



McGOEY, HAUSER and EDSALL
CONSULTING ENGINEERS D.P.C.

RICHARD D. McGOEY, P.E. (NY & PA)
WILLIAM J. HAUSER, P.E. (NY, NJ & PA)
MARK J. EDSALL, P.E. (NY, NJ & PA)

MAIN OFFICE
33 Airport Center Drive
Suite 202
New Windsor, New York 12553

(845) 567-3100
fax: (845) 567-3232
e-mail: mheny@mhepc.com

**TOWN OF NEWBURGH
PLANNING BOARD
REVIEW COMMENTS**

PROJECT: CASSARA 3 LOT SUBDIVISION
PROJECT NO.: 14-06
PROJECT LOCATION: SECTION 17, BLOCK 5, LOT 32.12
PROJECT REPRESENTATIVE: MERCURIO-NORTON-TAROLLI-MARSHALL
REVIEW DATE: 31 JULY 2014
MEETING DATE: 7 AUGUST 2014

1. The Applicant's Representative has addressed our previous comments for the 3 lot subdivision including design of the subsurface sanitary sewer disposal systems which have been reviewed and found acceptable.
2. Comments dated 21 July 2014 from the Orange County Department of Public Works have been received.
3. County Planning submission is required as project fronts on county roadway.
4. Public Hearing is required for the 3 lot subdivision.

Respectfully submitted,

***McGoey, Hauser and Edsall
Consulting Engineers, D.P.C.***

Patrick J. Hines
Associate

REGIONAL OFFICES

• 111 Wheatfield Drive • Milford, Pennsylvania 18337 • 570-296-2765 •



Steven M. Neuhaus
County Executive

ORANGE COUNTY
DEPARTMENT OF PUBLIC WORKS

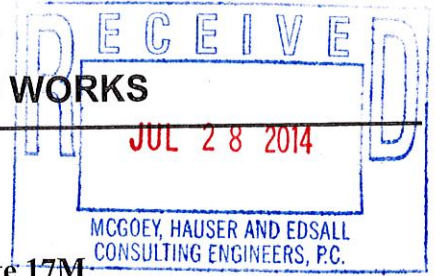
Charles W. Lee, P.E.
Commissioner

P.O. Box 509, 2455-2459 Route 17M
Goshen, New York 10924-0509

www.orangecountygov.com

TEL (845) 291-2750

FAX (845) 291-2778



FILE COPY

July 21, 2014

John Ewasutyn, Chairman
Town of Newburgh Planning Board
308 Gardnertown Road
Newburgh, New York 12550

Re: Antonio Cassara – Subdivision
County Road No. 86 – Fostertown Road
Mercurio-Norton-Tarolli-Marshall
Dated: February 2014, last revised: 7-1-14
Sheets: 1 & 2 of 2



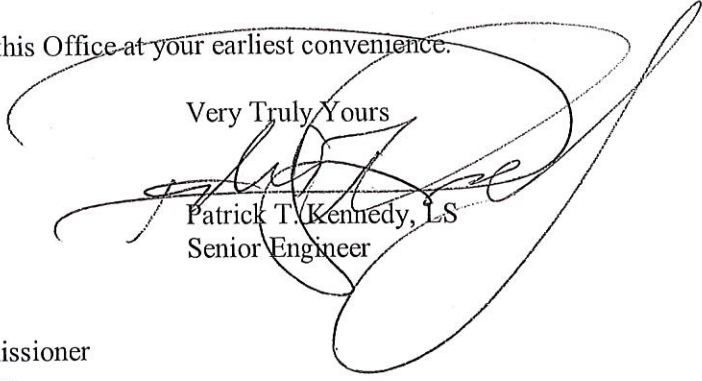
Dear Mr. Ewasutyn:

This Department has reviewed the plans for the above referenced Subdivision and has the following comments.

- I. The existing driveway to Lot #2 must be upgraded and paved in conformance with the Policy & Standards of the Orange County Department of Public Works.
- II. Residential driveways are only required to be paved from the edge of travel lane (white line) for 20 feet with 12" of compacted Item 4 Subbase and 2" of Asphalt Top Course.
- III. Stabilized Construction Entrances for residential driveways must be a minimum of 15 feet wide and 50 feet long and constructed in conformance with the Policy & Standards of the Orange County Department of Public Works – revise detail.
- IV. Sedimentation control must be provided within the existing drainage ditch along County Road No. 86 downstream of the proposed driveways – show on plan.

If you have any questions please contact this Office at your earliest convenience.

Very Truly Yours


Patrick T. Kennedy, LS
Senior Engineer

Cc: Charles W. Lee, PE, Commissioner
Christopher Viebrock, PE, Deputy Commissioner
Joseph Stankavage, PE, Principal Engineer
Mercurio-Norton-Tarolli-Marshall

Mercurio-Norton-Tarolli-Marshall
ENGINEERING - LAND SURVEYING

NOT COPY

45 Main Street • P.O. Box 166
Pine Bush, New York 12566
Tel: (845) 744-3620
Fax: (845) 744-3805
Email: mnt-pc@mnt-pc.com

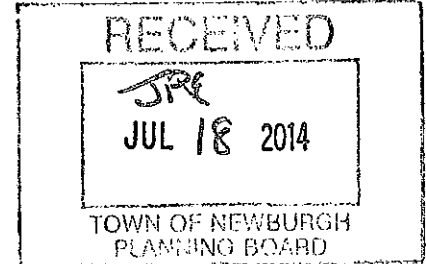
Alphonse Mercurio, L.S.
William G. Norton, L.S. (NY & PA)

John Tarolli, P.E., L.S.

Lawrence J. Marshall, P.E.
Kenneth W. Vriesema, L.S.

July 17, 2014

Planning Board
Town of Newburgh
PO Box 247
Wallkill, New York 12589-0247



Re: Job No. 3766
Lands of Antonino Cassara
Tax Map Parcel: 17-5-32.12
Town of Newburgh, Fostertown Road
3-Lot Residential Subdivision
Newburgh Project No. 2014-06

Dear Board Members:

Enclosed please find the following items in reference to the above-captioned project:

- 1.) Twelve (12) copies of the revised Subdivision Plan
- 2.) One (1) copy of the Project Narrative

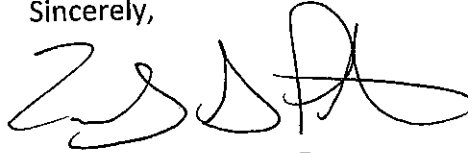
The following comments are in response to a review by Patrick Hines of McGoey, Hauser and Edsall Consulting Engineers, P.C. dated March 27, 2014:

1. No response required.
2. As per the revised Narrative, the required variance of 34.6' to the existing dwelling on Lot 2 was granted by the Town of Newburgh Zoning Board of Appeals on June 26, 2014.
3. A copy of the subdivision plan was sent to the Orange County Department of Public Works (OCDPW) for review on July 3, 2014. As of the date of this letter, no response has been received.
4. The proposed well on Lot 3 has been relocated in accordance with Orange County Department of Health (OCDOH) and New York State Department of Health (NYSDOH) requirements. In accordance with the above-mentioned regulations, a well requires a 200 foot separation to a sewage disposal system when located both downhill and in the direct path of surface runoff. The proposed well on Lot 3 is not located in the direct downhill path of runoff and is therefore not required to meet the 200 foot separation. The proposed well exceeds the 100 foot minimum separation.
5. Percolation test data has been included on sheet 2.
6. The Sewage Disposal System Requirements Table on sheet 2 has been revised to specify the proposed two-family house contains one (1) 3-bedroom unit and one (1) 1-bedroom unit.
7. The buildable area for each lot has been added on sheet 1.

Please place this project on the August 7th, 2014 meeting agenda for discussion

If you have any questions or concerns, please feel free to contact me at (845) 744-3620 or by email at zpeters@mnt-pc.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'ZAP', with a large, sweeping flourish extending to the right.

Zachary A. Peters, P.E.

ZP/zp

Enc.

cc: Antonino Cassara
Patrick Hines (w/ enc.)

Alphonse Mercurio, L.S.
William G. Norton, L.S. (NY & PA)

John Tarolli, P.E., L.S.

Lawrence J. Marshall, P.E.
Kenneth W. Vriesema, L.S.

Project Narrative

For

Cassara Subdivision

Fostertown Road
Town of Newburgh
Orange County, New York

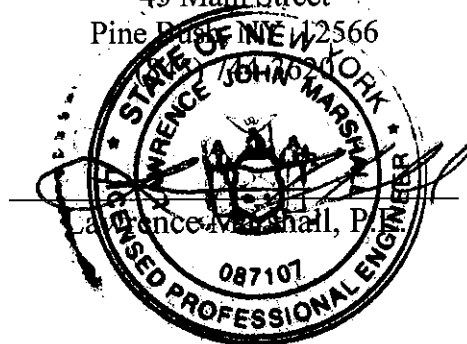
Prepared for:

Antonino Cassara
442 Fostertown Road
Newburgh, NY 12550
(845) 239-6608

Prepared by:

Mercurio-Norton-Tarolli-Marshall, P.C.
P. O. Box 166
45 Main Street

Pine Bush, NY 12566



Prepared:

March 11, 2014

Revised:

July 16, 2014

Project Narrative for
Cassara Subdivision

A. Description of Project Site

The Cassara Subdivision is a proposed three (3) lot residential subdivision. The project involves the creation of one (1) two-family dwelling, one (1) single-family dwelling, and the one (1) existing single-family dwelling. The project is located on the easterly side of Fostertown Road in the Town of Newburgh, County of Orange, State of New York. The site is designated as tax map parcel: Section 17, Block 2, Lot 31.12. The project area is 4.671 acres located in the Rural Agriculture (AR) zoning district. The project parcel is designated as Lot 2 on Filed Map No. 119-93 filed in the Orange County Clerk's Office.

