION	2 WEEKS
18	INSTALL BUFFER LANDSCAPING AND TREES ALONG INTERNAL ROADWAYS.	6 WEEKS
19	INSTALL LIGHTING FIXTURES	3 WEEKS
20	PERMANENT SEED ALL AREAS AND INSTALL BUILDING FOUNDATION PLANTINGS	2 WEEKS
21	APPLY FINAL BITUMINOUS ASPHALT SURFACE COURSE	1 WEEK
22	INSTALL TRAFFIC SIGNS AND PAVEMENT MARKINGS	3DAYS
23	REMOVE ALL ACCUMULARED SEDIMENT FROM STORMWATER BASINS, STORM SEWER AT AND BASIN OUTFALLS. INSTALL UNDERDRAINS AND PLANTING SOIL MIX BEDS IN ALL BIO-RETENTION BASIN.	2 WEEKS
24	REMOVE REMAINING SOIL EROSION CONTROL DEVICES WHEN SITE IS STABILIZED	3 DAYS
	APPROXIMATE PROJECT DURATION	44 MONTHS



Q = 25 YEAR PEAK FLOW IN CUBIC FEET PER SECOND
D_0 = MAXIMUM CONDUIT WIDTH IN FEET
TW = TAILWATER DEPTH AT THE END OF THE APRON (OR 0.2 D_0 WHERE TW IS INDETERMINATE)
La = APRON LENGTH IN FEET
Wa = APRON WIDTH AT THE OUTFALL END (NOT APPLICABLE FOR WELL-DEFINED CHANNELS)
d_{50} = MEDIAN RIPRAP SIZE IN INCHES

CONDUIT OUTLET PROTECTION SUMMARY

HW / FES No.	Q-100 (CFS)	D_0 (FT)	La (FT)	Wa (FT)	D(50) (IN)
HW 77	1.17	1.25	3	5	6
FES 79	1.10	1.00	4	5	6
HW 180	7.65	1.5	13	10	6
HW 56	14.67	1.5	12	12	6
HW 71	5.65	2.0	6	9	6
FES 13	0.81	1.25	2	5	6
HW 89	2.01	1.25	5	6	6
FES 92	2.32	1.25	5	6	6

THE WIDTH OF THE APRON AT THE CULVERT SHALL BE AT LEAST TRIPLE D_0; WHERE THERE IS A WELL-DEFINED CHANNEL DOWNSTREAM OF THE APRON, THE APRON BOTTOM WIDTH SHALL BE AT LEAST EQUAL TO THE CHANNEL BOTTOM WIDTH THE LINING SHALL EXTEND AT LEAST ONE FOOT ABOVE THE TAILWATER ELEVATION BUT NO LOWER THAN 2/3 OF THE VERTICAL CONDUIT DIMENSION ABOVE THE CONDUIT INVERT. THE BOTTOM GRADE SHALL BE 0.0% AND LEVEL. THERE SHALL BE NO OVERFALL AT THE END OF THE APRON OR THE CULVERT.

50% BY WEIGHT OF THE RIPRAP MIX SHALL BE SMALLER THAN d_{50}. LARGEST STONE SHALL BE LESS THAN 1.5 TIMES d_{50}. APRON THICKNESS SHALL BE EITHER:
1) THREE TIMES THE d_{50} SIZE, OR
2) TWO TIMES THE d_{50} SIZE WITH A FILTER LAYER

RIP RAP APRON
CONDUIT OUTLET PROTECTION DETAIL

N.T.S

SEE SHEET 2 OF THIS SET FOR GENERAL NOTES AND REFERENCES

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

NO.	DATE	REVISION
12		
11		
10		
9		
8		
7		
6		
5		
4		
3		
2		
1		

PROJ.: 08122B-05-002
DWG.: 08122B-SP-SE1
CHKD:

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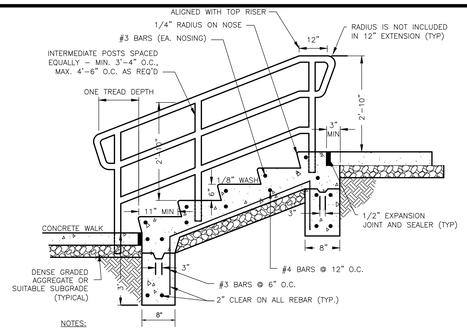
PLANS ARE FINAL FOR SANITARY SEWER AND WATER MAIN DESIGN

PRELIMINARY AND FINAL MAJOR SITE PLAN FOR
THE GREENS AT MENDHAM VILLAGE
CONSTRUCTION DETAILS
SOIL EROSION AND SEDIMENT CONTROL
BLOCK 1801, LOT 5
BOROUGH OF MENDHAM, MORRIS COUNTY, NEW JERSEY

SHEET No.
23
OF
28

N:\08122B – Doyle–West Main, St–Mendham\08122B–01–001 (ENG)\Engineering\Plans\04 Site Plan\08122B–SP–SE1.dwg 02/17/26 01:39:50PM, pdelghan, LAYOUT:A

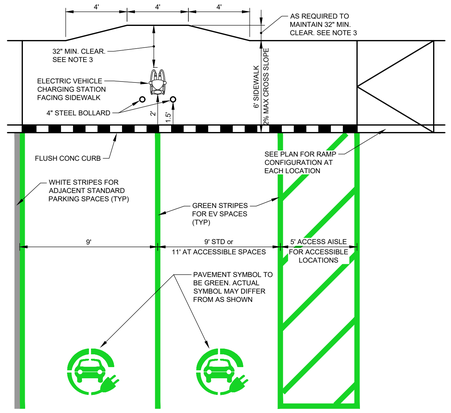


NOTES:

1. PRECAST STAIR UNITS CAN BE UTILIZED FOR THIS PROJECT, CONTRACTOR TO SUPPLY SHOP DRAWINGS FOR REVIEW AND APPROVAL BY DESIGN ENGINEER, ARCHITECT AND MUNICIPAL ENGINEER PRIOR TO CONSTRUCTION.
2. STAIRS WIDTH SHALL BE 6' UNLESS SPECIFIED OTHERWISE IN THESE PLANS.
3. STAIR HANDRAILS TO BE PRIMED AND PAINTED.
4. THIS RAIL IS NOT INTENDED FOR STAIRS WITH SIDE DROP-OFFS REQUIRING A GUARD. (30" DROP WITHIN 36" OF STAIR)

CONCRETE STAIR WITH RAILS

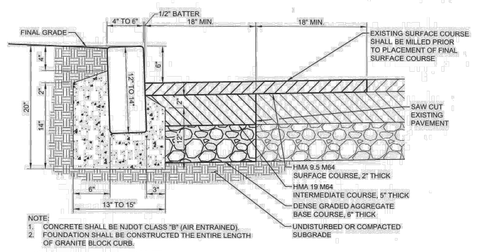
N.T.S.



NOTES:

1. FOR ACCESSIBLE LOCATIONS, CLEAR FLOOR SPACE TO BE 2% MAX SLOPE IN ANY DIRECTION. SEE PLAN FOR ACCESSIBLE LOCATIONS.
2. THIS DETAIL SHOWS MIN REQUIREMENTS. SEE PLAN FOR SPECIFIC CONFIGURATION AT EACH LOCATION. EQUIPMENT CAN NOT OBSTRUCT RAMP CLEAR LANDING SPACES.
3. CLEAR WIDTH OF ACCESSIBLE ROUTE MAY BE REDUCED TO 32" MIN FOR DISTANCE OF 24" MAX. AREAS OF REDUCED WIDTH MUST BE SEPARATED FROM EACH OTHER BY AREAS 48" WIDE AND 52" LONG.

ELECTRIC VEHICLE CHARGING STATION LAYOUT & PAVEMENT MARKING



NOTE:
1. CONCRETE SHALL BE NJDOT CLASS "B" (AIR ENTRAINED).
2. FOUNDATION SHALL BE CONSTRUCTED THE ENTIRE LENGTH OF GRANITE BLOCK CURB.

FIGURE 500-08		
MORRIS COUNTY TYPICAL DETAIL GRANITE BLOCK CURB		
NOT TO SCALE	5/2011	MOC

GRANITE BLOCK CURB DETAIL

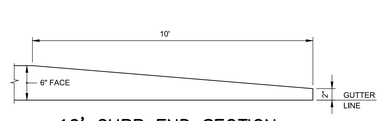
NOTE:
1. CONCRETE SHALL BE NJDOT CLASS "B" (AIR ENTRAINED).
2. FOUNDATION SHALL BE CONSTRUCTED THE ENTIRE LENGTH OF GRANITE BLOCK CURB.
3. MORTAR SHALL CONSIST OF ONE (1) PART PORTLAND CEMENT TO TWO (2) PARTS FINE AGGREGATES. WATER SHALL BE ADDED TO FORM THE PROPER CONSISTENCY.
4. MORTAR SHALL NOT BE TEMPERED OR USED AFTER IT HAS BEGUN TO SET.

FIGURE 500-09		
MORRIS COUNTY TYPICAL DETAIL GRANITE BLOCK DEPRESSED CURB		
NOT TO SCALE	5/2011	MOC

GRANITE BLOCK DEPRESSED CURB DETAIL

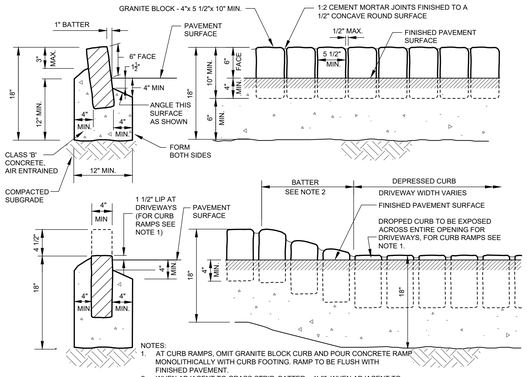
MORRIS COUNTY CURB DETAILS FOR USE IN THE WEST MAIN STREET ROW

N.T.S.



10' CURB END SECTION

NOT TO SCALE



NOTES:
1. AT CURB RAMPS, OMIT GRANITE BLOCK CURB AND POUR CONCRETE RAMP MONOLITHICALLY WITH CURB FOOTING. RAMP TO BE FLUSH WITH FINISHED PAVEMENT.
2. WHEN ADJACENT TO GRASS STRIP: BATTER = 1':6". WHEN ADJACENT TO CONCRETE: BATTER PER RAMP OR APRON DETAIL

GRANITE BLOCK CURB DETAIL

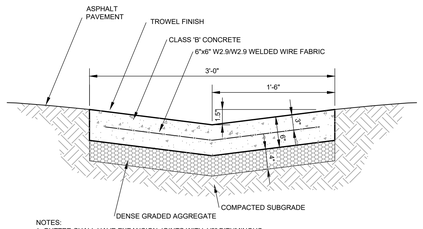
N.T.S.

PLAN

SECTION

MOUNTABLE GRANITE BLOCK CURB DETAIL

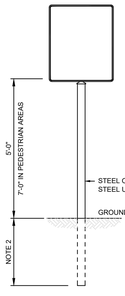
N.T.S.



NOTES:
1. GUTTER SHALL HAVE EXPANSION JOINTS WITH 1/2" BITUMINOUS EXPANSION MATERIAL FULL DEPTH EVERY 20'. CONTRACTION JOINTS ARE TO BE HALF DEPTH AND PROVIDED MIDWAY BETWEEN EXPANSION JOINTS.
2. MINIMUM CHANNEL BOTTOM SLOPE = 0.5%

VALLEY GUTTER

SCALE: N.T.S.

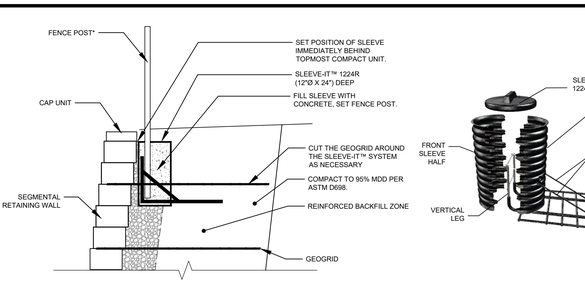


GENERAL NOTES:

1. ALL POSTS SHALL BE OF ADEQUATE LENGTH TO MEET THE REQUIREMENTS FOR ERECTION AS STATED IN THE CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAYS.
2. TWO PIECE STEEL POST SHALL BE EMBEDDED 3'-8" MIN. ONE PIECE STEEL POST SHALL BE EMBEDDED 3'-6" MAX.
3. ALL STEEL POSTS AND BRACKETS SHALL BE CUT, BENT AND HOLES PUNCHED AND DRILLED BEFORE GALVANIZING. GALVANIZING SHALL BE IN CONFORMANCE WITH CURRENT A.S.T.M. SPECIFICATIONS A 123.
4. POSTS MAY BE STEEL OR 2 PIECE STEEL U-POST IN CONFORMANCE WITH THE NOTES BELOW.
5. BOLTS SHALL NOT PROTRUDE MORE THAN 3/4" BEYOND THE NUT WHEN TIGHT BUT SHALL ENGAGE ALL THREADS IN THE NUT.

STREET MOUNTING

NTS

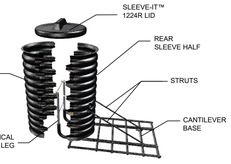


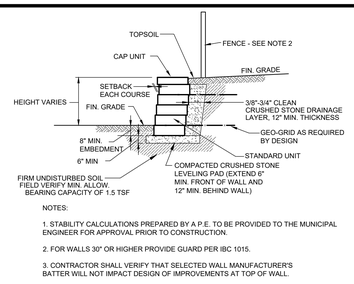
MODEL: SLEEVE-IT 1224R
MFR: STRATA SYSTEMS, INC.

NOTES:
1. SLEEVE-IT SYSTEM SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS.
2. REFER TO STRUCTURAL ENGINEERING DRAWINGS FOR RETAINING WALL DESIGN AND ADDITIONAL INFORMATION

SLEEVE-IT SYSTEM

N.T.S. (IF REQUIRED)

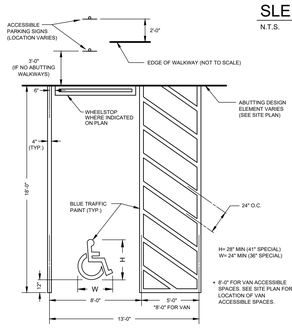




NOTES:

1. STABILITY CALCULATIONS PREPARED BY A P.E. TO BE PROVIDED TO THE MUNICIPAL ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
2. FOR WALLS 30" OR HIGHER PROVIDE GUARD PER IBC 1015.
3. CONTRACTOR SHALL VERIFY THAT SELECTED WALL MANUFACTURER'S BATTER WILL NOT IMPACT DESIGN OF IMPROVEMENTS AT TOP OF WALL.
4. REFER TO SHEET 7 (GRADING PLAN) OF THIS SET FOR ADDITIONAL NOTES PERTAINING TO RETAINING WALLS.

