PROJECT COMPLETION REPORT

Stormwater Retention Basin Installation

BB&S Treated Lumber Corporation
1338 Speonk-Riverhead Road
Speonk, NY

Site No. 152123
Contract No. C100902

Prepared for:

New York State Department of Environmental Conservation
Remedial Section A, Remedial Bureau E
Division of Environmental Remediation
625 Broadway, 12th Floor
Albany, New York 12233-7017

Prepared by:

EnviroTrac Ltd.
5 Old Dock Road
Yaphank, NY 11980

October 2012

EnviroTrac

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APPENDICES

EnviroTrac

1.0 INTRODUCTION

At the request of the New York State Department of Environmental Conservation (NYSDEC), EnviroTrac was contracted to install a stormwater retention basin at the BBS Lumber Site to mitigate the effect of heavy rainfall and overflow at the property boundary. After the NYSDEC completed remedial activities at the Site in October 2011, several severe rain events occurred. It was observed that the existing drainage system that was installed during the initial remedial activities did not satisfactorily manage the large volume of stormwater runoff during such events. Overflow from the site created a vehicular hazard on Riverhead – Speonk Road during the events and caused severe erosion and ponding of water on a neighboring property.

Ecology and Environment Engineering, P.C. designed and prepared a stormwater retention basin plan to be constructed in the northwest portion of the Site. This drawing is attached as Appendix A. L.K. McLean Associates, P.C., a licensed Land Surveyor, provided spot elevations and key feature marks throughout the work area on February 1, 2012. EnviroTrac began construction on February 6, 2012 and completed activities on March 20, 2012. L.K. McLean Associates, P.C. prepared an as-built drawing that is included as Appendix E. Photo-documentation of the construction project is included as Appendix F.

2.0 SUMMARY OF EXISTING SITE CONDITIONS

There are four (4) buildings on the east side property site; a former lumber treatment building, a metal-framed drip pad, a wood storage building and a metal storage building.

The site is approximately 5 acres and is located in the Town of Southampton in eastern Suffolk County, Long Island. The site was historically and most recently utilized as a wholesale and retail lumber yard. Lumber yard operations ceased in May 2009. The site was utilized as a lumber treatment and storage facility from the early 1980's to 1996. Lumber was pressure treated using chromated copper arsenate (CCA). CCA is listed as hazardous waste when spent or disposed of without treatment. CCA was documented to be released to the environment through surface spills and sump leakage. Remedial construction activities were initiated in

September 2010 and concluded in October 2011 at the completion of restoration of the off-site (Phase 4) property located on the west side of Riverhead – Speonk Road.

As originally designed, stormwater from the east side property collected in a small drainage swale constructed parallel to Riverhead –Speonk Road in the vicinity of the wood storage building and the metal-framed drip pad building. Water then entered an open grate catch basin on the property and drained to another open grate catch basin in the Town Right-of-Way (ROW). It then continued westward via 15" corrugated piping installed beneath Riverhead-Speonk Road into another Town ROW catch basin before finally discharging over a rip-rap reinforced spillway installed on the Phase 4 neighboring property.

During the severe rain events previously mentioned, the single on-site catch basin and/or piping could not handle the volume of water. The water crested the drainage swale in several locations, crossing Riverhead – Speonk Road and flowing onto the adjacent property. The flowing water undermined the Town catch basin and roadway and de-stabilized the rip-rap spillway. The water travelled several hundred yards westward scouring the drainage ditch and ponded at the extreme west end of the off-site property. Repairs to the damage were completed in December 2011.

3.0 OVERVIEW OF WORK PERFORMED

Major work items can be divided into the following work tasks:

- Survey and spot elevations.
- Cut and fill operations – rough grading.
- Furnish and install a catch basin at west edge of basin.
- Install 6" PVC piping between retention pond catch basin and existing catch basin.
- Install emergency spillway.
- Install three (3) level spreaders in basin.
- Excess fill relocation and final grading.
- Seed and install erosion mat.
- Final survey and as-built.

