

ADDENDUM NO. 1

CITY OF ROCHESTER, NH

PORTLAND STREET TWIN CULVERT REPLACEMENT

This Addendum forms part of the Contract Documents and modifies the original Drawings and Specifications dated July 2020. This Addendum consists of 2 pages of modifications to the contract documents consisting of pages ADDM-1 through ADDM-2.

Bidders shall acknowledge receipt of this addendum by writing the words "Addendum No. 1" on the line provided for such on page 00410-1 of the Bid Form. Failure to do so may disqualify the bidder and his bid.

DRAWINGS

1. N/A

SPECIFICATIONS

1. N/A

GENERAL CLARIFICATIONS

1. The non-mandatory Pre-Bid meeting was held on Friday, July 31, 2020. The Pre-Bid Meeting Agenda and attendance list are enclosed with this addendum. The following questions were received during the pre-bid meeting, with responses following in *italics*.

Question #1: Is stream flow information available?

The StreamStats report run by Hoyle, Tanner is included in this Addendum for reference.

Question #2: Who is the contact person from Eversource that should be contacted to coordinate holding the poles during construction?

The contractor shall call Electric Service Support Center (ESSC) to generate a work request for the Rochester area work center. Contact information is 800-362-7764 or emailing at nhnewservice@eversource.com.

Question #3: Can the roadway excavation be left gravel overnight?

Steel plates shall be installed, over the excavated trench, properly and with proper MUTCD compliant advanced warning signage on weekday evenings/nights where work is to be performed on site the next day. Temporary pavement shall be installed over the trench excavation for weekends and anytime the site will be unoccupied for more than one overnight.

Question #4: There appears to be a lot of invasive species on the plans. Was this surveyed?

The invasive species were surveyed by a certified wetland scientist and picked up by GPS for inclusion within the plans. A copy of the wetland report, including invasive species, is included with this Addendum. The contractor will be responsible for preparing an Invasive Species Control and Management Plan, paid as Item 697.11.

Question #5: Who owns the property at the corner of Flower Drive where the gravel area is located?

That area is owned by Eversource. The contractor will be responsible for coordinating use of this area with Eversource if they choose to use it for staging.

Question #6: Has coordination begun with the Gas Company?

There has been no coordination with Unitil to date although the City has made Unitil aware of the project and the potential need for coordination with the City's contractor. The selected contractor will be responsible for coordinating any necessary relocation work with the natural gas company directly.

Pre-Bid Meeting Agenda

Portland Street Twin Culvert Replacement

July 31, 2020

9:00 AM

Portland Street at Flower Street Intersection, Rochester NH



Introductions & Sign-In Sheet

1. City of Rochester

- A. Mike Bezanson, PE

2. Hoyle, Tanner

- A. Audrey Beaulac, PE
- B. Aaron LaChance, PE

Scope of Project

1. Description of Work

- Replacement of twin 36" corrugated metal pipes with realigned 36" reinforced concrete pipes.
- Installing riprap upstream and downstream of the culverts.
- Installation of headwalls.
- Reconstruction of Portland Street to existing grade and repaving and stripping.

2. NHDES Permits

- Major Wetlands Permit Application
 - RFMI Response submitted 7/13/2020
 - NHDES Response anticipated by 8/12/2020
 - Army Corps Review (30 Days)
 - Permit Approval anticipated by 9/11/2020

Bidding Information

1. Bid Documents Available from City of Rochester
2. Bids Due: August 20, 2020 at 12:30 PM to email in Invitation to Bid
3. Bid Opening: August 20, 2020 at 2:30 PM conducted virtually via City of Rochester's Government Channel Video on Demand-Live Stream Broadcast

Traffic Control

1. Minimum one travel lane, with alternating traffic along Portland Street during working hours
2. Open to two lanes of traffic during non-working hours (nightly)
3. Maintain pedestrian accommodations thru work zone at all times

Utilities

1. Overhead Electric/Power Poles (Eversource)
 - Coordination required to hold poles during construction
2. Overhead Telephone (Consolidated Communications)
3. Water (City of Rochester)
 - City dug test pit – no direct conflict anticipated
 - Insulation required between waterline/culverts
4. Sewer (City of Rochester)
 - No direct conflict anticipated
 - Insulation required between sewerline/culverts
5. Gas (Unitil)
 - Potential relocation required

