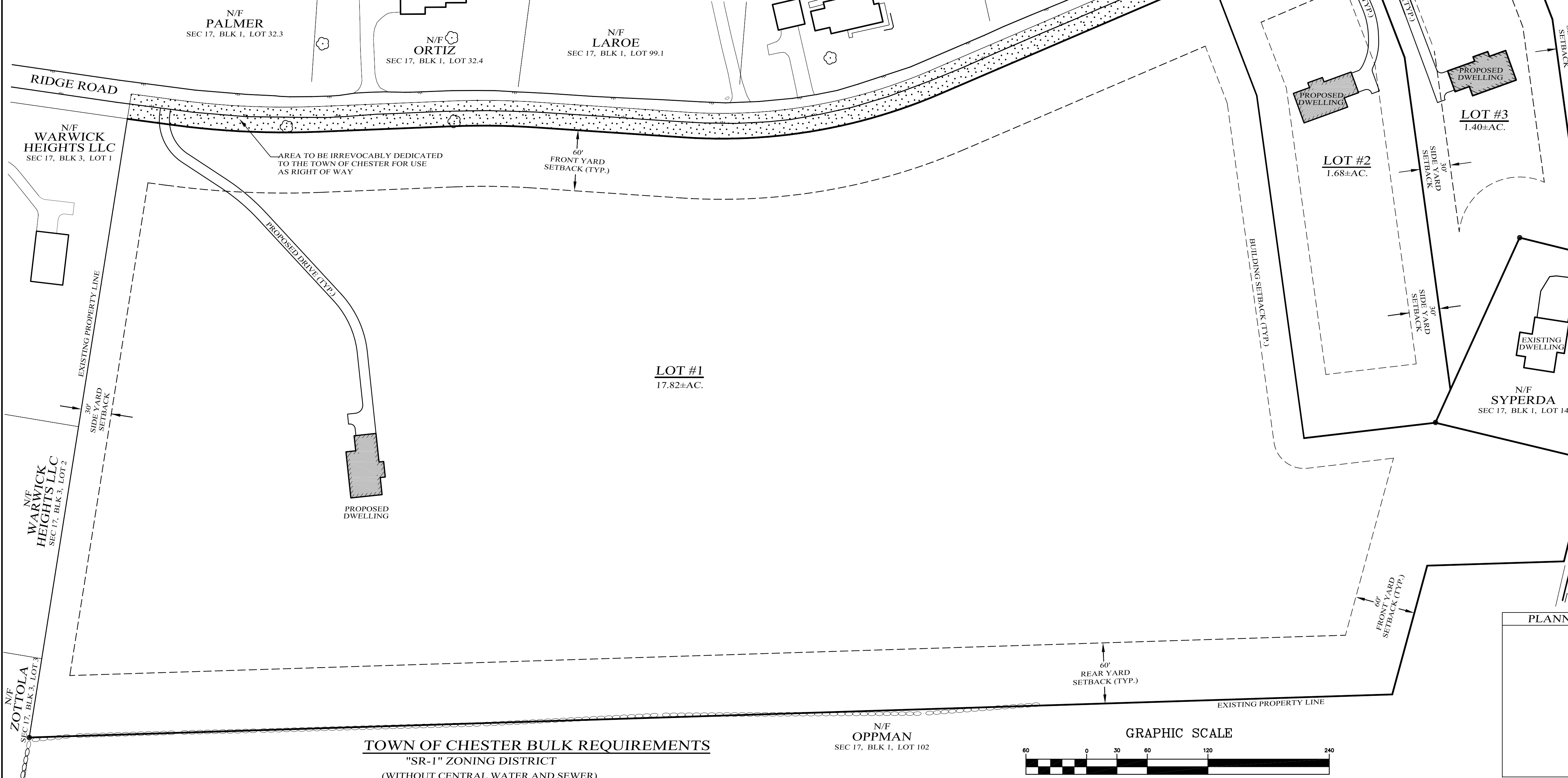


LOCATION MAP
SCALE 1" = 2000'



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:

- TOWN OF CHESTER TAX PARCEL SEC. 17, BLK 1, LOT 99.21.
- TOTAL AREA OF THIS PARCEL = 22.49 AC. (AFTER R.O.W. DEDICATION)
- PARCEL LIES WITHIN THE SR-1 ZONING DISTRICT.
- PARCEL SITUATED WITHIN THE CHESTER FIRE DISTRICT.
- PARCEL LOCATED WITHIN THE WARWICK VALLEY CENTRAL SCHOOL DISTRICT.
- TOTAL NUMBER OF LOTS PROPOSED IN THIS SUBDIVISION = 4.
- EXISTING OFF SITE FEATURES TAKEN FROM PUBLICLY AVAILABLE DATA. TOPOGRAPHY OBTAINED FROM ORANGE COUNTY 2 FT TOPOGRAPHIC DATA.
- LOT TO BE SERVED BY INDIVIDUAL WELL AND SEPTIC SYSTEM.
- THERE ARE NO KNOWN EXISTING WELLS & SEPTIC WITHIN 100' OF ANY PROPOSED WELLS OR SEPTIC.
- 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.
- ALL NEW UTILITIES SHALL BE INSTALLED UNDER GROUND.
- THE DESIGN AND LOCATION OF SANITARY FACILITIES (WATER AND SEWER) SHALL NOT BE CHANGED.
- 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.
- BOUNDARY BASED ON SURVEY PROVIDED BY JEFFREY W. DONNELLON L.S., P.C.
- 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.
- 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±

<35	<35	<35	<35
1±	5±	6±	6±

GRAPHIC SCALE



RECORD OWNER / APPLICANT

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

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

(S45) 989-0620

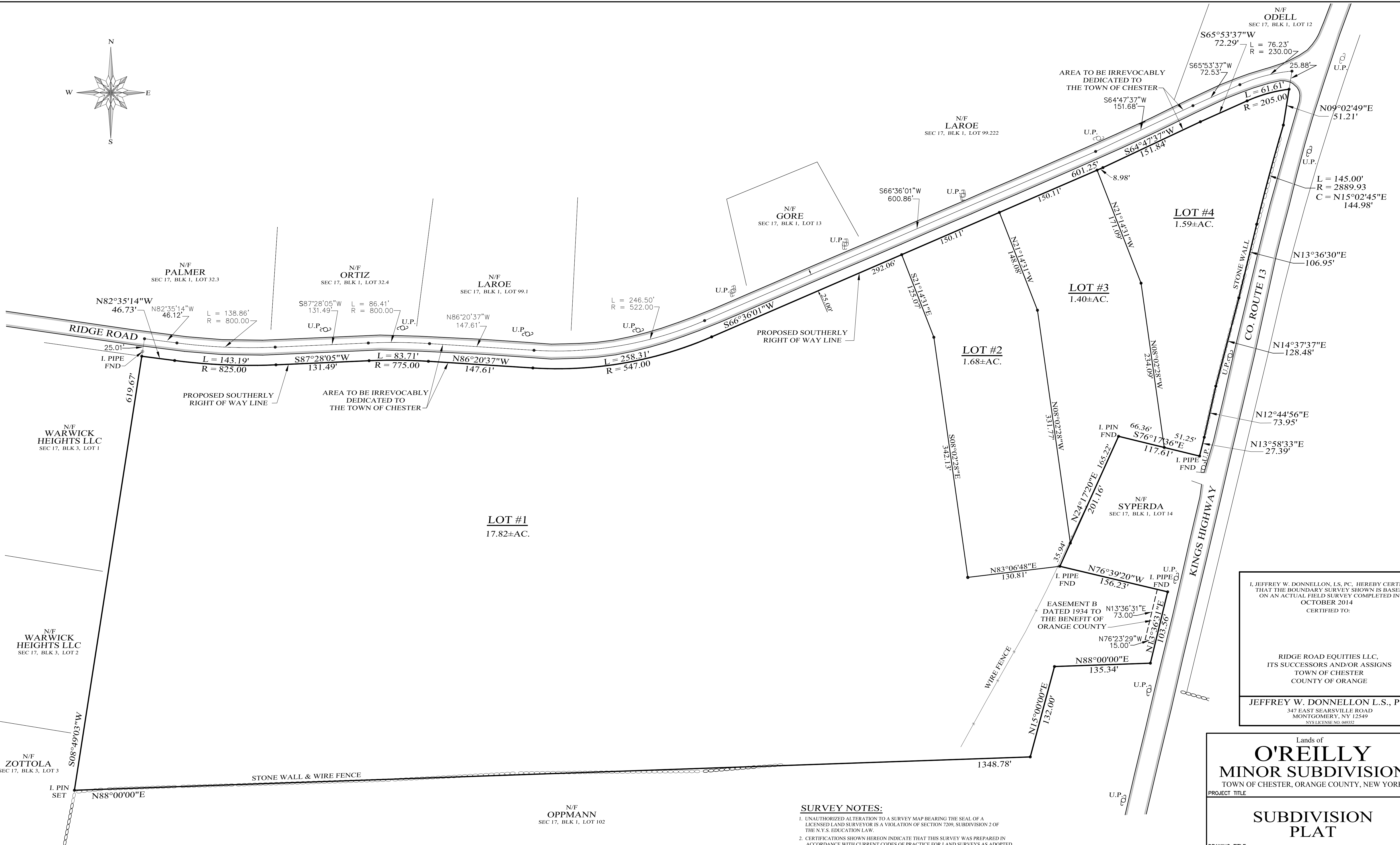
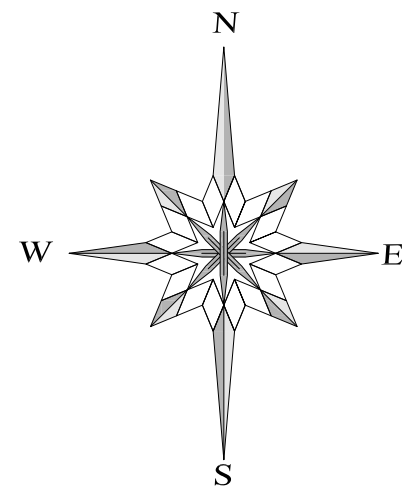
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KIRK ROTHER, P.E. N.Y.S. LIC. NO. 078063 DATE

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	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.	
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:

RIDGE ROAD EQUITIES LLC,
ITS 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. 049352

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

**SUBDIVISION
PLAT**

DRAWING TITLE

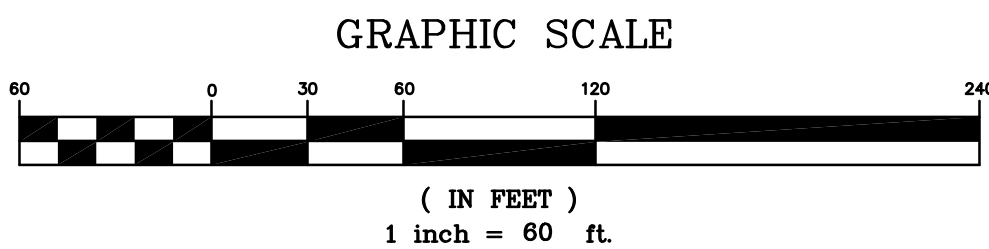
KIRK ROTHER, P.E.
CONSULTING ENGINEER, PLLC
5 St. Stephens Lane, Warwick, NY 10990
(845) 988-0620

SURVEY NOTES:

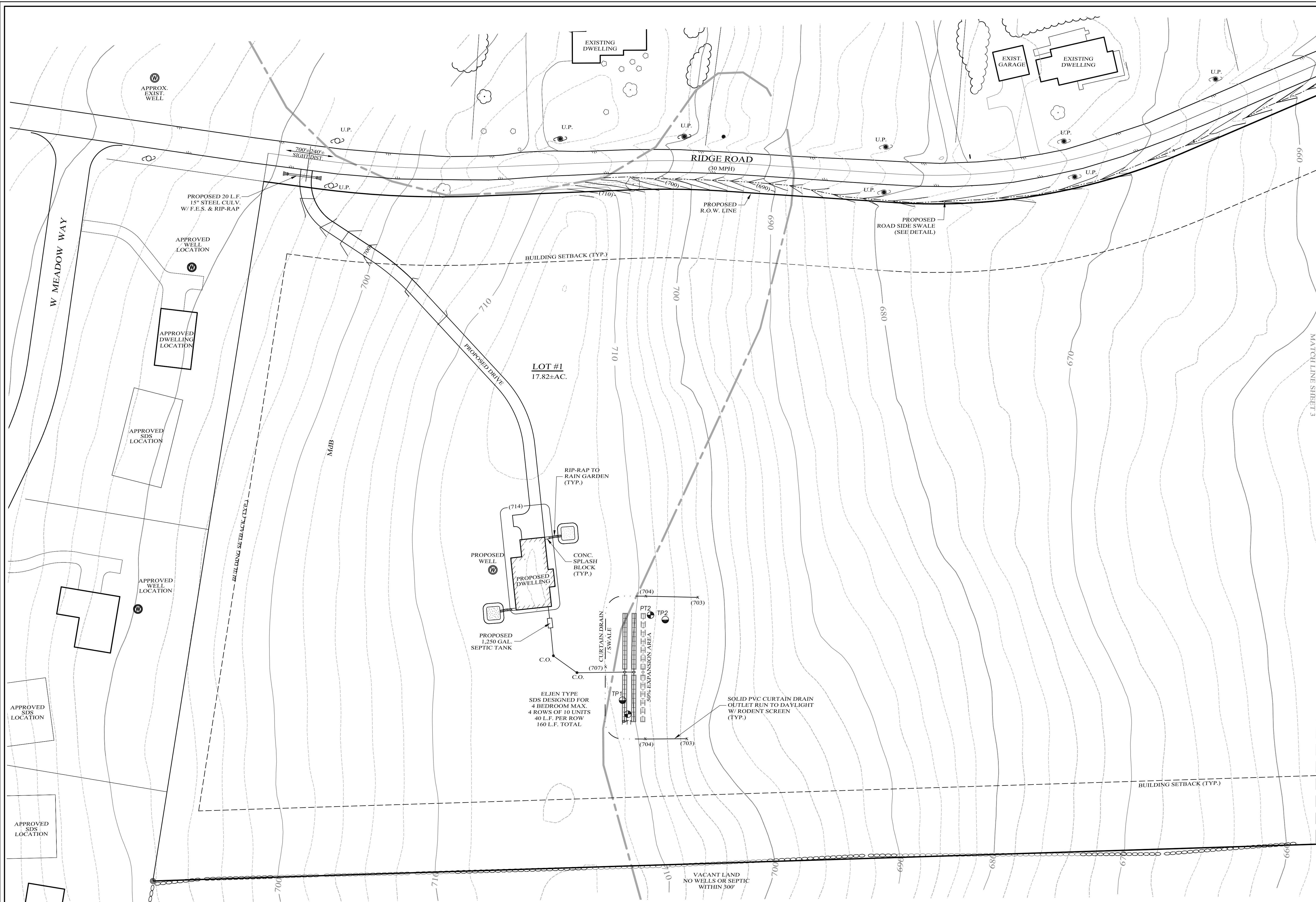
1. UNAUTHORIZED ALTERATION TO A SURVEY MAP BEARING THE SEAL OF A LICENSED LAND SURVEYOR IS A VIOLATION OF SECTION 7209, SUBDIVISION 2 OF THE N.Y.S. EDUCATION LAW.
2. CERTIFICATIONS SHOWN HEREON INDICATE THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH CURRENT CODES OF PRACTICE FOR LAND SURVEYS AS ADOPTED 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.

LEGEND

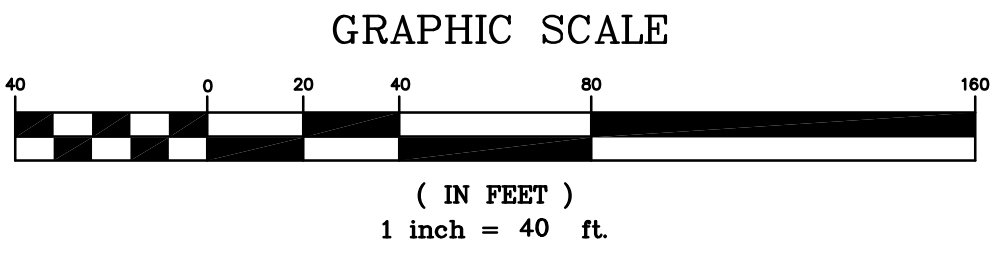
EXISTING PROPERTY LINE
EXISTING EDGE OF PAVEMENT
EXISTING STONE WALL
EXISTING FENCE
I. PIPE / I.PIN
UTILITY POLE



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	---
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

PROJECT TITLE

SUBDIVISION

PLAN

DRAWING TITLE

KIRK ROTHER, P.E.

CONSULTING ENGINEER, PLLC

5 St. Stephens Lane, Warwick, NY 10990

(845) 988-0620

DATE

KIRK ROTHER, P.E.

10-08-20	REV. PER P.B. COMMENTS	D.O.T. SHEET #	D.E.C. SHEET #	O.C.H.D. SHEET #	SHEET #
09-23-20	REV. TO MINOR SUBDIVISION	N.A.	N.A.	N.A.	3 OF 8
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				

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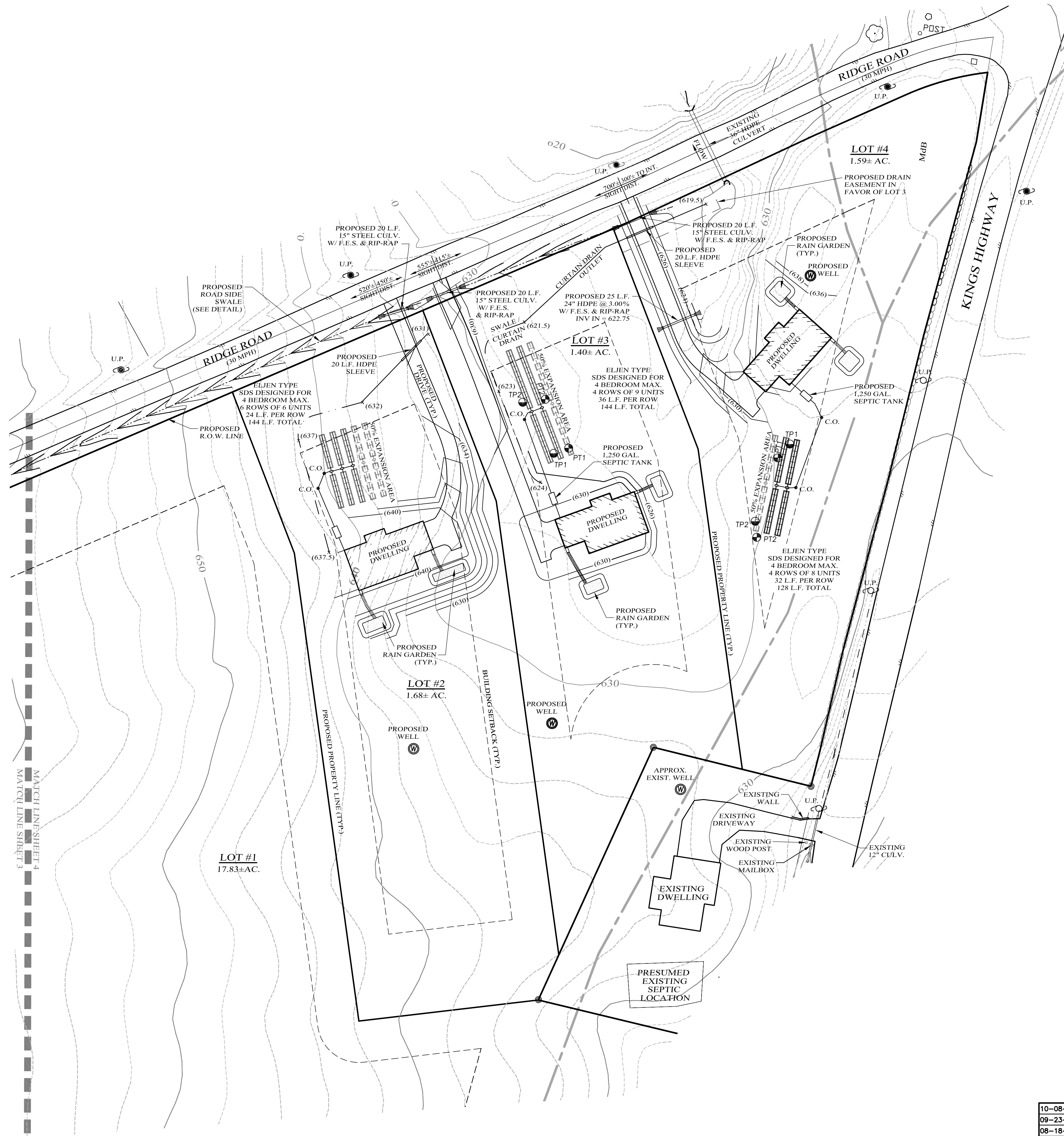
CAD # 03125

