

## Betty Gennarelli

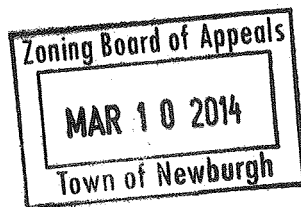
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**From:** Talcott Brown <talcottdesign12@gmail.com>  
**Sent:** Friday, March 07, 2014 4:52 PM  
**To:** James Osborne  
**Cc:** John Ewasutin; Patrick Hines; Michael H.Donnely; Grace Cardone; Carlos Domingues  
**Subject:** Bannerman View Water Line Extension, PB #2013-17  
**Attachments:** 13133-CDS-Engineers Report-3-5-14.doc; 13133-v3-CDS- SH2 03-07-14.pdf; 13133-v3-CDS- SH3 03-07-14.pdf; 13133-v3-CDS- SH1 03-07-14.pdf; 13134-public water doh-348-03072014.pdf

Jim,  
Attached please find the Plans, Engineers Report, and partially filled out application for the Health Department submission for the above referenced project. Please review and call me with any changes, comments, etc and/or for a meeting to put together the Health Department submission.  
Thank You!

Charles T. Brown, PE

--  
Talcott Engineering Design PLLC  
1 Gardnertown Road  
Newburgh, NY 12550  
845-569-8400  
fax 569-4583



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it. Try Drop Box  
<http://db.tt/tqHbwZjE>

# **Talcott Engineering DESIGN, PLLC**

1 GARDNERTOWN ROAD, NEWBURGH, NY 12550  
(845)-569-8400 \* (fax) (845)-569-4583

## **ENGINEERS REPORT**

**for the**

### **WATER LINE EXTENSION FOR THE 2 LOT SUBDIVISION ENTITLED “CD & SONS BANNERMAN VIEW DRIVE SUBDIVISION”**

Bannerman View Drive  
SBL: 22-4-6  
Town of Newburgh  
Orange County, New York

#### **Report prepared for:**

Carlos Domingues  
C D & Sons Construction  
28 Lake Road  
Salisbury Mills, NY 12577

And

Town of Newburgh  
1496 NYS Route 300  
Newburgh, NY 12550  
Attn: Jim Osborne, PE

#### **Report prepared by:**

Charles T Brown, PE  
Talcott Engineering Design, PLLC.  
1 Gardnertown Road  
Newburgh, NY 12550  
(845) 569-8400

Job # 07073-DOB

March 5, 2014

### **1.0 SCOPE:**

The project narrative is being prepared for the subject project in the Town of Newburgh, New York, in accordance with the Town of Newburgh "Standard Design and Construction Requirements for Water Distribution Main Extensions" (Oct. 2001).

### **2.0 SITE LOCATION:**

The project site is located in the Town of Newburgh, on Bannerman View Drive.

### **3.0 SITE DESCRIPTION:**

The site is an existing 0.82 acre site which currently has one single family residence under construction. The proposal is to subdivide this parcel into two building lots, creating one new building lot of 0.43 acres and leaving the balance of 0.39 acres with the existing under construction residence. Both lots will have direct access to Bannerman View Drive, a private road, and will be serviced by Town Water and individual sewage disposal systems (SDS).

Based on deep tests done for the SDS designs, the soil is a clay loam with gravel and, as the main extension is at the crown of a hill, excavations should be free of ground water.

### **4.0 WATER SUPPLY SYSTEM:**

To provide Town Water service to the lots, the existing 8" Town Water main in Bannerman View Drive is proposed to be extended 190 feet from the existing dead ended main. The fire hydrant, presently at the end of the main, will be relocated to the end of the extended main, as that location will better serve the neighborhood. A stub and valve will be installed at the new end of the water main to facilitate future extension.

The existing water main begins at a "T" at Brooker Drive, extends 400ft +/- up through parcel 22-4-5.4, then runs North 320ft +/- in the private road ROW for Bannerman View Drive, where it ends. It currently services 6 homes (2,000GPD +/-). The additional two homes will add 700GPD +/- to the demand on this main.

As the proposed lots are at the top of a hill, booster pump systems will be used in the new houses with the appropriate backflow prevention valves.

