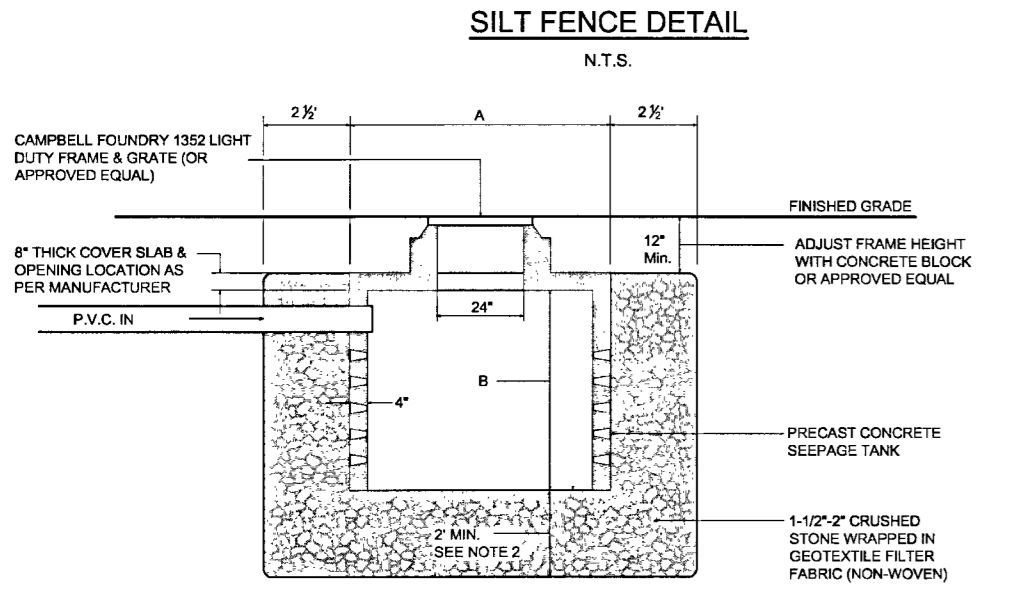


REQUIREMENTS FOR SILT FENCE:

1. FENCE POSTS SHALL BE SPACED 8 FEET CENTER-TO-CENTER OR CLOSER. THEY SHALL EXTEND AT LEAST 2 FEET INTO THE GROUND AND EXTEND AT LEAST 2 FEET ABOVE GROUND. POSTS SHALL BE CONSTRUCTED OF HARDWOOD WITH A MINIMUM DIAMETER THICKNESS OF 1 1/2 INCHES.
2. A METAL FENCE, WITH 4 INCH OR SMALLER OPENINGS AND AT LEAST 2 FEET HIGH MAY BE UTILIZED, FASTENED TO THE FENCE POSTS, TO PROVIDE REINFORCEMENT AND SUPPORT TO THE GEO-TEXTILE FABRIC WHERE SPACE FOR OTHER PRACTICES IS LIMITED AND HEAVY SEDIMENT LOADING IS EXPECTED.
3. A GEO-TEXTILE FABRIC, RECOMMENDED FOR SUCH USE BY THE MANUFACTURER, SHALL BE BURIED AT LEAST 6 INCHES DEEP IN THE GROUND. THE FABRIC SHALL EXTEND AT LEAST 2 FEET ABOVE THE GROUND. THE FABRIC MUST BE SECURELY FASTENED TO THE POSTS USING A SYSTEM CONSISTING OF METAL FASTENERS (NAILS OR STAPLES) AND A HIGH STRENGTH REINFORCEMENT METAL (NYLON WEBBING, GROMMETS, WASHERS, ETC.) PLACED BETWEEN THE FASTENER AND THE GEO-TEXTILE FABRIC. THE FASTENING SYSTEM SHALL RESIST TEARING AWAY FROM THE POST. THE FABRIC SHALL INCORPORATE A DRAWSTRING IN THE TOP PORTION OF THE FENCE FOR ADDED STRENGTH.

MAINTENANCE

1. SILT FENCE SHALL BE INSPECTED AFTER EVERY RAIN EVENT. ANY DAMAGE MUST BE REPAIRED IMMEDIATELY.
2. SEDIMENT AND DEBRIS SHALL BE REMOVED FROM THE UPSTREAM SIDE OF THE SILT FENCE WHEN IT ACCUMULATES TO THE EXTENT THAT VISIBLE BULGES DEVELOP IN THE FENCE OR REACHES HALFWAY UP THE FENCE.
3. SILT FENCE SHALL ONLY BE REMOVED AFTER VEGETATIVE GROWTH OR OTHER STABILIZATION MEASURES HAVE BEEN ACHIEVED.



INLET SCHEDULE

INLET NO.	INLET SIZE (CONCRETE BLOCK)	FRAMES & GRATE (IN)	FRAMES & GRATE (OUT)
1	24"	20"	30W"

VOLUME OF DETENTION

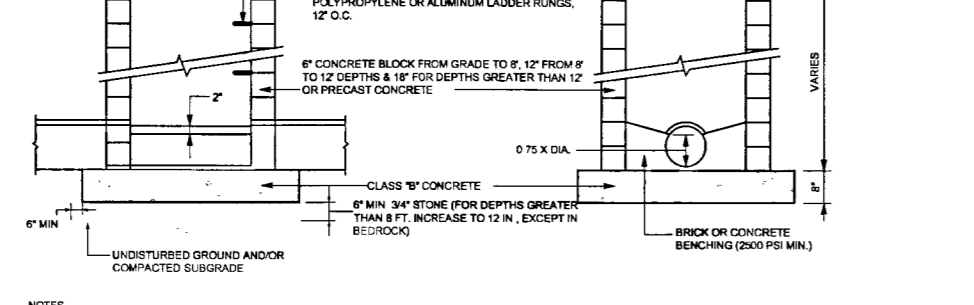
TYPE OF STORAGE	VOLUME
Storm	728
Flow	480
Filter	100
TOTAL PROVIDED	1308

