



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

MARK J. EDSALL, P.E., P.P. (NY, NJ & PA)
MICHAEL W. WEEKS, P.E. (NY, NJ & PA)
MICHAEL J. LAMOREAUX, P.E. (NY, NJ, PA, VT & VA)
MATTHEW J. SICKLER, P.E. (NY & PA)
PATRICK J. HINES

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

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: NYCDEP DELAWARE AQUEDUCT RONDOUT WEST BRANCH
TUNNEL REPAIR SHAFT 5B - STORM WATER POLLUTION
PREVENTION PLAN MODIFICATION #6
PROJECT NO.: 11-15
PROJECT LOCATION: SECTION 8, BLOCK 1, LOT 15.2 & 22.2
PROJECT REPRESENTATIVE: NYCDEP
REVIEW DATE: 25 SEPTEMBER 2015
MEETING DATE: 1 OCTOBER 2015

1. Status of the City of New York SEQRA review as lead agency should be discussed with the Applicants.
2. The Applicants have submitted an SWPPP revised per MH&E comments. SWPPP is acceptable.
3. Planning Board should discuss proposed landscaping.
4. Planning Board should address whether storm water securities are required of this municipal applicant.
5. Landscape and storm water inspection fees are required.
6. At a previous meeting, the Applicant's Representative identified they would provide the Planning Board with a definitive answer regarding the reduction in truck traffic provided by placing the tunnel material on the expanded site.
7. The Applicant's Representative was to provide specifications for the sizing of the tunnel material which would be deposited on the site.

Respectfully submitted,

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

Patrick J. Hines
Principal



Emily Lloyd
Commissioner

Sean McAndrew, P.E.
Program Director

Water for the Future

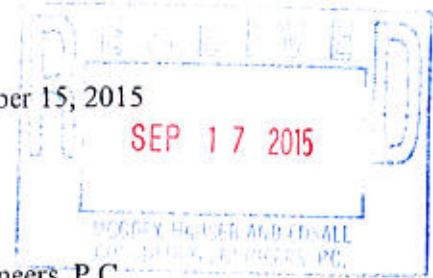
Bureau of Engineering
Design & Construction

mcandrews@dep.nyc.gov

16 Little Hollow Road
P.O. Box 358
Grahamsville, NY 12740

T: (845) 334-7195
F: (845) 985-2282

September 15, 2015



Mr. Patrick J. Hines, P.E.
McGoey, Hauser and Edsall Consulting Engineers, P.C.
33 Airport Drive, Suite 202
New Windsor, New York 12533

Re: New York City Department of Environmental Protection
Delaware Aqueduct Rondout-West Branch Tunnel Repair Program
West Connection Site / Shaft 5B and Support Site
Stormwater Pollution Prevention Plan – Modification #6
Town Project Number: 2011-15

Dear Mr. Hines:

Thank you very much for your September 1, 2015 comments subject project. Please see the enclosed documents and signed and sealed drawings as requested to finalize the stormwater pollution prevention plan (SWPPP) modification originally submitted in May of this year.

For your convenience, a revision summary has been attached to this letter as has a brief response to your September 1st comments. A compact disk with electronic copies of the full SWPPP modification documents is also included.

Thank you once again for your help, and should you have any questions, please feel free to contact Chris Villari (718-595-5565, civillari@dep.nyc.gov) or Phil Simmons (718-595-4471, psimmons@dep.nyc.gov). We look forward to receiving a signed MS4 acceptance form in the near future.

Sincerely,

Sean McAndrew

Enclosure

cc: (letter and compact disk only)
Mr. John P. Ewasutyn, Town of Newburgh Planning Board Chairman
Dan Michaud, DEP Bureau of Water Supply

MEMORANDUM

Subject: NYCDEP Rondout-West Branch Bypass Tunnel Bell Property Amended Site Plan Storm Water Pollution Prevention Plan & Storm Water Management Plan – Revision Summary **Date:** 9/9/2015

Prepared By: Troy A. Wojciekofsky, PE, LEED-AP, ENV-SP
Stantec

Submitted By: Brian M. Lakin, PE, ENV SP **File Number:** 4458.2
JA Underground: PC dba Jacobs Associates

