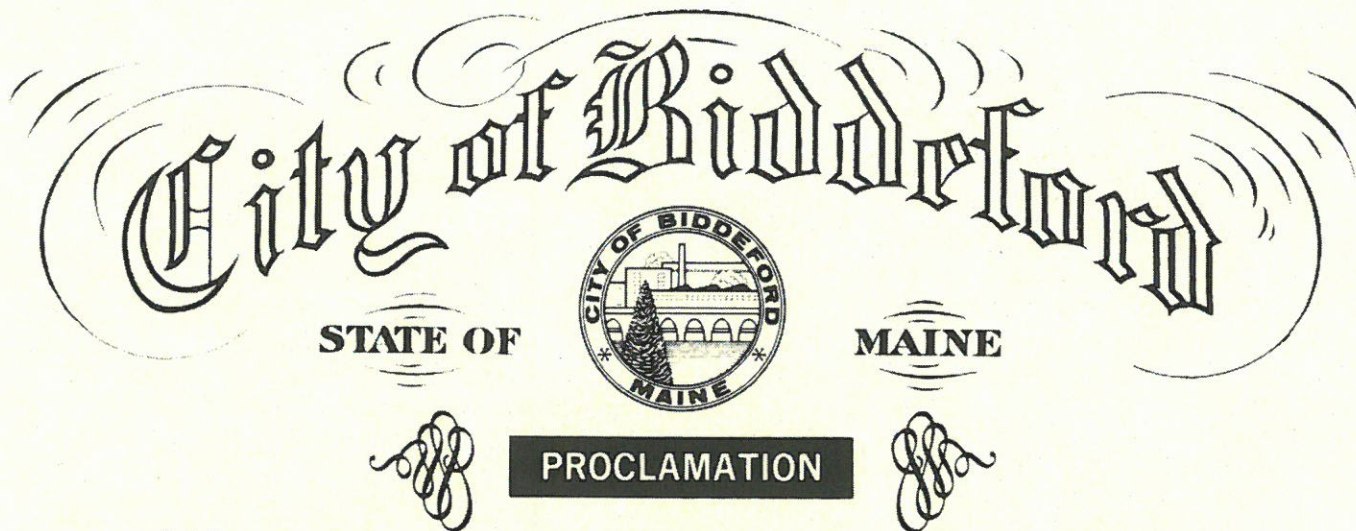


City of Biddeford
City Council
November 19, 2019 6:00 PM Council Chambers

- 1. Roll Call**
- 2. Pledge of Allegiance**
- 3. Adjustment(s) to Agenda**
- 4. Proclamation:**
 - 4.a. Small Business Saturday - November 30, 2019
[11-19-2019 Proc-Small Business Saturday-Signed Copy.pdf](#)
- 5. Presentations:**
 - 5.a. Warming Center - Seeds of Hope
[11-19-2019 Seeds of Hope-Warming Center Info.docx](#)
 - 5.b. 2020/2021 Capital Improvement Projects (CIP) Budget
- 6. Consideration of Minutes:**
 - 6.a. November 7, 2019 Council Meeting Minutes
[11-07-2019 Council Meeting Minutes.docx](#)
- 7. Second Reading:**
 - 7.a. 2019.117) Amendment/Ch. 14, Aviation, Division 3-Airport Manager, Sec. 14-61 - Nomination/Amend Appointing Authority
[11-07-2019 Ch 14-Aviation-Airport Manager Appointment.doc](#)
 - 7.b. 2019.118) Amendment/Ch. 22, Businesses, Art. II, Licenses and Permits Generally, Sec. 22-11 - Fees/Amend Language for Motor Vehicle Agent Fee
[11-07-2019 Ch 22-Businesses-Fees-MV Agents Fees.doc](#)
- 8. Orders of the Day:**
 - 8.a. 2019.121) Approval/Purchase of Two Vehicles for Police Department Detective Unit
[11-19-2019 PD Detective Vehicles-ORDER.docx](#)
[11-19-2019 PD Detective Vehicles-BIDS.doc](#)
 - 8.b. 2019.122) Approval/Acceptance of Cherryfield Avenue as a Public Way
[11-19-2019 Acceptance of Cherryfield Ave - ORDER.doc](#)
[11-19-2019 Acceptance of Cherryfield Ave - MEMO.doc](#)
[11-19-2019 Acceptance of Cherryfield Ave - MAP.pdf](#)
[11-19-2019 Acceptance of Cherryfield Ave-Jon Hall Letter.pdf](#)
 - 8.c. 2019.123) Approval/Waiver of Sidewalk/Eagle River Run Subdivision at 155 River Road
[11-19-2019 Eagle River Run-Sidewalk Waiver-ORDER.docx](#)
[11-19-2019 Eagle River Run-Sidewalk Waiver_MEMO.doc](#)
[11-19-2019 Eagle River Run-Sidewalk Waiver-Developer Letter.pdf](#)
[11-19-2019 Eagle River Run-Sidewalk Waiver-MAP.pdf](#)
[11-19-2019 Eagle River Run-Subdivision MAP.pdf](#)
 - 8.d. 2019.124) Acceptance/Thatcher Brook Stormwater Compensation Fee Utilization Plan & Compensation Fund

- 11-19-2019 Thatcher Brook Stormwater Comp Fee-ORDER.doc
11-19-2019 Thatcher Brook CPUF - MEMO.doc
11-19-2019 Thatcher Brook Stream CFUP-Explanation.doc
11-19-2019 Thatcher Brook Watershed Management Plan.pdf
- 8.e. 2019.125) Authorization/Appropriation for Engineering Services/Design of Pump Station - CSO Tank (to also include gravity line and force main)
20191119 Order 2019.125 - Gooch St Pump Station and CSO Holding Tank Design
20191119 City Council Briefing Memo Item 8.e - Gooch St Pump Station and CSO Holding Tank Design
20191119 Figure 1 - Biddeford Sewersheds Map
20191119 Figure 2 - Gooch Street Pump Station Map
20191119 Wright-Pierce Proposal - Gooch St Pump Station and CSO Holding Tank Design
- 8.f. 2019.126) Approval/Budget Amendment for Completion of Public Process for Green Space at 3 Lincoln Street
20191119 Order 2019.126 Green_Space-3_Lincoln_Street
20191119 City Council Briefing Memo Item 8.f - Completion of Green Space Design at 3 Lincoln
- 8.g. 2019.127) Authorization/Appropriation for Engineering Services/RiverWalk
20191119 Order 2019.127 RiverWalk_Engineering_Services
20191119 City Council Briefing Memo Item 8.g - Design and Permitting of RiverWalk Connections
20191119 Wright-Pierce Proposal - Riverwalk_Amendment No.1
- 8.h. 2019.128) Authorization/Appropriation & Budget Amendment/Engineering Services with James W. Sewall Co./Traffic and Design of Lincoln/Pearl Streets Intersection
20191119 Order 2019.128 Elm-Pearl-Lincoln Planning Study
20191119 City Council Briefing Memo Item 8.h - Elm-Pearl-Lincoln Planning Study
20191119 Sewall Proposal - Elm-Pearl-Lincoln Planning Study
- 8.i. 2019.129) Authorization/Appropriation & Budget Amendment/Design of Pearl Street
20191119 Order 2019.129 Pearl Street Redesign
20191119 City Council Briefing Memo Item 8.i - Pearl Street Redesign
20191119 Sewall Proposal - Pearl Street Redesign
20191105 W-P Proposal Pearl Street ReDesign
- 8.j. 2019.130) Authorization/Proceed with Development of a Process for the Establishment of a Special Assessment District
20191119 Order 2019.130 Special Assessment District Process
20191119 City Council Briefing Memo Item 8.j - Special Assessment District
20191119 Figure 1 - Special Assessment District
- 9. Appointments:**
- 9.a. Richard Laverriere...Airport Commission and Chair for 2020
11-19-2019 Appt-Airport Comm and Chair-Laverriere.docx
11-19-2019 Committee Application-Rick Laverriere.pdf
- 9.b. Gerald Bernier...Airport Commission
11-19-2019 Appt-Airport Comm-Bernier.docx
11-19-2019 Comm Application-Airport Comm-Bernier.pdf