Project plans include details, plans and notes for this waterline extension.

Respectively Submitted,

Charles T. Brown, PE  
Talcott Engineering

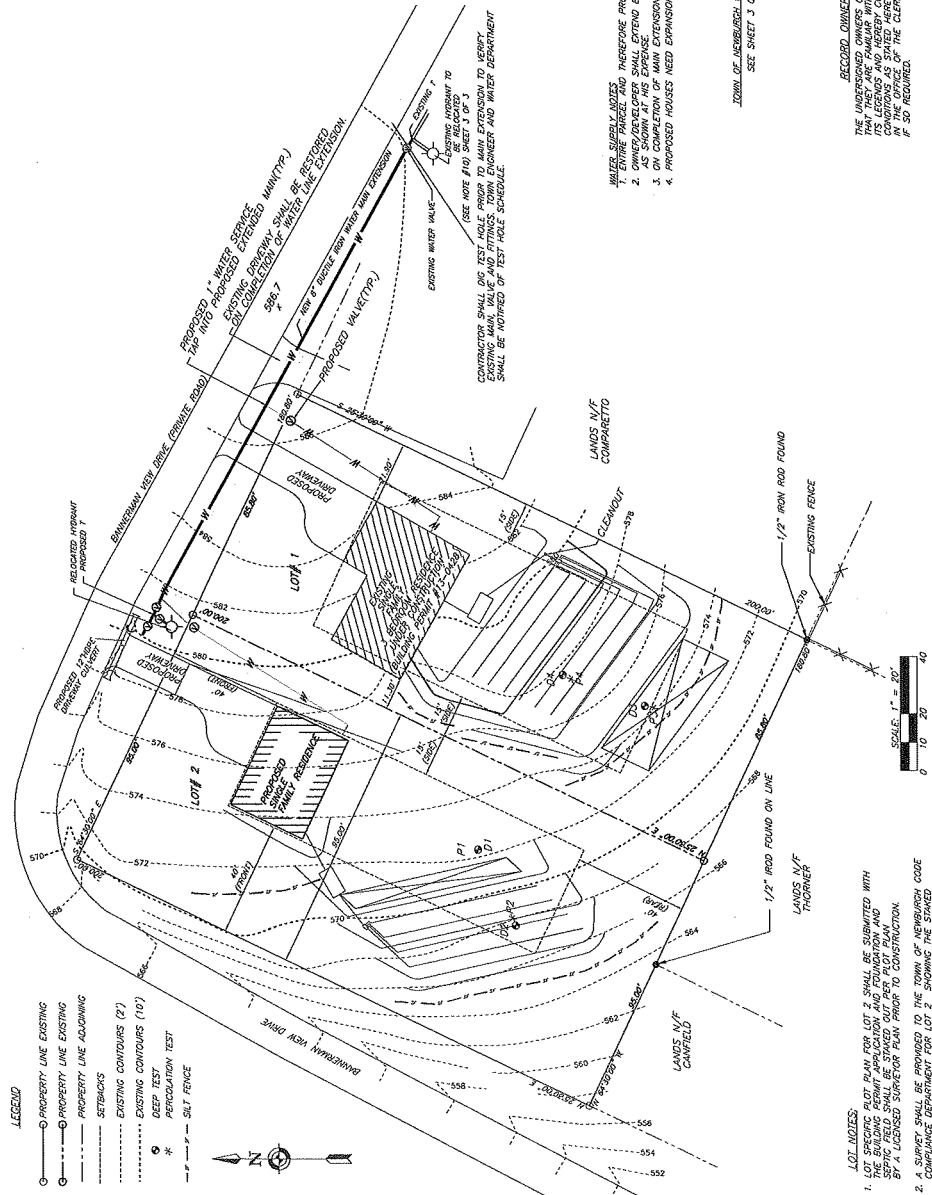
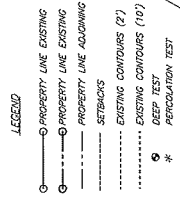
NYS Lic. # 065996

