May 19, 2014

Kurt W. Hauk, P.E.
City Engineer
Room 305, City Hall
245 Washington Street
Watertown, NY 13601

Re: **Site Plan Review Application**
Accountant's Office (A&C Project #2014-017.001)
VL 9 Commerce Park Drive East, Watertown, NY

Dear Mr. Hauk:

Aubertine & Currier Architects, Engineers & Land Surveyors, PLLC on behalf of Michael D'Avirro of Bowers & Company, CPA, PLLC is requesting to be included on the agenda for the June 3, 2014 City of Watertown Planning Board meeting for a proposed Accountant's Office, located at VL 9 Commerce Park Drive East, on Tax Parcel No. 8-50-101.150. Included with this cover letter is a review fee check for $50.00, seventeen (17) copies of the letter, Site Plan Application, Short SEQR Environmental Assessment Form, and four (4) copies of the Engineering Report. Also attached are four (4) full size and thirteen (13) 11"x17" copies of the Site Plans, Site Details and Preliminary Building Floor Plans and Elevations.

The project consists of a proposed 7,800 SF Accountant's Office and associated site amenities. Site amenities include the construction of a 17,700 SF, 40 space parking lot, concrete sidewalks, and site lighting**.** The building will be serviced by public sewer and water, and private electric, gas, and communication utilities. Utility connections will be made to existing utilities along Commerce Drive East and within a utility easement in the north end of the parcel. 140 LF of 1" Type K copper water service will connect to an existing 6" water service stub located at the end of Commerce Drive East. 58 LF of 6" SDR-35 PVC sanitary sewer lateral will be installed and connect to an existing 6" sanitary sewer lateral stub located along the utility easement in the northeast corner of the parcel. The underground electric, gas and communication utilities will also be connected to existing utilities located along Commerce Drive East.

The owner intends to begin construction this summer/fall as soon as approvals are granted. If there are any questions, please feel free to contact our office at your earliest convenience.

Sincerely,
Aubertine and Currier Architects, Engineers & Land Surveyors, PLLC

Christopher W. Todd
Civil Designer

Attachments
Cc: Michael D'Avirro – Owner
Patrick J. Currier, R.A. – A&C

AUBERTINE and CURRIER
ARCHITECTS, ENGINEERS & LAND SURVEYORS, PLLC
NYS WBE/DBE Certified
SBA Woman Owned
Small Business (WOSB)
aubertinecurrier.com
522 Bradley Street
Watertown, New York 13601
Phone: 315.782.2005
Fax: 315.782.1472
Managing Partner
Annette M. Mason, P.E.
Structural Engineer
Partners
Michael L. Aubertine, R.A.
Architect
Patrick J. Currier, R.A.
Architect
Brian A. Jones, AIA.,
LEED AP BD+C
Architect
Matthew R. Morgia, P.E.
Civil Engineer
Jayson J. Jones, P.L.S.
Land Surveyor

CITY OF WATERTOWN
SITE PLAN APPLICATION
AND
SHORT ENVIRONMENTAL
ASSESSMENT FORM, PART 1

** Provide responses for all sections. INCOMPLETE APPLICATIONS WILL NOT BE PROCESSED. Failure to submit required information by the submittal deadline will result in **not** making the agenda for the upcoming Planning Board meeting.

PROPERTY LOCATION

Proposed Project Name: Accountant's Office

Tax Parcel Number: 8-50-101.150

Property Address: VL-9 Commerce Park Drive East, Watertown, NY 13601

Existing Zoning Classification: Commercial

OWNER OF PROPERTY

Name: Watertown Commerce, LLC

Address: 31 Hopkins Road Suite 100
Amherst, NY 14221

Telephone Number: (716)204-2000

Fax Number: (716)204-2050

APPLICANT

Name: Michael D'Avirro, Bowers & Company, CPA, PLLC

Address: 1200 AXA Tower I, 100 Madison Street
Syracuse, NY 13202

Telephone Number: (315)234-1172

Fax Number: (315)234-1111

Email Address: MGD@bcpllc.com

ENGINEER/ARCHITECT/SURVEYOR

Name: Aubertine & Currier Architects, Engineers & Land Surveyors,PLLC

Address: 522 Bradley Street
Watertown, NY 13601

Telephone Number: (315)782-2005

Fax Number: (315)782-1472

Email Address: mrm@aubertinecurrier.com

Date 12-28-2012

PROJECT DESCRIPTION

Describe project and proposed use briefly:

The project consists of a proposed 7,800 SF accountant's office with a 17,700 SF, 40 space parking lot.

Is proposed Action:

[X] New [ ] Expansion [ ] Modification/Alteration

Amount of Land Affected:

Initially: 0.98 Acres Ultimately: 0.98 Acres

Will proposed action comply with existing zoning or other existing land use restrictions?

[X] Yes [ ] No If no, describe briefly

What is present land use in vicinity of project?

[ ] Residential [ ] Industrial [X] Commercial [ ] Agriculture

[ ] Park/Forest/Open Space [X] Other

Describe: Neighborhood Business

Does project involve a permit approval, or funding, now or ultimately from any other Governmental Agency (Federal, State or Local)?

[X] Yes [ ] No If yes, list agency(s) and permit/approval(s)

City of Watertown Planning Board - Building Permit

Does any aspect of the project have a currently valid permit or approval?

[ ] Yes [X] No If yes, list agency(s) and permit/approval(s)

As a result of proposed project, will existing permit/approval require modification?

☐ Yes ☒ No

Proposed number of housing units (if applicable): N/A

Proposed building area: 1st Floor 7,800 Sq. Ft.

2nd Floor _____ Sq. Ft.

3rd Floor _____ Sq. Ft.

Total 7,800 Sq. Ft.

Area of building to be used for the boiler room, heat facilities, utility facilities and storage: 130 Sq. Ft.

Number of parking spaces proposed: 40

Construction Schedule: June 2014 - June 2015

Hours of Operation: 7 AM - 5 PM

Volume of traffic to be generated: 21 Peak Hour ADT

SIGNATURE

I certify that the information provided above is true to the best of my knowledge.

Applicant (please print) Michael D'Avirro

Applicant Signature _____ Date: 5/16/14

OPTIONAL DRAWINGS:

☐ **PROVIDE AN ELECTRONIC (.DWG) COPY OF THE SITE PLAN WITH AS-BUILT REVISIONS. This will assist the City in keeping our GIS mapping up-to-date.**

REQUIRED DRAWINGS:

** The following drawings with the listed information **ARE REQUIRED, NOT OPTIONAL**. If the required information is not included and/or addressed, the Site Plan Application will **not** be processed.

☒ **ELECTRONIC COPY OF ENTIRE SUBMISSION** (PDF preferred)

☒ **BOUNDARY & TOPOGRAPHIC SURVEY**
(Depict existing features as of the date of the Site Plan Application. This Survey and Map must be performed and created by a Professional Land Surveyor licensed and currently registered to practice in the State of New York. This Survey and Map must be stamped and signed with an original seal and signature on at least one copy, the rest may be copies thereof.

- ☒ All elevations are National Geodetic Vertical Datum of 1929 (NGVD29).
- ☒ 1' contours are shown & labeled with appropriate spot elevations.
- ☒ All existing features on and within 50 feet of the subject property are shown and labeled.
- ☒ All existing utilities on and within 50 feet of the subject property are shown and labeled.
- ☒ All existing easements and/or right-of-ways are shown and labeled.
- ☒ Existing property lines (bearings & distances), margins, acreage, zoning, existing land use, reputed owner, adjacent reputed owners & tax parcel numbers are shown and labeled.
- ☒ The north arrow & graphic scale are shown.

☐ **DEMOLITION PLAN** (If Applicable) N/A

- ☐ All existing features on and within 50 feet of the subject property are shown and labeled.
- ☐ All items to be removed are labeled in darker text.

☒ **SITE PLAN**

☒ All proposed above ground features are depicted and clearly labeled.

☒ All proposed features are clearly labeled "proposed".

N/A ☐ All proposed easements & right-of-ways are shown and labeled.

☒ Land use, zoning, & tax parcel number are shown.

☒ The Plan is adequately dimensioned including radii.

☒ The line work & text for all proposed features is shown darker than existing features.

☒ All vehicular & pedestrian traffic circulation is shown including a delivery or refuse vehicle entering and exiting the property.

☒ Proposed parking & loading spaces including ADA accessible spaces are shown and labeled.

N/A ☐ Refuse Enclosure Area (Dumpster), if applicable, is shown. Section 161-19.1 of the Zoning Ordinance states, "No refuse vehicle or refuse container shall be parked or placed within 15 feet of a party line without the written consent of the adjoining owner, if the owner occupies any part of the adjoining property".

☒ The north arrow & graphic scale are shown.

☒ **GRADING PLAN**

☒ All proposed below ground features including elevations & inverts are shown and labeled.

☒ All proposed above ground features are shown and labeled.

☒ The line work & text for all proposed features is shown darker than existing features.

N/A ☐ All proposed easements & right-of-ways are shown and labeled.

☒ 1' existing contours are shown dashed & labeled with appropriate spot elevations.

☒ 1' proposed contours are shown & labeled with appropriate spot elevations.

☒ All elevations are National Geodetic Vertical Datum of 1929 (NGVD29).

N/A ☐ Sediment & Erosion control are shown & labeled on the grading plan unless separate drawings have been provided as part of a Stormwater Pollution Prevention Plan (SWPPP).

☒ **UTILITY PLAN**

☒ All proposed above & below ground features are shown and labeled.

☒ All existing above & below ground utilities including sanitary, storm water, water, electric, gas, telephone, cable, fiber optic, etc. are shown and labeled.

N/A ☐ All proposed easements & right-of-ways are shown and labeled.

N/A ☐ The Plan is adequately dimensioned including radii.

☒ The line work & text for all proposed features is shown darker than existing features.

☒ The following note has been added to the drawings stating, "All water main and service work must be coordinated with the City of Watertown Water Department. The Water Department requirements supersede all other plans and specifications provided."

☒ **LANDSCAPING PLAN**

☒ All proposed above ground features are shown and labeled.

☒ All proposed trees, shrubs, and other plantings are shown and labeled.

☒ All proposed landscaping & text are shown darker than existing features.

☒ All proposed landscaping is clearly depicted, labeled and keyed to a plant schedule that includes the scientific name, common name, size, quantity, etc.

☒ For additional landscaping requirements where nonresidential districts and land uses abut land in any residential district, please refer to Section 310-59, Landscaping of the City's Zoning Ordinance.

☒ **Site Plan complies with and meets acceptable guidelines set forth in Appendix A - Landscaping and Buffer Zone Guidelines (August 7, 2007).**

☒ **PHOTOMETRIC PLAN** (If Applicable)

☒ All proposed above ground features are shown.

☒ Photometric spot elevations or labeled photometric contours of the property are clearly depicted. Light spillage across all property lines shall not exceed 0.5 foot-candles.

☒ **CONSTRUCTION DETAILS & NOTES**

☒ All details and notes necessary to adequately complete the project including, but not limited to, landscaping, curbing, catch basins, manholes, water line, pavement, sidewalks, trench, lighting, trash enclosure, etc. are provided.

N/A ☐ Maintenance & protection and traffic plans & notes for all required work within City streets including driveways, water laterals, sanitary laterals, storm connections, etc. are provided.

☒ The following note must be added to the drawings stating:
"All work to be performed within the City of Watertown margin will require sign-off from a Professional Engineer, licensed and currently registered to practice in the State of New York, that the work was built according to the approved site plan and applicable City of Watertown standards. Compaction testing will be required for all work to be performed within the City of Watertown margin and must be submitted to the City of Watertown Codes Department."

☒ **PRELIMINARY ARCHITECTUAL PLANS** (If Applicable)

☒ Floor plan drawings, including finished floor elevations, for all buildings to be constructed are provided.

☒ Exterior elevations including exterior materials and colors for all buildings to be constructed are provided.

☒ Roof outline depicting shape, slope and direction is provided.

☒ **ENGINEERING REPORT**

**** The engineering report at a minimum includes the following:**

☒ Project location

☒ Project description

☒ Existing & proposed sanitary sewer flows & summary

N/A ☐ Water flows & pressure

☒ Storm Water Pre & Post Construction calculations & summary

☒ Traffic impacts

☒ Lighting summary

☒ Landscaping summary

☒ **GENERAL INFORMATION**

☒ ALL ITEMS ARE STAMPED & SIGNED WITH AN ORIGINAL SIGNATURE BY A PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR SURVEYOR LICENSED AND CURRENTLY REGISTERED TO PRACTICE IN THE STATE OF NEW YORK.

N/A ☐ If required, a copy of the Stormwater Pollution Prevention Plan (SWPPP) submitted to the NYSDEC will also be sent to the City of Watertown Engineering Department.

N/A ☐ ** If required, a copy of all submittals sent to the New York State Department of Environmental Conservation (NYSDEC) for the sanitary sewer extension permit will also be sent to the City of Watertown Engineering Department.

N/A ☐ ** If required, a copy of all submittals sent to the New York State Department of Health (NYSDOH) will also be sent to the City of Watertown Engineering Department.

** When NYSDEC or NYSDOH permitting is required, the property owner/applicant shall retain a licensed Professional Engineer to perform inspections of the proposed utility work and to certify the completed works were constructed in substantial conformance with the approved plans and specifications.

☒ Signage will not be approved as part of this submission. It requires a sign permit from the Codes Department. See Section 310-52.2 of the Zoning Ordinance.

☒ Plans have been collated and properly folded.

N/A ☐ If an applicant proposes a site plan with multiple buildings and any of those buildings front on a private drive, the City Council will name the private drive by resolution and the building(s) will be given an address number on that private drive by City staff. The applicant may propose a name for the private drive for the City Council's consideration.

Proposed Street Name: _____

☒ Explanation for any item not checked in the Site Plan Checklist.

Due to the small project size the Site Plan, Grading Plan, Utility Plan, Landscape Plan and Lighting Plan elements have been combined and all provided on two plan sheets, the "Site Plan" and "Grading and Utility Plan".

617.20
Appendix B
Short Environmental Assessment Form

Instructions for Completing

Part 1 - Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 - Project and Sponsor Information

Project: Accountant's Office Sponsor: Bowers & Company, CPA's PLLC

Name of Action or Project:
Accountant's Office

Project Location (describe, and attach a location map):
VL 9 Commerce Park Drive East, Watertown, NY 13601

Brief Description of Proposed Action:
The project consists of a proposed 7,800 SF, Office Building and associated site amenities. Site amenities include the construction of a 17,700 SF, 40 space parking lot, concrete sidewalks, site lighting, and utility services. The building will be serviced by public sewer and water, and private electric, gas and communication utilities.

Name of Applicant or Sponsor:	Telephone: (315)234-1172
Michael D'Avirro, Bowers & Company, CPA's PLLC	E-Mail: MGD@bcpllc.com

Address:
1200 AXA Tower I, 100 Madison Street

City/PO:	State:	Zip Code:
Syracuse	NY	13202

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval:	☑	☐

3.a. Total acreage of the site of the proposed action? 1.384 acres
b. Total acreage to be physically disturbed? 0.98 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 1.384 acres

4. Check all land uses that occur on, adjoining and near the proposed action.
☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☑ Commercial ☑ Residential (suburban)
☐ Forest ☐ Agriculture ☐ Aquatic ☑ Other (specify): Neighborhood Business
☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑	
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify: _____	☑	☐	
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐	
b. Are public transportation service(s) available at or near the site of the proposed action?	☐	☑	
c. Are any pedestrian accommodations or bicycle routes available on or near site of the proposed action?	☑	☐	
9. Does the proposed action meet or exceed the state energy code requirements? If the proposed action will exceed requirements, describe design features and technologies: _____	☐	☑	
10. Will the proposed action connect to an existing public/private water supply? If No, describe method for providing potable water: _____	☐	☑	
11. Will the proposed action connect to existing wastewater utilities? If No, describe method for providing wastewater treatment: _____	☐	☑	
12. a. Does the site contain a structure that is listed on either the State or National Register of Historic Places?	☑	☐	
b. Is the proposed action located in an archeological sensitive area?	☐	☑	
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☐	☑	
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody? If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____	☑	☐	
14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply: ☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional ☐ Wetland ☑ Urban ☑ Suburban			
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☐	☑	
16. Is the project site located in the 100 year flood plain?	☑	☐	
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes, a. Will storm water discharges flow to adjacent properties? ☐ NO ☑ YES	☐	☑	
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe: ☐ NO ☑ YES Stormwater will discharge into the City's municipal storm sewer			

	NO	YES
18. Does the proposed action include construction or other activities that result in the impoundment of water or other liquids (e.g. retention pond, waste lagoon, dam)? If Yes, explain purpose and size: _____	☑	☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe: _____	☑	☐
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe: _____	☑	☐

I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor name: Michael D'Avirro, Bowers & Company, CPA's PLLC Date: 5/19/2014

Signature: _____

Part 2 - Impact Assessment. The Lead Agency is responsible for the completion of Part 2. Answer all of the following questions in Part 2 using the information contained in Part 1 and other materials submitted by the project sponsor or otherwise available to the reviewer. When answering the questions the reviewer should be guided by the concept "Have my responses been reasonable considering the scale and context of the proposed action?"

	No, or small impact may occur	Moderate to large impact may occur
1. Will the proposed action create a material conflict with an adopted land use plan or zoning regulations?	☐	☐
2. Will the proposed action result in a change in the use or intensity of use of land?	☐	☐
3. Will the proposed action impair the character or quality of the existing community?	☐	☐
4. Will the proposed action have an impact on the environmental characteristics that caused the establishment of a Critical Environmental Area (CEA)?	☐	☐
5. Will the proposed action result in an adverse change in the existing level of traffic or affect existing infrastructure for mass transit, biking or walkway?	☐	☐
6. Will the proposed action cause an increase in the use of energy and it fails to incorporate reasonably available energy conservation or renewable energy opportunities?	☐	☐
7. Will the proposed action impact existing: a. public / private water supplies?	☐	☐
b. public / private wastewater treatment utilities?	☐	☐
8. Will the proposed action impair the character or quality of important historic, archaeological, architectural or aesthetic resources?	☐	☐
9. Will the proposed action result in an adverse change to natural resources (e.g., wetlands, waterbodies, groundwater, air quality, flora and fauna)?	☐	☐

	No, or small impact may occur	Moderate to large impact may occur
10. Will the proposed action result in an increase in the potential for erosion, flooding or drainage problems?	☐	☐
11. Will the proposed action create a hazard to environmental resources or human health?	☐	☐

Part 3 - Determination of significance. The Lead Agency is responsible for the completion of Part 3. For every question in Part 2 that was answered "moderate to large impact may occur", or if there is a need to explain why a particular element of the proposed action may or will not result in a significant adverse environmental impact, please complete Part 3. Part 3 should, in sufficient detail, identify the impact, including any measures or design elements that have been included by the project sponsor to avoid or reduce impacts. Part 3 should also explain how the lead agency determined that the impact may or will not be significant. Each potential impact should be assessed considering its setting, probability of occurring, duration, irreversibility, geographic scope and magnitude. Also consider the potential for short-term, long-term and cumulative impacts.

☐ Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action may result in one or more potentially large or significant adverse impacts and an environmental impact statement is required.

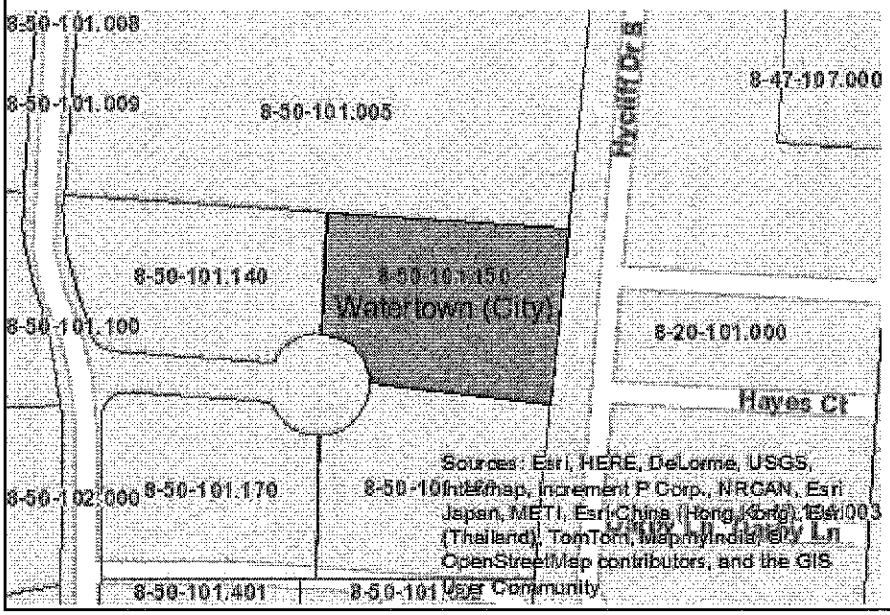
☐ Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action will not result in any significant adverse environmental impacts.

Name of Lead Agency	Date
Print or Type Name of Responsible Officer in Lead Agency	Title of Responsible Officer
Signature of Responsible Officer in Lead Agency	Signature of Preparer (if different from Responsible Officer)

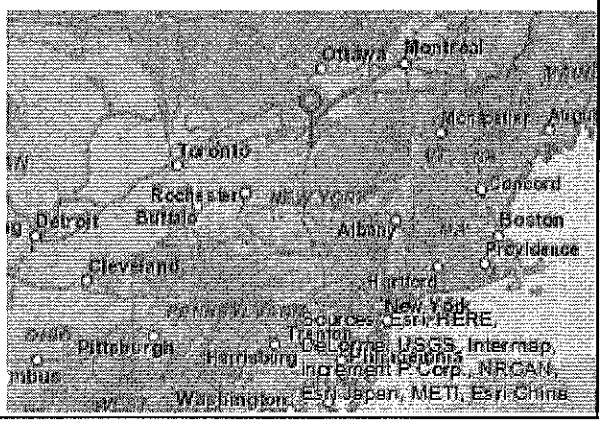
PRINT

EAF Mapper Summary Report

Tuesday, May 13, 2014 1:01 PM

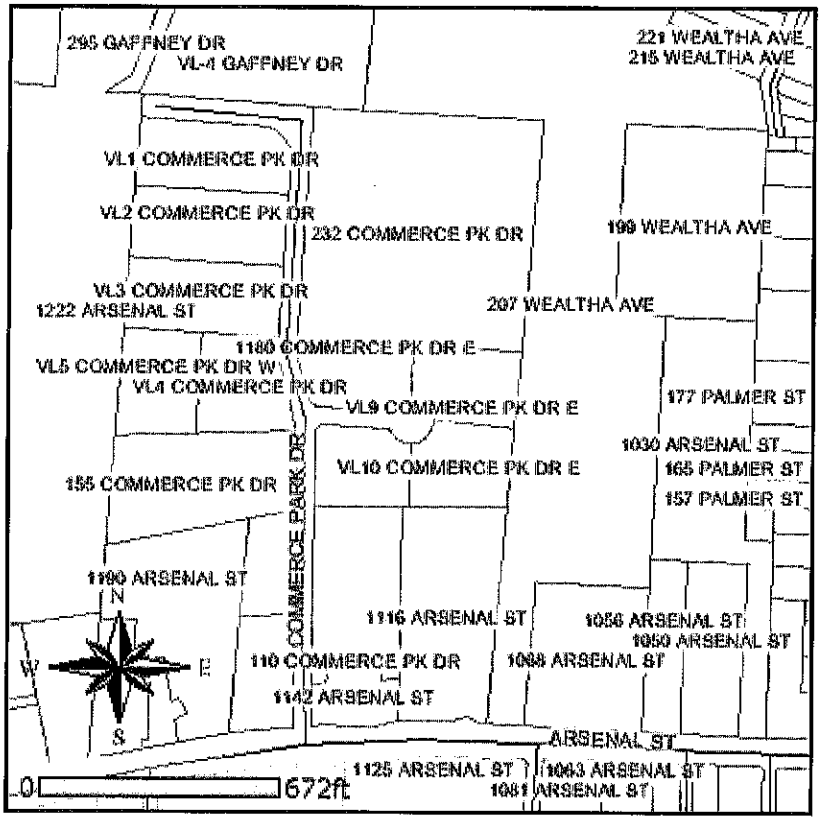


Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National Register of Historic Places]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes- Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered]	Yes
Part 1 / Question 16 [100 Year Flood Plain]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
Part 1 / Question 20 [Remediation Site]	No

VL9



Legend

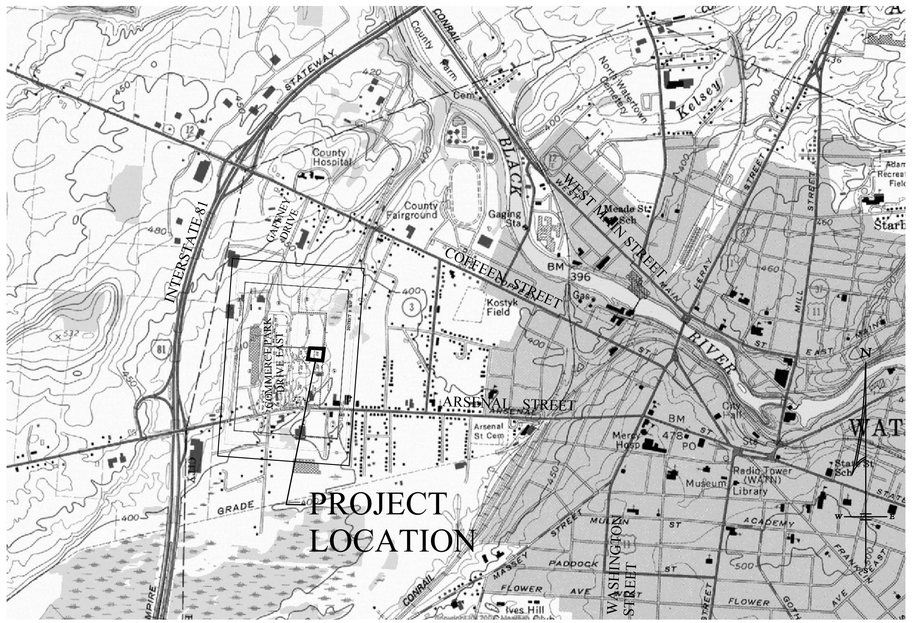
- Roads
- Wetlands
- Floodplains
- 100 Year Floodplain
- 500 Year Floodplain
- Tax Parcels
- City Boundary

May 16, 2014

Disclaimer: **This map was prepared by the City of Watertown Internet Mapping Application. The information was compiled using the most current data available. It is deemed accurate, but is not guaranteed.**

ACCOUNTANT'S OFFICE

VL-9 COMMERCE PARK DRIVE EAST
CITY OF WATERTOWN, JEFFERSON COUNTY, NEW YORK
SITE PLANS: 05/19/2014



OWNER

BOWERS AND COMPANY, CPA's PLLC
ATTN: MICHAEL D'AVIRRO
1200 AXA TOWER
100 MADISON STREET
SYRACUSE, NEW YORK 13202

ARCHITECT AND CIVIL/SITE ENGINEER

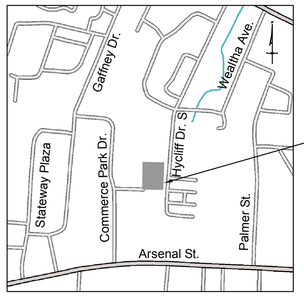
AUBERTINE and CURRIER, PLLC
522 BRADLEY STREET
WATERTOWN, NY 13601
TELE: (315) 782-2005
FAX: (315) 782-1472
www.aubertinecurrier.com

INDEX OF DRAWINGS

STATE OF NEW YORK · MATTHEW REA MURRAY · 081071 · LICENSED PROFESSIONAL ENGINEER

FOR APPROVALS ONLY
NOT FOR CONSTRUCTION

AUBERTINE and CURRIER
ARCHITECTS, ENGINEERS & LAND SURVEYORS, PLLC



LOCATION MAP
NOT TO SCALE

Myron M. Hunt
to
United States Postal Service
Liber 1110 of Deeds, Page 149
Recorded February 16, 1988
Tax Map Parcel No. 8-50-101.005

LOT 8

Watertown Commerce Inc.
to
Northern Federal Credit Union
Liber 1544 of Deeds, Page 335
Recorded December 17, 1996
Tax Map Parcel No. 8-50-101.140

LOT 9

DEED REFERENCE:
Hunt Family Corporate Holdings, Inc.
to
Watertown Commerce, LLC
Liber 1606 of Deeds, Page 268
Recorded February 11, 1998
Tax Map Parcel No. 8-50-101.150

Area = 1.40 Acres±

LOT 10

Hunt Family Corporate Holdings, Inc.
to
Watertown Commerce, LLC
Liber 1606 of Deeds, Page 268
Recorded February 11, 1998
Tax Map Parcel No. 8-50-101.160

Arsenal Housing Associates, L.P.
to
WGS Arsenal Housing Associates, LLC
Deed File No. 2008-00011939
Recorded July 17, 2008
Tax Map Parcel No. 8-20-101

EAST COMMERCE DRIVE

HYCLIFF DRIVE SOUTH

S87° 11' 40"E — 300.00'

N1° 10' 29"E — 157.79'

R=60.00' L=96.53'

R96.31' — N62° 50' 03"W (Direct Tie)

225.68' — N86° 50' 40"W

S4° 55' 34"W — 219.60'

Concrete Parking Lot

Concrete Pad

Asphalt Parking Lot

Brush Area

Spoils Pile

Wooded and Brush Area

Landscaped Area

Concrete Curb

Edge of Pavement

10' Wide Water Main Easement

15' Wide Utility Easement

25' Wide Utility Easement

1/2" Iron Pipe Found

1/2" Iron Pipe with Cap Found

Benchmark: "X" Mark Set on North Bonnet Bolt of Hydrant Elev.=422.11'

Unknown Utility Vault

CB-15A Rim=417.77' NE Inv.=414.09' S Inv.=414.23'

CB-15B Rim=418.97' N Inv.=415.17'

CB-15 Rim=416.29' E Inv.=412.49' S Inv.=412.59' SW Inv.=412.98'

CB-16 Rim=419.19' N Inv.=414.51' SE Inv.=414.60' SW Inv.=414.61'

CB-16A Rim=420.71' NE Inv.=414.96' S Inv.=415.16' NW Inv.=415.24'

CB-16B Rim=420.23' N Inv.=415.18' S Inv.=416.33'

CB-16C Rim=419.52' N Inv.=416.94' SE Inv.=416.94'

CB-16D Rim=419.65' NW Inv.=417.65'

CB-16E Rim=420.83' NW Inv.=417.97'

CB-17 Rim=417.92' NW Inv.=415.02'

CB Rim=407.53' N Inv.=403.89' W Inv.=403.95'

CB-14 Rim=410.68' N Inv.=407.37' W Inv.=407.58'

CB Rim=406.25' E Inv.=403.68' W Inv.=403.60'

SSMH-7A Rim=416.13' E Inv.=408.05' S Inv.=408.07'

SSMH-7 Rim=410.76' N Inv.=406.50' W Inv.=406.56'

SSMH-7A1 Rim=419.19' N Inv.=410.73' S Inv.=410.70' W Inv.=413.10'

SSMH-7A1A Rim=420.31' NE Inv.=413.56' SW Inv.=413.61'

SSMH-7A1B Rim=421.19' NE Inv.=413.85' W Inv.=413.91'

SSMH-7B Rim=419.33' N Inv.=411.99'

24" RCP

8" PVC

15" HDPE

10" HDPE

12" HDPE

6" PVC

8" HDPE

12" CMP

GRAPHIC SCALE

20 0 10 20 40 80

(IN U.S. SURVEY FEET)
1 inch = 20 ft.