3.1 Survey and Spot Elevations

On 2/1/12 a survey crew from L.K. McLean Associates, P.C. conducted an initial survey of the proposed stormwater retention basin confirming existing site conditions. Using a detail provided by Ecology and Environment Engineering, P.C., spot cut and fill elevations were staked throughout the entire basin area. This detail is provided in Appendix A. Other features also staked were the proposed outlet catch basin on the west edge of the basin, the emergency spillway piping and the invert elevations for the 6" PVC discharge piping from the proposed to catch basin to the existing catch basin located between the frame storage building and the former drip pad area.

3.2 Cut and Fill Operations - Rough Grading

Between the dates of 2/6/12 and 2/28/12, EnviroTrac personnel cut several hundred yards of excess fill and temporarily staged this material adjacent to the retention basin. Some areas of the proposed basin necessitated fill to be added to meet the required elevations. The equipment used to perform the earth moving activities included a tracked excavator, tracked dozer, tracked skid steer and a wheel loader.

3.3 Catch Basin and Drainage Lines

The outlet catch basin and connecting 6" PVC drainage line was installed and backfilled on 2/29/12 and 3/1/12. An open faced grate was installed on the catch basin on 3/5/12. The cut sheets for the precast and cover are provided in Appendix B. A 6" PVC emergency drain spillway was installed in the northwest corner of the basin. This drain discharges directly to the surface in the event that the primary outlet becomes backed up or clogged during a severe rain event due minimize erosion and damage to the rim of the basin.

3.4 Excess Fill Handling

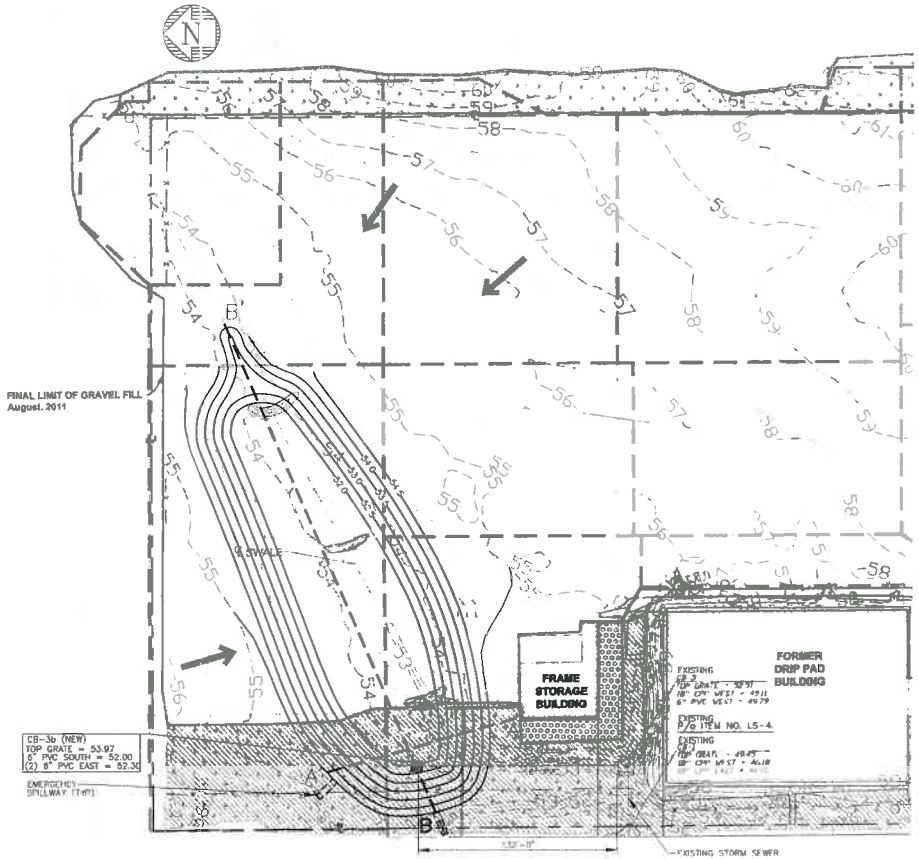
Between the dates of 3/6/12 and 3/16/12, EnviroTrac personnel relocated several hundred cubic yards of excess material that was removed for the creation of the retention basin to the northeast most corner of the property. This material was staged and surrounded by silt fencing. This fill will be used as on-site material at the discretion of NYSDEC if it is warranted. Additional