Easements

1. Eversource – Utility Easement (Map 118, Lot 19)
 - Temporary Slope
 - Existing Electrical Grounding Infrastructure located outside the fenced substation
 - 18 to 24” below surface buried copper wire and ground rods
 - If disturbance occurs, Eversource shall be contacted, repair shall be at contractor expense
 - Permanent Drainage
2. Patch Property (Map 118, Lot 20)
 - Temporary Drainage

Construction Schedule

1. NTP 9/14/2020
2. Substantial Completion 10/12/2020
3. Final Completion 10/19/2020

Questions

Meeting Name: City of Rochester, Portland Street Twin Culvert Replacement

Date/Time: July 31, 2020

Location: Portland Street at Flower Street Intersection

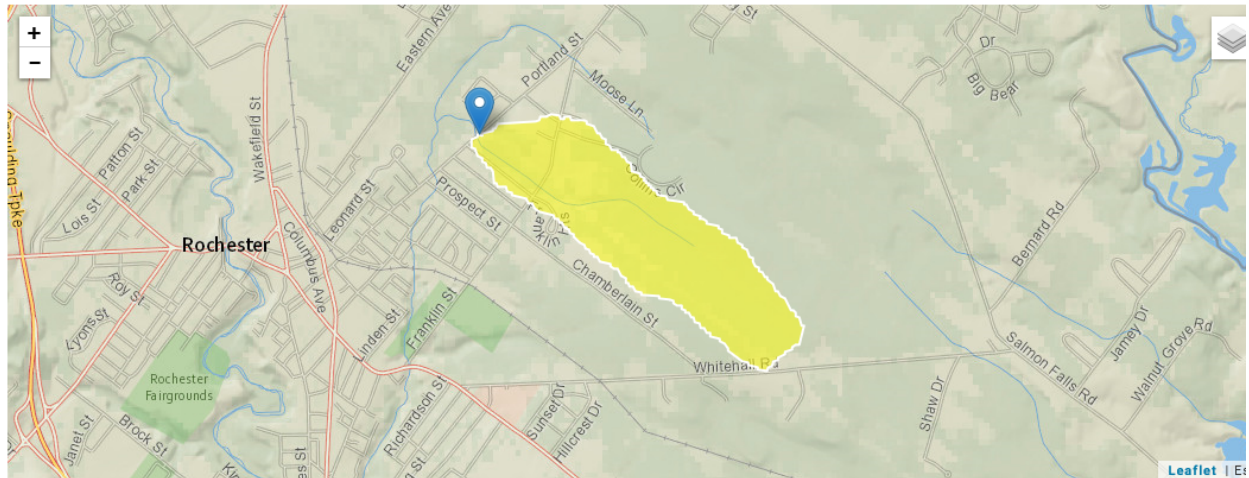
Project No(s): 903908.10



Name		Company	Address	Telephone	Email
1.	Audrey G. Beaulac	Hoyle, Tanner	150 Dow Street, Manchester NH 03101	603-669-5555 x184	abeaulac@hoyletanner.com
2.	Aaron M. LaChance	Hoyle, Tanner	150 Dow Street, Manchester NH 03101	603-431-2520 x23	alachance@hoyletanner.com
3.	Michael Bezanson	City of Rochester	45 Old Dover Road, Rochester NH 03867	603-332-4096	Michael.bezanson@rochesternh.net
4.	Dave Cribbie	GW Brooks			
5.	Jason DeWildt	SUR Construction	233 Chestnut Hill Road, Rochester NH 03866	603-817-8580	jdewildt@surconstruction.com
6.	Anthony Curro	Earth and Stone			
7.					
8.					
9.					
10.					