PROJECT # 03125.0

SCALE AS SHOWN

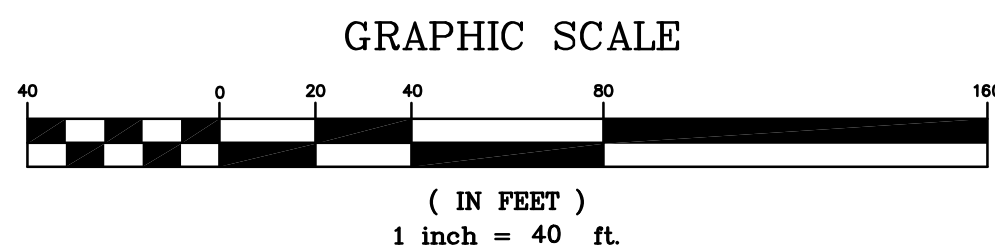
APPROVED WELL LOCATION

1/1



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
PROJECT TITLE

SUBDIVISION
PLAN

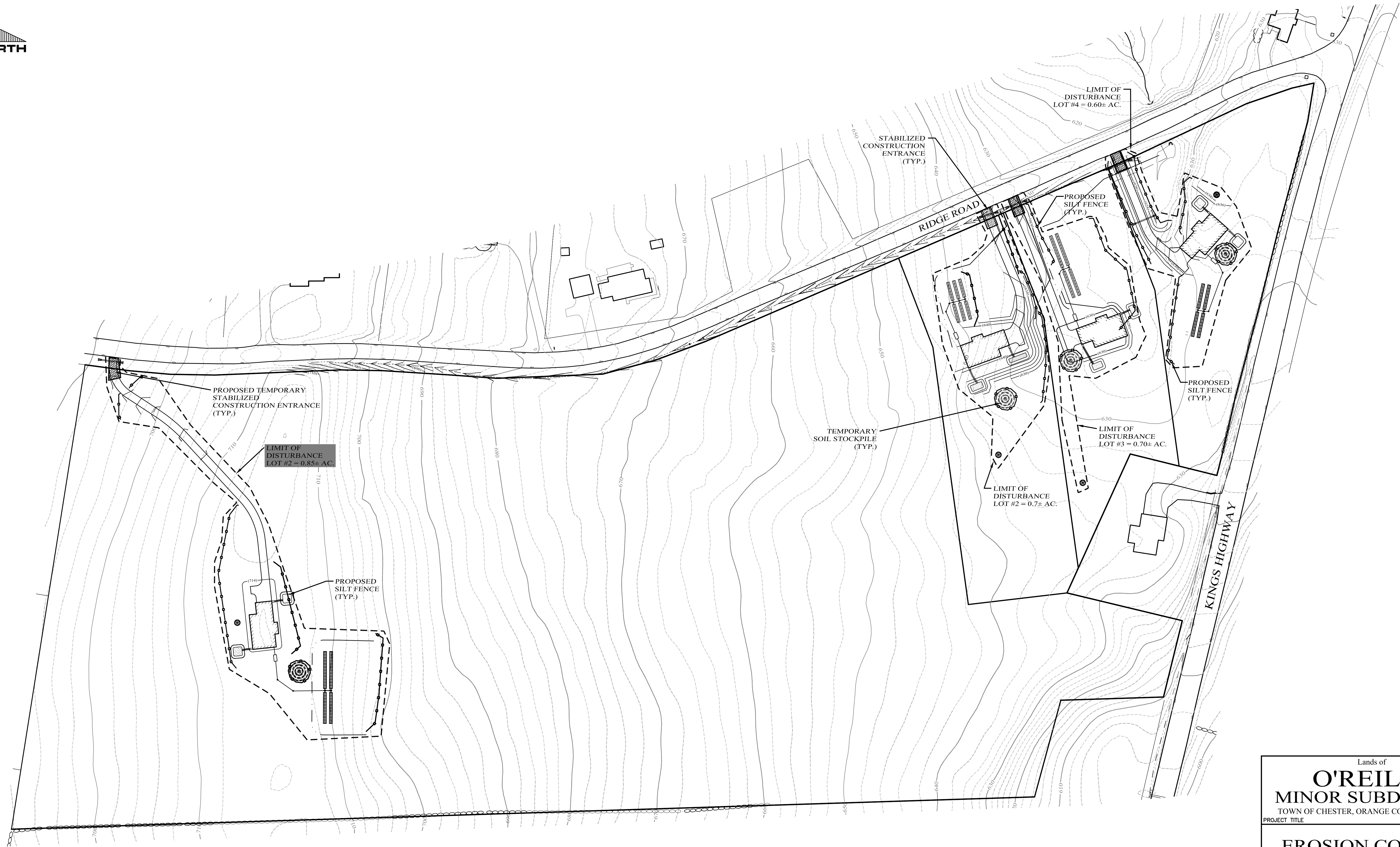
DRAWING TITLE

KIRK ROTHER, P.E.
CONSULTING ENGINEER, PLLC
5 St. Stephens Lane, Warwick, NY 10990
(845) 288-0420

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
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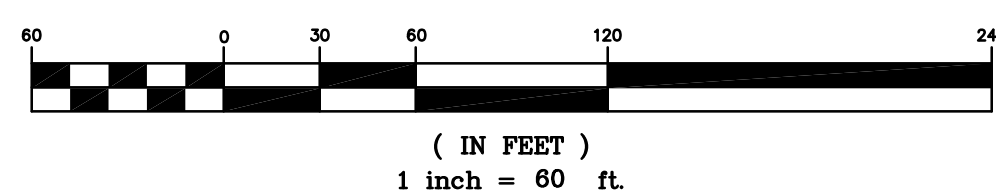
D.O.T. SHEET #	D.E.C. SHEET #	D.C.H.D. SHEET #	SHEET #
N.A.	N.A.	N.A.	4 OF 8
CAD #	PROJECT #	SCALE	
9-2018	03125.0	AS SHOWN	



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) 988-0670

KIRK ROTHER, P.E. N.Y.S. LIC. NO. 079053

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.C. SHEET #	D.C.H.D. SHEET #	SHEET #
N.A.	N.A.	N.A.	5 OF 8
CAD # 03125	PROJECT #	SCALE	
9-2018	03125.0	AS SHOWN	

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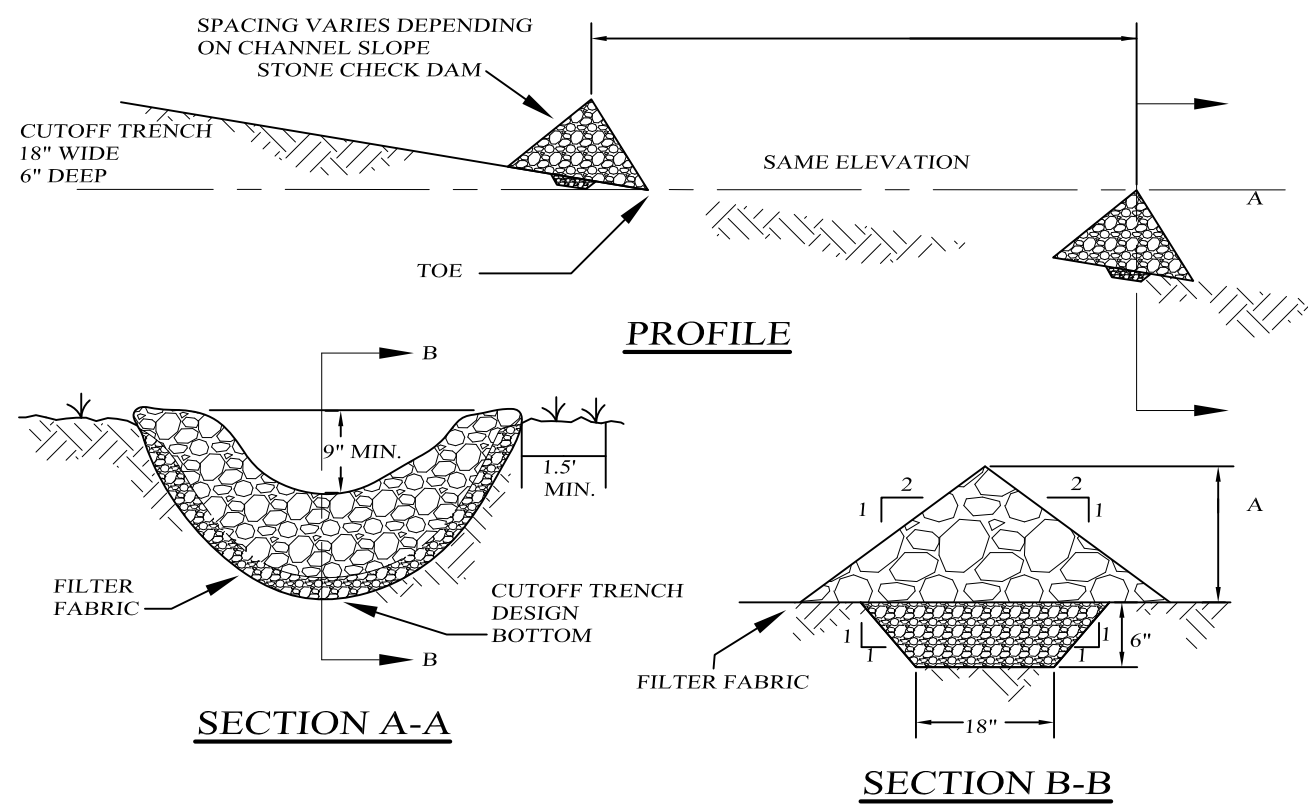
FENCE PROPERTIES	MINIMUM VALUE	STANDARD	
GRAB TENSILE STRENGTH (LBS)	90	ASTMD 1682	2" x 2" FENCE POST SPACED 8'-0" O.C. MAX.
ELONGATION AT FAILURE (%)	50	ASTM D1682	36" WIDE GEOTEXTILE SPECIFIED FOR USE AS SILT FENCE.
MULEN BURST STRENGTH (PSI)	190	ASTM D3786	
PUNCTURE STRENGTH (LBS)	40	ASTM D751 (MODIFIED)	DIG 6" WIDE x 4" DEEP TRENCH BURY BOTTOM 1'-0" OF FABRIC
SLURRY FLOW RATE (GAL/MIN/SF)	0.3		GRADE
EQUILIVENT OPENING SIZE	40-80	US STD SIEVE CW-02215	
ULTRAVIOLET RADIATION STABILITY (%)	90	ASTM G-26	
SLOPE STEEPNESS	MAXIMUM FENCE SPACING (FT)		
2:1	50		
3:1	75		
4:1	125		
5:1	175		
FLATTER THAN 5:1	200		

NOTES:

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED
3. ALL SILT FENCES SHALL RUN PARALLEL TO THE CONTOUR OF THE LAND.
4. ALL SILT FENCING SHALL MEET THE MINIMUM REQUIREMENTS AS STATED UNLESS OTHERWISE NOTED AND APPROVED BY THE BUILDING INSPECTOR AND ENGINEER.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL SHALL BE REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE EVERY 24" AT TOP AND MIDSECTION.

FILTER FABRIC SILT FENCE DETAIL

NOT TO SCALE

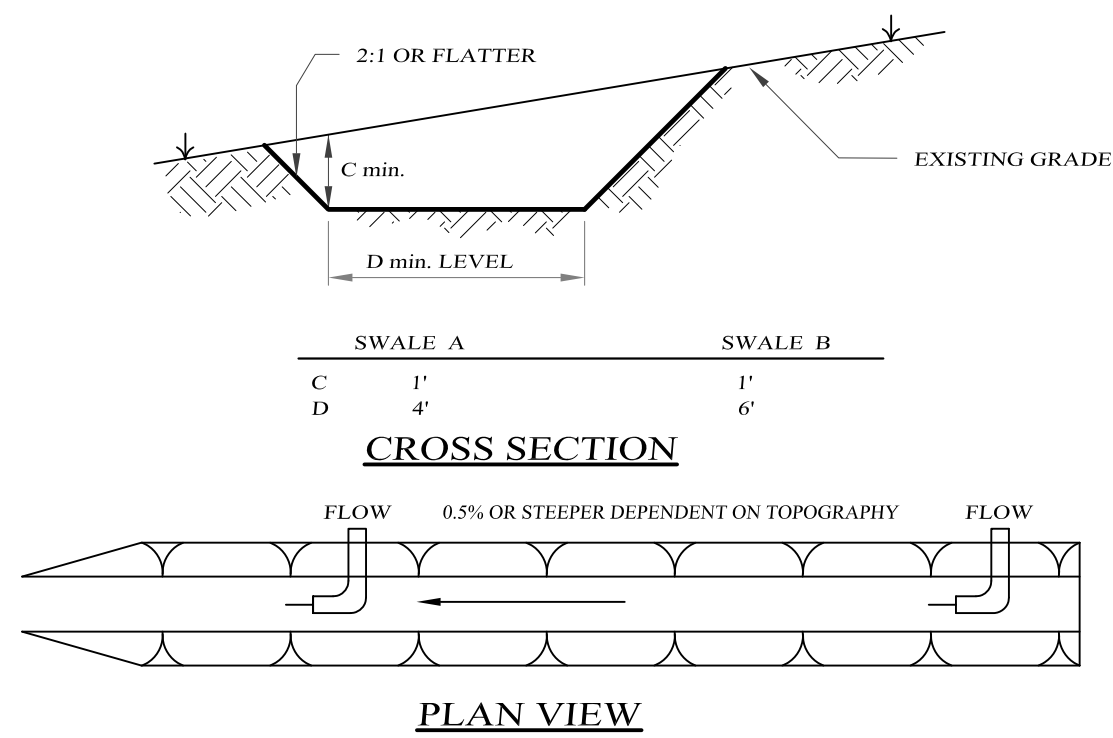


CONSTRUCTION SPECIFICATIONS:

1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE PLAN.
2. SET SPACING OF CHECK DAMS TO ASSUME THAT THE ELEVATION OF THE CREST OF THE DOWN STREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.
6. MAXIMUM DRAINAGE AREA IS 2 ACRES ABOVE THE CHECK DAM.

