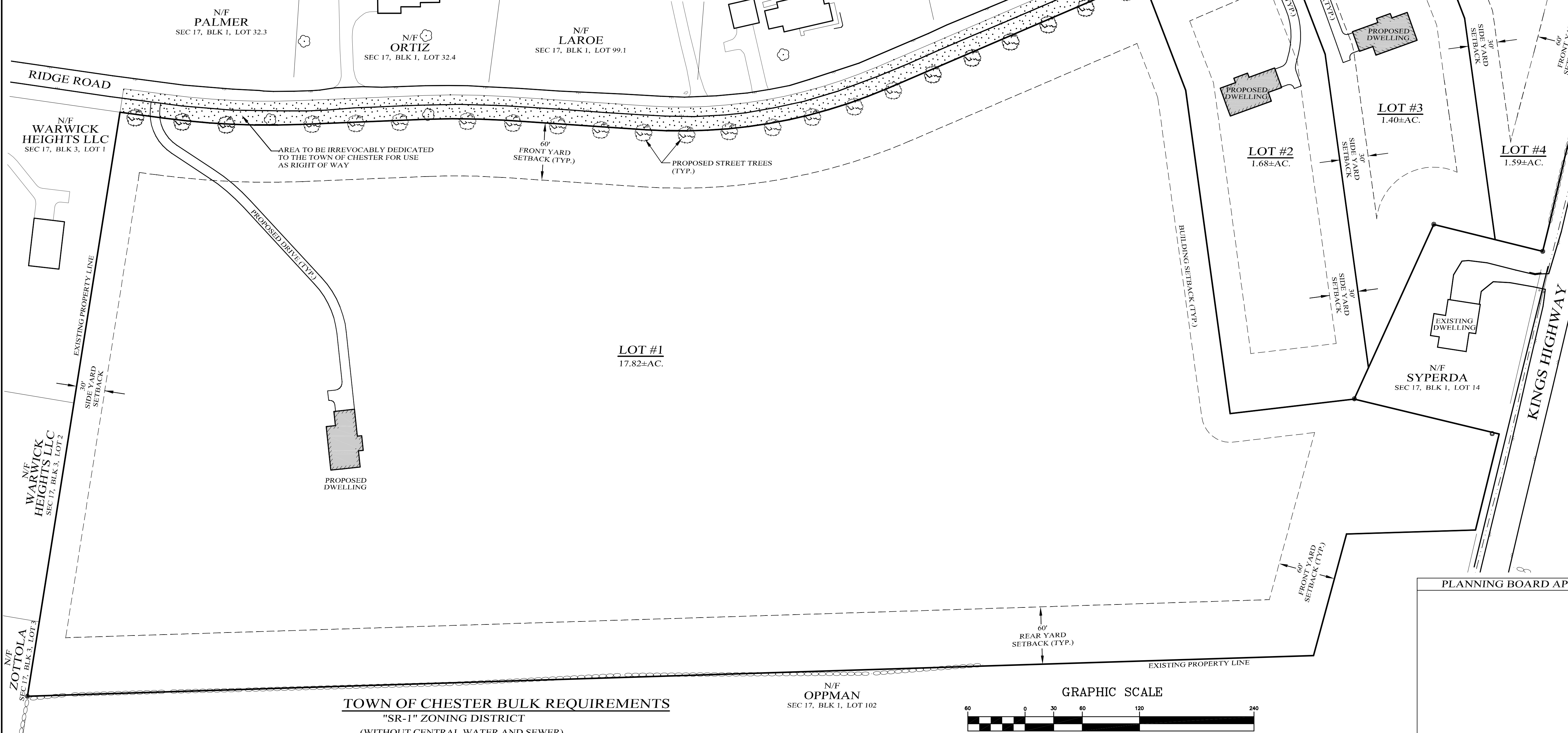


LOCATION MAP  
SCALE 1" = 2000'



SHEET INDEX

- SHEET #1 - COVER SHEET  
SHEET #2 - SUBDIVISION PLAT  
SHEET #3 - SUBDIVISION PLAN  
SHEET #4 - SUBDIVISION PLAN  
SHEET #5 - EROSION CONTROL PLAN  
SHEET #6 - EROSION CONTROL DETAILS  
SHEET #7 - SANITARY DETAILS  
SHEET #8 - SITE DETAILS

GENERAL NOTES:

1. TOWN OF CHESTER TAX PARCEL SEC. 17, BLK 1, LOT 99.21.
2. TOTAL AREA OF THIS PARCEL = 22.49 AC. (AFTER R.O.W. DEDICATION)
3. PARCEL LIES WITHIN THE SR-1 ZONING DISTRICT.
4. PARCEL SITUATED WITHIN THE CHESTER FIRE DISTRICT.
5. PARCEL LOCATED WITHIN THE WARWICK VALLEY CENTRAL SCHOOL DISTRICT.
6. TOTAL NUMBER OF LOTS PROPOSED IN THIS SUBDIVISION = 4.
7. EXISTING OFF SITE FEATURES TAKEN FROM PUBLICLY AVAILABLE DATA. TOPOGRAPHY OBTAINED FROM ORANGE COUNTY 2 FT TOPOGRAPHIC DATA.
8. LOT TO BE SERVED BY INDIVIDUAL WELL AND SEPTIC SYSTEM.
9. THERE ARE NO KNOWN EXISTING WELLS & SEPTIC WITHIN 100' OF ANY PROPOSED WELLS OR SEPTIC.
10. INDIVIDUAL WELLS AND SANITARY DISPOSAL SYSTEMS SHALL NO LONGER BE CONSTRUCTED OR USED FOR HOUSEHOLD DOMESTIC PURPOSES WHEN PUBLIC FACILITIES BECOME AVAILABLE. CONNECTION TO THE PUBLIC SEWERAGE SYSTEM IS REQUIRED WITHIN ONE YEAR OF THE SYSTEM BECOMING AVAILABLE.
11. ALL NEW UTILITIES SHALL BE INSTALLED UNDER GROUND.
12. THE DESIGN AND LOCATION OF SANITARY FACILITIES (WATER AND SEWER) SHALL NOT BE CHANGED.
13. THE PURCHASER OF THE LOT SHALL BE PROVIDED WITH A COPY OF THE APPROVED PLANS AND AN ACCURATE AS-BUILT DRAWING OF ANY EXISTING SANITARY FACILITIES, INCLUDING A NYS DEC. WELL COMPLETION REPORT. THE PURCHASER SHALL ALSO BE ADVISED OF ANY ROUTINE OR SPECIAL MAINTENANCE PROCEDURES THAT MAY BE NECESSARY FOR THE PROPOSED SANITARY FACILITIES. REFER TO PAGES 58-61 OF THE NYSDOH DESIGN HANDBOOK FOR RECOMMENDED ROUTINE OPERATION AND MAINTENANCE ITEMS.
14. BOUNDARY BASED ON SURVEY PROVIDED BY JEFFREY W. DONNELSON L.S., P.C.
15. THIS PROJECT LIES WITHIN THE TOWN OF CHESTER RPO DISTRICT. ANY PROPOSED DEVELOPMENT WITHIN THE RPO DISTRICT SHALL BE IN ACCORDANCE WITH SECTION 98-26 OF THE TOWN OF CHESTER ZONING LAW.
16. DUE TO POTENTIAL HABITAT FOR THE INDIANA BAT, TREE CUTTING SHALL BE LIMITED TO NOV 15TH THROUGH MARCH 31ST.

TOWN OF CHESTER BULK REQUIREMENTS

"SR-1" ZONING DISTRICT  
(WITHOUT CENTRAL WATER AND SEWER)

MINIMUM REQUIRED

LOT AREA (AC.) 1  
LOT WIDTH (FT.) 150  
FRONT YARD (FT.) 60  
REAR YARD (FT.) 60  
SIDE YARD (FT.) 30  
BOTH SIDE YARDS (FT.) 60

MAXIMUM ALLOWED

BUILDING HEIGHT (FT.) 35  
LOT COVERAGE (%) 10

PROVIDED

LOT #1	LOT #2	LOT #3	LOT #4
17.82±	1.68±	1.40±	1.59±
475±	150±	150±	264±
300±	134±	143±	110±
226±	310±	182±	275±
225±	36±	35±	51±
985±	86±	86±	115±

RECORD OWNER / APPLICANT

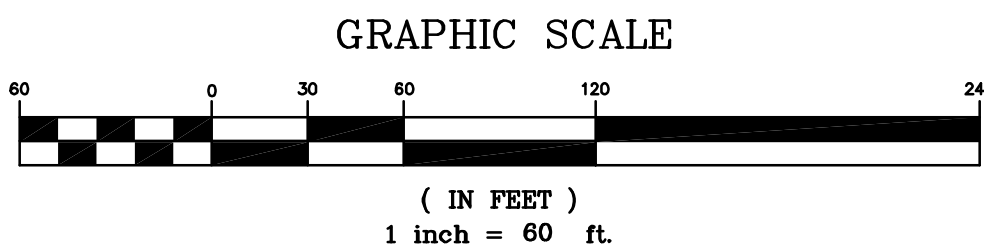
RIDGE ROAD EQUITIES, LLC  
C/O SATIN FINE FOODS INC  
32 LEONE LANE 1  
CHESTER, NY 10918

STREET TREE NOTES:

TREES TO BE 2-1/2" TO 3" CALIPER, BALLED AND BURLAPPED AND MEET AMERICAN NURSERYMAN'S STANDARDS.

PROVIDE A MIX FROM THE CHOICES BELOW:

COMMON NAME	SCIENTIFIC NAME
RED SUNSET MAPLE	ACER RUBRUM "RED SUNSET"
HONEY LOCUST	GLADISTIA TRIACANTHOS INERMIS
AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS
GREENSPIRE LINDEN	TILIA CORDATA "GREENSPIRE"



PLANNING BOARD APPROVAL

Lands of  
**O'REILLY**  
**MINOR SUBDIVISION**  
TOWN OF CHESTER, ORANGE COUNTY, NEW YORK  
PROJECT TITLE

COVER  
SHEET

DRAWING TITLE

**KIRK ROTHER, P.E.**  
CONSULTING ENGINEER, PLLC

5 St. Stephens Lane, Warwick, NY 10990  
(845) 988-0620

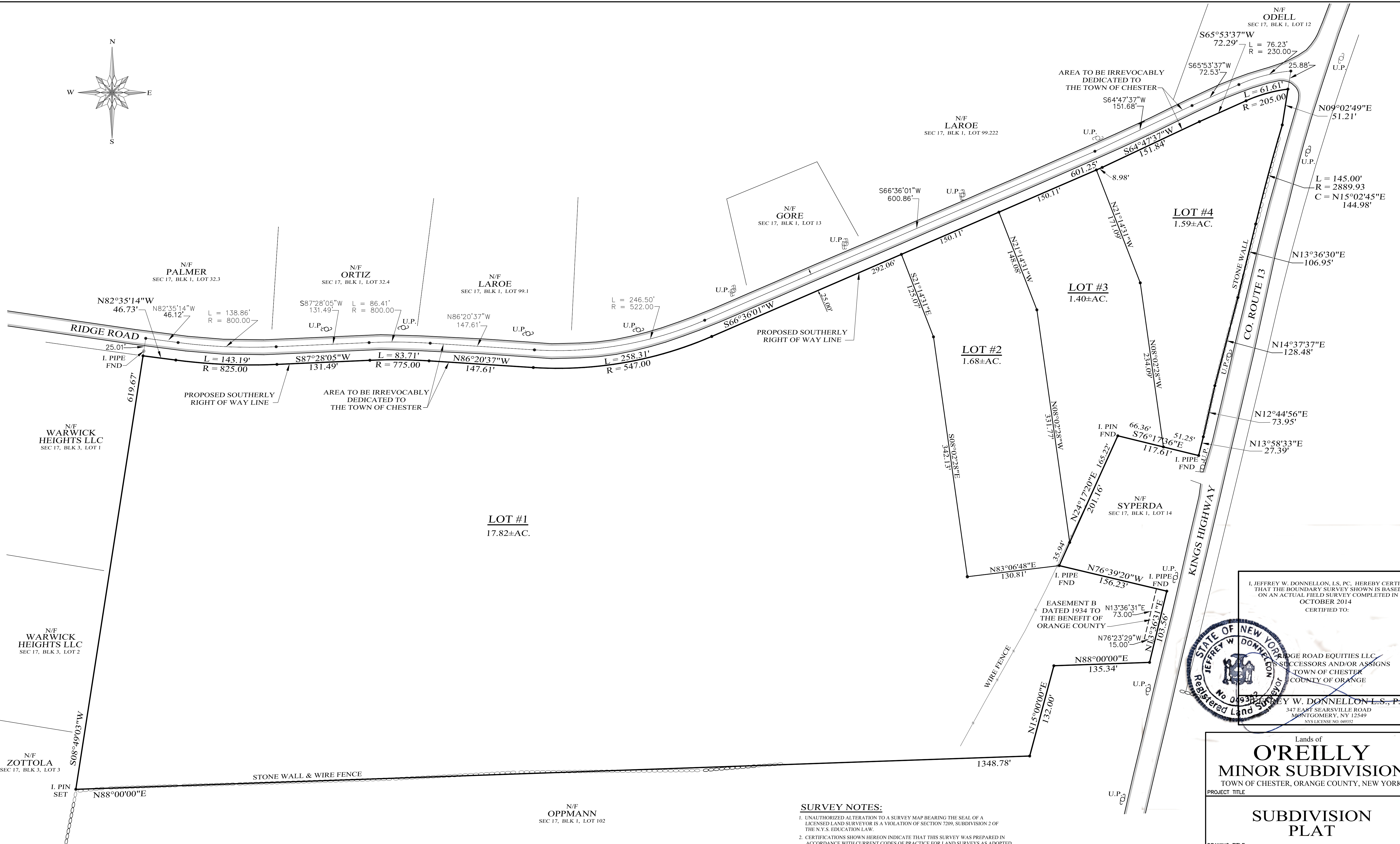
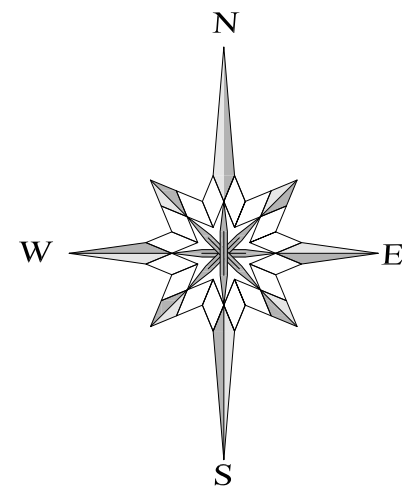
KIRK ROTHER, P.E. N.Y.S. Lic. No. 079053 DATE

