



**TOWN OF NEWBURGH
PLANNING BOARD
TECHNICAL REVIEW COMMENTS**

PROJECT NAME: GARDNER RIDGE
PROJECT NO.: 2-29
PROJECT LOCATION: GARDNERTOWN ROAD NEAR GIDNEY AVENUE
SECTION 75, BLOCK 1, LOT 4.12
REVIEW DATE: 27 OCTOBER 2023
MEETING DATE: 2 NOVEMBER 2023
PROJECT REPRESENTATIVE: DARREN DOCE, P.E.

1. Town Board and Highway Superintendents approval for the re-alignment of Creek Run Road must be received.
2. The project was re-circulated for Lead Agency on 5 October 2023. The thirty day time frame for response from outside agencies has not lapsed as of the date of this meeting.
3. The applicant's representative are requested to confirm the amount of export material from the site. The Long Form EAF submitted does not identify any volume of material to be removed from the site.
4. The plans identify an area of potential blasting at 1.6 acres. When evaluating the environmental impact's the potential impacts for blasting should also be evaluated.
5. The applicants are requested to confirm the status of the Outside User Sewer Agreements.
6. Health Department approval for watermain extension with hydrants is required.
7. Hydrant locations should be evaluated by Code Enforcement and Jurisdictional Emergency Services. Additional hydrant should be evaluated at the Senior Complex as a hydrant must be located within the specified code distance from the Fire Department OSY connection.
8. Hydrant locations in the vicinity of Buildings #4 & 5 should be further reviewed.
9. The proposed water system creates a long dead end watermain servicing the site. Water is proposed to be brought in from Creek Run Road up the site access drive terminating in front of Building #3. The applicants representative are requested to evaluate whether an internal loop within the site or continuation of the watermain out the fire access road should be considered.
10. Hydrant placement along the access drive should be evaluated.

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11. Legal documents must be provided to the Town for review regarding compliance with all sections of the Senior Housing Code Section 5-48.
12. Confirmation that the City of Newburgh Flow Acceptance letter has been issued for the project should be received.
13. The revised plans were referred to the Orange County Planning Department of 5 September 2023.
14. The applicants have submitted a Tree Survey Map. The Survey Map was completed utilizing sample plots. The location of the 5 half acre sample plots was reviewed and approved by this office on 18 August 2023. The applicants have had the Tree Survey and Analysis performed by Hudson Forestry Services, LLC.
15. Cost Estimates for stormwater management, landscaping, tree preservation are required for determination of required securities. Estimate for water and sewer improvements are to be submitted upon application for those permits.

Respectfully submitted,

MHE Engineering, D.P.C.



Patrick J. Hines
Principal

PJH/kbw

Thomas B. Olley, P.E., P.L.L.C.
Engineering & Land Planning
152 Orange Avenue • Walden, NY 12586
(845) 778-5638 • Fax (845) 778-1137

October 20, 2023

Mr. John Ewasutyn, Chairman
Town of Newburgh Planning Board
308 Gardnertown Road
Newburgh, NY 12550

Re: ***Gardner Ridge***
Gardnertown Road
Section 75, Block 1, Lot 4.12

Dear Mr. Ewasutyn:

We are submitting twelve (12) copies of the revised Amended Site Plan sheets on behalf of Gardner Ridge Associates.

The plans address the most recent consultant and Planning Board Comments.

A Brief response to the consultants' most recent comments are provided below. Collier Engineering will address the Traffic Consultant comments related to their plans under separate cover.

MHE Engineering Comment Memo July 28, 2023

1. A Tree Survey has been conducted in accordance with the Town's Tree Preservation Code. The results of the tree survey and the required calculations are shown on a newly added Sheet 16 of the Site Plan Set.
2. Highway Supervisor comments have been addressed in separate correspondence from Collier's Engineering.
3. The Project has been resubmitted for County Planning review.
4. The Project has been re-circulated under SEQRA.
5. Health Department Approval will be renewed following the Board's SEQRA determination.
6. All work has been relocated outside of the 100 Year flood Boundary.
7. Access gates have been shown on the site plan for both the emergency and maintenance access drives. The location of the gates along Gardnertown Road are situated to allow emergency or maintenance vehicles to pull in and not block Gardnertown Road.

8. The Water and Sewer notes (found on the detail sheets) have been updated.
9. A stormwater Facilities Maintenance Agreement will be executed prior to Final Approval.
10. All Drainage and Water Main Crossings of the Sanitary Sewer Main have been added to the Profile Sheets.
11. The labels for the Sanitary sewer pipe between manholes 10 and 12 have been corrected.
12. Missing Pipes and labels have been corrected for the storm drainage bioretention systems.
13. Outlet Structure 1 has been clarified on the plans.
14. An emergency spillway has been added to the extended detention basin.
15. All Drainage and Water Main Crossings of the Sanitary Sewer Main have been added to the Profile Sheets.
16. The details of CB-3 have been updated.
17. Fencing has been shown around the plunge pools. These are the only permanent water features.
18. Access gates have been added to the maintenance roads.
19. The wetland outlet pipe has been labeled.
20. The design of the bioretention area to the north of the Senior Apartments has been updated.
21. The sewer line to the rear of Buildings 1 and 2 has been fully labeled.
22. The rip-rap steepened slope has been redesigned as a vegetated steepened slope.

Creighton Manning Engineering Comment Memo August 1, 2023

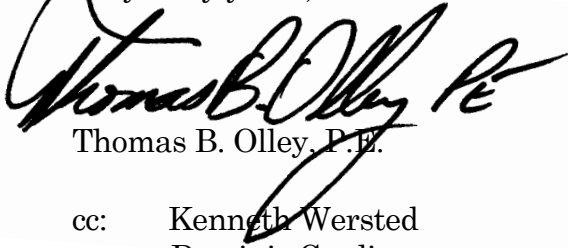
1. The emergency access gate near Gardnertown Road has been positioned to provide for an emergency vehicle to be pulled completely off the public roadway .
2. The maintenance road will have a similar gate. It also has been positioned to allow maintenance vehicles and equipment to fully clear Gardnertown Road.
3. The suggested super-elevation has been incorporated into the design of the intersection of the main Road and the west Rowad at Station 12+36.
4. The intersections of West Road have been indicated on the profiles.

Comments 5 through 11 are address by Collier's Engineering under separate cover.

We believe that all of the Consultant's comments have been fully addressed in the submission.

Please feel free to contact me should you have any questions regarding this matter.

Very truly yours,

A handwritten signature in black ink, appearing to read "Thomas B. Olley P.E.", is written over a light gray rectangular background.

Thomas B. Olley, P.E.

cc: Kenneth Wersted
Dominic Cordisco
Patrick Hines
Joseph Millstein
Vince Doce

October 19, 2023

Chairman John Ewasutyn
Town of Newburgh Planning Board
21 Hudson Valley Professional Plaza
Newburgh, NY 12550

Gardner Ridge
Town of Newburgh, Orange County, New York
Colliers Engineering & Design Project No. 14000375B

Dear Chairman Ewasutyn and Members of the Planning Board:

The following items are in response to comments contained in the Creighton Manning (CME) letter dated August 1, 2023 as well as those discussed with the Planning Board at the August 3, 2023 meeting.

Proposed Site Plan Amendment

1. The revised site plan adds an emergency access point approximately 440 feet west (uphill) of the main entrance. The access is proposed to be grass pavers similar to that used across the street at Gardnertown Commons (Farrell). A detail of the emergency gate is provided, and it is noted in the letter to the planning board that there will be a gate installed at both ends of the emergency access, but they are not depicted on the plans. We suggest the gate near Gardnertown Road be located far enough off the road to allow an emergency vehicle to pull off the road before stopping and opening the gate.

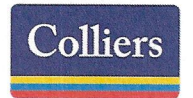
Response: The gates and detail for such are now indicated on the site plans. The gate on the Gardnertown Road side is positioned to allow a fire truck to pull in off the road when opening the gate.

2. A stormwater basin access road is proposed about 60 feet east (downhill) of the main entrance. This will be a stabilized but grassed access "road". Will this be gated as well? If so, the gate should allow room for a service vehicle to pull off the road to open the gate.

Response: A gate will be installed as noted at this location.

3. The junction of the Entrance Road intersects the West Road at station 12+50(+/-) where the grades transition from a +10% to a +1% grade. West Road enters on a -10% grade. Consider super elevating the road to be reverse crown, banked 2% to the left so it is an easier transition from West Road to Entrance Road.

Response: The site plan has been revised to reflect the superelevation for that portion of the road.



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4. Add callout to Entrance Road profile showing location of intersection with West Road.

Response: The callout has been added to the site plan.

Conceptual Improvement Plan

5. Plans show guide rail on both sides of realigned Creek Run Road, specify type of guide rail and end assembly types.

Response: A box beam guiderail (Item No. 606.10) similar to that which currently exists on Gardnertown Road west of the site, is now specified along both sides of the realigned Creek Run Road.

6. Stone apron detail lists incorrect item for light stone fill and shows a 4' length of stone apron but stone apron lengths vary based on pipe size and velocity of storm flow. Also, detail lists geotextile bedding under light stone fill but this is no longer an approved method, a stone bedding material shall be installed, detail should be updated.

Response: The item number for the stone fill has been corrected. Please note the detail provided is a generic detail for a stone lined apron and further detail will be provided for each outlet location upon completion of the final drainage design.

7. A detour plan is provided for when Creek Run Road is closed to be reconstructed between Stony Run Road and Gardnertown Road. What is the approximate duration of closure?

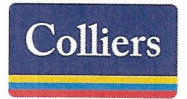
Response: Most of the work for the realigned Creek Run Road can be advanced while maintaining the existing roadway operation. The final work connecting the new portion of roadway to the remaining existing portion of Creek Run Road is expected to require a closure for less than a week to complete and open it again to traffic.

8. Taft Ave is the primary route for eastbound and westbound traffic on Creek Run Road. Road names should be labeled on the plan.

Response: Road names have been added to the detour plan.

9. Consider a "Road Closed ½ Mile Ahead, Local Traffic Only" or a "Road Closed to Thru Traffic" sign at Creek Run Road and Taft Ave. Consider a "Detour [Straight Arrow]" sign on the Taft Ave NB approach to Creek Run. Consider a second "Road Closed" sign on Creek Run Rd at Stony Run Rd to deter drivers from reaching the actual hard closure and turning around in the driveway of house #42 and #44. The six houses beyond this intersection can drive around it.

Response: The recommended signing additions have been added to the revised plans.



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10. The westbound detour carries traffic up Gardnertown Road, south on Taft Ave, then into the neighborhood on N. Dix Avenue then Hill Run Road. Consider simplifying the detour by carrying traffic south on Taft and ending the detour at Creek Run Road. Residents in the neighborhood can find their way back to their street, but through traffic shouldn't be carried into the neighborhood.

Response: Comment noted. The detour plan has been revised accordingly to reflect this suggested change.

11. The above comments (see attached plan comments) should be considered in consultation with the Town's Highway Supervisor. Ultimately his direction should be followed.

Response: The revised plans have been forwarded to the Town Highway Supervisor and we will continue to coordinate with him, and the work will be implemented as per his direction.

In addition, responses to the verbal comment from the Planning Board are attached to this letter.

Sincerely,

Colliers Engineering & Design, Architecture, Landscape Architecture, Surveying, CT P.C.

A handwritten signature in black ink, appearing to read "Philip Greal".

Philip Greal, Ph.D., P.E.
Geographic Discipline Leader

Project No. 14000375B
October 19, 2023

At the August 3, 2023 Planning Board meeting, the details of the proposed access improvement plans were presented, and several verbal comments were received from the Planning Board Members as follows:

- Frank Gallo – Will the work require a closure of Gardnertown Road? How long will the duration be?

Response: Gardnertown Road will remain open during the construction and use of flagmen and other traffic control measures will be used. The road closure would only involve the last portion of the connection of the new Creek Run Road to the remaining portion of Creek Run Road and closure of the old roadbed. The traffic diversion plans have been developed and Taft Avenue would be used for vehicles to and from the neighborhoods along Creek Run Road and for any other through traffic. All comments received from CME have been incorporated into the plans. The other construction work related with the new portion of Creek Run Road can be completed while the remaining Creek Run Road stays open.

- David Dominic – Had questions regarding the sight distances and how much they would be improved.

Response: The clearing of vegetation and widening improvements would significantly improve sight distance and coming down the hill vehicles will be able to see all the way to the area of the bridge culvert on the approach to the intersection with Gidney Avenue. This is more than double that which is available under current conditions.

- Stephanie Delucca – Comments regarding the traffic control, queuing, and the alignment of the new Creek Run Road.

Response: The alignment of Gardnertown Road would remain as. The widening that will provide the left turn lanes, pavement resurfacing, and sight distance improvements are those items that will be completed by the Applicant. The site driveway approach and the Creek Run Road approach would be stop-sign controlled at their intersection with Gardnertown Road and Gardnertown Road traffic would remain having the right-of-way.

- Questions regarding the queuing at Gidney Avenue.

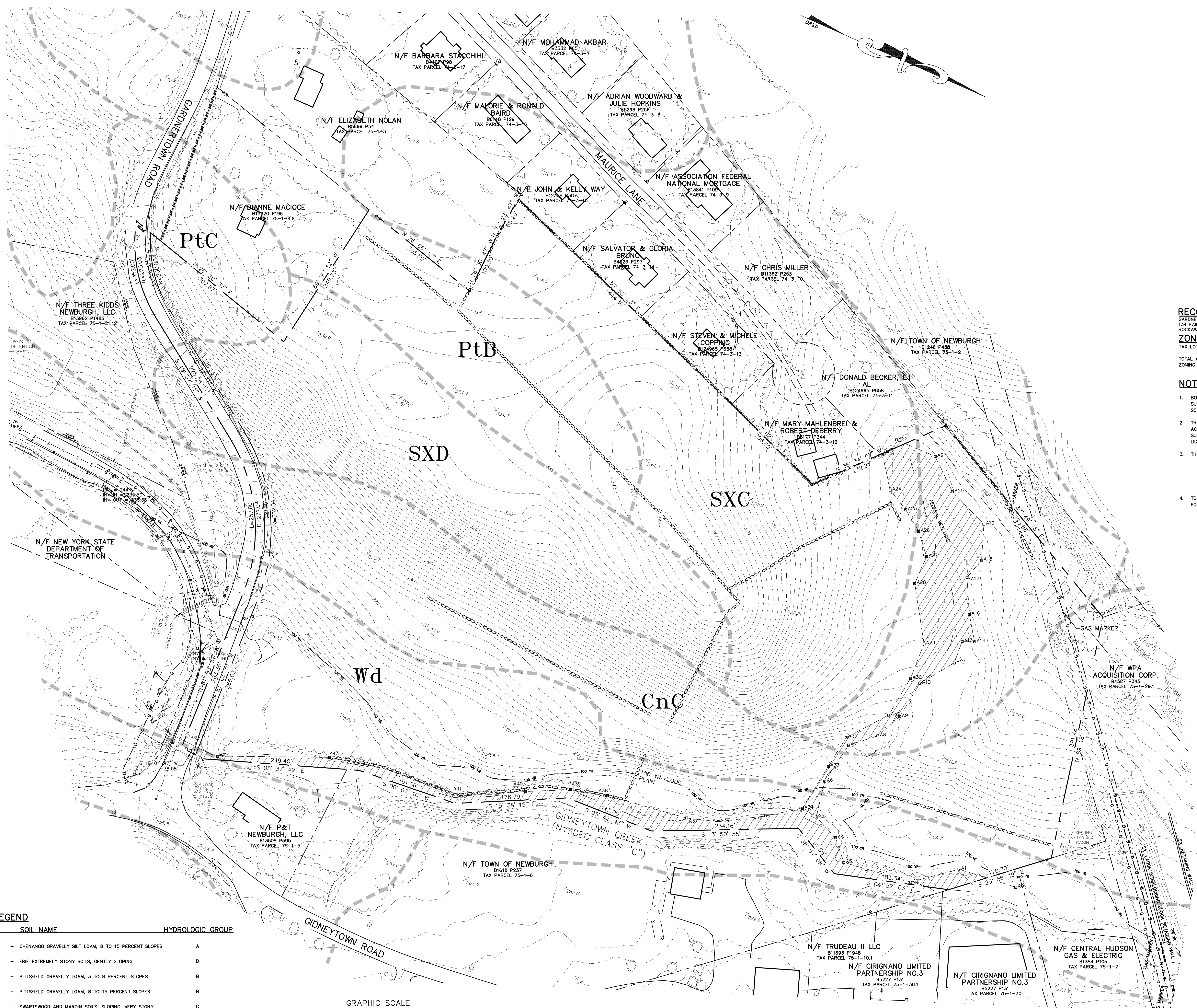
Response: The queue lengths would be improved by the widening and there would be a separate left turn lane for vehicles turning into the site as well as for those turning onto Creek Run Road, which would improve the overall traffic operations and flow.

- Ken Mennerich – Recommended that instead of the riprap that a vegetative alternative be explored.

Response: The rip rap has been removed from the plans. We will finalize the treatment in this area with the Highway Superintendent to ensure that nothing significant will grow in that area to block sight distance.

- John Ward – No further comments.
- Cliff Browne – No further comments.
- John Ewasutyn – Suggested that salt tolerant plantings be used along the roadway.

Response: The drainage is being improved to capture runoff and we will ensure that salt tolerant plantings are used. This will be coordinated with the Town Highway Superintendent and other Town consultants.



LEGEND

- EXISTING CONTOURS
- EXISTING SITE BOUNDARY LINE
- EXISTING ADJOINING PROPERTY LINE
- EXISTING STONE WALL
- EXISTING TREE LINE
- EXISTING TREES AND/OR BUSHES
- EXISTING STREAM
- EXISTING BUILDINGS
- EXISTING UTILITY POLE
- EXISTING STREET SIGN
- EXISTING WATER MAIN
- EXISTING HYDRANT
- EXISTING WATER VALVE
- EXISTING CLEANOUT
- EXISTING CURB STOP
- EXISTING SEWER MAIN AND MANHOLE
- EXISTING PAVED ROAD/DRIVEWAY
- EXISTING GRAVEL ROAD/DRIVEWAY
- SOILS BOUNDARY
- EXISTING FEDERAL WETLANDS BOUNDARY
- 100 YR FLOODPLAIN BOUNDARY

RECORD OWNER:
GARDNER RIDGE ASSOCIATES, LLC
134 FAIRVIEW RD
ROCKAWAY NJ, 08766

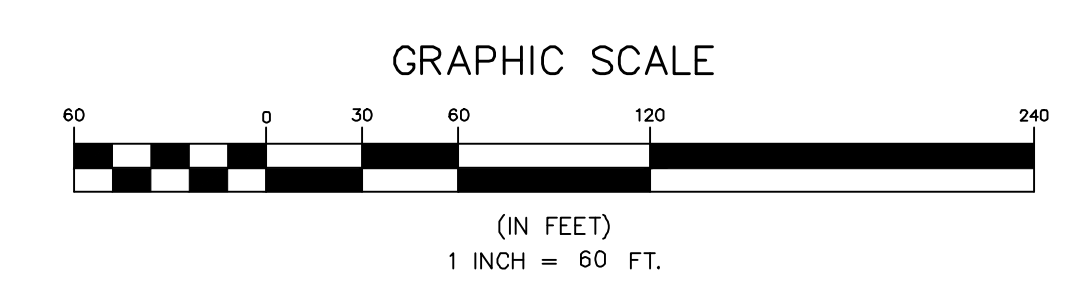
ZONING INFORMATION:
TAX LOT DATA: 75-1-4.12
TOTAL ACREAGE: 23.4 ACRES ±
ZONING DISTRICT: R-3

NOTES:

1. BOUNDARY SURVEY SHOWN HEREON IS FROM AN ACTUAL FIELD SURVEY PREPARED BY MARTIN F ANTHONISEN JR. ON DECEMBER 24, 2015.
2. THE TOPOGRAPHIC SURVEY SHOWN HEREON IS THE RESULT OF AN ACTUAL FIELD SURVEY PREPARED BY VINCENT DOCE ENGINEERING & SURVEYING IN APRIL 2003 AND SUPPLEMENTED WITH USGS 1 METER LIDAR (2014).
3. THE PROJECT SITE IS LOCATED WITHIN THE FOLLOWING DISTRICTS:
A. NEWBURGH SCHOOL DISTRICT.
B. CROMMER FIRE DISTRICT.
C. CONSOLIDATED LIGHTING.
D. CONSOLIDATED WATER DISTRICT 1.
E. CONSOLIDATED WATER DISTRICT 2.
4. TOWN OF NEWBURGH SEWER AND WATER SERVICES ARE PROVIDED FOR THIS PROPERTY.

SOILS LEGEND

SYMBOL	SOIL NAME	HYDROLOGIC GROUP
CnC	- CHENANGO GRAVELLY SILT LOAM, 8 TO 15 PERCENT SLOPES	A
ESb	- ERIE EXTREMELY STONY SOILS, GENTLY SLOPING	D
PtB	- PITTSFIELD GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES	B
PtC	- PITTSFIELD GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES	B
SxC	- SWARTSWOOD AND HARDIN SOILS, SLOPING, VERY STONY	C
SxD	- SWARTSWOOD AND HARDIN SOILS, MODERATELY STEEP, VERY STONY	C
Wd	- WAYLAND SOILS COMPLEX, NONCALCAREOUS SUBSTRATUM, 0 TO 3 PERCENT SLOPES, FREQUENTLY FLOODED	C

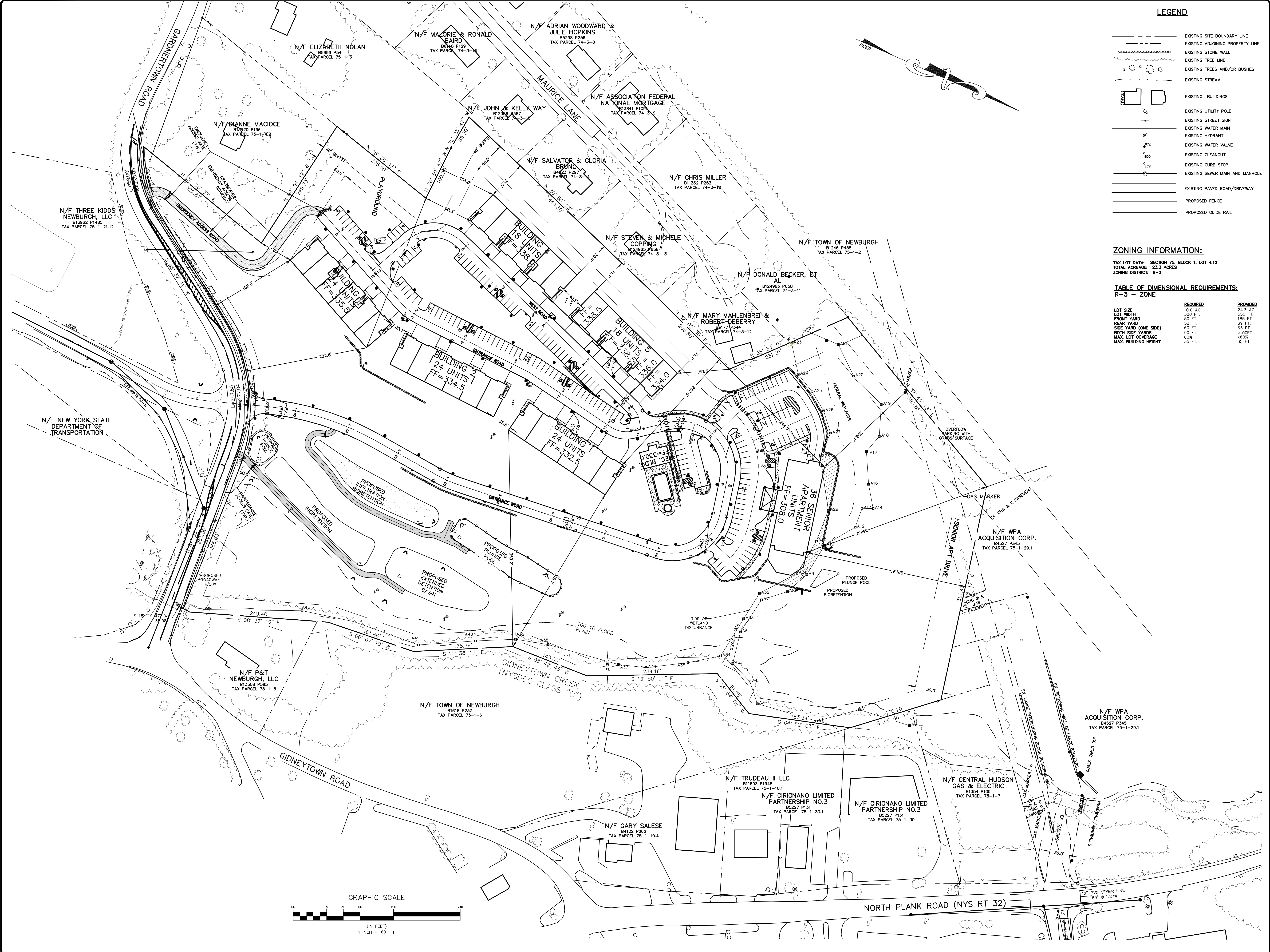


NO.	DATE	DESCRIPTION
1	3/15/18	ENGINEERS COMMENTS
2	3/15/18	MIS
3	6/21/17	ENGINEERS COMMENTS
4	6/9/17	ENGINEERS REVISIONS
5	7/6/17	EMERGENCY ACCESS AND DRAINAGE REVISIONS
6	10/20/17	CONSULTANT COMMENTS

Thomas B. Olley

THOMAS B. OLLEY, P.E., PLLC.
ENGINEERS AND PLANNERS
1ST ORANGE AVENUE
WALDEN, NY 12687
PHONE: 845 785-5838
FAX: 845 778-3177

EXISTING CONDITIONS
**GARDNER RIDGE
GARDNERTOWN ROAD**
TOWN OF NEWBURGH, ORANGE COUNTY, NY



LEGEND

- EXISTING SITE BOUNDARY LINE
- EXISTING ADJOINING PROPERTY LINE
- EXISTING STONE WALL
- EXISTING TREE LINE
- EXISTING TREES AND/OR BUSHES
- EXISTING STREAM
- EXISTING BUILDINGS
- EXISTING UTILITY POLE
- EXISTING STREET SIGN
- EXISTING WATER MAIN
- EXISTING HYDRANT
- EXISTING WATER VALVE
- EXISTING CLEANOUT
- EXISTING CURB STOP
- EXISTING SEWER MAN AND MANHOLE
- EXISTING PAVED ROAD/DRIVEWAY
- PROPOSED FENCE
- PROPOSED GUIDE RAIL

ZONING INFORMATION:

TAX LOT DATA: SECTION 75, BLOCK 1, LOT 4.12
 TOTAL ACREAGE: 23.3 ACRES
 ZONING DISTRICT: R-3

**TABLE OF DIMENSIONAL REQUIREMENTS:
 R-3 - ZONE**

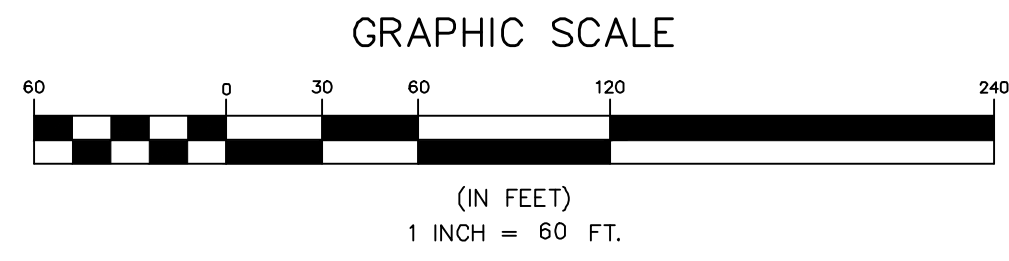
	REQUIRED	PROVIDED
LOT SIZE	10.0 AC	24.3 AC
FRONT YARD	300 FT.	550 FT.
REAR YARD	50 FT.	185 FT.
SIDE YARD (ONE SIDE)	60 FT.	63 FT.
BOTH SIDE YARDS	90 FT.	>100 FT.
MAX. LOT COVERAGE	60%	<60%
MAX. BUILDING HEIGHT	35 FT.	35 FT.

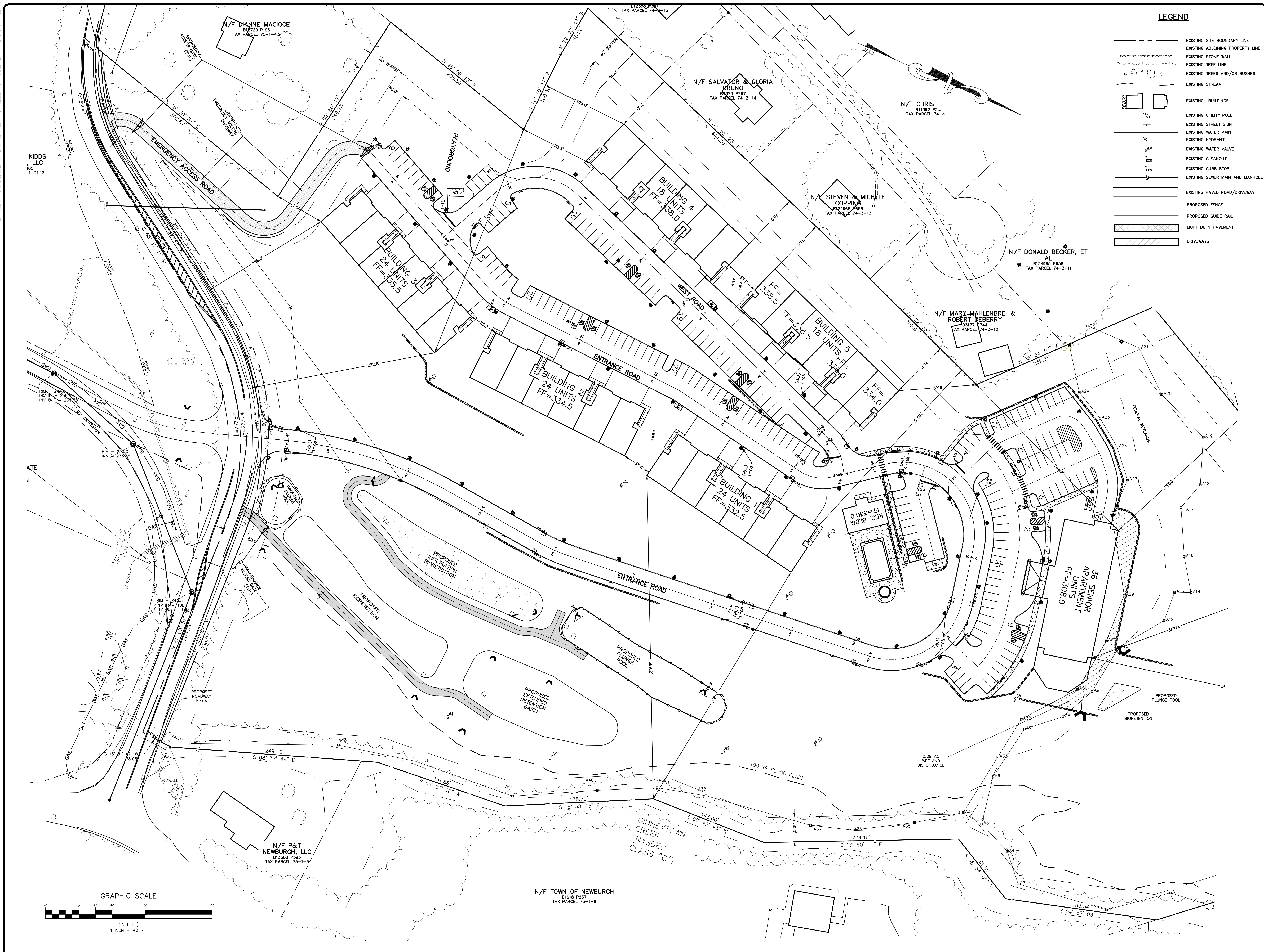
NO.	DATE	REVISION
1	10/20/23	CONSULTANT COMMENTS
2	10/20/23	CLIENT COMMENTS
3	10/20/23	CONSULTANT COMMENTS
4	10/20/23	CLIENT COMMENTS
5	10/20/23	CONSULTANT COMMENTS
6	10/20/23	CLIENT COMMENTS
7	10/20/23	CONSULTANT COMMENTS

Thomas B. Olley, P.E.

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OVERALL SITE PLAN
GARDNER RIDGE
 GARDNERTOWN ROAD
 TOWN OF NEWBURGH, ORANGE COUNTY, NY





LEGEND

- EXISTING SITE BOUNDARY LINE
- EXISTING ADJOINING PROPERTY LINE
- EXISTING STONE WALL
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- EXISTING STREET SIGN
- EXISTING HYDRANT
- EXISTING WATER MAIN
- EXISTING WATER VALVE
- EXISTING CLEANOUT
- EXISTING CURB STOP
- EXISTING SEWER MAIN AND MANHOLE
- EXISTING PAVED ROAD/DRIVEWAY
- PROPOSED FENCE
- PROPOSED GUIDE RAIL
- LIGHT DUTY PAVEMENT
- DRIVEWAYS

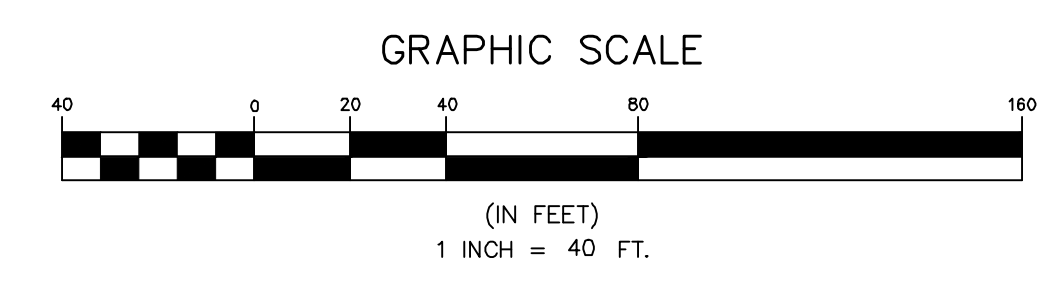
NO.	DATE	DESCRIPTION
7	10/20/23	CONSULTANT COMMENTS
6	7/6/23	EMERGENCY ACCESS AND DRAINAGE REVISIONS
5	9/6/22	CONSULTANT COMMENTS
4	6/9/22	LAYOUT REVISION
3	6/9/22	LAYOUT REVISION
2	5/31/17	ENGINEERS COMMENTS
1	3/15/16	ENGINEERS COMMENTS

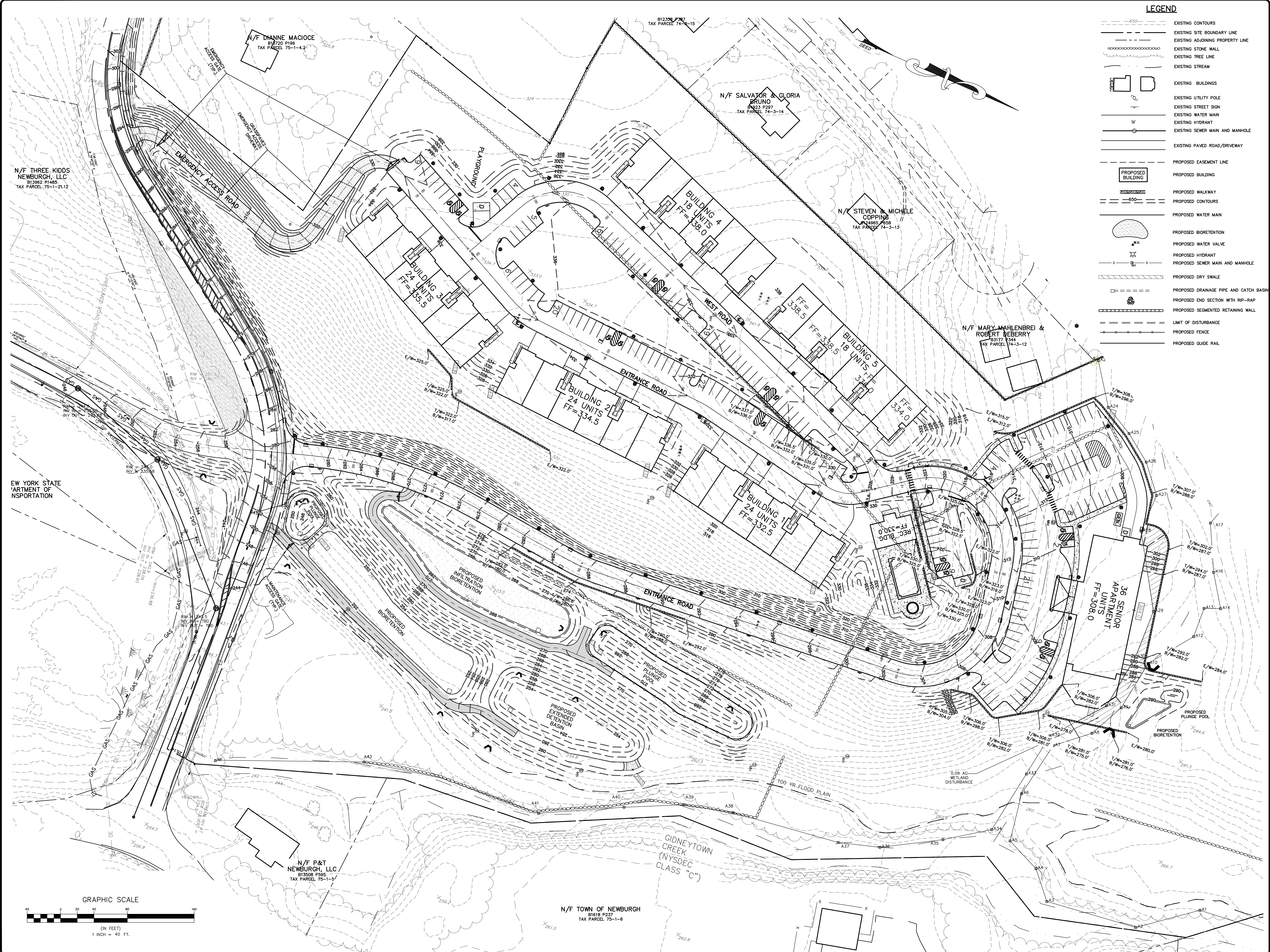
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 WALDEN, NY 12586
 PHONE: 845 778-8338
 FAX: 845 778-8117

LAYOUT & DIMENSION
GARDNER RIDGE
GARDNERTOWN ROAD
 TOWN OF NEWBURGH, ORANGE COUNTY, NY

SHEET NO.
3 OF 16
 DATE: JANUARY 28, 2016
 FILE NO.





LEGEND

	EXISTING CONTOURS
	EXISTING SITE BOUNDARY LINE
	EXISTING ADJOINING PROPERTY LINE
	EXISTING STONE WALL
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	EXISTING PAVED ROAD/DRIVEWAY
	PROPOSED EASEMENT LINE
	PROPOSED BUILDING
	PROPOSED CONTOURS
	PROPOSED WATER MAIN
	PROPOSED BIORETENTION
	PROPOSED WATER VALVE
	PROPOSED HYDRANT
	PROPOSED SEWER MAIN AND MANHOLE
	PROPOSED DRY SWALE
	PROPOSED DRAINAGE PIPE AND CATCH BASIN
	PROPOSED END SECTION WITH RIP-RAP
	PROPOSED SEGMENTED RETAINING WALL
	LIMIT OF DISTURBANCE
	PROPOSED FENCE
	PROPOSED GUIDE RAIL

NO.	DATE	REVISIONS
1	10/20/23	CONSULTANT COMMENTS
2	7/6/23	EMERGENCY ACCESS AND DRAINAGE REVISIONS
3	6/22/23	CONTRACTOR COMMENTS
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98	6/22/23	CONTRACTOR COMMENTS
99	6/22/23	CONTRACTOR COMMENTS
100	6/22/23	CONTRACTOR COMMENTS

Thomas B. Olley, P.E.

THOMAS B. OLLEY, P.E., P.L.L.C.
 ENGINEERS AND PLANNERS
 150 GRANVILLE AVENUE
 WALKEN NY 12087
 PH: 518 462 7700
 FAX: 518 462 7707
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GRADING PLAN
GARDNER RIDGE
GARDNERTOWN ROAD
 TOWN OF NEWBURGH, ORANGE COUNTY, NY

SHEET NO.
4 OF 16
 DATE: JANUARY 28, 2016
 FILE NO.

N/F THREE KIDS NEWBURGH, LLC
 B13962 P1485
 TAX PARCEL 75-1-2112

N/F Dianne Macioce
 B1720 P198
 TAX PARCEL 75-1-4.2

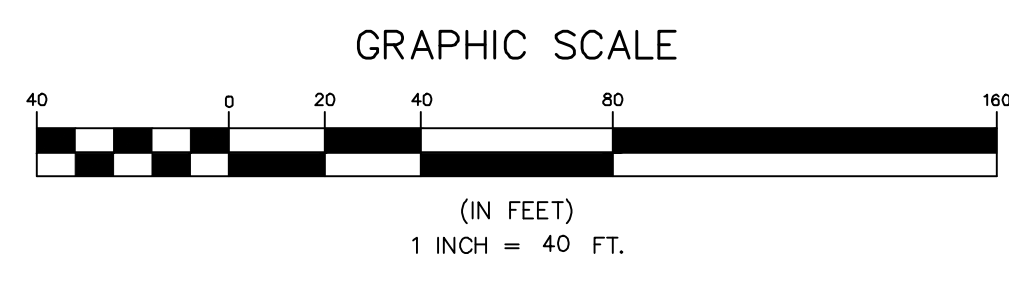
N/F SALVATOR & GLORIA BRUNO
 B123 P297
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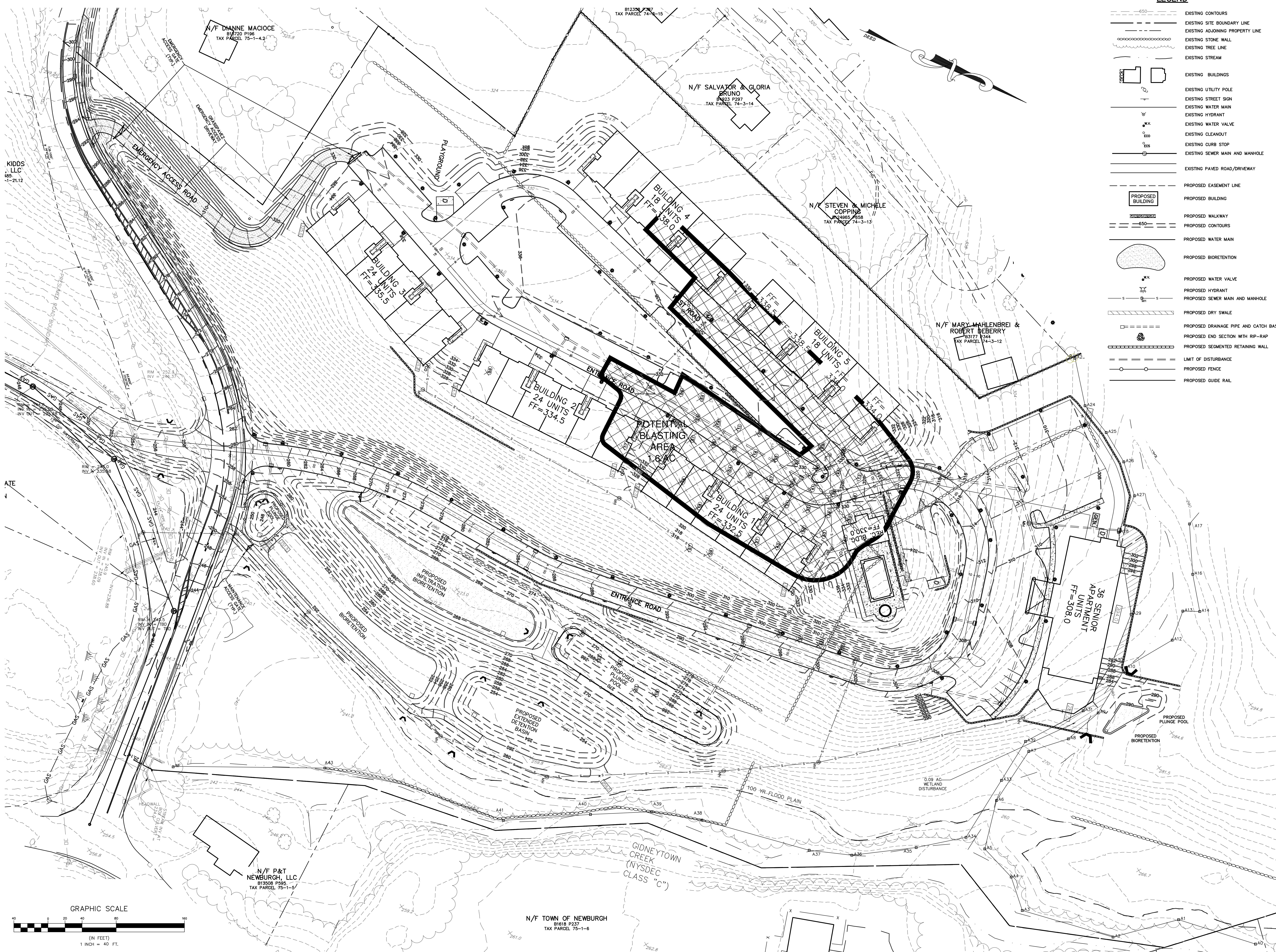
N/F STEVEN & MICHELE COPPING
 B1717 P344
 TAX PARCEL 74-3-13

N/F MARY MAHLENBRI & ROBERT DEBERRY
 B1717 P344
 TAX PARCEL 74-3-12

N/F P&T NEWBURGH, LLC
 B13508 P595
 TAX PARCEL 75-1-5

N/F TOWN OF NEWBURGH
 B1618 P237
 TAX PARCEL 75-1-6





LEGEND

	EXISTING CONTOURS
	EXISTING SITE BOUNDARY LINE
	EXISTING ADJOINING PROPERTY LINE
	EXISTING STONE WALL
	EXISTING TREE LINE
	EXISTING STREAM
	EXISTING BUILDINGS
	EXISTING UTILITY POLE
	EXISTING STREET SIGN
	EXISTING WATER MAIN
	EXISTING HYDRANT
	EXISTING WATER VALVE
	EXISTING CLEANOUT
	EXISTING CURB STOP
	EXISTING SEWER MAIN AND MANHOLE
	EXISTING PAVED ROAD/DRIVEWAY
	PROPOSED EASEMENT LINE
	PROPOSED BUILDING
	PROPOSED WALKWAY
	PROPOSED CONTOURS
	PROPOSED WATER MAIN
	PROPOSED BIORETENTION
	PROPOSED WATER VALVE
	PROPOSED HYDRANT
	PROPOSED SEWER MAIN AND MANHOLE
	PROPOSED DRY SWALE
	PROPOSED DRAINAGE PIPE AND CATCH BASIN
	PROPOSED END SECTION WITH RIP-RAP
	PROPOSED SEGMENTED RETAINING WALL
	LIMIT OF DISTURBANCE
	PROPOSED FENCE
	PROPOSED GUIDE RAIL

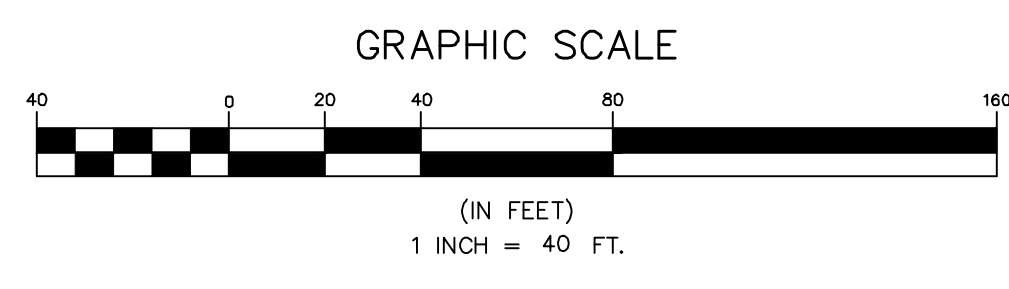
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6	06/22/23	CONSULTANT COMMENTS
5	06/22/23	CONSULTANT COMMENTS
4	06/22/23	LAYOUT REVISIONS
3	06/21/23	ENGINEERS COMMENTS
2	05/25/23	ENGINEERS COMMENTS
1	05/25/23	ENGINEERS COMMENTS

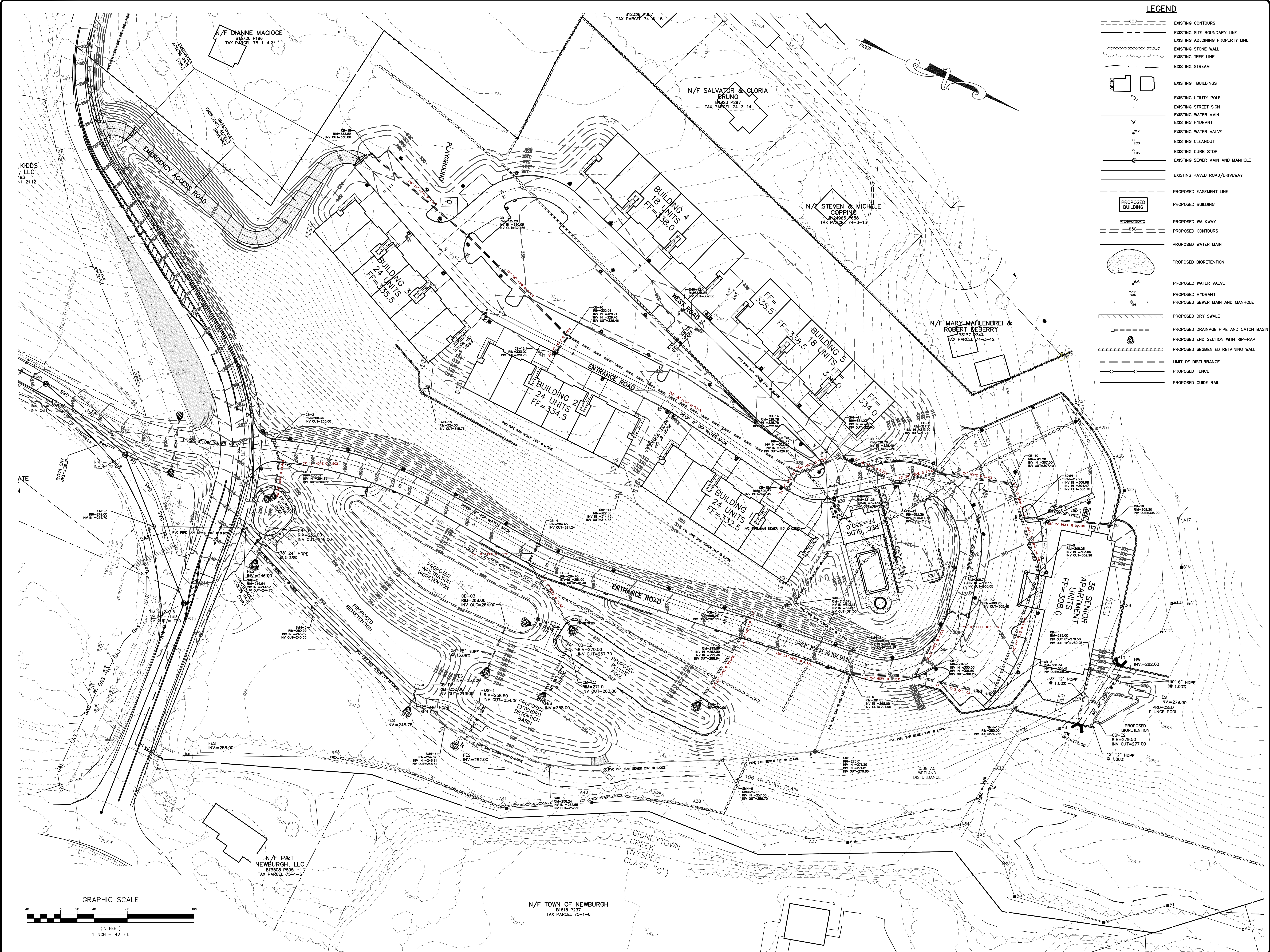
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 ENGINEERS AND PLANNERS
 15 GRANITE AVENUE
 WALKEN, NY 12587
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ROCK REMOVAL PLAN
GARDNER RIDGE
 GARDNERTOWN ROAD
 TOWN OF NEWBURGH, ORANGE COUNTY, NY

SHEET NO.
5 OF 16
 DATE: JANUARY 28, 2016
 FILE NO.





