

## TOWN OF NEWBURGH PLANNING BOARD TECHNICAL REVIEW COMMENTS

PROJECT NAME: CHADWICK WOODS – 5 LOT SUBDIVISION

PROJECT NO.: 19-02

PROJECT LOCATION: 174 ROUTE 300

**SECTION 14, BLOCK 1, LOT 51** 

REVIEW DATE: 28 APRIL 2023 MEETING DATE: 4 MAY 2023

PROJECT REPRESENTATIVE: ENGINEERING & SURVEYING PROPERTIES

- The project is subject to the Town's Tree Clearing Ordinance. The applicant has responded that
  once the proposed Tree Clearing Ordinance revisions are adopted the plan will be prepared.
  While the Town Board is considering modifications to the Tree Clearing Ordinance, no Town
  Board agenda date has been set to begin that process. It is unclear if a condition of approval
  could defer submission of the Tree Clearing Plan.
- 2. NYSDOT has granted conceptual approval via an email from the DOT representative regarding the two driveway access points.
- 3. Hydrant testing is proposed to be performed on 1 May 2023. Previous comments requested an analysis to ensure adequate pressure is available to the rear lots utilizing the sizing of the laterals currently proposed at 1 inch.
- 4. Common driveway Access and Maintenance Agreements are required.
- 5. NYSDEC Construction Stormwater Permit for residential projects disturbing between 1 and 5 acres is required. The SWPPP for the project consists of the Erosion and Sediment Control Plan with no required inspection by the municipality.

Respectfully submitted,

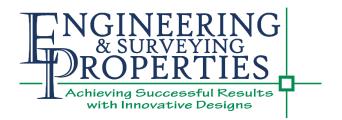
MHE Engineering, D.P.C.

Patret of Plenes

Patrick J. Hines

Principal

PJH/kbw



Montgomery Office: 71 Clinton Street Montgomery, NY 12549 phone: (845) 457-7727 fax: (845) 457-1899 Warwick Office: 17 River Street Warwick, NY 10990 phone: (845) 986-7737 fax: (845) 986-0245

www.EngineeringPropertiesPC.com

March 23, 2023

Town of Newburgh Planning Board 308 Gardnertown Road Newburgh, NY 12550

RE: CHADWICK WOODS SUBDIVISION PROJECT NO. 19-02 NYS ROUTE 300 TOWN OF NEWBURGH PROJECT DESCRIPTION

#### Dear Planning Board:

Please find the attached Subdivision Plan for the Chadwick Woods project. Since the last appearance before the board, the project has received approval from the Town Board for 3-lots on a shared common driveway. Following approval the driveway profiles, grading and erosion control plans have been updated accordingly to the new driveway layout. In addition, the project has eliminated the proposed private on-site wells for the three (3) rear lots. Each lot proposes individual water service connections across NYS Route 300.

If you need any additional information, please do not hesitate to contact this office.

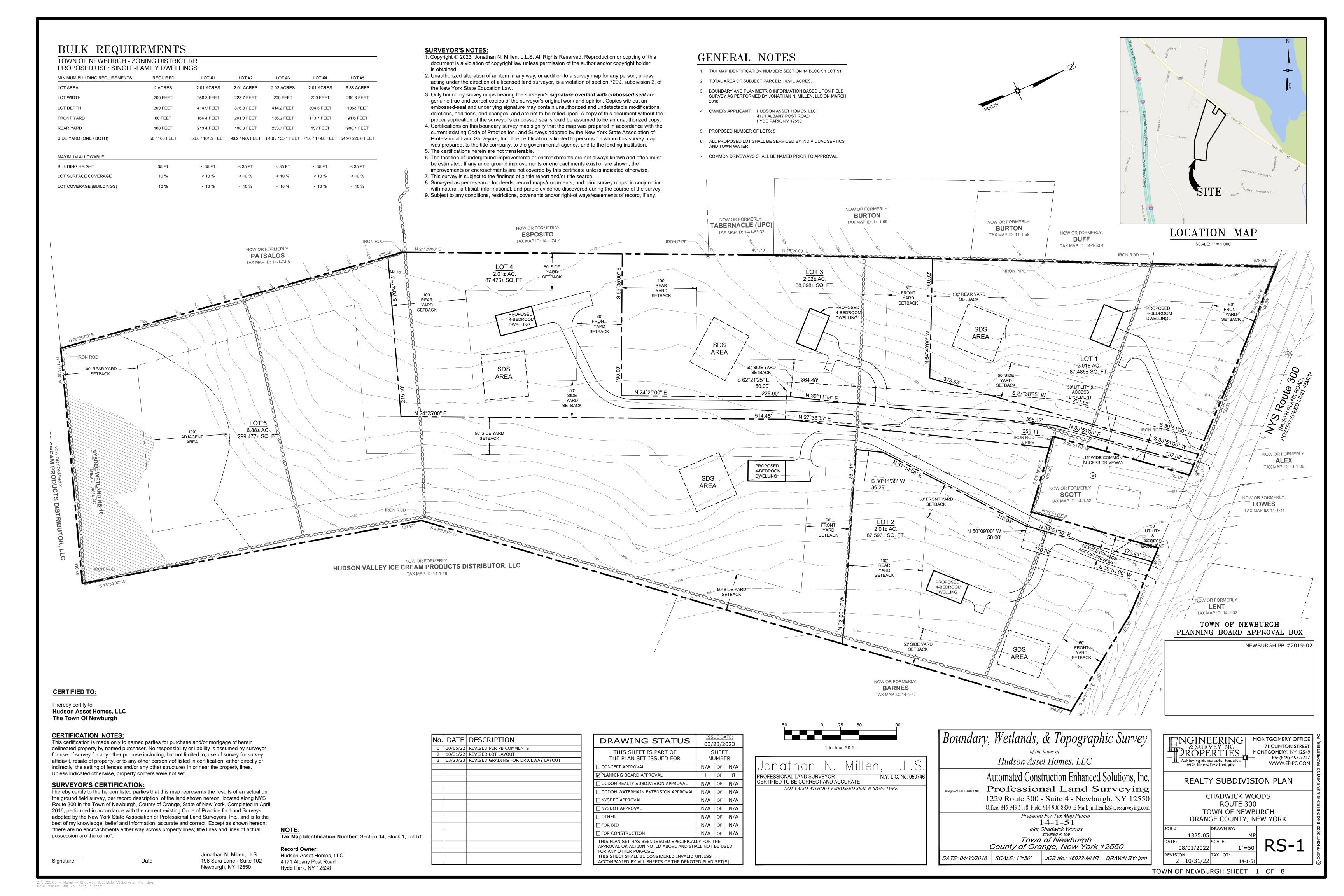
Sincerely,

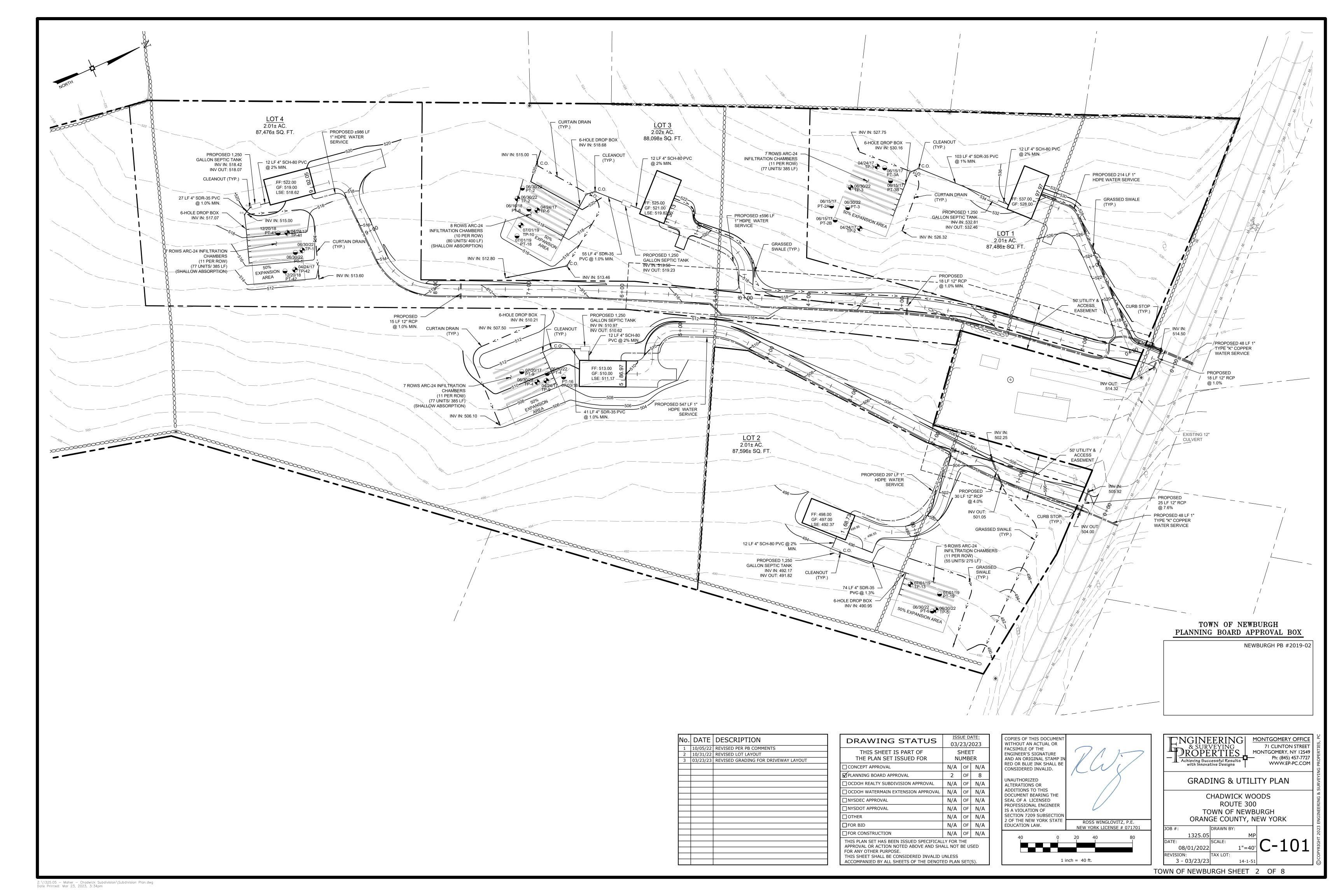
Engineering & Surveying Properties, PC

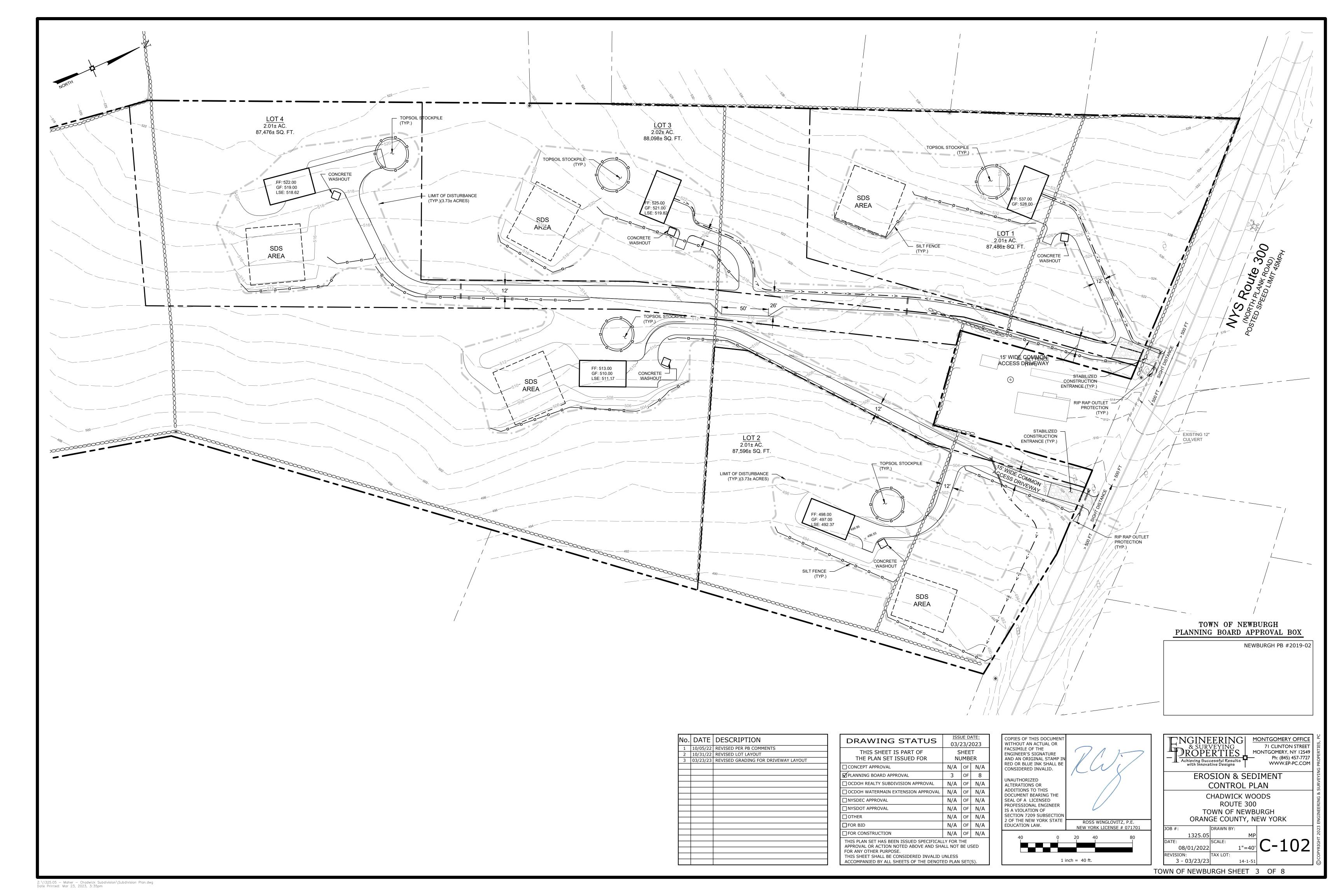
Ross Winglovitz, P.E.

