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Principal Emeritus: RICHARD D. McGOEY, P.E. (NY & PA) WILLIAM J. HAUSER, P.E. (NY, NJ & PA)

TOWN OF NEWBURGH PLANNING BOARD **TECHNICAL REVIEW COMMENTS**

PROJECT:

LANDS OF WESTPORT MANAGEMENT

PROJECT NO.:

2015-12

PROJECT LOCATION:

SECTION 47, BLOCK 1, LOT 70

REVIEW DATE:

30 NOVEMBER 2015

MEETING DATE:

3 DECEMBER 2015

PROJECT REPRESENTATIVE: MERCURIO-NORTON-TAROLLI-MARSHALL

- 1. Plans have been revised pursuant to a field meeting with representatives of this office, Jim Osborne and the Applicants Engineer. Site distance improvements including removal of several trees within the proposed right of way as well as existing dead tree limbs have been noted on the plans. Condition of approval should be that existing tree removal and limbs should be removed prior to filing of the subdivision map.
- 2. A catch basin and pipe has been proposed at the intersection at the common driveways to positively convey runoff across Gardnertown Road in direction of the stream. An easement should be provide in favor of the Town for that portion of the pipe which is outside the proposed right of way.
- 3. Common driveway access and maintenance should be reviewed by Mike Donnelly's office.
- 4. A Public Hearing is required for the project.
- 5. This office would recommend a Negative Declaration based on a review of the plans, reports and information provided.

Respectfully submitted,

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

Patrick J. Hines Principal



45 Main Street · P.O. Box 166 Pine Bush, New York 12566

Tel: (845) 744-3620 Fax: (845) 744-3805

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William G. Norton, L.S. Alphonse Mercurio, L.S.

Lawrence J. Marshall, P.E. John Tarolli, P.E., L.S.

Zachary A. Peters, P.E. Kenneth W. Vriesema, L.S.

November 12, 2015

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

Re: Job No. 3882

Lands of Westport Management, LLC

Tax Map Parcel: 47-1-70

Town of Newburgh, Gardnertown Road

4-Lot Residential Subdivision

Town of Newburgh Project #2015-12

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. Twelve (12) copies of the revised Project Narrative
- 3. Twelve (12) copies of the Stormwater Pollution Prevention Plan (SWPPP)

The following comments are in response to a review by Patrick Hines of McGoey, Hauser, & Edsall Consulting Engineers dated November 4, 2015:

1. The site plan has been revised to show a proposed catch basin and culvert under Gardnertown Road at the location of the proposed common driveways as per comments raised at a field meeting with the Planning Board Engineer, Patrick Hines, and Town Engineer, James Osbourne, P.E..

The following comments are in response to a review by Patrick Hines of McGoey, Hauser, & Edsall Consulting Engineers dated June 12, 2015:

- 1. A variance for the front yard setback for the existing dwelling on Lot 1 was granted by the Town of Newburgh Zoning Board of Appeals (ZBA) on October 22, 2015. A note has been added to the Zoning Legend on sheets 1 and 2 to this regard.
- 2. The existing barn on Lot 2 will be removed.
- 3. As described above, the plans have been revised to show a proposed catch basin and culvert under Gardnertown Road to convey runoff from the common driveways.
- 4. Common driveway agreements are being prepared by the applicant's attorney and will be submitted for review as soon as they have been completed.
- 5. We have reviewed the June 18, 2015 letter from the Planning Board Attorney regarding the portion of the ± 3.3 acre portion of tax parcel 47-1-70 located between Gardnertown

Road and NYS Route 52. This portion of land is proposed to be hooked to Lot 1 on the northeasterly side of Gardnertown Road. Existing site constraints, including the required separation to the stream, location of the floodplain, and area of steep slopes do not leave sufficient area for the installation of an onsite sewage disposal system. As such, the ±3.3 acre area does not constitute a buildable lot based upon current Town of Newburgh Zoning Code (Town Code), New York State Department of Health (NYSDOH), and Orange County Department of Health (OCDOH) regulations. Notwithstanding the definition of 'subdivision' noted in the Town Code, we believe this area should remain hooked to Lot 1 to avoid creating an unbuildable lot.

6. The subdivision plan has been revised to clearly identify the locations of the proposed common driveways and existing driveways to be removed. Lots 2 & 3 will be served by a common driveway at the location of the existing access drive serving the existing barn to be removed. Lots 1 & 4 will be served by a common driveway approximately 75 feet north of the existing driveway serving the existing dwelling. The Project Narrative has been revised to describe the proposed site access. Copies of the subdivision plan and Project Narrative have been forwarded to the Highway Superintendent for review, as requested.

Please place this project on the next available 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 repeters@mnt-pc.com.

Sincerely,

Zachary A. Peters, P.E.

ZP/zp Enc.

cc: Westport Management, LLC
Patrick Hines (w/ all enc.)
Michael Donnelly, Esq. (w/ all enc.)



William G. Norton, L.S. Alphonse Mercurio, L.S.

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Email: mnt-pc@mnt-pc.com

Zachary A. Peters, P.E. Kenneth W. Vriesema, L.S.

Project Narrative

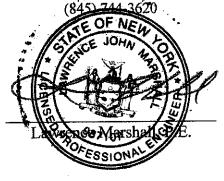
For

Westport Management Subdivision

Gardnertown Road
Town of Newburgh
Orange County, New York
Town of Newburgh Project #2015-12

Prepared for:
Westport Management, LLC
33 S. Plank Road
Newburgh, NY 12550

Prepared by:
Mercurio-Norton-Tarolli-Marshall, P.C.
P. O. Box 166
45 Main Street
Pine Bush, NY 12566



Prepared:
May 28, 2014
Last Revised:
November 10, 2014

A. Description of Project Site

The Westport Management Subdivision is a proposed four (4) lot residential subdivision. The project involves the creation of three (3) single-family dwelling lots and one (1) existing single-family dwelling. The project is located on the northeasterly side of Gardnertown road in the town of Newburgh, County of Orange, State of New York. The site is designated as tax map parcel: Section 47, Block 1 Lot 70. The project site contains a total of 10.324 Acres located in the R-1 zoning district.

B. Description of the Project

Lot 1, containing the existing single-family dwelling and barn, has an area of 46,484 square feet on the northerly side of Gardnertown road, greater than the 40,000 square foot minimum required lot size. The single-family dwelling is served by an individual well and sewage disposal system which will remain. In addition to the 46,484 square foot area, it is proposed that the 3.383 acres on the southerly side of Gardnertown Road be hooked to Lot 1. This area is unbuildable under current Town of Newburgh and New York State Department of Health regulations. Lots 2, 3, and 4 are proposed single-family residential lots with areas of 114,156 square feet, 54,617 square feet, and 55,179 square feet, respectively. All three lots are larger than the 40,000 square foot minimum lot size required for single-family residential lots. All three lots will meet the required zoning setbacks.

The sizes of the buildable area within the setback are: Lot 1-14,092 square feet, Lot 2-35,852 square feet, Lot 3-20,152 square feet, Lot 4-15,394 square feet. The buildable areas for all lots exceed the minimum area required for single-family dwellings.