STANDARD NOTES:

1. Unauthorized alteration or addition to a survey map bearing a licensed land surveyor's seal is a violation of section 7209, sub-division 2, of the New York State Education Law.

2. Only boundary survey maps with the surveyor's embossed seal or red ink seal are genuine true and correct copies of the surveyor's original work and opinion.

3. Certifications on this boundary survey map signify that the map was prepared in accordance with the current existing Code of Practice for Land Surveys adopted by the New York State Association of Professional Land Surveyors, Inc. The certification is limited to persons for whom the boundary survey map is prepared, to the title company, to the governmental agency, and to the lending institution listed on this boundary survey map.

4. The certifications hereon are not transferable.

5. The location of underground improvements or encroachments are not always known and often must be estimated. If any, underground improvements or encroachments are not covered by this certificate.

GENERAL NOTES:

1. The subject parcel is City of Watertown Tax Parcel No. 8-50-101.150

2. All adjoiners are per the City of Watertown Assessment Department.

3. Adjoining property lines should be considered approximate and are shown for reference only.

4. This survey was prepared without the benefit of an abstract of title and is subject to any modifications which may occur as a result of a complete title search.

5. The underground utilities and features shown hereon have been located from above ground visible features and other available records and therefore their location should be considered approximate only. Other underground utilities and features may exist, either in service or abandoned, that are not indicated on this survey. Dig Safely New York (UFPO) should be contacted prior to performing any excavation activities.

6. The field survey was performed on April 17, 22 and 28, 2014.

7. Lot numbers refer to Map Reference 1 and 2.

8. East Commerce Drive is a public road of varying width.

9. The Horizontal Datum for this survey is based on NYS Central Zone NAD83(2011) (North American Datum 1983/1996).

10. The Vertical Datum for this survey is based on the North American Vertical Datum of 1988 (NAVD88).

MAP REFERENCES:

1. "Watertown Commerce Park as Prepared for Myron M. Hunt, Subdivision Plan, City of Watertown, Jefferson County, New York" dated April 1989 and last revised October 30, 1990, prepared by Percy B. Cotton Associates and filed in the Jefferson County Clerk's Office as Map No. 1532 on January 11, 1991.

2. "Watertown Commerce Park Phase II as Prepared for Myron M. Hunt, Subdivision Plan, City of Watertown, Jefferson County, New York" dated April 1989 and last revised September 27, 1998, prepared by Percy B. Cotton Associates and filed in the Jefferson County Clerk's Office as Map No. 2484 on August 13, 1999.

3. "Subdivision Final Plat - Parcels A & B, Land of - Affordable Hospitality of Watertown, Inc. (Days Inn & Dennys), Arsenal Street & Commerce Park Drive, City of Watertown, County of Jefferson, State of New York" dated July 19, 1997 and last revised September 12, 1997, prepared by GYMO Architecture, Engineering & Land Surveying, P.C. and filed in the Jefferson County Clerk's Office as Map No. 2223 on September 19, 1997.

N
W E
S
NYS CENTRAL ZONE, NAD 83(2011)
GRID NORTH

LEGEND

- 5/8" REBAR WITH CAP SET
- IRON PIPE/PIN FOUND (as noted)
- BENCHMARK
- MAJOR CONTOUR
- MINOR CONTOUR
- PROPERTY LINE
- STREET MARGIN
- EASEMENT
- EDGE OF PAVEMENT
- CURB LINE
- CENTERLINE
- PAVEMENT MARKINGS
- TREELINE
- WATER LINE
- SANITARY SEWER LINE
- STORM SEWER LINE
- GAS LINE
- UNDERGROUND ELECTRIC LINE
- FIRE HYDRANT
- WATER VALVE
- SANITARY SEWER MANHOLE
- CATCHBASIN
- LIGHT POLE
- TELEPHONE PEDESTAL
- TRANSFORMER
- NATURAL GAS MARKER

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BOUNDARY and TOPOGRAPHIC SURVEY MAP of the LANDS of WATERTOWN COMMERCE, LLC

VL9 COMMERCE PARK DRIVE EAST
CITY of WATERTOWN
JEFFERSON COUNTY, NEW YORK

PROJECT NO: 2014-017.001
SCALE: 1" = 20'
DRAWN BY: RES
CHECKED BY: JDB
ISSUE DATES:
May 19, 2014

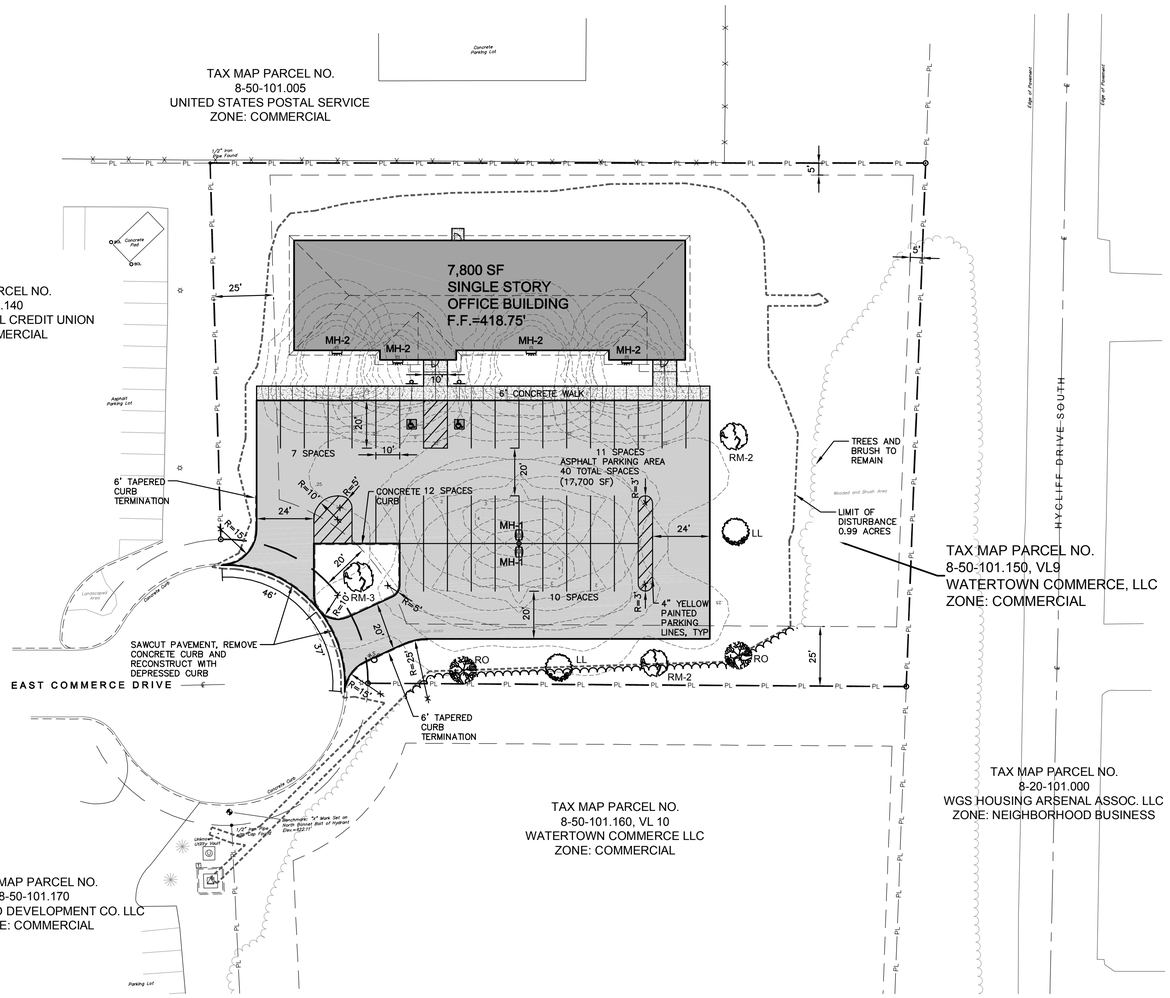
2014-017.001 BOWERS-VF-SB001.DWG

VF-101

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.



PLANNING DATA

ZONING: COMMERCIAL
USE: ACCOUNTANT'S OFFICE (7,800 SF)

ITEM	REQUIRED	AS PROVIDED
MIN. LOT AREA	40,000 SQ. FT. (0.918 ACRES)	60,290 SQ. FT. (1.384 ACRES)
MIN. FRONTAGE	NONE	N/A
MIN. FRONT SETBACK	20'	78'
MIN. REAR YARD SETBACK	5'	33'
MIN. SIDE YARD SETBACK	25'	31'
MAX. BUILDING HEIGHT	--	--
MAX. BUILDING COVERAGE	40%	13%
PARKING REQUIREMENTS - OFFICE BUILDING (5 SPACES FOR EACH 1,000 SF) (7,800 SF / 1,000 SF x 5 = 39)	39 SPACES	40 SPACES
HANDICAPPED SPACES (PER ADA)	2 SPACE	2 SPACE

GENERAL INFORMATION

PROJECTED WATER / SEWER DEMAND	44 EMPLOYEES * 15 GPD/EMPLOYEE = 660 GPD
FIRE FLOW RESULTS	-----
WATER SUPPLY SYSTEM	1 1/2" WATER SERVICE LATERAL TO CITY MUNICIPAL SYSTEM
SANIATARY SEWER SYSTEM	6" GRAVITY LATERAL TO CITY MUNICIPAL SYSTEM
LIMITS OF DISTURBANCE	0.99 ACRES

TRAFFIC INFORMATION
(ITE TRAFFIC GENERATION, 7TH EDITION)

WEEKDAY, AM	ENTERING EXITING	19 2
WEEDKDAY, PM	ENTERING EXITING	3 17
SATURDAY	ENTERING EXITING	2 2
PEAK TRIPS	WEEKDAY, AM WEEKDAY, PM SATURDAY	21 20 4

SITE LIGHTING SCHEDULE

SYMBOL	FIXTURE	MOUNTING HEIGHT	QUANTITY
MH-1	SSM2 175MATLR/PC-8 BY STONCO LIGHTING	18' MOUNTING HEIGHT (WITH CONCRETE BASE)	2
MH-2	NPM 175MAL-8 BY STONCO LIGHTING	12' MOUNTING HEIGHT (MOUNTED ON BUILDING)	4

PLANTING SCHEDULE

SYM	COMMON NAME	ABBREV.	BOTANICAL NAME	SIZE	QUANTITY
	RED MAPLE	RM-3	ACER RUBRUM	3" CALIPER	1
	RED MAPLE	RM-2	ACER RUBRUM	2" CALIPER	2
	NORTHERN RED OAK	RO	QUERCUS RUBRA	2" CALIPER	2
	LITTLELEAF LINDEN	LL	TILIA CORDATA	2" CALIPER	2

LANDSCAPING NOTE:

1. PLANT SPECIES WERE SELECTED BASED ON ABILITY TO GROW IN EXISTING SOIL CONDITIONS. PLANT SPECIFIED WERE ALSO CHOSEN BASED ON SIZE, SHAPE, COLOR AND GROWTH HABIT. ANY SUBSTITUTIONS SHALL BE APPROVED BY THE ARCHITECT.
2. ALL PLANTINGS SHALL ARRIVE ON-SITE BEARING THE ORIGINAL IDENTIFICATION TAGS SHOWING THEIR BOTANICAL NAME, COMMON NAME AND SIZE.
3. ALL TREES SHALL HAVE A 4' DIA. SHREDDED HARDWOOD MULCH RING AROUND THE BASE OF THE TREE.
4. ALL LANDSCAPED AREAS SHALL HAVE A WEED BARRIER FABRIC AND A MIN. OF 3" DEEP SHREDDED HARDWOOD MULCH.
5. ALL PLANTINGS SHALL BE THOROUGHLY WATERED AT THE TIME OF PLANTING.

LEGEND	EXISTING	PROPOSED
5' CONTOUR	155	155
1' CONTOUR	154	154
PROPERTY LINE		PL PL
RIGHT OF WAY		
SETBACK		
BUILDING		
ASPHALT PAVEMENT		
EDGE OF GRAVEL		
CURB		
SIDEWALK		
TREE LINE		
FENCE	X X	
WATERLINE	W W	W W
SANITARY SEWER	SS SS	SS SS
STORM SEWER	SD SD	SD SD
UNDERGROUND UTILITIES	UU UU	UU UU
UNDERGROUND ELECTRIC	E E	E E
GAS	G G	
COMMUNICATION	CU CU	
SANITARY MANHOLE	S	
SANITARY CLEAN OUT		
STORM MANHOLE	D	
CATCH BASIN	CB	CB
COMMUNICATION MANHOLE	J	
COMMUNICATION JUNCTION BOX	C	
TRACER WIRE	TW	
FIRE HYDRANT		
WATER VALVE	W	
CURB STOP		
UTILITY POLE		
LIGHT POLE		
CITY MONUMENT		

GENERAL NOTES:

1. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN. PRIOR TO CONSTRUCTION CONTACT UNDERGROUND UTILITIES CALL CENTER OF NEW YORK FOR EXACT LOCATION OF ALL UNDERGROUND UTILITIES, (1-800-962-7962). CONTRACTOR IS RESPONSIBLE FOR LOCATING AND WORKING WITH THE APPROPRIATE UTILITY COMPANIES PRIOR TO CONSTRUCTION.
2. THE ONSITE TOPOGRAPHIC, UTILITY, AND PLANIMETRIC SURVEY FOR THE PROJECT AREA WAS CONDUCTED BY AUBERTINE AND CURRIER, PLLC ON 04/16, 4/22 AND 4/28/2014. UTILITY LOCATIONS WERE PLOTTED FROM RECORD DRAWINGS OF MULTIPLE PROJECTS THAT ARE ON FILE IN THE CITY ENGINEERING DEPARTMENT. THE PROPERTY BOUNDARY IS PLOTTED FROM THE SUBDIVISION PLAN OF THE WATERTOWN COMMERCE PARK PHASE III PREPARED BY PERCY B. COTTON ASSOCIATES, ENGINEERING, PLANNING AND LAND SURVEYING ON APRIL 1989 AND LAST REVISED ON 9/27/88. VERTICAL DATUM IS BASED ON NGVD29 DATUM AND THE HORIZONTAL DATUM IS BASED ON NAD83(96).
3. ALL OUT-OF-SCOPE AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS WILL BE RESTORED TO CONDITIONS EQUAL TO OR BETTER THAN THAT PRIOR TO CONSTRUCTION. OUTSIDE OF PROPERTY BOUNDARIES AND EASEMENT AREAS THE CONTRACTOR IS REMINDED THAT HE MUST OBTAIN WRITTEN AUTHORIZATION TO USE PRIVATE PROPERTY AND ASSUMES ALL LIABILITY HIMSELF
4. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE CHARACTERISTICS AND EXTENT OF SUBSURFACE SOILS, ROCK, WATER TABLE LEVELS, ETC., PRIOR TO BIDDING.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND BONDS NECESSARY TO OBTAIN SAID PERMITS WHERE APPLICABLE.
6. SITE CONTRACTOR TO PROVIDE EROSION AND DUST CONTROL AS REQUIRED.
7. A LICENSED LAND SURVEYOR SHALL BE RETAINED FOR ALL UTILITY AND FIELD STAKEOUT AT THE CONTRACTORS EXPENSE.
8. PAVED AREAS WILL BE SAWCUT PRIOR TO EXCAVATION AND PAVING OPERATIONS. SAW CUT AREAS WILL BE TACK COATED PRIOR TO PAVING. TACK COAT SHALL MEET THE REQUIREMENTS OF ASPHALT OF ASPHALT EMULSION FOR TACK COAT, NYSDOT TABLE 702-9.
9. CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES THROUGHOUT CONSTRUCTION UNTIL ESTABLISHMENT OF VEGETATIVE COVER. RUN-OFF CONTAINING SEDIMENTS FROM DISTURBED AREAS OF THE SITE SHALL NOT BE ALLOWED DIRECTLY INTO NATURAL STREAM CHANNELS.
10. ALL TREES AND WETLANDS TO REMAIN SHALL BE PROTECTED BY THE CONTRACTOR. CONSTRUCTION ACTIVITIES ADJACENT TO TREES SHALL BE CONDUCTED TO REDUCE THE IMPACT TO TREES TO THE MAXIMUM EXTENT PRACTICAL. ANY DAMAGE TO EXISTING TREES SHALL BE REPAIRED OR THE TREE REPLACED, AS DIRECTED BY THE OWNER AT THE CONTRACTORS EXPENSE.
11. CONTRACTOR SHALL PERFORM ALL ROADWAY CONNECTION WORK IN ACCORDANCE WITH NYSDOT SPECIFICATIONS. ALL ROADWAY WORK SHALL BE IN ACCORDANCE WITH NYSDOT MAINTENANCE AND PROTECTION OF TRAFFIC REGULATIONS, INCLUDING FLAGMEN, BARRICADES, WARNING SIGNS/LIGHTS, ETC., WHERE WARRANTED.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL, AT A NYSDEC ACCEPTABLE LOCATION, OF ALL MATERIALS NOT REUSED AS TRENCH BACKFILL.
13. EXCAVATIONS SHALL BE TO DEPTHS SHOWN ON DRAWINGS. ALL UNSTABLE OR UNSUITABLE MATERIAL SHALL BE EXCAVATED AND REMOVED TO SUCH DEPTH AS REQUIRED TO PROVIDE SUFFICIENT BEARING CAPACITY. OVEREXCAVATED AREAS SHALL BE BACKFILLED WITH SUITABLE MATERIAL.
14. COMPACTION OF PIPE BEDDING AND BACKFILL MATERIAL SHALL BE BY MEANS OF HAND-GUIDED POWER DRIVEN OR DRUM-TYPE OR PLATE TAMPERS. BACKFILLING SHOULD PROCEED IN ACCORDANCE WITH LIFT THICKNESSES AND COMPACTION REQUIREMENTS AS SHOWN ON THE DRAWINGS. UNLESS OTHERWISE NOTED ON THE DRAWINGS, COMPACTION REQUIREMENTS REFER TO PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM STANDARD D1557 METHOD "C". CARE SHOULD BE TAKEN TO SHAPE PIPE BEDDING TO FIT THE LOWER PART OF THE PIPE. BACKFILLING AND COMPACTION SHOULD PROGRESS EVENLY ALONG THE PIPE SIDEWALLS AND TO THE TOP OF PIPE BEDDING.
15. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OF DIMENSIONS, ELEVATIONS AND LOCATIONS DURING PRECONSTRUCTION FIELD VERIFICATION. SUCH INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR VERIFICATION OR MODIFICATION OF THE PLANS.
16. THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORD DRAWINGS INCLUDING, AS A MINIMUM, THE FOLLOWING INFORMATION AS WELL AS ALL REQUIREMENTS OF THE SPECIFICATION:
    - RECORD OF ALL UTILITIES ENCOUNTERED IN TRENCH EXCAVATION. INFORMATION SHALL INCLUDE DIAMETER OF UTILITY, DEPTH OF BURIAL AND LOCATION WITH REFERENCE TO NEAREST STRUCTURE SHOWN ON DRAWINGS. THIS INFORMATION SHALL BE KEPT CURRENT ON A WEEKLY BASIS. FAILURE TO DO SO MAY RESULT IN WITHHOLDING OF PAYMENTS.
    - DISTANCE TIES TO ALL MANHOLES, CLEANOUTS, BENDS AND CORPORATION STOPS.
    - UTILITY REPAIRS, SIDEWALK, AND DRIVEWAY REPLACEMENTS CENTERLINE.
    - STATIONS OF BENDS, CLEANOUTS, VALVES AND CORPORATION STOPS.
    - DENOTE BENCH MARK REFERENCE USED.
    - PERIODIC OFFSETS.
    - RECORD DETAILS NOT SHOWN ON THE ORIGINAL CONTRACT DOCUMENTS. ANY FIELD CHANGES OF DIMENSIONS AND DETAILS AND ANY CHANGES MADE BY CHANGE ORDER OR FIELD ORDER.
    - CERTIFICATE OF SUBSTANTIAL COMPLETION SHALL NOT BE ISSUED UNTIL AS-BUILT INFORMATION IS ACCEPTABLE.
    - PROVIDE TWO (2) SETS OF FINAL COMPLETE RECORD DRAWINGS. CONTRACTOR SHALL FURNISH AS-BUILT DATA ON PLAN SHEETS.
17. ALL WATER MAIN AND SERVICE WORK MUST BE COORDINATED WITH THE CITY OF WATERTOWN WATER DEPARTMENT. WATER DEPARTMENT REQUIREMENTS SUPERCEDE ALL OTHER PLANS AND SPECIFICATIONS PROVIDED.
18. ALL WORK TO BE PERFORMED WITHIN THE CITY OF WATERTOWN MARGIN WILL REQUIRE SIGN-OFF FROM AN ENGINEER LICENSED IN THE STATE OF NEW YORK THAT THE WORK WAS BUILT ACCORDING TO THE APPROVED SITE PLAN AND APPLICABLE CITY OF WATERTOWN STANDARDS. COMPACTION TESTING WILL BE REQUIRED FOR ALL WORK TO BE PERFORMED WITHIN THE CITY OF WATERTOWN MARGIN AND MUST BE SUBMITTED TO THE CITY OF WATERTOWN CODES DEPARTMENT.
19. UPON COMPLETION OF STORM SEWER FACILITIES AND ESTABLISHMENT OF VEGETATION, THE NEW AND EXISTING STORM SYSTEMS RECEIVING RUNOFF FROM THIS SITE SHALL BE CLEANED OF DEBRIS. ONLY AT THIS TIME SHALL THE EROSION AND SEDIMENTATION CONTROL MEASURES BE REMOVED.

FOR APPROVALS ONLY
NOT FOR CONSTRUCTION

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STATE OF NEW YORK
MATTHEW REA MORETA
081071
LICENSED PROFESSIONAL ENGINEER

ACCOUNTANT'S OFFICE
BOWERS AND COMPANY, CPA's PLLC
VL-9 COMMERCE PARK DRIVE EAST
CITY OF WATERTOWN
JEFFERSON COUNTY, STATE OF NEW YORK

PROJECT NO: 2014-017.001
SCALE: 1" = 30'
DRAWN BY: CWT
CHECKED BY: MRM
ISSUE DATES: 05/19/2014

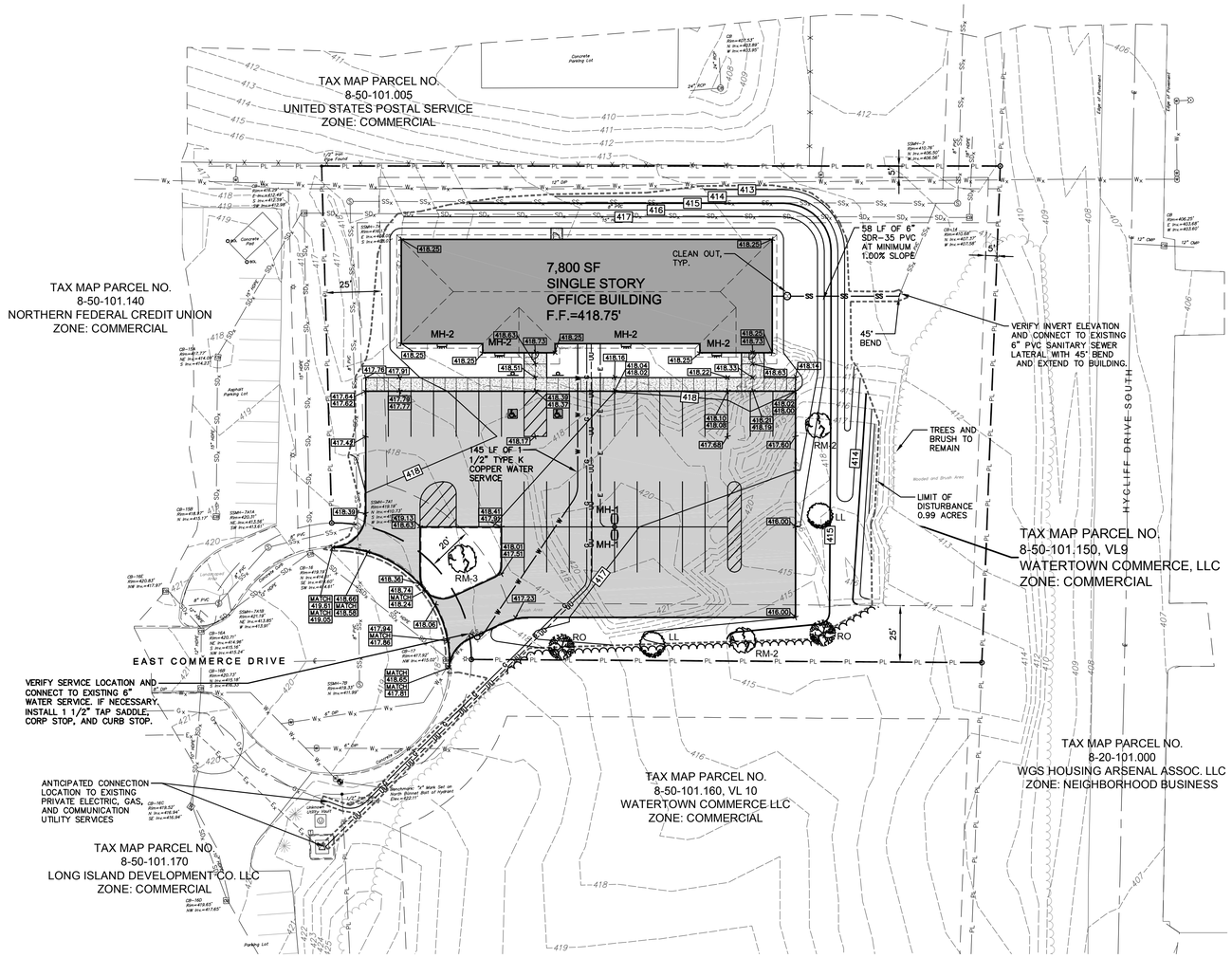
SITE PLAN

CS-100

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.