- 9.c. Richard Laverriere...Biddeford Fire Advisory Committee
[11-19-2019 Appt-BFAC-Laverriere.docx](#)
[11-19-2019 Committee Application-Rick Laverriere.pdf](#)
- 9.d. Brian Fleurant...Wastewater Management Commission - Chair for 2020
[11-19-2019 Appt-WWMC CHAIR-Fleurant.docx](#)
- 10. Public Addressing the Council..(5 minute limit per speaker; 30 minute total time limit)**
- 11. City Manager Report**
- 12. Other Business**
- 13. Council President Addressing the Council**
- 14. Mayor Addressing the Council**
- 15. Executive Session**
 - 15.a. 1 MRSA 405(6)(E)...Consultation with Legal Counsel on Pending Legal Matters
- 16. Adjourn**



Whereas the government of Biddeford, Maine celebrates our local small businesses and the contributions they make to our local economy and community; according to the United States Small Business Administration, there are currently 30.2 million small businesses in the United States, they represent 99.7 percent of all businesses with employees in the United States, and are responsible for 65.9 percent of net new jobs created from 2000 to 2017; and

WHEREAS, small businesses employ 47.5 percent of the employees in the private sector in the United States; and

WHEREAS, 94 percent of consumers in the United States value the contributions small businesses make in their community; and

WHEREAS, 96 percent of all consumers who plan to shop on Small Business Saturday® said the day inspires them to go to small, independently-owned retailers or restaurants that they have not been to before, or would not have otherwise tried; and

WHEREAS, 92 percent of companies planning promotions on Small Business Saturday said the day helps their business stand out during the busy holiday shopping season; and

WHEREAS, Biddeford supports our local businesses that create jobs, boost our local economy and preserve our communities; and

WHEREAS, advocacy groups, as well as public and private organizations across the country have endorsed the Saturday after Thanksgiving as Small Business Saturday.

NOW THEREFORE, I, Alan Casavant, Mayor of the City of Biddeford, Maine, do hereby proclaim November 30, 2019 as **SMALL BUSINESS SATURDAY** and urge residents of Biddeford to support small businesses and merchants on Small Business Saturday and throughout the year.

*In Witness Whereof, We, the undersigned have herewith
affixed our signatures this 19th day of NOV. 2019*

Carmen Mow
City Clerk



Alan Casavant
Mayor



Extended Warming Center Hours

Purpose

Seeds of Hope, in partnership with the City of Biddeford, will offer an extension of our Warming, Cooling and Hospitality Center mission when certain weather and/or emergency conditions are met assuming we have not experienced a loss of power at our facility. When the criteria call for it, our Center will remain open during overnight hours in order to ensure the safety of our citizens. This is a pilot program which will be evaluated over the course of the winter to determine its long-term viability. There is no guarantee that the service will continue beyond the winter months.

The Program

Determination of service – the weather guidelines are spelled out for winter only. If this service extends into the summer months, those guidelines will be outlined in the future. These are guidelines only. Final determination of daily extended hours will be determined by the Executive Director of Seeds of Hope and Biddeford's Emergency Manager.

- 1) When the temperature is predicted to be $\leq$ 10 degrees F; or
- 2) When the temperature is predicted to be 15 degrees F with a windchill of 10 degrees or lower; or
- 3) When the temperature is predicted to be 15 degrees F
 - a. with precipitation during overnight hours lasting 3 hours or longer, or
 - b. with 6 or more inches of snow accumulation, or
 - c. with other life-threatening circumstances as determined by Seeds of Hope/City of Biddeford, or
- 4) when families/individuals have been displaced due to fire or other emergencies during overnight hours and a space for victims is needed to meet with Red Cross and GA.

Hours of Operation

In general, the extended hours will be held from 8:00 pm – 8:00 am. These hours will vary depending upon the regularly scheduled uses of the building and available staffing and volunteers.

Staffing

The Extended Service hours will be staffed with an on-call trained professional and supported by 2-3 community volunteers all of whom will remain awake all night monitoring the facility and the neighbors.

Operating Procedures

- 1) No child under the age of 18 is permitted in the Center unless accompanied at all times by an adult who is 18 years of age or older.
- 2) The community room will remain set up as per our normal operations. No cots or mattresses will be available. Only children 14 years of age or younger will be permitted to sleep on the floor on blankets.
- 3) Adults must sit at the tables and may put their heads down to sleep.
- 4) Volunteers will ensure that coffee/tea and juice will be available during the extended hours of operation. They will provide limited cold breakfast beginning at 6:30 am.
- 5) Neighbors will be permitted to go outside to smoke, but only one at a time, and will remain silent while outside so local residents will not be disturbed.
- 6) All guidelines of conduct during our normal operating hours will be in force during our extended hours, with higher expectations for reduced television watching and lowered voices so that those who wish may sleep.
- 7) Staff and volunteers will have authority to require removal of any person being disruptive or in violation of any policies which create an unsafe environment. Any action requiring removal of a neighbor or necessitating use of police, fire or ambulance services, will be documented in writing and will be reviewed by the Executive Director the following day for any follow-up. In the case of an extreme emergency, such as loss of life, fire, or other significant occurrences, the Executive Director will be called and will likely respond in person to provide support.
- 8) Neighbors failing to exit the property as required by the staff/volunteers will be subject to removal by the police. Staff/volunteers will not physically remove anyone.
- 9) In general, no physical contact is made with our neighbors. We never know if someone has touch aversion or triggers, so their boundaries are honored at all times. Hugs are permitted only
10) when initiated by the neighbor and should be A-frame or side hugs.
- 11) Behavior of neighbors will determine their future ability to access the services of the extended hours.
- 12) Statistics will be kept as to the number of neighbors who use the services, as well as other demographic information.
- 13) If the Extended Service hours are required for more than three (3) consecutive nights the CDC/Public Health will conduct a health screening to insure no contagious diseases are being spread.



Community Standards

The Seeds of Hope Neighborhood Center welcomes all who enter here. We believe everyone who walks through our doors is a precious child of God. With this belief, we pledge to our neighbors that our life with you will be grounded in respect, kindness, compassion & dignity.

We also expect that our neighbors extend the same courtesies to each other, the volunteers and the staff. You need not believe what we believe, but while here, we expect you will act as if you do. We ask that those who work, volunteer or visit this neighborhood center treat each other and the physical facility with the utmost respect, including:

- Noise levels that respect the needs of everyone
- Language that does not include profanity, is not sexual in nature, or is otherwise offensive communication whether verbal or non-verbal.
- Interactions that do not involve verbal, physical, or emotional abuse or intimidation or threat of such;
- No possession of drugs, alcohol, knives, firearms, or other weapons;
- An understanding that unless specifically determined, conversations taking place in the Center are not considered confidential and may even mandate reporting to authorities.

We reserve the right to prohibit from our facilities: any individual or group deemed unsafe, or with the potential to create a disrespectful and/or unsafe climate for neighbors, volunteers and staff; or any individual or group whose behavior or presence otherwise jeopardizes the goals set forth in the Mission Statement as may be determined by the Executive Director and/or Board of Directors, in accordance with the protocol established by the Board. Any questions regarding these standards should be addressed to the Executive Director.

Extended Hour Staff Position

Job Description

The paid staff person for Seeds of Hope's extended warming/hospitality center hours will be the primary decision maker for the overnight hours of the warming/hospitality program. The staff will be trained in operations and risk management, as well as the overall mission and vision of the work of the Center to ensure a continuity of welcome, safety and civility for our neighbors. Staff will report directly to the Executive Director.

