

VICINITY MAP:
SCALE: 1" = 200'

- NOTES:**
- PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL FOLLOW UNDERGROUND UTILITIES CALL CENTER GUIDELINES.
 - ALL UTILITIES, INCLUDING ELECTRIC AND TELEPHONE SERVICE SHALL BE INSTALLED UNDERGROUND.
 - NO BUILDING PERMIT WILL BE ISSUED UNTIL SEWAGE DISPOSAL ARRANGEMENTS HAVE BEEN APPROVED BY THE ROCKLAND COUNTY HEALTH DEPARTMENT AND/OR THE TOWN OF ORANGETOWN.
 - LOT DRAINAGE ON THIS PLAN SHALL CONSTITUTE EASEMENTS RUNNING WITH THE LAND AND SHALL NOT BE DISTURBED.
 - ANY EXISTING UTILITIES (POLES, HYDRANTS, ETC.) AFFECTED BY CONSTRUCTION OF THIS SITE PLAN SHALL BE RELOCATED AT THE DEVELOPER'S EXPENSE PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY.
 - NO OPEN BURNING DURING CONSTRUCTION WITHOUT SPECIFIC PERMISSION FROM NEW YORK STATE DEPARTMENT OF HEALTH.
 - DATUM: U.S.G.S.—BENCHMARK—CBG WEST SIDE ROUTE 9W, 75± FT. SOUTH OF SITE.
 - NO BUILDING PERMIT SHALL BE ISSUED UNTIL RESULTS OF TEST PITS HAVE BEEN SUBMITTED TO THE BUILDING DEPARTMENT.
 - DURING THE COURSE OF CONSTRUCTION, ALL STORM DRAIN INLETS SHALL BE PROTECTED WITH A HAY BALE FILTER (SEE DETAIL).
 - ALL AREAS DISTURBED BY ONSITE GRADING SHOULD BE LIMED AND FERTILIZED PRIOR TO SEEDING.
 - THE NEW CORNERS OF ALL LOTS SHALL BE MARKED WITH METAL RODS 3/4" IN DIAMETER, AND AT LEAST 30" IN LENGTH (TO BE INSTALLED AFTER FINAL GRADING), SAID PINS SHOWN THIS:
 - THIS SITE PLAN IS SUBJECT TO DETAILS OF GRADING, ROADS AND UTILITIES AS SHOWN ON CONSTRUCTION DRAWINGS APPROVED BY THE PLANNING BOARD AND FILED WITH THE TOWN CLERK.
 - SIDEWALKS AND CURBS SHALL BE INSTALLED IN ACCORDANCE WITH HIGHWAY DEPARTMENT SPECIFICATIONS.
 - TEMPORARY SEDIMENT ENTRAPMENT AREAS SHALL BE PROVIDED AS SHOWN TO INTERCEPT AND CLARIFY SILT LADEN RUNOFF FROM THE SITE. THESE MAY BE EXCAVATED OR MAY BE CREATED UTILIZING EARTHEN BERMS, RIP-RAP OR CRUSHED STONE DAMS, HAY BALES, OR OTHER SUITABLE MATERIALS. DIVERSION SWALES, BERMS OR THE CHANNELIZATION SHALL BE CONSTRUCTED TO INSURE THAT ALL SILT LADEN WATERS ARE DIRECTED INTO THE ENTRAPMENT AREAS, WHICH SHALL NOT BE PERMITTED TO FILL IN, BUT SHALL BE CLEANED PERIODICALLY DURING THE COURSE OF CONSTRUCTION, THE COLLECTED SILT SHALL BE DEPOSITED IN AREAS SAFE FROM FURTHER EROSION.
 - ALL DISTURBED AREAS, EXCEPT ROADWAYS, WHICH WILL REMAIN UNFURNISHED FOR MORE THAN THIRTY (30) DAYS SHALL BE TEMPORARILY SEEDED WITH 1/2 LB. OF RYE GRASS OR MULCH WITH 100 LBS. OF STRAW OR HAY PER 1,000 SQUARE FEET. ROADWAYS SHALL BE STABILIZED AS RAPIDLY AS PRACTICABLE BY THE INSTALLATION OF THE BASE COURSE.
 - SILT THAT LEAVES THE SITE IN SPITE OF THE REQUIRED PRECAUTIONS SHALL BE COLLECTED AND REMOVED AS DIRECTED BY APPROPRIATE MUNICIPAL AUTHORITIES.
 - AT THE COMPLETION OF THE PROJECT ALL TEMPORARY SILTATION DEVICES SHALL BE REMOVED AND THE AFFECTED AREAS REGRADED, PLANTED, OR TREATED IN ACCORDANCE WITH THE APPROVED SITE PLANS.
 - PERMANENT VEGETATION COVER SPECIFICATIONS:
LAWN AREA — PER 1,000 S.F.
15 LBS. 10-6-4 50% SLOW RELEASE FERTILIZER
70 LBS. GRANULATE LIMESTONE
4 LBS. SEED MIXTURE
40% KENTUCKY BLUE
40% RED FESCUE
20% PERENNIAL RYEGRASS
 - THIS PLAN DOES NOT CONFLICT WITH THE COUNTY OFFICIAL MAP AND HAS BEEN APPROVED IN THE MANNER SPECIFIED BY SECTION 239 L3M OF THE GENERAL MUNICIPAL LAW.
 - CERTIFICATE OF OCCUPANCY SHALL NOT BE REQUESTED FROM THE TOWN OF ORANGETOWN BUILDING DEPARTMENT UNTIL RESULTS OF INFILTRATION AND COFILTRATION TESTS FOR SANITARY SEWERS ARE CERTIFIED BY A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER AND APPROVED BY THE DIRECTOR, DIVISION OF SEWERS.

- AT LEAST ONE WEEK PRIOR TO THE COMMENCEMENT OF ANY WORK, INCLUDING THE INSTALLATION OF EROSION CONTROL DEVICES OR THE REMOVAL OF TREES AND VEGETATION, A PRECONSTRUCTION MEETING MUST BE HELD WITH THE TOWN OF ORANGETOWN DEPARTMENT OF ENVIRONMENTAL MANAGEMENT AND ENGINEERING, SUPERINTENDENT OF HIGHWAYS AND THE OFFICE OF BUILDING, ZONING AND PLANNING ADMINISTRATION AND ENFORCEMENT. IT IS THE RESPONSIBILITY AND OBLIGATION OF THE PROPERTY OWNER TO ARRANGE SUCH A MEETING.
- THE TREE PROTECTION AND PRESERVATION GUIDELINES ADOPTED PURSUANT TO SECTION 21-24 OF THE LAND DEVELOPMENT REGULATIONS OF THE TOWN OF ORANGETOWN WILL BE IMPLEMENTED IN ORDER TO PROTECT AND PRESERVE BOTH INDIVIDUAL SPECIMEN TREES AND BUFFER AREA WITH MANY TREES. STEPS THAT WILL BE TAKEN TO PRESERVE AND PROTECT EXISTING TREES TO REMAIN ARE AS FOLLOWS:
A) NO CONSTRUCTION EQUIPMENT SHALL BE PARKED UNDER THE TREE CANOPY.
B) THERE WILL BE NO EXCAVATION OR STOCKPILING OF EARTH UNDERNEATH THE TREES.
C) TREES DESIGNATED TO BE PRESERVED SHALL BE MARKED CONSPICUOUSLY ON ALL SIDES AT A 5 TO 10 FOOT HEIGHT.
D) THE TREE PROTECTION ZONE FOR TREES DESIGNATED TO BE PRESERVED WILL BE ESTABLISHED BY ONE OF THE FOLLOWING METHODS:
ONE (1) FOOT RADIUS FROM TRUNK PER INCH DBH.
DRIP LINE OF THE TREE CANOPY, THE METHOD CHOSEN SHOULD BE BASED ON PROVIDING THE MAXIMUM PROTECTION ZONE POSSIBLE. A BARRIER OF SNOW FENCE OR EQUAL IS TO BE PLACED AND MAINTAINED ONE YARD BEYOND THE ESTABLISHED TREE PROTECTION ZONE. IF IT IS AGREED THAT THE TREE PROTECTION ZONE OF A SELECTED TREE MUST BE VIOLATED, ONE OF THE FOLLOWING METHODS MUST BE EMPLOYED TO MITIGATE THE IMPACT:
LIGHT TO HEAVY IMPACTS — MINIMUM OF EIGHT INCHES OF WOOD CHIPS INSTALLED IN THE AREA TO BE PROTECTED. CHIPS SHALL BE REMOVED UPON COMPLETION OF WORK.
LIGHT IMPACTS ONLY — INSTALLATION OF 3/4 INCH OF PLYWOOD OR BOARDS, OR EQUAL OVER THE AREA TO BE PROTECTED.
THE BUILDER OR ITS AGENT MAY NOT CHANGE GRADE WITHIN THE TREE PROTECTION ZONE OF A PRESERVED TREE UNLESS SUCH GRADE CHANGE HAS RECEIVED FINAL APPROVAL FROM THE PLANNING BOARD. IF THE GRADE LEVEL IS TO BE CHANGED MORE THAN SIX (6) INCHES, TREES DESIGNATED TO BE PRESERVED SHALL BE WELLED AND/OR PRESERVED IN A RAISED BED, WITH THE TREE WELL A RADIUS OF THREE (3) FEET LARGER THAN THE TREE CANOPY.
- ADDITIONAL CERTIFICATION, BY AN APPROPRIATE LICENSED OR CERTIFIED DESIGN PROFESSIONAL SHALL BE REQUIRED FOR ALL MATTERS BEFORE THE PLANNING BOARD INDICATING THAT THE DRAWINGS AND PROJECT ARE IN COMPLIANCE WITH THE STORMWATER MANAGEMENT PHASE II REGULATIONS.
- PRIOR TO THE COMMENCEMENT OF ANY SITE WORK, INCLUDING THE REMOVAL OF TREES, THE APPLICANT SHALL INSTALL THE SOIL EROSION AND SEDIMENTATION CONTROL AS REQUIRED BY THE PLANNING BOARD. PRIOR TO THE AUTHORIZATION TO PROCEED WITH ANY PHASE OF THE SITE WORK, THE TOWN OF ORANGETOWN DEPARTMENT OF ENVIRONMENTAL MANAGEMENT AND ENGINEERING (DEME) SHALL INSPECT THE INSTALLATION OF ALL REQUIRED SOIL EROSION AND SEDIMENTATION CONTROL MEASURES. THE APPLICANT SHALL CONTACT DEME AT LEAST 48 HOURS IN ADVANCE FOR AN INSPECTION.

BULK REQUIREMENTS:

ZONE R-22 USE GROUP "I"	REQUIRED	EXISTING	PROPOSED
MAXIMUM FLOOR AREA RATIO	0.20	0.17	NO CHANGE
MINIMUM LOT AREA	22,500 SQ.FT.	31,300 SQ.FT. G 17,955 SQ.FT. N	NO CHANGE
MINIMUM LOT WIDTH	125 FT.	166 FT.	NO CHANGE
MINIMUM STREET FRONTAGE	75 FT.	168 FT.	NO CHANGE
MINIMUM FRONT YARD	40 FT.	61.4 FT.	NO CHANGE
MINIMUM SIDE YARD	25 FT.	38.3 FT.	NO CHANGE
MINIMUM TOTAL SIDE YARD	60 FT.	77.5 FT.	NO CHANGE
MINIMUM REAR YARD	45 FT.	132.9 FT.	NO CHANGE
MAXIMUM BUILDING HEIGHT	9 IN./FT. FROM DESIGNATED STREET LINE	N/A	NO CHANGE

* EXISTING NON-COMFORMING

LOT AREA CALCULATION:

GROSS AREA	- 50% OF 25% SLOPE	NET AREA
31,300 SQ.FT.	13,345 SQ.FT.	17,955 SQ.FT.

OWNER & ADDRESS:
JAN HAYWARD RAYMOND
NANCY MICHAL LONGFELDER
917 ROUTE 9W
UPPER GRANDVIEW, NY 10960

AREA:
31,300 SQ.FT.

TAX MAP REFERENCE:
TOWN OF ORANGETOWN TAX MAP
SECTION 71.17, BLOCK 1, LOT 5

LEGEND

- 2' --- EXISTING 2' CONTOUR
- 10' --- EXISTING 10' CONTOUR
- W --- EXISTING WATERLINE
- --- EXISTING FIRE HYDRANT
- G --- EXISTING GAS LINE
- CB --- EXISTING CATCH BASIN
- --- EXISTING STORM DRAIN LINE
- SMH --- EXISTING SEWER MANHOLE
- S --- S --- EXISTING SEWER LINE
- + 66.0 --- EXISTING SPOT ELEVATION
- --- EXISTING STONEWALL
- --- EXISTING RAILROAD TIE WALL
- --- EXISTING CONCRETE WALL
- --- EXISTING SLATE
- --- EXISTING SIGN
- XL --- EXISTING LIGHT POLE
- UL --- EXISTING UTILITY POLE
- TC --- TOP OF CURB
- DC --- DROP OF CURB
- TW --- TOP OF WALL
- BW --- BOTTOM OF WALL

OWNER OR REPRESENTATIVES APPROVAL FOR FILING

OWNER OR REPRESENTATIVE _____ DATE _____

PLANNING BOARD MEETING
DEC 08 2021
Town of Orangetown

LEGISLATIVE CODE BOOK
1-2021

UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY FROM AVAILABLE INFORMATION. THE CONTRACTOR SHALL CALL THE LOCAL UNDERGROUND UTILITIES PROTECTIVE ORGANIZATION TO HAVE ALL UNDERGROUND UTILITIES MARKED IN THE FIELD PRIOR TO ANY CLEARING OR ANY CONSTRUCTION. THE CONTRACTOR SHALL ALSO VERIFY THE LOCATION, SIZE AND INVERT OF ALL UTILITIES PRIOR TO ANY CONSTRUCTION. ANY UTILITY FOR WHICH NO EVIDENCE CAN BE SEEN ON THE SURFACE OF THE LANDS MAY NOT BE SHOWN ON THIS DRAWING.