11-18-20	REV. PER P.B. COMMENTS
10-08-20	REV. PER P.B. COMMENTS
09-23-20	REV. TO MINOR SUBDIVISION
08-18-20	ADDITIONAL DETAIL
07-21-20	REV. PER CLIENT AND TOWN DPW MEETING
09-18-19	DETAILED DESIGN
10-04-18	ADD SIGHT DISTANCE TO DRIVEWAYS
09-11-18	INITIAL PREPARATION

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A DOCUMENT BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209, SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW. REPRODUCTIONS OF THIS PLAN WHICH DO NOT BEAR THE ORIGINAL SEAL OF A LICENSED PROFESSIONAL ENGINEER SHALL BE CONSIDERED INVALID.

D.O.T. SHEET #	D.E.C. SHEET #	O.C.H.D. SHEET #	SHEET #
N.A.	N.A.	N.A.	1 OF 8
CAD # 03125	PROJECT #	SCALE	
9-2018	03125.0	AS SHOWN	





I, JEFFREY W. DONNELLON, L.S., P.C., HEREBY CERTIFY THAT THE BOUNDARY SURVEY SHOWN IS BASED ON AN ACTUAL FIELD SURVEY COMPLETED IN OCTOBER 2014. CERTIFIED TO:

EDGE ROAD EQUITIES LLC,  
SUCCESSORS AND/OR ASSIGNS  
TOWN OF CHESTER  
COUNTY OF ORANGE

JEFFREY W. DONNELLON L.S., P.C.  
347 EAST SEARSVILLE ROAD  
MONTGOMERY, NY 12549  
NYS LICENSE NO. 049152

Lands of  
**O'REILLY**  
MINOR SUBDIVISION  
TOWN OF CHESTER, ORANGE COUNTY, NEW YORK

**SUBDIVISION PLAT**

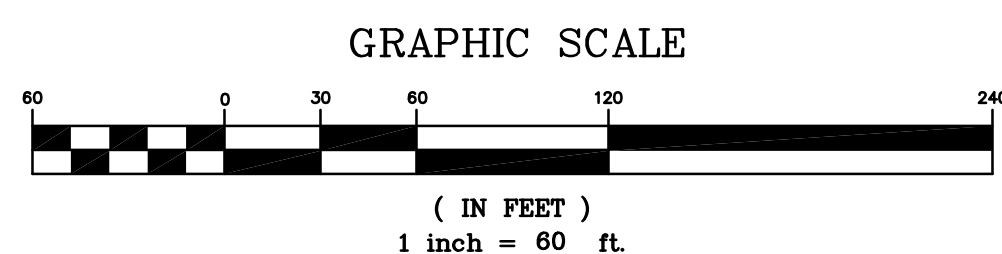
**KIRK ROTHER, P.E.**  
CONSULTING ENGINEER, PLLC  
5 St. Stephens Lane, Warwick, NY 10990  
(845) 988-0620

- SURVEY NOTES:**
1. UNAUTHORIZED ALTERATION TO A SURVEY MAP BEARING THE SEAL OF A LICENSED LAND SURVEYOR IS A VIOLATION OF SECTION 7209, SUBDIVISION 2 OF THE N.Y.S. EDUCATION LAW.
  2. CERTIFICATIONS SHOWN HEREON INDICATE THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH CURRENT CODES OF PRACTICE FOR LAND SURVEYS AS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS. CERTIFICATIONS SHALL RUN ONLY TO THE PERSON FOR WHOM THE SURVEY IS PREPARED, AND ON HIS OR HER BEHALF TO THE TITLE COMPANY, GOVERNMENTAL AGENCY AND LENDING INSTITUTION LISTED HEREON. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.
  3. UNDERGROUND IMPROVEMENTS OR ENCROACHMENTS, IF ANY, ARE NOT SHOWN HEREON AND ARE NOT CERTIFIED HERETO.
  4. SUBJECT TO A VALID, CURRENT ABSTRACT OF TITLE.
  5. SUBJECT TO ANY UNWRITTEN OR UNRECORDED DEEDS, EASEMENTS, RIGHTS-OF-WAY, AGREEMENTS OR OTHER INSTRUMENTS.
  6. EXCEPTING ALL THAT PORTION OF THE ABOVE THAT IS NOW USED OR HAS BEEN PREVIOUSLY CONVEYED FOR HIGHWAY PURPOSES.
  7. ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S INKED OR EMBOSSED SEAL SHALL BE CONSIDERED TRUE VALID COPIES.

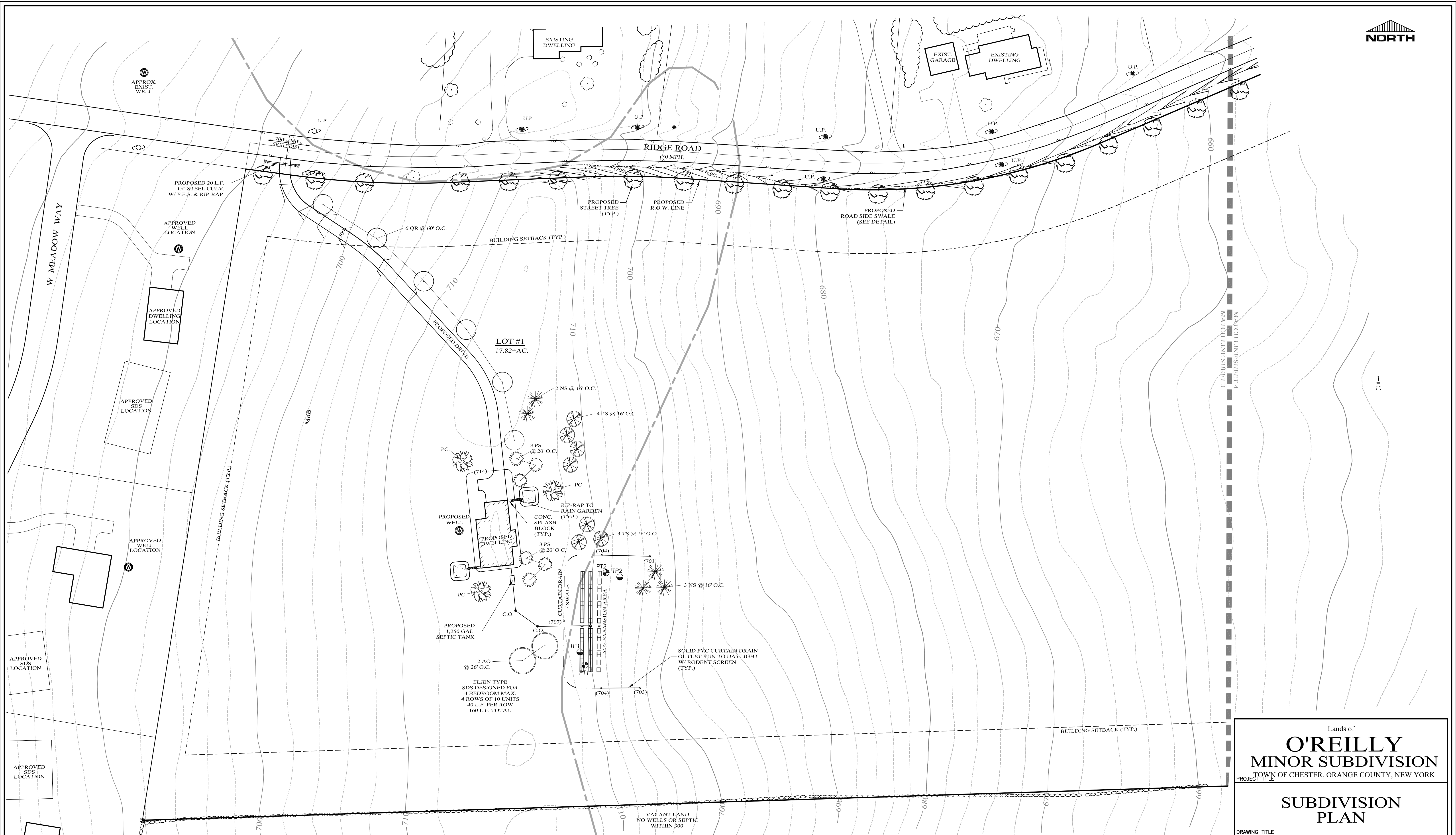
10-14-20	REV. PER SURVEYOR REVIEW COMMENTS	D.O.T. SHEET #	D.E.C. SHEET #	O.C.H.D. SHEET #	SHEET #
01-06-15	REV. PER SURVEYOR REVIEW COMMENTS	N.A.	N.A.	N.A.	2 OF 8
12-31-14	ADD CERTIFICATION INFORMATION	CAD # 03125	PROJECT # 03125.0	SCALE AS SHOWN	
11-07-14	INITIAL PREPARATION	4 LOT			

**LEGEND**

EXISTING PROPERTY LINE  
EXISTING EDGE OF PAVEMENT  
EXISTING STONE WALL  
EXISTING FENCE  
I. PIPE / I.PIN  
UTILITY POLE







PROPOSED PLANTING SCHEDULE

SYMBOL	PLANT NAME	SCIENTIFIC NAME	ROOT	CAL	QUANTITY
AO	October Glory Red Maple	Acer Rubrum "October Glory"	B & B	3" - 3 1/2"	2
PC	Whitehouse Callery Pear	Pyrus Calleryana "Whitehouse"	B & B	2" - 2 1/2"	3
PS	Kwanzan Cherry	Prunus Serrulata "Kwanzan"	B & B	2" - 2 1/2"	6
QR	Red Oak	Quercus Rubra	B & B	3" - 3 1/2"	6
NS	Norway Spruce	Picea Abies	B & B	7" - 8" Height	5
TS	Green Giant Arborvitae	Thuja Standishii x Plicata "Green Giant"	B & B	6" - 7" Height	7

GRAPHIC SCALE



STREET TREE NOTES:

TREES TO BE 2-1/2" TO 3" CALIPER, BALLED AND BURLAPPED AND MEET AMERICAN NURSERYMAN'S STANDARDS.