C. Description of Proposed Improvements

The site is currently accessed by two gravel driveways serving the existing house (easterly drive) and barn (westerly drive). Lots 2 & 3 will be served by a proposed common driveway at the location of the existing driveway on the north edge of the property. Based upon comments made by the Town of Newburgh Planning Board at the June 18, 2015 meeting, the easterly driveway serving the existing dwelling on Lot 1 will be abandoned. Access to Lot 1 will be provided by a proposed common driveway serving Lots 1 & 4. The common driveway is located approximately 75 feet north of the existing easterly driveway. The proposed improvements will result in an increase in the sight distance from the existing easterly driveway.

D. Stormwater Management

The total proposed area of disturbance is approximately 2.4 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. Access

The existing house and barn on the project parcel are currently served by two (2) driveways accessing Gardnertown Road. The two (2) existing driveways do not meet the minimum required sight distance of 300 feet specified in §161-38.C of the Town Code in the easterly direction. Sight distance in the westerly direction for both driveways exceeds the required 300 feet.

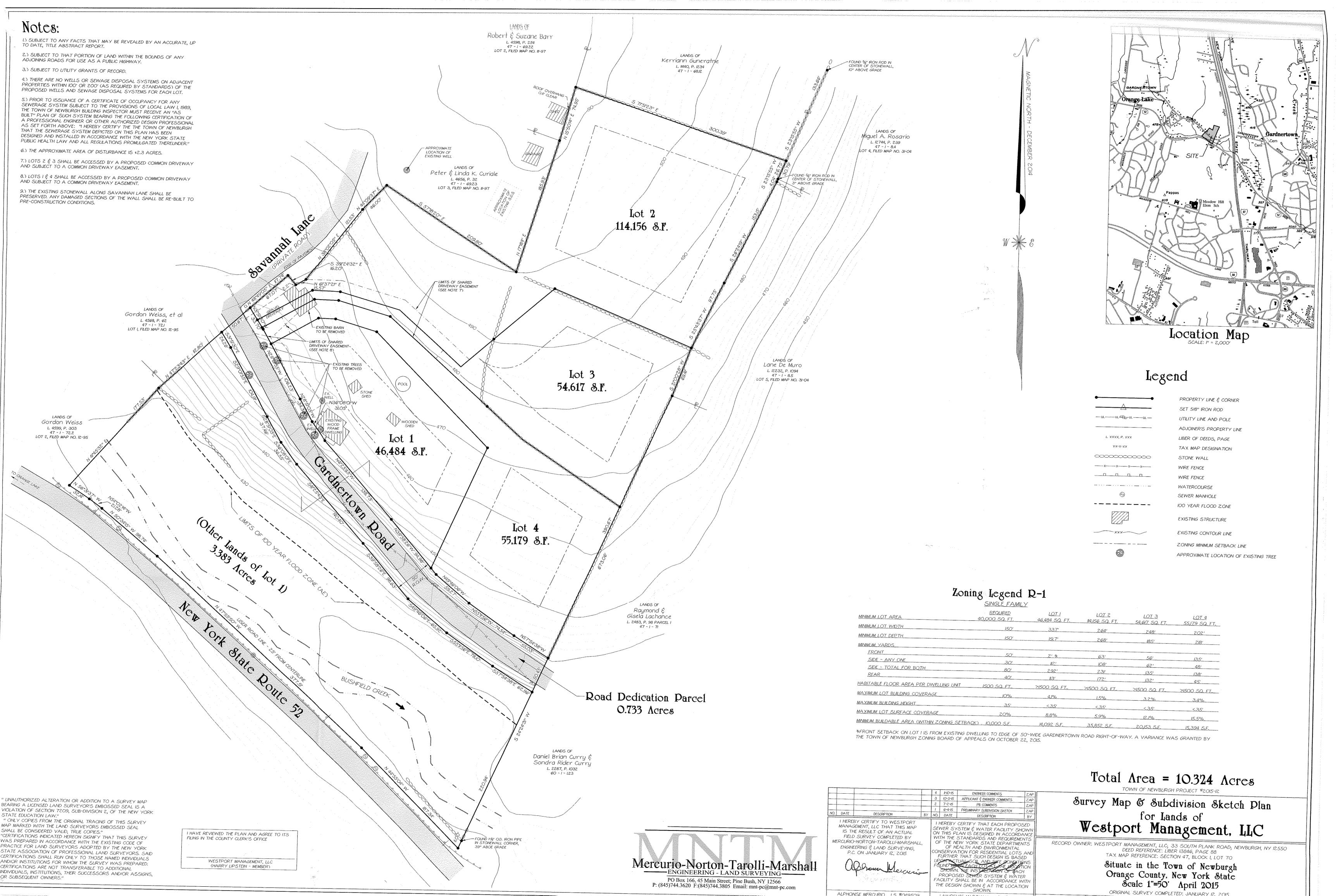
The project site contains approximately 300 feet of frontage along Gardnertown Road to the east of the existing dwelling; however, this area is not accessible due to the steep bank along the edge of the road. A proposed entrance is not feasible at this location without extensive grading both along the roadway and into the project site.