B. Description of the Project

Lot 1, the proposed two-family dwelling, has an area of 100,407 square feet, greater than the 100,000 square foot minimum lot size required for two-family residential lots. Lot 2, the existing single-family dwelling, has an area of 47,201 square feet. Lot 3, the proposed single-family dwelling, has an area of 55,878 square feet. Both lots are larger than the 40,000 square foot minimum lot size required for single-family residential lots. All proposed lots will meet the required zoning setbacks.

The sizes of the buildable area within the setbacks are: Lot 1 – 37,577 s.f., Lot 2 – 16,266 s.f., and Lot 3 – 11,619 s.f.. The buildable floor area for Lot 1 exceeds the 17,500 s.f. minimum area required for two-family dwellings. The buildable area for Lots 2 and 3 exceeds the 10,000 s.f. minimum area required for single-family dwellings.

Lot 2 contains an existing dwelling and barn. There is an additional barn and shed in disrepair that will be removed. The remainder of the project site is currently vacant and consists mostly of woods and brush. There are no wetlands or floodplains located within the project site.

C. Description Proposed Improvements

Lot 2 will access Fostertown Road by the existing shale driveway. Lots 1 and 3 will access Fostertown Road by individual driveways located 172 feet north and 172 feet south of the existing driveway, respectively. The sight distances for the driveways exceed the AASHTO recommended stopping sight distances for the posted speed limit.

The single-family dwelling on Lot 2 is currently served by an existing well and sewage disposal system. The two proposed dwellings will also be served by individual wells and sewage disposal systems. The sewage disposal systems have been designed in accordance with the current Orange County Health Department standards.

Project Narrative for
Cassara Subdivision

D. Stormwater Management

The total proposed area of disturbance is approximately 1.2 acres. Erosion and sediment control measures will be installed during construction to prevent the transportation of sediment off-site. Silt fencing will be installed below disturbed areas and stabilized construction entrances will be installed at each of the proposed driveway entrances. Erosion and sediment control measures will be maintained at all times during construction.

E. Impact of the Proposed Project

The project will result in the creation of two (2) additional tax parcels. Under current Town of Newburgh zoning regulations, specifically the requirements for minimum lot size and width, no further subdivision of the proposed lots is possible.

F. Zoning Variance

Lot 2 has a front yard setback of 25.4 feet to the existing single-family dwelling. In accordance with Town of Newburgh Zoning Code §185-18-C.4(B), lots with frontage on a County Road require a front yard setback of 60 feet. The required variance of 34.6 feet was granted by the Town of Newburgh Zoning Board of Appeals on June 26, 2014.

Notes:

- 1) SUBJECT TO ANY FACTS THAT MAY BE REVEALED BY AN ACCURATE, UP TO DATE, TITLE ABSTRACT REPORT.
- 2) SUBJECT TO THAT PORTION OF LAND WITHIN THE BOUNDS OF ANY ADJOINING ROADS FOR USE AS A PUBLIC HIGHWAY.
- 3) SUBJECT TO UTILITY GRANTS OF RECORD.
- 4) THERE WAS 18" OF SNOW COVER AT THE TIME OF THE FIELD SURVEY.
- 5) THERE ARE NO WELLS OR SEWAGE DISPOSAL SYSTEMS ON ADJACENT PROPERTIES WITHIN 100' OR 200' (AS REQUIRED BY STANDARDS) OF THE PROPOSED WELLS AND SEWAGE DISPOSAL SYSTEMS FOR EACH LOT.
- 6) PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR ANY SEWERAGE SYSTEM SUBJECT TO THE PROVISIONS OF LOCAL LAW 1, 1989, THE TOWN OF NEWBURGH BUILDINGS INSPECTOR MUST RECEIVE AN "AS BUILT" PLAN OF SUCH SYSTEM BEARING THE FOLLOWING CERTIFICATION OF A PROFESSIONAL ENGINEER OR OTHER AUTHORIZED DESIGN PROFESSIONAL AS SET FORTH ABOVE: "I HEREBY CERTIFY TO THE TOWN OF NEWBURGH THAT THE SEWERAGE SYSTEM DEPICTED ON THIS PLAN HAS BEEN DESIGNED AND INSTALLED IN ACCORDANCE WITH THE NEW YORK STATE PUBLIC HEALTH LAW AND ALL REGULATIONS PROMULGATED THEREUNDER."
- 7) NO EXCAVATED MATERIAL IS ANTICIPATED TO BE REMOVED FROM THE SITE. APPROXIMATELY 10% OF FILL IS REQUIRED FOR HOUSE AND DRIVEWAY CONSTRUCTION. THE APPROXIMATE AREA OF DISTURBANCE IS 12 ACRES.
- 8) LOT OWNERS SHALL BE RESPONSIBLE FOR CLEARING AND MAINTAINING 15' FROM THE EDGE OF FOSTERTOWN ROAD PAVEMENT TO MAINTAIN ADEQUATE SIGHT DISTANCES AT FOR ALL DRIVEWAYS IN THIS SUBDIVISION.

Zoning Legend AR

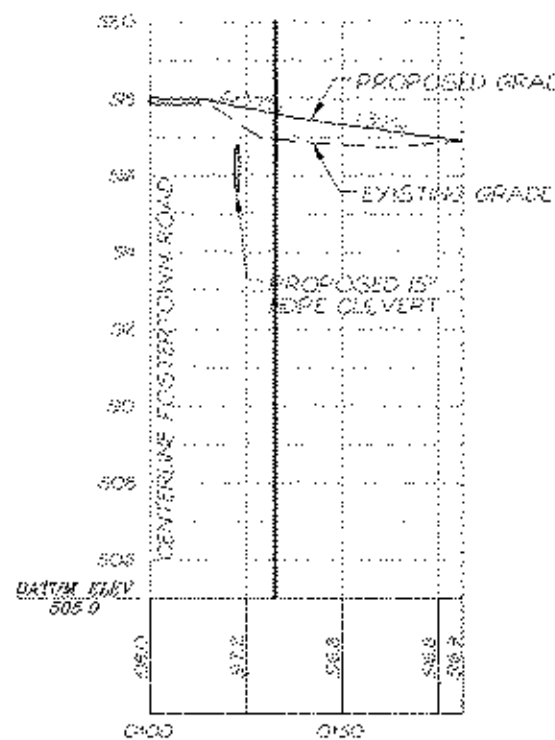
SINGLE FAMILY

MEMBER LOT AREA	REQUIRED	LOT 1	LOT 2	LOT 3
(SQUARE FEET)	(SQUARE FEET)	(SQUARE FEET)	(SQUARE FEET)	(SQUARE FEET)
MINIMUM LOT WIDTH	150'	66'	15'	
MINIMUM LOT DEPTH	150'	266'	42.5'	
MINIMUM YARDS				
FRONT	30'	25.4'	53'	
SIDE - ANY ONE	30'	30'	46'	
SIDE - TOTAL FOR BOTH	30'	74'	92'	
REAR	30'	50'	19.7'	
HABITABLE FLOOR AREA PER DWELLING UNIT	900 SQ. FT.	7500 SQ. FT.	7000 SQ. FT.	
MAXIMUM LOT BUILDING COVERAGE	20%	8.0%	2.5%	
MAXIMUM BUILDING HEIGHT	3.5	5.35	5.35	
MAXIMUM LOT SURFACE COVERAGE	20%	15.8%	8.7%	
MINIMUM BUILDABLE AREA (WITHIN ZONING SETBACK)	10,000 S.F.	16,266 S.F.	13,78 S.F.	