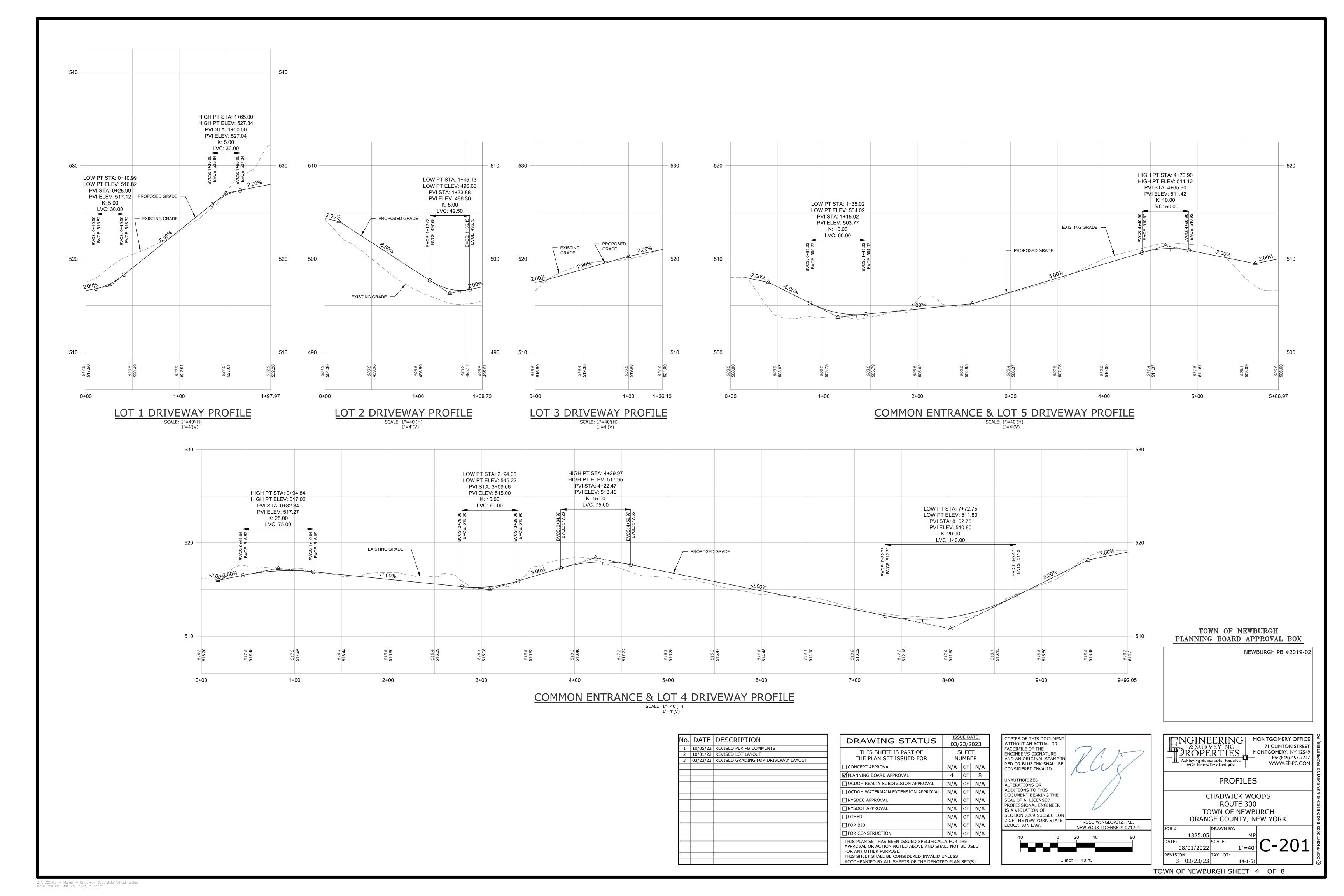
Principal

Michael Puzio Project Engineer









### PERCOLATION TEST RESULTS

LOT#	PERC HOLE#	PERC HOLE DEPTH	PERC HOLE DIA	TIME	PERCOL		JNS - STOPWATO R 1" DROP IN WAT		ALL TESTS	STABLIZED RATE									
1				FINISH															
	06/30/22	24"	8"	START	STOPWATCH	USED FOR TIM	ED INTERVALS			6 MIN									
	PT-3		-	TIME	00:01:22	00:02:11	00:04:15	00:05:18	00:05:33										
				FINISH	01:10	01:47	02:32	03:29	04:49										
	06/15/17 *PT-2B	24"	8"	START	12:52	01:11	01:48	02:35	03:30	54 MIN									
	P 1-2D		-	TIME	00:18	00:36	00:44	00:54	00:54	_									
				FINISH															
	06/15/17 PT-5	24"	8"	START	STOPWATCH	USED FOR TIM	ED INTERVALS			5 MIN									
	P 1-5			TIME	00:03:27	00:04:44	00:04:59												
2				FINISH	03:02	03:17	03:32												
	07/01/19 *PT-19	24"	8"	START	02:49	03:03	03:18			14 MIN									
	P1-19		-	TIME	00:13	00:14	00:14												
	06/30/22 PT-2	24"			FINISH														
			8"	START	STOPWATCH USED FOR TIMED INTERVALS			9 MIN											
			-	TIME	00:01:45	00:03:06	00:05:58	00:07:45	00:08:27										
3	06/16/18 *PT-6	24"		FINISH	12:40	01:30	02:18												
			24"	24"	24"	8"	START	12:20	12:43	01:31			47 MIN						
												-	TIME	00:20	00:47	00:47			
							FINISH												
	06/30/22 PT-1	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	8"	START	STOPWATCH	USED FOR TIM	ED INTERVALS			15 MIN
4	1 1-1		-	TIME	00:06:25	00:11:04	00:14:42	00:15:37											
4				FINISH	01:31	02:29	03:27												
	12/20/18 *PT-41	24"	8"	START	12:47	01:32	02:30			57 MIN									
	1 1-41		-	TIME	00:44	00:57	00:57												
				FINISH															
	06/30/22	24"	8"	START	STOPWATCH	USED FOR TIM	ED INTERVALS			22 MIN									
	PT-4			TIME	00:12:42	00:18:12	00:20:22	00:21:01											
5				FINISH	12:05	12:57	01:48	02:39											
	07/20/17 *PT-9	24"	8"	START	11:30	12:11	12:48	01:49		50 MIN									
	F1-9		-	TIME	00:35	00:46	00:50	00:50		1									

\* TESTING PERFORMED BY TALCOTT ENGINEERING DESIGN, PLLC

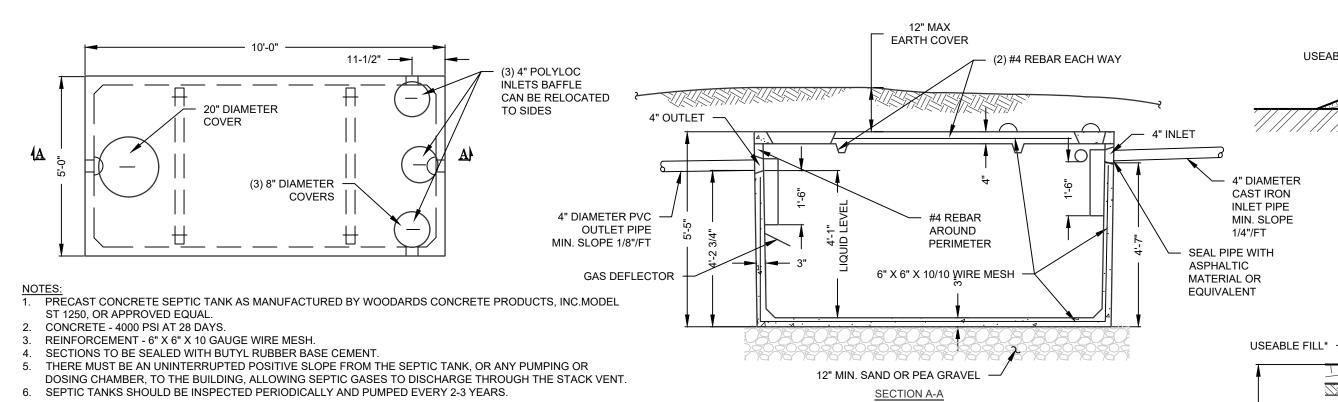
### DEEP TEST HOLE RESULTS

LOT#	TEST HOLE #	DATE	DEPTH	DESCRIPTION
	TP-3	06/30/22	0" - 12" 12" - 8'	TOPSOIL W/ COBBLES BROWN SILTY LOAM W/ COBBLES NO ROCK, NO WATER, NO MOTTLING
1	*TP-2	04/24/17	0" - 6" 6" - 32" 32" - 78"	TOPSOIL CLAY LOAM CLAY LOAM "DAMP" NO ROCK, NO WATER, NO MOTTLING
2	TP-5	06/30/22	0" - 6" 6" - 4' 4' - 8'	TOPSOIL TAN SILTY CLAY LOAM BROWN SILTY CLAY SANDY GRAVELLY LOAM NO ROCK, NO WATER, NO MOTTLING
	*TP-13	07/01/19	0" - 6" 6" - 30"	TOPSOIL CLAY LOAM NO ROCK, NO WATER, NO MOTTLING
	TP-2	06/30/22	0" - 6" 6" - 4' 4' - 8'	TOPSOIL TAN SILTY CLAY LOAM BROWN SILTY CLAY SANDY GRAVELLY LOAM NO ROCK, NO WATER, NO MOTTLING
3	*TP-6	04/24/17	0" - 6" 6" - 40" 40" - 60"	TOPSOIL CLAY LOAM WET CLAY LOAM W/ GRAVEL NO ROCK, WATER @ 40", MOTTLING @ 40"
4	TP-1	06/30/22	0" - 10" 10" - 27" 27" - 7' 7' - 8'	TOPSOIL W/ COBBLES TAN SILTY CLAY LOAM W/ COBBLES TAN SILTY CLAY SANDY LOAM W/ COBBLES TAN SILTY SANDY LOAM NO ROCK, WATER @ 90", NO MOTTLING
4	*TP-41	04/24/17	0" - 6" 6" - 24" 24" - 72"	TOPSOIL CLAY LOAM W/ GRAVEL CLAY LOAM NO ROCK, WATER @ 30", NO MOTTLING
5	TP-4	06/30/22	0" - 6" 6" - 36" 36" - 8'	TOPSOIL W/ COBBLES TAN SILTY CLAY LOAM BROWN SILTY SANDY GRAVELLY LOAM NO ROCK, WATER @ 6', MOTTLING @ 55"
5	*TP-9	04/24/17	0" - 6" 6" - 60"	TOPSOIL CLAY LOAM W/ STONES NO ROCK, WATER @ 40", NO MOTTLING

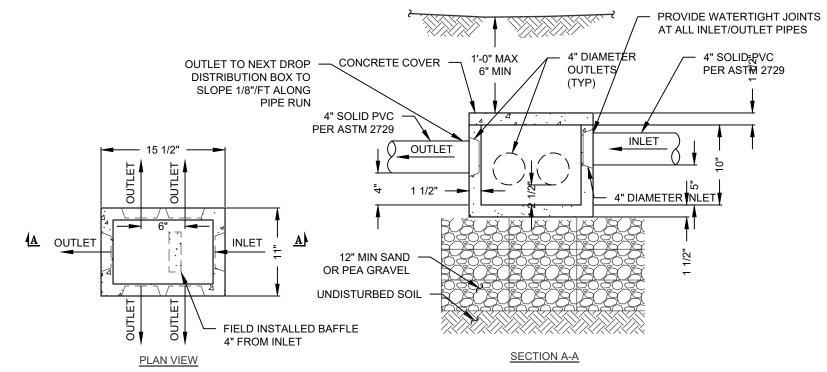
\* TESTING PERFORMED BY TALCOTT ENGINEERING DESIGN, PLLC

### SEPTIC SYSTEM DESIGN SCHEDULE

LOT#	NUMBER OF BEDROOMS	DESIGN PERC RATE (min)	FLOW RATE (GPD)	APPLICATION RATE (GPD/Sq. ft.)	REQUIRED AREA (Sq. ft.)	REQUIRED ABSORPTION FIELD LENGTH (ft) (BASED UPON 2' WIDE TRENCH)	REQUIRED FIELD LENGTH BASED USING GRAVELESS CHAMBERS (25% REDUCTION)	PROPOSED ABSORPTION FIELD LENGTH (ft)
1	4	54	440	0.45	978	489	367	7 LATERALS @ 55' 77 CHAMBERS (385' TOTAL)
2	4	14	440	0.80	550	275	207	5 LATERALS @ 55' 55 CHAMBERS (275' TOTAL)
3	4	47	440	0.45	978	489	367	7 LATERALS @ 55' 77 CHAMBERS (385' TOTAL)
4	4	57	440	0.45	978	489	367	7 LATERALS @ 55' 77 CHAMBERS (385' TOTAL)
5	4	50	440	0.45	978	489	367	7 LATERALS @ 55' 77 CHAMBERS (385' TOTAL)



### 1250 GALLON SEPTIC TANK



EDGE OF EXCAVATION FOR

THE ABSORPTION TRENCH

GROUND SLOPE

EDGE OF EXCAVATION

FOR THE CURTAIN DRAIN

- SURFACE SWALE

PERMEABLE GEOTEXTILE

CRUSHED STONE OR GRAVEL

PERF PLACED UP, DRAIN TO

PERFORATIONS TO BE FACED

4" OR 8" (PER PLAN) PERF PVC DRAIN PIPE SLOPE @ 1/8" PER FT MIN

2. PROVIDE RODENT SCREENS AT PIPE DAYLIGHT LOCATION.

TRANSITION OF PERFORATED PIPE TO SOLID PIPE SHALL OCCUR AT THE

ELEVATION BELOW THAT OF THE LAST LATERAL OF THE SEPTIC SYSTEM.