**NEW YORK STATE DEPARTMENT OF HEALTH**  
Bureau of Water Supply Protection

**Application for Approval of Plans for  
Public Water Supply Improvement**

Applicant	Location of works (C,V,T) <i>Newburgh Ct</i>	County <i>ORANGE</i>	Water District (specific area served)
Type of ownership <input checked="" type="checkbox"/> Municipal <input type="checkbox"/> Commercial <input type="checkbox"/> Private - Other <input type="checkbox"/> Authority <input type="checkbox"/> Interstate <input type="checkbox"/> Industrial <input type="checkbox"/> Water Works Corp. <input type="checkbox"/> Private - Institutional <input type="checkbox"/> Federal <input type="checkbox"/> International <input type="checkbox"/> Board of Education <input type="checkbox"/> State <input type="checkbox"/> Native American Reservation			
<input checked="" type="checkbox"/> Modifications to existing system. If checked, provide PWS ID # <i>NY 3503578</i>			
New System. If checked, provide capacity development (viability) analysis*			
If this project involves a new system, new water district, or a district extension provide boundary description location details in digital format on CD or Floppy Disk. If digital boundary location details are not available provide a text description. <input type="checkbox"/> Digital GIS Data Provided <input type="checkbox"/> Digital CAD Data Provided <input type="checkbox"/> Other Digital Data Provided <input type="checkbox"/> Text Description Provided <input checked="" type="checkbox"/> N/A			
Funding Source <input checked="" type="checkbox"/> Private <input type="checkbox"/> DWSRF** <input type="checkbox"/> Federal <input type="checkbox"/> Other _____ If DWSRF is checked, provide DWSRF #: _____			
Estimated Project Cost Source \$ _____ Treatment \$ _____ Storage \$ _____ Distribution \$ <i>7,000-</i> Pumping \$ _____ Engineering \$ _____ Legal/Permitting \$ _____ Total \$ _____			
Type of Project <input type="checkbox"/> Source <input type="checkbox"/> Corrosion Control <input type="checkbox"/> U.V. Light Disinfection <input checked="" type="checkbox"/> Distribution <input type="checkbox"/> Transmission <input type="checkbox"/> Pumping Unit <input type="checkbox"/> Fluoridation <input type="checkbox"/> Storage <input type="checkbox"/> Chlorination <input type="checkbox"/> Other Treatment <input type="checkbox"/> Other			
Project Description: <i>EXTEND AN EXISTING 8" WATER MAIN 190' ± AND RELOCATE AN EXISTING FIRE HYDRANT</i>			
Population Total population of Service area _____ % population actually served _____ % population served affected by project _____			
Latest total consumption data (in MGD) Avg. day _____ Year _____ Max. day _____ Year _____ Peak hr. _____ Year _____		14. NYS Professional Licensed Engineer Stamp & Signature *** <div style="border: 1px solid black; width: 100%; height: 100%;"></div>	
Name of design engineer _____ Address _____ Telephone No. _____ E-Mail _____ Fax No. _____			
Name and title of applicant or designated representative _____ Address _____ _____ / / _____ Signature of applicant Date			
<p><b>NOTE:</b> All applications must be accompanied by 3 sets of plans, 3 sets of specifications and an engineer's report describing the project in detail. The project must first be discussed with the appropriate city, county, district or regional public health engineer. Signature by a designated representative <i>must</i> be accompanied by a letter of authorization.</p> <p>* Additional information regarding capacity development may be found at: <a href="http://www.health.state.ny.us/nysdoh/water/main.htm">http://www.health.state.ny.us/nysdoh/water/main.htm</a></p> <p>**Current DWSRF project listings may be found at: <a href="http://www.health.state.ny.us/nysdoh/water/main.htm">http://www.health.state.ny.us/nysdoh/water/main.htm</a></p> <p>***By affixing the stamp and signature the Design Engineer agrees that the plans and specifications have been prepared in accordance with the most recent version of the recommended standards for water works and in accordance with the NYS Sanitary Code.</p>			

- MAP REFERENCES:**
1. ALL EXISTING FEATURES INCLUDING BUILDING, PROPERTY LINES AND ROADS LINES HAVE BEEN OBTAINED PER A SURVEY ENTITLED "2 BANNEMAN VIEW DRIVE" PERFORMED BY DARREN J. STRONARD, P.L.S. LAST REVISED 09/09/13.
  2. EXISTING TOPOGRAPHY PERFORMED BY SURVEYOR OF RECORD, SEPTEMBER 2013.