LEGEND

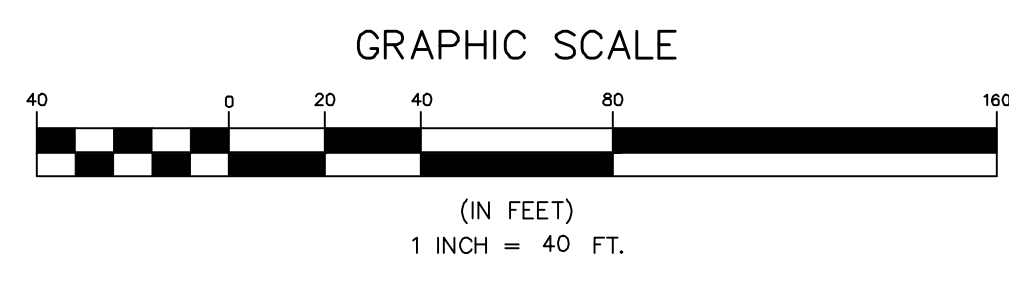
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	EXISTING BUILDINGS
	EXISTING UTILITY POLE
	EXISTING STREET SIGN
	EXISTING WATER MAIN
	EXISTING HYDRANT
	EXISTING WATER VALVE
	EXISTING CLEANOUT
	EXISTING CURB STOP
	EXISTING SEWER MAIN AND MANHOLE
	EXISTING PAVED ROAD/DRIVEWAY
	PROPOSED EASEMENT LINE
	PROPOSED BUILDING
	PROPOSED WALKWAY
	PROPOSED CONTOURS
	PROPOSED WATER MAIN
	PROPOSED BIORETENTION
	PROPOSED WATER VALVE
	PROPOSED HYDRANT
	PROPOSED SEWER MAIN AND MANHOLE
	PROPOSED DRY SWALE
	PROPOSED DRAINAGE PIPE AND CATCH BASIN
	PROPOSED END SECTION WITH RIP-RAP
	PROPOSED SEGMENTED RETAINING WALL
	LIMIT OF DISTURBANCE
	PROPOSED FENCE
	PROPOSED GUIDE RAIL

NO.	DATE	BY	DESCRIPTION
7	10/20/23	MS	CONSULTANT COMMENTS
6	06/22/23	MS	CONSULTANT COMMENTS
5	06/22/23	MS	CONSULTANT COMMENTS
4	06/22/23	MS	LAYOUT COMMENTS
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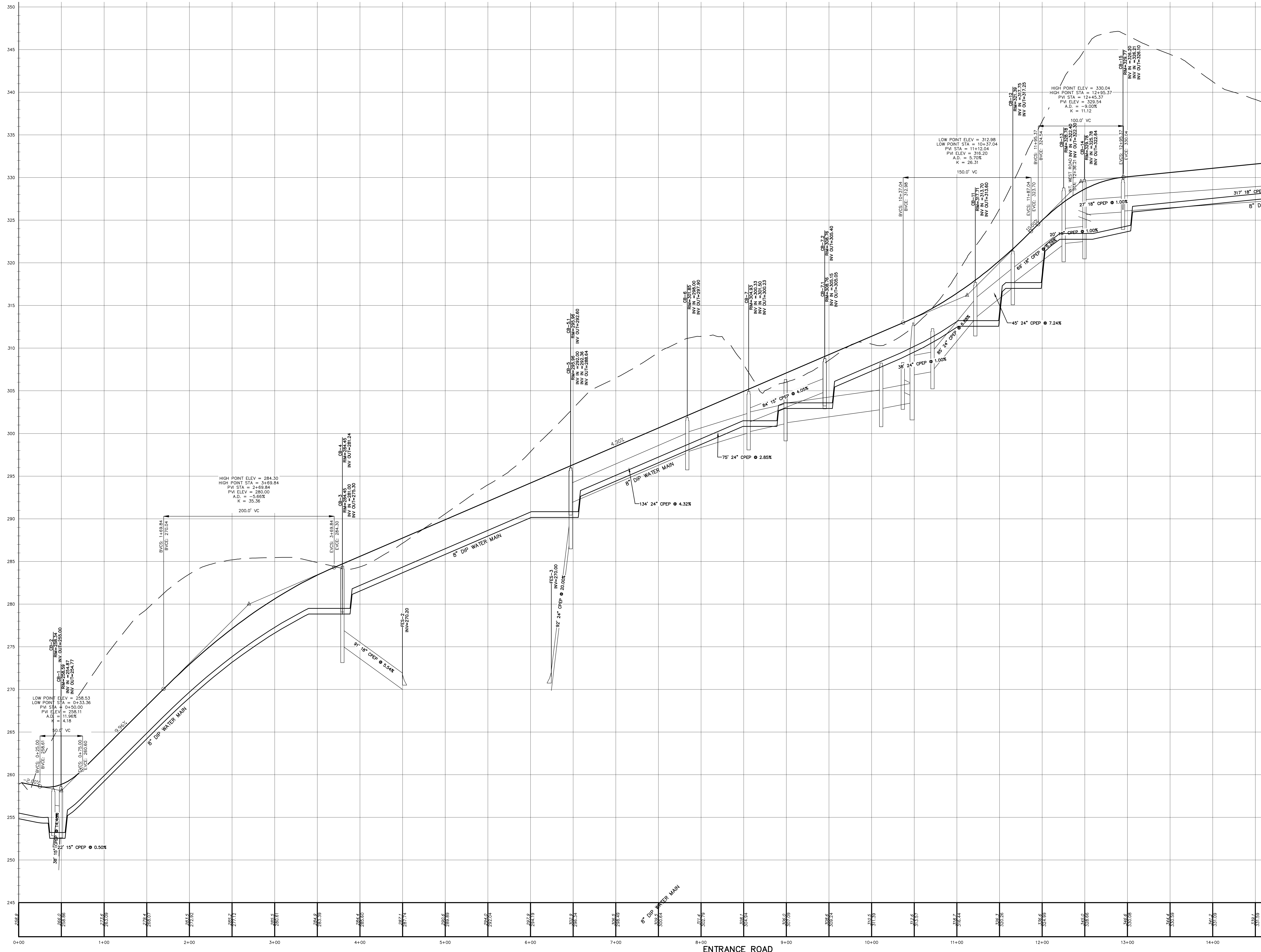
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 E-MAIL: TBOLEY@TBOLEY.COM

UTILITY PLAN
GARDNER RIDGE
 GARDNER TOWN ROAD
 TOWN OF NEWBURGH, ORANGE COUNTY, NY



C:\Projects\Orange_Ridge\Drawings\Roadway\Profile\Profile.dwg, 08/28/2016 10:44:14 AM



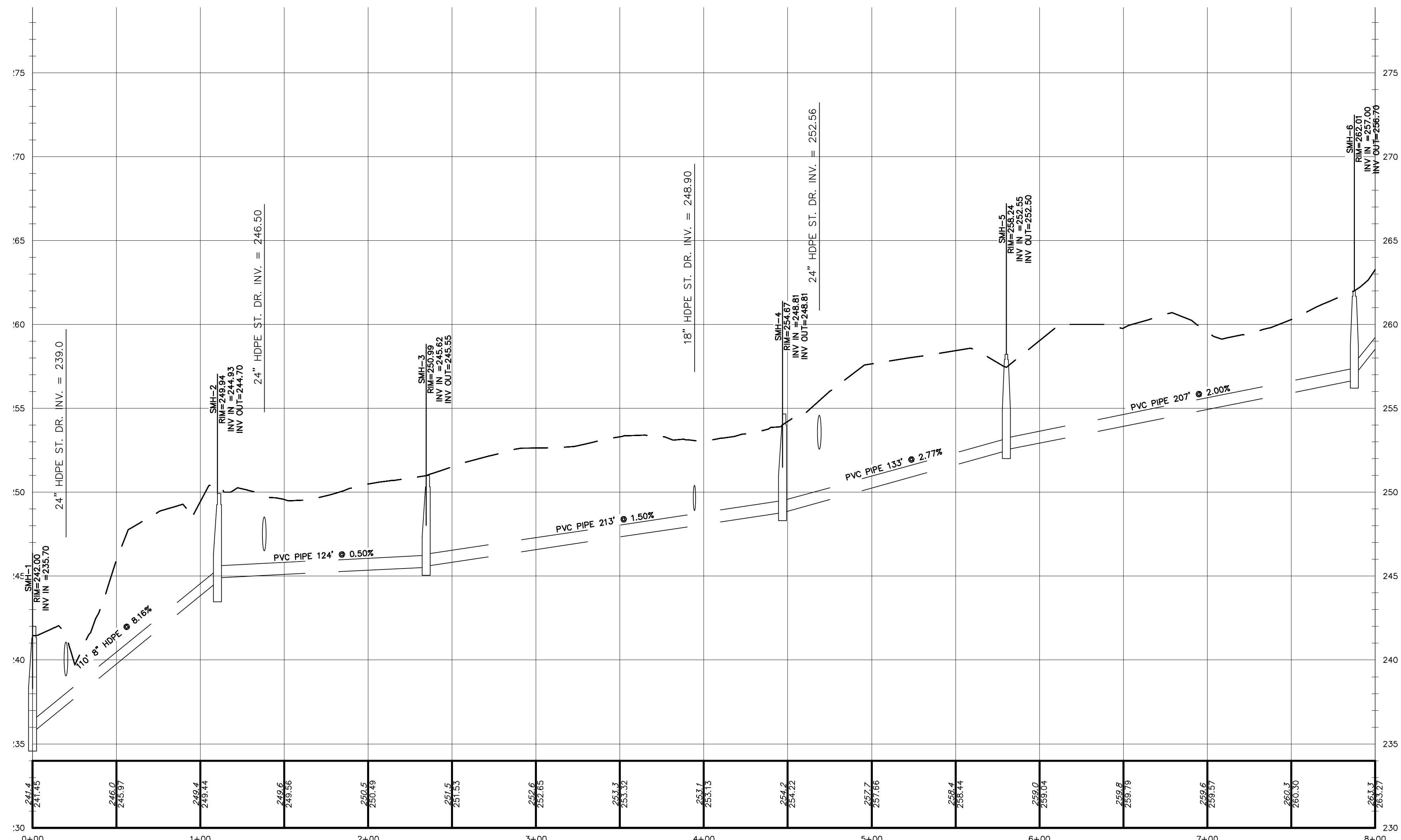
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4	6/8/22	LAYOUT REVISIONS
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1	3/15/16	ENGINEERS COMMENTS

Thomas B. Olley, P.E.

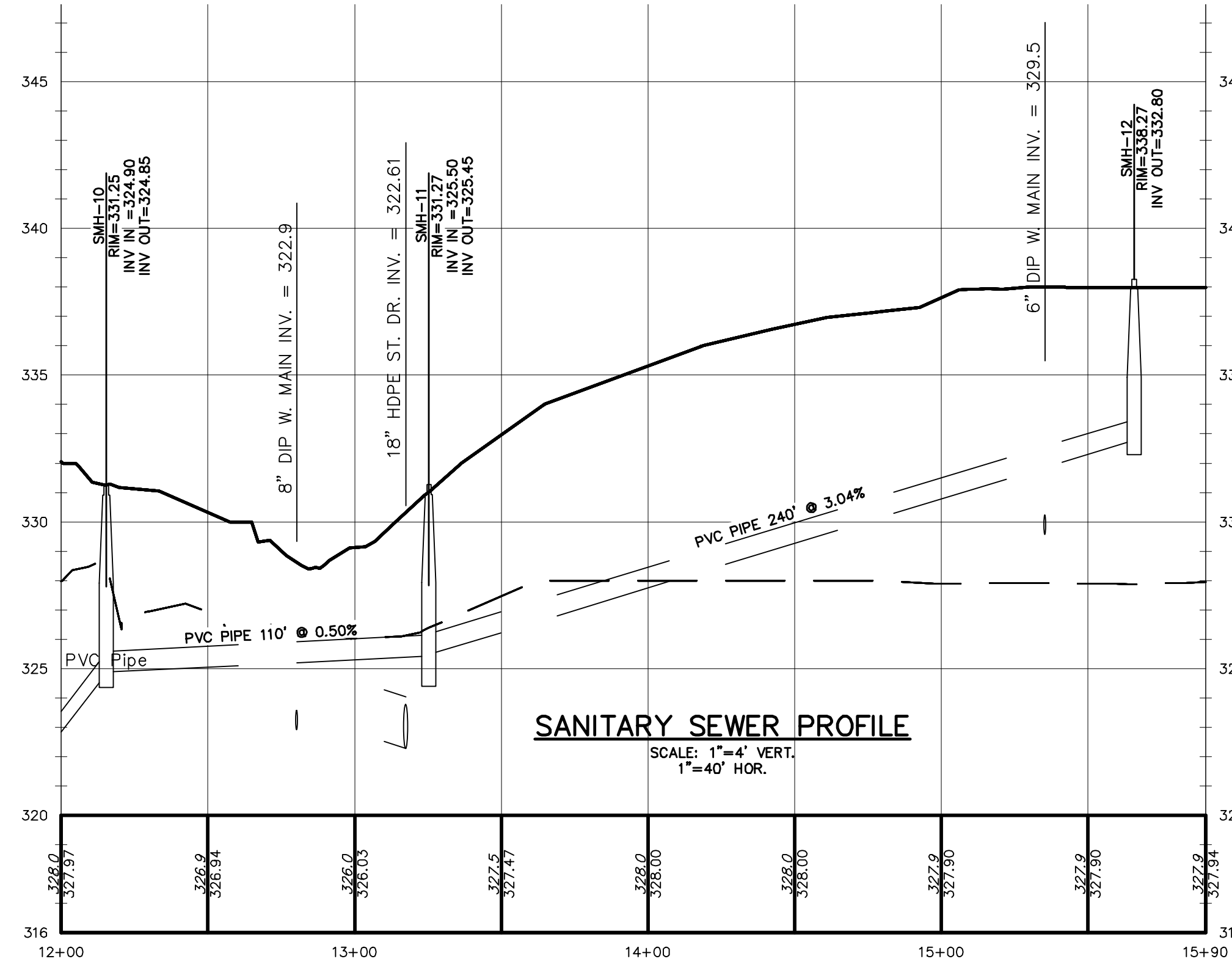
THOMAS B. OLLEY, P.E., P.L.L.C.
 ENGINEERS AND PLANNERS
 15 ORANGE AVENUE
 PALM BEACH, FL 33480
 PHONE (407) 798-8888
 FAX (407) 798-2007

THE PROFESSIONAL SEAL OF THE ENGINEER IS REQUIRED FOR ALL PROFESSIONAL SERVICES. THE PROFESSIONAL SEAL OF THE ARCHITECT IS REQUIRED FOR ALL ARCHITECTURAL SERVICES. THE PROFESSIONAL SEAL OF THE LAND SURVEYOR IS REQUIRED FOR ALL SURVEYING SERVICES. THE PROFESSIONAL SEAL OF THE CIVIL ENGINEER IS REQUIRED FOR ALL CIVIL ENGINEERING SERVICES. THE PROFESSIONAL SEAL OF THE ELECTRICAL ENGINEER IS REQUIRED FOR ALL ELECTRICAL ENGINEERING SERVICES. THE PROFESSIONAL SEAL OF THE MECHANICAL ENGINEER IS REQUIRED FOR ALL MECHANICAL ENGINEERING SERVICES. THE PROFESSIONAL SEAL OF THE CHEMICAL ENGINEER IS REQUIRED FOR ALL CHEMICAL ENGINEERING SERVICES. THE PROFESSIONAL SEAL OF THE ENVIRONMENTAL ENGINEER IS REQUIRED FOR ALL ENVIRONMENTAL ENGINEERING SERVICES. THE PROFESSIONAL SEAL OF THE AERONAUTICAL AND NAUTICAL ENGINEER IS REQUIRED FOR ALL AERONAUTICAL AND NAUTICAL ENGINEERING SERVICES. THE PROFESSIONAL SEAL OF THE AGRICULTURAL ENGINEER IS REQUIRED FOR ALL AGRICULTURAL ENGINEERING SERVICES. THE PROFESSIONAL SEAL OF THE METALLURGICAL ENGINEER IS REQUIRED FOR ALL METALLURGICAL ENGINEERING SERVICES. THE PROFESSIONAL SEAL OF THE INDUSTRIAL ENGINEER IS REQUIRED FOR ALL INDUSTRIAL ENGINEERING SERVICES. THE PROFESSIONAL SEAL OF THE MINING ENGINEER IS REQUIRED FOR ALL MINING ENGINEERING SERVICES. THE PROFESSIONAL SEAL OF THE PETROLEUM ENGINEER IS REQUIRED FOR ALL PETROLEUM ENGINEERING SERVICES. THE PROFESSIONAL SEAL OF THE TRANSPORTATION ENGINEER IS REQUIRED FOR ALL TRANSPORTATION ENGINEERING SERVICES. THE PROFESSIONAL SEAL OF THE MARINE ENGINEER IS REQUIRED FOR ALL MARINE ENGINEERING SERVICES. THE PROFESSIONAL SEAL OF THE AEROSPACE ENGINEER IS REQUIRED FOR ALL AEROSPACE ENGINEERING SERVICES. THE PROFESSIONAL SEAL OF THE NUCLEAR ENGINEER IS REQUIRED FOR ALL NUCLEAR ENGINEERING SERVICES. THE PROFESSIONAL SEAL OF THE AERONAUTICAL ENGINEER IS REQUIRED FOR ALL AERONAUTICAL ENGINEERING SERVICES. THE PROFESSIONAL SEAL OF THE NAUTICAL ENGINEER IS REQUIRED FOR ALL NAUTICAL ENGINEERING SERVICES. THE PROFESSIONAL SEAL OF THE AGRICULTURAL ENGINEER IS REQUIRED FOR ALL AGRICULTURAL ENGINEERING SERVICES. THE PROFESSIONAL SEAL OF THE METALLURGICAL ENGINEER IS REQUIRED FOR ALL METALLURGICAL ENGINEERING SERVICES. THE PROFESSIONAL SEAL OF THE INDUSTRIAL ENGINEER IS REQUIRED FOR ALL INDUSTRIAL ENGINEERING SERVICES. THE PROFESSIONAL SEAL OF THE MINING ENGINEER IS REQUIRED FOR ALL MINING ENGINEERING SERVICES. THE PROFESSIONAL SEAL OF THE PETROLEUM ENGINEER IS REQUIRED FOR ALL PETROLEUM ENGINEERING SERVICES. THE PROFESSIONAL SEAL OF THE TRANSPORTATION ENGINEER IS REQUIRED FOR ALL TRANSPORTATION ENGINEERING SERVICES. THE PROFESSIONAL SEAL OF THE MARINE ENGINEER IS REQUIRED FOR ALL MARINE ENGINEERING SERVICES. THE PROFESSIONAL SEAL OF THE AEROSPACE ENGINEER IS REQUIRED FOR ALL AEROSPACE ENGINEERING SERVICES. THE PROFESSIONAL SEAL OF THE NUCLEAR ENGINEER IS REQUIRED FOR ALL NUCLEAR ENGINEERING SERVICES.

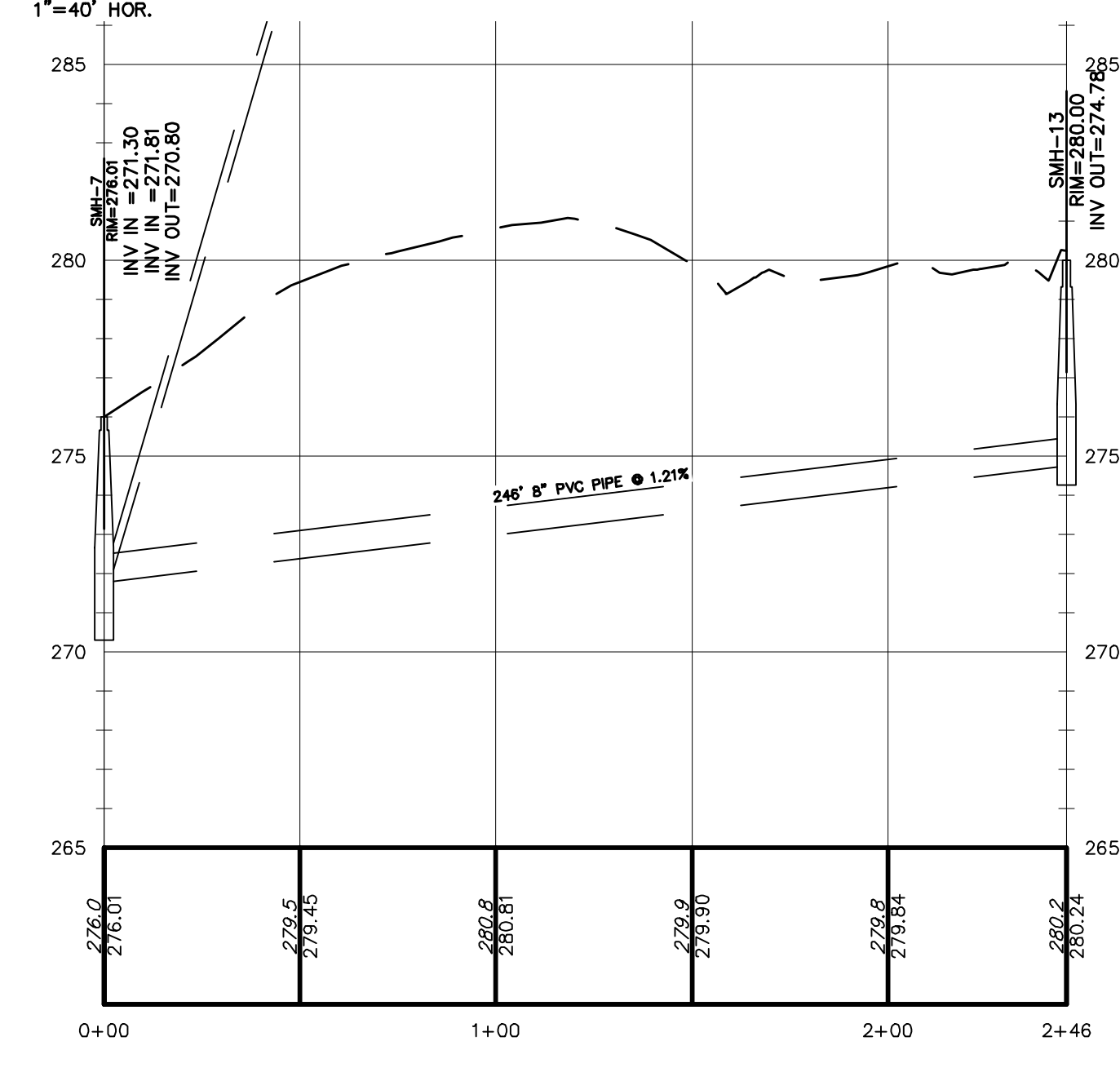
ROAD PROFILES
GARDNER RIDGE
 GARDNERTOWN ROAD
 TOWN OF NEWBURGH, ORANGE COUNTY, NY



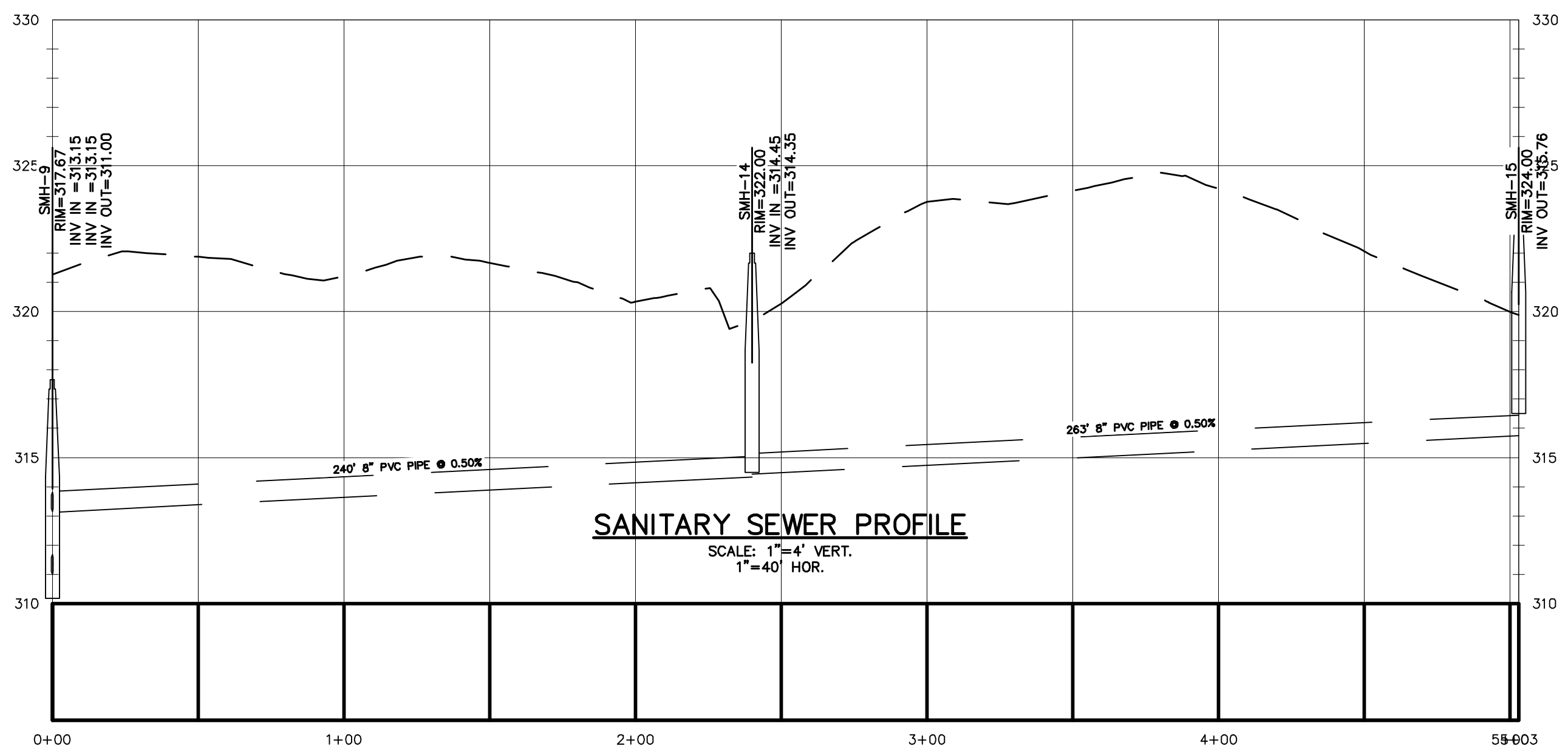
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1"=40' HOR.



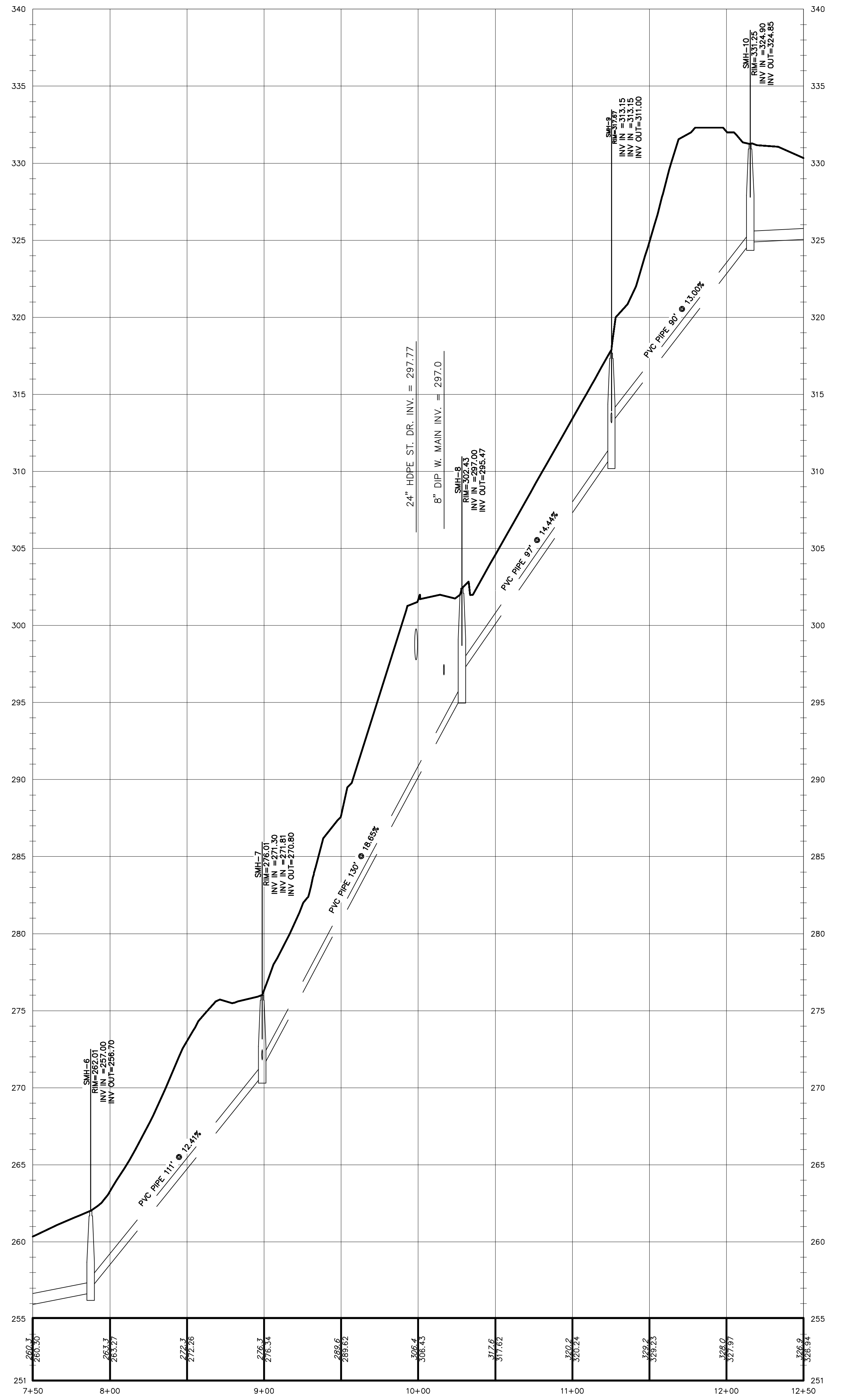
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1"=40' HOR.



SANITARY SEWER PROFILE
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SANITARY SEWER PROFILE
SCALE: 1"=4' VERT.
1"=40' HOR.



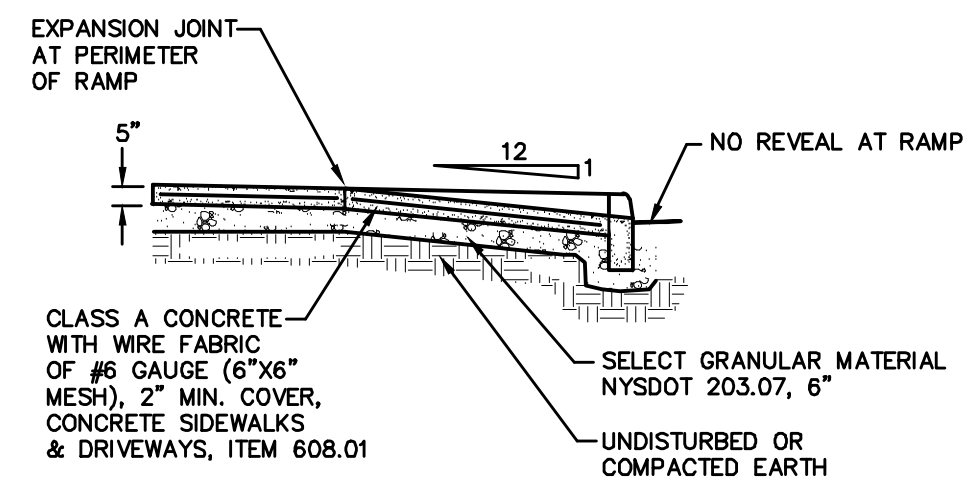
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6	6/8/23	EMERGENCY CORRECTIVE ACTIONS
5	6/8/23	EMERGENCY CORRECTIVE ACTIONS
4	6/8/23	LAYOUT REVISIONS
3	6/21/17	ENGINEERS COMMENTS
2	5/25/17	ENGINEERS COMMENTS
1	3/15/15	ENGINEERS COMMENTS

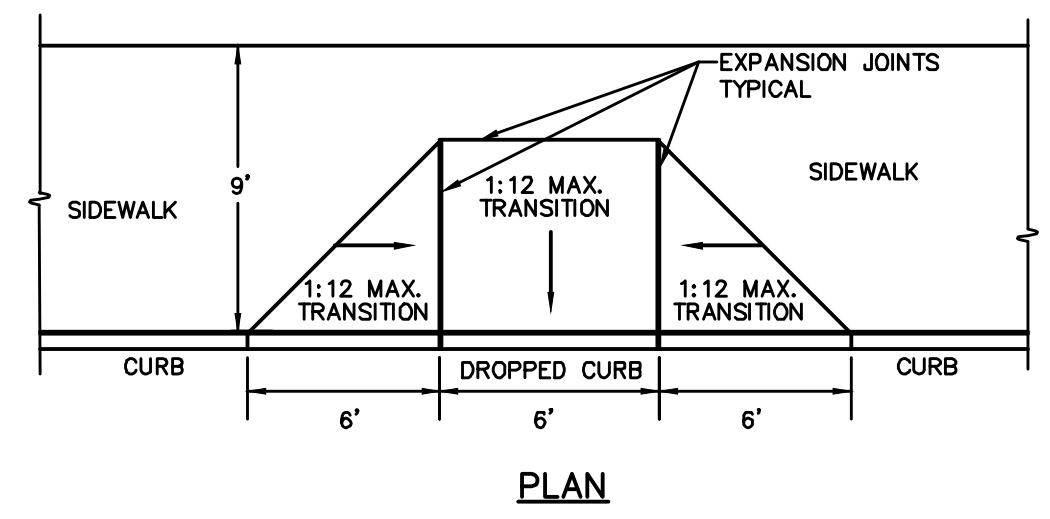
Thomas B. Olley, P.E.

THOMAS B. OLLEY, P.E., P.L.L.C.
ENGINEERS AND PLANNERS
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MILBURN, NJ 07048
PHONE (908) 798-3307
FAX (908) 798-3307
AS AN INDICATOR OF THE QUALITY OF THE SERVICES PROVIDED, THE PROFESSIONAL ENGINEER'S LICENSE NUMBER IS 35121. THE PROFESSIONAL ENGINEER'S LICENSE NUMBER IS 35121. THE PROFESSIONAL ENGINEER'S LICENSE NUMBER IS 35121.

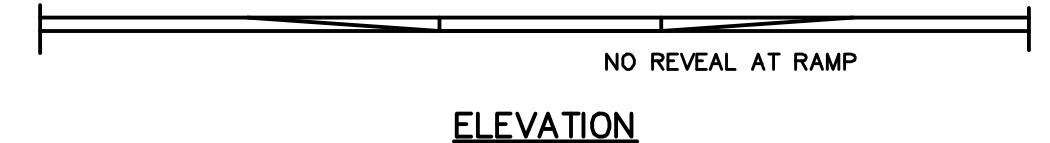
ROAD PROFILES
GARDNER RIDGE
GARDNERTOWN ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NY



PEDESTRIAN RAMP - SECTION
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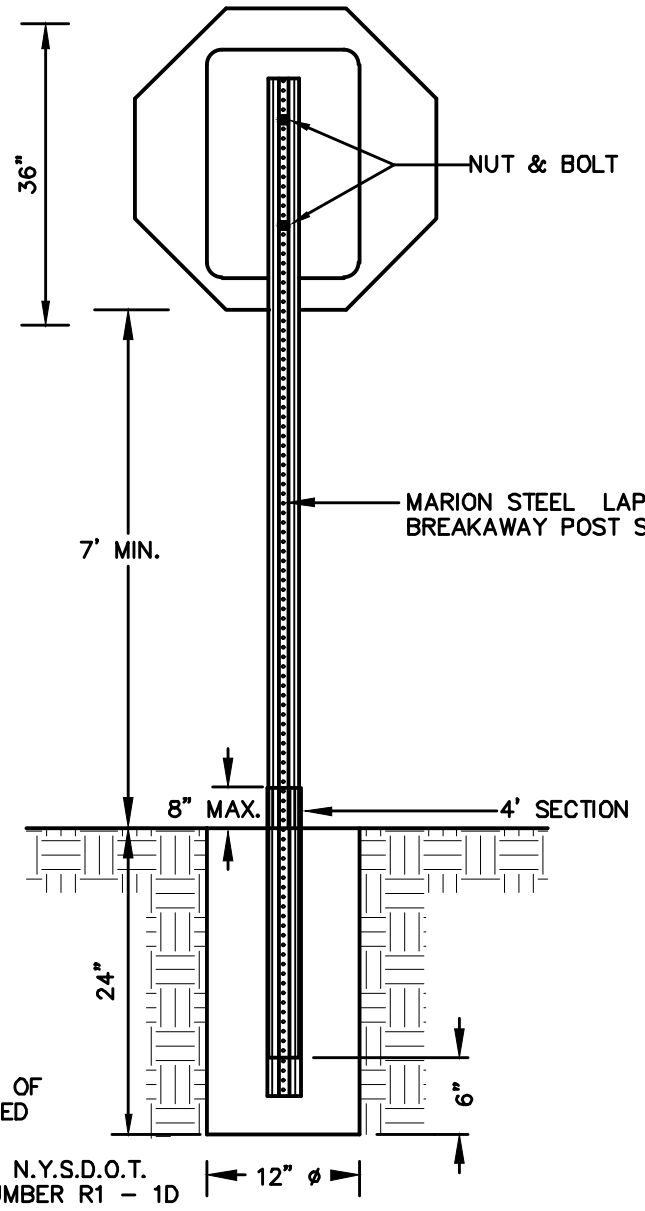
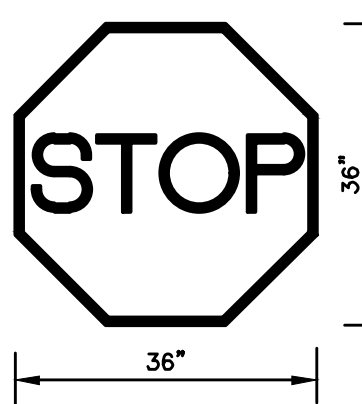


PLAN

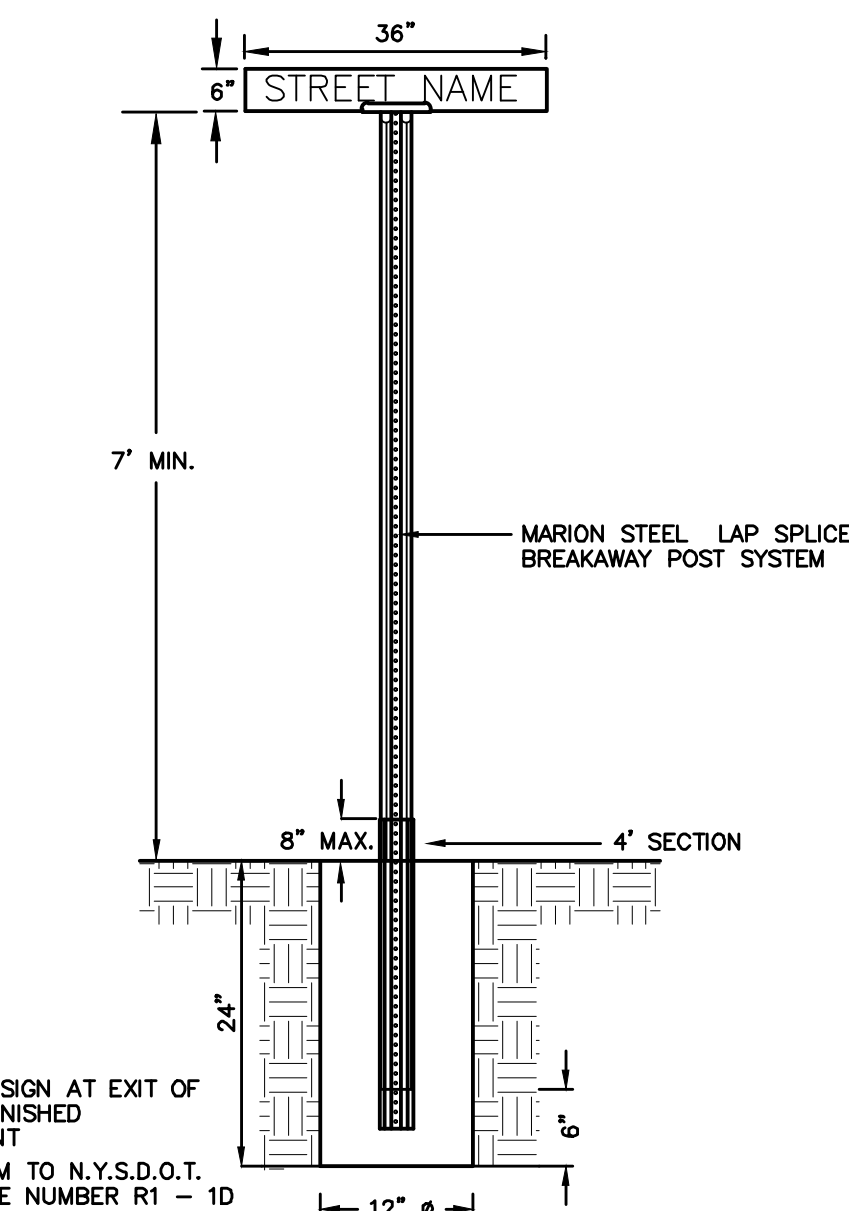


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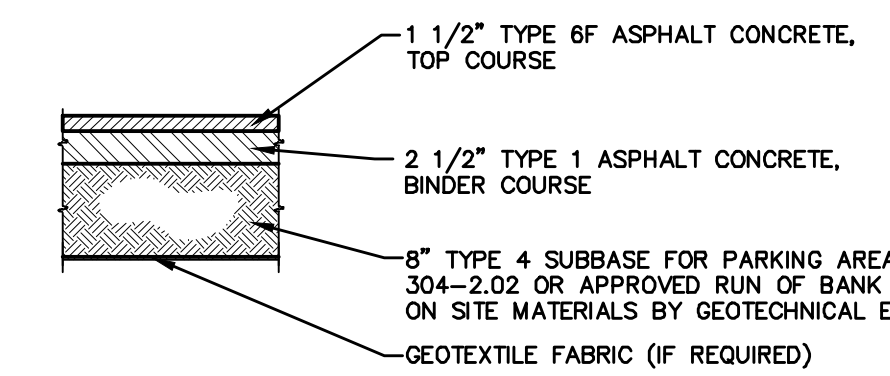
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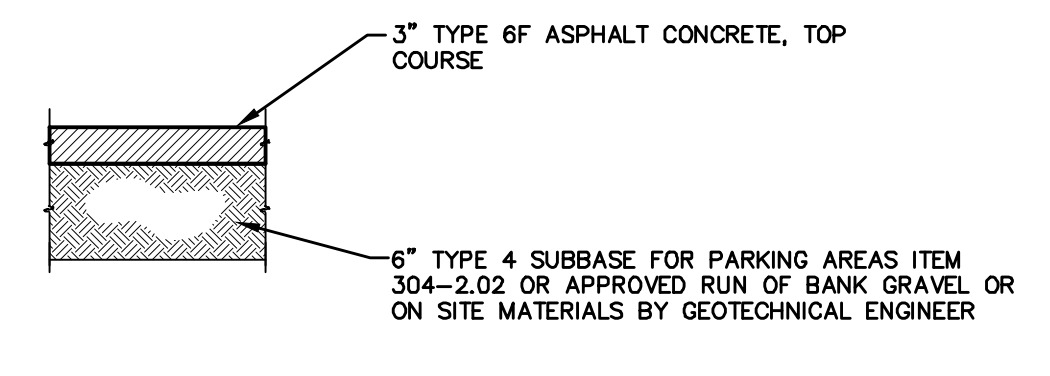
STREET SIGN INSTALLATION DETAIL
NOT TO SCALE