PROVIDE A MIX FROM THE CHOICES BELOW:

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HONEY LOCUST	GLIEDISIA TRIACANTHOS INERMIS
AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS
GREENSPIRE LINDEN	TILIA CORDATA "GREENSPIRE"

LEGEND

EXISTING PROPERTY LINE	=====
PROPOSED PROPERTY LINE	-----
PROPOSED BUILDING SETBACK	-----
EXISTING STONEWALL	=====
EXISTING EDGE OF PAVEMENT	=====
PROPOSED EDGE OF PAVEMENT	-----
10' CONTOUR LINE	-----
2' CONTOUR LINE	-----
PROPOSED CONTOUR LINE	-----
EXISTING UTILITY POLE	-----
USDA SOILS BOUNDARY	-----

Lands of  
**O'REILLY**  
MINOR SUBDIVISION  
TOWN OF CHESTER, ORANGE COUNTY, NEW YORK

SUBDIVISION  
PLAN

DRAWING TITLE

**KIRK ROTHER, P.E.**  
CONSULTING ENGINEER, PLLC

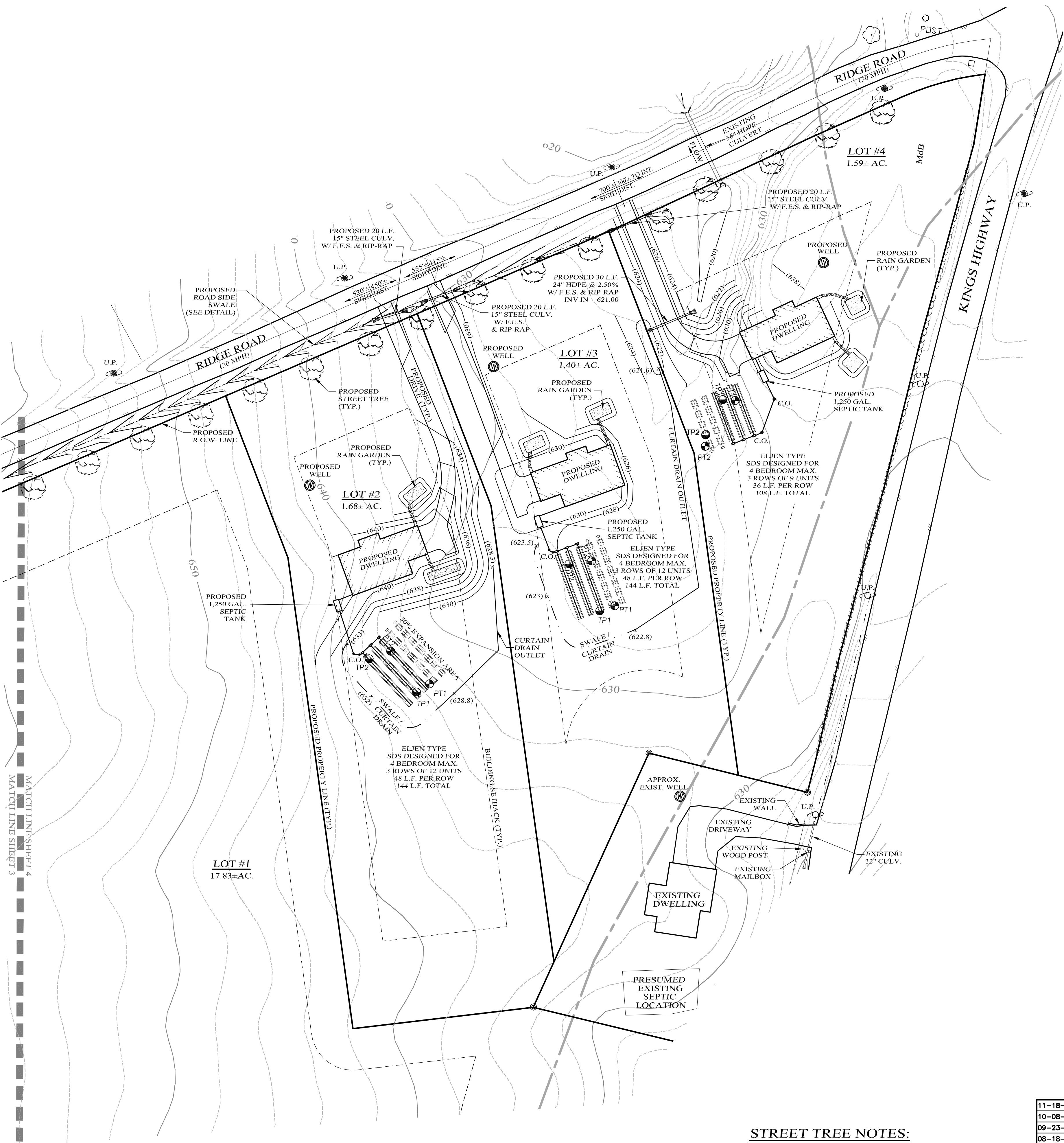
5 St. Stephens Lane, Warwick, NY 10990  
(845) 988-0620

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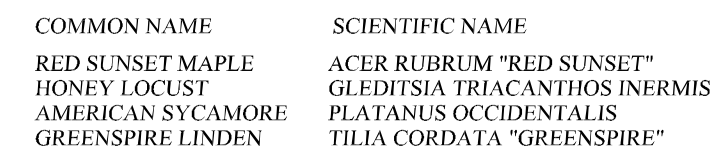
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N.A.	N.A.	N.A.	3 OF 8
CAD # 03125	PROJECT #	SCALE	
9-2018	03125.0	AS SHOWN	





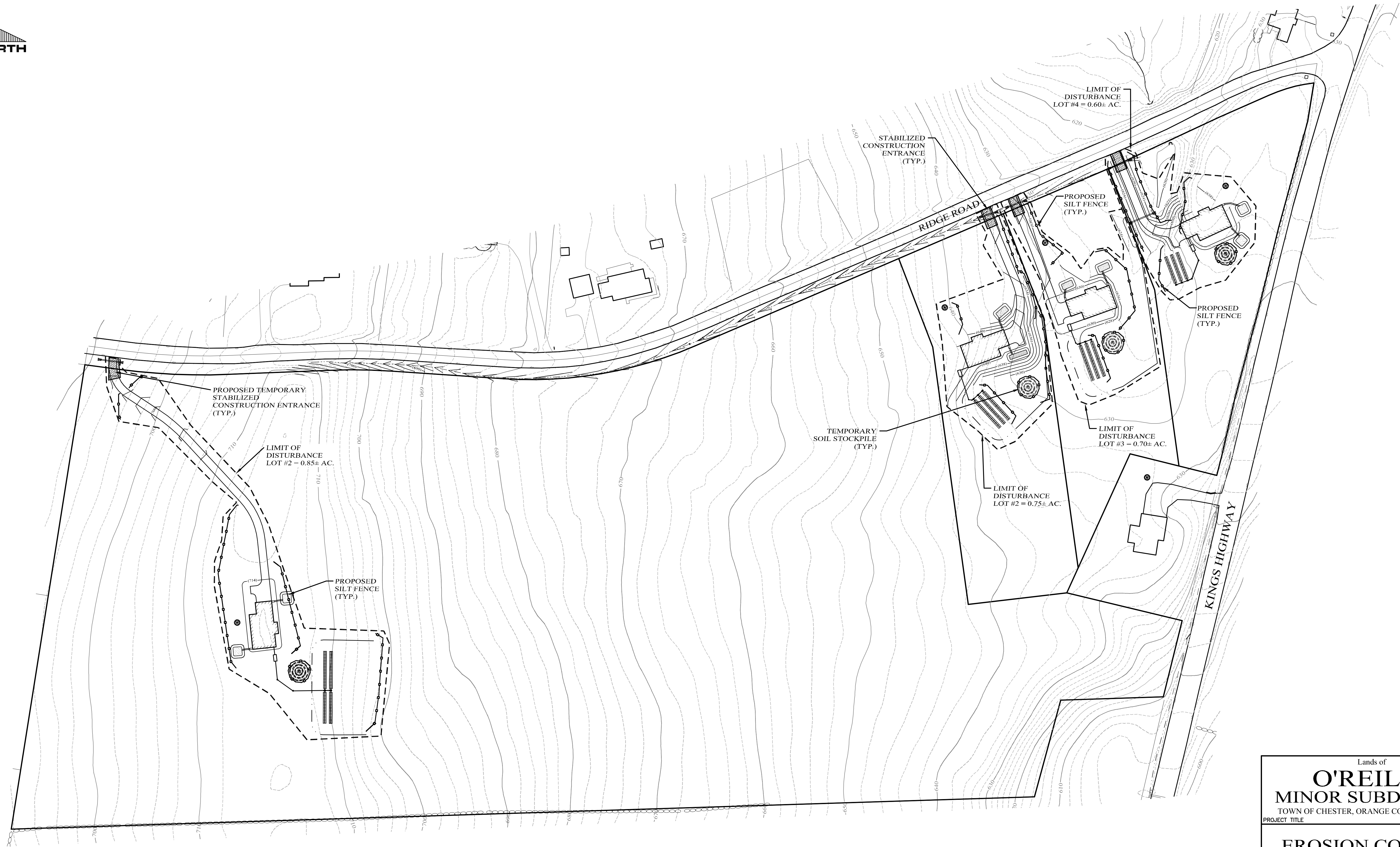
EXISTING PROPERTY LINE  
PROPOSED PROPERTY LINE  
PROPOSED BUILDING SETBACK  
EXISTING STONEWALL  
EXISTING EDGE OF PAVEMENT  
PROPOSED EDGE OF PAVEMENT  
10' CONTOUR LINE  
2' CONTOUR LINE  
PROPOSED CONTOUR LINE  
EXISTING UTILITY POLE  
USDA SOILS BOUNDARY



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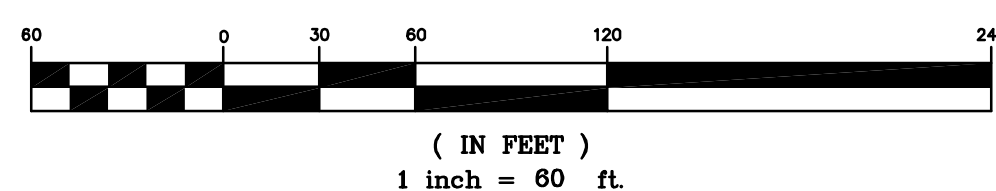




LEGEND

EXISTING PROPERTY LINE	
PROPOSED PROPERTY LINE	
PROPOSED BUILDING SETBACK	
EXISTING STONEWALL	
EXISTING EDGE OF PAVEMENT	
PROPOSED EDGE OF PAVEMENT	
10' CONTOUR LINE	
2' CONTOUR LINE	
PROPOSED CONTOUR LINE	
EXISTING UTILITY POLE	
USDA SOILS BOUNDARY	
PROPOSED SILT FENCE	
PROPOSED TEMP. SOIL STOCKPILE	
PROPOSED TEMP. STABILIZED CONSTRUCTION ENTRANCE	

GRAPHIC SCALE



Lands of

**O'REILLY**

**MINOR SUBDIVISION**

TOWN OF CHESTER, ORANGE COUNTY, NEW YORK

PROJECT TITLE

**EROSION CONTROL PLAN**

DRAWING TITLE

**KIRK ROTHER, P.E.**

CONSULTING ENGINEER, PLLC

5 St. Stephens Lane, Warwick, NY 10990

(845) 983-0020

KIRK ROTHER, P.E. N.Y.S. LIC. NO. 079653 DATE

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10-08-20	REV. PER P.B. COMMENTS
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D.O.T. SHEET #	D.E.C. SHEET #	O.C.H.D. SHEET #	SHEET #
N.A.	N.A.	N.A.	5 OF 8
CAD # 03125	PROJECT #	SCALE	
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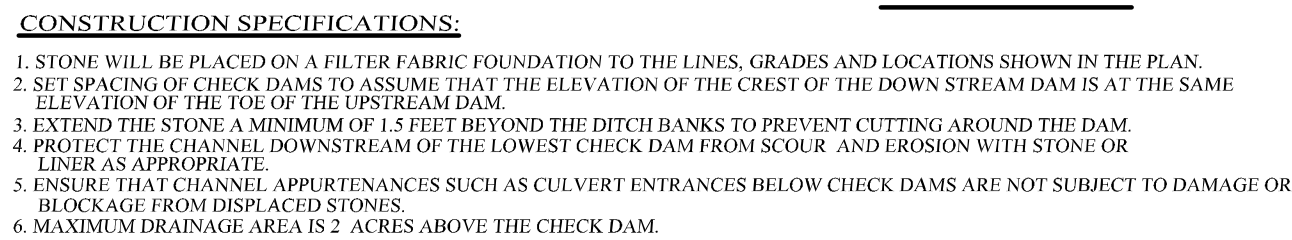
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Diagram illustrating the trench specifications for silt fence installation:

- 2" x 2" FENCE POST SPACED 8'-0" O.C. MAX.
- 3/6" WIDE GEOTEXTILE SPECIFIED FOR USE AS SILT FENCE.
- 8" WIDE x 6" DEEP TRENCH BOTTOM 1/4" OF FABRIC
- GRADE
- 2'-0"
- 2'-0"

### FILTER FABRIC SILT FENCE DETAIL



NOT TO SCALE




**SITE PREPARATION**

- INSTALL NEEDED WATER AND EROSION CONTROL MEASURES AND BRING AREA TO BE SEED TO DESIRED GRADES USING A MINIMUM OF 4" OF TOPSOIL.
- PREPARE SEED BED BY LOOSENING SOIL TO A DEPTH OF 4-6 INCHES
- LIME TO A pH OF 6.5
- FERTILIZE PER SOIL TESTS, OR, IF FERTILIZER IS TO BE APPLIED BEFORE SOIL TESTS, APPLY 850 POUNDS OF 5-10-10 OR EQUIVALENT PER ACRE (20 LBS. / 1000 SQ. FT.)
- INCORPORATE LIME AND FERTILIZER IN TOP 2-4 INCHES OF SOIL.
- SMOOTH. REMOVE ALL STONES OVER 1" IN DIAMETER, STICKS AND FOREIGN MATTER. FIRM SEED BED.
- APPLY SEED PER PERMANENT SEEDING SCHEDULE.