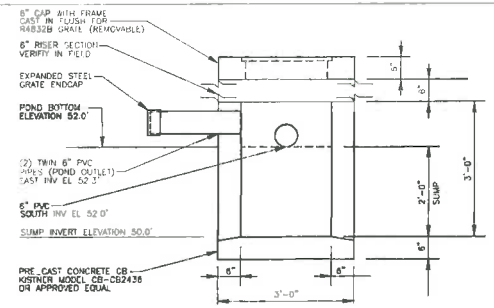
material was spread throughout the site to restore areas of heavy erosion and to return contours to their original elevations.

3.5 Seed and Restoration

On 3/19/12 and 3/20/12, areas that were disturbed as a result of construction activities during the installation of the retention basin were seeded with the design-mix that is provided in Appendix C. The seeded areas were then covered with erosion control matting to reduce the potential for scouring of soil in the event of a significant rainfall prior to establishment of the grass. A cut sheet for the erosion mat is provided in Appendix D. At this time, approximately 50 CY of light stone was used to construct three (3) level spreaders to delay the flow of water within the retention basin. The spreaders are identified in the Final As-Built drawing prepared by L.K. McLean Associates, P.C. and provided in Appendix E.

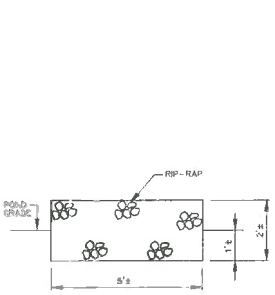
Appendix A





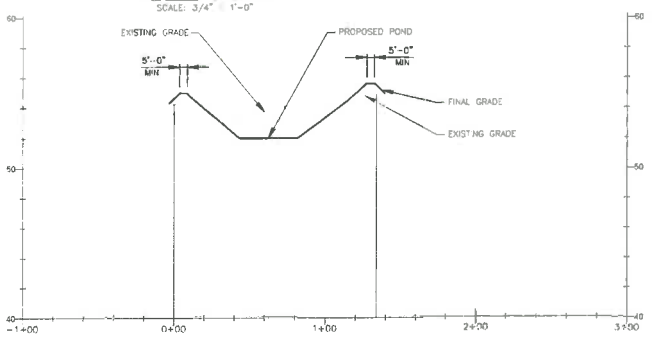
CB-3b DETAIL

SCALE: 3/4" = 1'-0"



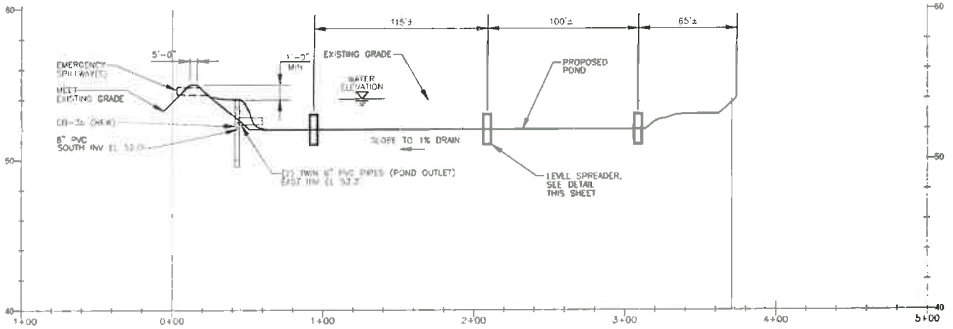
LEVEL SPREADER DETAIL

SCALE: 1/2" = 1'-0"



PROFILE A - A'

HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 4'



PROFILE B - B'

HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 4'

GENERAL NOTES:

1. EXISTING FEATURES REFERENCED FROM DRAWING 9/8 OF THE BB&S FINAL AS-BUILT SURVEY (DATED AUGUST 30TH, 2011)
2. GRADES AROUND THE PERIMETER SHALL BE AT LEAST 8.75% AND AT MOST A 33% GRADE
3. EXCAVATED MATERIALS SHALL BE USED TO BUILD THE BERM AROUND THE POND. EXCESS FILL SHALL BE GRADED EVENLY IN THE SURROUNDING AREAS.
4. 2' MINIMUM SUMP IN NEW 24" SQ x 36" CATCH BASIN (CB-3b).

LEGEND

-57-	EXISTING TOPOGRAPHIC CONTOUR (SEPTEMBER 2011)
—54.0—	NEW TOPOGRAPHIC CONTOUR
A — — — A'	PROFILE LOCATION
------	NEW PIPE (6" PVC)
	EXISTING GRADE (PROFILE VIEW)
	PROPOSED GRADE (PROFILE VIEW)
→	DIRECTION OF FLOW

SCALE IN FEET
0 40 80 120

IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW TO ALTER THIS DOCUMENT BY MEANS, INCONSISTENT WITH SECTION 7209 OF SAID LAW.

DRAFT

NO.	DATE	DRWN	APP'D	DESCRIPTION
REVISIONS				
A	1-13-12	KMK	TRH	ISSUED FOR DRAFT REVIEW
NO.	DATE	DRWN	APP'D	DESCRIPTION
BLANK REVISIONS				

ecology and environment engineering, p.c.

DESIGNED BY: P. KUCHIKULLA	CHECKED BY: M. STEFFAN
DRAWN BY: KM. KRAJEWSKI	APPROVED BY: TR. HIFNS, P.E.

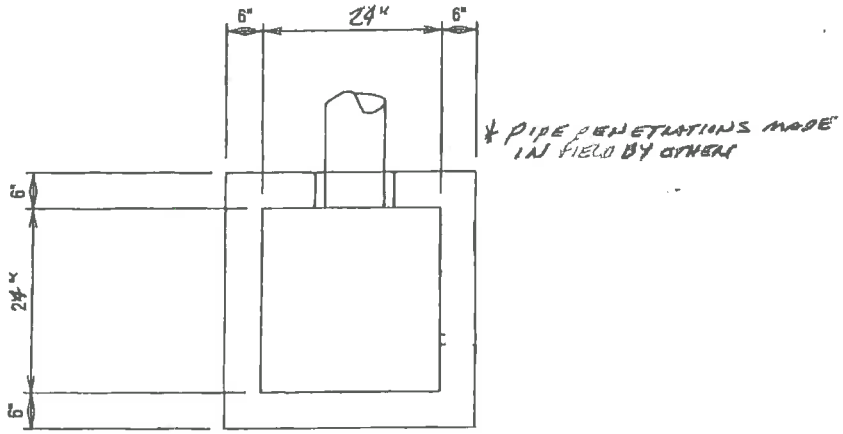
B.B.&S. TREATED LUMBER CORP.