Qualifications:

- 1) Bachelor's degree or commensurate experience.
- 2) Successfully pass a background check, which Seeds of Hope will arrange and evaluate.
- 3) Strong verbal and written skills.
- 4) Maturity.
- 5) Compassion and ability to be sensitive to the needs of a vulnerable population.
- 6) Demonstrated leadership skills and ability to work with and motivate a team.

Primary Responsibilities

Remain awake during full overnight shift monitoring the building for any safety issues and ensuring that the behavior of the neighbors falls within Center guidelines.

Do a casual informal assessment of neighbors (through greeting each one) upon their arrival at the Center for any possible health issues needing immediate attention. Provide oversight of any medications requiring refrigeration, which will be stored in a location separate from general consumable products. Only those medications requiring refrigeration will be taken into our possession until the neighbor leaves the following morning.

Address any conduct violations and either achieve compliance or removal of the person in violation.

When neighbors go outside of the Center, monitor their behavior to ensure noise levels are extremely low and not disruptive to the surrounding residential population.

Immediately contact 911 for any needed medical or police response. Provide care consistent with training and manage the scene until the outside agency arrives. Complete necessary paperwork following incident(s).

Draft 11/13

Budget

Average nights at 10 degrees or below	28	
# of hours/shift of extended service hours	12	
Hourly rate for medical staff	\$30/hour (this may be too low)	
Anticipated cost for staff for winter season 25 nights x 12 hrs./night x \$30/hr		\$ 9,000
Additional fuel oil / electricity expense	\$5,000 / \$2,000	7,000
Additional food expense	\$5,000	5,000
Additional operating costs (paper products, trash/recycling, etc.)	\$1,000	1,000
Medical supplies (AED and other life-saving items)	\$1,500/\$500	<u>2,000</u>
<u>Estimated Total</u>		\$24,000

COUNCIL MEETING
NOVEMBER 7, 2019

Mayor Casavant called the meeting to order at 6:00 p.m.

Roll Call: Michael Swanton, John McCurry, Jr., Stephen St. Cyr, Robert Quattrone, Jr., Amy Clearwater, Norman Belanger, Michael Ready, Laura Seaver

Marc Lessard arrived at 6:07 p.m.

The Council, and who were present, reciting the Pledge of Allegiance.

Adjustment to the Agenda:

- Add: Game of Chance Applications: AMVETS, Post 1

Game of Chance Applications: AMVETS, Post 1

Motion by Councilor McCurry, seconded by Councilor Clearwater to recommend the issuance of Game of Chance licenses to AMVETS, Post 1.

Vote: Unanimous.

Consideration of Minutes: **October 15, 2019**

Motion by Councilor McCurry, seconded by Councilor Clearwater to accept the minutes as printed.

Vote: Unanimous.

Orders of the Day:

2019.117 **IN BOARD OF CITY COUNCIL..NOVEMBER 7, 2019**
BE IT ORDAINED, by the City Council of the City of Biddeford that the Code of Ordinances, **Chapter 14, Aviation, Division 3-Airport Manager, Section 14-61-Nomination**, is amended by adding or ~~deleting~~ to read as follows:

DIVISION 3
AIRPORT MANAGER

Sec. 14-61. Nomination.

An Airport Manager shall be appointed by the City Manager.,~~subject to confirmation of the Council.~~

Motion by Councilor McCurry, seconded by Councilor Clearwater to grant the first reading of the ordinance amendment.

Vote: Unanimous.

2019.118 **IN BOARD OF CITY COUNCIL..NOVEMBER 7, 2019**
BE IT ORDAINED, by the City Council of the City of Biddeford that the Code of Ordinances, Chapter 22, Businesses, Article II, Licenses and Permits Generally, **Section 22-11-Fees**, is amended by adding or ~~deleting~~ to read as follows:

Sec. 22-11. Fees.

Type of License or Service	Fee
Places of amusement/entertainment	\$150 (single/multiple events)
Concerts	
Exhibitions (including live performances)/shows	
Playhouses/plays	
Circuses	
Carnivals	
Air shows	
Indoor skating rinks	\$150 (annual)
Theater/moving-picture houses	Plus \$25 per screen
Bottle clubs	

Type of License or Service	Fee
Billiard rooms	
Public firing ranges	
Bowling lanes	
Automobile service/repair; automobile graveyards, automobile recycling businesses, and junkyards	
Automobile graveyard	\$200
Automobile recycler business	\$250
Junkyard without hazardous materials	\$100
Junkyard with hazardous materials	\$250
Recycling facilities	\$200
Recycling facilities with hazardous materials	\$500
Automobile service/repair	\$75
Places/dealers in products	\$200
Antique dealers	
Dealers in gold jewelry, etc.	
Flea markets	
For 20 tables	
For each additional table	\$5
Junk dealers	
Secondhand dealers	Required to pay a one-time licensing fee of \$200 when the business is first established; not required to go through the annual license renewal process
Pawnbrokers	\$200
Operating license	
Taxicabs, motorbuses, public automobiles	\$50 (plus \$20 per sticker)
Victualers	\$75
If serving beer and/or wine	\$100
Serving liquor	\$150
Massage establishments	\$100
Massage therapists	\$100
Combined massage establishment/massage therapist	\$150
Ice cream truck, per truck	\$75
Miscellaneous	\$10
Newspaper vending machines (per machine)	
Video game devices (per 5 machines to a maximum of \$50)	
Other	
Advertising/liquor license (See state law.)	At cost plus 10%
Vendors on public places (See appropriate section.)	\$50
Wastehaulers	
Per business	\$150
Per truck	\$150
Sludge disposal	\$50
Adult businesses, per annum	\$2,000
City Clerk fees	
Notary attesting for residents	\$2

Type of License or Service	Fee
Notary attesting for nonresidents	\$5
Dedimus justice services	\$10
Marriage ceremony	\$100
Motor vehicle agent fee	As set within the limits of Legislative action
Renewal	\$3
New	\$4
Sale of Zoning Ordinances	\$50
Sale of Subdivision Ordinances	\$10
Vital records research	\$10 per hour
Sale of voter I.D. card	\$5

Motion by Councilor Ready, seconded by Councilor McCurry to grant the first reading of the ordinance amendment.
Vote: Unanimous.

2019.119 **IN BOARD OF CITY COUNCIL..NOVEMBER 7, 2019**
BE IT ORDERED, that the City Council of the City of Biddeford does hereby approve the reallocation of \$25,000 from the St. Louis Field Backstop Account 22002-60977 to utilize for design services related to the foul ball issues of Field I and II and a stadium type facility for Field I.

Funds to remain in account 22002-60977 for use of this purpose.

NOTE: The Finance Committee will consider this item at the November 7, 2019 meeting and vote to recommend approval to the Council.

Motion by Councilor McCurry, seconded by Councilor Clearwater to grant the order.
Vote: 8/1; Councilor Swanton opposed.
Councilors McCurry, St. Cyr, Quattrone, Clearwater, Belanger, Ready, Seaver and Lessard in favor.
Motion carries.

2019.120 **IN BOARD OF CITY COUNCIL..NOVEMBER 7, 2019**
BE IT ORDERED, that the City Council of the City of Biddeford does hereby authorize awarding a contract to Jim Godbout Plumbing & Heating, Inc. of Biddeford for the Fire Department Central Station Bathroom Renovations in an amount not to exceed \$126,000.00

Funding for this project includes \$81,423.54 (carry forward – 22003-60936) with the remainder proposed to come from reallocation of Assigned Fund Balance funds, Order 2019.106.

NOTE: The Finance Committee will review this item and vote to recommend approval by the City Council.