The following pages of the SWPPP have been revised:

SWPPP Narrative

Page

Cover

Preface – SWPPP Modification Form; SWPPP Preparer Certification

Distribution

TOC

21 – 40

44

53 – 77

Appendix B

NOI – page 3, 6

Appendix D

All Stantec Sheets

Appendix E

All

Appendix F

All

Appendix K

All

**New York City Department of Environmental Protection
Delaware Aqueduct Rondout-West Branch Tunnel Repair Program
West Connection Site / Shaft 5B and Support Site
Stormwater Pollution Prevention Plan – Modification #6
Town Project Number: 2011-15**

**Response to September 1, 2015 Comments
September 14, 2015**

This document repeats comments from Patrick Hines dated September 1, 2015 (bold text) regarding the subject project and provides responses from DEP (italics).

- 1) **This office accepts these modifications to the SWPPP for the Bell property. Modifications are outlined in a 22 July 2015 letter received 10 August 2015 detailing responses to this office comments as well as modifications to the plans and report. Based on a review of the information provided, please provide final versions of the SWPPP for inclusion in the binder submitted in May of this year. Final signed and sealed drawings that require updates should also be provided. Please copy the Town of Newburgh Planning Board on all information submitted to this office.**

DEP Response: The final version of the SWPPP sections - including final signed and sealed drawings and supporting documentation - that required updates since the original submission on May 15, 2015 are enclosed. Please see the attached revision summary for those sections that have been updated. Note that Appendices A, C, G, H, I, and J have not been updated, therefore hard copies have not been provided. Electronic copies are included, on the enclosed disk. Finally, the Planning Board chairman has been copied on this correspondence.

- 2) **All items that have been deferred to contractors should be followed up by submission to the Town as the municipal authorized MS4. Information such as cut sheets for any pumps, pump vaults, etc. should be coordinated with the Town for inclusion in the SWPPP both in the town records and onsite.**

DEP Response: As requested, DEP will coordinate with the Town and provide SWPPP updates as the project advances, including information related to the contractors' items as it becomes available.

- 3) **The NOI should be revised requesting the 10 acre disturbance waiver identified in the submission.**

DEP Response: The NOI has been revised as requested and included in the enclosed documents.

- 4) **Final plan submission should depict drainage course from SWDP2 to the new Route 9W culvert system. Existing topography does not clearly define defined swale along the farm roads/drainage course.**

DEP Response: *The requested depiction of the farm road swale drainage course has been added to the SWPPP. Please see the attached half size drawing SWFP-C2-120 as well as excerpts from Appendix F. Additional information from the SWPPP preparer follows below.*

"The farm road swale has been field verified and dimensions of which are provided in the stormwater calculation package contained within Appendix F of the SWPPP (pages 56 and 58 of the pdf). These dimensions were measured both downstream of the SWDP-2 discharge point and 50 feet downstream of the discharge point. The riprap armoring shown in the drawings and in various figures within the stormwater report is being installed to protect the existing slope from eroding from the proposed point discharge from basin SWDP-2 while water flows to the existing swale. The rip rap armoring alignment provides a direct connection with the existing swale. At this connection point, based on field observations, the road cross-section is concave. This begins the swale cross-section geometry until further down the road, where the swale begins to run along the side of the road. In figures 9 and 10 of Appendix F (pages 48 and 50 of the pdf) the topography and flow lines are shown from the SWDP-2 discharge point flowing towards Route 9W. This flow line has been added to drawing sheet SWFP-C2-120 as well and shows the entirety of the flow line from the discharge point to Route 9W, where flow is intercepted by the existing highway drainage system."