**ZONING SCHEDULE**  
ZONE: R-3

MINIMUM LOT AREA	REQUIRED	PROVIDED
FRONT	15,000 S.F.	17,169 S.F. (0.33%)
REAR	40'	40'
SIDE	15'	11.00'
BOTH	30'	33.2'
MINIMUM LOT WIDTH (MIN)	125'	125'
MINIMUM LOT DEPTH (MIN)	100'	100'
MINIMUM IMPERVIOUS COVERAGE (%)	4.50%	4.50%
MINIMUM BUILDING AREA	35' MAX	35' MAX
MINIMUM HEIGHT	35' MAX	35' MAX

**SEPTIC DESIGN CRITERIA (LOT 1)**

1. NO. OF BEDROOMS - 3
2. STABILIZED PERCOLATION RATE - 32 MIN/IN
3. DESIGN LOADS (DAYS) - 330
4. DESIGN LATERALS @ 48" = 336 L.F. (330 L.F. REQ'D)
5. ALLOWED TRENCH SYSTEM
6. ALLOWED TRENCH SYSTEM

(SEE DETAILS SHEET 2 OF 3)

**SEPTIC DESIGN CRITERIA (LOT 2)**

1. NO. OF BEDROOMS - 3
2. STABILIZED PERCOLATION RATE - 32 MIN/IN
3. DESIGN LOADS (DAYS) - 330
4. DESIGN LATERALS @ 48" = 336 L.F. (330 L.F. REQ'D)
5. ALLOWED TRENCH SYSTEM
6. ALLOWED TRENCH SYSTEM

(SEE DETAILS SHEET 2 OF 3)

**DEEP TEST DATA**

1. D1 74" DEEP 8/15/13
2. D2 74" DEEP 8/15/13
3. D3 74" DEEP 8/15/13
4. D4 74" DEEP 8/15/13
5. D5 74" DEEP 8/15/13
6. D6 74" DEEP 8/15/13

**REGULATION DATA**

1. P1 12" DEEP 8/15/13
2. P2 12" DEEP 09/15/13
3. P3 12" DEEP 8/15/13
4. P4 12" DEEP 8/15/13

**REVISIONS**

NO.	DATE	BY	DESCRIPTION
1	03/27/14	BSM	REVISED WATER LINES & NOTES
2	07/27/14	BSM	REVISED WATER LINES
3	12/26/13	BSM	REVISED WATER LINES
4	11/26/13	BSM	REVISED WATER LINES
5	10/29/13	BSM	REVISED PERC TEST AND PER COMMENTS
6	09/26/13	BSM	REVISED PERC TEST

**WATER SURVEY NOTES**

1. ENTIRE PARCEL AND THEREFORE PROPOSED LOTS ARE IN THE CONSOLIDATED WATER DISTRICT
2. WATER MAINS ARE LOCATED AT THE INTERSECTION OF MAIN AND RELOCATED EXISTING MAINWAY
3. ON COMPLETION OF MAIN EXPANSION, BOTH PROPOSED LOTS SHALL HAVE WATER SERVICE
4. PROPOSED HOUSES NEED EXPANSION TANK/BOOSTER SYSTEM DUE TO SERVICE PRESSURES

**RECORD OWNER'S CONSENT NOTES**

THE UNDERSIGNED OWNER'S CONSENT NOTES THAT THEY ARE FAMILIAR WITH THIS PLAN, ITS CONTENTS AND CONDITIONS AS STATED HEREON AND TO THE FULFILLMENT OF HIS PLAN IN THE OFFICE OF THE CLERK OF THE COUNTY OF ORANGE, IF SO REQUIRED.

**STAMP**

CD & STONE CONSTRUCTION CORP  
SALISBURY HILLS, NY 12577

**STAMP**

ENGINEER  
CHARLES T. BROWN, P.E.