SOUTHAMPTON — SUFFOLK COUNTY — NEW YORK

PROPOSED STORMWATER POND

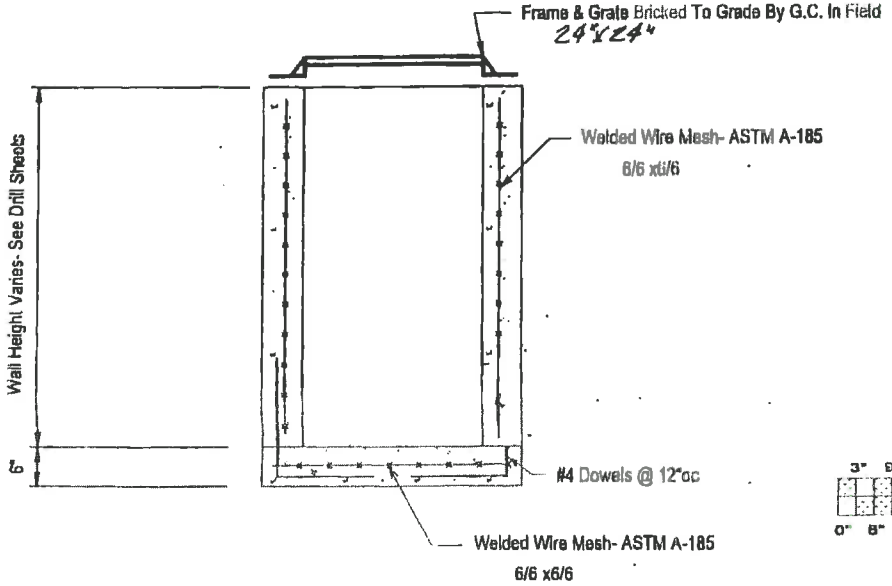
SCALE	FIRST ISSUED	DRAWING NO.	SHEET NO.	REV
AS NOTED	1-13-12	P-1	1 of 1	A

Appendix B



Plan

Catch Basin



Typical Section

SCALE

Specifications

Concrete- 4000 psi @ 28 Days

Rebar- ASTM A-615 Grade 60

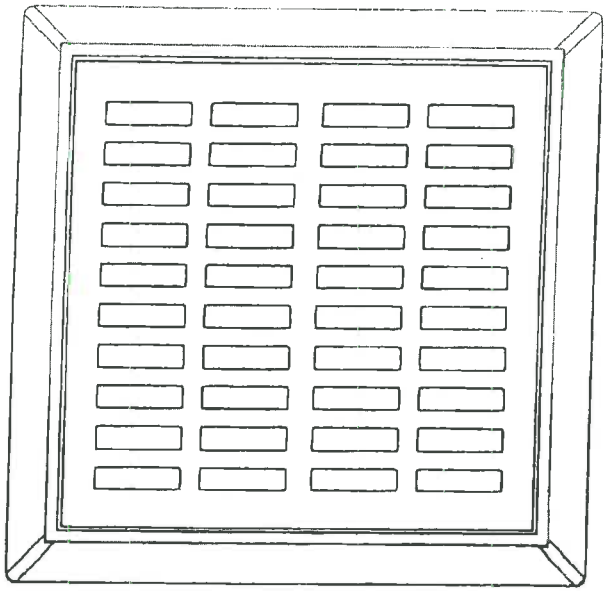
F:\DC\BOX\YD-CB.dcd

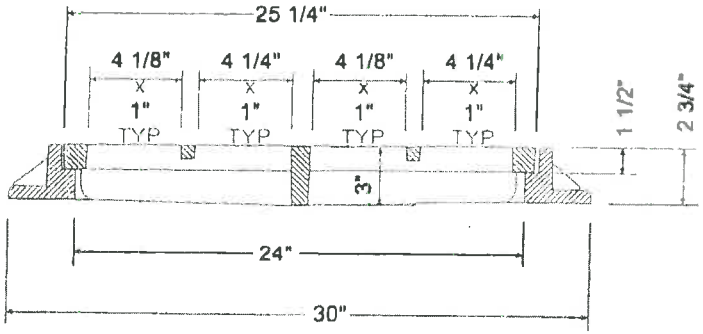
COASTAL PIPELINE PRODUCTS CORP.
(631)369-4000
P.O. Box 575, Twomey Ave. , Calverton NY 11933

Project:			
Contractor:			
Product: Precast Concrete Catch Basins			
scale	date	dwn. by	dwg. no.
As-Noted	3/9/06	G.S.E.	YD-CB

Heavy Duty Frame and Grate

28150000





Notes:

1. Material: Gray Cast Iron, ASTM A48-83,Class 30B;
2. AASHTO HS20-44 Highway Loading;
3. Castings supplied with [illegible] surface coating;

CRISWELL TRADING COMPANY, INC.
THE MANOR
076 MILL ROAD
BRYN MAWR, PA 19010
PHONE: [illegible] FAX: 610-525-8480

Heavy Duty Frame and Grate

Pattern Number: 28150000

Appendix C

March 13, 2012

Re: John Szymanski Envirotrac

Dear Sir or Madam:

This letter is to certify that the supplied seed mix meets or exceeds the spec given. The seed used in this mix is of high quality of known origin that has been tested for purity. The labels are composed in accordance with New York State regulations and represent the contents of the bags.

