

City of Biddeford, Maine

City of Biddeford

Public Works Department / Engineering Division
P.O. Box 586 • 205 Main Street, Suite 301
Biddeford, ME 04005
Phone: (207) 284-9118 • Fax: (207) 571-0662

November 10, 2020

State of Maine Division of Procurement Services
Burton M. Cross Building
111 Sewall Street, 4th Floor
Augusta, ME 04333-0009

Re: RFP #202008127
2020 Grants for Stream Crossing Public Infrastructure Improvements
Granite Point Road Culvert Replacement
City of Biddeford

Dear Grant Review Team;

The City of Biddeford is pleased to submit the accompanying application for the 2020 Grants for Stream Crossing Public Infrastructure Improvements (RFP #202008127).

The City of Biddeford is seeking \$125,000 in funding to replace a culvert crossing on a direct tributary to Little River on Granite Point Road. Granite Point Road is owned and maintained by the City. We are very excited about the opportunity this Grant program may have on a critical piece of infrastructure in our City. The Granite Point Culvert is a critical piece of infrastructure in that it provides the only access to the Granite Point area for public safety services as well as providing the only access for the people residing in this area. The culverts condition is very poor and is in danger of failure.

We anticipate that construction of the replacement structure will be undertaken in the late Summer/early Fall of 2021. We also anticipate that the construction will take approximately 4 weeks to complete.

Please find enclosed the following:

- 2020R1 Grant Application Form
- Supplemental Materials including
 - Photos of the culvert crossing
 - Location Map
 - Beginning with Habitat Map
 - Concept Plan

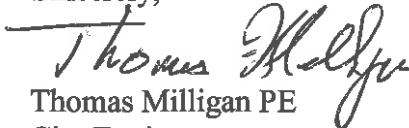
205 Main Street, Biddeford, ME 04005 P: 207.284.9313 F: 207.571.0678 www.biddefordmaine.org

*The City of Biddeford is an equal opportunity provider. To file a complaint, write to
Human Resource Director, 205 Main Street Biddeford, ME 04005, or call (207) 286-0593.*

- Stream Stats Report
- Maine Stream Habitat Viewer Report
- Correspondence with MDIFW

We look forward to hearing from you. If you have any questions or need any additional information, please contact me directly. Thank you for considering this Grant request.

Sincerely,

A handwritten signature in black ink that reads "Thomas Milligan". The signature is written in a cursive style with a long horizontal stroke at the beginning.

Thomas Milligan PE
City Engineer

**Maine Department of Environmental Protection
Request for Proposals for Stream Crossing Public Infrastructure Improvement Projects
Proposal Application Form – 2020R1
RFP# 202008127**

I. Applicant InformationApplicant Name *City of Biddeford*

Applicant Mailing Address <i>205 Main Street</i>	City <i>Biddeford</i>	State <i>ME</i>	Zip <i>04005</i>
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*Applicant Contact Phone # <i>(207) 284-9118</i>	*Contact Email Address <i>tom.milligan@biddefordmaine.org</i>
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**Please note that the applicant contact should be the individual that will be the primary contact for the Department should the project be awarded.*

II. Agent/Consultant Information Check if not applicableAgent Name
Steve Blake, PE – BH2M Engineers

Agent Mailing Address <i>380B Main Street</i>	City <i>Gorham</i>	State <i>ME</i>	Zip <i>04038</i>
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Agent Phone # <i>(207) 839-2771</i>	Agent Email Address <i>sblake@bh2m.com</i>
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III. Applicability

Please indicate the ability to demonstrate the following:

- The proposed structure to be upgraded is a culvert located on a municipal road and is not owned by a private or state entity.
- The proposed project includes matching funds from local or other sources

IV. Culvert/Stream Crossing Information**1. Site Information**

A. Municipality or Unorganized territory where project will take place:	<i>Biddeford</i>		
B. GPS Location of crossing (Decimal degrees preferred) <i>Available on Google Maps by clicking the location on the map</i>	North	West	
	<i>43.41777</i>	<i>70.38334</i>	
C. Culvert/crossing location Name of the road on which the culvert/crossing is located and the nearest intersection.	<i>Granite Point Road in Biddeford. Approximately 0.5 miles south of Pool Street (Route 9).</i>		
D. Watershed Location: List the HUC12 Watershed, name of the stream, brook, or the water body the culvert is located on, and the downstream waterbodies it drains to.	i. HUC12 Watershed: (can be found in Maine Stream Habitat Viewer)	<i>Batson River – Frontal Goosefare Bay</i>	
	ii. Waterbody name at project location (“Project Waterbody”):	<i>Unnamed tributary of Little River</i>	
	iii. “Project Waterbody” drains to:	<i>Little River to Goosefare Bay</i>	

2. Existing Crossing Information

Culvert/Crossing Shape		Culvert Material		Stream Bed Material in culvert	
<input type="checkbox"/> Closed bottom Box <input type="checkbox"/> Open bottom box <input checked="" type="checkbox"/> Circular <input type="checkbox"/> Open bottom arch <input type="checkbox"/> Closed bottom arch (pipe arch) <input type="checkbox"/> Oval <input type="checkbox"/> Bridge or span		<input checked="" type="checkbox"/> Corrugated Metal Pipe <input type="checkbox"/> Smooth Metal Pipe <input type="checkbox"/> Concrete <input type="checkbox"/> Plastic <input type="checkbox"/> Stone <input type="checkbox"/> Other (describe): _____		<input checked="" type="checkbox"/> none <input type="checkbox"/> Partial <input type="checkbox"/> Continuous	
Culvert #	Width (diameter if round)	Height	Length	Approximate Culvert Age	
#1	6 feet		41 feet	+/- 30 years	
(#2)					
(#3)					