CURTAIN DRAIN

LOCATIONS AS SHOWN ON THE PLANS. MORE SPECIFICALLY AT AN

/ BACKFILL 3/4" - 1 1/2"

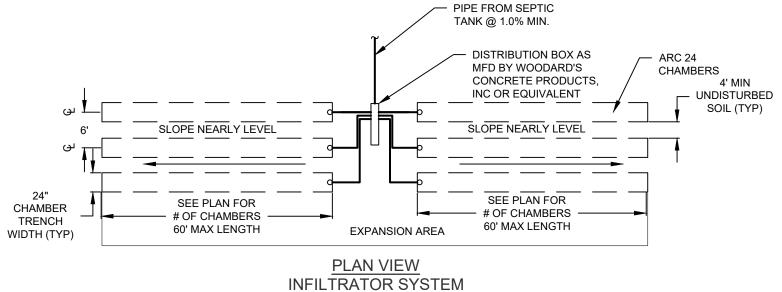
DAYI IGHT

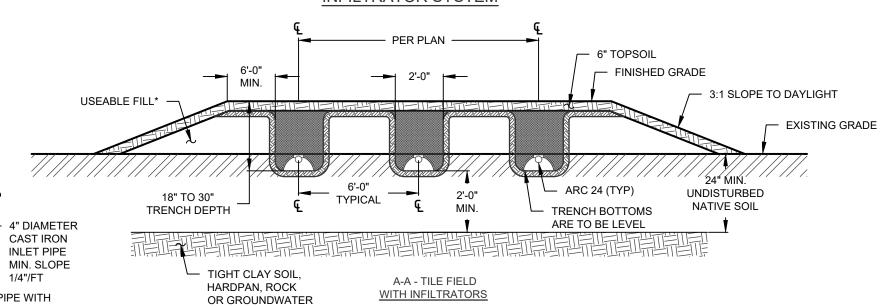
OVERLAP

DROP BOX AS MANUFACTURED BY WOODARD'S CONCRETE PRODUCTS, INC.

- CATALOG No. DB-6DB OR APPROVED EQUAL. MINIMUM CONCRETE STRENGTH 4,000 PSI AT 28 DAYS
- CONCRETE TO BE FIBER REINFORCED PER MANUFACTURER'S SPECIFICATION. SEAL ALL JOINTS AT INLET/OUTLET PIPES ASPHALTIC MATERIAL OR EQUIVALENT. PROVIDE SPEED LEVELERS AT ALL DISTRIBUTION BOX OUTLETS
- 6. UNUSED OUTLETS TO REMAIN PLUGGED.

6 HOLE DROP DISTRIBUTION BOX





\_\_ 6" TOPSOIL

EXISTING GRADE

UNDISTURBED

NATIVE SOIL

\* USEABLE FILL SHOULD HAVE A PERCOLATION

RATE SIMILAR TO BUT NOT FASTER THAN THE

USEABLE SOIL PERCOLATION RATE.

TYPICAL TRENCH SECTION

SEPTIC TANK TO BE LOCATED A MINIMUM DISTANCE OF 10 FEET FROM THE BUILDING.

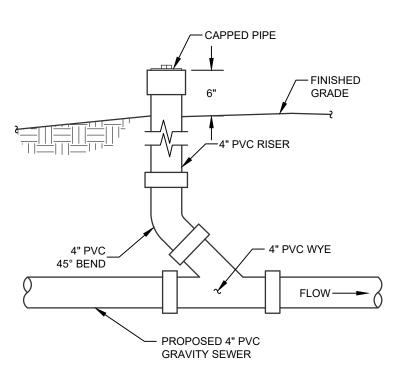
2. THERE SHALL BE NO REGRADING, IN THE AREA OF THE ABSORPTION FIELDS, EXCEPT AS SHOWN ON THE APPROVED PLANS. FINISHED GRADE 3. SWIMMING POOLS, DRIVEWAYS AND/OR STRUCTURES THAT MAY COMPACT THE SOIL ARE NOT TO BE CONSTRUCTED OVER ABSORPTION

5. NO TRENCHES TO BE INSTALLED IN WET SOIL.

- 4. ASPHALTIC SEALS SHALL BE MAINTAINED BETWEEN THE SEPTIC TANK, AND ALL PIPES AND COVERS.
- 6. RAKE SIDES AND BOTTOM OF TRENCH PRIOR TO PLACING CHAMBERS IN ABSORPTION TRENCH. 7. GROUT ALL PIPE PENETRATIONS INTO AND OUT OF ANY DISTRIBUTION
- 8. ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS AS SET FORTH IN THE PUBLICATION "NEW YORK STATE DEPARTMENT OF HEALTH - RESIDENTIAL ONSITE WASTEWATER TREATMENT SYSTEMSS -DESIGN HANDBOOK, 2012 AND OCDOH DESIGN POLICY & STANDARDS -APPENDIX 75-A.
- 9. ABSORPTION CHAMBER TO BE CAPPED AT ENDS. 10. PROVIDE A MINIMUM OF 30" OF SOLID PIPE PRIOR TO START OF LEACHING CHAMBERS AND BE BACKFILLED WITH NATIVE MATERIAL THERE MUST BE AN UNINTERRUPTED POSITIVE SLOPE FROM THE SEPTIC TANK (OR ANY PUMPING OR DOSING CHAMBER) TO THE BUILDING.
- ALLOWING SEPTIC GASES TO DISCHARGE THROUGH THE STACK VENT. 12. HEAVY EQUIPMENT SHALL BE KEPT OFF THE AREA OF THE ABSORPTION FIELDS EXCEPT DURING THE ACTUAL CONSTRUCTION. THERE SHALL BE NO UNNECESSARY MOVEMENT OF CONSTRUCTION EQUIPMENT IN THE ABSORPTION FIELD AREA BEFORE, DURING, OR AFTER CONSTRUCTION. EXTREME CARE MUST BE TAKEN DURING THE ACTUAL CONSTRUCTION SO TO AS TO AVOID ANY UNDUE COMPACTION THAT COULD RESULT IN A
- WAS BASED. 13. THIS SYSTEM HAS NOT BEEN DESIGNED TO ACCOMMODATE GARBAGE GRINDERS, JACUZZI STYLE SPA TUBS OVER 100 GALLONS, OR WATER CONDITIONERS AND SHALL NOT BE INSTALLED WITHOUT ADDITIONAL REVIEW AND AND APPROVAL OF THE ORANGE COUNTY DEPARTMENT OF

CHANGE OF ABSORPTION CAPACITY OF THE SOIL ON WHICH THE DESIGN

### SHALLOW ABSORPTION TILE FIELD OVERALL PLAN



18" TO 30"

TRENCH DEPTH

TRENCH BOTTOMS

ARC 24 STANDARD CHAMBER

HARDPAN, ROCK

OR GROUNDWATER

SHEET

ARE TO BE LEVEL

I I PICAL CLEANOUT SCALE: N.T.S.

2 OF THE NEW YORK STATE

EDUCATION LAW.

CAPPED PIPE  6"  FINISHED  GRADE  4" PVC RISER
4" PVC WYE 45° BEND FLOW
PROPOSED 4" PVC GRAVITY SEWER
TYPICAL CLEANOUT

COPIES OF THIS DOCUMENT WITHOUT AN ACTUAL OR FACSIMILE OF THE ENGINEER'S SIGNATURE AND AN ORIGINAL STAMP RED OR BLUE INK SHALL BI CONSIDERED INVALID. JNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DOCUMENT BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209 SUBSECTION

ORIGINAL SCALE IN INCHES

ROSS WINGLOVITZ, P.E. NEW YORK LICENSE # 071701

\_NGINEERING MONTGOMERY OFFICE 71 CLINTON STREET MONTGOMERY, NY 12549 Ph: (845) 457-7727 Achieving Successful Results with Innovative Designs WWW.EP-PC.COM **DETAILS** CHADWICK WOODS ROUTE 300 TOWN OF NEWBURGH ORANGE COUNTY, NEW YORK DRAWN BY: 1325.05 AS NOTED \_ \_ \_ \_ \_ 08/01/2022 REVISION:

14-1-51

TOWN OF NEWBURGH SHEET 5 OF 8

3 - 03/23/23

TOWN OF NEWBURGH PLANNING BOARD APPROVAL BOX

NEWBURGH PB #2019-02

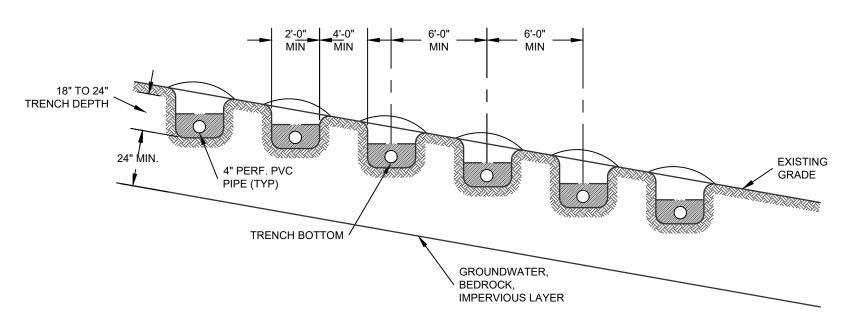
	1	10/05/22	REVISED PER PB COMMENTS
	2	10/31/22	REVISED LOT LAYOUT
	3	03/23/23	REVISED GRADING FOR DRIVEWAY LAYOUT
((<)			
UDIG•NY			
SAFE DIGGING STARTS HERE			
Call Before You Dig			
■ Wait The Required Time ■ Confirm Utility Response			
Respect The Marks			
Dig With Care			
_			
Dial: 811			
www.udigny.org			

No. DATE DESCRIPTION

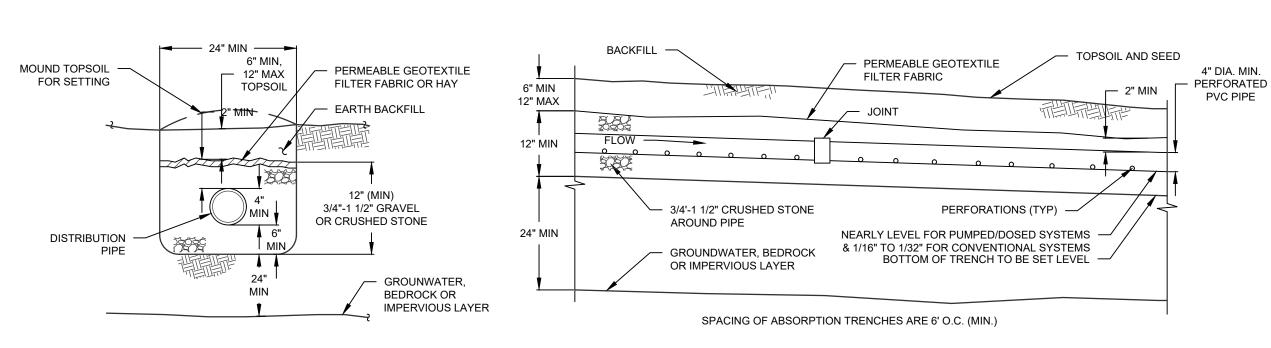
2	<del></del>	REVISED PER PB COMMENTS REVISED LOT LAYOUT	THIS SHEET IS PART OF
3	03/23/23		THE PLAN SET ISSUED FOR
			☐ CONCEPT APPROVAL
			PLANNING BOARD APPROVAL
			OCDOH REALTY SUBDIVISION APPROV
			OCDOH WATERMAIN EXTENSION APPR
			☐ NYSDEC APPROVAL
			☐ NYSDOT APPROVAL
			— OTHER
			☐ FOR BID
<u> </u>			☐ FOR CONSTRUCTION
			THIS PLAN SET HAS BEEN ISSUED SPEC
			APPROVAL OR ACTION NOTED ABOVE A FOR ANY OTHER PURPOSE.
			THIS SHEET SHALL BE CONSIDERED IN ACCOMPANIED BY ALL SHEETS OF THE

PLAN SET ISSUED FOR NUMBER APPROVAL N/A OF N/A NG BOARD APPROVAL 5 OF 8 N/A OF N/A REALTY SUBDIVISION APPROVAL WATERMAIN EXTENSION APPROVAL N/A OF N/A CAPPROVAL N/A OF N/A N/A OF N/A APPROVAL N/A OF N/A N/A OF N/A N/A OF N/A NSTRUCTION I SET HAS BEEN ISSUED SPECIFICALLY FOR THE OR ACTION NOTED ABOVE AND SHALL NOT BE USED OTHER PURPOSE. EET SHALL BE CONSIDERED INVALID UNLESS ANIED BY ALL SHEETS OF THE DENOTED PLAN SET(S).