The contents are as follows:

Variety/Species	
Timothy Climax	42.5%
Alsike Clover	24.9%
Orchardgrass Potomic	15.6%
Bicolor Lespedeza hulled	3.9%
Switchgrass Blackwell	3.5%
Broomsedge Mo Ecotype	.9%
German (Foxtail) Millet	5.3%
Common Sunflower	1.50%
Pennsylvania Smartweed OH Echotype	.8%
Oats Ogle	.7%

Please contact me directly if you should have any questions or need further information. I can be reached at the warehouse 631-789-6680. Thank you.

Sincerely,

Eric Ramirez

OFFICE: 721 Main Street, Farmingdale, New York 11735 ♦ **PHONE**: 631-789-6680 ♦ **FAX**: 631-789-5711
WAREHOUSE: 55 Motor Ave., Farmingdale, New York 11735 ♦ **WEBSITE**: www.AllPro-Horticulture.com
♦ **EMAIL**: Eric@AllPro-Horticulture.com

Appendix D

Material and Performance Specification Sheet

North American Green
14649 Highway 41 North
Evansville, IN 47725
800-772-2040
FAX: 812-867-0247
www.nagreen.com

A tensar Company

S75 Erosion Control Blanket

The short-term single net erosion control blanket shall be a machine-produced mat of 100% agricultural straw with a functional longevity of up to 12 months. (NOTE: functional longevity may vary depending upon climatic conditions, soil, geographical location, and elevation). The blanket shall be of consistent thickness with the straw evenly distributed over the entire area of the mat. The blanket shall be covered on the top side with a lightweight photodegradable polypropylene netting having an approximate 0.50 x 0.50 (1.27 x 1.27 cm) mesh. The blanket shall be sewn together on 1.50 inch (3.81 cm) centers with degradable thread.

The S75 shall meet requirements established by the Erosion Control Technology Council (ECTC) Specification and the US Department of Transportation, Federal Highway Administration's (FHWA) *Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-03 Section 713.17 as a type 2.C Short-term Single Net Erosion Control Blanket.*

The blanket shall be manufactured with a colored thread stitched along both outer edges (approximately 2-5 inches [5-12.5 cm] from the edge) as an overlap guide for adjacent mats.

Material Content		
Matrix	100% Straw Fiber	0.5 lbs/yd² (0.27 kg/m²)
Nettings	Top side only, lightweight photodegradable	1.5 lb/1000 ft² (0.73 kg/100 m²) approx. weight
Thread	degradable	

S75 is available in the following standard roll sizes:

Width	4.0 ft (1.2 m)	6.67 ft (2.03 m)	16 ft (4.87 m)
Length	135 ft (41.14 m)	108 ft (32.92 m)	108 ft (32.92 m)
Weight ± 10%	30 lbs (13.6 kg)	40 lbs (18.14 kg)	96 lbs (43.54 kg)
Area	60 yd² (50.16 m²)	80.0 yd² (66.9 m²)	192 yd² (165.5 m²)

Index Value Properties:

Property	Test Method	Typical
Thickness	ASTM D6525	0.37 in (9.4 mm)
Resiliency	ECTC Guidelines	78.8%
Water Absorbency	ASTM D1117	426%
Mass/Unit Area	ASTM 6475	11.97 oz/yd² (407 g/m²)
Swell	ECTC Guidelines	15%
Smolder Resistance	ECTC Guidelines	Yes
Stiffness	ASTM D1388	6.31 oz-in
Light Penetration	ECTC Guidelines	7.3%
Tensile Strength –MD	ASTM D6818	130.8 lbs/ft (1.94 kN/m)
Elongation – MD	ASTM D6818	24.4%
Tensile Strength – TD	ASTM D6818	85.2 lbs/ft (1.26 kN/m)
Elongation – TD	ASTM D6818	26.8%