3. Proposed Crossing Information

Culvert/Crossing Shape			Culvert Material		
<input type="checkbox"/> Closed bottom Box <input type="checkbox"/> Circular <input type="checkbox"/> Oval <input type="checkbox"/> Closed bottom arch (pipe arch) <input type="checkbox"/> Other (describe): _____			<input type="checkbox"/> Open bottom box <input checked="" type="checkbox"/> Open bottom arch <input type="checkbox"/> Bridge or span		
<input type="checkbox"/> Smooth Metal Pipe <input type="checkbox"/> Plastic <input type="checkbox"/> Stone <input type="checkbox"/> Other (describe): _____			<input checked="" type="checkbox"/> Corrugated Metal Pipe <input type="checkbox"/> Concrete <input type="checkbox"/> Plastic <input type="checkbox"/> Stone <input type="checkbox"/> Other (describe): _____		
Width (diameter if round)	Height	Length	If proposing a bridge/span		
			Clear Span	Total Span	
12 feet	5 feet	41 feet			

13. Will the new crossing be sized to be 1.2 times the bankfull width of the stream?

 Yes

 No
4. Stream Channel Description

Measured Bankfull Width (beyond culvert influence, min. of 3 upstream and downstream measurements)	Upstream widths	1.	2.	3.	4.	5.	Average	Average value of upstream & downstream measurements
		1.	2.	3.	4.	5.	Average	
Estimated Bankfull width (<i>measured average bankfull width values are the most accurate method</i>)	Maine Stream Habitat Viewer http://webapps2.cgis-solutions.com/MaineStreamViewer/						6.40 feet	
	StreamStats https://streamstats.usgs.gov/ss/						4.76 feet	
	Other Hydraulic & Hydrologic Analysis (if performed)							
Has a Stream Bed Substrate analysis been performed?							<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Explain:								
Size of Downstream scour pool <input type="checkbox"/> N/A, No scour pool present		Width		Length		Max Depth		
		64 ft. +/-		95 ft. +/-		3 ft. +/-		

V. Public Infrastructure Information (25 Points total):						Yes	No
1. Has the crossing caused flooding or overtopping of the road in the last 10 years?						<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. How many times in the last 10 years? (indicate if approximate)		Two					
3. Does this crossing regularly become obstructed by debris or require cleaning?						<input type="checkbox"/>	<input checked="" type="checkbox"/>
How often?							
4. Has the crossing been damaged by flooding in the last 10 years?						<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Do you have any photos of the flooding or damage? Please provide if available						<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Has the crossing ever partially or fully failed in the last 10 years?						<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. List any dates and describe the severity of flooding/damage associated with the crossing. Include the duration of any full or partial road closures.		3/4/18 : 4-hr closing 3/6/18 : 4-hr closing/partial					
8. Describe any issues with the current condition of the crossing		The existing crossing is in very poor condition and is in danger of collapsing.					
9. In how many years from now do you estimate the culvert/crossing would have a complete failure, a complete collapse, or total washout?		Less than 1 year	1-3 years	3-5 years	5-10 years	10+ years	
		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. Would any homes, businesses, or critical infrastructure be <u>completely cut-off from access</u> if the crossing were to completely fail?						<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. If the culvert/crossing fails, how many businesses, or other critical infrastructure would be completely cut off or require a detour? (Note: see definition of "cut off" in RFP#202008127)		Homes		Businesses		Critical Infrastructure	
		Detour	Cut-off	Detour	Cut-off	Detour	Cut-off
			128		1		1
12. Using the space below, discuss what impacts would occur if the culvert/crossing were to fail. For instance, are there critical public services (fire or police station, hospital, school, public works facility) located on this road that would be cutoff or required to detour?							
There would be no access to Granite Point for Public/Emergency services and no access for homeowners. Access to the Timber Point USFW reserve would be cutoff so that there would be no access for visitors.							
13. Approximately how many vehicles per day travel this road (if known)?				2013 AADT = 1400			
14. If an alternate route exists, what is the minimum distance to travel from one side of the crossing along a detour to access the other side of the crossing?				No alternate route exists.			
15. Using the space below, discuss any other safety concerns about the existing culvert/crossing.							
See #12 above. The culvert is at risk of collapsing under heavy vehicle loading.							
VI. Environmental Information (50 Points total):							

		Yes	No
1. Are fish present in the stream?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Source(s) of Information: <input checked="" type="checkbox"/> MDIFW <input checked="" type="checkbox"/> MDMR <input checked="" type="checkbox"/> Maine Stream Habitat Viewer <input type="checkbox"/> Other (describe):			
2. Has this crossing been identified by the Maine Stream Habitat Viewer, MDIFW, MDMR, or another qualified entity as a barrier to fish passage?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provide source of barrier information	Survey contained in the data extracted from the Maine Stream Habitat Viewer.		
3. Is the existing culvert/crossing surveyed on Maine Stream Habitat Viewer? http://webapps2.cgis-solutions.com/MaineStreamViewer/		<input checked="" type="checkbox"/>	<input type="checkbox"/>
If yes, what is the Maine Stream Habitat Viewer Crossing ID# for the crossing proposed for upgrade?		55342	
4. What is the Maine Stream Habitat Viewer Crossing ID# for the crossings upstream and downstream of the proposed upgrade?	Upstream Crossing ID#	Downstream Crossing ID#	
	55342	None	
Are these considered to be a barrier to fish passage?	<input type="checkbox"/> Barrier <input checked="" type="checkbox"/> Partial/Potential Barrier <input type="checkbox"/> Not a Barrier	<input type="checkbox"/> Barrier <input type="checkbox"/> Partial/Potential Barrier <input type="checkbox"/> Not a Barrier	
5. Distance to the next barrier identified by the Maine Stream Habitat Viewer (miles)?	Upstream 2000 feet +/-	Downstream	
6. Indicate if any of the following species have been identified above or just below the crossing.			
<input checked="" type="checkbox"/> Wild brook trout <input type="checkbox"/> Sea-run brook trout <input type="checkbox"/> Atlantic salmon (sea-run) <input type="checkbox"/> Atlantic salmon (landlocked) <input type="checkbox"/> Alewives <input type="checkbox"/> Blueback herring <input checked="" type="checkbox"/> American eels <input type="checkbox"/> Sea-run rainbow smelt <input checked="" type="checkbox"/> other diadromous (sea-run) species (list): Common Shiner, Golden Shiner, Chain Pickerel, Pumpkinseed Sunfish, Mummichog, and Sticklebacks.			
7. Have you contacted MDMR regarding this stream and crossing?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
If yes, please include any relevant information they provided or attach letter of support	See attached correspondence from MDIFW, who communicated directly with MDMR.		
8. Have you contacted MDIFW regarding this stream and crossing?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
If yes, please include any relevant information they provided or attach letter of support	See attached correspondence from MDIFW.		
9. Are there any state or federal Threatened or Endangered species (aquatic or terrestrial) according to Beginning with Habitat Map Viewer within 1 mile of this crossing?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
If yes, list identified presence or habitat(s):	See attached map. The crossing is located within a mapped Saltmarsh Sparrow habitat which is a species of special concern. It is also located a Tidal Wading Bird and Waterfowl Habitat.		