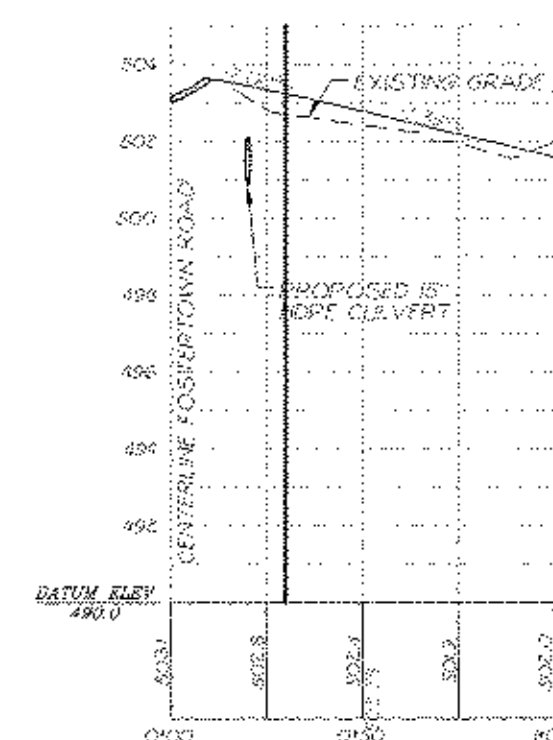
Zoning Legend AR

TWO FAMILY

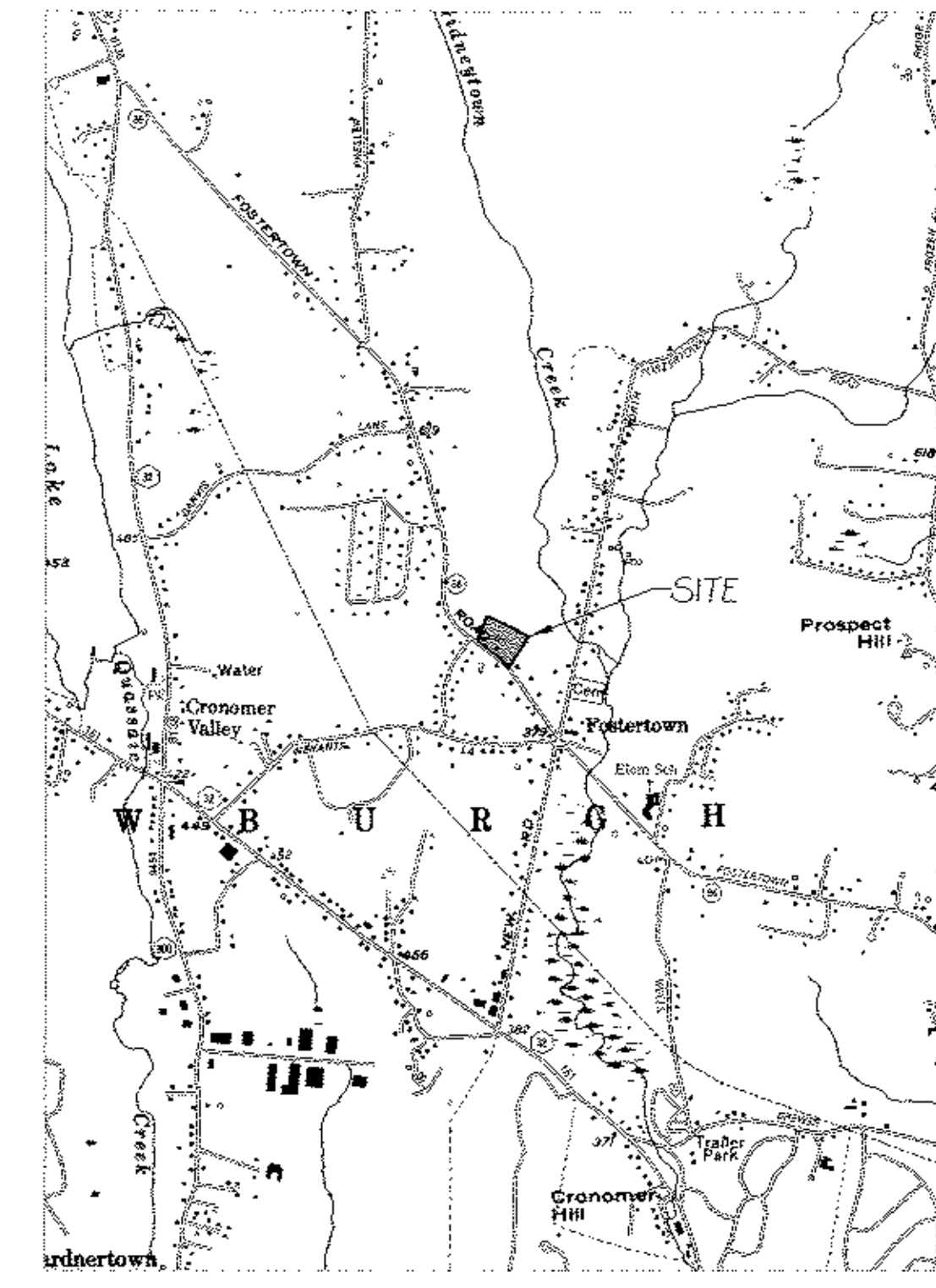
MEMBER LOT AREA	REQUIRED	LOT 1	LOT 2
(SQUARE FEET)	(SQUARE FEET)	(SQUARE FEET)	(SQUARE FEET)
MINIMUM LOT WIDTH	200'	205'	
MINIMUM LOT DEPTH	190'	342'	
MINIMUM YARDS			
FRONT	30'	100'	
SIDE - ANY ONE	30'	54'	
SIDE - TOTAL FOR BOTH	30'	65'	
REAR	30'	104'	
HABITABLE FLOOR AREA PER DWELLING UNIT	900 SQ. FT.	2900 SQ. FT.	
MAXIMUM LOT BUILDING COVERAGE	20%	8.9%	
MAXIMUM BUILDING HEIGHT	3.5	5.35	
MAXIMUM LOT SURFACE COVERAGE	20%	7.0%	
MINIMUM BUILDABLE AREA (WITHIN ZONING SETBACK)	17,500 S.F.	40,658 S.F.	



Proposed Lot 1 Driveway Profile
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