Bench Scale Testing* (NTPEP):

Test Method	Parameters	Results
ECTC Method 2 Rainfall	50 mm (2 in)/hr for 30 min	SLR** = 8.80
	100mm (4 in)/hr for 30 min	SLR** = 8.16
	150 mm (6 in)/hr for 30 min	SLR** = 7.81
ECTC Method 3 Shear Resistance	**Shear at 0.50 inch soil loss**	**1.80 lbs/ft²**
ECTC Method 4 Germination	Top Soil, Fescue, 21 day incubation	228% improvement of biomass

* Bench Scale tests should not be used for design purposes

** Soil Loss Ratio = Soil loss with Bare Soil/Soil Loss with RECP (soil loss is based on regression analysis)

Updated 3/09

Performance Design Values:

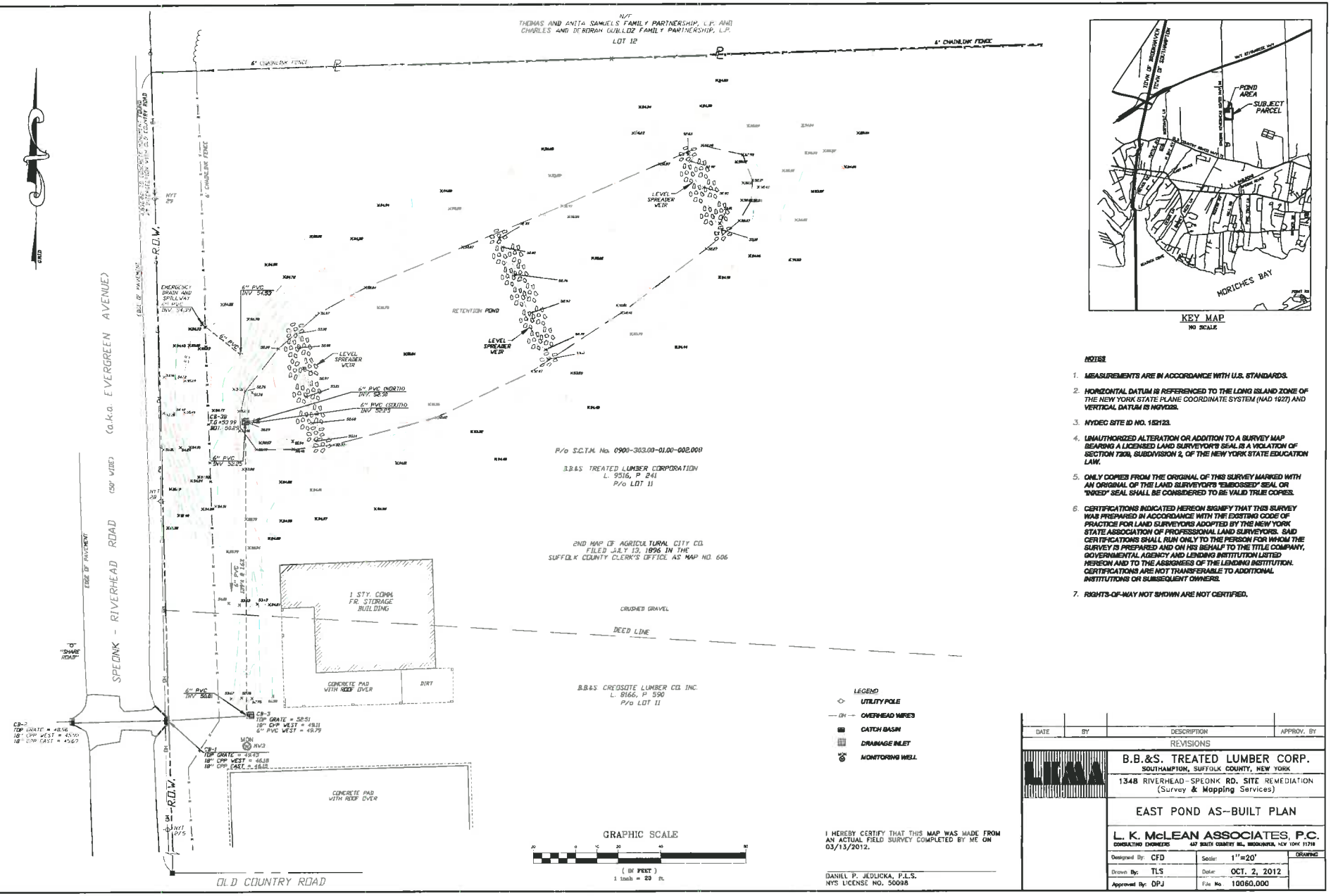
Maximum Permissible Shear Stress	
Unvegetated Shear Stress	1.55 lbs/ft² (74 Pa)
Unvegetated Velocity	5.00 ft/s (1.52 m/s)