Region ID:
Workspace ID:
Clicked Point (Latitude, Longitude):
Time:

NH
 NH20191016141825320000
 43.31131, -70.96211
 2019-10-16 10:18:40 -0400



Basin Characteristics			
Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.41	square miles
APRAVPRE	Mean April Precipitation	4.474	inches
WETLAND	Percentage of Wetlands	9.5429	percent
CSL10_85	Change in elevation divided by length between points 10 and 85 percent of distance along main channel to basin divide - main channel method not known	62.6	feet per mi
PREG_06_10	Mean precipitation at gaging station location for June to October summer period	17.6	inches
TEMP	Mean Annual Temperature	46.637	degrees F
CONIF	Percentage of land surface covered by coniferous forest	11.4279	percent
PREBC0103	Mean annual precipitation of basin centroid for January 1 to March 15 winter period	8.23	inches
BSLDEM30M	Mean basin slope computed from 30 m DEM	2.339	percent
MIXFOR	Percentage of land area covered by mixed deciduous and coniferous forest	36.9934	percent
PREG_03_05	Mean precipitation at gaging station location for March 16 to May 31 spring period	9.6	inches
TEMP_06_10	Basinwide average temperature for June to October summer period	62.636	degrees F
ELEVMAX	Maximum basin elevation	341.429	feet

Peak-Flow Statistics Parameters^(Peak Flow Statewide SIR2008 5206)

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.41	square miles	0.7	1290
APRAVPRE	Mean April Precipitation	4.474	inches	2.79	6.23
WETLAND	Percent Wetlands	9.5429	percent	0	21.8
CSL10_85	Stream Slope 10 and 85 Method	62.6	feet per mi	5.43	543

Peak-Flow Statistics Disclaimers^(Peak Flow Statewide SIR2008 5206)

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors
 One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Peak-Flow Statistics Flow Report^(Peak Flow Statewide SIR2008 5206)

Statistic	Value	Unit
2 Year Peak Flood	14.3	ft ³ /s
5 Year Peak Flood	26.3	ft ³ /s
10 Year Peak Flood	37.1	ft ³ /s
25 Year Peak Flood	52.8	ft ³ /s
50 Year Peak Flood	66.3	ft ³ /s
100 Year Peak Flood	83	ft ³ /s
500 Year Peak Flood	127	ft ³ /s

Peak-Flow Statistics Citations

[Olson, S.A., 2009, Estimation of flood discharges at selected recurrence intervals for streams in New Hampshire: U.S. Geological Survey Scientific Investigations Report 2008-5206, 57 p.](#)

Flow-Duration Statistics Parameters^(Low Flow Statewide)

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.41	square miles	3.26	689
PREG_06_10	Jun to Oct Gage Precipitation	17.6	inches	16.5	23.1
TEMP	Mean Annual Temperature	46.637	degrees F	36	48.7

Wetland Report

Portland Street

Rochester, NH

Prepared for:

Hoyle, Tanner and Associates, Inc.

150 Dow Street

Manchester, NH 03101

Prepared by:

Pond View Wetland Consultants, L.L.C.

237 Beauty Hill Road

Center Barnstead, NH 03225

October, 2019

INTRODUCTION

Pond View Wetlands Consultants, LLC (PVW) has prepared this document to describe the wetland communities and functions and values associated with wetlands at the location of the culvert crossing of Portland Street, just east Flower Drive in Rochester, N.H. On September 30, 2019, Pond View Wetland Consultants LLC (PVW) completed a wetland delineation for the project site. The wetland delineation was completed by a NH Certified Wetland Scientist (Jim Fougere, CWS #161).

Wetlands were delineated within the study area, which was considered to be fifty feet upstream and downstream of the culvert location off Portland Street, as well as fifty feet either side of the culvert. Individually-labeled flags were placed in the field to designate the wetland boundaries on the upstream side (north side) of the road as well as the downstream side (south side). A locus map based on the USGS map identifying the project location is provided in Attachment A, with the wetland delineation figure is provided in Appendix B. The stream channel was defined as well, with Ordinary High Water (OHW) defined in the field.

Wetlands within the study area were delineated using methodology outlined in the *U.S. Army Corps of Engineers Wetland Delineation Manual* (ACOE, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (ACOE, 2012).

Federal wetland classifications were assigned according to the criteria published by the U.S. Fish and Wildlife Service (USFWS) in Cowardin et al. (1979). Wetland functions and values were assessed in accordance with the ACOE “*Highway Methodology Workbook Supplement: Wetland Functions and Values; A Descriptive Approach*” (1995). The thirteen functions and values assessed for this study include the following:

Groundwater recharge/discharge: This function considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. Recharge should relate to the potential for the wetland to contribute water to an aquifer. Discharge should relate to the potential for the wetland to serve as an area where ground water can be discharged to the surface.