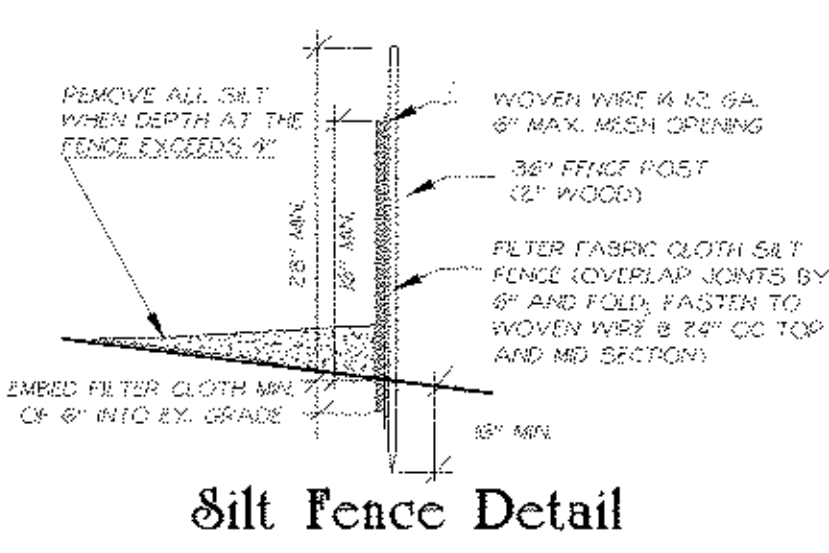
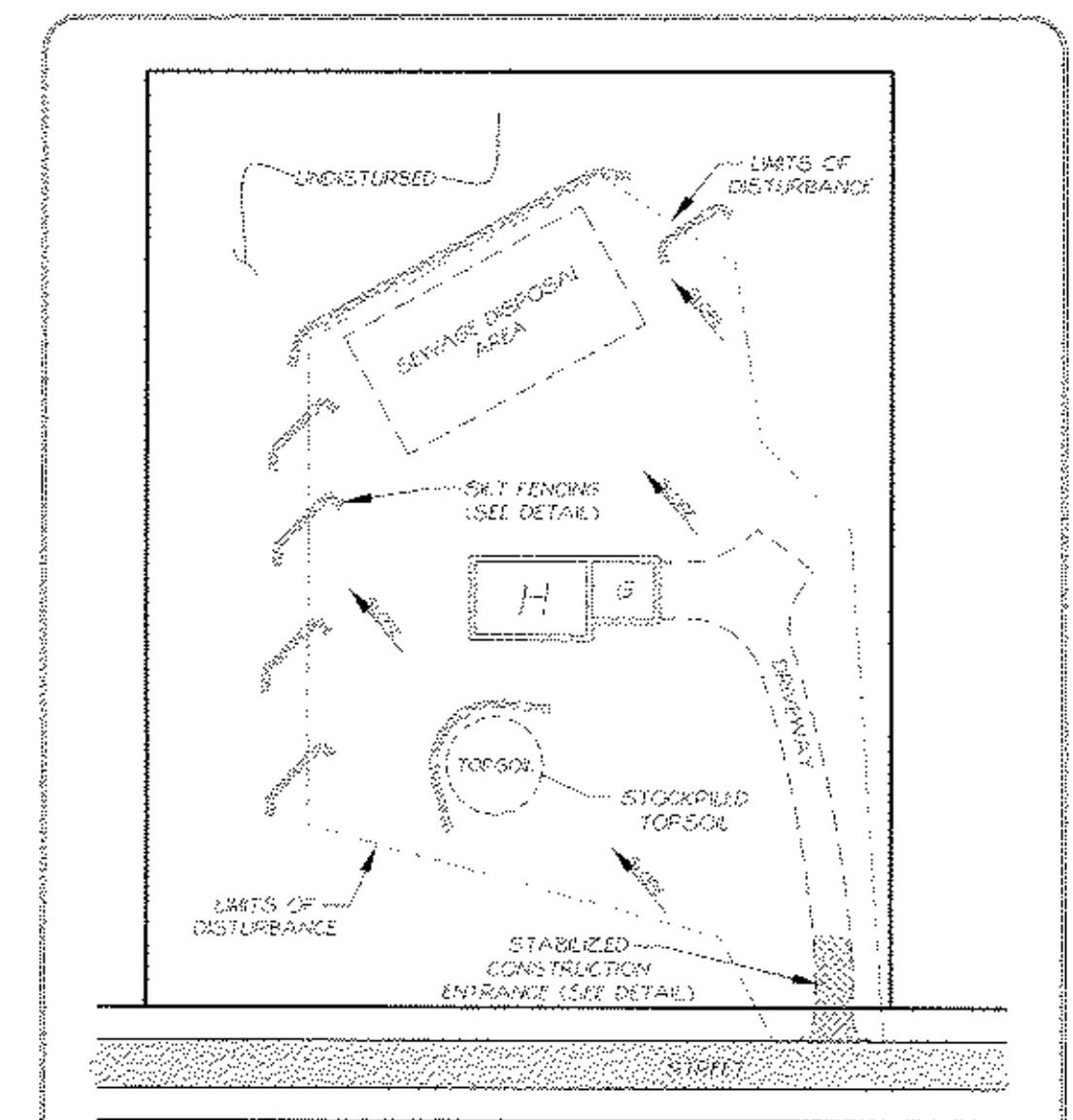
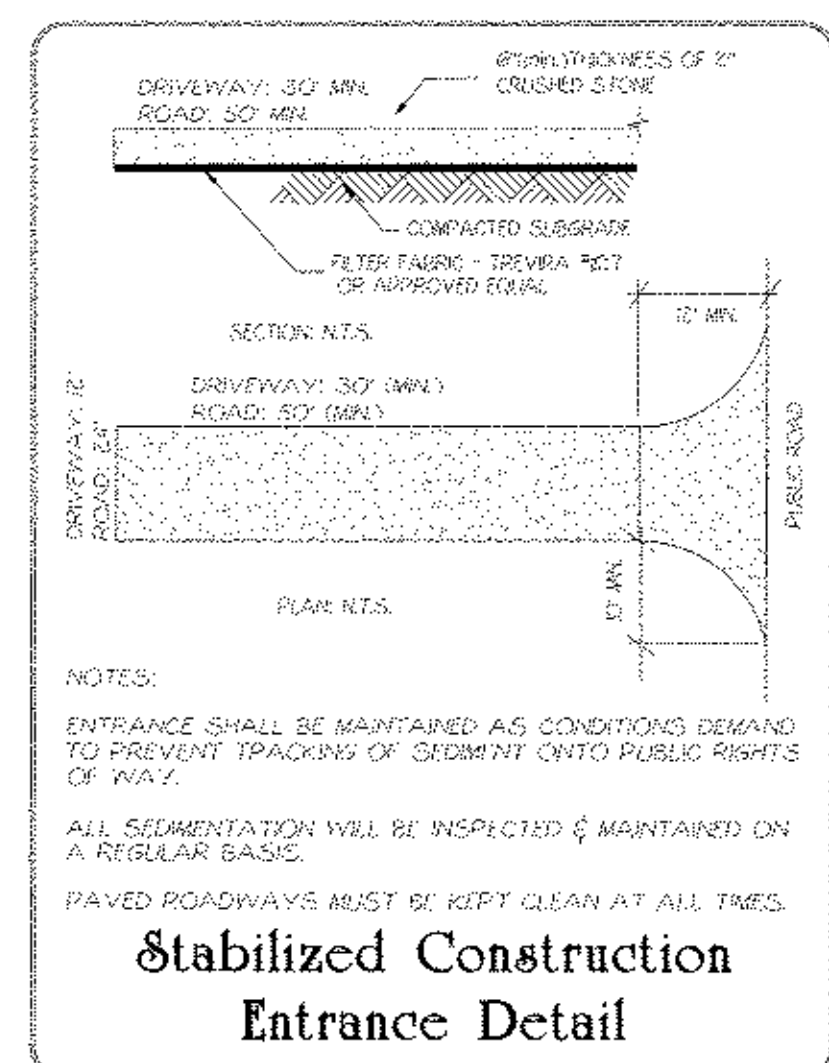
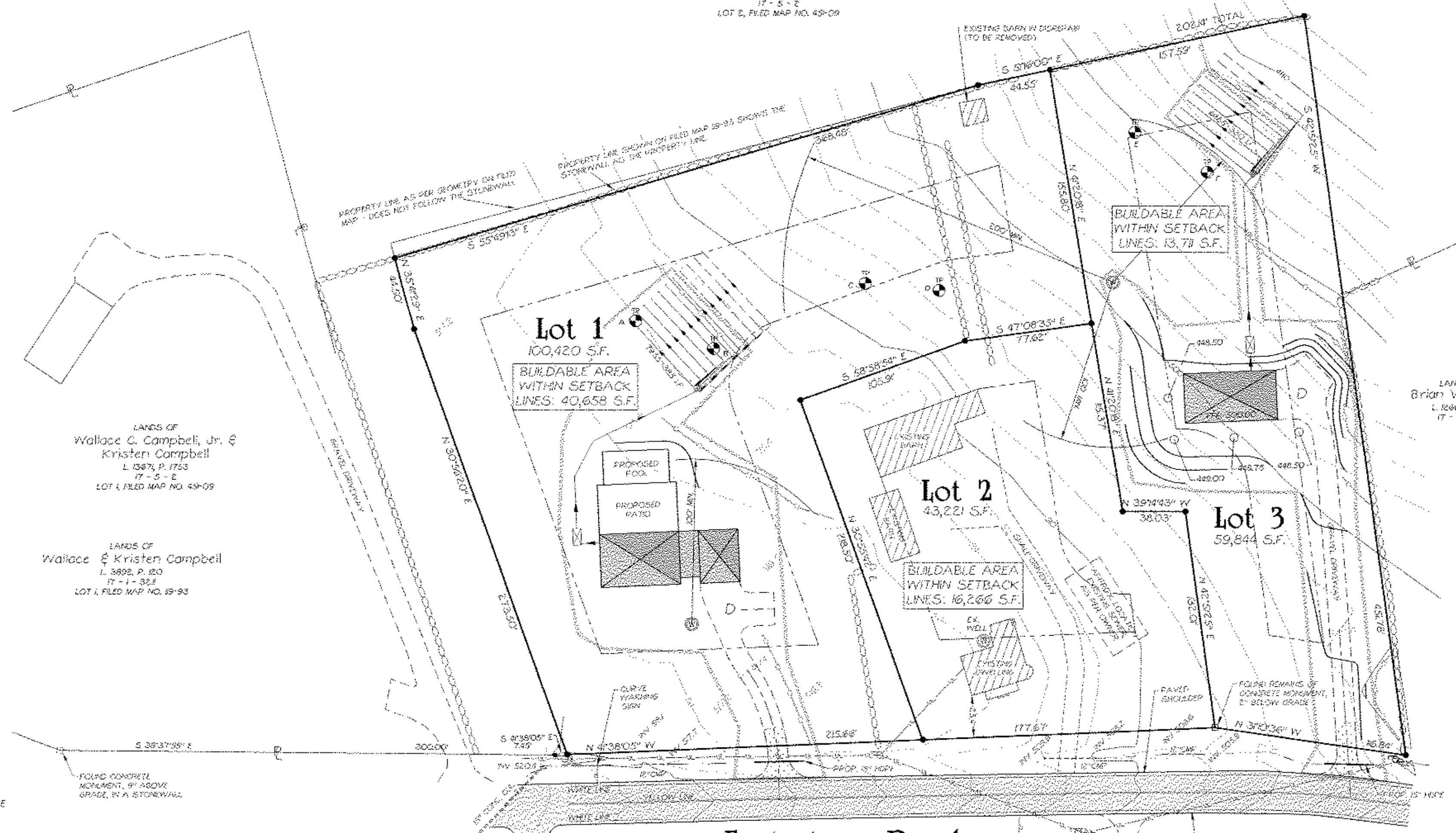


Proposed Lot 3 Driveway Profile
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



Location Map
SCALE: 1" = 1000'