Motion by Councilor McCurry, seconded by Councilor Clearwater to grant the order.
Vote: 7/2; Councilors Swanton and Quattrone opposed.
Councilors McCurry, St. Cyr, Clearwater, Belanger, Ready, Seaver and Lessard in favor.
Motion carries.

Public Addressing the Council..(5 minute limit per speaker; 30 minute total time limit):
There were no public comments.

City Manager Report:
City Manager, James Bennett had the following items:

- 1) Jim publicly complimented City Clerk, Carmen Morris and her Staff, including the Ward Workers, for running one of the best and most organized polling places in the State.
- 2) Reminded the Council that the November 12th Council Workshop has been scheduled for 5:30 p.m. in the Council Chambers. The discussion item is an Overview of the Joint

Development Agreement with Treadwell Franklin Infrastructure Capital Partners/James W. Sewall Co.

- 3) Informed the Council that the CIP Budget will be presented at the November 19th Council Meeting. Councilor Seaver suggested invited the two newly-elected Councilors to the November 19th meeting so that they can benefit from the CIP Budget presentation.

Other Business:

Councilor Lessard: asked the City Clerk if, for future elections, results can be broken down by Ward. Carmen assured him that she would look into it.

Council President Addressing the Council: Councilor McCurry thanked all the candidates who ran in this week's Municipal General Election. He recognizes what it takes to put one's self out there and extends his kudos to all the candidates whether they won or lost.

Councilor McCurry is looking into coming up with a better means of communication between the City and the citizens. He suggested possibly using postcards to convey when and where projects will take place within the City; any upcoming events; and anything of relative importance.

Mayor Addressing the Council: Mayor Casavant noted that this coming Monday is Veterans' Day and encouraged all to either participate in or attend the Veterans' Day Parade.

Mayor Casavant drew attention to an article that the City Manager had recently shared regarding developers from Massachusetts buying a couple of buildings downtown. While this is a positive movement forward for the City, he cautioned that the City will need to keep an eye on possibly rising property values and how that will affect other properties.

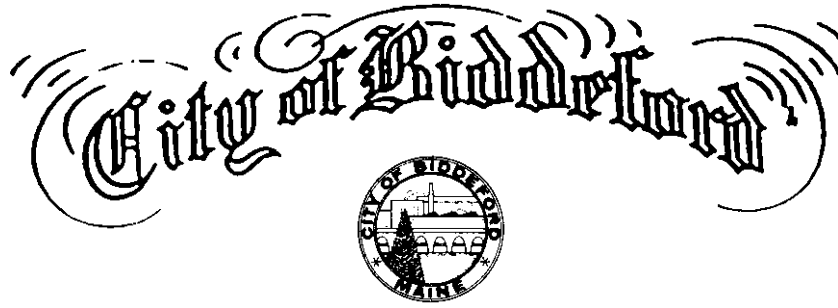
Mayor Casavant recognized the City's Attorney, Keith Jacques for recently receiving the 2019 Super Lawyer Award, otherwise known as the "Red Cape Award."

Motion by Councilor McCurry, seconded by Councilor Clearwater to adjourn.

Vote: Unanimous.

Time: 6:23 p.m.

Attest by: _____
Carmen J. Morris, City Clerk



2019.117 **IN BOARD OF CITY COUNCIL..NOVEMBER 7, 2019**

BE IT ORDAINED, by the City Council of the City of Biddeford that the Code of Ordinances, **Chapter 14, Aviation, Division 3-Airport Manager, Section 14-61-Nomination**, is amended by adding or ~~deleting~~ to read as follows:

**DIVISION 3
AIRPORT MANAGER**

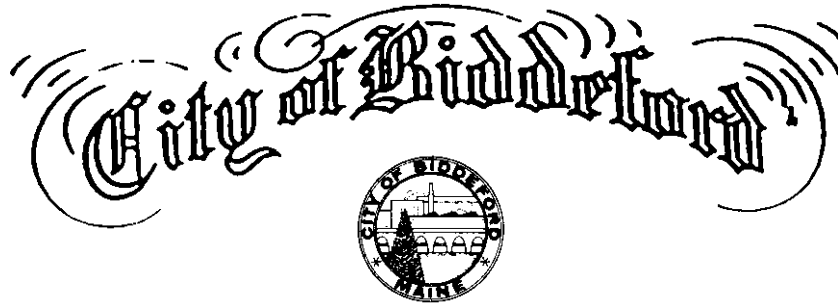
Sec. 14-61. Nomination.

An Airport Manager shall be appointed by the City Manager, ~~subject to confirmation of the Council.~~

November 7, 2019

Motion by Councilor McCurry, seconded by Councilor Clearwater to grant the first reading of the ordinance amendment.

Vote: Unanimous.

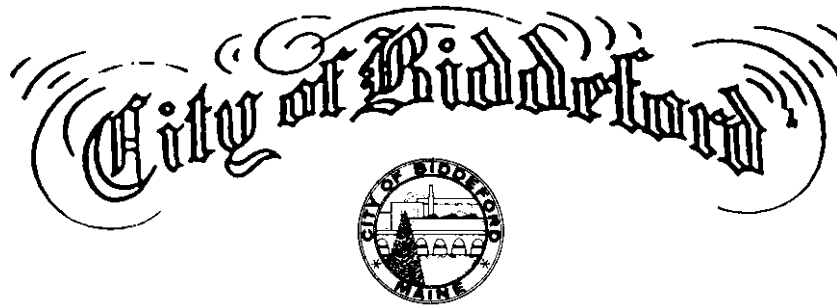


2019.118 IN BOARD OF CITY COUNCIL..NOVEMBER 7, 2019

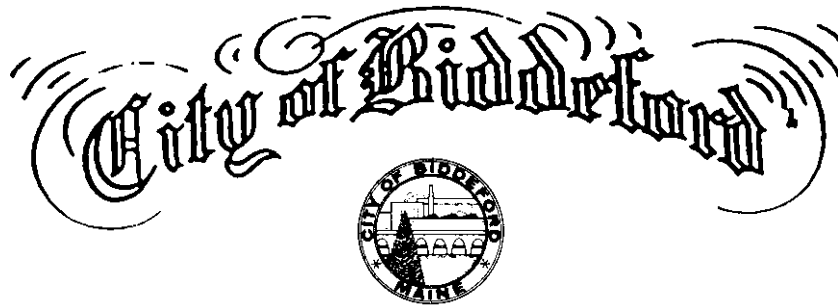
BE IT ORDAINED, by the City Council of the City of Biddeford that the Code of Ordinances, Chapter 22, Businesses, Article II, Licenses and Permits Generally, **Section 22-11-Fees**, is amended by adding or ~~deleting~~ to read as follows:

Sec. 22-11. Fees.