CHECK DAM DETAILS

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS:

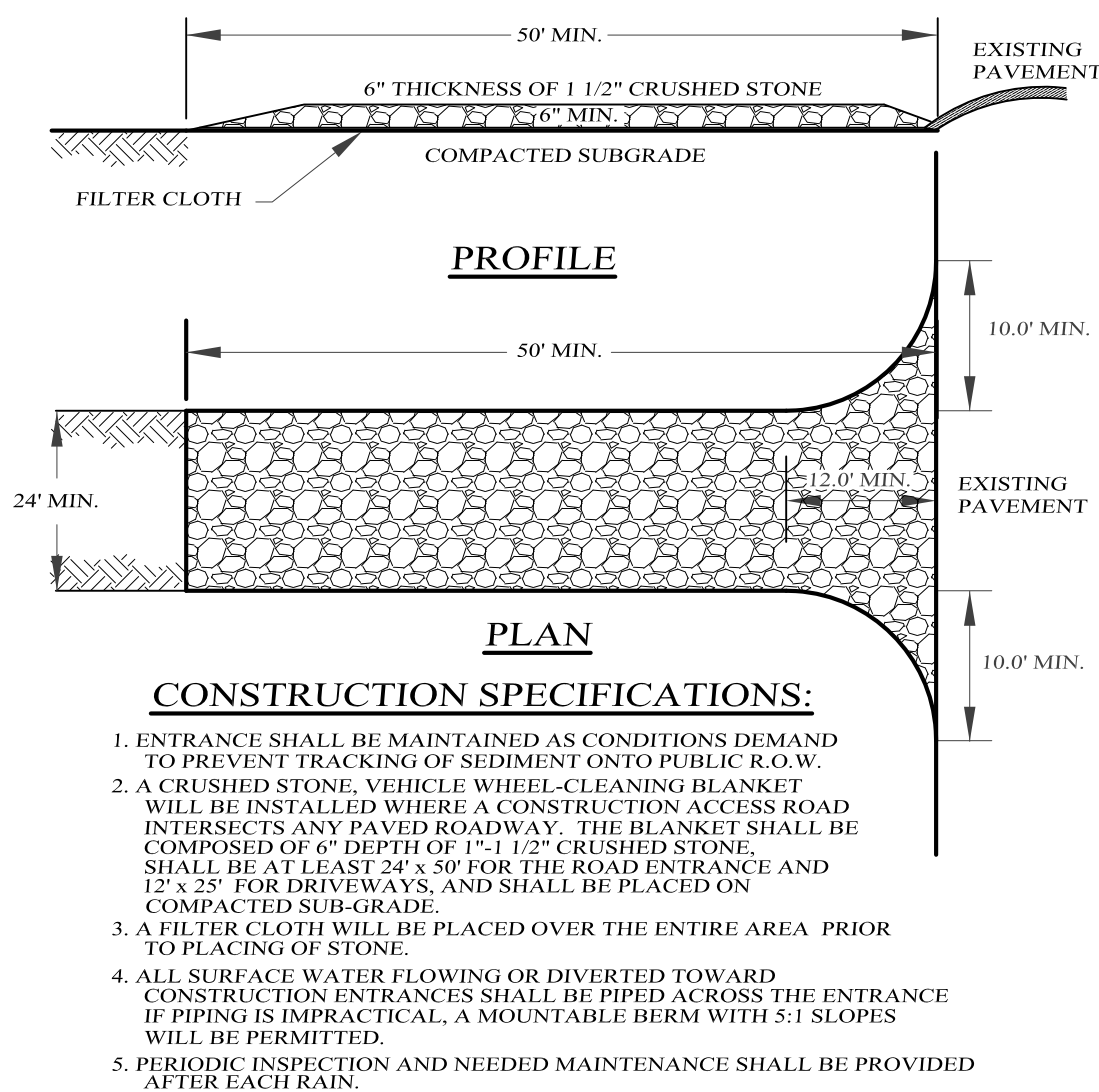
1. ALL TEMPORARY SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
5. THE SWALE 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 IMPEDE NORMAL FLOW.
6. ALL FILLS ARE TO BE MECHANICALLY COMPACTED.
7. ALL EARTH REMOVED AND NOT NEEDED SHALL BE PLACED AS NOT TO INTERFERE WITH THE FUNCTIONING OF THE SWALE.
8. REFER TO CHART FOR STABILIZATION OF FLOW CHANNEL.
9. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	A (5 AC OR LESS)	B (5 AC-10 AC)
1.	0.5-3.0	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2.	3.1-5.0	SEED AND STRAW MULCH	SEED USING JUTE OR EXCELSIOR
3.	5.1-8.0	SEED WITH JUTE OR EXCELSIOR	LINED RIP-RAP 4-8"
4.	8.1-20	LINED 4-8" RIP-RAP	RECYCLED CONCRETE EQUIVALENT ENGINEERED DESIGN

TEMPORARY DIVERSION SWALE DETAIL

NOT TO SCALE

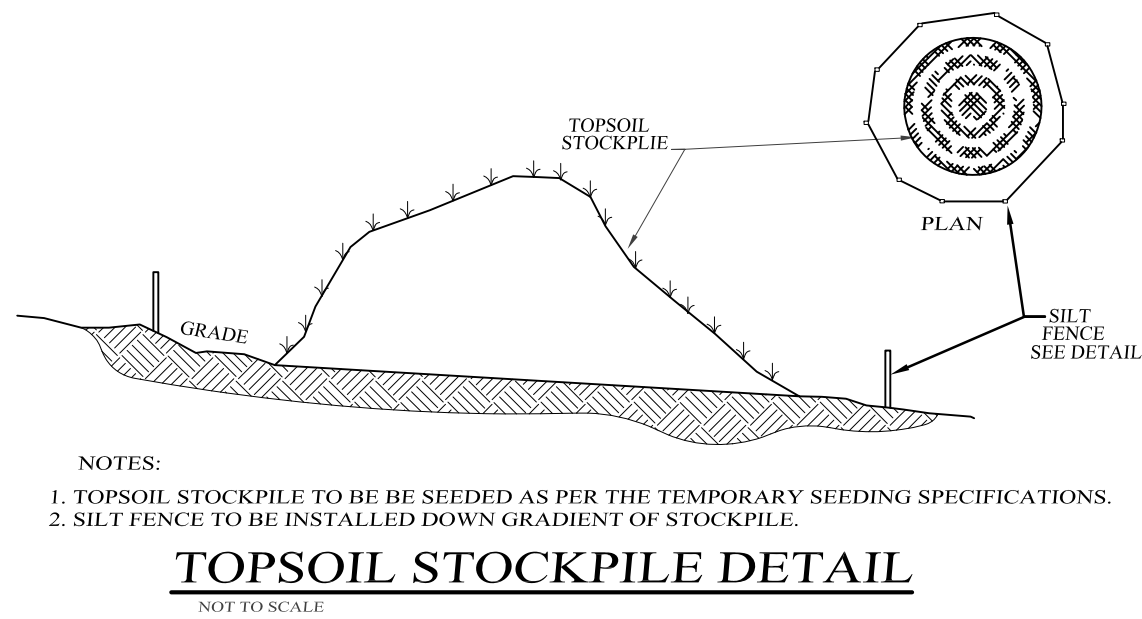


CONSTRUCTION SPECIFICATIONS:

1. ENTRANCE SHALL BE MAINTAINED AS CONDITIONS DEMAND TO PREVENT TRACKING OF SEDIMENT ONTO PUBLIC R.O.W.
2. A CRUSHED STONE, VEHICLE WHEEL-CLEANING BLANKET WILL BE INSTALLED WHERE A CONSTRUCTION ACCESS ROAD INTERSECTS ANY PAVED ROADWAY. THE BLANKET SHALL BE COMPOSED OF 6" DEPTH OF 1 1/2" CRUSHED STONE. SHALL BE AT LEAST 24' x 50' FOR THE ROAD ENTRANCE AND 12' x 25' FOR DRIVEWAYS, AND SHALL BE PLACED ON COMPACTED SUB-GRADE.
3. A FILTER CLOTH WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
4. 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.
5. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

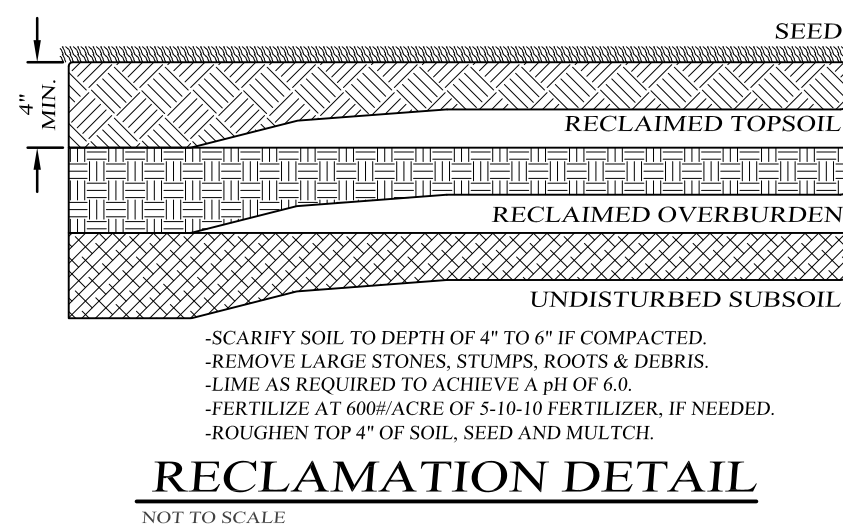


NOTES:

1. TOPSOIL STOCKPILE TO BE SEED AS PER THE TEMPORARY SEEDING SPECIFICATIONS.
2. SILT FENCE TO BE INSTALLED DOWN GRADIENT OF STOCKPILE.

TOPSOIL STOCKPILE DETAIL

NOT TO SCALE



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

RECLAMATION DETAIL

NOT TO SCALE

PERMANENT SEEDING MIXTURES

SPECIES	APPLICATION RATE	
EMPIRE BIRDSFOOT TREFOIL	8 LBS/ACRE	
TALL FESCUE	20 LBS/ACRE	
	5 LBS/ACRE	
SPECIES	APPLICATION RATE	
SUNNY SITES (WELL, MODERATELY WELL, AND SOMEWHAT POORLY DRAINED SOILS)		
65% KENTUCKY BLUEGRASS BLEND	85-114 LBS/ACRE	
20% PERENNIAL RYEGRASS	26-33 LBS/ACRE	
15% FINE FESCUE	19-26 LBS/ACRE	
SUNNY DROUGHTY SITES (SOMEWHAT TO EXCESSIVELY DRAINED SOILS)		
65% FINE FESCUE	114-143 LBS/ACRE	
15% PERENNIAL RYEGRASS	26-33 LBS/ACRE	
20% KENTUCKY BLUEGRASS BLEND	35-44 LBS/ACRE	

SITE PREPARATION

1. INSTALL NEEDED WATER AND EROSION CONTROL MEASURES AND BRING AREA TO BE SEED TO DESIRED GRADES USING A MINIMUM OF 4" OF TOPSOIL.
2. PREPARE SEED BED BY LOOSENING SOIL TO A DEPTH OF 4-6 INCHES
3. C. LINE TO A pH OF 6.5
4. D. 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.)
5. E. INCORPORATE LIME AND FERTILIZER IN TOP 2+ INCHES OF SOIL.
6. F. SMOOTH. REMOVE ALL STONES OVER 1" IN DIAMETER, STICKS AND FOREIGN MATTER. FIRM SEED BED.
7. G. APPLY SEED PER PERMANENT SEEDING SCHEDULE.

SLOPE STABILIZATION, SEEDING METHOD & MULCHING

1. SLOPES OF 4:1 OR GREATER (HORIZONTAL-VERTICAL)
2. SLOPES SHALL BE HYDROSEEDING 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.
3. STRAW OR HAY MULCH SHALL BE ANCHORED WITH Bio-B-Mesh® NETTING AS MANUFACTURED BY ROLANKA INTERNATIONAL OR APPROVED EQUIVALENT. NETTING TO BE INSTALLED PER MANUFACTURER SPECIFICATIONS.