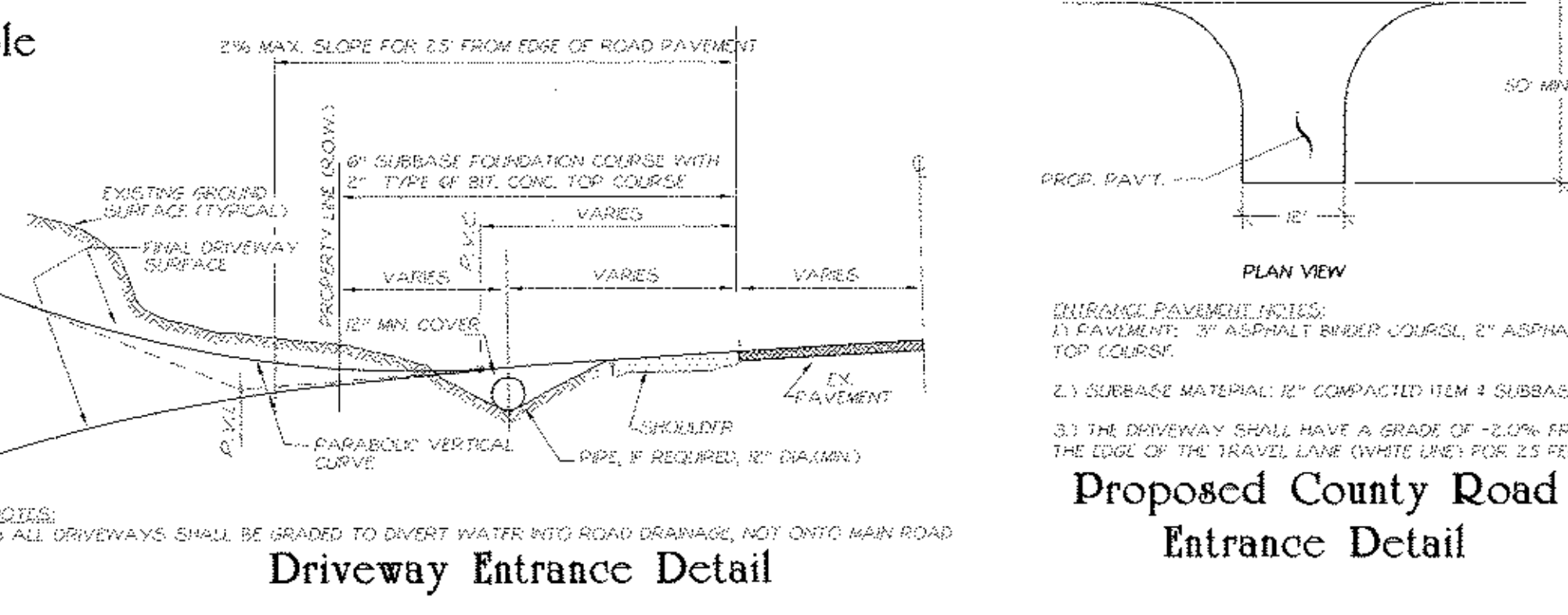
- Legend**
- PROPERTY LINE & CORNER
 - SET 5/8" IRON ROD AT PROPERTY CORNER
 - ADJOINERS PROPERTY LINE
 - LIBER OF DEEDS, PAGE
 - TAX MAP DESIGNATION (SECTION - BLOCK - LOT)
 - EX. UTILITY POLE & LINE
 - EXISTING CULVERT & SIZE
 - PROPOSED CULVERT & SIZE
 - STONE WALL
 - WIRE FENCE
 - WATERCOURSE
 - EXISTING CONTOUR LINE
 - PROPOSED CONTOUR LINE
 - ZONING MIN. SETBACK LINE
 - EXISTING BUILDING
 - PROPOSED 4" DIA. PERFORATED PVC SEWER DISTRIBUTOR PIPE
 - PROPOSED 4" DIA. PERFORATED PVC DISTRIBUTOR PIPE FOR SEWER EXPANSION AREA
 - PROPOSED SEPTIC TANK & 4" DIA. SOLID WALL PVC SDR35 PIPE
 - PROPOSED DISTRIBUTION BOX & 4" DIA. SOLID WALL PVC SDR35 PIPE
 - SOIL TEST LOCATION & NUMBER
 - PROPOSED DRIVE
 - PROPOSED HOUSE LOCATION
 - PROPOSED WELL LOCATION
 - PROPOSED SILT FENCE (SEE DETAIL)
 - PROPOSED CONSTRUCTION ENTRANCE (SEE DETAIL)



FOSTERTOWN ROAD POSTED SPEED LIMIT: 45 MPH

LOT	SIGHT LINE	DISTANCE	NOTES
1	1	1,565'	
2	1	1,620'	
2	2	1,742'	
2	2	1,790'	
3	1	1,600'	
3	2	1,660'	

Driveway Sight Distance Table



"I HAVE REVIEWED THE PLAN AND AGREE TO ITS FILING IN THE COUNTY CLERK'S OFFICE"

ANTONIO CASSARA (OWNER)

MNTM
Mercurio-Norton-Tarolli-Marshall
ENGINEERING - LAND SURVEYING
PO Box 166, 45 Main Street, Pine Bush, NY 12566
P: (845)744.3620 F:(845)744.3805 Email: mntm-pc@rmti-pc.com

COUNTY ROAD NOTE
NO SITE PREPARATION OR CONSTRUCTION, INCLUDING UTILITY CONNECTIONS, SHALL COMMENCE UNTIL A VALID HIGHWAY WORK PERMIT HAS BEEN SECURED FROM THE ORANGE COUNTY DEPARTMENT OF PUBLIC WORKS UNDER SECTION 136 OF THE HIGHWAY LAW.

NO.	DATE	DISPOSITION	BY	NO.	DATE	REVISIONS	DESCRIPTION	CAP	BY
1	2/14	ISSUED	AM	1	2/14				

I HEREBY CERTIFY TO TONY CASSARA THAT THIS MAP IS THE RESULT OF AN ACTUAL FIELD SURVEY COMPLETED BY MERCURIO-NORTON-TAROLLI-MARSHALL, LAND SURVEYING - ENGINEERS, P.C. ON FEBRUARY 12, 2014.

I HEREBY CERTIFY THAT EACH PROPOSED SEWER SYSTEM & WATER FACILITY SHOWN ON THIS PLAN IS DESIGNED IN ACCORDANCE WITH THE STANDARDS AND REQUIREMENTS OF THE NEW YORK STATE DEPARTMENTS OF HEALTH AND ENVIRONMENTAL CONSERVATION FOR RESIDENTIAL LOTS AND FURTHER THAT SUCH DESIGN IS BASED UPON ACTUAL SOIL AND SITE CONDITIONS FOUND UPON EACH LOT AT THE LOCATION SHOWN. THE INSTALLATION OF EACH PROPOSED SEWER SYSTEM & WATER FACILITY SHALL BE IN ACCORDANCE WITH THE DESIGN SHOWN ON THIS PLAN.

ALPHONSE MERCURIO LS 10482008 LAWRENCE MARSHALL PE 103107

Total Area = 4.671 Acres

Survey & Subdivision Map for Lands of Antonino Cassara

OWNER: ANTONINO CASSARA, 442 FOSTERTOWN ROAD NEWBURGH, NY 12550
DEED REFERENCE: LIBER 1378, PAGE 680
TAX MAP REFERENCE: SECTION 17, BLOCK 2, LOT 32, LOT 2, FILED MAP NO. 89-93

Situate in the Town of Newburgh Orange County, New York State
Scale 1" = 50' February 2014