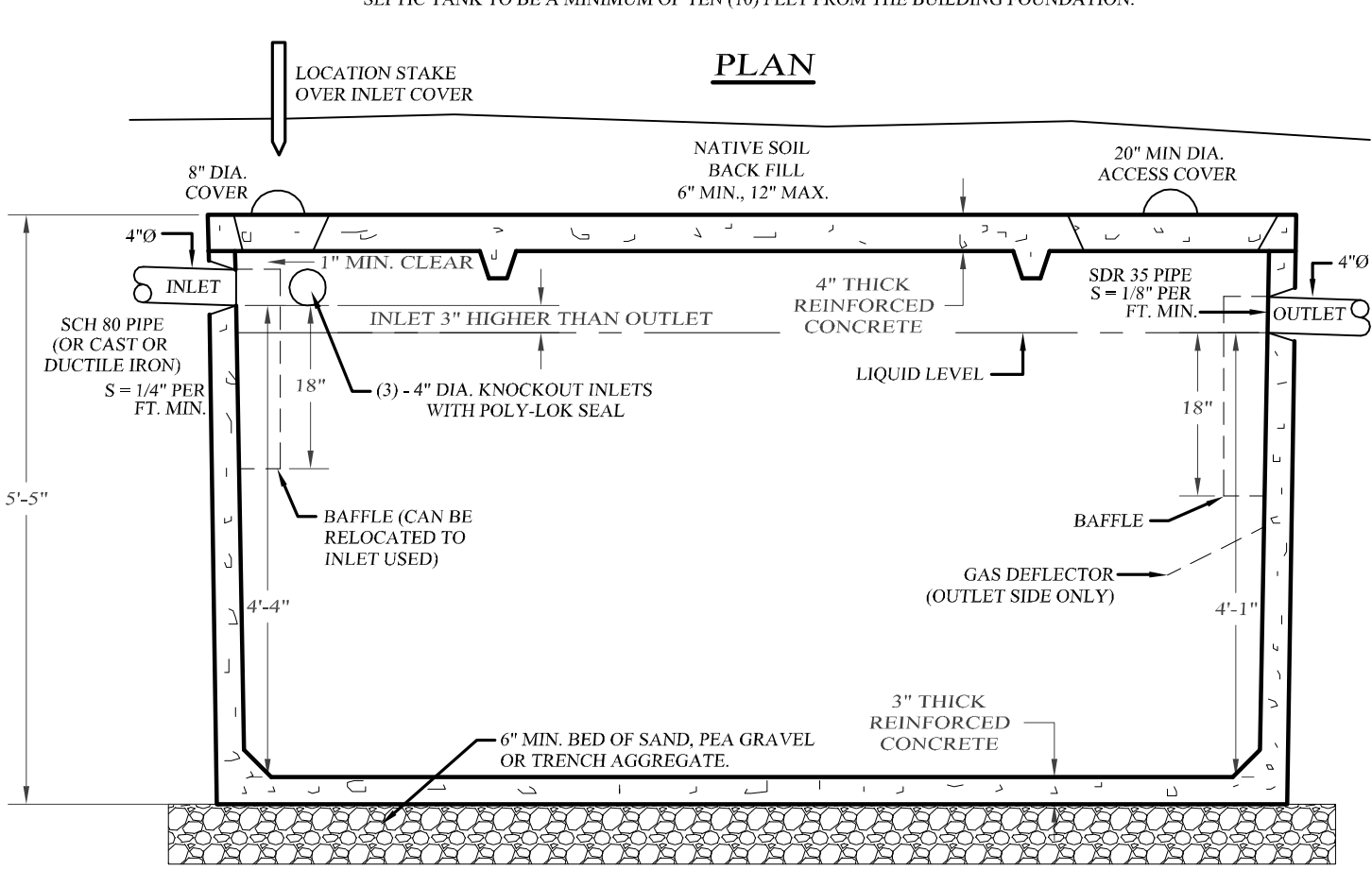
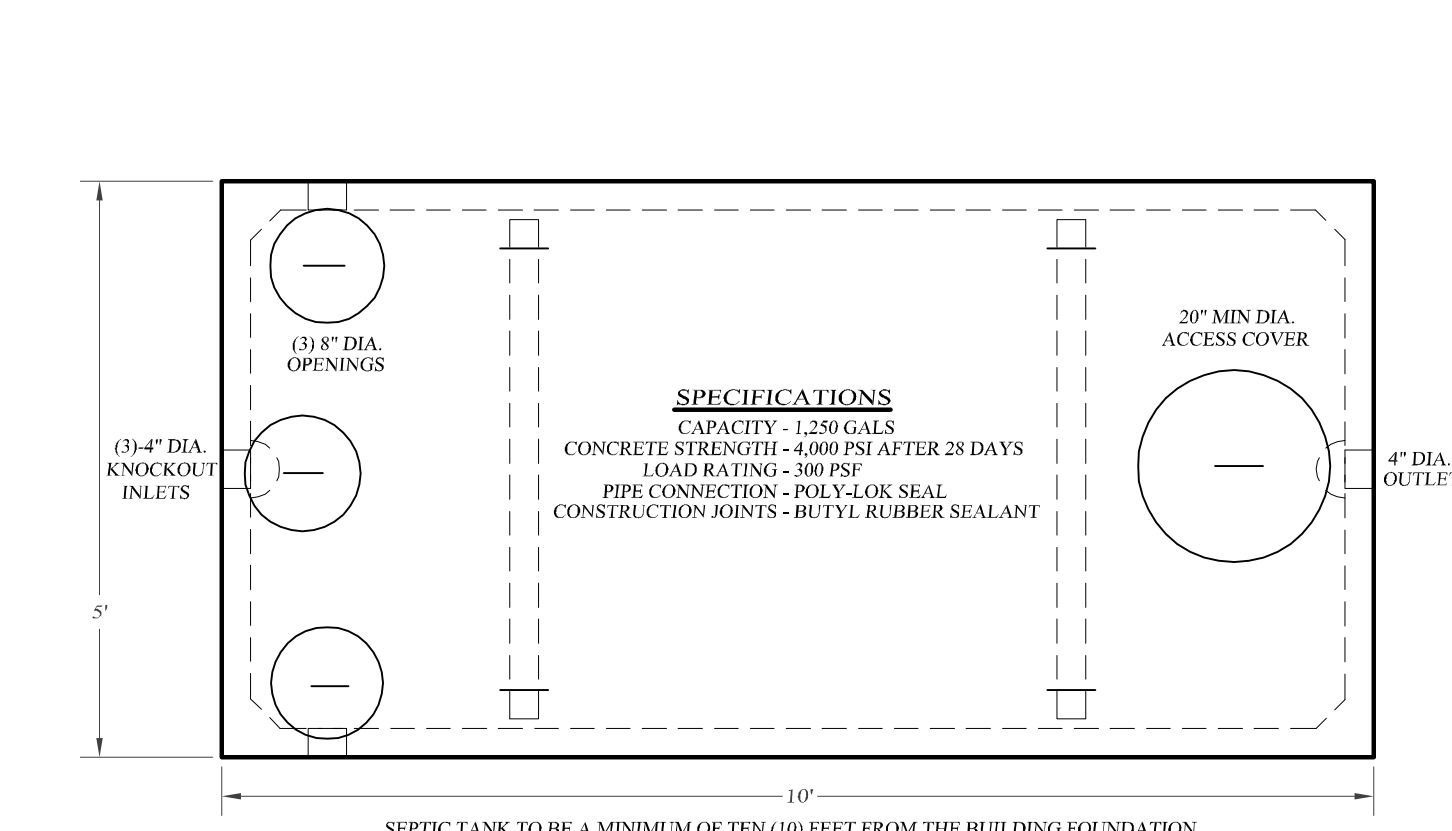
SLOPES OF 4:1 OR GREATER (HORIZONTAL:VERTICAL)  
SLOPES SHALL BE HYDROSEEDED WITH THE MIXTURES AND RATES INDICATED IN THE PERMANENT SEEDING MIXTURE SCHEDULE. STRAW OR HAY MULCH SHALL BE APPLIED AT A RATE OF 2 TONS/ACRE. STRAW OR HAY MULCH SHALL BE ANCHORED WITH BioD-Mesh60 NETTING AS MANUFACTURED BY RoLANKA INTERNATIONAL OR APPROVED EQUIVALENT. NETTING TO BE INSTALLED PER MANUFACTURER SPECIFICATIONS.

AREAS REQUIRING DISTURBED FOR 14 DAYS OR MORE SHALL BE STABILIZED AS FOLLOWS:  
SCARIFY SOILS IF COMPACTED, LIME TO pH OF 6.0 IF REQUIRED, FERTILIZE WITH  
600 LBS/ACRE 5-10-10 FERTILIZER IF REQ., SEED WITH SPECIES AND RATE SHOWN BELOW,  
MULCH WITH HAY OR STRAW AT A RATE OF 2 TONS/ACRE, ANCHOR MULCH WITH  
NETTING OF WOOD FIBER OR JUTE IF STEEP SLOPE OR HIGH POTENTIAL FOR EROSION.

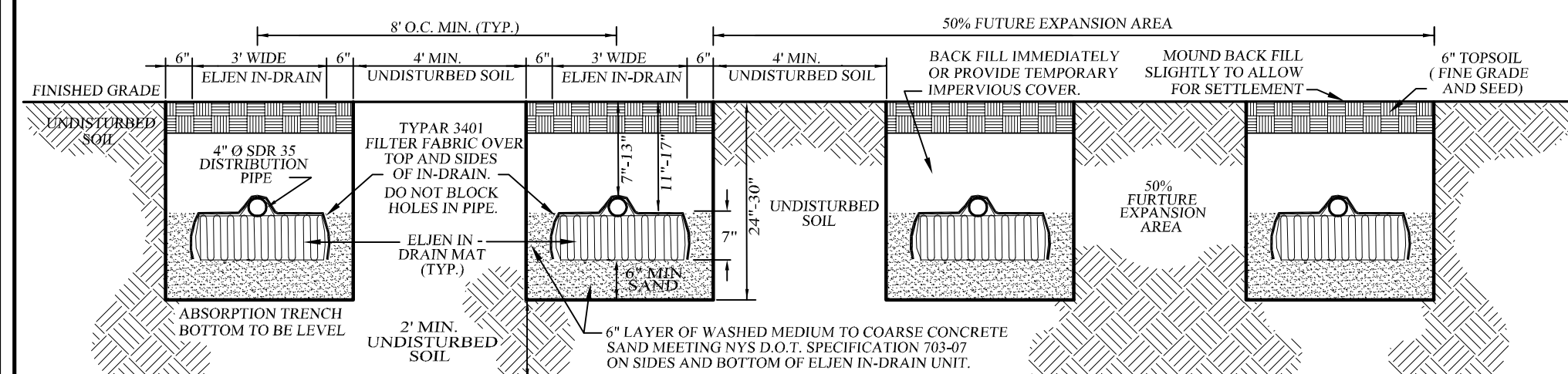
APPLICATION RATE  
30 LBS/ACRE  
(0.7 LBS/1000 SF)

			CONSULTING ENGINEER, P.E. 5 St. Stephens Lane, Warwick, NY 10990 (845) 988-0620 				
10-08-20	REV. PER P.B. COMMENTS						
09-23-20	REV. TO MINOR SUBMISSION						
09-18-19	INITIAL PREPARATION		KIRK ROTHER, P.E. N.Y.S. LIC. NO. 079053				DATE
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			CAD # 03125 PROJECT #		SCALE 03125.0		AS SHOWN
			6 OF 8				