TANK SPECIFICATIONS

Group	Shape	# Tanks	Vol/Tank	Volume
A	Rect	3	364	1092
B	Rect	2	364	728

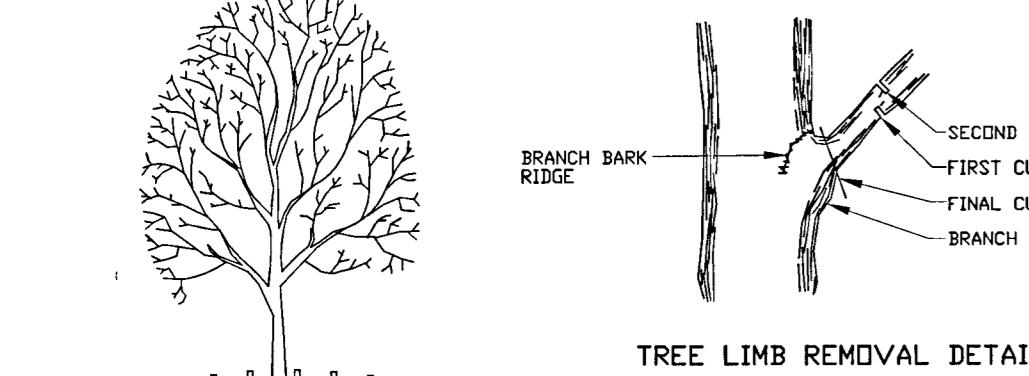
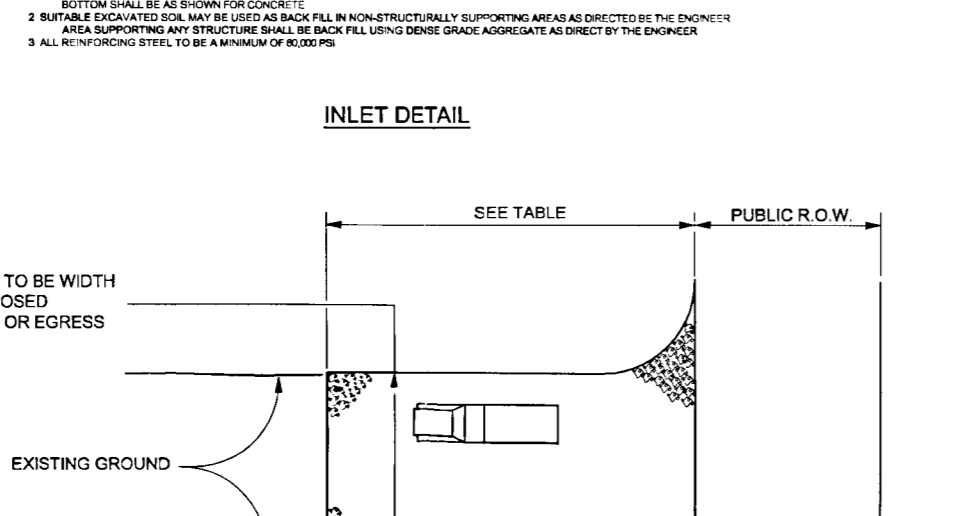
STONE VOLUME