Type of License or Service	Fee
Places of amusement/entertainment	\$150 (single/multiple events)
Concerts	
Exhibitions (including live performances)/shows	
Playhouses/plays	
Circuses	
Carnivals	
Air shows	
Indoor skating rinks	\$150 (annual)
Theater/moving-picture houses	Plus \$25 per screen
Bottle clubs	
Billiard rooms	
Public firing ranges	
Bowling lanes	
Automobile service/repair; automobile graveyards, automobile recycling businesses, and junkyards	
Automobile graveyard	\$200
Automobile recycler business	\$250
Junkyard without hazardous materials	\$100
Junkyard with hazardous materials	\$250
Recycling facilities	\$200
Recycling facilities with hazardous materials	\$500
Automobile service/repair	\$75
Places/dealers in products	\$200
Antique dealers	



Type of License or Service	Fee
Dealers in gold jewelry, etc.	
Flea markets	
For 20 tables	
For each additional table	\$5
Junk dealers	
Secondhand dealers	Required to pay a one-time licensing fee of \$200 when the business is first established; not required to go through the annual license renewal process
Pawnbrokers	\$200
Operating license	
Taxicabs, motorbuses, public automobiles	\$50 (plus \$20 per sticker)
Victualers	\$75
If serving beer and/or wine	\$100
Serving liquor	\$150
Massage establishments	\$100
Massage therapists	\$100
Combined massage establishment/massage therapist	\$150
Ice cream truck, per truck	\$75
Miscellaneous	\$10
Newspaper vending machines (per machine)	
Video game devices (per 5 machines to a maximum of \$50)	
Other	
Advertising/liquor license (See state law.)	At cost plus 10%
Vendors on public places (See appropriate section.)	\$50
Wastehaulers	

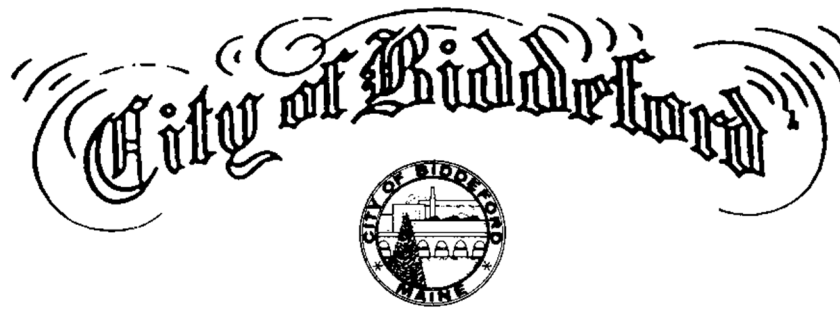


Type of License or Service	Fee
Per business	\$150
Per truck	\$150
Sludge disposal	\$50
Adult businesses, per annum	\$2,000
City Clerk fees	
Notary attesting for residents	\$2
Notary attesting for nonresidents	\$5
Dedimus justice services	\$10
Marriage ceremony	\$100
Motor vehicle agent fee	<u>As set within the limits of Legislative action</u>
Renewal	\$3
New	\$4
Sale of Zoning Ordinances	\$50
Sale of Subdivision Ordinances	\$10
Vital records research	\$10 per hour
Sale of voter I.D. card	\$5

November 7, 2019

Motion by Councilor Ready, seconded by Councilor McCurry to grant the first reading of the ordinance amendment.

Vote: Unanimous.



2019.121

IN BOARD OF CITY COUNCIL..NOVEMBER 19, 2019

BE IT ORDERED, that the City Council of the City of Biddeford does hereby authorize the City Manager to purchase two (2) 2020 Ford Edge automobiles, as per bid of November 12, 2019, from Arundel Ford. The purchase of these vehicles shall not exceed \$57,218.00 (before discounts valued at \$4,400.00).

The purchase of these vehicles is included in the FY20 Budget, account 21204-60603

NOTE: The Finance Committee will review this item on November 19, 2019 and vote to recommend it to the City Council for approval.

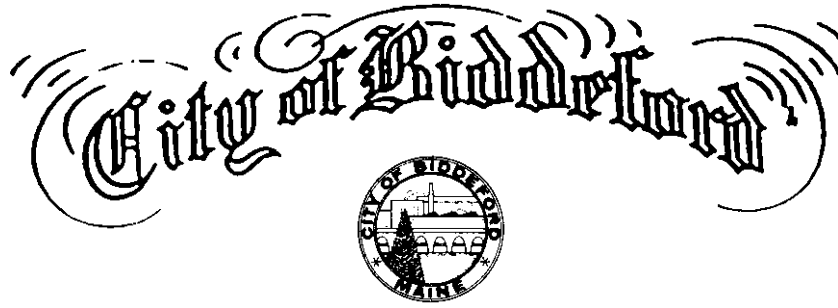
Bid Opening for 2 All-Wheel Drive Crossovers

Present: Carl Marcotte – Public Works
Kara Cote – Public Works

Bids were opened at the Public Works Department on November 12, 2019 at 11:00 am for 2 crossover vehicles for the police department. Staff is recommending the low bid with trade from Arundel Ford in the amount of \$52,818.00. These cars were approved in the FY/20 CIP budget line 21204-60603.

<u>Arundel Ford</u>	2020 Ford Edge SE	\$57,218.00
	Trade-ins	\$4,400.00
	Total:	\$52,818.00

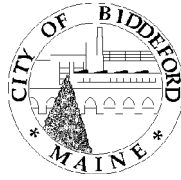
<u>Rowe Ford</u>	2020 Ford Edge SEL	\$63,768.00
	Trade-ins	\$6,700.00
	Total:	\$57,068.00



2019.122

IN BOARD OF CITY COUNCIL. NOVEMBER 19, 2019

BE IT ORDERED, that the City Manager be authorized to receive, execute, and record a deed from John Hall, dba Buckthorn West, LLC, to accept **Cherryfield Avenue** as a public way subject to the conditions outlined in the City Engineer's memo of November 19, 2019.



City of Biddeford, Maine

TO: City Council

FROM: Tom Milligan, PE City Engineer

DATE: November 13, 2019

SUBJECT: John Hall, dba Buckthorn West, LLC, Cherryfield Avenue, Tax Map 22, Lot 14
Request for acceptance of Cherryfield Avenue as a Public Road

Based on the applicants' request for acceptance of Cherryfield Avenue as a public way, the Engineering Department has conducted a final inspection of to determine if it has been constructed in substantial compliance with the City Street Standards and the approved plans.

During the course of construction of Cherryfield Avenue, the Engineering Department conducted several inspections of the road to verify that it was being constructed in substantial compliance with the approved subdivision/roadway plans.

As the road has been determined to be substantially complete, Staff is recommending that the City formally accept Cherryfield Avenue as a public way with any remaining improvements as may be noted below being bonded by a letter of credit or other acceptable performance guarantee.

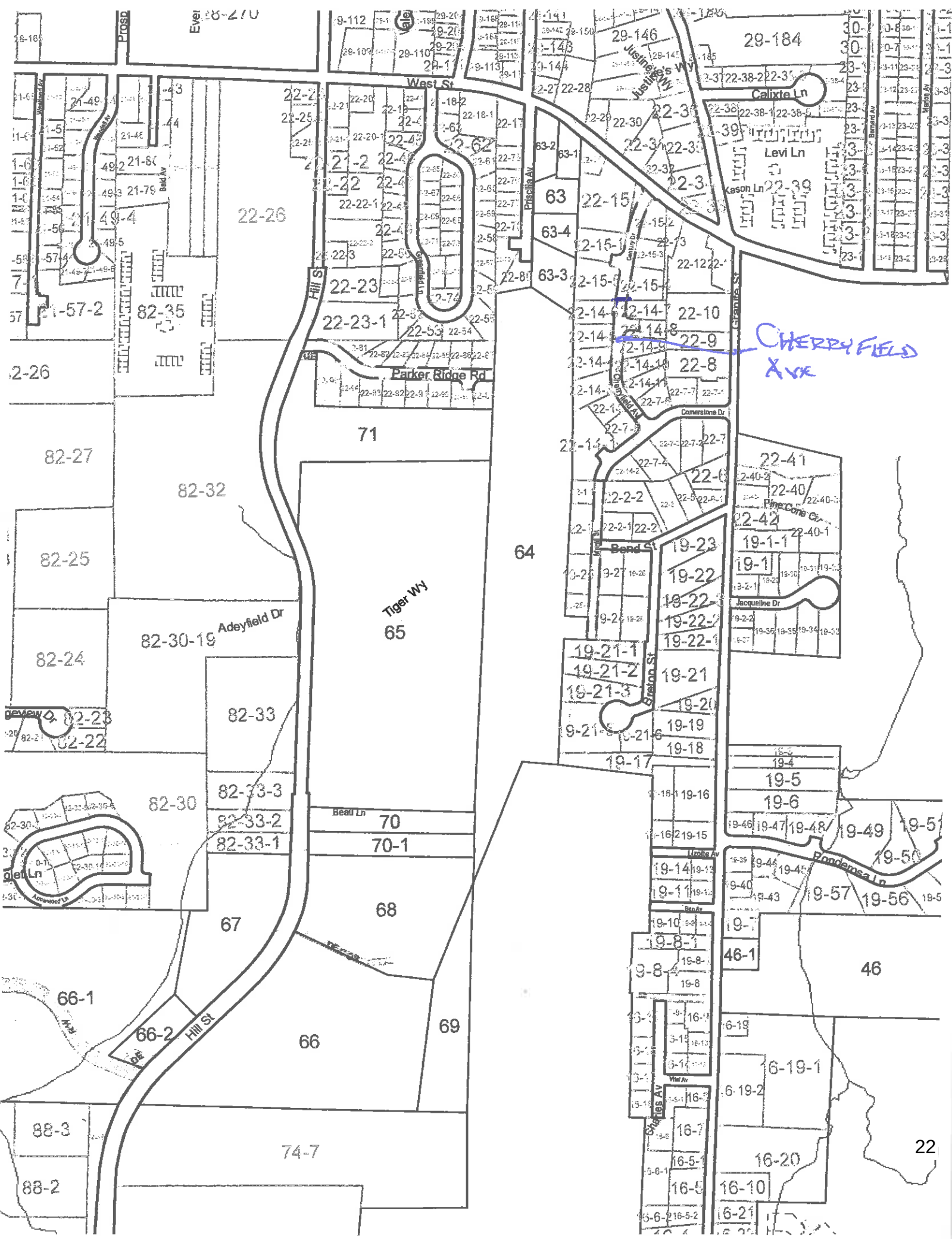
Cherryfield Avenue is a 26 foot wide, 550 feet long road located off Granite Street Extension. Cherryfield Avenue is curbed and has a 4 foot esplanade and a 5 foot sidewalk.