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LEGEND	EXISTING	PROPOSED
5' CONTOUR	155	155
1' CONTOUR	154	154
PROPERTY LINE		PL PL
RIGHT OF WAY		
SETBACK		
BUILDING		
ASPHALT PAVEMENT		
EDGE OF GRAVEL		
CURB		
SIDEWALK		
TREE LINE		
FENCE	X X	
WATERLINE	W_X W_X	W W
SANITARY SEWER	SS_X SS_X	SS SS
STORM SEWER	SD_X SD_X	SD SD
UNDERGROUND UTILITIES	UU_X UU_X	UU UU
UNDERGROUND ELECTRIC	E_X E_X	E E
GAS	G_X G_X	
COMMUNICATION	CU_X CU_X	
SANITARY MANHOLE	S	
SANITARY CLEAN OUT		
STORM MANHOLE	D	
CATCH BASIN	CB	CB
COMMUNICATION MANHOLE	J	
COMMUNICATION JUNCTION BOX	C	
TRACER WIRE	TW	
FIRE HYDRANT		
WATER VALVE	W	
CURB STOP		
UTILITY POLE		
LIGHT POLE		
CITY MONUMENT		

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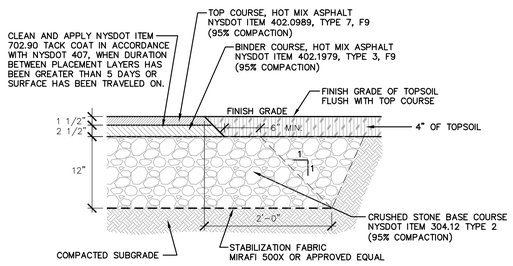
ACCOUNTANT'S OFFICE
BOWERS AND COMPANY, CPA's PLLC
VL-9 COMMERCE PARK DRIVE EAST
CITY OF WATERTOWN
JEFFERSON COUNTY, STATE OF NEW YORK

PROJECT NO:	2014-017.001
SCALE:	1" = 30'
DRAWN BY:	CWT
CHECKED BY:	MRM
ISSUE DATES:	05/19/2014

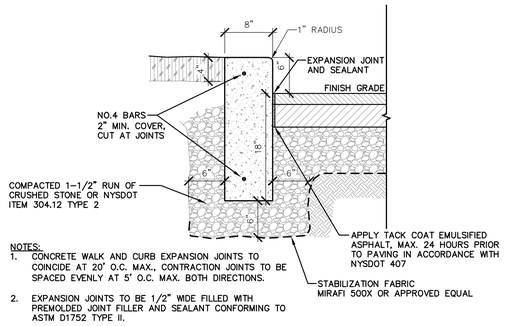
GRADING AND UTILITY PLAN

CG-100



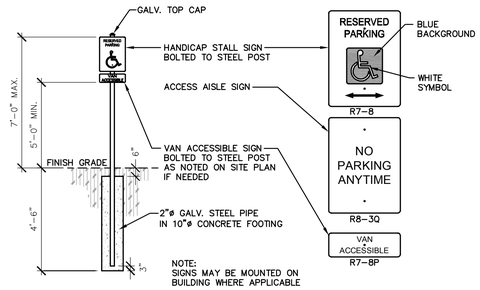
NOTES:
1. ALL HMA COMPACTION WILL BE TO 95% MADMTD (MIXTURE'S AVERAGE DAILY MAXIMUM THEORETICAL DENSITY) PER NYS DOT SPECIFICATIONS FOR HMA COMPACTION 402-3.07 BASE COURSE SHALL BE COMPACTED TO 95% MODIFIED PROCTOR MAXIMUM DENSITY.
2. FIELD VERIFICATION OF COMPACTION SHALL BE BY NUCLEAR DENSITY TESTING METHODS

1 TYPICAL ASPHALT PAVEMENT DETAIL
NOT TO SCALE

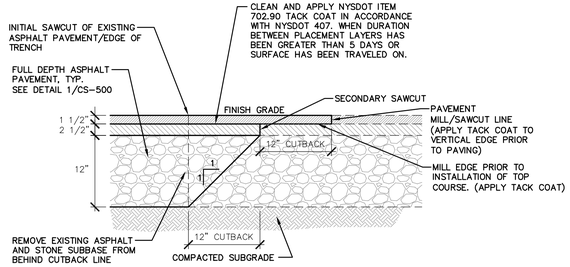


NOTES:
1. CONCRETE WALK AND CURB EXPANSION JOINTS TO COINCIDE AT 20' O.C. MAX., CONTRACTION JOINTS TO BE SPACED EVENLY AT 5' O.C. MAX. BOTH DIRECTIONS.
2. EXPANSION JOINTS TO BE 1/2" WIDE FILLED WITH PREMOLDED JOINT FILLER AND SEALANT CONFORMING TO ASTM D1752 TYPE II.

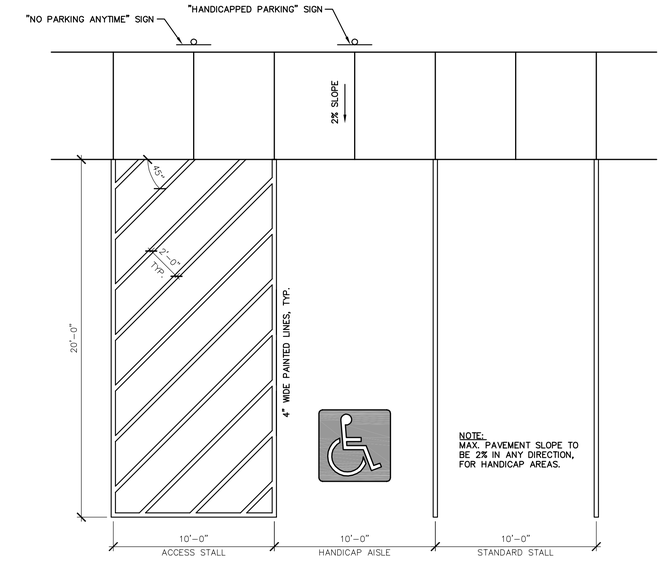
4 TYPICAL CONCRETE CURB DETAIL
NOT TO SCALE



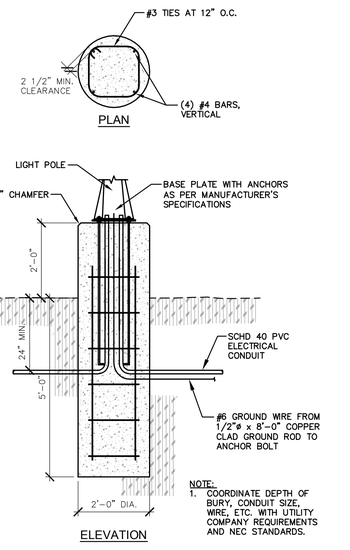
7 TYPICAL HANDICAP SIGN DETAIL
NOT TO SCALE



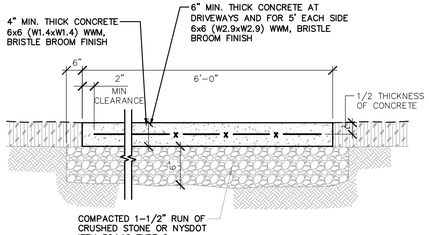
2 TYPICAL ASPHALT PAVEMENT JOINT DETAIL
NOT TO SCALE



5 TYPICAL PARKING STALL MARKINGS DETAIL
NOT TO SCALE

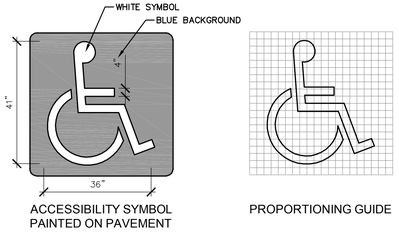


8 TYPICAL LIGHT POLE BASE DETAIL
NOT TO SCALE



NOTES:
1. CONCRETE WALK EXPANSION JOINTS TO COINCIDE AT 20' O.C. MAX., CONTRACTION JOINTS TO BE SPACED EVENLY AT 4' to 6' O.C. MAX. BOTH DIRECTIONS. CONTRACTION JOINT SPACING SHALL BE SPACED SYMMETRICALLY BASED UP THE SIDEWALK WIDTH BEING CONSTRUCTED. (I.E. 6' WIDE WALK – 6' CONTROL JOINTS; 5' WIDE WALK – 5' CONTROL JOINTS; 8' WIDE WALK – 4' CONTROL JOINTS)
2. EXPANSION JOINTS TO BE 1/2" WIDE FILLED WITH PREMOLDED JOINT FILLER AND SEALANT CONFORMING TO ASTM D1752 TYPE II.
3. CONTROL/CONTRACTION JOINTS SHALL BE TOOLED OR SAW CUT JOINT WITH A DEPTH OF 1/4 THE CONCRETE THICKNESS.

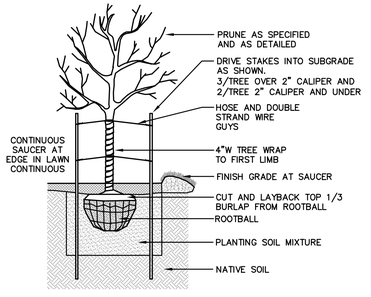
3 TYPICAL CONCRETE WALK DETAIL
NOT TO SCALE



ACCESSIBILITY SYMBOL PAINTED ON PAVEMENT

PROPORTIONING GUIDE

6 TYPICAL HANDICAP SYMBOL DETAIL
NOT TO SCALE



9 TYPICAL TREE PLANTING DETAIL
NOT TO SCALE

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NOT FOR CONSTRUCTION

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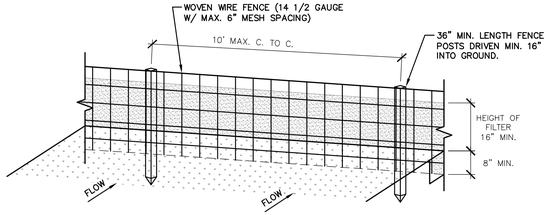
ACCOUNTANT'S OFFICE
BOWERS AND COMPANY, CPA's PLLC
VL-9 COMMERCE PARK DRIVE EAST
CITY OF WATERTOWN
JEFFERSON COUNTY, STATE OF NEW YORK

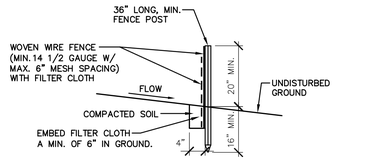
PROJECT NO:	2014-017.001
SCALE:	AS NOTED
DRAWN BY:	CWT
CHECKED BY:	MRM
ISSUE DATES:	05/19/2014

SITE DETAILS

CS-500



PERSPECTIVE VIEW

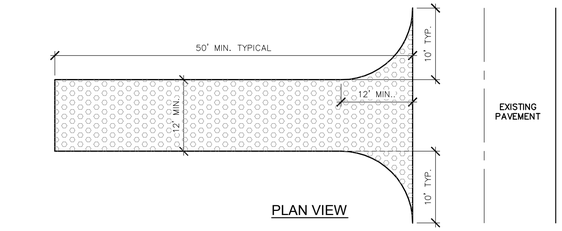


SECTION VIEW

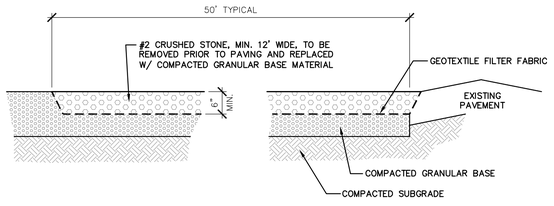
CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 12 1/2 GAUGE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

1 TYPICAL SILT FENCE DETAIL
NOT TO SCALE



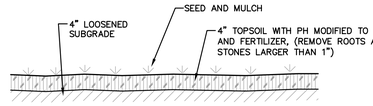
PLAN VIEW



CONSTRUCTION SPECIFICATIONS

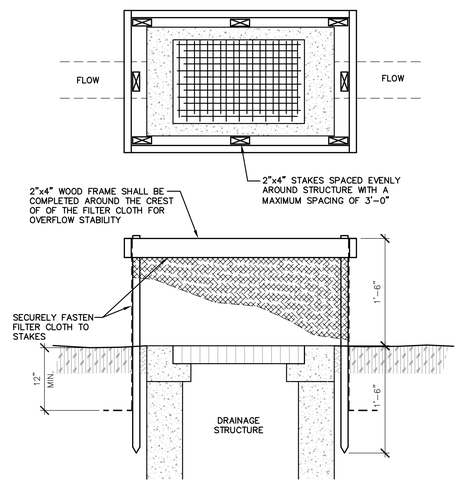
1. LENGTH – NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
2. THICKNESS – NOT LESS THAN SIX (6) INCHES.
3. WIDTH – TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
4. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
5. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
6. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
7. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
8. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

2 TYPICAL OFFSITE SEDIMENT TRACKING DETAIL
NOT TO SCALE



NOTE:
PROVIDE SOIL TESTS WITH SEED, FERTILIZER AND MULCH RECOMMENDATIONS (ONE PER EACH 5 ACRES OF SEEDING AND MIN. ONE PER TOPSOIL STOCKPILE)

3 TYPICAL TOPSOIL REPLACEMENT DETAIL
NOT TO SCALE



INSTALLATION NOTES:

1. FILTER CLOTH TO BE CUT FROM A ROLL TO ELIMINATED JOINTS. if JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
2. STAKE SHALL BE 2"x4" AND A MINIMUM OF 36" LONG.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED AT REGULAR INTERVALS.
4. FILTER CLOTH SHALL BE FILTER X, MIRAFI 100X, STABILINKA-T140N OR APPROVED EQUAL

4 TYPICAL INLET PROTECTION DETAIL
NOT TO SCALE

EROSION AND SEDIMENT CONTROL NOTES:

1. PRIOR TO COMMENCING ANY CLEARING GRUBBING, EARTHWORK ACTIVITIES, ETC. AT THE SITE, THE CONTRACTOR SHALL FLAG THE WORK LIMITS AND SHALL INSTALL ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES (I.E. SILT FENCES, TREE PROTECTION/BARRIER FENCES, STABILIZED CONSTRUCTION ENTRANCES, STORM DRAIN SEDIMENT FILTERS, DRAINAGE DITCH SEDIMENT FILTERS, ETC.) INDICATED ON THE PROJECT DRAWINGS. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THEIR TRIBUTARY AREAS, ONCE CONSTRUCTED, ALL MEASURES SHALL BE PROPERLY MAINTAINED AND/OR REPLACED AS NECESSARY AND THEN REMOVED FROM THE SITE ONCE VEGETATION AND PAVEMENT ARE IN PLACE.
2. EARTH DISTURBANCE SHALL BE LIMITED TO AREAS WHERE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED. ONCE ALL MEASURES ARE INSTALLED TO THE SATISFACTION OF THE ENGINEER, THE REMAINDER OF THE CLEARING AND GRADING ACTIVITIES SHALL COMMENCE.
3. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN STRICT COMPLIANCE WITH THE "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL" CURRENT EDITION.
4. THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF ALL ENVIRONMENTAL PERMITS ISSUED FOR THIS PROJECT. THESE PLANS REFLECT THE PROVISIONS AND REQUIREMENTS OF SAID PERMIT(S). PERMIT(S) WILL BE AVAILABLE FROM THE ENGINEER-IN-CHARGE PRIOR TO THE START OF CONSTRUCTION.
5. CONSTRUCTION IS TO PROCEED IN ACCORDANCE WITH THE CONSTRUCTION PHASING SCHEDULED SUPPLIED BY THE CONTRACTOR OR SHOWN ON THE PLANS. ALL ELEMENTS OF THE SCHEDULE SHALL BE COMPLETED PRIOR TO BEGINNING THE NEXT CONSTRUCTION PHASE. THESE ELEMENTS INCLUDE ALL UTILITY CONSTRUCTION, THE BASE COURSE OF ASPHALT PAVING, AND ESTABLISHING GRASSES ON ALL DISTURBED AREAS. FOR TIME FRAMES OUTSIDE THE GROWING SEASON, OTHER METHODS OF SOIL STABILIZATION (SUCH AS THE USE OF JUTE MESH) SHALL BE USED UNTIL SUCH TIME AS GRASSES CAN BE ESTABLISHED.
6. THE CONTRACTOR SHALL INSPECT AND MAINTAIN THE INTEGRITY AND FUNCTION OF ALL TEMPORARY EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF THE DEVELOPMENT PROCESS. TO ASSURE PROPER FUNCTION, SILTATION BARRIERS SHALL BE MAINTAINED IN GOOD CONDITION AND REINFORCED, EXTENDED, REPAIRED OR REPLACED AS NECESSARY. WASHOUTS SHALL BE IMMEDIATELY REPAIRED, RE-SEEDED AND PROTECTED FROM FURTHER EROSION. ALL ACCUMULATED SEDIMENT SHALL BE REMOVED AND CONTAINED IN APPROPRIATE SPOIL AREAS. WATER SHALL BE APPLIED TO NEWLY SEEDED AREAS AS NEEDED UNTIL GRASS COVER IS WELL ESTABLISHED TO EFFECTIVELY CONTROL WIND EROSION. WATER SHALL BE APPLIED TO ALL EXPOSED SOILS AS NECESSARY UNTIL GROUND COVER IS PERMANENTLY ESTABLISHED.
7. THE STABILIZED CONSTRUCTION ENTRANCE, UTILIZED DURING CONSTRUCTION, SHALL BE MAINTAINED IN A CONDITION THAT SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVISE. PERIODIC INSPECTIONS AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN EVENT.
8. IMMEDIATELY FOLLOWING COMPLETION OF ANY AND ALL STORM DRAIN INLETS, STORM DRAIN INLET PROTECTION SHALL BE CONSTRUCTED. THE INLET PROTECTION SHALL FUNCTION TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAINS. THEY SHALL BE MAINTAINED IN GOOD CONDITION UNTIL FINAL VEGETATIVE COVER IS WELL ESTABLISHED.
9. AS MUCH AS IS POSSIBLE, EXISTING VEGETATION SHALL BE PRESERVED. FOLLOWING THE COMPLETION OF CONSTRUCTION ACTIVITIES IN ANY PORTION OF THE SITE, PERMANENT VEGETATION SHALL BE ESTABLISHED ON ALL EXPOSED SOILS.
10. IN SOME INSTANCES, ESTABLISHING VEGETATION WILL BE NECESSARILY DELAYED WHILE CONSTRUCTION IS IN PROGRESS. DURING THESE TIMES, SEDIMENT CONTROL MEASURES WILL BE EMPLOYED TO PREVENT SEDIMENT FROM LEAVING THE SITE. VEGETATION SHALL BE ESTABLISHED IN THESE AREAS AS SOON AS IT IS PRACTICAL.
11. SITE PREPARATION ACTIVITIES SHALL BE PLANNED TO MINIMIZE THE SCOPE AND DURATION OF SOIL DISRUPTION.
12. PERMANENT TRAFFIC CORRIDORS SHALL BE ESTABLISHED AND "ROUTES OF CONVENIENCE" SHALL BE AVOIDED. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL POINTS OF ENTRY ONTO THE PROJECT SITE.
13. AREAS UNDERGOING CLEARING OR GRADING AND WHERE WORK IS DELAYED OR COMPLETED AND WILL NOT BE REDISTURBED FOR 21 DAYS OR MORE SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT VEGETATIVE COVER WITHIN 14 DAYS.
14. TOPSOIL AND FILL THAT IS TO REMAIN STOCKPILED ON-SITE FOR PERIODS GREATER THAN 30 DAYS SHALL BE STABILIZED BY SEEDING. PRIOR TO THE SEEDING OPERATION, THE STOCKPILED MATERIAL SHALL BE GRADED AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, FERTILIZATION, SEEDING, MULCH APPLICATIONS AND MULCH ANCHORING.
15. SILT FENCES SHALL BE CONSTRUCTED AROUND ALL STOCKPILES OF FILL, TOPSOIL, AND EXCAVATED OVERBURDEN. SILT FENCES SHALL BE ANCHORED AND MAINTAINED IN GOOD CONDITION UNTIL SUCH TIME AS SAID STOCKPILES ARE REMOVED AND STOCKPILING AREAS ARE BROUGHT TO FINAL GRADE AND PERMANENTLY STABILIZED.
16. IN NO CASE SHALL ERODIBLE MATERIALS BE STOCKPILED WITHIN 25 FEET OF ANY DITCH STREAM OR OTHER SURFACE WATER BODY.
17. DAMAGE TO SURFACE WATERS RESULTING FROM EROSION AND SEDIMENTATION SHALL BE MINIMIZED BY STABILIZING DISTURBED AREAS AND BY REMOVING SEDIMENT FROM CONSTRUCTION SITE DISCHARGES.
18. CONSTRUCTION TRAFFIC SHALL NOT CROSS STREAMS OR DITCHES EXCEPT AT SUITABLE CROSSING FACILITIES, AND SHALL NOT OPERATE UNNECESSARILY WITHIN WATERWAYS OR DRAINAGE DITCHES.
19. NO SYNTHETIC EROSION CONTROL MATERIAL, FENCING OR MATTING SHALL BE PART OF THE PERMANENT INSTALLATION.
20. WHERE CONCENTRATED FLOWS ARE CREATED AS A RESULT OF CONSTRUCTION OPERATIONS, CHECK DAMS SHALL BE INSTALLED DEEMED NECESSARY.

SPECIFICATIONS:

SEED

A. TEMPORARY SEED SPECIES: STATE CERTIFIED SEED FROM GRASS SPECIES, AS FOLLOWS:
   1. PERENNIAL RYE, 100%
   2. ANNUAL RYE, 100%
   3. 'AROOSTOOK' WINTER RYE, 100%
B. GRASS/LAWN AREA SEED SPECIES: STATE-CERTIFIED SEED OF GRASS SPECIES, AS FOLLOWS:
   1. KENTUCKY BLUE GRASS: 40%
   2. CREEPING RED FESCUE GRASS: 25%
   3. PERENNIAL RYE: 15%
   4. TALL FESCUE OR SMOOTH BROMEGRASS: 20%
C. WATERWAYS/DRAINAGE CHANNELS SEED SPECIES: STATE-CERTIFIED SEED OF GRASS SPECIES, AS FOLLOWS:
   1. PERENNIAL RYE: 60%
   2. TALL FESCUE OR SMOOTH BROMEGRASS: 40%
   3. REDTOP: 4%

PLANTING MATERIALS

A. TOPSOIL: ASTM D 5268, PH RANGE OF 6.5 TO 7.5, A MINIMUM OF 6 PERCENT ORGANIC MATERIAL CONTENT AND A MAXIMUM OF 20 PERCENT; FREE OF STONES 1 INCH (25 MM) OR LARGER IN ANY DIMENSION AND OTHER EXTRANEOUS MATERIALS HARMFUL TO PLANT GROWTH; NOT LESS THAN 20 PERCENT FINE TEXTURED MATERIAL C PASSING THE NO. 200 SIEVE, AND NOT MORE THAN 15 PERCENT CLAY; CONTAIN LESS THAN 500 PPM SOLUBLE SALTS.
   1. TOPSOIL SOURCE: REUSE SURFACE SOIL STOCKPILED ON-SITE AND SUPPLEMENT WITH IMPORTED OR MANUFACTURED TOPSOIL FROM OFF-SITE SOURCES WHEN QUANTITIES OR QUALITY IS INSUFFICIENT. VERIFY SUITABILITY OF STOCKPILED SURFACE SOIL TO PRODUCE TOPSOIL.
   2. TOPSOIL SOURCE: AMEND EXISTING IN-PLACE SURFACE SOIL TO PRODUCE TOPSOIL. VERIFY SUITABILITY OF SURFACE SOIL TO PRODUCE TOPSOIL. SURFACE SOIL MAY BE SUPPLEMENTED WITH IMPORTED OR MANUFACTURED TOPSOIL FROM OFF-SITE SOURCES.
B. INORGANIC SOIL AMENDMENTS:
   1. LIME: ASTM C 602, CLASS T OR O, AGRICULTURAL LIMESTONE CONTAINING A MINIMUM 80 PERCENT CALCIUM CARBONATE EQUIVALENT.
C. ORGANIC SOIL AMENDMENTS
   1. COMPOST: WELL-COMPOSTED, STABLE, AND WEED-FREE ORGANIC MATTER, PH RANGE OF 5.5 TO 8.
   2. PEAT: SPHAGNUM PEAT MOSS, PARTIALLY DECOMPOSED, FINELY DIVIDED OR GRANULAR TEXTURE, WITH PH RANGE OF 3.4 TO 4.8
   3. PEAT: FINELY DIVIDED OR GRANULAR TEXTURE, WITH PH RANGE OF 6 TO 7.5, CONTAINING PARTIALLY DECOMPOSED MOSS PEAT, NATIVE PEAT, OR REED-SEDGE PEAT AND HAVING WATER-ABSORBING CAPACITY OF 1100 TO 2000 PERCENT.
D. FERTILIZER:
   1. COMMERCIAL FERTILIZER: COMMERCIAL-GRADE COMPLETE FERTILIZER OF NEUTRAL CHARACTER, CONSISTING OF FAST- AND SLOW-RELEASE NITROGEN, 50 PERCENT DERIVED FROM NATURALORGANIC SOURCES OF UREA FORMALDEHYDE, PHOSPHOROUS, AND POTASSIUM IN THE FOLLOWING COMPOSITION: COMPOSITION: 1 LB/1000 SQ. FT. (0.45 KG/92.9 SQ. M) OF ACTUAL NITROGEN, 4 PERCENT PHOSPHOROUS, AND 2 PERCENT POTASSIUM, BY WEIGHT.
   2. SLOW-RELEASE FERTILIZER: GRANULAR OR PELLETED FERTILIZER CONSISTING OF 50 PERCENT WATER-INSOLUBLE NITROGEN, PHOSPHORUS, AND POTASSIUM IN THE FOLLOWING COMPOSITION:
   3. COMPOSITION: 20 PERCENT NITROGEN, 10 PERCENT PHOSPHOROUS, AND 10 PERCENT POTASSIUM, BY WEIGHT.
E. MULCHES:
   1. STRAW MULCH: PROVIDE AIR-DRY, CLEAN, MILDEW- AND SEED-FREE, SALT HAY OR THRESHED STRAW OF WHEAT, RYE, OATS, OR BARLEY. PEAT MULCH MAY BE REQUIRED IF SEEDED LAWNS ARE SUBJECT TO HOT, DRY WEATHER OR DRYING WINDS WITHIN 30 DAYS OF PLANTING.
   2. PEAT MULCH: SPHAGNUM PEAT MOSS, PARTIALLY DECOMPOSED, FINELY DIVIDED OR GRANULAR TEXTURE, WITH PH RANGE OF 3.4 TO 4.8.
   3. PEAT MULCH: FINELY DIVIDED OR GRANULAR TEXTURE, WITH PH RANGE OF 6 TO 7.5, CONTAINING PARTIALLY DECOMPOSED MOSS PEAT, NATIVE PEAT, OR REED-SEDGE PEAT AND HAVING WATER-ABSORBING CAPACITY OF 1100 TO 2000 PERCENT.
   4. COMPOST MULCH: WELL-COMPOSTED, STABLE, AND WEED-FREE ORGANIC MATTER, PH RANGE OF 5.5 TO 8.
   5. UTILIZE MULCH ANCHORING METHOD OR MATERIAL AS REQUIRED BY NYS STANDARD SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (PEG & TWINE, MULCHING NETTING, WOOD CELLULOSE, TACKIFIER, OR MECHANICAL METHODS)

EXECUTION

LAWN PREPARATION

A. NEWLY GRADED SUBGRADES: LOOSEN SUBGRADE TO A MINIMUM DEPTH OF 4 INCHES (100 MM). REMOVE STONES LARGER THAN 1 INCH (25 MM) IN ANY DIMENSION AND STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEOUS MATTER AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.
   1. APPLY SUPERPHOSPHATE FERTILIZER DIRECTLY TO SUBGRADE BEFORE LOOSENING.
   2. THOROUGHLY BLEND PLANTING SOIL MIX OFF-SITE BEFORE SPREADING OR SPREAD TOPSOIL, APPLY SOIL AMENDMENTS AND FERTILIZER ON SURFACE, AND THOROUGHLY BLEND PLANTING SOIL MIX.
   3. SPREAD PLANTING SOIL MIX TO A DEPTH OF 4 INCHES (150 MM) BUT NOT LESS THAN REQUIRED TO MEET FINISH GRADES AFTER LIGHT ROLLING AND NATURAL SETTLEMENT. DO NOT SPREAD IF PLANTING SOIL OR SUBGRADE IS FROZEN, MUDDY, OR EXCESSIVELY WET.
B. FINISH GRADING: GRADE PLANTING AREAS TO A SMOOTH, UNIFORM SURFACE PLANE WITH LOOSE, UNIFORMLY FINE TEXTURE. GRADE TO WITHIN PLUS OR MINUS 1/2 INCH (13 MM) OF FINISH ELEVATION. ROLL AND RAKE, REMOVE RIDGES, AND FILL DEPRESSIONS TO MEET FINISH GRADES. LIMIT FINE GRADING TO AREAS THAT CAN BE PLANTED IN THE IMMEDIATE FUTURE.
C. MOISTEN PREPARED LAWN AREAS BEFORE PLANTING IF SOIL IS DRY. WATER THOROUGHLY AND ALLOW SURFACE TO DRY BEFORE PLANTING. DO NOT CREATE MUDDY SOIL.
D. RESTORE AREAS IF ERODED OR OTHERWISE DISTURBED AFTER FINISH GRADING AND BEFORE PLANTING.