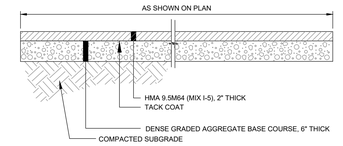
TYPICAL MODULAR RETAINING WALL DETAIL



* 8'-0" FOR VAN ACCESSIBLE SPACES. SEE SITE PLAN FOR LOCATION OF VAN ACCESSIBLE SPACES.

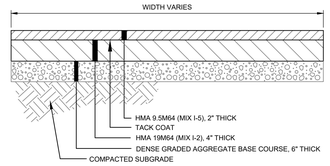
ACCESSIBLE PARKING SPACE

N.T.S.



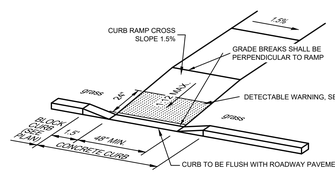
TYPICAL RESIDENTIAL DRIVEWAY SECTION

N.T.S.



TYPICAL SECTION – ASPHALT PAVEMENT INTERNAL ROADS & PARKING AREA

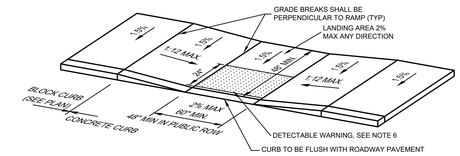
N.T.S.



CURB RAMP DETAIL

SIDEWALK PERPENDICULAR TO CURB

N.T.S.



PARALLEL CURB RAMP

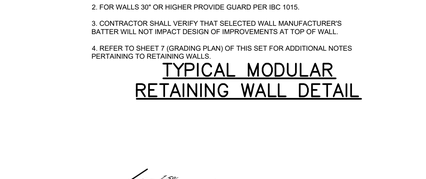
SIDEWALK ADJACENT TO CURB

N.T.S.

PERPENDICULAR CURB RAMP DETAIL

SIDEWALK PARALLEL TO CURB WITH GRASS STRIP

N.T.S.



CURB RAMP DETAIL

SIDEWALK NOT PERPENDICULAR TO CURB

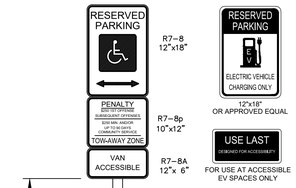
N.T.S.

CURB RAMP NOTES:

1. LANDING AREA, APPROACH SIDEWALK TRANSITIONS, AND CURB RAMP SHALL BE KEPT CLEAR OF OBSTRUCTIONS.
2. CURB (DROPPED CURB) CENTERLINE TO BE FLUSH WITH ROADWAY PAVEMENT A MINIMUM OF 4' AT ALL CURB RAMPS.
3. IF CURB IS GRANITE BLOCK, OMIT THE BLOCK WITHIN THE FLUSH AREA AS WELL AS THE TRANSITION TO FULL HEIGHT CURB AND FORM WITH CONCRETE ONLY. RAMP MAY BE POURED MONOLITHICALLY WITH THE CURB.
4. RAMP LENGTH IS AS REQUIRED TO NOT EXCEED MAX SLOPE AND SHALL BE VERIFIED IN FIELD. IF THESE PLANS DO NOT INCLUDE SPOT ELEVATIONS AT TOPS AND BOTTOMS OF RAMPS, THEN THEY ARE PERMIT LEVEL OR PRELIMINARY PLANS AND HAVE NOT BEEN RELEASED FOR CONSTRUCTION. THE RAMPS DRAWN IN PLAN VIEW ON PERMIT LEVEL OR PRELIMINARY PLANS MAY BE SCHEMATIC TO INDICATE TYPE OF RAMP AND MAY NOT INDICATE ACTUAL LENGTH.
5. RUNNING SLOPE SHALL BE CONSISTENT FOR THE ENTIRE LENGTH OF THE RAMP.
6. FOR RAMPS IN THE PUBLIC ROW OR WHERE INDICATED ON THE PLAN, SHADED AREA SHALL HAVE DETECTABLE WARNING SURFACE (DWS) THE FULL WIDTH OF THE RAMP. THE DWS SHALL BE 24" MIN IN DIRECTION OF TRAVEL AND SHALL BE EMBEDDED IN THE CONCRETE.
   a. THE DWS SHALL BE INSTALLED WITHIN 2" OF BACK OF CURB EXCEPT AS NOTED BELOW
   b. FOR RAMPS NOT PERPENDICULAR TO CURB, WHERE THE RAMP ENDS WITHIN 9' OF THE CURB, THE DWS SHALL BE INSTALLED WITHIN 1 DOME SPACING OF THE GRADE BREAK AT THE BOTTOM OF THE RAMP.
   c. FOR RAMPS NOT PERPENDICULAR TO CURB WHERE THE DISTANCE FROM BOTTOM OF EITHER SIDE OF THE RAMP TO BACK OF CURB IS GREATER THAN 5', THE DETECTABLE WARNING SHALL INSTEAD BE INSTALLED ON THE LOWER LANDING WITHIN 2" OF THE BACK OF CURB. THE RAMP THEN STARTS BEHIND THE DETECTABLE WARNING. NOTE THAT THIS CONFIGURATION WILL REQUIRE A CUSTOM SHAPED DWS
   d. IF RAMP IS POURED MONOLITHICALLY WITH THE CURB, THEN (WHEN INSTALLED DIRECTLY BEHIND THE CURB) THE DWS SHALL BE LOCATED WITHIN 6" OF THE FACE OF CURB.

SIGNS

N.T.S.

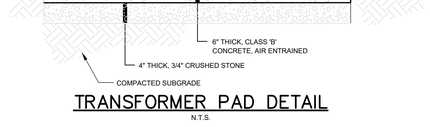


NOTE:
VAN ACCESSIBLE PLAQUE TO ONLY BE PROVIDED AT ACCESSIBLE SPACES THAT MEET THE FOLLOWING REQUIREMENTS:

1. 8' WIDE SPACE ADJACENT TO A 8' WIDE ACCESS AISLE, OR 11' WIDE SPACE ADJACENT TO A 5' WIDE ACCESS AISLE
2. FOR ANGLED PARKING, THE REQUIRED ACCESS AISLE MUST BE ON THE PASSENGER SIDE

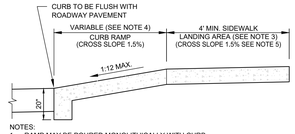
ACCESSIBLE PARKING SIGNS

N.T.S.



TRANSFORMER PAD DETAIL

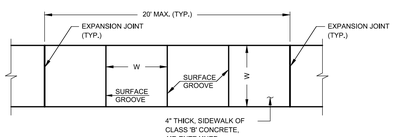
N.T.S.



NOTES:
1. RAMP MAY BE POURED MONOLITHICALLY WITH CURB.
2. FOR GRANITE BLOCK CURB, OMIT GRANITE BLOCK AT RAMP.
3. IF THE LANDING (TURNING SPACE) AT THE TOP OF THE RAMP IS CONSTRAINED (END OF WALKWAY OR ABUTTING A BUILDING) THEN THE LANDING SHALL BE 5'
4. RAMP LENGTH IS AS REQUIRED TO NOT EXCEED MAX SLOPE, AND SHALL BE VERIFIED IN FIELD. RAMPS DRAWN IN PLAN VIEW MAY BE SCHEMATIC TO INDICATE TYPE OF RAMP AND MAY NOT INDICATE ACTUAL LENGTH
5. IF LANDING AREA IS ALSO A TURNING AREA, THEN CROSS SLOPE APPLIES IN ANY DIRECTION

SECTION THROUGH CURB RAMP

N.T.S.

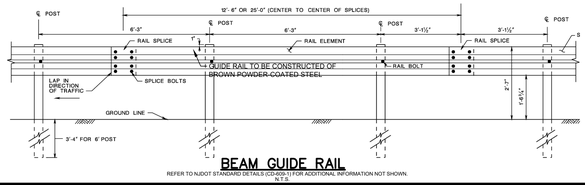


JOINT PLACEMENT DETAIL

N.T.S.

NOTES:
1. SUBBASE SHALL BE COMPACTED TO A FIRM AND EVEN SURFACE TO THE SATISFACTION OF THE ENGINEER,
2. ALL CONCRETE SHALL BE AIR-ENTRAINED AND CONTAIN AN AIR CONTENT OF 6% ±1.5%
3. CONCRETE SHALL BE STRUCK OFF WITH A TRANSVERSE TEMPLATE AND FINISHED WITH FLOATS AND STRAIGHTEDGES UNTIL A SMOOTH SURFACE HAS BEEN OBTAINED.
4. THE SURFACE SHALL BE FINISHED WITH A WOODEN FLOAT AND BRUSHED WITH A WET, SOFT-HAIRED BRUSH,
5. ALL EDGES SHALL BE FINISHED AND ROUNDED WITH AN EDGING TOOL HAVING A RADIUS OF 1/4 INCH,
6. PREFORMED EXPANSION JOINT FILLER, 1/4" INCH THICK, SHALL BE FORMED AROUND ALL APPURTENANCES, SUCH AS MANHOLES AND UTILITY POLES, EXTENDING INTO OR THROUGH THE CONCRETE.
7. THE SURFACE OF THE CONCRETE SHALL BE SO FINISHED AS TO DRAIN COMPLETELY AT ALL TIMES.

CONCRETE SIDEWALK



BEAM GUIDE RAIL

REFER TO NJDOT STANDARD DETAILS (C2-0429-11) FOR ADDITIONAL INFORMATION NOT SHOWN.
N.T.S.

SEE SHEET 2 OF THIS SET FOR GENERAL NOTES AND REFERENCES

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

PLANS ARE FINAL FOR SANITARY SEWER AND WATER MAIN DESIGN

PRELIMINARY AND FINAL MAJOR SITE PLAN FOR
THE GREENS AT MENDHAM VILLAGE
CONSTRUCTION DETAILS
BLOCK 1801, LOT 5
BOROUGH OF MENDHAM, MORRIS COUNTY, NEW JERSEY

SHEET No. 24 OF 28

Bowman Consulting Group Ltd
Suite 101, 1 Washington Blvd
Parsippany, New Jersey 07054
Phone: 973-359-8400
FAX: 973-359-8455
N.J. Certificate of Authorization No. 24GA28229600
E-mail: NJ@bowman.com
ERIC L. KELLER, N.J. Professional Engineer, Lic. 24GE03205400

PROJ.: 081228-05-002
DWG.: 081228
CHKD:
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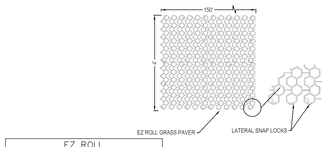
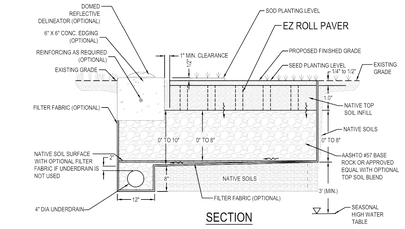


EZ ROLL ENGINEERED PERMEABLE PAVER GRASS SURFACE AS MANUFACTURED BY NDS; NDSPRO.COM

PLAN VIEW

EZ ROLL™ GRASS PAVER PRODUCT DESCRIPTION
CELL SIZE: 2-1/4" HEXAGONAL CELLS
STOCK ROLL SIZES: 4'W X 150'L (600 SQ. FT.)

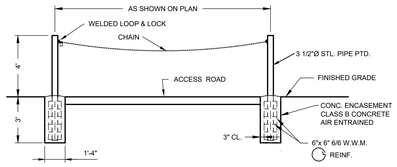


SECTION

NOTE: TO BE INSTALLED PER MANUFACTURER RECOMMENDATIONS

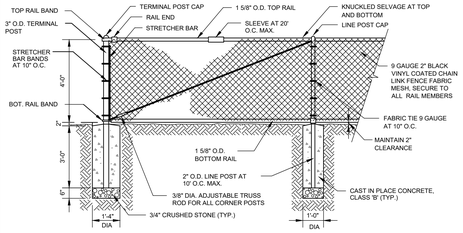
GRASS PAVER DETAIL

N.T.S.



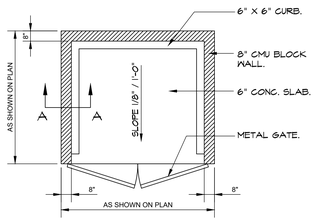
BOLLARD AND CHAIN GATE

N.T.S



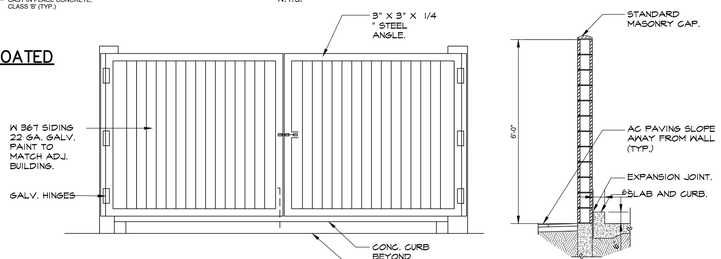
CHAIN LINK FENCE–BLACK VINYL COATED

SCALE: NTS



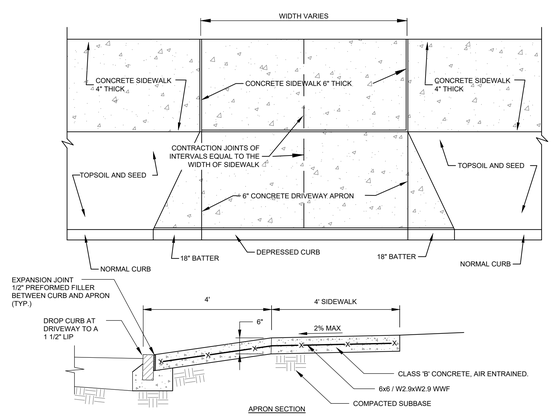
DUMPSTER ENCLOSURE PLAN

N.T.S.



TRASH ENCLOSURE (CMU W/STUCCO)

N.T.S.