GRANTED BY: KVVV MAP OR: AM 2-18-14 [LOT OF: KVVV 7-1-14] PROJECT: 3768 | SHEET 1 OF 2

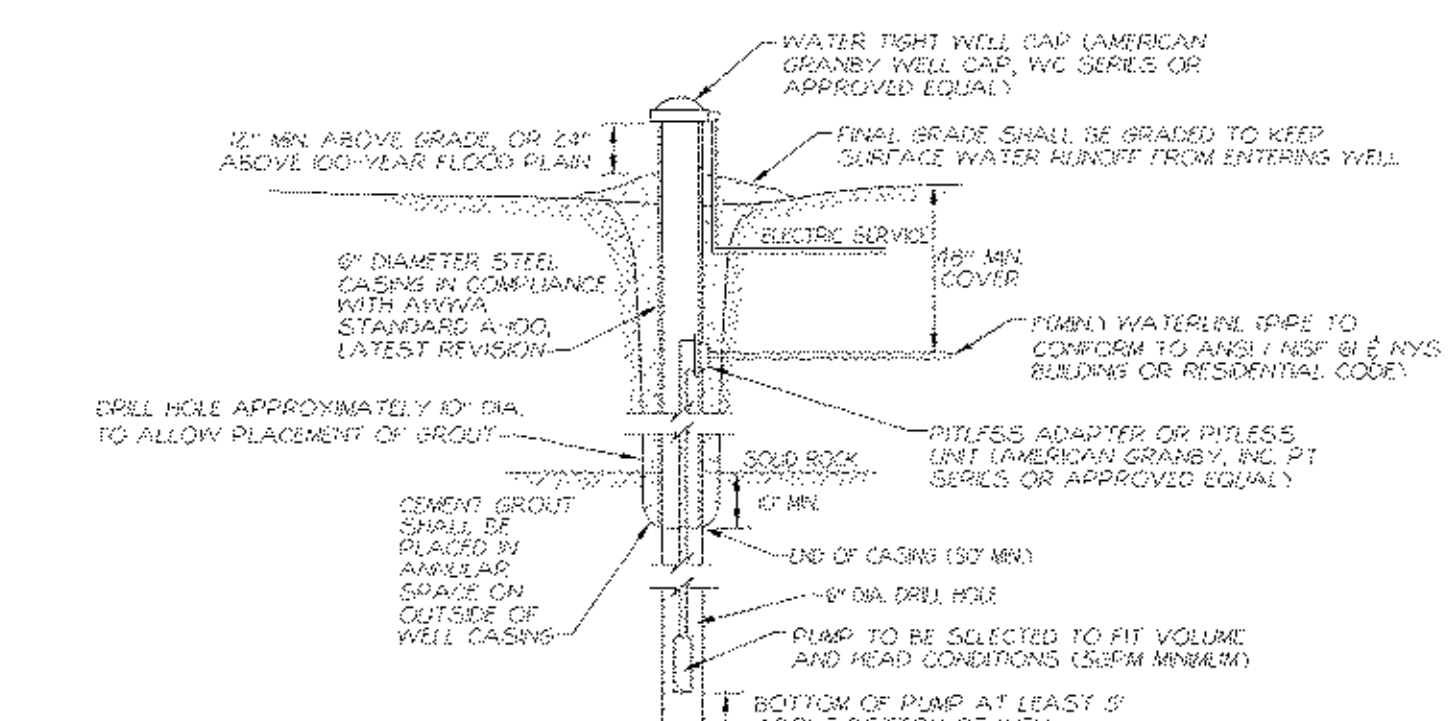
Deep Soils Testing Results

TEST HOLE #	A	B	C	D	E	F
TESTING DATE:	F2H4	F2H4	F2H4	F2H4	F2H4	F2H4
TESTER:	ZAP	ZAP	ZAP	ZAP	ZAP	ZAP
0'	TOPSOIL	TOPSOIL	TOPSOIL	TOPSOIL	TOPSOIL	TOPSOIL
1'	GRANULAR SILT LOAM WITH SOME RIPPLED SHALE	GRANULAR SILT LOAM WITH SOME RIPPLED SHALE	GRANULAR SILT LOAM WITH SOME RIPPLED SHALE	GRANULAR SILT LOAM WITH SOME RIPPLED SHALE	GRANULAR SILT LOAM WITH SOME RIPPLED SHALE	SILT LOAM & RIPPLED SHALE
2'						
3'						
4'						
5'						
6'						
7'						
8'						

NOTES:
NO WATER OR ROCK (UNLESS SO NOTED)

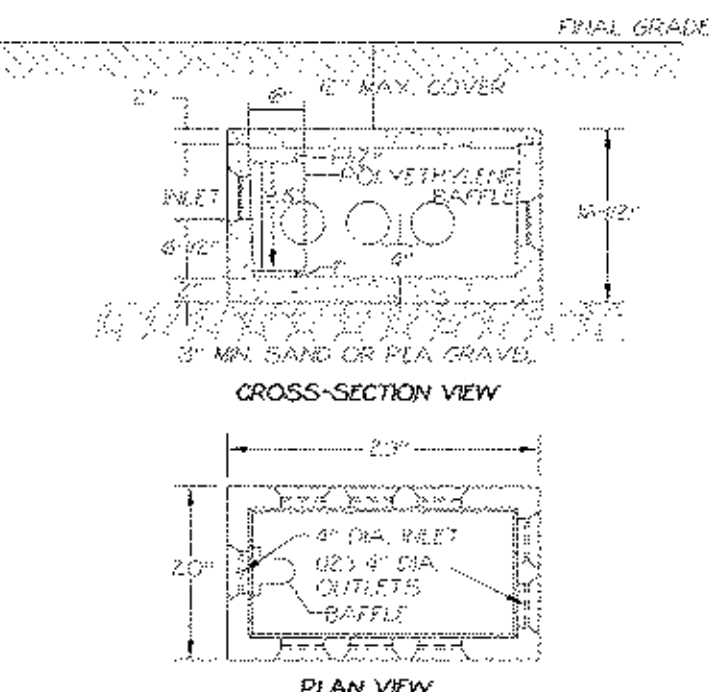
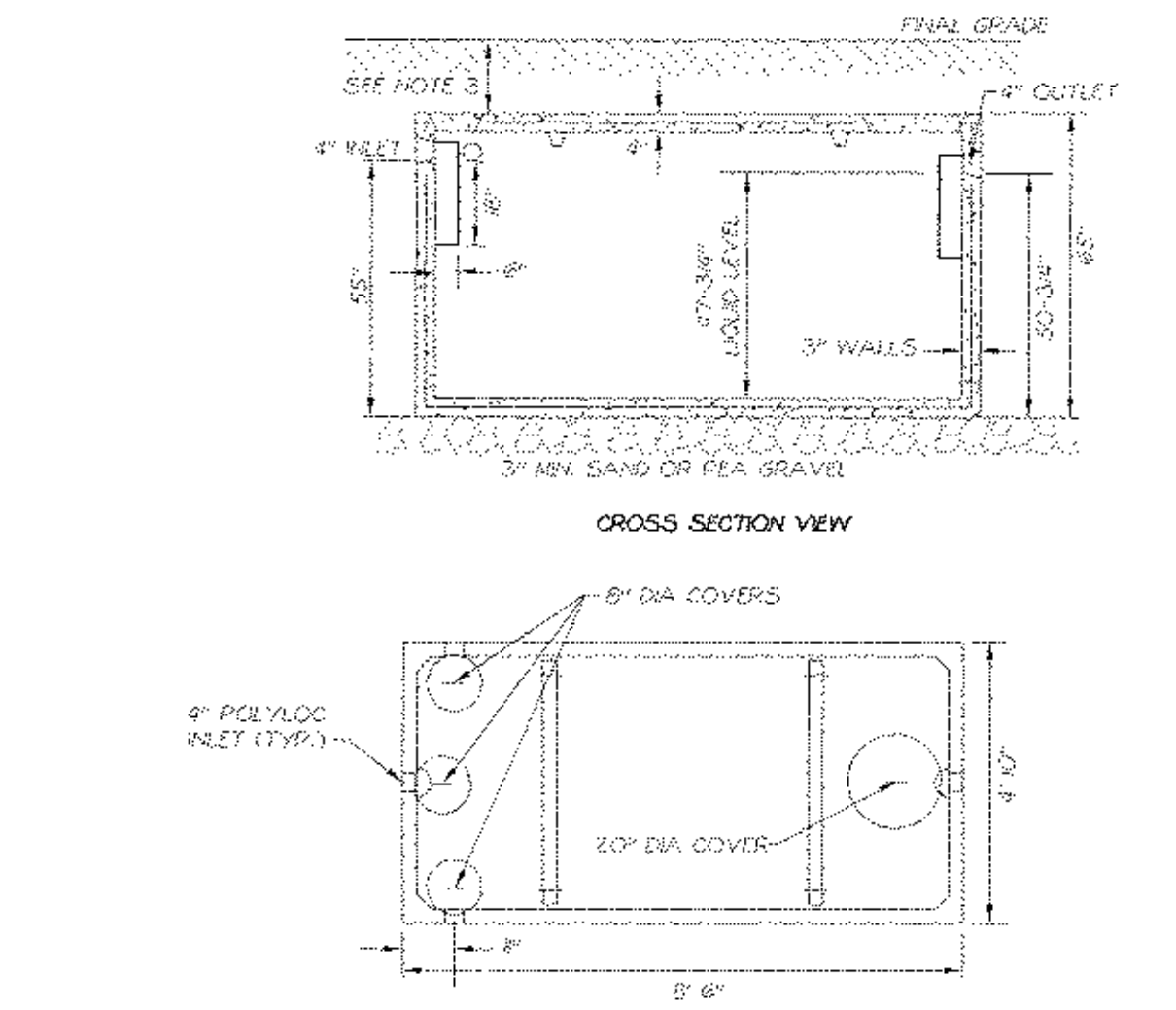
Percolation Testing Results

TEST HOLE #	A	B	C	F
TESTING DATE:	2-26-14	07-6-13	07-26-13	07-26-13
DEPTH / TESTER:	24" - LEON	24" - LEON	24" - LEON	24" - LEON
RUN 1 ELAPSED TIME:	0:12	0:40	0:40	1:57
RUN 2 ELAPSED TIME:	10:52	7:53	14:24	2:02
RUN 3 ELAPSED TIME:	15:25	2:30	14:56	2:07
RUN 4 ELAPSED TIME:	18:34		15:19	2:10
RUN 5 ELAPSED TIME:	20:24			
RUN 6 ELAPSED TIME:	20:43			
RUN 7 ELAPSED TIME:	21:19			
STABILIZED RATE:	22:00	3:00	18:00	3:00