TEMPORARY EROSION AND SEDIMENTATION CONTROL

A. PROVIDE TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES TO PREVENT SOIL EROSION AND DISCHARGE OF SOIL-BEARING WATER RUNOFF OR AIRBORNE DUST TO ADJACENT PROPERTIES AND WALKWAYS, ACCORDING TO A SEDIMENT AND EROSION CONTROL PLAN, SPECIFIC TO THE SITE THAT COMPLIES WITH NYS DEC SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITY, GP-01-10-001.
B. THE OPERATOR SHALL INITIATE STABILIZATION MEASURES AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THEN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAVE TEMPORARILY OR PERMANENTLY CEASED. THIS REQUIREMENT DOES NOT APPLY IN THE FOLLOWING INSTANCES:
   1. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASED IS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE;
C. SEED WITH 24 HOURS OF DISTURBANCE OR LOOSEN SCARIFY THE SOIL SURFACE PRIOR TO SEEDING.
D. SPRING, SUMMER OR EARLY FALL TEMPORARY SEEDING: ANNUAL OR PERENNIAL RYE GRASS AT A RATE OF 30 LBS/AC. (PERENNIAL RYE GRASS MUST BE UTILIZED WHERE FINAL GRADING ACTIVITIES WILL NOT BE COMPLETED UNTIL THE FOLLOWING SPRING.)
E. LATE FALL OR EARLY WINTER TEMPORARY SEEDING: CERTIFIED 'AROOSTOOK' WINTER RYE AT A RATE OF 100 LBS/AC.
F. MULCH HAY OR STRAW AT A RATE OF 2 TONS/ACRE (APPROXIMATELY 90 BALES PER ACRE). MULCH ANCHORING WILL BE REQUESTED WHERE WIND OR AREAS OF WATER ARE OF CONCERN. WOOD FIBER HYDROMULCH OR OTHER SPRAYABLE PRODUCTS APPROVED FOR EROSION CONTROL MAY BE USED IF APPLIED ACCORDING TO MANUFACTURERS SPECIFICATIONS.

PERMANENT SEEDING

A. SOWING RATES VARY WITH GRASS SPECIES AND MIXTURES.
B. SOW SEED AT THE RATE OF 6 LB/1000 SQ. FT. (250 LB/AC).
C. RAKE SEED LIGHTLY INTO TOP 1/8 INCH (3 MM) OF TOPSOIL, ROLL LIGHTLY, AND WATER WITH FINE SPRAY.
D. MULCH WITH STRAW AT A RATE OF 2 TONS/ACRE (APPROXIMATELY 90 BALES PER ACRE). MULCH ANCHORING WILL BE REQUESTED WHERE WIND OR AREAS OF WATER ARE OF CONCERN. WOOD FIBER HYDROMULCH OR OTHER SPRAYABLE PRODUCTS APPROVED FOR EROSION CONTROL MAY BE USED IF APPLIED ACCORDING TO MANUFACTURERS SPECIFICATIONS.

SATISFACTORY LAWNS

A. SATISFACTORY SEEDED LAWN: AT END OF MAINTENANCE PERIOD, A HEALTHY, UNIFORM, CLOSE STAND OF GRASS HAS BEEN ESTABLISHED, FREE OF WEEDS AND SURFACE IRREGULARITIES, WITH COVERAGE EXCEEDING 90 PERCENT OVER ANY 10 SQ. FT. (0.92 SQ. M) AND BARE SPOTS NOT EXCEEDING 5 BY 5 INCHES (125 BY 125 MM.)
B. VEGETATION SHALL BE ESTABLISHED AS SOON AFTER CONSTRUCTION AS POSSIBLE TO ENSURE PROTECTION FROM EROSION. IF RILLING OCCURS, REGRADE AND USE FABRIC OR JUTE MESH TO PROTECT AREA.
C. REESTABLISH LAWNS THAT DO NOT COMPLY WITH REQUIREMENTS AND CONTINUE MAINTENANCE UNTIL LAWNS ARE SATISFACTORY.

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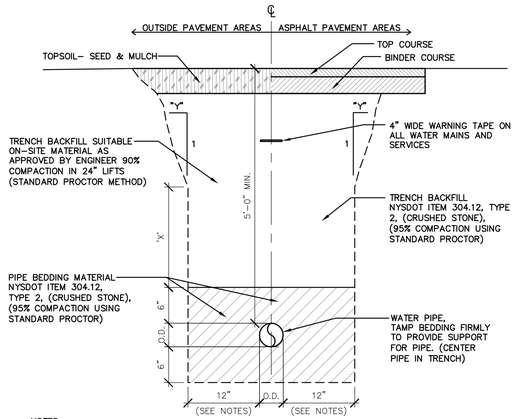
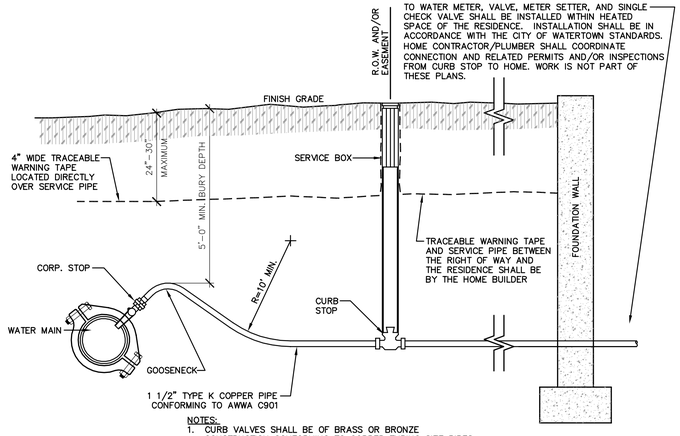


NOTES

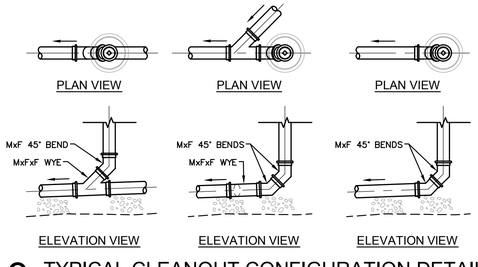
1. DIMENSIONS 'X' AND 'Y' SHOWN ABOVE SHALL BE DETERMINED BY CONTRACTOR TO COMPLY WITH O.S.H.A., NEW YORK STATE DEPARTMENT OF LABOR, NEW YORK STATE INDUSTRIAL CODE AND ALL OTHER APPLICABLE SAFETY STANDARDS.
2. SAFETY SHEETING OR TRENCH BOX MAY BE USED IN PLACE OF SLOPED TRENCH WALLS.
3. SHEETING, WHEN REQUIRED, TO BE CUT OFF AT LEAST 5 FEET BELOW STREET AND A MINIMUM OF 1 FOOT ABOVE TOP OF PIPE. WOOD SHEETING DRIVEN BELOW MID–DIAMETER OF THE PIPE SHALL BE LEFT IN PLACE. STEEL SHEETING DRIVEN BELOW MID–DIAMETER MAY BE WITHDRAWN IF APPROVED IN WRITING BY THE ENGINEER. FOR PVC PIPE ALL SHEETING DRIVEN BELOW MID–DIAMETER SHALL BE LEFT IN PLACE.
4. TRENCHES LOCATED WITHIN 5' OF ROAD SHOULDERS SHALL BE TREATED THE SAME AS UNDER PAVEMENT.
5. PIPE TO TRENCH WALL DISTANCE MAY BE REDUCED WHEN INSTALLED IN SAWCUT ROCK TRENCH.

1 TYPICAL WATER TRENCH DETAIL
NOT TO SCALE

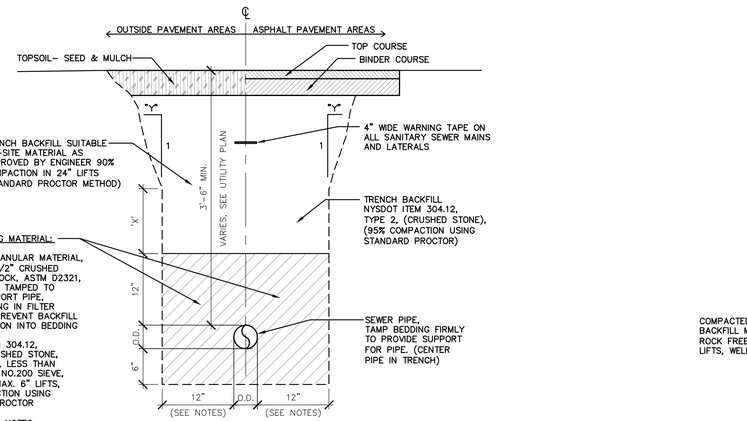


NOTES:
1. CURB VALVES SHALL BE OF BRASS OR BRONZE CONSTRUCTION CONFORMING TO COPPER TUBING SIZE PIPES.
2. SERVICE PIPE SHALL BE COPPER TUBING SIZE PIPE.

2 TYPICAL WATER SERVICE DETAIL
NOT TO SCALE (DIP MAIN AND COPPER SERVICE)



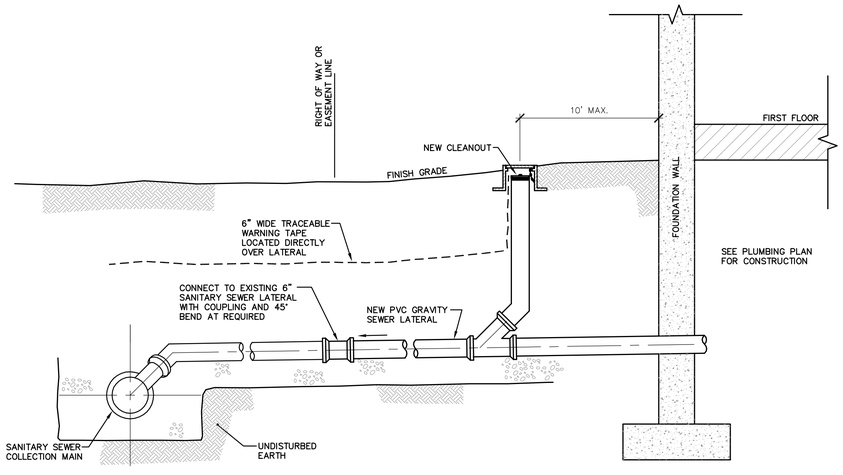
3 TYPICAL CLEANOUT CONFIGURATION DETAIL
NOT TO SCALE



NOTES

1. DIMENSIONS 'X' AND 'Y' SHOWN ABOVE SHALL BE DETERMINED BY CONTRACTOR TO COMPLY WITH O.S.H.A., NEW YORK STATE DEPARTMENT OF LABOR, NEW YORK STATE INDUSTRIAL CODE AND ALL OTHER APPLICABLE SAFETY STANDARDS.
2. SAFETY SHEETING OR TRENCH BOX MAY BE USED IN PLACE OF SLOPED TRENCH WALLS.
3. SHEETING, WHEN REQUIRED, TO BE CUT OFF AT LEAST 5 FEET BELOW STREET AND A MINIMUM OF 1 FOOT ABOVE TOP OF PIPE. WOOD SHEETING DRIVEN BELOW MID–DIAMETER OF THE PIPE SHALL BE LEFT IN PLACE. STEEL SHEETING DRIVEN BELOW MID–DIAMETER MAY BE WITHDRAWN IF APPROVED IN WRITING BY THE ENGINEER. FOR PVC PIPE ALL SHEETING DRIVEN BELOW MID–DIAMETER SHALL BE LEFT IN PLACE.
4. TRENCHES LOCATED WITHIN 5' OF ROAD SHOULDERS SHALL BE TREATED THE SAME AS UNDER PAVEMENT.
5. PIPE TO TRENCH WALL DISTANCE MAY BE REDUCED WHEN INSTALLED IN SAWCUT ROCK TRENCH.

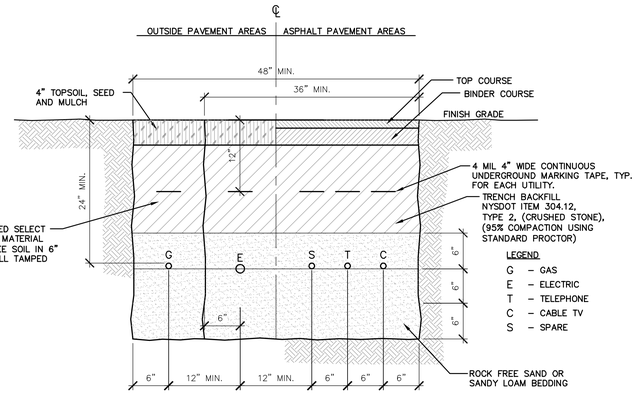
4 TYPICAL SANITARY SEWER TRENCH DETAIL
NOT TO SCALE



NOTES:
1. FOUNDATION DRAINS OR ANY OTHER STORM SEWERS SHALL NOT BE CONNECTED TO THE SANITARY SEWER.
2. STORM SEWER SERVICES SHALL DAYLIGHT WHERE ELEVATIONS PERMIT. SEALED SUMP PITS SHALL BE INSTALLED TO PUMP STORM WATER AWAY FROM BUILDING AND TO DRAINAGE CHANNELS WHERE ELEVATIONS DO NOT PERMIT GRAVITY FLOW.

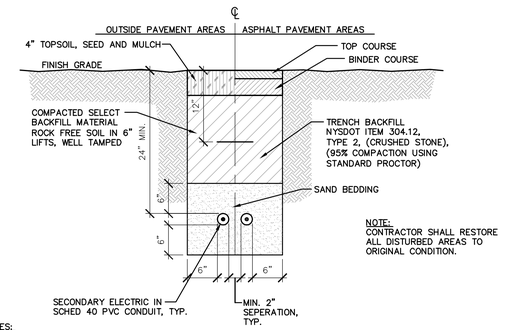
5 TYPICAL SANITARY SEWER AT BASEMENT/CRAWL SPACE CONNECTION DETAIL
NOT TO SCALE

FOR ILLUSTRATION AND INFORMATION PURPOSES ONLY
NO SCOPE OF WORK SPECIFIED ON THIS DETAIL



NOTES:
1. INSTALLATION REQUIREMENTS TO BE VERIFIED WITH LOCAL UTILITY COMPANY. PORTIONS OR ALL OF THE PRIMARY SERVICES MAY BE INSTALLED BY LOCAL UTILITY COMPANIES. CONTRACTOR IS RESPONSIBLE FOR TRENCH EXCAVATION. AND SHALL COORDINATE INSTALLATION WITH UTILITY COMPANIES.
2. SECONDARY ELECTRIC TO SITE LIGHTING SHALL BE MIN. 1" SCHD 40 PVC CONDUIT. WIRE SIZES SHALL BE IN ACCORDANCE WITH NEC REQUIREMENTS.
3. ALL BURIAL TYPE CONDUITS, SIZES, NUMBER, AND WIRES SHALL BE COORDINATED WITH THE RESPECTIVE UTILITY COMPANY'S REQUIREMENTS.
4. WIDTH OF TRENCH IS DEPENDENT UPON THE NUMBER OF CONDUITS AND ARRANGEMENT REQUIRED BY EACH RESPECTIVE UTILITY COMPANY.

6 TYPICAL UNDERGROUND UTILITY SERVICE TRENCH DETAIL
NOT TO SCALE



NOTES:
1. SECONDARY ELECTRIC SHALL BE MIN. 1" SCHED 40 PVC CONDUIT. WIRE SIZES SHALL BE IN ACCORDANCE WITH NEC REQUIREMENTS.
2. ALL BURIAL TYPE CONDUITS, SIZES, NUMBER, AND WIRES SHALL BE COORDINATED WITH THE RESPECTIVE UTILITIES.
3. WIDTH OF TRENCH IS DEPENDENT UPON THE NUMBER OF CONDUITS AND ARRANGEMENT REQUIRED BY EACH RESPECTIVE UTILITY COMPANY.

7 TYPICAL SECONDARY ELECTRICAL TRENCH DETAIL
NOT TO SCALE

FOR APPROVALS ONLY
NOT FOR CONSTRUCTION

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Watertown, New York 13601
aubertinecurrier.com
Phone: (315)782-2005
Fax: (315)782-1472

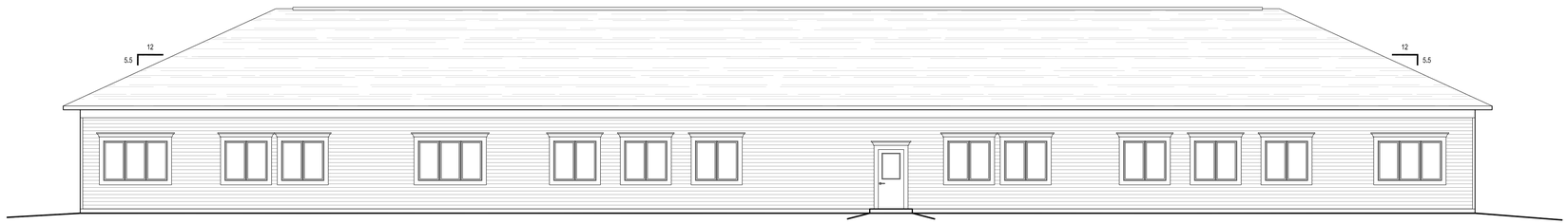
STATE OF NEW YORK
MATTHEW R.A. MORETA
081071
LICENSED PROFESSIONAL ENGINEER

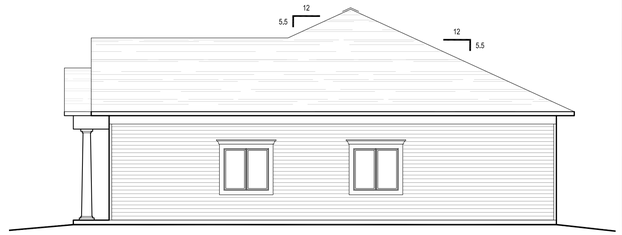
ACCOUNTANT'S OFFICE
BOWERS AND COMPANY, CPA's PLLC
VL-9 COMMERCE PARK DRIVE EAST
CITY OF WATERTOWN
JEFFERSON COUNTY, STATE OF NEW YORK

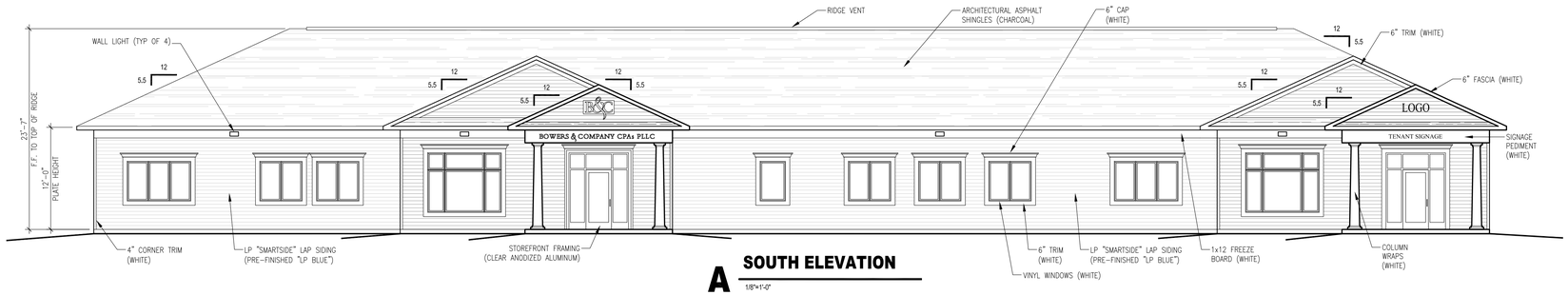
PROJECT NO:	2014-017.001
SCALE:	AS NOTED
DRAWN BY:	CWT
CHECKED BY:	MRM
ISSUE DATES:	05/19/2014

UTILITY DETAILS

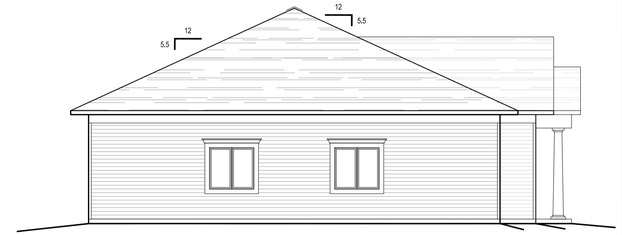
CU-500



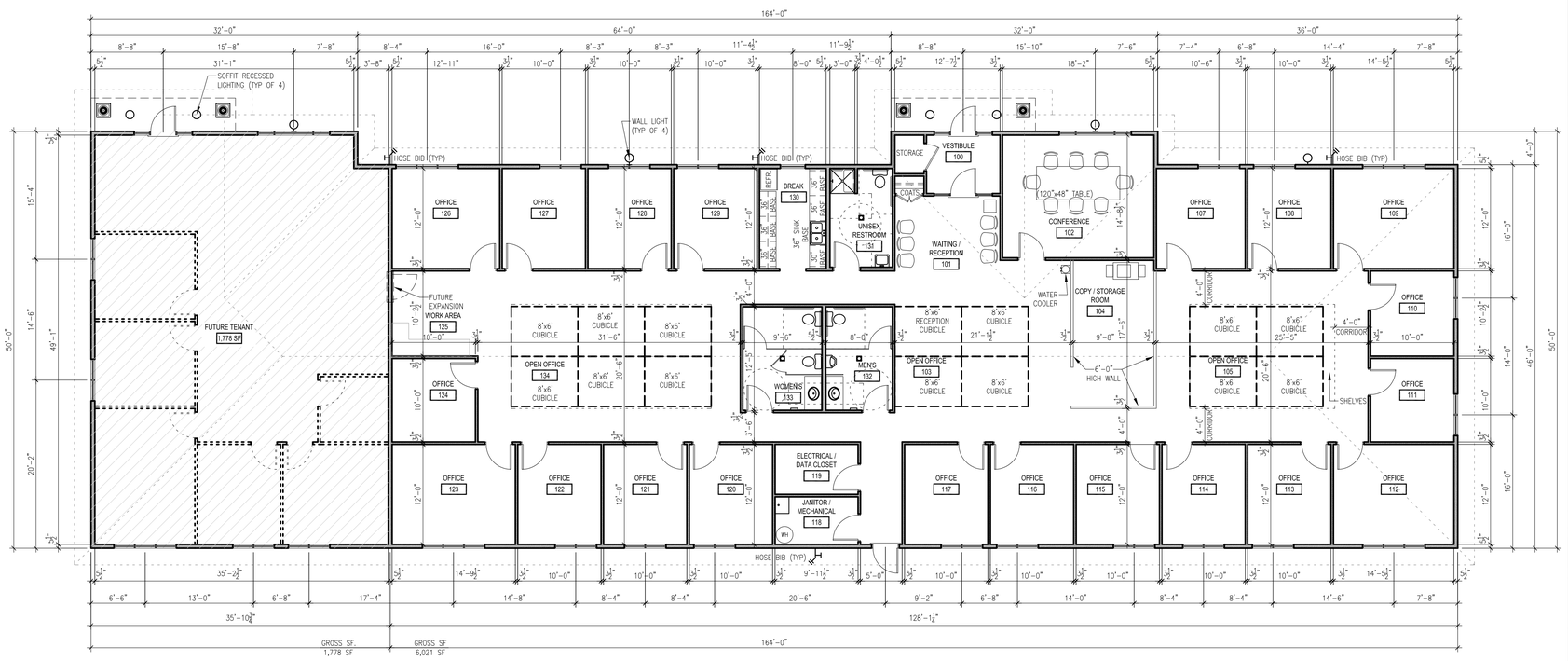




A SOUTH ELEVATION
1/8"=1'-0"



A WEST ELEVATION
1/8"=1'-0"



PROGRESS PRINT
NOT FOR CONSTRUCTION

A FIRST FLOOR PLAN
1/8"=1'-0"
TOTAL AREA: 7,799 SF

AUBERTINE and CURRIER
ARCHITECTS, ENGINEERS & LAND SURVEYORS, PLLC

522 Bradley Street
Watertown, New York 13601

aubertinecurrier.com

Phone: (315)782-2005
Fax: (315)782-1472

BOWERS AND COMPANY NEW OFFICE BUILDING

WATERTOWN, NEW YORK
JEFFERSON COUNTY

PROJECT NO: 2014-017
SCALE: AS NOTED
DRAWN BY: BMK
CHECKED BY: PJC
ISSUE DATES:
05-19-2014 PLANNING BOARD SUBMISSION

CONCEPTUAL FLOOR PLAN

A100

PRELIMINARY ENGINEERING REPORT

ACCOUNTANT'S OFFICE
VL9 COMMERCE PARK DRIVE EAST
CITY OF WATERTOWN
JEFFERSON COUNTY, NEW YORK

Owner: Michael D'Avirro
1200AXA Tower I
100 Madison Street
Syracuse, New York 13202

May 19, 2014

_____

Matthew R. Morgia, P.E.
Civil Engineer

The above Engineer states that to the best of his knowledge, information and belief, the plans and specifications are in accordance with applicable requirements of New York State. It is a violation of New York State Law for any person, unless acting under the direction of a licensed professional engineer to alter this document in any way. If altered, such licensee shall affix his or her seal and the notation "altered by" followed by his or her signature, date, and a specific description of alteration.

Aubertine and Currier Architects, Engineers & Land Surveyors, PLLC
522 Bradley Street, Watertown, New York 13601 TELE: (315) 782-2005 FAX: (315) 782-1472

Table of Contents

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Soils Map
Soils Description
Flood Insurance Rate Map, 360354 0001 E

Appendix 2: Sanitary Sewer Design Calculations

Appendix 3: Hydrologic and Hydraulic Analysis

Appendix 4: Trip Generation Calculations

1.0 SITE AND PROJECT DESCRIPTIONS

1.1 Location

The project is located within the City of Watertown at VL 9, off the end of Commerce Park Drive East. Vacant Lot #9 is part of the Watertown Commerce Park Subdivision created in 1990. The property is located on Tax Map Parcel No. 8-50-101.150. This parcel is zoned Commercial.

1.2 Project Description

The project consists of a proposed 7,800 SF, Accountant's Office and associated site amenities. Site amenities include the construction of a 17,700 SF, 40 space parking lot, concrete sidewalks, site lighting, and utilities. The building will be serviced by public sewer and water, and private electric, gas and communication utilities.

1.3 Site Topography

The existing VL 9 site is comprised of undeveloped land. The natural grade slopes from the southwest to the northeast corner of the property. Spoil piles roughly four feet in height exist in the center of site. A fence runs along the northern boundary, separating the site from the United States Post Office property.

Site runoff is primarily overland flow from southern and western ends of the site to the northeast. Runoff from the site flows to catch basins located at the northwest and northeast corners of the site.

The developed area of the project is not located within a 100 year flood plain.

1.4 Soil Classification

The project site is located in the City of Watertown, which is an urban environment and consists primarily of previously developed area. According to the Soils Survey of Jefferson County, New York, the project area is classified as a silt loam and is a Hydrologic Group C/D.

Soil Symbol	Soil Name	Hydrologic Group
HuB	Hudson silt loam	C/D
HuC	Hudson silt loam	C/D

2.0 WATER FACILITIES

2.1 Existing Water Facilities

The Watertown Commerce Park utilities were constructed during the 1990s and have been plotted per 1998 mapping and plans within the City's records, and survey evidence visible at the ground surface. There is an 8" DIP municipal water main along the south side of East Commerce Drive. A 6" DIP service extends from the main to the southwest corner of the lot. A fire hydrant is located at the end of Commerce Park Drive East, providing fire protection to the lots 8,9,10, and 11 of the Park.