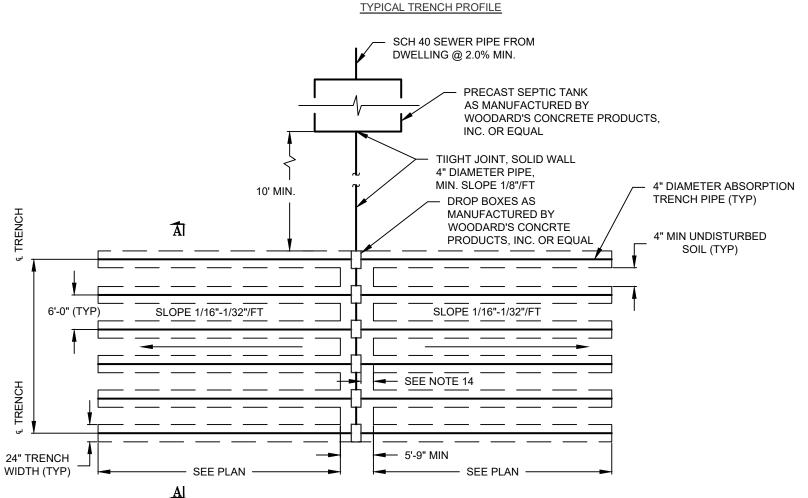
DRAWING STATUS



### A-A TYPICAL SECTION THROUGH FIELD



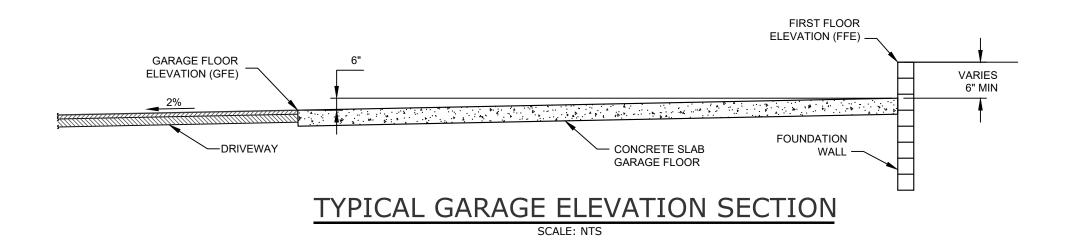
**TYPICAL TRENCH SECTION** 

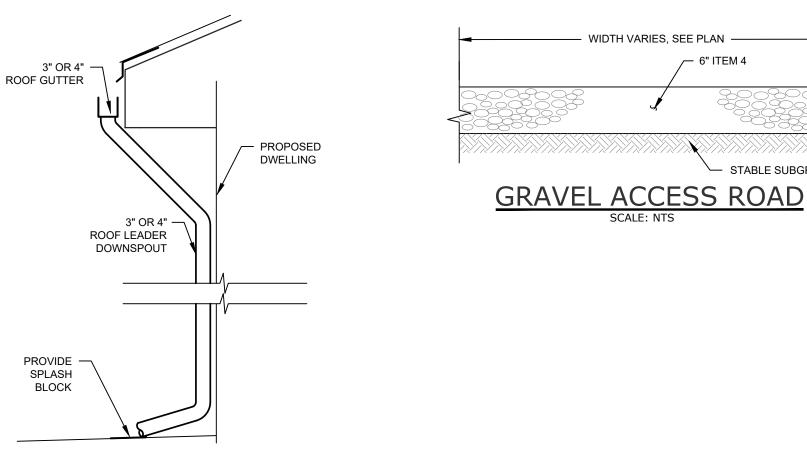


- SEPTIC TANK TO BE LOCATED A MINIMUM DISTANCE OF 10 FEET FROM THE HOUSE. THERE SHALL BE NO REGRADING, EXCEPT AS SHOWN ON THE APPROVED PLANS, IN THE AREA OF THE ABSORPTION FIELDS. GARBAGE GRINDERS AND JACUZZI TYPE SPA TUBS OVER 100 GALLONS ARE NOT PERMITTED WITHOUT THE SYSTEM BEING REDESIGNED AND REAPPROVED BY THE TOWN OF MAMAKATING.
- 4. CELLAR DRAINS, ROOF DRAINS OR FOOTING DRAINS SHALL NOT BE DISCHARGED IN THE VICINITY OF THE TILE FIELDS OR WELLS. 5. SWIMMING POOLS, DRIVEWAYS AND/OR STRUCTURES THAT MAY COMPACT THE SOIL ARE NOT TO BE CONSTRUCTED OVER TILE FIELDS. 6. ASPHALTIC SEALS SHALL BE MAINTAINED BETWEEN THE SEPTIC TANK, AND ALL PIPES AND COVERS.
- NO TRENCHES TO BE INSTALLED IN WET SOIL 8. RAKE SIDES AND BOTTOM OF TRENCH PRIOR TO PLACING GRAVEL IN ABSORPTION TRENCH.
- 9. GROUT ALL PIPE PENETRATIONS INTO AND OUT OF ANY DISTRIBUTION OR DROP BOX.
- 10. ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS AS SET FORTH IN THE PUBLICATION, "INDIVIDUAL RESIDENTIAL WASTEWATER TREATMENT SYSTEMS, DESIGN HANDBOOK", LATEST EDITION, AND APPENDIX 75-A OF THE NEW YORK STATE DEPARTMENT
- 11. ABSORPTION TRENCH PIPE TO BE CAPPED AT END.
- 12. ABSORPTION SYSTEM TO BE LOCATED A MINIMIUM 10' AWAY FROM ANY DWELLING UNIT. 13. SEPTIC TANK JOINTS MUST BE SEALED AND TESTED FOR WATERTIGHTNESS.
- 14. PROVIDE 30" OF SOLID PIPE PRIOR TO START OF PERFORATED ABSORPTION PIPE AND BE BACKFILLED WITH NATIVE MATERIAL. 15. THERE MUST BE AN UNINTERRUPTED POSITIVE SLOPE FROM THE SEPTIC TANK (OR ANY PUMPING OR DOSING CHAMBER) TO THE
- DWELLING, ALLOWING SEPTIC GASES TO DISCHARGE THROUGH THE STACK VENT. 16. DROP BOXES SHOULD BE INSPECTED PERIODICALLY TO ASSURE THAT THEY ARE LEVEL AND OPERATING.
- 17. HEAVY EQUIPMENT SHALL BE KEPT OFF THE AREA OF THE ABSORPTION FIELDS EXCEPT DURING THE ACTUAL CONSTRUCTION. THERE SHALL BE NO UNNECESSARY MOVEMENT OF CONSTRUCTION EQUIPMENT IN THE ABSORPTION FIELD AREA BEFORE, DURING. OR AFTER CONSTRUCTION. EXTREME CARE MUST BE TAKEN DURING THE ACTUAL CONSTRUCTION SO TO AS TO AVOID ANY UNDUE COMPACTION THAT COULD RESULT IN A CHANGE OF ABSORPTION CAPACITY OF THE SOIL ON WHICH THE DESIGN WAS BASED.

- A. ABSORPTION TRENCH BOTTOMS TO BE SET LEVEL. B. THE PERFORATED DISTRIBUTION PIPE SHALL BE SLOPED AT 1/32" TO 1/16".
- C. PERFORATIONS ON DISTRIBUTION PIPE SHALL BE INSTALLED WITH THE PERFORATIONS FACING DOWN.

## ABSORPTION TILE FIELD DROP BOX

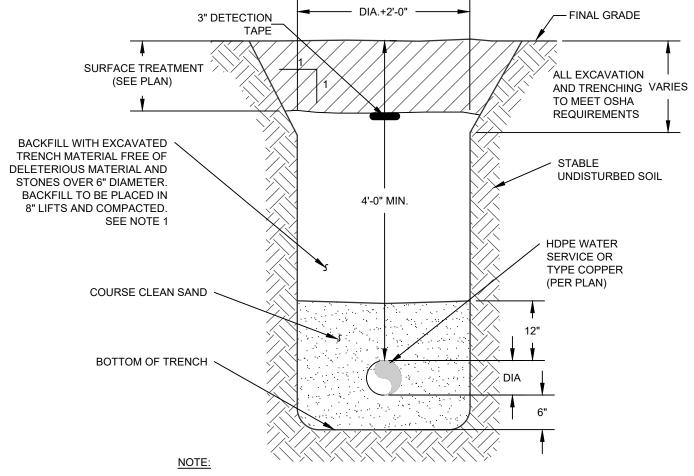




IN ACCORDANCE WITH NYSDEC STORMWATER GREEN INFRASTRUCTURE REQUIREMENTS, ALL ROOF LEADER DOWNSPOUTS SHALL DISCHARGE EFFLUENT ALONG THE SURFACE FOR INFILTRATION.

2. CONNECTION OF ROOF LEADERS TO CLOSED SYSTEMS IS PROHIBITED. HOMEOWNERS SHALL MAINTAIN SPLASH BLOCK LAWN AREA AS SHOWN ON THE PLANS TO PROVIDE INFILTRATION OF STORMWATER ROOF RUNOFF.

### ROOF LEADER AND SPLASH PAD

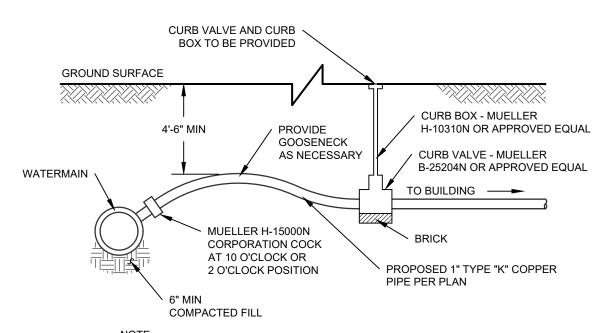


- 6" ITEM 4

- STABLE SUBGRADE

1. ALL FILL BELOW BUILDINGS, PAVEMENT AREAS, SIDEWALKS, CURBS, ETC; SHALL BE WITH R.O.B. GRAVEL (NYSDOT SPEC) FOR THE FULL DEPTH THE EXCAVATION. BACKFILL SHALL BE PLACED IN 8" MAXIMUM LIFTS AND COMPACTED TO 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY MODIFIED PROCTOR TEST.

## WATER PIPE TRENCH



1. ALL CONNECTIONS SHALL BE COMPRESSION FITTING ONLY.

### WATER SERVICE CONNECTION

### TOWN OF NEWBURGH WATER SYSTEM NOTES

- 1. 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 WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE NYSDOH AND THE TOWN OF NEWBURGH.
- 2. ALL WATER SERVICE LINES FOUR (4) INCHES AND LARGER IN DIAMETER SHALL BE CEMENT LINED CLASS 52 DUCTILE IRON PIPE CONFORMING TO ANSI/AWWA C151/A21.51 FOR DUCTILE IRON PIPE, LATEST REVISION. JOINTS SHALL BE EITHER PUSH-ON OR MECHANICAL JOINT AS REQUIRED.
- 3. 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.
- 4. ALL FITTINGS SHALL BE CAST IRON OR DUCTILE IRON, MECHANICAL JOINT, CLASS 250 AND CONFORM TO ANSI/AWWA C110/A21.10 FOR DUCTILE AND GRAY IRON FITTINGS OR ANSI/AWWA C153/A21.53 FOR DUCTILE IRON COMPACT FITTINGS, LATEST REVISION.
- 5. ALL VALVES 4 TO 12 INCHES SHALL BE RESILIENT WEDGE GATE VALVES CONFORMING TO ANSIVAWWA C509 SUCH AS MUELLER MODEL A-2360-23 OR APPROVED EQUAL. ALL GATE VALVES SHALL OPEN LEFT (COUNTERCLOCKWISE).
- 6. TAPPING SLEEVE 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 INTO THE PIPE.
- 7. ALL HYDRANTS SHALL BE CLOW-EDDY F-2640 CONFORMING TO AWWA STANDARD C-502, LATEST REVISION. ALL HYDRANTS SHALL INCLUDE A 5 ¼ INCH MAIN VALVE OPENING, TWO 2 ½ INCH DIAMETER NPT HOSE NOZZLES, ONE 4 INCH NPT STEAMER NOZZLE, A 6 INCH DIAMETER INLET CONNECTION AND A 1 ½ INCH PENTAGON OPERATING NUT. ALL HYDRANTS SHALL OPEN LEFT (COUNTER-CLOCKWISE). HYDRANTS ON MAINS TO BE DEDICATED TO THE TOWN SHALL BE EQUIPMENT YELLOW. HYDRANTS LOCATED ON PRIVATE PROPERTY SHALL BE RED.
- 8. ALL WATER SERVICE LINES TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING. CORPORATION STOPS SHALL BE MUELLER H-15020N FOR ¾ AND 1 INCH, MUELLER H-15000N OR B-25000N FOR 1 ½ AND 2 INCH SIZES. CURB VALVES SHALL BE MUELLER H-1502-2N FOR ¾ AND 1 INCH AND MUELLER B-25204N FOR 1 ½ AND 2 INCH SIZES. CURB BOXES SHALL BE MUELLER H-10314N FOR ¾ AND 1 INCH AND MUELLER H-10310N FOR 1 ½ AND 2 INCH SIZES.
- 9. 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
- 10. 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 WATER DEPARTMENT.
- 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
- 12. CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF EXISTING WATER AND SEWER UTILITIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- 13. CONTRACTOR TO CALL UNDERGROUND MARK-OUT AT LEAST 2 DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION AT 1-800-962-7962 FOR COMPLETE UTILITIES MARKOUT.
- 14. CONTRACTOR TO CONTACT TOWN OF NEWBURGH WATER DEPARTMENT AT (845) 564-7813 AT LEAST 2 DAYS PRIOR TO CONSTRUCTION.
- 15. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY OF ANY DEVIATION FROM HORIZONTAL OR VERTICAL ALIGNMENTS WITH REGARDS TO EXISTING UTILITIES BEFORE PROCEEDING.
- 16. A CERTIFIED AS BUILT MAP OF THE WATER SYSTEM IMPROVEMENTS SHALL BE PROVIDED TO THE TOWN OF NEWBURGH WATER DEPARTMENT BY A LICENSED DESIGN PROFESSIONAL.
- 17. ALL APARTMENT UNITS AND THE CLUBHOUSE ARE TO BE INDIVIDUALLY METERED IN ACCORDANCE WITH THE TOWN OF
- 18. ALL PIPE. FIXTURES AND FITTINGS MUST COMPLY WITH THE FEDERAL "SAFE DRINKING WATER ACT", SECTION 1417 WHICH REQUIRES ALL SURFACES IN CONTACT WITH POTABLE WATER CONTAIN NO MORE THAN 0.25% LEAD BY WEIGHT.
- 19. THE TOWN OF NEWBURGH COMMISSIONER OF PUBLIC WORKS OR HIS DESIGNATED REPRESENTATIVE MUST BE INFORMED OF
- ANY HYDROSTATIC OR BACTERIOLOGICAL TESTING TO PERMIT THE TESTING TO BE WITNESSED.
- 20. THE TOWN OF NEWBURGH COMMISSIONER OR PUBLIC WORKS OR HIS DESIGNATED REPRESENTATIVE MUST ACCEPT HYDROSTATIC AND BACTERIOLOGICAL TEST RESULTS AS ADEQUATE.

TOWN OF NEWBURGH PLANNING BOARD APPROVAL BOX

NEWBURGH PB #2019-02

lo.	DATE	DESCRIPTION		DRAWING STATUS			
2	10/31/22	REVISED PER PB COMMENTS REVISED LOT LAYOUT REVISED GRADING FOR DRIVEWAY LAYOUT		THIS SHEET IS PART OF THE PLAN SET ISSUED FOR	S	HEE JMBI	8 N/A 8 N/A N/A N/A N/A N/A N/A N/A N/A
	, ,			CONCEPT APPROVAL	N/A	OF	N/A
			✓P	PLANNING BOARD APPROVAL	6	OF	8
				OCDOH REALTY SUBDIVISION APPROVAL	N/A	OF	N/A
				OCDOH WATERMAIN EXTENSION APPROVAL	N/A	OF	N/A
				NYSDEC APPROVAL	N/A	OF	N/A
				NYSDOT APPROVAL	N/A	OF	N/A
				OTHER	N/A	OF	N/A
				FOR BID	N/A	OF	N/A
				OR CONSTRUCTION	N/A	OF	N/A
			AP FO	HIS PLAN SET HAS BEEN ISSUED SPECIFICAL PROVAL OR ACTION NOTED ABOVE AND SHA OR ANY OTHER PURPOSE. HIS SHEET SHALL BE CONSIDERED INVALID U	ALL NOT I		SED

ACCOMPANIED BY ALL SHEETS OF THE DENOTED PLAN SET(S).