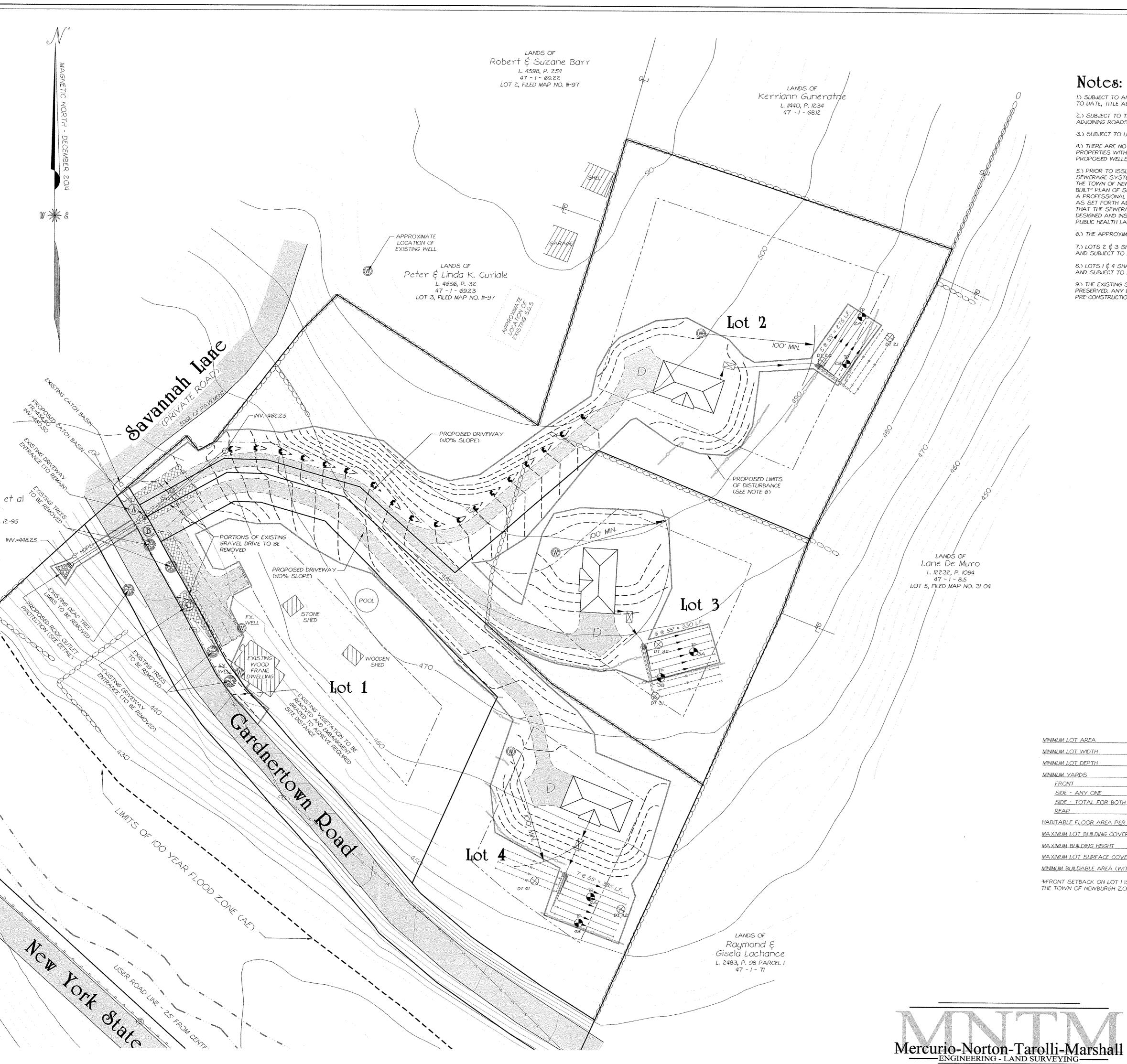
Lots 2 & 3 will be served by a proposed common driveway at the location of the existing driveway on the north edge of the property. This driveway currently serves the existing barn, which will be removed. At the request of the Planning Board, the driveway serving the existing dwelling on Lot 1 will be abandoned. Lots 1 & 4 will be served by a proposed common driveway located between the two existing driveways on the project site. The proposed common driveway is located approximately 75 feet northwest of the existing driveway serving the dwelling on Lot 1. The proposed driveways have been located to optimize the sight distance and minimize the amount of grading necessary along Gardnertown Road.

F. Zoning

Lot 1 has a front yard setback of approximately two (2) feet to the existing single-family dwelling. The minimum required front setback in the R-1 Zone is 50 feet. The existing parcel contains land on the north and south side of Gardnertown Road and includes ownership of the roadbed. Gardnertown Road is a user road through this parcel. As part of this subdivision, a dedication of Gardnertown Road to the Town of Newburgh is being proposed. The dedication of the roadway results in the insufficient front yard setback for the existing home on Lot 1.

A variance for the front yard setback to the existing dwelling on Lot 1 was granted by the Town of Newburgh Zoning Board of Appeals on October 22, 2015.





Notes:

I.) 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 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.

5.) PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR ANY SEWERAGE SYSTEM SUBJECT TO THE PROVISIONS OF LOCAL LAW I, 1989, THE TOWN OF NEWBURGH BUILDING 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 THE 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."

6.) THE APPROXIMATE AREA OF DISTURBANCE IS ±2.4 ACRES.

7.) LOTS 2 & 3 SHALL BE ACCESSED BY A PROPOSED COMMON DRIVEWAY AND SUBJECT TO A COMMON DRIVEWAY EASEMENT.

8.) LOTS I \$ 4 SHALL BE ACCESSED BY A PROPOSED COMMON DRIVEWAY AND SUBJECT TO A COMMON DRIVEWAY EASEMENT.

9.) THE EXISTING STONEWALL ALONG SAVANNAH LANE SHALL BE PRESERVED. ANY DAMAGED SECTIONS OF THE WALL SHALL BE RE-BUILT TO PRE-CONSTRUCTION CONDITIONS.

Legend

PROPERTY LINE & CORNER

SET 5/8" IRON ROD

UTILITY LINE AND POLE

LIBER OF DEEDS, PAGE

TAX MAP DESIGNATION

STONE WALL

WIRE FENCE

WIRE FENCE

WATERCOURSE

SEWER MANHOLE

100 YEAR FLOOD ZONE

EXISTING STRUCTURE

EXISTING CONTOUR LINE

PROPOSED CONTOUR LINE

ZONING MINIMUM SETBACK LINE PROPOSED WELL LOCATION

ADJOINER'S PROPERTY LINE

-UL-UL-UL-UL-L. XXXX, P. XXX

_____x___x____x____

PROPOSED HOUSE LOCATION _____ PROPOSED DRIVEWAY LOCATION APPROXIMATE LOCATION OF EXISTING TREE

> PERCOLATION SOILS TEST LOCATION AND NUMBER PROPOSED 4" DIA. PERFORATED PVC SEWER DISTRIBUTOR PIPE

PROPOSED SEPTIC TANK È 4" DIA SOLID WALL PVC SDR35 PIPE DEEP SOILS TEST LOCATION

PROPOSED SILT FENCE (SEE DETAIL)

PROPOSED CHECK DAM (SEE DETAIL)

Driveway Sight Distance Table

GARDNERTOWN ROAD POSTED SPEED LIMIT: 30 MPH AASHTO MINIMUM SIGHT DISTANCE FOR POSTED SPEED: 200' LIMITED DUE TO HORIZONTAL CURVATURE
IN GARDNERTOWN ROAD

* CLEARING É GRADING AT EXISTING
BUILDING REQUIRED
LIMITED DUE TO HORIZONTAL CURVATURE
IN GARDNERTOWN ROAD

* CLEARING É GRADING AT EXISTING
BUILDING REQUIRED
LIMITED DUE TO HORIZONTAL CURVATURE
IN GARDNERTOWN ROAD

LIMITED BY BUSIES É FMBANKMENT AT ±300' 130'