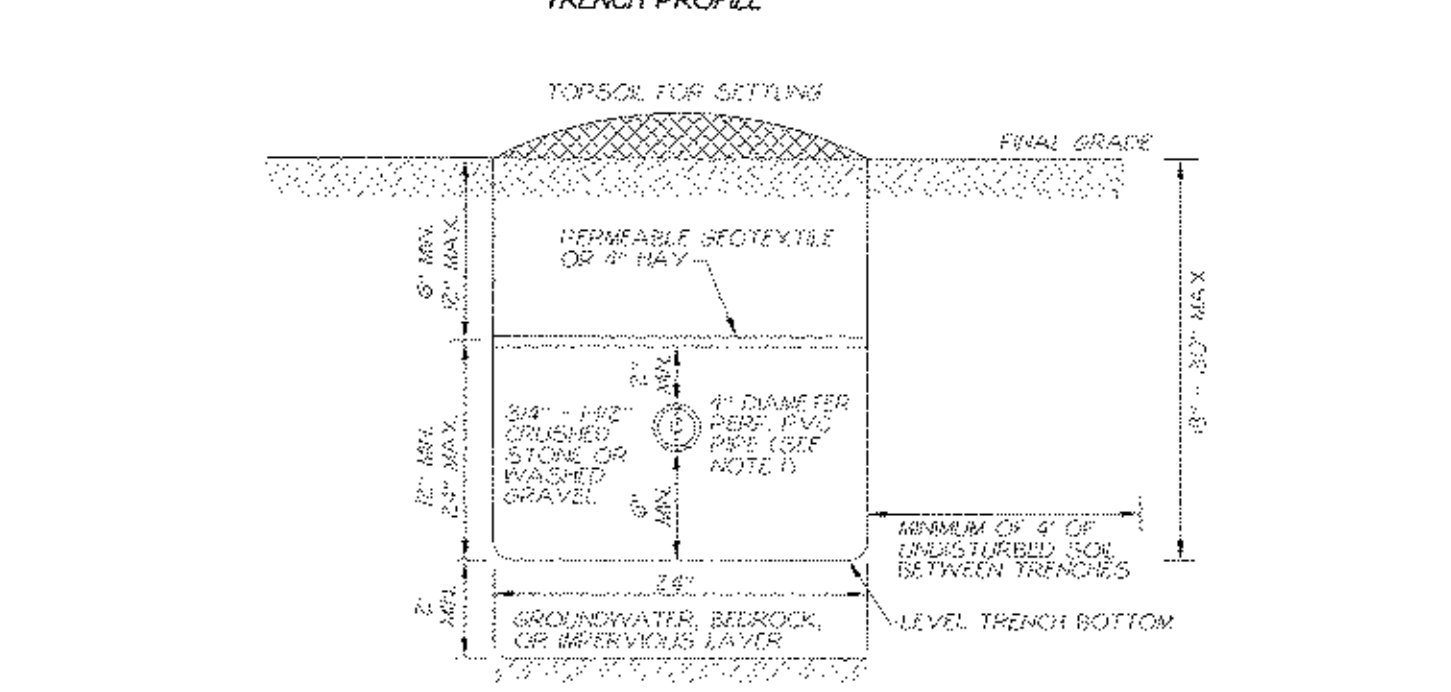
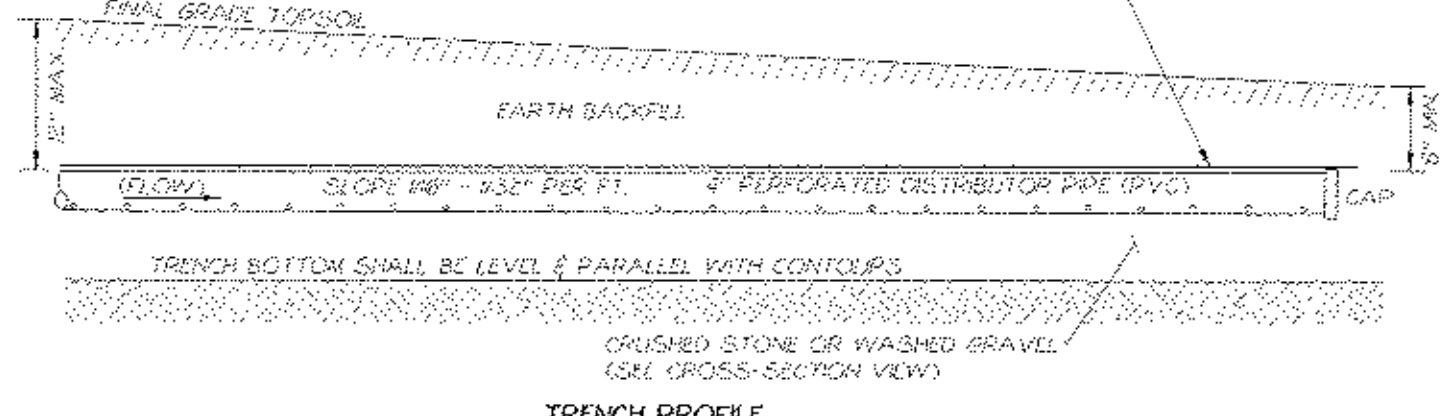
WELL NOTES:
1) WELL SHALL BE CONSTRUCTED IN ACCORDANCE WITH TABLE 8 OF THE N.Y.S. DEPARTMENT OF HEALTH APPENDIX 5-B "STANDARDS FOR WATER WELLS".
2) THE WELL CAP MUST BE A MINIMUM OF 2 FEET ABOVE THE 100 YEAR FLOOD ELEVATION.

Well Detail



DISTRIBUTION BOX NOTES:
1) THE FIRST ID OF ALL LINES LEAVING THE DISTRIBUTION BOX SHALL BE LAID AT BENTONITE SLOPE. FLOW EQUALIZERS SHALL BE USED TO ASSURE EQUAL FLOW TO EACH OUTLET PIPE. YEARLY CHECKING AND ADJUSTMENT IS RECOMMENDED.
2) ALL PIPE JOINTS (INLET & OUTLET) SHALL BE SEALED WITH ASPHALTIC MATERIAL OR EQUIVALENT.
3) FLOW EQUALIZERS MUST BE USED.
4) OUTLET INVERTS SHALL BE SET AT THE SAME ELEVATION.
5) OUTLETS MUST BE USED IN A MANNER TO ALLOW ACCESS TO THE NECESSARY NUMBER OF OUTLETS FOR THE EXPANSION AREA WITHOUT DISTURBING THE INITIAL SYSTEM.

Typical Precast Concrete Distribution Box
AS MANUFACTURED BY "WOODWARD'S CONCRETE PRODUCTS, INC.", BULLVILLE, N.Y. MODEL DB-9 (C.P. APPROVED EQUAL) NOT TO SCALE

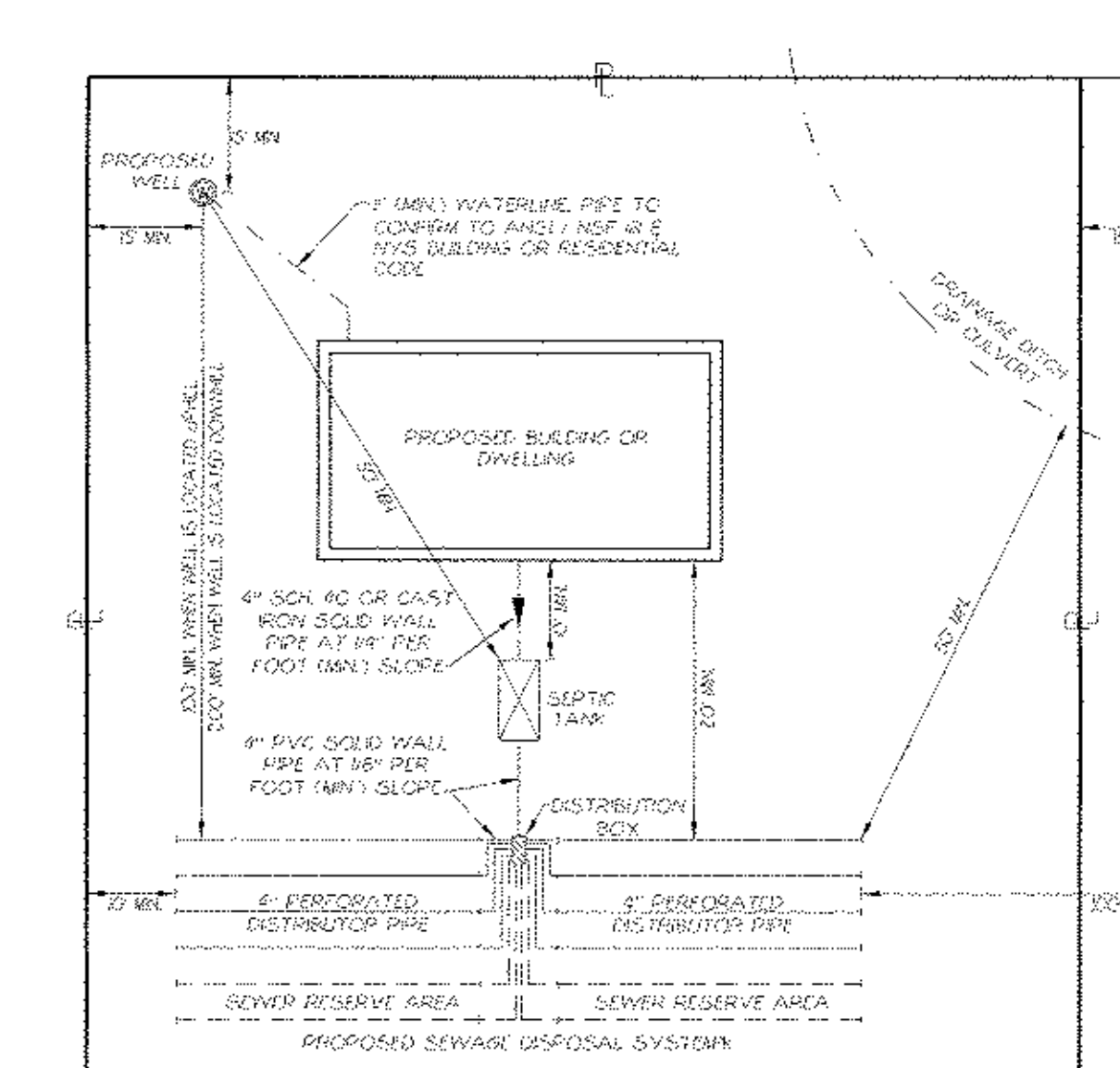


NOTES:
1) DISTRIBUTION PIPE SHALL BE INSTALLED WITH PIPE PERFORATIONS FACING DOWN.
2) DO NOT INSTALL TRENCHES IN WET SOIL. TRENCH SIDES AND BOTTOMS SHALL BE RAISED PRIOR TO INSTALLATION OF SAND.
3) THE END OF EACH LATERAL SHALL BE CAPPED.