DETAIL OF STANDARD CONCRETE APRON

N.T.S

WOODFORD

Backflow Protected Automatic Draining *Freezeless* Yard Hydrant

Model Y2

The Model Y2 is an automatic draining, backflow protected, frost proof yard hydrant designed for filling field spray equipment, cleaning tools, lawn and garden care, watering livestock – immediate water flow even in sub-zero temperatures.

SPECIFICATIONS:

HOSE CONNECTION BACKFLOW PREVENTER – NIDEL Model 3716F w/3/4" male hose thread ASSE 1052 approved Field Testable Two Check Valves

AUTOMATIC DRAINING – Hydrant drains when shut off, even with hose attached.

ADJUSTABLE LINK – Provides easy and positive adjustment of the lever lock-in tension.

ROD GUIDE – Eliminates side pull on rod, reduces wear on packing, packing nut and stem.

FLOW-FINDER with LOCK – A simple cam that can be set to automatically obtain the same flow each time or lock against accidental opening.

LONG LIFE PACKING – Teflon impregnated packing in deep chamber with adjustable packing nut.

ONE PIECE VARIABLE FLOW PLUNGER – Large cushion type seal for longer life – is not easily damaged and assures shut-off even when foreign particles are present. Automatic drain feature – plunger opens drain to prevent freezing – closes at any flow to prevent wasting water.

AIR VENT – Automatically drains the hydrant even with attached hose. (Patent Pending)

FEMALE INLET – 1" N.P.T.

CASING – 1 ¼" galvanized steel pipe.

OPERATING ROD – 3/8" galvanized steel pipe.

DRAIN HOLE – Tapped – 1/8" N.P.T.

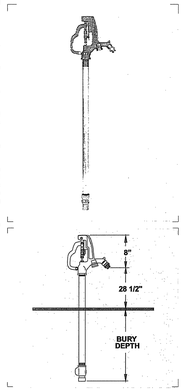
MAX PRESSURE – 125 p.s.i.

MAX TEMPERATURE - 120° F

SHIPPING WEIGHT -

Bury Depth (ft)	1	2	3	4	5	6*	7*
Weight (lbs)	18	20	22	25	28	31	34

*Must ship by truck line due to length.



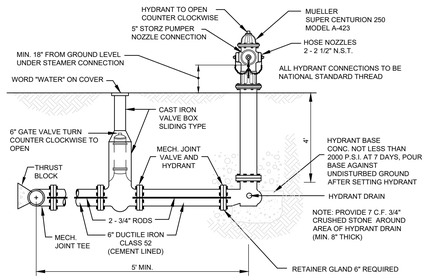
When ordering, specify model and bury depth.

©1999 WOODFORD Mfg.

Rev. 12/99 Form No. Y2.104

YARD HYDRANT DETAIL

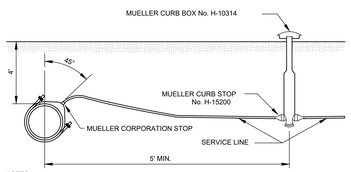
SCALE: NTS
OR APPROVED EQUAL



NOTES:
1. UNLESS OTHERWISE SPECIFIED - WATER MAIN SHALL BE DUCTILE IRON PIPE CLASS 52 (CEMENT LINED)
2. GATE VALVES SHALL BE MUELLER OR APPROVED EQUAL.
3. HYDRANTS SHALL BE MUELLER.
4. VALVE BOX SHALL BE SLIDING.

TYPICAL HYDRANT INSTALLATION

N.T.S.

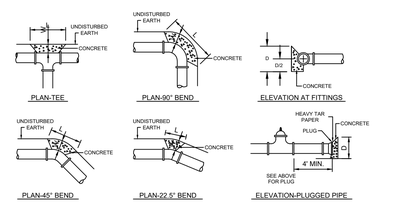


NOTES:
1. NEW TAPS LARGER THAN 1" INTO DUCTILE IRON CEMENT LINED OR CAST IRON WATER MAIN MAY REQUIRE A SERVICE SADDLE WITH STAINLESS STEEL STRAPS.

2. SERVICE PIPE SHALL BE BEDDED AND BACKFILLED WITH FINE GRANULAR MATERIAL TO PROTECT AGAINST IMPACT OR POINT LOADS BEARING DIRECTLY ON THE PIPE

TYPICAL WATER SERVICE INSTALLATION

N.T.S.



THRUST BLOCK SCHEDULE								
PIPE SIZE	TEE		22.5° BEND		45° BEND		90° BEND	
	L	D	L	D	L	D	L	D	W
6"	1'-3"	1'-3"	1'-6"	1'-0"	1'-6"	1'-0"	1'-3"	1'-9"
8"	2'-0"	1'-6"	1'-6"	1'-0"	1'-6"	1'-0"	2'-0"	1'-6"	2'-0"
10"	2'-6"	1'-9"	1'-9"	1'-0"	1'-9"	1'-0"	2'-6"	1'-9"	2'-3"
12"	3'-0"	2'-0"	2'-0"	1'-0"	2'-0"	1'-0"	3'-0"	2'-0"	2'-6"
16"	4'-0"	2'-6"	2'-0"	1'-0"	2'-6"	1'-0"	4'-0"	2'-6"	2'-7"
20"	5'-3"	3'-0"	2'-0"	1'-6"	3'-0"	2'-0"	5'-3"	3'-0"	2'-9"

BASIS:
2,000 LBS/SQ.FT. SOIL RESISTANCE
250 PSI WATER PRESSURE
CORRECTION FACTORS FOR OTHER SOILS:

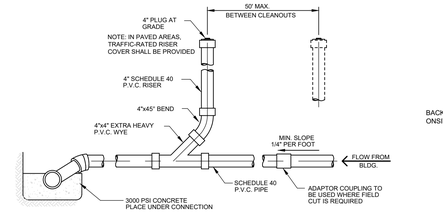
SOFT CLAY	4
SAND	2
SAND & GRAVEL	1.33
SHALE	0.4

NOTE:
IF SOFT MATERIALS ARE ENCOUNTERED, THE THRUST BLOCK SIZES SHALL BE ADJUSTED ACCORDINGLY.
ALL THRUST BLOCK SHALL BE POURED IN FULL CONTACT WITH UNDISTURBED SOIL.

WHERE CONCRETE IS IN DIRECT CONTACT WITH THE PROPOSED PIPE, 15lb FELT PAPER SHALL BE INSTALLED BETWEEN THE PIPE AND CONCRETE.

THRUST BLOCK DETAIL

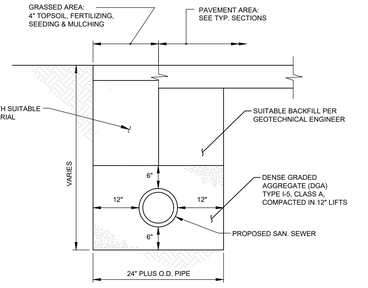
N.T.S.



NOTES:
1. ALL COUPLINGS, PLUGS, SOIL PIPES & CAPS TO BE STANDARD FOR TYPE OF PIPE USED, INSTALLATION TO BE WATERTIGHT.
2. ALL PLUG THREADS SHALL BE GREASED AT TIME OF INSTALLATION.
3. POLYVINYL CHLORIDE PIPE AND FITTINGS FOR HOUSE LATERALS SHALL CONFORM TO A.S.T.M. D-3034.
4. PROVIDE ADEQUATE PROTECTION FOR SEWER DURING INSTALLATION OF BUILDING CONNECTION.

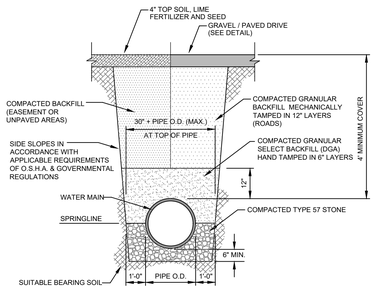
SANITARY SEWER LATERAL

N.T.S.



SANITARY SEWER TRENCH DETAIL

N.T.S.

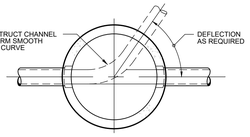


WATERMAIN TRENCH DETAIL

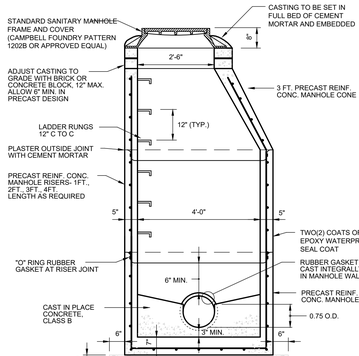
NOT TO SCALE

COVER

NTS



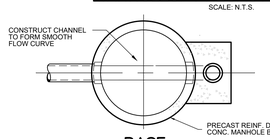
BASE



NOTE:
PRECAST MANHOLE SECTIONS PER ASTM C478

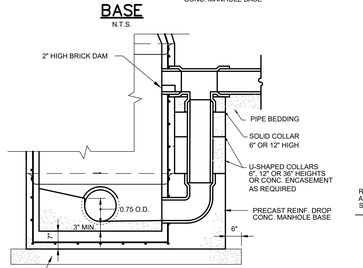
MANHOLES, PRECAST (SANITARY)

SCALE: N.T.S.



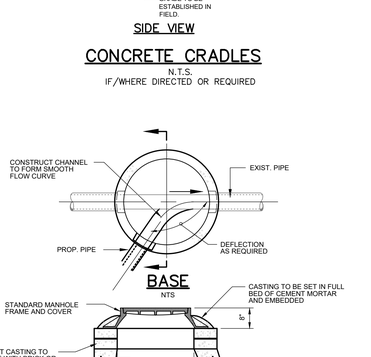
BASE

N.T.S.

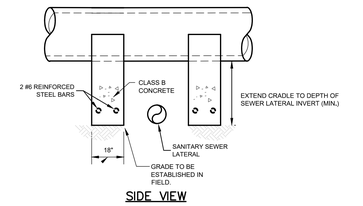


DROP CONNECTION FOR SANITARY MANHOLES

ALSO SEE SANITARY MANHOLE DETAIL
N.T.S.



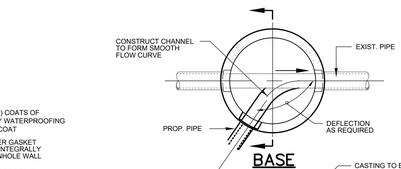
PLAN VIEW



SIDE VIEW

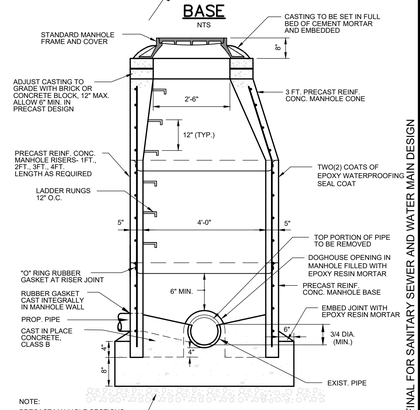
CONCRETE CRADLES

N.T.S.
IF/WHERE DIRECTED OR REQUIRED



BASE

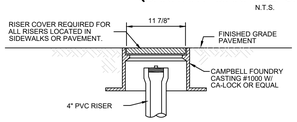
NTS



SANITARY MANHOLE, PRECAST (DOGHOUSE)

(SANITARY MANHOLE ON EXIST. PIPE)

N.T.S.



RISER COVER DETAIL

N.T.S.

SEE SHEET 2 OF THIS SET FOR GENERAL NOTES AND REFERENCES

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

PLANS ARE FINAL FOR SANITARY SEWER AND WATER MAIN DESIGN

PRELIMINARY AND FINAL MAJOR SITE PLAN FOR
THE GREENS AT MENDHAM VILLAGE
CONSTRUCTION DETAILS
BLOCK 1801, LOT 5
BOROUGH OF MENDHAM, MORRIS COUNTY, NEW JERSEY

NO.	DATE	REVISION
12		
11		
10		
9		
8		
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PROJ.: 081228-05-002
DATE: 02/26/26
CHKD:

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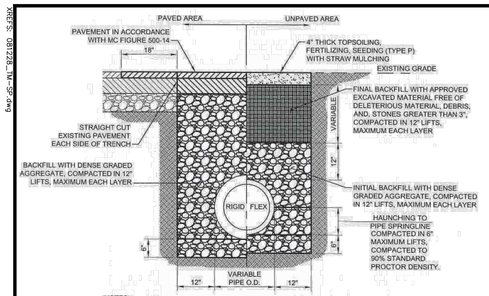
SHEET No.
25
OF
28

X:\081228 – Doytsp – West Main St – Mendham\081228-01-001 (ENG)\Engineering\Engineering Plans\04 Site Plan\081228-SP-DET.dwg 02/17/26 01:40:01PM pdelphon, LAYOUT: C



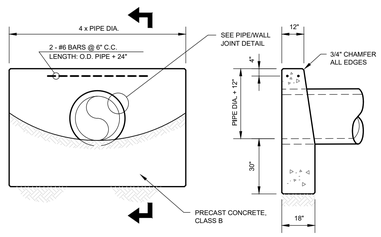
NOTES:

1. REINFORCED CONCRETE CULVERT PIPE, MINIMUM 15" DIAMETER, SHALL BE UTILIZED IN ALL COUNTY RIGHT-OF-WAYS WETHER PAVED OR UNPAVED.
2. CONTRACTOR SHALL HAND COMPACT DQA BENEATH THE HAUNCHES OF FLEXIBLE PIPE TO ENSURE INSTALLATION MEETS OR EXCEEDS MANUFACTURER'S SPECIFICATIONS.
3. IF NO OTHER CONTROLLING FACTORS EXIST, ALL CONCRETE PIPE SHALL BE INSTALLED IN ACCORDANCE WITH ACTIVE STANDARD ASTM C1479. ALL THERMOPLASTIC PIPE SHALL BE INSTALLED IN ACCORDANCE WITH ACTIVE STANDARD ASTM D2321.
4. SOIL IN THE OUTER BEDDING, HAUNCH, AND LOWER SIDE ZONES SHALL BE COMPACTED TO AT LEAST THE SAME COMPACTION AS THE MAJORITY OF SOIL IN THE OVERFILL ZONE. SOIL SHALL BE COMPACTED WITHIN 2% OF OPTIMUM WATER CONTENT.
5. BACKFILLING WITH EXCAVATED MATERIAL SHALL NOT BE PERMITTED IN TRENCHES FOR STORM SEWERS AND ALL OTHER UTILITIES.
6. TYPE OF SEEDING SHALL MEET THE MORRIS COUNTY SOIL CONSERVATION DISTRICT REQUIREMENTS.
7. SURFACE COURSE PAVEMENT SHALL BE PLACED IN TWO STAGES IN ACCORDANCE WITH THE FOLLOWING:
   - A. STAGE I - 2" HMA 9.5M 64 SHALL BE COMPACTED FLUSH TO EXISTING PAVEMENT.
   - B. STAGE II - AFTER 6 MONTHS, THE TRENCH WIDTH PLUS 36" SHALL BE MILLED 2" DEEP AND SHALL BE RESURFACED WITH 2" HMA 9.5M 64 COMPACTED FLUSH TO EXISTING PAVEMENT.