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S EMBOSSED SEAL IS A VIOLATION OF SECTION 7209, SUBSECTION 2, OF THE NEW YORK STATE EDUCATION LAW.
"ONLY COPIES FROM THE ORIGINAL TRACKING OF THIS SURVEY MAP MARKED WITH THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES."
"CERTIFICATION INDICATED HERE ON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYORS ADOPTED BY THE DELAWARE - HUDSON LAND SURVEYORS ASSOCIATION, SAID CERTIFICATIONS SHALL RUN ONLY TO THOSE NAMED INDIVIDUALS AND/OR INSTITUTIONS FOR WHOM THE SURVEY WAS PREPARED. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, INSTITUTIONS, THEIR SUCCESSORS AND/OR ASSIGNS OR SUBSEQUENT OWNERS."

THE EDUCATION LAW OF THE STATE OF NEW YORK PREVENTS ANY PERSON FROM BEING A PUBLIC OFFICER OR EMPLOYEE OF THE STATE OF NEW YORK FROM BEING A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, SURVEYOR, OR LAND SURVEYOR. ANY PERSON WHO VIOLATES THIS SECTION SHALL BE CONSIDERED TO BE IN VIOLATION OF THE EDUCATION LAW (SECTION 7209-2).

STATE OF NEW YORK
TOWN OF ORANGETOWN
VAHID ROSTAMI, P.E., P.E.
N.Y.S. P.E. LIC. NO. 101473

STATE OF NEW YORK
TOWN OF ORANGETOWN
JOHN R. ATZL
N.Y.S. P.E. LIC. NO. 60228

DRAWING LIST

DRAWING No. TITLE

DRAWING 1 - SITE DEVELOPMENT PLAN

DRAWING 2 - EXISTING CONDITION

DRAWING 3 - RETAINING WALL PLAN & DETAILS

DRAWING 4 - RETAINING WALL PROFILE & DETAILS

DRAWING 5 - RETAINING WALL NOTES

REVISION DATE DESCRIPTION

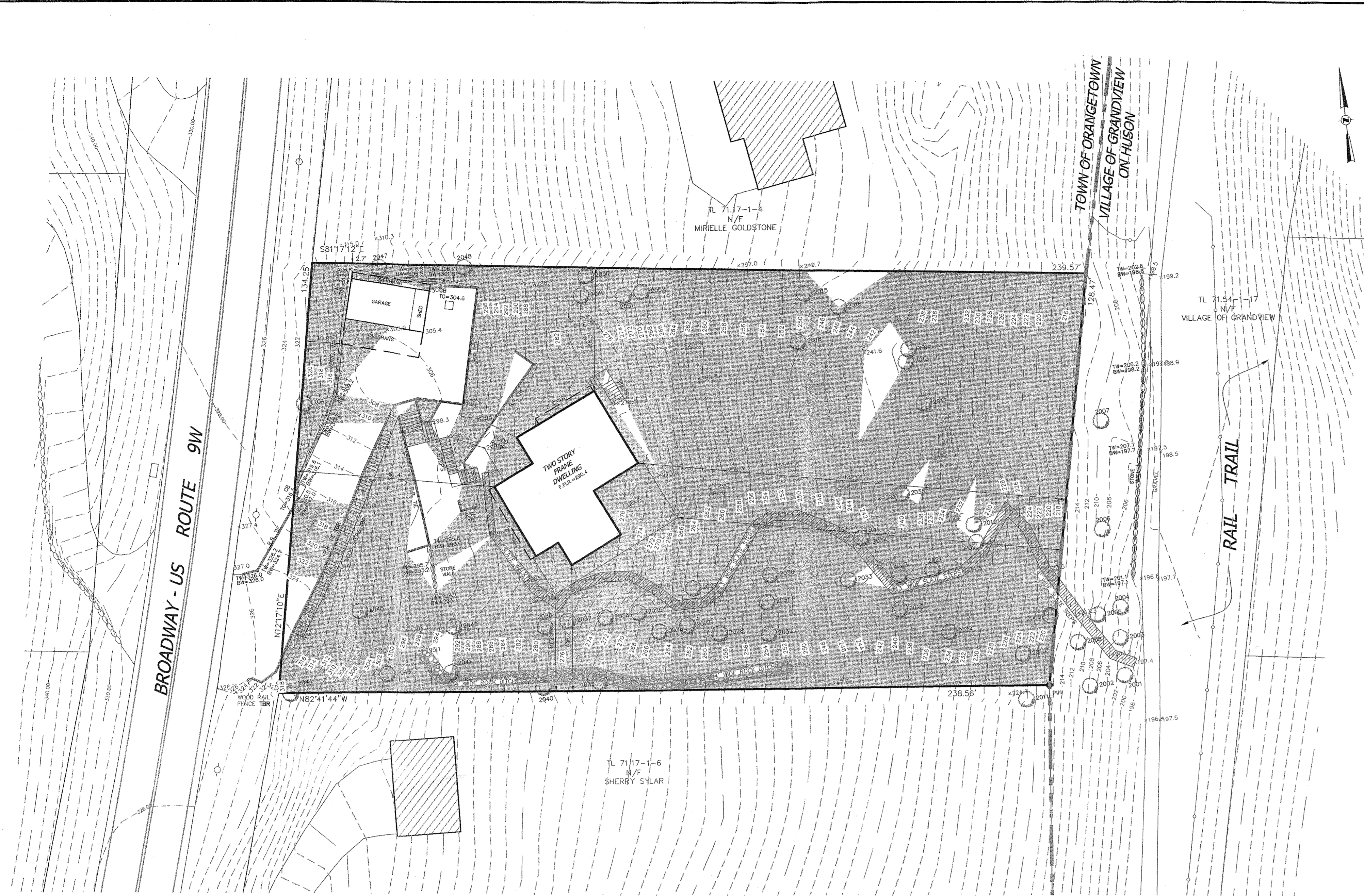
AN&Z
ATZL, NASHER & ZIGLER P.C.
ENGINEERS-SURVEYORS-PLANNERS
232 North Main Street
New City, New York 10956
Tel: (845) 634-4694
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E-mail: info@anzny.com
Web: www.anzny.com

PROJECT: **RAYMOND & LONGFELDER**

TOWN OF ORANGETOWN
ROCKLAND COUNTY, NEW YORK

TITLE: **SITE DEVELOPMENT PLAN**

DRAWN BY: MM CHECKED BY: JRA
DATE: AUGUST 19, 2021 SCALE: 1 IN. = 20 FT.
PROJECT NO: 4859 DRAWING NO: 1



VICINITY MAP:
SCALE: 1" = 200'

TREE LEGEND

- DENOTES TREE TO REMAIN
- ⊗ DENOTES TREE TO BE REMOVED
- ⊙ DENOTES TREE PROTECTION

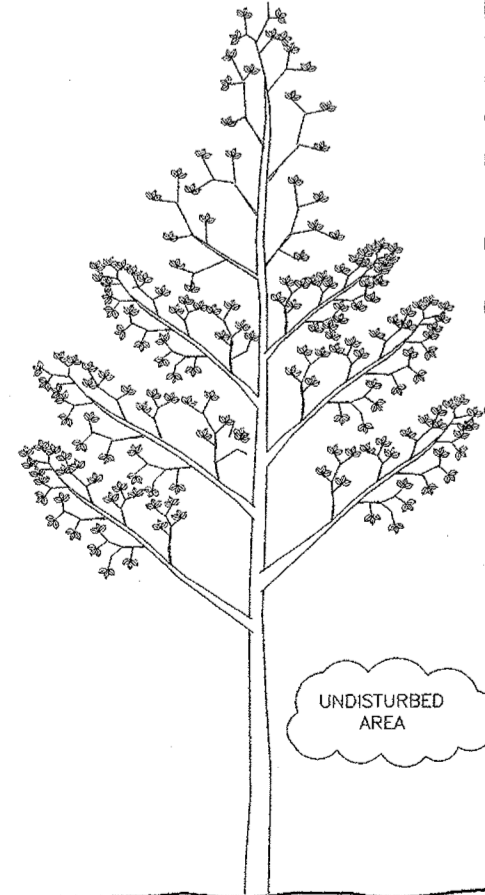
SLOPE LEGEND:

SLOPE = 25%+
AREA = 26,690 SQ. FT.

TREE LIST

NUMBER	SIZE (IN)	SPECIES	QUALITY
2001	14	BIRCH	GOOD
2002	14	TRIPLE HICKORY	GOOD
2003	16	MAPLE	GOOD
2004	13	TULIP	GOOD
2005	16	TULIP	GOOD
2006	15	HICKORY	POOR
2007	10	MAPLE	POOR
2008	15	TULIP	GOOD
2009	15	TULIP	GOOD
2010	12	TULIP	GOOD
2011	14	TULIP	GOOD
2012	11	TULIP	GOOD
2013	11	TULIP	GOOD
2014	17	TULIP	GOOD
2015	8	HICKORY	GOOD
2016	16	TULIP	GOOD
2018	N/A	TWIN SUMAC	POOR
2019	10	TULIP	GOOD
2020	12	TULIP	GOOD
2021	10	TULIP	GOOD
2022	24	SUMAC	GOOD
2023	13	TULIP	GOOD
2024	10	TULIP	GOOD
2025	10	OAK	GOOD
2026	10	TULIP	GOOD
2027	15	TULIP	GOOD
2028	9	TULIP	GOOD
2029	11	TULIP	GOOD
2030	12	TULIP	GOOD
2031	8	TULIP	GOOD
2032	9	TULIP	GOOD
2033	8	TULIP	GOOD
2034	11	TULIP	GOOD
2035	8	TULIP	GOOD
2036	10	TULIP	GOOD
2037	16	TULIP	GOOD
2038	10	TULIP	GOOD
2039	12	HICKORY	POOR
2040	14	HICKORY	GOOD
2041	30	OAK	GOOD
2042	18	OAK	POOR
2043	8	OAK	GOOD
2044	N/A	TULIP	POOR
2045	21	MAPLE	GOOD
2046	16	OAK	GOOD
2047	16	OAK	GOOD
2048	22	HICKORY	GOOD
2049	12	OAK	GOOD
2050	16	OAK	POOR
2051	10	MAPLE	GOOD
2052	27	OAK	GOOD

- NOTES:**
- NO CONSTRUCTION EQUIPMENT SHALL BE PARKED UNDER THE TREE CANOPY.
 - THERE WILL BE NO EXCAVATION OR STOCKPIILING OF EARTH UNDERNEATH THE TREES.
 - TREES TO BE PRESERVED SHALL BE MARKED CONSPICUOUSLY ON ALL SIDES.
 - TREES TO BE SAVED ARE TO BE PROTECTED WITH A 4 FOOT HIGH ORANGE SNOW FENCE PLACED AT THE DRIP LINE OR AT 80% CRITICAL ROOT MASS WHICHEVER IS GREATER.
 - NO EARTH PILLS GREATER THAN 6" IN DEPTH WILL BE MADE BENEATH TREES TO BE PRESERVED.
 - IN FILL AREAS, TREES WILL BE PRESERVED IN TREE WELLS OR THROUGH THE USE OF RETAINING WALLS PLACED AT THE DRIP LINE OR AT 80% CRITICAL ROOT MASS WHICHEVER IS GREATER.
 - IN CUT AREAS, TREES WILL BE PRESERVED WITH RETAINING WALLS AT THE DRIP LINE OR AT 80% CRITICAL ROOT MASS WHICHEVER IS GREATER.

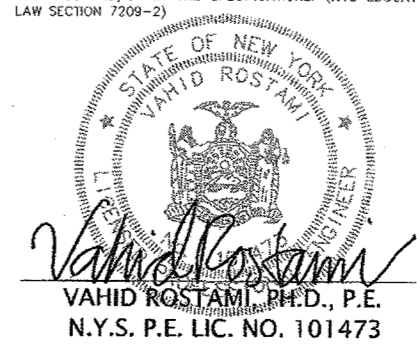


A TREE PROTECTION PROGRAM WILL BE IMPLEMENTED IN ORDER TO PROTECT AND PRESERVE BOTH INDIVIDUAL SPECIMEN TREES AND BUFFER AREAS WITH MANY TREES. STEPS WHICH WILL BE TAKEN TO PRESERVE AND PROTECT EXISTING TREES, ARE AS FOLLOWS:
TREE PROTECTION DETAIL
N.T.S.

LEGEND

- 2' --- EXISTING 2' CONTOUR
- 30' --- EXISTING 10' CONTOUR
- W --- EXISTING WATERLINE
- EXISTING FIRE HYDRANT
- C --- EXISTING GAS LINE
- CB --- EXISTING CATCH BASIN
- EXISTING STORM DRAIN LINE
- SMH --- EXISTING SEWER MANHOLE
- S --- S --- EXISTING SEWER LINE
- + 300' --- EXISTING SPOT ELEVATION
- EXISTING STONERWALL
- EXISTING RAILROAD WALL
- EXISTING CONCRETE WALL
- EXISTING SLATE
- EXISTING SIGN
- LP --- EXISTING LIGHT POLE
- ULP --- EXISTING UTILITY POLE
- TC --- TOP OF CURB
- DC --- DROP OF CURB
- TW --- TOP OF WALL
- BW --- BOTTOM OF WALL

"UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S EMBOSSED SEAL IS A VIOLATION OF SECTION 7209, SUBSECTION 2, OF THE NEW YORK STATE EDUCATION LAW."
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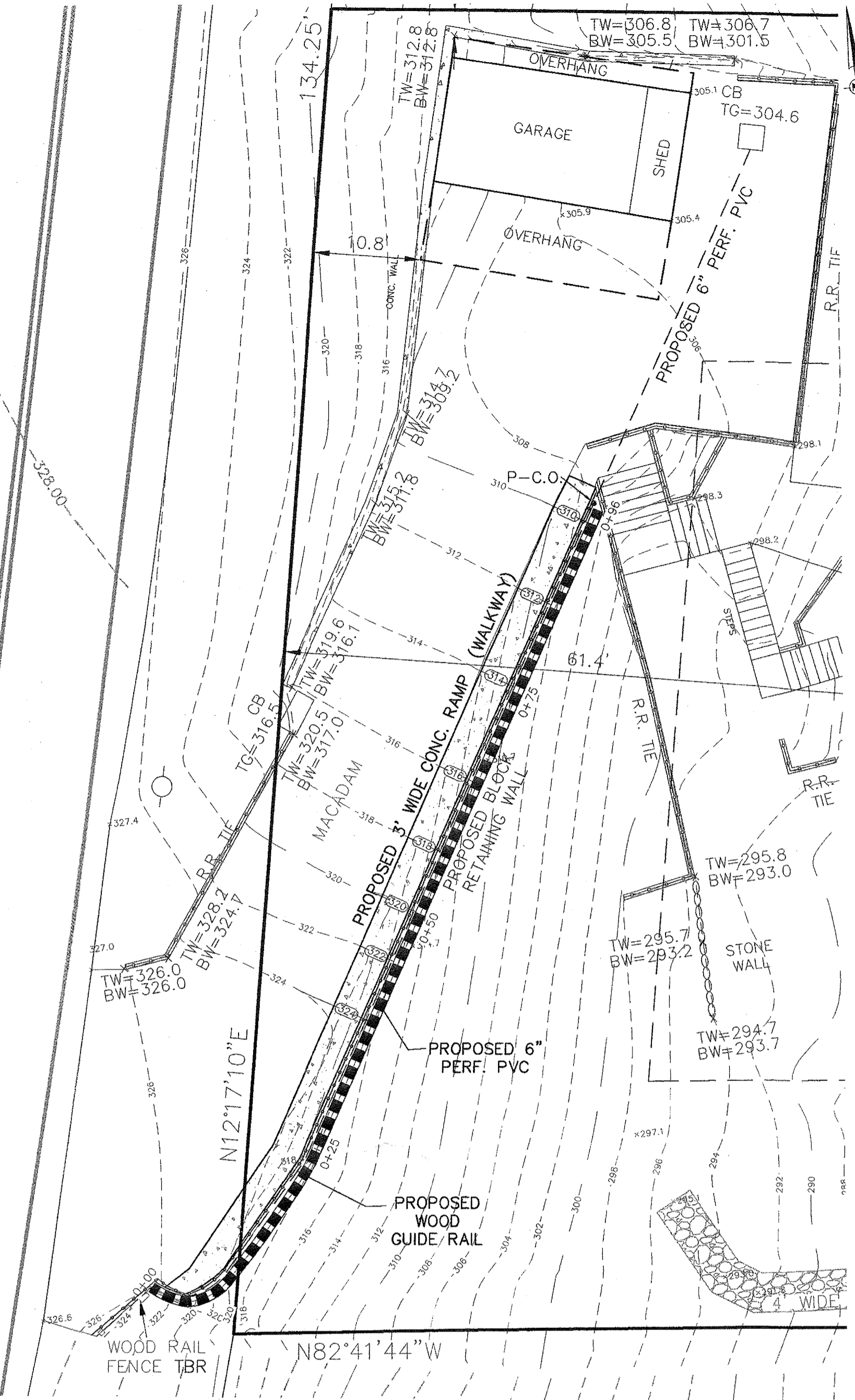
REVISION	DATE	DESCRIPTION
ATZL, NASHER & ZIGLER P.C. ENGINEERS - SURVEYORS - PLANNERS 232 North Main Street New City, New York 10956 Tel: (845) 634-4694 Fax: (845) 634-5543 E-mail: info@anzny.com Web: www.ANZNY.com		
PROJECT:		
RAYMOND & LONGFELDER		
TOWN OF ORANGETOWN ROCKLAND COUNTY, NEW YORK		
TITLE:		
EXISTING CONDITION		
DRAWN BY: MM		CHECKED BY: JRA
DATE: AUGUST 19, 2021		SCALE: 1 IN. = 20 FT.
PROJECT NO:		DRAWING NO:
4859		2

BROADWAY - US ROUTE 9W

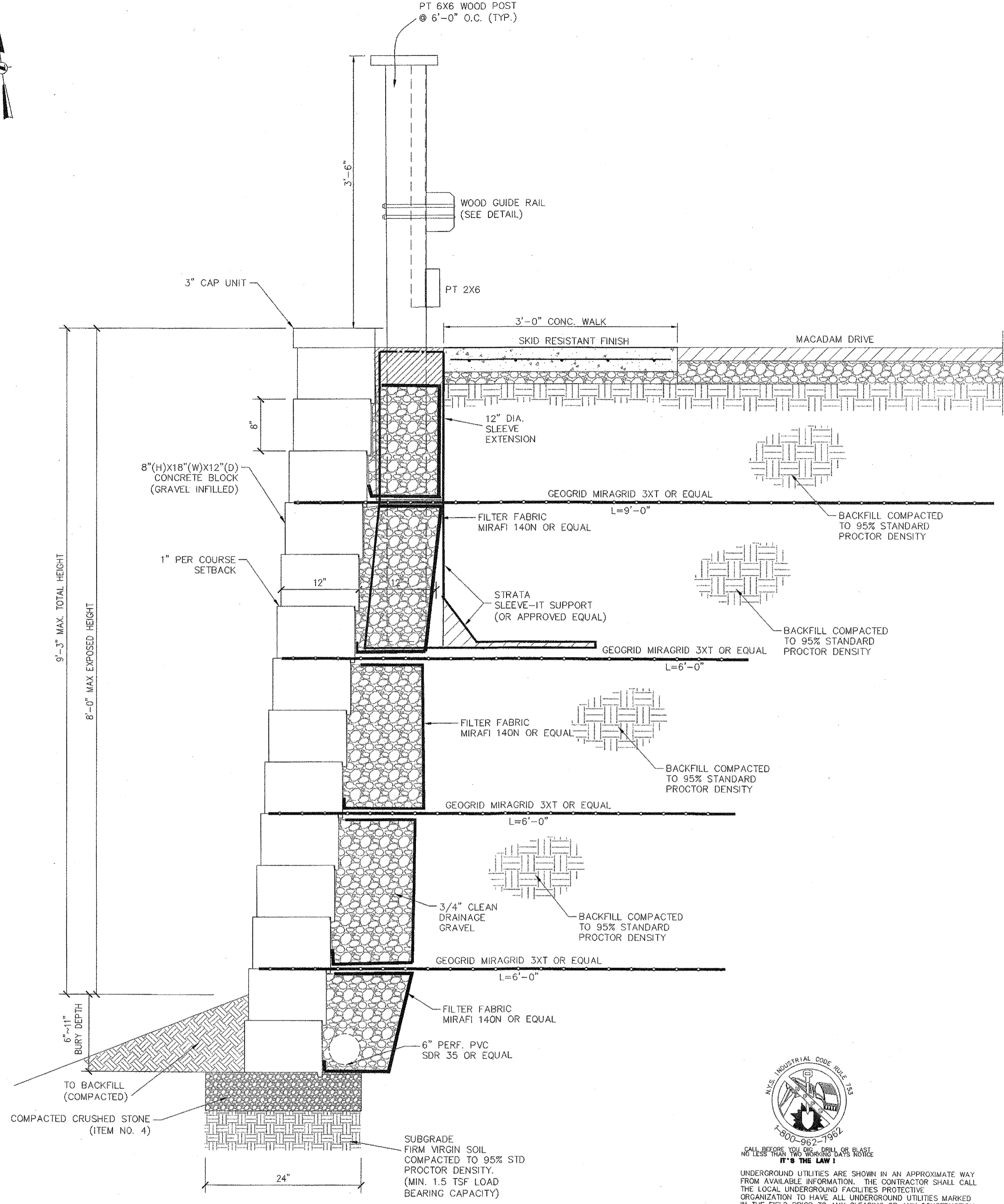


EXISTING WALL PLAN
SCALE 1"=10'

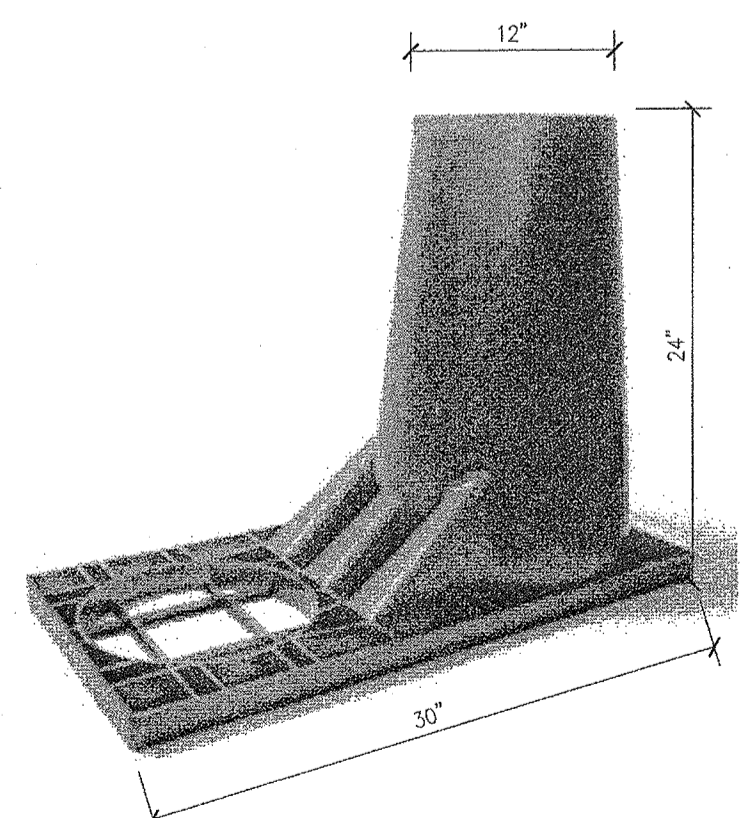
BROADWAY - US ROUTE 9W



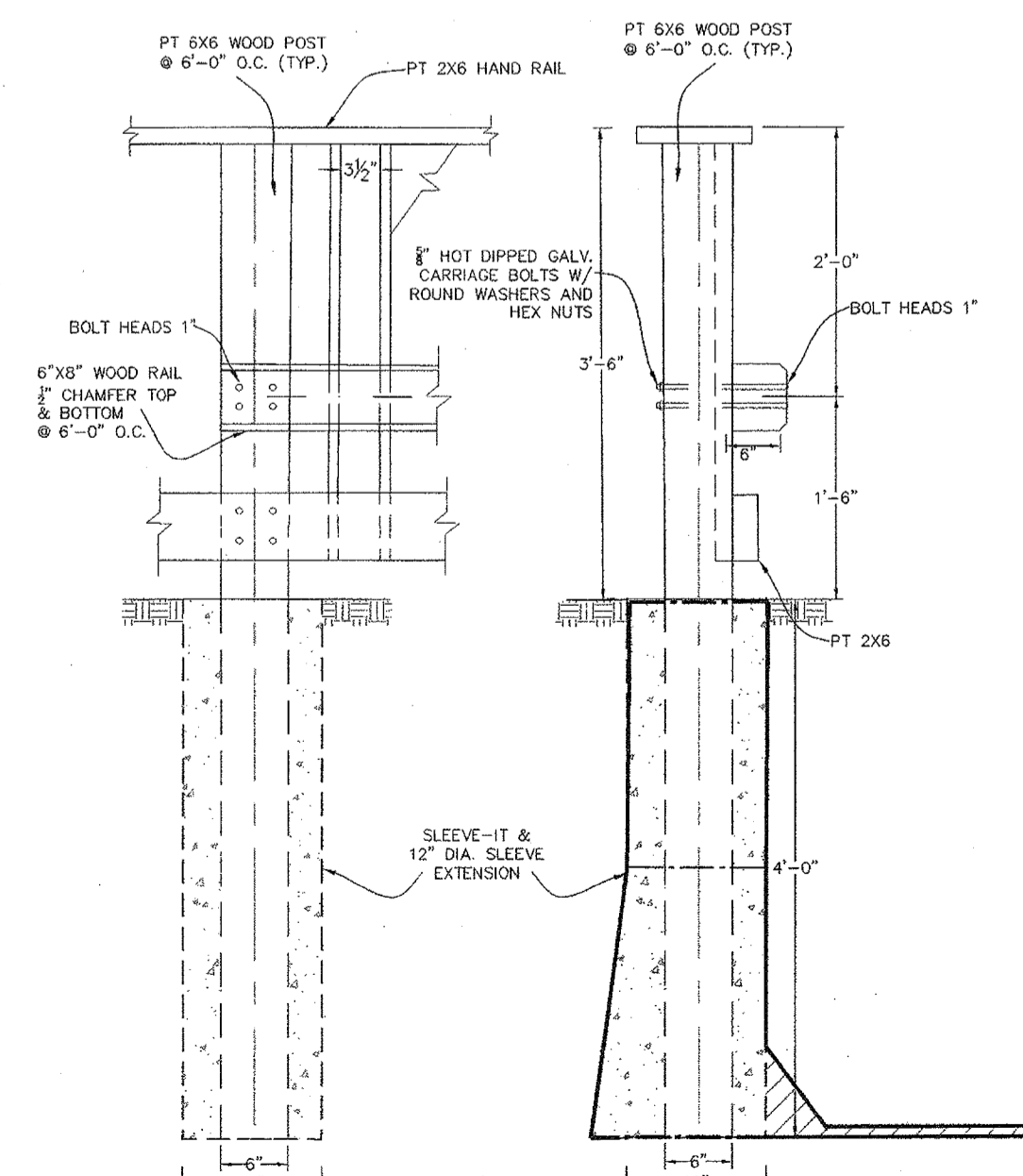
PROPOSED RETAINING WALL & CONCRETE WALK PLAN
SCALE 1"=10'



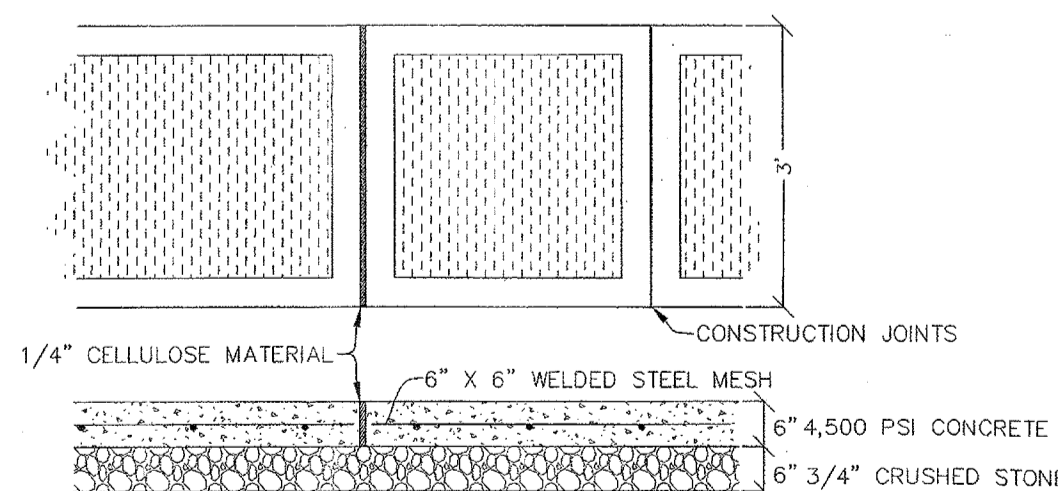
SECTION A-A : RETAINING WALL SECTION AT MAX. HEIGHT
SCALE 1"=1'



STRATA SLEEVE-IT DETAIL
N.T.S.