Zoning Legend R-1

| MINIMUM LOT AREA | <u>REQUIRED</u> 40,000 SQ. FT. | <u>LOT I</u> 46,484 SQ. FT. | <u>LOT 2</u> 114,156 SQ. FT. | <u>LOT 3</u> 54,617 SQ. FT. | <u>LOT 4</u> 55,179 SQ, FT. |
|---|-----------------------------------|--------------------------------|---------------------------------|--------------------------------|--------------------------------|
| MINIMUM LOT WIDTH | 150' | 337′ | 264′ | 248′ | 202′ |
| MINIMUM LOT DEPTH | 150′ | 151,7' | 268′ | <i>185'</i> | 218′ |
| MINIMUM YARDS | | | | | |
| FRONT | 50′ | 2′ * | <i>6</i> 3′ | 56' | 135' |
| SIDE - ANY ONE | 30′ | | 108' | 62' | 48′ |
| SIDE - TOTAL FOR BOTH | 80′ | '595 | 23/ | J35' | 138′ |
| REAR | 40' | | 172' | 132′ | 45' |
| HABITABLE FLOOR AREA PER DWELLING UNIT | 1500 SQ. FT. | 71500 SQ. FT., | >1500 SQ. FT. | >1500 SQ. FT. | >1500 SQ. FT. |
| MAXIMUM LOT BUILDING COVERAGE | 10% | 4,1% | 1.5% | 3.7% | 3.4% |
| MAXIMUM BUILDING HEIGHT | 35' | <35′ | <35′ | <35' | <35′ |
| MAXIMUM LOT SURFACE COVERAGE | 20% | 8.8% | 6.0% | 11.4% | 15.5% |
| MINIMUM BUILDABLE AREA (WITHIN ZONING SETBA | ACK) 10,000 S.F. | 14,092 S.F. | 35,852 S.F. | 20.153 S.F. | 15.394 S.F. |

*FRONT SETBACK ON LOT I IS FROM EXISTING DWELLING TO EDGE OF 50'-WIDE GARDNERTOWN ROAD RIGHT-OF-WAY. A VARIANCE WAS GRANTED BY THE TOWN OF NEWBURGH ZONING BOARD OF APPEALS ON OCTOBER 22, 2015.

> ENGINEER COMMENTS PB COMMENTS 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 SHOWN. THE INSTALLATION OF EACH PROPOSED SEWER SYSTEM & WATER FACILITY SHALL BE IN ACCORDANCE WITH

THE DESIGN SHOWN & AT THE LOCATION

PO Box 166, 45 Main Street; Pine Bush, NY 12566 P: (845)744.3620 F:(845)744.3805 Email: mnt-pc@mnt-pc.com

TOWN OF NEWBURGH PROJECT #2015-12 Subdivision Detail Plan for Lands of Westport Management, LLC

RECORD OWNER: WESTPORT MANAGEMENT, LLC; 33 SOUTH PLANK ROAD; NEWBURGH, NY 12550 DEED REFERENCE: LIBER 13846, PAGE 88 TAX MAP REFERENCE: SECTION 47, BLOCK I, LOT 70

Situate in the Town of Newburgh Orange County, New York State Scale 1"=40' April 2015

LAWRENCE MARSHALL PE #087107 DRAFTED BY: ZAP MAP CK: WGN

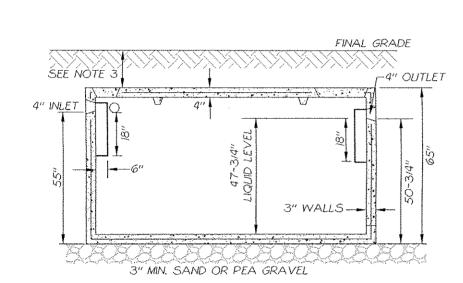
PROJECT: 3882 SHEET 2 OF 4

Deep Soils Testing Results

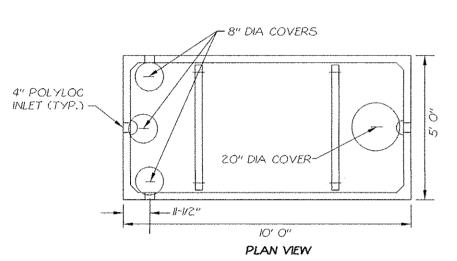
| TEST HOLE # | 4.1 4.2 | | 3.1 | 3.2 | [.5] | 2.2 |
|---|---|--|--|--|--|--|
| TESTING DATE: | 07-30-15 | 07-30-15 | 07-30-15 | 07-30-15 | 07-30-15 | 07-30-15 |
| TESTER: | RTS RTS | | RTS | RTS | RTS | RTS |
| DEEP TEST SOIL LOG (NO WATER OR ROCK UNLESS SO NOTED) | O' TOPSOIL I' TOPSOIL I' SANDY SILT LOAM 4' 48" LIGHTLY PACKED 5' SANDY SILT LOAM 6' 72" 8' SMALL STONES THROUGHOUT | O' TOPSOIL I' - IZ"- 2' SANDY SILT LOAM 4' - 48"- PACKED 5' SANDY SILT LOAM 6' - TOPSOIL 8' SANDY 8' SANDY 8' SMALL STONES THROUGHOUT | O' TOPSOIL I' SANDY SILT LOAM 4' 48" TIGHTLY PACKED 5' SANDY SILT LOAM 6' 72" 8' SMALL STONES THROUGHOUT | O' TOPSOIL I' SANDY SILT LOAM 3' 36" TIGHTLY PACKED SANDY SILT SANDY SILT LOAM WITH BOULDERS 6' LARGE ROCK 7' 8' | O' TOPSOIL I' SANDY SILT SOME BOULDERS | O' TOPSOIL I' SANDY SILT 3' SANDY SILT 4' 7' 7' 7' 7' 7' 7' 8' SMALL STONES THROUGHOUT |

Percolation Testing Results

| TEST HOLE # | | AS | 2B | 3A | 3B | 4A | 4B |
|--|------------------------|------------|--|------------|------------|------------|------------|
| TESTING DATE: | | 07-14-2015 | 07-14-2015 | 07-14-2015 | 07-14-2015 | 07-14-2015 | 07-14-2015 |
| DEPTH / TESTER: | | 24" - KW | 24" - KW | 24" - KW | 24" - KW | 24" - KW | 24" - KW |
| PERCOLATION TEST RESULTS (ALL TESTING COMPLETED WITH A STOPWATCH & ELAPSED TIMES ARE IN MINUTES) | RUN I ELAPSED TIME: | 12:00 | 6:56 | 14:12 | 4:59 | 71:05 | 17:14 |
| | RUN 2 ELAPSED TIME: | 13:56 | 9:00 | 15:50 | 12:30 | 26:40 | 20:22 |
| | RUN 3 ELAPSED TIME: | 14:19 | 9:43 | 16:31 | 14:50 | 29:10 | 21:20 |
| | RUN 4 ELAPSED TIME: | | disability of the second secon | | 15:21 | 30:17 | |
| | RUN 5 ELAPSED TIME: | | | | | | |
| | RUN 6 ELAPSED TIME: | | | | | | |
| | RUN 7 ELAPSED TIME: | | | | | | |
| | STABILIZED RATE: | 14:19 | 9:43 | 16:11 | 15:21 | 30:17 | 21:20 |



CROSS SECTION VIEW



. ALL PIPE JOINTS (INLET & OUTLET PIPES) SHALL BE SEALED WITH ASPHALTIC MATERIAL OR EQUIVALENT.