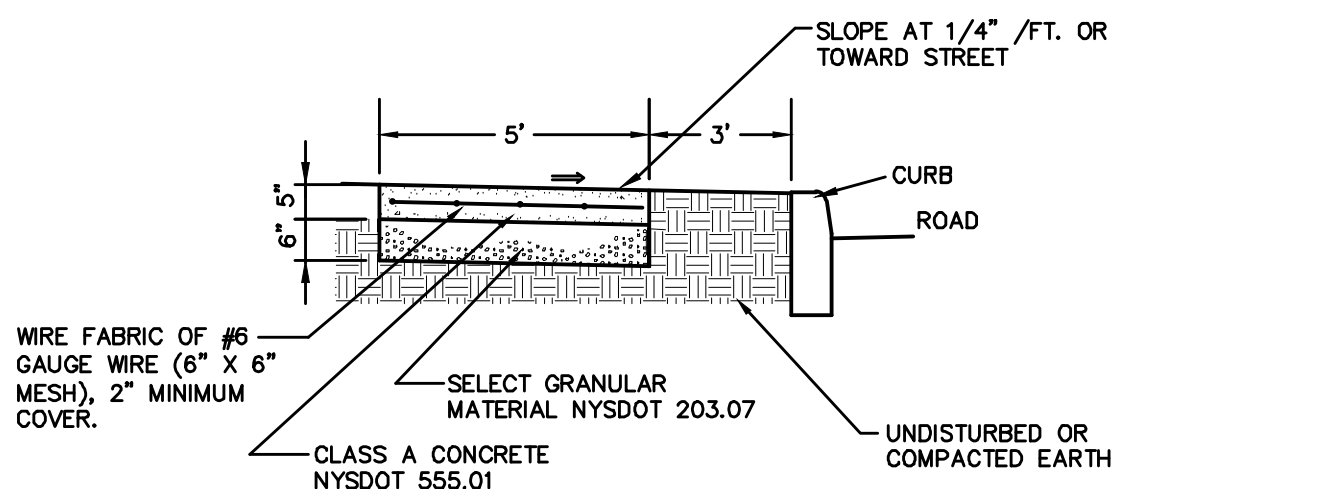
STREET SIGN INSTALLATION DETAIL
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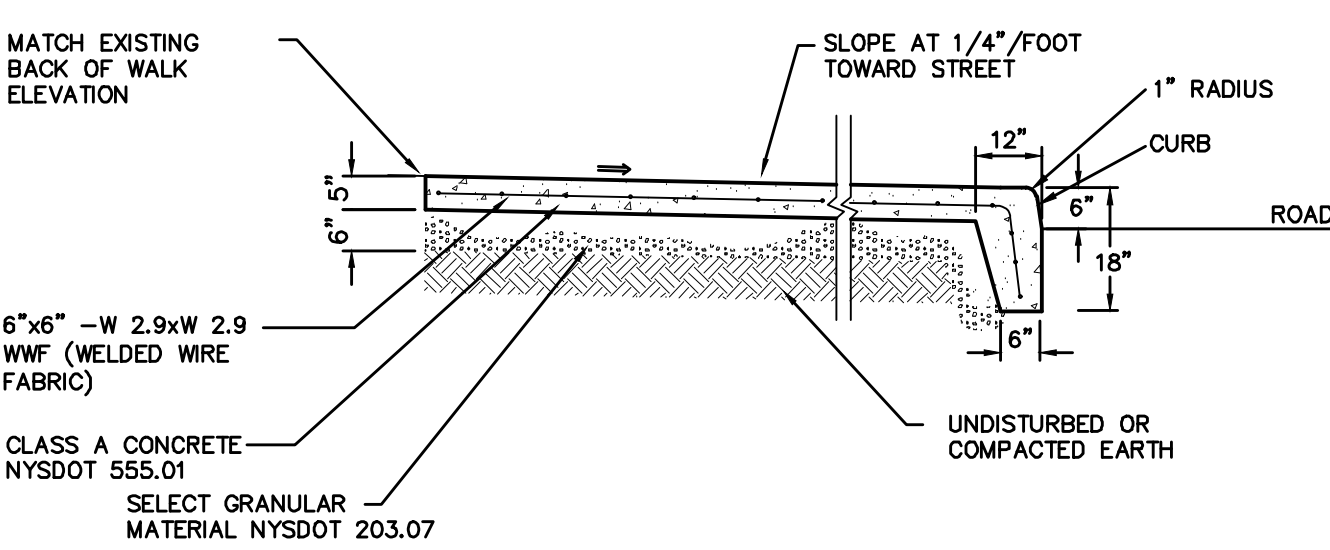
LIGHT DUTY PAVEMENT
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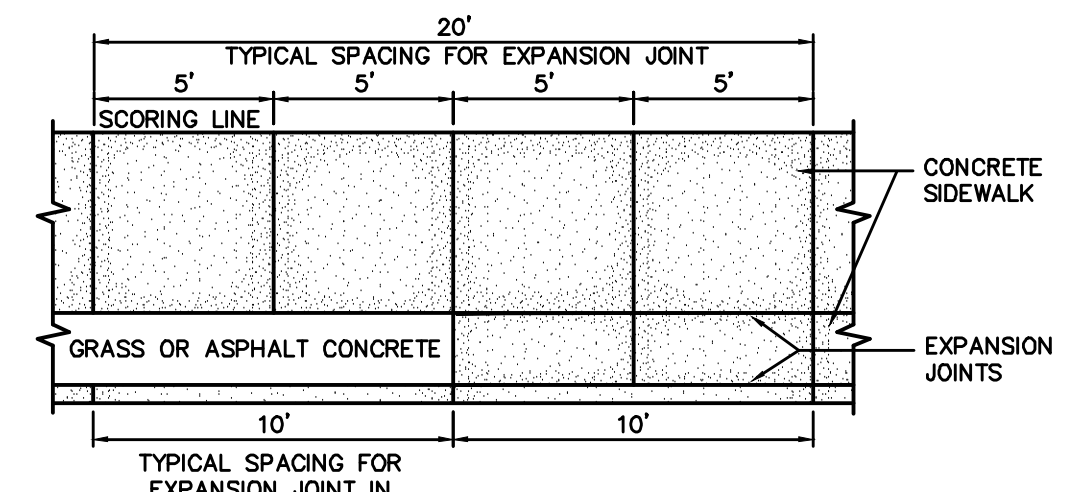
DRIVEWAY PAVEMENT
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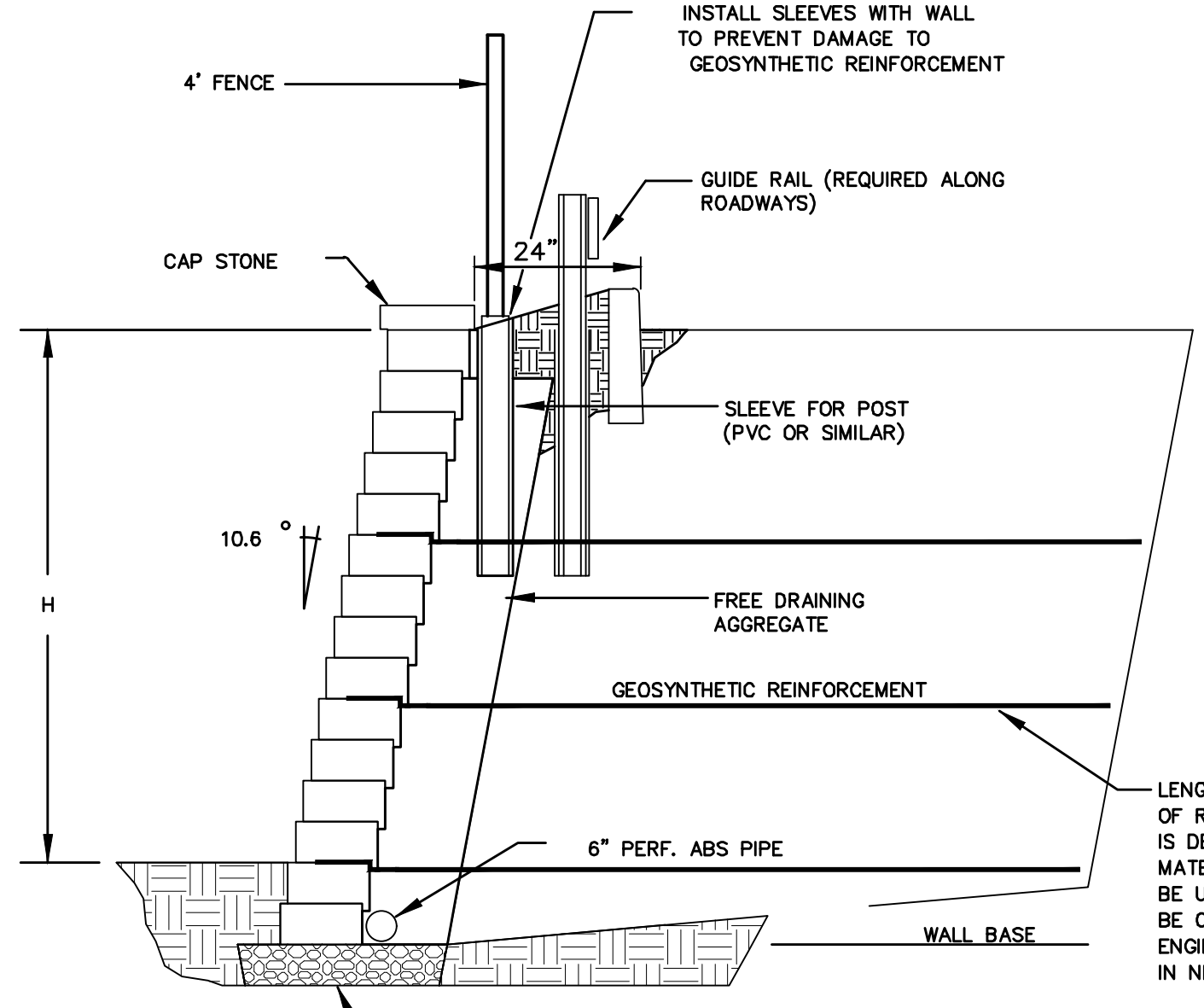
CONCRETE SIDEWALK
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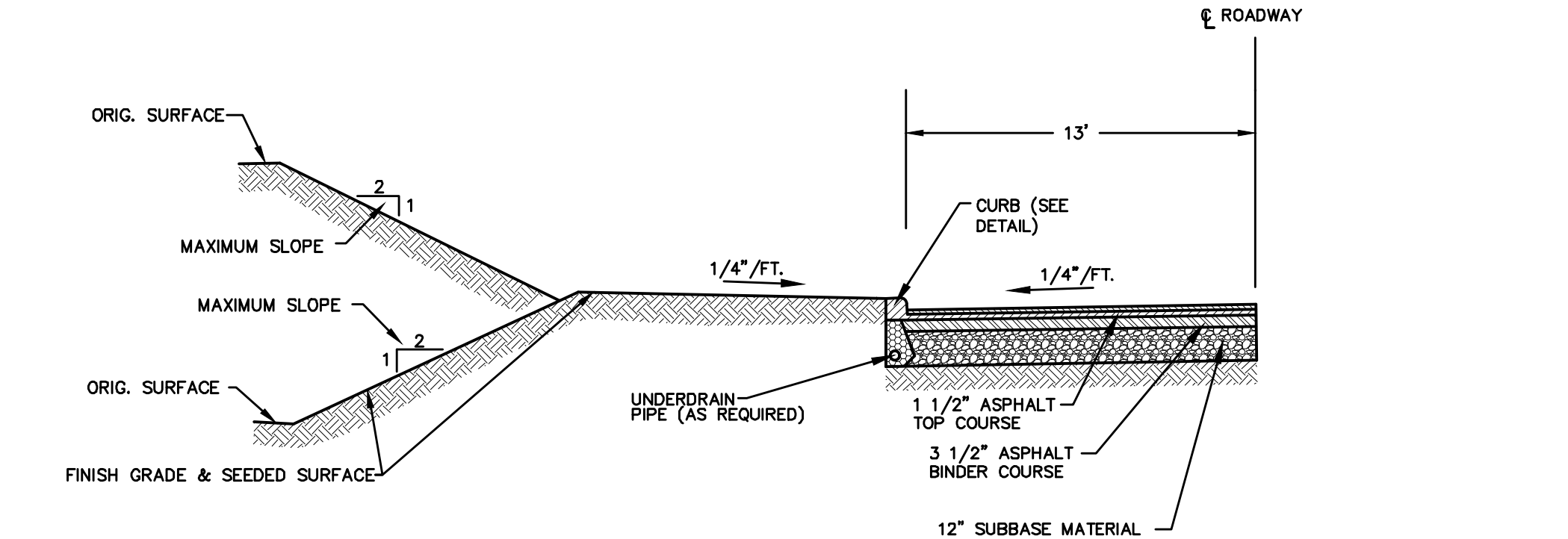
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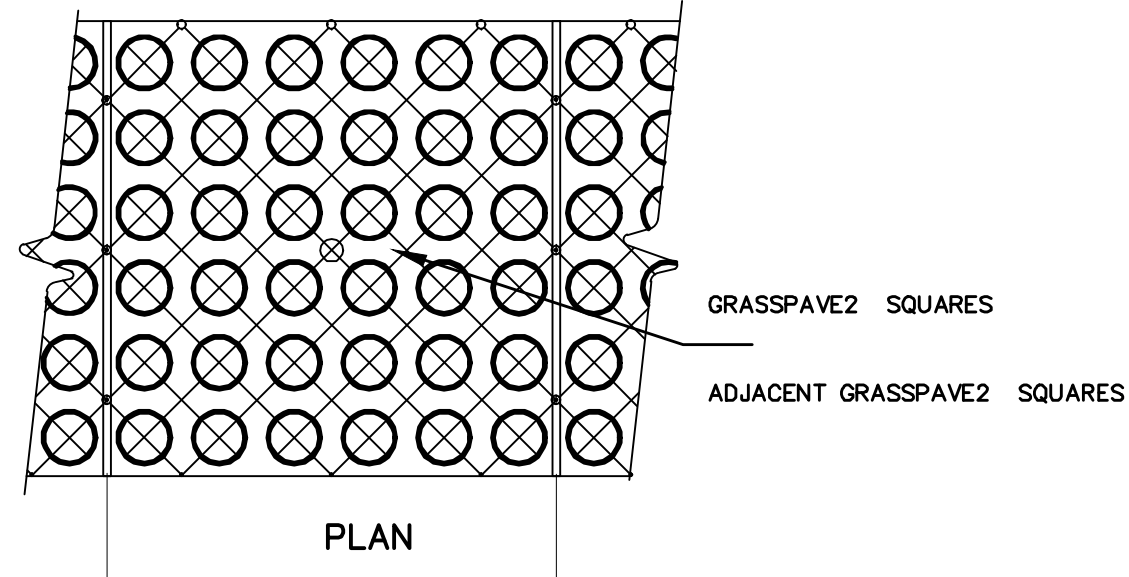
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NOT TO SCALE



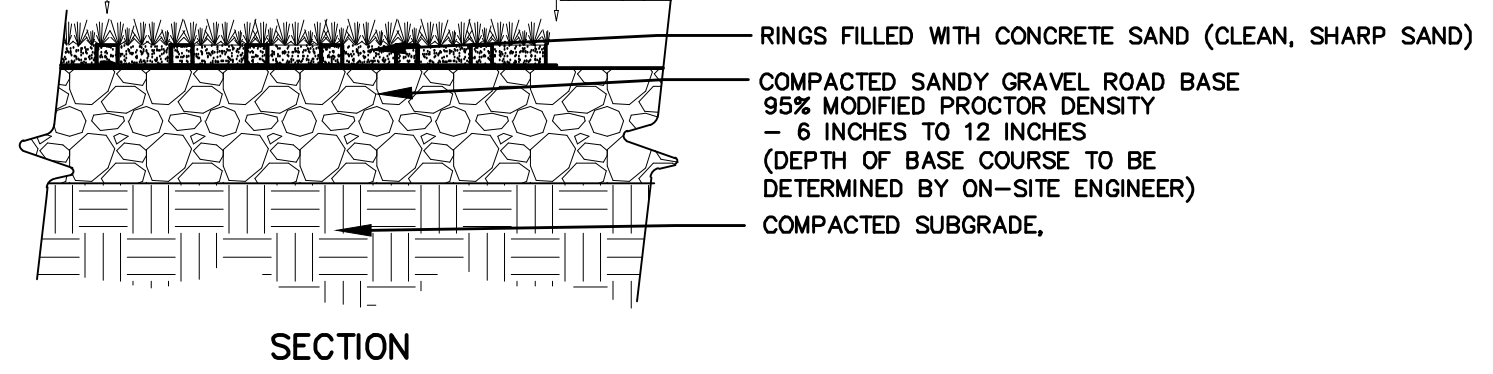
SEGMENTAL RETAINING WALL WITH GUIDE RAIL & FENCE
NOT TO SCALE



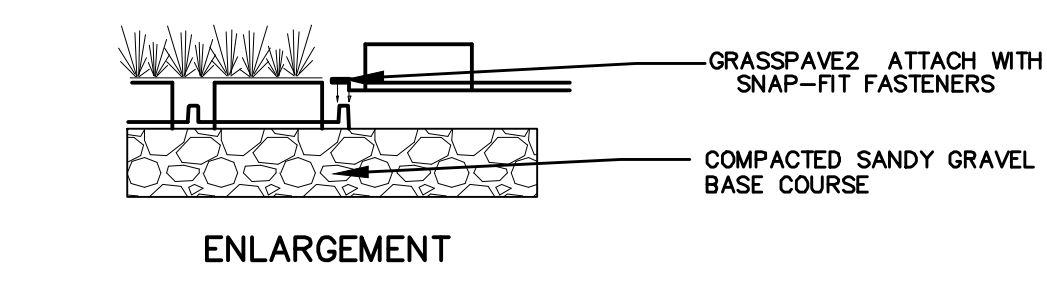
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PLAN

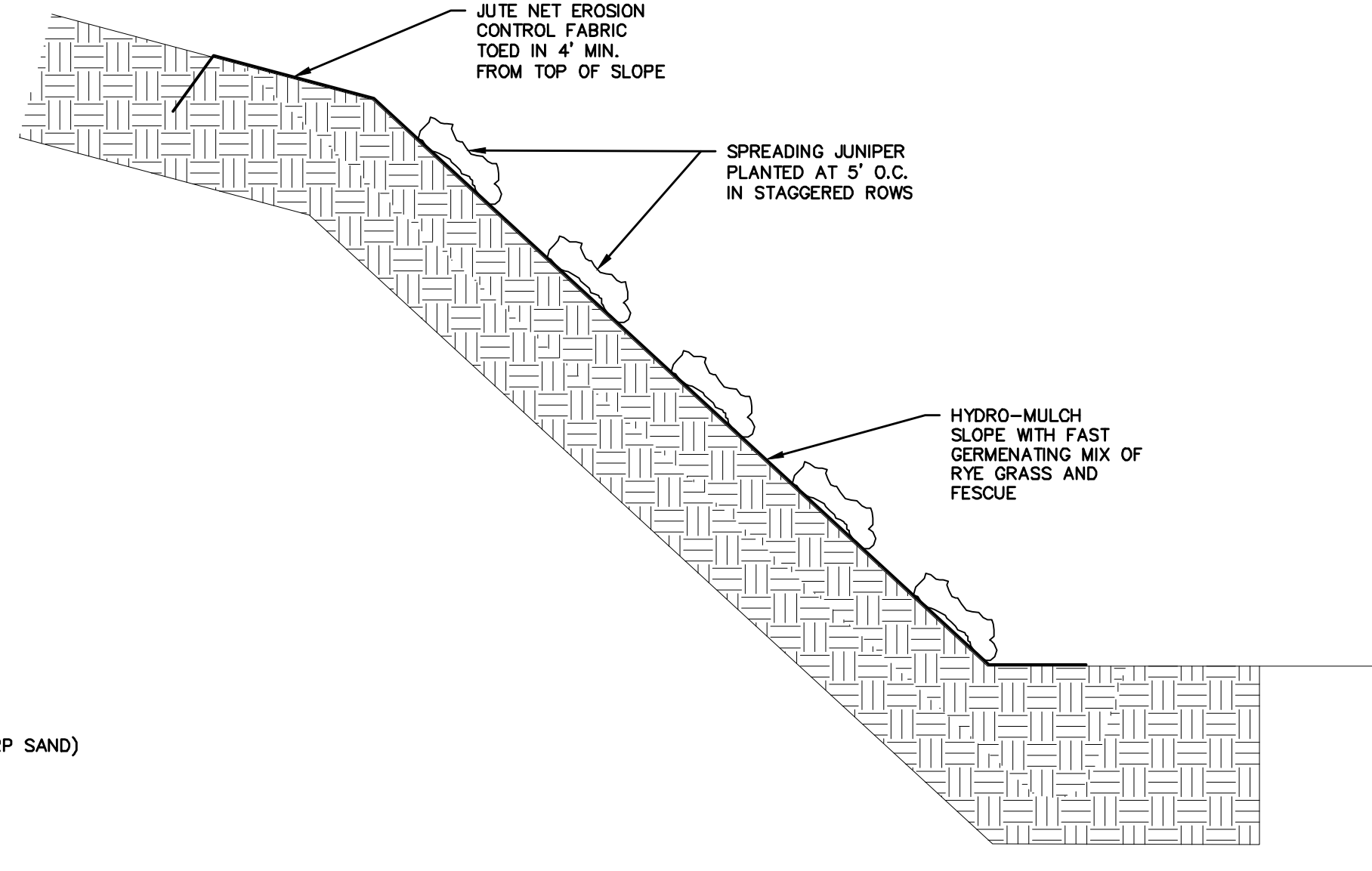


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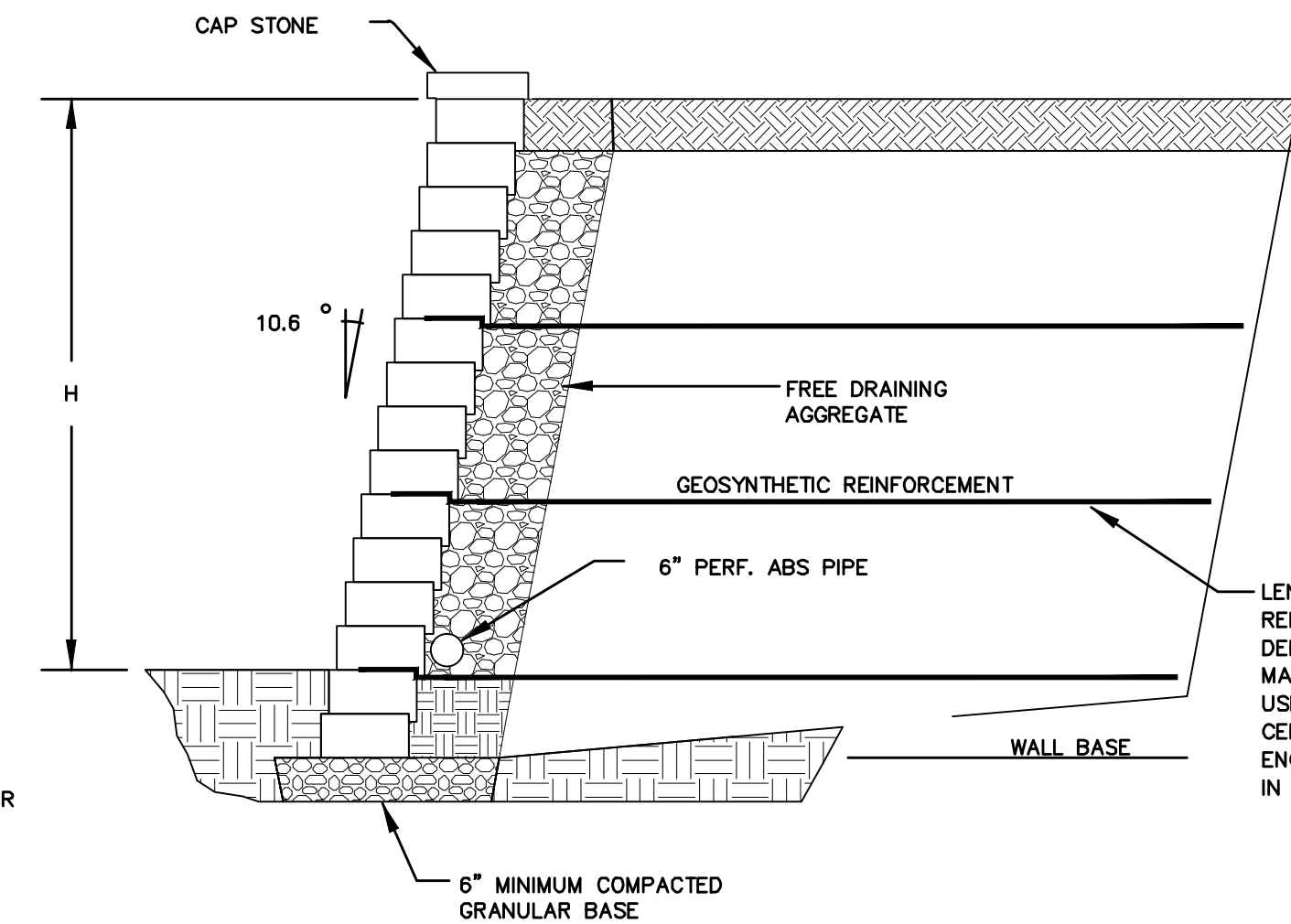


ENLARGEMENT

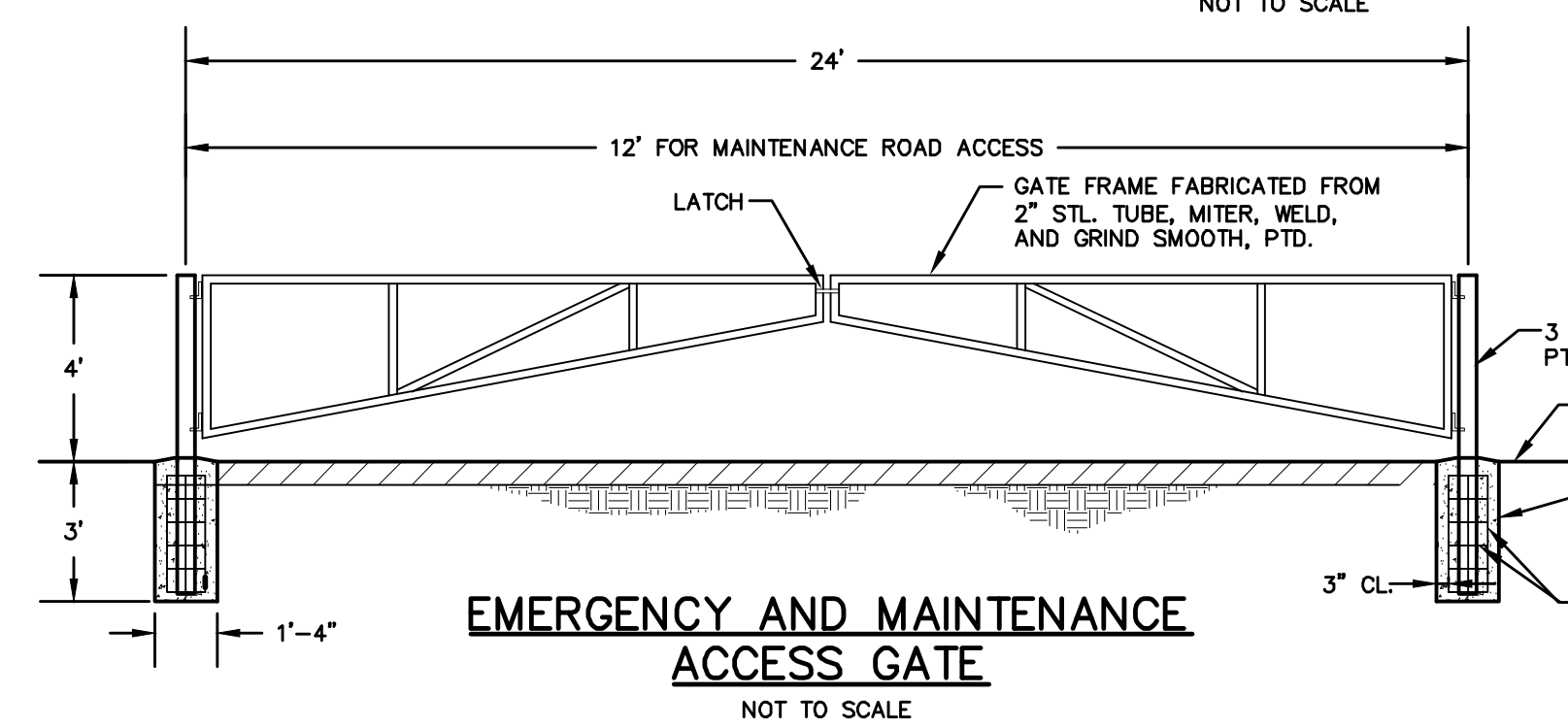
TYPICAL GRASSPAVE2 DETAIL
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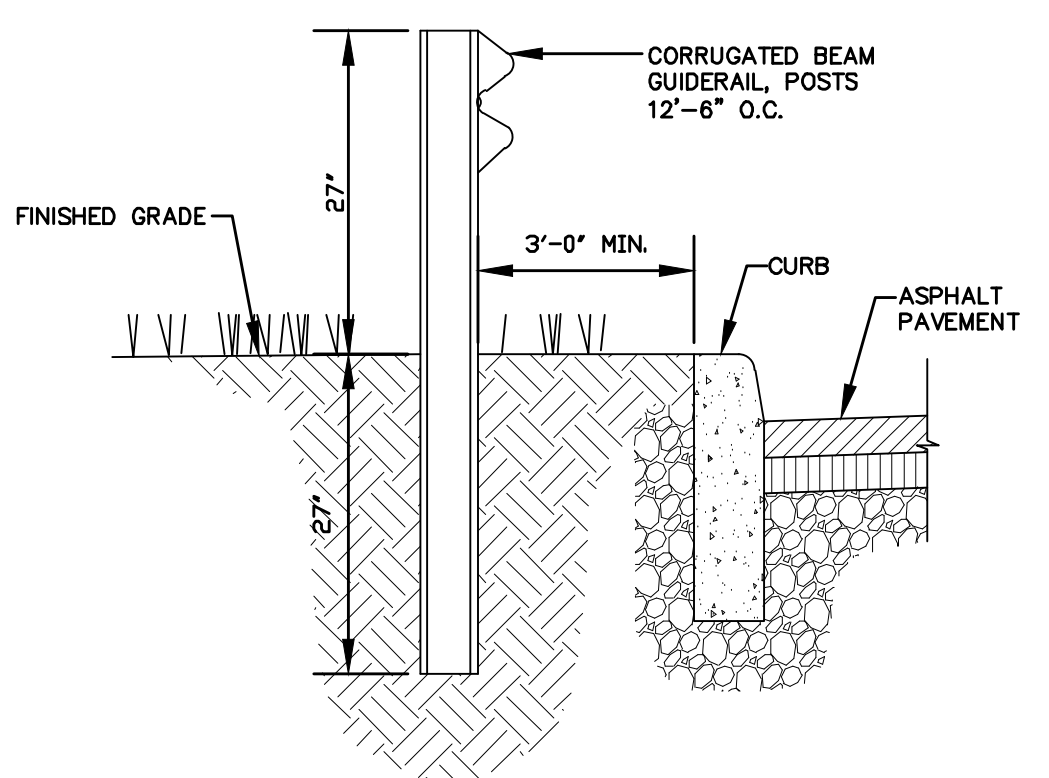
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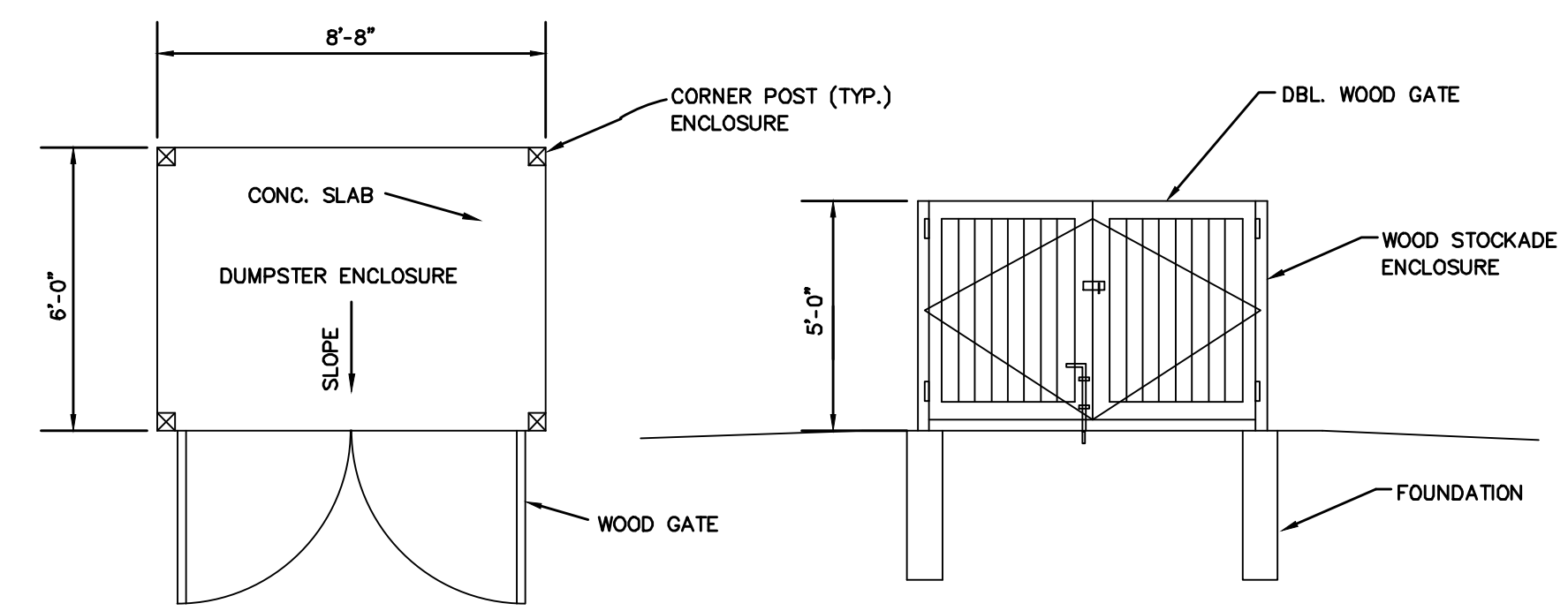
SEGMENTAL RETAINING WALL
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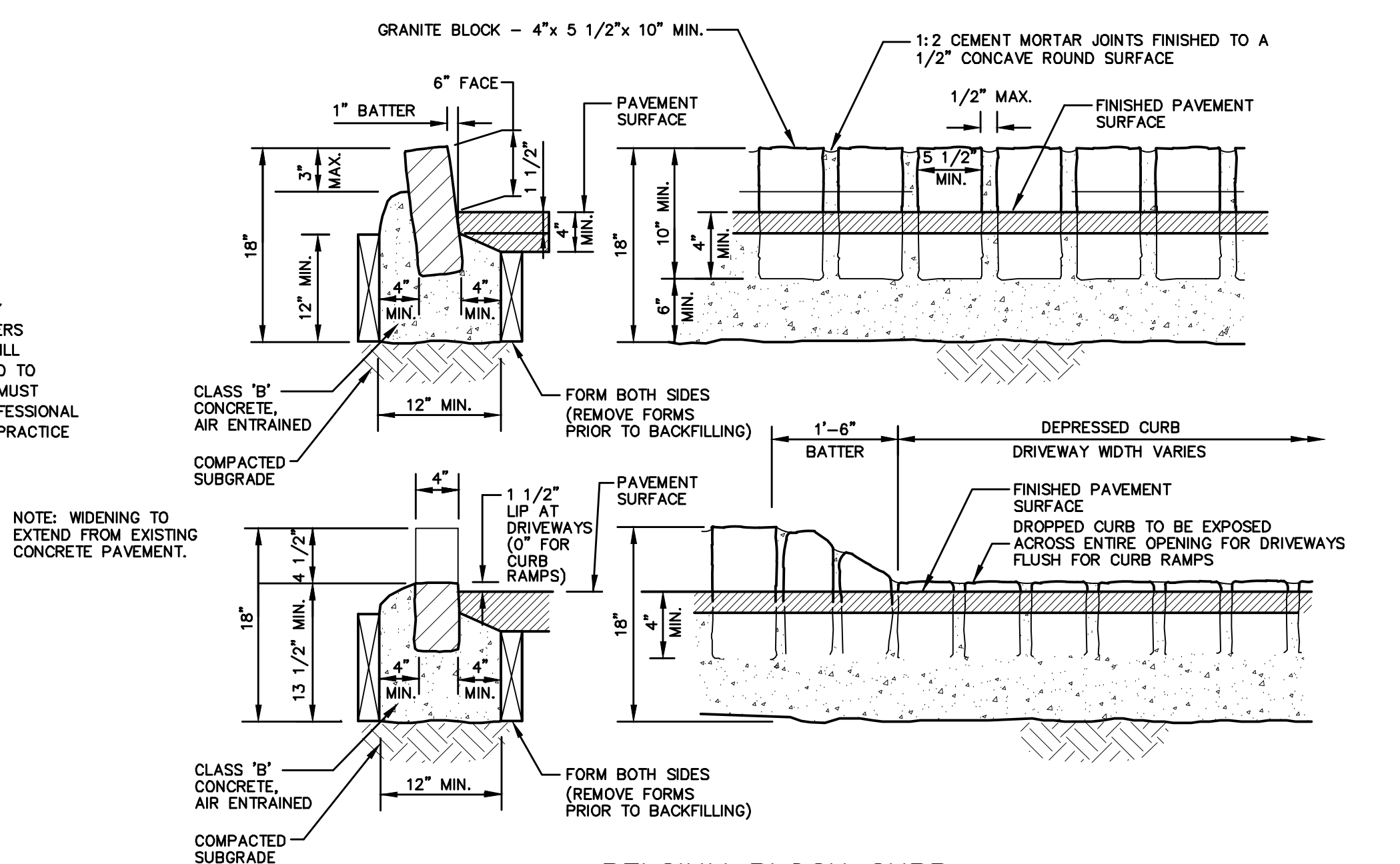
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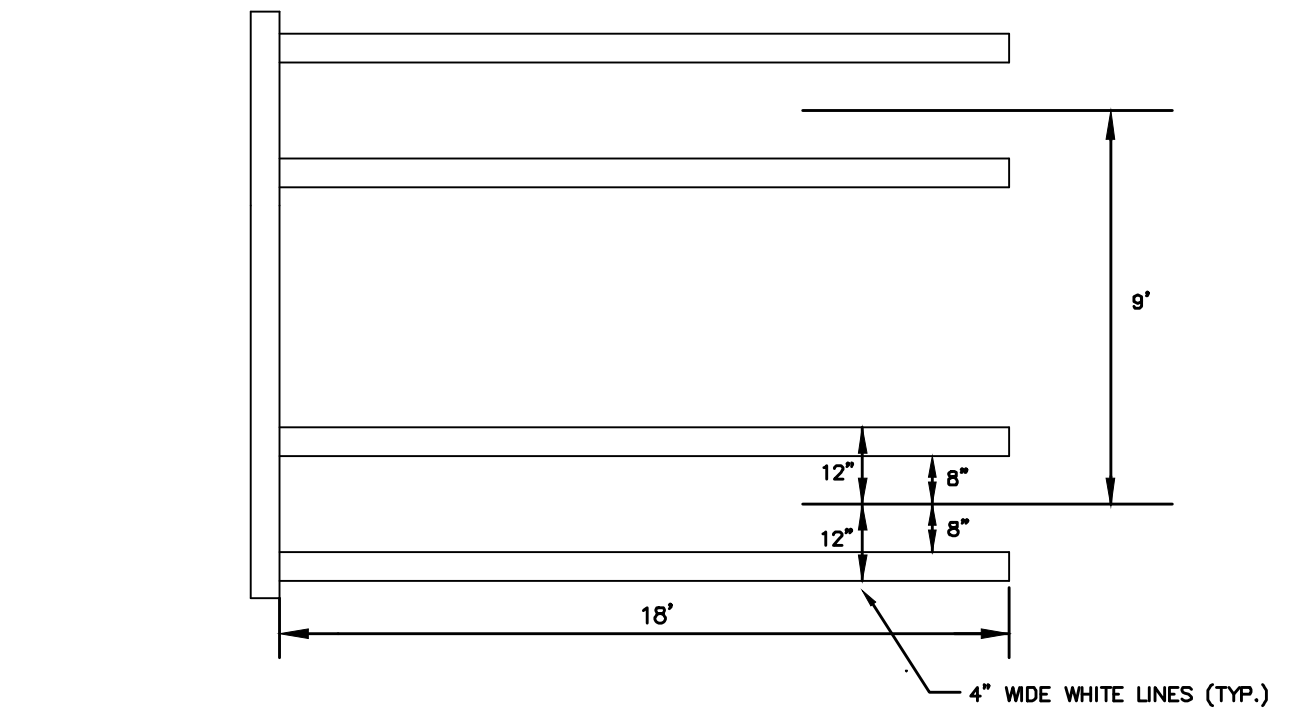
GUIDE RAIL
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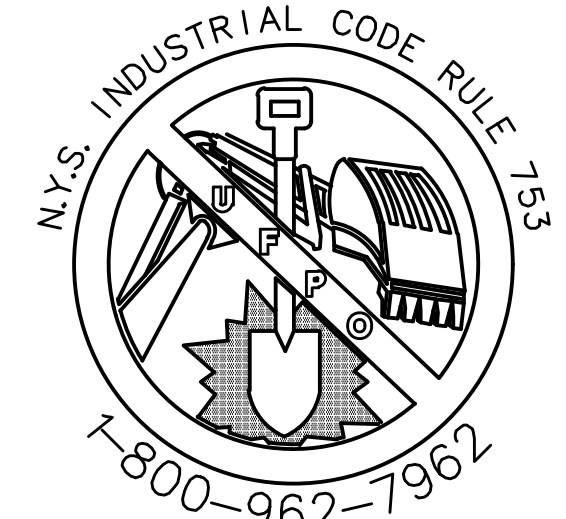
DETAIL OF DUMPSTER ENCLOSURE
NOT TO SCALE



BELGIUM BLOCK CURB
NOT TO SCALE



PARKING SPACE MARKING DETAIL
SCALE: NONE



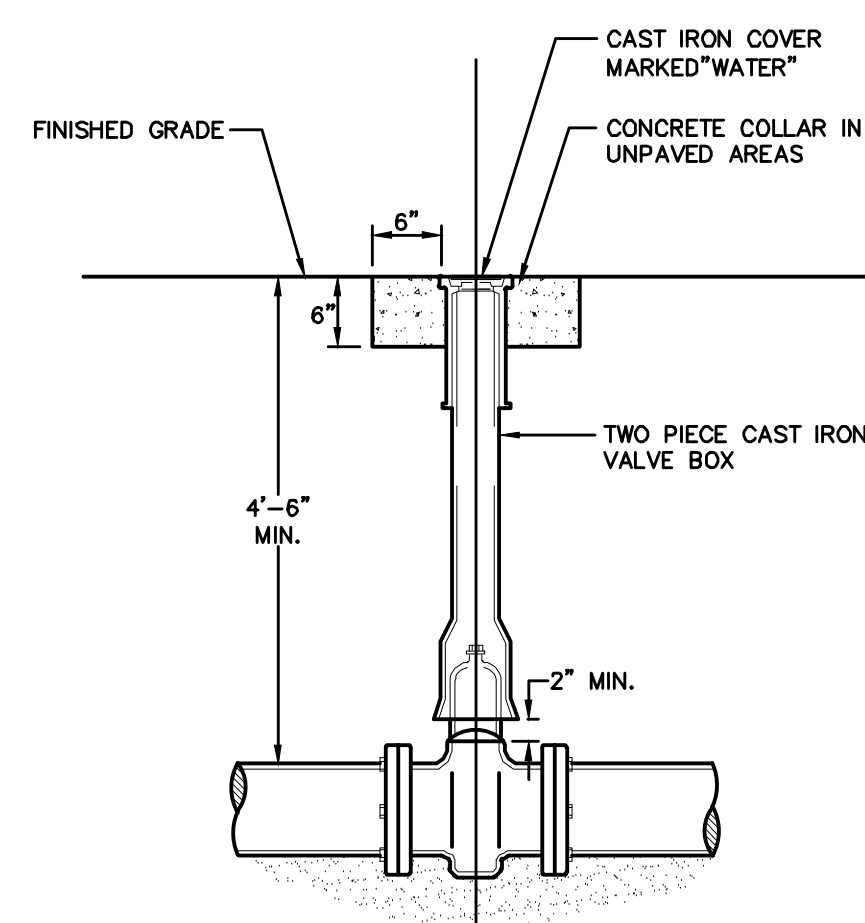
CALL BEFORE YOU DIG, DRILL OR BLAST
NO LESS THAN TWO WORKING DAYS NOTICE
IT'S THE LAW!

NO.	DATE	REVISIONS	DESCRIPTION
1	3/7/18	ENGINEERS COMMENTS	
2	5/25/17	ENGINEERS COMMENTS	
3	6/21/17	NO REVISIONS THIS SHEET	
4	6/8/17	LAYOUT REVISIONS THIS SHEET	
5	7/6/17	COMMENTS	
6	7/6/17	EMERGENCY ACCESS AND DRAINAGE REVISIONS	
7	10/20/13	CONSULTANT COMMENTS	

Thomas B. Olley, P.E.

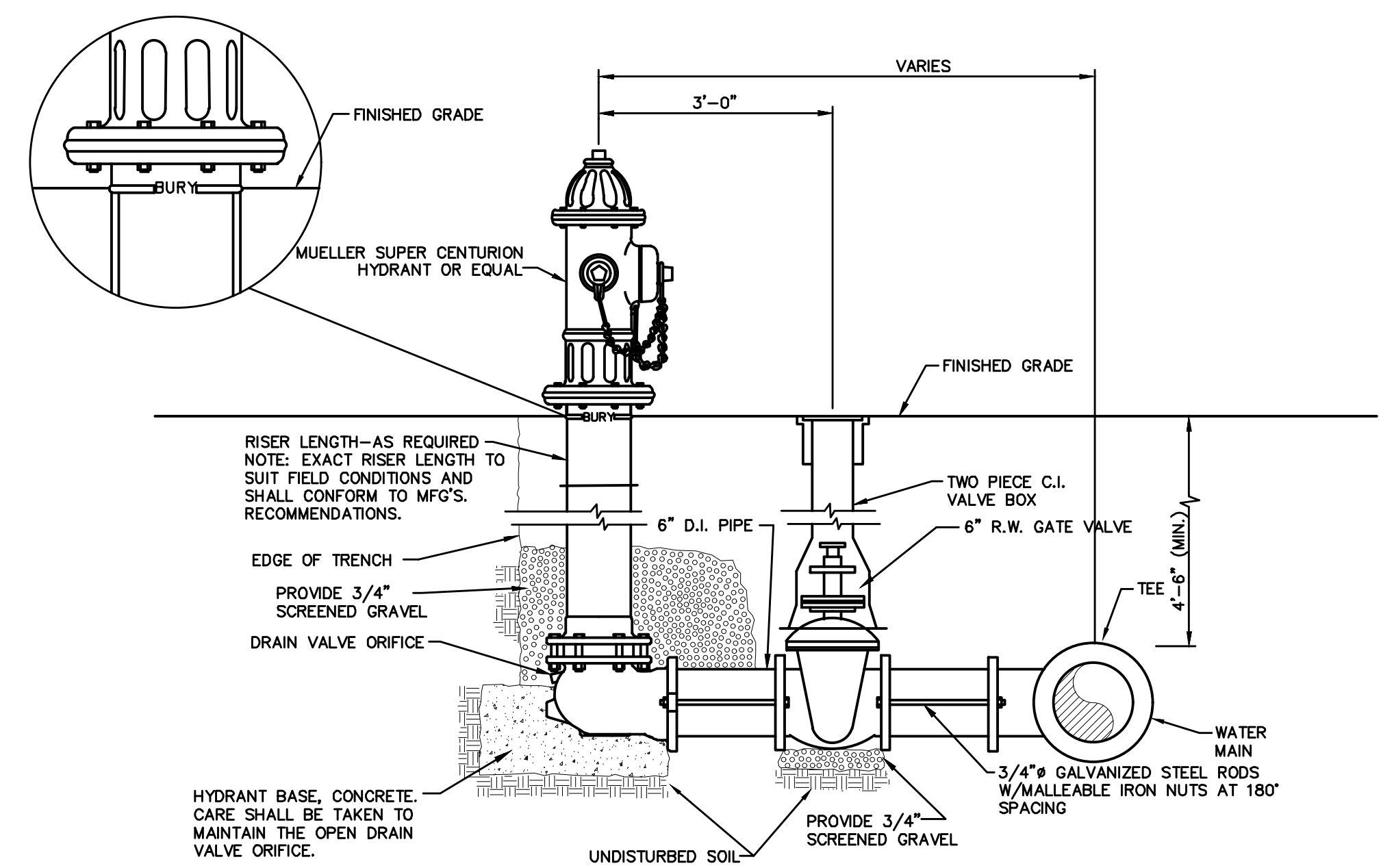
THOMAS B. OLLEY, P.E., P.L.L.C.
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PHONE (845) 778-5838
FAX (845) 778-5837

SITE DETAILS
GARDNER RIDGE
GARDNERTOWN ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NY

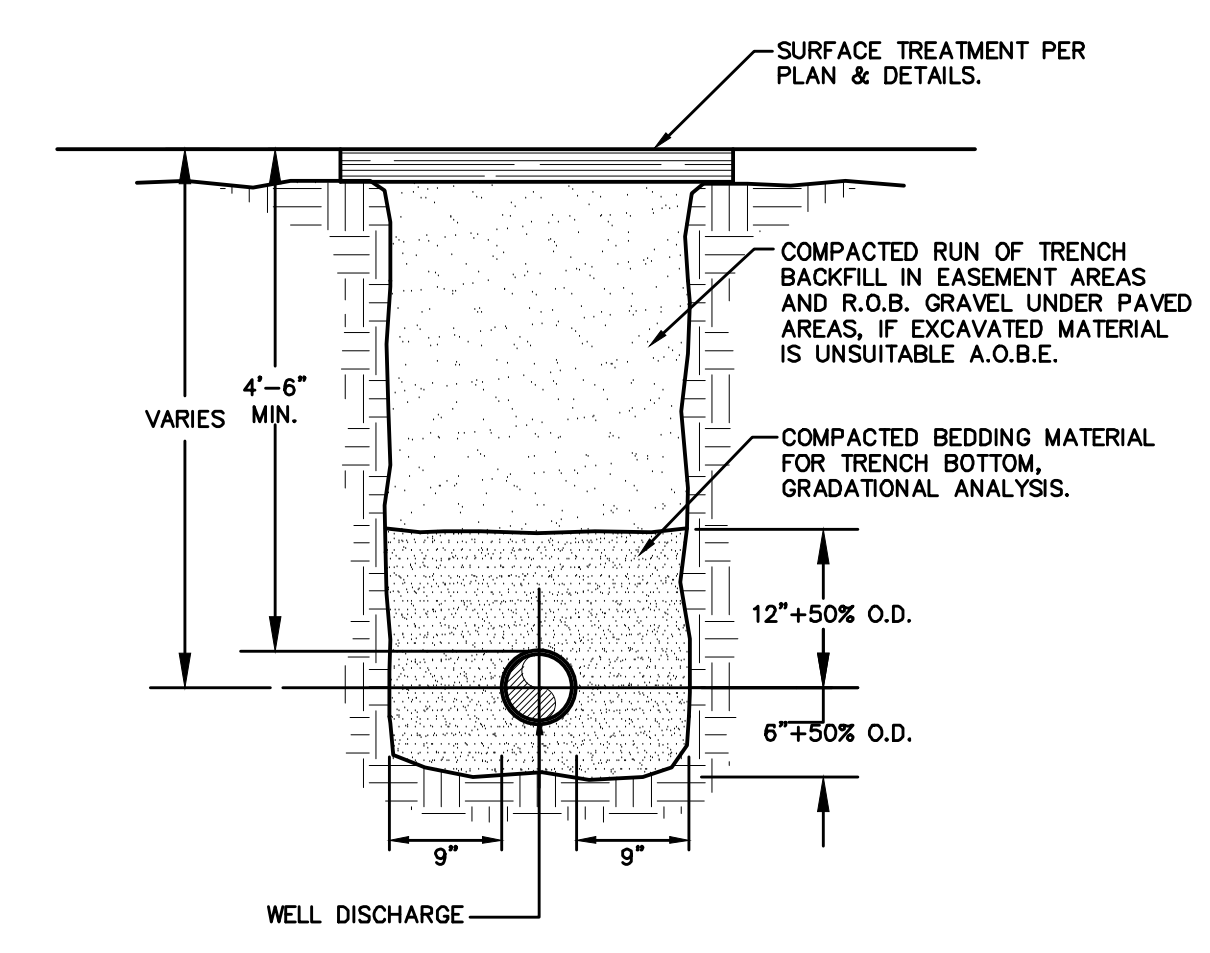


- NOTES:**
- NON-RISING STEM RESILIENT WEDGE GATE VALVE, OPERATING DIRECTION AND MODEL TO CONFORM WITH WATER DEPARTMENT STANDARDS.
 - IF VALVE IS TO BE RODDED, PROVIDE VALVE WITH RODDING FLANGES OR EYEBOLTS. (2) 3/4" GALVANIZED STEEL RODS WITH MALLEABLE IRON NUTS AT 180" SPACING SHALL BE USED FOR RODDING VALVES.