TYPICAL WOOD GUARD RAIL DETAIL
(OR APPROVED EQUAL)
N.T.S.

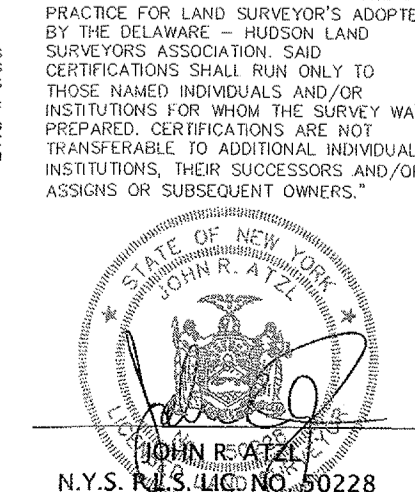
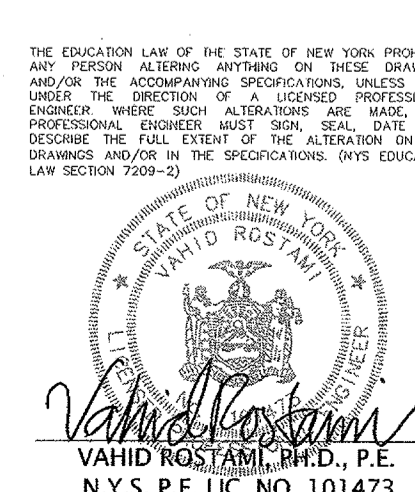


CONCRETE WALKWAY PAVEMENT DETAIL
N.T.S.

- CONSTRUCTION JOINTS HAVING A 1/4 INCH RADIUS SHALL BE PLACED AT 4 FEET INTERVALS.
- INSTALL EXPANSION JOINTS OF 1/4 INCH CELLULOSE MATERIAL OR EQUAL AT 20 FEET INTERVALS.
- CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS.
- CONCRETE SHALL BE AIR ENTRAINED 6% PLUS OR MINUS 1%.
- SIDEWALK REINFORCEMENT SHALL CONSIST OF #6 GAUGE 6" X 6" STEEL MESH PLACED 2 INCHES FROM THE BOTTOM OF THE SIDEWALK SLAB.

LEGEND

- 2' --- EXISTING 2' CONTOUR
- 10' --- EXISTING 10' CONTOUR
- W --- EXISTING WATERLINE
- --- EXISTING FIRE HYDRANT
- --- EXISTING GAS LINE
- --- EXISTING CATCH BASIN
- --- EXISTING STORM DRAIN LINE
- --- EXISTING SEWER MANHOLE
- --- EXISTING SEWER LINE
- --- EXISTING SPOT ELEVATION
- --- EXISTING STONEWALL
- --- EXISTING RAILROAD TIE WALL
- --- EXISTING CONCRETE WALL
- --- EXISTING SLATE
- --- EXISTING SIGN
- --- EXISTING LIGHT POLE
- --- EXISTING UTILITY POLE
- --- TOP OF CURB
- --- DROP OF CURB
- --- TOP OF WALL
- --- BOTTOM OF WALL



REVISION	DATE	DESCRIPTION

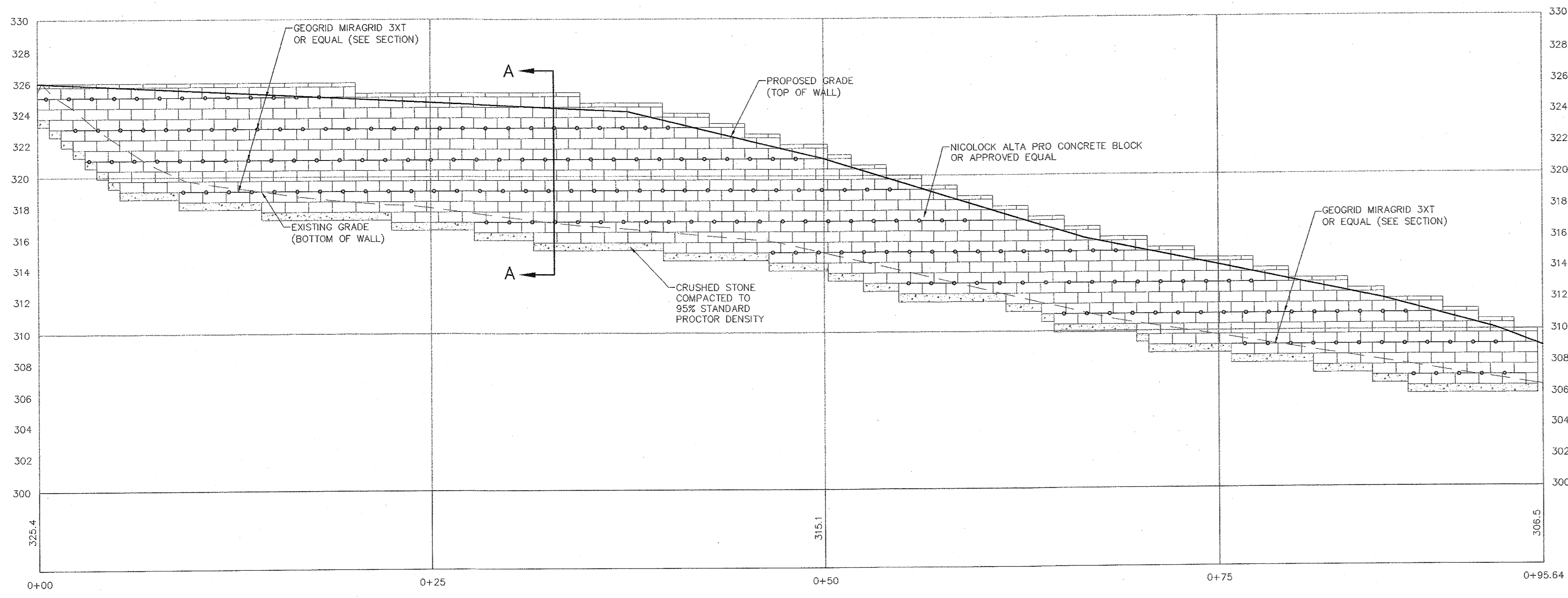
ATZL, NASHER & ZIGLER P.C.
ENGINEERS-SURVEYORS-PLANNERS
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PROJECT: **RAYMOND & LONGFELDER**

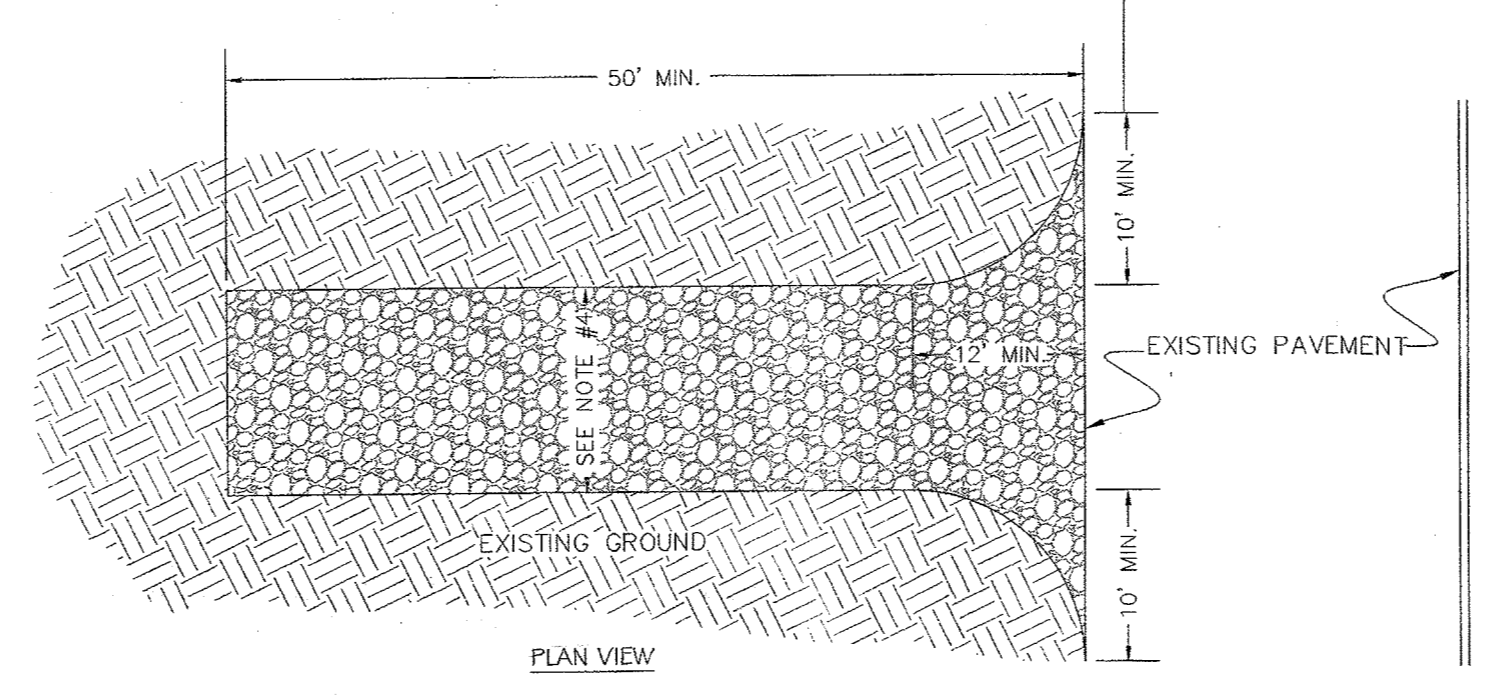
TOWN OF ORANGETOWN
ROCKLAND COUNTY, NEW YORK

TITLE: **RETAINING WALL PLAN & DETAILS**

DRAWN BY: MM	CHECKED BY: JRA
DATE: AUGUST 19, 2021	SCALE: AS SHOWN
PROJECT NO: 4859	DRAWING NO: 3



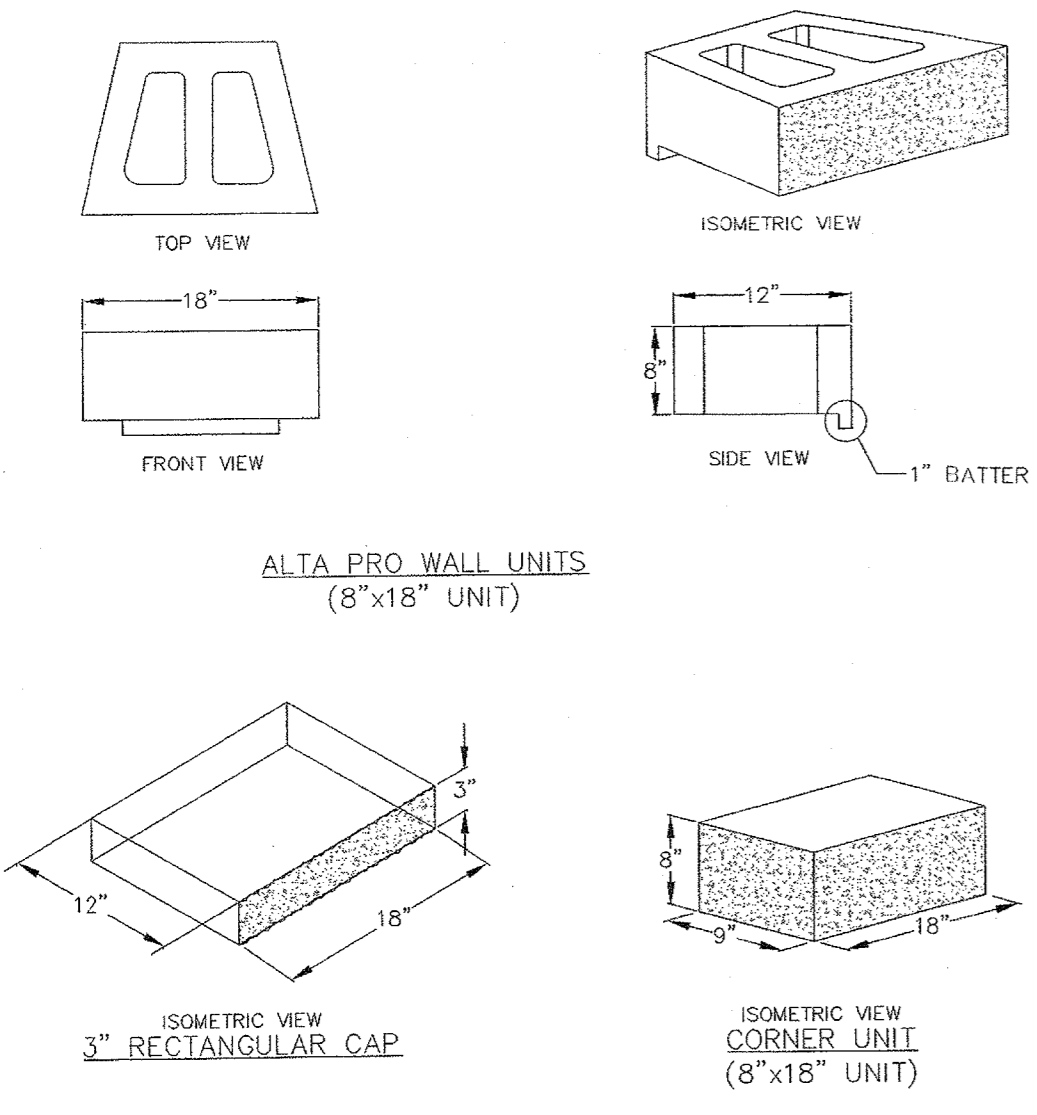
PROPOSED RETAINING WALL PROFILE
SCALE 1" = 5'



CONSTRUCTION ENTRANCE DETAIL #1
N.T.S.