GENTLE SLOPES AND FLAT AREAS

1. AREAS SHALL BE SEED BY HYDROSEEDING OR BROADCASTING WITH THE MIXTURES AND RATES INDICATED ON THE PERMANENT SEEDING MIXTURE SCHEDULE. HYDROSEEDING AREAS SHALL BE MULCHED WITH A WOOD FIBER MULCH APPLIED AT A RATE OF 500 LBS/ACRE.
2. BROADCAST AREAS SHALL MULCHED WITH HAY OR STRAW AT A RATE OF 2 TONS/ACRE. AREAS SEED BY BROADCASTING SHALL BE LIGHTLY RAKED AND PACKED PRIOR TO PLACING MULCH.

TEMPORARY SEEDING SPECIFICATIONS

1. AREAS REMAINING DISTURBED FOR 14 DAYS OR MORE SHALL BE STABILIZED AS FOLLOWS:
2. SCARIFY SOILS IF COMPACTED, LINE 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.
3. 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
RYEGRASS (ANNUAL OR PERENNIAL)
(USE WINTER RYE IF SEEDING IN OCT./NOV.)
30 LBS/ACRE
(0.7 LBS/1000 SF)

10-08-20	REV. PER P.B. COMMENTS
09-23-20	REV. TO MINOR SUBDIVISION
09-18-19	INITIAL PREPARATION

Lands of

O'REILLY

MINOR SUBDIVISION

TOWN OF CHESTER, ORANGE COUNTY, NEW YORK

PROJECT TITLE

EROSION CONTROL

DETAILS

DRAWING TITLE

KIRK ROTHER, P.E.
CONSULTING ENGINEER, PLLC

5 St. Stephens Lane, Warwick, NY 10990
(845) 983-0620

KIRK ROTHER, P.E. N.Y.S. LIC. NO. 079053 DATE

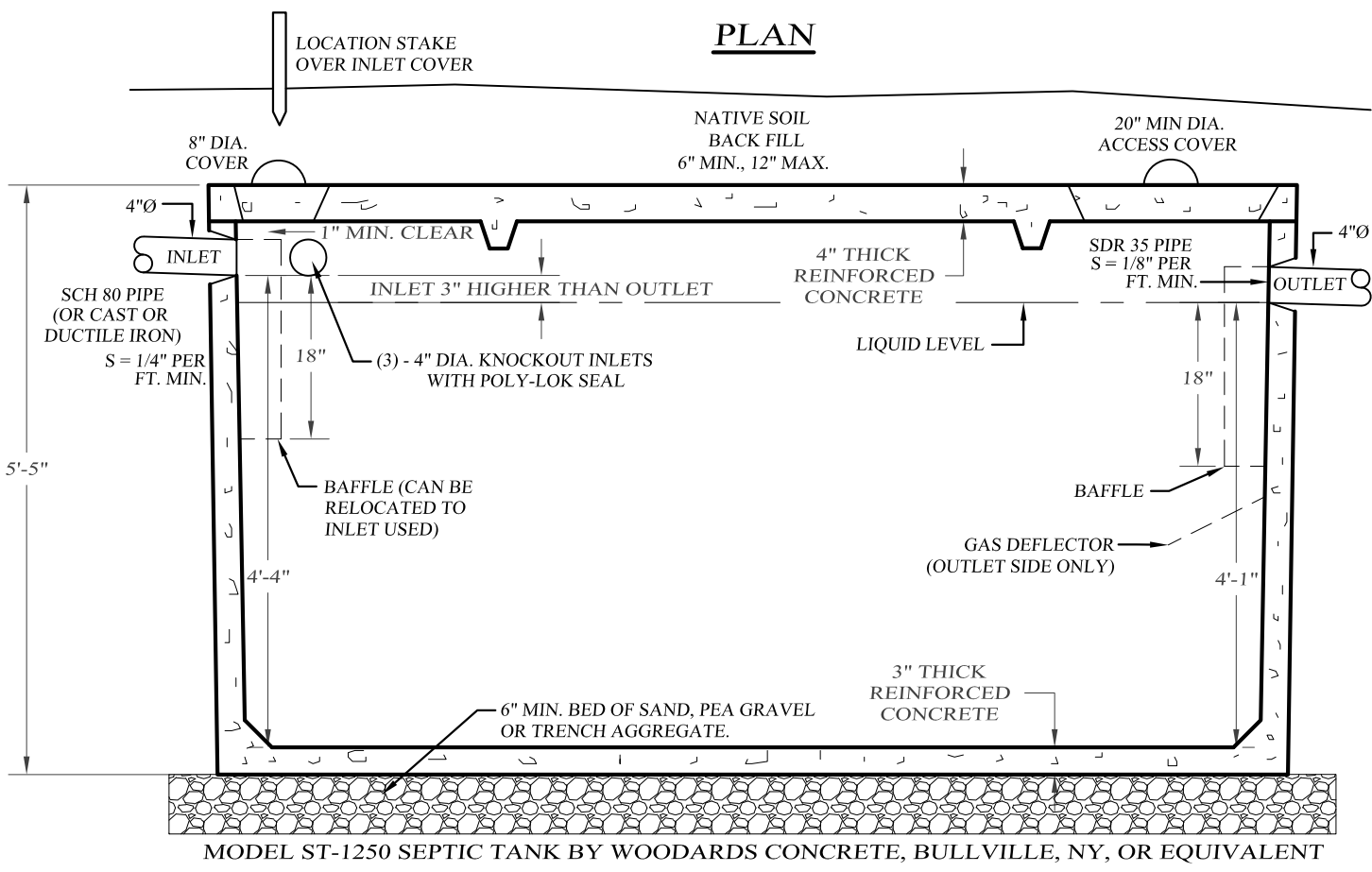
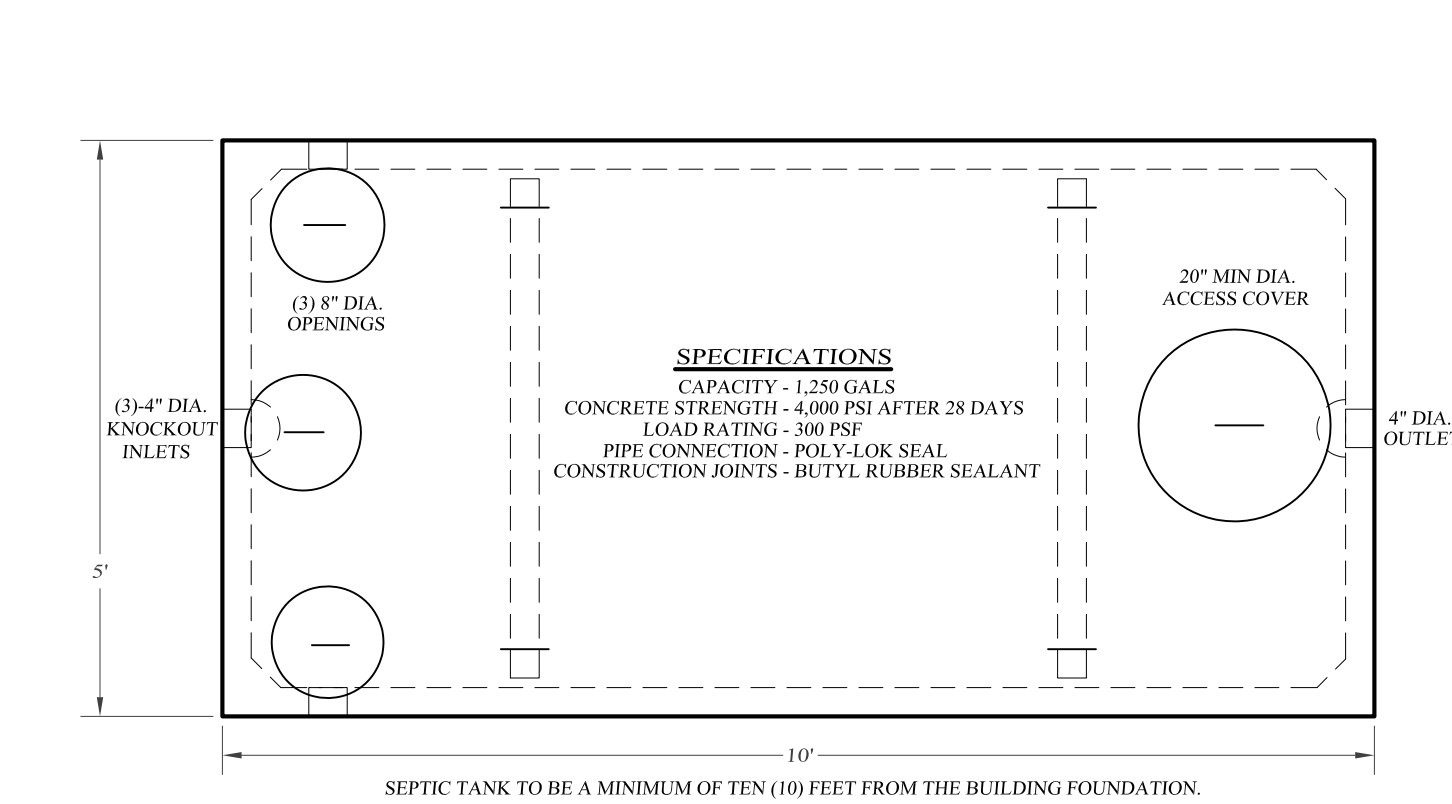
D.O.T. SHEET # 0.E.C. SHEET # O.C.H.D. SHEET # SHEET #

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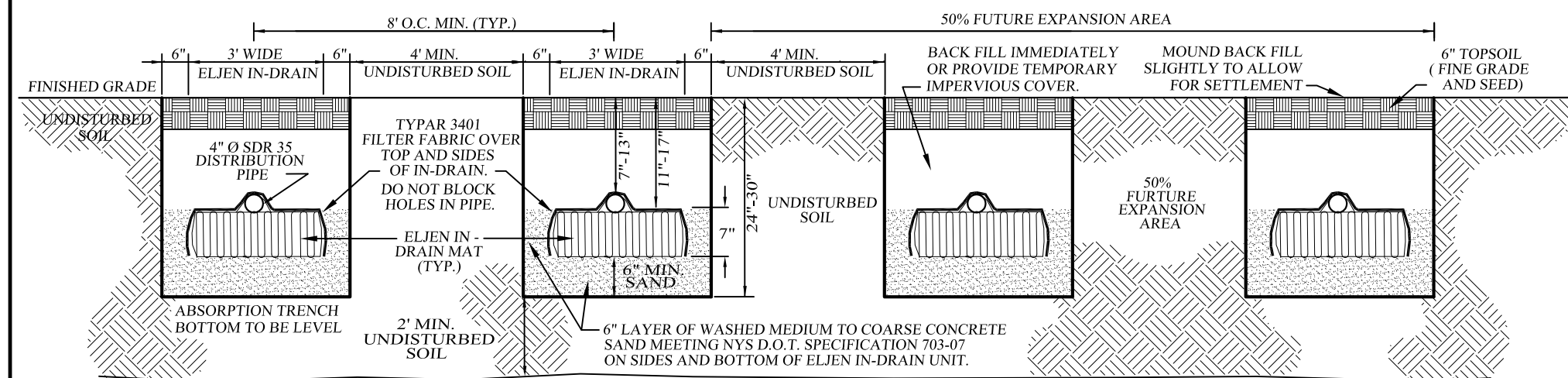
CAD # 03125 PROJECT # SCALE