2.2 Proposed Water Facilities

The proposed building will be served by a 1 ½" type K copper water service connecting to the existing 6" service pipe. The 150' long service will include a saddle, tap, corp and curb stop to extend the service from the southwest corner of the lot to the building.

2.3 Water Demand

The projected peak water usage by the Accountant's Office is 660 GPD. This is based upon the projected flow of 15 GPD for each of the 44 employees expected to use the office.

3.0 SANITARY SEWER FACILITIES

3.1 Existing Sanitary Sewer Facilities

The Watertown Commerce Park utilities were constructed during the 1990s and have been plotted per 1998 mapping and plans within the City's records, and survey evidence visible at the ground surface. There is an 8" municipal gravity sanitary sewer main within a 15' utility easement along the north property line. A 6" lateral was installed to service VL 9 in the northeast corner of the lot.

3.2 Proposed Sanitary Sewer Facilities

The proposed building will be served by 60 LF of 6" SDR-35 PVC connecting to the existing 6" sanitary sewer lateral stub located in the northeast corner of the property. The proposed 6" lateral will enter on the east end of the proposed building.

3.3 Sewer Flows

The projected design flows generated by the Accountant's Office is 660 GPD. Sewer flows are based upon the NYS DEC 2014 Design Standards for Wastewater Treatment Works projected flow rates of 15 GPD per employee. The proposed office will have 44 employees.

4.0 STORMWATER FACILITIES

4.1 Existing Drainage

The Watertown Commerce Park utilities were constructed during the 1990s and have been plotted per 1998 mapping and plans within the City's records, and survey evidence visible at the ground surface. Vacant Lot #9 includes 1.384 acres of undeveloped land. Existing site drainage flows from the southwest end of the site to the northeast corner of the site via overland sheet flow. A catch basin at the northeast corner of the site collects the majority of the surface runoff from the property and discharges to the 15" storm drain which runs along the north boundary of the site. Another catch basin is located near the northwest corner of the site which collects a very small portion of site runoff. Both drainage structures are piped north along Hycliff Drive South through the City storm sewer system, which discharges into the Black River and ultimately flows to Lake Ontario. Offsite drainage includes runoff from the wooded brush area of VL 10 to the south of the site.

The existing site drainage and runoff conditions were analyzed utilizing the Rational Method. HydroCAD calculations can be found in Appendix #2. Runoff calculations were completed for the 10, 25, 50 and 100 year, 24 hour storm events. Peak discharge from the 25 year, 24 hour, storm event has been utilized for design and discussion purposes. The existing condition 25 year site discharge is 0.05 CFS.

4.2 Proposed Drainage

Site runoff from the office building, driveways, parking lot, and lawn areas will sheet flow into the lawn areas to the northwest and undeveloped eastern portion of the lot. Runoff which doesn't infiltrate into the existing soils will be channeled to and collected within the existing catch basins at the northwest and northeast corners of the lot.

The proposed conditions 25 year, 24 hour storm, peak discharge is 0.11 CFS. This relatively minimal increase in peak runoff from the existing condition of the project site is due primarily to the 0.62 acre increase in impervious area resulting from the office building and parking lot construction. The existing storm sewer collection system is that which was originally constructed to service the Watertown Commerce Park Subdivision in the 1990s.

5.0 ROADS / DRIVEWAYS

5.1 Existing Roads / Driveways

The lot has frontage on the northeast end of the Commercial Drive East cul-de-sac. No driveway curb cuts currently exist to provide access to the lot.

5.2 Proposed Roads / Driveways

The proposed project includes the addition of two driveway curb cuts and aprons of 24' and 20' wide to provide access from the Commerce Drive East cul-de-sac.

5.3 Traffic

Trip generation calculations were performed utilizing data from the ITE Trip Generation Manual, 7th Edition. The resulting anticipated trips to the proposed office have been calculated.

The Weekday AM Peak Hour generates approximately 19 trips/hour entering and 2 trips/hour exiting. The Weekday PM Peak Hour generates approximately 3 trips/hour entering and 17 trips/hour exiting. The Saturday Peak Hour generates approximately 2 trips/hour entering and 2 trips/hour exiting.

6.0 PRIVATE UTILITIES

6.1 Gas, Electric, Telephone and Cable

Existing gas, electric and communication services are located along the south side of the Commerce Drive East cul-de-sac. The gas, electric and communication services will be extended to the building from the end of the existing utilities.

7.0 LIGHTING

7.1 Proposed Site Lighting

Proposed site lighting includes five (5) 175 watt Metal Halide cutoff fixtures, two (2) SSM2 175MATMR/PC-8 located within the asphalt parking lot and three (3) NPM 175MAL-8 mounted on the building. Two lights will be on each side of a single pole in the middle of the parking lot. The three building-mounted lights will be located on the southern side of the building facing the parking lot.

8.0 LANDSCAPING

8.1 Existing Landscaping

Wooded and brush areas border the south and east property boundaries. An additional brush area exists near the center of the lot. The spoil piles in the center of the property are mainly grass, brush, and other low growth vegetation. A fence runs along the north property boundary, a parking lot borders the west boundary, and there is a residential street running parallel to the east boundary. Adjacent parcels are zoned Commercial to the south, west, and north, and Neighborhood Business to the east.

8.2 Proposed Landscaping

The wooded and brush areas along the south and east boundaries will be left in place, lawn will occupy the remaining property. Six (6) landscape trees will be provided along the east and south exterior edges of the parking lot. One (1) landscape tree will be provided within the interior curbed island at the entry to the parking lot. Landscape trees are not proposed along the west and north property lines due to the numerous utilities and easements at these locations. Additional low-level landscape plantings and shrubbery at the perimeter of the building will likely be added by the owner as building design is further developed.

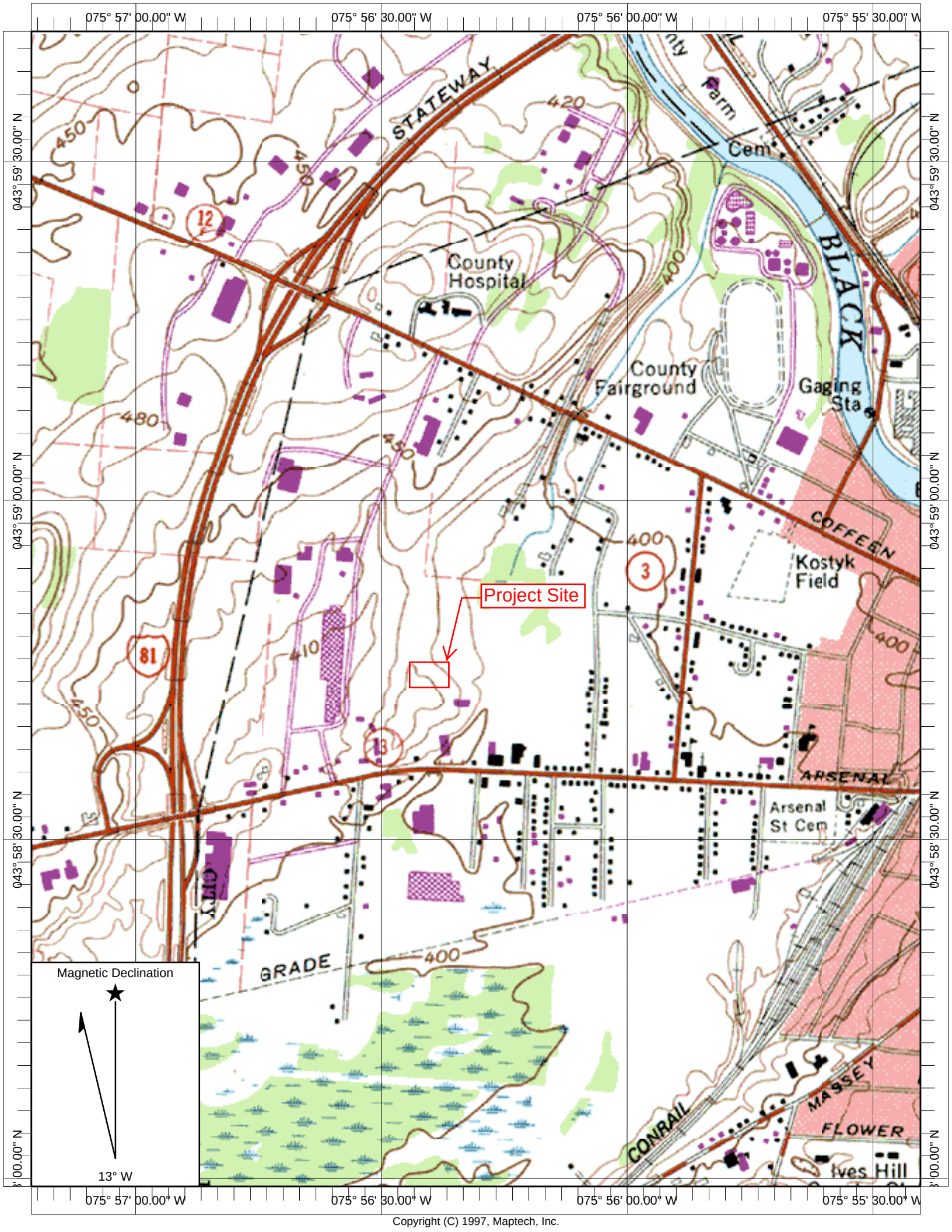
Sincerely,
Aubertine and Currier Architects, Engineers & Land Surveyors, P.L.L.C.

Matthew R. Morgia, P.E.
Civil Engineer

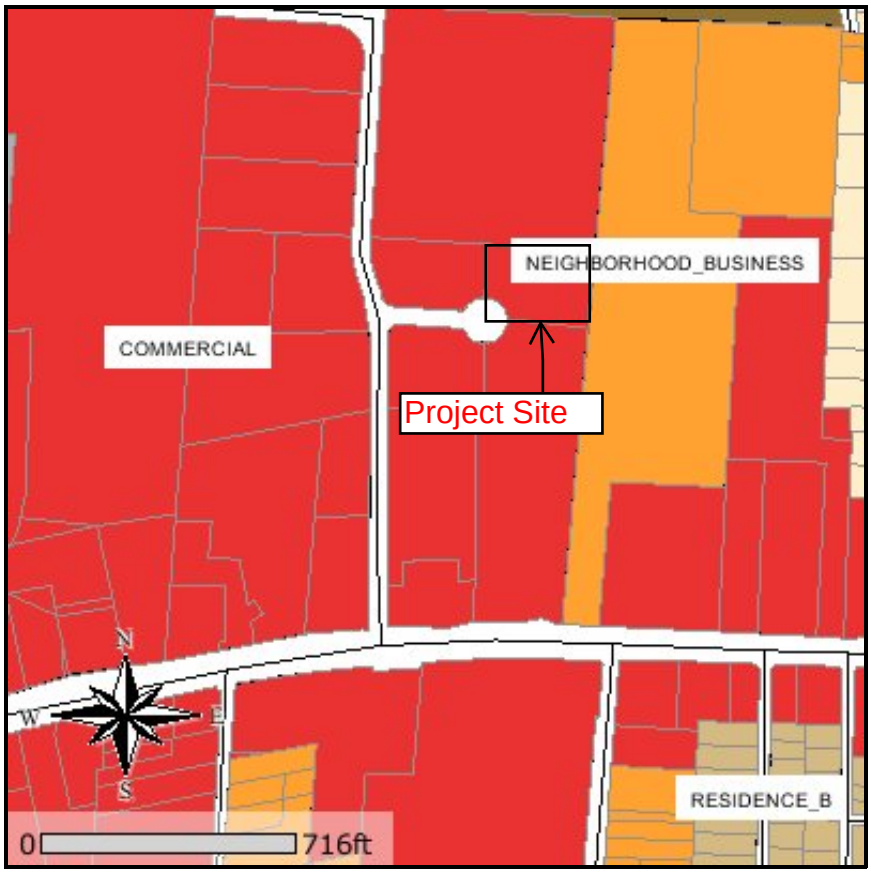
Aubertine and Currier Architects, Engineers & Land Surveyors, PLLC
522 Bradley Street, Watertown, New York 13601 TELE: (315) 782-2005 FAX: (315) 782-1472

APPENDIX #1

USGS LOCATION MAP
CITY OF WATERTOWN ZONING MAP
SOILS MAP
SOILS DESCRIPTION
FLOOD INSURANCE RATE MAP, 360354 0001 E



Watertown Zoning Map



May 19, 2014

Disclaimer: **This map was prepared by the City of Watertown Internet Mapping Application. The information was compiled using the most current data available. It is deemed accurate, but is not guaranteed.**

Hydrologic Soil Group—Jefferson County, New York
(Bowers and Company)

Map Scale: 1:595 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 5 10 20 30

Feet
0 25 50 100 150

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Jefferson County, New York
Survey Area Data: Version 10, Dec 15, 2013

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 2, 2010—Jul 2, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Hydrologic Soil Group— Summary by Map Unit — Jefferson County, New York (NY045)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
HuB	Hudson silt loam, 3 to 8 percent slopes	C/D	0.4	29.2%
HuC	Hudson silt loam, 8 to 15 percent slopes	C/D	1.1	70.8%
Totals for Area of Interest			**1.5**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

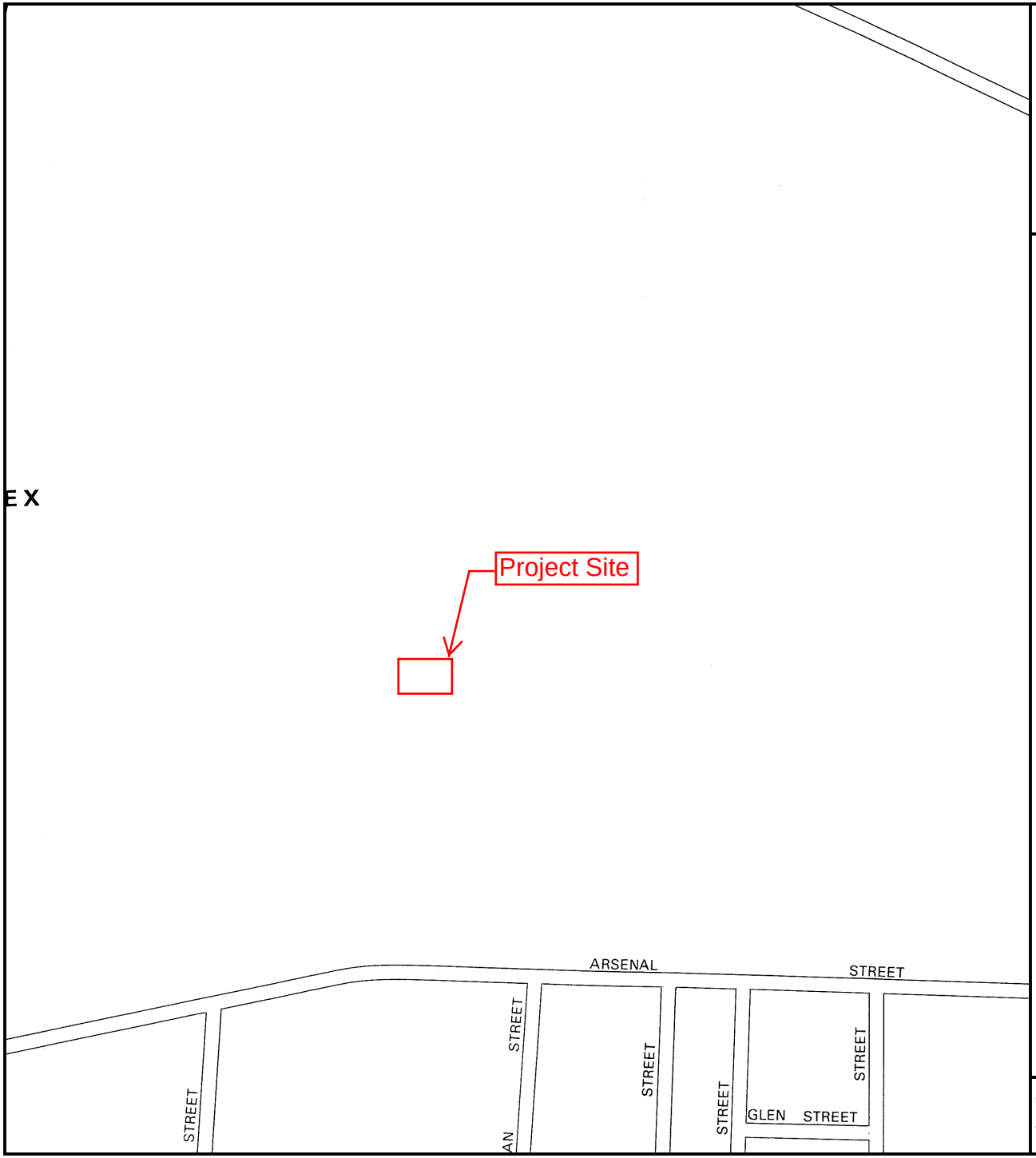
If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: *None Specified*

Tie-break Rule: Higher



APPROXIMATE SCALE

500 0 500 FEET

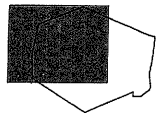
NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

CITY OF
WATERTOWN,
NEW YORK
JEFFERSON COUNTY

PANEL 1 OF 4
(SEE MAP INDEX FOR PANELS NOT PRINTED)



PANEL LOCATION

COMMUNITY-PANEL NUMBER
360354 0001 E

MAP REVISED:
JANUARY 17, 1990

BEST AVAILABLE COPY
AT THIS TIME

Federal Emergency Management Agency

APPENDIX #2

SANITARY SEWER DESIGN CALCULATIONS

Aubertine and Currier Architects, Engineers & Land Surveyors, PLLC
522 Bradley Street, Watertown, New York 13601 TELE: (315) 782-2005 FAX: (315) 782-1472

AUBERTINE & CURRIER
ARCHITECTS, ENGINEERS & LAND SURVEYORS, PLLC
522 BRADLEY STREET
WATERTOWN, NY 13601
TEL: (315) 782-2005
FAX: (315) 782-1472
www.AubertineCurrier.com

CALCULATION SHEET

Project Number: 2014-017.001 Date: 9/1/2014

Project Name: Bowers & Comp Page: 1 Of: 1

Location: VL9 Comm Park Dr E Calc'd By: TFT

CITY OF WATERTOWN

SANITARY SEWER DESIGN CALCULATIONS

PER DEC 2014 DESIGN STANDARDS FOR INTERMEDIATE SIZED WASTEWATER TREATMENT SYSTEMS

USE: 7,800 SF OFFICE BUILDING
EST 44 EMPLOYEES

DESIGN FLOWS

OFFICE BUILDING, PER EMPLOYEE = 15 GPD

44 EMPLOYEES x 15 GPD = 660 GPD

largest daily (24-hour) measured volume during the same period expressed in volume-per-unit time is an acceptable method for determining the maximum day flow rate. The analysis should account for operational variations (e.g. peak seasonal, weekends, special events, delivery period, etc.) and exclude extraneous data. There should be a reasonable explanation for the operational variations and any extraneous data excluded.

Method 3: Water Usage Data

A minimum of one year of data collected during similar operational conditions may be required by the Reviewing Engineer. If sufficient measured water usage data is not available, Method 3 should not be used. The average of the daily (24-hour) flow over the duration of the data collection period is an acceptable method for determining the average daily flow rate. The largest daily (24-hour) measured volume during the same period expressed in volume per unit time is an acceptable method for determining the maximum day flow rate. The analysis should account for operational variations (e.g. peak seasonal, weekends, special events, delivery period, etc.) and exclude extraneous data. There should be a reasonable explanation for operational variations and any extraneous data excluded.

For each of these methods, the peak hourly flow rate (largest hourly volume expressed in volume per unit time) should also be identified. When variation in the wastewater flow rate is expected to be substantial, it is necessary to examine the significant delivery period of the wastewater and base the system design upon this information to prevent an excessive rate of flow through wastewater collection and treatment systems. Flow equalization prior to treatment units should be considered to avoid hydraulic overloading of treatment units during peak loading periods (peak hourly flow and maximum daily flow).

Table B-3 Typical Per-Unit Hydraulic Loading Rates

Residential

Type of Use	*Unit*	*Gallons per Day*
Apartment	Per Bedroom	110/130/150[16]
Mobile Home Park	"Single-Wide" Home	220
	"Double-Wide" Home	330

[16] 110 gpd for post 1994 plumbing code fixtures; 130 gpd for pre 1994 fixtures; and 150 gpd for pre 1980 fixtures. Homes over 1,000 gpd, community systems, or lodging establishments with high flow fixtures must account for any higher peak flow periods.

Single Family Residence	Per Bedroom	110 / 130/ 150[17]

Campgrounds

Type of Use	*Unit*	*Gallons per Day*
Day Camp	Per Person	15
	Add for Shower	5
	Add for Lunch	5
Campground	Per Unsewered Site[18]	55(includes showers)
	Per Sewered Site – with water hookups	100
	Per Sewered Site – without water hookups	55
Campground Day Use	Per Person	5
Dumping Station[19]	Per Unsewered Site	10
	Per Sewered Site	5

Type of Use	*Unit*	*Gallons per Day*
Assisted Living Facility/Complex	Per Bed[20,21] – add 10 gpd for in room kitchen	110/130/150
Group Home (residential-style building)	Per Bed[20] - add 150 gpd per house for garbage grinder	110/130/150
Nursing Home (hospital care)	Per Bed[20,21]	175

[17] For individual household systems under 1,000 gpd, use design flows in the NYSDOH's *Wastewater Treatment Standards Residential Onsite Systems - Appendix 75- A.*

[18] Additional wastewater flow due to food service or laundry shall be accounted for. Structures available for overnight occupancy other than those meeting the definition of a camping unit shall be based on 150 gpd / unit for design flow purposes, pursuant to NYSDOH – *Chapter 1 State Sanitary Code Subpart 7-3 Campgrounds.*

[19] The addition of flow for dump station sewage may be prorated by using an estimated percentage of sites suited for RV use based on historical data. No reduction for low flow fixture usage should be applied here.

[20] Add 15 gpd per employee

[21] Add for Food Service (e.g. 24-hour restaurant; refer to Food Service Operations Table)

Hospital	Per Bed[20,21]	175
	Per Outpatient	30
Church	Per Seat[20]	3
Church Hall/Fire Hall	Per Seat[21]	10
Library/ Museum	Per Patron[20,21]	5
Public Park	Per Person (toilet only)	5
Prison / Jail	Per Inmate[20,21]	150
School – Day	Per Student	10
- or -	Elem./ Jr. High / Sr. High	7 / 9 / 12
- and -	Add for meals / showers	5 / 5
School Boarding	Per Student[20,21]	75

Commercial

Type of Use	*Unit*	*Gallons per Day*
Airport/Bus/Rail Terminal	Per Passenger[22] Per Toilet	5 400
Barber Shop / Beauty Salon	Per Station without and with hair care sink	50/ 200
Bowling Alley	Per Lane [22,23]	75
Bed & Breakfast	Per Room (see note under Residential)	110/130/150
Casino	Per Employee/shift plus Per Sq. Ft. for non-lodging customer use	15 0.3
Country Clubs & Golf Courses	Per Round of Golf [21,22] (add for bar, banquet, shower or pool facilities and golf tournaments)	20
Concert Hall / Arena / Assembly Hall / Theater / Stadium / Skating Rink	Per Seat [21,22]	5

[22] Add 15 gpd per employee/shift

[23] Add for Food Service (e.g. 24 hour restaurant; refer to Food Service Operations Table)

Day Care	Per Child [21]	20
Doctors Office	Per Doctor	250
Dog / Pet Grooming	Per Station	500
Also see Kennel and Veterinary Office below.		
Dentist	Per Chair[24]	250
Drive-In Theater	Per Car Space [25]	5
Factory / Distribution Warehouse	Per Employee/shift; add for showers	15 10
Fairgrounds	Per Visitor [25]	5
Health Club	Per Patron	20
Highway Rest Area	Per Traveler[25] Per Dump Station Vehicle	5 7
Hotel	Per Sleeping Unit [25] add for banquet hall, night club, pool/spa, theatre, etc.	110/130/150
Kennel	Per Kennel/Run/Cage	50
Laundromat	Per Machine	580
Marina	Per Slip [25] with shore side restroom facilities including shower; add per slip for dump station	20 7
Migrant Worker Housing	Per Person	50
Motel	Per Sleeping Unit; add for in-room kitchen; add for in-room jacuzzi/spa	110/130/150 10 20
Office Building	Per Employee[25]; add for showers	15 5
Service station/Convenience store	Per Toilet[25]	400

[24] Dental offices must recycle mercury amalgam instead of washing it down the drain. NYSDEC's website has guidance referencing the 2002 law.

[25] Add for Food Service (e.g. 24-hour restaurant; refer to Food Service Operations Table)

Shopping Center / Grocery Store / Department Store	Per Sq. Ft.[25,26]; add for deli, bakery, butcher	0.1
Swimming Pool / Bath House	Per Swimmer	10
Veterinary Office	Per Veterinarian	200

Food Service Operations[27]

Type of Use	*Unit*	*Gallons per Day*
Ordinary Restaurant	Per Seat	35
24-Hour Restaurant	Per Seat (for cafeterias: pro rate flow in proportion to the hours)	50
Fast Food Restaurant	Per Seat	25
	Per Drive-Up Window	500
Lounge, Bar	Per Seat	20
Drive-In	Per Car Space	50
Banquet Hall	Per Seat	10
Restaurant along Freeway	Per Seat	75

B.6.c Infiltration, Inflow, Non-Sanitary and Prohibited Flows

Cooling water, roof drains, footing, sump and basement floor drains should not be discharged to the treatment system. Clean water from ice machines, water cooled refrigerators or coolers should also be excluded. Undetected leaks from plumbing fixtures, typically toilets and faucets, can waste significant amounts of water and subsequently increase the volume of wastewater to be treated. Simple repairs and routine operation and maintenance of plumbing fixtures can save water and increase the efficiency of wastewater treatment system.

Similarly, leaking sewer joints, pipe tank seals, tank riser seals, cracks in treatment tanks and manhole

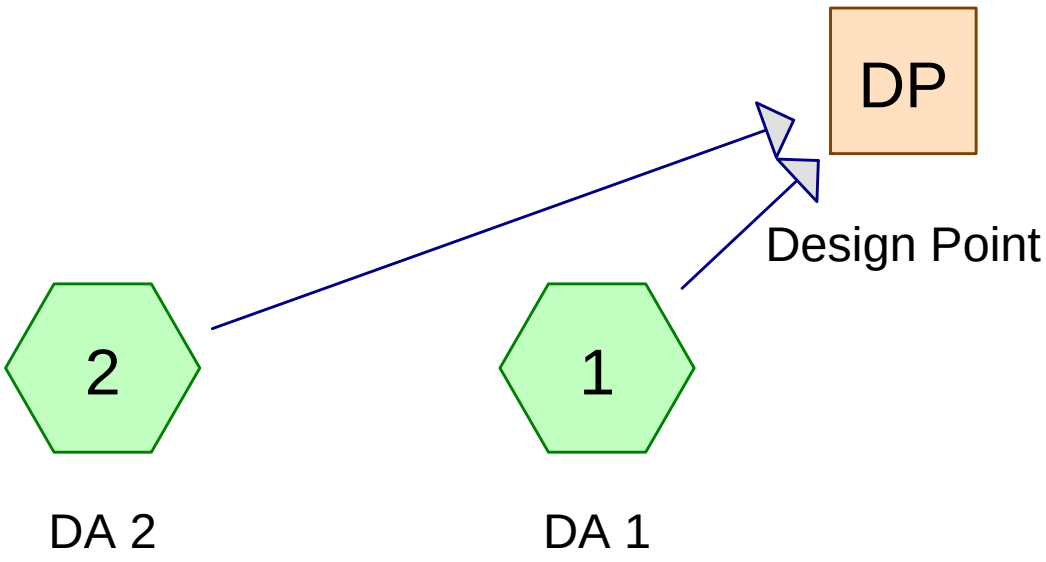
[26] Add 15 gpd per employee/shift

[27] Garbage grinder use should be evaluated in the design phase of the project and accounted for in tank sizing per Section D.6 Septic Tanks.