SPECIFICATIONS FOR CONSTRUCTION ENTRANCE

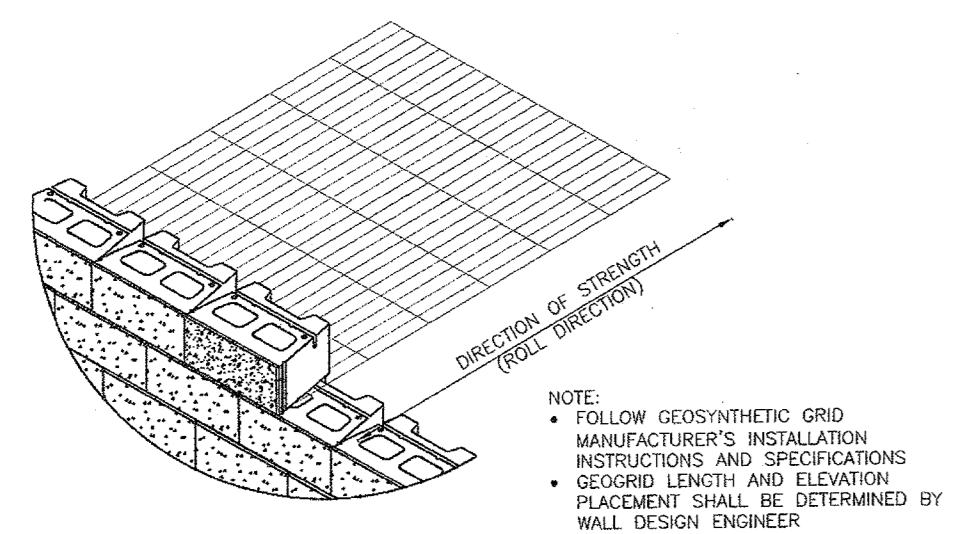
1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50' (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN 6".
4. WIDTH - 12" MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS AND EGRESS OCCUR. 24" IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO THE PLACEMENT OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAYS MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS TO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.



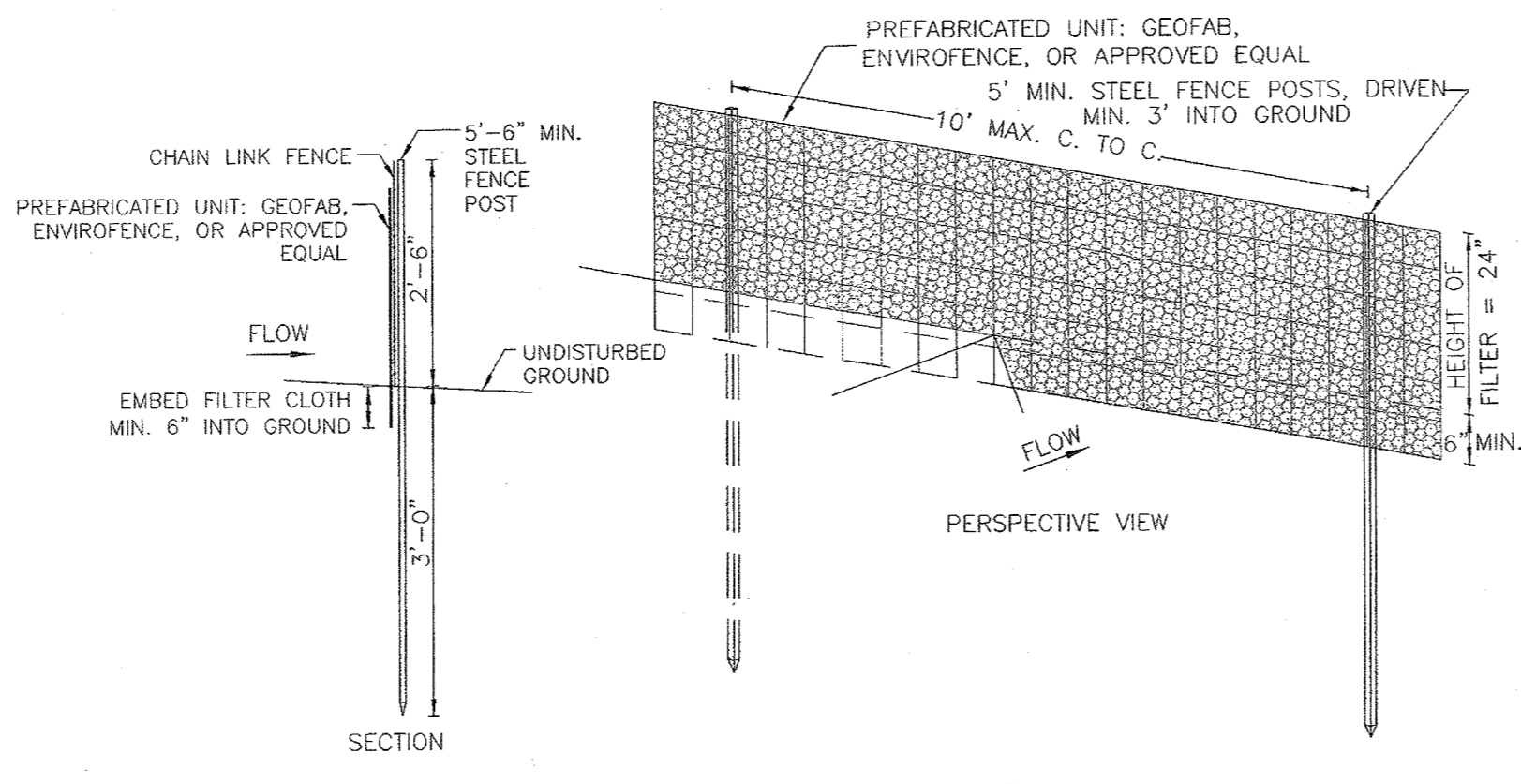
NICOLock ALTA PRO BLOCK DETAIL (OR EQUAL)
N.T.S.

CONSTRUCTION NOTES FOR PRE FABRICATED SILT FENCE

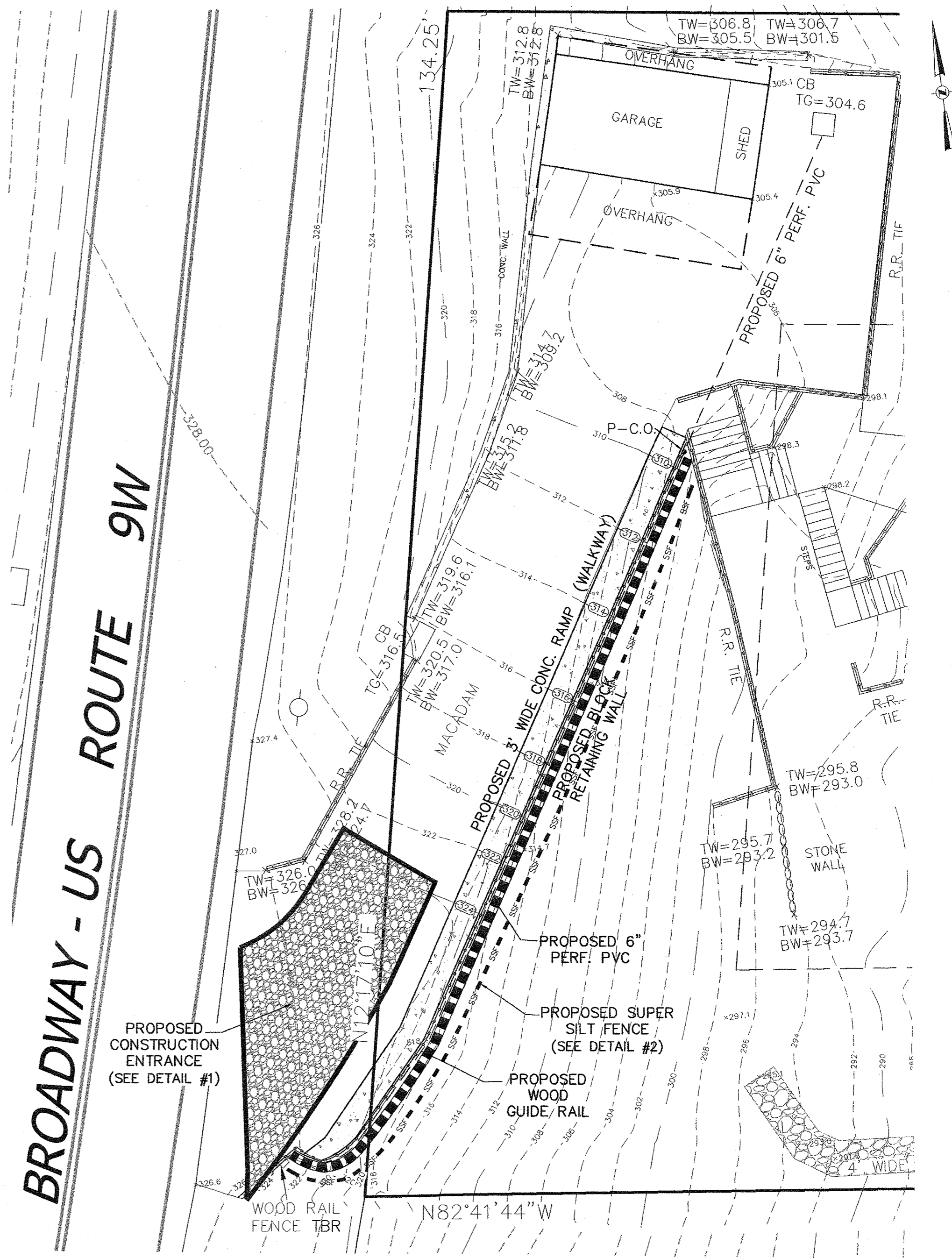
- PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL
1. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
 2. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
 3. THE FABRIC SHALL BE PLACED AGAINST CHAIN LINK FENCE AS SUPPORT BACKING WITH POSTS DRIVEN 3 FEET IN THE GROUND.
 4. POSTS FOR SUPER SILT FENCE SHALL BE STANDARD CHAIN LINK FENCE POSTS.



TYPICAL GEOSYNTHETIC INSTALLATION DETAIL
N.T.S.



SUPER SILT FENCE DETAIL #2
N.T.S.



EROSION & SEDIMENT CONTROL PLAN
SCALE 1" = 10'

LEGEND

---	EXISTING 2' CONTOUR	
---	EXISTING 10' CONTOUR	
---	EXISTING WATERLINE	
---	EXISTING FIRE HYDRANT	
---	EXISTING GAS LINE	
---	EXISTING CATCH BASIN	
---	EXISTING STORM DRAIN LINE	
---	EXISTING SEWER MANHOLE	
---	EXISTING SEWER LINE	
---	EXISTING SPOT ELEVATION	
---	EXISTING STONEWALL	
---	EXISTING RAILROAD TIE WALL	
---	EXISTING CONCRETE WALL	
---	EXISTING SLATE	
---	EXISTING SIGN	
---	EXISTING LIGHT POLE	
---	EXISTING UTILITY POLE	
---	TOP OF CURB	
---	DROP OF CURB	
---	TW	TOP OF WALL
---	BW	BOTTOM OF WALL

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S EMBOSSED SEAL IS A VIOLATION OF SECTION 7209, SUBSECTION 2, OF THE NEW YORK STATE EDUCATION LAW.

ONLY COPIES FROM THE ORIGINAL TRACING OF THIS SURVEY MAP MARKED WITH THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES.

CERTIFICATION INDICATED HERE ON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYORS ADOPTED BY THE DELAWARE - HUDSON LAND SURVEYORS ASSOCIATION, SAID ASSOCIATION BEING A MEMBER OF THE NATIONAL ASSOCIATION OF PROFESSIONAL SURVEYORS AND/OR THOSE NAMED INDIVIDUALS AND/OR INSTITUTIONS FOR WHOM THE SURVEY WAS PREPARED. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, INSTITUTIONS, THEIR SUCCESSORS AND/OR ASSIGNS OF SUBSEQUENT OWNERS.

STATE OF NEW YORK
COUNTY OF ORANGETOWN
VAHID ROSTAMI, P.E., P.E.
N.Y.S. P.E. LIC. NO. 101473

STATE OF NEW YORK
COUNTY OF ORANGETOWN
JOHN E. ATZL, P.E.
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TOWN OF ORANGETOWN
ROCKLAND COUNTY, NEW YORK

TITLE: RETAINING WALL PROFILE, EROSION & SEDIMENT CONTROL PLAN & DETAILS

DRAWN BY: IS	CHECKED BY: JRA
DATE: AUGUST 19, 2021	SCALE: AS SHOWN
PROJECT NO: 4859	DRAWING NO: 4

SPECIFICATION FOR SEGMENTAL RETAINING WALL SYSTEMS

PART 1: GENERAL

1.01 DESCRIPTION

A. WORK SHALL CONSIST OF FURNISHING MATERIALS, LABOR, EQUIPMENT AND SUPERVISION TO INSTALL A PLANTABLE SEGMENTAL RETAINING WALL SYSTEM IN ACCORDANCE WITH PLANS AND SPECIFICATIONS AND IN REASONABLY CLOSE CONFORMITY WITH THE LINES, GRADES, DESIGN AND DIMENSIONS SHOWN ON PLANS OR ESTABLISHED BY OWNER OR OWNER'S ENGINEER.