L	W	D	Tank	Vol	#Tanks	Volume
12	12	18	364	18,432	2	36,864



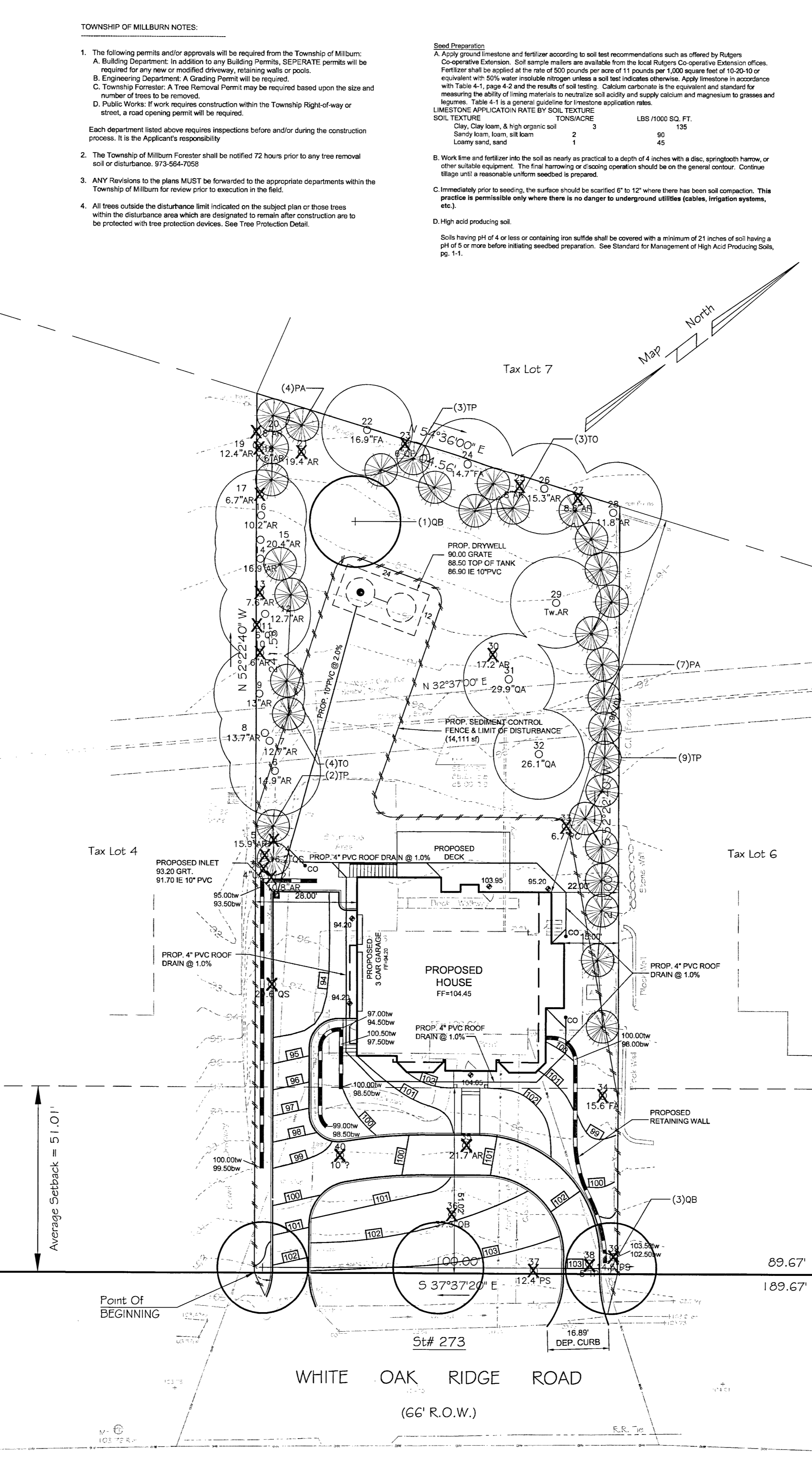
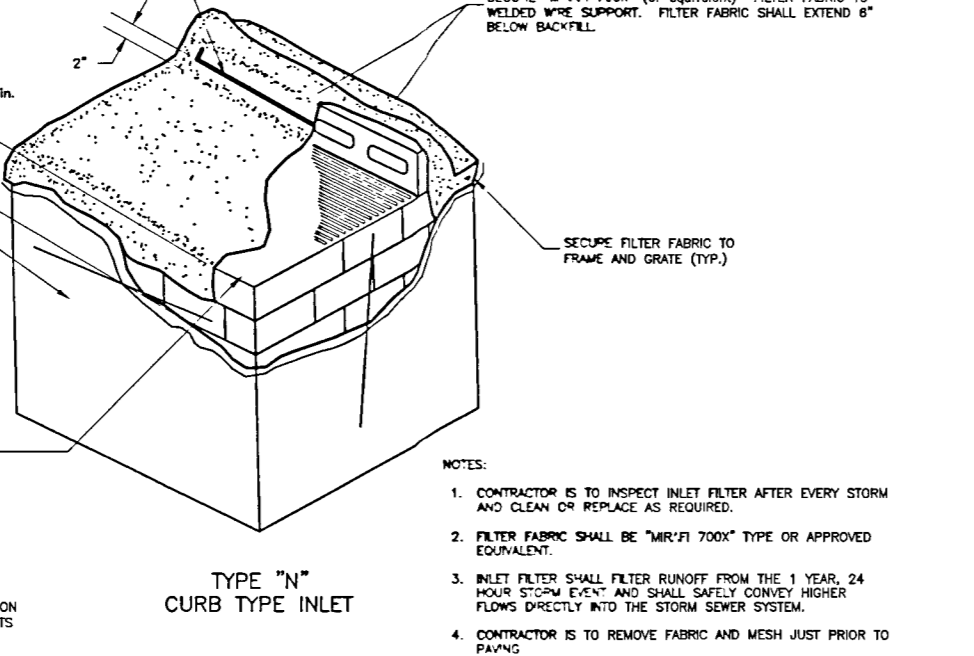
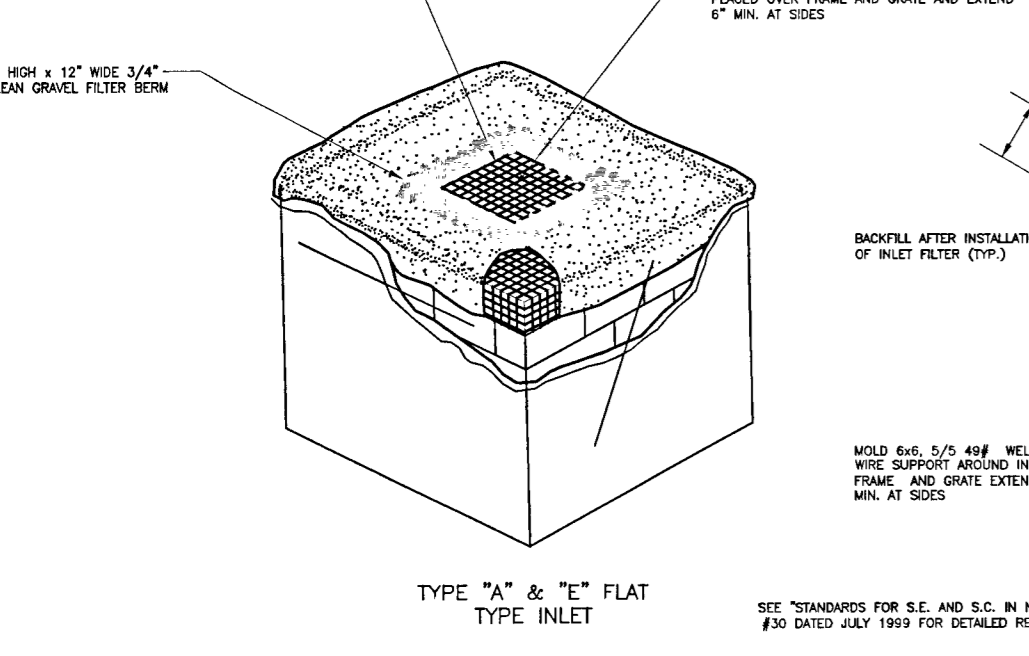
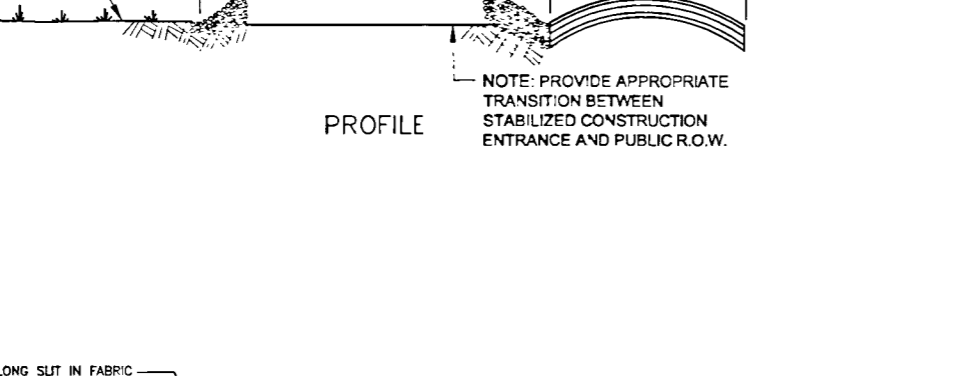
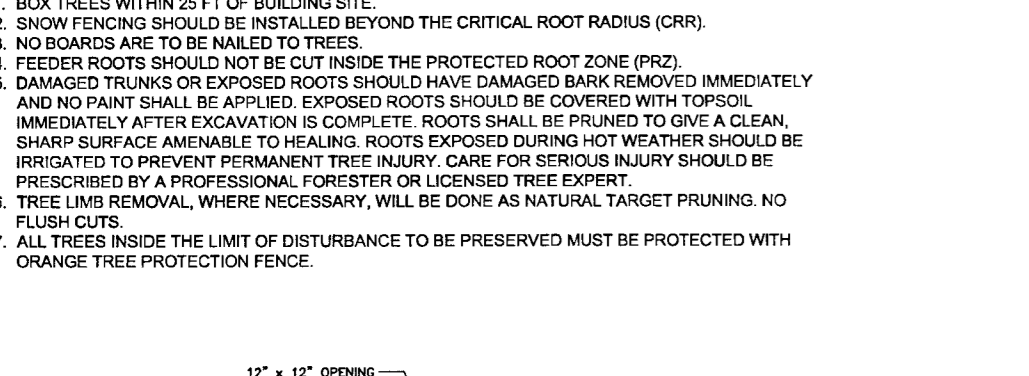
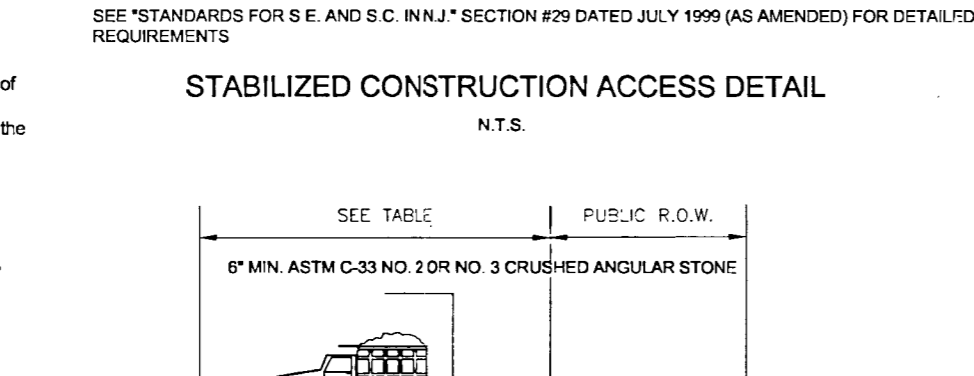
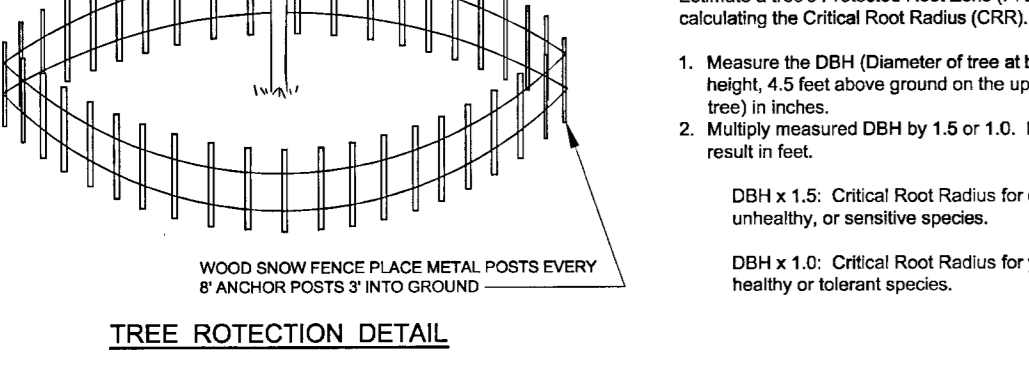
DRYWELL NOTES:

1. CONTRACTOR SHALL NOTIFY THE ENGINEER WHEN EXCAVATING THE DRYWELL. THE ENGINEER SHALL BE NOTIFIED TO DETERMINE THE SUITABILITY OF THE SOILS AND DEPTH OF WATER TABLE BEFORE PROCEEDING WITH CONSTRUCTION.
2. UNDESIRABLE MATERIAL SHALL BE REMOVED FROM EXCAVATION FREQUENTLY TO PREVENT PENETRATION INTO MAINSTREAM OF SAND/GRAVEL/PERVIOUS SOIL.
3. LOCATION OF THE DRYWELL AND ONSCREEN PIPE ARE APPROXIMATE ONLY. THEIR LOCATION MAY BE ADJUSTED IN THE FIELD TO ACCOMMODATE SURFACE AND SUBSURFACE CONDITIONS.
4. ALL UNDERGROUND PIPES SHALL BE MINIMUM SCHEDULE 40 PVC.
5. THE ONSCREEN PIPE SHALL BE MINIMUM SCHEDULE 40 PVC TO ANY SURFACE OR SUB- SURFACE CONDITIONS THAT MAY BE ENCOUNTERED IN THE FIELD.
6. THE OVERFLOW PIPE SHALL BE BACKFILLED IN ACCORDANCE WITH MUNICIPAL REQUIREMENTS. BACKFILL MATERIAL SHALL BE CLEAN AND FREE OF VEGETATION, ROCKS, COBBLES, Boulders, OR OTHER UNSATISFACTORY MATERIALS.