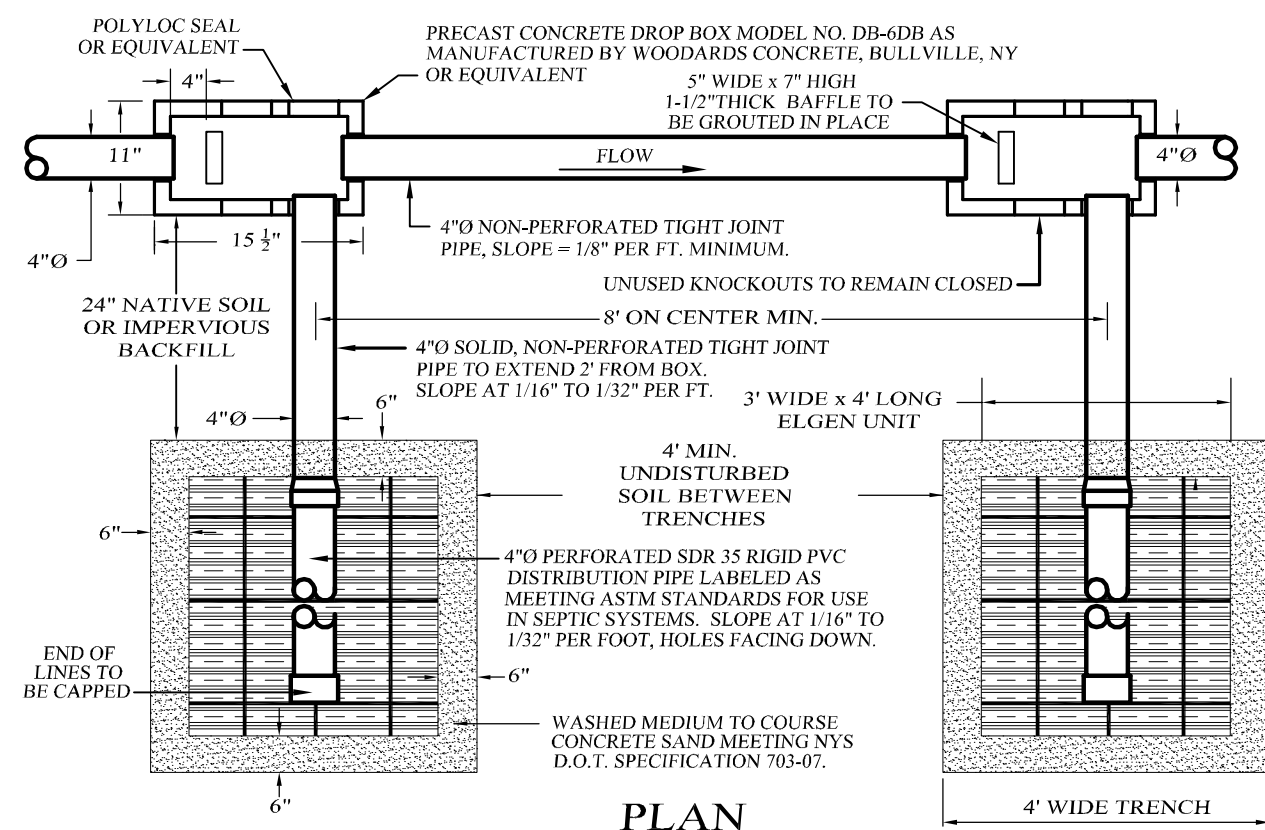




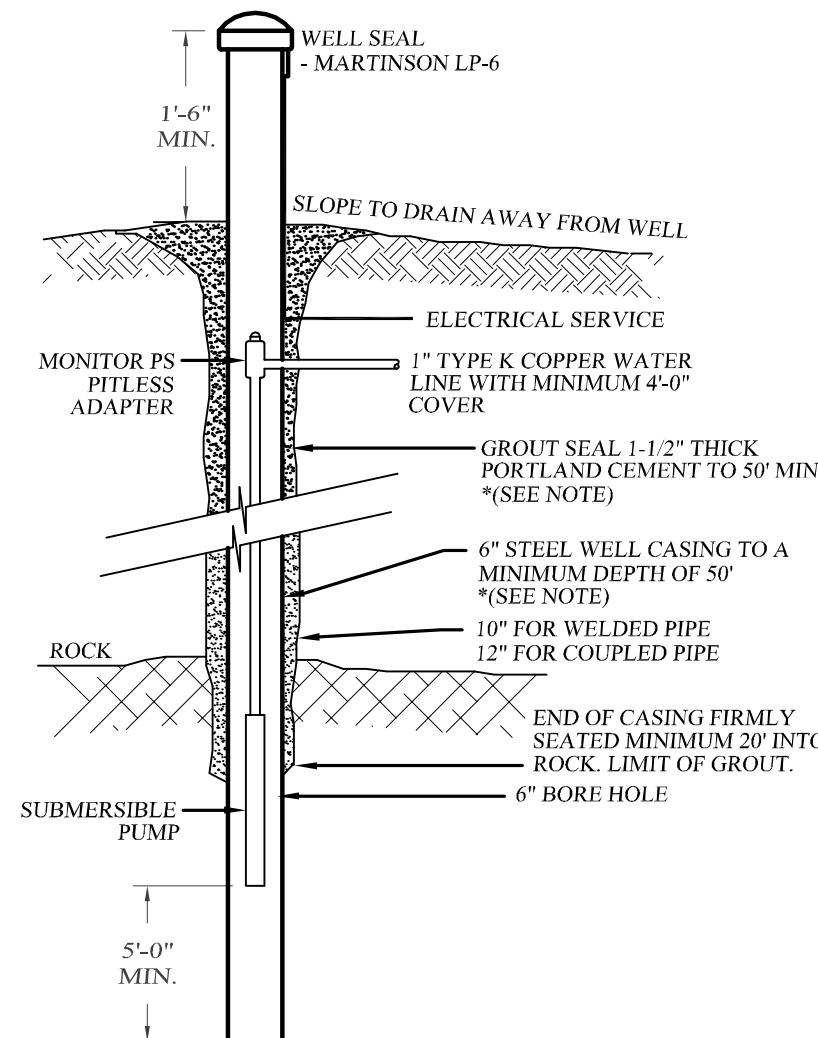
SECTION  
SEPTIC TANK DETAIL  
NOT TO SCALE



TYPICAL ELJEN TYPE TRENCH CROSS SECTION  
NOT TO SCALE



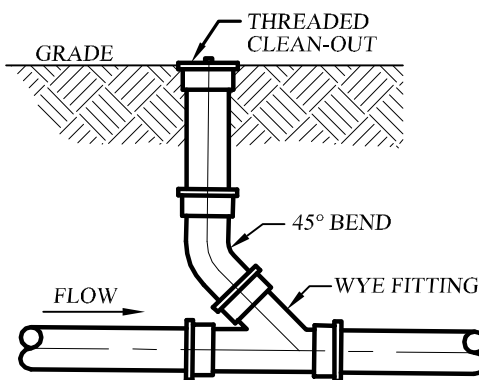
TYPICAL SECTION ELJEN IN-DRAIN SYSTEM  
NOT TO SCALE



WELL DETAIL  
NOT TO SCALE

## WATER SYSTEM NOTES

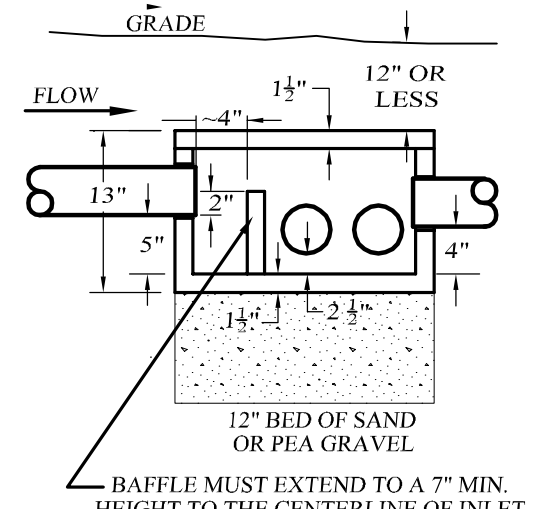
- WELL CONSTRUCTION SHALL CONFORM TO THE MINIMUM STANDARDS SET FORTH BY THE N.Y.S. DEPARTMENT OF HEALTH FOR RURAL WATER SUPPLY.
- SOFTENING OF HARD WATER WELL IS AT THE DISCRETION OF THE HOMEOWNER AND SHOULD BE CONSIDERED ONLY IF EXCESSIVE HARDNESS IS FOUND. (GREATER THAN 150 MG/L).
- THE LOCATION OF WELLS AND SEPTIC FIELDS SHALL NOT BE CHANGED.
- FOOTING DRAINS WITHIN 25 FEET OF A WELL SHALL BE WATERTIGHT.
- WELLS MUST BE INSTALLED AT LEAST 100 FEET FROM ALL SEPTIC SYSTEMS AND 200 FEET FROM ANY SEPTIC SYSTEM WHICH IS UPHILL FROM THE WELL.
- A MINIMUM OF 50' CASING & GROUT SHALL BE PROVIDED UNLESS DOCUMENTED BY THE NYS LICENCED WELL DRILLER AT THE TIME OF DRILLING THAT THE HIGHEST WATER BEARING FEATURE ENCOUNTERED IS AT A MIN. DEPTH OF 50' BELOW GROUND LEVEL.
- WELL CASING ABOVE GRADE SHALL BE A MINIMUM OF 24" ABOVE THE 100 YEAR FLOOD LEVEL.



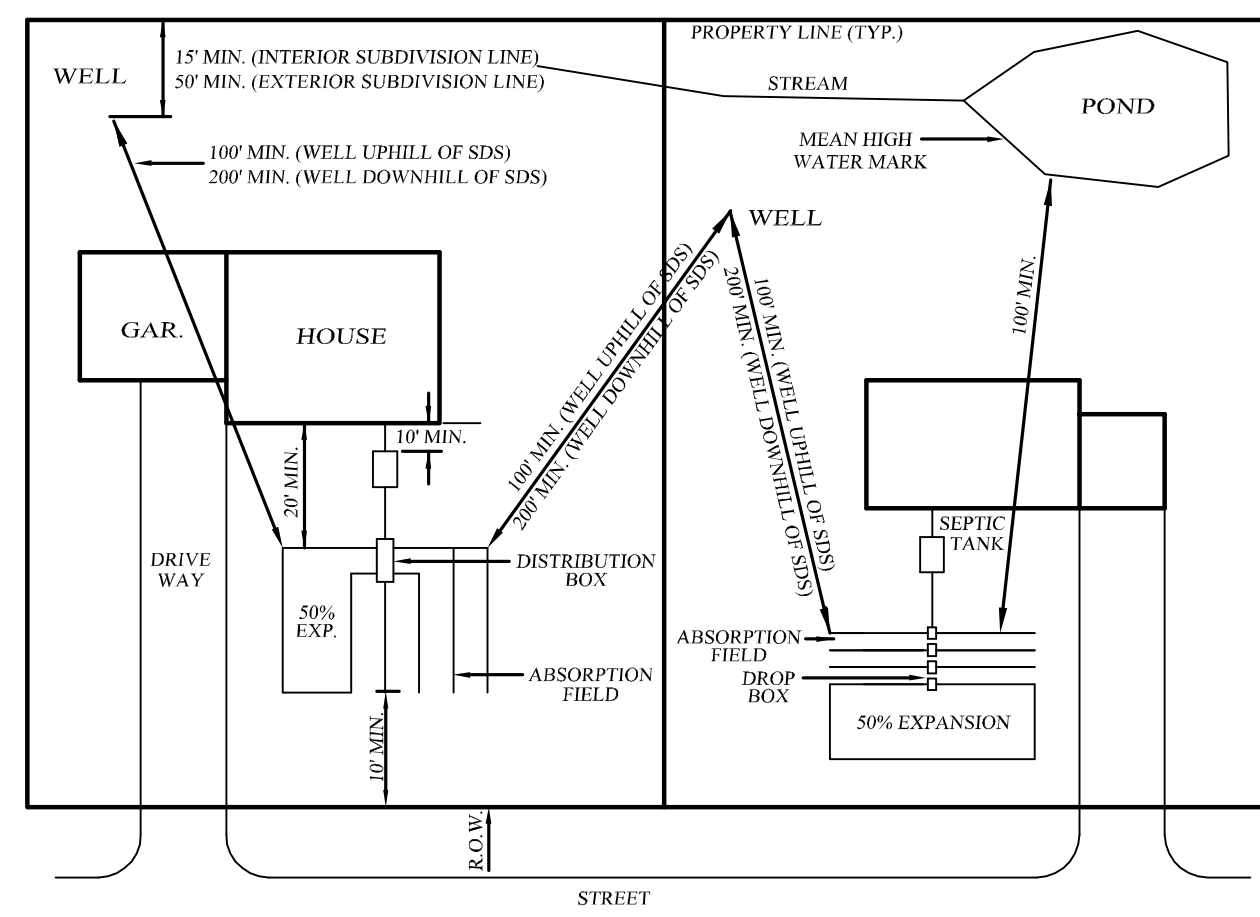
- NOTES:
- THE MAXIMUM DISTANCE BETWEEN POINTS OF POSSIBLE CLEAN-OUT SHALL BE 75 FEET.
  - BENDS SHALL BE AVOIDED IF POSSIBLE, HOWEVER, IF BENDS ARE REQUIRED, A CLEAN-OUT SHALL BE INSTALLED AT EACH SUCH BEND.

## SEWER CLEAN-OUT DETAIL

NOT TO SCALE



DROP BOX SECTION  
NOT TO SCALE

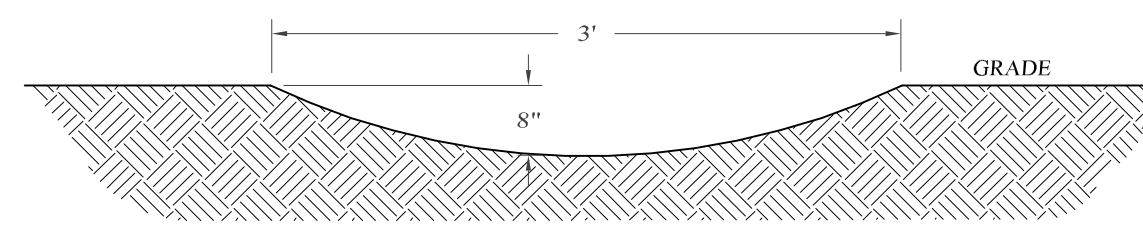


## TYPICAL SEPARATION DISTANCE REQUIREMENTS

NOT TO SCALE (SEE ADDITIONAL REQUIREMENTS IN TABLE BELOW)

## REQUIRED SEPARATION DISTANCE FROM WASTEWATER SYSTEM COMPONENTS

SYSTEM COMPONENTS	WELL (f) OR SUCTION LINE	TO STREAM/LAKE WATERCOURSE (B), OR WETLAND	DWELLING	PROPERTY LINE	DRAINAGE DITCH (b),(g)	MIN. SLOPE
HOUSE SEWER (WATERTIGHT JOINTS)	25' IF CAST IRON OR PVC WITH O-RING JOINTS, 50' OTHERWISE	25'	3'	10'	-	1/4" / FT.
SEPTIC TANK	50'	50'	10'	10'	10'	-
EFFLUENT LINE TO DISTRIBUTION BOX	50'	50'	10'	10'	10'	1/8" / FT.
DISTRIBUTION BOX	100'	100'	20'	10'	50'	-
ABSORPTION FIELD	100' (a)	100'	20'	10'	50'	1/16"-1/32" / FT.