		Yes	No
10. Is the project adjacent to other significant resources (e.g. Significant Wildlife Habitat, significant fisheries, "Heritage" waters, alewife ponds, etc.) according to the Maine Stream Habitat Viewer or Beginning with Habitat Map Viewer?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
If yes, list identified resource(s):	There is documented Saltmarsh False-foxglove in close proximity to the crossing.		
11. Have any priority habitats such as spawning areas been identified by the Maine Habitat Stream Viewer, MDIFW, or MDMR?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
If yes, List habitats identified and source of information:	The crossing is located in a Wild Brook Trout Habitat.		
12. Is the current crossing undersized?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
If yes, how was this determined and what was the metric used?	Based on bank full width measured by the survey done for the Maine Stream Habitat website.		
15. Will the new crossing contain an open bottom?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
16. Will the new crossing be embedded below the stream bed?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
17. If the new crossing will be embedded, is stream bed backfill proposed?		<input type="checkbox"/>	<input type="checkbox"/>
If yes, how will material used for streambed backfill be determined?	N/A, crossing will be open bottom. Embedment will not be necessary.		
18. Will the new crossing contain constructed stream banks within the structure?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
19. Will this new crossing meet Maine DOT 100-yr flood criteria?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
20. Is the upstream or downstream habitat degraded due to this crossing's orientation, slope, or sizing? (e.g. large scour pool, instability or stream bank erosion, significant downstream sedimentation, etc.)		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Describe:	There appear to be large scour pools at the inlet and outlet areas.		
21. Is the crossing located on a stream or reach where other culvert/crossing upgrades have been performed within the last 5 years leading to improved fish passage?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
If yes, describe any additional biological, ecological, or cost-saving benefits that could result from the current project:			
22. Describe any reasons the crossing or the waterbody should be considered a priority for restoration, including any input from Maine DMR or Maine IF&W Biologists:			
If the crossing fails it will cut off access to the area and public safety will not be able to access.			
23. Provide other information about the design or importance of the proposed project that benefits fish and/or wildlife such as terrestrial passage, stream banks within the structure, stream simulation design, or other factors:			
The project will be designed as an open bottom structure and will remove a potential barrier. It will also be widened to eliminate a restricted and allow the stream flow without creating unnecessary erosion.			
VII. Cost & Budget Information (25 Points total):			

1. How much money has been spent on physical repairs within the last 10 years on the culvert/crossing (exclude normal maintenance costs such as painting).		\$10,000 +/- (work was performed by the City public work department)	
2. Describe the types of expenditures made on repairs	Excavation around section of the culvert and backfilling with flowable fill. The deteriorating culvert was allowing road fill materials to be sucked through the culvert causing road subsidence.		
3. Do you have engineered design plans and construction specifications for the replacement culvert/crossing?		Yes	No
		<input type="checkbox"/>	<input checked="" type="checkbox"/>
A. If yes, identify who designed the plans, and when the plans were completed.	Detailed design and permitting with the ACOE has not been performed but the City will retain a licensed consultant to do so.		
B. Will final plans be stamped by a Maine Licensed Engineer?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. If the new crossing will be over 20 feet in width, are you planning to request that the Maine Department of Transportation (MDOT) take responsibility for the structure?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If yes, have you had the design reviewed by MDOT's Bridge Maintenance Program? (If No, please contact MDOT Bridge Program as soon as possible)	<input type="checkbox"/>	<input type="checkbox"/>	
Important NOTE: For all crossings proposed to be 20 feet or greater, please refer to Maine DOT's Bridge Design Guide: https://www.maine.gov/mdot/bdg/ and contact MaineDOT Bridge Program for requirements and limitations.			
5. This project will likely require a permit from the Army Corps of Engineers. Have you contacted Army Corps regarding this project? <i>This will be permitted with ACOE.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6. Have you submitted an application to Army Corps of Engineers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7. Do you already have a permit in-hand from Army Corps of Engineers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
8. What is the anticipated construction duration?	Approximately 4 weeks.		
9. If awarded, when is construction anticipated to begin? (Keep in mind that the typical window for in-water work is July 15-October 1)	Start Date:	Completion Date:	
	End August	End September	
10. Provide any additional information regarding the efficiency and cost-effectiveness of the project in the space below:			
The proposed project will include new construction of an aluminum plate arch. Due to the saltwater environment, the life span of this material will be greatly increased compared to more traditional materials. The crossing will be an open bottom culvert to help promote wildlife passage and will increase the hydraulic capacity for higher intensity storm events.			
11. Provide any additional information as to why this project should be funded by a public infrastructure grant in the space below:			
The project is in a sensitive saltwater habitat with documented species of special concern. The crossing is reaching the end of its life span and is currently undersized. If the crossing fails it will cut off access to the area and public safety will not be able to access.			