FIGURE 500-15		
MORRIS COUNTY TYPICAL DETAIL, TRENCH DETAIL		
NOT TO SCALE	5/2011	MOC

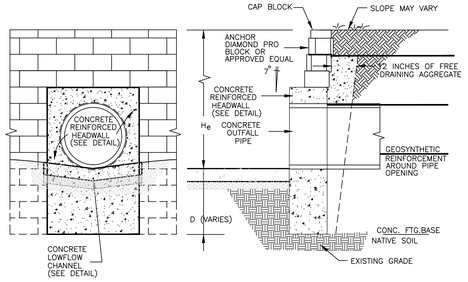
TRENCH DETAIL

MORRIS COUNTY TRENCH DETAIL
FOR USE IN THE WEST MAIN STREET ROW
N.T.S.



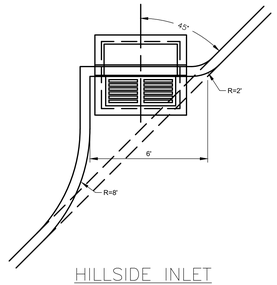
ELEVATION SECTION

PRECAST CONCRETE HEADWALL (OUTLET)
FOR USE AT RETAINING WALLS; COORDINATE WITH RETAINING WALL DESIGN.
N.T.S.

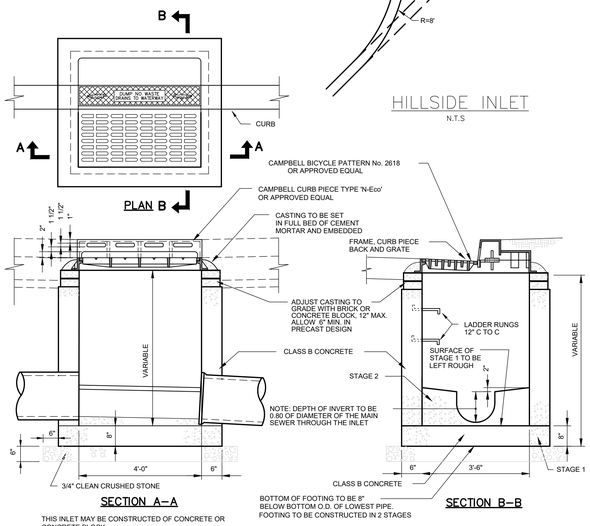


FACE WALL SECTION

PIPE OUTLET THROUGH RETAIING WALL
N.T.S.



HILLSIDE INLET
N.T.S

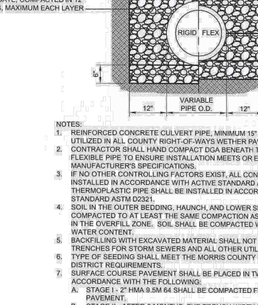


SECTION A–A SECTION B–B

THIS INLET MAY BE CONSTRUCTED OF CONCRETE OR CONCRETE BLOCK.

BOTTOM OF FOOTING TO BE 8" BELOW BOTTOM O.D. OF LOWEST PIPE. FOOTING TO BE CONSTRUCTED IN 2 STAGES

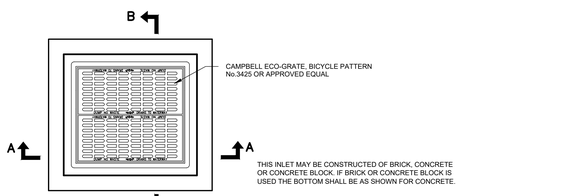
INLET TYPE "B"
WITH C.I. CURB PIECE–BACK–FRAME AND GRATE
N.T.S.



SECTION

1. THIS INLET MAY BE CONSTRUCTED OF BRICK, CONCRETE OR CONCRETE BLOCK. IF BRICK OR CONCRETE BLOCK IS USED THE BOTTOM SHALL BE AS SHOWN FOR CONCRETE.
2. *WALLS SHAL BE 4" MIN. IF PRECAST AND 6" MIN. IF BLOCK.

2' X 2' CONCRETE YARD INLET
N.T.S.



SECTION A–A SECTION B–B

THIS INLET MAY BE CONSTRUCTED OF CONCRETE OR CONCRETE BLOCK.

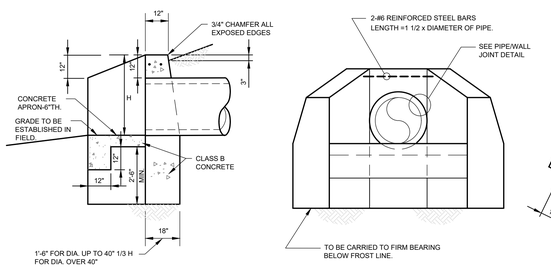
THIS INLET MAY BE CONSTRUCTED OF BRICK, CONCRETE OR CONCRETE BLOCK. IF BRICK OR CONCRETE BLOCK IS USED THE BOTTOM SHALL BE AS SHOWN FOR CONCRETE.

BOTTOM OF FOOTING TO BE 8" BELOW BOTTOM O.D. OF LOWEST PIPE. FOOTING TO BE CONSTRUCTED IN 2 STAGES

INLET TYPE "E"
N.T.S.

NOTE:
1. ALL SCHEDULE 40 FITTINGS TO BE SOLVENT CEMENTED.
2. INSPECTION PORTS TO BE PROVIDED AT ALL ENDS AND JUNCTIONS OF UNDERDRAIN SYSTEMS.

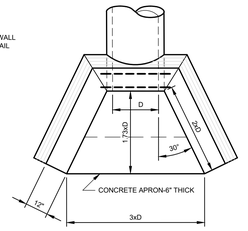
INSPECTION PORT DETAIL \ CLEANOUT
FOR BASIN UNDERDRAINS
N.T.S.



1'-6" FOR DIA. UP TO 40" 1/3 H FOR DIA. OVER 40"

OUTLET END

END VIEW

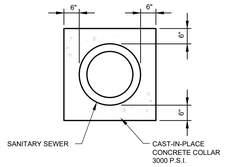


PLAN

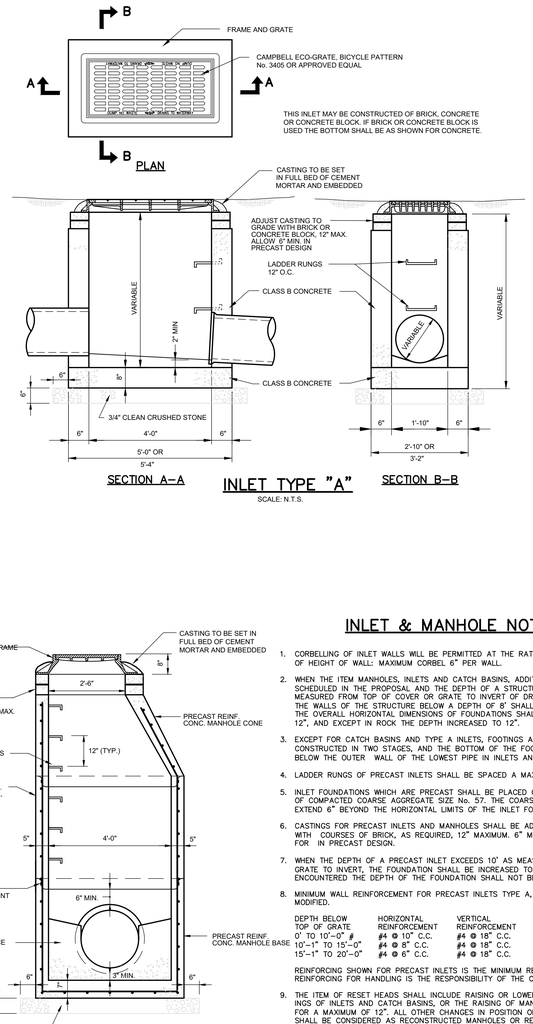
GENERAL NOTES

1. ALL EDGES TO BE CHAMFERED 3/4".
2. FOR MORE THAN ONE PIPE, SET THE PIPES A MINIMUM OF ONE FOOT APART (OUTSIDE BARREL TO OUTSIDE BARREL); THERE SHALL BE 12" ABOVE THE TOP OF A PIPE IN A WINGWALL: THE TERMINUS OF THE WINGWALL SHALL BE 2D FROM THE CENTERLINE OF THE PIPE IN A WINGWALL.
3. THE TERMINUS FOR OUTLET AND INLET APRONS SHALL BE SET BY EXTENDING THE PIPE GRADE AHEAD AND BACK, RESPECTIVELY.
4. FOR ARCH PIPE, THE SPAN SHALL BE SUBSTITUTED FOR D.

PRECAST CONCRETE HEADWALL
N.T.S.



PIPE ENCASEMENT DETAIL
N.T.S.



THIS INLET MAY BE CONSTRUCTED OF BRICK, CONCRETE OR CONCRETE BLOCK. IF BRICK OR CONCRETE BLOCK IS USED THE BOTTOM SHALL BE AS SHOWN FOR CONCRETE.

SECTION A–A INLET TYPE "A" SECTION B–B

SCALE: N.T.S.

NOTE:
PRECAST MANHOLE SECTIONS PER ASTM C478

MANHOLES, PRECAST (STORM)
SCALE: N.T.S.

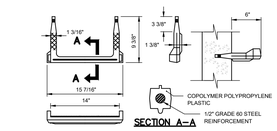
INLET & MANHOLE NOTES

1. CORBELLING OF INLET WALLS WILL BE PERMITTED AT THE RATE OF 1/2" PER 8" OF HEIGHT OF WALL; MAXIMUM CORBEL 6" PER WALL.
2. WHEN THE ITEM MANHOLES, INLETS AND CATCH BASINS, ADDITIONAL DEPTH, IS SCHEDULED IN THE PROPOSAL AND THE DEPTH OF A STRUCTURE EXCEEDS 10' AS MEASURED FROM TOP OF COVER OR GRATE TO INVERT OF DRAINAGE STRUCTURE, THE WALLS OF THE STRUCTURE BELOW A DEPTH OF 8' SHALL BE 12" THICK, AND THE OVERALL HORIZONTAL DIMENSIONS OF FOUNDATIONS SHALL BE INCREASED 12", AND EXCEPT IN ROCK THE DEPTH INCREASED TO 12".
3. EXCEPT FOR CATCH BASINS AND TYPE A INLETS, FOOTINGS AND INVERTS SHALL BE CONSTRUCTED IN TWO STAGES, AND THE BOTTOM OF THE FOOTINGS SHALL BE 8" BELOW THE OUTER WALL OF THE LOWEST PIPE IN INLETS AND 10" IN MANHOLES.
4. LADDER RUNGS OF PRECAST INLETS SHALL BE SPACED A MAXIMUM OF 18".
5. INLET FOUNDATIONS WHICH ARE PRECAST SHALL BE PLACED ON A 6" THICK BED OF COMPACTED COARSE AGGREGATE SIZE No. 57. THE COARSE AGGREGATE SHALL EXTEND 6" BEYOND THE HORIZONTAL LIMITS OF THE INLET FOUNDATION.
6. CASTINGS FOR PRECAST INLETS AND MANHOLES SHALL BE ADJUSTED TO GRADE WITH COURSES OF BRICK, AS REQUIRED, 12" MAXIMUM. 6" MIN. SHALL BE ALLOWED FOR IN PRECAST DESIGN.
7. WHEN THE DEPTH OF A PRECAST INLET EXCEEDS 10' AS MEASURED FROM TOP OF GRATE TO INVERT, THE FOUNDATION SHALL BE INCREASED TO 12". WHEN ROCK IS ENCOUNTERED THE DEPTH OF THE FOUNDATION SHALL NOT BE INCREASED.
8. MINIMUM WALL REINFORCEMENT FOR PRECAST INLETS TYPE A, B, C, E, D–1 AND B MODIFIED.

DEPTH BELOW TOP OF GRATE	HORIZONTAL REINFORCEMENT	VERTICAL REINFORCEMENT	WALL THICKNESS
0' TO 10'–0" #	#4 @ 10" C.C.	#4 @ 18" C.C.	6"
10'–1" TO 15'–0"	#4 @ 8" C.C.	#4 @ 18" C.C.	6"
15'–1" TO 20'–0"	#4 @ 6" C.C.	#4 @ 18" C.C.	6"

REINFORCING SHOWN FOR PRECAST INLETS IS THE MINIMUM REQUIRED. ADDITIONAL REINFORCING FOR HANDLING IS THE RESPONSIBILITY OF THE CONTRACTOR.

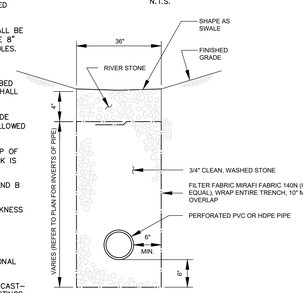
9. THE ITEM OF RESET HEADS SHALL INCLUDE RAISING OR LOWERING THE HEAD CASTINGS OF INLETS AND CATCH BASINS, OR THE RAISING OF MANHOLE HEAD CASTINGS, FOR A MAXIMUM OF 12". ALL OTHER CHANGES IN POSITION OF HEAD CASTING SHALL BE CONSIDERED AS RECONSTRUCTED MANHOLES OR RECONSTRUCTED INLETS OR CATCH BASINS.
10. WHEN CURB PIECE HEIGHT SPECIFIED IS GREATER THAN CURB FACE HEIGHT, DEPRESS THE GUTTER OF GRATE SO THAT THE TOP OF CURB PIECE IS AT THE SAME ELEVATION AS THE TOP OF CURB.



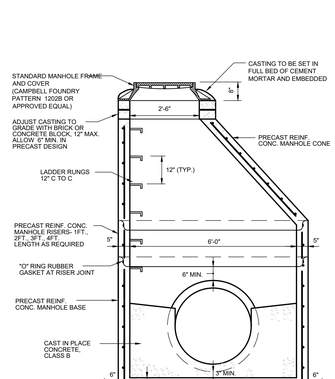
SECTION A–A

FOR ROADWAY LOCATIONS STEPS SHALL BE ORIENTED TO ALLOW VIEWING OF ONCOMING TRAFFIC WHEN EXITING STRUCTURE

COPOLYMER POLYPROPYLENE PLASTIC LADDER RUNG
N.T.S.