9-2018 03125.0 AS SHOWN

6 OF 8

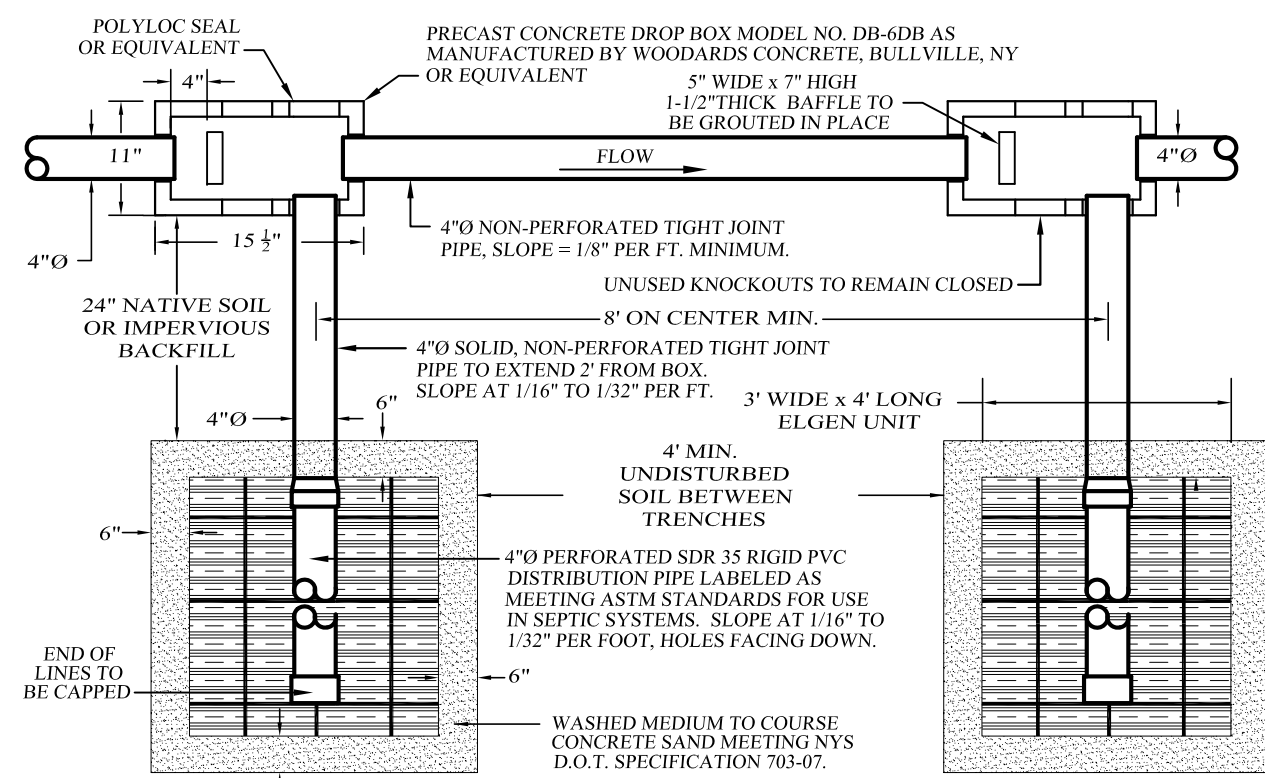


SEPTIC TANK DETAIL
NOT TO SCALE

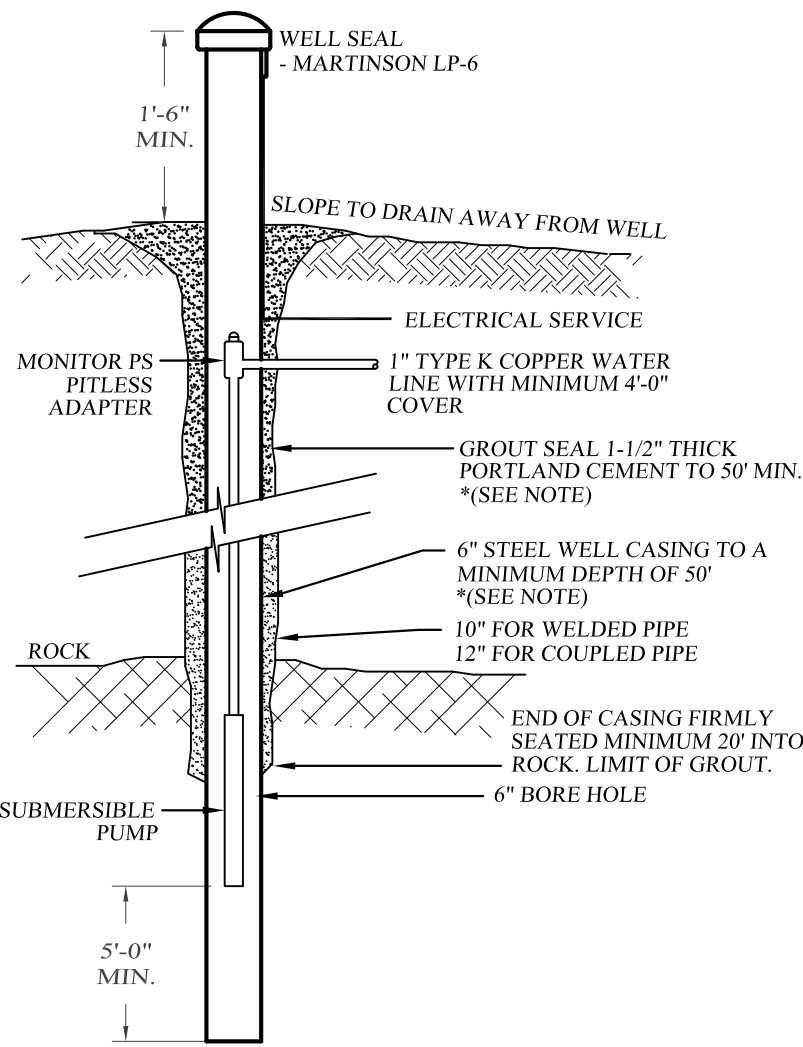


CONSTRUCTION SPECIFICATIONS:

- TRENCH BOTTOMS SHALL BE LEVEL. TRENCHES SHALL BE PARALLEL TO GROUND CONTOURS.
- ON SLOPED SITES, A DIVERSION SWALE SHALL BE CONSTRUCTED UPHILL OF THE SEPTIC FIELD TO PREVENT SURFACE WATER RUNOFF ONTO THE SEPTIC FIELD.
- CONCRETE SAND SHALL ADHERE TO THE NYS D.O.T. CONCRETE SAND SPEC 703.07 AS REQUIRED BY THE OCHD.
- SEE SEPTIC SYSTEM NOTES FOR ADDITIONAL CONSTRUCTION REQUIREMENTS.
- SEE ELJEN IN-DRAIN DESIGN AND INSTALLATION MANUAL FOR ADDITIONAL DETAILS.
- ELJEN IN-DRAIN AVAILABLE IN NEW YORK STATE THROUGH RYCO ASSOCIATES, TROY, NY; 888-490-2889.

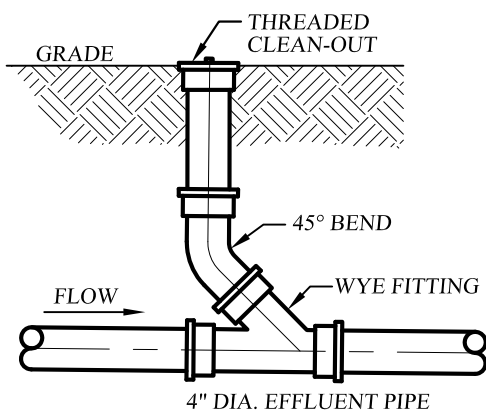


TYPICAL SECTION ELJEN IN-DRAIN SYSTEM
NOT TO SCALE



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.

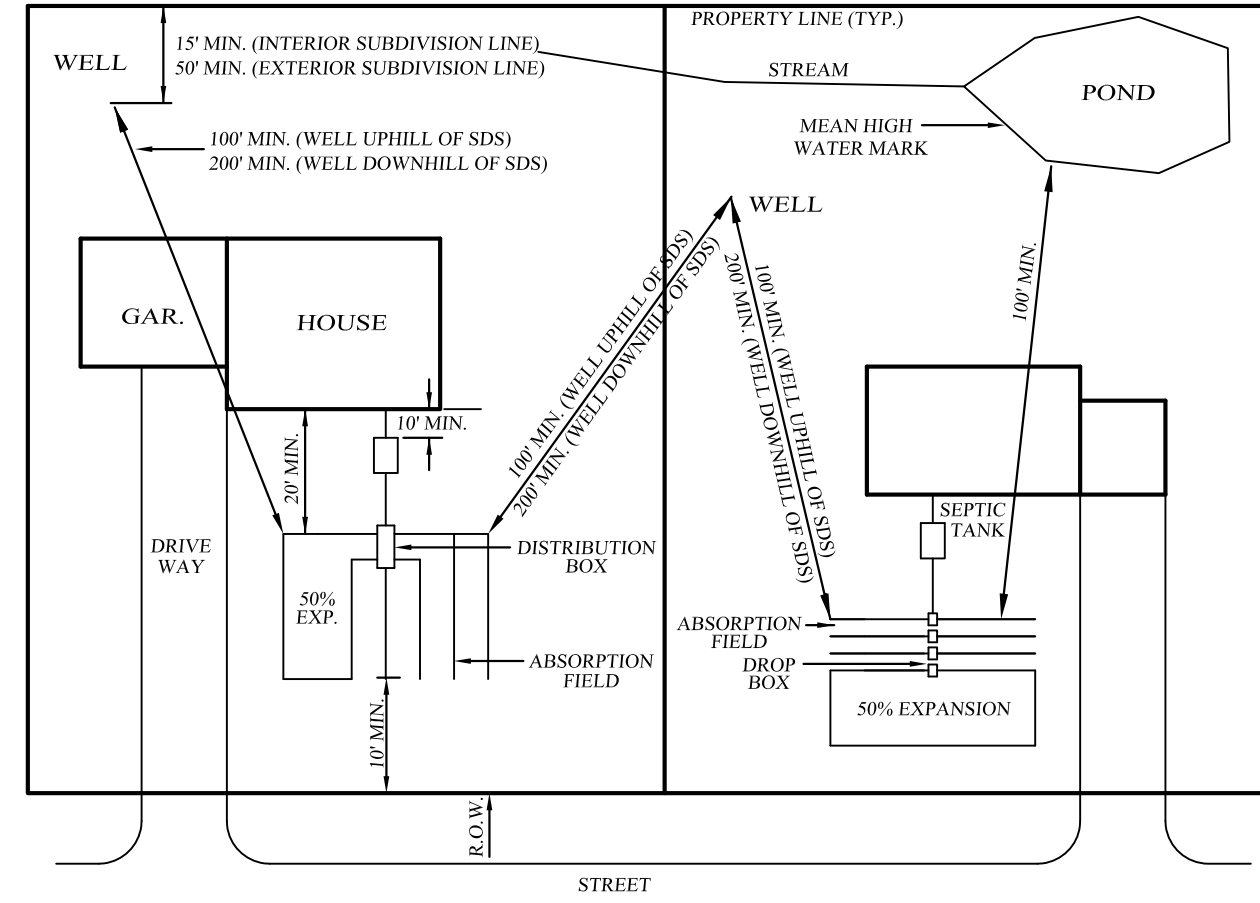
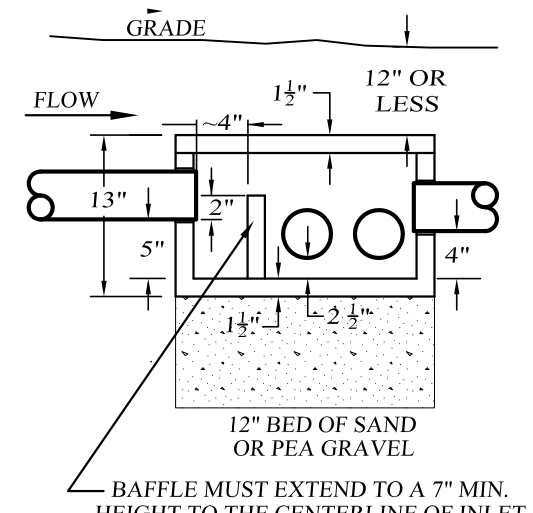


NOTES:

- 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.