GATE VALVE DETAIL
NOT TO SCALE

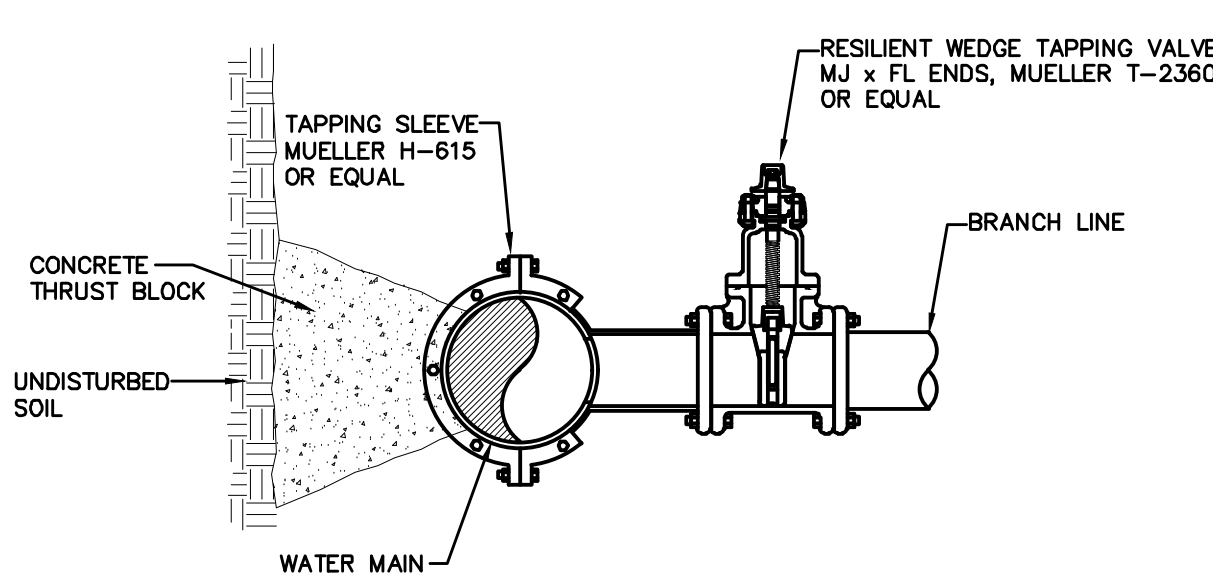


HYDRANT DETAIL
NOT TO SCALE

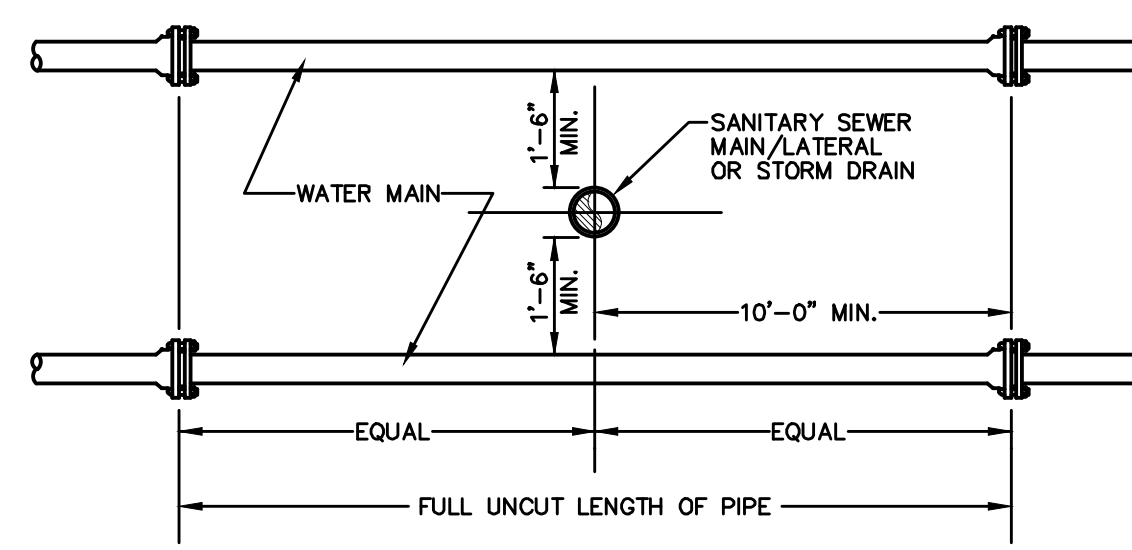


- NOTES:**
- PIPE BEDDING SHALL BE A NATURAL RUN-OF-BANK (R.O.B.) SAND GRADED FROM FINE TO COARSE PARTICLES, OR A GRADED MIXTURE OF CRUSHED STONE OR CRUSHED GRAVEL BEDDING MATERIAL OR STONE GRADATIONS USED SHALL BE APPROVED BY THE ENGINEER.
 - INSTALL CONTINUOUS DETECTABLE MARKING TAPE DURING BACKFILLING OF TRENCH FOR UNDERGROUND WATER SERVICE PIPING. LOCATE TAPE 12\"/>

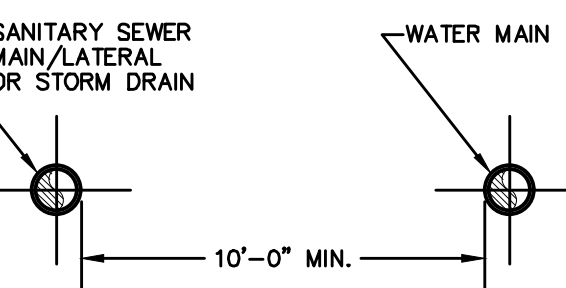
WATER PIPE TRENCH DETAIL
NOT TO SCALE



WET TAP DETAIL
NOT TO SCALE



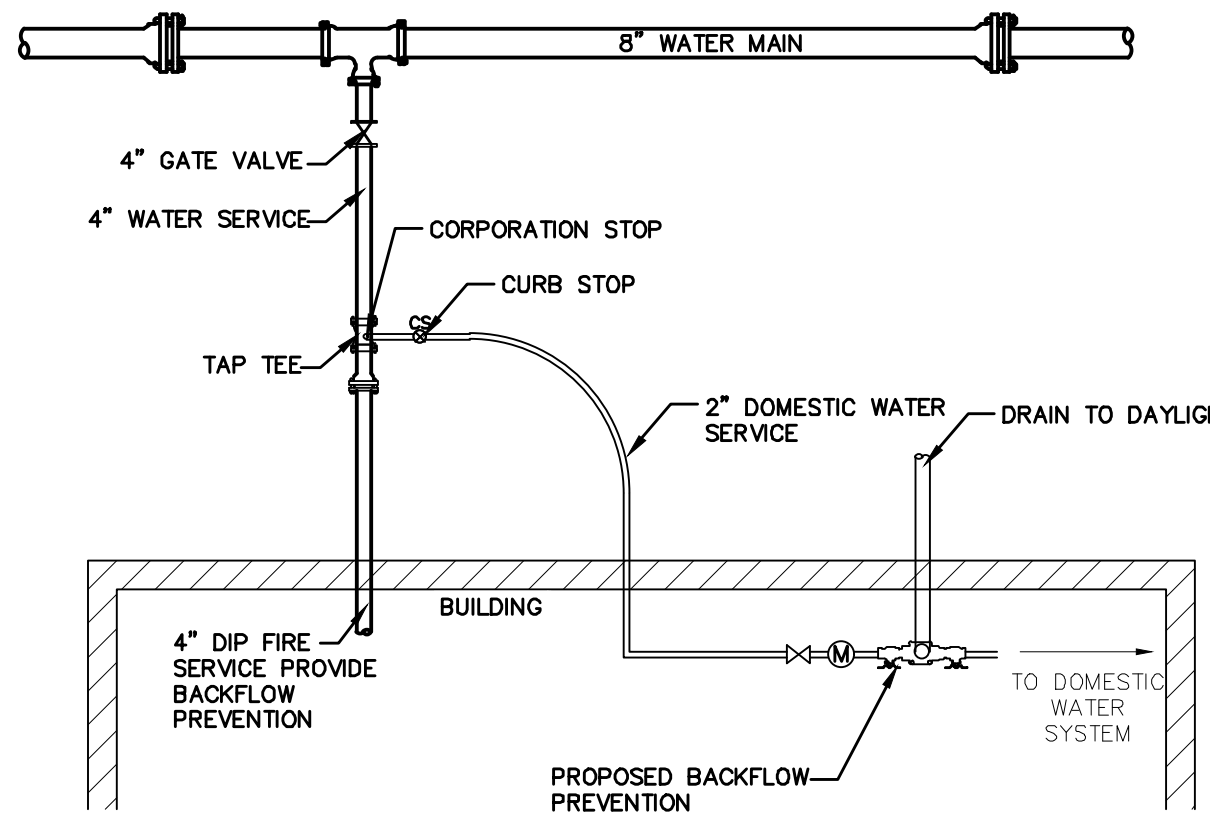
VERTICAL SEPARATION



HORIZONTAL SEPARATION

- NOTE:**
- NO DEVIATION IN THE SEPARATION REQUIREMENTS WILL BE PERMITTED WITHOUT THE EXPRESS APPROVAL OF THE DEPARTMENT OF HEALTH.

SANITARY/STORM SEWER-WATER MAIN SEPARATION DETAIL
NOT TO SCALE



- NOTE:**
- SERVICE LINE SHALL HAVE NO JOINTS BETWEEN THE WATER MAIN AND BUILDING
 - CORPORATION STOP SHALL BE MANUFACTURED BY MUELLER CO. OR EQUAL.
 - BACKFLOW PREVENTION IS NEEDED ON WATER SERVICES CONNECTIONS AND SHOULD BE APPROVED WITH THE ORANGE COUNTY DEPARTMENT OF HEALTH AND THE TOWN OF NEWBURGH WATER DEPARTMENT.

WATER SERVICE CONNECTION DETAIL
NOT TO SCALE

SCHEDULE OF JOINT RESTRAINT
DUCTILE IRON PIPE (DIP)
(NO. OF PIPE LENGTHS = 18' LENGTH)

PIPE SIZE (INCHES)	FITTING				
	90°	45°	22 1/2°	TEE	IN-LINE VALVE
12"	2	1	1	4	4
10"	2	1	1	4	4
8"	2	1	1	3	3
6"	1	1	1	2	2

- NOTE:**
- LENGTH OF PIPE TO BE RESTRAINED IS LENGTH FOR EACH SIDE OF THE FITTING, I.E., FOR A 90° BEND A 90° BEND SHALL BE RESTRAINED 2 LENGTHS ON EACH SIDE OF THE BEND.
 - JOINTS ARE TO BE RESTRAINED TYPE USING RESTRAINED GLANDS OR TIE RODS, IN ACCORDANCE WITH THE LENGTHS SHOWN IN THE TABLE ABOVE.
 - DEAD ENDS MUST BE FULLY BACKFILLED BEFORE PRESSURE TESTING AND MUST HAVE BLOCKING (CONCRETE BLOCK) TO UNDISTURBED TRENCH WALL.
 - THIS TABLE IS FOR COMPACTED R.O.B. GRAVEL PIPE BEDDING BELOW THE PIPE TO ONE FOOT ABOVE THE PIPE (AWWA TYPE 4 OR 5 LAYING CONDITIONS).

TOWN OF NEWBURGH WATER SYSTEM NOTES

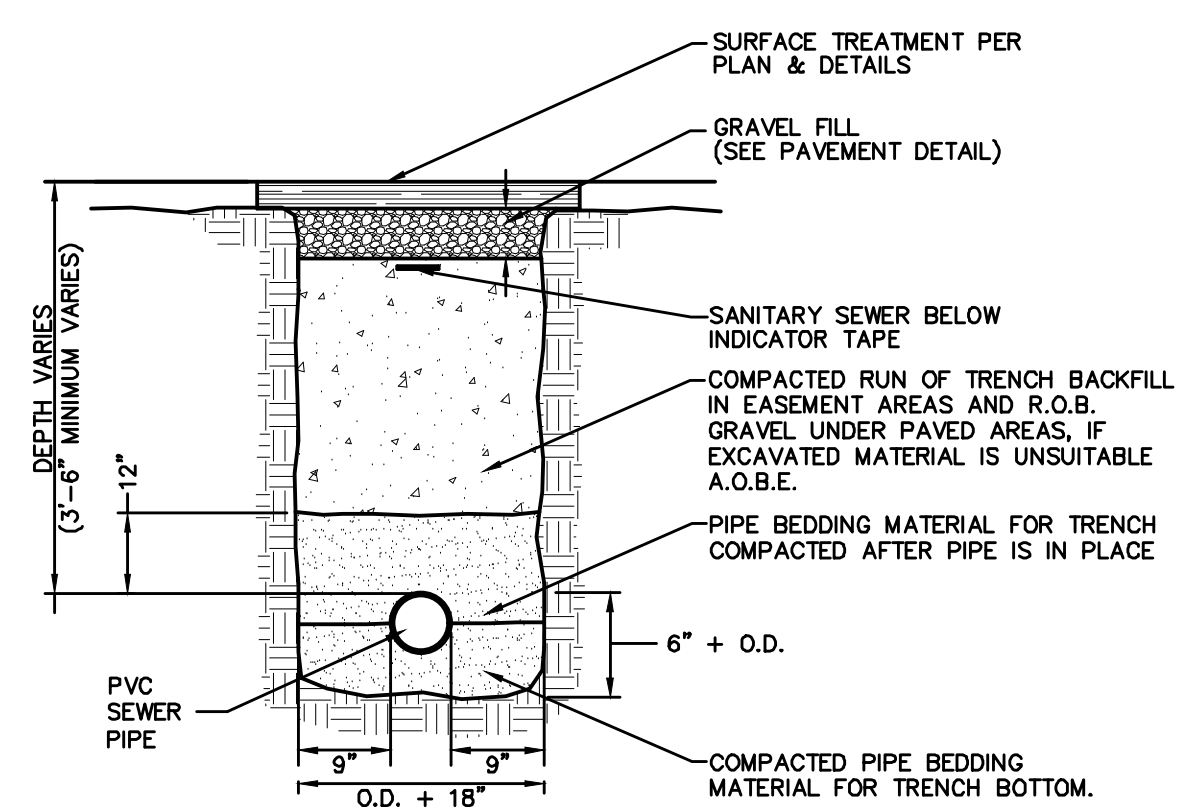
- *CONSTRUCTION OF POTABLE WATER UTILITIES AND CONNECTION TO THE TOWN OF NEWBURGH WATER SYSTEM REQUIRES A PERMIT FROM THE TOWN OF NEWBURGH WATER DEPARTMENT. ALL REQUIREMENTS SHALL CONFORM TO THE REQUIREMENTS OF THE NYSDOH AND THE TOWN OF NEWBURGH.
- ALL WATER SERVICE LINES FOUR (4) INCHES AND LARGER IN DIAMETER SHALL BE CEMENT CLASS 52 DUCTILE IRON PIPE CONFORMING TO ANSI/AWWA C151/A21.51-91 FOR DUCTILE IRON PIPE. JOINTS SHALL BE EITHER PUSH-ON OR MECHANICAL JOINT AS REQUIRED.
- THRUST RESTRAINT OF THE PIPE SHALL BE THROUGH THE USE OF JOINT RESTRAINT. THRUST BLOCKS ARE NOT ACCEPTABLE. JOINT RESTRAINT SHALL BE THROUGH THE USE OF MECHANICAL JOINT PIPE WITH RETAINER GLANDS. ALL FITTINGS AND VALVES SHALL ALSO BE INSTALLED WITH RETAINER GLANDS FOR JOINT RESTRAINT. RETAINER GLANDS SHALL BE EBBA IRON MEGALUG SERIES 1100 OR APPROVED EQUAL. THE USE OF A MANUFACTURED RESTRAINED JOINT PIPE IS ACCEPTABLE WITH PRIOR APPROVAL OF THE WATER DEPARTMENT.
- ALL FITTINGS SHALL BE CAST IRON OR DUCTILE IRON, MECHANICAL JOINT, CLASS 250 AND CONFORM TO ANSI/AWWA C101/A21.10-87 FOR DUCTILE AND GRAY IRON FITTINGS OR ANSI/AWWA C153/A21.53-84 FOR DUCTILE IRON COMPACT FITTINGS.
- ALL VALVES 4 TO 12 INCHES SHALL BE RESILIENT WEDGE GATE VALVES CONFORMING TO ANSI/AWWA C509 SUCH AS MUELLER MODEL A-2360-23 OR APPROVED EQUAL. ALL GATE VALVES SHALL OPEN LEFT (COUNTERCLOCKWISE).
- TAPPING SLEEVES SHALL BE MECHANICAL JOINT SUCH AS MUELLER H-615 OR EQUAL. TAPPING VALVES 4 TO 12 INCHES SHALL BE RESILIENT WEDGE GATE VALVES CONFORMING TO ANSI/AWWA C509 SUCH AS MUELLER MODEL T-2360-19 OR APPROVED EQUAL. ALL TAPPING SLEEVES AND VALVES SHALL BE TESTED TO 150 PSI MINIMUM. TESTING OF THE TAPPING SLEEVE AND VALVE MUST BE WITNESSED AND ACCEPTED BY THE TOWN OF NEWBURGH WATER DEPARTMENT PRIOR TO CUTTING PIPE.
- ALL WATER SERVICE LINES TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING. CORPORATION STOPS SHALL BE MUELLER H-15020 FOR 3/4 AND 1 INCH, MUELLER H-15000 OR B-25000 FOR 1 1/2 AND 2 INCH SIZES. CURB VALVES SHALL BE MUELLER H-1501-2 FOR 3/4 AND 1 INCH AND MUELLER B-25004 FOR 1 1/2 AND 2 INCH SIZES. CURB BOXES SHALL BE MUELLER H-10312 FOR 3/4 AND 1 INCH AND MUELLER H-10310 FOR 1 1/2 AND 2 INCH SIZES.
- HYDRANTS SHALL BE CLOW-EDDY F 2640 MEETING THE FOLLOWING REQUIREMENTS:
A.) ONE 4-1/2 INCH PUMPER NOZZLES;
B.) TWO 2-1/2 INCH HOSE NOZZLES;
C.) NOZZLE THREADS SHALL BE NPT;
D.) OPEN LEFT (COUNTER-CLOCKWISE);
E.) 6 INCH INLET WITH 5-1/4 INCH MAIN VALVE;
F.) PAINTED EQUIPMENT YELLOW; AND
G.) 1-1/2 INCH PENTAGON OPERATING NUTS.
- ALL PIPE INSTALLATION SHALL BE SUBJECT TO INSPECTION BY THE TOWN OF NEWBURGH WATER DEPARTMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL INSPECTIONS AS REQUIRED WITH THE TOWN OF NEWBURGH WATER DEPARTMENT.
- THE WATER MAIN SHALL BE TESTED, DISINFECTED AND FLUSHED IN ACCORDANCE WITH THE TOWN OF NEWBURGH REQUIREMENTS. ALL TESTING, DISINFECTION AND FLUSHING SHALL BE COORDINATED WITH THE TOWN OF NEWBURGH WATER DEPARTMENT. PRIOR TO PUTTING THE WATER MAIN IN SERVICE SATISFACTORY SANITARY RESULTS FROM A CERTIFIED LAB MUST BE SUBMITTED TO THE TOWN OF NEWBURGH WATER DEPARTMENT. THE TEST SAMPLES MUST BE COLLECTED BY A REPRESENTATIVE OF THE TESTING LABORATORY AND WITNESSED BY THE TOWN OF NEWBURGH WATER DEPARTMENT.
- THE FINAL LAYOUT OF PROPOSED WATER AND/OR SEWER CONNECTIONS, INCLUDING ALL MATERIALS, SIZE AND LOCATION OF SERVICE AND ALL APPURTENANCES, IS SUBJECT TO THE REVIEW AND APPROVAL OF THE TOWN OF NEWBURGH WATER AND/OR SEWER DEPARTMENT. NO PERMITS SHALL BE ISSUED FOR A WATER AND/OR SEWER CONNECTION UNTIL A FINAL LAYOUT IS APPROVED BY THE RESPECTIVE DEPARTMENT.

NO.	DATE	DESCRIPTION
1	3/15/16	ENGINEERS COMMENTS
2	5/25/17	ENGINEERS COMMENTS
3	6/21/17	ENGINEERS COMMENTS
4	6/22	LAYOUT REVISIONS
5	6/22	COMMENTS
6	7/6/23	EMERGENCY ACCESS AND DRAINAGE REVISIONS
7	10/20/23	CONSULTANT COMMENTS

Thomas B. Olley, P.E.

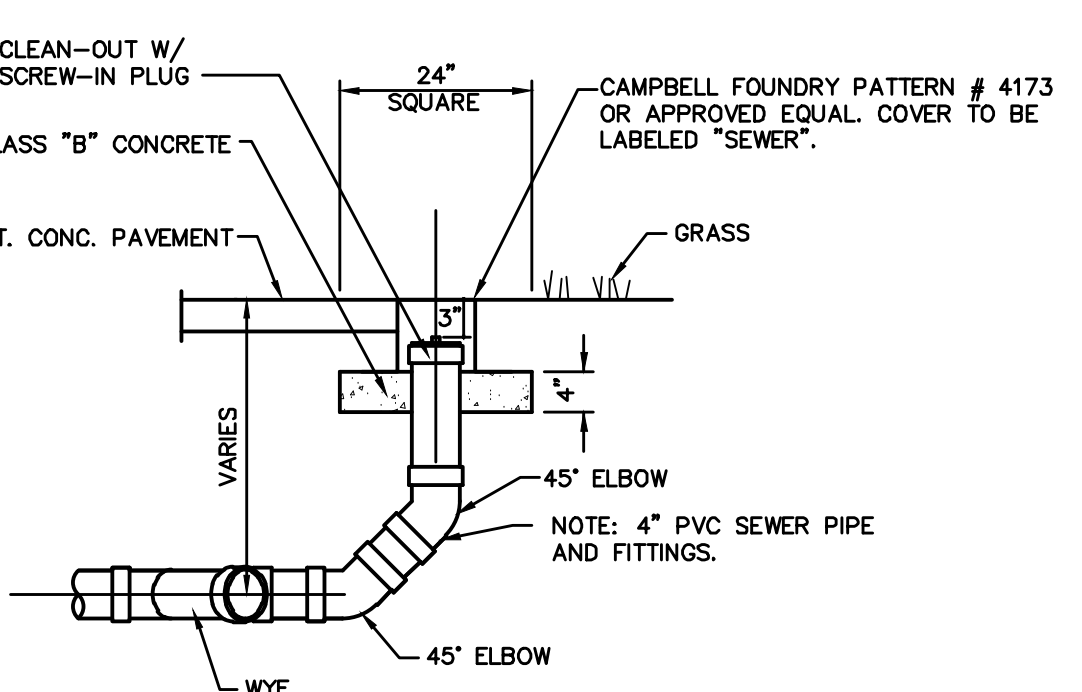
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PHONE (845) 778-8339
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WATER DETAILS
GARDNER RIDGE
GARDNERTOWN ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NY

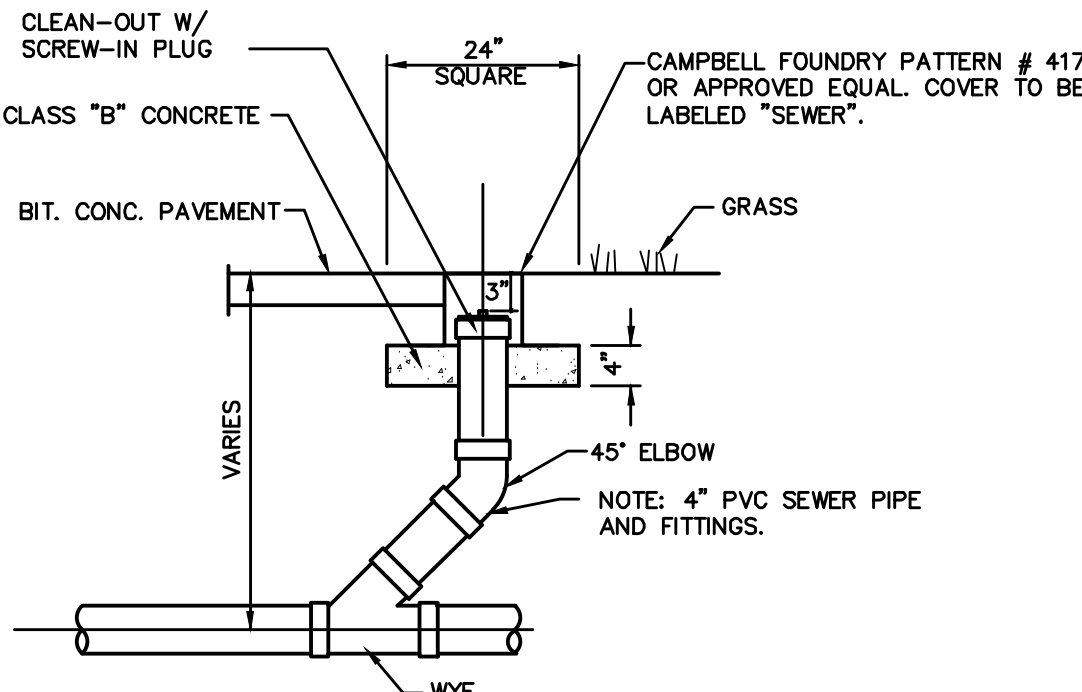


- NOTES:**
- PIPE BEDDING MATERIAL SHALL BE COMPOSED OF CRUSHED STONE OR GRAVEL FREE OF SOFT NONDURABLE PARTICLES, ORGANIC MATERIALS AND THIN OR ELONGATED PARTICLES WITH THE FOLLOWING GRADATION REQUIREMENTS:
- | SIEVE DESIGNATION | % PASSING |
|-------------------|-----------|
| 2" | 100 |
| 1" | 95 - 100 |
| 1/2" | 0 - 15 |
| No. 40 | 0 - 5 |
- BEDDING MATERIAL SHALL BE STOCKPILED.
 - INSTALL CONTINUOUS PLASTIC UNDERGROUND WARNING TAPE DURING BACKFILLING OF TRENCH FOR UNDERGROUND SANITARY SERVICE PIPING. LOCATE 12 INCHES BELOW FINISHED GRADE, DIRECTLY OVER PIPING. IN PAVEMENT AREAS PLACE TAPE UNDER FOUNDATION COURSE.

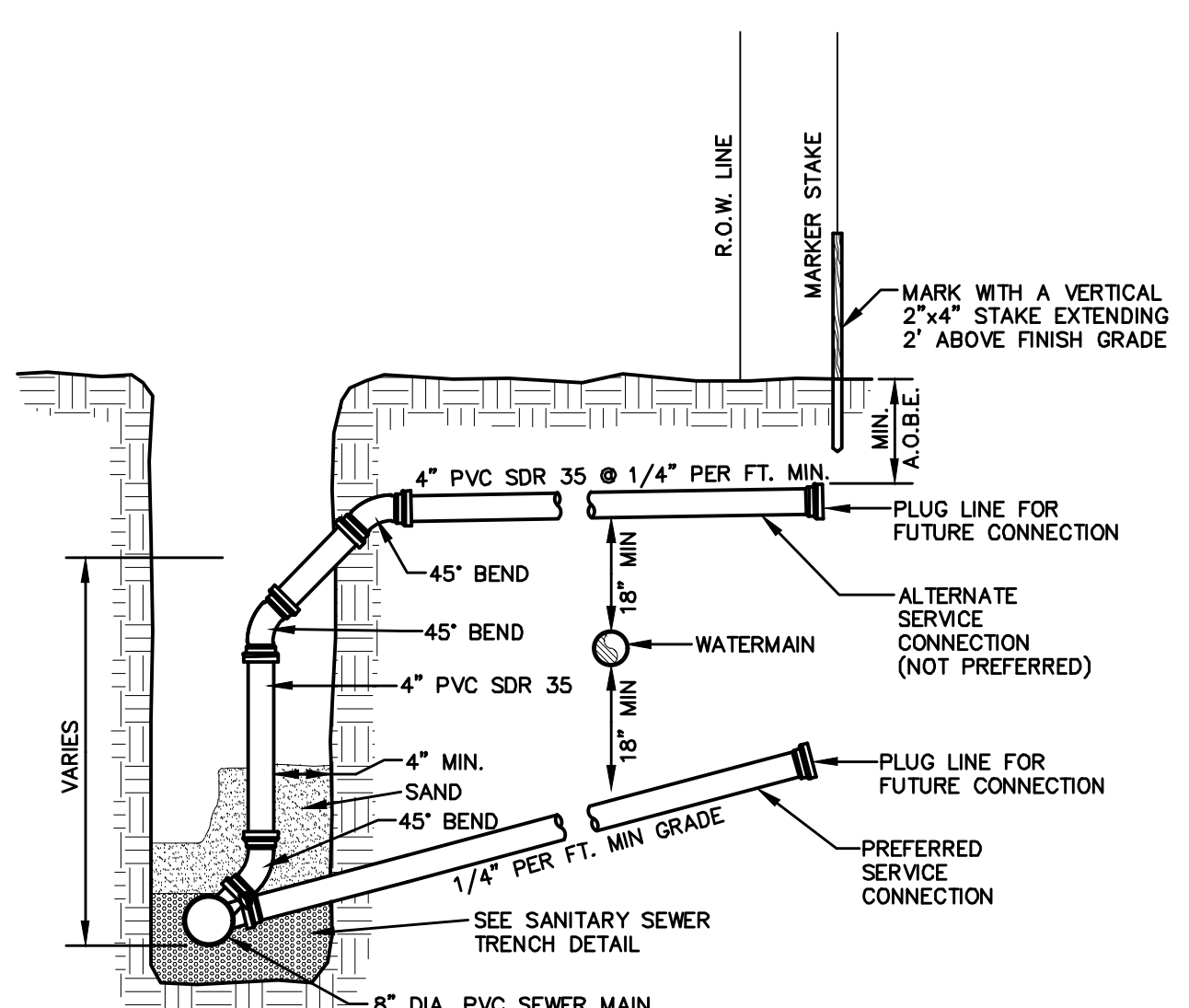
SEWER PIPE TRENCH DETAIL
NOT TO SCALE



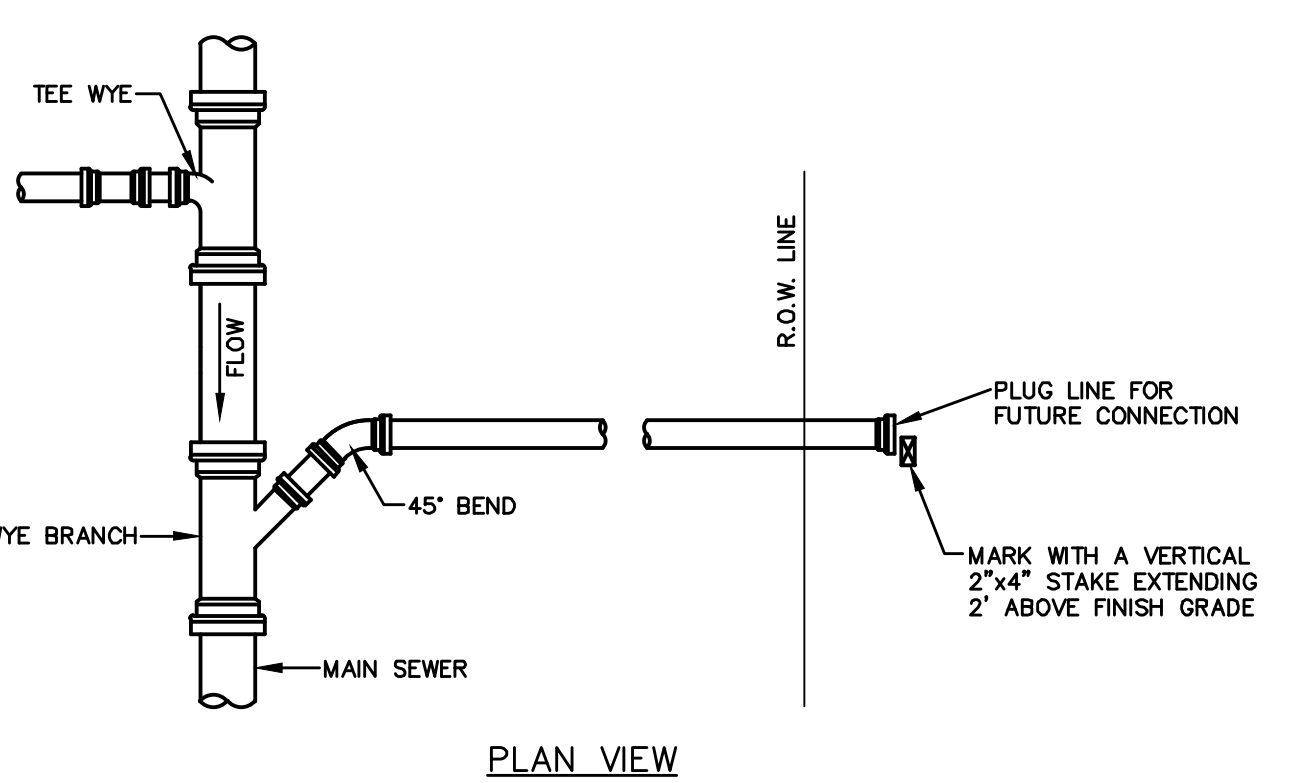
SANITARY SEWER CLEANOUT AT BEND
NOT TO SCALE



SANITARY SEWER CLEANOUT INLINE
NOT TO SCALE



SECTION VIEW



PLAN VIEW

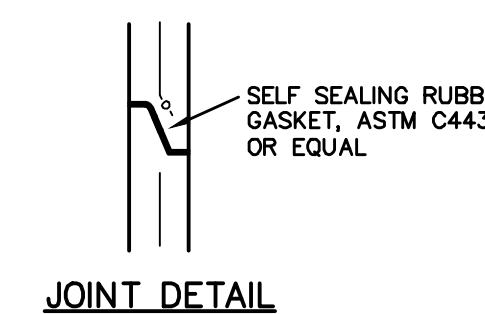
SEWER LATERAL CONNECTION DETAIL
NOT TO SCALE

SANITARY SEWER NOTES:

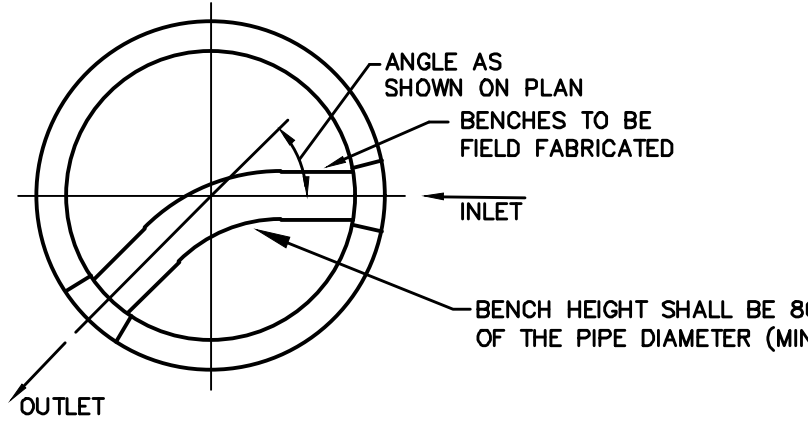
- ALL SANITARY GRAVITY PIPE SHALL BE SDR 35 PVC UNLESS OTHERWISE NOTED. ALL SANITARY SEWER MAINS AND SERVICE LATERALS SHALL BE SEPARATED FROM THE WATER MAINS AND WATER SERVICE CONNECTIONS BY A DISTANCE OF AT LEAST 10 FEET HORIZONTALLY OR 18 INCHES VERTICALLY IF HORIZONTAL SEPARATION IS NOT POSSIBLE.
- ALL NEW SANITARY SEWER LINES SHALL PASS A LOW PRESSURE AIR TEST AND ALL NEW SANITARY SEWER MANHOLES SHALL PASS HYDROSTATIC TESTS OR VACUUM TESTING.
- ALL NEW SANITARY SEWER MANHOLE COVERS SHALL BE 24" DIAMETER CAST IRON AND SHALL READ "SANITARY SEWER".
- ALL SANITARY SEWER CONSTRUCTION SHALL BE SUBJECT TO INSPECTION BY THE MUNICIPAL SEWER SUPERINTENDENT PRIOR TO BACKFILLING.
- THE DESIGN, CONSTRUCTION AND INSTALLATION SHALL BE IN ACCORDANCE WITH THIS PLAN AND GENERALLY ACCEPTED STANDARDS IN EFFECT AT THE TIME OF CONSTRUCTION WHICH INCLUDE:
 - "NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION AND ULSTER COUNTY DEPARTMENT OF HEALTH POLICIES, PROCEDURES AND STANDARDS."
 - "ORANGE COUNTY DEPARTMENT OF HEALTH SANITARY CODE."
 - "RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES, 2014", GLUMBR.
 - "DESIGN STANDARDS FOR WASTEWATER TREATMENT WORKS, 2014", NYSDEC
- ALL WELLS AND SUBSURFACE SEWAGE DISPOSAL SYSTEMS EXISTING OR APPROVED WITHIN 200' OF THE PROPOSED WATER AND SEWAGE UTILITIES ARE SHOWN ON THIS PLAN ALONG WITH ANY OTHER KNOWN ENVIRONMENTAL HAZARDS IN THE AREA THAT MAY AFFECT THE DESIGN AND FUNCTIONAL ABILITY OF THE WATER AND SEWAGE UTILITIES.
- NO CELLAR, ROOF OR FOOTING DRAINS SHALL BE DISCHARGED INTO THE SEWAGE SYSTEM.

TOWN OF NEWBURGH SANITARY SEWER SYSTEM NOTES

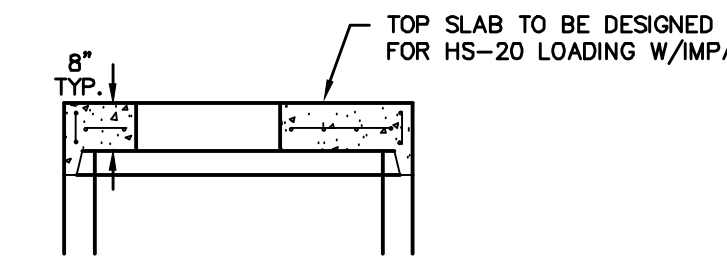
- CONSTRUCTION OF SANITARY SEWER FACILITIES AND CONNECTION TO THE TOWN OF NEWBURGH SANITARY SEWER SYSTEM REQUIRES A PERMIT FROM THE TOWN OF NEWBURGH SEWER DEPARTMENT. ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE NYSDEC AND THE TOWN OF NEWBURGH.
- ALL SEWER PIPE INSTALLATION SHALL BE SUBJECT TO INSPECTION BY THE TOWN OF NEWBURGH SEWER DEPARTMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL INSPECTIONS AS REQUIRED WITH THE TOWN OF NEWBURGH SEWER DEPARTMENT.
- ALL GRAVITY SANITARY SEWER SERVICE LINES SHALL BE 4 INCHES IN DIAMETER OR LARGER AND SHALL BE SDR-35 PVC PIPE CONFORMING TO ASTM D-3034-89. JOINTS SHALL BE PUSH-ON WITH ELASTOMERIC RING GASKET CONFORMING TO ASTM D-3212. FITTINGS SHALL BE AS MANUFACTURED BY THE PIPE SUPPLIER OR EQUAL AND SHALL HAVE A BELL AND SPIGOT CONFIGURATION COMPATIBLE WITH THE PIPE.
- THE SEWER MAIN SHALL BE TESTED IN ACCORDANCE WITH TOWN OF NEWBURGH REQUIREMENTS. ALL TESTING SHALL BE COORDINATED WITH THE TOWN OF NEWBURGH SEWER DEPARTMENT.
- THE FINAL LAYOUT OF THE PROPOSED WATER AND/OR SEWER CONNECTION, INCLUDING ALL MATERIALS, SIZE AND LOCATION OF SERVICE AND ALL APPURTENANCES, IS SUBJECT TO THE REVIEW AND APPROVAL OF THE TOWN OF NEWBURGH WATER AND/OR SEWER DEPARTMENT. NO PERMITS SHALL BE ISSUED FOR A WATER AND/OR SEWER CONNECTION UNTIL A FINAL LAYOUT IS APPROVED BY THE RESPECTIVE DEPARTMENT.



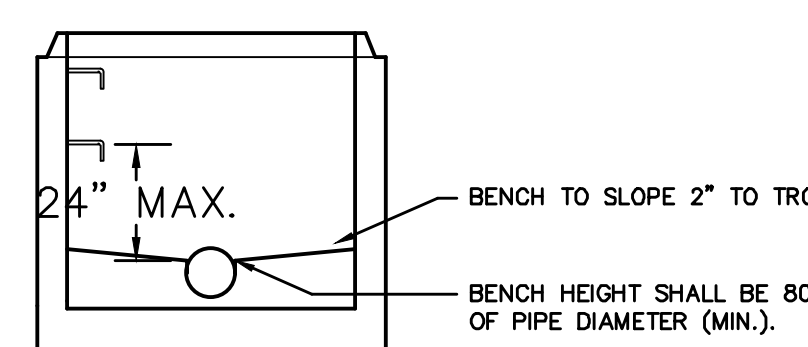
JOINT DETAIL



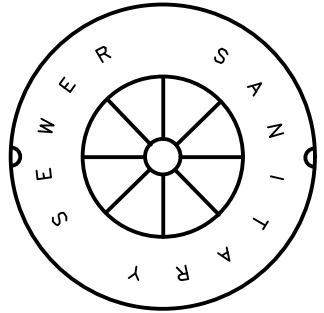
BENCH DETAIL



MANHOLE SLAB TOP



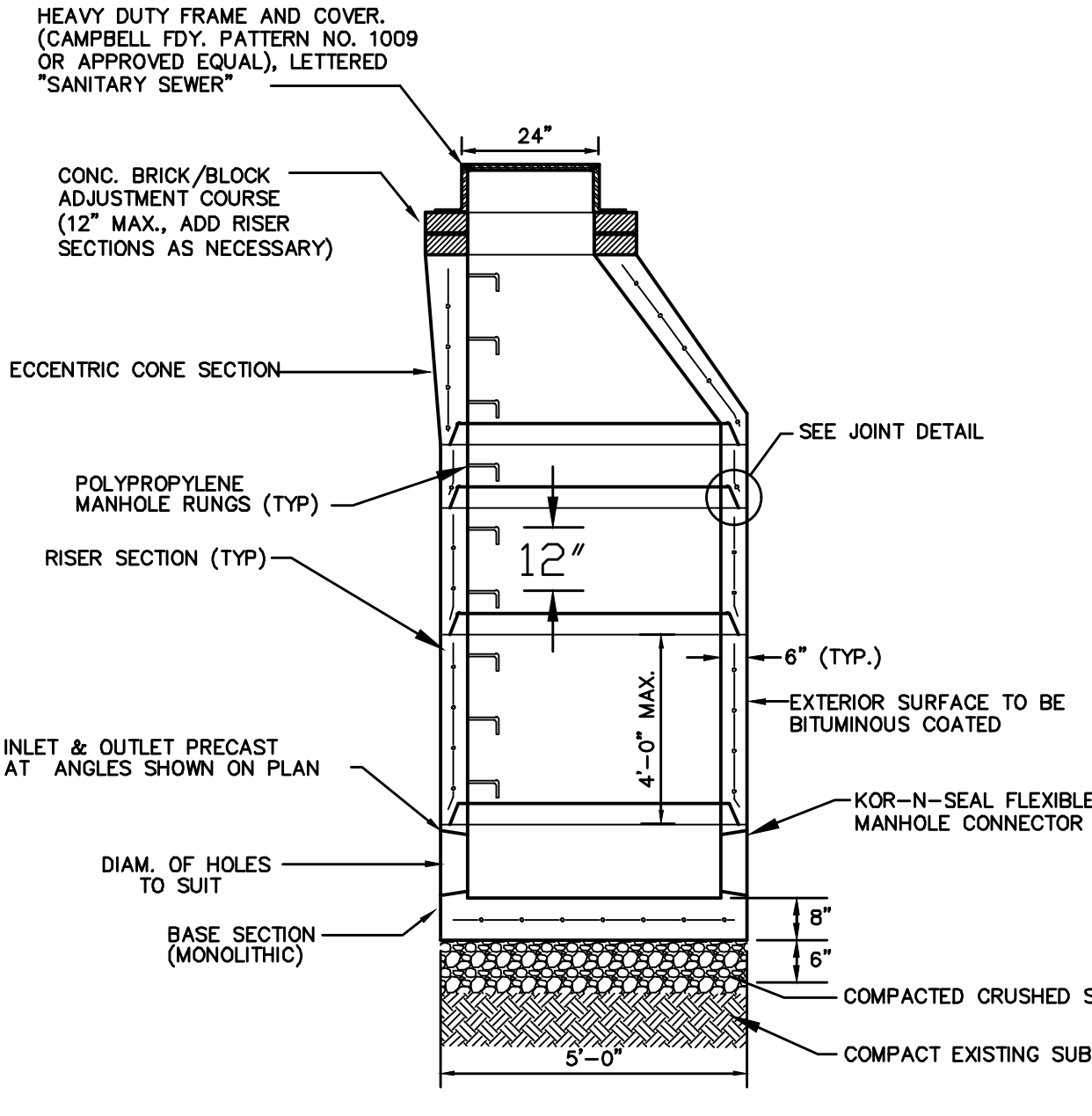
TROUGH DETAIL



SANITARY MANHOLE LID DETAIL
NOT TO SCALE

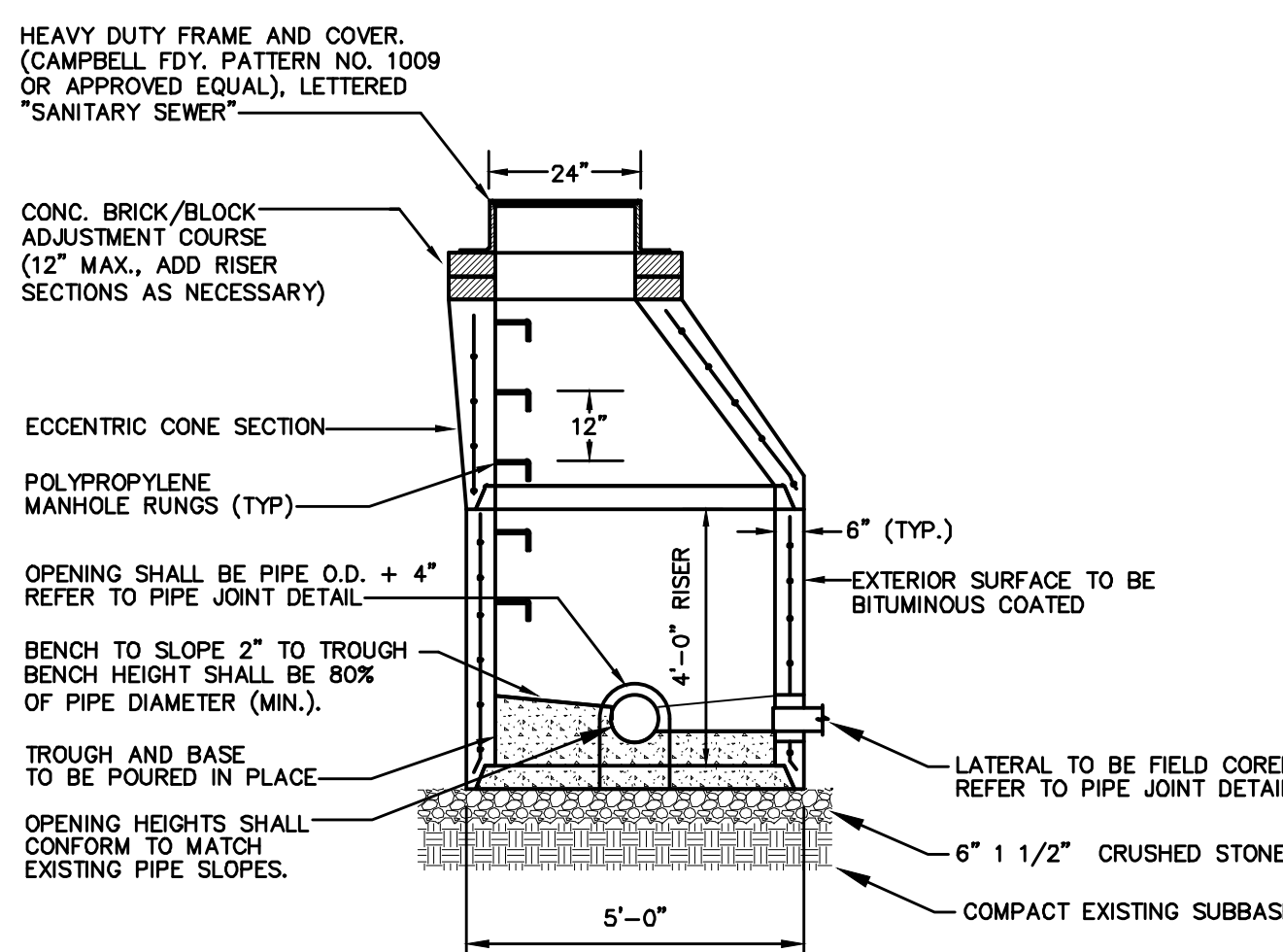
NOTES:

- INVERTS SHALL BE POURED IN PLACE.
- REINFORCEMENT FOR ALL COMPONENTS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN NEW YORK STATE. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION. STRUCTURE SHALL BE DESIGNED FOR HS-20 VEHICULAR LOADING WITH 25% IMPACT LOAD.
- COMPRESSION STRENGTH OF CONCRETE SHALL BE 4000 P.S.I. AT 28 DAYS IN CONFORMANCE WITH A.S.T.M. C-478-88.
- THE TROUGH (BENCH) SHALL PROVIDE A SMOOTH SWEEP BETWEEN INLET AND OUTLET. A HALF PIPE MAY BE USED FOR STRAIGHT RUNS ONLY.
- THE MANHOLE EXTERIOR SHALL RECEIVE TWO COATS OF BITUMINOUS.
- FRAME AND COVER SHALL BE DESIGNED FOR HS-20 VEHICLE LOADING AND 25% IMPACT LOAD. FRAMES AND COVERS TO BE INSTALLED WITHIN A FLOOD PLAIN SHALL BE WATER TIGHT (CAMPBELL F.D.Y. NO. 1502 OR EQUAL).
- REFER TO PLANS FOR ELEVATIONS AND ANGLES OF PIPES AND FOR RIM ELEVATIONS.
- MANHOLE FRAMES ARE TO BE SET AT THE SAME GRADE AS THE ADJOINING PAVEMENT OR GROUND SURFACE.