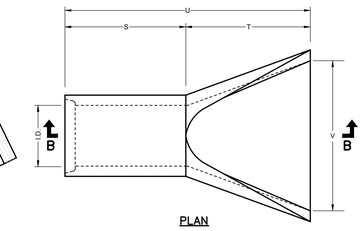


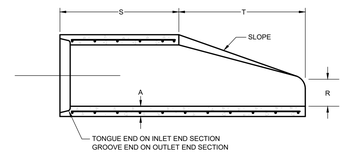
FRENCH DRAIN DETAIL
N.T.S.



NOTE:
PRECAST MANHOLE SECTIONS PER ASTM C478

MANHOLES, 6' DIA., PRECAST (STORM)
SCALE: N.T.S.



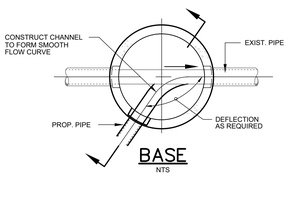


SECTION B–B FRONT ELEVATION

I.D.	12	15	18	21	24	27	30	36	42	48	54	60
A	2	2 1/4	2 1/2	2 3/4	3	3 1/4	3 1/2	4	4 1/2	5	5 1/2	6
R	5	7 1/2	9	9	10	10	14	14	21	24	27	31
S	24	24	24	24	24	24	26	26	36	36	36	36
T	24	24	24	24	24	24	30	36	60	60	60	60
D (FEET)	4	4	4	4	4	4	4'-8"	5'-2"	8	8	8	8
V	24	28	34	40	48	54	60	72	78	84	90	96
WT.,FT (POUNDS)	360	480	640	860	920	1200	1540	2100	5500	6500	8200	9300

NOTE: ALL NUMBERS REPRESENT INCHES UNLESS OTHERWISE SPECIFIED. MINOR VARIATIONS TO THE ABOVE DIMENSIONS ARE ACCEPTABLE WITH THE EXCEPTION OF THE INSIDE DIAMETER DIMENSION.

REINFORCED CONCRETE FLARED END SECTION
N.T.S.



BASE
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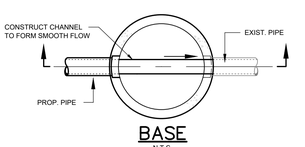

BASE
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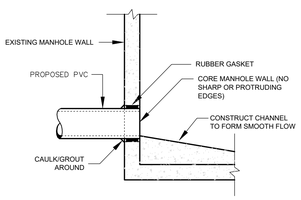
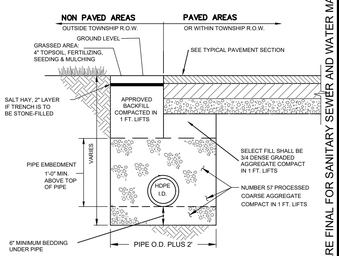


PIPE CONNECTION TO EXISTING MANHOLE
N.T.S.



NOTES:
1. ALL INSTALLATION PROCEDURES, BEDDING, BACKFILL, AND EMBEDMENT COMPACTION SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
2. COMPACTED BACKFILL TO BE FREE OF EXCESSIVE CLAY, ORGANIC MATERIAL AND BOULDERS
3. RECYCLED CONCRETE IS NOT TO BE USED AS BACKFILL

SMOOTH WALL CORRUGATED HDPE PIPE TRENCH
N.T.S.

SEE SHEET 2 OF THIS SET FOR GENERAL NOTES AND REFERENCES

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

REVISION	DATE	CHKD
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REVISION	DATE	CHKD
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ERIC L. KELLER, N.J. Professional Engineer, Lic. 24GE03205400

PLANS ARE FINAL FOR SANITARY SEWER AND WATER MAIN DESIGN

PRELIMINARY AND FINAL MAJOR SITE PLAN FOR
THE GREENS AT MENDHAM VILLAGE
CONSTRUCTION DETAILS
BLOCK 1801, LOT 5
BOROUGH OF MENDHAM, MORRIS COUNTY, NEW JERSEY

SHEET No. 26 OF 28

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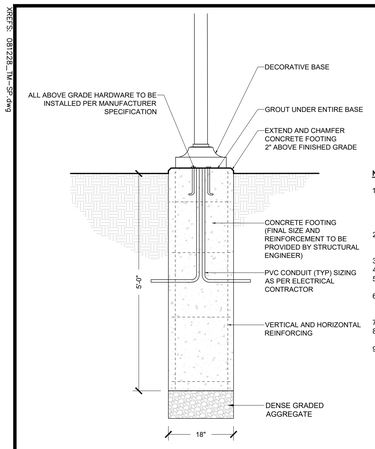
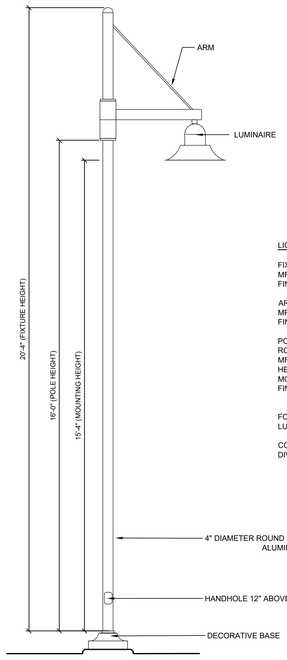


NOTES:

1. THIS DETAIL IS FOR GENERAL REFERENCE AND PRELIMINARY COST ESTIMATING PURPOSES. THE LIGHT POLE FOUNDATION SHALL BE DESIGNED BY A LICENSED STRUCTURAL ENGINEER BASED ON POLE HEIGHT, EXISTING SOIL CONDITIONS, LOCAL DESIGN STANDARDS AND MANUFACTURERS RECOMMENDATIONS.
2. CONTRACTOR SHALL CONFIRM POLE MEETS WIND RATINGS REQUIREMENTS FOR THE PROJECT LOCATION AND WITH THE PRODUCT SALES REPRESENTATIVE PRIOR TO ORDERING.
3. DEPTH OF FOOTING TO EXTEND A BEYOND FROST LINE (TYP.).
4. INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS.
5. ANCHOR BOLTS AND HARDWARE AS RECOMMENDED/SUPPLIED BY THE MFG.
6. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW/APPROVAL PRIOR TO FABRICATION OR EQUAL TO BE APPROVED BY OWNER
7. FIXTURE TO BE WIRED BY PROJECT ELECTRICAL CONTRACTOR.
8. ALL ELECTRICAL WIRING AND COMPONENTS TO COMPLY WITH N.E.C. AND ALL OTHER APPLICABLE CODES.
9. BOLT CIRCLE AS PER MANUFACTURERS STANDARD SPECIFICATIONS.

LIGHTING POLE FOUNDATION
N.T.S.



LIGHT FIXTURE P1-P2:

FIXTURE MODEL: UCM -FLR
MFR: ARCHITECTURAL AREA LIGHTING
FINISH: BLACK

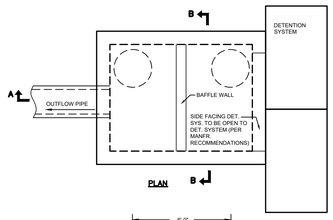
ARM MODEL: SLIPS OVER 4" POLE
MFR: ARCHITECTURAL AREA LIGHTING
FINISH: BLACK

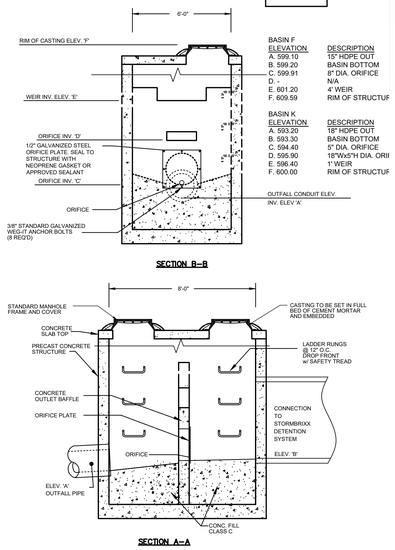
POLE MODEL: RSS-A SERIES POLES-ROUND STRAIGHT STEEL
MFR: BEACON
HEIGHT: 16' (SEE LUMINAIRE SCHEDULE)
MOUNTING CONFIGURATION: SINGLE (S)
FINISH: BLACK

FOR ADDITIONAL INFORMATION SEE LUMINAIRE SCHEDULE

CONTACT: MATTHEW STERNER, DIVERSIFIED LIGHTING 908-907-8462

LIGHT FIXTURE 'P1-P2'
N.T.S.





BASIN F	
ELEVATION	DESCRIPTION
A. 599.10	15" HDPE OUT
B. 599.20	BASIN BOTTOM
C. 599.91	8" DIA. ORIFICE
D. -	N/A
E. 601.20	4' WEIR
F. 609.59	RIM OF STRUCTUF

BASIN K	
ELEVATION	DESCRIPTION
A. 593.20	18" HDPE OUT
B. 593.30	BASIN BOTTOM
C. 594.40	5" DIA. ORIFICE
D. 595.90	18"Wx5"H DIA. ORI
E. 596.40	1' WEIR
F. 600.00	RIM OF STRUCTUF

UNDERGROUND OUTLET STRUCTURE DETAIL
N.T.S

IMAGE SHOWN FOR REFERENCE

LIGHT FIXTURE W1:
MODEL: BB 18
MFR: ANP LIGHTING
REFER TO LUMINAIRE SCHEDULE FOR OTHER PRODUCT INFORMATION
WWW.LSICORP.COM

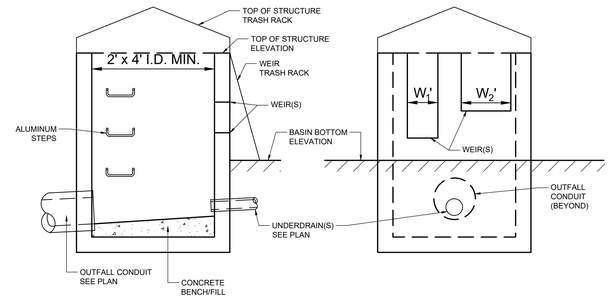
CONTACT: MATTHEW STERNER, DIVERSIFIED LIGHTING 908-907-8462

LIGHT FIXTURE 'W1'
N.T.S.

LIGHT FIXTURE B1:
MODEL: IF ROUND- BD
MFR: EWO
REFER TO LUMINAIRE SCHEDULE FOR OTHER PRODUCT INFORMATION
WWW.LSICORP.COM

CONTACT: MATTHEW STERNER, DIVERSIFIED LIGHTING 908-907-8462

LIGHT FIXTURE 'B1'
N.T.S.



SECTION

BASIN # A	
ELEV. 551.50	BOTTOM OF BASIN
ELEV. 552.25	4" ORIFICE
ELEV. 553.70	2.0 FT WEIR
ELEV. 554.50	TOP OF STRUCTURE

BASIN #B-	
ELEV. 574.00	BOTTOM OF BASIN
ELEV. 574.50	7" ORIFICE
ELEV. 576.85	2 FT WEIR
ELEV. 578.30	TOP OF STRUCTURE

BASIN #C	
ELEV. 560.00	BOTTOM OF BASIN
ELEV. 560.55	3" ORIFICE
ELEV. 562.20	1.0-FT WEIR
ELEV. 564.00	TOP OF STRUCTURE

BASIN #G	
ELEV. 609.00	BOTTOM OF BASIN
ELEV. 609.60	6" ORIFICE
ELEV. 611.75	TOP OF STRUCTURE

BASIN #I	
ELEV. 613.20	BOTTOM OF BASIN
ELEV. 614.20	4"H×10"W ORIFICE
ELEV. 615.40	4-FT WEIR
ELEV. 616.17	TOP OF STRUCTURE

BASIN #J	
ELEV. 607.00	BOTTOM OF BASIN
ELEV. 607.81	3" ORIFICE
ELEV. 611.80	4-FT WEIR
ELEV. 612.00	TOP OF STRUCTURE

BASIN #N	
ELEV. 596.50	BOTTOM OF BASIN
ELEV. 597.50	6" ORIFICE
ELEV. 598.50	1.5-FT WEIR
ELEV. 599.90	TOP OF STRUCTURE

BASIN #M	
ELEV. 568.00	BOTTOM OF BASIN
ELEV. 568.95	(2) 10" ORIFICE
ELEV.569.50	3-FT WEIR
ELEV. 571.45	TOP OF STRUCTURE

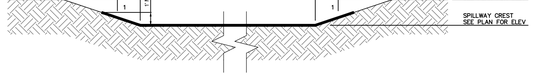
FRONT ELEVATION

BASIN #P	
ELEV. 576.00	BOTTOM OF BASIN
ELEV. 577.00	12" ORIFICE
ELEV. 578.20	3-FT WEIR
ELEV. 579.80	TOP OF STRUCTURE

BASIN #R	
ELEV.562.50	BOTTOM OF BASIN
ELEV. 562.80	10H"X10W; ORIFICE
ELEV. 564.30	2.5-FT WEIR
ELEV. 567.00	TOP OF STRUCTURE

NOTES:
1. REFER TO PLAN FOR UNDERDRAIN PIPE AND OUTLET PIPE INVERT ELEVATIONS AND ORIENTATIONS FOR EACH STRUCTURE.
2. SEASONAL HIGH WATER TABLE FOR SUBJECT SITE 325.92 PER GEOTECHNICAL REPORT BY M&Z ASSOCIATES

ABOVE–GROUND BASIN OUTLET STRUCTURE DETAIL
N.T.S



TYPICAL SECTION THRU SPILLWAY

EMERGENCY SPILLWAY DETAIL
BASIN A, B2, C AND E

THE ECOSTREAM BIOFILTER™ IS A BIOFILTRATION STORMWATER TREATMENT TECHONOLOGY THAT RELIES ON PHYSICAL, CHEMICAL AND BIOLOGICAL MECHANISMS TO REMOVE TOTAL SUSPENDED SOLIDS, TOTAL PHOSPHORUS, TOTAL NITROGEN, HEAVY METALS, OIL AND GREASE, TRASH AND BACTERIA.