Floodflow Alteration: This function considers the effectiveness of the wetland in reducing flood damage by attenuation of floodwaters for prolonged periods following precipitation events.

Fisheries Habitat

Fish and Shellfish Habitat: This function considers the effectiveness of seasonal or permanent water bodies associated with the wetland in question for fish and shellfish habitat.

Sediment/Toxicant Retention: This function reduces or prevents degradation of water quality. It relates to the effectiveness of the wetland as a trap for sediments, toxicants or pathogens.

Nutrient Retention/Transformation: This function relates to the effectiveness of the wetland to prevent adverse effects of excess nutrients entering aquifers or surface waters such as ponds, lakes, streams, rivers or estuaries.

Production Export: This function relates to the effectiveness of the wetland to produce food or usable products for human, or other living organisms.

Sediment/Shoreline Stabilization: This function relates to the effectiveness of a wetland to stabilize stream banks and shorelines against erosion.

Wildlife Habitat: This function considers the effectiveness of the wetland to provide habitat for various types and populations of animals typically associated with wetlands and the wetland edge. Both resident and or migrating species would be considered.

Recreation: This value considers the effectiveness of the wetland and associated watercourses to provide recreational opportunities such as canoeing, boating, fishing, hunting and other active or passive recreational activities. Consumptive opportunities consume or diminish the plants, animals or other resources that were intrinsic to the wetland, whereas non-consumptive opportunities do not.

Educational/Scientific Value: This value considers the effectiveness of the wetland as a site for an “outdoor classroom” or as a location for scientific study or research.

Uniqueness/Heritage: This value relates to the effectiveness of the wetland or its ability to include such things as archeological sites, unusual aesthetic quality, historical events, or unique plants, animals, or geological features.

Visual Quality/Aesthetics: This value relates to the visual and aesthetic qualities of the wetland.

Threatened or Endangered Species Habitat: This value relates to the effectiveness of the wetland or associated water bodies to support threatened or endangered species.

The form describing how this wetland addresses these functions is provided in Appendix C.

WETLAND DESCRIPTIONS

The following provides a description of the wetland resource areas associated with a culvert crossing, which carries an unnamed stream located just east of Flower Drive on Portland Street in Rochester, N.H. Representative photographs of the site and its wetlands are included in Attachment D.

The unnamed stream is a south to north flowing stream which crosses under Portland Street before exiting the site and eventually flowing into the Salmon Falls River well downstream. The stream varies in width from 3-4 feet on the south side of the road and 4-6 feet wide on the north side. The stream is located in a low depression approximately 3 feet below the adjacent road surface. The stream is intermittent in nature and would be classified as Riverine, Intermittent, Streambed, sand/mud (R4SB4/5), with the dense shrub layer classified as Palustrine, Scrub-shrub, Broad-leaved deciduous, seasonally flooded/saturated (PSS1E).

The stream appears to predominately carry overland flow and drainage from the south. The dense vegetation in the bordering wetland is dominated by European buckthorn (*Rhamnus frangula*), with pockets of red maple (*Acer rubrum*), speckled alder (*Alnus incana*), winterberry (*Ilex verticillata*), and sensitive fern (*Onoclea sensibilis*). The southern portion of the study area is slightly different in that an electrical substation is located immediately adjacent to the wetland. Tree cover is largely limited to areas outside the project study area.

Principal functions and provided by this stream and wetland as it occurs in the study area includes sediment/toxicant retention, and sediment/shoreline stabilization. These functions are primarily a function of the dense vegetative community and its ability to trap sediment and nutrients during higher flow periods, while at the same time providing bank stabilization though its dense root mass. Other functions and values, such as wildlife habitat occur but are limited in nature and are not considered to provide principal values.

Classifications: R4SB4/5, PSS1E

Vernal Pool Habitat

The wetland and the surrounding habitats were reviewed in order to address its potential to provide vernal pool habitat as described in the NH Wetlands Administrative Rules. Wt. 100-900), and the definitions of “vernal pool” (Env.Wt. 101.106), and referencing “Identification and Documentation of Vernal Pools in New Hampshire”, second edition (2004), published by NH Fish and Game Department.