The outstanding items are listed below.

1. Provide a deed of conveyance to the City along with the appropriate transfer amount.
2. Provide final record drawings for project
3. Provide a spare light pole to the city as per conditions of approval, if not already done
4. Provide copies of the paving slips to the city

Staff would recommend that the City Council accept the Cherryfield Avenue conditioned upon Items 1 thru 4 being completed.

Cc: John Hall, dba Buckthorn West, LLC
BH2M, Engineer
Public Works – Jeff Demers
City Planner -- Greg Tansley
City Manager – James Bennett
File



BuckthornWest L.L.C.
5 Cherryfield Avenue
Biddeford, Maine 04005

Submitted to:
City of Biddeford
Engineering Department
205 Main St #3
Biddeford, Maine 04005

Attention: Tom Milligan,

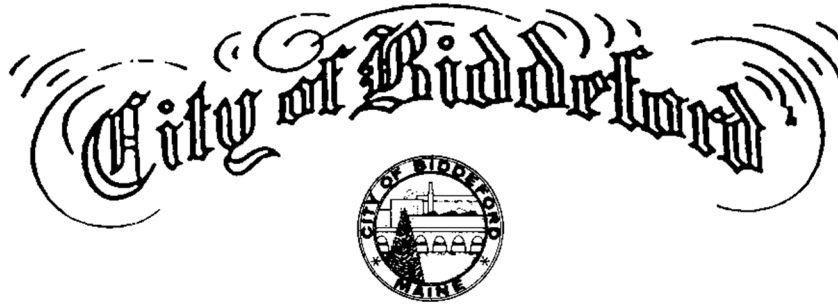
I am writing this formal letter requesting my subdivision roadway be accepted by the City of Biddeford to become a city-maintained roadway. The proposed is Cherryfield Subdivision Roadway located off Cornerstone Drive, originally the Guy & Janice Casavant property being registered as Map 22 Lot 14. The project had been approved by the City of Biddeford and constructed to meet the city road standards. I believe the Engineering Department has completed the inspections of infrastructure and completeness for the bond reduction requests made prior to this request. Please feel free to contact me with any questions, concerns or information you may need.

Jonny Hall
BuckthornWest
207-229-2985
buckthornwest@gmail.com

Thank You

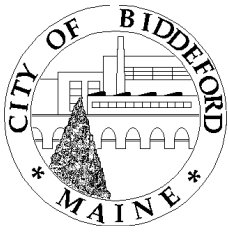
Jonny

 10/25/2019



2019.123 **IN BOARD OF CITY COUNCIL ... NOVEMBER 19, 2019**
BE IT ORDERED, pursuant to Chapter 62, Section 101 of the Code of Ordinances, the City Council of the City of Biddeford does hereby waive the following requirements for Eagle River Run Project off River Road, for purposes of their pending subdivision review by the Planning Board and for future consideration of the acceptance of Eagle River Run, as a public street.

1. Waive the requirements for a 5 foot sidewalk. Instead the developer will construct a 3-foot paved walkway as indicated on the submitted Planning Board Preliminary Subdivision Plans.
2. Install striping to define the 3 foot sidewalk and to install signage to depict the sidewalk/street separation line.
3. Reference attached request for waiver by applicant's representative



CITY OF BIDDEFORD, MAINE

ENGINEERING OFFICE

P. O. BOX 586
BIDDEFORD, ME 04005
Tel (207) 284-9118
Fax (207) 286-9388

November 13, 2019

To: City Council

From: Thomas Milligan, PE, City Engineer

Cc: Alan Casavant, Mayor; Jim Bennett, City Manager; John McCurry, Council President; Jeff Demers, Director of Public Works; Greg Tansley, City Planner; Applicant

Re: Eagle River Run – 155 River Road (Tax Map 6, Lot 49)
Request for Waiver from Installation of Sidewalk on Eagle River Run

Peter Mourmouras is requesting a waiver from the requirement of installing a sidewalk on a street that is proposed to be offered as a public way. The City Code of Ordinances street acceptance standards require that streets to become public need to have sidewalks installed as part of the required improvements unless a waiver is granted.

Eagle River Run is a proposed street to be constructed as part of the proposed Eagle River Run Subdivision located off River Road (155 River Road) and will serve a 6 lot residential subdivision. They plan to offer this street to the City for acceptance as a public way. All other standards for public streets will be met.

See attached letter of request for the waiver by the applicant's representative. Staff does not have an issue with the request but realizes that the applicant must seek Council approval for the request.

November 4, 2019

Mr. Tom Milligan
City Engineer
City of Biddeford
205 Main Street
Biddeford, ME 04005

Subject: Eagle River Run Subdivision – 6 Lot Subdivision (formerly 155 River Road)
Applicant: Peter Mourmouras
Waiver Request (Sidewalk)

Dear Tom:

On behalf of Peter Mourmouras, we are requesting a ***waiver for the installation of sidewalk on the proposed subdivision roadway (chapter 62, article IV, division 2, Sec 62-110 – sidewalks)***.

The applicant proposed to add a 3' paved shoulder extension (see attached plan set for typical section and roadway layout) in lieu of adding the sidewalk. The applicant is requesting the waiver as there are no sidewalks on/near River Road to connect to as well as to save wetland alternation impacts as the roadway bisects a wetland complex. The road will otherwise be built in accordance with the City of Biddeford Street Ordinances.

We appreciate all the time and attention that you have given this application in the permitting stages over the last few months. Should you have any questions or comments, or require additional submission materials, please do not hesitate to contact me at your earliest convenience.