1.02 REFERENCE STANDARDS

A. SEGMENTAL RETAINING WALL UNITS

- ASTM C 140 - SAMPLING AND TESTING CONCRETE MASONRY UNITS
- ASTM C 1372 - STANDARD SPECIFICATION FOR DRY-CAST SEGMENTAL RETAINING WALL UNITS

B. GEOSYNTHETIC REINFORCEMENT

- ASTM D 4955 - STANDARD TEST METHOD FOR TENSILE PROPERTIES OF GEOTEXTILES BY THE WIDE-WIDTH STRIP METHOD
- ASTM D 5262 - STANDARD TEST METHOD FOR EVALUATING THE UNIFORMED TENSION CREEP AND CREEP RUPTURE BEHAVIOR OF GEOSYNTHETICS
- ASTM D 5321 - STANDARD TEST METHOD FOR DETERMINING THE COEFFICIENT OF SOIL AND GEOSYNTHETIC OR GEOSYNTHETIC AND GEOSYNTHETIC BY DIRECT SHEAR METHOD
- ASTM D 5818 - STANDARD PRACTICE FOR EXPOSURE AND RETRIEVAL OF SAMPLES TO EVALUATE INSTALLATION DAMAGE OF GEOSYNTHETICS
- ASTM D 6706 - STANDARD TEST METHOD FOR MEASURING GEOSYNTHETIC PULLOUT RESISTANCE IN SOIL

C. SOILS

- ASTM D 698 - STANDARD TEST METHOD FOR LABORATORY COMPACTION CHARACTERISTICS OF SOIL USING STANDARD EFFORT
- ASTM D 2487 - STANDARD PRACTICE FOR CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES
- ASTM D 422 - STANDARD TEST METHOD FOR PARTICLE-SIZE ANALYSIS OF SOILS
- ASTM D 4318 - STANDARD TEST METHOD FOR LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS
- ASTM G 51 - STANDARD TEST METHOD FOR MEASURING PH OF SOIL FOR USE IN CORROSION TESTING

D. DRAINAGE PIPE

- ASTM F 758 - STANDARD SPECIFICATION FOR SMOOTH-WALL POLYVINYL CHLORIDE (PVC) PLASTIC UNDERDRAIN SYSTEMS FOR HIGHWAY, AIRPORT OR SIMILAR DRAINAGE
- ASTM F 405 - STANDARD SPECIFICATION FOR CORRUGATED POLYETHYLENE (PE) PIPE AND FITTINGS

E. ENGINEERING DESIGN

- "NOMA DESIGN MANUAL FOR SEGMENTAL RETAINING WALLS," THIRD EDITION
- WHERE SPECIFICATIONS AND REFERENCE DOCUMENTS CONFLICT, THE WALL DESIGN ENGINEER SHALL MAKE THE FINAL DETERMINATION OF APPLICABLE DOCUMENT.

PART 2: MATERIALS

2.01 SEGMENTAL RETAINING WALL (SRW) UNITS

- SRW UNITS SHALL BE MACHINE FORMED, PORTLAND CEMENT CONCRETE BLOCKS SPECIFICALLY DESIGNED FOR RETAINING WALL APPLICATIONS.
- SRW UNIT HEIGHT SHALL BE 8 INCHES, UNIT WIDTH SHALL BE 18 INCHES, AND UNIT DEPTH SHALL BE 12 INCHES
- SRW UNITS (NOT INCLUDING AGGREGATE FILL IN UNIT VOIDS) SHALL PROVIDE A MINIMUM WEIGHT OF 75 PSF WALL FACE AREA.
- SRW UNITS SHALL BE INTERLOCKED, DESIGNED WITH SETBACK PER CONSTRUCTION DRAWINGS.
- SRW UNITS SHALL BE SOUND AND FREE OF CRACKS OR OTHER DEFECTS THAT WOULD INTERFERE WITH THE PROPER PLACING OF THE UNIT OR SIGNIFICANTLY IMPAIR THE STRENGTH OR PERFORMANCE OF THE STRUCTURE. ANY CRACKS OR CHIPS OBSERVED DURING CONSTRUCTION SHALL FALL WITHIN THE GUIDELINES OUTLINED IN ASTM C 1372.
- SRW UNITS SHALL BE CAPABLE OF PROVIDING OVERLAP OF UNITS ON EACH SUCCESSIVE COURSE SO THAT WALLS MEETING AT CORNER ARE INTERLOCKED AND CONTINUOUS. SRW UNITS THAT REQUIRE CORNERS TO BE MITERED SHALL NOT BE ALLOWED.
- SRW UNITS SHALL BE CAPABLE OF PROVIDING A SPLIT-FACE, TEXTURED SURFACE FOR ALL VERTICAL SURFACES THAT WILL BE EXPOSED AFTER COMPLETION OF WALL, INCLUDING ANY EXPOSED SIDES AND BACKS OF UNITS.
- CONCRETE SRW UNITS SHALL CONFORM TO THE REQUIREMENTS OF ASTM 1372 AND HAVE A MINIMUM NET AVERAGE 28 DAYS COMPRESSIVE STRENGTH OF 3000 PSI. COMPRESSIVE STRENGTH TEST SPECIMENS SHALL CONFORM TO THE SAW-CUT COUPON PROVISIONS OF ASTM C140.
- SRW UNITS' MOLDED DIMENSIONS SHALL NOT DIFFER MORE THAN ± 1/8 INCH FROM THAT SPECIFIED, AS MEASURED IN ACCORDANCE WITH ASTM C 140. THIS TOLERANCE DOES NOT APPLY TO ARCHITECTURAL SURFACES, SUCH AS SPLIT FACES.

2.02 GEOSYNTHETIC REINFORCEMENT

A. GEOSYNTHETIC REINFORCEMENT SHALL CONSIST OF HIGH-TENACITY PET GEOTEXTILES, HOPE GEOTEXTILES, OR GEOTEXTILES MANUFACTURED FOR SOIL REINFORCEMENT APPLICATIONS. THE TYPE, STRENGTH AND PLACEMENT OF THE GEOSYNTHETIC REINFORCEMENT SHALL BE DETERMINED BY PROCEDURES OUTLINED IN THIS SPECIFICATION AND THE NOMA DESIGN MANUAL FOR SEGMENTAL RETAINING WALLS (3RD EDITION 2009) AND MATERIALS SHALL BE SPECIFIED BY WALL DESIGN ENGINEER IN THEIR FINAL WALL PLANS AND SPECIFICATIONS. THE MANUFACTURERS/SUPPLIERS OF THE GEOSYNTHETIC REINFORCEMENT SHALL HAVE DEMONSTRATED CONSTRUCTION OF SIMILAR SIZE AND TYPES OF SEGMENTAL RETAINING WALLS ON PREVIOUS PROJECTS.

B. THE TYPE, STRENGTH AND PLACEMENT OF THE REINFORCING GEOSYNTHETIC SHALL BE AS DETERMINED BY THE WALL DESIGN ENGINEER, AS SHOWN ON THE FINAL, P.E.-STAMPED RETAINING WALL PLANS.

2.03 LEVELING PAD

A. MATERIAL FOR LEVELING PAD SHALL CONSIST OF COMPACTED SAND, GRAVEL, OR COMBINATION THEREOF (USCS SOIL TYPES GP, GW, SP, & SW) AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH. LEAN CONCRETE WITH A STRENGTH OF 200-300 PSI AND 3 INCHES THICK MAXIMUM MAY ALSO BE USED AS A LEVELING PAD MATERIAL. THE LEVELING PAD SHOULD EXTEND LATERALLY AT LEAST A DISTANCE OF 6 INCHES FROM THE TOE AND HEEL OF THE LOWERMOST SRW UNIT.

2.04 DRAINAGE AGGREGATE

A. DRAINAGE AGGREGATE SHALL BE ANGULAR, CLEAN STONE OR GRANULAR FILL MEETING THE FOLLOWING GRADATION AS DETERMINED IN ACCORDANCE WITH ASTM D422:

sieve size	percent passing
1 INCH	100
3/4 INCH	75-100
NO. 4	0-60
NO. 40	0-50
NO. 200	0-5

2.05 DRAINAGE PIPE

A. THE DRAINAGE COLLECTION PIPE SHALL BE A PERFORATED OR SLOTTED PVC, SDR 35 OR CORRUGATED HDPE PIPE. THE DRAINAGE PIPE MAY BE WRAPPED WITH A GEOTEXTILE TO FUNCTION AS A FILTER.

B. DRAINAGE PIPE SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM F 405 OR ASTM F 758.

2.06 REINFORCED BACKFILL SOIL

A. THE REINFORCED SOIL MATERIAL SHALL BE FREE OF DEBRIS, UNLESS OTHERWISE NOTED ON THE FINAL, P.E.-SEALED, RETAINING WALL PLANS PREPARED BY THE WALL DESIGN ENGINEER. THE REINFORCED MATERIAL SHALL CONSIST OF THE INORGANIC USCS SOIL TYPES GP, GW, SP, SW, MEETING THE FOLLOWING GRADATION, AS DETERMINED IN ACCORDANCE WITH ASTM D422:

sieve size	percent passing
1 INCH	100
NO. 4	20-100
NO. 40	0-60
NO. 200	0-35

B. THE MAXIMUM PARTICLE SIZE OF POORLY-GRADED GRAVELS (GP) (NO FINES) SHOULD NOT EXCEED 3/4 INCH UNLESS EXPRESSLY APPROVED BY THE WALL DESIGN ENGINEER AND THE LONG-TERM DESIGN STRENGTH (LTD) OF THE GEOSYNTHETIC IS REDUCED TO ACCOUNT FOR ADDITIONAL INSTALLATION DAMAGE FROM PARTICLES LARGER THAN THIS MAXIMUM.

C. THE PLASTICITY OF THE FINE FRACTION SHALL BE LESS THAN 20.

PART 3: DESIGN PARAMETERS

3.01 SOIL AND DESIGN PARAMETERS

A. THE FOLLOWING SOIL PARAMETERS, HAVE BEEN USED FOR THE PREPARATION OF THE FINAL DESIGN:

DESIGN PARAMETERS*		
SOIL	SOIL UNIT WEIGHT (PCF)	INTERNAL FRICTION ANGLE (ϕ)
BACKFILL	125	28.0
FOUNDATION SOIL	125	30.0

APPLIED SURCHARGE LOADING = 250 PSF (TRAFFIC LOAD)

* SOIL PARAMETERS ASSUMED FOR DESIGN

MINIMUM FACTORS OF SAFETY

OVERTURNING	1.5
SLIDING	1.5
BEARING CAPACITY	2.0

PROVIDED FACTORS OF SAFETY

OVERTURNING	1.9
SLIDING	2.4
BEARING CAPACITY	2.5

B. SHOULD THE ACTUAL SOIL CONDITIONS OBSERVED DURING CONSTRUCTION DIFFER FROM THOSE ASSUMED FOR THE DESIGN, DESIGN SHALL BE REVIEWED BY THE WALL DESIGN ENGINEER AT THE OWNER'S GEOTECHNICAL ENGINEER'S DIRECTION.

3.02 DESIGN

A. THE DESIGN ANALYSIS FOR THE FINAL, P.E.-STAMPED RETAINING WALL PLANS PREPARED BY THE WALL DESIGN ENGINEER SHALL CONSIDER THE EXTERNAL STABILITY AGAINST SLIDING AND OVERTURNING, INTERNAL STABILITY AND FACIAL STABILITY OF THE REINFORCED SOIL MASS, AND SHALL BE IN ACCORDANCE WITH ACCEPTABLE ENGINEERING PRACTICE AND THESE SPECIFICATIONS. THE INTERNAL AND EXTERNAL STABILITY ANALYSIS SHALL BE PERFORMED IN ACCORDANCE WITH THE "NOMA DESIGN MANUAL FOR SEGMENTAL RETAINING WALLS, 3RD EDITION" USING THE RECOMMENDED MINIMUM FACTORS OF SAFETY IN THIS MANUAL.

- GLOBAL STABILITY AND SEISMIC LOADING AREA NOT CONSIDERED IN THIS DESIGN.
- WHILE VERTICAL SPACING BETWEEN GEOTEXTILE LAYERS MAY VARY, IT SHALL NOT EXCEED 2.0 FEET MAXIMUM IN THE WALL DESIGN.
- THE GEOSYNTHETIC PLACEMENT IN THE WALL DESIGN SHALL HAVE 100% CONTINUOUS COVERAGE PARALLEL TO THE WALL FACE. GAPPING BETWEEN HORIZONTALLY ADJACENT LAYERS OF GEOSYNTHETIC (PARTIAL COVERAGE) WILL NOT BE ALLOWED.

PART 4: CONSTRUCTION

4.01 EXCAVATION

A. CONTRACTOR SHALL EXCAVATE TO THE LINES AND GRADES SHOWN ON THE PROJECT GRADING PLANS. CONTRACTOR SHALL TAKE PRECAUTIONS TO MINIMIZE OVER-EXCAVATION. OVER-EXCAVATION SHALL BE FILLED WITH COMPACTED INFILL MATERIAL, OR AS DIRECTED BY THE ENGINEER/ARCHITECT, AT THE CONTRACTOR'S EXPENSE.

B. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING STRUCTURES AND UTILITIES PRIOR TO EXCAVATION. CONTRACTOR SHALL ENSURE ALL SURROUNDING STRUCTURES ARE PROTECTED FROM THE EFFECTS OF WALL EXCAVATION. EXCAVATION SUPPORT, IF REQUIRED, IS THE RESPONSIBILITY OF THE CONTRACTOR.

4.02 FOUNDATION PREPARATION

A. FOLLOWING THE EXCAVATION, THE FOUNDATION SOIL SHALL BE EXAMINED BY THE OWNER'S ENGINEER TO ASSURE ACTUAL FOUNDATION SOIL STRENGTH MEETS OR EXCEEDS THE ASSUMED DESIGN BEARING STRENGTH. SOILS NOT MEETING THE REQUIRED STRENGTH SHALL BE REMOVED AND REPLACED WITH INFILL SOILS, AS DIRECTED BY THE OWNER'S GEOTECHNICAL ENGINEER.

B. FOUNDATION SOIL SHALL BE PROOF-ROLLED AND COMPACTED TO 95% STANDARD PROCTOR DENSITY AND INSPECTED BY THE OWNER'S GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF LEVELING PAD MATERIALS.

4.03 LEVELING PAD CONSTRUCTION

A. LEVELING PAD SHALL BE PLACED AS SHOWN ON THE FINAL, P.E.-SEALED RETAINING WALL PLANS WITH A MINIMUM THICKNESS OF 6 INCHES. THE LEVELING PAD SHOULD EXTEND LATERALLY AT LEAST A DISTANCE OF 6 INCHES FROM THE TOE AND HEEL OF THE LOWERMOST SRW UNIT.