PERCENT SLOPE OF ROADWAY

PERCENT SLOPE OF ROADWAY	COURSE GRAINED SOILS	FINE GRAINED SOILS
0 TO 2%	50 FT.	100 FT.
2 TO 5%	100 FT.	200 FT.
> 5%	ENTIRE SURFACE STABILIZED WITH FABRIC BASE COURSE	



STANDARD FOR STABILIZATION WITH MULCH ONLY

Definition: Stabilizing exposed soils with non-vegetative materials exposed for periods longer than 14 days.

Purposes: To protect exposed soil surfaces from erosion damage and to reduce offsite environmental damage.

Water Quality Enhancement: Provides temporary mechanical protection against wind or rainfall induced soil erosion until permanent vegetative cover may be established.

When Applicable: This practice is applicable to areas subject to erosion, where the season and other conditions may not be suitable for growing an erosion-resistant cover or where stabilization is needed for a short period and more stable protection can be applied.

Methods and Materials:

1. Site Preparation
 - A. Grass as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. All practices should be done in accordance with Standards for Land Grading.
 - B. Install needed erosion control practices such as diversions, grass stabilization structures, channel stabilization measures, sediment basins, and waterways. See Standards 11 through 42.
2. Protective Materials
 - C. Unrotted small-grain straw, at 2.0 to 2.5 tons per acre, is spread uniformly at 90 to 115 pounds per 1,000 square feet and anchored with a mulch anchoring tool liquid mulch solutions, or netting for snow. Other suitable materials may be used if approved by the Soil Conservation District. The approved rates above have been met when the mulch covers the ground completely upon visual inspection. (The inspector cannot see the ground beneath the mulch.)
 - D. Synthetic or organic soil stabilizers may be used under suitable conditions and in quantities as recommended by the manufacturer.
 - E. Woodchips or paper floor mulch at the rate of 1,500 pounds per acre (or according to the manufacturer's requirements) may be applied by a hydroseeder.
 - F. Mulch netting, such as paper jute, excelsior, cotton, or plastic, may be used.
 - G. Woodchips applied uniformly to a minimum depth of 2 inches may be used. Woodchips will not be used on areas where flowing water could wash them into an inlet and plug it.
 - H. Gravel, crushed stone, or slag at the rate of 8 cubic yards per 1,000 sq. ft. applied uniformly to a minimum depth of 3 inches may be used. Size 2 or 3 ASTM C-33 is recommended.
3. Mulch Anchoring - should be accomplished immediately after placement of hay or straw mulch to minimize loss by wind or water.
 - I. Mulch Netting - Strips paper, cotton, or plastic netting over mulch. Use degradable netting in areas to be mowed. Netting is usually available in 6 to 8 feet wide and up to 300 feet long.
 - J. Clipped Mulch Anchoring Cultivar Tool - A tractor-drawn implement especially designed to punch and anchor mulch into the soil surface. The practice affords maximum erosion control, but its use is limited to areas where the ground is relatively firm and the soil is not too wet. An operator should be about 3 to 4 inches. On steeply sloping areas, the operator should be on the uphill side.
 - K. Liquid Mulch-Binders
4. Applications should be heavier at edges where wind catches the mulch, in valleys, and at crests of banks. Remainder of area should be uniform in appearance.
5. Use one of the following:
 - a. Organic and Vegetable Based Binders - Naturally occurring, powder based, hydrophilic materials that react with water to form a gel and when applied to mulch under unfavorable curing conditions form a membrane network of moisture polymeric. The vegetation gel should be physiologically harmless and not result in a phytotoxic effect or impede growth of surface vegetation. Vegetable based gels shall be applied after a rain or weather conditions recommended by the manufacturer and remain tacky until germination of grass.
 - b. Synthetic Binders - High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied in areas and weather conditions recommended by the manufacturer and remain tacky until germination of grass.

TEMPORARY VEGETATIVE STABILIZATION GRASSES:

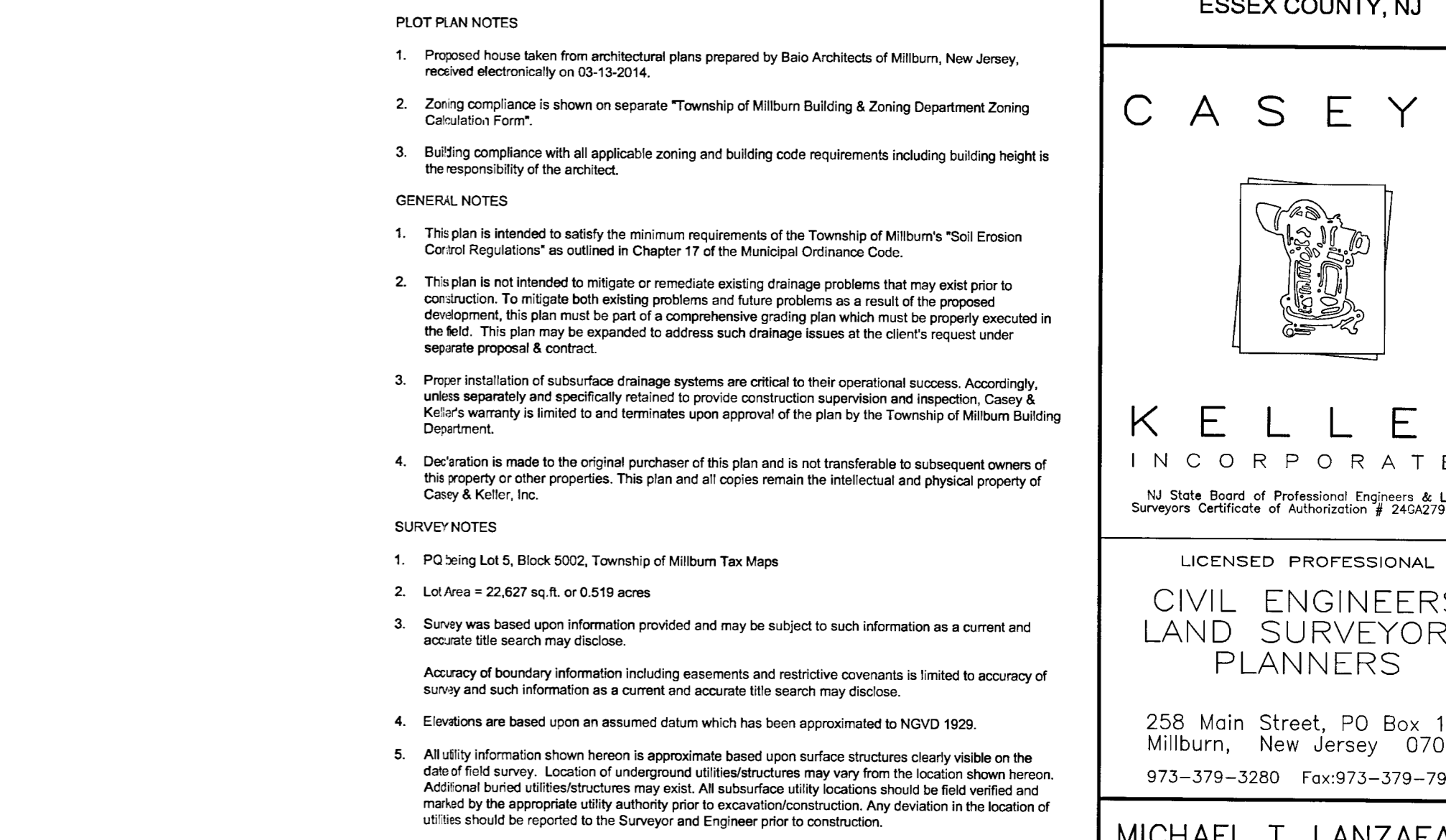
SEED SELECTIONS	SEEDING RATE (LBS/1000 SQ. FT.)	OPTIMUM SEEDING DATE (ON BASIS OF PLANT HARDINESS ZONE)	OPTIMUM SEEDING DEPTH (IN)
PERENNIAL RHYZOMES	40	3/15-6/1	0.5
SPRING GRASSES	20	3/15-6/1	0.5
WINTER GRASSES	20	6/15-10/1	1.0
PERMANENT VEGETATIVE COVER			
PERENNIAL RHYZOMES	40	3/15-6/1	0.5
SPRING GRASSES	20	3/15-6/1	0.5
WINTER GRASSES	20	6/15-10/1	1.0
PERMANENT VEGETATIVE COVER			
PERENNIAL RHYZOMES	40	3/15-6/1	0.5
SPRING GRASSES	20	3/15-6/1	0.5
WINTER GRASSES	20	6/15-10/1	1.0

PERMANENT VEGETATIVE COVER:

APPLICATION	SEED SELECTIONS	SEEDING RATE (LBS/1000 SQ. FT.)	LATEST DATE (MAY/AN)	FERTILIZER (LBS/1000 SQ. FT.)	OPTIMUM SEEDING DATE
RESIDENTIAL/COMMERCIAL LOTS	TURF-TYPE TALL FESCUE	100	2	90-10-20-10	3/1-4/30 & 6/15-10/15
DRAINAGE DITCHES	HEED CANARY GRASS	25	3	90-10-20-10	3/1-4/30 & 6/15-10/15
DRAINAGE AND DETENTION BASINS	HEED KENTUCKY BLUEGRASS	80	3	90-10-20-10	3/1-4/30 & 6/15-10/15

GENERAL NOTES:

1. SECOND RATE FOR WINTER GRASS SELECTIONS SHALL BE ADJUSTED TO REFLECT THE AMOUNT OF PURE LIVE SEED (PLS) AS DETERMINED BY A GERMINATION TEST RESULT. NO ADJUSTMENT IS REQUIRED FOR SPRING GRASSES.
2. SEEDS MAY BE PLANTED THROUGHOUT SEASON, IF SOIL MOISTURE IS ADEQUATE OR SEEDS ARE CANE IRRIGATED.
3. TWICE THE DEPTH FOR SANDY SOILS.



Plant List

Key	Quan	Botanical Name	Common Name	Size	Root	Comments
PA	11	Picea abies	Norway Spruce	7'-8"	B&B	
OB	4	Quercus bicolor	Swamp White Oak	2.5'-3' Cal.	B&B	
TO	7	Thuja spp. 'Elegantissima'	Elegantissima Arborvitae	7'-8"	B&B	
TP	13	Thuja plic. 'Green Giant'	Green Giant Arborvitae	7'-8"	B&B	

35 Replacement Trees Required
35 Replacement Trees Provided

REVISIONS

NO.	DESCRIPTION	DATE
1	Landscaping Design Added	12-8-15

Scale: 1" = 20'

Michael T. Lanzafama
NJ State Board of Professional Engineers & Land Surveyors Certificate of Authorization # 240227985-00