2. INLET BAFFLE CAN BE RELOCATED TO THE SIDE.

I" (MIN.) WATERLINE, PIPE TO

CONFIRM TO ANSI I NSF 61 É

NYS BUILDING OR RESIDENTIAL

PROPOSED BUILDING OR DWELLING

SEWER RESERVE AREA

PROPOSED SEWAGE DISPOSAL SYSTEM*

-DISTRIBUTION

4" PERFORATED

DISTRIBUTOR PIPE

1" SCH. 40 OR CAST

IRON SOLID WALL

PIPE AT 1/4" PER

FOOT (MIN.) SLOPE-

4" PVC SOLID WALL PIPE AT 1/8" PER

4" PERFORATED
DISTRIBUTOR PIPE

FOOT (MIN.) SLOPE-

PROPOSED

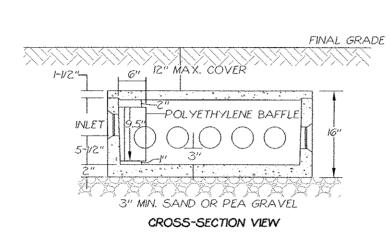
WELL W

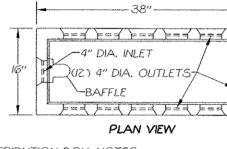
3. IF COVER EXCEEDS 12", A RISER MUST BE USED TO ALLOW ACCESS.

CONCRETE MINIMUM STRENGTH: 4,000 P.S.I. AT 28 DAYS STEEL REINFORCEMENT: 6" X 6" XIO GA. STEEL WIRE MESH #4 REBAR AROUND PERIMETER CONSTRUCTION JOINT: SEALED WITH BUTYL RUBBER CEMENT

Typical Precast 1,250 Gallon Concrete Septic Tank

AS MANUFACTURED BY "WOODARDS CONCRETE PRODUCTS, INC.", BULLVILLE, N.Y. MODEL ST-1250 (OR APPROVED EQUAL) NOT TO SCALE





DISTRIBUTION BOX NOTES: N FLOW EQUALIZERS SHALL BE USED TO ENSURE 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.

SYSTEM COMPONENTS

HOUSE SEWER (WATERTIGHT JOINTS)

EFFLUENT LINE TO DISTRIBUTION BOX

SEPTIC TANK

SEEPAGE PIT

ABSORPTION FIELD

DISTRIBUTION BOX

ABSORPTION FIELD

DRY WELL (ROOF & FOOTING)

RAISED OR MOUND SYSTEM (C)

TOE OF THE SLOPE OF THE FILL.

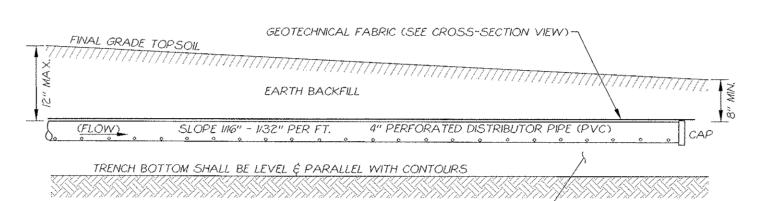
(D) RECOMMENDED SEPARATION DISTANCES.

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

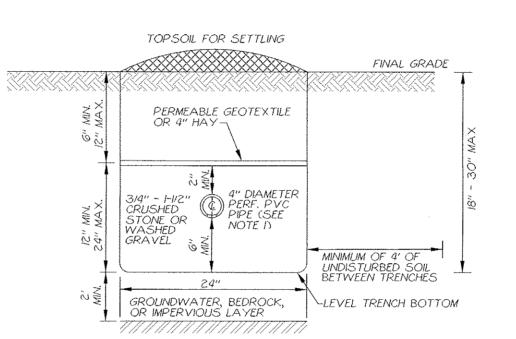
AS MANUFACTURED BY "WOODARDS CONCRETE PRODUCTS, INC.", BULLVILLE, N.Y." MODEL DB-IZ (OR APPROVED EQUAL) NOT TO SCALE



CRUSHED STONE OR WASHED GRAVEL-

(SEE CROSS-SECTION VIEW)

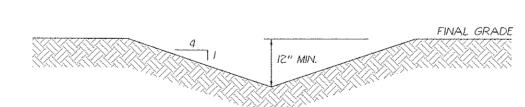
TRENCH PROFILE



CROSS-SECTIONAL VIEW I) DISTRIBUTION PIPE SHALL BE INSTALLED WITH PIPE PERFORATIONS FACING DOWN. 2) DO NOT INSTALL TRENCHES IN WET SOIL. TRENCH SIDES AND BOTTOMS SHALL BE RAKED PRIOR TO INSTALLATION OF GRAVEL.

3) THE END OF EACH LATERAL SHALL BE CAPPED.

Absorption Trench Detail



NOTE: THE DIVERSION SWALE SHALL BE SEEDED & MULCHED IMMEDIATELY Diversion Swale Detail

3) SEWAGE DISPOSAL SYSTEMS LOCATED OF NECESSITY UPGRADE IN THE GENERAL PATH OF DRAINAGE TO A WELL MUST BE SPACED 200' OR

2) ALL 4" OUTLET PIPES (SOLID WALL) LEAVE DISTRIBUTION BOX AT SAME ELEVATION ON A MINIMUM SLOPE OF 1/8" PER FOOT UP TO A

4) NO DRIVEWAY, ROADWAY, PARKING AREA OR ABOVE GROUND SWIMMING POOL IS TO BE CONSTRUCTED OVER ANY PORTION OF THE SEWER

Well Construction Data

CASED UNCASED PORTION

6" MIN. 6" PREF.

I) IN THER CASE OF A FLOWING ARTESIAN WELL, ATTEMPTS SHOULD BE MADE TO INSTALL AND SEAL THE WELL IN A MANNER THAT PROTECTS THE ARTESIAN AQUIFER, PREVENTS EROSION OF OVERLYING GEOLOGIC MATERIALS, AND CONFINES THE FLOW WITHIN THE

4) PRESSURE PLACEMENT INCLUDES METHODS OF GROUT PLACEMENT USING PUMPS AND TREMIE TUBES OR USING GROUT DISPLACEMENT THROUGH THE CASING, OR OTHERWISE FROM THE BOTTOM UP AROUND THE CASING, WITH ONE OR MORE DRILLABLE PLUGS. WHEN PRESSURE PLACEMENT IS USED WITH A BOREHOLE DIAMETER OF ONLY 2" GREATER THAN THE CASING DIAMETER. GRAVITY PLACEMENT INCLUDES ANY METHOD THAT RELIES ON GRAVITY TO DRAW GROUT, EITHER DRY OR AS A SLURRY, DOWN INTO THE ANNULAR SPACE

5) FOR WELLS CONSTRUCTED BY CABLE TOOL, HOLLOW ROD, JETTING, OR OTHER DRILLING METHOD WHERE THE PERMAENT CASING IS DRIVEN, AND WHERE NEITHER TEMPORARY CASING NOR AN OVERSIZE BOREHOLE ARE USED, DRY DRIVEN GROUT METHODS USING GRANULAR BENTONITE MAY BE USED. THESE METHODS USE CONTINUOUS FEEDING OF GRANULAR BENTONITE INTO A STARTER HOLE OR CONTINUOUS MOUNDING AROUND THE CASING AS THE CASING IS DRIVEN, COLLAR FLARED JOINTS OR WELD BEADS EXTENDING BEYOND THE OUTSIDE DIAMETER OF THE PERMANENT CASING SHALL BE USED WITH SUFFICIENT SPACING TO ENSURE THAT THE GROUT SEAL IS CONTINUOUS AND ETENDS DOWNWARD INTO THE SATURATED ZONE (I.E., BENEATH THE WATER TABLE).