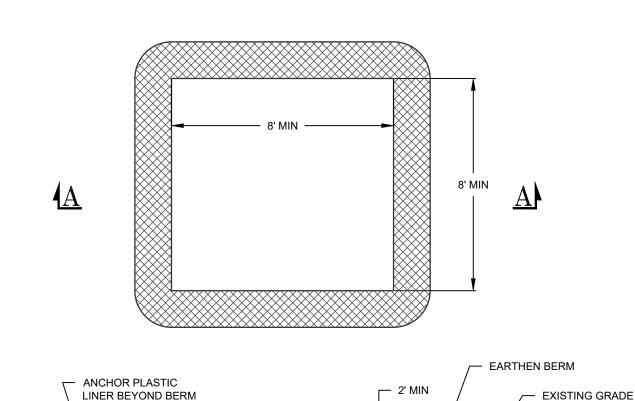
COPIES OF THIS DOCUMENT WITHOUT AN ACTUAL OR FACSIMILE OF THE ENGINEER'S SIGNATURE AND AN ORIGINAL STAMP RED OR BLUE INK SHALL B CONSIDERED INVALID. UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DOCUMENT BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209 SUBSECTION 2 OF THE NEW YORK STATE ROSS WINGLOVITZ, P.E. EDUCATION LAW. NEW YORK LICENSE # 071701

ORIGINAL SCALE IN INCHES

NGINEERING 71 CLINTON STREET MONTGOMERY, NY 12549 Ph: (845) 457-7727 Achieving Successful Results WWW.EP-PC.COM with Innovative Designs **DETAILS** CHADWICK WOODS TOWN OF NEWBURGH ORANGE COUNTY, NEW YORK DRAWN BY: 1325.05 AS NOTED \_ \_ \_ \_ \_ 08/01/2022 3 - 03/23/23

TOWN OF NEWBURGH SHEET 6 OF 8

Z: "Dlate5Rifin tedMaMarr 2-3.CR@@Vicks: Sv/bodivision\1325.05 Details.dwa



NOTE:

CROSS SECTION A-A

STABLE SUBSOIL

PLASTIC LINER SHALL BE INSPECTED DAILY TO ENSURE THAT THERE ARE NO HOLES
OR TEARS. IF ANY HOLES OF TEARS ARE FOUND THE LINER SHALL BE REPLACED AND

PLASTIC LINER 10 MIL MIN.

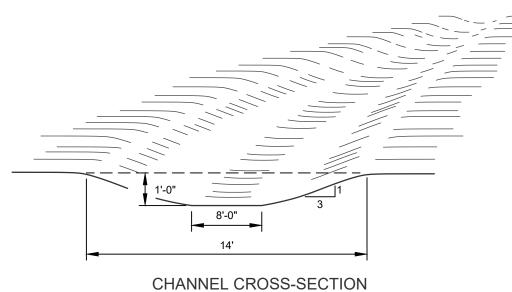
 WASHOUT FACILITY SHALL BE LOCATED A MINIMUM OF 100 FEET FROM DRAINAGE SWALES, STORM DRAIN INLETS, WETLANDS, STREAMS OR OTHER SURFACE WATERS.

CLEANED IMMEDIATELY. THE PLASTIC LINER SHALL BE REPLACED WITH EACH

CLEANING OF THE WASHOUT FACILITY.

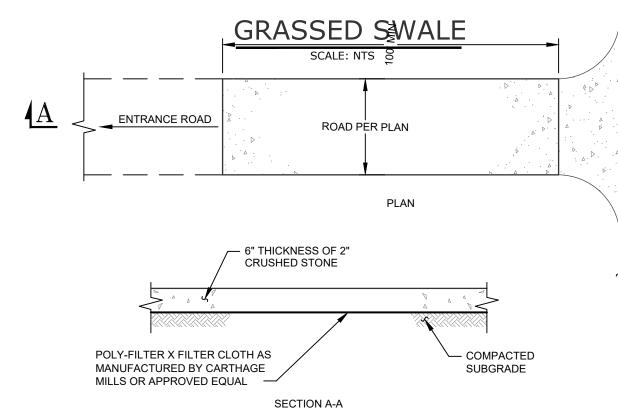
- 3. ACCUMULATED HARDENED MATERIAL SHALL BE REMOVED WHEN 75% OF THE STORAGE CAPACITY OF THE STRUCTURE IS FILLED. ANY EXCESS WASH WATER SHALL BE PUMPED INTO A CONTAINMENT VESSEL AND PROPERLY DISPOSED OF.
- 4. DISPOSE OF THE HARDENED MATERIAL OFF-SITE IN A CONSTRUCTION/DEMOLITION LANDFILL.

### CONCRETE WASHOUT



#### CHANNEL CROSS-SECTION

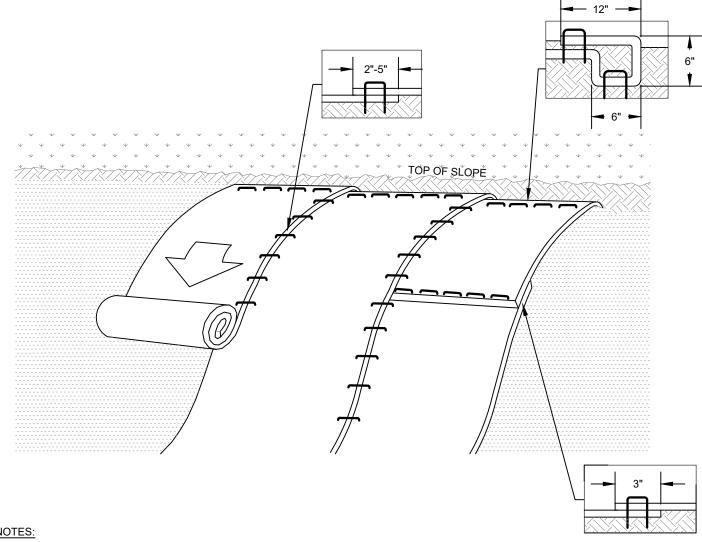
- CONSTRUCTION SPECIFICATIONS:
- ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS AND OTHER OBJECTIONABLE SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE WATERWAY
- THE WATERWAY SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN, AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
- ALL EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE SPREAD OR DISPOSED OF OUTSIDE THE WETLAND SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE WATERWAY.
- 4. STABILIZATION SHALL BE DONE ACCORDING TO THE APPROPRIATE STANDARDS AND SPECIFICATIONS FOR VEGETATIVE PRACTICES. SEEDING AND MULCHING SHALL BE USED FOR ESTABLISHMENT OF THE VEGETATION. VEGETATION PROVIDED SHALL BE REED CANARYGRASS, TALL FESCUE, KENTUCKY BLUEGRASS.



#### NOTES:

- STONE SIZE USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- 2. WIDTH 35 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
- 3. 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.
- 4. MAINTENANCE THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRED PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- 5. WASHING WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- 6. PERIODIC INSPECTIONS AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

## STABILIZED CONSTRUCTION ENTRANCE

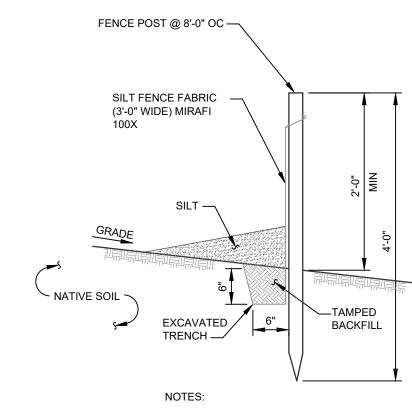


NOTES:

1. ROLLED EROSION CONTROL PRODUCT (RECP'S) SHALL BE USED ON ALL CONSTRUCTED SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL.

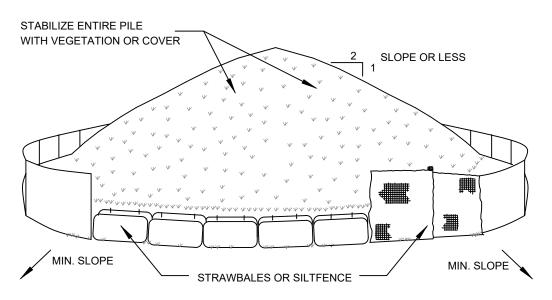
- 2. PREPARATION OF THE SOIL INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED SHALL BE COMPLETED PRIOR TO INSTALLATION OF ANY RECP'S.
- 3. INSTALL RECP NORTH AMERICAN GREEN BIONET S150BN OR APPROVED EQUAL. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" DEEP BY 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIAMTELY 12" APART IN THE BOTTON OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACE APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP'S.
- 4. ROLL THE RECP'S DOWN THE SLOPE OR HORZONTALLY ACROSS THE SLOPE. ALL RECP'S MUST BE SECURLY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE PRODUCT'S STAPLE PATTERN GUIDE
- 5. THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2" TO 5" OVERLAP DEPENDING ON RECP'S TYPE.
- 6. CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS THE ENTIRE RECP'S WIDTH.

# SLOPE STABILIZATION (ROLLED EROSION CONTROL PRODUCT)



SILT FENCE TO BE MAINTAINED IN
 PLACE DURING CONSTRUCTION AND
 SOIL STABILIZATION PERIOD.

## SILT FENCE

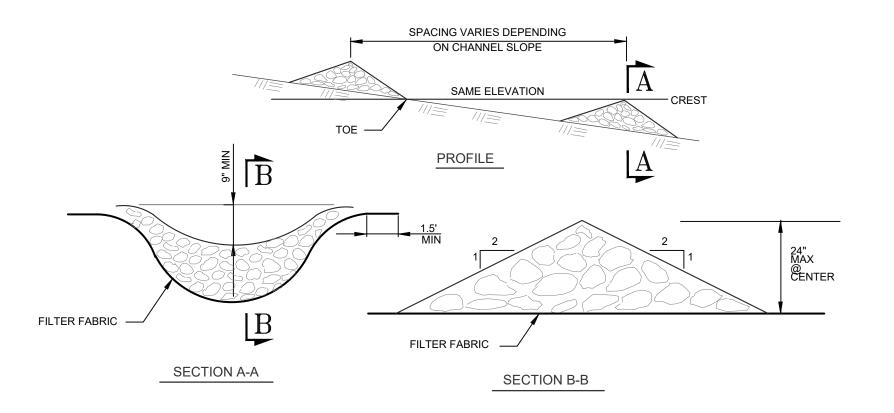


#### NOTES:

- 1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
- 2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
- 3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED A WITH EITHER SILT FENCING OR STRAWBALES, THEN STABILIZED WITH VEGETATION OR COVERED.

 ${\tt 4.\,SEE\,SPECIFICATIONS\,(THIS\,MANUAL)\,FOR\,INSTALLATION\,OF\,SILTFENCE}.$ 

SOIL STOCKPILING



#### **CONSTRUCTION SPECIFICATIONS:**

- . STONE SHALL BE MAXIMUM SIZE OF 12" WITH 50 TO 100 PERCENT BY WEIGHT LARGER THAN 6" AND 0 TO 10 PERCENT SMALLER THAN 1/2".
- 2. FILTER FABRIC SHALL BE POLY-FILTER X CLOTH AS MANUFACTURED BY CARTHAGE MILLS
- 3. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION AT LOCATIONS SHOWN ON THE PLAN.
- 4. SET SPACING OF CHECK DAMS TO ASSURE THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION AS 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.
- 6. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
- 7. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.



### EARTHWORK CONSTRUCTION NOTES

- ALL WORK TO BE PERFORMED TO THE SPECIFICATIONS OF THE TOWN OF NEWBURGH
- 2. ALL TOPSOIL, ROOTS, STUMPS AND OTHER DELETERIOUS MATERIAL SHALL BE REMOVED FROM ALL CONSTRUCTION AREAS.
- 3. ALL FILL FOR POND CONSTRUCTION, BELOW BUILDINGS AND PAVEMENT TO BE COMPACTED TO 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY MODIFIED PROCTOR COMPACTION TEST ASTM D1557.
- 4. CELLAR, ROOF AND FOOTING DRAINS SHALL CONNECT TO THE STORM DRAINAGE SYSTEM OR OTHER FREE-FLOWING OUTLET AT A MINIMUM SLOPE OF 0.5%. FOOTING DRAIN SHALL BE INSTALLED BENEATH BOTTOM OF FOOTING.
- 5. COMPLETION OF GRADING AND BASIN, BERMS AFTER OCTOBER 15 SHALL REQUIRE MULCHING AND ANCHORING IN ACCORDANCE WITH NOTES ENTITLED "SEDIMENTATION EROSION CONTROL".
- 6. ALL SLOPES IN EXCESS OF 3H:1V SHALL BE CONSTRUCTED WITH LOCALLY AVAILABLE GLACIAL TILL. THE EMBANKMENT FILL SHALL BE PLACED IN SIX-INCHTHICK LIFTS. EACH LIFT SHALL BE PLACED AND COMPACTED TO 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY MODIFIED PROCTOR COMPACTION TEST ASTM D1557.
- 7. CONSTRUCT POND EMBANKMENT WITH LOCALLY AVAILABLE GLACIAL TILL WITH 3H:1V SIDE SLOPES OR AS NOTED ON PLAN. THE EMBANKMENT FILL SHALL BE PLACED IN A SIX-INCH THICK CONTINUOUS LAYER OVER THE ENTIRE LENGTH.EACH LIFT SHALL BE PLACED AT OPTIMUM MOISTURE CONTENT AND COMPACTED TO 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY MODIFIED PROCTOR COMPACTION TEST ASTM D1557.
- 8. STABILIZATION OF POND BERMS, AND ALL SLOPES IN EXCESS OF 3H:1V IN ACCORDANCE WITH "EROSION AND SEDIMENTATION CONTROL NOTES"
- 9. ALL POND OUTLETS SHALL HAVE SEEPAGE CONTROL COLLARS PLACED AT 1/3 AND 2/3 THE WIDTH OF THE EMBANKMENT.
- 10. SOIL RESTORATION SHALL BE APPLIED TO ALL DISTURBED AREAS THAT WILL REMAIN AS PERVIOUS SURFACES. SOIL RESTORATION SHALL CONSIST OF THE FOLLOWING:
- 10.A. APPLY 3 INCHES OF COMPOST OVER SUBSOIL
- 10.B. TILL COMPOST INTO SUBSOIL TO A DEPTH OF AT LEAST 12 INCHES USING A CAT-MOUNTED RIPPER, TRACTOR MOUNTED DISC, OR TILLER, MIXING, AND CIRCULATING AIR AND COMPOST INTO SUB-SOILS.
- 10.C. ROCK-PICK UNTIL UPLIFTED STONE/ROCK MATERIALS OF FOUR INCHES AND LARGER SIZE ARE CLEANED OFF THE SITE
- 10.D. APPLY TOPSOIL TO A DEPTH OF 6 INCHES.
- 10.E. VEGETATE IN ACCORDANCE WITH LANDSCAPE PLAN.