**STAMP**

LOT LAYOUT  
CD BANNERMAN VIEW DRIVE SUBDIVISION  
BANNERMAN VIEW DRIVE 15/09/14 28-4-6  
TOWN OF HERBIBURGH, ORANGE COUNTY, NEW YORK  
DATE: 09/09/13 11:50  
SHEET 1 OF 3

**STAMP**

TALCOTT ENGINEERING DESIGN P.L.L.C.  
1 GARDENWAY ROAD  
SALISBURY HILLS, NY 12577  
TEL: 845-369-4600  
WWW.TALCOTTENGINEERINGDESIGN.COM

**STAMP**

CHARLES T. BROWN, P.E.  
NEW BRUNSWICK, N.J. 08855

**STAMP**

CD BANNERMAN VIEW DRIVE SUBDIVISION  
BANNERMAN VIEW DRIVE 15/09/14 28-4-6  
TOWN OF HERBIBURGH, ORANGE COUNTY, NEW YORK  
DATE: 09/09/13 11:50  
SHEET 1 OF 3

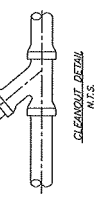
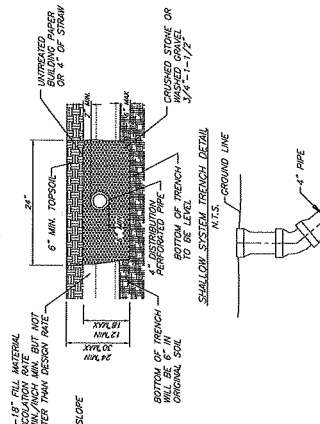


**SEPTIC SYSTEM GENERAL NOTES:**

1. ALL PORTIONS OF THE SEPTIC FIELD WILL BE A MINIMUM DISTANCE OF 200 FEET UP SLOPE AND 100 FEET DOWN SLOPE FROM ANY WELL.
2. ALL PORTIONS OF THE SEPTIC FIELD SHALL BE A MINIMUM DISTANCE OF 10 FEET FROM ANY BUILDING OR EXISTING LINE.
3. DISCHARGES FROM THE SEPTIC SYSTEM SHALL NOT BE DISCHARGED INTO ANY EXISTING DRAINAGE OR SEWERAGE SYSTEM.
4. SWIMMING POOLS, DRIVEWAYS OR STRUCTURES THAT MAY COMPACT THE SOIL SHALL BE INSTALLED AT A MINIMUM DISTANCE OF 10 FEET FROM THE SEPTIC FIELD.
5. AND FRENCHES TO BE INSTALLED IN NET SOIL.
6. RAIN SLOPE AND BOTTOM OF FRENCH PRIOR TO PLACING GRAVEL IN DISTRIBUTION BOX.
7. DISTRIBUTION LINES ARE TO BE CHARGED.
8. DISTRIBUTION LINES OF THE ABSORPTION FIELD SHOULD BE GRADED TO DRAIN TO THE SEPTIC TANK.
9. ALL WELLS AND SPRINGS SHALL BE IMMEDIATELY STABILIZED UPON CONSTRUCTION OF THE SEPTIC SYSTEM.
10. NO SEWER SYSTEM SHALL BE PLACED WITHIN 25' OF ANY WATER COURSE.
11. ALL LAUNDRY AND KITCHEN WASTES SHALL BE DISCHARGED INTO SEWAGE SYSTEM.
12. ALL WELLS AND SPRINGS SHALL BE INSTALLED AT A MINIMUM DISTANCE OF 10 FEET FROM THE SEPTIC SYSTEM.
13. THE DESIGN AND LOCATION OF THE SEPTIC SYSTEM SHALL NOT BE CHANGED WITHOUT RE-SUBMISSION FOR APPROVAL.
14. ALL WELLS AND SPRINGS SHALL BE INSTALLED AT A MINIMUM DISTANCE OF 10 FEET FROM THE SEPTIC SYSTEM.
15. THE DESIGN AND LOCATION OF THE SEPTIC SYSTEM SHALL NOT BE CHANGED WITHOUT RE-SUBMISSION FOR APPROVAL.
16. NO UNNECESSARY MOVEMENT OF CONSTRUCTION EQUIPMENT IN THE SEPTIC FIELD IS ALLOWED.
17. THIS SYSTEM WAS NOT DESIGNED TO ACCOMMODATE CHANGE OWNERS AS SUCH, THESE ITEMS SHALL NOT BE INSTALLED UNLESS THE SYSTEM IS REDESIGNED TO ACCOUNT FOR THESE.
18. THE SEPTIC TANK (OR ANY PUMPING OR DRAINAGE CHAMBER) TO THE HOUSE, ALLOWING FOR THE PROVISION OF THIS LOG SHALL BE PROVIDED WITH A COPY OF THE APPROVED PLANS AND AN ACCURATE AS-BUILT DRAWING OF ANY EXISTING SANITARY FACILITIES.