## SEPTIC / SWALE CROSS SECTION

NOT TO SCALE

SOIL TEST RESULTS & SEPTIC SYSTEM DESIGN				
LOT	DEEP TEST PIT #1 RESULTS	DEEP TEST PIT #2 RESULTS	PERC	ELJEN DESIGN
LOT 1	00"-10" TOPSOIL 10"-20" SILT LOAM 28"-48" GRAVELLY SILT LOAM, LITTLE CLAY 48"-80" GRAVELLY SILT LOAM SEEPAGE @ 36" NO BEDROCK MOTTLING @ 36"	00"-10" TOPSOIL 12"-60" GRAVELLY SILT LOAM W/ SOME CLAY 60"-86" GRAVELLY SILT LOAM NO SEEPAGE NO BEDROCK MOTTLING @ 30"	PT1: 9 MIN. DEPTH: 24" PT2: 6 MIN. DEPTH: 24"	SDS DESIGNED FOR 4 BEDROOM MAX. 4 ROWS OF 10 UNITS 40 L.F. PER ROW REQUIRED 81 L.F. TOTAL PROVIDED 160 L.F. TOTAL CURTAIN DRAIN REQ.
LOT 2	00"-06" TOPSOIL 06"-72" SILTY CLAY LOAM WITH GRAVEL FEW COBBLES NO SEEPAGE NO BEDROCK MOTTLING @ 15"	00"-06" TOPSOIL 06"-72" SILTY CLAY LOAM WITH GRAVEL FEW COBBLES NO SEEPAGE NO BEDROCK MOTTLING @ 24"	PT1: 9 MIN. DEPTH: 24" PT2: 10 MIN. DEPTH: 24"	SDS DESIGNED FOR 4 BEDROOM MAX. 6 ROWS OF 6 UNITS 24 L.F. PER ROW REQUIRED 92 L.F. TOTAL PROVIDED 144 L.F. TOTAL CURTAIN DRAIN REQ.
LOT 3	00"-06" TOPSOIL 06"-72" SILTY CLAY LOAM WITH GRAVEL FEW COBBLES NO BEDROCK NO MOTTLING @ 15"	00"-06" TOPSOIL 06"-50" SILTY CLAY LOAM WITH GRAVEL FEW COBBLES NO SEEPAGE NO BEDROCK MOTTLING @ 16"	PT1: 10 MIN. DEPTH: 24" PT2: 9 MIN. DEPTH: 24"	SDS DESIGNED FOR 4 BEDROOM MAX. 4 ROWS OF 9 UNITS 36 L.F. PER ROW REQUIRED 92 L.F. TOTAL PROVIDED 144 L.F. TOTAL CURTAIN DRAIN REQ.
LOT 4	00"-06" TOPSOIL 06"-50" SILT LOAM WITH SHALE NO SEEPAGE NO MOTTLING	00"-06" TOPSOIL 06"-50" SILT LOAM WITH SHALE & FEW COBBLES NO SEEPAGE NO MOTTLING	PT1: 4 MIN. DEPTH: 24" PT2: 5 MIN. DEPTH: 24"	SDS DESIGNED FOR 4 BEDROOM MAX. 4 ROWS OF 8 UNITS 32 L.F. PER ROW REQUIRED 81 L.F. TOTAL PROVIDED 108 L.F. TOTAL

- NOTES:
- PERCOLATION TESTS FOR LOT 1 PERFORMED ON 12/08/14 BY KIRK ROTHER, PE, PLLC.
  - DEEP TESTS FOR LOT 1 PERFORMED ON 12/08/14 BY KIRK ROTHER, PE, PLLC.
  - PERCOLATION TESTS FOR LOTS 2, 3 & 4 PERFORMED IN OCTOBER 2020 BY KIRK ROTHER, PE, PLLC.
  - DEEP TESTS FOR LOTS 2, 3 & 4 PERFORMED IN OCTOBER 2020 BY KIRK ROTHER, PE, PLLC.

NOTES:

- WHEN SEWAGE TREATMENT SYSTEMS ARE LOCATED IN COARSE GRAVEL OR UPGRADE AND IN THE GENERAL PATH OF DRAINAGE TO A WELL, THE CLOSEST PART OF THE TREATMENT SYSTEM SHALL BE AT LEAST 200 FT. AWAY FROM THE WELL.
- MEAN HIGH WATER MARK.
- FOR ALL SYSTEMS INVOLVING THE PLACEMENT OF FILL MATERIAL, SEPARATION DISTANCES ARE MEASURED FROM THE TOE OF THE SLOPE OF THE FILL.
- ANY WATER SERVICE LINE UNDER PRESSURE (i.e., PUBLIC WATER SUPPLY MAIN, HOUSEHOLD SERVICE LINE, WELL TO HOUSEHOLD SERVICE LINE) LOCATED WITHIN TEN FT. OF ANY ABSORPTION FIELD, SEEPAGE PIT OR SANITARY PRIVY SHALL BE INSTALLED INSIDE A LARGER DIAMETER WATER MAIN TO PROTECT THE POTABLE WATER SUPPLY.
- ANY WATER SERVICE LINE UNDER PRESSURE (i.e., PUBLIC WATER SUPPLY MAIN, HOUSEHOLD SERVICE LINE, WELL TO HOUSEHOLD SERVICE LINE) CROSSING A SEWER SHALL BE INSTALLED WITH ONE FULL LENGTH OF WATER MAIN CENTERLINE ABOVE THE SEWER SO BOTH WATER CONDUCTING JOINTS ARE AS FAR AS POSSIBLE FROM THE SEWER. SECTION 8.6 OF THE G.L.U.M.R.B. RECOMMENDED STANDARDS FOR WATER WORKS, SHALL BE FOLLOWED FOR SEPARATION OF WATER MAINS, SANITARY SEWERS AND STORM SEWERS.
- THE MINIMUM SEPARATION DISTANCE BETWEEN A SEPTIC TANK AND A COMMUNITY TYPE PUBLIC WATER SUPPLY WELL SHOULD BE AT LEAST 100 FT. DISTRIBUTION BOXES AND ABSORPTION FACILITIES (e.g., ABSORPTION TRENCHES, BEDS, SEEPAGE PITS, RAISED SYSTEMS, MOUND SYSTEMS, etc.) SHOULD BE LOCATED AT LEAST 200 FT. FROM COMMUNITY TYPE PUBLIC WATER SUPPLY WELLS.
- RECOMMENDED SEPARATION DISTANCES.

ORANGE COUNTY D.O.H. REVISIONS AND ADDITIONS AS OF 10/2003

- SEPARATION: WELL TO SWALE, STREAM OR WATERCOURSE - 25'.
- SEPARATION: ABSORPTION FIELD TO OPEN DRAINAGE, CULVERT, STORM SEWER OR CATCH BASIN - 30'.
- SEPARATION: ABSORPTION FIELD TO CULVERT OR STORM SEWER (WITH GASKETED TIGHT PIPE) - 35'.
- SEPARATION: ABSORPTION FIELD TO CURTAIN DRAIN - 15'.
- SEPARATION: ABSORPTION FIELD, PITS, EXPANSION AREA, TO TOP OF EMBANKMENT OR STEP (ON 3) SLOPE - 25'.
- SEPARATION: WELL TO CEMETERY PROPERTY LINE - 100'.
- DRAINAGE PIPES WITHIN 25' OF ANY WELL MUST BE WATERTIGHT.

## SEPTIC SYSTEM NOTES

- SEPTIC SYSTEMS ARE DESIGNED TO CONFORM TO THE MINIMUM REQUIREMENTS SET FORTH BY N.Y.S. DEPARTMENT OF HEALTH APPENDIX 75A STANDARDS.
- A NEW YORK STATE PROFESSIONAL ENGINEER (OR OTHER DESIGN PROFESSIONAL AS ALLOWED BY THE NYS EDUCATION DEPT.) SHALL INSPECT THE SANITARY FACILITIES (WATER SUPPLY, ANY WATER TREATMENT, AND SEWAGE DISPOSAL FACILITIES) AT THE TIME OF CONSTRUCTION. PRIOR TO OCCUPANCY OF THE DWELLING, THE ENGINEER SHALL CERTIFY TO THE ORANGE COUNTY DEPARTMENT OF HEALTH AND THE LOCAL CODE ENFORCEMENT OFFICER THAT THE FACILITIES HAVE BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS AND THAT ANY SEPTIC TANK JOINTS HAVE BEEN SEALED AND TESTED FOR WATER TIGHTNESS. A COPY OF THE NYSDEC WELL COMPLETION REPORT MUST ALSO BE PROVIDED.
- THE DESIGN AND LOCATION OF WELLS AND SEPTICS SHALL NOT BE CHANGED.
- THE SEPTIC DESIGN IS BASED ON THE SLOWEST PERCOLATION RATE IN THE AREA OF THE PROPOSED SYSTEM.
- ABSORPTION LINES USED WITH PRESSURE DISTRIBUTION OR DOSING SHALL NOT EXCEED 100 FEET IN LENGTH.
- ABSORPTION LINES USED WITH GRAVITY DISTRIBUTION SHALL NOT EXCEED 60 FEET IN LENGTH.
- SEWER RUNS SHALL NOT EXCEED 75' BETWEEN POINTS OF CLEAN OUT. AT LEAST ONE CLEAN OUT IS REQUIRED AND BENDS SHALL BE AVOIDED. IF BENDS MUST BE INSTALLED, A CLEAN OUT SHALL BE INSTALLED AT EACH BEND.
- SEPTIC FIELDS SHALL NOT BE CONSTRUCTED IN WET SOILS.
- TRENCHES SHALL BE INSTALLED PARALLEL TO CONTOURS. TRENCHES SHALL BE INSTALLED AS SHALLOW AS POSSIBLE WHILE STILL CONFORMING TO THE DIMENSIONAL REQUIREMENTS SHOWN IN THE CONSTRUCTION DETAILS. SIDES AND BOTTOM OF ABSORPTION LINE TRENCHES SHALL BE RAKED IMMEDIATELY PRIOR TO PLACING THE SAND.
- THE ENDS OF ALL DISTRIBUTION PIPES SHALL BE CAPPED.
- REGRADING IS NOT PERMITTED IN THE AREA OF THE ABSORPTION FIELD.
- THERE MUST BE AN UNINTERRUPTED POSITIVE SLOPE FROM THE SEPTIC TANK (OR ANY PUMPING OR DOSING CHAMBER) TO THE HOUSE, ALLOWING SEPTIC GASES TO DISCHARGE THROUGH THE STACK VENT.
- DRIVEWAYS, SWIMMING POOLS OR OTHER STRUCTURES WHICH CAN COMPACT THE SOIL SHALL NOT BE LOCATED OVER ANY PORTION OF THE ABSORPTION FIELD.
- HEAVY EQUIPMENT SHALL BE KEPT OFF THE AREA OF THE TILE FIELD EXCEPT FOR THE ACTUAL CONSTRUCTION OF THE FIELD. THERE SHALL BE NO UNNECESSARY MOVEMENT OF CONSTRUCTION EQUIPMENT IN THE AREA OF THE PROPOSED FIELD BEFORE, DURING AND AFTER CONSTRUCTION. EXTREME CARE MUST BE TAKEN DURING THE ACTUAL CONSTRUCTION AS TO AVOID ANY UNDUE COMPACTION THAT COULD RESULT IN A CHANGE OF THE ABSORPTION CAPACITY OF THE SOIL ON WHICH THE DESIGN WAS BASED.
- THIS SYSTEM WAS NOT DESIGNED TO ACCOMMODATE GARBAGE GRINDERS, OR "JACUZZI" TYPE SPA TUBS OVER 100 GALLONS. AS SUCH, THESE ITEMS SHALL NOT BE INSTALLED UNLESS THE SDS IS REDESIGNED TO ACCOUNT FOR THEM AND REAPPROVED BY THE ORANGE COUNTY DEPARTMENT OF HEALTH.
- LAUNDRY WASTE SHALL DISCHARGE INTO THE SEPTIC SYSTEM.
- ROOF, CELLAR AND CURTAIN DRAINS SHALL NOT BE DISCHARGED INTO THE SEPTIC SYSTEM OR IN THE VICINITY OF THE TILE FIELD. FOOTING AND CURTAIN DRAINS SHALL RUN TO DAYLIGHT AND BE EQUIPPED WITH RODENT SCREENS.
- TOILETS OR SINKS IN THE BASEMENTS MAY REQUIRE SPECIAL DESIGN AND APPROVAL.
- SEPTIC TANKS SHOULD BE INSPECTED PERIODICALLY AND PUMPED EVERY 2-3 YEARS.
- DISTRIBUTION BOXES / DROP BOXES SHOULD BE INSPECTED PERIODICALLY TO ASSURE THAT THEY ARE LEVEL AND OPERATING PROPERLY.