# SEQUENCE OF CONSTRUCTION ACTIVTY

- 1. PRE-CONSTRUCTION: NOTIFY APPROPRIATE MUNICIPAL AND UTILITY OFFICIALS 3 DAYS PRIOR TO START OF CONSTRUCTION.
- 2. CONSTRUCTION STAGING: STAKE OUT LIMIT OF DISTURBANCE. INSTALL SILT FENCE DOWN HILL OF PROPOSED CONSTRUCTION. INSTALL ORANGE CONSTRUCTION FENCING ALONG THE LIMITS OF DISTURBANCE NEAR WETLAND AREAS. INSTALL STABILIZED CONSTRUCTION ENTRANCE AND STABILIZE CONSTRUCTION ROAD(S). INSTALL PERMANENT/TEMPORARY GRASSED SWALES.
- 3. CLEARING AND GRUBBING: REMOVE VEGETATION FROM AREA OF CONSTRUCTION. STRIP TOPSOIL AND STOCKPILE IN AREAS SHOWN ON THE PLAN. INSTALL SEDIMENT BARRIERS AROUND AND ESTABLISH TEMPORARY VEGETATION ON TOPSOIL STOCKPILES.
- 4. ROUGH GRADING: CUT AND FILL SITE TO APPROXIMATE ELEVATIONS SHOWN ON THE PLAN. IMPLEMENT DUST CONTROL MEASURES AS NECESSARY. ESTABLISH PERMANENT STABLIZATION IN AREAS THAT ARE COMPLETE. ESTABLISH TEMPORARY STABLIZATION ON AREAS THAT WILL BE GRADED AGAIN MORE THAN 21 DAYS FROM LAST DISTURBANCE.
- 5. ROAD/BUILDING CONSTRUCTION AND UTILITY INSTALLATION: FINAL GRADING AND CONSTRUCTION OF ROADWAYS. BUILDING EXCAVATION AND CONSTRUCTION. INSTALL UTILITIES. ENSURE ALL EROSION CONTROL MEASURES ARE IN WORKING ORDER.
- 6. FINAL GRADING AND LANDSCAPING: COMPLETE FINE GRADING OF SITE. SPREAD TOPSOIL AND PREPARE FOR PERMANENT SEEDING AND PLANTING. ESTABLISH PERMANENT VEGETATION IN ALL REMAINING UNSTABILIZED AREAS. INSTALL ALL SITE LANDSCAPING AND PLANTINGS.
- 7. POST CONSTRUCTION: UPON STABILIZATION OF THE SITE AND ESTABLISHMENT OF ALL VEGETATION COVER, REMOVE ALL REMAINING TEMPORARY EROSION CONTROL MEASURES SUCH AS SILT FENCE. REMOVE ALL SILT AND DEBRIS FROM THE SITE INCLUDING ROADWAYS AND STORM DRAINS.

# EROSION AND SEDIMENTATION CONTROL NOTES

- SITE DISTURBANCE SHALL BE LIMITED TO THE MINIMUM NECESSARY GRADING AND VEGETATION REMOVAL REQUIRED FOR CONSTRUCTION.
- TEMPORARY EROSION CONTROL MEASURES, INCLUDING SILT FENCES AND/OR STRAW BALE DIKES, SEDIMENT BASIN, TEMPORARY DIVERSION SWALE DRAINAGE STRUCTURES, AND RIP-RAP PROTECTION SHALL BE INSTALLED PRIOR TO GROUND DISTURBANCE FOR GRADING AND CONSTRUCTION.
- 3. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED AS SOON AS PRACTICAL FOLLOWING DISTURBANCE TO STABILIZE BARE SOIL AND PROMOTE THE PROMPT RE-ESTABLISHMENT OF VEGETATION:
- 3.1. AN ADEQUATE SEEDBED SHALL BE PREPARED BY SCARIFYING COMPACTED SOIL AND REMOVING SURFACE DEBRIS AND OBSTACLES.
- 3.2. LIME SHALL BE APPLIED SUFFICIENTLY TO ATTAIN A SOIL ACIDITY PH OF 6.0 TO 7.0.
  3.3. FERTILIZER (5-10-10 MIXTURE OR EQUIVALENT) SHALL BE APPLIED PER SOIL TEST RESULTS OR AT A RATE OF 600
- LBS. PER ACRE.

  3.4. DISTURBED AREAS WHICH WILL REMAIN TEMPORARILY FALLOW FOR PERIODS GREATER THAN 30 DAYS SHALL BE SEEDED AT THE FOLLOWING RATE TO PRODUCE TEMPORARY GROUND COVER: 30 LBS. RYEGRASS (ANNUAL OR PERENNIAL) PER ACRE. DURING THE WINTER, USE 100 LBS. CERTIFIED "AROOSTOOK" WINTER RYE (CEREAL RYE)
- 3.5. PERMANENT SEEDING SHALL BE APPLIED ON 4" MIN TOPSOIL AT THE FOLLOWING RATE:

  8 LBS EMPIRE BIRDSFOOT TREFOIL OR COMMON WHITE CLOVER PER ACRE PLUS

  20 LBS TALL FESCUE PER ACRE PLUS
- 2 LBS REDTOP OR 5 LBS RYEGRASS (PERENNIAL) PER ACRE
  3.6. ALL SEEDING SHALL BE PERFORMED USING THE BROADCAST METHOD OR HYDROSEEDING, UNLESS OTHERWISE
- APPROVED.

  3.7. ALL DISTURBED AREAS SHALL BE STABILIZED SUBSEQUENT TO SEEDING BY APPLYING 2 TONS OF STRAW MULCH PER ACRE. STRAW MULCH SHALL BE ANCHORED BY APPLYING 750 LBS OF WOOD FIBER MULCH PER ACRE WITH A HYDROSEEDER, OR TUCKING THE MULCH WITH SMOOTH DISCS OR OTHER MULCH ANCHORING TOOLS TO A DEPTH OF 3". MULCH ANCHORING TOOLS SHALL BE PULLED ACROSS SLOPES ALONG TOPOGRAPHIC CONTOURS.
- 4. ALL EROSION AND SEDIMENTATION CONTROL MEASURES AND DRAINAGE STRUCTURES SHALL BE INSPECTED FOLLOWING EVERY RAIN EVENT, AND MAINTENANCE AND REPAIRS SHALL BE PERFORMED PROMPTLY TO MAINTAIN PROPER FUNCTION. TRAPPED SEDIMENT SHALL BE REMOVED AND DEPOSITED IN A PROTECTED AREA IN A PROPER MANNER WHICH WILL NOT RESULT IN EROSION.
- 5. TEMPORARY CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS ARE PERMANENTLY STABILIZED AND GROUND COVER IS COMPLETELY REESTABLISHED. FOLLOWING STABILIZATION, TEMPORARY MEASURES SHALL BE REMOVED TO AVOID INTERFERENCE WITH DRAINAGE
- ALL STORM INLETS TO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION.
- 7. SYNTHETIC OR ORGANIC SOIL STABILIZERS MAY BE USED UNDER SUITABLE CONDITIONS AND IN SUFFICIENT
- 8. MULCH NETTING SUCH AS PAPER, JUTE, EXCELSIOR, COTTON OR PLASTIC MAY BE USED. STAPLE IN PLACE. OVER HAY OR STRAW MULCH. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
- 9. STABILIZATION OF STEEP SLOPES SHALL BE ACHIEVED BY APPLYING LIME AND FERTILIZER AS SPECIFIED ABOVE AND SEEDING WITH THE FOLLOWING MIXTURE:
  - MATERIAL LBS./ACI
    PERENNIAL RYE GRASS 30
    CROWN VETCH 12
    SPREADING FESCUE 25

PER ACRE.

- 10. OPTIMUM SEEDING PERIODS ARE 3/15-6/1 AND 8/1-10/15.
- 11. ALL UPSTREAM SITE WORK AND STABILIZATION SHALL OCCUR BEFORE CONNECTING UNDERGROUND DETENTION/INFILTRATION FACILITY TO PREVENT ANY ERODED SEDIMENTS FROM ENTERING UNDERGROUND FACILITY.
- 12. IN ACCORDANCE WITH THE NYSDEC SPDES GP 0-20-001, THERE SHALL BE NO MORE THAN 5 ACRES DISTURBED AT ANYONE TIME

TOWN OF NEWBURGH
PLANNING BOARD APPROVAL BOX

NEWBURGH PB #2019-02

No. DATE DESCRIPTION DRAWING STATUS 10/05/22 REVISED PER PB COMMENTS THIS SHEET IS PART OF 10/31/22 REVISED LOT LAYOUT THE PLAN SET ISSUED FOR 3 | 03/23/23 | REVISED GRADING FOR DRIVEWAY LAYOUT CONCEPT APPROVAL ✓ PLANNING BOARD APPROVAL OCDOH REALTY SUBDIVISION APPROVAL OCDOH WATERMAIN EXTENSION APPROVAL ■ NYSDEC APPROVAL NYSDOT APPROVAL □ OTHER TFOR BID TFOR CONSTRUCTION THIS PLAN SET HAS BEEN ISSUED SPECIFICALLY FOR THE APPROVAL OR ACTION NOTED ABOVE AND SHALL NOT BE USED FOR ANY OTHER PURPOSE. THIS SHEET SHALL BE CONSIDERED INVALID UNLESS

ACCOMPANIED BY ALL SHEETS OF THE DENOTED PLAN SET(S).

ISSUE DATE: COPIES OF THIS DOCUMENT WITHOUT AN ACTUAL OR FACSIMILE OF THE SHEET **ENGINEER'S SIGNATURE** NUMBER AND AN ORIGINAL STAMP RED OR BLUE INK SHALL B N/A OF N/A CONSIDERED INVALID. 7 | OF | 8 JNAUTHORIZED N/A OF N/A ALTERATIONS OR ADDITIONS TO THIS N/A OF N/A DOCUMENT BEARING THE N/A OF N/A SEAL OF A LICENSED PROFESSIONAL ENGINEER N/A OF N/A IS A VIOLATION OF SECTION 7209 SUBSECTION N/A OF N/A 2 OF THE NEW YORK STATE N/A OF N/A EDUCATION LAW. N/A OF N/A

ORIGINAL SCALE IN INCHES

ROSS WINGLOVITZ, P.E.
NEW YORK LICENSE # 071701

NGINEERING| MONTGOMERY OFFICE 71 CLINTON STREET MONTGOMERY, NY 12549 Ph: (845) 457-7727 Achieving Successful Results with Innovative Designs WWW.EP-PC.COM DETAILS CHADWICK WOODS ROUTE 300 TOWN OF NEWBURGH ORANGE COUNTY, NEW YORK DRAWN BY: AS NOTED 08/01/2022 3 - 03/23/23

TOWN OF NEWBURGH SHEET 7 OF 8

TABLE 410-01: ADVANCE WARNING SIGN SPACIN         ROAD TYPE       DISTANCE BETWEEN SIGNS         A (FT.)       B (FT.)         URBAN (≤ 30 MPH*)       100       100         URBAN (35-40 MPH*)       200       200         URBAN (≥ 45 MPH*)       350       350										
ROAD TYPE         A (FT.)       B (FT.)         URBAN (≤ 30 MPH*)       100       100         URBAN (35-40 MPH*)       200       200	TABLE 410-01: ADVANCE WARNING SIGN SPACIN									
A (FT.) B (FT.)  URBAN (≤ 30 MPH*) 100 100  URBAN (35-40 MPH*) 200 200	DOAD TYPE	DISTANCE BE	TWEEN SIGNS							
URBAN (35-40 MPH*) 200 200	ROAD TYPE	A (FT.)	B (FT.)							
,	URBAN (≤ 30 MPH*)	100	100							
URBAN (≥ 45 MPH*) 350 350	URBAN (35-40 MPH*)	200	200							
	URBAN (≥ 45 MPH*)	350	350							
RURAL 500 500	RURAL	500	500							

\* PRECONSTRUCTION POSTED SPEED LIMIT

	TABLE 410-0	2: LONGITUDIN	NAL BUFFER SF	PACE AND TAPE	R LENGTHS			
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER		LENGTH: L (FT.) / # OF CHANNELIZING		SHOULDER TAPER LENGTH: L / 3 (FT.) / # OF SKIP LANES / # OF CHANNELIZING DEVICES FOR SHOULDER WIDTH			
	SPACE DISTANCE (FT.) / # OF SKIP LANES		OR LANE WIDTH IN SHIFT OF TRAFFIC I					
		10	11	12	≤ 4 FT.	5 - 7 FT.	≥ 8 FT.	
25	155 / 4	120 / 3 / 4	120 / 3 / 4	120 / 3 / 4	40 / 1 / 2	40 / 1 / 2	40 / 1 / 2	
30	200 / 5	160 / 4 / 5	160 / 4 / 5	200 / 5 / 6	40 / 1 / 2	40 / 1 / 2	40 / 1 / 2	
35	250 / 6	200 / 5 / 6	240 / 6 / 7	240 / 6 / 7	40 / 1 / 2	40 / 1 / 2	80 / 2 / 3	
40	305 / 8	280 / 7 / 8	320 / 8 / 9	320 / 8 / 9	40 / 1 / 2	80 / 2 / 3	80 / 2 / 3	
45	360 / 9	440 / 11 / 12	520 / 13 / 14	560 / 14 / 15	80 / 2 / 3	80 / 2 / 3	120 / 3 / 4	
50	425 / 11	520 / 13 / 14	560 / 14 / 15	600 / 15 / 16	80 / 2 / 3	120 / 3 / 4	160 / 4 / 5	
55	495 / 13	560 / 14 / 15	600 / 15 / 16	680 / 17 / 18	80 / 2 / 3	120 / 3 / 4	160 / 4 / 5	

TABLE 410-03: PROTECTIVE VEHICLE REQUIREMENTS										
	ROAD TYPE		NON-FREEWAY							
CLOSURE TYPE	& SPEED	≥ 45 MPH	35 - 40 MPH	≤ 30 MPH						
	EXPOSURE CONDITIONS <sup>1</sup>									
LANE CLOSURE OR	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA	P, TMIA	SEE NOTE 2						
ENCROACHMENT	OTHER HAZARDS NO WORKERS EXPOSED	P, TMIA	SEE NOTE 2	SEE NOTE 2						
SHOULDER CLOSURE	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA	SEE NOTE 2	SEE NOTE 2						
OR ENCROACHMENT	OTHER HAZARDS NO WORKERS EXPOSED	SEE NOTE 2	SEE NOTE 2	SEE NOTE 2						