Slope Design Data: C Factors			
	Slope Gradients (S)		
Slope Length (L)	≤ 3:1	3:1 – 2:1	≥ 2:1
≤ 20 ft (6 m)	0.029	NA	NA
20-50 ft	0.11	NA	NA
≥ 50 ft (15.2 m)	0.19	NA	NA

Roughness Coefficients- Unveg.	
Flow Depth	Manning's n
≤ 0.50 ft (0.15 m)	0.055
0.50 – 2.0 ft	0.055 – 0.021
≥ 2.0 ft (0.60 m)	0.021

Product Participant of: QDOR PERFORMANCE VERIFIED

Appendix E



KEY MAP
NO SCALE

NOTES:

1. MEASUREMENTS ARE IN ACCORDANCE WITH U.S. STANDARDS.
2. HORIZONTAL DATUM IS REFERENCED TO THE LONG ISLAND ZONE OF THE NEW YORK STATE PLANE COORDINATE SYSTEM (NAD 1927) AND VERTICAL DATUM IS NGVD29.
3. NYDEC SITE ID NO. 152123.
4. UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW.
5. ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S "EMBOSSED" SEAL OR "INKED" SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES.
6. CERTIFICATIONS INDICATED HEREON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYORS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS. SAID CERTIFICATIONS SHALL RUN ONLY TO THE PERSON FOR WHOM THE SURVEY IS PREPARED AND ON HIS BEHALF TO THE TITLE COMPANY, GOVERNMENTAL AGENCY AND LENDING INSTITUTION LISTED HEREON AND TO THE ASSIGNEES OF THE LENDING INSTITUTION. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.
7. RIGHTS-OF-WAY NOT SHOWN ARE NOT CERTIFIED.

I HEREBY CERTIFY THAT THIS MAP WAS MADE FROM AN ACTUAL FIELD SURVEY COMPLETED BY ME ON 03/13/2012.

DANIEL P. JEDLICKA, P.L.S.
NYS LICENSE NO. 50098

DATE	BY	DESCRIPTION	APPROV. BY
		REVISIONS	

LEAA

B.B.&S. TREATED LUMBER CORP.
SOUTHAMPTON, SUFFOLK COUNTY, NEW YORK
1348 RIVERHEAD-SPEONK RD. SITE REMEDIATION
(Survey & Mapping Services)

EAST POND AS-BUILT PLAN

L. K. McLEAN ASSOCIATES, P.C.
CONSULTING ENGINEERS 437 SOUTH COUNTRY RD., BROOKHAVEN, NEW YORK 11719

Designed By: CFD	Scale: 1"=20'	DRAWING
Drawn By: TLS	Date: OCT. 2, 2012	
Approved By: DPJ	File No. 10060.000	

Oct 04, 2012 - 01:28pm
P:\10060.000 (B&S Site Remediation - Survey & Mapping Services)\East Pond\Dwg\East Pond As-built Plan.dwg

Appendix F


621D
CASE