NH Wetland Rules (Env. WT. 101.108) defines vernal pool, to mean, a surface water or wetland, including an area intentionally created for purposes of compensatory mitigation, which provides breeding habitat for amphibians and invertebrates that have adapted to the unique environments provided by such pools and which:

- (a) Is not the result of on-going anthropogenic activities that are intended to provide compensatory mitigation, including but not limited to:
 - (1) Gravel pit operations in a pit that has been mined at least every other year, and
 - (2) Logging and agricultural operations conducted in accordance with all applicable New Hampshire statutes and rules; and
- (b) Typically has the following characteristics:
 - (1) Cycles annually from flooded to dry conditions, although the hydroperiod, size and shape of the pool might vary from year to year;
 - (2) Forms in a shallow depression or basin;
 - (3) Has no permanently flowing outlet;
 - (4) Holds water for at least 2 continuous months following spring ice-out;
 - (5) Lacks a viable fish population; and
 - (6) Supports one or more primary vernal pool indicators, or three or more secondary indicators.
 - (7)

Vernal Pool Findings

The timing of the site visit made the identification of vernal pool indicator species somewhat difficult; however based on the site conditions, which includes a limited ability to provide ponded habitat within the wetland corridor or in the adjacent uplands. This wetland is not considered to meet the criteria defined in the NH Wetland Rules and would not be considered to provide vernal pool habitat.

Invasive Species

Numerous invasive species occur in proximity of the culvert and roadway including European buckthorn, Tartarian honeysuckle (*Lonicera tartarica*), and autumn olive (*Elaeagnus umbellata*). Generally, the honeysuckle, and olive plants occur as clusters at the outer reaches of the project study area.

Summary

The wetland resources identified in the project study area associated with the Portland Street culvert project included the stream itself as well as the bordering shrub wetlands. The watercourse is intermittent in nature and is 3 to 6 feet wide within the study area. Substrate of the stream is fine grained sand with mud and limited cobbles. The surrounding area is generally residential in nature with the stream corridor a disturbed, undeveloped habitat which includes a powerline crossing.

A wetland functions and values assessment was conducted on the stream community in the crossing area. Principal functions provided include sediment/toxicant retention and sediment/shoreline stabilization. Other functions occur but are limited in nature and do not provide principal functions and values.

Please feel free to contact me at jimfougere@gmail.com or (603) 520-6120 if there are any questions or comments on the information provided in this report.

TECHNICAL REFERENCES

- Cowardin, L.M., Carter, V., Golet, F.C., and LaRoe, E.T. *Classification of Wetlands and Deepwater Habitats of the United States*. U.S. Fish and Wildlife Service. Washington, D.C. 1979.
- New England Hydric Soils Technical Committee. *Field Indicators for Identifying Hydric Soils in New England*. 3rd Edition. New England Interstate Water Pollution Control Commission, Lowell, MA. 2004.
- U.S. Army Corps of Engineers. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. 1987.
- U.S. Army Corps of Engineers. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*. U.S. Army Corps of Engineer Research and Development Center, Vicksburg, MS. January 2012.
- U.S. Army Corps of Engineers. *The Highway Methodology Workbook Supplement: Wetland Functions and Values*. U.S. Army Corps of Engineers, New England Division.