P: PROTECTIVE VEHICLE REQUIRED FOR EACH CLOSED LANE & EACH CLOSED PAVED SHOULDER 8' OR WIDER, IF THE WORK SPACE MOVES WITHIN THE STATIONARY CLOSURE, THE PROTECTIVE VEHICLE SHALL BE REPOSITIONED ACCORDINGLY

#### TMIA: TMIA REQUIRED

1 THE EXPOSURE CONDITIONS ASSUMES THERE IS NO POSITIVE PROTECTION PRESENT 2. EITHER A PROTECTIVE VEHICLE OR THE STANDARD BUFFER SPACE SHALL BE PROVIDED

TABLE 410-04: ROLL AHEAD DISTANCE										
ROLL AHEAD DISTANCE (FT.) / # OF SKIP LINES FOR VEHICLES										
PRE CONSTRUCTION POSTED SPEED LIMIT	STATIONARY OPERATION									
(MPH)	MIN	MAX								
≥ 55	120 / 3	200 / 5								
45 - 50	80 / 2	160 / 4								
≤ 40	40 / 1	120 / 3								

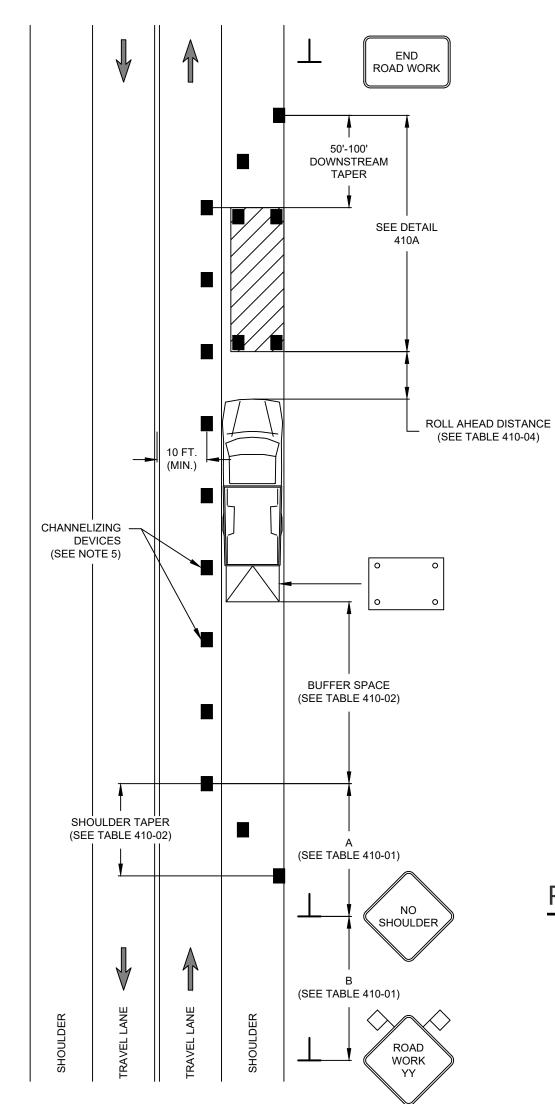
TABLE 410-05: CHANNELIZIN	IG DEVI	CE APPL	ICATION	FOR INT	ERMEDIA	ATE-TER	M STATIC	DNARY W	ORK ZO	NES
WORK ZONE PROVISIONS	Ď	MUTCD COMPLIANT CHANNELIZING DEVICE								
INTERMEDIATE-TERM STATIONARY WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD UP TO 3 CONSECUTIVE DAYS, OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR	MAXIMUM DEVICE SPACING (CENTER TO CENTER)	DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE III BARRICADES
SHOULDER / MERGING /	20 FT.*	Х							Х	
SHIFTING TAPERS	40 FT.	Х							X	
MARKING FOR TRANSVERSE BUMPS <sup>1</sup>	N/A	X <sup>2</sup>			X <sup>2</sup>				X <sup>2</sup>	
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND / OR SHOULDER	800 FT.	Х		×	×			x	х	0
REMOVAL OF EXISTING	80 FT.	X		X	X	X		x	X	0
GUIDE RAIL	40 FT.									

NOTES: X = ALLOWED, BLANK = NOT ALLOWED, 0 = OPTIONAL \* SEE NOTE 5

1. A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE 2. CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT

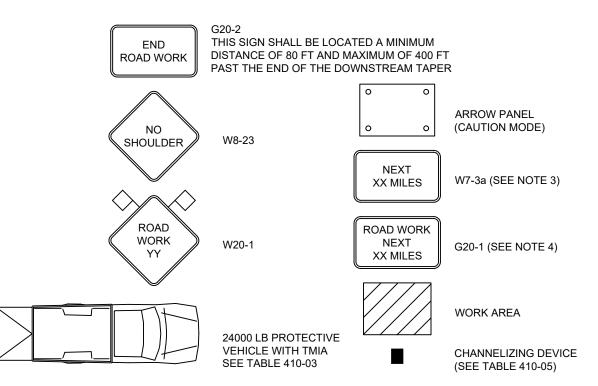
TABLE 410-06: REQUIRED SIGN SIZES*						
SIGN	NON-FREEWAY	FREEWAY				
G20-2	36 x 18	48 x 24				
W20-1	36 x 36	48 x 48				
W21-5	36 x 36	48 x 48				
W7-3a	24 x 18	36 x 30				
G20-1	36 x 18	48 x 24				
WARNING FLAG	18 x 18	18 x 18				

\* FREEWAY SIZES MAY BE USED ON NON-FREEWAY, IF SPACE CONSTRAINTS DO NOT EXIST



TWO-LANE TWO-WAY ROADWAY SHOULDER CLOSURE INTERMEDIATE TERM OPERATION

SCALE: N.T.S.



ROAD WORK

DOWNSTREAM

CHANNELIZING

**ROLL AHEAD DISTANCE** 

(SEE TABLE 410-04)

DEVICES

- . INTERMEDIATE-TERM IS STATIONARY WORK THAT OCCUPIES A LOCATION MORE THAN ONE DAYLIGHT PERIOD UP TO 3 CONSECUTIVE DAYS, OR NIGHTTIME WORK LASTING MORE THAN 1 HOUR
- NO WORK ACTIVITY OR STORAGE OF EQUIPMENT, VEHICLES, OR MATERIAL SHOULD OCCUR WITHIN A BUFFER SPACE.
- XX IS THE EXPECTED OVERALL LENGTH OF THE OPERATION TO BE COMPLETED WITHIN THE WORK DAY. A SUPPLEMENTAL DISTANCE PLAQUE W7-3a SHALL BE USED WITH SIGN W20-1 WHEN THE DISTANCE BETWEEN THE ADVANCE WARNING SIGNS AND WORK MAY BECOME GREATER THAN 2 MILES AS A RESULT OF THE FOLLOWING MULTIPLE WORK LOCATIONS ARE ANTICIPATED WITHIN XX MILES FROM THE W20-1
- WORK AREA WILL BE RELOCATED DURING THE DURATION OF THE WORK WITHIN XX MILES FROM THE W20-1 SIGN. THE SUPPLEMENT SIGN W7-3a SHALL INDICATE THE MAXIMUM ANTICIPATED DISTANCE BETWEEN THE W20-1 SIGN AND THE FARTHEST WORK LOCATION.
- 4. WHEN MULTIPLE WORK LOCATIONS EXIST WITHIN XX MILES FROM THE W20-1 SIGN, A G20-1 SIGN SHALL BE PLACED EVERY TWO MILES INDICATING THE DISTANCE FROM THE SIGN TO THE FARTHEST WORK LOCATION.
- 5. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 20' IN THE ACTIVE WORK SPACE. 6. CHANNELIZING DEVICES SHALL BE PLACED TRANSVERSELY A MINIMUM OF EVERY 800' AS SHOWN WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS
- 7. THE PROTECTIVE VEHICLE(S) SHALL MAINTAIN THE APPROPRIATE ROLL AHEAD DISTANCE, BE AN UNOCCUPIED TRUCK POSITIONED PARALLEL TO TRAFFIC, PARKING BRAKE SET, PLACED IN 2ND GEAR (MANUAL TRANSMISSIONS / ENGINE OFF) OR PARK / NEUTRAL (AUTOMATIC TRANSMISSIONS) AND HAVE THE FRONT WHEELS ALIGNED WITH THE LANE STRIPING.

#### NOTES ON NIGHTTIME WORK:

N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE

CLOSED FOR A DISTANCE GREATER THAN 800'.

- CONSIDERED NIGHTTIME OPERATIONS. N2. ALL SIGNS, STOP / SLOW PADDLES AND RED FLAGS USED TO WARN / ALERT /
- CONTROL TRAFFIC SHALL BE RETROREFLECTIVE. N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMETS AND NIGHTTIME
- APPAREL IN ACCORDANCE WITH \$107-05A HIGH VISIBILITY APPAREL AT ALL TIMES. N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS OR FLASHING LED BEACONS AT ALL TIMES.
- N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF THE LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS. ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND / OR REMOVAL OPERATIONS. INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
- N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL / MECHANICAL EQUIPMENT, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
- N8. ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY PRIOR TO THE START OF NIGHTTIME OPERATIONS, A WRITTEN NIGHTTIME
- OPERATIONS AND LIGHTING PLAN IS REQUIRED FOR APPROVAL. N10. SEE NIGHTTIME SAFETY BULLETIN, HDM §16.5.7, & STANDARD SPECIFICATIONS §619 FOR ADDITIONAL REQUIREMENTS AND CONSIDERATIONS.

1. FOR DROP-OFFS WITHIN TEN (10) FEET OF TRAVEL LANES, THE CONTRACTOR SHALL PROVIDE TRAFFIC PROTECTION IN ACCORDANCE WITH THE PROVISIONS OF TABLE 619-3, "PAVEMENT EDGE DROP-OFF PROTECTION" AND THE ACCOMPANYING NOTES, UNLESS OTHERWISE SHOWN IN THE CONTRACT DOCUMENTS. IN ALL CASES, CONSTRUCTION OPERATIONS SHALL BE CONDUCTED SO AS TO MINIMIZE TO THE EXTENT PRACTICABLE THE TIME, DEPTH, AND LENGTH OF DROP-OFFS TO WHICH MOTORISTS ARE EXPOSED. AT THE CLOSE OF WORK EACH DAY, THE CONTRACTOR SHALL PROVIDE THE TREATMENT SHOWN IN TABLE 619-3. AT THE TIME A DROP-OFF CONDITION FIRST OCCURS, THE PROTECTION TREATMENT SHALL BE INSTALLED BASED ON THE ANTICIPATED NUMBER OF DAYS THE TRAFFIC WILL BE EXPOSED TO THE DROP-OFF. THE ANTICIPATED EXPOSURE TIME SHALL BE DETERMINED BY THE CONTRACTOR, SUBJECT TO VERIFICATION BY THE ENGINEER. IF AT ANY TIME SUBSEQUENT TO INSTALLATION OF THE PROTECTION TREATMENT. THE ENGINEER DETERMINES THAT THE ANTICIPATED EXPOSURE TIME IS LIKELY TO INCREASE SUCH THAT ADDITIONAL PROTECTIONS IS REQUIRED. THAT INCREASE PROTECTION SHALL BE INSTALLED. AS SOON AS PRACTICABLE, AND IT SHALL BE BASED ON THE REVISED ANTICIPATED EXPOSURE TIME MEASURED FROM THE FIRST DAY THEY DROP-OFF CONDITION EXISTED. IN ADDITION, "LOW SHOULDER: SIGNS OR "NO SHOULDER" SIGNS. AS APPROPRIATE. SHALL BE USED FOR ALL DROP-OFFS WITHIN THE FINAL SHOULDER WIDTH FOR LONG DROP-OFFS. THESE SIGNS SHALL BE PLACED BEYOND INTERSECTIONS AND AT SPACING NOT EXCEEDING 1000 FEET. FOR DROP-OFFS LESS THAN TOW (2) INCHES DEEP, THE "LOW

DROP-OFF REQUIREMENTS

DELINEATION DEVICES.