Warm Regards,

Jason A Vafiades

Atlantic Resource Consultants
Jason Vafiades, PE, LEED AP
Principal
jason@arc-maine.com

cc: Greg Tansley, City of Biddeford Planner
Jeff Demers, City of Biddeford Public Works Director

Attachments: Revised Plan Set





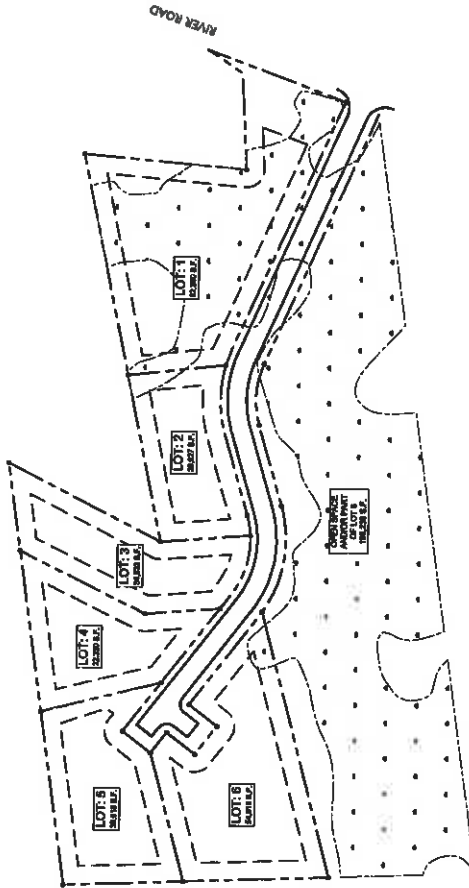
SUBDIVISION FOR: PETER A MOURMOURAS MAP: 6 LOT: 49 BIDDEFORD, MAINE 04046

OWNER:
PETER A. MOURMOURAS
30 SACO AVENUE
OLD ORCHARD BEACH, MAINE 04046

CIVIL ENGINEER:

Atlantic Resource Consultants
Engineering Strategies and Solutions
541 US ROUTE ONE, SUITE 21
FREEPORT, MAINE 04032

SOILS & WETLAND DELINEATION:
LONGVIEW PARTNERS, LLC.
6 SECOND STREET
BUXTON, MAINE 04093



PLAN VIEW

SCALE 1"=100'

OCTOBER 4, 2019

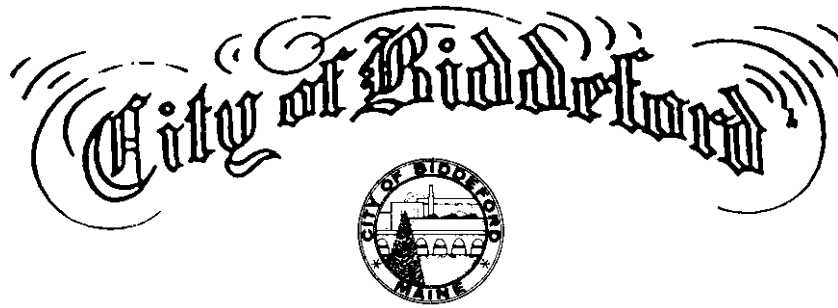
PLAN REFERENCES:
1. A PLAT OF THE SUBDIVISION MAP WAS FILED FOR RECORD IN THE OFFICE OF THE CLERK OF COURTS, MAINE, ON OCTOBER 4, 2019, MAP NO. 6 LOT 49, BIDDEFORD, MAINE. SCALE 1"=100'.
2. A PLAT OF THE SUBDIVISION MAP WAS FILED FOR RECORD IN THE OFFICE OF THE CLERK OF COURTS, MAINE, ON OCTOBER 4, 2019, MAP NO. 6 LOT 49, BIDDEFORD, MAINE. SCALE 1"=100'.
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FOR PERMITTING ONLY
NOT FOR CONSTRUCTION



LOCATION MAP
NOT TO SCALE

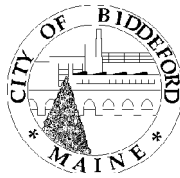
SHEET INDEX:	
1 OF 8	COVER SHEET
1 OF 1	BOUNDARY SURVEY
1 OF 1	PLAT PLAN
2 OF 8	EXISTING CONDITIONS PLAN
3 OF 8	OVERALL SUBDIVISION PLAN
4 OF 8	GRADING, DRAINAGE AND EROSION CONTROL PLAN
5 OF 8	EROSION & SEDIMENTATION CONTROL NOTES
6 OF 8	EROSION & SEDIMENTATION CONTROL DETAILS
7 OF 8	SITE CIVIL DETAILS I
8 OF 8	STORMWATER BMP DETAILS I
1 OF 1	LANDSCAPING PLAN



2019.124

IN BOARD OF CITY COUNCIL, NOVEMBER 19, 2019

BE IT ORDERED, that the City Council of the City of Biddeford does hereby accept and endorse the Thatcher Brook Stormwater Compensation Fee Utilization Plan and Compensation Fund (CPUF) as attached hereto.



City of Biddeford, Maine

TO: City Council

FROM: Tom Milligan, P.E. City Engineer

DATE: November 13, 2019

SUBJECT: Thatcher Brook Stormwater Compensation Fee Utilization Plan and Compensation Fund (CPUF)

Cc: Alan Casavant, Mayor; James Bennett, City Manager; John McCurry, Council President; Jeff Demers, Director of Public Works; Matt Eddy Economic Development Director; Greg Tansley, City Planner;

Background

Projects that are required to go through the site location application process at the Department of Environmental Protection are required to pay an impact fee if the project is in a watershed of an urban impaired stream. The intent of this fee is to establish a fund to allow improvements to be made in the watershed with the goal of improving water quality in the watershed. Thatcher Brook is listed as an Urban Impair Stream. In order for the City to receive these funds to undertake projects to make watershed improvements, a methodology is required to be put into place such that the funds can be transferred to the City from the DEP. DEP requires this methodology to be on file before they can transfer the funds.

For projects that are reviewed locally by the planning board, either under our municipal capacity status or as local development projects, or projects that require a stormwater permit thru the DEP, the City has been requiring impact fees to be paid for projects that are located in the Thatcher Brook Watershed and that will result in stormwater impacts.

Action Requested

Please find attached the proposed methodology agreement which will allow DEP to transfer the funds assessed through their process to the City. The attached CUPF is based on a template provided by DEP and allows the city to receive and best use the these funds to implement priority elements identified in our Watershed Management Plan instead of having each developer select and mitigate impacts at other locations. This methodology also includes the relevant implementation sections from the Thatcher Brook Watershed Management Plan and has language to allow the City to also use the impact fees collected locally from projects, either under our municipal capacity status, stormwater permits or as local development projects, for the implementation of watershed management goals as outlined in the City's DEP approved Watershed Management Plan.

We respectfully request your endorsement of this plan.

Thatcher Brook Stormwater Compensation Fee Utilization Plan and Compensation Fund

Purpose: The City of Biddeford recognizes that, depending on the alterations proposed, properties in the Thatcher Brook watershed are subject to the Urban Impaired Stream standard contained in the Maine Department of Environmental Protection (DEP) Rule Chapter 500 Stormwater Management regulations. This standard requires that developers either (1) mitigate any adverse water quality impacts on-site, (2) mitigate any adverse water quality impacts by improving the quality of stormwater runoff at an off-site location or (3) pay into a compensation fund if a Compensation Fee Utilization Plan (CFUP) has been created and approved by the Maine DEP.

A large portion of the mapped Thatcher Brook Watershed is included in the City of Biddeford Growth Area which includes mixed use zoning districts. The City of Biddeford's Land Use policies support and allows intense residential and non-residential uses. These policies have been articulated in the City's Comprehensive Plan and were deemed consistent with State Comprehensive Planning. To allow developers to pay a Compensation Fee in lieu of seeking appropriate off-site mitigation projects, the City of Biddeford hereby establishes a Thatcher Brook Watershed Compensation Fund.

Urban Impaired Stream: Thatcher Brook in City of Biddeford.