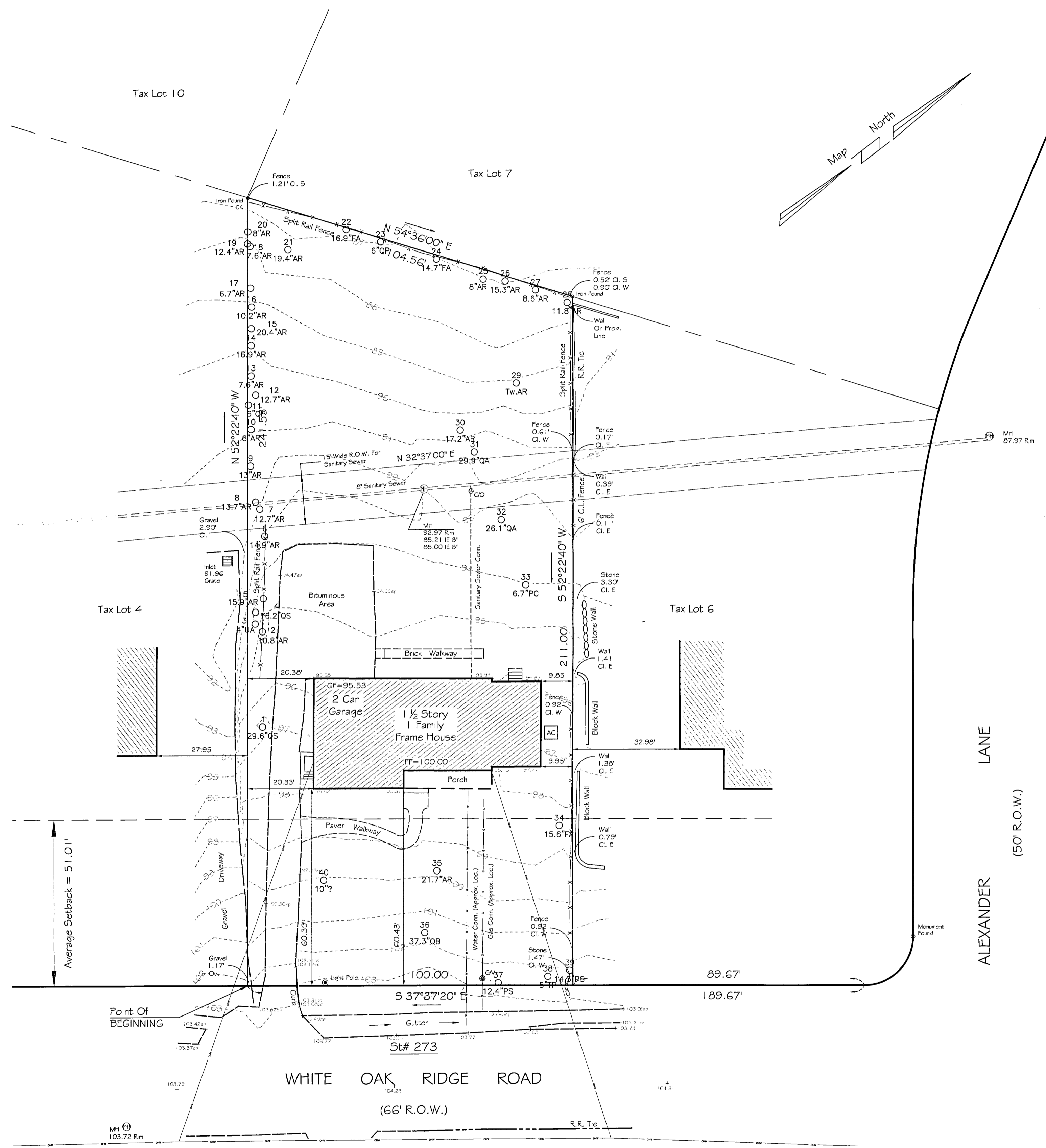
MICHAEL T. LANZAFAMA
DATE: 10-17-13
New Jersey Professional Engineer/Surveyor No. 30084
New Jersey Professional Land Surveyor No. 33533

MTL **FM**
CHK. BY **DRWN. BY**

REFERENCE: 1631 MAP NO. 1130908
JOB NO. 12-8-15

FIELD BOOK: 361-144
SCALE: 1" = 20'