6) THE OVERSIZED BOREHOLE FOR GROUT PLACEMENT SHOULD BE AS DEEP AS NECCESSARY, BASED UPON LOCAL HYDROGEOLOGIC CONDITIONS AND POTENTIAL CONTAMINANT SOURCES, TO PREVENT CONTAMINATION FROM ENTERING THE WELL. GROUT SHOULD BE PLACED ALONG THE FULL LENGTH OF CASING, PARTICULARLY WHERE THE PRESENCE OF NON-CAVING UNCONSOLIDATED MATERIALS, COARSE GRAVEL, OR CREVICED, SHATTERED, OR FRACTURED ROCK MAY RESULT IN PATHWAYS OF CONTAMINATION TO A WELL WATER SYSTEM. WHERE THIS IS NOT FEASIBLE BECAUSE OF PRACTIALITY, COST OR SAFETY, GROUT SHALL BE PLACED AT LEAST TO

I IO' MIN.

NOTES:
I.) WELL SHALL BE CONSTRUCTED IN ACCORDANCE WITH TABLE 2 OF THE N.Y.S. DEPARTMENT OF HEALTH APPENDIX 5-B "STANDARDS FOR WATER WELLS."

Well Detail

2.) THE WELL CAP MUST BE A MINIMUM OF 2 FEET ABOVE THE 100 YEAR FLOOD ELEVATION.

-END OF CASING (50' MIN.)

---- 6" DIA. DRILL HOLE

BOTTOM OF PUMP AT LEAST 5'
ABOVE BOTTOM OF WELL

PUMP TO BE SELECTED TO FIT VOLUME
AND HEAD CONDITIONS (5GPM MINIMUM)

WELL DIA.

MIN. WELL SCREEN

-WATER TIGHT WELL CAP (AMERICAN GRANBY WELL CAP, WC SERIES OR

-FINAL GRADE SHALL BE GRADED TO KEEP SURFACE WATER RUNOFF FROM ENTERING WELL

-PITLESS ADAPTER OR PITLESS

SERIES OR APPROVED EQUAL)

-- I''(MIN.) WATERLINE (PIPE TO CONFORM TO ANSI / NSF &I & NYS BUILDING OR RESIDENTIAL CODE)

CONSTRUCTION CONDITIONS (I

CASING SHALL BE FIRMLY

ANNULAR SPACE AROUND CASING SHALL BE GROUTED.

LENGTH OR DEPTH

OVERSIZE DRILLHOLE FOR GROUT (I)

DIA.

GRAVITY

SIZE +2"

PRESSURE

WELL CASING, GIVING DUE CONSIDERATION TO PRACTICALITY, COST, AND SAFETY.

BETWEEN THE CASING AND BOREHOLE OR BETWEEN AN INNER CASING AND OUTER CASING.

(4,5,6)

12" MIN. ABOVE GRADE, OR 24"

ABOVE 100-YEAR FLOOD PLAIN

6" DIAMETER STEE

LATEST REVISION-

CASING IN COMPLIANCE WITH AWWA STANDARD A-100,

CEMENT GROUT

WATER-BEARING

FORMATION

5. CREVICED.

TYPES OR

SANDSTONE.

SHATTERED OR

LIMESTONE, IGNEOUS

METAMORPHIC OR SIMILAR ROCK

OVER BURDEN

SHALE, OR SIMILAR

A MINIMUM DEPTH OF 19 FEET. SEE NOTE I.

DRILL HOLE APPROXIMATELY 10" DIA.

TO ALLOW PLACEMENT OF GROUT-

EXPECTED SHALL BE PLACED IN DEPTH ANNULAR

\$PACE ON OUTSIDE OF WELL CASING—

OTHERWISE MATERIAL TO A DEPTH FRACTURED SHALE, OF 19' OR MORE.

SYSTEM. HEAVY EQUIPMENT SHALL BE KEPT OUT OF THE ABSORPTION FIELD AREA.

5) ALL DISTRIBUTOR LINES (PERFORATED) SHALL BE OF EQUAL LENGTH (60' MAX.).

D PIPE JOINTS TO BE SEALED WITH ASPHALTIC MATERIAL OR EQUIVALENT.

6) ALL TREES TO BE CUT & REMOVED FROM SEWAGE DISPOSAL AREA IN A MANNER THAT WILL NOT DISTURB THE VIRGIN SOIL LAYER.

7) MAXIMUM GROUND SLOPE OF TILE FIELD AREA SHALL NOT EXCEED 15%.

8) NO BASEMENT FIXTURES ARE PERMITTED WITHOUT A SPECIAL DESIGN FOR SEWAGE DISPOSAL.

9) 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.

10) ALL STEEL TANKS SHALL BE UL - 70 APPROVED.

General Notes:

II) NO ROOF, CELLAR OR FOOTING DRAINS ARE TO BE DISCHARGED IN THE SEWAGE DISPOSAL SYSTEM.

12) SPEED LEVELERS SHALL BE USED FOR SYSTEMS WHOSE SIDE SLOPES ARE BETWEEN 10-15% AND ARE RECOMMENDED FOR ALL SYSTEMS 13) 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.

14) 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 | NUMBER OF BEDROOMS | DESIGN FLOW RATE (GPD) | SEPTIC TANK SIZE (GALLONS) | DISTRIBUTION BOX MODEL NUMBER | TYPE OF | DESIGN STABILIZED PERCOLATION RATE (MIN.) | MIN. LENGTH OF ABSORPTION TRENCH (L.F.) | PROPOSED LENGTH OF ABSORPTION TRENCH (L.F.) | SEWAGE DISPOSAL SYSTEM DESIGN |
|---------------|-----------------------|------------------------------|-------------------------------|-------------------------------------|---------------|---|---|---|----------------------------------|
| 2 | 4 | 440 | 1,250 | D8-12 | A.T. | 14:19 | 275 | 275 | 5 ROWS @ 55 L.F. |
| 3 | 4 | 440 | 1,250 | D8-12 | А.Т. | 16:11 | 3/5 | 330 | 6 ROWS @ 55 L.F. |
| 4 | 4 | 440 | 1,250 | DB-IZ | A. <i>T</i> , | 30:17 | 367 | 385 | 7 ROWS @ 55 L.F. |

* A.T. = ABSORPTION TRENCH SYSTEM

15' MIN.

Generic Plot Plan

* 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.

OR WATERCOURSE PROPERTY BOUNDARY

(E) UNLESS CAST IRON OR PVC WITH O-RING JOINTS IS UTILIZED, THEN 25'.