**State of Maine
Department of Environmental Protection
COST PROPOSAL FORM
RFP# 202008127**

2020 Grants for Stream Crossing Public Infrastructure Improvements

Bidder's Organization Name:	City of Biddeford
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Instructions: The cost proposal must include: the total amount of funds requested under this RFP, the total cost of the project to completion, and the amount of local matching funds dedicated to the project.

The cost proposal may not exceed \$125,000. Local matching funds must be included. The Department cannot fund 100% of any project.

1. Total Amount of Funds being Requested	\$125,000
2. Total Matching Funds Committed to Project	\$55,000
3. Total Cost to Complete Proposed Project (total of items 1&2 above)	\$180,000
4. All Sources of Matching Funds (list):	Capital Improvement Plan Funds

Budget Items	
5. Total Engineering Costs	\$17,000
6. Permitting and Bidding	\$3,000
7. Erosion & sediment controls (including de-watering, stream bypass, cofferdams, temporary and permanent stabilization measures)	\$30,000
8. All other items	\$130,000

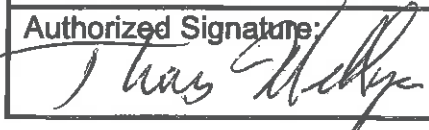
State of Maine
Department of Environmental Protection
DEBARMENT, PERFORMANCE and NON-COLLUSION CERTIFICATION
RFP# 202008127
2020 Grants for Stream Crossing Public Infrastructure Improvements

Bidder's Organization Name:	City of Biddeford
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By signing this document, I certify to the best of my knowledge and belief that the aforementioned organization, its principals and any subcontractors named in this proposal:

- a. *Are not presently debarred, suspended, proposed for debarment, and declared ineligible or voluntarily excluded from bidding or working on contracts issued by any governmental agency.*
- b. *Have not within three years of submitting the proposal for this contract been convicted of or had a civil judgment rendered against them for:*
 - i. *Fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state or local government transaction or contract.*
 - ii. *Violating Federal or State antitrust statutes or committing embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;*
 - iii. *Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or Local) with commission of any of the offenses enumerated in paragraph (b) of this certification; and*
 - iv. *Have not within a three (3) year period preceding this proposal had one or more federal, state or local government transactions terminated for cause or default.*
- c. *Have not entered into a prior understanding, agreement, or connection with any corporation, firm, or person submitting a response for the same materials, supplies, equipment, or services and this proposal is in all respects fair and without collusion or fraud. The above-mentioned entities understand and agree that collusive bidding is a violation of state and federal law and can result in fines, prison sentences, and civil damage awards.*

Failure to provide this certification may result in the disqualification of the Bidder's proposal, at the discretion of the Department.

Name (Print): THOMAS MULLIGAN PE	Title: CITY ENGINEER
Authorized Signature: 	Date: 11/12/2020



VIEW: Upstream of Inlet
DATE TAKEN: July 10, 2015



VIEW: Outlet End of Culvert
DATE TAKEN: July 10, 2015



VIEW: Downstream of Outlet
DATE TAKEN: July 10, 2015



VIEW: Inlet End of Culvert
DATE TAKEN: July 10, 2015



VIEW: Outlet End of Culvert
DATE TAKEN: October 29, 2019



VIEW: Outlet End of Culvert
DATE TAKEN: October 29, 2019



VIEW: Upstream of Crossing
DATE TAKEN: October 29, 2019



VIEW: Inlet End of Culvert
DATE TAKEN: October 29, 2019



VIEW: Upstream of Crossing
DATE TAKEN: October 29, 2019



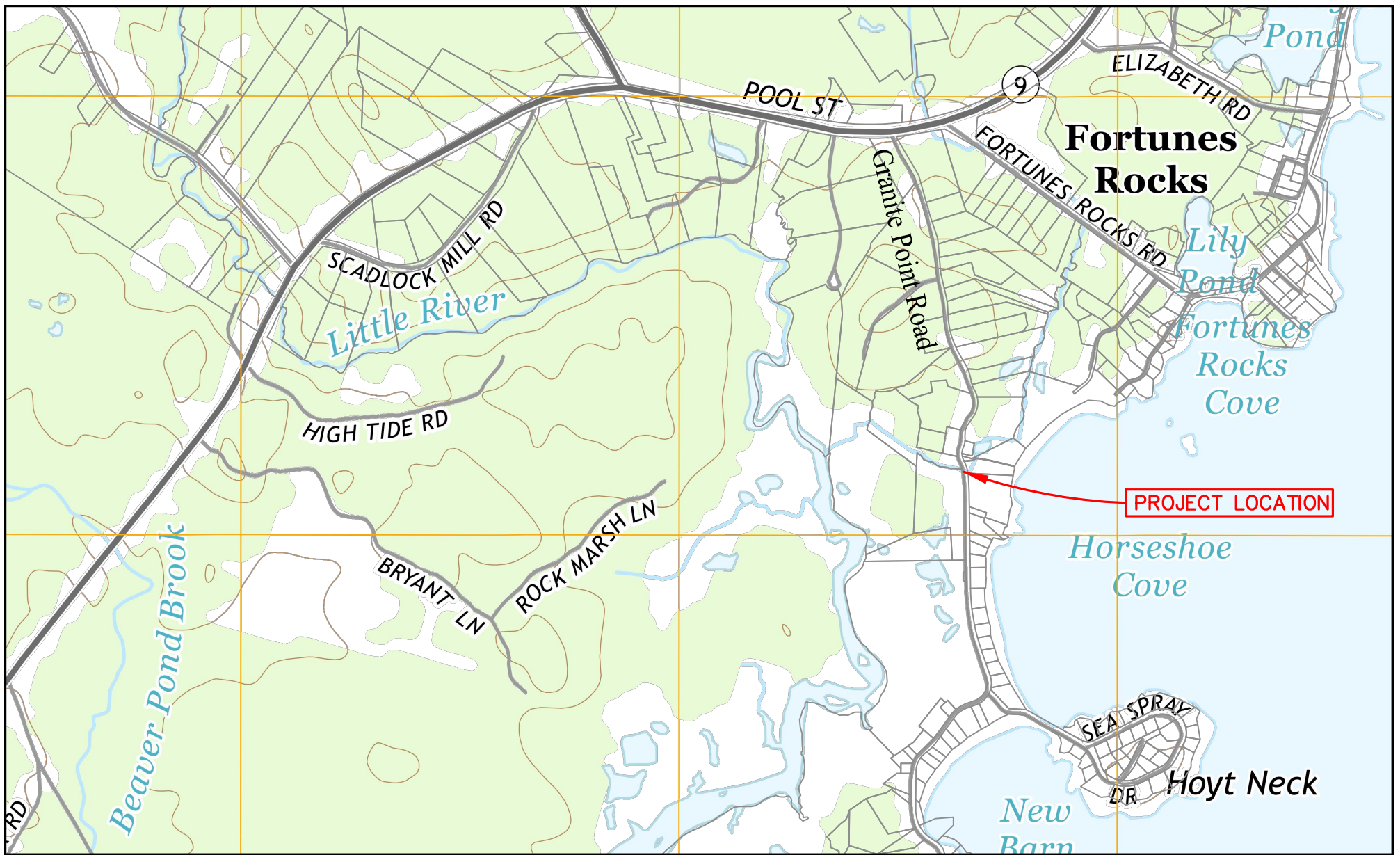
VIEW: Inlet End of Crossing
DATE TAKEN: October 29, 2019