B. GRANULAR LEVELING PAD MATERIAL SHALL BE COMPACTED TO PROVIDE A FIRM, LEVEL BEARING SURFACE ON WHICH TO PLACE THE FIRST COURSE OF UNITS. WELL-GRADED SAND CAN BE USED TO SMOOTH THE TOP 1/4 INCH TO 1/2 INCH OF THE LEVELING PAD. COMPACTION WILL BE WITH MECHANICAL PLATE COMPACTORS TO ACHIEVE 95% OF MAXIMUM STANDARD PROCTOR DENSITY (ASTM D 698).

4.04 SRW UNIT INSTALLATION

A. ALL SRW UNITS SHALL BE INSTALLED AT THE PROPER ELEVATION AND ORIENTATION AS SHOWN ON THE FINAL, P.E.-SEALED WALL PLANS AND DETAILS OR AS DIRECTED BY THE WALL DESIGN ENGINEER.

B. THE SRW UNITS SHALL BE INSTALLED IN GENERAL ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE SPECIFICATIONS AND DRAWINGS SHALL GOVERN IN ANY CONFLICT BETWEEN THE TWO REQUIREMENTS.

C. FIRST COURSE OF SRW UNITS SHALL BE PLACED ON THE LEVELING PAD. THE UNITS SHALL BE LEVELLED SIDE-TO-SIDE, FRONT-TO-REAR AND WITH ADJACENT UNITS, AND ALLOWED TO ENSURE INTIMATE CONTACT WITH THE LEVELING PAD. THE FIRST COURSE IS THE MOST IMPORTANT TO ENSURE ACCURATE AND ACCEPTABLE RESULTS. NO GAPS SHALL BE LEFT BETWEEN THE FRONT OF ADJACENT UNITS. ALIGNMENT MAY BE DONE BY MEANS OF A STRING LINE OR OFFSET FROM BASE LINE TO THE BACK OF THE UNITS.

D. THE VOIDS WITHIN THE BASE-COURSE SRW UNITS SHALL BE FILLED WITH CRUSHED GRAVEL. THE CORES OF ADDITIONAL COURSES SHALL BE FILLED WITH ANGULAR FREE-DRAINING AGGREGATE.

E. ALL EXCESS DEBRIS SHALL BE CLEANED FROM THE TOP OF UNITS AND THE NEXT COURSE OF UNITS INSTALLED ON TOP OF THE UNITS BELOW.

F. UNITS SHALL BE PUSHED FORWARD TO REMOVE ANY LOOSENESS IN THE UNIT-TO-UNIT CONNECTION AND THEN CHECK ALIGNMENT. LEVEL AND ALIGNMENT OF THE UNITS SHALL BE CHECKED AND CORRECTED (IF REQUIRED) BEFORE PROCEEDING.

G. LAY OUT OF CURVES AND CORNERS SHALL BE INSTALLED IN ACCORDANCE WITH THE PLAN DETAILS OR IN GENERAL ACCORDANCE WITH SRW MANUFACTURER'S INSTALLATION GUIDELINES. WALLS MEETING AT CORNERS SHALL BE INTERLOCKED BY OVERLAPPING SUCCESSIVE COURSES.

H. THE ABOVE PROCEDURES SHALL BE REPEATED TO THE EXTENT OF WALL HEIGHT.

4.05 GEOSYNTHETIC REINFORCEMENT PLACEMENT

A. ALL GEOSYNTHETIC REINFORCEMENT SHALL BE INSTALLED AT THE PROPER ELEVATION AND ORIENTATION AS SHOWN ON THE FINAL, P.E.-SEALED RETAINING WALL PLAN PROFILES AND DETAILS, OR AS DIRECTED BY THE WALL DESIGN ENGINEER.

B. AT THE ELEVATIONS SHOWN ON THE FINAL PLANS, (AFTER THE UNITS, DRAINAGE MATERIAL, AND BACKFILL HAVE BEEN PLACED TO THIS ELEVATION) THE GEOSYNTHETIC REINFORCEMENT SHALL BE LAID HORIZONTALLY ON COMPACTED INFILL AND ON TOP OF THE CONCRETE SRW UNITS, TO WITHIN 1 INCH OF THE FRONT FACE OF THE UNIT BELOW. EMBEDMENT OF THE GEOSYNTHETIC IN THE SRW UNITS SHALL BE CONSISTENT WITH SRW MANUFACTURER'S RECOMMENDATIONS. CORRECT ORIENTATION OF THE GEOSYNTHETIC REINFORCEMENT SHALL BE VERIFIED BY THE CONTRACTOR TO BE IN ACCORDANCE WITH THE GEOSYNTHETIC MANUFACTURER'S RECOMMENDATIONS. THE HIGHEST-STRENGTH DIRECTION OF THE GEOSYNTHETIC MUST BE PERPENDICULAR TO THE WALL FACE.

C. GEOSYNTHETIC REINFORCEMENT LAYERS SHALL BE ONE CONTINUOUS PIECE FOR THEIR ENTIRE EMBEDMENT LENGTH. SPLICING OF THE GEOSYNTHETIC IN THE DESIGN-STRENGTH DIRECTION (PERPENDICULAR TO THE WALL FACE) SHALL NOT BE PERMITTED, ALONG THE LENGTH OF THE WALL. HORIZONTALLY ADJACENT SECTIONS OF GEOSYNTHETIC REINFORCEMENT SHALL BE BUTTED IN A MANNER TO ASSURE 100% COVERAGE PARALLEL TO THE WALL FACE.

- TRACKED CONSTRUCTION EQUIPMENT SHALL NOT BE OPERATED DIRECTLY ON THE GEOSYNTHETIC REINFORCEMENT. A MINIMUM OF 6 INCHES OF BACKFILL IS REQUIRED PRIOR TO OPERATION OF TRACKED VEHICLES OVER THE GEOSYNTHETIC. TURNING SHOULD BE KEPT TO A MINIMUM. RUBBER-TIRED EQUIPMENT MAY PASS OVER THE GEOSYNTHETIC REINFORCEMENT AT SLOW SPEEDS (LESS THAN 5 MPH).
- THE GEOSYNTHETIC REINFORCEMENT SHALL BE FREE OF WRINKLES PRIOR TO PLACEMENT OF SOIL FILL. THE NOMINAL TENSION SHALL BE APPLIED TO THE REINFORCEMENT AND SECURED IN PLACE WITH STAPLES, STAKES OR BY HAND TENSIONING UNTIL REINFORCEMENT IS COVERED BY 6 INCHES OF FILL.

4.06 DRAINAGE AGGREGATE AND DRAINAGE MATERIAL PLACEMENT

A. DRAINAGE AGGREGATE SHALL BE INSTALLED TO THE LINE, GRADES AND SECTIONS SHOWN ON THE FINAL, P.E.-SEALED RETAINING WALL PLANS. DRAINAGE AGGREGATE SHALL BE PLACED TO THE MINIMUM THICKNESS SHOWN ON THE CONSTRUCTION PLANS BETWEEN AND BEHIND UNITS (A MINIMUM OF 1 CUBIC FOOT FOR EACH SQUARE FOOT OF WALL FACE UNLESS OTHERWISE NOTED ON THE FINAL WALL PLANS).

B. DRAINAGE COLLECTION PIPES SHALL BE INSTALLED TO MAINTAIN GRAVITY FLOW OF WATER OUTSIDE THE REINFORCED-SOIL ZONE. THE DRAINAGE COLLECTION PIPE SHALL BE INSTALLED AT THE LOCATIONS SHOWN ON THE FINAL CONSTRUCTION DRAWINGS. THE DRAINAGE COLLECTION PIPE SHALL DAYLIGHT INTO A STORM SEWER OR ALONG A SLOPE, AT AN ELEVATION BELOW THE LOWEST POINT OF THE PIPE WITHIN THE AGGREGATE DRAIN.

4.07 BACKFILL PLACEMENT

A. THE REINFORCED BACKFILL SHALL BE PLACED AS SHOWN IN THE FINAL WALL PLANS IN THE MAXIMUM COMPACTED LIFT THICKNESS OF 8 INCHES AND SHALL BE COMPACTED TO A MINIMUM OF 95% OF STANDARD PROCTOR DENSITY (ASTM D 698) AT A MOISTURE CONTENT WITHIN -1% TO +3% POINTS OF OPTIMUM. THE BACKFILL SHALL BE PLACED AND SPREAD IN SUCH A MANNER AS TO ELIMINATE WRINKLES OR MOVEMENT OF THE GEOSYNTHETIC REINFORCEMENT AND THE SRW UNITS.

B. ONLY HAND-OPERATED COMPACTION EQUIPMENT SHALL BE ALLOWED WITHIN 3 FEET OF THE BACK OF THE WALL UNITS. COMPACTION WITHIN THE 3 FEET BEHIND THE WALL UNITS SHALL BE ACHIEVED BY AT LEAST THREE PASSES OF A LIGHTWEIGHT MECHANICAL TAMPER, PLATE, OR ROLLER.

C. AT THE END OF EACH DAY'S OPERATION, THE CONTRACTOR SHALL SLOPE THE LAST LEVEL OF BACKFILL AWAY FROM THE WALL FACING AND REINFORCED BACKFILL TO DIRECT WATER RUNOFF AWAY FROM THE WALL FACE.

D. AT COMPLETION OF WALL CONSTRUCTION, BACKFILL SHALL BE PLACED LEVEL WITH FINAL TOP OF WALL ELEVATION. IF FINAL GRADING, PLANNED LANDSCAPING AND/OR STORM DRAINAGE INSTALLATION ADJACENT TO THE WALL IS NOT PLACED IMMEDIATELY AFTER WALL COMPLETION, TEMPORARY GRADING AND DRAINAGE SHALL BE PROVIDED TO ENSURE WATER RUNOFF IS NOT DIRECTED AT THE WALL NOR ALLOWED TO COLLECT OR POND BEHIND THE WALL UNTIL FINAL CONSTRUCTION ADJACENT TO THE WALL IS COMPLETED.

E. SRW CAPS SHALL BE PROPERLY ALIGNED AND GLED TO UNDERLYING UNITS WITH A FLEXIBLE, HIGH-STRENGTH CONCRETE ADHESIVE. RIGID ADHESIVE OR MORTAR ARE NOT ACCEPTABLE.

F. CAPS SHALL OVERHANG THE TOP COURSE OF UNITS BY 3/4 INCH TO 1 INCH. SLIGHT VARIATION IN OVERHANG IS ALLOWED TO CORRECT ALIGNMENT AT THE TOP OF THE WALL.

4.08 SRW CAPS

A. SRW CAPS SHALL BE PROPERLY ALIGNED AND GLED TO UNDERLYING UNITS WITH A FLEXIBLE, HIGH-STRENGTH CONCRETE ADHESIVE. RIGID ADHESIVE OR MORTAR ARE NOT ACCEPTABLE.

B. CAPS SHALL OVERHANG THE TOP COURSE OF UNITS BY 3/4 INCH TO 1 INCH. SLIGHT VARIATION IN OVERHANG IS ALLOWED TO CORRECT ALIGNMENT AT THE TOP OF THE WALL.

4.09 CONSTRUCTION ADJACENT TO COMPLETED WALL

- THE OWNER OR OWNER'S REPRESENTATIVE IS RESPONSIBLE FOR ENSURING THAT CONSTRUCTION BY OTHERS ADJACENT TO THE WALL DOES NOT DISTURB THE WALL OR PLACE TEMPORARY CONSTRUCTION LOADS ON THE WALL THAT EXCEED DESIGN LOADS, INCLUDING LOADS SUCH AS WATER PRESSURE, TEMPORARY GRADES, OR EQUIPMENT LOADING. HEAVY PAVING OR GRADING EQUIPMENT SHALL BE KEPT A MINIMUM OF 3 FEET BEHIND THE BACK OF THE WALL FACE. EQUIPMENT WITH WHEEL LOADS IN EXCESS OF 150 PSF LIVE LOAD SHALL NOT BE OPERATED WITHIN 10 FEET OF THE FACE OF THE RETAINING WALL DURING CONSTRUCTION ADJACENT TO THE WALL. CARE SHOULD BE TAKEN BY THE GENERAL CONTRACTOR TO ENSURE WATER RUNOFF IS DIRECTED AWAY FROM THE WALL STRUCTURE UNTIL FINAL GRADING AND SURFACE DRAINAGE COLLECTION SYSTEMS ARE COMPLETED.

SUBGRADE LOAD BEARING CAPACITY:

- PRIOR TO INSTALLATION OF THE LEVELING PAD AND SEGMENTAL BLOCKS, THE CONTRACTOR SHALL HAVE A CERTIFIED GEOTECHNICAL LAB VERIFY THE LOAD BEARING CAPACITY OF THE SUBGRADE, AS DESIGNATED IN THE DRAWINGS.
- THE MINIMUM ACCEPTABLE LOAD BEARING CAPACITY OF THE SUBGRADE SHALL BE 1.5 TSF.

GENERAL RETAINING WALL NOTES

- WALL CONSTRUCTION SHALL BE SUPERVISED BY A QUALIFIED ENGINEER OR TECHNICIAN TO VERIFY FIELD AND SITE SOIL CONDITIONS. IF THIS WORK IS NOT PERFORMED BY THE SITE GEOTECHNICAL ENGINEER, A QUALIFIED GEOTECHNICAL ENGINEER/TECHNICIAN SHALL BE CONSULTED IN THOSE MATTERS PERTAINING TO THE SOIL CONDITIONS AND WALL PERFORMANCE.
- THE FOUNDATION SOILS AT THE BASE OF THE WALL(S) SHALL BE INSPECTED BY THE ENGINEER. ANY UNSUITABLE SOILS OR IMPROPERLY COMPACTED EMBANKMENT MATERIAL SHALL BE REMOVED AND REPLACED AS DIRECTED BY THE ENGINEER PRIOR TO WALL CONSTRUCTION TO PROVIDE ADEQUATE BEARING CAPACITY AND MINIMIZE SETTLEMENT.
- ALL WALL EXCAVATION AND RETAINED SOILS SHALL BE INSPECTED FOR GROUNDWATER CONDITIONS. ANY ADDITIONAL DRAINAGE PROVISIONS REQUIRED IN THE FIELD SHALL BE INCORPORATED INTO THE WALL CONSTRUCTION AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
- ALL SOIL BACKFILL SHALL BE TESTED BY THE ENGINEER FOR MOISTURE, DENSITY, AND COMPACTION PERIODICALLY (EVERY 7' VERTICALLY, 100'-200' C/C) MEETING THE MINIMUM REQUIREMENTS OF THE APPROVED DESIGN PLANS OR SPECIFICATIONS.
- ALL WALL ELEVATIONS, GRADES, AND BACKSLOPE CONDITIONS SHALL BE VERIFIED BY THE ENGINEER IN THE FIELD FOR CONFORMANCE WITH APPROVED DESIGN PLANS. ANY REVISIONS TO THE STRUCTURE GEOMETRY OR DESIGN CRITERIA SHALL REQUIRE DESIGN MODIFICATIONS PRIOR TO PROCEEDING WITH CONSTRUCTION.