Model	Filter Bay Size (ft)	Media Filtration Area (sf)	Overflow to Outlet Depth (in)	Design Treatment Rate (cfs)	Outlet Assembly Diameter (in)	Tree Grate Size & Number
ES16B	4 x 4	16	32	0.147	6	3 ft (1x)
ES24B	4 x 6	24	32	0.221	6	3 ft (1x)
ES32B	4 x 8	32	32	0.294	6	3 ft (1x)
ES36B	6 x 6	36	32	0.331	6	4 ft (1x)
ES40B	4 x 10	40	32	0.368	6	3 ft (2x)
ES48B	4 x 12	48	32	0.441	6	3 ft (2x)
ES48B	6 x 8	48	32	0.441	6	4 ft (1x)
ES60B	6 x 10	60	32	0.551	8	4 ft (1x)
ES72B	6 x 12	72	32	0.662	8	4 ft (2x)
ES80B	8 x 10	80	32	0.735	8	4 ft (1x)
ES96B	8 x 12	96	32	0.882	10	4 ft (2x)
ES112B	8 x 14	112	32	1.029	10	4 ft (2x)
ES128B	8 x 16	128	32	1.176	10	4 ft (2x)
ES 256	16X16	256	32	2.353		

NOTES:
- UNDERDRAIN SHOWN IS SCHEMATIC ONLY. FOR DETAILS ON UNDERDRAIN SIZING AND LAYOUT SEE ECOSTREAM INSTALLATION GUIDE FOR DETAILS, KIT NUMBER AND PLACEMENT OPTIONS.

ADS ECOSTREAM SPECIFICATIONS

PRODUCTS

A. INTERNAL COMPONENTS: SHALL BE SUBSTANTIALLY CONSTRUCTED OF RECYCLED POLYETHYLENE OR OTHER THERMOPLASTIC MATERIAL APPROVED BY THE MANUFACTURER

B. FILTER MEDIA: FILTER MEDIA SHALL BE BY ADS AND SHALL CONSIST OF A PROPRIETARY BLEND OF FILTER MEDIA.

C. PRECAST CONCRETE VAULT: DESIGNED FOR H-20 TRAFFIC LOADING AND APPLICABLE SOIL LOADS OR AS OTHERWISE DETERMINED BY A LICENSED PROFESSIONAL ENGINEER. THE MATERIALS AND STRUCTURAL DESIGN OF THE DEVICES SHALL BE PER ASTM C478, ASTM C857 AND ASTM C858.

PERFORMANCE

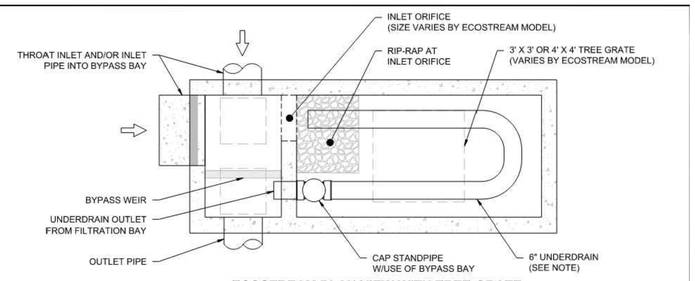
A. THE STORMWATER FILTER SYSTEM SHALL BE AN ONLINE OR OFFLINE DESIGN BASED ON LOCAL REQUIREMENTS CAPABLE OF TREATING 100% OF THE REQUIRED TREATMENT FLOW AT FULL SEDIMENT LOAD CONDITIONS.

B. THE STORMWATER FILTER SYSTEM SHALL HAVE NO MOVING PARTS.

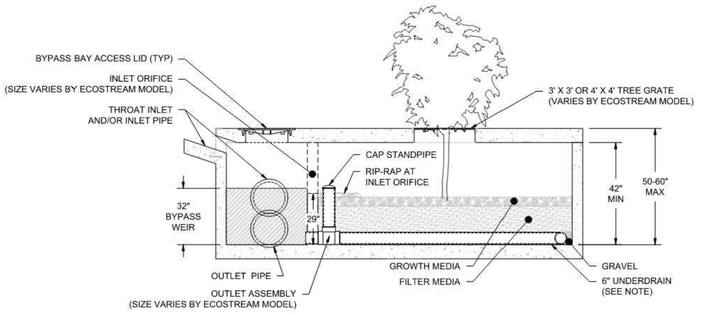
C. THE STORMWATER TREATMENT UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 80% OF SUSPENDED SOLIDS.

ECOSTREAM INSTALLATION NOTES

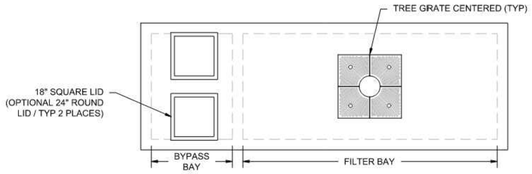
INSTALLATION OF THE STORMWATER TREATMENT UNIT(S) SHALL BE PERFORMED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. SUCH INSTRUCTIONS CAN BE OBTAINED BY CALLING ADVANCED DRAINAGE SYSTEMS AT (800) 821-6710 OR BY LOGGING ON TO WWW.ADSPIPE.COM.



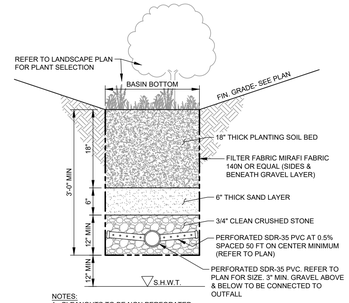
ECOSTREAM PLAN VIEW WITH TREE GRATE
NOT TO SCALE



ECOSTREAM PROFILE VIEW WITH TREE GRATE
NOT TO SCALE



TREE GRATE PLACEMENT
SIZE AND NUMBER OF TREE GRATES VARY BY ECOSTREAM MODEL

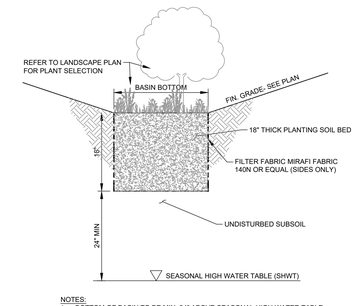


NOTES:
1. CLEANOUTS TO BE NON PERFORATED.
2. BOTTOM OF BASIN TO BE 12" ABOVE SEASONAL HIGH WATER TABLE
3. BASIN SHALL FULLY DRAINED WITHIN 72 HOURS FROM RAIN EVENT
4. PIPE HAVE MINIMUM 3" STONE ABOVE AND BELOW PIPE

BIORETENTION BASIN SPECIFICATIONS

1. THE BIORETENTION BASIN SHALL NOT BE UTILIZED AS A TEMPORARY SEDIMENT BASIN.
2. UNDERDRAIN PIPE SHALL BE PERFORATED SDR-35 PVC PIPE.
3. INSPECTION PORTS SHALL BE PROVIDED AT THE END OF EACH UNDERDRAIN SEGMENT, AS SHOWN ON THE PLAN. EACH INSPECTION PORT SHALL EXTEND AT LEAST 18-INCHES ABOVE THE PLANTING BED, WITH A PAINTED LINE 12-INCHES ABOVE THE PLANNING BED TO INDICATE THE DESIGN WATER SURFACE.
4. CLEAN CRUSHED STONE LAYER SHALL COMPLY WITH THE REQUIREMENTS OF AASHTO M-43 AND HAVE A MINIMUM PERMEABILITY OF FOUR INCHES PER HOUR. PRIOR TO INSTALLING THE SAND LAYER, THE ENGINEER SHALL VERIFY THAT THE THICKNESS AND PERMEABILITY OF THE STONE COMPLIES WITH THE SPECIFICATIONS.
5. SAND LAYER SHALL CONSIST OF CLEAN, AGGREGATE, CONCRETE SAND CONFORMING TO THE ASTM C-33 SPECIFICATION. THE SAND SHALL BE INSTALLED AND SPREAD IN ONE SIX-INCH THICK LIFT BY LABORERS (WITHOUT ANY HEAVY CONSTRUCTION EQUIPMENT DRIVING ACROSS THE INSTALLED SAND). PRIOR TO PROCEEDING WITH PLANTING BED MATERIAL, THE SAND DEPTH SHALL BE VERIFIED BY THE ENGINEER AND TESTED FOR PERMEABILITY. THE MINIMUM PERMEABILITY SHALL BE TWO-INCHES PER HOUR.
6. PLANTING BED MATERIAL SHALL BE INSTALLED IN THREE LIFTS OF 6-INCH DEPTH AND CONSIST OF THE FOLLOWING MIX, BY WEIGHT.:
   - 85% TO 95% SAND
   - LESS THAN 25% SAND TO BE FINE OR VERY FINE SAND
   - LESS THAN 5% SILT OR CLAY
7. EACH LIFT OF SAND SHALL BE SPREAD BY LABORERS (WITHOUT ANY HEAVY CONSTRUCTION EQUIPMENT DRIVING ACROSS THE INSTALLED SAND). PEAT, AT THE RATE OF FIVE TO SEVEN PERCENT, BY WEIGHT, SHALL BE UNIFORMLY ADDED AND RAKED INTO EACH LIFT BY THE LABORERS. UPON COMPLETION OF EACH LIFT, THE ENGINEER SHALL VERIFY THE THICKNESS IS ACCEPTABLE AND CONDUCT PERMEABILITY TEST TO ASSURE A MINIMUM PERMEABILITY OF 1 INCH PER HOUR IS ATTAINED.

BIORETENTION BASIN WITH UNDERDRAIN
NTS



NOTES:
1. BOTTOM OF BASIN TO BE MIN. 24" ABOVE SEASONAL HIGH WATER TABLE
2. BASIN SHALL FULLY DRAINED WITHIN 72 HOURS FROM RAIN EVENT

BIORETENTION BASIN SPECIFICATIONS

1. THE BIORETENTION BASIN SHALL NOT BE UTILIZED AS A TEMPORARY SEDIMENT BASIN.
2. PLANTING BED MATERIAL SHALL BE INSTALLED IN THREE LIFTS OF 6-INCH DEPTH AND CONSIST OF THE FOLLOWING MIX, BY WEIGHT.:
   - 85% TO 95% SAND
   - LESS THAN 25% SAND TO BE FINE OR VERY FINE SAND
   - LESS THAN 5% SILT OR CLAY

BIORETENTION BASIN (WITH INFILTRATION)
NTS

SEE SHEET 2 OF THIS SET FOR GENERAL NOTES AND REFERENCES

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

PLANS ARE FINAL FOR SANITARY SEWER AND WATER MAIN DESIGN

PRELIMINARY AND FINAL MAJOR SITE PLAN FOR
THE GREENS AT MENDHAM VILLAGE
CONSTRUCTION DETAILS
BLOCK 1801, LOT 5
BOROUGH OF MENDHAM, MORRIS COUNTY, NEW JERSEY

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N.J. Certificate of Authorization No: 24GA28229500
E-mail: NJ@Bowman.com

ERIC L. KELLER, N.J. Professional Engineer, Lic. 24GE03205400

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GENERAL LANDSCAPE PLANTING NOTES