VIEW: Inlet End of Culvert
DATE TAKEN: October 29, 2019



VIEW: Granite Point Road Looking North
DATE TAKEN: October 29, 2019



TOPOGRAPHIC MAP

USGS QUADRANGLE

GRANITE POINT ROAD
BIDDEFORD, MAINE

FOR
City of Biddeford

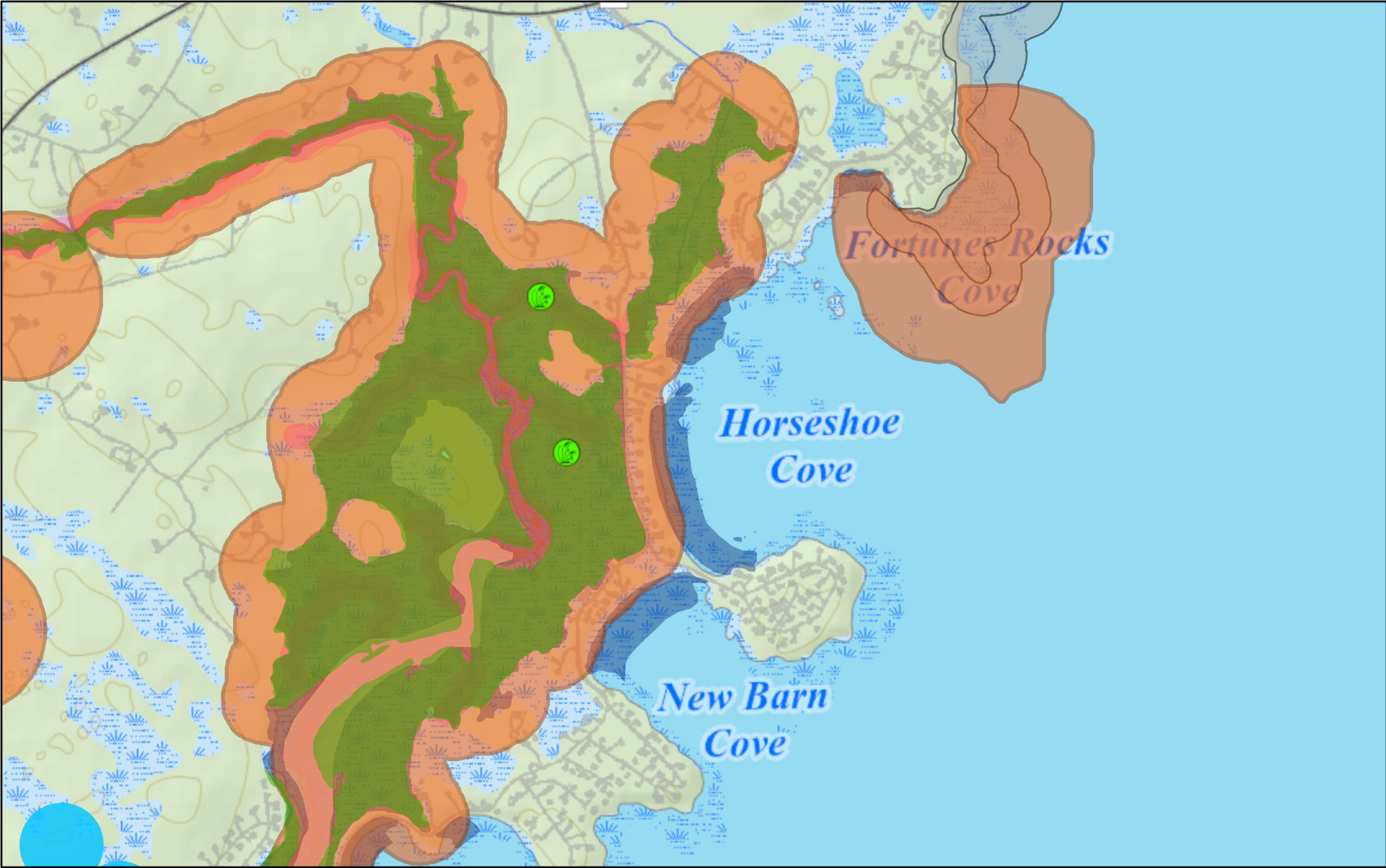


Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors

28 State Street
Gorham, Maine 04038

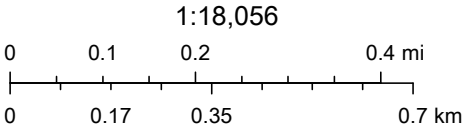
Tel. (207) 839-2771
Fax (207) 839-8250

Beginning With Habitat



November 12, 2019

- Rare Plant Locations
- ETSC Animal Habitat Buffers
- Tidal Wading Bird and Waterfowl Habitat
- Significant Vernal Pools
- Shorebird Habitat
- btrout
- Natural Communities
- Shellfish Beds