APPENDIX #3

Hydrologic and Hydraulic Analysis

Aubertine and Currier Architects, Engineers & Land Surveyors, PLLC
522 Bradley Street, Watertown, New York 13601 TELE: (315) 782-2005 FAX: (315) 782-1472



Subcat Reach Pond Link

Routing Diagram for 2014-017.001 Existing
Prepared by Aubertine and Currier, PLLC, Printed 5/19/2014

Area Listing (all nodes)

Area (acres)	C	Description (subcatchment-numbers)
0.981	0.20	Lawn Area (1, 2)
0.400	0.30	Woods/Brush (1)
1.381	**0.23**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
1.381	Other	1, 2
1.381		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.000	0.981	0.981	Lawn Area	1, 2
0.000	0.000	0.000	0.000	0.400	0.400	Woods/Brush	1
0.000	**0.000**	**0.000**	**0.000**	**1.381**	**1.381**	**TOTAL AREA**	

Time span=0.00-3.00 hrs, dt=0.01 hrs, 301 points
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc
Reach routing by Sim-Route method - Pond routing by Sim-Route method

Subcatchment 1: DA 1 Runoff Area=59,289 sf 0.00% Impervious Runoff Depth>0.08"
Flow Length=360' Tc=41.5 min C=0.23 Runoff=0.04 cfs 0.009 af

Subcatchment 2: DA 2 Runoff Area=872 sf 0.00% Impervious Runoff Depth>0.07"
Flow Length=145' Tc=15.3 min C=0.20 Runoff=0.00 cfs 0.000 af

Reach DP: Design Point Inflow=0.04 cfs 0.009 af
Outflow=0.04 cfs 0.009 af

Total Runoff Area = 1.381 ac Runoff Volume = 0.009 af Average Runoff Depth = 0.08"
100.00% Pervious = 1.381 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment 1: DA 1

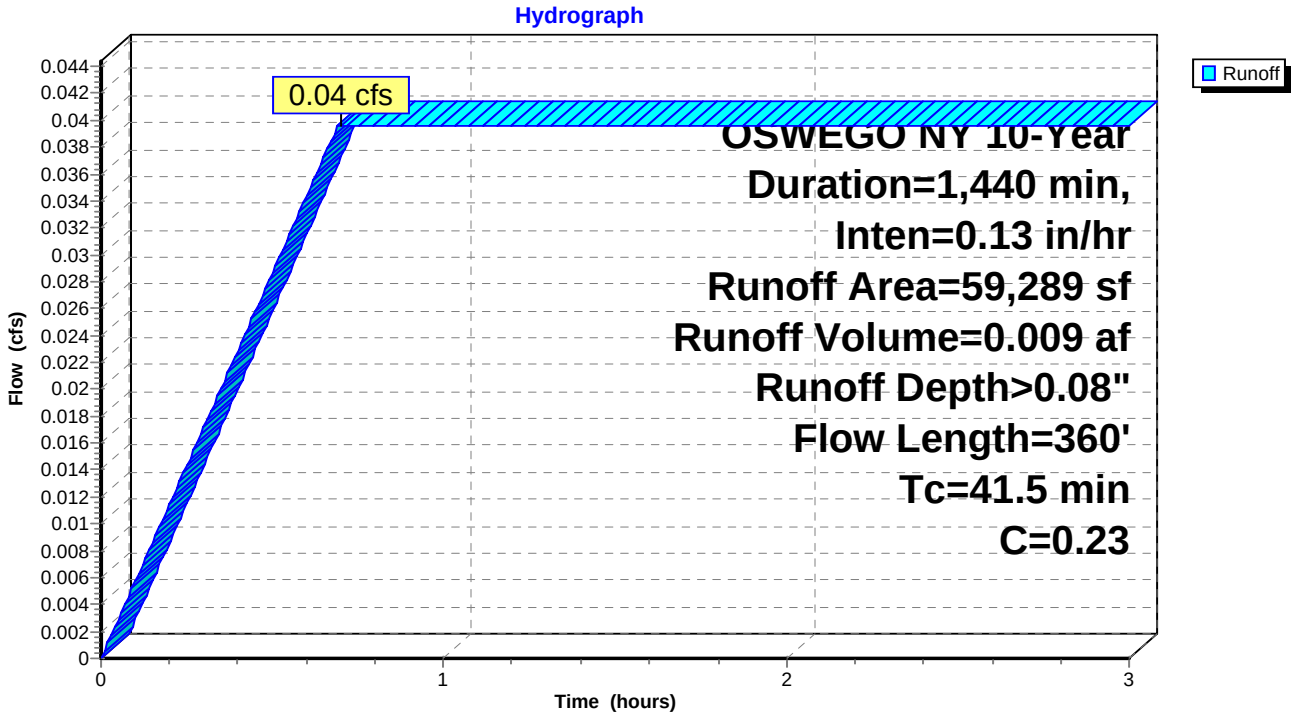
Runoff = 0.04 cfs @ 0.70 hrs, Volume= 0.009 af, Depth> 0.08"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
OSWEGO NY 10-Year Duration=1,440 min, Inten=0.13 in/hr

Area (sf)	C	Description
17,424	0.30	Woods/Brush
41,865	0.20	Lawn Area
59,289	0.23	Weighted Average
59,289		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
37.0	100	0.0280	0.05		**Sheet Flow, Sheet Flow** Woods: Dense underbrush n= 0.800 P2= 2.50"
4.5	260	0.0193	0.97		**Shallow Concentrated Flow, Shallow Concentated** Short Grass Pasture Kv= 7.0 fps
41.5	360	Total			

Subcatchment 1: DA 1



Summary for Subcatchment 2: DA 2

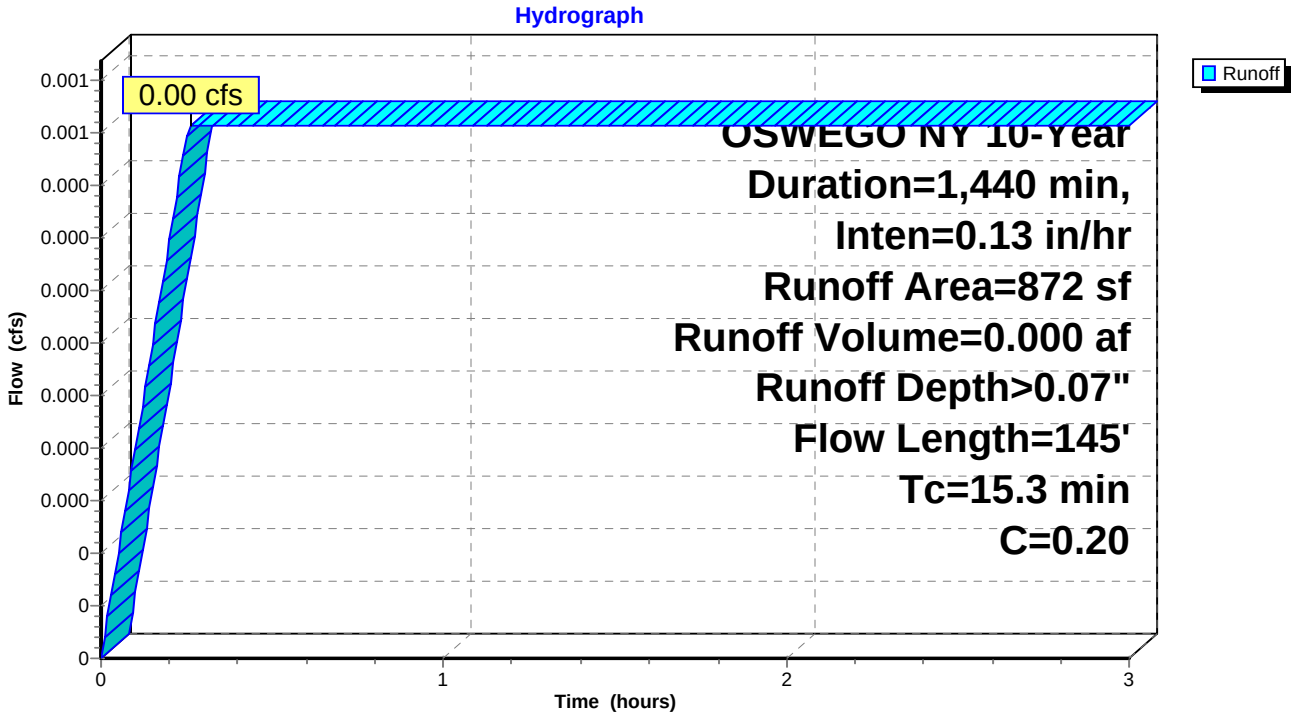
Runoff = 0.00 cfs @ 0.26 hrs, Volume= 0.000 af, Depth> 0.07"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
OSWEGO NY 10-Year Duration=1,440 min, Inten=0.13 in/hr

Area (sf)	C	Description
872	0.20	Lawn Area
872		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0275	0.12		**Sheet Flow, Lawn Area** Grass: Dense n= 0.240 P2= 2.50"
1.1	45	0.0102	0.71		**Shallow Concentrated Flow, Shallow Concentrated** Short Grass Pasture Kv= 7.0 fps
15.3	145	Total			

Subcatchment 2: DA 2



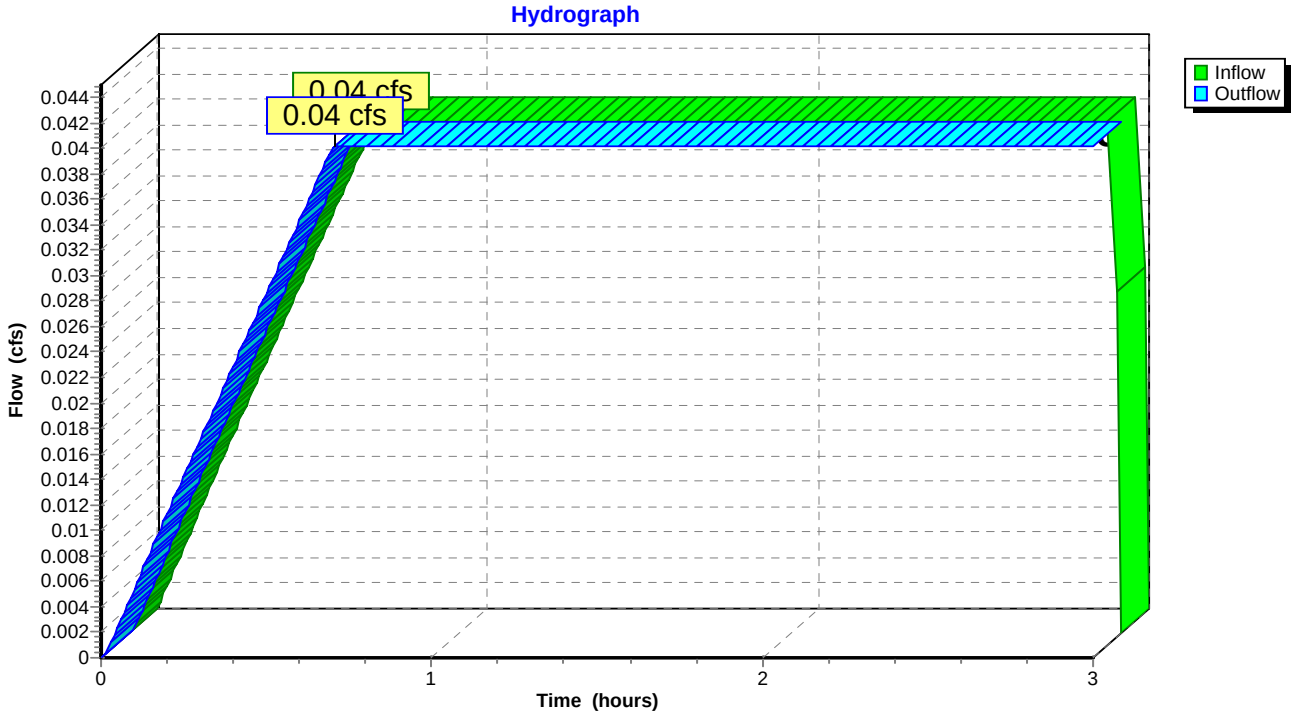
Summary for Reach DP: Design Point

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.381 ac, 0.00% Impervious, Inflow Depth > 0.08" for 10-Year event
Inflow = 0.04 cfs @ 0.70 hrs, Volume= 0.009 af
Outflow = 0.04 cfs @ 0.71 hrs, Volume= 0.009 af, Atten= 0%, Lag= 0.6 min

Routing by Sim-Route method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

Reach DP: Design Point



Time span=0.00-3.00 hrs, dt=0.01 hrs, 301 points
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc
Reach routing by Sim-Route method - Pond routing by Sim-Route method

Subcatchment 1: DA 1 Runoff Area=59,289 sf 0.00% Impervious Runoff Depth>0.09"
Flow Length=360' Tc=41.5 min C=0.23 Runoff=0.05 cfs 0.010 af

Subcatchment 2: DA 2 Runoff Area=872 sf 0.00% Impervious Runoff Depth>0.09"
Flow Length=145' Tc=15.3 min C=0.20 Runoff=0.00 cfs 0.000 af

Reach DP: Design Point Inflow=0.05 cfs 0.010 af
Outflow=0.05 cfs 0.010 af

Total Runoff Area = 1.381 ac Runoff Volume = 0.010 af Average Runoff Depth = 0.09"
100.00% Pervious = 1.381 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment 1: DA 1

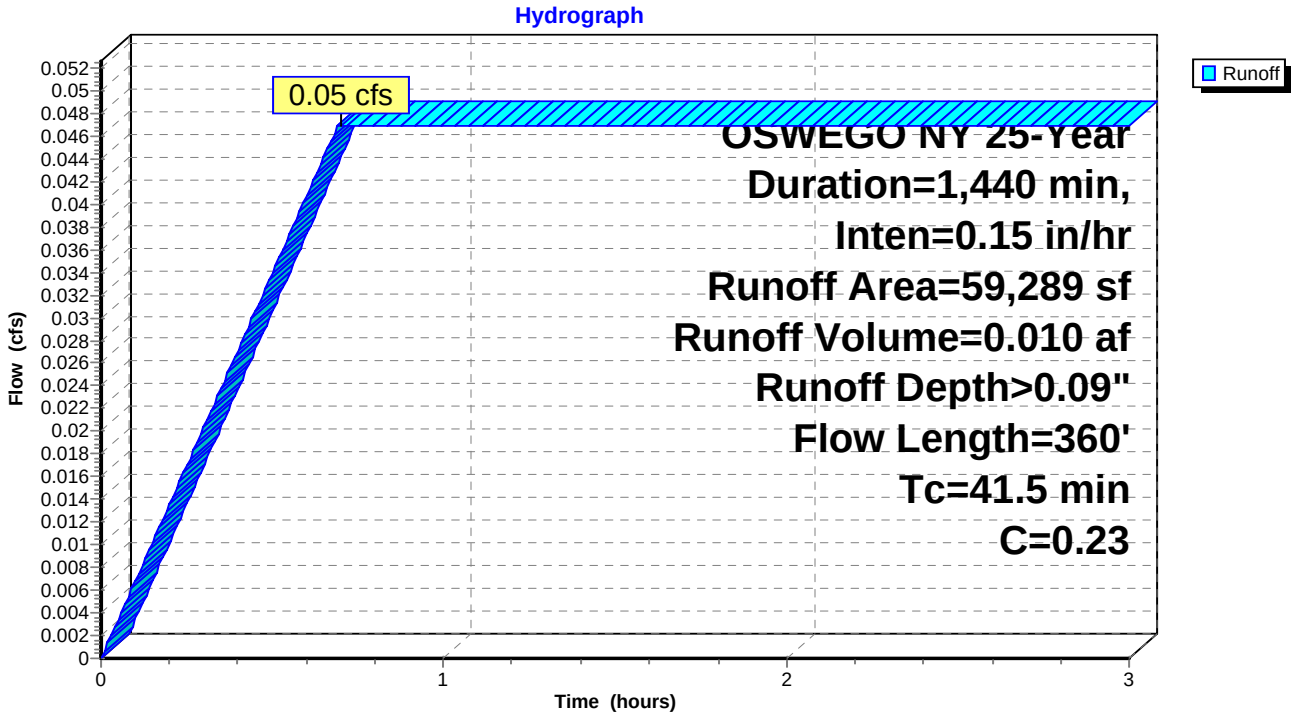
Runoff = 0.05 cfs @ 0.70 hrs, Volume= 0.010 af, Depth> 0.09"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
OSWEGO NY 25-Year Duration=1,440 min, Inten=0.15 in/hr

Area (sf)	C	Description
17,424	0.30	Woods/Brush
41,865	0.20	Lawn Area
59,289	0.23	Weighted Average
59,289		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
37.0	100	0.0280	0.05		**Sheet Flow, Sheet Flow** Woods: Dense underbrush n= 0.800 P2= 2.50"
4.5	260	0.0193	0.97		**Shallow Concentrated Flow, Shallow Concentated** Short Grass Pasture Kv= 7.0 fps
41.5	360	Total			

Subcatchment 1: DA 1



Summary for Subcatchment 2: DA 2

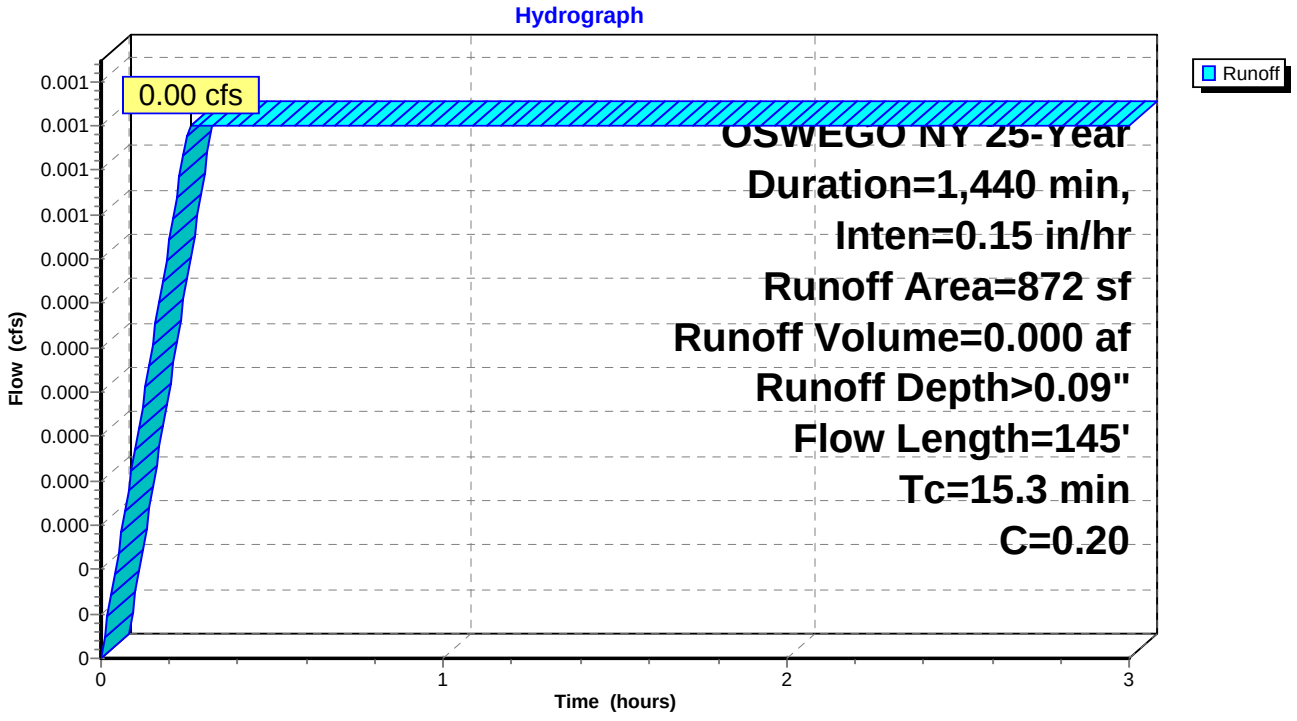
Runoff = 0.00 cfs @ 0.26 hrs, Volume= 0.000 af, Depth> 0.09"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
OSWEGO NY 25-Year Duration=1,440 min, Inten=0.15 in/hr

Area (sf)	C	Description
872	0.20	Lawn Area
872		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0275	0.12		**Sheet Flow, Lawn Area** Grass: Dense n= 0.240 P2= 2.50"
1.1	45	0.0102	0.71		**Shallow Concentrated Flow, Shallow Concentrated** Short Grass Pasture Kv= 7.0 fps
15.3	145	Total			

Subcatchment 2: DA 2



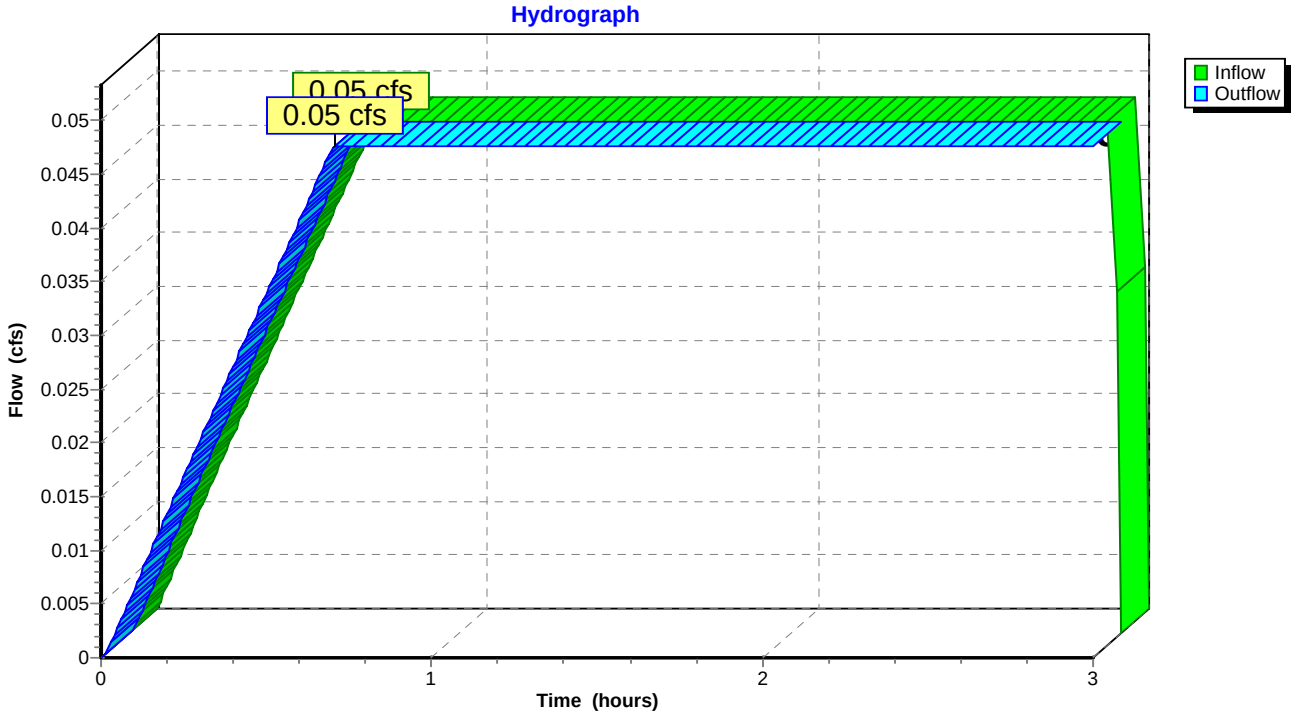
Summary for Reach DP: Design Point

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.381 ac, 0.00% Impervious, Inflow Depth > 0.09" for 25-Year event
Inflow = 0.05 cfs @ 0.70 hrs, Volume= 0.010 af
Outflow = 0.05 cfs @ 0.71 hrs, Volume= 0.010 af, Atten= 0%, Lag= 0.6 min

Routing by Sim-Route method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

Reach DP: Design Point



Time span=0.00-3.00 hrs, dt=0.01 hrs, 301 points
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc
Reach routing by Sim-Route method - Pond routing by Sim-Route method

Subcatchment 1: DA 1 Runoff Area=59,289 sf 0.00% Impervious Runoff Depth>0.11"
Flow Length=360' Tc=41.5 min C=0.23 Runoff=0.06 cfs 0.013 af

Subcatchment 2: DA 2 Runoff Area=872 sf 0.00% Impervious Runoff Depth>0.10"
Flow Length=145' Tc=15.3 min C=0.20 Runoff=0.00 cfs 0.000 af

Reach DP: Design Point Inflow=0.06 cfs 0.013 af
Outflow=0.06 cfs 0.013 af

Total Runoff Area = 1.381 ac Runoff Volume = 0.013 af Average Runoff Depth = 0.11"
100.00% Pervious = 1.381 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment 1: DA 1

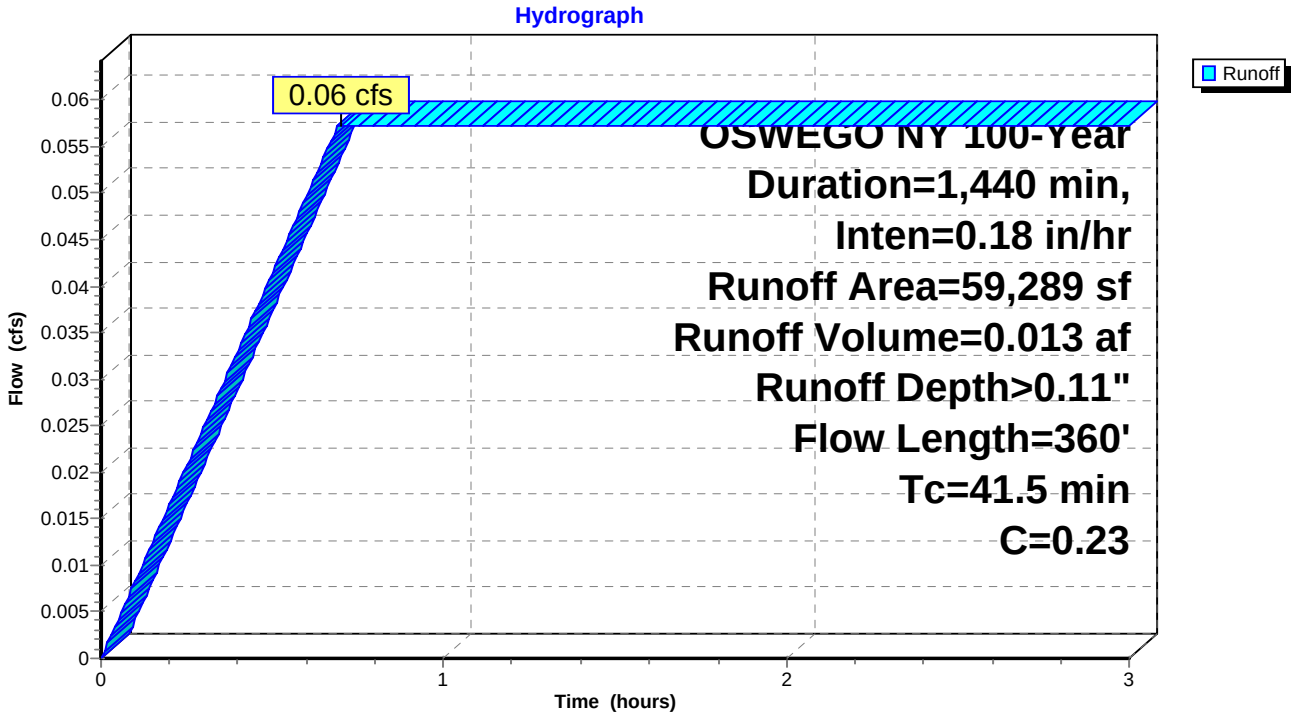
Runoff = 0.06 cfs @ 0.70 hrs, Volume= 0.013 af, Depth> 0.11"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
OSWEGO NY 100-Year Duration=1,440 min, Inten=0.18 in/hr

Area (sf)	C	Description
17,424	0.30	Woods/Brush
41,865	0.20	Lawn Area
59,289	0.23	Weighted Average
59,289		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
37.0	100	0.0280	0.05		**Sheet Flow, Sheet Flow** Woods: Dense underbrush n= 0.800 P2= 2.50"
4.5	260	0.0193	0.97		**Shallow Concentrated Flow, Shallow Concentated** Short Grass Pasture Kv= 7.0 fps
41.5	360	Total			