100' 50' ALL DRAINAGE PIPES WITHIN 25 FEET OF ANY WELL SHALL BE WATERTIGHT INTERMITTENT STREAM, DRY WELL, CULVERT OR STORM CURTAIN TOP OF EMBANKMENT CULVERT OR STORM SEWER SEWER (GASKETED, DRAIN OR STEEP (I ON 3)
(NON-GASKETED PIPE), OR CATCH BASIN TIGHT PIPE)

SLOPE SNOW STORAGE EASEMENT

Minimum Separation Distances From Existing Or Proposed Features

FOR ORANGE COUNTY - AS PER NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION "RESIDENTIAL ONSITE WASTEWATER TREATMENT SYSTEMS DESIGN HANDBOOK", ZOIZ EDITION & ORANGE COUNTY POLICY & STANDARDS LAST REVISED SEPTEMBER 2014

MINIMUM SEPARATION DISTANCES FROM EXISTING OR PROPOSED FEATURES

WELL OR STREAM, LAKE, OR

SUCTION LINE WATERCOURSE (B)

(A) 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.

(C) FOR ALL SYSTEMS INVOLVING THE PLACEMENT OF FILL MATERIAL, SEPARATION DISTANCES ARE MEASURED FROM THE

50′ (E)

50′

100'

100'(A)

150' (A)

50'

100'(A)

PROPERTY

LINE

DWELLING

50'

20'

20'

DRAINAGE

DITCH (B) (G

10'

20'

50'

Ю'

50'

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

I HEREBY CERTIFY THAT EACH PROPOSED SEWER SYSTEM & WATER FACILITY SHOW! ON THIS PLAN IS DESIGNED IN ACCORDANCE NITH THE STANDARDS AND REQUIREMENTS OF THE NEW YORK STATE DEPARTMENTS OF HEALTH AND ENVIRONMENTAL ONSERVATION FOR RESIDENTIAL L SHOWN. THE INSTALLATION OF EACH PROPOSED SEWER SYSTEM & WATER FACILITY SHALL BE IN ACCORDANCE WITH THE DESIGN SHOWN & AT THE LOCATION

LAWRENCE MARSHALL PE #087107

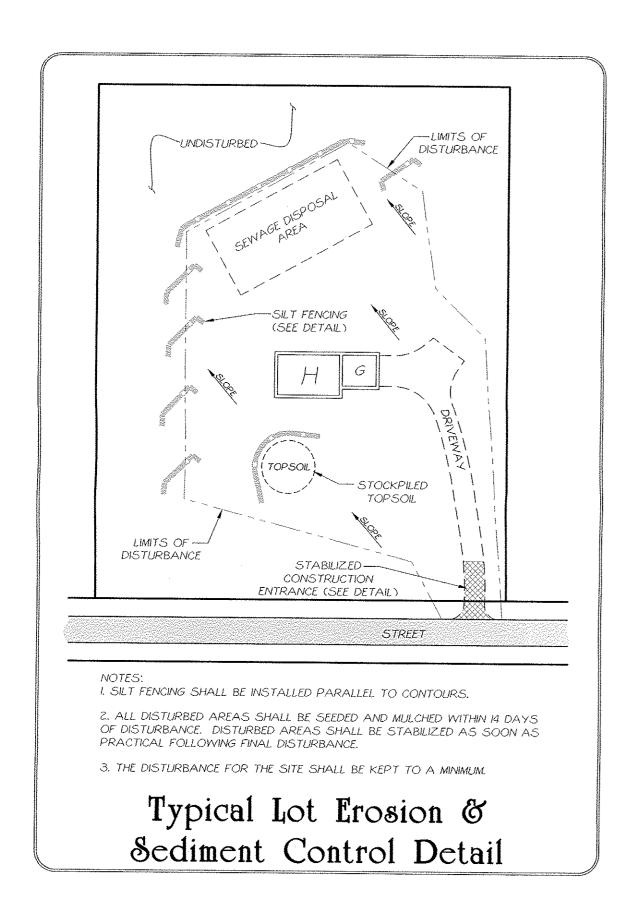
TOWN OF NEWBURGH PROJECT #2015-12 Well & Sewage Disposal System Detail For Lands of Westport Management, LLC

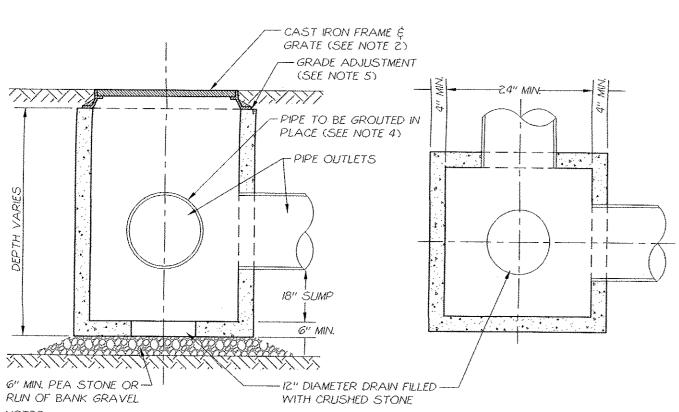
RECORD OWNER: WESTPORT MANAGEMENT, LLC; 33 SOUTH PLANK ROAD; NEWBURGH, NY 12550 DEED REFERENCE: LIBER 13846, PAGE 88 TAX MAP REFERENCE: SECTION 47, BLOCK I, LOT 70

> Situate in the Town of Newburgh Orange County, New York State
> April 2015

DRAFTED BY: ZAP MAP CK: -

PROJECT: 3882 SHEET 3 OF 4





NOTES:

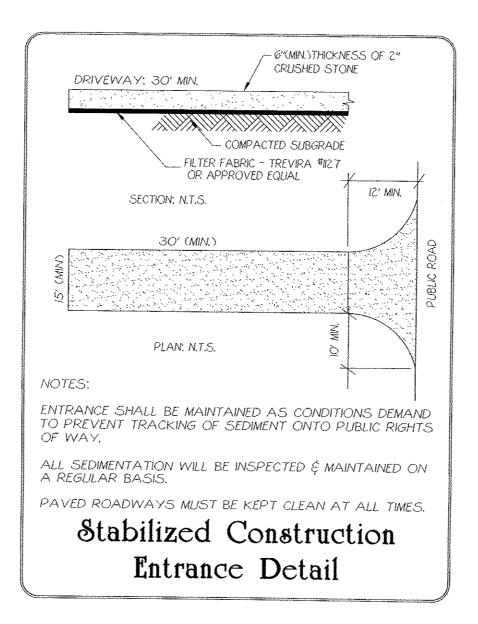
1) BASINS SHALL HAVE A MINIMUM OF HZO LOADING STRENGTH.