This map is intended for planning purposes and should not be used for
 Copyright 2016 Beginning With Habitat

Granite Point Road Tidal Crossing

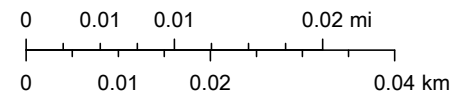


11/13/2020, 11:36:25 AM

Tidal Road Crossings

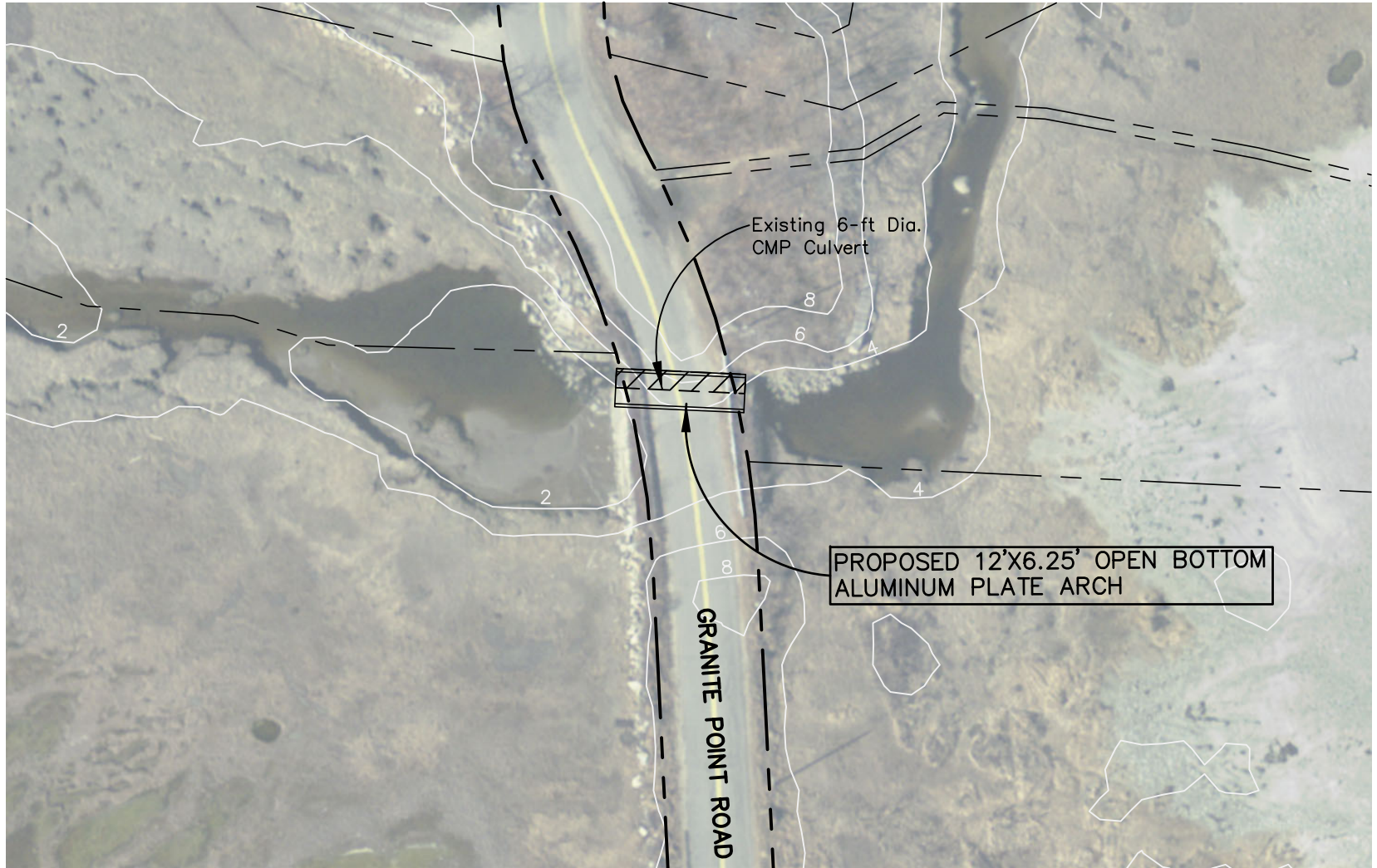
● Restriction

1:1,128



GeoEye, Maxar, Microsoft

ArcGIS Web AppBuilder



Scale: 1" = 50'