1

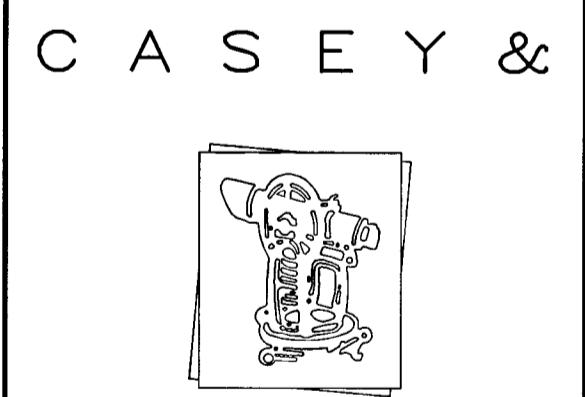


EXISTING TREE INVENTORY					
No.	DBH	Tree Type	Condition	Status	Replacement Comment
1	29.6"	Oak	Good	TBR	7
2	10.8"	Red Maple	Fair	TBR	1 Twin 3" Other
3	4"	Elm	Fair	TBR	0 Undersized
4	16.2"	Oak	Fair	TBR	3
5	15.9"	Red Maple	Fair	TBR	2
6	14.9"	Red Maple	Fair	To Remain	Funny Crotch @ 10'
7	12.7"	Red Maple	Fair	To Remain	Twin 6" Other Very Poor
8	13.7"	Red Maple	Fair	To Remain	Old Multi, Rotten
9	13"	Red Maple	Fair	To Remain	
10	6"	Red Maple	Fair	TBR	0 Undersized
11	6"	Pin Oak	Fair	TBR	0 No Leader, Undersize
12	12.7"	Red Maple	Fair	To Remain	
13	7.6"	Red Maple	Fair	TBR	0 Undersize
14	16.9"	Red Maple	Fair	To Remain	Leaning
15	20.4"	Red Maple	Poor	To Remain	Heavy Vines
16	10.2"	Red Maple	Fair	To Remain	Vines
17	7.6"	Red Maple	Fair	TBR	0 Undersize
18	6.7"	Red Maple	Very Poor	TBR	0 Severe Bark Damage/Exempt
19	12.4"	Red Maple	Fair	To Remain	
20	8"	Red Maple	Poor	TBE	0 Broken Leader, Pl, Undersize
21	19.4"	Red Maple	Very Poor	TBR	0 Hollow, Hazard, Exempt?
22	16.9"	Ash	Fair	To Remain	
23	6"	Pin Oak	Poor	TBR	0 Crotch @ 6', Undersize
24	14.7"	Ash	Average	To Remain	
25	8"	Red Maple	Fair	TBR	Undersize
26	15.3"	Red Maple	Fair	To Remain	Poison Ivy
27	8.6"	Red Maple	Fair	TBR	1 Sided, Undersize
28	11.6"	Red Maple	Good	To Remain	Vines
29	19.8/10.8"	Red Maple	Fair	To Remain	Suspect Trunk Issues
30	17.2"	Red Maple	Very Poor	TBR	0 Rotten, Hazard, Exempt?
31	29.9"	White Oak	Good	To Remain	
32	26.1"	White Oak	Good	To Remain	
33	6.7"	Pear	Poor	TBR	0 Undersized
34	15.6"	Ash	Fair	TBR	2
35	21.7"	Red Maple	Fair	TBR	5 Lots Of Suckers
36	37.3"	Red Oak	Good	TBR	10
37	12.4"	White Pine	Poor	TBR	2 High Branched, Thin
38	5"	Arborvitae	Average	TBR	0 Undersized
39	14.3"	White Pine	Poor	TBR	2 High Branched, Thin
40	10"	Unknown	Good	TBR	1 Already Removed
					35 Required Replacements

- NOTES
- PO BEING LOT 5, IN BLOCK 5002, AS SHOWN ON TOWNSHIP OF MILLBURN TAX MAPS.
 - PO ALSO BEING KNOWN AS LOT 3, BLOCK 386A AS SHOWN ON A MAP ENTITLED "MAP OF ALEXANDER PARK" FILED IN THE ESSEX COUNTY REGISTER'S OFFICE ON JANUARY 7, 1952 AS MAP# 2258.
 - LOT AREA = 22,627 SF. OR 0.519 AC.
 - ELEVATIONS BASED UPON AN ASSUMED SURVEY DATUM.
 - UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE BASED UPON SURFACE STRUCTURES VISIBLE ON THE DATE OF FIELD SURVEY. LOCATION OF UNDERGROUND UTILITIES/STRUCTURES MAY VARY FROM LOCATION SHOWN HEREON. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED. ALL SUBSURFACE UTILITY LOCATIONS SHOULD BE VERIFIED AND FIELD MARKED BY APPROPRIATE UTILITY AUTHORITY PRIOR TO EXCAVATION/CONSTRUCTION. ANY DEVIATION IN LOCATION OF UTILITIES SHOULD BE REPORTED TO SURVEYOR AND ENGINEER PRIOR TO CONSTRUCTION.
 - EXCEPT AS SPECIFICALLY STATED OR SHOWN ON THIS PLAN, THIS SURVEY DOES NOT PURPORT TO REFLECT ANY OF THE FOLLOWING WHICH MAY BE APPLICABLE TO THE SUBJECT REAL ESTATE: EASEMENTS, OTHER THAN POSSIBLE EASEMENTS WHICH WERE VISIBLE ON THE DATE OF FIELD SURVEY; BUILDING SETBACK LINES; RESTRICTIVE COVENANTS; SUBDIVISION RESTRICTIONS; ZONING OR OTHER LAND USE REGULATIONS; AND ANY OTHER FACTS SUCH THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.
 - A WRITTEN WAIVER AND DIRECTION NOT TO SET CORNER MARKERS HAS BEEN OBTAINED FROM THE ULTIMATE USER PURSUANT TO P.L. 2003, c. 14 (N.J.S.A. 45:8-36.3) AND N.J.A.C. 13:40-5.1(i).
 - DECLARATION IS MADE TO THE ORIGINAL PURCHASER OF THIS SURVEY. IT IS NOT TRANSFERABLE TO OTHER INSTITUTIONS OR SUBSEQUENT OWNERS.

This Survey is Certified To:
 273 WHITE OAK LLC
 RONALD ZEMEL
 PROGRESSIVE TITLE AGENCY, INC. its successors and/or assigns
 BUFFER GROUP, INC.
 TODD CONN, ESQ.

TITLE &
 TOPOGRAPHIC
 SURVEY
 273 WHITE OAK RIDGE ROAD
 TAX LOT 5, BLOCK 5002
 TOWNSHIP OF MILLBURN
 ESSEX COUNTY, NJ

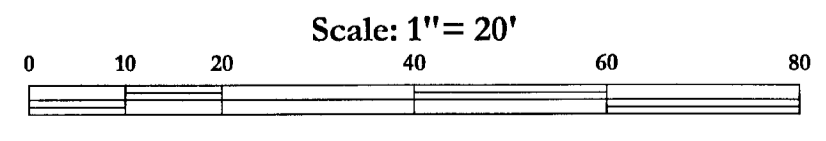


KELLER
 INCORPORATED
 NJ State Board of Professional Engineers & Land
 Surveyors Certificate of Authorization # 240A27855400
 LICENSED PROFESSIONAL
 CIVIL ENGINEERS
 LAND SURVEYORS
 PLANNERS

258 Main Street, PO Box 191
 Millburn, New Jersey 07041
 973-379-3280 Fax: 973-379-7993

MICHAEL T. LANZAFAMA
 New Jersey Professional Engineer License No. 30054
 New Jersey Professional Land Surveyor License No. 03503

REFERENCE	MTL	PM
MAP NO.	CHK. BY	DRAWN BY
1631	361-144	DWG. NO.
1130908	FIELD BOOK	1
1130908	1" = 20'	SCALE
1	Tree Inventory Added	12-15



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