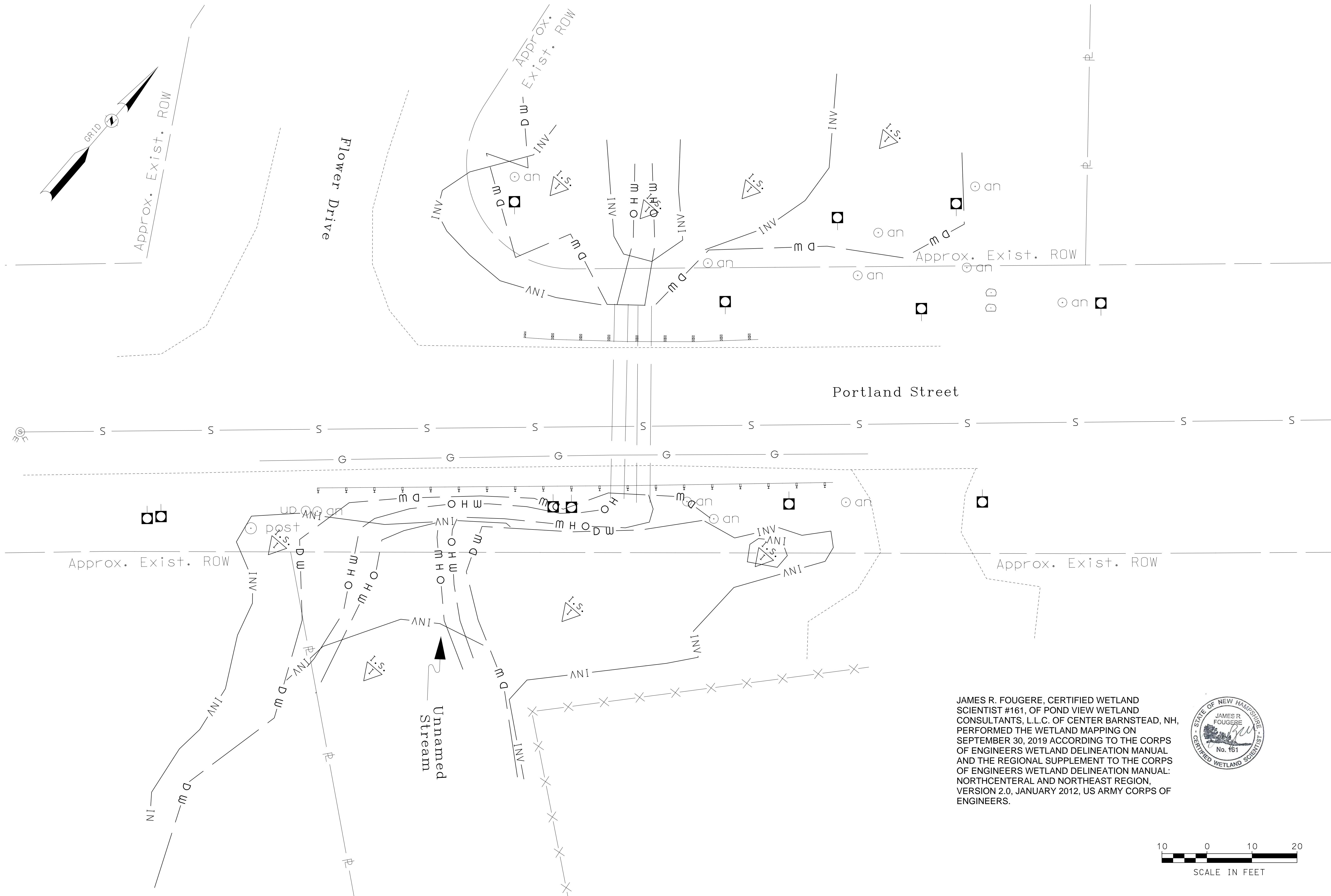
ATTACHMENT A

USGS Map

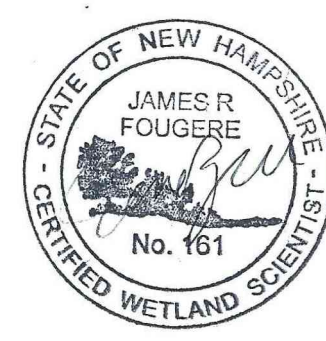
APPENDIX B

SITE MAP

10/23/2019
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JAMES R. FOUGERE, CERTIFIED WETLAND SCIENTIST #161, OF POND VIEW WETLAND CONSULTANTS, L.L.C. OF CENTER BARNSTEAD, NH, PERFORMED THE WETLAND MAPPING ON SEPTEMBER 30, 2019 ACCORDING TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL AND THE REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012, US ARMY CORPS OF ENGINEERS.