FARM ROAD SWALE/DRAINAGE CORRIDOR CALCULATION

Downstream of Discharge Point from SWDP-2

Q = 121.0 cfs	Flow Rate
n = 0.025	Manning's n
S = 0.2340 ft/ft	Downstream Slope
b = 7.7 ft	Base Width
z = 0.20 ft/ft	Side Slope

Project: West Connection Support Site	
Location: Newburgh, NY	
Date: 8/5/2015	
Prepared By: HAKS	

Uniform Flow Depth	
A = 5.75 ft ²	Flow Area
P = 9.20 ft	Wetted Perimeter
R = 0.63 ft	Hydraulic Radius
K = 250.1 cfs	Manning's Conveyance
err = 0.0000 cfs	Manning's Q - Given Q
y_u = 0.73 ft	
Uniform Flow Depth	

Critical Flow Depth	
A = 15.68 ft ²	Flow Area
P = 11.65 ft	Wetted Perimeter
R = 1.35 ft	Hydraulic Radius
T = 8.48 ft	Top Width
err = 0.0000 ft ⁵	Q ² /g - A ³ /T
y_c = 1.94 ft	
Critical Flow Depth	

Note: Assign b = 0 for triangular channels or z = 0 for rectangular channels.



Velocity	21.03 ft/sec
Channel Top Width	8.76 ft
Standard Channel Depth:	2.65 ft
Max Flow Depth	0.73 ft
Is Standard Channel Depth Acceptable?	Yes

FARM ROAD SWALE/DRAINAGE CORRIDOR CALCULATION

50' Downstream of Discharge Point from SWDP-2 (Approx. Property Line)

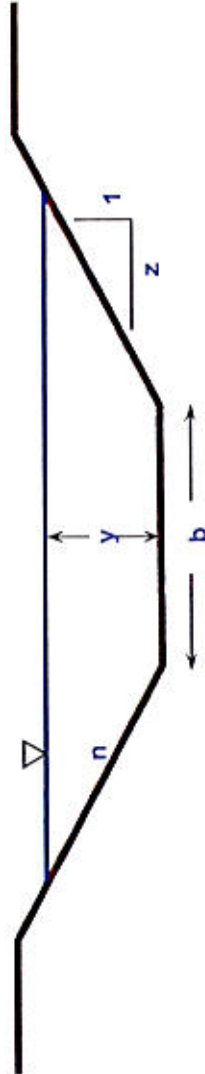
Q =	121.0 cfs	Flow Rate
n =	0.025	Manning's n
S =	0.1800 ft/ft	Downstream Slope
b =	10.6 ft	Base Width
z =	0.17 ft/ft	Side Slope

Project:	West Connection Support Site
Location:	Newburgh, NY
Date:	8/5/2015
Prepared By:	HAKS

Uniform Flow Depth	
A =	6.90 ft ²
P =	11.91 ft
R =	0.58 ft
K =	285.2 cfs
err =	0.0000 cfs
y_n =	0.64 ft
Uniform Flow Depth	