1. EXAMINE ALL ENGINEERING DRAWINGS AND FIELD CONDITIONS FOR SPECIFIC LOCATIONS OF UTILITIES, STRUCTURES, ETC. AND NOTIFY THE LANDSCAPE ARCHITECT IN REFERENCE TO ANY DISCREPANCIES OR LOCATION CONFLICTS PRIOR TO PLANTING INSTALLATION.
2. CONTRACTOR SHALL COORDINATE ALL PLANTING INSPECTIONS AND APPROVALS WITH APPLICABLE MUNICIPAL OFFICIALS.
3. THE CONTRACTOR SHALL ENSURE THAT WORK DOES NOT INTERRUPT ESTABLISHED OR PROJECTED DRAINAGE PATTERNS.
4. IN THE EVENT OF VARIATION BETWEEN WRITTEN QUANTITIES AND QUANTITIES SHOWN ON THE PLAN, THE PLANS SHALL TAKE PRECEDENCE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES PRIOR TO THE COMMENCEMENT OF WORK. SOD AND SEED QUANTITY TAKE-OFFS ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL DISCREPANCIES SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT OR ENGINEER FOR CLARIFICATION PRIOR TO BIDDING. THE CONTRACTOR SHALL FURNISH PLANT MATERIAL IN SIZES AS SPECIFIED IN PLANT LIST.
5. NAMES OF PLANTS AS DESCRIBED ON THE LANDSCAPE PLANTING PLAN SHALL CONFORM TO THOSE GIVEN IN "STANDARDIZED PLANT NAMES", LATEST EDITION, PREPARED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE. NAMES OF PLANT VARIETIES NOT INCLUDED THEREIN CONFORM TO NAMES GENERALLY ACCEPTED IN NURSERY TRADE.
6. PLANTS SHALL BE LOCATED AS SHOWN ON THE DRAWINGS OR AS DESIGNATED IN THE FIELD.
7. ALL PLANT MATERIAL SHALL CONFORM TO CURRENT "AMERICAN STANDARDS FOR NURSERY STOCK" BY AMERICAN NURSERY & LANDSCAPE ASSOCIATION (ANLA). TREES SHALL BE NURSERY-GROWN, FREE OF DISEASE, SUBSTANTIALLY UNIFORM IN SIZE AND SHAPE AND HAVE STRAIGHT TRUNKS.
8. ALL PLANTS (B&B OR CONTAINER) SHALL BE PROPERLY IDENTIFIED BY WEATHERPROOF LABELS SECURELY ATTACHED THERETO BEFORE DELIVERY TO PROJECT SITE. LABELS SHALL IDENTIFY PLANTS BY SPECIES AND SIZE. LABELS SHALL NOT BE REMOVED UNTIL THE FINAL INSPECTION BY THE LANDSCAPE ARCHITECT OR ENGINEER.
9. ANY MATERIAL AND/OR WORK MAY BE REJECTED BY THE LANDSCAPE ARCHITECT OR ENGINEER IF IT DOES NOT MEET THE REQUIREMENTS OF THE SPECIFICATIONS. ALL REJECTED MATERIALS SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.
10. PLANT SUBSTITUTIONS SHALL BE PERMITTED ONLY WITH WRITTEN CONSENT OF THE OWNER OR LANDSCAPE ARCHITECT RELATIVE TO SIZE, SPECIES AND VARIETY. ALL PLANT MATERIAL SHALL BE TO TRUE SPECIES, VARIETY, AND SIZE AND BE CERTIFIED DISEASE AND INSECT FREE. WRITTEN PROOF OF UNAVAILABLE PLANT MATERIAL MUST BE DOCUMENTED.
11. ALL PROPOSED TREES TO BE INSTALLED EITHER ENTIRELY IN OR ENTIRELY OUT OF PLANTING BEDS. PLANTING BED LINES ARE NOT TO BE OBSTRUCTED. ALL SHRUBS AND GROUND COVER AREAS SHALL BE PLANTED IN CONTINUOUS PREPARED BED AND TOP DRESSED WITH A 3 INCH LAYER OF SHREDDED HARDWOOD MULCH. MULCH SHALL HAVE BEEN SHREDDED WITHIN THE LAST 180 MONTHS.
12. ALL EXPOSED GROUND SURFACES THAT ARE NOT PAVED WITHIN THE CONTRACT LIMIT LINE AND THAT ARE NOT OTHERWISE COVERED BY LANDSCAPE PLANTING THAT IS SPECIFIED, SHALL BE COVERED BY A 3 INCH LAYER OF SHREDDED HARDWOOD MULCH THAT WILL PREVENT SOIL EROSION AND THE EMANATION OF DUST.
13. NO PLANT SHALL BE PUT INTO THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY THE LANDSCAPE ARCHITECT OR ENGINEER.
14. ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL DEPTHS IN ACCORDANCE WITH THE TOPSOIL NOTES PRIOR TO PLANTING ACTIVITIES.
15. DELIVERY, STORAGE, AND HANDLING
    - A. PACKAGED MATERIALS: PACKAGED MATERIALS SHALL BE DELIVERED IN CONTAINERS SHOWING WEIGHT, ANALYSIS, AND NAME OF MANUFACTURER. MATERIALS SHALL BE PROTECTED FROM DETERIORATION DURING DELIVERY, AND WHILE STORED AT THE SITE.
    - B. TREES AND SHRUBS: THE CONTRACTOR SHALL PROVIDE TREES AND SHRUBS DUG FOR THE GROWING SEASON FOR WHICH THEY WILL BE PLANTED. DO NOT PRUNE PRIOR TO DELIVERY UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT OR ENGINEER. DO NOT BEND OR BIND-TIE TREES AND SHRUBS IN SUCH A MANNER AS TO DAMAGE BARK, BREAK BRANCHES, OR DESTROY NATURAL SHAPE. PROVIDE PROTECTIVE COVERING DURING TRANSIT. DO NOT DROP BALLED AND BURLAPPED STOCK DURING DELIVERY OR HANDLING.
    - C. ALL PLANTS SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN AS SPECIFIED. NO CONTAINER GROWN STOCK WILL ACCEPTED IF IT IS ROOT BOUND. ALL ROOT BALL WRAPPING AND BINDING MATERIAL MADE OF SYNTHETICS OR PLASTICS SHALL BE REMOVED FROM THE TOP OF THE BALL AT THE TIME OF PLANTING. IF THE PLANT IS SHIPPED WITH A WIRE BASKET AROUND THE ROOT BALL, THE WIRE BASKET SHALL BE CUT AND FOLDED DOWN 1/3 INTO THE PLANTING HOLE. WITH CONTAINER GROWN STOCK, THE CONTAINER SHALL BE REMOVED AND THE ROOT BALL SHALL BE CUT THROUGH THE SURFACE IN MULTIPLE LOCATIONS.
    - D. THE CONTRACTOR SHALL HAVE TREES AND SHRUBS DELIVERED TO SITE AFTER PREPARATIONS FOR PLANTING HAVE BEEN COMPLETED AND PLANT IMMEDIATELY. IF PLANTING IS DELAYED MORE THAN 6 HOURS AFTER DELIVERY, THE CONTRACTOR SHALL SET TREES AND SHRUBS IN SHADE PROTECT FROM WEATHER AND MECHANICAL DAMAGE AND KEEP ROOTS MOIST BY COVING WITH MULCH, BURLAP OR OTHER ACCEPTABLE MEANS OF RETAINING MOISTURE.
16. TRANSPLANTING:
    - A. PLANTS SHALL NOT BE DUG FOR TRANSPLANTING BETWEEN APRIL 10 AND JUNE 30.
    - B. ALL TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT.
    - C. IF PLANTS ARE TO BE STOCKPILED BEFORE REPLANTING, THEY SHALL BE HEALED IN WITH MULCH OR SOIL, ADEQUATELY WATERED AND PROTECTED FROM EXTREME HEAT, SUN AND WIND.
    - D. UPON REPLANTING, BACKFILL SOIL SHALL BE AMENDED WITH FERTILIZER AND ROOT GROWTH HORMONE.
    - E. TRANSPLANTS SHALL BE GUARANTEED FOR THE LENGTH OF THE GUARANTEE PERIOD SPECIFIED HEREIN.
    - F. IF TRANSPLANTS DIE, SHRUBS LESS THAN SIX INCHES (6") DBH SHALL BE REPLACED IN KIND.
17. BULBS SHALL BE PLANTED IN ACCORDANCE WITH SECTION 11 OF THE ANLA STANDARDS.
18. THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR STABILITY AND CONDITIONS OF ALL TREES AND SHRUBS AND SHALL BE LEGALLY LIABLE FOR ANY DAMAGE CAUSED BY INSTABILITY OF ANY PLANT MATERIALS. STAKING OF ALL TREES SHALL BE DONE AS INDICATED ON THE DOCUMENTS.
19. ALL TREE STAKES AND WIRES WILL BE REMOVED BY THE APPLICANT AFTER ONE (1) YEAR FROM THE DATE OF INSTALLATION.
20. VEGETATION PROPOSED AMONG EXISTING VEGETATION IS TO BE PLANTED TO AVOID DAMAGE TO THE EXISTING VEGETATION.
21. ALL STREET TREES AND SHADE TREES PLANTED NEAR PEDESTRIAN OR VEHICULAR ACCESS SHOULD NOT BE BRANCHED LOWER THAN 7' ABOVE GRADE.
22. MAINTAIN POSITIVE DRAINAGE OUT OF PLANTING BEDS AT A MINIMUM 2% SLOPE. ALL GRADES, DIMENSIONS AND EXISTING CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR ON SITE BEFORE CONSTRUCTION BEGINS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT, ENGINEER, OR OWNER.
23. ALL PLANTING BEDS SHALL RECEIVE 3 INCHES OF SHREDDED HARDWOOD MULCH (UNLESS OTHERWISE NOTED IN PLANS/DETAILS).
24. PLANT MATERIALS SHALL NOT BE INSTALLED UNTIL FINISHED GRADING HAS BEEN COMPLETED.
25. UPON COMPLETION OF ALL LANDSCAPING, AN ACCEPTANCE MEETING OF THE WORK SHALL BE HELD. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OR ENGINEER OR OWNER FOR SCHEDULING THE INSPECTION AT LEAST SEVEN (7) DAYS PRIOR TO THE ANTICIPATED INSPECTION DATE.
26. ALL TREES SHALL BE GUARANTEED FOR 24 MONTHS FROM TO DATE OF ACCEPTANCE. ALL SHRUBS AND GROUND COVERS SHALL BE GUARANTEED FOR 24 MONTHS FROM THE DATE OF ACCEPTANCE. REPLACEMENT PLANTS USED SHALL BE GUARANTEED FOR AN ADDITIONAL 90 DAYS.
27. PLANTING DATES:

    FALL
    AUGUST 15 - DECEMBER 15: EVERGREEN TREES
    OCTOBER 15 - DECEMBER 15: DECIDUOUS TREES

    SPRING
    MARCH 1 - MAY 15: ALL PLANTS
28. ALL LANDSCAPE PLANTED AREAS SHALL BE WATERED BY CONTRACTOR FOR ESTABLISHMENT AND GUARANTEE PERIOD.

COORDINATION:

29. THE CONTRACTOR SHALL COORDINATE WITH LIGHTING CONTRACTOR (WHEN / WHERE APPLICABLE) REGARDING TIMING OF INSTALLATION OF PLANT MATERIAL.
30. THE CONTRACTOR SHALL VERIFY THE EXISTENCE OF UNDERGROUND UTILITIES ON THE SITE THREE (3) DAYS PRIOR TO ANY EXCAVATION. THEIR EXACT LOCATION SHALL BE VERIFIED IN THE FIELD WITH THE OWNER OR GENERAL CONTRACTOR PRIOR TO THE COMMENCEMENT OF ANY DIGGING OPERATIONS. IN THE EVENT UTILITIES ARE UNCOVERED, THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL DAMAGE TO THE UTILITIES AND SUCH DAMAGE SHALL NOT RESULT IN ANY ADDITIONAL EXPENSES TO THE OWNER. ANY DAMAGE OF UNREPORTED LINES SHALL NOT BE THE RESPONSIBILITY OF THE CONTRACTOR.
31. IF UTILITY LINES ARE ENCOUNTERED IN EXCAVATION OF TREE PITS, OTHER LOCATIONS FOR TREES SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COMPENSATION. NO CHANGES OF LOCATION SHALL BE MADE WITHOUT APPROVAL OF THE LANDSCAPE ARCHITECT OR ENGINEER.
32. PROPOSED VEGETATION WITHIN RIPARIAN BUFFERS AND WETLAND BUFFERS IS TO BE PLANTED ENTIRELY BY HAND. NO REPLANTING IS TO OCCUR UNTIL APPROVAL IS RECEIVED AND A PERMIT ISSUED BY THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION.

INSTALLATION:

33. ALL EQUIPMENT AND TOOLS SHALL BE PLACED SO AS NOT TO INTERFERE OR HINDER THE PEDESTRIAN AND VEHICULAR TRAFFIC FLOW.
34. DURING PLANTING OPERATIONS EXCESS WASTE MATERIALS SHALL BE PROMPTLY AND FREQUENTLY REMOVED FROM THE SITE.
35. EVERY POSSIBLE SAFEGUARD SHALL BE TAKEN TO PROTECT BUILDING SURFACES, EQUIPMENT, AND FURNISHING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OR INJURY TO PERSON OR PROPERTY WHICH MAY OCCUR AS A RESULT OF HIS NEGLIGENCE IN THE EXECUTION OF THE WORK.

MAINTENANCE:

36. MAINTENANCE SHALL BEGIN AFTER EACH PLANT HAS BEEN INSTALLED AND SHALL CONTINUE UNTIL 90 DAYS AFTER FINAL ACCEPTANCE BY THE LANDSCAPE ARCHITECT OR OWNER REPRESENTATIVE. MAINTENANCE INCLUDES: WATERING, PRUNING, FERTILIZING, WEEDING, MULCHING, REPLACEMENT OF DISEASED OR DEAD PLANTS, AND ANY OTHER CARE NECESSARY FOR THE PROPER GROWTH OF THE PLANT MATERIAL. THE CONTRACTOR MUST BE ABLE TO PROVIDE CONTINUED MAINTENANCE IF REQUESTED BY THE OWNER. NEWLY INSTALLED PLANT MATERIAL SHALL BE WATERED AT THE TIME OF INSTALLATION. REGULAR WATERING SHALL BE PROVIDED TO ENSURE THE ESTABLISHMENT, GROWTH AND SURVIVAL OF PLANTS.