CONCEPT PLAN

REPLACEMENT STREAM CROSSING

GRANITE POINT ROAD
BIDDEFORD, MAINE

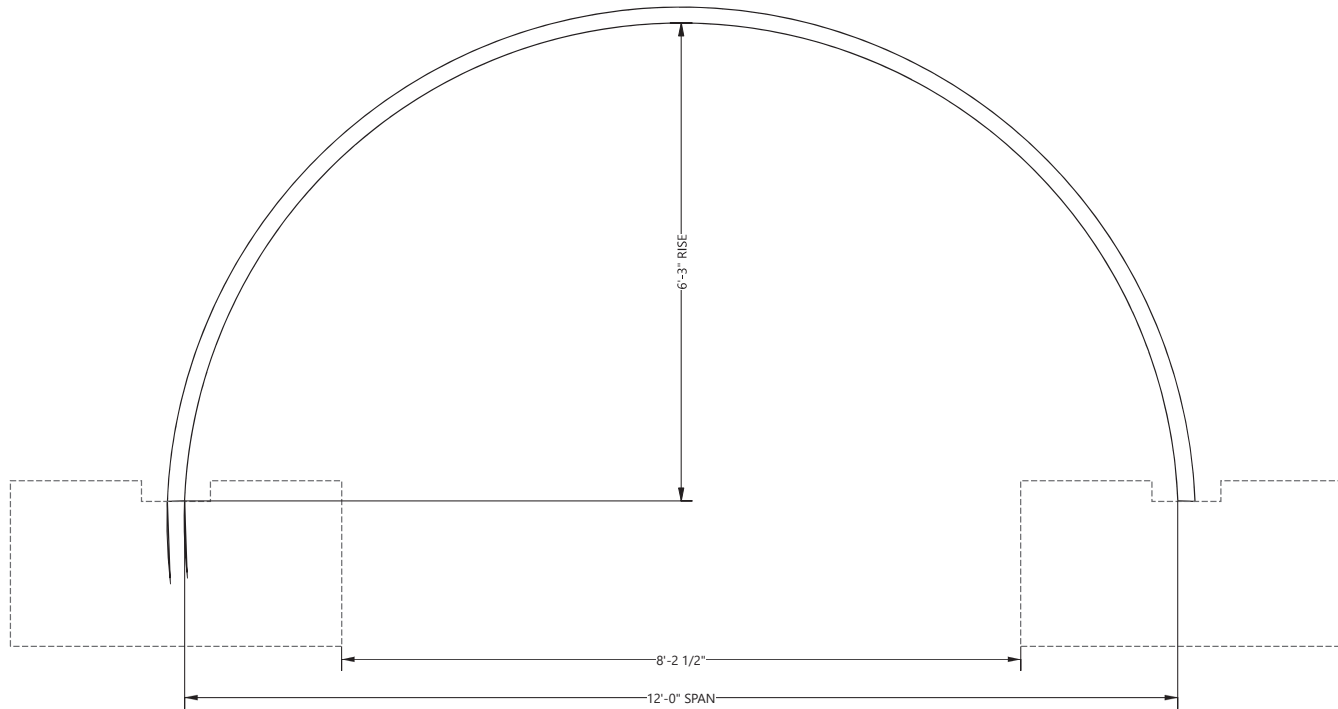
FOR
City of Biddeford



Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors

28 State Street
Gorham, Maine 04038

Tel. (207) 839-2771
Fax (207) 839-8250



INLET END ELEVATION

PRELIMINARY
NOT FOR CONSTRUCTION

The design and information shown on this drawing is provided as a service to the project owner, engineer and contractor by CONTECH Engineered Solutions LLC (CONTECH). Neither this drawing, nor any part thereof, may be used, reproduced or modified in any manner without the prior written consent of CONTECH. Failure to comply is done at the user's own risk and CONTECH expressly disclaims any liability or responsibility for such use.

If discrepancies between the supplied information upon which the drawing is based and actual field conditions are encountered as site work progresses, these discrepancies must be reported to CONTECH immediately for re-evaluation of the design. CONTECH accepts no liability for designs based on missing, incomplete or inaccurate information supplied by others.

MARK	DATE	REVISION DESCRIPTION	BY

CONTECH
ENGINEERED SOLUTIONS

9025 Centre Pointe Dr., Suite 400, West Chester, OH 45068
800-338-1122 513-645-7000 513-645-7993 FAX

PROPOSAL
DRAWING

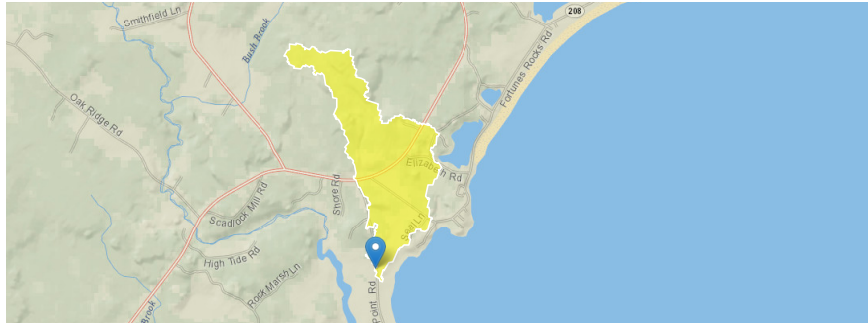
ALSP SINGLE RADIUS ARCH 12'-0" X 6'-3"

Project No.: 000000	Seq No.: 000	Date: 11/12/2020
Designed:	Drawn:	
Checked:	Approved:	
Sheet No.: 4 OF 11		

StreamStats Report for Granite Point Road Stream Crossing

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

ME
 ME20201103194604464000
 43.41778, -70.38784
 2020-11-03 14:46:23 -0500



Basin Characteristics				
Parameter Code	Parameter Description	Value	Unit	
DRNAREA	Area that drains to a point on a stream	0.4	square miles	
STORNWI	Percentage of storage (combined water bodies and wetlands) from the Nationa Wetlands Inventory	31.26	percent	

Peak-Flow Statistics Parameter <small>(Statewide Peak Flow DA LT 12sqmi 2015 5049)</small>					
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.4	square miles	0.31	12
STORNWI	Percentage of Storage from NWI	31.26	percent	0	22.2

Peak-Flow Statistics Disclaimers (Statewide Peak Flow DA LT 12sqmi 2015 5049)

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

Peak-Flow Statistics Flow Report <small>(Statewide Peak Flow DA LT 12sqmi 2015 5049)</small>			
Statistic	Value	Unit	
1.01 Year Peak Flood	3.63	ft ³ /s	
2 Year Peak Flood	10.4	ft ³ /s	
5 Year Peak Flood	15.5	ft ³ /s	
10 Year Peak Flood	18.4	ft ³ /s	
25 Year Peak Flood	24	ft ³ /s	
50 Year Peak Flood	26.5	ft ³ /s	
100 Year Peak Flood	30.9	ft ³ /s	
250 Year Peak Flood	33.2	ft ³ /s	
500 Year Peak Flood	39.3	ft ³ /s	