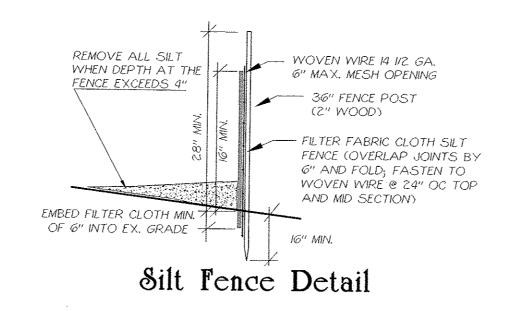
2) CAST IRON FRAME AND GRATE SHALL BE ABLE TO WITHSTAND H20 LOADING. GRATES SHALL BE BICYCLE GRATES. OPENINGS SHALL BE A MINIMUM OF 24" DIAMETER OR 24"X24" RECTANGULAR OPENING.
3) STEPS SHALL BE PROVIDED I2" ON CENTER WHEN DEPTH OF BASIN EXCEEDS 4'-0".

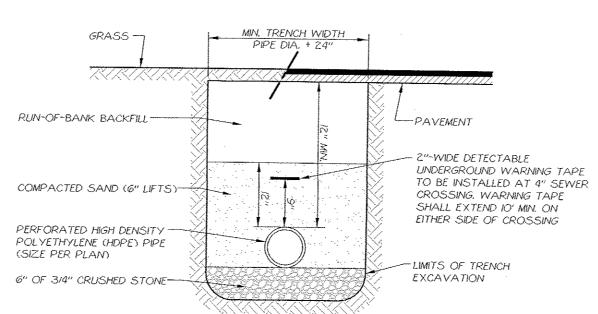
4) CONNECTIONS BETWEEN BASIN AND PIPE SHALL BE MADE BY FILLING THE SPACE AROUND EACH PIPE WITH MORTAR FOR CONCRETE MASONRY, CONCRETE GROUTING MATERIAL, OR CONCRETE REPAIR MATERIAL.

5) GRADE ADJUSTMENT FOR TOP SLABS AND/OR FRAMES AND GRATES OF UP TO 2.5" SHALL BE MADE WITH BEDDING MATERIAL MEETING THE REQUIREMENTS OF MORTAR FOR CONCRETE MASONRY, CONCRETE GROUTING MATERIALS OR CONCRETE REPAIR MATERIAL. GRADE ADJUSTMENT FOR TOP SLABS AND/OR FRAMES AND GRATES OF UP TO 6" SHALL BE MADE WITH COMBINATION OF PRECAST CONCRETE PAVERS AND BEDDING MATERIALS. GRADE ADJUSTMENT FOR TOP SLABS AND/OR FRAMES AND GRATES OF UP TO 12" SHALL BE MADE WITH CAST-IN-PLACE CONCRETE OR A COMBINATION OF PRECAST CONCRETE ADJUSTMENT ELEMENTS AND BEDDING MATERIALS.

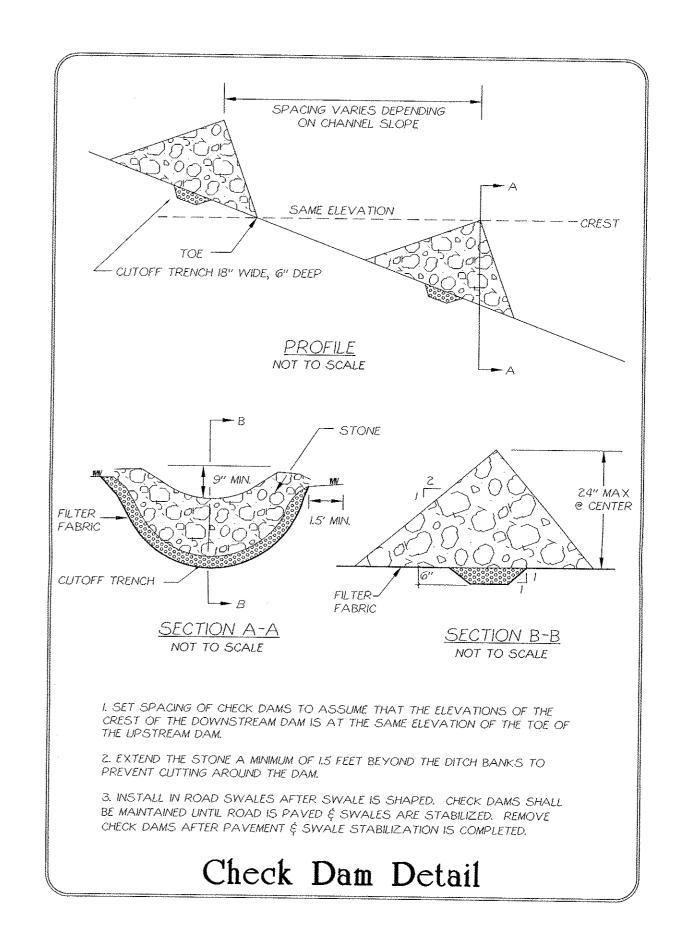
Typical Catch Basin Detail

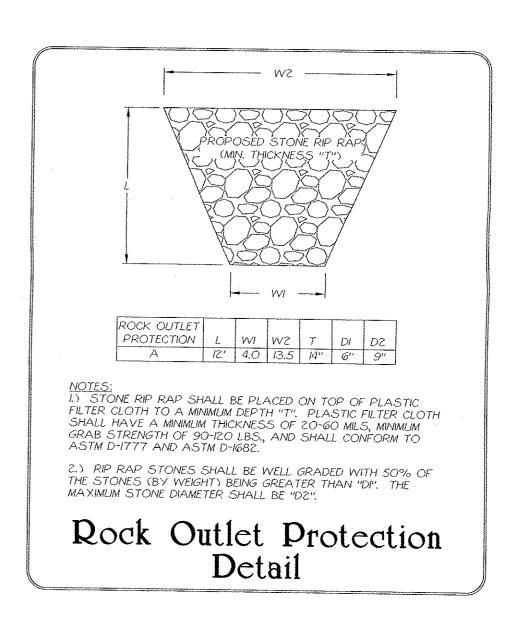


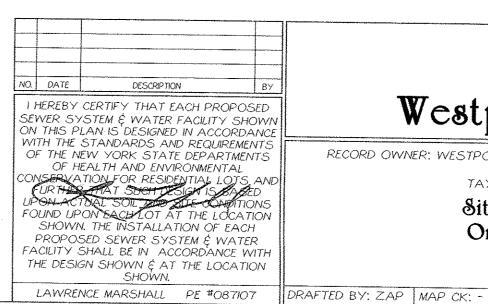




Typical Storm Sewer Trench Detail







Detail Sheet
for Lands of
Westport Management, LLC

TOWN OF NEWBURGH PROJECT #2015-12

RECORD OWNER: WESTPORT MANAGEMENT, LLC; 33 SOUTH PLANK ROAD; NEWBURGH, NY 12550

DEED REFERENCE: LIBER 13846, PAGE 88

TAX MAP REFERENCE: SECTION 47, BLOCK I, LOT 70

PROJECT: 3882 SHEET 4 OF 4

Situate in the Town of Newburgh Orange County, New York State April 2015

Mercurio-Norton-Tarolli-Marshall

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