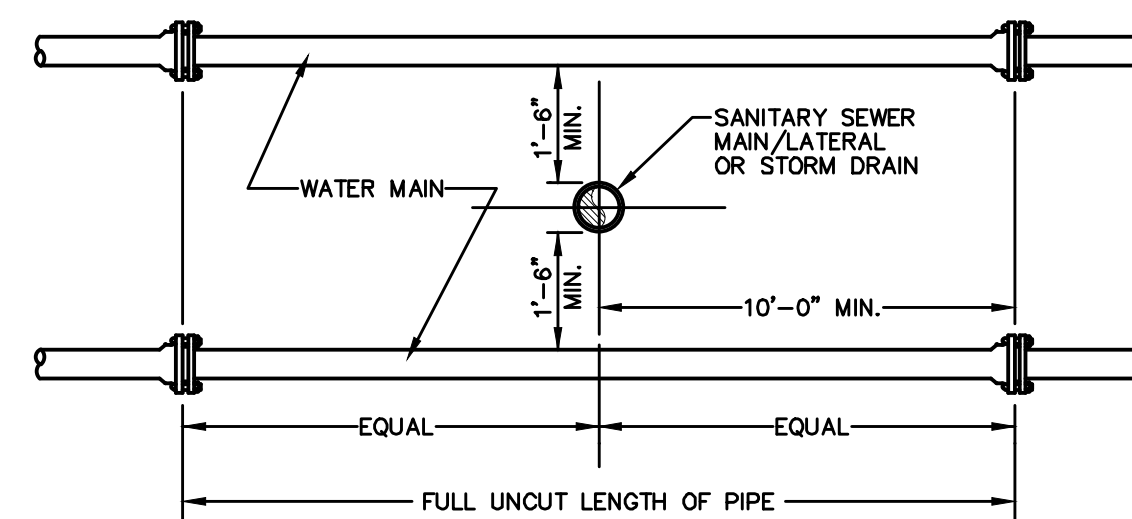


PRECAST MANHOLE

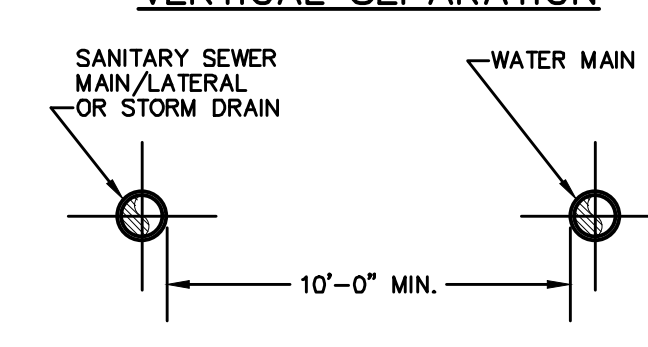
PRECAST MANHOLE DETAILS
NOT TO SCALE



DOGHOUSE MANHOLE DETAIL
NOT TO SCALE



VERTICAL SEPARATION



HORIZONTAL SEPARATION

- NOTE:**
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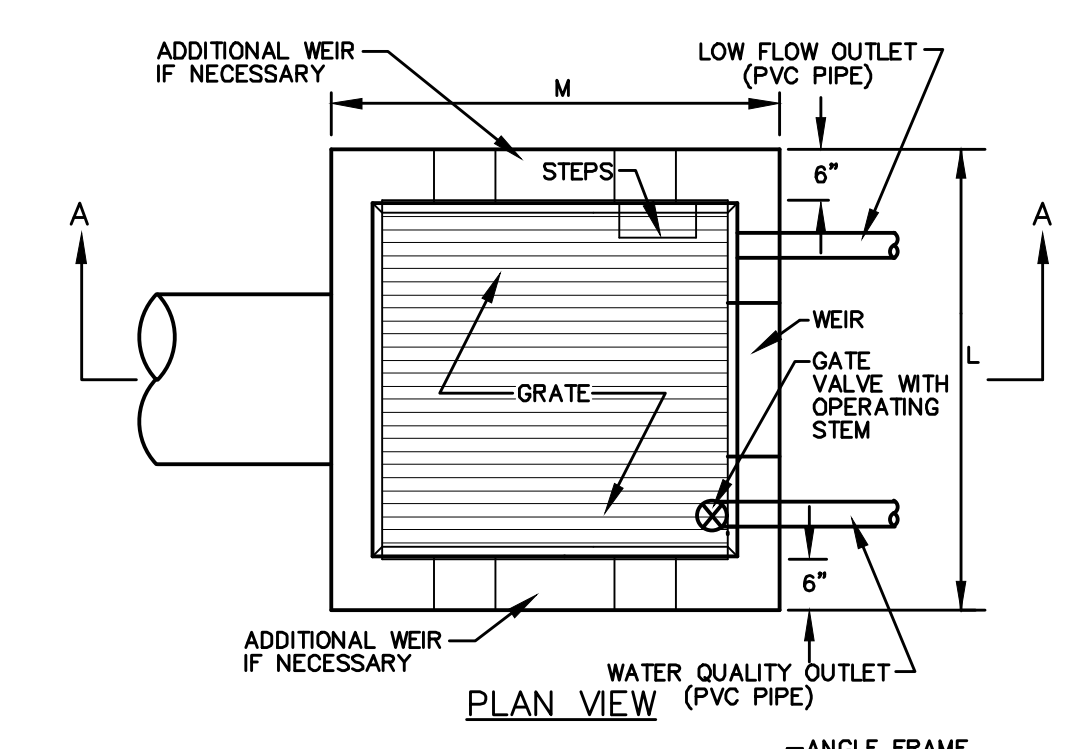
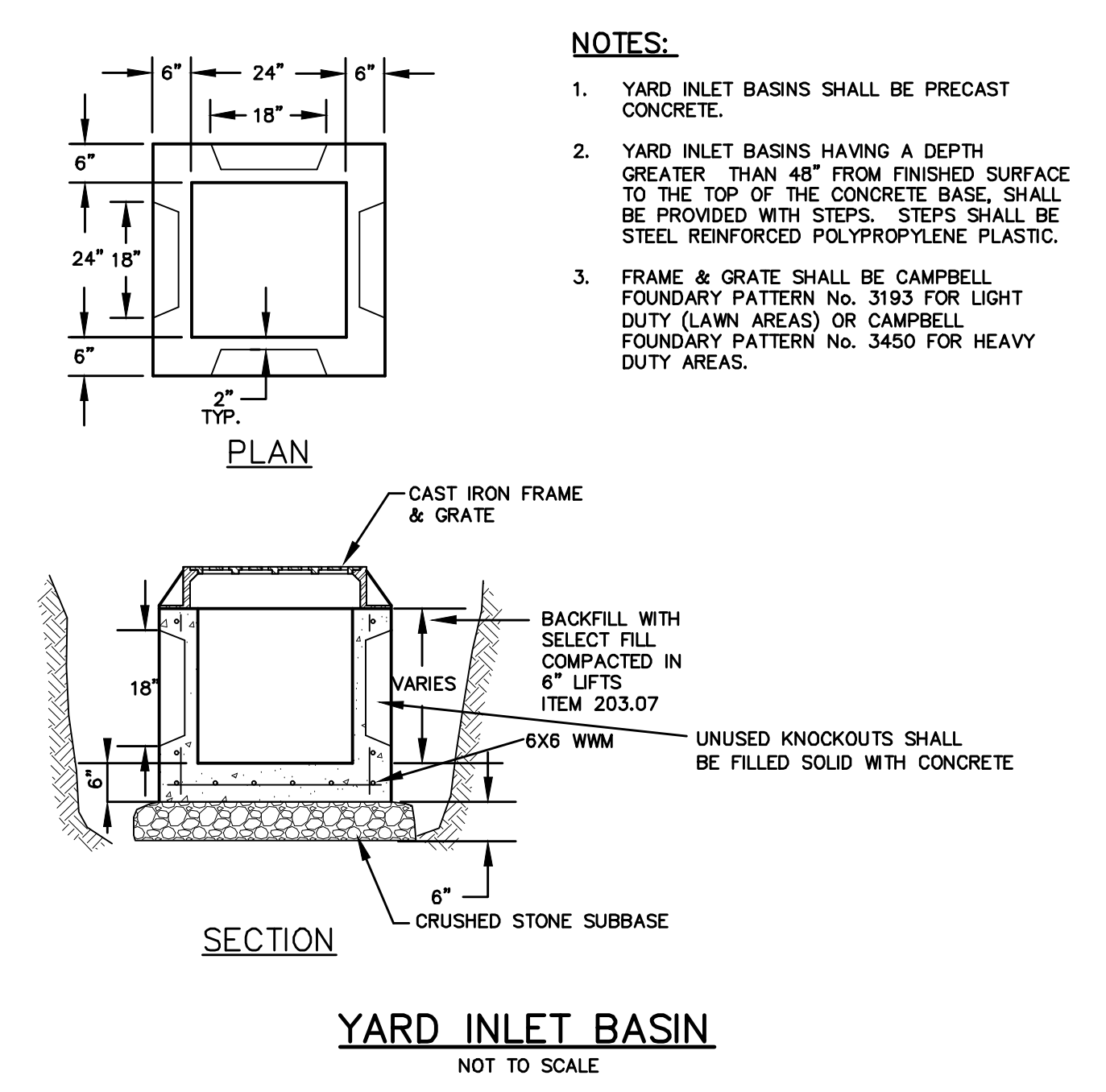
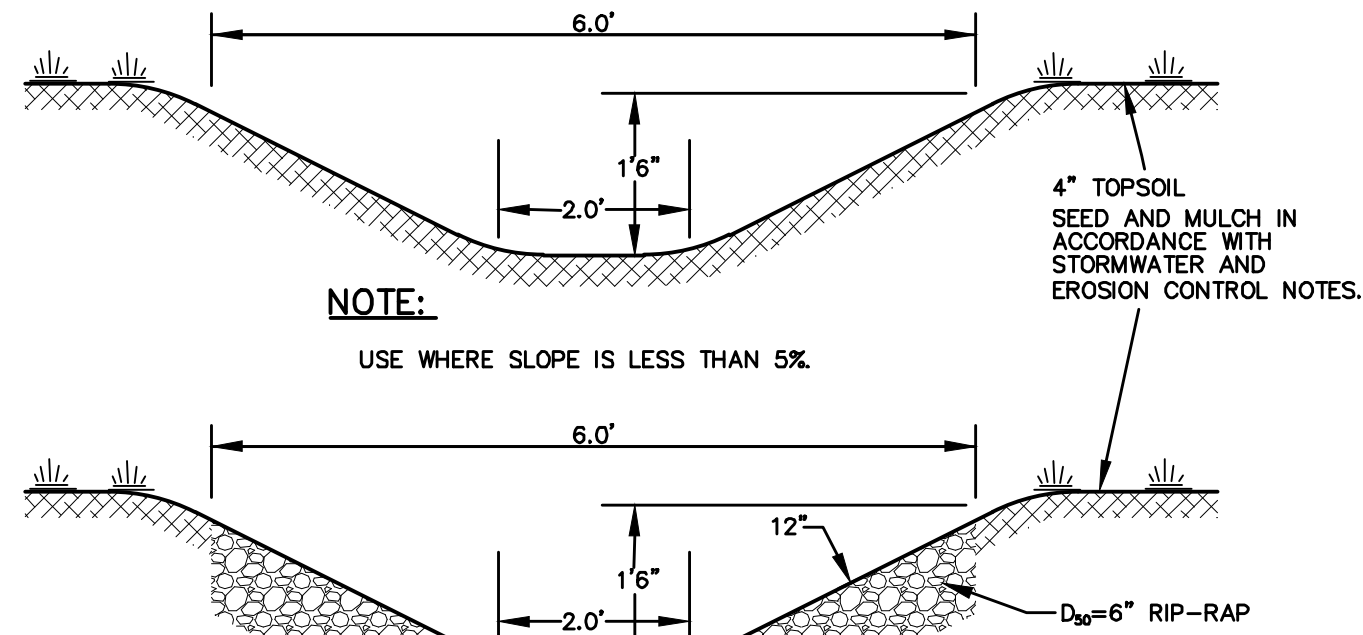
SANITARY/STORM SEWER-WATER MAIN SEPARATION DETAIL
NOT TO SCALE

NO.	DATE	DESCRIPTION
1	3/15/18	ENGINEERS COMMENTS
2	5/25/17	ENGINEERS COMMENTS
3	6/21/17	ENGINEERS COMMENTS
4	6/2/12	LAYOUT REVISIONS
5	7/6/12	COMMENTS
6	7/6/12	EMERGENCY ACCESS AND DRAINAGE REVISIONS
7	10/20/13	CONSULTANT COMMENTS

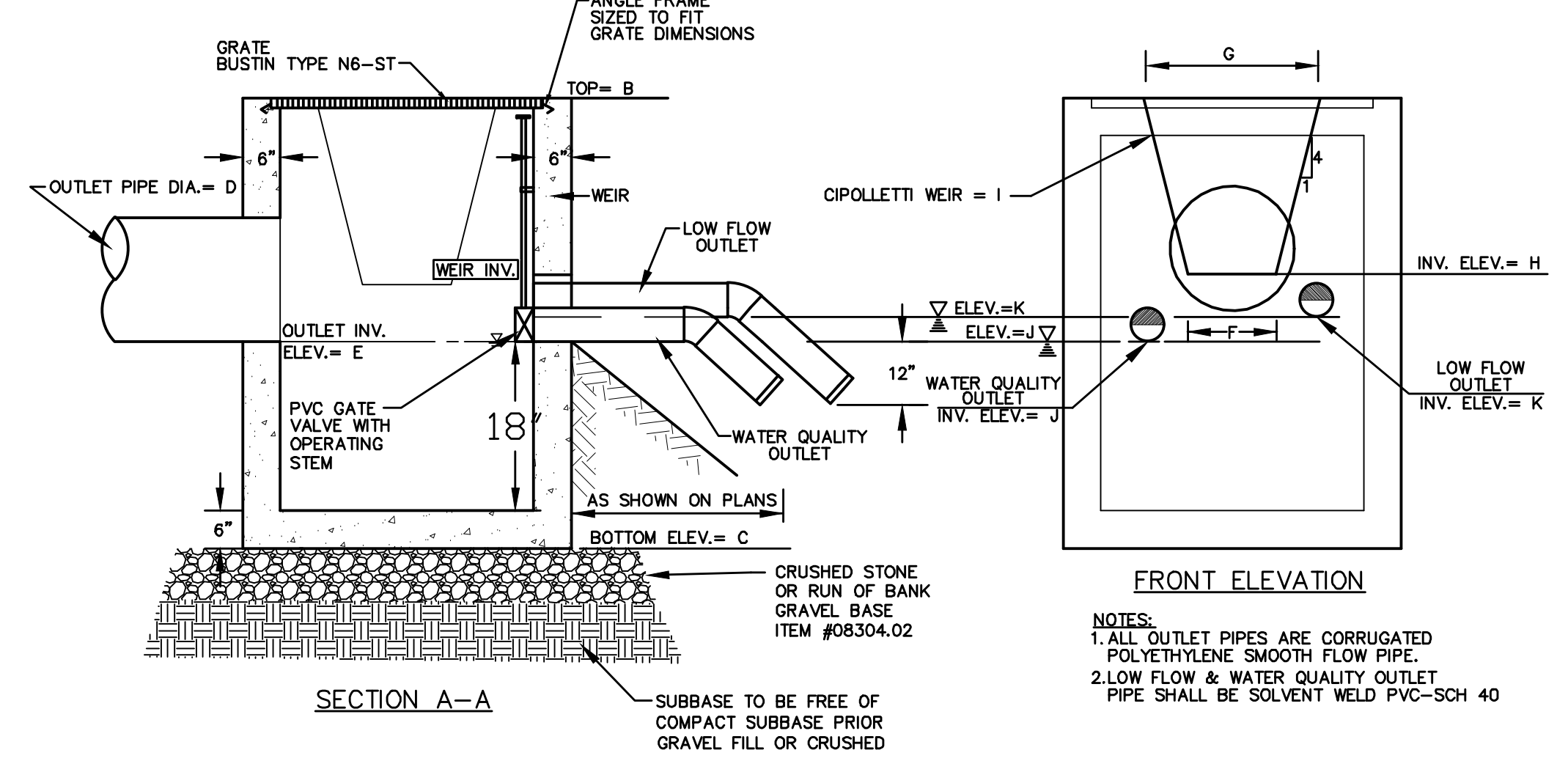
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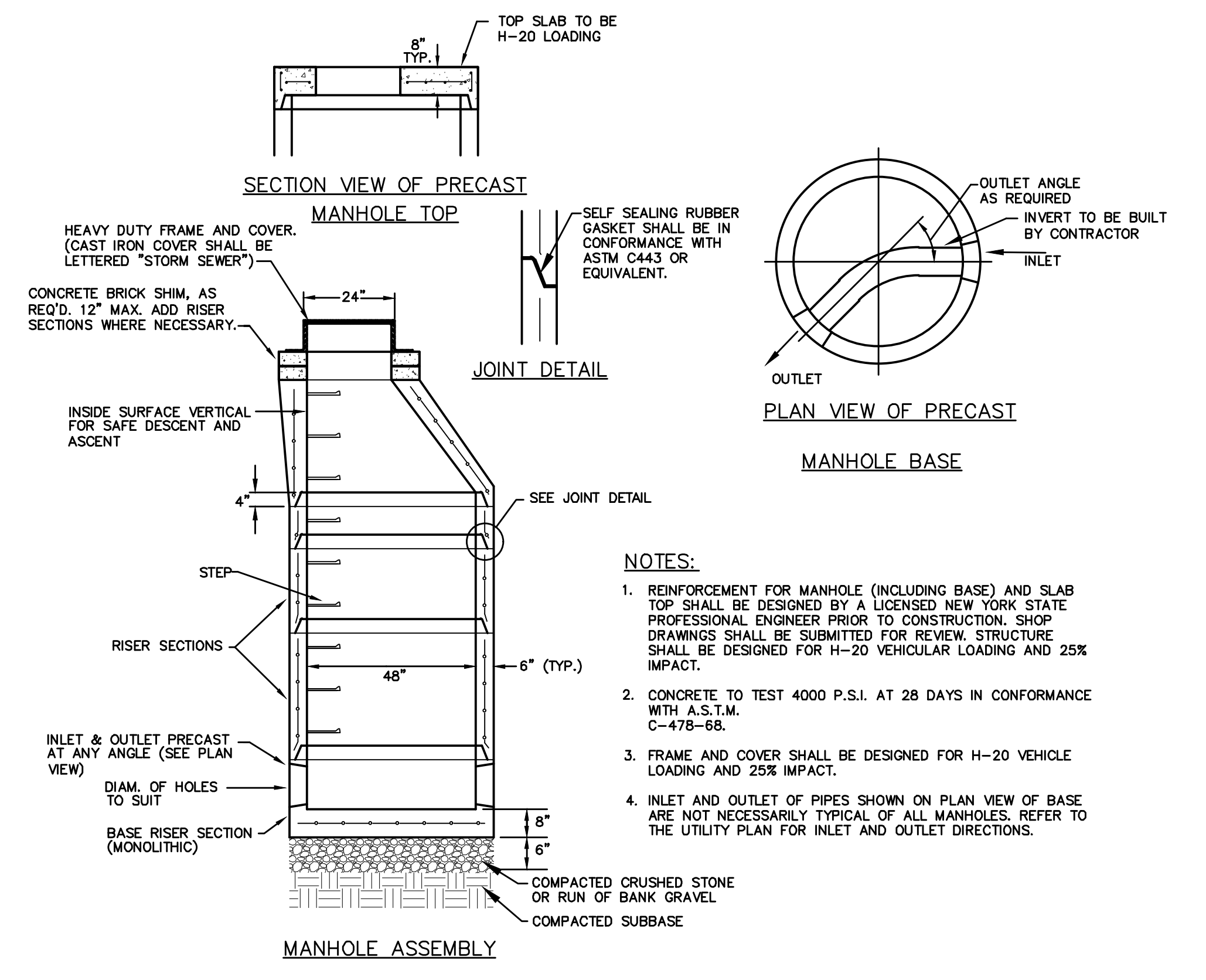
SANITARY SEWER DETAILS
GARDNER RIDGE
GARDNERTOWN ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NY



OUTLET STRUCTURE TABLE	
OUTLET STRUCTURE DIMENSIONS	OUTLET
A. STRUCTURE HEIGHT (ITEM B - ITEM C)	5.0'
B. TOP GRATE ELEVATION	258.5
C. STRUCTURE BOTTOM ELEVATION	253.5
D. OUTLET PIPE DIAMETER (IN.)	24"
E. OUTLET PIPE INVERT ELEVATION	254.0
F. WEIR CREST WIDTH (FT.)	2.0'
G. WEIR TOP WIDTH (FT.)	2.8'
H. WEIR CREST INVERT ELEVATION	256.0'
I. NUMBER OF WEIRS	1
J. WATER QUALITY OUTLET INVERT ELEVATION	N/A
K. WATER QUALITY OUTLET DIAMETER (IN.)	N/A
L. LOW FLOW OUTLET INVERT ELEVATION	254.0
M. STRUCTURE LENGTH	5'
N. STRUCTURE WIDTH	5'
O. POND BOTTOM ELEVATION	254.0
P. TOP OF BERM	260.0

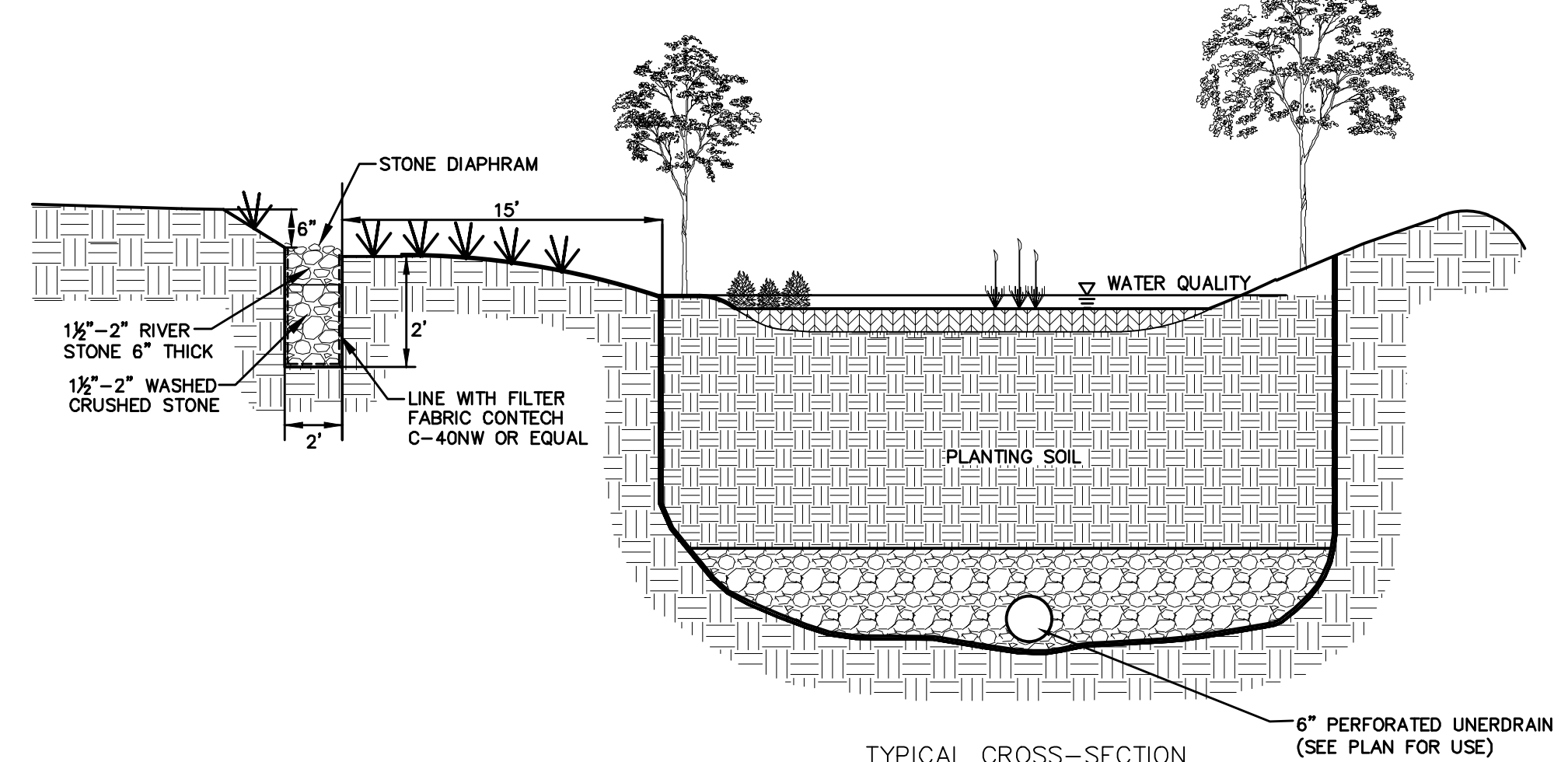
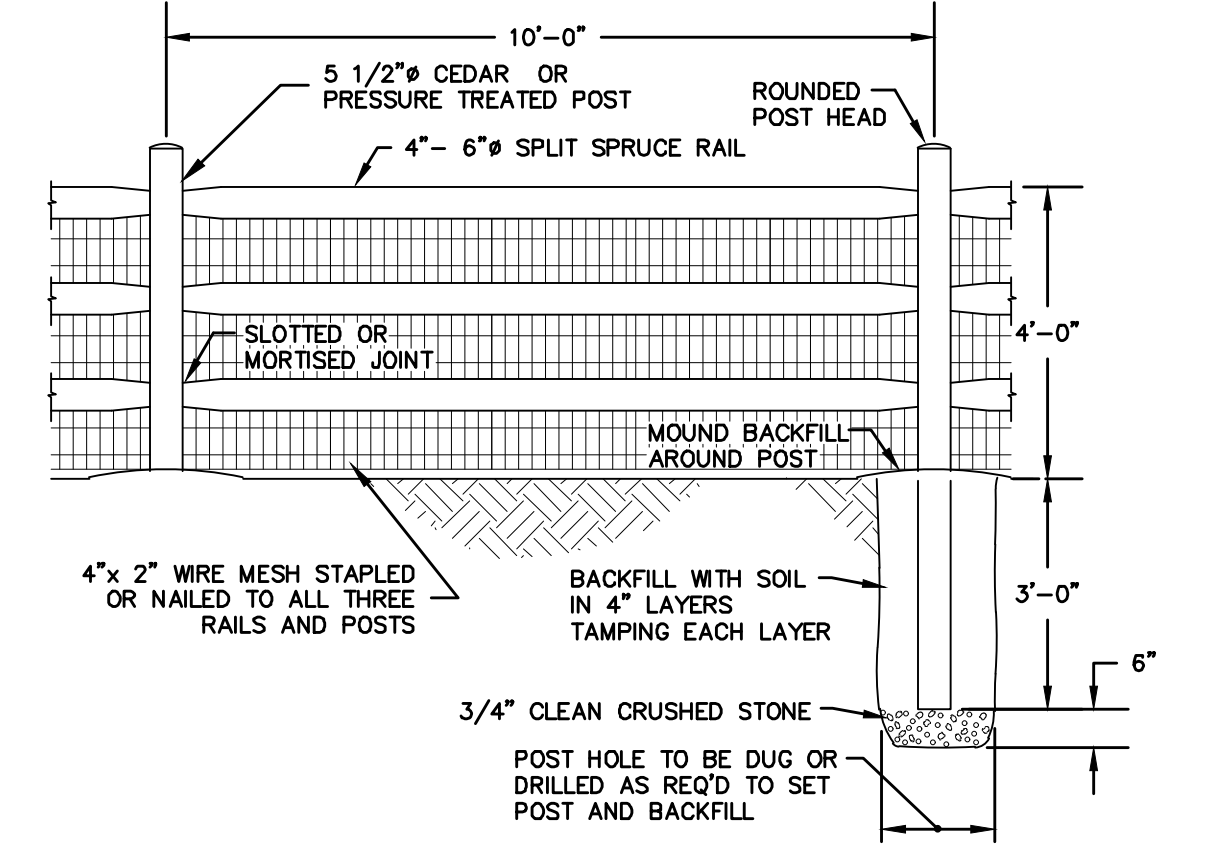
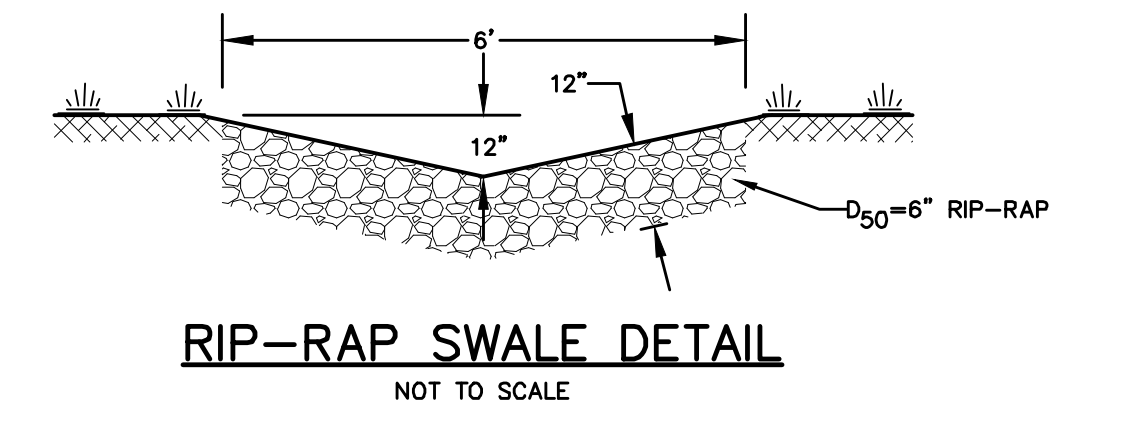


STORMWATER MANAGEMENT BASIN OUTLET STRUCTURE
NOT TO SCALE

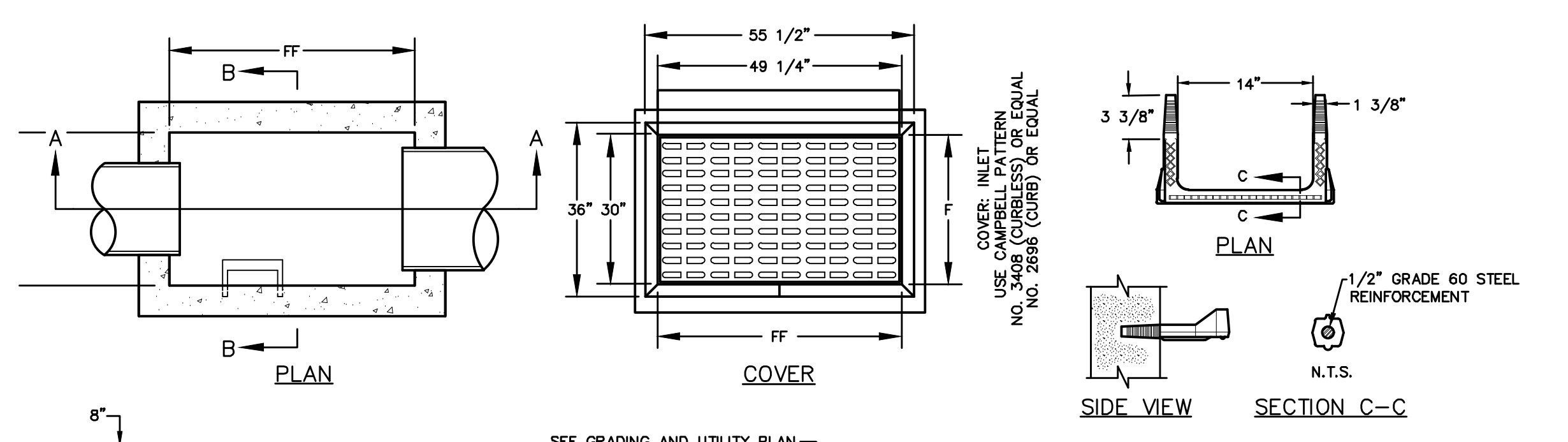


- NOTES:**
- REINFORCEMENT FOR MANHOLE (INCLUDING BASE) AND SLAB TOP SHALL BE DESIGNED BY A LICENSED NEW YORK STATE PROFESSIONAL ENGINEER PRIOR TO CONSTRUCTION. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW. STRUCTURE SHALL BE DESIGNED FOR H-20 VEHICULAR LOADING AND 25% IMPACT.
 - CONCRETE TO TEST 4000 P.S.I. AT 28 DAYS IN CONFORMANCE WITH A.S.T.M. C-478-88.
 - FRAME AND COVER SHALL BE DESIGNED FOR H-20 VEHICLE LOADING AND 25% IMPACT.
 - INLET AND OUTLET OF PIPES SHOWN ON PLAN VIEW OF BASE ARE NOT NECESSARILY TYPICAL OF ALL MANHOLES. REFER TO THE UTILITY PLAN FOR INLET AND OUTLET DIRECTIONS.

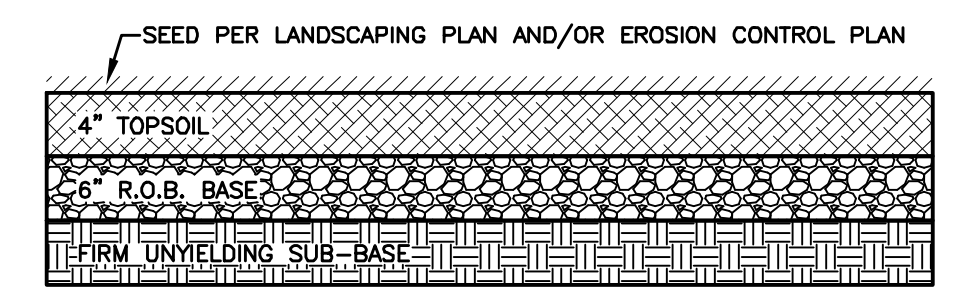
STORM SEWER MANHOLE
NOT TO SCALE



STORMWATER MANAGEMENT BASIN
NOT TO SCALE

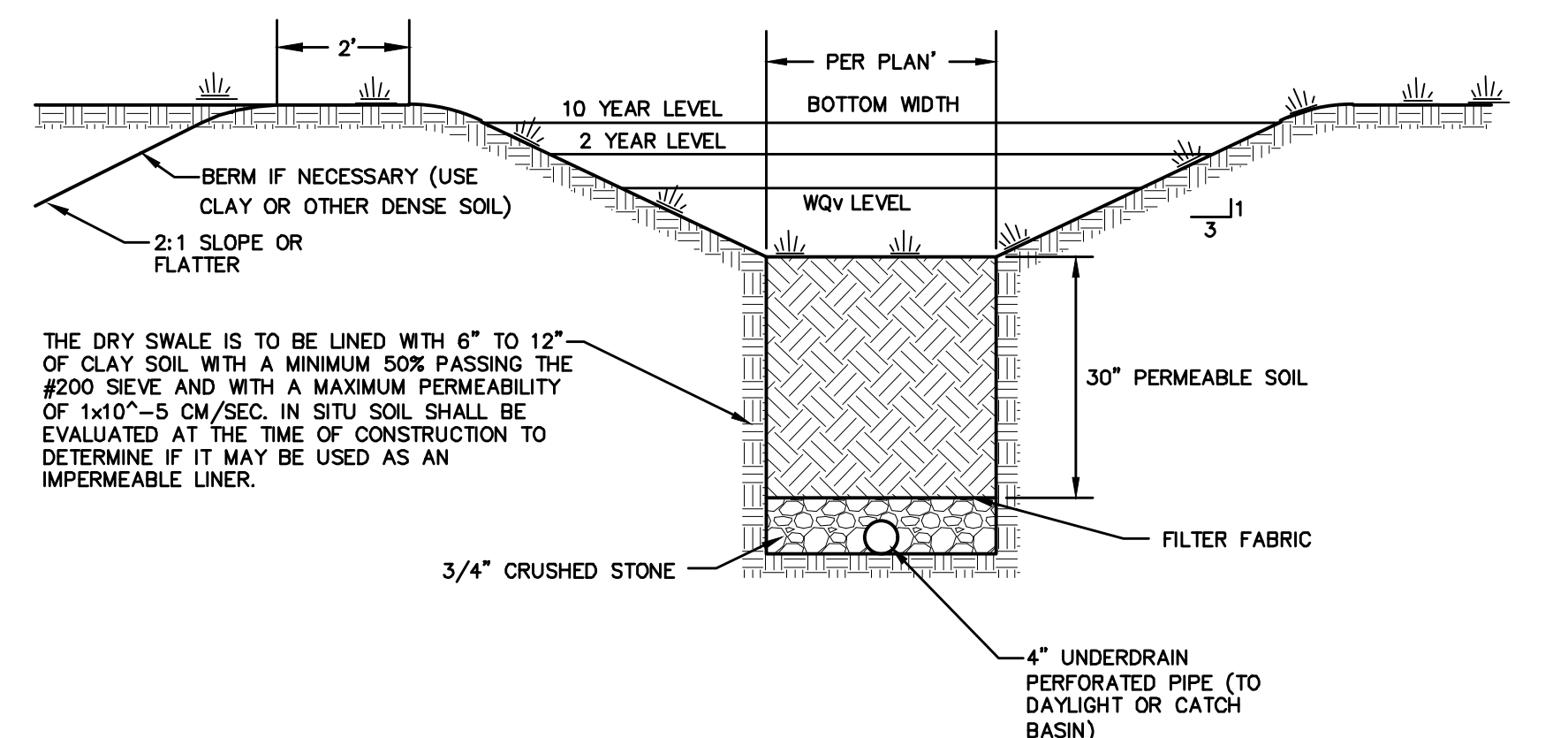


STANDARD CATCH BASIN DETAILS
NOT TO SCALE



- NOTES:**
- SCARIFY SOIL TO DEPTH OF 4" TO 6" IF COMPACTED.
 - REMOVE LARGE STONES, STUMPS, ROOTS & DEBRIS.
 - LIME AS REQUIRED TO ACHIEVE A PH OF 6.0.
 - FERTILIZE AT 600#/ACRE OF 5-10-10 FERTILIZER, IF NEEDED.
 - RAKE TOP 4" OF SOIL, SEED AND MULCH.

STORMWATER MANAGEMENT BASIN ACCESS DRIVE DETAIL
NOT TO SCALE



- NOTE:**
USE WHERE SLOPE IS 4% OR LESS.

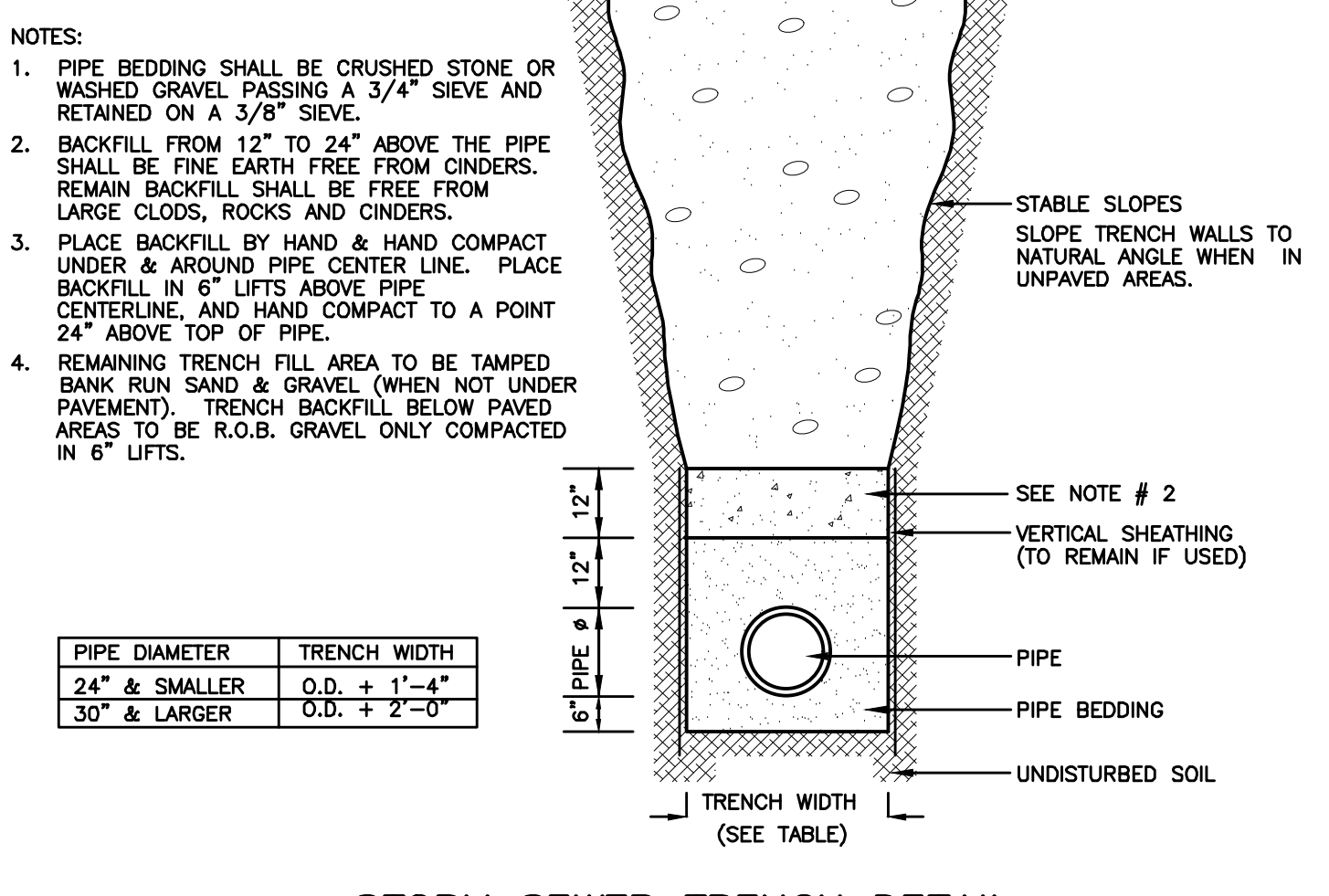
DRY SWALE DETAIL
NOT TO SCALE

- NOTES:**
- THE PLANTING SOIL SHOULD BE A SANDY LOAM, LOAMY SAND, LOAM (USDA), OR A LOAM/SAND MIX (SHOULD CONTAIN A MINIMUM 35 TO 60% SAND, BY VOLUME). THE CLAY CONTENT FOR THESE SOILS SHOULD BE LESS THAN 25% BY VOLUME.
 - SOILS SHOULD FALL WITHIN THE SM OR ML CLASSIFICATIONS OF THE UNITED SOIL CLASSIFICATION SYSTEM (USCS).
 - A PERMEABILITY OF AT LEAST 1.0 FEET PER DAY (0.5"/HR) IS REQUIRED.
 - THE SOIL SHOULD BE FREE OF STONES, STUMPS, ROOTS, OR OTHER WOODY MATERIAL OVER 1" IN DIAMETER.
 - THE SOILS SHOULD BE FREE OF BRUSH OR SEEDS FROM NOXIOUS WEEDS.
 - PLACEMENT OF THE PLANTING SOILS SHOULD BE IN LIFTS OF 12" TO 18", LOOSELY COMPACTED (TAMPED LIGHTLY WITH A DOZER OR BACKHOE BUCKET).
 - TYPICAL PLANT LIST FOR 200 S.F. INFILTRATION BIORETENTION BASIN

PARAMETER	VALUE
PH RANGE	5.2 TO 7.00
ORGANIC MATTER	1.5 TO 4.0%
MAGNESIUM	35 LBS. PER ACRES, MINIMUM
PHOSPHORUS (P205)	75 LBS. PER ACRES, MINIMUM
POTASSIUM (K2O)	85 LBS. PER ACRES, MINIMUM
SOLUBLE SALTS	≤500 PPM
CLAY	10 TO 25%
SILT	30 TO 55%
SAND	35 TO 60%

- SHRUBS (18 SHRUBS PLANTED 5' ± ON CENTER, 2'-3" HT.)
ARROWWOOD
WINTER BERRY
RED OSIER DOGWOOD
- HERBACEOUS PLANTS (HE) (51 PLANTS PLANTED 2.5' ± ON CENTER, 1 QUART CONT.)
OUTLEAF CONE FLOWER
WOOL GRASS
NEW ENGLAND ASTER
SPOTTED JOE PYE WEED
PICKEREL WEED
CARDINAL FLOWER
COMMON RUSH
- TREES (2 TREES PLANTED 10' ± ON CENTER, 1.5" CAL.)
ACER RUBRUM 'OCTOBER GLORY' TM
CERCIS CANADENSIS
GLEHITSIA TRICANTHOS INERMIS
PLATANUS OCCIDENTALIS
TILIA CORDATA 'GREENSPIRE'
8. ADJUST NUMBER OF PLANTS AND DIMENSIONS AS REQUIRED FOR VARYING IMPERVIOUS AREAS.

BIORETENTION SYSTEM DETAIL
NOT TO SCALE



PIPE DIAMETER	TRENCH WIDTH
24" & SMALLER	O.D. + 1'-4"
30" & LARGER	O.D. + 2'-0"

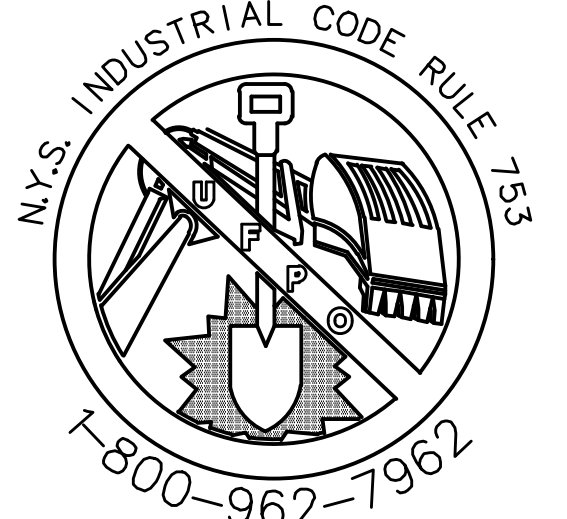
OUTLET PROTECTION TABLE

D (IN)	D ₉₀ (IN)	L (FT) *
12	4	8
15	4	10
18	6	10
24	6	12
30	8	18
36	8	18
42	10	27
48	12	33

* FOR LOW TAIL WATER CONDITIONS (I.E. NO PLUNGE POOL OR OTHER DEEP TAIL WATER)

- NOTES:**
- RIP RAP DEPTH SHALL BE 2 TIMES D₉₀
 - RIP RAP APRON LENGTH AND WIDTH PER CHART UNLESS OTHERWISE SHOWN ON PLAN.