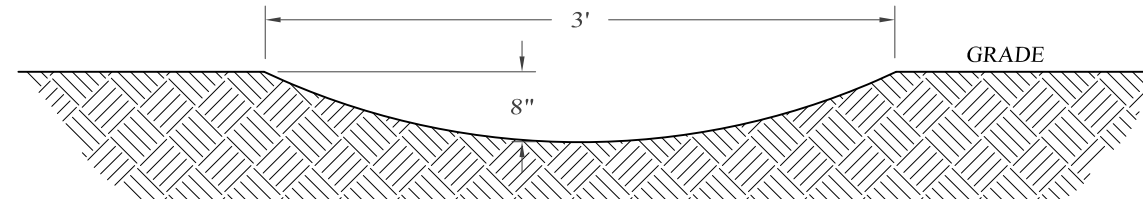
SEWER CLEAN-OUT DETAIL

NOT TO SCALE



REQUIRED SEPARATION DISTANCE FROM WASTEWATER SYSTEM COMPONENTS

SYSTEM COMPONENTS	WELL (I) 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.



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"-28" SILT LOAM, 28"-48" GRAVELLY SILT LOAM, LITTLE CLAY, 48"-86" GRAVELLY SILT LOAM SEEPAGE @ 36" NO SEEPAGE NO BEDROCK MOTTLING @ 36"	00"-12" 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"-12" TOPSOIL, 12"-52" GRAVELLY SILT LOAM, FEW COBBLES, 52"-86" GRAVELLY SILT LOAM NO SEEPAGE NO BEDROCK MOTTLING @ 32"	00"-12" TOPSOIL, 12"-54" GRAVELLY SILT LOAM FEW COBBLES, 54"-86" GRAVELLY SILT LOAM NO SEEPAGE NO BEDROCK MOTTLING @ 31"	PT1: 7 MIN. DEPTH: 24" PT2: 12 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"-12" TOPSOIL, 12"-50" GRAVELLY SILT LOAM, FEW COBBLES, 50"-86" GRAVELLY SILT LOAM NO BEDROCK MOTTLING @ 34"	00"-12" TOPSOIL, 12"-55" GRAVELLY SILT LOAM FEW COBBLES, 55"-86" GRAVELLY SILT LOAM NO SEEPAGE NO BEDROCK MOTTLING @ 32"	PT1: 8 MIN. DEPTH: 24" PT2: 11 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"-10" TOPSOIL, 10"-86" GRAVELLY SILT LOAM WITH SHALE NO SEEPAGE NO BEDROCK NO MOTTLING	00"-10" TOPSOIL, 10"-86" GRAVELLY SILT LOAM WITH SHALE NO SEEPAGE NO BEDROCK NO MOTTLING	PT1: 10 MIN. DEPTH: 24" PT2: 7 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 128 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 JULY AND AUGUST 2020 BY KIRK ROTHER, PE, PLLC.
- DEEP TESTS FOR LOTS 2, 3 & 4 PERFORMED IN JULY 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 CEMENT OR POLY-LOK SEAL JOINTS ABOVE THE SEWER. SECTION 8.6 OF THE G.L.I.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 - 50'.
- 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.
- TOILET 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

PROJECT TITLE

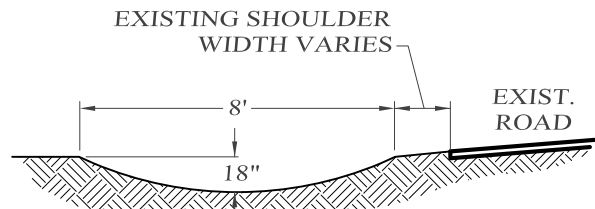
SANITARY
DETAILS

DRAWING TITLE

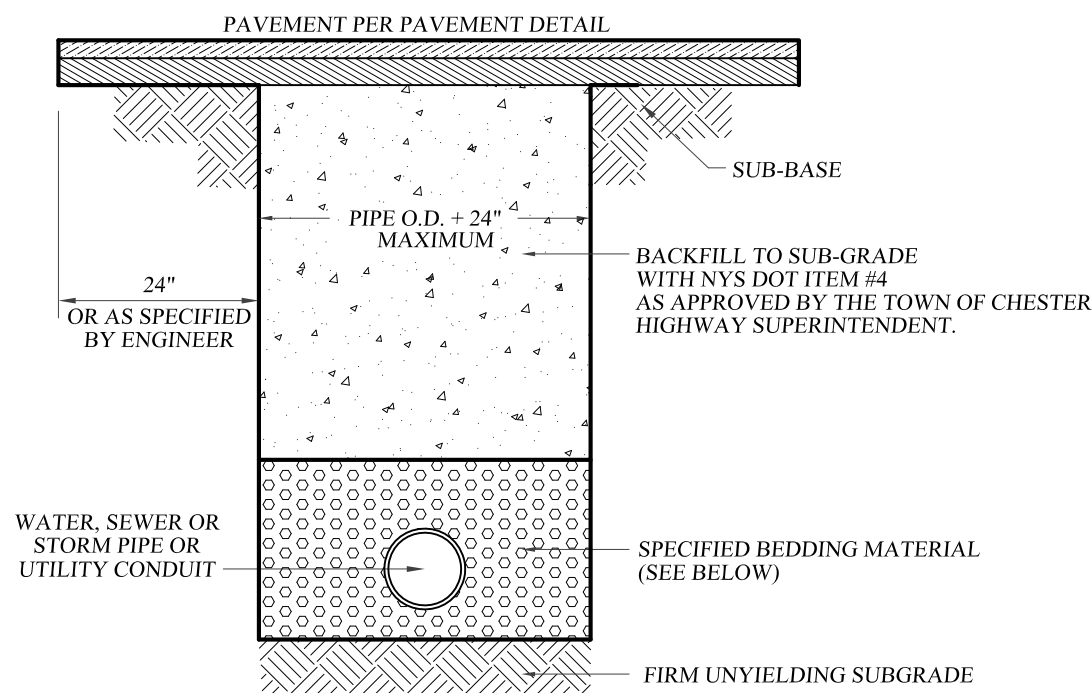
KIRK ROTHER, P.E.
CONSULTING ENGINEER, PLLC

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

DATE	REV.	PER	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.	N.Y.S. LIC. NO. 076065	DATE	
D.O.T. SHEET #	D.E.C. SHEET #	O.C.H.D. SHEET #	SHEET #
N.A.	N.A.	N.A.	
CAD # 03125	PROJECT #	SCALE	7 OF 8
9-2018	03125.0	AS SHOWN	



ROAD SIDE SWALE CROSS SECTION
NOT TO SCALE

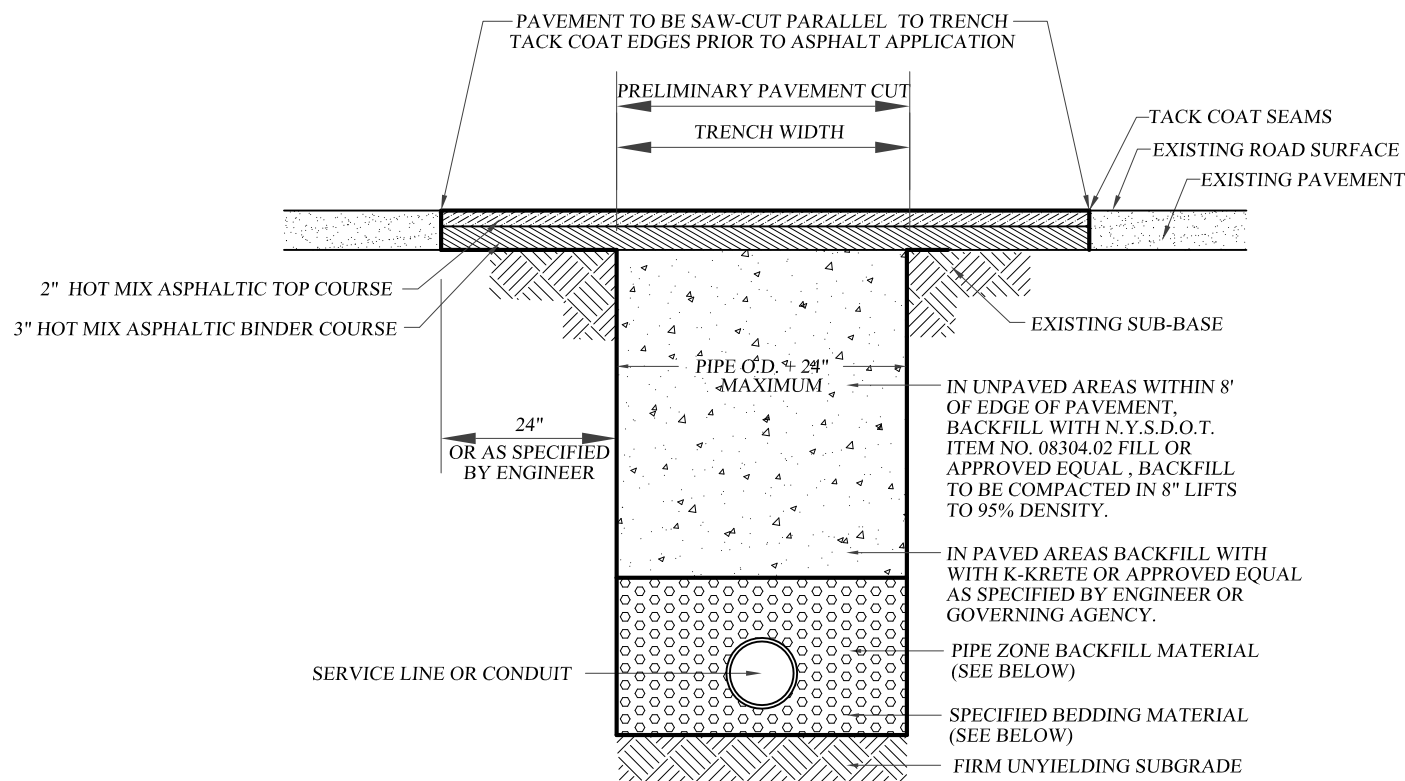


MATERIALS

- PIPE ZONE BEDDING MATERIAL:
1. WATER MAINS: SAND OR RUN-OF-BANK GRAVEL, AS APPROVED BY SOILS ENGINEER.
2. SEWER MAINS: 1/4" CHRUSHED 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" CHRUSHED STONE.

PIPE BEDDING AND BACKFILL

NOT TO SCALE
DETAIL

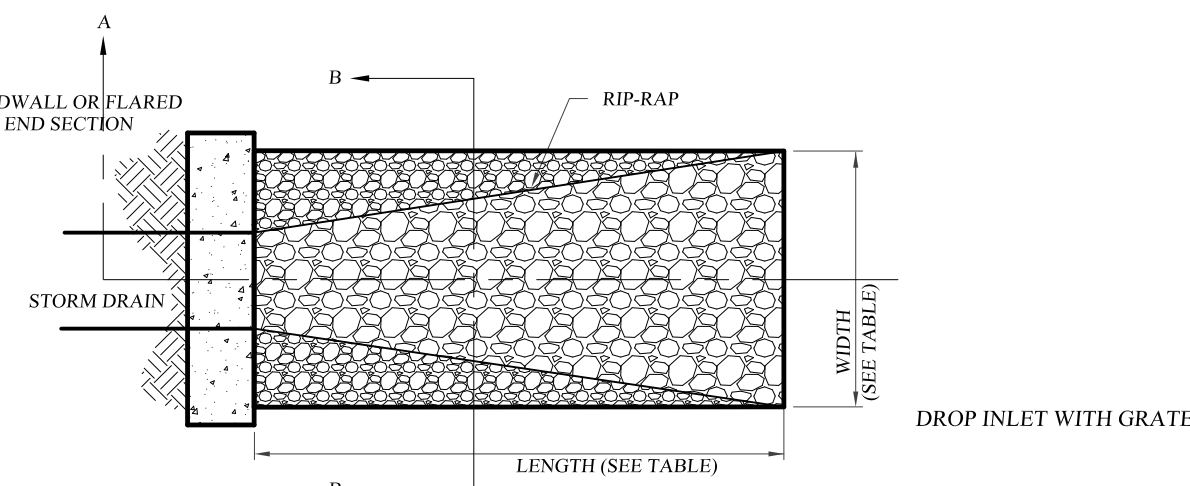


MATERIALS

- 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.