Subcatchment 1: DA 1



Summary for Subcatchment 2: DA 2

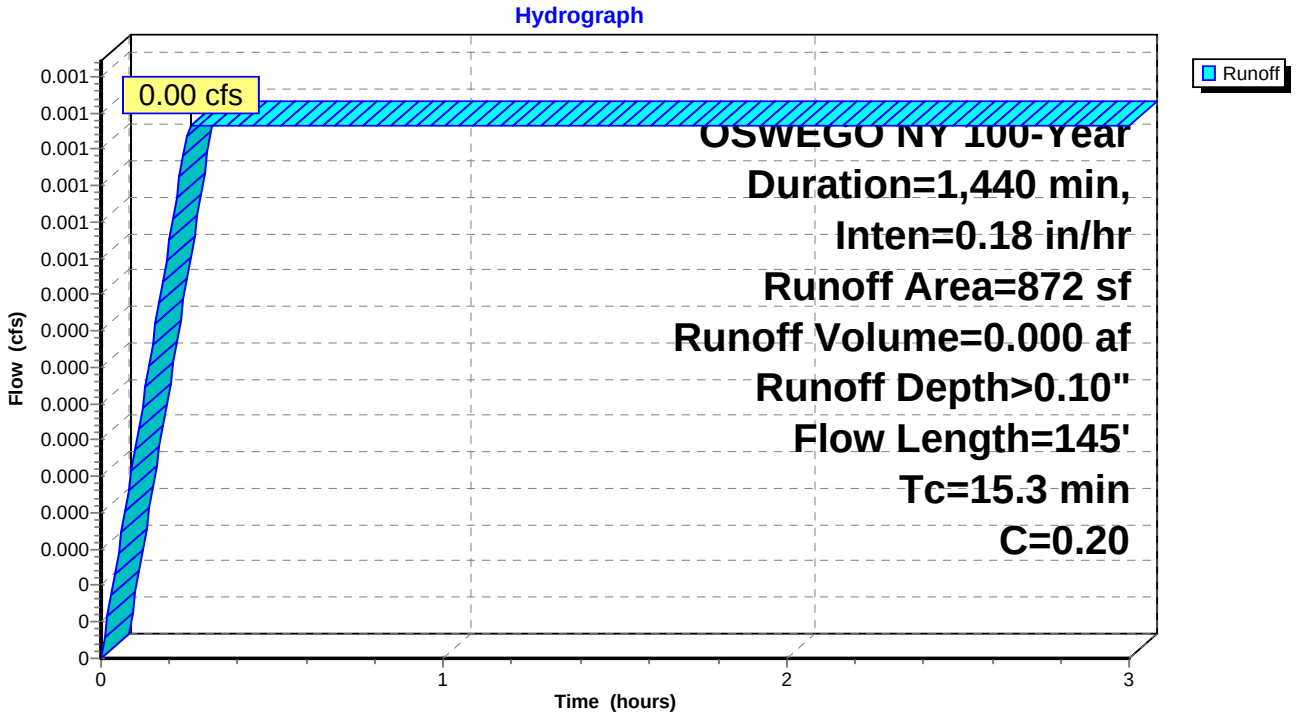
Runoff = 0.00 cfs @ 0.26 hrs, Volume= 0.000 af, Depth> 0.10"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
OSWEGO NY 100-Year Duration=1,440 min, Inten=0.18 in/hr

Area (sf)	C	Description
872	0.20	Lawn Area
872		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0275	0.12		**Sheet Flow, Lawn Area** Grass: Dense n= 0.240 P2= 2.50"
1.1	45	0.0102	0.71		**Shallow Concentrated Flow, Shallow Concentrated** Short Grass Pasture Kv= 7.0 fps
15.3	145	Total			

Subcatchment 2: DA 2



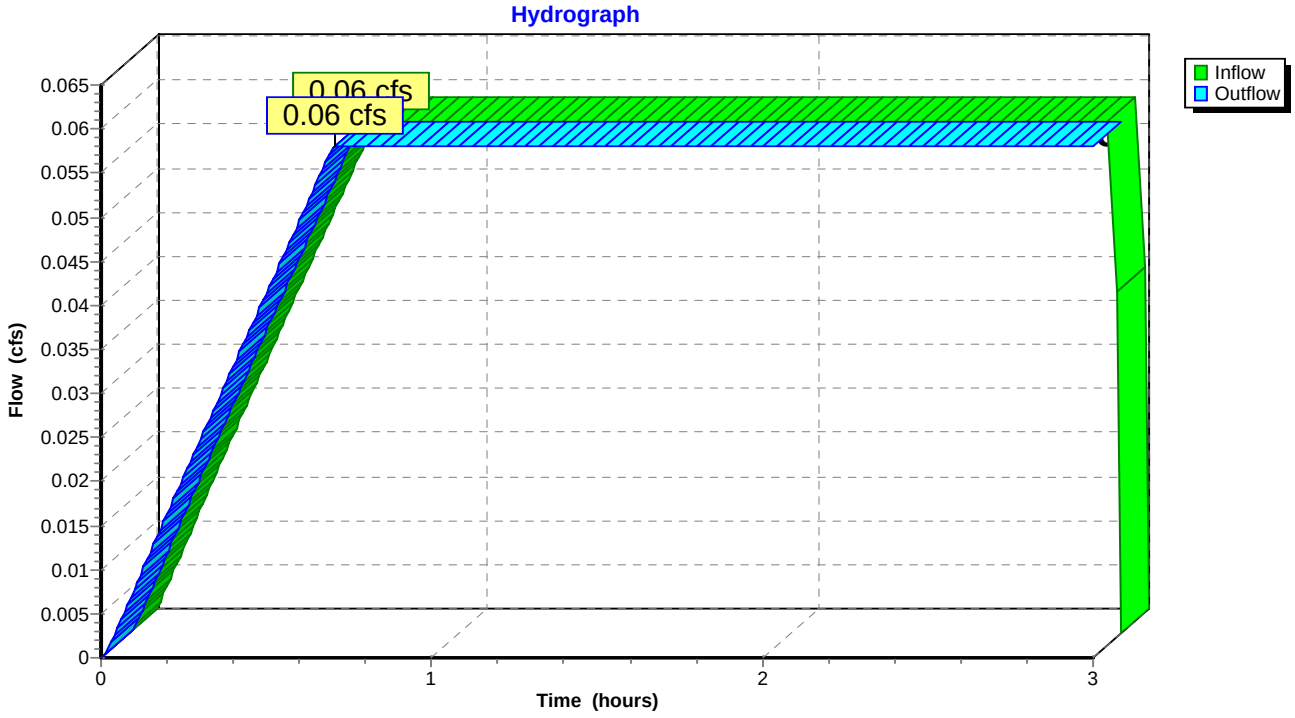
Summary for Reach DP: Design Point

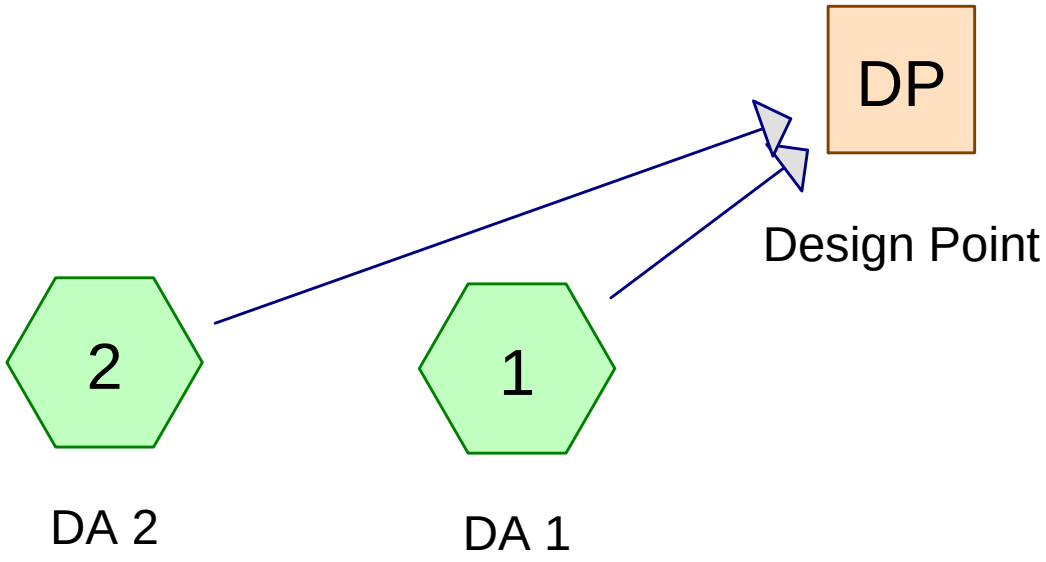
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.381 ac, 0.00% Impervious, Inflow Depth > 0.11" for 100-Year event
Inflow = 0.06 cfs @ 0.70 hrs, Volume= 0.013 af
Outflow = 0.06 cfs @ 0.71 hrs, Volume= 0.013 af, Atten= 0%, Lag= 0.6 min

Routing by Sim-Route method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

Reach DP: Design Point





Subcat Reach Pond Link

Routing Diagram for 2014-017.001 Proposed
Prepared by Aubertine and Currier, PLLC, Printed 5/19/2014

Area Listing (all nodes)

Area (acres)	C	Description (subcatchment-numbers)
0.616	0.90	Impervious Area (1, 2)
0.584	0.20	Lawn Area (1, 2)
0.183	0.30	Woods/Brush (1)
1.384	**0.52**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
1.384	Other	1, 2
1.384		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.000	0.616	0.616	Impervious Area	1, 2
0.000	0.000	0.000	0.000	0.584	0.584	Lawn Area	1, 2
0.000	0.000	0.000	0.000	0.183	0.183	Woods/Brush	1
0.000	**0.000**	**0.000**	**0.000**	**1.384**	**1.384**	**TOTAL AREA**	

Time span=0.00-3.00 hrs, dt=0.01 hrs, 301 points
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc
Reach routing by Sim-Route method - Pond routing by Sim-Route method

Subcatchment 1: DA 1 Runoff Area=49,697 sf 0.00% Impervious Runoff Depth>0.18"
Flow Length=360' Tc=18.6 min C=0.51 Runoff=0.07 cfs 0.017 af

Subcatchment 2: DA 2 Runoff Area=10,591 sf 0.00% Impervious Runoff Depth>0.22"
Flow Length=145' Tc=15.3 min C=0.61 Runoff=0.02 cfs 0.004 af

Reach DP: Design Point Inflow=0.09 cfs 0.022 af
Outflow=0.09 cfs 0.022 af

Total Runoff Area = 1.384 ac Runoff Volume = 0.022 af Average Runoff Depth = 0.19"
100.00% Pervious = 1.384 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment 1: DA 1

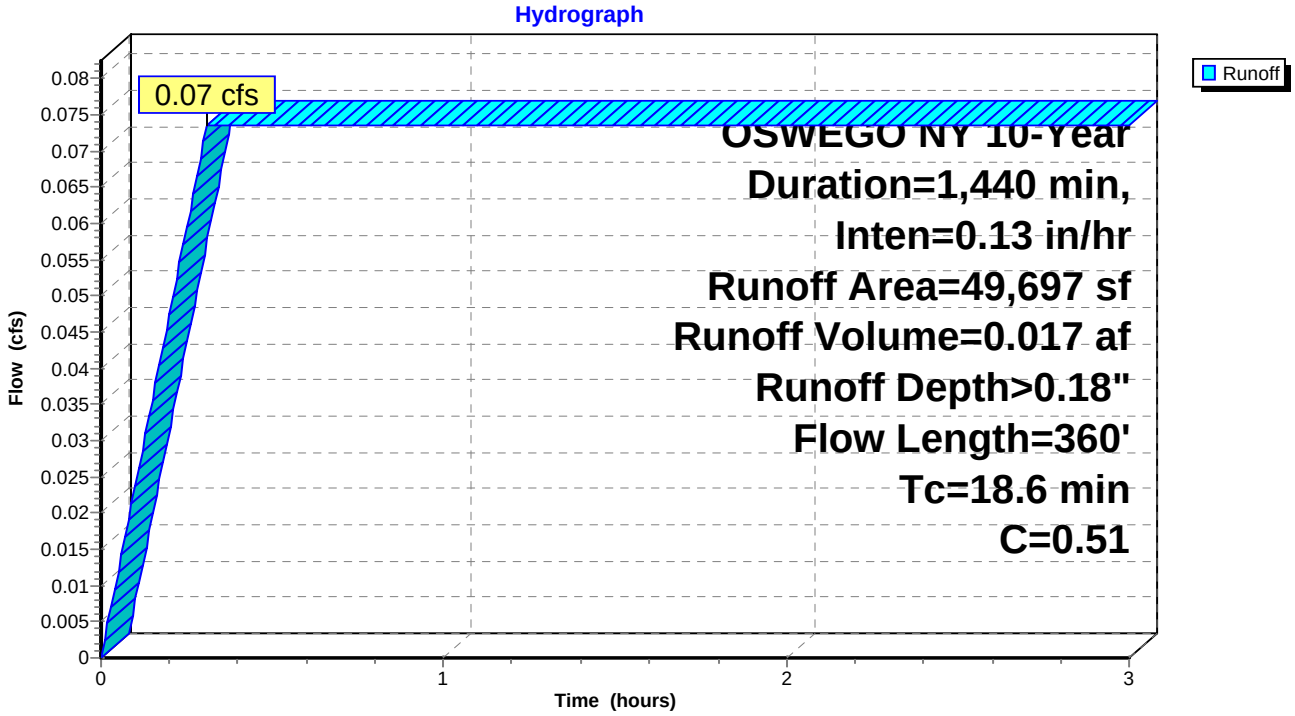
Runoff = 0.07 cfs @ 0.31 hrs, Volume= 0.017 af, Depth> 0.18"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
OSWEGO NY 10-Year Duration=1,440 min, Inten=0.13 in/hr

Area (sf)	C	Description
21,005	0.20	Lawn Area
7,989	0.30	Woods/Brush
20,703	0.90	Impervious Area
49,697	0.51	Weighted Average
49,697		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.1	100	0.0280	0.12		**Sheet Flow, Sheet Flow** Grass: Dense n= 0.240 P2= 2.50"
4.5	260	0.0193	0.97		**Shallow Concentrated Flow, Shallow Concentrated** Short Grass Pasture Kv= 7.0 fps
18.6	360	Total			

Subcatchment 1: DA 1



Summary for Subcatchment 2: DA 2

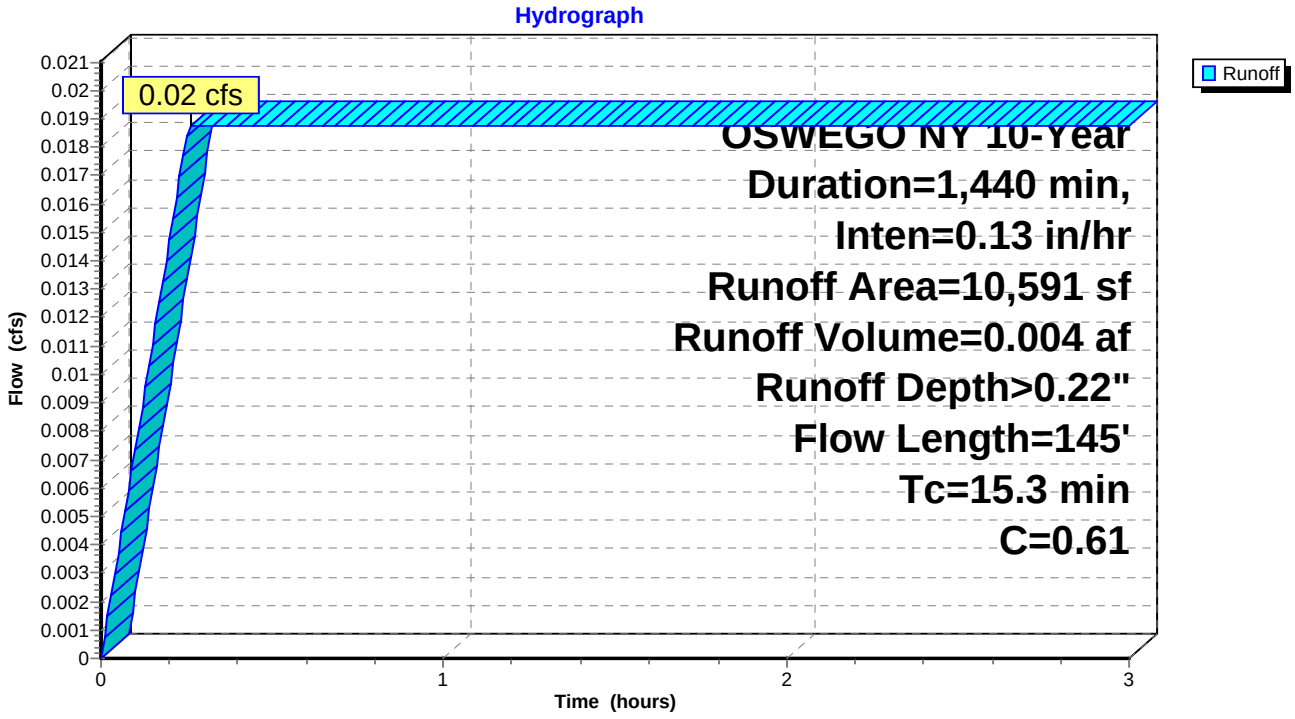
Runoff = 0.02 cfs @ 0.26 hrs, Volume= 0.004 af, Depth> 0.22"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
OSWEGO NY 10-Year Duration=1,440 min, Inten=0.13 in/hr

Area (sf)	C	Description
4,447	0.20	Lawn Area
6,144	0.90	Impervious Area
10,591	0.61	Weighted Average
10,591		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0275	0.12		**Sheet Flow, Sheet Flow, Grass** Grass: Dense n= 0.240 P2= 2.50"
1.1	45	0.0102	0.71		**Shallow Concentrated Flow, Shallow Concentrated** Short Grass Pasture Kv= 7.0 fps
15.3	145	Total			

Subcatchment 2: DA 2



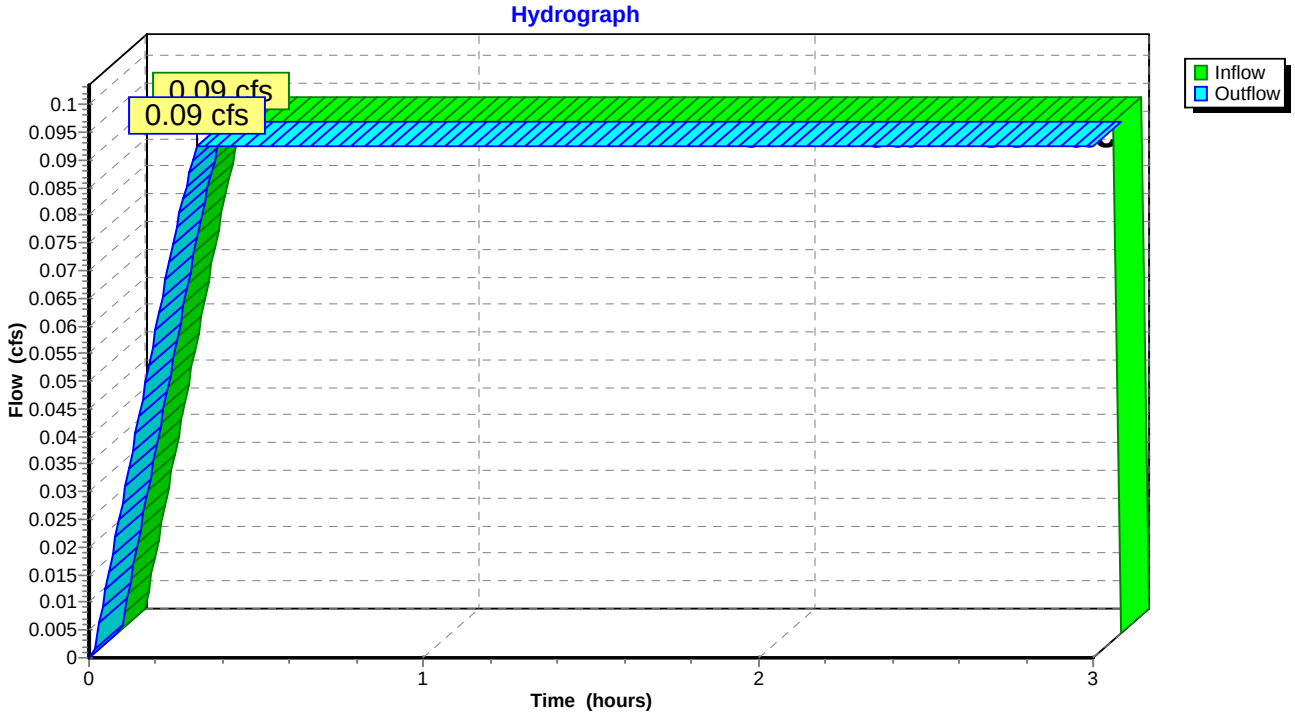
Summary for Reach DP: Design Point

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.384 ac, 0.00% Impervious, Inflow Depth > 0.19" for 10-Year event
Inflow = 0.09 cfs @ 0.31 hrs, Volume= 0.022 af
Outflow = 0.09 cfs @ 0.32 hrs, Volume= 0.022 af, Atten= 0%, Lag= 0.6 min

Routing by Sim-Route method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

Reach DP: Design Point



Time span=0.00-3.00 hrs, dt=0.01 hrs, 301 points
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc
Reach routing by Sim-Route method - Pond routing by Sim-Route method

Subcatchment 1: DA 1 Runoff Area=49,697 sf 0.00% Impervious Runoff Depth>0.22"
Flow Length=360' Tc=18.6 min C=0.51 Runoff=0.09 cfs 0.021 af

Subcatchment 2: DA 2 Runoff Area=10,591 sf 0.00% Impervious Runoff Depth>0.26"
Flow Length=145' Tc=15.3 min C=0.61 Runoff=0.02 cfs 0.005 af

Reach DP: Design Point Inflow=0.11 cfs 0.026 af
Outflow=0.11 cfs 0.026 af

Total Runoff Area = 1.384 ac Runoff Volume = 0.026 af Average Runoff Depth = 0.22"
100.00% Pervious = 1.384 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment 1: DA 1

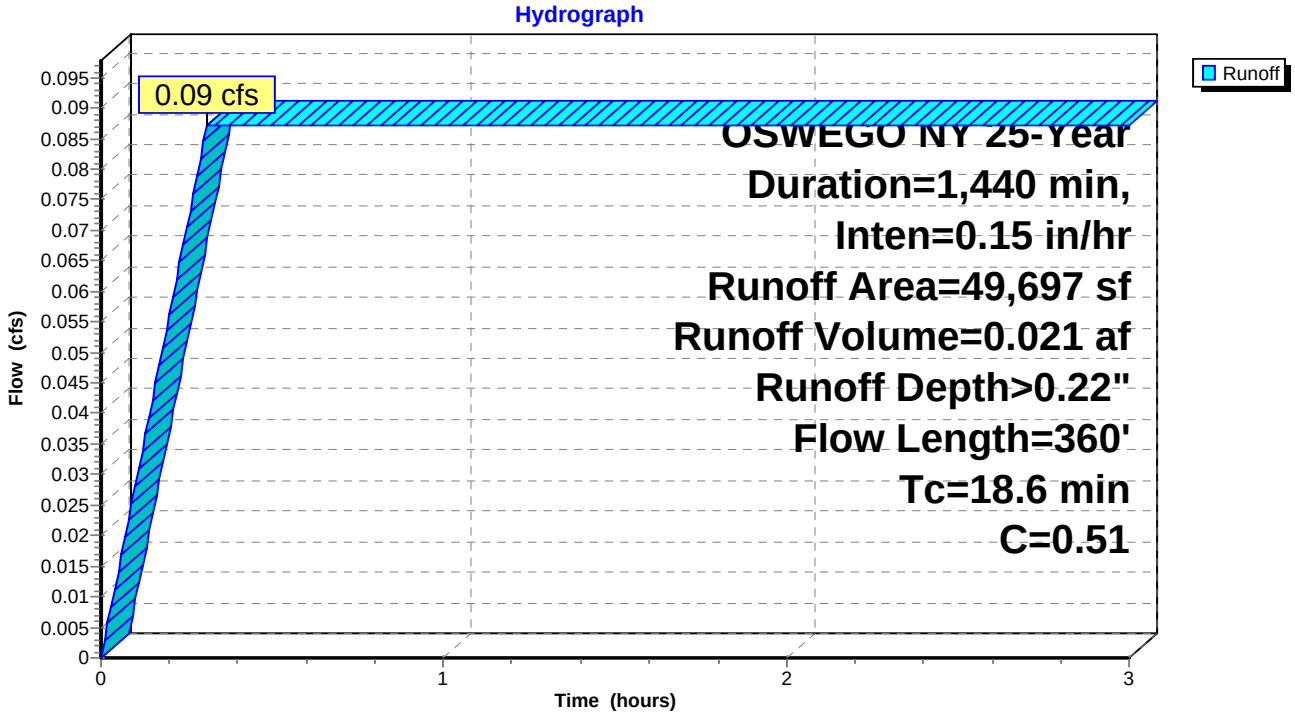
Runoff = 0.09 cfs @ 0.31 hrs, Volume= 0.021 af, Depth> 0.22"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
OSWEGO NY 25-Year Duration=1,440 min, Inten=0.15 in/hr

Area (sf)	C	Description
21,005	0.20	Lawn Area
7,989	0.30	Woods/Brush
20,703	0.90	Impervious Area
49,697	0.51	Weighted Average
49,697		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.1	100	0.0280	0.12		**Sheet Flow, Sheet Flow** Grass: Dense n= 0.240 P2= 2.50"
4.5	260	0.0193	0.97		**Shallow Concentrated Flow, Shallow Concentrated** Short Grass Pasture Kv= 7.0 fps
18.6	360	Total			

Subcatchment 1: DA 1



Summary for Subcatchment 2: DA 2

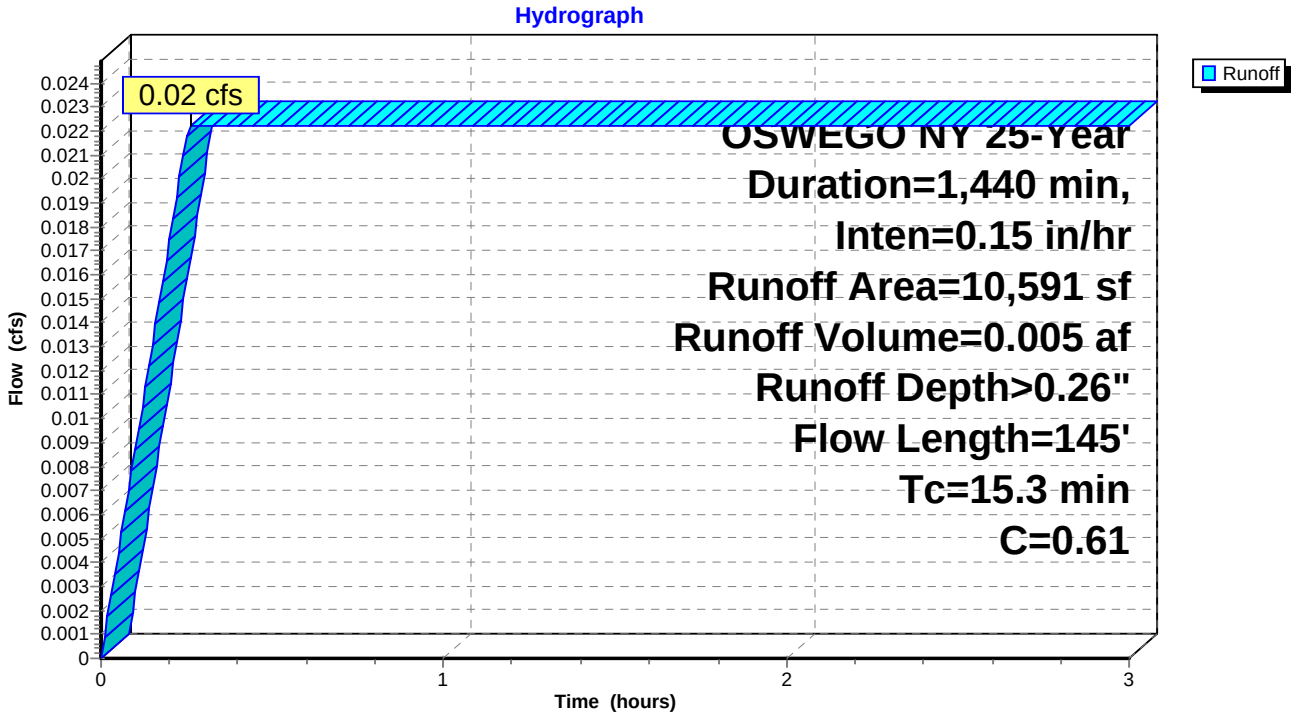
Runoff = 0.02 cfs @ 0.26 hrs, Volume= 0.005 af, Depth> 0.26"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
OSWEGO NY 25-Year Duration=1,440 min, Inten=0.15 in/hr

Area (sf)	C	Description
4,447	0.20	Lawn Area
6,144	0.90	Impervious Area
10,591	0.61	Weighted Average
10,591		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0275	0.12		**Sheet Flow, Sheet Flow, Grass** Grass: Dense n= 0.240 P2= 2.50"
1.1	45	0.0102	0.71		**Shallow Concentrated Flow, Shallow Concentrated** Short Grass Pasture Kv= 7.0 fps
15.3	145	Total			