Lands of  
**O'REILLY**  
MINOR SUBDIVISION  
TOWN OF CHESTER, ORANGE COUNTY, NEW YORK

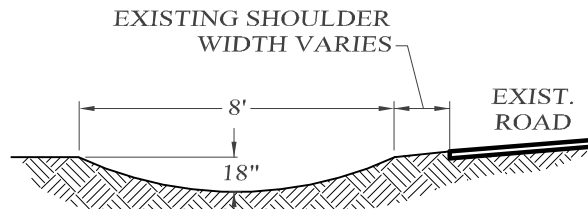
## SANITARY DETAILS

**KIRK ROTHER, P.E.**  
CONSULTING ENGINEER, PLLC

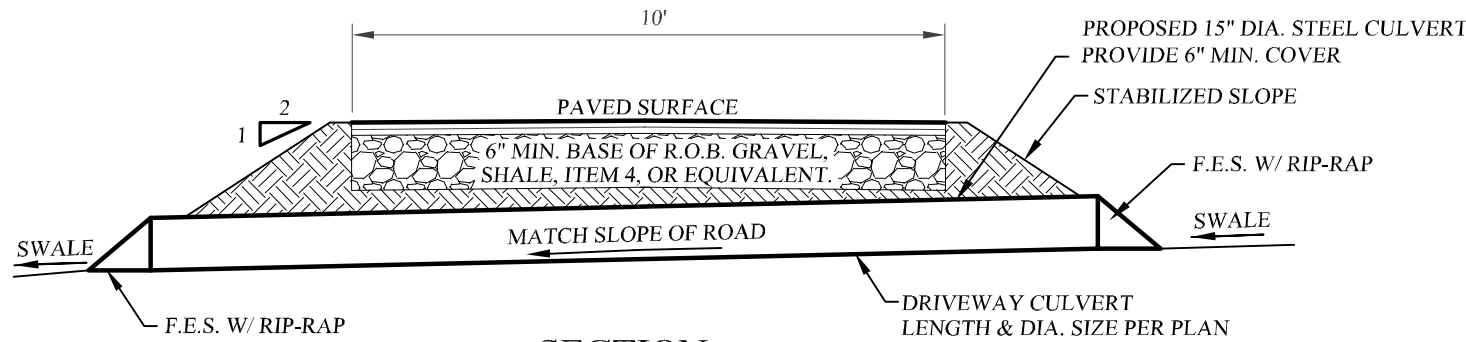
5 St. Stephens Lane, Watwick, NY 10990  
(845) 988-0620

REV.	PER	P.B.	COMMENTS	DATE
11-18-20	REV.	PER	P.B. COMMENTS	
10-08-20	REV.	PER	P.B. COMMENTS	
09-23-20	REV.	TO	MINOR SUBDIVISION	
08-18-20	ADDITIONAL		DETAIL	
09-18-19	INITIAL		PREPARATION	
KIRK ROTHER, P.E.				
D.O.T. SHEET #	D.E.C. SHEET #	D.C.H.D. SHEET #	SHEET #	
N.A.	N.A.	N.A.		
CAD # 03125	PROJECT #	SCALE		
9-2018	03125.0	AS SHOWN		
UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A DOCUMENT BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209, SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW. REPRODUCTIONS OF THIS PLAN WHICH DO NOT BEAR THE ORIGINAL SEAL OF A LICENSED PROFESSIONAL ENGINEER SHALL BE CONSIDERED INVALID.				





ROAD SIDE SWALE CROSS SECTION  
NOT TO SCALE

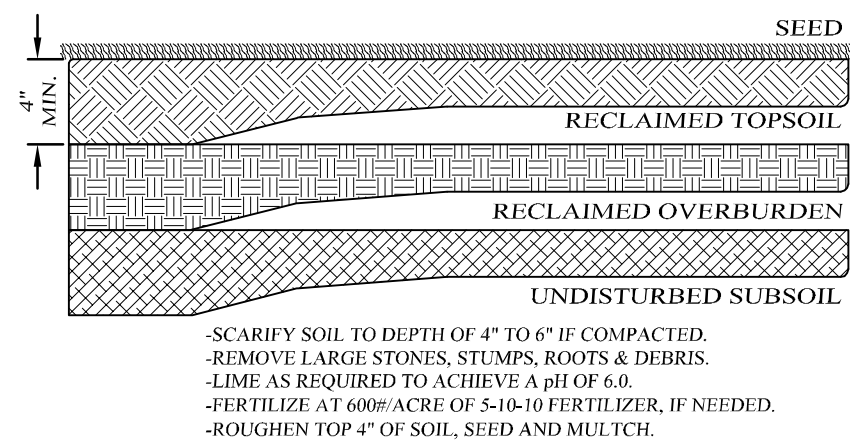


SECTION  
RESIDENTIAL DRIVEWAY DETAIL  
CROSS SECTION  
NOT TO SCALE

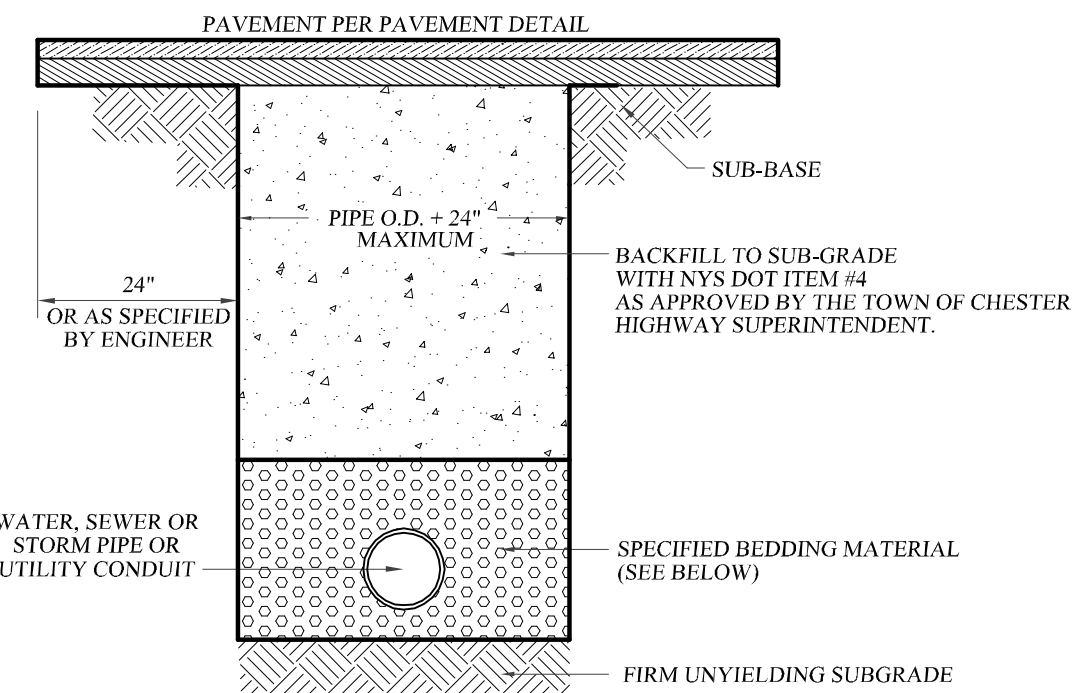
RATIONAL METHOD SIZING FOR DRIVEWAY CULVERTS

Q = (C)(I)(A)  
C = RESIDENTIAL NEIGHBORHOOD  
I = 25 YEAR STORM / 6 in  
A = 1.5 ac.  
Q = (0.3) (6 in.) (1.5 ac, MAX)  
Q = 2.7 cfs

PROPOSED 15" STEEL DRIVEWAY CULVERT 1% MIN.  
25 YEAR STORM DEPTH OF FLOW = 0.56'



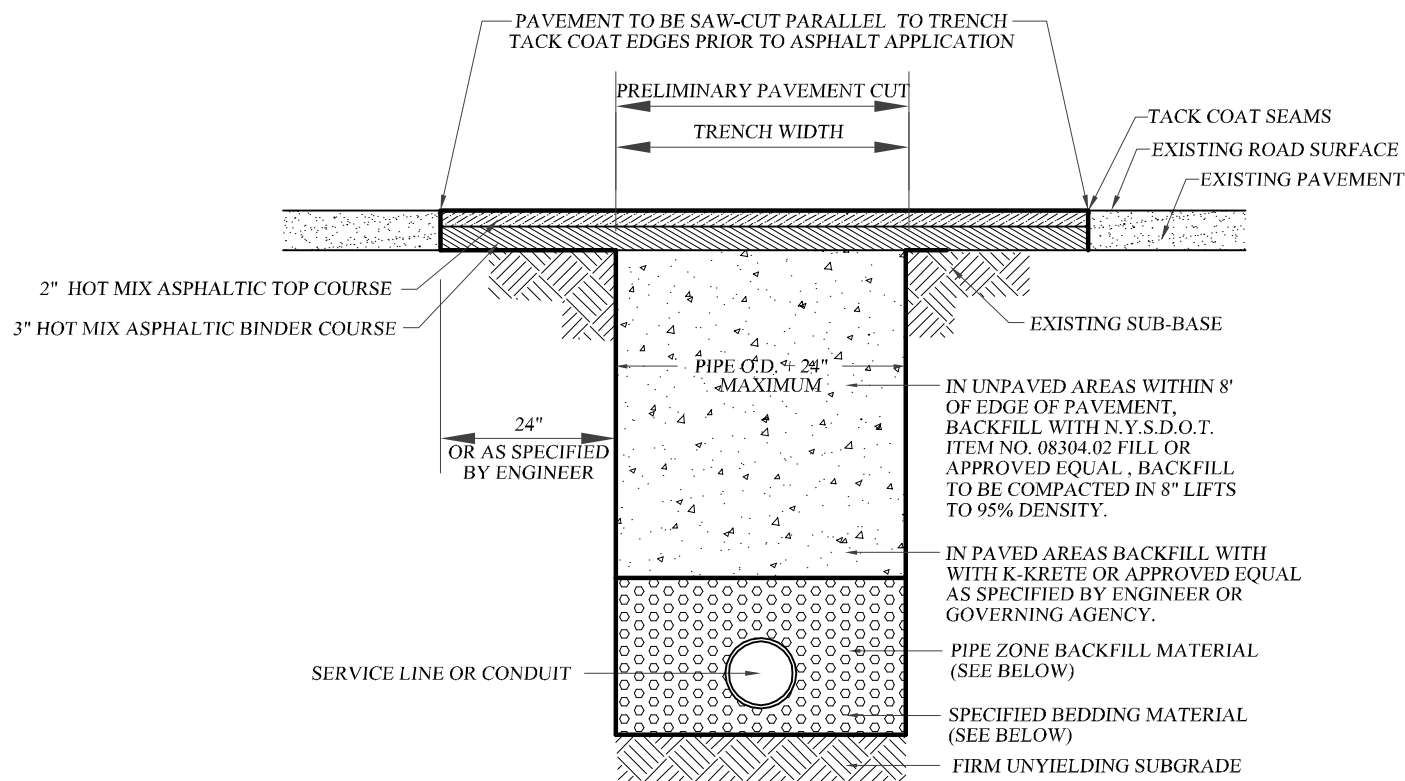
RECLAMATION DETAIL  
NOT TO SCALE



MATERIALS

- PIPE ZONE BEDDING MATERIAL:  
1. WATER MAINS: SAND OR RUN-OF-BANK GRAVEL, AS APPROVED BY SOILS ENGINEER.  
2. SEWER MAINS: 1/4" CHIRUSHED STONE.
- PIPE ZONE BACKFILL MATERIAL:  
1. WATER MAINS: ON-SITE MATERIAL FREE OF STONE, CLAY FOREIGN MATERIAL OR FROZEN EARTH AS APPROVED BY SOILS ENGINEER.  
2. SEWER MAINS: 1/4" CHIRUSHED STONE.