PIPE OUTLET PROTECTION DETAIL
NOT TO SCALE



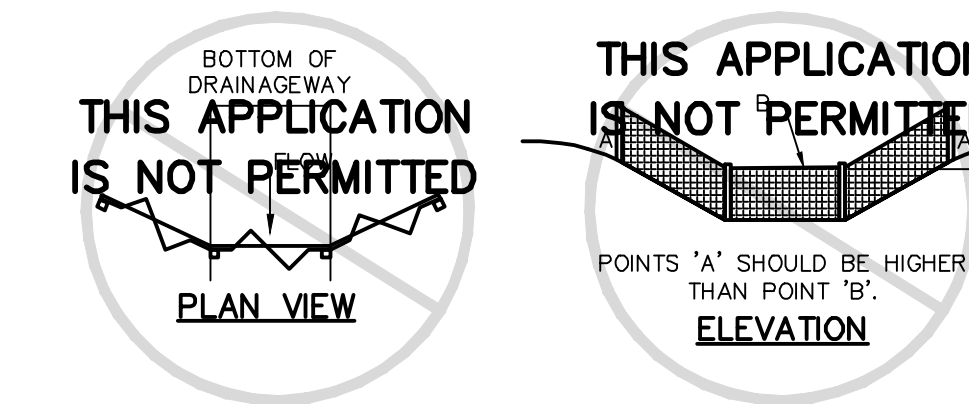
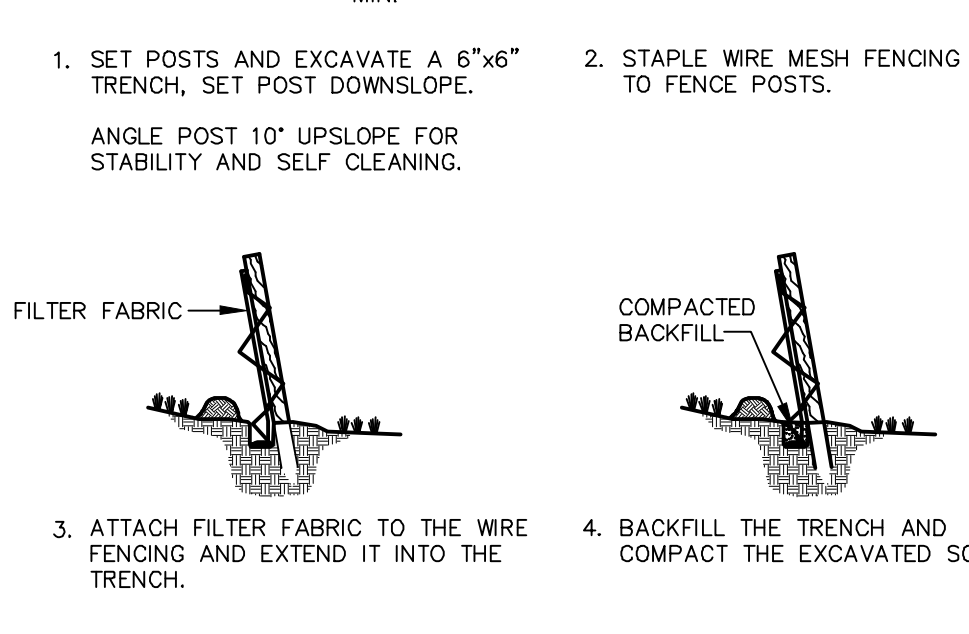
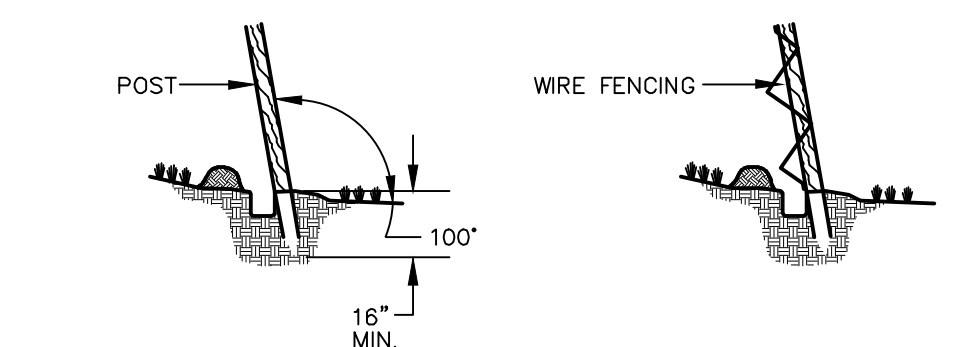
CALL BEFORE YOU DIG, DRILL OR BLAST
NO LESS THAN TWO WORKING DAYS NOTICE
IT'S THE LAW!

NO.	DATE	REVISION	DESCRIPTION
1	3/15/18	ENGINEERS COMMENTS	
2	5/5/17	ENGINEERS COMMENTS	
3	6/21/17	ENGINEERS COMMENTS	
4	6/9/12	LAYOUT REVISIONS	
5	6/9/12	COMMENTS	
6	7/6/13	EMERGENCY ACCESS AND DRAINAGE REVISIONS	
7	10/20/13	CONSULTANT COMMENTS	

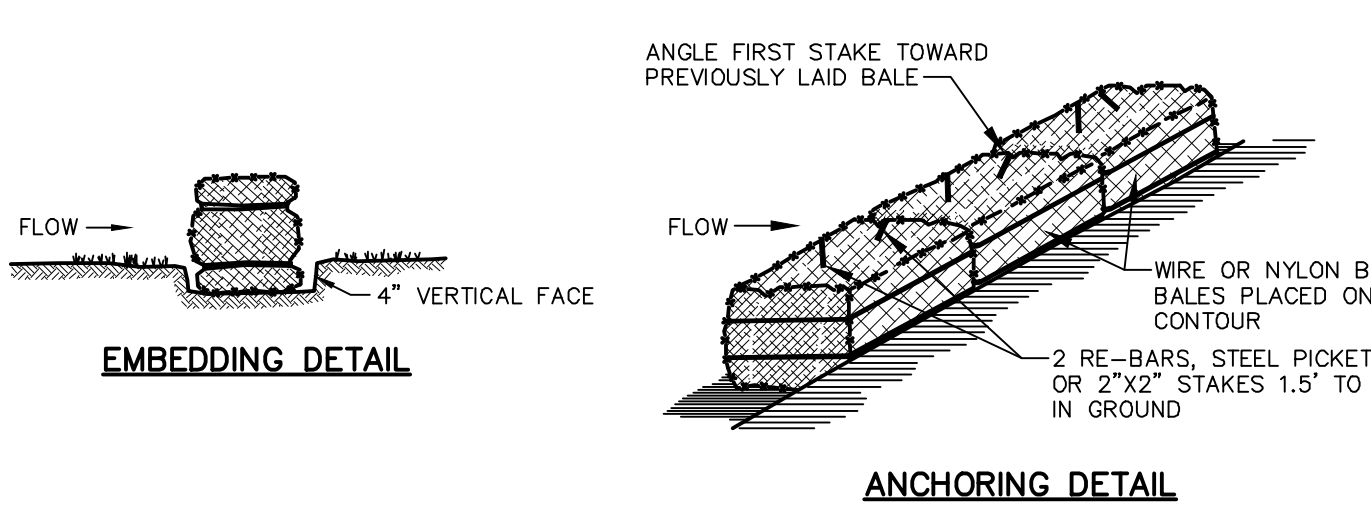
Thomas B. Olley, P.E.

THOMAS B. OLLEY, P.E., P.L.L.C.
ENGINEERS AND PLANNERS
ORANGE AVENUE
WALKEN NY 12586
PHONE (845) 778-8838
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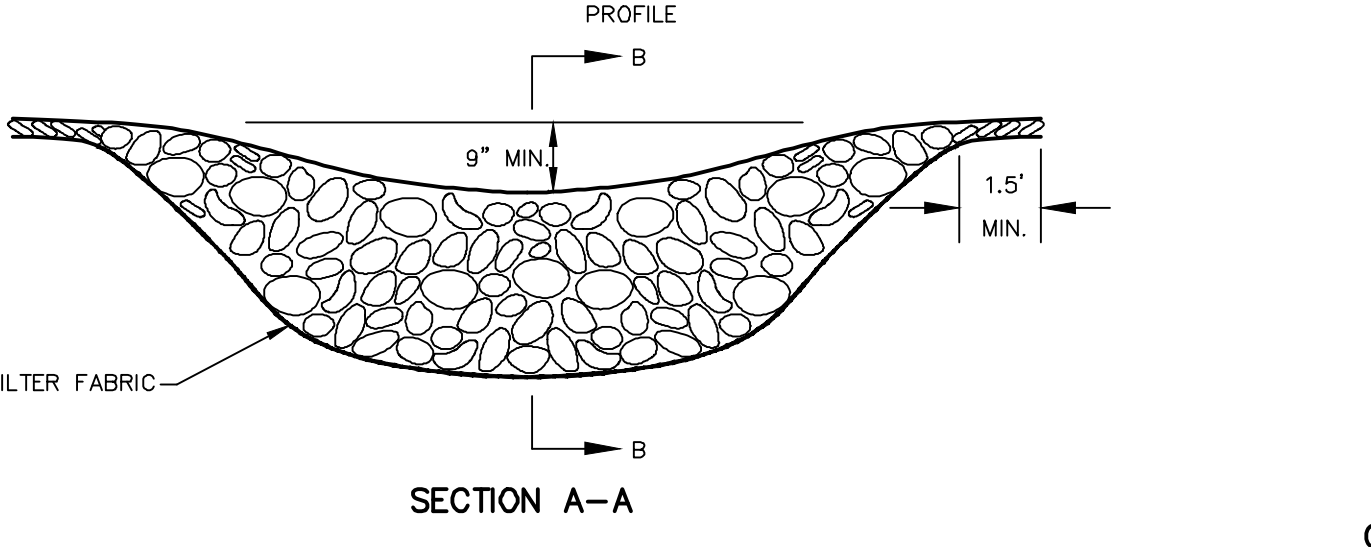
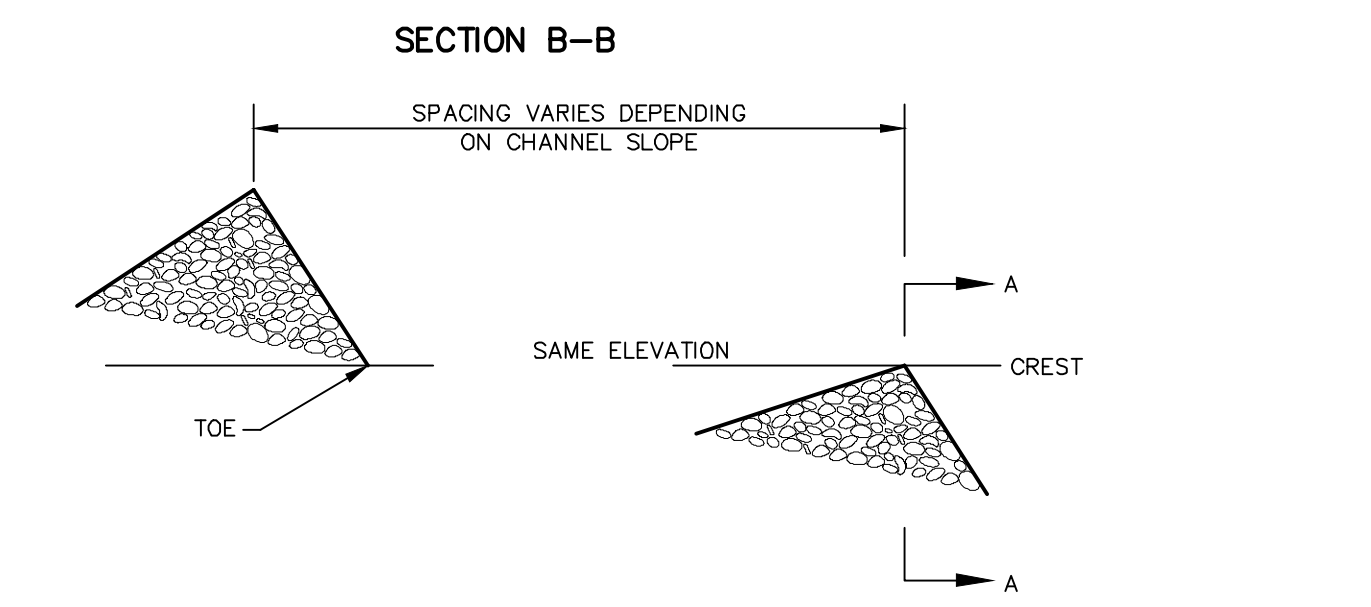
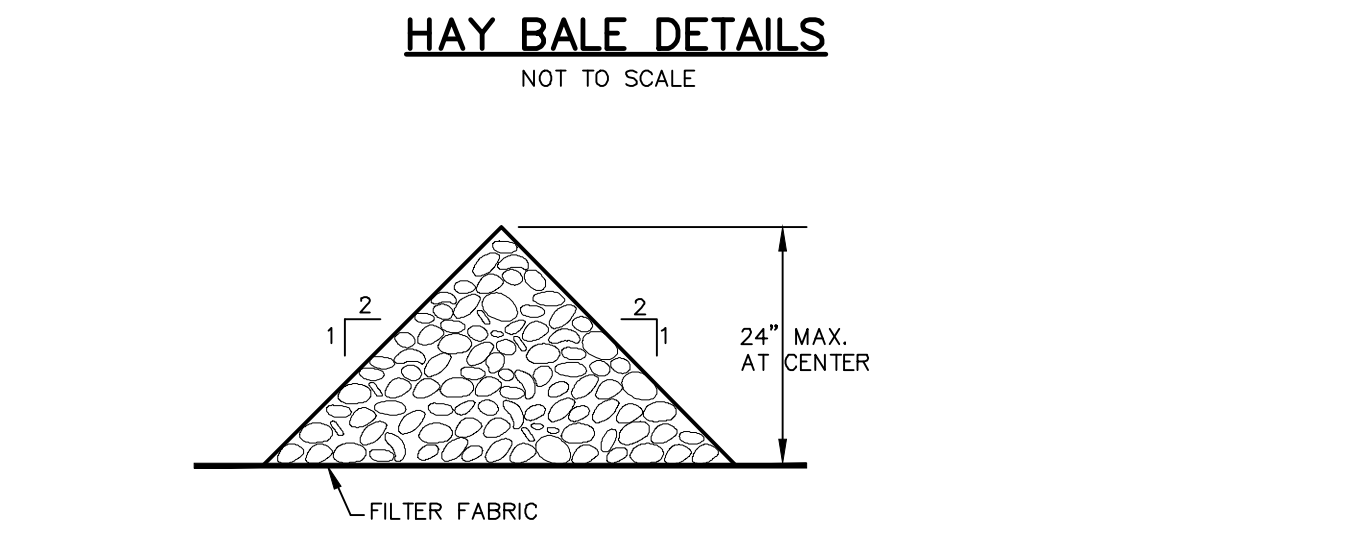
STORM DRAINAGE DETAILS
GARDNER RIDGE
GARDNERTOWN ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NY



PLACEMENT AND CONSTRUCTION OF A SILT FENCE BARRIER
NOT TO SCALE

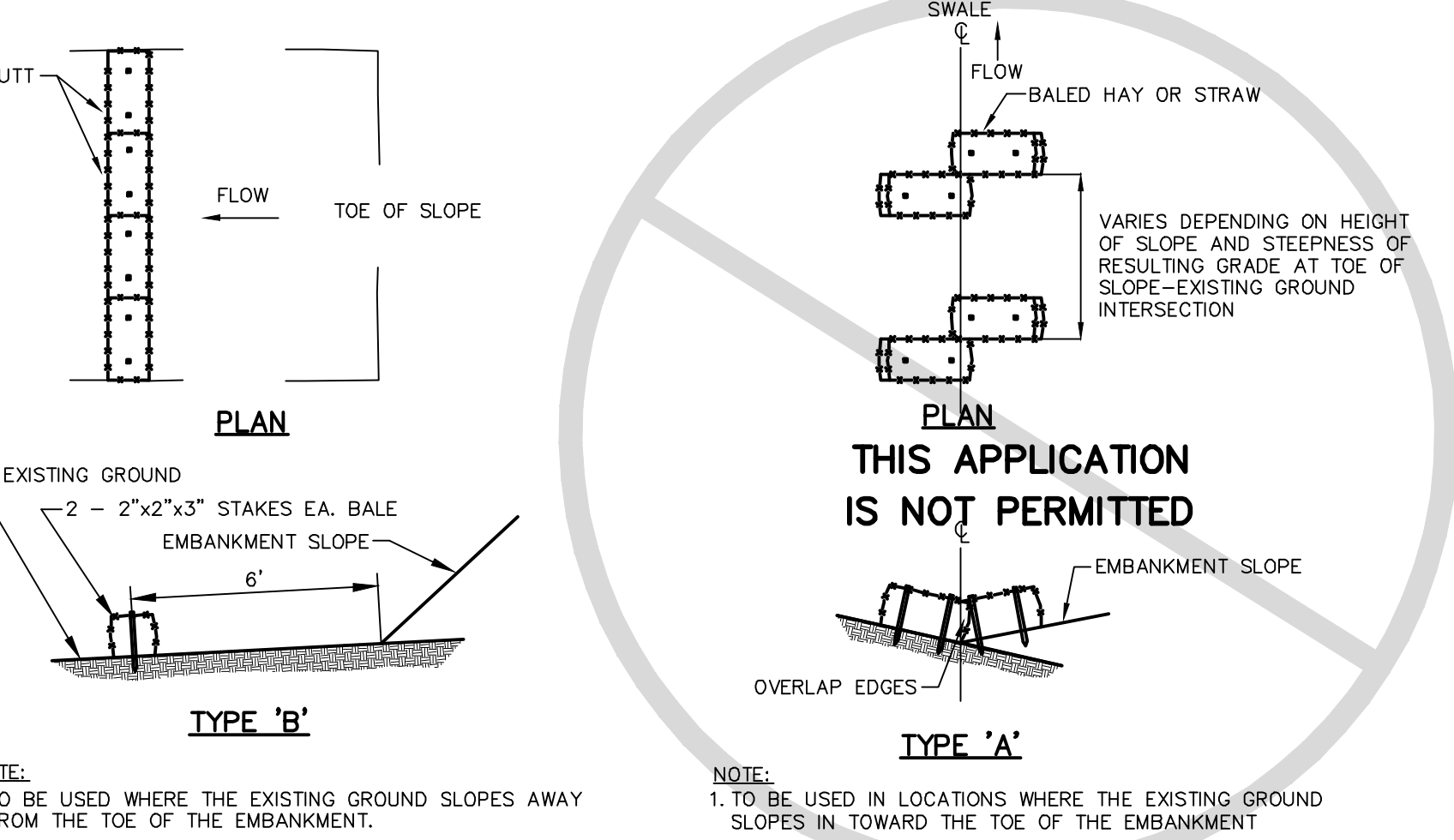


- CONSTRUCTION SPECIFICATIONS**
- BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
 - EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
 - BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
 - INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
 - BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPED STORM FLOW OR DRAINAGE.
 - HAYBALES SHALL BE PLACED IN ACCORDANCE WITH THE NEW YORK STATE GUIDELINES FOR URBAN EROSION AND SEDIMENT CONTROL.



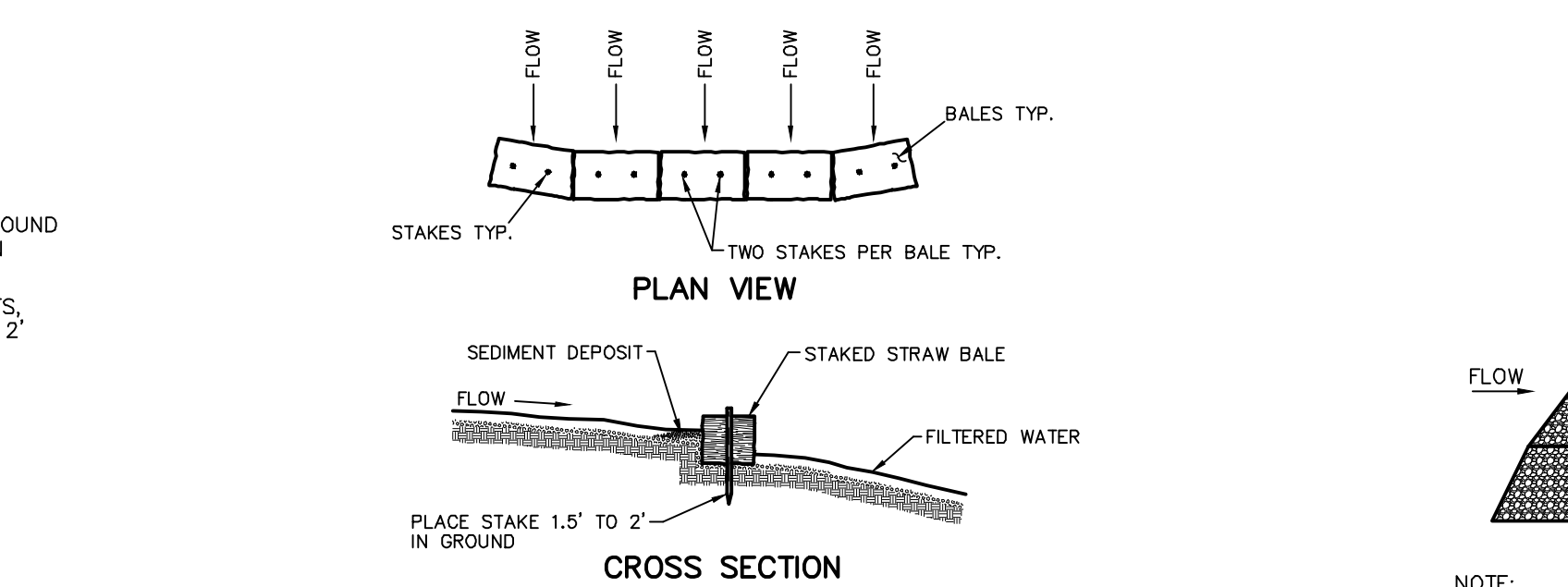
- CONSTRUCTION SPECIFICATIONS:**
- STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION.
 - SET SPACING OF CHECK DAMS TO ESTABLISH THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
 - EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
 - PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
 - ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.
 - USE GRADED STONE 2 TO 15 INCHES IN SIZE (NYS-DOT LIGHT STONE FILL MEETS THESE REQUIREMENTS).

CHECK DAM DETAILS
NOT TO SCALE



- CONSTRUCTION ENTRANCE NOTES**
- SURFACE SHALL BE 2" CRUSHED STONE OR RECLAIMED/RECYCLED CONCRETE.
 - THE MINIMUM LENGTH SHALL BE 50 FEET (30' FOR A SINGLE RESIDENCE LOT).
 - THE TRUCKING PAD SHALL BE A MINIMUM OF 6" DEEP STONE.
 - THE MINIMUM WIDTH SHALL BE 12 FEET.
 - A FILTER FABRIC SHALL BE PLACED UNDER THE ENTRANCE PRIOR TO PLACEMENT OF THE STONE (CONTECH C-40W OR EQUAL).
 - SURFACE WATER SHALL BE DIVERTED AWAY FROM THE CONSTRUCTION ENTRANCE THROUGH THE USE OF DIVERSION SWALES AND PIPING. IF PIPING IS NOT FEASIBLE, THEN A MOUNTABLE BERM WITH 5:1 SLOPES SHALL BE USED.
 - THE STABILIZED CONSTRUCTION ENTRANCE SURFACE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOW OF MUD OR SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. PERIODIC PRESSING WITH ADDITIONAL STONE WILL BE NEEDED AS CONDITIONS DEMAND. REPAIR AND CLEAN ALL MEASURES USED TO TRAP SEDIMENT. ANY SEDIMENT THAT IS TRANSPORTED ON TO THE PUBLIC RIGHT OF WAY (IN ANY MANNER) MUST BE REMOVED IMMEDIATELY.

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



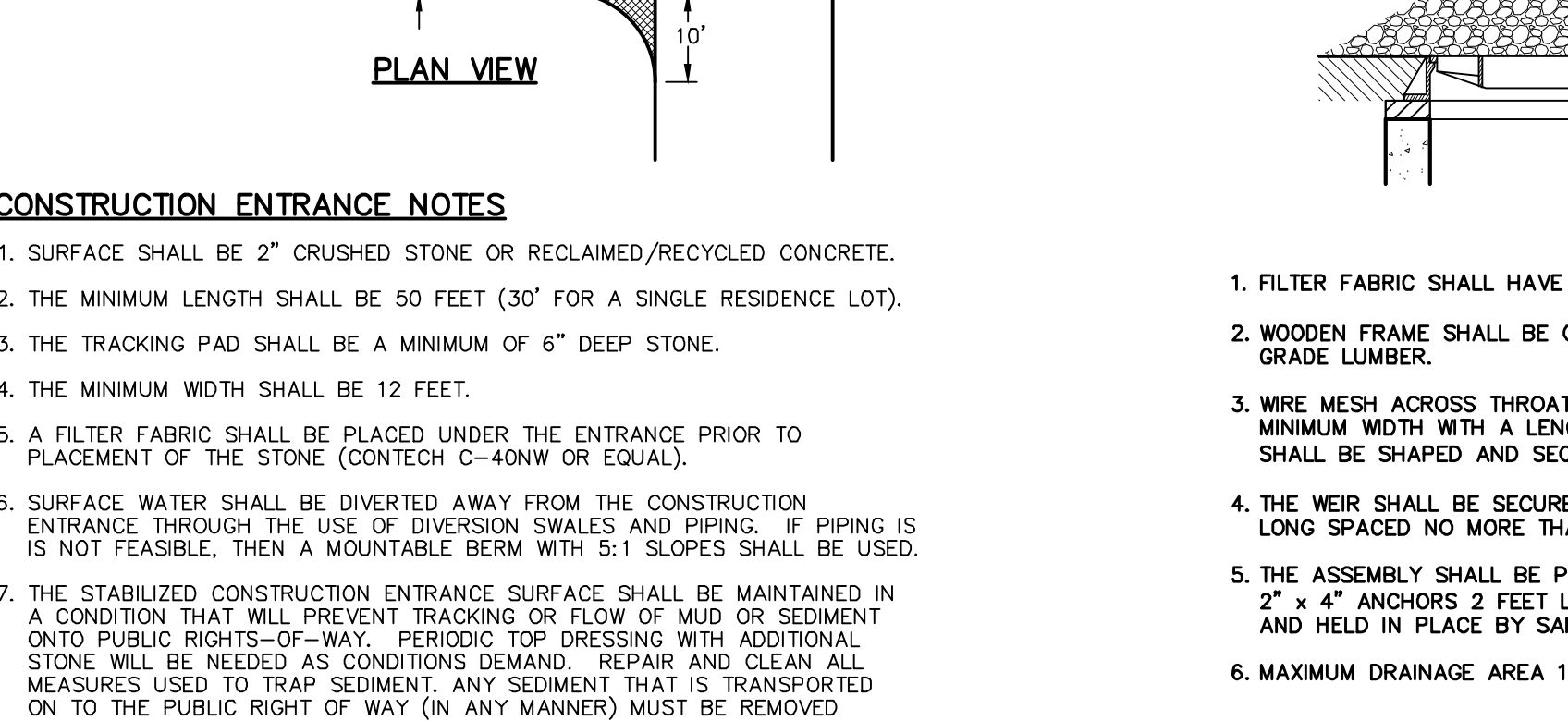
- CONSTRUCTION ENTRANCE NOTES**
- FILTER FABRIC SHALL HAVE AN EOS OF 40-85.
 - WOODEN FRAME SHALL BE CONSTRUCTED OF 2" x 4" CONSTRUCTION GRADE LUMBER.
 - WIRE MESH ACROSS THROAT SHALL BE A CONTINUOUS PIECE 30 INCH MINIMUM WIDTH WITH A LENGTH 4 FEET LONGER THAN THE THROAT. IT SHALL BE SHAPED AND SECURELY NAILED TO A 2" x 4" WEIR.
 - THE WEIR SHALL BE SECURELY NAILED TO 2" x 4" SPACERS 9 INCHES LONG SPACED NO MORE THAN 6 FEET APART.
 - THE ASSEMBLY SHALL BE PLACED AGAINST THE INLET AND SECURED BY 2" x 4" ANCHORS 2 FEET LONG EXTENDING AGAINST THE TOP OF THE INLET AND HELD IN PLACE BY SANDBAGS OR ALTERNATE WEIGHTS.
 - MINIMUM DRAINAGE AREA 1 ACRE

CURB DROP INLET PROTECTION
NOT TO SCALE

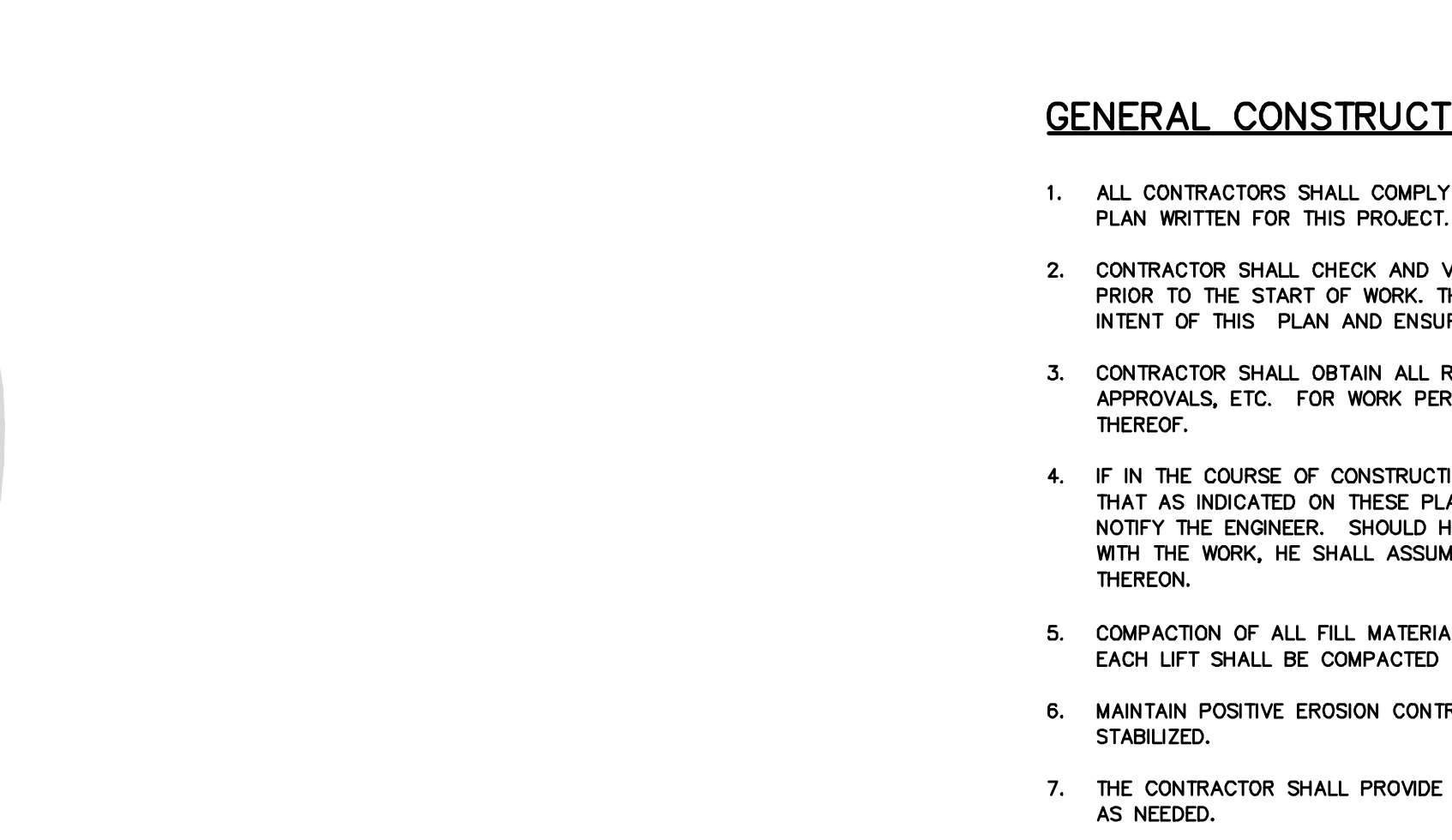


- CONSTRUCTION SPECIFICATIONS**
- EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF FOUR (4) INCHES AND PLACED SO THE BINDINGS ARE HORIZONTAL.
 - BALES SHALL BE SECURELY ANCHORED IN PLACE BY TWO STAKES DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER.

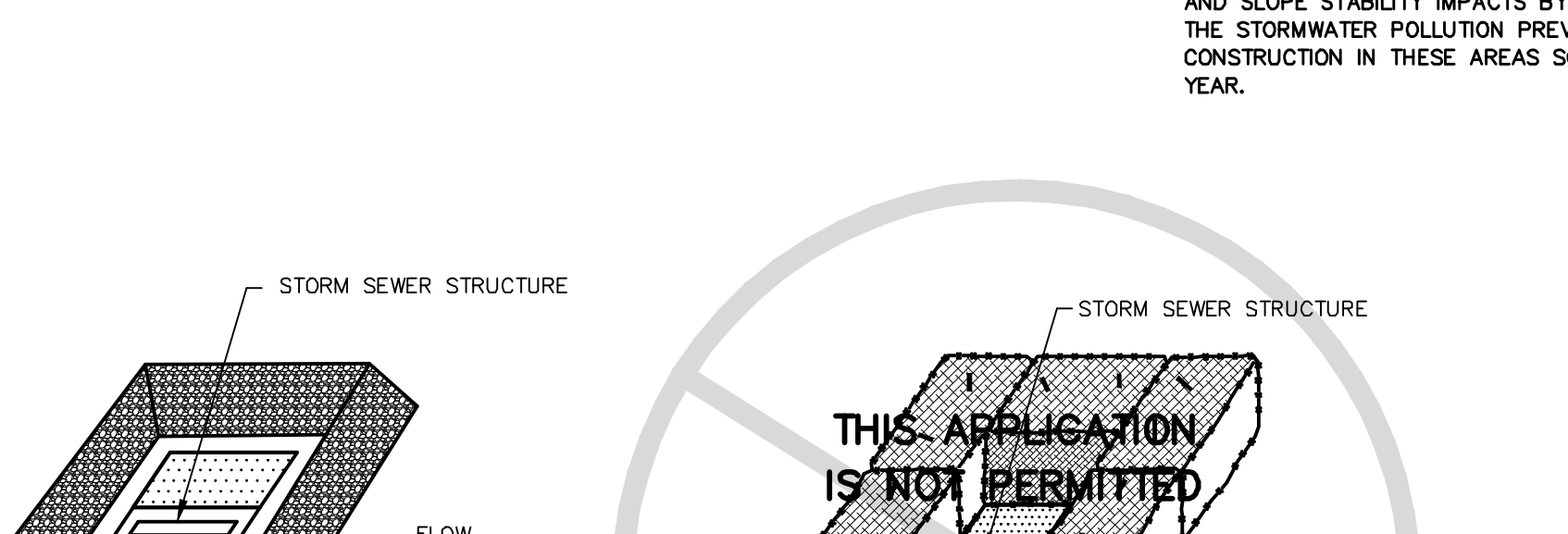
HAYBALE STABILIZATION DETAIL
NOT TO SCALE



STONE CHECK INSTALLATION AT CATCH BASINS
NOT TO SCALE



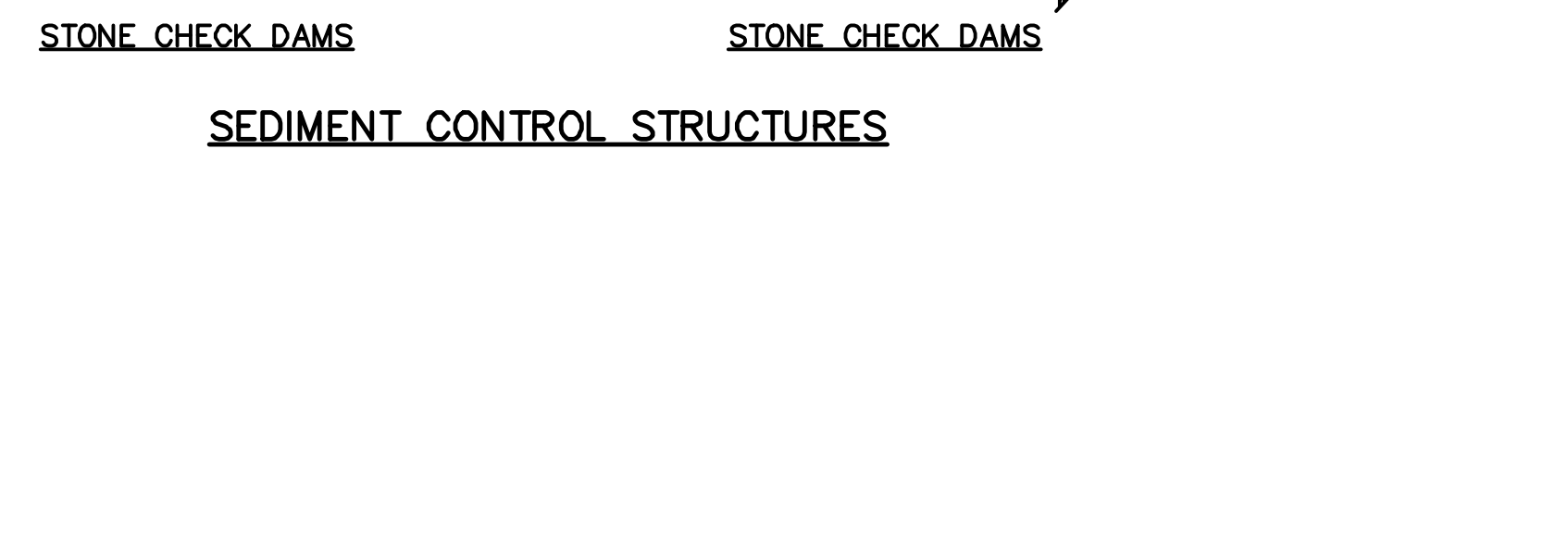
- GENERAL CONSTRUCTION NOTES:**
- ALL CONTRACTORS SHALL COMPLY WITH THE STORMWATER POLLUTION PREVENTION PLAN WRITTEN FOR THIS PROJECT.
 - CONTRACTOR SHALL CHECK AND VERIFY ALL CONDITIONS AT THE SITE PRIOR TO THE START OF WORK. THE CONTRACTOR SHALL BE FAMILIAR WITH THE INTENT OF THIS PLAN AND ENSURE THAT WORK TO BE PERFORMED IS THE SAME.
 - CONTRACTOR SHALL OBTAIN ALL REQUIRED APPROVALS, PERMITS, INSPECTION APPROVALS, ETC. FOR WORK PERFORMED FROM AGENCIES HAVING JURISDICTION THEREOF.
 - IF IN THE COURSE OF CONSTRUCTION A CONDITION EXISTS WHICH DISAGREES WITH THAT AS INDICATED ON THESE PLANS, THE CONTRACTOR SHALL STOP WORK AND NOTIFY THE ENGINEER. SHOULD HE FAIL TO FOLLOW THIS PROCEDURE AND CONTINUE WITH THE WORK, HE SHALL ASSUME ALL RESPONSIBILITY AND LIABILITY ARISING THEREOF.
 - COMPACTION OF ALL FILL MATERIAL SECTIONS SHALL BE COMPLETED IN 8" LIFTS. EACH LIFT SHALL BE COMPACTED TO 95% OF THE PROCTOR DENSITY.
 - MAINTAIN POSITIVE EROSION CONTROL DURING THE OPERATION UNTIL THE SITE IS STABILIZED.
 - THE CONTRACTOR SHALL PROVIDE ADDITIONAL TOPSOIL FOR RECLAMATION PROCEDURES AS NEEDED.
 - THE ENTIRE SITE IS TO BE STABILIZED WITH VEGETATION WHEN FINAL GRADES ARE REACHED.
 - TEMPORARY SEED MIX SHALL BE PERENNIAL RYEGRASS @ 30 POUNDS/ACRE OR AS RECOMMENDED BY THE SULLIVAN COUNTY SOIL CONSERVATION DISTRICT.
 - PERMANENT SEED MIX SHALL BE THE FOLLOWING: COMMON WHITE CLOVER 8 LBS/ACRE, TALL FESCUE 20 LBS/ACRE, PERENNIAL RYEGRASS 5 LBS/ACRE OR AS RECOMMENDED BY THE SULLIVAN COUNTY SOIL CONSERVATION DISTRICT.
 - THE OPTIMUM TIME FOR SEEDING IS EARLY SPRING AND LATE AUGUST. HOWEVER SEEDING MAY BE PERFORMED AT OTHER TIMES PER YEAR IF PROPERLY MULCHED AND ADEQUATE MOISTURE PROVIDED. SEEDING IN AREAS THAT FAIL MUST BE RESEED DURING THE FOLLOWING OPTIMUM TIME FOR SEEDING.
 - CONTRACTORS SHALL NOTE THAT SOME OF THE SOILS LOCATED ON THE SITE ARE KNOWN TO HAVE PERCHED WATER TABLES. UPON ENCOUNTERING GROUNDWATER THE CONTRACTOR MAY MITIGATE EROSION AND SOIL STABILITY IMPACTS BY ANY OF THE APPLICABLE METHODS DISCUSSED IN THE STORMWATER POLLUTION PREVENTION PLAN FOR THIS PROJECT OR SCHEDULING CONSTRUCTION IN THESE AREAS SO AS TO AVOID THEM DURING WET PERIODS OF THE YEAR.



- CONSTRUCTION SPECIFICATIONS**
- USE GRADED STONE 3/4" TO 2 INCHES IN SIZE (NYS-DOT LIGHT STONE FILL MEETS THESE REQUIREMENTS).

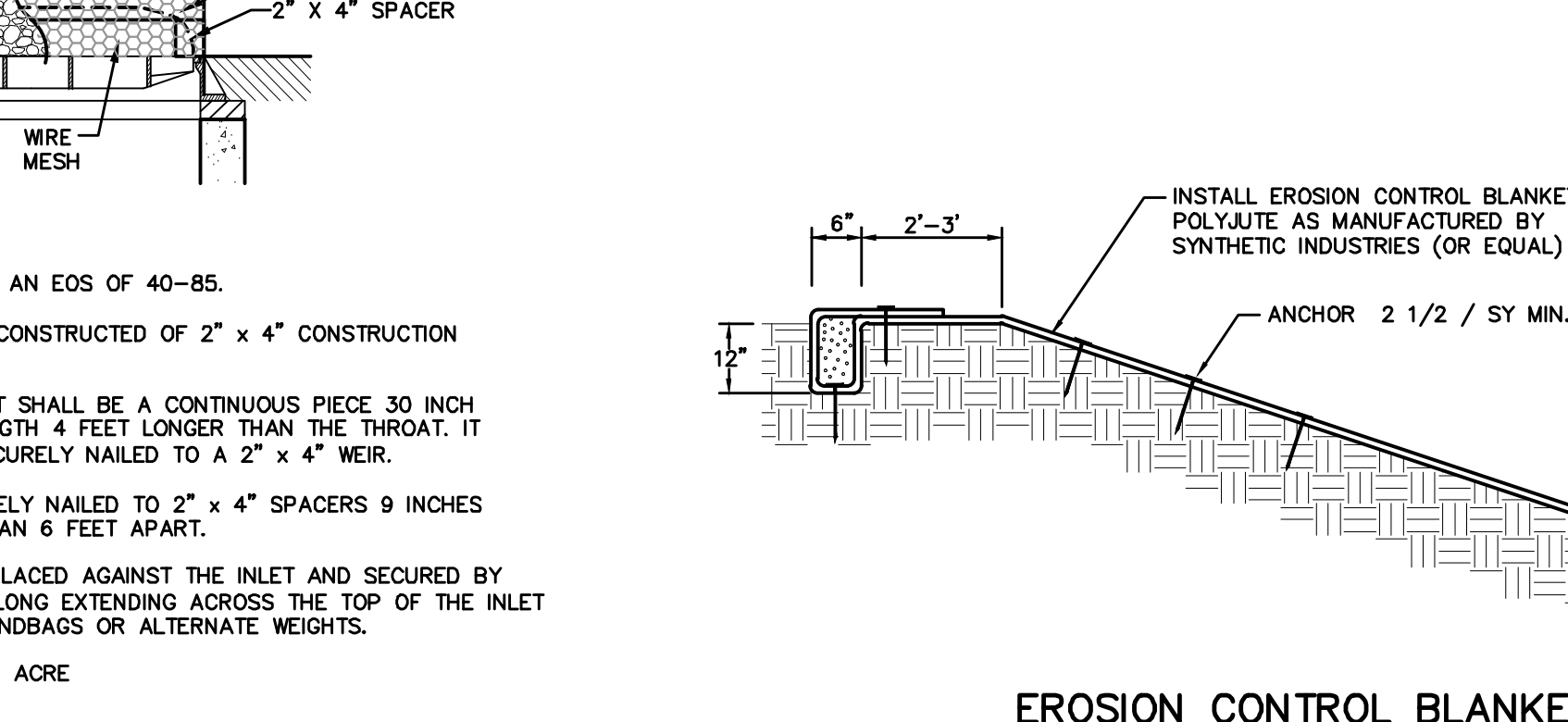


SEDIMENT CONTROL STRUCTURES
NOT TO SCALE



- CONSTRUCTION SPECIFICATIONS**
- INSTALL EROSION CONTROL BLANKET POLYUITE AS MANUFACTURED BY SYNTHETIC INDUSTRIES (OR EQUAL)
 - ANCHOR 2 1/2" x 1/4" (TYP)
 - SOD (OPTIONAL) OR SEEDING UNDER BLANKET

EROSION CONTROL BLANKET
NOT TO SCALE



CURB DROP INLET PROTECTION
NOT TO SCALE

- EROSION & SEDIMENT CONTROL MEASURES**
- TEMPORARY DIVERSION SWALES**
TEMPORARY DIVERSION SWALES WILL BE INSTALLED IMMEDIATELY UPHILL OF AREAS SCHEDULED TO BE DISTURBED FOR THE PURPOSE OF DIVERTING STORMWATER. SWALES SHALL BE MAINTAINED UNTIL THE REGRADED SITE IS STABILIZED WITH PERMANENT SEEDING.
 - STABILIZED CONSTRUCTION ENTRANCE**
TEMPORARY GRAVEL CONSTRUCTION ENTRANCE(S) SHALL BE INSTALLED IMMEDIATELY ADJACENT TO THE EXISTING PAVEMENT. DURING WET WEATHER IT MAY BE NECESSARY TO WASH VEHICLE TIRES AT THIS LOCATION. THE ENTRANCE SHALL BE GRADED OFF SO THAT RUNOFF WILL BE DIRECTED TO AN EXISTING CATCH BASIN AND AWAY FROM THE PAVEMENT. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING CATCH BASINS.
 - SILT FENCE**
SILT FENCES SHALL BE INSTALLED IN THE LOCATIONS SPECIFIED ABOVE, AROUND TOPSOIL STOCKPILE AREAS, AT THE BASE OF ALL DISTURBED SLOPES, AND AT INTERVALS NECESSARY TO PREVENT CONCENTRATION OF FLOW.
 - VEGETATION PROTECTION**
LIMIT SOIL PLACEMENT OVER EXISTING TREES AND SHRUB ROOTS TO A MAXIMUM OF 3 INCHES. USE SOILS WITH LOAMY TEXTURES AND GOOD STRUCTURE. CONSTRUCT STURDY FENCES, WOOD OR STEEL BARRIERS, OR OTHER PROTECTIVE DEVICES TO SURROUND AND PROTECT SENSITIVE OR VALUABLE VEGETATION FROM CONSTRUCTION EQUIPMENT. PLACE BARRIERS FAR ENOUGH FROM TREES SO THAT TALL EQUIPMENT SUCH AS BACKHOES AND DUMP TRUCKS DO NOT DAMAGE TREE BRANCHES.
CONSTRUCTION LIMITS SHOULD BE IDENTIFIED AND CLEARLY MARKED TO EXCLUDE EQUIPMENT. IT IS STRONGLY RECOMMENDED THAT CONSTRUCTION FENCING BE UTILIZED TO PROTECT AREAS THAT ARE NOT TO BE DISTURBED. OBSTRUCTIVE AND BROKEN BRANCHES SHOULD BE PRUNED PROPERLY. EXISTING VEGETATION SHOULD BE PRESERVED WHERE ATTAINABLE.
 - LAND GRADING**
FINISH LAND SURFACES WILL BE GRADED AS INDICATED ON THE PLANS. AT A MAXIMUM, NO MORE THAN 5 ACRES OF UNPROTECTED SOIL SHOULD BE EXPOSED AT ANY ONE TIME.
AREAS TO BE FILLED SHALL BE CLEARED, CRUBBED, AND STRIPPED OF TOPSOIL. REMOVE TREES, VEGETATION, ROOTS, OR OTHER UNACCEPTABLE MATERIAL. FILL MATERIAL SHALL BE FREE OF BRUSH, RUBBISH, LOGS, STUMPS, BUILDING DEBRIS, AND OTHER ORGANIC MATERIAL. FROZEN MATERIAL SHALL NOT BE PLACED IN THE FILL NOR SHALL THE FILL MATERIAL BE PLACED ON A FROZEN FOUNDATION.
UNLESS OTHERWISE NOTED, PROVIDE TEMPORARY VEGETATION BY SEEDING BARE SOIL WITHIN 7 DAYS OF EXPOSURE UNLESS CONSTRUCTION WILL BEGIN WITHIN 14 DAYS. IF CONSTRUCTION IS SUSPENDED, ALL AREAS SHALL BE SEED AND MULCHED IMMEDIATELY.
FINISH GRADING SHALL BE COMPLETED SO AS TO PREVENT WATER FROM STANDING ON THE SURFACE OF LAWNS FOR MORE THAN 24 HOURS AFTER THE END OF A RAINFALL.
TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION WILL BE STOCKPILED IN THE AMOUNT NECESSARY TO COMPLETE FINISHED GRADING OF ALL EXPOSED, NON-SODDED AREAS. STOCKPILES SHALL BE SEED IN ACCORDANCE WITH THESE PLANS.
AREAS THAT ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF THREE INCHES PRIOR TO PLACEMENT OF TOPSOIL.
 - DUST CONTROL**
15 MPH CONSTRUCTION ZONE SPEED LIMIT SIGNS SHALL BE ERECTED IN ALL AREAS WHERE DUSTLESS SURFACES HAVE NOT BEEN CONSTRUCTED.
CONSTRUCTION OPERATIONS SHALL BE SCHEDULED TO MINIMIZE THE AMOUNT OF AREA DISTURBED AT ONE TIME. BUFFER AREAS OF VEGETATION SHALL BE LEFT WHERE POSSIBLE. THE SITE, INCLUDING DRIVEWAYS AND ACCESS ROADS, CAN BE SPRINKLED WITH WATER UNTIL THE SURFACE IS WET. THE FOLLOWING SPRAY ADHESIVES CAN BE USED ON MINERAL SOILS:

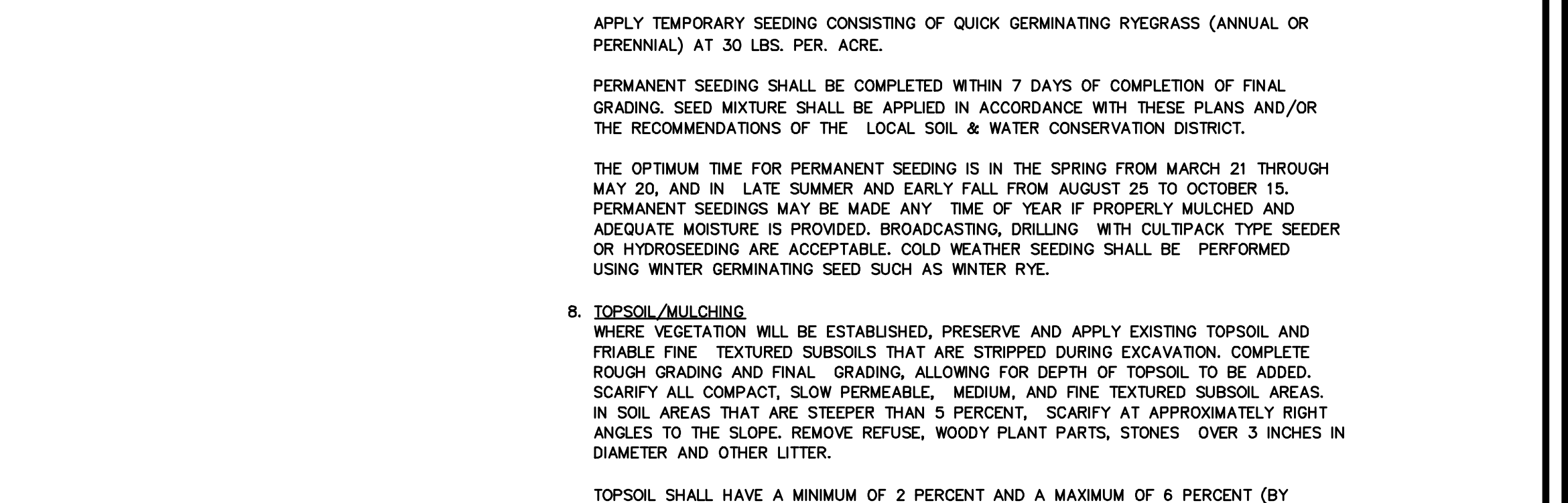
MATERIAL	WATER DILUTION	TYPE OF NOZZLE
ACRYLIC POLYMER	9:1	COARSE SPRAY
LATEX EMULSION	12.5:1	FINE SPRAY
RESIN IN WATER	4:1	FINE SPRAY
 - TEMPORARY AND PERMANENT SEEDING**
SEEDING PREPARATION INCLUDES REMOVAL OF DEBRIS, ROCKS, STUMPS AND OTHER UNACCEPTABLE MATERIALS. COMPACTED SOIL SHALL BE SCARIFIED PRIOR TO PLACEMENT OF TOPSOIL. ADJUST PH TO 6.0 WITH LIME AND FERTILIZE WITH 600 LBS OF 5-10-10 OR EQUIVALENT PER ACRE. ALL DISTURBED AREAS SHALL BE TEMPORARILY SEED IF CONSTRUCTION DOES NOT RESUME IN 7 DAYS, AND BEFORE ANY SIGNIFICANT STORM EVENT WHICH MAY HAVE THE POTENTIAL TO CAUSE EROSION.
ALL APPROVED STOCKPILES AND OTHER DISTURBED OR GRADED AREAS SHALL BE SEED WITHIN 14 CALENDAR DAYS PROVIDED CONSTRUCTION GRADING ACTIVITY IS NOT CONTINUALLY ONGOING IN THESE LOCATIONS.
APPLY TEMPORARY SEEDING CONSISTING OF QUICK GERMINATING RYEGRASS (ANNUAL OR PERENNIAL) AT 30 LBS. PER. ACRE.
PERMANENT SEEDING SHALL BE COMPLETED WITHIN 7 DAYS OF COMPLETION OF FINAL GRADING. SEED MIXTURE SHALL BE APPLIED IN ACCORDANCE WITH THESE PLANS AND/OR THE RECOMMENDATIONS OF THE LOCAL SOIL & WATER CONSERVATION DISTRICT.
THE OPTIMUM TIME FOR PERMANENT SEEDING IS IN THE SPRING FROM MARCH 21 THROUGH MAY 20, AND IN LATE SUMMER AND EARLY FALL FROM AUGUST 25 TO OCTOBER 15. PERMANENT SEEDINGS MAY BE MADE ANY TIME OF YEAR IF PROPERLY MULCHED AND ADEQUATE MOISTURE IS PROVIDED. BROADCASTING, DRILLING WITH CULTIPACK TYPE SEEDER OR HYDROSEEDING ARE ACCEPTABLE. COLD WEATHER SEEDING SHALL BE PERFORMED USING WINTER GERMINATING SEED SUCH AS WINTER RYE.
WHERE VEGETATION WILL BE ESTABLISHED, PRESERVE AND APPLY EXISTING TOPSOIL AND FRAGILE FINE TEXTURED SUBSOILS THAT ARE STRIPPED DURING EXCAVATION. COMPLETE ROUGH GRADING AND FINAL GRADING, ALLOWING FOR DEPTH OF TOPSOIL TO BE ADDED. SCARIFY ALL COMPACT, SLOW PERMEABLE, MEDIUM, AND FINE TEXTURED SUBSOIL AREA IN SOIL AREAS THAT ARE STEEPER THAN 5 PERCENT. SCARIFY AT APPROXIMATELY RIGHT ANGLES TO THE SLOPE. REMOVE REFUSE, WOODY PLANT PARTS, STONES OVER 3 INCHES IN DIAMETER AND OTHER LITTER.
TOPSOIL SHALL HAVE A MINIMUM OF 2 PERCENT AND A MAXIMUM OF 6 PERCENT (BY WEIGHT) OF FINE TEXTURED STABLE ORGANIC MATERIAL. TOPSOIL SHALL HAVE NOT LESS THAN 20 PERCENT FINE TEXTURED MATERIAL (PASSING THE NO. 200 SIEVE) AND NOT MORE THAN 15 PERCENT CLAY. TOPSOIL SHALL BE RELATIVELY FREE OF STONES OVER 1 1/2 INCHES IN DIAMETER.
TOPSOIL SHALL BE PLACED AT A UNIFORM DEPTH OF 4 INCHES FOR THE STEEP SLOPES, 6 INCHES FOR THE LAWN AREAS AND 2" FOR UNMOWED GRASS AREAS. TOPSOIL SHALL NOT BE PLACED WHEN IT IS PARTLY FROZEN, MUDDY, NOR ON FROZEN SLOPES OR OVER ICE, SNOW OR STANDING WATER. TOPSOIL PLACED AND GRADED ON SLOPES STEEPER THAN 5 PERCENT SHALL BE PROMPTLY FERTILIZED, SEED, MULCHED AND STABILIZED BY "TRACKING" WITH SUITABLE EQUIPMENT.
IF SOIL IS COMPACTED OR CRUSTED, SURFACE SHOULD BE LOOSENEED TO AT LEAST TWO INCHES BY DISKING OR OTHER SUITABLE METHODS.
 - INSPECTION OF EROSION AND SEDIMENT CONTROL MEASURES**
THE OWNER OR QUALIFIED REPRESENTATIVE OF THE OWNER SHALL INSPECT THE EROSION AND SEDIMENT CONTROL MEASURES AT LEAST ONCE EVERY 7 CALENDAR DAYS AT A MINIMUM. THESE MEASURES INCLUDE THE DISTURBED AREAS OF THE CONSTRUCTION SITE, THE AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO STRUCTURAL CONTROL MEASURES AND THE LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE. WHERE PORTIONS OF THE CONSTRUCTION AREA HAVE BEEN FINALLY STABILIZED, INSPECTION OF SUCH PORTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH UNTIL THE ENTIRE SITE IS FINALLY STABILIZED.
THE TERM "FINALLY STABILIZED" MEANS THAT ALL THE SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND THAT A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70% FOR THE AREA HAS BEEN ESTABLISHED OR EQUIVALENT STABILIZATION MEASURES (SUCH AS THE USE OF MULCHES OR GEOTEXTILES) HAVE BEEN EMPLOYED.
 - MAINTENANCE REQUIREMENTS AND SCHEDULES**
EROSION AND SEDIMENT CONTROL MEASURES ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF PRODUCING RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS SHALL BE MADE IMMEDIATELY TO MAINTAIN ALL MEASURES AS DESIGNED.
SEDIMENT SHALL BE REMOVED FROM BEHIND THE SILT FENCE WHEN IT BECOMES APPROXIMATELY 6 INCHES DEEP AT THE FENCE. ENSURE THAT NO CONCENTRATED FLOWS ARE DIRECTIONED TOWARDS THE FENCE. REPLACE THE SILT FENCE WHEN "BULGES" DEVELOP IN THE FENCE.
ALL SEEDED AREAS SHALL BE FERTILIZED, RE-SEED AS NECESSARY AND MULCHED TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
SEDIMENT SPILLED, DROPPED OR WASHED ONTO EXISTING MACADAM ROADWAYS MUST BE MOVED IMMEDIATELY. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING THE STORM DRAINS. ADDITIONAL AGGREGATE SHALL BE ADDED TO THE STABILIZED CONSTRUCTION ENTRANCES AS REQUIRED.
MAINTAIN DUST CONTROL MEASURES THROUGH DRY WEATHER PERIODS UNTIL ALL DISTURBED AREAS ARE STABILIZED.

NO.	DATE	REVISION	ENGINEER'S COMMENTS	DATE	DESCRIPTION
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2	5/25/17		ENGINEER'S COMMENTS		
3	6/21/17		ENGINEER'S COMMENTS		
4	6/22/17		LAYOUT REVISIONS		
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6	7/6/17		EMERGENCY ACCESS AND DRAINAGE REVISIONS		
7	10/20/17		CONSULTANT COMMENTS		

MATERIAL	WATER DILUTION	TYPE OF NOZZLE
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LATEX EMULSION	12.5:1	FINE SPRAY
RESIN IN WATER	4:1	FINE SPRAY

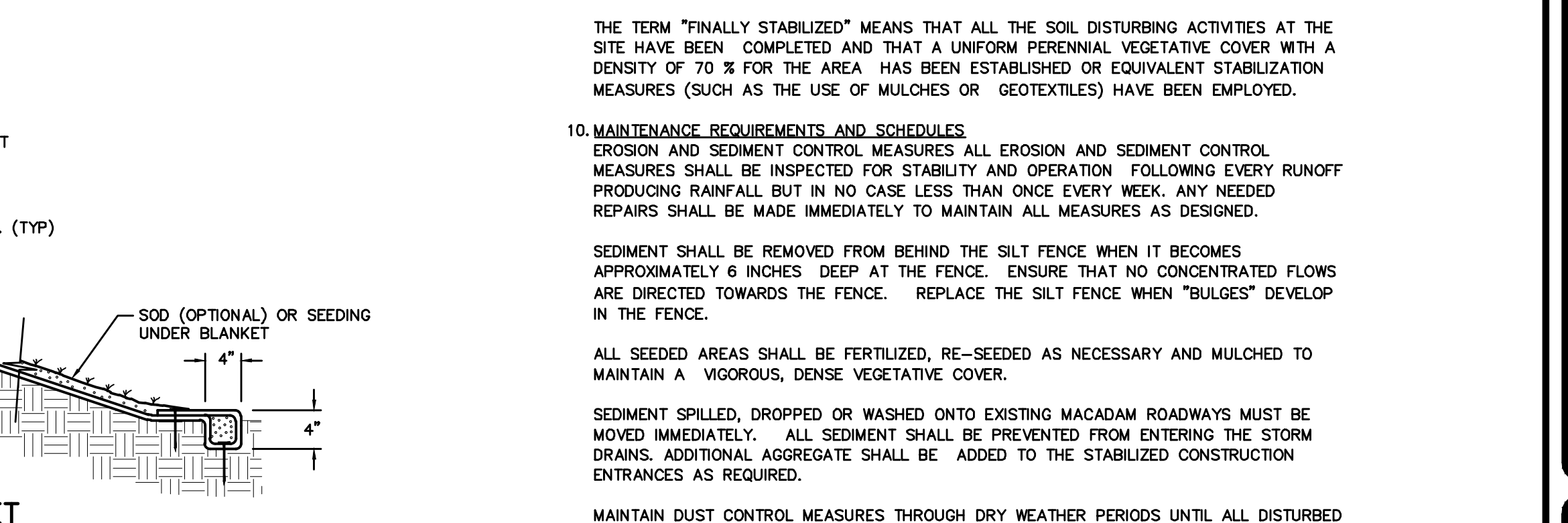
- CONSTRUCTION SPECIFICATIONS**
- USE GRADED STONE 3/4" TO 2 INCHES IN SIZE (NYS-DOT LIGHT STONE FILL MEETS THESE REQUIREMENTS).

STONE CHECK INSTALLATION AT CATCH BASINS
NOT TO SCALE



- CONSTRUCTION SPECIFICATIONS**
- INSTALL EROSION CONTROL BLANKET POLYUITE AS MANUFACTURED BY SYNTHETIC INDUSTRIES (OR EQUAL)
 - ANCHOR 2 1/2" x 1/4" (TYP)
 - SOD (OPTIONAL) OR SEEDING UNDER BLANKET

EROSION CONTROL BLANKET
NOT TO SCALE



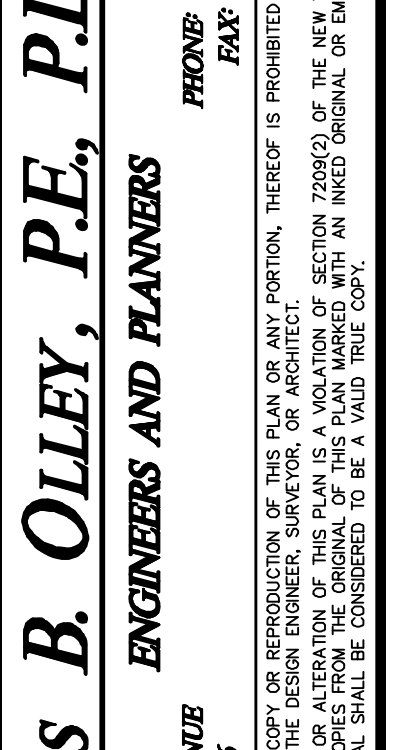
CURB DROP INLET PROTECTION
NOT TO SCALE

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MATERIAL	WATER DILUTION	TYPE OF NOZZLE
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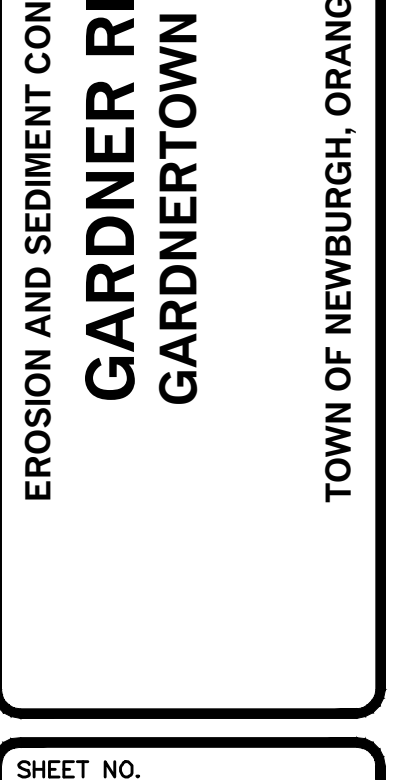
- CONSTRUCTION SPECIFICATIONS**
- USE GRADED STONE 3/4" TO 2 INCHES IN SIZE (NYS-DOT LIGHT STONE FILL MEETS THESE REQUIREMENTS).

STONE CHECK INSTALLATION AT CATCH BASINS
NOT TO SCALE



- CONSTRUCTION SPECIFICATIONS**
- INSTALL EROSION CONTROL BLANKET POLYUITE AS MANUFACTURED BY SYNTHETIC INDUSTRIES (OR EQUAL)
 - ANCHOR 2 1/2" x 1/4" (TYP)
 - SOD (OPTIONAL) OR SEEDING UNDER BLANKET

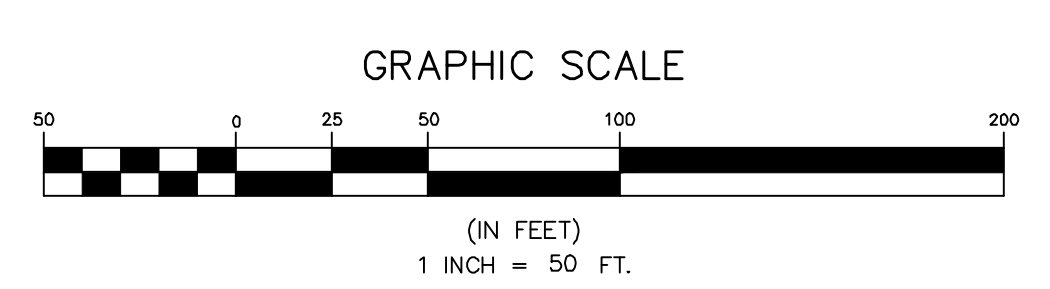
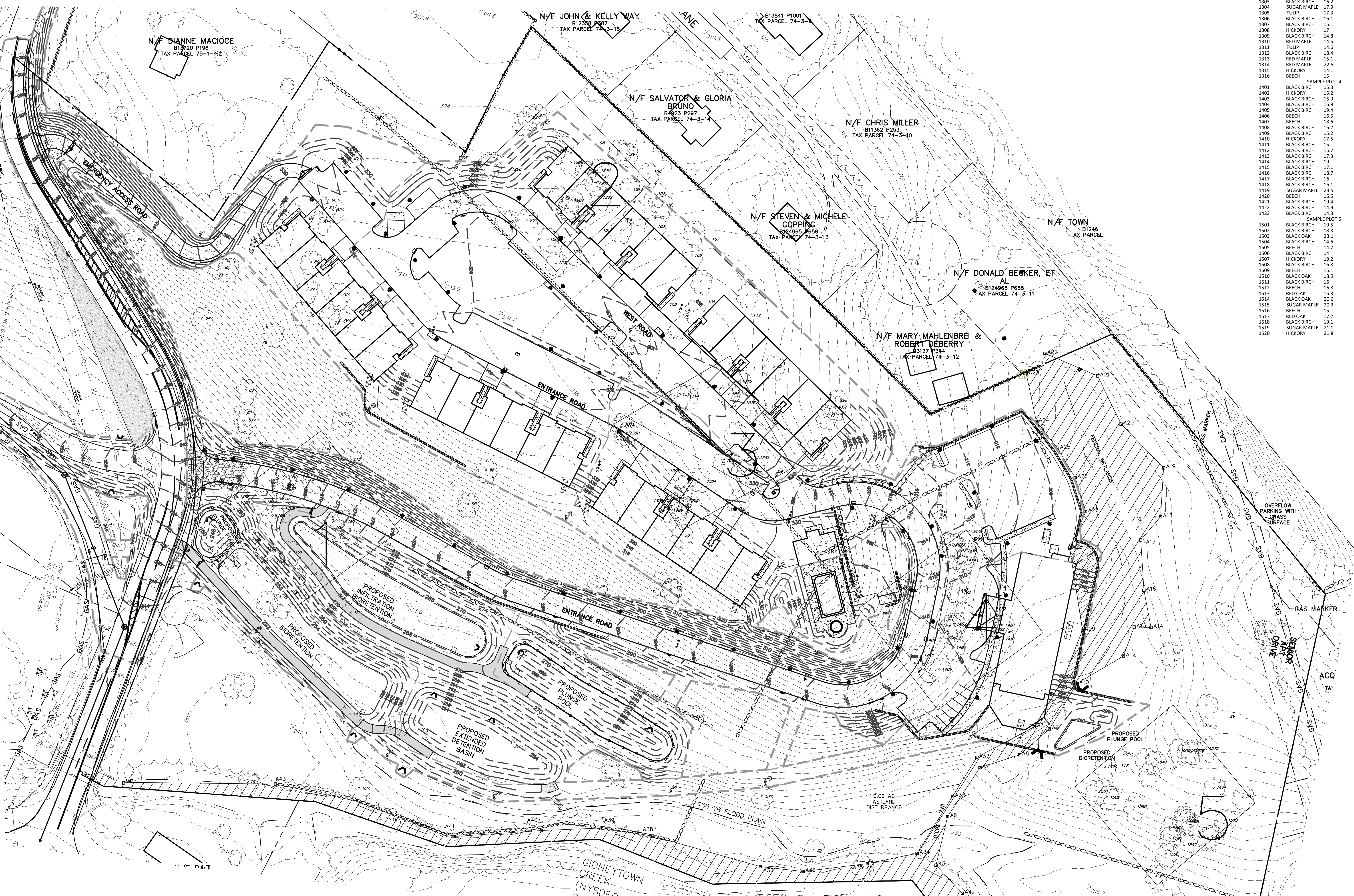
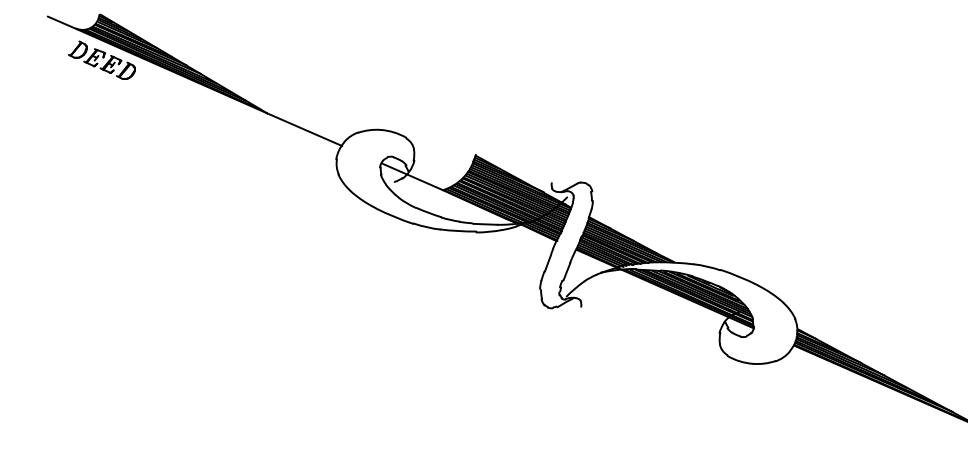
EROSION CONTROL BLANKET
NOT TO SCALE



CURB DROP INLET PROTECTION
NOT TO SCALE

THOMAS B. OLLEY, P.E., P.L.L.C.
ENGINEERS AND PLANNERS
PHONE: (845) 778-8838
FAX: (845) 778-8837
WALDEN, NY 12586

EROSION AND SEDIMENT CONTROL DETAILS
GARDNER RIDGE
GARDNERTOWN ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NY



TREE NUMBER	SPECIES	DIAMETER (INCHES)	TAGGED TREES >24" DBH	TREE NUMBER	DIAMETER (INCHES)	SPECIES	NOTES
1101	TULIP	15.7	1	1	35.9	RED OAK	
1102	BLACK OAK	14.1	11	2	24.3	TULIP	
1103	ASPIEN	15.3	3	3	26.6	RED OAK	
1104	BLACK OAK	14.9	9	4	22.1	RED OAK	
1105	TULIP	16.7	8	5	26.5	TULIP	
1106	TULIP	15.2		6	37.6	SYCAMORE	
1107	TULIP	16.1		7	25.5	SYCAMORE	
1108	BLACK BIRCH	14		8	32.8	BLACK OAK	
1109	BLACK OAK	19.3		9	25.8	RED OAK	
1110	RED OAK	20		10	44	BLACK OAK	
1111	RED MAPLE	16.3		11	26.1	BLACK BIRCH	
1112	BLACK OAK	18.5		12	24.3	BLACK OAK	
1113	BLACK OAK	14		13	30.2	BLACK OAK	
1114	TULIP	19		14	26.3	BLACK OAK	
1115	RED OAK	18.5		15	41.4	SYCAMORE	
1201	BLACK OAK	16	94	16	34.3	BLACK OAK	
1202	TULIP	17.6	95	17	29.2	TULIP	
1203	RED MAPLE	16.5	96	18	24.2	SYCAMORE	
1204	RED MAPLE	17.7	97	19	25.8	SYCAMORE	
1205	RED MAPLE	14.6		20	49.6	TULIP	ROTTEN
1206	BLACK OAK	21.6		21	25.1	BLACK BIRCH	ROTTEN
1207	HICKORY	15.9		22	28.4	SUGAR MAPLE	ROTTEN
1208	RED MAPLE	21.8		23	26.3	TULIP	
1209	RED MAPLE	15.7		24	27.1	BEECH	BEECH BARK DISEASE
1210	RED MAPLE	20.4		25	24.2	BEECH	ROTTEN
1211	SUGAR MAPLE	20.1		26	34	TULIP	
1212	BLACK OAK	20		27	26.1	HICKORY	
1213	RED MAPLE	15.9		28	25.6	HICKORY	
1301	BLACK BIRCH	15.2	46	29	25	SUGAR MAPLE	
1302	WHITE OAK	19.4	48	30	29.7	SUGAR MAPLE	
1303	BLACK BIRCH	16.2		31	25.7	BLACK OAK	
1304	SUGAR MAPLE	17.9		32	27.1	BLACK OAK	
1305	TULIP	14		33	27.4	BEECH	
1306	BLACK BIRCH	16.1		34	28.2	SUGAR MAPLE	
1307	BLACK BIRCH	15.1		35	27.3	SUGAR MAPLE	HOLLOW
1308	HICKORY	17		36	24.3	BEECH	BEECH BARK DISEASE
1309	BLACK BIRCH	14.8		37	24.3	BEECH	BEECH BARK DISEASE
1310	RED MAPLE	14.6		38	16.6	HICKORY	
1311	TULIP	14.6		39	24	WHITE OAK	
1312	BLACK BIRCH	18.4		40	25.8	BLACK OAK	
1313	RED MAPLE	15.1		41	28	BLACK OAK	
1314	RED MAPLE	22.5		42	29	TULIP	
1315	HICKORY	14.1		43	29.2	TULIP	
1316	BEECH	19		44	28.5	TULIP	
1401	BLACK BIRCH	15.3	33	45	25.5	BLACK OAK	
1402	HICKORY	15.2	36	46	25.7	RED OAK	ROTTEN/BROKEN TOP
1403	BLACK BIRCH	15.9	37	47	31.5	TULIP	
1404	BLACK BIRCH	16.9		48	32.4	BLACK OAK	
1405	BLACK BIRCH	19.4		49	28.3	WHITE OAK	
1406	BEECH	16.5		50	24.4	BLACK OAK	
1407	BEECH	18.6		51	25.3	BLACK OAK	
1408	BLACK BIRCH	16.2		52	27.8	BLACK OAK	
1409	BLACK BIRCH	15.2		53	27.8	BLACK OAK	
1410	HICKORY	17.5		54	24.6	BLACK BIRCH	ROTTEN
1411	BLACK BIRCH	15		55	26.5	HICKORY	
1412	BLACK BIRCH	15.7		56	25.2	BLACK OAK	
1413	BLACK BIRCH	17.3		57	26.3	RED OAK	
1414	BLACK BIRCH	19		58	26.3	BLACK OAK	
1415	BLACK BIRCH	17.1		59	28.7	BLACK OAK	
1416	BLACK BIRCH	18.7		60	32	WHITE OAK	
1417	BLACK BIRCH	15		61	26.5	TULIP	
1418	BLACK BIRCH	16.1		62	25.8	TULIP	
1419	SUGAR MAPLE	23.5		63	26.3	BLACK OAK	
1420	BEECH	16.5		64	25.1	BLACK OAK	
1421	BLACK BIRCH	19.4		65	19	BLACK OAK	
1422	BLACK BIRCH	14.9		66	25.1	BLACK OAK	
1423	BLACK BIRCH	14.3		67	24.2	BLACK OAK	
1501	BLACK BIRCH	19.5	27	68	27.8	BLACK OAK	
1502	BLACK BIRCH	18.3	28	69	25.1	TULIP	
1503	BLACK OAK	23.1	118	70	24.2	TULIP	
1504	BLACK BIRCH	14.6		71	25.4	TULIP	
1505	BEECH	14.7		72	24.8	BLACK OAK	
1506	BLACK BIRCH	14		73	24.8	BLACK OAK	
1507	HICKORY	18.2		74	25.9	BLACK OAK	
1508	BLACK BIRCH	16.8		75	23.1	BLACK OAK	
1509	BEECH	15.1		76	25.4	TULIP	
1510	BLACK OAK	16.8		77	24.8	BLACK OAK	
1511	BLACK BIRCH	16		78	33.2	BLACK OAK	
1512	BEECH	16.8		79	29.2	RED OAK	
1513	RED OAK	16.3		80	28.4	BLACK OAK	
1514	BLACK OAK	20.6		81	26.8	RED OAK	
1515	SUGAR MAPLE	20.3		82	26.8	BLACK OAK	
1516	BEECH	15		83	29.3	RED MAPLE	HOLLOW
1517	RED OAK	17.2		84	26.8	RED MAPLE	HOLLOW
1518	BLACK BIRCH	19.1		85	29.4	RED OAK	
1519	SUGAR MAPLE	21.1		86	39.2	RED OAK	
1520	HICKORY	21.8		87	26.3	BLACK OAK	
				88	28.6	BLACK OAK	
				89	36.2	TULIP	
				90	30.4	BLACK OAK	
				91	28	TULIP	
				92	26.8	TULIP	
				93	35.8	BLACK OAK	
				94	39.6	BLACK OAK	
				95	30.4	TULIP	
				96	27.6	TULIP	
				97	26.9	BLACK OAK	
				98	26.2	TULIP	
				99	26.9	TULIP	
				100	28.2	BLACK OAK	
				101	26	BLACK OAK	
				102	37.2	BLACK OAK	
				103	26	BLACK OAK	
				104	28.3	TULIP	
				105	28.4	TULIP	
				106	28.9	TULIP	
				107	25.1	TULIP	
				108	25.5	BLACK OAK	
				109	30.8	RED MAPLE	ROTTEN
				110	37.6	RED OAK	
				111	28.5	BLACK OAK	
				112	41.1	WHITE OAK	
				113	25.1	BLACK OAK	
				114	17.2	BLACK OAK	
				115	25	BLACK OAK	
				116	30.3	RED OAK	
				117	25.9	BLACK OAK	
				118	24.6	SUGAR MAPLE	ROTTEN
				119	26.9	BLACK OAK	

COMPLIANCE WITH TREE PRESERVATION AND PROTECTION CODE
 A TREES SURVEY WAS CONDUCTED BY LOWER HUDSON FORESTRY SERVICES LLC. CONCLUSIONS BASED ON THIS TREE SURVEY ARE OUTLINED BELOW.

1. SPECIMEN TREES:
 a. ALL SPECIMEN TREES (TRUNK DIAMETER EQUAL TO OR GREATER THAN 24 IN. DBH) WERE TAGGED, NUMBERED, LOCATED AND IDENTIFIED AS TO DIAMETER AND SPECIES (REFER TO TREE SURVEY PLAN IN THE PLAN SET). DAMAGED OR DISEASED TREES WERE LOCATED BUT EXCLUDED FROM THE TOTAL TREE INCHES.
 b. THE TOTAL INCHES IN DIAMETER OF SPECIMEN TREES WAS DETERMINED TO BE 3081.1 INCHES.
 c. THE TOTAL INCHES IN DIAMETER OF SPECIMEN TREES THAT WILL BE DISTURBED/REMOVED DUE TO THE PARCEL'S DEVELOPMENT WAS DETERMINED TO BE 2064.2 INCHES.
 d. THE DISTURBANCE IS GREATER THAN THE 50% THRESHOLD ALLOWED AND WILL REQUIRE REFORESTATION OR RESTITUTION.

PERCENT OF SPECIMEN TREE INCHES REMOVED = $\frac{2064.2}{3081.1} = 67\%$
 TOTAL SPECIMEN TREE INCHES 2064.2 IN. / 3081.1 IN. = 67%
 e. TREE INCHES REMOVED OVER THE 50% THRESHOLD: 523.6 IN.

2. SIGNIFICANT TREES:
 a. THE SIGNIFICANT TREES (TRUNK DIAMETER EQUAL TO OR GREATER THAN 14 IN. DBH) WERE LOCATED AND IDENTIFIED AS TO DIAMETER AND SPECIES ON FIVE ¼ ACRE SAMPLE PLOTS DISTRIBUTED THROUGHOUT THE PARCEL (REFER TO TREE SURVEY PLAN IN THE PLAN SET).
 b. FOR EVERY 10 ACRES OF PARCEL AREA TWO SAMPLE PLOTS ARE REQUIRED. THE NUMBER OF SAMPLE PLOTS WAS DETERMINED AS FOLLOWS:
 SAMPLE PLOTS REQUIRED = 2 (SITE AREA/10)
 SAMPLE PLOTS REQUIRED = 2(23.3/10) = 5
 c. THE TOTAL INCHES OF SIGNIFICANT TREES INCLUDED ON THE SAMPLE PLOTS WAS DETERMINED TO BE 1497.9 IN.
 d. THE TOTAL SIGNIFICANT TREE INCHES PROJECTED FOR THE ENTIRE SITE IS CALCULATED AS FOLLOWS:
 TOTAL SIGNIFICANT TREE IN. = SIGNIFICANT TREE IN. WITHIN SAMPLE PLOTS (SITE ACRES) / ACREAGE OF SAMPLE PLOTS
 TOTAL SIGNIFICANT TREE IN. = 1497.9 IN. (23.3 AC.) / 2.5 AC. = 13,960.4 IN.
 e. DISTURBED SIGNIFICANT TREE IN. = SIGNIFICANT TREE IN. WITHIN SAMPLE PLOTS (SITE ACRES) / ACREAGE OF SAMPLE PLOTS
 DISTURBED SIGNIFICANT TREE IN. = 7543.4 IN. / 2.5 AC. = 1,508.8 IN.
 f. THE DISTURBANCE TO SIGNIFICANT TREES IS GREATER THAN THE ALLOWABLE 50% THRESHOLD AND WILL REQUIRE REFORESTATION OR RESTITUTION.
 % OF SIGNIFICANT TREE INCHES REMOVED = SIGNIFICANT TREE INCHES REMOVED / TOTAL SIGNIFICANT TREE INCHES
 = 1,508.8 IN. / 13,960.4 IN. = 10.8%
 g. TREE INCHES REMOVED OVER THE 50% THRESHOLD: 563.2 IN.

3. REFORESTATION OF RESTITUTION OF SPECIMEN AND SIGNIFICANT TREES:
 a. FOR EVERY 1 INCH OF TREE DIAMETER THAT IS REMOVED/DISTURBED ABOVE THE THRESHOLD, 1.25 INCHES OF NEW TREES MUST BE PLANTED. RESTITUTION IN THE AMOUNT OF \$3 PER INCH OF NEW TREE DIAMETER MUST BE PAID.
 b. NEW TREE INCHES THAT MUST BE REPLANTED:
 (1.25 IN./1 IN.) 1086.6 IN. = 1358.5 IN.
 OR
 RESTITUTION REQUIRED: (1358.5 IN.) \$5 = \$6,792.50

4. PROTECTED TREES (HAVING A CIRCUMFERENCE, HEIGHT AND SPREAD EQUAL TO OR GREATER THAN 50% OF THE SIZE IDENTIFIED ON THE NY BIG CHAMPION TREE LIST):
 a. THERE WERE NO PROTECTED TREES FOUND WITHIN THE SAMPLE PLOT AREAS.
 b. ONE PROTECTED TREE WAS FOUND WHEN THE SPECIMEN TREES WERE BEING TAGGED AND LOCATED. THIS TREE WAS HOLLOW AND CONSIDERED A HAZARD TREE. THEREFORE, ITS REMOVAL DOES NOT REQUIRE REFORESTATION OR RESTITUTION.

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 WALKEN NY 12580
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 FAX: (518) 798-1227

TREE SURVEY MAP
GARDNER RIDGE
GARDNERTOWN ROAD
 TOWN OF NEWBURGH, ORANGE COUNTY, NY

SHEET NO.
16 OF 16
 DATE: OCTOBER 20, 2023
 FILE NO.

REV	DATE	DRAWN BY	DESCRIPTION
1	6/9/22	M.J.A.	REVISED PER TOWN COMMENTS.
2	7/17/21	M.J.A.	REVISED PER CREIGHTON MANNING COMMENT LETTER DATED 6/17/22.
3	8/23/23	M.J.A.	ADDED TURNING TRAILS & RIP RAP TO END SECTIONS.
4	8/17/22	M.J.A.	MODIFIED PER TOWN CONSULTANTS COMMENTS.
5	6/27/23	M.J.A.	REVISED PER TOWN HIGHWAY DEPARTMENT COMMENTS.
6	7/7/23	M.J.A.	REVISED PER TOWN HIGHWAY DEPARTMENT COMMENTS.
7	8/2/23	M.J.A.	REVISED PER CIE COMMENTS DATED 8/1/23.
8	10/20/23	M.J.A.	FOR 10/20/23 PLANNING BOARD SUBMISSION.

CONCEPTUAL IMPROVEMENT PLAN FOR GARDNER RIDGE ASSOCIATES, LLC

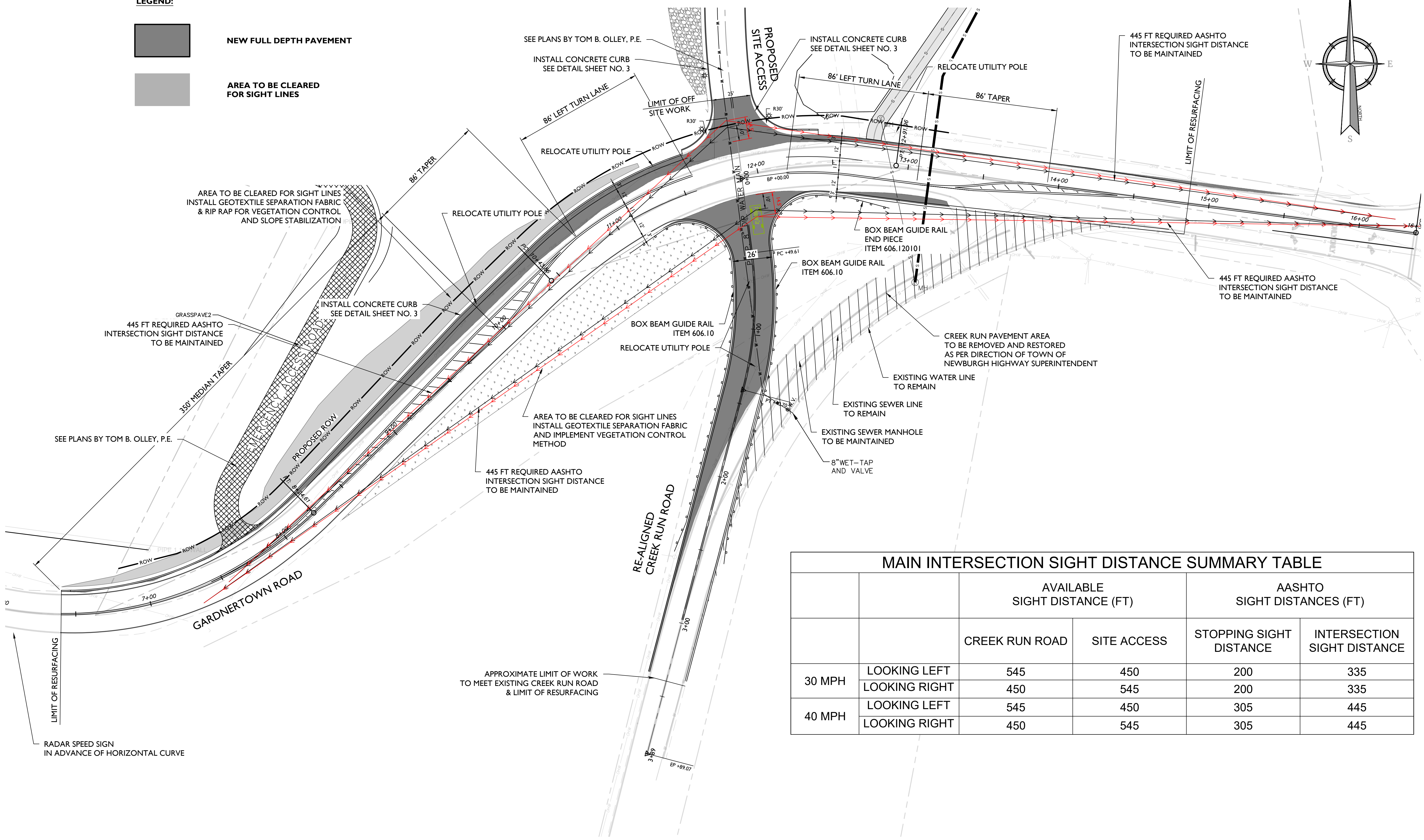
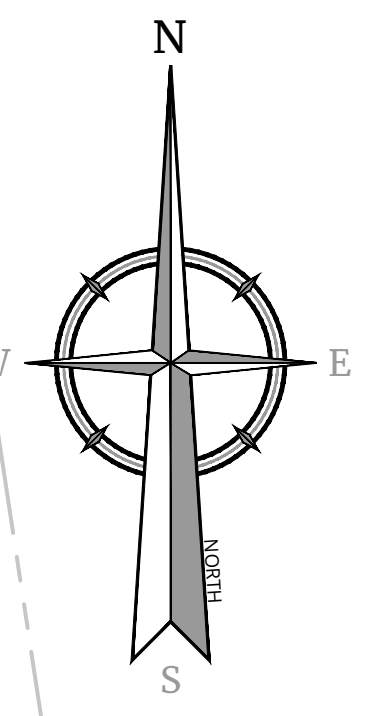
GARDNERTOWN ROAD & CREEK RUN ROAD
 TOWN OF NEWBURGH
 ORANGE COUNTY
 NEW YORK

WESTCHESTER
 400 Columbus Avenue,
 Suite 180E
 Valhalla, NY 10595
 Phone: 914.347.7500
 COLLIERS ENGINEERING & DESIGN
 ARCHITECTURE, LANDSCAPE ARCHITECTURE
 SURVEYING CT, P.C.

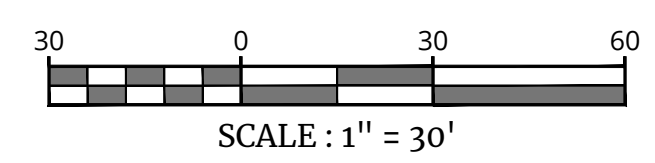
SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	8/27/21	M.J.A.	P.J.G./A.P.R.
PROJECT NUMBER:	DRAWING NAME:		
140003750	R-PL01-EXBT		

LEGEND:

- NEW FULL DEPTH PAVEMENT
- AREA TO BE CLEARED FOR SIGHT LINES



		AVAILABLE SIGHT DISTANCE (FT)		AASHTO SIGHT DISTANCES (FT)	
		CREEK RUN ROAD	SITE ACCESS	STOPPING SIGHT DISTANCE	INTERSECTION SIGHT DISTANCE
30 MPH	LOOKING LEFT	545	450	200	335
	LOOKING RIGHT	450	545	200	335
40 MPH	LOOKING LEFT	545	450	305	445
	LOOKING RIGHT	450	545	305	445



UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY OR ENGINEERING MAP BEARING A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW. ONLY MAPS WITH THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S ORIGINAL WORK AND OPINION.

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.



PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE

Know what's below. Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

REV	DATE	DRAWN BY	DESCRIPTION
1	6/9/22	M.J.A.	REVISED PER TOWN COMMENTS.
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4	8/17/23	M.J.A.	MODIFIED PER TOWN CONSULTANTS COMMENTS.
5	6/27/23	M.J.A.	REVISED PER TOWN HIGHWAY DEPARTMENT COMMENTS.
6	7/7/23	M.J.A.	REVISED PER TOWN HIGHWAY DEPARTMENT COMMENTS.
7	8/2/23	M.J.A.	REVISED PER TOWN COMMENTS DATED 8/1/23.
8	10/20/23	M.J.A.	FOR 10/20/23 PLANNING BOARD SUBMISSION.

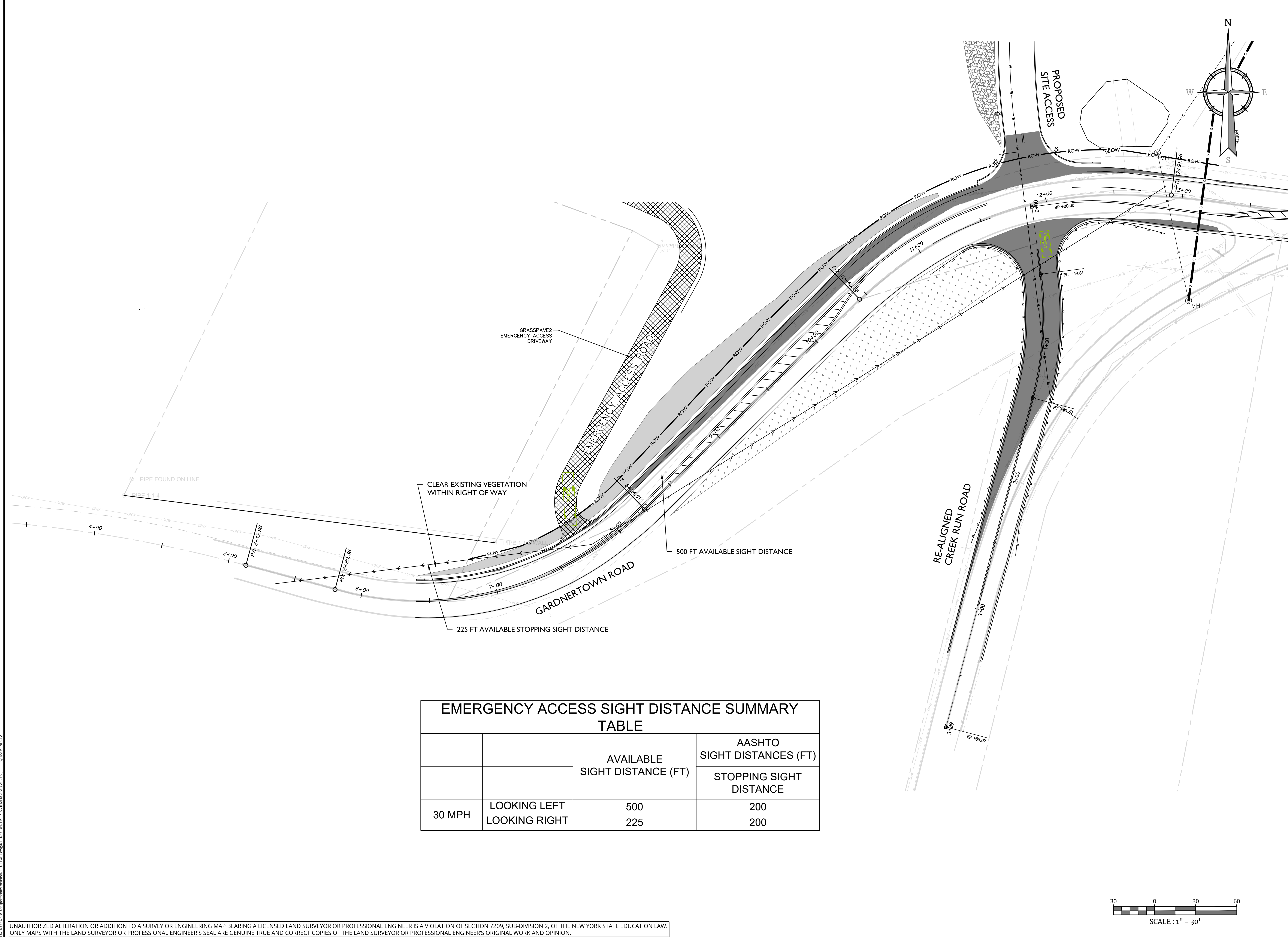
CONCEPTUAL IMPROVEMENT PLAN
FOR
GARDNER RIDGE ASSOCIATES, LLC

GARDNERTOWN ROAD & CREEK RUN ROAD
TOWN OF NEWBURGH
ORANGE COUNTY
NEW YORK

WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500
COLLIERS ENGINEERING & DESIGN
ARCHITECTURE, LANDSCAPE ARCHITECTURE,
SURVEYING CT, P.C.