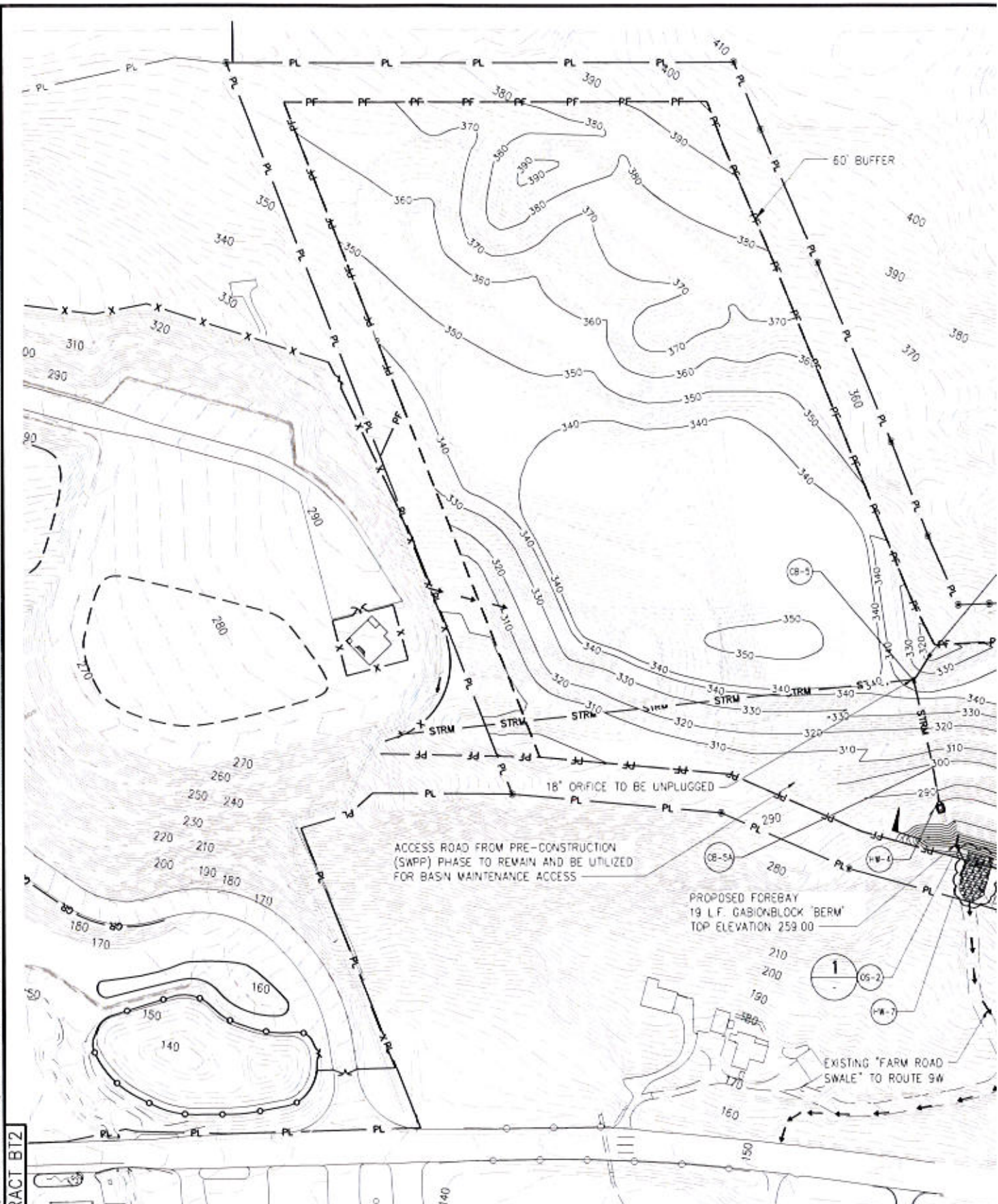
Critical Flow Depth	
A =	17.17 ft ²
P =	13.81 ft
R =	1.24 ft
T =	11.14 ft
err =	0.0000 ft ⁵
y_c =	1.58 ft
Critical Flow Depth	

Note: Assign b = 0 for triangular channels or z = 0 for rectangular channels.







Velocity	17.53 ft/sec
Channel Top Width	11.076 ft
Standard Channel Depth:	1.4 ft
Max Flow Depth	0.64 ft
Is Standard Channel Depth Acceptable?	Yes

Last Saved By & Date: Aday, Friday, September 11, 2015 and Date Plotted: Friday, September 11, 2015, Time: 2:24 PM
 Paper Size: ANSI (full bleed) (34.00 x 22.00 inches) Plot Scale: 1:1 Plot Style Table: BDC_22x34_Full_Size.ctb
 Drawing Name: & Location: R:\02_N12_PROJECTS\N113-629_NYDEP_BT-1_Bell_Property_Drainage_Design\12_CAD Drawings\Design_Drawings\17_Site_Work_Final_Condition_Connection\02_Civil\SWPP-C2-120.01.dwg



SITE DRAINAGE PLAN FINAL RESTORATION
 SCALE: 1"=100'

CONTRACT B12

DESIGNED BY: JFW		DRAWN BY: 400	
CHECKED BY: JS		 	
DESIGN LEAD: J. MICHELS			
SECTION MANAGER: L. SCHNEIDT			
PROJECT MANAGER: TED DOWEY		CHIEF, TUNNEL DESIGN: BURJOR KHARVALA	
DIRECTOR, IN HOUSE DESIGN: PATRICK O'CONNOR			

All inquirers regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.