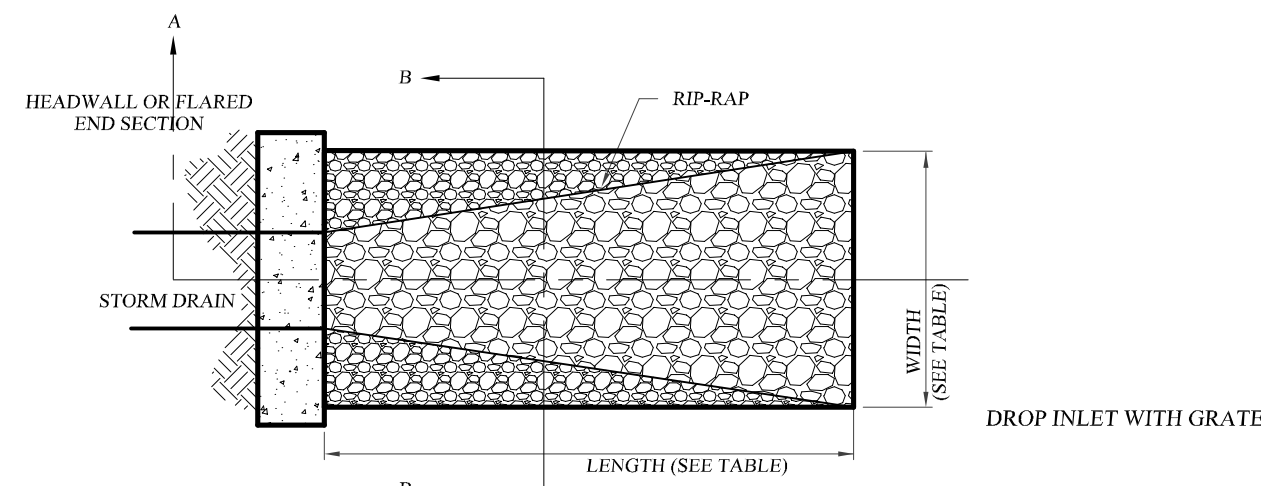
PIPE BEDDING AND BACKFILL  
DETAIL  
NOT TO SCALE



MATERIALS

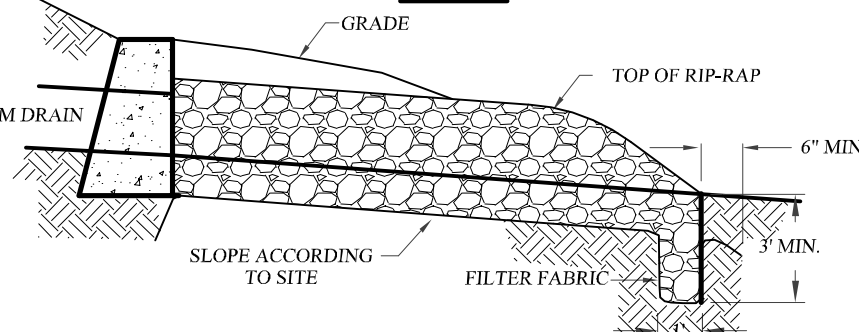
- PIPE ZONE BEDDING MATERIAL:  
1. WATER MAINS: SAND OR RUN-OF-BANK GRAVEL, AS APPROVED BY SOILS ENGINEER.  
2. SEWER MAINS: SAND OR PEA GRAVEL.  
3. STORM SEWER: 3/4" CRUSHED STONE.
- PIPE ZONE BACKFILL MATERIAL:  
1. WATER MAINS: ON-SITE MATERIAL FREE OF STONE, CLAY FOREIGN MATERIAL OR FROZEN EARTH AS APPROVED BY SOILS ENGINEER.  
2. SEWER MAINS: SAND OR PEA GRAVEL.  
3. STORM SEWER: ON-SITE MATERIAL FREE OF STONE, CLAY FOREIGN MATERIAL OR FROZEN EARTH AS APPROVED BY SOILS ENGINEER.

PIPE BEDDING AND BACKFILL  
DETAIL  
(WITHIN TOWN OR COUNTY R.O.W.)  
NOT TO SCALE

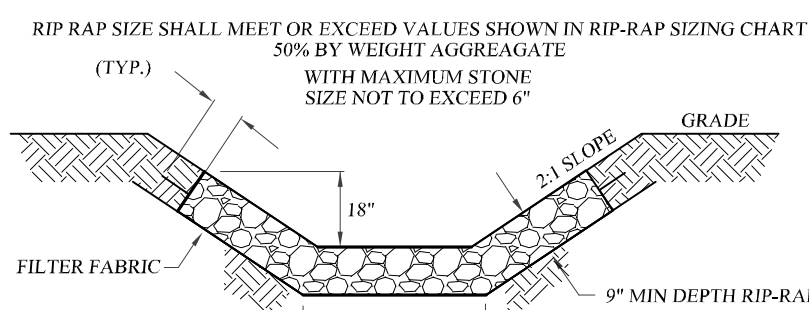


\*DIMENSIONS SHALL MEET OR EXCEED VALUES SHOWN IN RIP-RAP SIZING TABLE

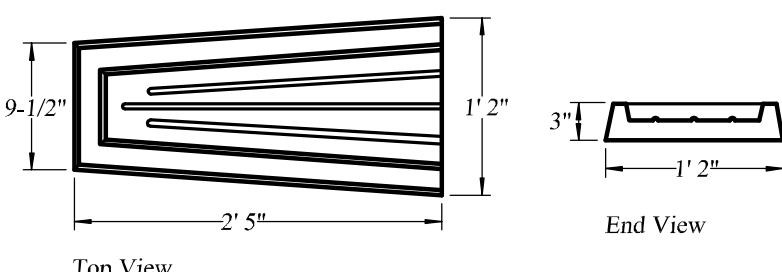
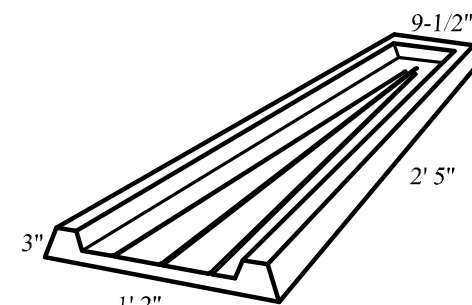
PLAN



SECTION A-A

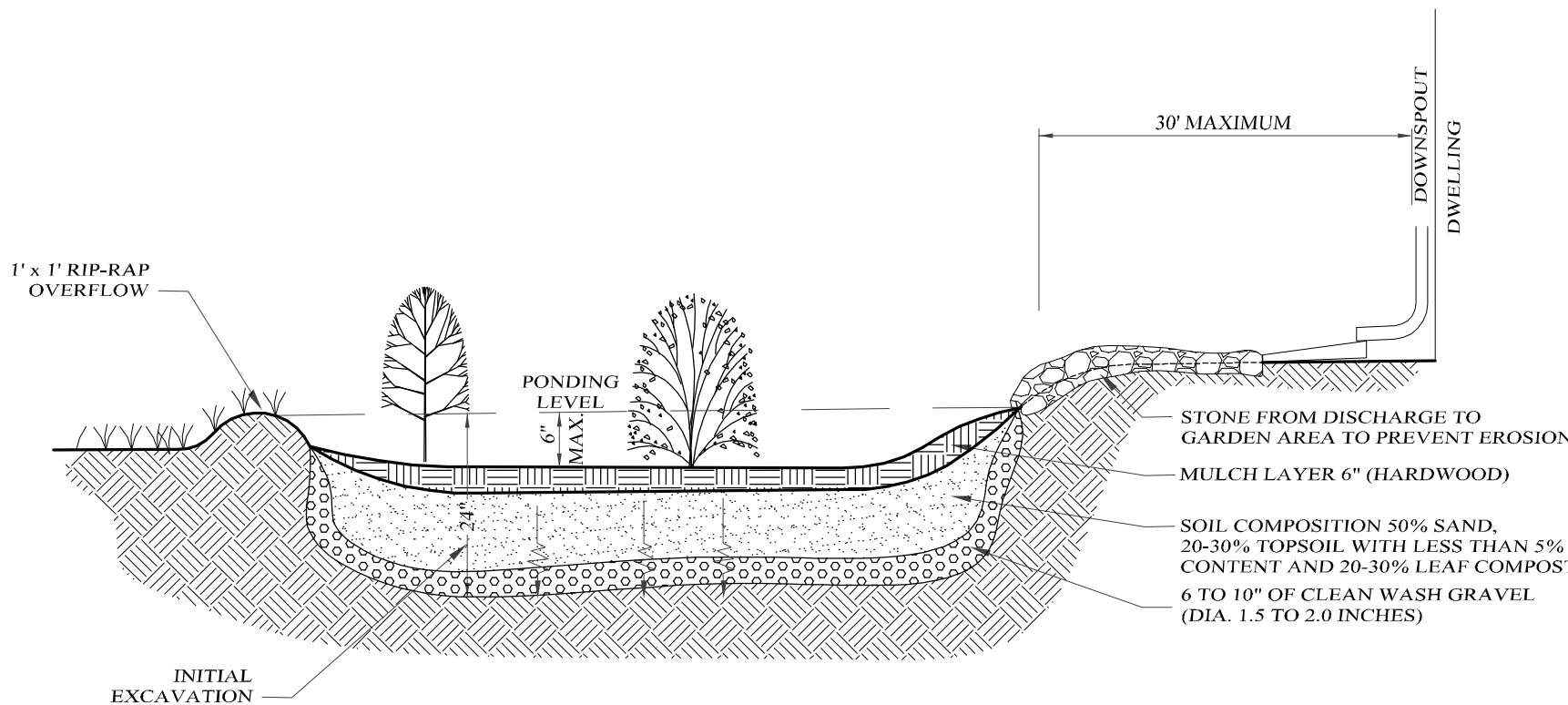


SECTION B-B  
RIP-RAP OUTLET DETAIL  
NOT TO SCALE



NOTE:  
AS MANUFACTURED BY WOODARD'S CONCRETE  
MODEL SSB OR APPROVED EQUAL.

CONCRETE SPLASH PAD DETAIL  
NOT TO SCALE



RAIN GARDEN DETAIL  
NOT TO SCALE

NOTES:

- RELATIVELY FLAT SLOPES ARE REQUIRED TO ACCOMADATE RUNOFF FILTERING THROUGH THE SYSTEM, WHEN MODERATE SLOPES ARE PRESENT THE USE OF A BERM OR WALL MAY BE REQUIRED.
- RUNOFF MUST ENTER AT THE SURFACE.
- USE PLANTS AND SHRUBS WHICH ARE NATIVE TO THE SURROUNDING COMMUNITY THE FOLLOWING IS A LIST OF PLANTS AND SHRUBS WHICH CAN BE USED TO STABILIZE THE PONDING AREA BUT ARE NOT LIMITED TO:
  - SHRUBS-WITCH HAZEL, WINTERBERRY, ARROWWOOD, BROOK-SIDE ALDER, RED-OSIER DOGWOOD, SWEET PEPPERBUSH.
  - HERBACEOUS PLANTS-CINNAMON FERN, CUTLEAF CONEFLOWER, WOOLGRASS, NEW ENGLAND ASTER, FOX SEDGE, SPOTTED JOE-EYE WEED, SWITCH GRASS, GREAT BLUE LOBELIA, WILD BERGAMOT, RED MILKWEED.
- WEEDING AND WATERING ARE ESSENTIAL FOR THE FRIST YEAR TO ESTABLISH HARDY GROWTH. REPLACE PLANTS AS REQUIRED.
- LENGTH TO WIDTH RATIO OF 2:1, WITH THE LONG AXIS PERPENDICULAR TO THE SLOPE OF THE FLOW PATH.

RAIN GARDEN WATER QUALITY CALCULATION

I, % Impervious Area = 0.05/0.10 = 50%

P, Orange Cty = 0.12 ft.

Rv = 0.05+0.009 I = 0.05 + (0.009)(50) = 0.50

WQv = (P)(Rv)(A) = (0.12)(0.10)(0.50) = 0.006 acre-ft = 261 c.f. = WQv required per 2,000 s.f. House

WQv Provided for 135 s.f. Rain Garden =

WQv = (Volume of Soils Media c.f.) + (Vol. of Gravel Drainage Layer c.f.) + (Depth of Ponding ft. x Rain Garden Surface Area s.f.) / Vsm = (Rain Garden Surface Area c.f.) (Depth of soils media ft.) (porosity of soils %)

Vsm = (135.0) (1.5) (0.2) = 40.5

Vdl = (Rain Garden Surface Area c.f.) (Depth of drainage layer ft.) (porosity of gravel %)

Vsm = (135.0) (0.80) (0.40) = 43.2

WQv = 40.5 + 43.2 + (0.5 x 135) = 40.5+43.5+67.5 = 151.5

WQv Provided per Rain Garden = 151.5 c.f. WQv per Rain Garden

2 Rain Gardens per House = 2 x 151.5 = 303 c.f. WQv provided per House

Lands of  
**O'REILLY**  
MINOR SUBDIVISION  
TOWN OF CHESTER, ORANGE COUNTY, NEW YORK  
PROJECT TITLE

SITE  
DETAILS

DRAWING TITLE

**KIRK ROTHER, P.E.**  
CONSULTING ENGINEER, PLLC  
5 St. Stephens Lane, Warwick, NY 10990  
(845) 988-0620

KIRK ROTHER, P.E. N.Y.S. LIC. NO. 1079053 DATE

10-08-20	REV. PER P.B. COMMENTS
09-23-20	REV. TO MINOR SUBDIVISION
08-18-20	ADDITIONAL DETAIL
07-21-20	REV. PER CLIENT AND TOWN DPW MEETING
09-18-19	INITIAL PREPARATION

D.O.T. SHEET #	D.E.G. SHEET #	D.C.H.D. SHEET #	SHEET #
N.A.	N.A.	N.A.	8 OF 8
CAD # 03125	PROJECT #	SCALE	
9-2018	03125.0	AS SHOWN	