**STANDARD NOTES:**

- THE DESIGN, CONSTRUCTION AND INSTALLATION SHALL BE IN ACCORDANCE WITH THIS PLAN AND GENERALLY ACCEPTED STANDARDS IN EFFECT AT THE TIME OF THE DESIGN.
- REVISIONS TO THESE PLANS SHALL BE MADE BY THE ENGINEER.
- NEW YORK STATE SANITARY CODE - INDIVIDUAL HOUSEHOLD SYSTEMS, WASTE TREATMENT HANDBOOK, INDIVIDUAL HOUSEHOLD SYSTEMS, NEW YORK STATE WATER SUPPLY, NEW YORK STATE DEPARTMENT OF HEALTH, NEW YORK STATE DEPARTMENT OF HEALTH.
- THIS PLAN IS APPROVED AS MEETING THE APPROPRIATE AND APPLIED TECHNICAL STANDARDS, GUIDELINES, POLICES AND PROCEDURES FOR ARRANGEMENT OF SEWAGE DISPOSAL AND TREATMENT AND WATER SUPPLY FACILITIES.
- ALL WELLS AND S.O.S. EXISTING WITHIN 200' OF THE PROPOSED WELLS AND S.O.S. SHALL BE DEMONSTRATED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER. IF IT SHALL BE DEMONSTRATED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER THAT THE WELLS AND S.O.S. ARE NOT AFFECTED BY THE PROPOSED SEPTIC SYSTEM, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROVISION OF THIS LOG SHALL BE PROVIDED WITH A COPY OF THE APPROVED PLANS AND AN ACCURATE AS-BUILT DRAWING OF ANY EXISTING SANITARY FACILITIES.

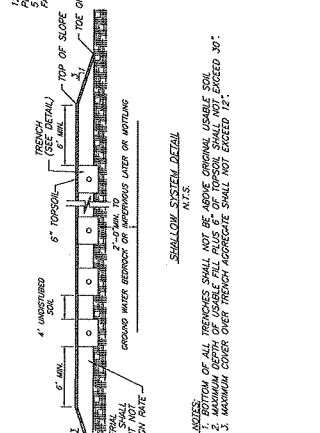


NOTE: TO BE INSTALLED BEFORE BEND AT ALL BEND LOCATIONS AND AT EVERY 75' OF STRAIGHT PIPE. USE UNGLAZED WITH DUMP CHAMBER.

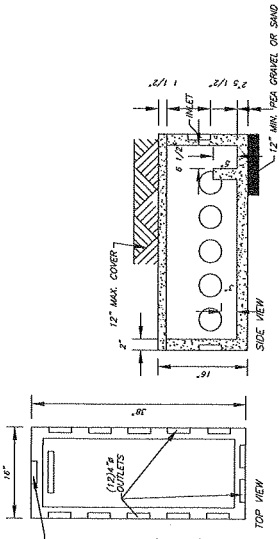


1. INSERT A SPEED LEVELER IN THE END OF ALL OUTLET.
2. ROTATE UNTIL EFFLUENT ENTERS ALL OUTLETS EQUALLY.

WOODWARD'S SPEED LEVELER, FS-4 N.T.S.