Absorption Trench Detail

Typical Precast 1,000 Gallon Concrete Septic Tank

AS MANUFACTURED BY "WOODWARD'S CONCRETE PRODUCTS, INC.", BULLVILLE, N.Y. MODEL ST-1000 (C.P. APPROVED EQUAL) NOT TO SCALE



* THE "GENERIC PLOT PLAN" IS INTENDED FOR ILLUSTRATION PURPOSES ONLY. FOR SPECIFIC DESIGN INFORMATION ON THE PROPOSED SEWAGE DISPOSAL SYSTEM, SEE THE SEWAGE DISPOSAL SYSTEM REQUIREMENTS TABLE, DETAILS, AND NOTES ON THIS SHEET.

FEATURES	SEPTIC TANK	ABSORPTION FIELDS	SEWER PITS	SEWER LINE
DRIED WELL (PUBLIC)	100'	200'	200'	50' (A)
DRIED WELL (PRIVATE)	50'	100'	100'	50' (A)
DUG WELL	75'	150'	150'	50' (A)
WATERLINE (PRESSURE)	10'	10'	10'	10' (B)
WATERLINE (SUCTION)	50'	100'	100'	50' (A)
FOUNDATION	10'	20'	10'	
SURFACE WATER	50'	100'	100'	50'
OPEN DRAINAGE	25'	50' (C)	25' (C)	25'
CULVERT (RIGHT PIPE)	25'	25'	25'	40'
CULVERT (OPENING)	25'	50'	50'	25'
CATCH BASIN	25'	50'	50'	
INTERCEPTOR DRAIN	25'	25' (C)	25' (C)	25'
SWIMMING POOL (ON-GROUND)	20'	25'	50'	40'
RESERVOIR	50' (D)	100' (D)	100' (D)	50' (A)
PROPERTY LINE	10'	10'	10'	10'
TOP OF EMBANKMENT / STEEP SLOPE	25'	25'	25'	25'

(A) IF CAST OR DUCTILE IRON PIPE, LOCATED BELOW THE FROST ZONE, WITH TIGHT JOINTS AND NOT SUBJECT TO SETTLING, THEN USE 25'.
(B) WATER (PRESSURE) AND SEWER LINES MAY BE IN THE SAME TRENCH IF WATER LINE IS PLACED ON AN UNDISTURBED BENCH OR SHELF SO THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 15" HIGHER THAN THE TOP OF THE SEWER MAIN, AND THE SEWER MAIN IS NOT SUBJECT TO SETTLING, VIBRATION, SUPERIMPOSED LOADS, OR PROST ACTION.
(C) IF BOTTOM OF DRAIN IS ABOVE FINISHED GRADE AT LEAVING FACILITY, OTHERWISE 50'.
(D) FOR A PUBLIC WATER SUPPLY RESERVOIR, 100' TO SEPTIC TANK AND 200' TO ABSORPTION FIELD OR SEWAGE PIT.
(E) 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' AWAY FROM THE WELL.
(F) FOR ALL SYSTEMS INVOLVING THE PLACEMENT OF FILL MATERIAL, SEPARATION DISTANCES ARE MEASURED FROM THE TOP OF THE SLOPE OF THE FILL.

Minimum Separation Distances From Existing Or Proposed Features
AS PER NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION DESIGN STANDARDS FOR WASTEWATER TREATMENT WORKS - INTERMEDIATE SIZE SEWERAGE FACILITIES; 1988 EDITION

Notes:

- PIPE JOINTS TO BE SEALED WITH ASPHALTIC MATERIAL OR EQUIVALENT.
- ALL 6" OUTLET PIPES (SOLID WALL) LEAVE DISTRIBUTION BOX AT SAME ELEVATION ON A MINIMUM SLOPE OF 1/8" PER FOOT UP TO A DISTRIBUTOR LATERAL.
- SEWAGE DISPOSAL SYSTEMS LOCATED OF NECESSITY UPGRADE IN THE GENERAL PATH OF DRAINAGE TO A WELL MUST BE SPACED 200' OR MORE AWAY.
- NO DRIVEWAY, ROADWAY, PARKING AREA OR ABOVE GROUND SWIMMING POOL IS TO BE CONSTRUCTED OVER ANY PORTION OF THE SEWER SYSTEM. HEAVY EQUIPMENT SHALL BE KEPT OUT OF THE ABSORPTION FIELD AREA.
- ALL DISTRIBUTOR LINES (PERFORATED) SHALL BE OF EQUAL LENGTH (60' MAX.).
- ALL TREES TO BE CUT & REMOVED FROM SEWAGE DISPOSAL AREA IN A MANNER THAT WILL NOT DISTURB THE VIRGIN SOIL LAYER.
- MAXIMUM GROUND SLOPE OF TILE FIELD AREA SHALL NOT EXCEED 15%.
- NO BASEMENT FIXTURES ARE PERMITTED WITHOUT A SPECIAL DESIGN FOR SEWAGE DISPOSAL.
- NO COMPONENT PART OF ANY SEWAGE DISPOSAL SYSTEM SHALL BE LOCATED OR MAINTAINED WITHIN 100' OF ANY SPRING, RESERVOIR, BROOK, MARSH OR ANY OTHER BODY OF WATER.
- NO ROOF, CELLAR OR FOOTING DRAINS ARE TO BE DISCHARGED IN THE SEWAGE DISPOSAL SYSTEM.
- SPEED LEVELERS SHALL BE USED FOR SYSTEMS WHOSE SIDE SLOPES ARE BETWEEN 10-15% AND ARE RECOMMENDED FOR ALL SYSTEMS.
- SLOPE BETWEEN SEPTIC TANK OR PUMPING CHAMBER AND THE HOUSE SHALL BE POSITIVE AND UNINTERRUPTED, AS TO ALLOW SEPTIC GASSES TO DISCHARGE THROUGH THE STACK VENT.
- HOUSE SEWER PIPE RUNNING FROM THE HOUSE TO THE SEPTIC TANK MUST BE LAID ON SUITABLY COMPACTED EARTH OR VIRGIN SOIL WITH THE FIRST WATERTIGHT JOINT LOCATED AT LEAST 3' FROM THE HOUSE.

Sewage Disposal System Requirements

LOT NUMBER	DESIGN STABILIZED PERCOLATION RATE (GPD)	TYPE OF SYSTEM	DESIGN FLOW RATE (GPD)	MIN. LENGTH OF ABSORPTION TRENCH (FEET)	PROPOSED LENGTH OF ABSORPTION TRENCH (FEET)	SEWAGE DISPOSAL SYSTEM DESIGN	SEPTIC TANK (SEE TABLE)
1	2200	A.T.	490 GPD	367	385	7 x 35 LF.	1250
3	4000	A.T.	440	35	350	6 x 35 LF.	1250

** THE PROPOSED TWO-FAMILY DWELLING ON LOT 1 CONTAINS A THREE (3) BEDROOM UNIT AND A ONE (1) BEDROOM UNIT

MNTM
Mercurio-Norton-Tarolli-Marshall
ENGINEERING - LAND SURVEYING
PO Box 166, 45 Main Street, Pine Bush, NY 12566
P: (845)744.3620 F:(845)744.3805 Email: mnt-pc@mnt-pc.com

NO SITE PREPARATION OR CONSTRUCTION, INCLUDING UTILITY CONNECTIONS, SHALL COMMENCE UNTIL A VALID HIGHWAY WORK PERMIT HAS BEEN SECURED FROM THE ORANGE COUNTY DEPARTMENT OF PUBLIC WORKS UNDER SECTION 116 OF THE HIGHWAY LAW.

Well & Sewage Disposal System Details
for lands of
Antonino Cassara

OWNER: ANTONINO CASSARA 442 FOSTERTOWN ROAD NEWBURGH, NY 12550
DEED REFERENCE: LIBER 1878V PAGE 680
TAX MAP REFERENCE: SECTION 17, BLOCK 2, LOT 3212
LOT 3, FILED MAP NO. 20-93

Situate in the Town of Newburgh
Orange County, New York State
February 2014

LAWRENCE MARSHALL PE #08707
DRAFTED BY: ZAP
PROJECT: 2766 SHEET 2 OF 2