Peak-Flow Statistics Citations

Lombard, P.J., and Hodgkins, G.A., 2015, Peak flow regression equations for small, ungeded streams in Maine— Comparing map-based to field-based variables: U.S. Geological Survey Scientific Investigations Report 2015–5049, 12 p. (<http://dx.doi.org/10.3133/sir20155049>)

Bankfull Statistics Parameters <small>(Central and Coastal Bankfull 2004 5042)</small>					
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.4	square miles	2.92	298

Bankfull Statistics Disclaimers (Central and Coastal Bankfull 2004 5042)

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

Bankfull Statistics Flow Report <small>(Central and Coastal Bankfull 2004 5042)</small>		
Statistic	Value	Unit
Bankfull Streamflow	1.98	ft ³ /s
Bankfull Width	4.76	ft
Bankfull Depth	0.435	ft
Bankfull Area	2.07	ft ²

Bankfull Statistics Citations

Dudley, R.W., 2004, Hydraulic-Geometry Relations for Rivers in Coastal and Central Maine: U.S. Geological Survey Scientific Investigations Report 2004-5042, 30 p (<http://pubs.usgs.gov/sir/2004/5042/pdf/sir2004-5042.pdf>)

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Crossings and Barriers: Crossings

Site ID: 55342

Crossing Type: Culvert

Crossing Class: Potential Barrier

Survey Date: 07/10/2015

Stream: Unknown

Town: Biddeford

County: York

Road: Granite Point Rd

Detailed Stream Crossing Information

Latitude: 43.41777

Longitude: -70.38793

Road Type: Paved

Road Class: Town

Number Of Culverts: 1

Crossing Condition: Poor

Structure Type: Round Culvert

Material: Metal

Inlet Grade: At Stream Grade

Inlet Width (ft): 6.00

Inlet Water Depth (ft): 0.30

Inlet Height (ft): 6.00

Crossing Length (ft): 40.50

Outlet Grade: At Stream Grade

Outlet Width (ft): 6.20

Outlet Water Depth (ft): 0.20

Outlet Drop (ft): 0.00

Outlet Height (ft): 5.80

Structure Substrate Matches Stream: None

Physical Barriers: None

Physical Barrier Severity: None

Road Fill Height (ft): 3.00

Total Opening Width (ft): 6.00

Area of Opening (sq ft): 28.30

Estimated Bankfull Width (ft): 6.40

Upstream Blocked Miles: 0.45

Upstream Total Miles: 1.26

Upstream Barriers: 3

Downstream Barriers: 0

Potential Effects of this Crossing

Atlantic Salmon Modeled 100 sq m Habitat Units Blocked: -1.00

Alewife Pond Acres Blocked: -1.00

Wild Eastern Brook Trout Habitat: Unknown

Rainbow Smelt Habitat: No data

Tidal Marsh: Yes

Other Habitat Considerations

Beginning with Habitat Connectors: No data

Threatened Endangered or Rare Species: Yes

Non-Native Fish: No data

Tidal Waterfowl & Wading Bird Habitat: Yes

Inland Waterfowl & Wading Bird Habitat: No data

Beginning with Habitat Focus Area: No data

Watersheds

HUC 12 Subwatershed Name: Batson River-Frontal Goosefare Bay

HUC 10 Watershed Name: Goosefare Bay-Frontal Atlantic Ocean

HUC 8 Sub-basin Name: Piscataqua-Salmon Falls

HUC 6 Basin Name: Saco

Steve Blake

From: Settele, Rebecca <Rebecca.Settele@maine.gov>
Sent: Tuesday, November 5, 2019 10:32 AM
To: Steve Blake
Cc: Perry, John
Subject: RE: Granite Point Road Stream Crossing

This includes info from MDMR.

Becca Settele

Wildlife Biologist

Maine Dept of Inland Fisheries & Wildlife
Wildlife Division
650 State St
Bangor ME 04401
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From: Steve Blake <sblake@bh2m.com>
Sent: Tuesday, November 05, 2019 10:31 AM
To: Settele, Rebecca <Rebecca.Settele@maine.gov>
Subject: RE: Granite Point Road Stream Crossing

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Thanks Becca. One last question, this includes info from MDMR or are you send that separately?

-Steve

From: Settele, Rebecca <Rebecca.Settele@maine.gov>
Sent: Tuesday, November 5, 2019 10:24 AM
To: Steve Blake <sblake@bh2m.com>
Cc: Perry, John <John.Perry@maine.gov>
Subject: RE: Granite Point Road Stream Crossing

Hi Steve,

Just heard back from Fisheries. The inland portions of the Little River are known to support: brook trout, common shiner, American eel, golden shiner, chain pickerel, and pumpkinseed sunfish. Some of these species are likely present in the tributary, as well as, some of the more common tidal species like mummichog, sticklebacks, etc.

Let me know if you need any other information.

Becca Settele

Wildlife Biologist

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From: Steve Blake <sblake@bh2m.com>
Sent: Friday, November 01, 2019 2:11 PM
To: Settele, Rebecca <Rebecca.Settele@maine.gov>
Subject: Granite Point Road Stream Crossing

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Hi Becca. We're working with the City of Biddeford to apply for the Stream Crossing Public Infrastructure Grant. Attached is location for the stream existing stream crossing we're looking at. It's located on Granite Point Road. I'm curious if you have any relevant information on this crossing that might help support the application.

Also, do you know who I could speak with at MDMR to discuss a similar request from that Department?

Thanks for your help.

STEVEN J. BLAKE, PE

SENIOR ENGINEER

WWW.BH2M.COM



BH2M

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