Subcatchment 2: DA 2



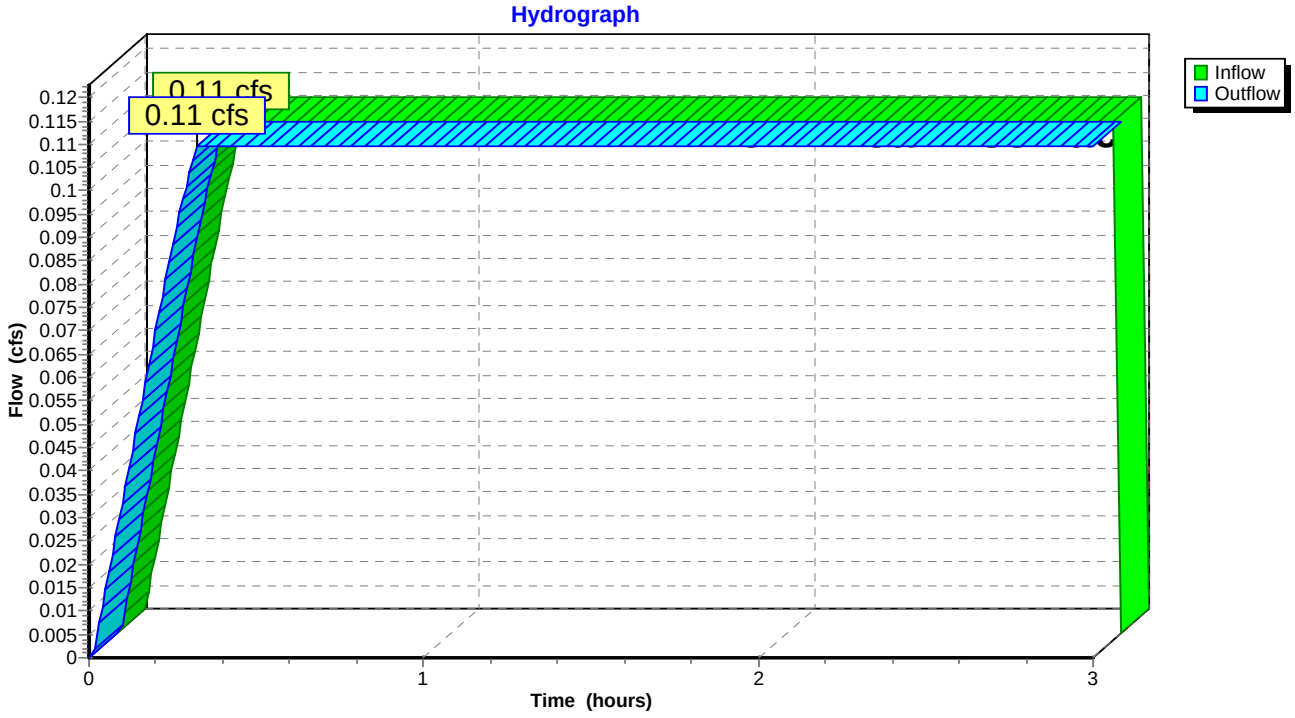
Summary for Reach DP: Design Point

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.384 ac, 0.00% Impervious, Inflow Depth > 0.22" for 25-Year event
Inflow = 0.11 cfs @ 0.31 hrs, Volume= 0.026 af
Outflow = 0.11 cfs @ 0.32 hrs, Volume= 0.026 af, Atten= 0%, Lag= 0.6 min

Routing by Sim-Route method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

Reach DP: Design Point



Time span=0.00-3.00 hrs, dt=0.01 hrs, 301 points
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc
Reach routing by Sim-Route method - Pond routing by Sim-Route method

Subcatchment 1: DA 1 Runoff Area=49,697 sf 0.00% Impervious Runoff Depth>0.26"
Flow Length=360' Tc=18.6 min C=0.51 Runoff=0.11 cfs 0.025 af

Subcatchment 2: DA 2 Runoff Area=10,591 sf 0.00% Impervious Runoff Depth>0.32"
Flow Length=145' Tc=15.3 min C=0.61 Runoff=0.03 cfs 0.006 af

Reach DP: Design Point Inflow=0.13 cfs 0.031 af
Outflow=0.13 cfs 0.031 af

Total Runoff Area = 1.384 ac Runoff Volume = 0.032 af Average Runoff Depth = 0.27"
100.00% Pervious = 1.384 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment 1: DA 1

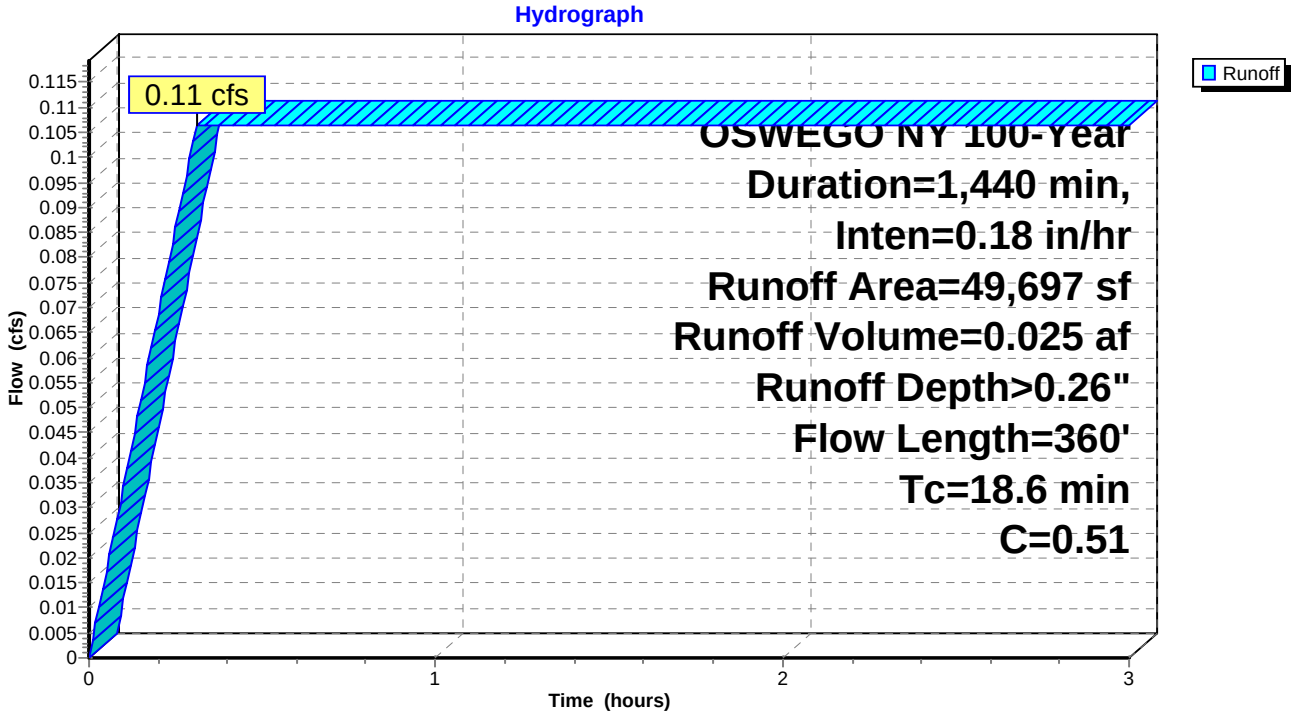
Runoff = 0.11 cfs @ 0.31 hrs, Volume= 0.025 af, Depth> 0.26"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
OSWEGO NY 100-Year Duration=1,440 min, Inten=0.18 in/hr

Area (sf)	C	Description
21,005	0.20	Lawn Area
7,989	0.30	Woods/Brush
20,703	0.90	Impervious Area
49,697	0.51	Weighted Average
49,697		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.1	100	0.0280	0.12		**Sheet Flow, Sheet Flow** Grass: Dense n= 0.240 P2= 2.50"
4.5	260	0.0193	0.97		**Shallow Concentrated Flow, Shallow Concentrated** Short Grass Pasture Kv= 7.0 fps
18.6	360	Total			

Subcatchment 1: DA 1



Summary for Subcatchment 2: DA 2

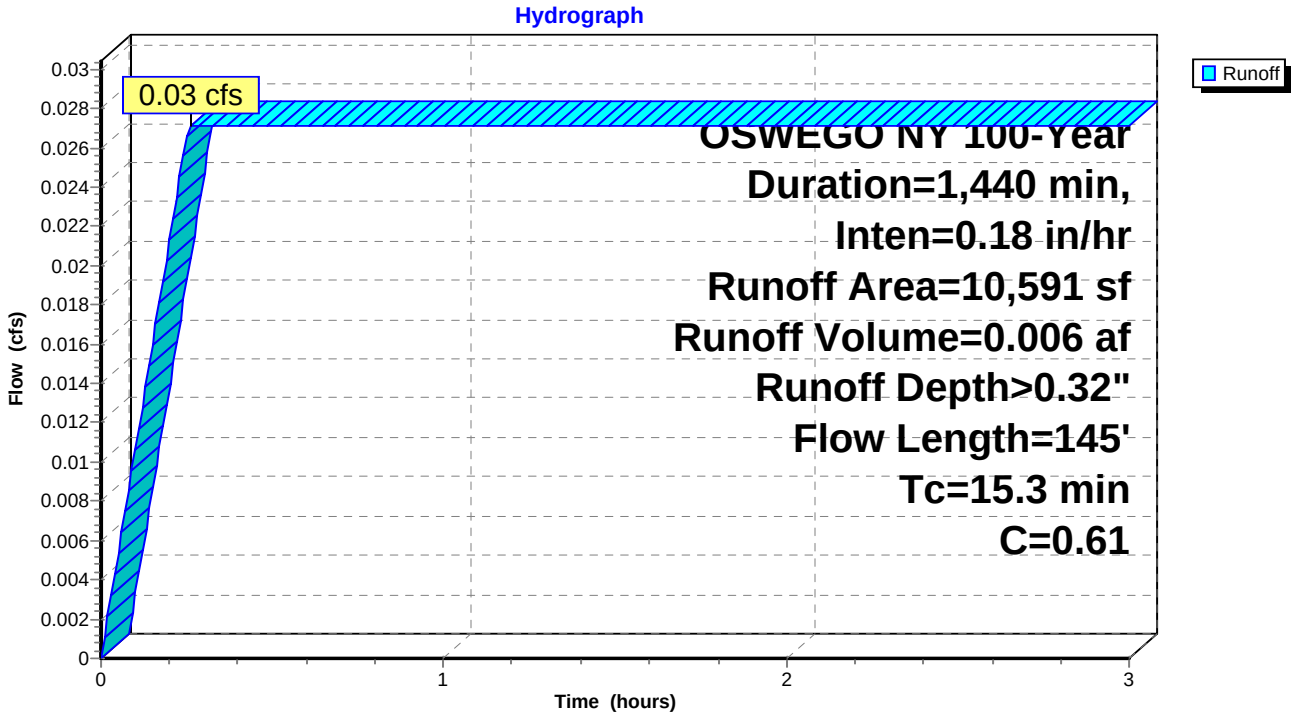
Runoff = 0.03 cfs @ 0.26 hrs, Volume= 0.006 af, Depth> 0.32"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
OSWEGO NY 100-Year Duration=1,440 min, Inten=0.18 in/hr

Area (sf)	C	Description
4,447	0.20	Lawn Area
6,144	0.90	Impervious Area
10,591	0.61	Weighted Average
10,591		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0275	0.12		**Sheet Flow, Sheet Flow, Grass** Grass: Dense n= 0.240 P2= 2.50"
1.1	45	0.0102	0.71		**Shallow Concentrated Flow, Shallow Concentrated** Short Grass Pasture Kv= 7.0 fps
15.3	145	Total			

Subcatchment 2: DA 2



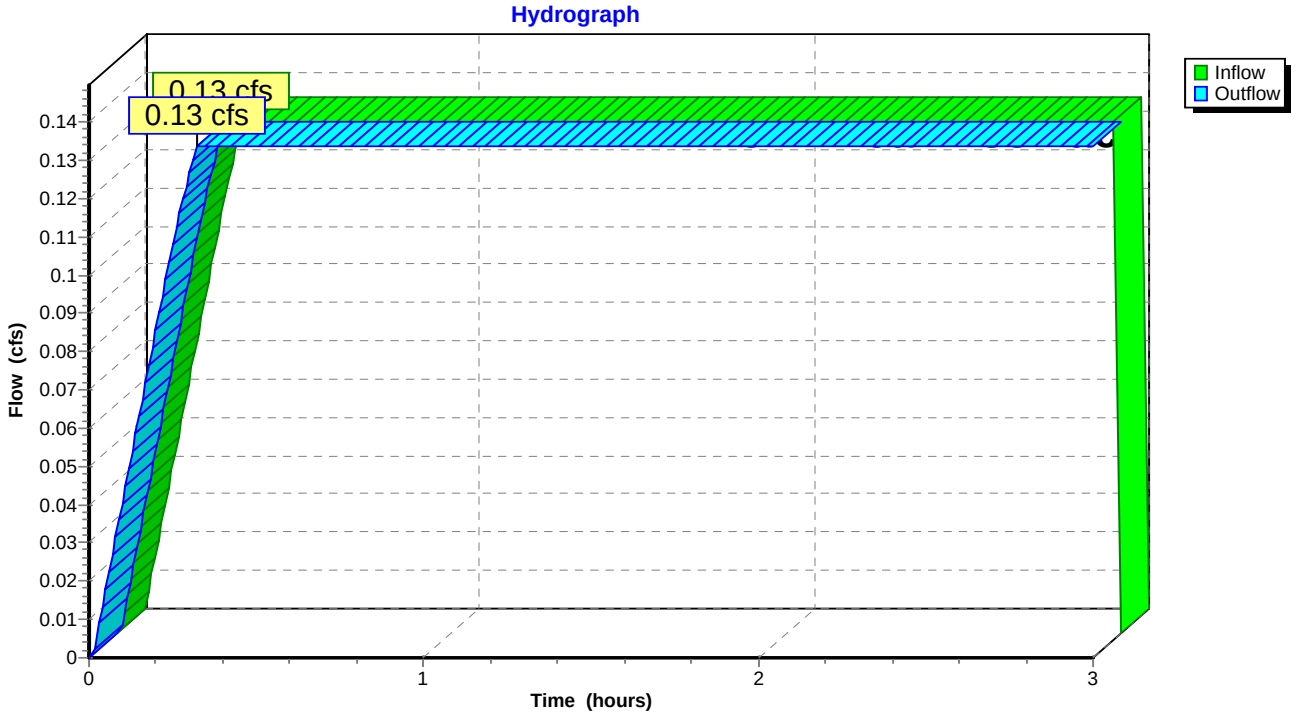
Summary for Reach DP: Design Point

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.384 ac, 0.00% Impervious, Inflow Depth > 0.27" for 100-Year event
Inflow = 0.13 cfs @ 0.31 hrs, Volume= 0.031 af
Outflow = 0.13 cfs @ 0.32 hrs, Volume= 0.031 af, Atten= 0%, Lag= 0.6 min

Routing by Sim-Route method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

Reach DP: Design Point



APPENDIX #4

Trip Generation Calculations

Aubertine and Currier Architects, Engineers & Land Surveyors, PLLC
522 Bradley Street, Watertown, New York 13601 TELE: (315) 782-2005 FAX: (315) 782-1472

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WATERTOWN, NY 13601
TEL: (315) 782-2005
FAX: (315) 782-1472
www.AubertineCurrier.com

CALCULATION SHEET

Project Number: 2014-017.001 Date: 5/13/14
Project Name: Bower's Office Page: 1 Of:
Location: (C) Watertown Calc'd By: CWT

Traffic Generation Calculations

References

- Trip Generation ITE 7th Edition

Calculations:

- 7,800 SF Accountant's Office
- Land Use: 710 General Office Building
  - Weekday AM Peak Hour
    Avg Rate 0.48 Per Employee
    88% Entering, 12% Exiting

    44 Employees x 0.48 = 21.12 Trips/hr
    19 Entering, 2 Exiting
  - Weekday PM Peak Hour
    Avg Rate 0.46 Per Employee
    17% Entering, 83% Exiting

    44 Employees x 0.46 = 20.24 Trips/Hr
    3 Entering, 17 Exiting
  - Saturday Peak Hour
    Avg Rate 0.09 Per Employee
    54% Entering, 46% Exiting

    44 Employees x 0.09 = 3.96 Trips/Hr
    2 Entering, 2 Exiting

General Office Building
(710)

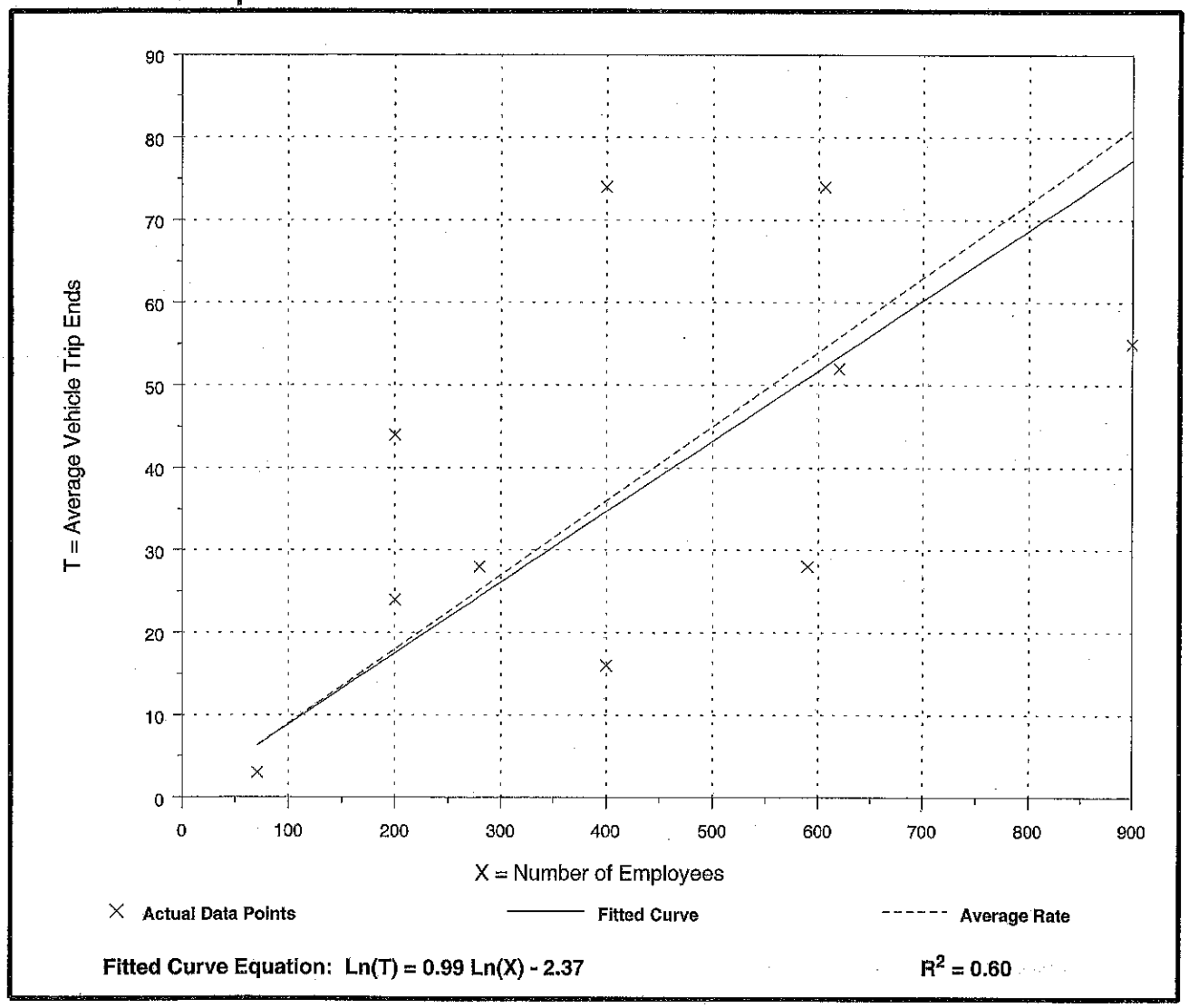
Average Vehicle Trip Ends vs: Employees
On a: Saturday,
Peak Hour of Generator

Number of Studies: 10
Avg. Number of Employees: 427
Directional Distribution: 54% entering, 46% exiting

Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.09	0.04 - 0.22	0.31

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.99 Ln(X) - 2.37

R^2 = 0.60

General Office Building
(710)

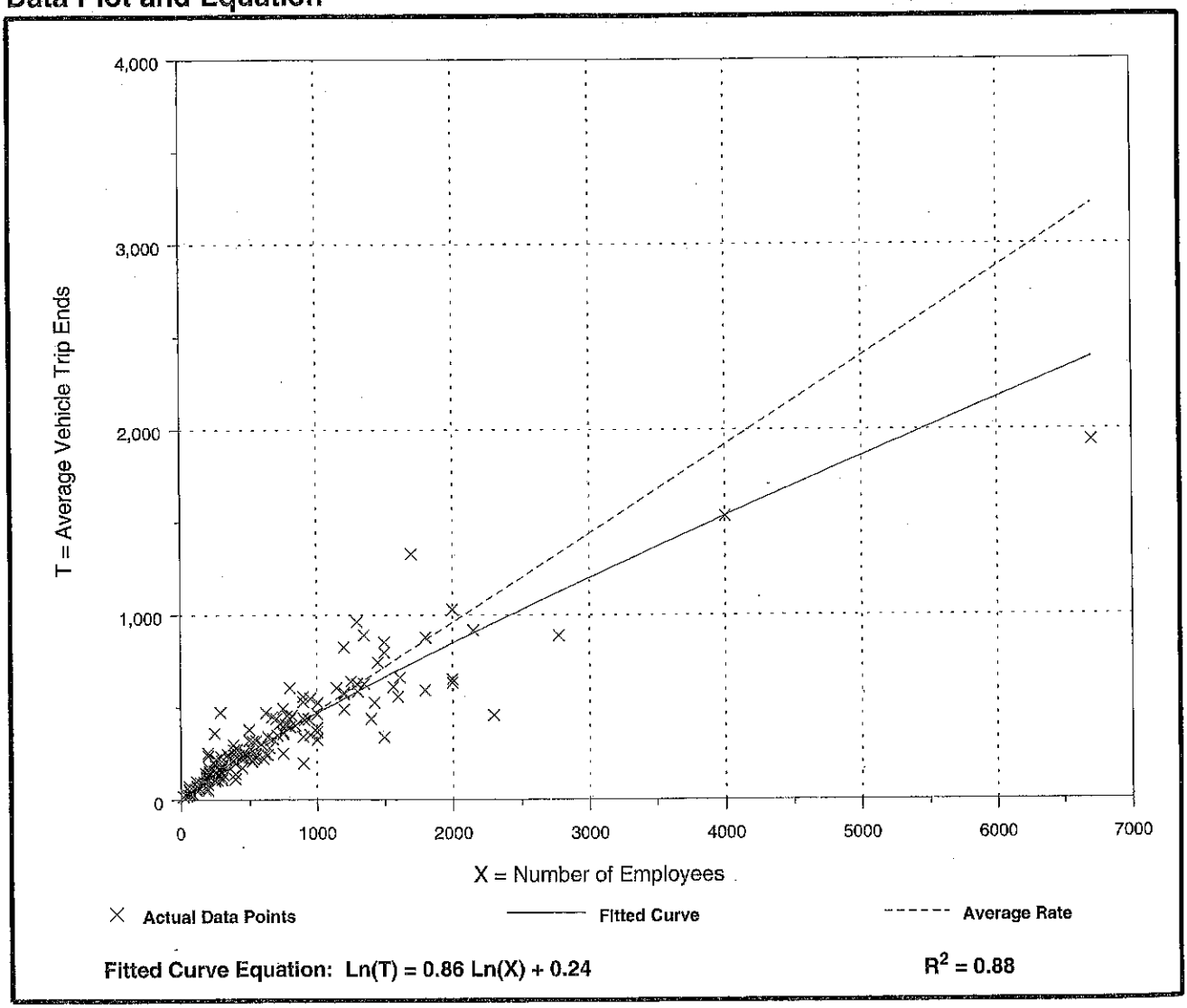
Average Vehicle Trip Ends vs: Employees
On a: Weekday,
A.M. Peak Hour

Number of Studies: 163
Avg. Number of Employees: 695
Directional Distribution: 88% entering, 12% exiting

Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.48	0.20 - 1.62	0.71

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.86 Ln(X) + 0.24

R^2 = 0.88

General Office Building
(710)

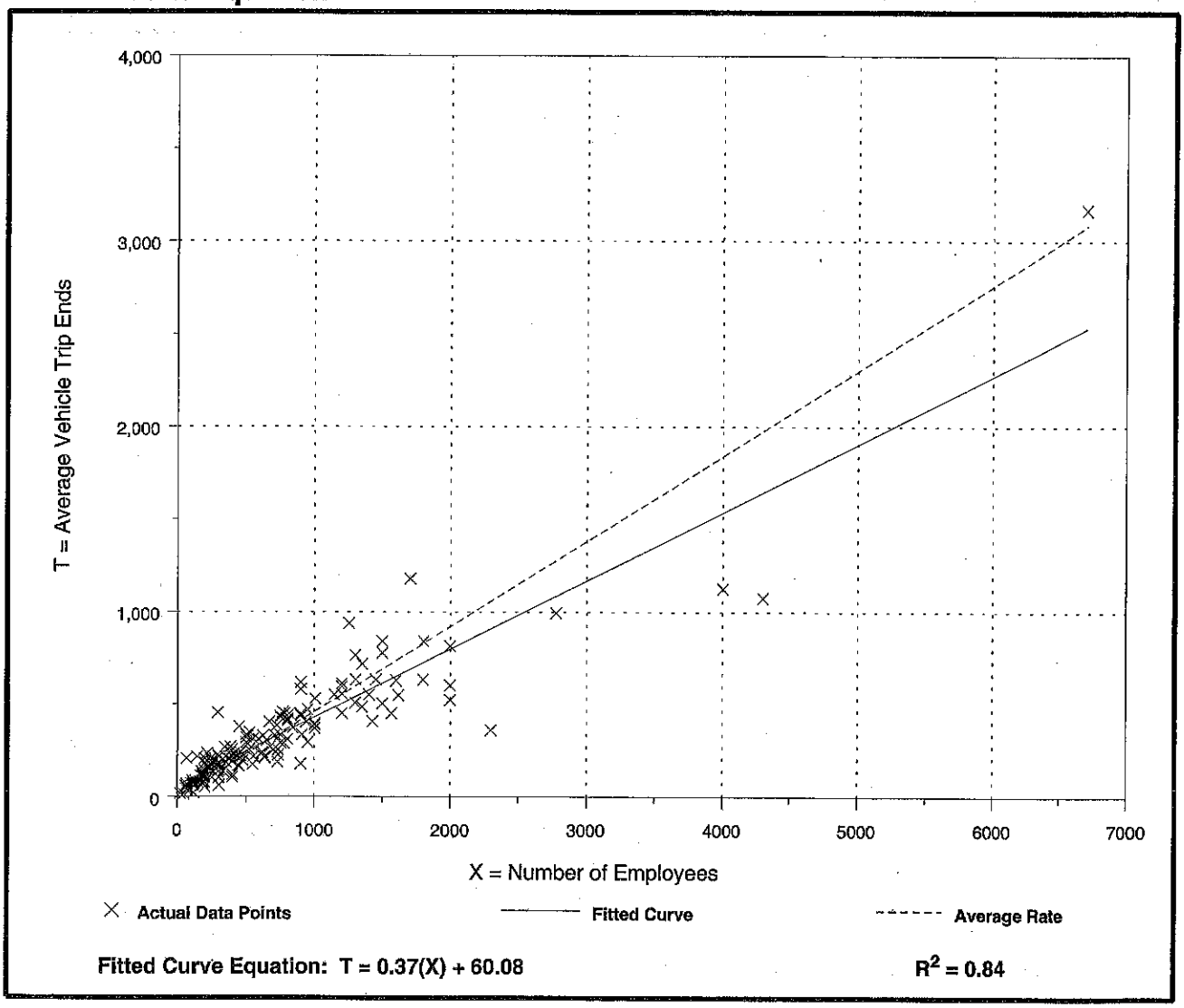
Average Vehicle Trip Ends vs: Employees
On a: Weekday,
P.M. Peak Hour

Number of Studies: 173
Avg. Number of Employees: 688
Directional Distribution: 17% entering, 83% exiting

Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.46	0.16 - 3.12	0.70

Data Plot and Equation



Fitted Curve Equation: T = 0.37(X) + 60.08

R^2 = 0.84