GENERAL CONSTRUCTION CONDITIONS

- THE TERM OF OWNER AS USED IN THESE SPECIFICATIONS AND NOTES SHALL INCLUDE THE OWNER OF THE PROPERTY, THE COMPANY OR PARTY THAT HIRED THE CONTRACTOR, THE COMPANY OR PARTY THAT SIGNED THE CONTRACT FOR THIS WORK AND THE AGENTS OF EACH. THE OWNER'S REPRESENTATIVE SHALL BE THE INDIVIDUAL OR PARTY ASSIGNED BY THE OWNER TO BE THE OWNER'S REPRESENTATIVE.
- THE OWNER SHALL BE RESPONSIBLE FOR ALL TEMPORARY PERMITS, CONNECTION PERMITS, FEES, INSPECTIONS AND RECORD KEEPING REQUIRED BY ALL MUNICIPAL, UTILITY, HEALTH, ENVIRONMENTAL, STATE OR FEDERAL AGENCIES THAT MAY HAVE JURISDICTION. FURTHERMORE, THE OWNER SHALL BE RESPONSIBLE TO MEET OR EXCEED ALL REQUIREMENTS OF THE AGENCIES OR AUTHORITIES HAVING JURISDICTION OVER HIS WORK. ALL CONFLICTS IN REQUIREMENTS OF DIFFERENT AGENCIES, AUTHORITIES AND/OR THE DESIGN SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE BEFORE PROCEEDING.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE AND MAINTAIN THE PROPERTY AND PROJECT LIMITS THROUGHOUT THE PROJECT. ALL CONFLICTS BETWEEN THE DESIGN AND THE PROJECT / PROPERTY LIMITS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE BEFORE PROCEEDING. UNLESS DESCRIBED IN THE CONTRACT DOCUMENTS OR SHOWN ON THE DRAWINGS THE OWNER HAS NOT SECURED ANY RIGHT OF WAYS, EASEMENTS OR AGREEMENTS WITH OTHER PROPERTY OWNERS OR PROPERTY USERS. THEREFORE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SECURE AND MAINTAIN ANY TEMPORARY RIGHT OF WAYS, EASEMENTS, PERMITS OR AGREEMENTS HE MAY NEED TO PERFORM HIS WORK. ALL SUCH AGREEMENTS SHALL HOLD THE OWNER, ENGINEER AND HIS AGENTS HARMLESS AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BEAR ALL COSTS. THE CONTRACTOR SHALL COPY THE OWNER ON RELEASES OF ALL AGREEMENTS PRIOR TO FINAL PAYMENT BY THE OWNER TO THE CONTRACTOR.
- UNLESS OTHERWISE NOTED ON THE DRAWINGS OR IN THE CONTRACT DOCUMENTS THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION SURVEY, LAYOUT AND RECORD DRAWINGS FOR THIS CONTRACT. ANY CONFLICTS IN SURVEY/LAYOUT AND THE DESIGN OR AGENCIES REQUIREMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE PRIOR TO PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL PROTECT AND SAFEGUARD ALL EXISTING SURVEY MONUMENTS, CONTROL AND TIE-DOWNS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COST ASSOCIATED WITH ERRORS IN THE STAKE-OUT AND LOCATION OF HIS WORK. THE CONTRACTOR SHALL PAY ALL COSTS TO REPAIR OR REPLACE DAMAGED SURVEY MONUMENTS, CONTROL AND TIE-DOWNS.
- NO CHANGES TO THE DESIGN OR MATERIALS SPECIFIED MAY BE MADE WITHOUT WRITTEN AUTHORIZATION BY THE ENGINEER OR IN THE CASE OF UTILITIES OR ROAD WORK TO BE DEDICATED, THE AUTHORITY RECEIVING DEDICATION. THE CONTRACTOR SHALL PROVIDE TO THE OWNER AT THE END OF THE CONTRACT A RECORD SET OF DRAWING REFLECTING ALL CHANGES MADE BY THE CONTRACTOR DURING CONSTRUCTION.
- EROSION CONTROL IS NECESSARY WHEN SEDIMENT, DUST, EROSION, OR CONTAMINATED RUN-OFF MAY OCCUR. THE CONTRACTOR SHALL BE RESPONSIBLE TO PLACE AND MAINTAIN EROSION CONTROL OR RUN-OFF PROTECTION AS REQUIRED TO PROTECT HIS WORK, THE WORK OF HIS SUBCONTRACTORS, OR OTHER PARTIES ASSOCIATED WITH THE PROJECT. ADJACENT PROPERTIES AND THE HEALTH AND WELL BEING OF THE WORKERS, PUBLIC AND SURROUNDING NATURAL RESOURCES. THE CONTRACTOR SHALL BE FAMILIAR WITH ALL FEDERAL, STATE AND LOCAL REQUIREMENTS REGARDING EROSION AND RUN-OFF CONTROL AND SHALL SIGN A CERTIFICATION STATEMENT INDICATING THAT HE UNDERSTANDS AND WILL COMPLY WITH THE SITE'S STORM WATER POLLUTION PREVENTION PLAN IF ONE WAS PREPARED FOR THE PROJECT.
- THE CONTRACTOR SHALL BE FAMILIAR WITH THE PROJECT SITE AND ALL ADJACENT PEDESTRIAN, TRAFFIC AND BUSINESS USES. THE CONTRACTOR SHALL TAKE WHAT EVER PRECAUTIONS AND STEPS NECESSARY TO MAINTAIN SAFETY AND OPERATION OF THESE USES IN ACCORDANCE WITH FEDERAL, STATE, COUNTY AND LOCAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COSTS AND DAMAGES CAUSED BY HIS FAILURE TO TAKE PROPER AND ADEQUATE PRECAUTIONS. THE CONTRACTOR SHALL BE FAMILIAR WITH ALL FEDERAL, STATE AND LOCAL REQUIREMENTS REGARDING THESE USES INCLUDING BUT NOT LIMITED TO THE MAINTENANCE AND PROTECTION OF TRAFFIC REQUIRED BY THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYS DOT) AND CORRESPONDING TOWNS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COSTS AND DELAYS ASSOCIATED WITH WEATHER, GROUNDWATER, AND OTHER OCCURRENCES THAT COULD BE EXPECTED OR ARE COMMON WITH THIS TYPE OF WORK. THE CONTRACTOR SHALL REVIEW ALL PERTINENT DOCUMENTS INCLUDING SOILS REPORTS, SOILS BORINGS AND OTHER SOIL OR SITE DATA.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO SAVE AND PROTECT HIS WORK THROUGHOUT THE CONTRACT. ANY DAMAGES REQUIRING REPAIRS OR REPLACEMENT SHALL BE CORRECTED BY THE CONTRACTOR AT HIS EXPENSE.
- WHEN WORK IS DONE WITHIN A ROAD, UTILITY OR PRIVATE EASEMENT, RIGHT OF WAY OR OTHER PROPERTY AGREEMENT THE CONTRACTOR SHALL DO ALL WORK WITHIN THAT AREA PER THE AUTHORITY HAVING JURISDICTION.
- ALL EXISTING UTILITIES ARE SHOWN PER SURFACE SURVEYS AND/OR RECORD MAPS AND MAY VARY FROM ACTUAL IN FIELD LOCATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY STAKE OUTS AND LOCATING UTILITIES PRIOR TO COMMENCING WORK. ANY DAMAGE TO UTILITIES DUE TO IMPROPER STAKE OUT, LACK OF STAKE OUT OR FAILURE TO VERIFY DIFFERENCES BETWEEN DRAWINGS AND ACTUAL FIELD CONDITIONS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR, REPLACE OR PAY DAMAGES AT NO EXPENSE TO THE CONTRACT.
- CONTRACTOR SHALL FURNISH AND APPLY WATER AND/OR CALCIUM CHLORIDE AS NECESSARY TO CORRECT DUSTY CONDITIONS RESULTING FROM LOCAL TRAFFIC ON THE STREET OR CONTRACTORS OPERATIONS.

- COMPACTOR REQUIREMENTS SHALL BE THOSE OUTLINED IN THE PLAN. IF THE PLAN IS NOT CLEAR OR DOES NOT GIVE REQUIREMENTS THE FOLLOWING WILL BE USED. THE SUBGRADE SOILS AND BACK FILL AREA SHALL BE COMPACTED TO A MINIMUM OF 95% MAXIMUM DRY DENSITY PER ASTM D1557 (MODIFIED PROCTOR). ALL LANDSCAPE AND LAWN AREAS SHALL BE COMPACTED TO 90% MAXIMUM DRY DENSITY PER ASTM D1557 (MODIFIED PROCTOR). THE TESTING LAB SHALL TEST SOILS IN ACCORDANCE WITH ASTM D2922 (NUCLEAR METHOD) WITH PROCTORS FOR EACH SOIL TYPE.
- UNLESS OTHERWISE NOTED IN THE SOILS REPORT OR ON THE DRAWINGS THE ON-SITE MATERIAL SHALL BE USED TO MAKE FILLS. ALL MATERIAL TO BE USED FOR FILL SHALL BE FREE OF ORGANICS, FROZEN MATERIAL, CONTAMINATED MATERIAL, DEBRIS AND ANY ROCKS LARGER THAN 4 INCHES. FOR FILL PLACED WITHIN 1 FOOT OF SUBGRADE NO ROCK SHALL BE GREATER THAN 2 INCHES IN DIAMETER. THE CONTRACTOR SHALL BEAR ALL COST ASSOCIATED WITH DRYING, SEGREGATING OR OTHER REQUIRED METHODS TO TREAT SOILS TO MEET COMPACTION AND OTHER REQUIREMENTS.
- BACKFILLS SHALL BE PLACED IN LIFTS NOT TO EXCEED 8 INCH.
- IF IMPORTED MATERIAL IS REQUIRED THE SOURCE AND A RANDOM COMPOSITE SAMPLE SHALL BE REVIEWED BY THE TESTING LABORATORY PRIOR TO BEING BROUGHT TO SITE. IMPORTED MATERIAL SHALL HAVE 100% PASSING THE 3 INCH SIEVE FOR FILL UP TO 1 FOOT OF SUBGRADE AND 100% PASSING THE 2 INCH SIEVE FOR FILLS WITHIN 1 FOOT OF SUBGRADE. THE IMPORTED MATERIAL SHALL HAVE NO MORE THAN 40% PASSING THE NO. 40 SIEVE AND 15% PASSING THE NO. 200 SIEVE. WAIVERS TO THESE REQUIREMENTS CAN ONLY BE GIVEN JOINTLY BY THE OWNER AND THE GEOTECHNICAL ENGINEER THAT PREPARED THE SOILS REPORT.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EARTHWORK OPERATIONS FROM WEATHER AND GROUND WATER INCLUDING KEEPING PROPER DRAINAGE. DIVERT DRAINAGE, DEWATERING AND SEALING DISTURBED AREAS WITH A STEEL DRUM ROLLER PRIOR TO INCLIMATE WEATHER.
- ALL FINAL SUBGRADE UNDER PROPOSED PAVEMENT, BUILDING OR OTHER STRUCTURE SHALL BE PROOF ROLLED AS DESCRIBED ABOVE FOR IDENTIFYING OF SOFT AREAS. AREAS FOUND TO BE UNACCEPTABLE SHALL BE SCARIFIED, DRIED AND RECOMPACTED. RE-TEST BY PROOF ROLL AS NECESSARY.
- ALL EXCAVATIONS SHALL MAINTAIN SAFE SIDE SLOPES IN ACCORDANCE WITH LOCAL, STATE AND OSHA REQUIREMENTS. NO STOCKING OF MATERIAL CLOSE TO AN OPEN CUT OR STEEP SLOPE WILL BE PERMITTED IN AN EFFORT TO PREVENT CAVE-INS.
- TRENCH EXCAVATIONS SHALL BE MADE UNIFORM AS SHOWN ON PLAN. NO MORE TRENCH SHALL BE OPEN IN ONE DAY THAN CAN BE PROPERLY BACKFILLED IN THAT SAME DAY TO MINIMIZE WEATHER AND SAFETY CONCERNS. COMPACTION REQUIREMENTS ARE NOT RELIEVED IN THESE AREAS AND WILL REMAIN AS STATED ON THE DRAWINGS OR ABOVE.
- IF ROCK IS ENCOUNTERED THAT WAS NOT INDICATED ON THE PLANS OR SOILS REPORT, THE CONTRACTOR SHALL NOTIFY THE OWNER / ENGINEER OF THE RECORD FOR ALTERNATIVE DESIGN. NO ROCK EXCAVATION IS EXPECTED.
- WHERE ROCK IS ADJACENT TO A STRUCTURE OR UTILITY THE ROCK SHALL BE REMOVED TO A MINIMUM OF 6 INCHES BELOW AND 1 TIMES THE DIAMETER BUT NOT LESS THAN 1 FOOT OR GREATER THAN 3 FEET ON ANY SIDE OF THE UTILITY OR STRUCTURE.
- NO EXPLOSIVES WILL BE ALLOWED. NO BLASTING IS ALLOWED AT THIS PROJECT SITE.
- UNLESS OTHERWISE NOTED ON THE PLANS, THE CONTRACTOR SHALL REMOVE ALL EXCESS TOPSOIL, CUT MATERIAL OR WASTE FROM SITE AND DISPOSE OF IN A LEGAL MANNER.
- CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT STRUCTURE FOR EXCAVATION AS REQUIRED.
- CONTRACTOR SHALL PROTECT ALL UNDERGROUND PIPES AND FACILITIES, INCLUDING UTILITY AND STORMWATER PIPES AND CATCH BASINS THROUGHOUT EXCAVATION AND CONSTRUCTION. ANY DAMAGE TO THE ABOVEMENTIONED FACILITIES SHALL BE REPAIRED AT CONTRACTOR'S COST.