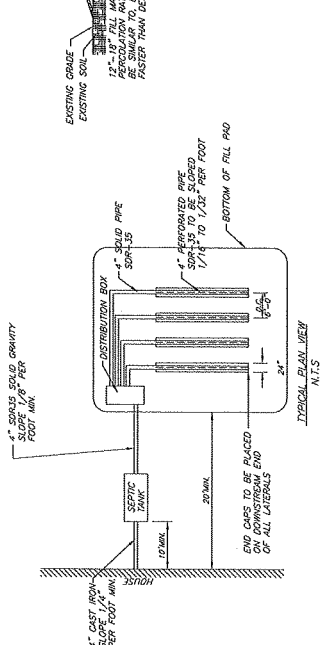


NOTES: 1. ALL FRENCHES SHALL NOT BE DEEPER THAN 12\"/>



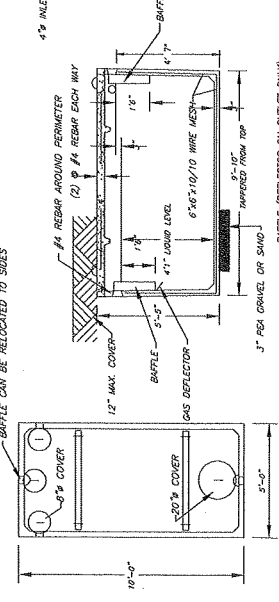
WOODWARD'S 12" OUTLET DISTRIBUTION BOX OR EQUAL N.T.S.

SPECIFICATIONS: CONCRETE MINIMUM STRENGTH - 4000 PSI AT 28 DAYS REINFORCEMENT - 6" X 10GA WIRE MESH CONSTRUCTION JOINT - 6" X 10GA WIRE MESH (SEE DETAIL) LOAD RATING - 3000PSF HEIGHT - 30" LB.



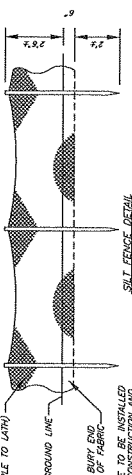
WOODWARD'S 12" SEPTIC TANK OR EQUAL N.T.S.

SPECIFICATIONS: CONCRETE MINIMUM STRENGTH - 4000 PSI AT 28 DAYS REINFORCEMENT - 6" X 10GA WIRE MESH CONSTRUCTION JOINT - 6" X 10GA WIRE MESH (SEE DETAIL) LOAD RATING - 3000PSF HEIGHT - 30" LB.



WOODWARD'S 12" SEPTIC TANK OR EQUAL N.T.S.

SPECIFICATIONS: CONCRETE MINIMUM STRENGTH - 4000 PSI AT 28 DAYS REINFORCEMENT - 6" X 10GA WIRE MESH CONSTRUCTION JOINT - 6" X 10GA WIRE MESH (SEE DETAIL) LOAD RATING - 3000PSF HEIGHT - 30" LB.



NOTE: THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROVISION OF THIS LOG SHALL BE PROVIDED WITH A COPY OF THE APPROVED PLANS AND AN ACCURATE AS-BUILT DRAWING OF ANY EXISTING SANITARY FACILITIES.

TOWN PROJECT 413-17  
 THIS SHEET IS SHOWN AND USED UNLESS ACCOMPANIED BY REVISION SHEETS IN SET.

**TALCOTT ENGINEERING DESIGN PLLC**  
 1 GARDENWAY ROAD  
 WEST HAVEN, CT 06410-3830  
 TEL: 203-398-1400  
 FAX: 203-398-1400  
 TALCOTTENR@GMAIL.COM

ENGINEER  
**CHARLES T. BROWN, P.E.**  
 P.O. BOX 4429  
 WEST HAVEN, CT 06410-4429

SEPTIC DETAILS  
 2 LOT SUBDIVISION ENTITLED:  
**CD BANNERMAN VIEW DRIVE SUBDIVISION**  
 BANNERMAN VIEW DRIVE (S/B/L: 82-4-6)  
 TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

DATE: 10/02/13  
 SCALE: 1"=20'  
 SHEET NO: 1 OF 3  
 PROJECT NO: 130379H-C05

REV.	DATE	BY	DESCRIPTION
1	12/16/13	JEB/AM	REVISED WASTE LINES