SOIL NOTES

1. CONTRACTOR SHALL PROVIDE A CERTIFIED SOIL TEST OF EXISTING ON SITE SOILS TO BE USED AS PART OF PLANTING BACKFILL MIXTURE.
2. PLANT BACKFILL MIXTURE: BACKFILL PLANT PITS WITH A MIXTURE OF TOPSOIL AND SOIL AMENDMENTS. AMENDMENTS SHALL BE ADDED AS RECOMMENDED BY CERTIFIED SOIL TEST.
3. CONTRACTOR SHALL PROVIDE PLANTING BACKFILL MIXTURE TO PROPOSED DEPTHS AS FOLLOWS: TREES (24 INCH MINIMUM OF PLANTING BACKFILL MIXTURE), SHRUBS (18 INCH MINIMUM OF PLANTING BACKFILL MIXTURE); PERENNIALS AND GROUNDCOVER (12 INCH MINIMUM OF PLANTING BACKFILL MIXTURE).
4. IF WET SOIL CONDITIONS EXIST THEN PLANT PITS SHALL BE EXCAVATED AN ADDITIONAL 12" AND THE ADDITIONAL AREA FILLED WITH SAND.
5. IMPORTED OR ON-SITE TOPSOIL MAY BE USED TO REFILL THE EXCAVATED AREA. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED, STORED AND PROTECTED PRIOR TO CONSTRUCTION. CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON-SITE TOPSOIL TO BE UTILIZED IN ALL PLANTING AREAS. CONTRACTOR TO MODIFY THE SOIL AS NEEDED TO MEET REQUIRED PH AND NUTRIENT LEVELS.
6. LAWN/LANDSCAPE RESTORATION AREAS: CONTRACTOR TO COMPLETELY REMOVE ALL UNDERLYING CONSTRUCTION MATERIALS AND SCARIFY/RIP REMAINING SOIL TO A DEPTH OF 24", INCLUDING A MINIMUM OF 6" THICK TOPSOIL.
7. ALL AREAS, WHICH ARE TO BE SEEDED, SHALL RECEIVE 5" OF TOPSOIL PRIOR TO SEEDING. PRIOR TO TOPSOIL PLACEMENT THE EXISTING SOIL SHALL BE RAKED CLEAN OF WEEDS, VEGETATION AND EXTRANEOUS MATERIALS SUCH AS WOOD, STONES, ROCKS, CONSTRUCTION DEBRIS, ETC. LARGER THAN TWO (2) INCHES IN ANY DIMENSION. TOPSOIL SHALL BE SANDY LOAM FREE FROM SUBSOIL, STONES LARGER THAN 1", OR ANY UNDESIRABLE MATERIAL; CONTAIN 5% ORGANIC MATTER, 6.0 TO 6.5 PH. TOPSOIL SHALL NOT BE WORKED IN MUDDY OR WET CONDITIONS.
8. TOPSOIL AND SEED ALL AREAS DISTURBED AS A RESULT OF ANY AND ALL CONSTRUCTION DISTURBANCES AND STORAGE OF EQUIPMENT, WHETHER SUCH AREAS ARE SHOWN ON THE PLANS OR NOT. CONTRACTOR TO FIELD VERIFY AREAS OF SEED AND SOD PRIOR TO SUBMITTING A BID.
9. THE CONTRACTOR IS RESPONSIBLE FOR TESTING PROJECT SOILS. THE CONTRACTOR IS TO PROVIDE A CERTIFIED SOILS REPORT TO THE OWNER. THE CONTRACTOR SHALL VERIFY THAT THE SOILS ON SITE ARE ACCEPTABLE FOR THE PROPER GROWTH OF THE PROPOSED PLANT MATERIAL. SHOULD THE CONTRACTOR FIND POOR SOIL CONDITIONS, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE SOIL AMENDMENTS AS NECESSARY. THE AMENDMENTS SHALL INCLUDE, BUT NOT BE LIMITED TO, FERTILIZERS, LIME, AND TOPSOIL. PROPER PLANTING SOILS MUST BE VERIFIED PRIOR TO PLANTING OF MATERIALS.
10. ALL PLANTING AREAS WITHIN EXISTING ASPHALT PAVEMENT AREAS SHALL BE DE-COMPACTED A MINIMUM DEPTH OF 24 INCHES. CONTRACTOR TO REMOVE ASPHALT/BASE MATERIALS AND SCARIFY/RIP REMAINING SOIL TO A DEPTH OF 24". TAKE CARE TO NOT RIP SOIL WITHIN THE DRIP LINE OF EXISTING TREES.
11. ALL PROPOSED SLOPES GREATER THAT 3:1 SLOPE SHALL BE STABILIZED WITH COIR FIBER 700 MATTING (AS SUPPLIED BY PINELANDS NURSERY) AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
12. TOPSOIL SHOULD BE FRIABLE, FERTILE, WELL DRAINED, FREE OF DEBRIS, TOXINS, TRASH AND STONES OVER 1/2" DIAMETER. IT SHOULD HAVE A HIGH ORGANIC CONTENT SUITABLE TO SUSTAIN HEALTHY PLANT GROWTH AND SHOULD LOOK AESTHETICALLY PLEASING HAVE NO NOXIOUS ODORS.
13. TOPSOIL MIX:
    CONTRACTOR SHALL TEST SOILS AND FURNISH SAMPLES UPON REQUEST. PACKAGED MATERIALS SHALL BE UNOPENED BAGS OR CONTAINERS, EACH BEARING A NAME, GUARANTEE, AND TRADEMARK OF THE PRODUCER, MATERIAL COMPOSITION, MANUFACTURER'S CERTIFIED ANALYSIS, AND THE WEIGHT OF THE MATERIALS. SOIL OR AMENDMENT MATERIALS SHALL BE STORED ON SITE TEMPORARILY IN STOCKPILES PRIOR TO PLACEMENT AND SHALL BE PROTECTED FROM INTRUSION OF CONTAMINANTS AND EROSION. AFTER MIXING, SOIL MATERIALS SHALL BE COVERED WITH A TARPAULIN UNTIL TIME OF ACTUAL USE.
14. THE FOLLOWING TESTING SHOULD BE PERFORMED AND RESULTS GIVEN TO THE LANDSCAPE ARCHITECT OR ENGINEER FOR APPROVAL BEFORE INSTALLATION:
    - A. PARTICLE SIZE ANALYSIS
    - B. FERTILITY ANALYSIS - pH, SOLUBLE SALTS, NITRATE, PHOSPHATE, POTASSIUM, CALCIUM AND MAGNESIUM
    - C. ORGANIC MATTER CONTENT (% OVEN DRY WEIGHT OF SOIL) = 1.6
    - D. TOXIC SUBSTANCE ANALYSIS
    - E. MATERIAL DRAINAGE RATE = 60% PASSING IN 2 MINUTES, 40% RETAINED
15. ORGANIC MATTER, 5% - LEAF MOLD:
    LEAF MOLD: SHREDDED LEAF LITTER, COMPOSTED FOR A MINIMUM OF ONE YEAR. SHOULD BE FREE OF DEBRIS, AND STONES OVER 1/2 INCH, WOOD CHIPS OVER 1 INCH.
16. SOIL AMENDMENT FOR PLANT MATERIAL:
    SOIL IN BEDS AND PLANTING ISLANDS OTHER THAN BACKFILL MATERIAL AND TOPSOIL, SHOULD BE FRIABLE, WELL DRAINED, AND FREE OF DEBRIS, INCLUDING STONES AND TRASH.
    -AMENDMENTS FOR BACK FILL IN TREE AND SHRUB PITS:
    A. GROUND LIMESTONE (WITH A MIN. OF 88% OF CALCIUM AND MAGNESIUM CARBONATES) USED
    PENDING RESULTS OF SOIL ANALYSIS.
    -BRING pH LEVELS TO 6.5 MIN. TO 7.0 FOR NON ERICACEOUS PLANTS
    -ERICACEOUS PLANTS pH LEVELS SHALL BE VERIFIED BY TESTING
    B. TERRA-SORB BY 'PLANT HEALTH CARE' 800-421-9051 (SEE MANUFACTURER RECOMMENDATIONS) USED IN PLANTER BACKFILL MIXTURE WITH TREES AND SHRUBS.
    C. MYCOR-ROOT SAVER BY 'PLANT HEALTH CARE' 800-421-9051 (SEE MANUFACTURER RECOMMENDATIONS) USED IN BACKFILL MIXTURE WITH TREE.
17. SOIL CONDITIONING:
    CONTRACTOR TO PROVIDE 5 INCHES (5") MINIMUM DEPTH TOPSOIL LAYER IN LAWN ARES, TWELVE INCHES (12") MINIMUM DEPTH TOPSOIL LAYER IN GROUNDCOVER AND PERENNIAL AREAS, EIGHTEEN INCHES (18") MINIMUM DEPTH TOPSOIL LAYER IN SHRUB AREAS, AND THIRTY-SIX INCHES (36") MINIMUM DEPTH TOPSOIL LAYER IN TREE PLANTING AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN SIX INCH (6") LIFTS UNTIL FULL DEPTHS ARE ACHIEVED AS DESCRIBED ABOVE. TOPSOIL PRESENT AT THE SITE, IF ANY, MAY BE USED TO SUPPLEMENT TOTAL AMOUNT REQUIRED. CONTRACTOR TO FURNISH AN ANALYSIS OF ON-SITE TOPSOIL UTILIZED IN ALL PLANTING AREAS. ADJUST pH AND NUTRIENT LEVELS AS REQUIRED TO ENSURE AN ACCEPTABLE GROWING MEDIUM. LOWER pH USING ELEMENTAL SULFUR ONLY. PEAT MOSS OR COPPER SULFATE MAY NOT BE USED. GROUND LIMESTONE AS A SOIL AMENDMENT MATERIAL WILL ONLY BE USED PENDING RESULTS OF SOIL ANALYSIS. PROVIDE WITH MINIMUM 88% CALCIUM AND MAGNESIUM CARBONATES AND SHALL HAVE TOTAL 100% PASSING THE 10 MESH SIEVE, MINIMUM 90% PASSING 20 MESH SIEVE, AND MINIMUM 60% PASSING 100 MESH SIEVE. ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF AT THE CONTRACTOR'S EXPENSE.

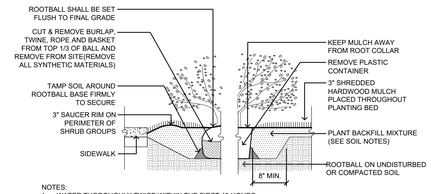
SOIL MODIFICATIONS (PENDING RESULTS OF SOIL ANALYSIS):

THOROUGHLY TILL ORGANIC MATTER (LEAF COMPOST) INTO THE TOP SIX TO TWEVLE INCHES OF MOST PLANTING SOILS TO IMPROVE THE SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A pH HIGH THAN 7.0. PEAT MOSS MAY NOT BE USED AS ORGANIC MATERIAL AMENDMENT.

MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. IMPROVE DRAINAGE IN HEAVY SOILS BY PLANTING ON RAISED MOUNDS OR BEDS AND INCLUDED SUBSURFACE DRAINAGE LINES.

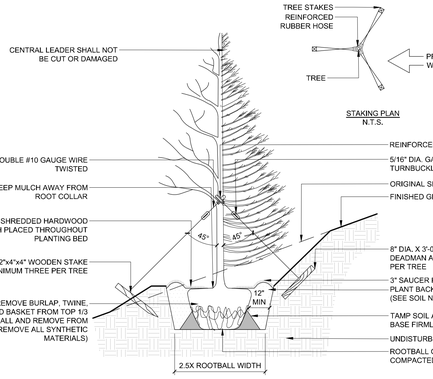
MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND(BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.

18. POND SOIL
    POND SOIL INSTALLED OVER POND LINER TO FOLLOW TOPSOIL SPECIFICATION ABOVE, WITH THE EXCEPTION TO REDUCE ORGANIC MATTER TO CONTENT TO 3% MAX.

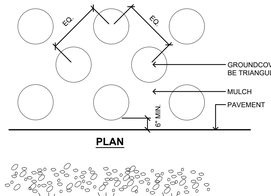


NOTES:
1. WATER THOROUGHLY TWICE WITHIN THE FIRST 48 HOURS.
2. TOP OF ROOTBALL SHALL BE SET FLUSH TO GRADE. TRUNK FLARE SHALL BE VISIBLE AT TOP OF ROOTBALL. DO NOT COVER TOP OF ROOT BALL WITH SOIL.
3. IF SHRUB IS IN LEAF APPLY WILT-PROOF, OR EQUAL, AS PER MANUFACTURERS RECOMMENDATION.
4. CONTRACTOR IS RESPONSIBLE TO SEND SAMPLES OF EXISTING PLANTING SOILS IN LANDSCAPE AREAS (3 MAX.) TO TESTING LABORATORY OR UNIVERSITY COOPERATIVE EXTENSION FOR TESTING. ALL TESTING COSTS ARE AT THE CONTRACTOR'S EXPENSE. REFER TO SOIL NOTES FOR REQUIRED TESTING.

SHRUB PLANTING
N.T.S.



NOTES:
1. WATER THOROUGHLY TWICE WITHIN THE FIRST 48 HOURS.
2. TOP OF ROOTBALL SHALL BE SET FLUSH TO GRADE. TRUNK FLARE SHALL BE VISIBLE AT TOP OF ROOTBALL. DO NOT COVER TOP OF ROOT BALL WITH SOIL.
3. ALL TREE STAKING SHALL BE INSTALLED ONLY IF REQUIRED BY LOCAL MUNICIPAL REQUIREMENTS.
4. IF/WHEN INSTALLED, ALL TREE STAKING SHALL BE REMOVED AFTER ONE YEAR.
5. CONTRACTOR IS RESPONSIBLE TO SEND SAMPLES OF EXISTING PLANTING SOILS IN LANDSCAPE AREAS (3 MAX.) TO TESTING LABORATORY OR UNIVERSITY COOPERATIVE EXTENSION FOR TESTING. ALL TESTING COSTS ARE AT THE CONTRACTOR'S EXPENSE. REFER TO SOIL NOTES FOR REQUIRED TESTING.



SECTION

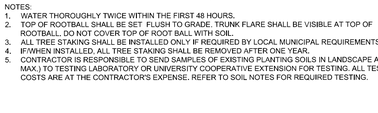
NOTES:
1. CONTRACTOR IS RESPONSIBLE TO SEND SAMPLES OF EXISTING PLANTING SOILS IN LANDSCAPE AREAS (3 MAX.) TO TESTING LABORATORY OR UNIVERSITY COOPERATIVE EXTENSION FOR TESTING. ALL TESTING COSTS ARE AT THE CONTRACTOR'S EXPENSE. REFER TO SOIL NOTES FOR REQUIRED TESTING.

PERENNIAL/GROUNDCOVER PLANTING
N.T.S.

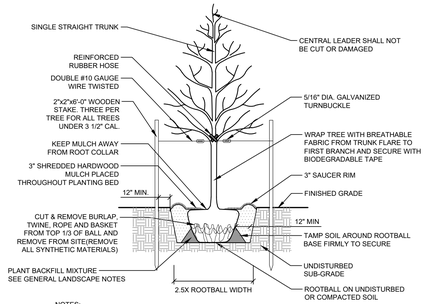
NOTES:
1. FINAL SEED MIXTURES, RATES & SPECIES TO BE DETERMINED BASED ON SCD REVIEW.
2. SEEDING SHALL TAKE PLACE IN THE SPRING (APRIL 1 TO JUNE 30) OR THE FALL (SEPTEMBER 1 TO OCTOBER 31)
3. ELIMINATE UNWANTED VEGETATION PRIOR TO SEEDING USING A BROAD-SPECTRUM NON-SELECTIVE HERBICIDE PER MANUFACTURER'S SPECIFICAITONS.
4. IT IS RECOMMENDED THAT CONTRACTOR INSTALL SEED MIXTURE USING A NO-TILL TRUAX-TYPE DRILL WHERE APPLICABLE.
5. CONTINUOUS MOISTURE IN THE TOP 4 INCHES OF TOPSOIL FOR 4-6 WEEKS MUST BE INSURED TO ALLOW PROPER GERMINATION. DO NOT SATURATE.
6. CONTRACTOR IS RESPONSIBLE TO SEND SAMPLES OF EXISTING PLANTING SOILS IN LANDSCAPE AREAS (3 MAX.) TO TESTING LABORATORY OR UNIVERSITY COOPERATIVE EXTENSION FOR TESTING. ALL TESTING COSTS ARE AT THE CONTRACTOR'S EXPENSE. REFER TO SOIL NOTES FOR REQUIRED TESTING.

MEADOW WEED CONTROL / MAINTENANCE:

1. DURING THE ESTABLISHMENT YEAR, CONTRACTOR SHALL MOW MEADOW SEEDING IF WEED HEIGHT EXCEEDS MEADOW MIX HEIGHT. MOW AT A HEIGHT OF 8"-10". DO NOT MOW CLOSE, AS SOME OF THE MEADOW MIX MAY BE DAMAGED.
2. AFTER THE FIRST GROWING SEASON, AND IF MEADOW MIX IS WELL ESTABLISHED, THE MEADOW MIX SHALL BE MOWED ONCE ANNUALLY. ANNUAL MAINTENANCE MOWING SHALL BE DONE IN LATER WINTER DURING THE MONTH OF MARCH.
3. MOW MEADOWS DURING DRIER SITE CONDITIONS WHEN SOIL DISTURBANCE WILL NOT OCCUR. MAINTENANCE SHALL OCCUR DURING LATER SUMMER (JULY 15- AUGUST 15) WHEN THE WATER TABLE IS USUALLY AT ITS LOWEST POINT OF THE YEAR.



BEDLINE
N.T.S.



NOTES:
1. AT PLANTING, PRUNE ONLY CROSSING LIMBS, CO-DOMINANT LEADERS, BROKEN OR DEAD BRANCHES WHILE MAINTAINING NORMAL TREE SHAPE.
2. WATER THOROUGHLY TWICE WITHIN THE FIRST 48 HOURS.
3. TOP OF ROOTBALL SHALL BE SET FLUSH TO GRADE. TRUNK FLARE SHALL BE VISIBLE AT TOP OF ROOTBALL. DO NOT COVER TOP OF ROOT BALL WITH SOIL.

DECIDUOUS TREE PLANTING
N.T.S.