REV	DESCRIPTION	DRW	CHKD	BY	DATE

FILENAME	DESIGNED
90390810genplans	AGB
MODEL NAME	DRAWN
EXISTING	KDP
SCALE	CHECKED
AS SHOWN	AML
DATE	
OCTOBER 2019	

Hoyle, Tanner & Associates, Inc.
 150 Dow Street, Manchester, NH 03101-1227
 Tel (603) 669-5555 - Fax (603) 669-4168
 www.hoyletanner.com

CITY OF ROCHESTER
 ROCHESTER, NEW HAMPSHIRE
 PORTLAND STREET CULVERT OVER UNNAMED STREAM
 EXISTING CONDITIONS PLAN

PROJECT NO. 903908.10
 SHEET NO. **1**
 SHEET 1 OF 1

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APPENDIX C

ACOE FUNCTIONAL ASSESSMENT

WETLAND SUMMARY SHEET

WETLAND ID#: Unnamed Stream

Project:	Portland Street at Flower Drive, Rochester		
General description:	3 foot wide stream under Portland St	Watershed:	Salmon River
Total Area of Wetland:		Human made?	Generally disturbed area
Dominant wetland systems present:	R4SB4, PSS1E	Contiguous undeveloped buffer zone present:	No
Principal vegetation:	European Buckthorn, Speckled alder, sensitive fern		
Surrounding land use:	Residential, powerlines, shrubs and forest		
Is the wetland a separate hydraulic system?	No	If not, where does the wetland lie in the drainage basin?	lower
How many tributaries contribute to the wetland?	unknown		
Wildlife observations:	songbirds		

Function/Value	8,14		Rationale (Question #)	Principal Function?	Comments
	Y	N			
1. Groundwater Recharge/Discharge 	X		2,4,7,15,		Wetland indicates limited groundwater discharge along edge but largely fed by overland flow and drainage.
2. Floodflow Alteration 	X		2,4,7,8,9,14,15,17		although this stream has a constricted outlet and some storage ability overall this wetland has limited ability to provide flood storage values.
3. Fish and Shellfish Habitat 		X	2,4,		Stream lacks depth and is intermittent in nature.
4. Sediment/Toxicant Retention 	X		1,3,4,7,10,14,15,16	X	Intermittent stream flow occurs as narrow channel with dense shrub community does provide limited ability to trap sediments.
5. Nutrient Removal/Retention/Transformation 	X		3,5,6,8,9,10,		Unknown sources of nutrients upstream but stream flow limits opportunity.
6. Production Export 		X	1,7,10,		Organic materials likely to be flushed due to stream flows. Limited wildlife use and vegetation in the stream limit overall value
7. Sediment/Shoreline Stabilization 	X		1,2,6,7,12,13,14,	X	Intermittent stream flow and dense bordering vegetation indicate this wetland provides for stream bank stabilization
8. Wildlife Habitat 	X		6,7,14,15,		Habitat availability is limited in stream
9. Recreation 		X			Wetland/stream has limited potential for recreation use
10. Education/Scientific Value 		X			Wetland provides limited educational values due to disturbed condition.
11. Uniqueness/Heritage 		X	1, 7,13,17,		Although wetland is a narrow stream system with visual access from Portland St, overall value is limited
12. Visual Quality/Aesthetics 		X	3,		Although adjacent to Portland St accessibility associated with stream is limited.
13. Endangered Species Habitat ES					Unknown

Note: Federal functions derived from ACOE's Highway Methodology Workbook Supplement (1999).

Additional Notes:

APPENDIX D

PHOTO LOG

**Rochester, New Hampshire
Portland Street Culvert Replacement Project
Photo Log**



South side of Portland Street. Near culvert inlet, looking toward substation
Photo taken September 30, 2019



Vegetative community on the south side of road at stream outlet, looking downstream.
Photo taken September 30, 2019

**Rochester, New Hampshire
Portland Street Culvert Replacement Project
Photo Log**



Density of vegetation within wetland on south side of Portland Street.
Photo taken September 30, 2019



Vegetative community north side of road near culvert, looking east.
Photo taken September 30, 2019.

**Rochester, New Hampshire
Portland Street Culvert Replacement Project
Photo Log**



Wetland community adjacent to Flower Drive, looking southeast.
Photo taken September 30, 2019



Culvert location, north side of Portland Street. Note dense shrub community
Photo taken on September 30, 2019