SCALE: AS SHOWN	DATE: 8/27/21	DRAWN BY: M.J.A.	CHECKED BY: P.J.G./A.P.R.
PROJECT NUMBER: 140003750	DRAWING NAME: R-PL01-EXBT		

EMERGENCY ACCESS SIGHT DISTANCE PLAN

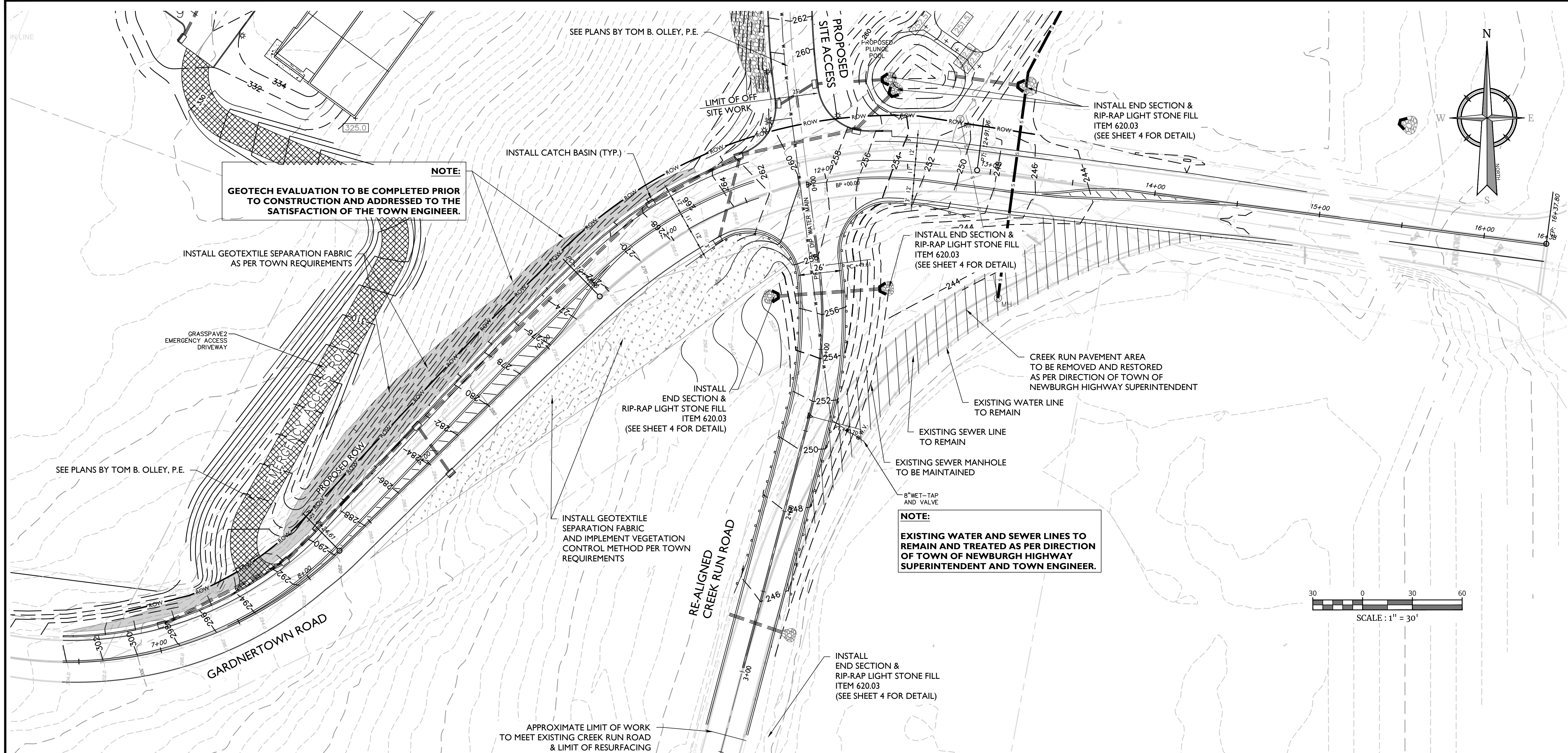


EMERGENCY ACCESS SIGHT DISTANCE SUMMARY TABLE

		AVAILABLE SIGHT DISTANCE (FT)	AASHTO SIGHT DISTANCES (FT)
			STOPPING SIGHT DISTANCE
30 MPH	LOOKING LEFT	500	200
	LOOKING RIGHT	225	200

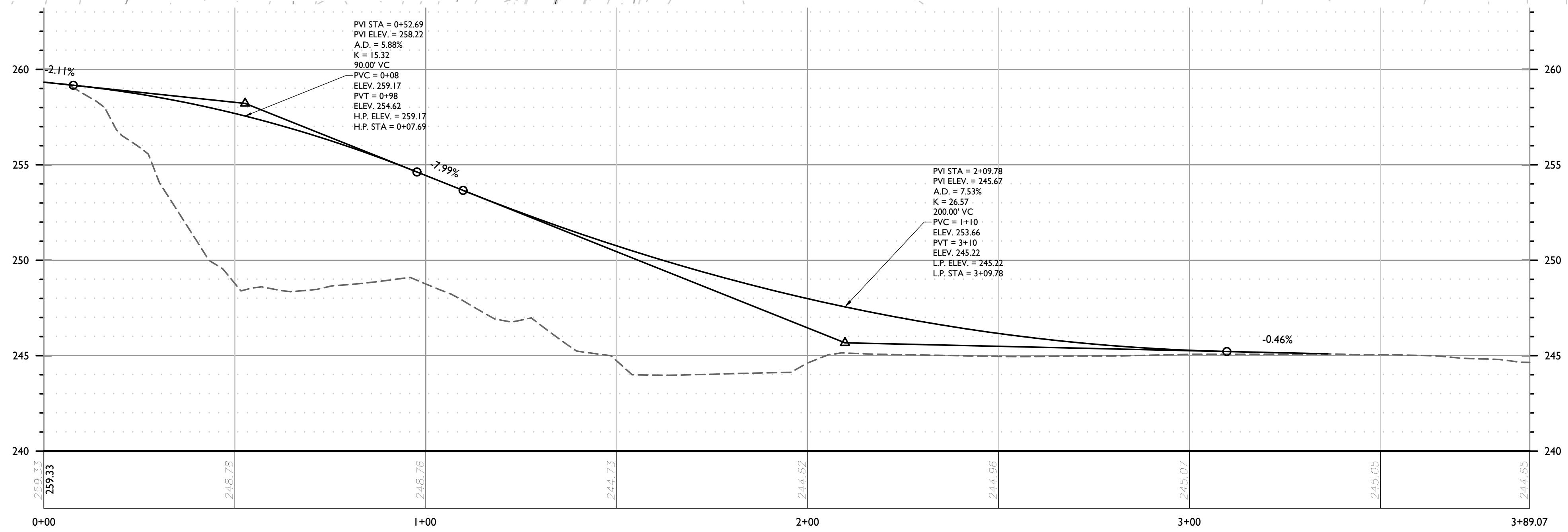
UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY OR ENGINEERING MAP BEARING A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW. ONLY MAPS WITH THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S ORIGINAL WORK AND OPINION.

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.



NOTE:
GEOTECH EVALUATION TO BE COMPLETED PRIOR TO CONSTRUCTION AND ADDRESSED TO THE SATISFACTION OF THE TOWN ENGINEER.

NOTE:
EXISTING WATER AND SEWER LINES TO REMAIN AND TREATED AS PER DIRECTION OF TOWN OF NEWBURGH HIGHWAY SUPERINTENDENT AND TOWN ENGINEER.



PROFILE OF REALIGNED CREEK RUN ROAD - NEW
 HORIZONTAL : 1" = 20'
 VERTICAL : 1" = 4'

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY OR ENGINEERING MAP BEARING A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW. ONLY MAPS WITH THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S ORIGINAL WORK AND OPINION.

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4	8/31/22	M.J.A.	MODIFIED PER TOWN CONSULTANTS COMMENTS.
5	6/27/23	M.J.A.	REVISED PER TOWN HIGHWAY DEPARTMENT COMMENTS.
6	7/7/23	M.J.A.	REVISED PER TOWN HIGHWAY DEPARTMENT COMMENTS.
7	8/2/23	M.J.A.	REVISED PER CRE COMMENTS DATED 8/1/23.
8	10/20/23	M.J.A.	FOR 10/20/23 PLANNING BOARD SUBMISSION.

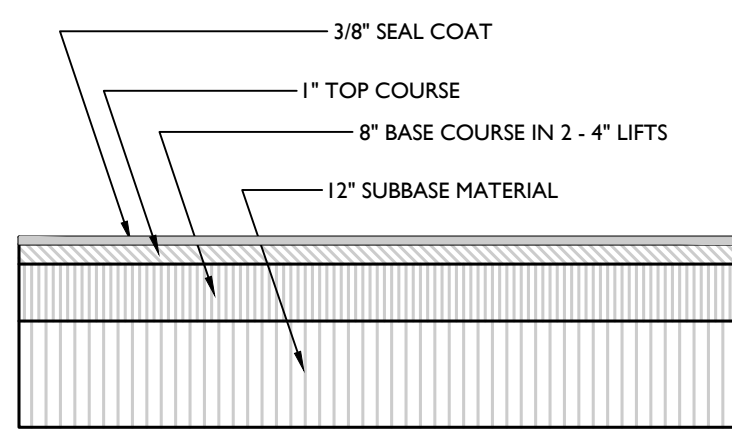
CONCEPTUAL IMPROVEMENT PLAN
 FOR
GARDNER RIDGE ASSOCIATES, LLC
 GARDNERTOWN ROAD & CREEK RUN ROAD
 TOWN OF NEWBURGH
 ORANGE COUNTY
 NEW YORK

Colliers WESTCHESTER
 400 Columbus Avenue,
 Suite 180E
 Valhalla, NY 10595
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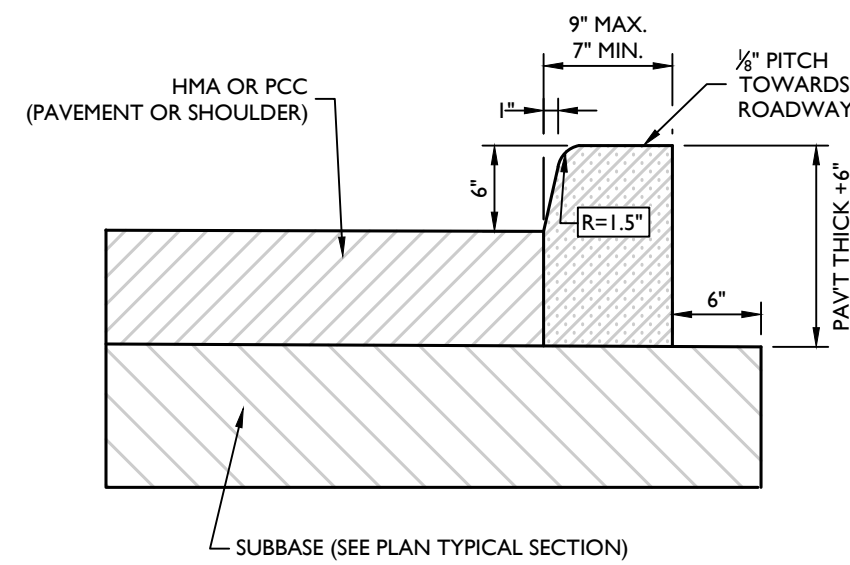
SCALE: AS SHOWN	DATE: 8/27/21	DRAWN BY: M.J.A.	CHECKED BY: P.J.G./A.P.R.
PROJECT NUMBER: 140003750	DRAWING NAME: R-PL01-EXBT		

CONCEPT PLAN (GRADING)

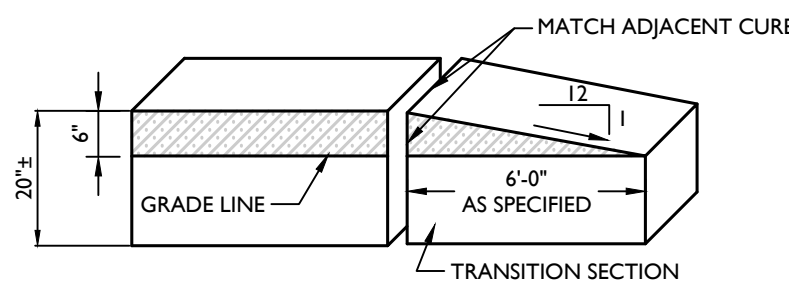
NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.



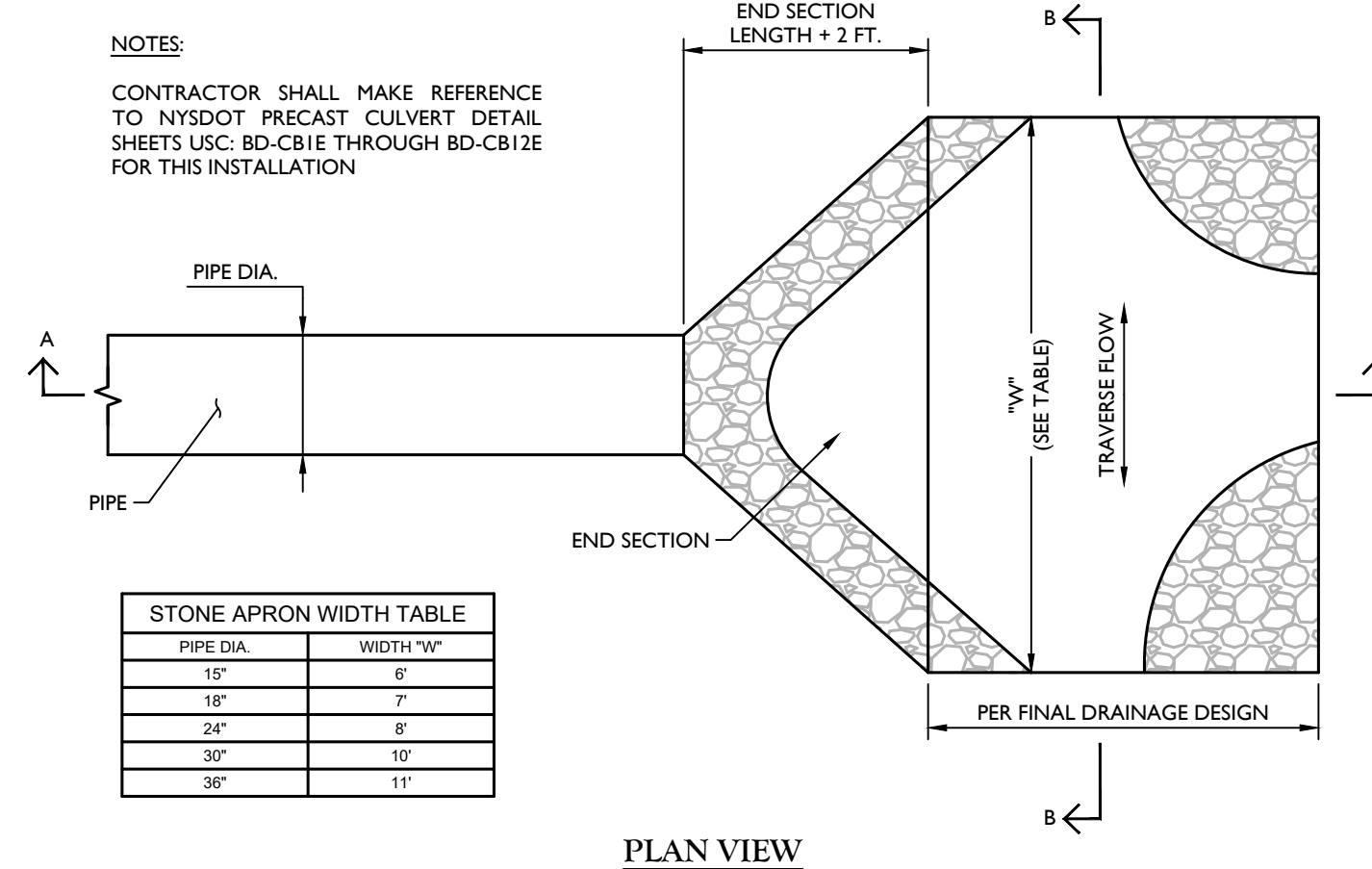
**TOWN OF NEWBURGH
FULL DEPTH PAVEMENT DETAIL**
NOT TO SCALE GNRL-DTLS-STND-GRID XX/XX/XX



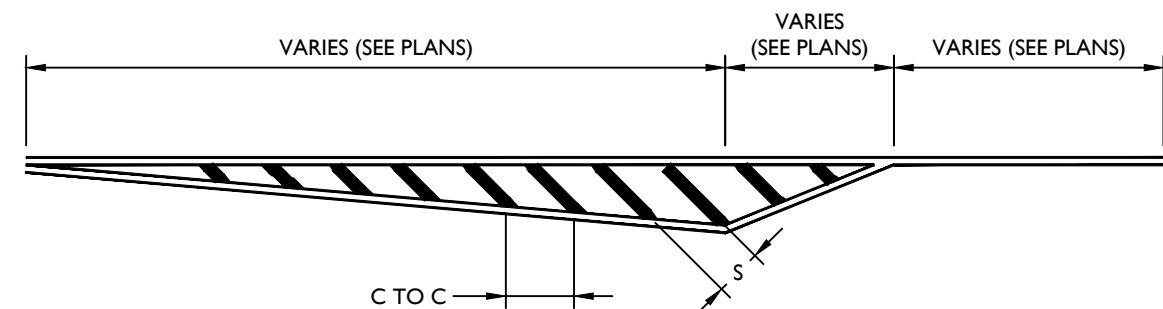
TYPE VF6 CURB
NOT TO SCALE NYDT-CURB-1000 08/04/21



CURB TRANSITION
NOT TO SCALE NYDT-CURB-1200 01/09/14



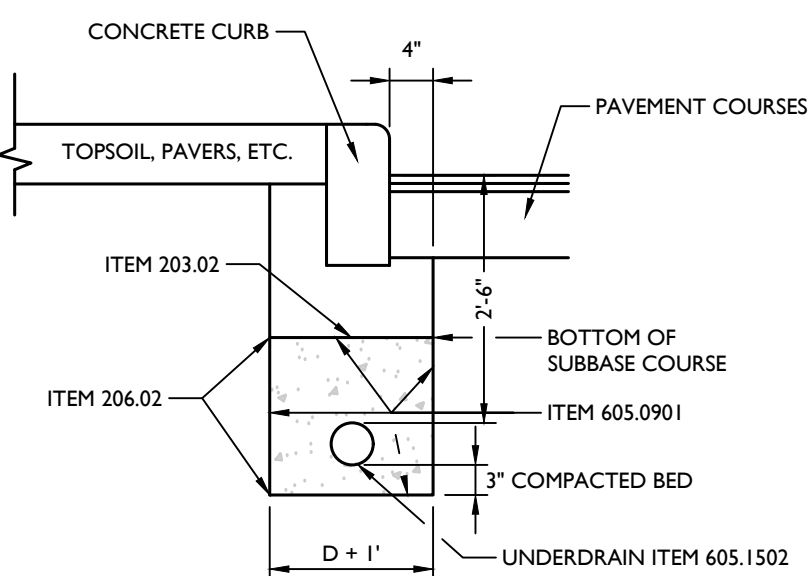
STONE LINED APRON
NOT TO SCALE NYDT-STRM-1100 11/01/17



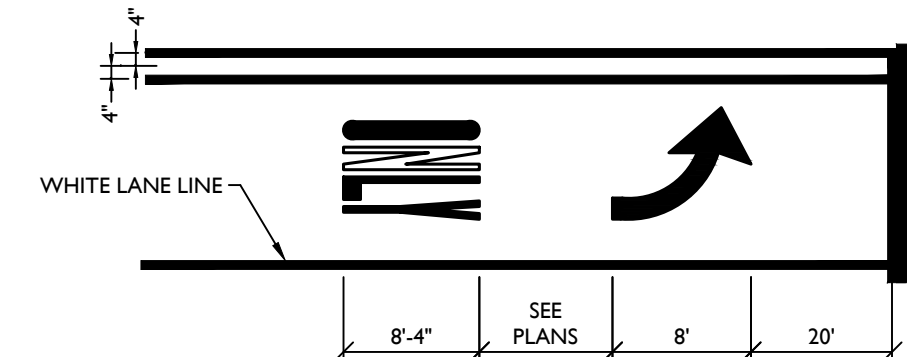
CRITERIA FOR HATCHED LINES			
WIDTH OF LINE	ANGLE WITH ADJACENT LANE	SPACE BETWEEN ADJACENT LINES	CENTER TO CENTER DISTANCE PARALLEL TO ADJACENT LANE
24"	45°	6'	11'-4"

FOR ADDITIONAL STRIPING DETAILS SEE
NYS DOT STANDARD SHEET 685-01 DATED 09/02/13

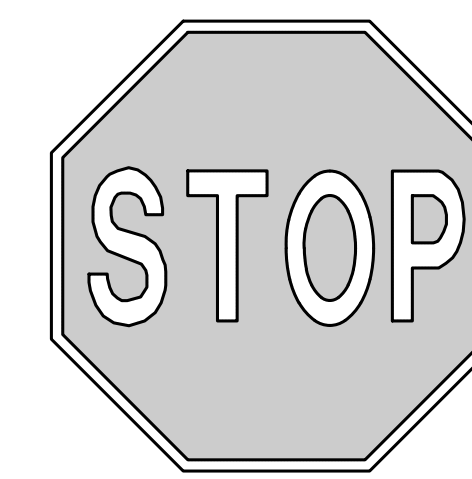
HATCHED ISLAND DETAIL
NOT TO SCALE NYDT-MRKG-1101 05/02/13



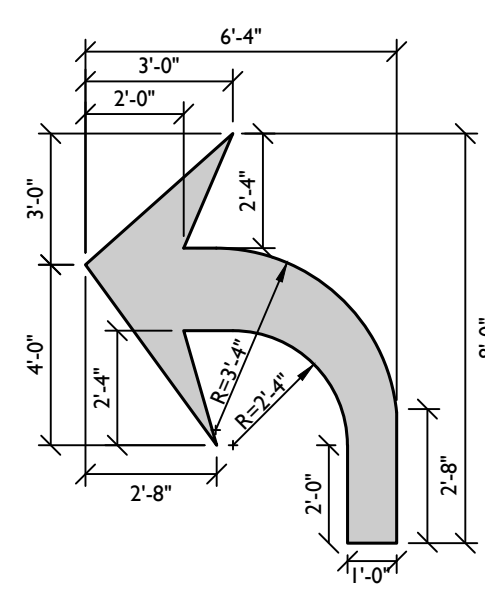
UNDERDRAIN WITH CURB
NOT TO SCALE NYDT-CURB-1400 11/01/17



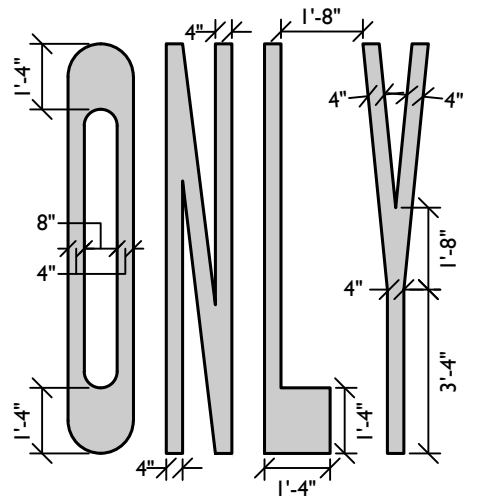
TYPICAL LEFT TURN LANE STRIPING
NOT TO SCALE NYDT-MRKG-1100 05/02/13



STOP SIGN
NOT TO SCALE NYDT-SIGN-1000 05/02/13



TURNING ARROW
NOT TO SCALE NYDT-MRKG-1200 05/02/13



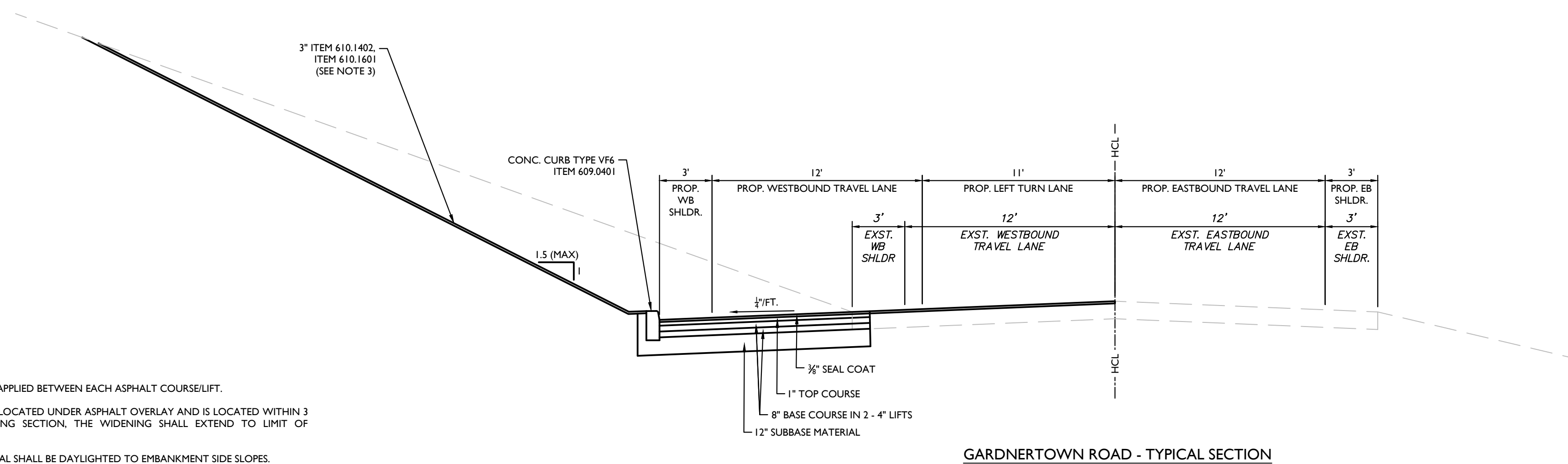
NOTES:
UNLESS OTHERWISE SHOWN:
LETTER HEIGHT = 8"
LETTER WIDTH = 1.4"
SPACING = 8"
(USE EQUAL SPACING BETWEEN LETTERS AND CENTER ENTIRE SYMBOL IN LANE)

ONLY LETTERS
NOT TO SCALE NYDT-MRKG-1101 05/02/13

TYPICAL SECTION NOTES

- STRAIGHT TACK COAT SHALL BE APPLIED BETWEEN EACH ASPHALT COURSE/SLIP.
- WHERE CONCRETE PAVEMENT IS LOCATED UNDER ASPHALT OVERLAY AND IS LOCATED WITHIN 3 FT. OF THE PROPOSED WIDENING SECTION, THE WIDENING SHALL EXTEND TO LIMIT OF CONCRETE PAVEMENT.
- WHERE POSSIBLE SUBBASE MATERIAL SHALL BE DAYLIGHTED TO EMBANKMENT SIDE SLOPES.
- AS PER SECTION 610.3.10, IN THE ABSENCE OF 1 INCH OF RAINFALL WITHIN 5 CONSECUTIVE CALENDAR DAYS THE CONTRACTOR SHALL WATER ALL TURF, WILDFLOWERS, SOY AND PLANTING BEDS ONCE A WEEK TO A DEPTH OF 1 INCH UNDER ITEM 610.19, IN ADDITION AS PER SECTION 610.3.12, THE CONTRACTOR SHALL MOW ALL TURF ESTABLISHMENT AREAS TO A HEIGHT OF 5 INCHES WHEREVER GROWTH REACHES 8 INCHES FOR THE DURATION OF THE CONTRACT UNDER ITEM 619.21. CLIPPINGS SHALL BE LEFT IN PLACE.
- TRUING AND LEVELING COURSE MAY BE REQUIRED TO ACHIEVE UNIFORM CROSS SLOPE. CONTRACTOR SHALL VERIFY IF SUCH NEED IS REQUIRED AND CONFIR WITH E.I.C. PRIOR TO COMMENCEMENT OF PAVING OPERATIONS.

ITEM	DESCRIPTION
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL
203.03	EMBANKMENT IN PLACE
609.0401	CAST-IN-PLACE CONCRETE CURB TYPE VF6



GARDNERTOWN ROAD - TYPICAL SECTION

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811
PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE.
Know what's below.
Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

REV.	DATE	DRAWN BY	DESCRIPTION
1	6/9/22	M.J.A.	REVISED PER TOWN COMMENTS.
2	7/17/22	M.J.A.	REVISED PER CREIGHTON MANNING COMMENT LETTER DATED 6/17/22.
3	8/23/22	M.J.A.	ADDED TURNING BACKS & R.P.P. BAR TO END SECTIONS.
4	8/31/22	M.J.A.	MODIFIED PER TOWN CONSULTANTS COMMENTS.
5	6/27/23	M.J.A.	REVISED PER TOWN HIGHWAY DEPARTMENT COMMENTS.
6	7/7/23	M.J.A.	REVISED PER TOWN HIGHWAY DEPARTMENT COMMENTS.
7	8/2/23	M.J.A.	REVISED PER TOWN COMMENTS DATED 8/1/23.
8	10/20/23	M.J.A.	FOR 10/20/23 PLANNING BOARD SUBMISSION.

CONCEPTUAL IMPROVEMENT PLAN
FOR
GARDNER RIDGE ASSOCIATES, LLC

GARDNERTOWN ROAD & CREEK RUN ROAD
TOWN OF NEWBURGH
ORANGE COUNTY
NEW YORK

Colliers
Engineering & Design
400 Columbus Avenue, Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500
COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE, SURVEYING CT, P.C.

SCALE: AS SHOWN DATE: 8/27/21 DRAWN BY: M.J.A. CHECKED BY: P.J.G./A.P.R.
PROJECT NUMBER: 140003750 DRAWING NAME: R-PL01-EXBT

SHEET TITLE: **DETAILS**
SHEET NUMBER: **5 of 8**

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.



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3	8/23/22	M.J.A.	ADDED TURNING TRAILS & RIP RAP TO END SECTIONS.
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CONCEPTUAL IMPROVEMENT PLAN
FOR
GARDNER RIDGE ASSOCIATES, LLC

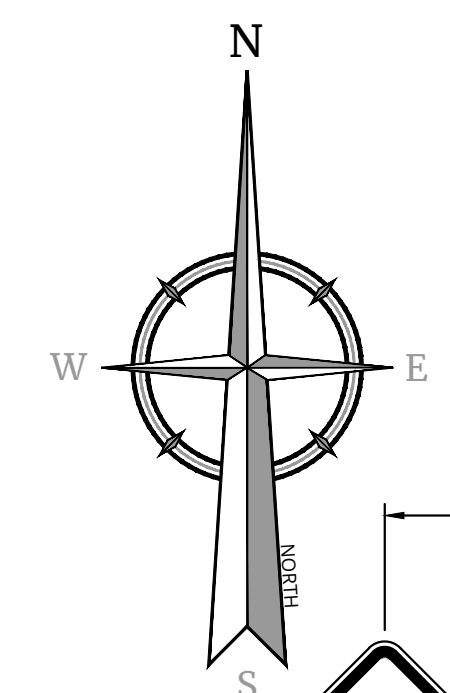
GARDNERTOWN ROAD & CREEK RUN ROAD
TOWN OF NEWBURGH
ORANGE COUNTY
NEW YORK

Colliers
Engineering & Design
WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500
COLLIERS ENGINEERING & DESIGN,
ARCHITECTURE, LANDSCAPE ARCHITECTURE,
SURVEYING CT, P.C.

SCALE: AS SHOWN	DATE: 8/27/21	DRAWN BY: M.J.A.	CHECKED BY: P.J.G./A.P.R.
PROJECT NUMBER: 140003750	DRAWING NAME: R-PL02-EXBT-WZTC		

SHEET TITLE:
WORK ZONE TRAFFIC CONTROL GARDNERTOWN RD WB SHOULDER CLOSURE

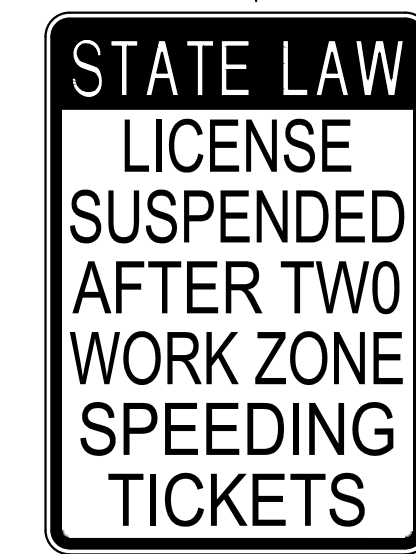
SHEET NUMBER:
6 of 8



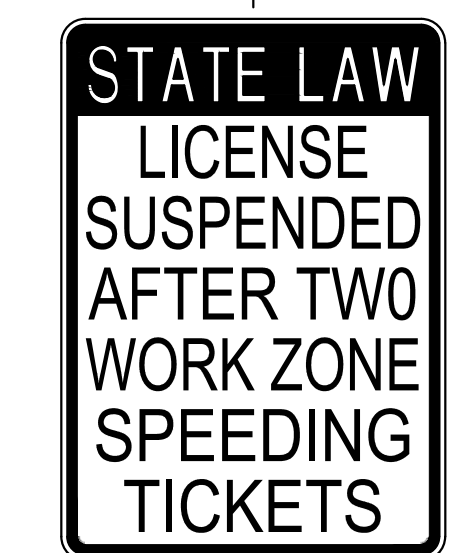
W8-23
(36"x36")



W20-1
(36"x36")



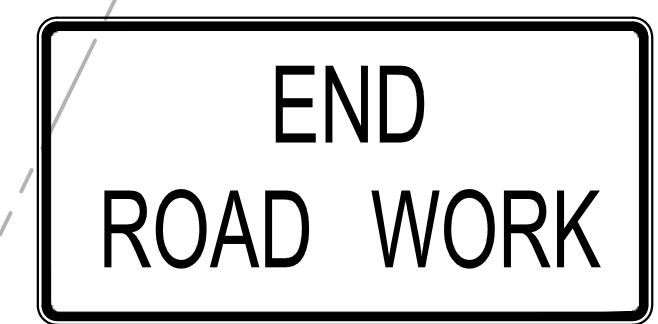
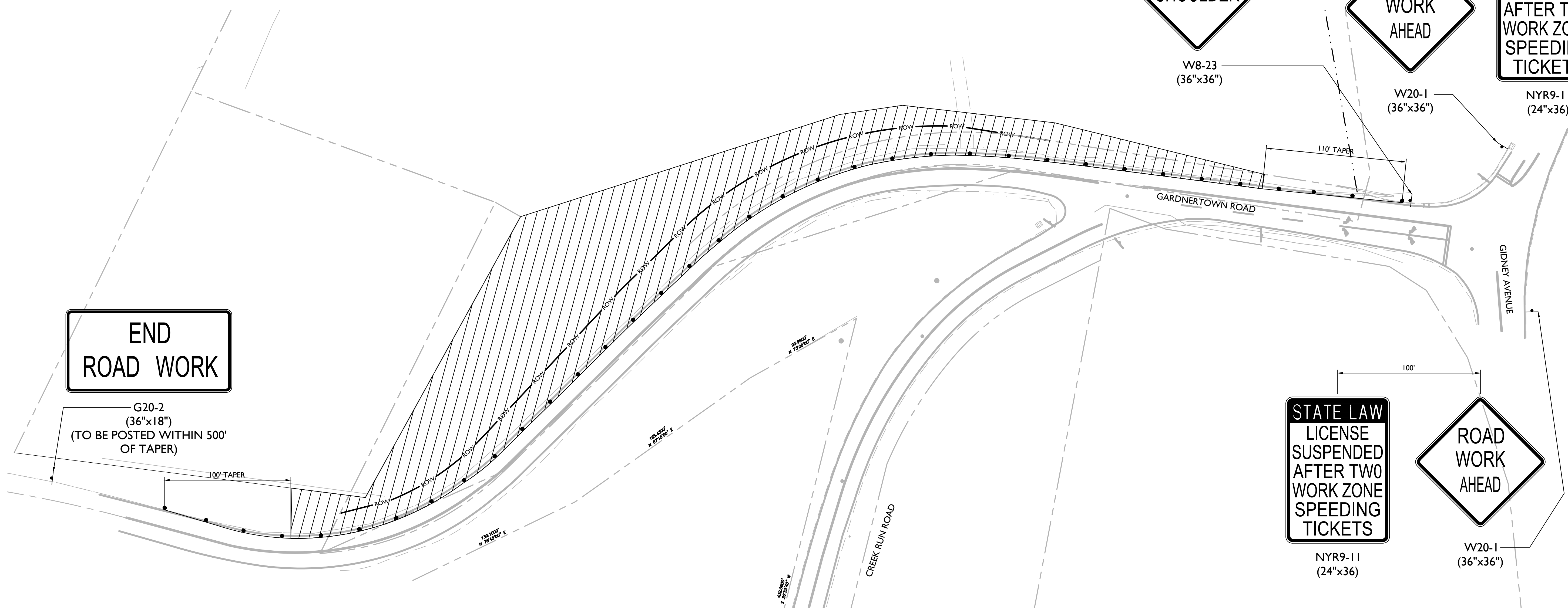
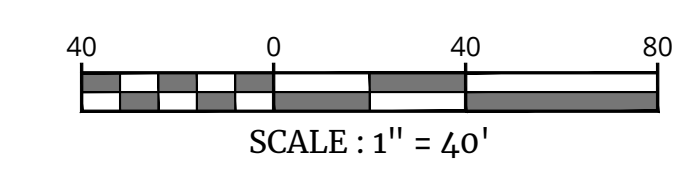
NYR9-11
(24"x36")



NYR9-11
(24"x36")



W20-1
(36"x36")



G20-2
(36"x18")
(TO BE POSTED WITHIN 500'
OF TAPER)

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY OR ENGINEERING MAP BEARING A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW. ONLY MAPS WITH THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S ORIGINAL WORK AND OPINION.

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

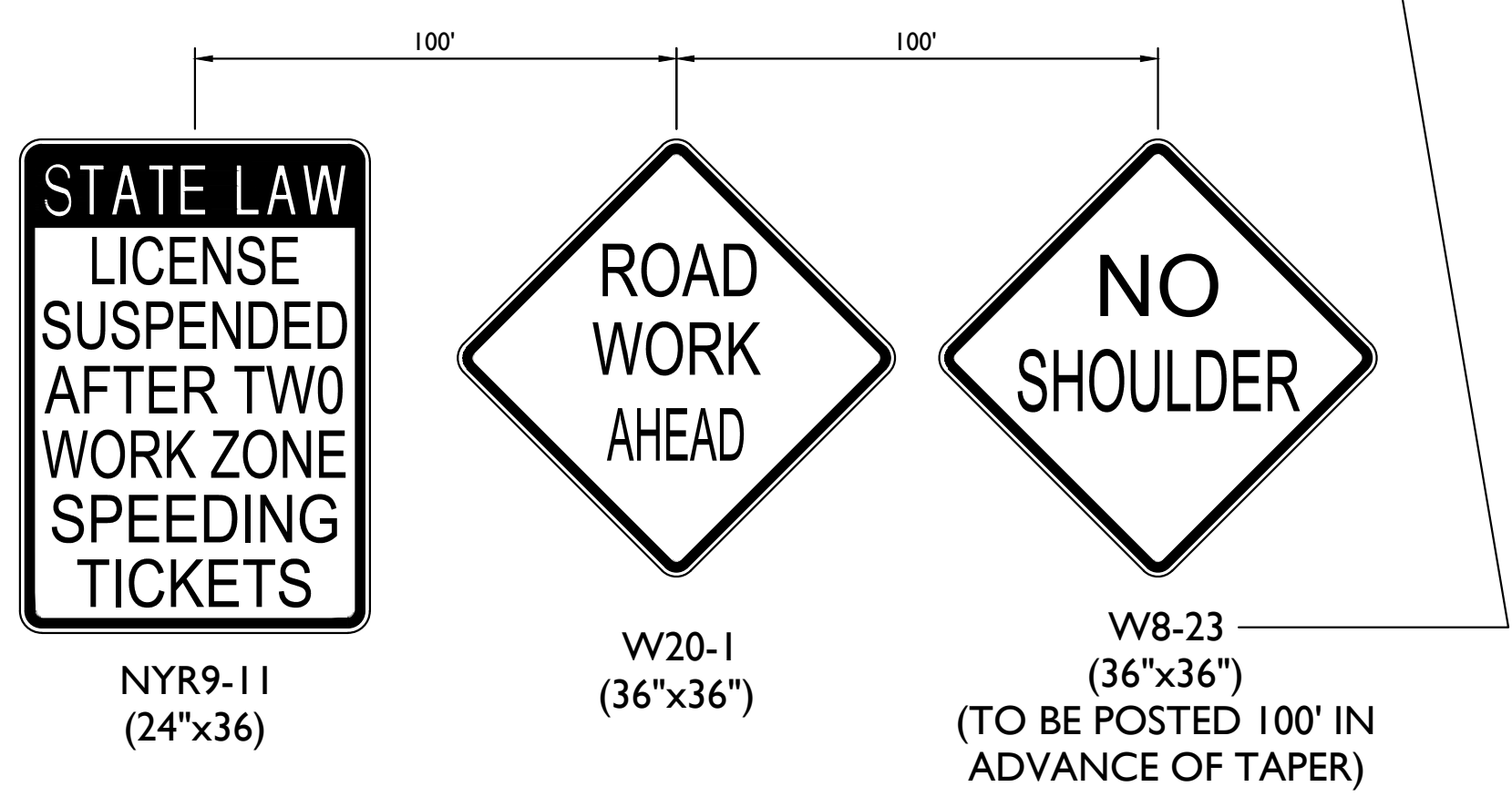
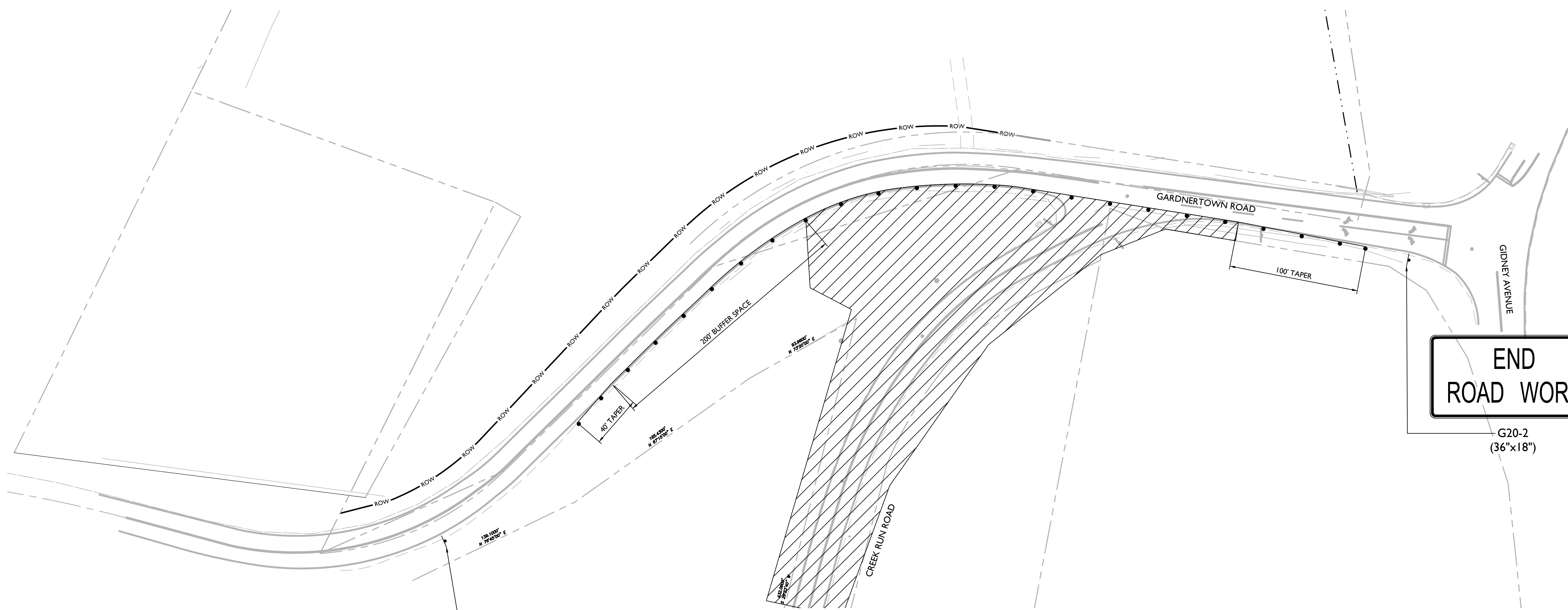
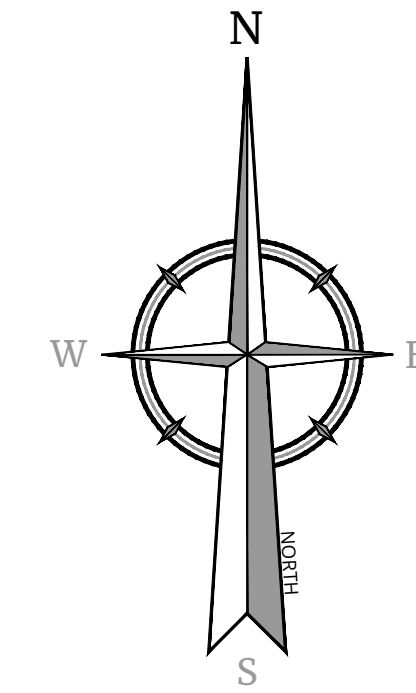


PROTECT YOURSELF

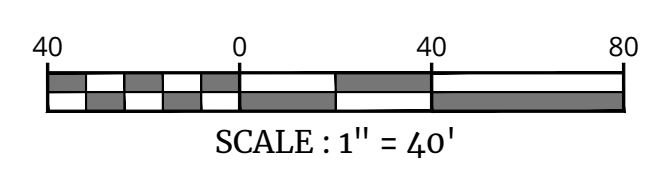
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Know what's below. Call before you dig.

FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM



NOTE:
SEE SHEET 7 OR 7 FOR DETOUR PLAN DURING CLOSURE OF CREEK RUN ROAD



REV.	DATE	DRAWN BY	DESCRIPTION
1	6/9/22	M.J.A.	REVISED PER TOWN COMMENTS.
2	7/12/21	M.J.A.	REVISED PER CREIGHTON MANING COMMENT LETTER DATED 6/1/22.
3	8/23/23	M.J.A.	ADDED TURNING TRAILS & RIP RAP TO END SECTIONS.
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END ROAD WORK
G20-2
(36"x18")

CONCEPTUAL IMPROVEMENT PLAN
FOR
GARDNER RIDGE ASSOCIATES, LLC
GARDNERTOWN ROAD & CREEK RUN ROAD
TOWN OF NEWBURGH
ORANGE COUNTY
NEW YORK

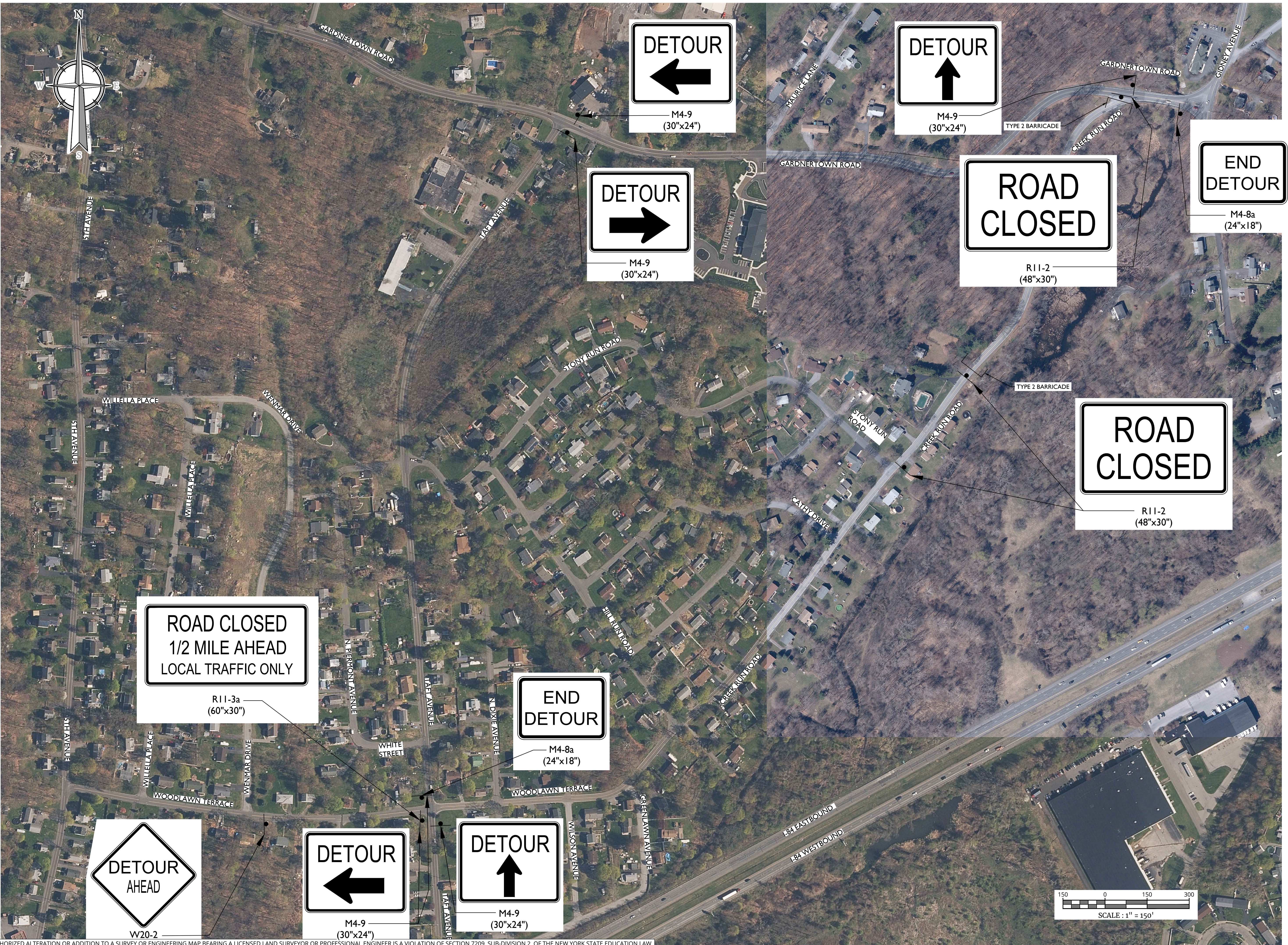
Colliers WESTCHESTER
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Phone: 914.347.7500
Engineering & Design
COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE SURVEYING CT, P.C.

SCALE AS SHOWN	DATE	DRAWN BY	CHECKED BY
1:40003750	8/27/21	M.J.A.	P.J.G./A.P.R.
	DRAWING NAME		
	R-PL02-EXBT-WZTC		

SHEET TITLE
WORK ZONE TRAFFIC CONTROL GARDNERTOWN RD EB SHOULDER CLOSURE

30.01.16000.0250 (Transportation) 8/20/23 8:02:48 AM C:\WORK\ZONE TRAFFIC CONTROL... BY: MAMINDOLA

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SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	8/27/21	M.J.A.	P.J.G./A.P.R.
PROJECT NUMBER:	140003750	DRAWING NAME:	R-PL02-ESBT-WZTC

WORK ZONE TRAFFIC CONTROL
CREEK RUN ROAD SHORT TERM
CLOSURE DETOUR PLAN