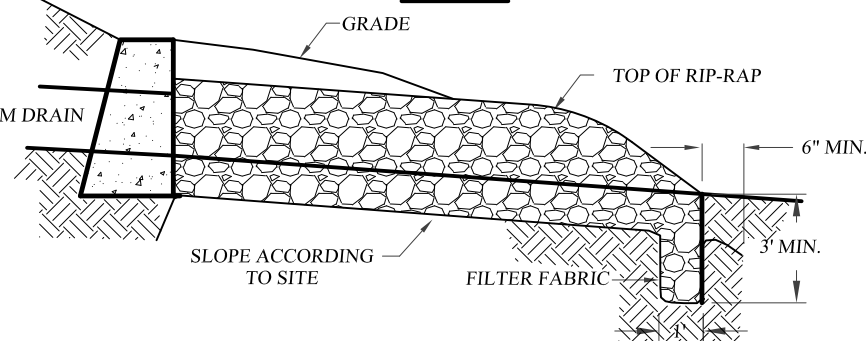
PIPE BEDDING AND BACKFILL

NOT TO SCALE
DETAIL
(WITHIN TOWN OR COUNTY R.O.W.)

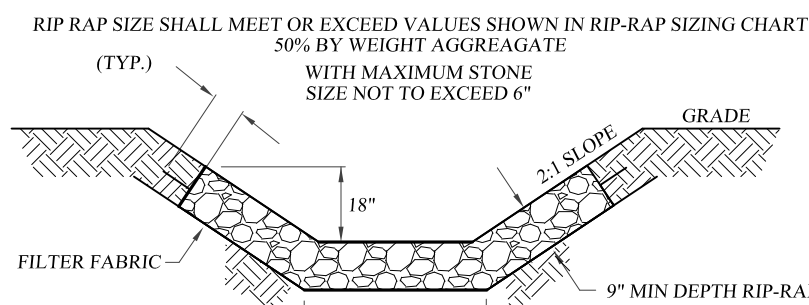


*DIMENSIONS SHALL MEET OR EXCEED VALUES SHOWN IN RIP-RAP SIZING TABLE

PLAN

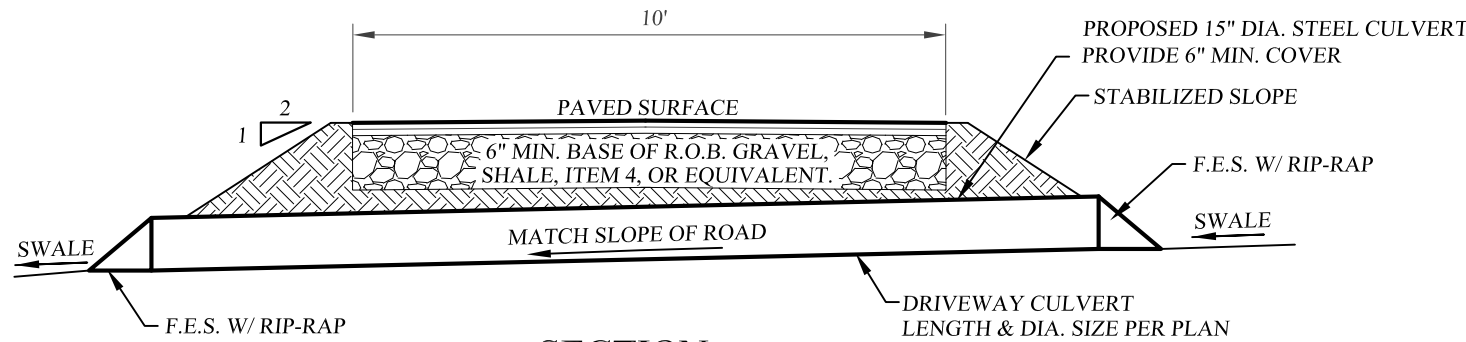


SECTION A-A



SECTION B-B
RIP-RAP OUTLET DETAIL

NOT TO SCALE

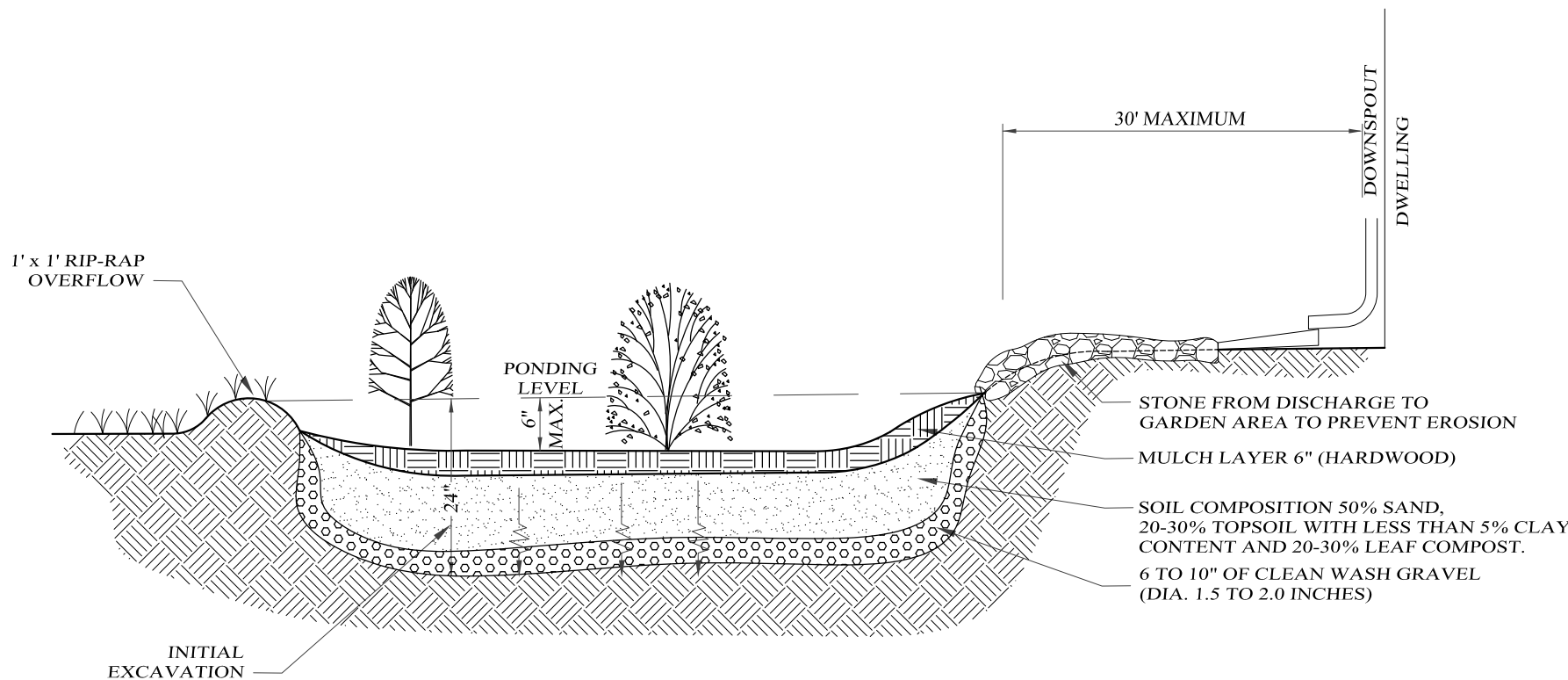


SECTION
RESIDENTIAL DRIVEWAY DETAIL
CROSS SECTION
NOT TO SCALE

RATIONAL METHOD SIZING FOR DRIVEWAY CULVERTS

$Q = (C)(I)(A)$
C = RESIDENTIAL NEIGHBORHOOD
I = 25 YEAR STORM / 6 in
A = 1.5 ac.
 $Q = (0.3) (6 \text{ in.}) (1.5 \text{ ac. MAX})$
 $Q = 2.7 \text{ cfs}$

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



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.**

$R = 0.05 + 0.009 I = 0.05 + (0.009)(50) = 0.50$

$WQ_v = (P)(R_v)(A) = (0.12)(0.10)(0.50) = 0.006 \text{ acre-ft} = 261 \text{ c.f.} = WQ_v \text{ required per 2,000 s.f. House}$

WQ_v Provided for 135 s.f. Rain Garden =

$WQ_v = (\text{Volume of Soils Media c.f.}) + (\text{Vol. of Gravel Drainage Layer c.f.}) + (\text{Depth of Ponding ft.} \times \text{Rain Garden Surface Area s.f.}) / V_{sm}$
 $V_{sm} = (\text{Rain Garden Surface Area c.f.}) (\text{Depth of soils media ft.}) (\text{porosity of soils } \%)$

$V_{sm} = (135.0) (1.5) (0.2) = 40.5$

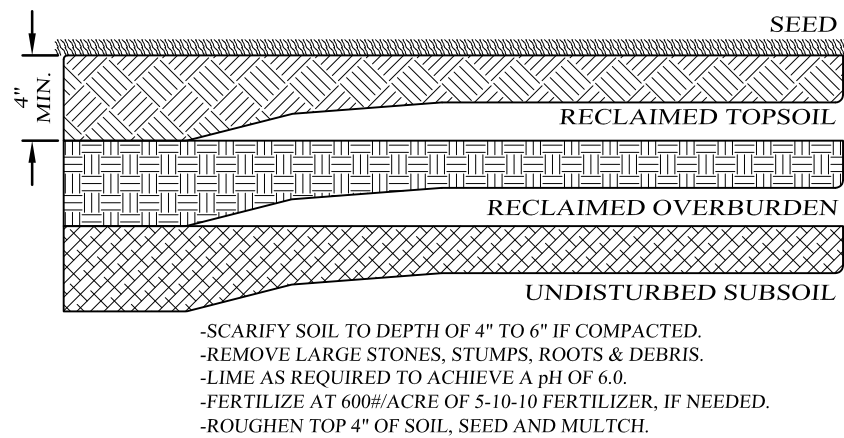
$V_{dl} = (\text{Rain Garden Surface Area c.f.}) (\text{Depth of drainage layer ft.}) (\text{porosity of gravel } \%)$

$V_{sm} = (135.0) (0.80) (0.40) = 43.2$

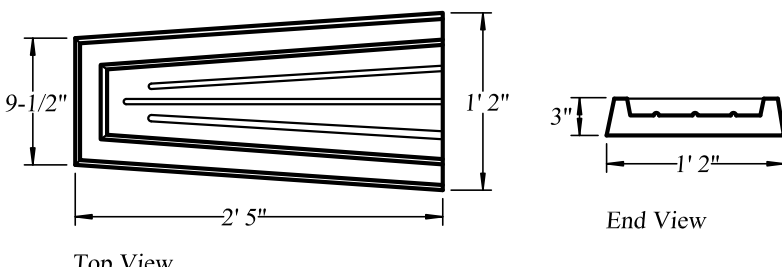
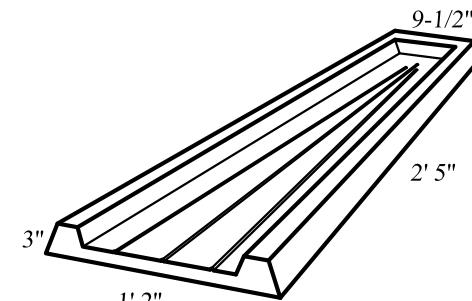
$WQ_v = 40.5 + 43.2 + (0.5 \times 135) = 40.5 + 43.5 + 67.5 = 151.5$

WQ_v Provided per Rain Garden = **151.5 c.f. WQ_v per Rain Garden**

2 Rain Gardens per House = $2 \times 151.5 = 303 \text{ c.f. WQ}_v \text{ provided per House}$



RECLAMATION DETAIL
NOT TO SCALE



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

CONCRETE SPLASH PAD DETAIL

NOT TO SCALE

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) 288-0420

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

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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.C. 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	