- SHOULDER" SIGN WILL NOT BE NECESSARY AFTER EDGE LINES ARE INSTALLED. IF A RAMP IS REQUIRED BY TABLE 619-3, IT SHALL BE CONSTRUCTED FROM THE PAVEMENT SURFACE TO THE EXCAVATED AREA USING THE MAXIMUM SLOPE SHOWN IN THE TABLE. RAMP MATERIAL SHALL BE EROSION RESISTANT, FULLY COMPACTED, AND COMPATIBLE WITH THE MATERIAL IN THE EXCAVATED AREA. AT THE CONTRACTOR'S OPTION, A PREFORMED RAMP MAY BE USED PROVIDED IT IS ADEQUATELY ANCHORED TO THE UNDERLYING COURSE. UNLESS INDICATED OTHERWISE IN THE PLANS OR PERMITTED IN WRITING BY THE ENGINEERS. CHANNELIZING DEVICES OR TEMPORARY TRAFFIC BARRIERS USED TO PROTECT DROP-OFFS SHALL NOT INTRUDE INTO THE TRAVEL WAY TO THE EXTENT THAT THEY REDUCE AVAILABLE LANE WIDTH TO LESS THAN 10 FEET ON ROADWAYS WITH OPERATING SPEEDS OF 45 MPH OR LESS OR 11 FEET ON ALL OTHER ROADWAYS. CHANNELIZING DEVICES MAY BE PLACED IN THE DROP-OFF AREA ONLY FOR DEPTHS OF UP TO 6 INCHES. FOR DROP-OFFS DEEPER THAN 6 INCHES THE CHANNELIZING DEVICES MUST BE PLACED ENTIRELY ON THE PAVEMENT.
- THE CONTRACTOR SHALL FURNISH, ERECT, MOVE, MAINTAIN AND REMOVE DELINEATORS, CHANNELIZING DEVICES, AND TRAFFIC BARRIER AS REQUIRED BY THE CONTRACT DOCUMENTS AND AS DIRECTED BY THE ENGINEER. IN AREAS WHERE GRADING IS BEING DONE, A SAFE AND EASILY TRAVELED ROADWAY SHALL BE PROPERLY MARKED AT ALL TIMES EITHER BY THE USE OF DELINEATION AND CHANNELIZING DEVICES OF FLAGGERS. WHERE PRIVATE DRIVEWAYS. PEDESTRIAN OR HANDICAPPED FACILITIES EXIST. THE ENTIRE ACCESS AREA SHALL BE KEPT SAFE AND SMOOTH FOR CONVENIENT INGRESS AND EGRESS. ANY AREA DETERMINED BY THE ENGINEER TO BE PARTICULARLY HAZARDOUS SHALL BE MARKED BY THE USE OF FLASHING WARNING LIGHTS CONFORMING TO THE MUTCD IN ADDITION TO THE CHANNELIZING OR
- USAGE, PLACEMENT AND DESIGN OF CHANNELIZING DEVICES SHALL BE CONSISTENT WITH THE MUTCD. CHANNELIZING DEVICES CONSISTING OF CONES, PLASTIC DRUMS, TUBULAR MARKERS, TYPE II BARRICADES, OR VERTICAL PANELS SHALL BE USED TO MARK THE LIMITS OF THE TRAVEL WAY AVAILABLE FOR USE BY TRAFFIC. THESE DEVICES SHALL PHYSICALLY SEPARATE TRAFFIC FROM THE ROADWAY SECTION NOT TO BE USED, AND SHALL BE SPACED AS RECOMMENDED IN THE MUTCD AND IN THE ATTACHED TABLE 619-3.
- ALL CHANNELIZING DEVICES SHALL BE MAINTAINED UPRIGHT, IN PROPER ALIGNMENT AND POSITION OF THE DEVICES BY DRY SAND PLACED AT GROUND LEVEL. THE SAND SHALL BE CONTAINED IN WATERPROOF CLOSED BAGS OR IN A WATERPROOF COMPARTMENT OF THE DEVICE SPECIFICALLY DESIGNED FOR THE PURPOSE. UNDER NO CIRCUMSTANCES SHALL BALLAST BE PLACED ON TOP OF A DRUM OR AT ANY POINT ABOVE GROUND LEVEL ON ANY OF THESE DEVICES. IF PLASTIC DRUMS ARE USED, THEY SHALL BE TWO-PIECE DEVICES WITH ELONGATED BASES PROVIDED TO HOLD THE BALLAST. IN THE CASE OF ONE-PIECE DEVICES, THE SAND-BAG BALLAST SHALL BE PLACED ON THE SIDE FROM WHICH TRAFFIC APPROACHES. IN NO CASE WILL THE USE OF STEEL DRUMS OR OPEN-TOP PLASTIC DRUMS BE PERMITTED. WHERE WARNING LIGHTS ARE ATTACHED TO THE TOPE OF DRUMS, A BOLT, NUT AND WASHER SHALL BE
- USED FOR THE ATTACHMENT OF LIGHTS AS RECOMMENDED BY THE DRUM MANUFACTURER. IF POST-MOUNTED DELINEATORS ARE USED, THEY SHALL BE SECURELY MOUNTED AND PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF MUTCD. THEY SHALL BE PLACED ONLY BEHIND CURBING OR TO MARK THE OUTSIDE LIMITS OF USABLE SHOULDERS. POST-MOUNTED DELINEATORS ARE NOT REQUIRED TO BE INSTALLED BEHIND CHANNELIZING DEVICES, BUT SUCH AN INSTALLATION IS NOT PROHIBITED. OTHER DELINEATORS FOR MOUNTING ON TRAFFIC BARRIERS OR OTHER PURPOSE MAY BE CIRCULAR OR RECTANGULAR IN SHAPE AND SHALL BE CONSTRUCTED OF REFLECTIVE SHEETING HAVING A MINIMUM AREA OF 20 SQUARE INCHES OR REFLECTIVE BUTTONS HAVING A MINIMUM DIAMETER OF 3 INCHES.
- THE CONTRACTOR MAY CHOOSE AT HIS OPTION, WITH WRITTEN APPROVAL OF THE ENGINEER TO PROVED A POSITIVE TRAFFIC BARRIER IN LIEU OF THE TREATMENT SHOWN IN TABLE 619-3. IF THE CONTRACTOR CHOOSES TO SUBSTITUTE, NO SEPARATE PAYMENT WILL BE MADE FOR THE BARRIER. IF THE CONTRACTOR'S OPERATIONS ARE DELAYED TO THE EXTENT THAT POSITIVE BARRIER IS REQUIRED BY TABLE 619-3, IT SHALL BE INSTALLED BY THE CONTRACTOR A T NO ADDITIONAL COST.
- WHENEVER POSITIVE BARRIER IS USED OR REQUIRE BY TABLE 619-3, THE CONTRACTOR SHALL PROVIDE TEMPORARY CONCRETE BARRIER, HOWEVER, IF ADEQUATE DEFLECTION SPACE IS AVAILABLE, AND ALL APPLICABLE DESIGN CRITERIA ARE MET, THE CONTRACTOR MAY ELECT TO SUBSTITUTE A DIFFERENT POSITIVE BARRIER IF APPROVED IN WRITING BY THE ENGINEER.

### REQUIRED TREATMENT FOR PAVEMENT EDGE DROP-OFFS

DETAIL 410A: SEE NOTE 6

TABLE 1									
PAVEMENT EDGE DROP-OFF PROTECTION									
DROP-OFF HEIGHT	EDGE LINE PAVEMENT MARKINGS	SHOULDER CLOSURE	MINIMUM DRUM SPACING	MINIMUM VERTICAL PANEL SPACING	MINIMUM TUBULAR MARKERS SPACING	MINIMUM TALL CONES SPACING	SIGNS		
DROP-OFF AT OR WITHIN SHOULDER									
WITHIN 4 FT	. FROM TRAVE	EL LANE							
0 0 111	YES	YES	100 FT.	100 FT.	NO	NO	NO SHOULDER		
2 - 6 IN.	NO	YES	40 FT.	40 FT.	NO	NO	NO SHOULDER		
6 - 24 IN.	YES	YES	40 FT.	40 FT.	NO	NO	NO SHOULDER		
0 - 24 IIV.	NO	YES	20 FT.	20 FT.	NO	NO	NO SHOULDER		
WITHIN 4 FT	. FROM TRAVE	EL LANE							
2 - 6 IN.	YES	YES	200 FT.	200 FT.	100 FT.	100 FT.	NO SHOULDER		
	NO	YES	100 FT.	100 FT.	40 FT.	40 FT.	NO SHOULDER		
6 - 24 IN.	YES	YES	40 FT.	40 FT.	NO	NO	NO SHOULDER		
0 - 24 114.	NO	YES	40 FT.	40 FT.	NO	NO	NO SHOULDER		
DROP-OFF OUTSIDE SHOULDER EDGE									
SHOULDER	WIDTH < 4FT.								
2 - 6 IN.	YES	NO	100 FT.	100 FT.	NO	NO	LOW SHOULDER		
	NO	YES	100 FT.	100 FT.	NO	NO	NO SHOULDER		
6 - 24 IN.	YES	NO	40 FT.	40 FT.	NO	NO	LOW SHOULDER		
	NO	YES	40 FT.	40 FT.	NO	NO	NO SHOULDER		
SHOULDER WIDTH > 4FT.									
2 - 6 IN.	YES	NO	200 FT.	200 FT.	100 FT.	100 FT.	LOW SHOULDER		
	NO	YES	100 FT.	100 FT.	40 FT.	40 FT.	NO SHOULDER		

### NOTES:

1. THE TABLE SHOWS SPACING FOR DRUMS OF TYPE II BARRICADES. THE SPACING SHALL BE HALVED IF OTHER CHANNELIZING DEVICES ARE USED. TYPE III BARRICADES MAY BE USED INSTEAD OF DRUMS, IF SPACE PERMITS BUT NO SEPARATE PAYMENT WILL BE MADE UNLESS

100 FT. 100 FT.

40 FT. 40 FT. LOW SHOULDER

- 2. FOR DROP-OFF LENGTHS SHORTER THAN THE MAXIMUM DEVICE SPACING SHOWN IN TABLE 1, OR FOR DROP-OFFS AT INTERSECTIONS, THE DEVICE SPACING SHALL BE SHORTENED TO PROVIDE ADEQUATE CHANNELIZATION AS DIRECTED BY THE ENGINEER. 3. TWO FLASHING WARNING LIGHTS SHALL BE USED AT THE BEGINNING OF EACH WORK ZONE DROP-OFF.
- THE RAMP FROM THE PAVEMENT SURFACE TO THE EXCAVATED AREA SHALL NOT EXCEED THE SLOPE SHOWN IN THE TABLE. FOR CASES WHERE NO SLOPE IS SHOWN, NO SLOPE RAMP IS REQUIRED.
- 5. WHENEVER, IN THE OPINION OF THE ENGINEER IT IS NOT PRACTICABLE TO ACHIEVE THE DESIRED RAMP SLOPE SHOWN IN THE TABLE, THE FLATTEST PRACTICABLE RAMP SHALL BE CONSTRUCTED AND THE DEVICE SPACING SHALL MATCH THE <7 DAY SPACING, EXCEPT POSITIVE BARRIER SHALL BE REQUIRED FOR DROP-OFFS EXCEEDING 24 INCHES ON ROADWAYS WITH TRAFFIC VOLUMES EXCEEDING 7500 VEHICLES
- 6. AT THE CONTRACTORS OPTION, REQUIRED 1:2 RAMPS MAY BE FLATTENED TO 1:4 AND DEVICE SPACING INCREASE TO 200 FEET. 7. FOR DROP-OFFS LOCATED MORE THAN 10 FEET FROM THE EDGE OF THE TRAVEL LANE, RAMPING SHALL NOT BE REQUIRED AND THE REQUIRED SPACING FOR DRUMS AND TYPE III BARRICADES SHOULD BE 100 FEET (50 FEET FOR ALTERNATE DEVICES) DRUMS OR TYPE III BARRICADES SPACED 100 FEET OR OTHER APPROVED DEVICES SPACED AT 50 FEET MAY BE SUBSTITUTED FOR POSITIVE BARRIER. SIGNS AND FLASHING WARNING LIGHTS SHALL BE PROVIDED AS REQUIRED FOR DROP-OFFS GREATER THEN 6 INCHES.
- 8. FOR WINTER SHUTDOWN PERIODS. THE CONTRACTOR SHALL RESTORE THE ROADWAY TO THE NORMAL OPERATING CONDITION. 9. FOR DROP-OFFS EXCEEDING 24 INCHES IN DEPTH FOR EXPOSURE TIME OF 7 DAYS OR LESS AND WHEN AN OFFSET OF AT EAST TWO FEET CANNOT BE PROVIDED FROM THE EDGE OF THE TRAVELED LANE TO THE DROP-OFF, ALTERNATE TRAFFIC CONTROL PLANS MAY BE REQUIRED BY THE ENGINEER.

	TABI	LE 6H-4	6H-4 FORMULAS FOR DETERMINING TAPER LENGTHS							
	SPEED LIMIT (S) (MPH) (40 MPH) OR LESS (45 MPH) OR MORE		TAPER LENGTH (L) (FEET)		L = TAPER LENGTH W = WIDTH OF OFFSET (FEET) S = PRECONSTRUCTION POSTED SPEED LIMIT (MPH)					
			L = WS <sup>2</sup> / 60							
			L = WS							
STANDARD TAPER LENGTHS										
	SHIFT OF TRAFFIC FLOW PATH	TEMPORARY TRAFFIC CONTROL ZONE POSTED SPEE						SPEED	D LIMIT	
	(FEET)	25	30	35	40	45	50	55	60	65
	4	45	60	85	110	180	200	220	240	260
	5	55	75	105	135	225	250	275	300	325
	6	65	90	125	160	270	300	330	360	390
	7	75	105	145	190	315	350	385	420	455
	8	85	120	165	215	360	400	440	480	520
	9	95	135	185	240	405	450	495	540	585
	10	105	150	205	270	450	500	550	600	650
	11	115	165	225	295	495	550	605	660	715
	12	125	180	245	320	540	600	660	720	780

TOWN OF NEWBURGH PLANNING BOARD APPROVAL BOX

**NEWBURGH PB #2019-02** 

No.	DATE	DESCRIPTION	DRAWING STATUS	ISSUE DATE: 03/23/2023					
2	10/31/22	REVISED PER PB COMMENTS REVISED LOT LAYOUT REVISED GRADING FOR DRIVEWAY LAYOUT	THIS SHEET IS PART OF THE PLAN SET ISSUED FOR	SHEET NUMBER					
	03/23/23	KEVISED GRADING FOR DRIVEWAY EATOUT	CONCEPT APPROVAL	N/A	OF	N,			
			☑ PLANNING BOARD APPROVAL	8	OF	8			
			OCDOH REALTY SUBDIVISION APPROVAL	N/A	OF	N,			
			OCDOH WATERMAIN EXTENSION APPROVAL	N/A	OF	N,			
			NYSDEC APPROVAL	N/A	OF	N,			
			NYSDOT APPROVAL	N/A	OF	N,			
			OTHER	N/A	OF	N,			
			☐ FOR BID	N/A	OF	N,			
			☐ FOR CONSTRUCTION	N/A	OF	N,			
			THIS PLAN SET HAS BEEN ISSUED SPECIFICALLY FOR THE APPROVAL OR ACTION NOTED ABOVE AND SHALL NOT BE USED						

FACSIMILE OF THE UNAUTHORIZED N/A ALTERATIONS OR N/A N/A N/A EDUCATION LAW. N/A FOR ANY OTHER PURPOSE.

THIS SHEET SHALL BE CONSIDERED INVALID UNLESS

ACCOMPANIED BY ALL SHEETS OF THE DENOTED PLAN SET(S).

COPIES OF THIS DOCUMENT WITHOUT AN ACTUAL OR ENGINEER'S SIGNATURE AND AN ORIGINAL STAMP RED OR BLUE INK SHALL BI CONSIDERED INVALID. ADDITIONS TO THIS DOCUMENT BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209 SUBSECTION 2 OF THE NEW YORK STATE ROSS WINGLOVITZ, P.E. NEW YORK LICENSE # 071701

ORIGINAL SCALE IN INCHES

INGINEERING | 71 CLINTON STREET MONTGOMERY, NY 12549 Ph: (845) 457-7727 Achieving Successful Results WWW.EP-PC.COM with Innovative Designs **DETAILS** CHADWICK WOODS TOWN OF NEWBURGH ORANGE COUNTY, NEW YORK **IDRAWN BY:** 1325.05 AS NOTED C-3 08/01/2022

3 - 03/23/23 TOWN OF NEWBURGH SHEET 8 OF 8