Limits of Area: Attachment 1 shows the area in City of Biddeford that falls within the boundaries of the Thatcher Brook (and its tributaries) Watershed in which projects would be subject to the Urban Impaired Stream Standard if applicable pursuant to Chapter 500 of DEP rules and / or subject to the City of Biddeford's development impact policies.

Process for Determining the Amount of the Fee to be Paid: The amount to be paid into the fund by all projects is determined by a formula applied to Site Development Projects within the Thatcher Brook Watershed subject to the Urban Impaired stream standards. All new development projects subject to site plan and / or subdivision review shall be required to pay this fee to be determined based on the formula presented in Chapter 501 and considering off site mitigation measures to be taken as part of the project. The developer may then determine whether they would like to pay the compensation fee, or mitigate off site. The Maine DEP / City will determine the amount of monetary compensation or off-site mitigation required.

For redevelopment projects, the City staff review the proposed project and determine whether water quality will be adversely impacted or not from the new impervious surface. Redevelopment projects that adversely impact water quality will be subject to the standard.

Process for Receiving Compensation Funds: A developer electing to pay into the Thatcher Brook Watershed Compensation Fund will notify the Planning Department in writing. Upon receiving the compensation fee, the City of Biddeford will provide the developer with a receipt confirming payment of the fee. The applicant must then submit this receipt to the Department of Environmental Protection prior to the start of construction on projects where DEP is issuing a permit.

The City of Biddeford will deposit the funds in the Thatcher Brook Watershed Compensation Fund. The Fund will accumulate interest at the standard rate applied to all City accounts. The fund and any interest earned may only be used for implementation of projects described in Attachment 2 (Thatcher Brook Watershed Based Plan, as amended), which are designed to mitigate the effects of stormwater discharges and riparian encroachment on Thatcher Brook Watershed

Process for implementing proposed compensation work: The City of Biddeford will determine when sufficient funds have been collected to begin a project using funds collected in the Thatcher Brook Watershed Compensation Fund. The process for initiating projects will be as follows:

1. Projects receiving funding from the Thatcher Brook Watershed Compensation Fund will be chosen using the Thatcher Brook Watershed Management Plan (using the latest adopted amendment date). Specifically, section **8.3. Action Plan**, all Projects with Overall Priority listings of medium to high shall be eligible for funding.
2. When the project is located on private property, city staff will re-contact the property owner(s) to confirm continued interest in completing the project selected. Refinements to the selected project may be made as agreed to by both the City of Biddeford and the property owner.
3. With input from the property owner(s), and, if necessary, assistance from consultants contracted for the purpose, the City of Biddeford will develop detailed design plans and specifications for the project.
4. With approval from the property owner, the City of Biddeford will formalize the plan for long term maintenance of the stormwater Best Management Practices (BMPs) to be installed or implemented on the site. The maintenance plan will identify the parties responsible for maintenance, a schedule for inspections and regular maintenance, and any

- penalties for failure to implement the maintenance plan. The maintenance plan will conform to the Maine Stormwater BMP Manual (most current version).
5. With approval from the property owner, the City of Biddeford will construct, or contract with a qualified contractor to construct the project.

Authorization and Revisions to Proposed Compensation Work: The CFUP has been developed by the City of Biddeford and has been approved by the Maine DEP. Any revisions of the CFUP by the City will require review and approval by the Maine DEP.

Reference Materials:

- Thatcher Brook Watershed Management Plan (January 2015)
- Chapter 502 Rule, Urban Impaired Streams, Chapter 500, and Chapter 501
- City Code of Ordinances Chapter Section 62, Studies and Impact Development Fees

NO DUMPING IN DRAIN
DRAINS TO
BROOK



THATCHER BROOK WATERSHED MANAGEMENT PLAN

PREPARED FOR:
CITY OF BIDDEFORD, MAINE

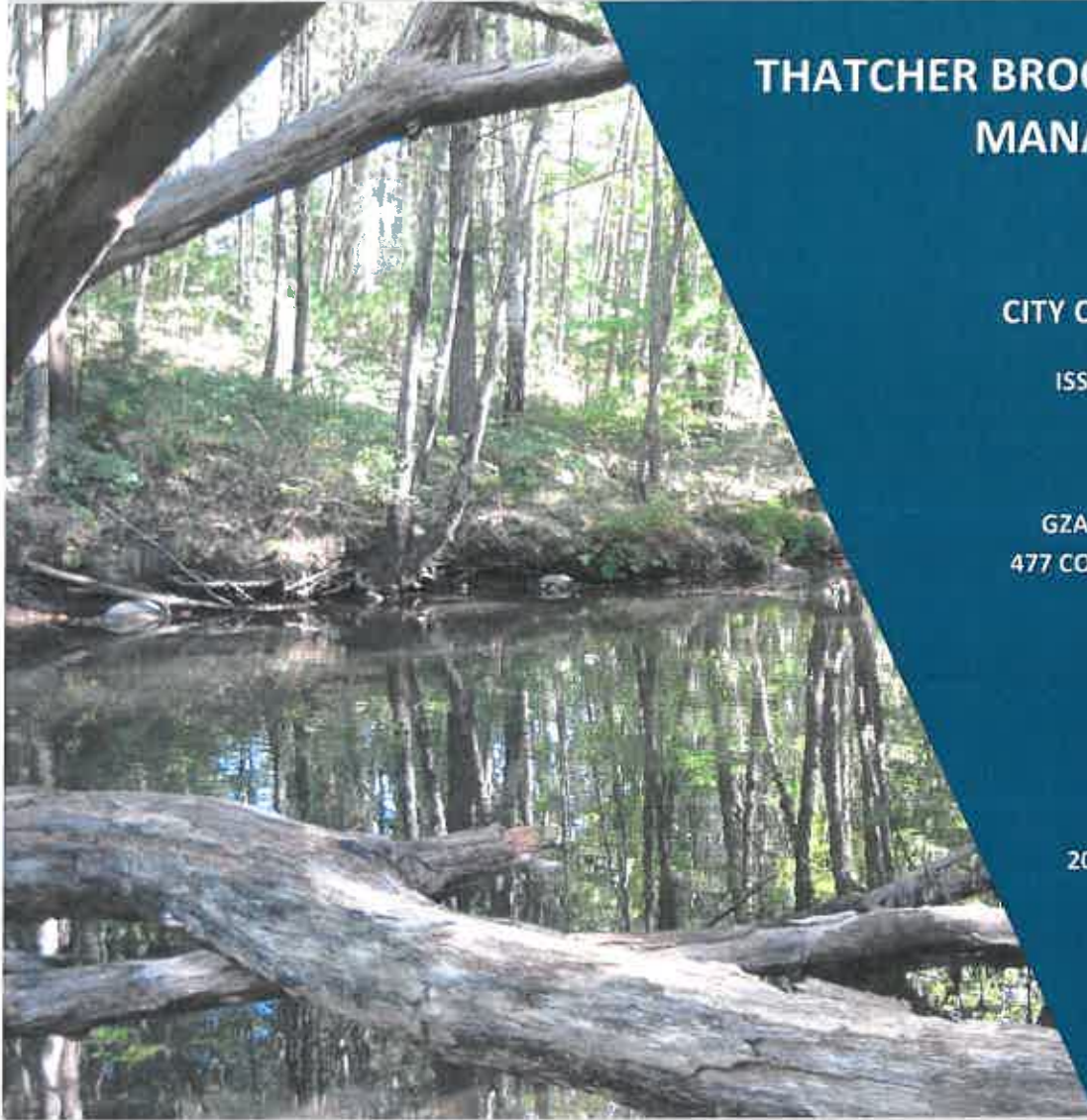
ISSUED FOR PUBLIC COMMENT

PREPARED BY:
GZA GEOENVIRONMENTAL, INC.
477 CONGRESS STREET | SUITE 700
PORTLAND, MAINE 04101

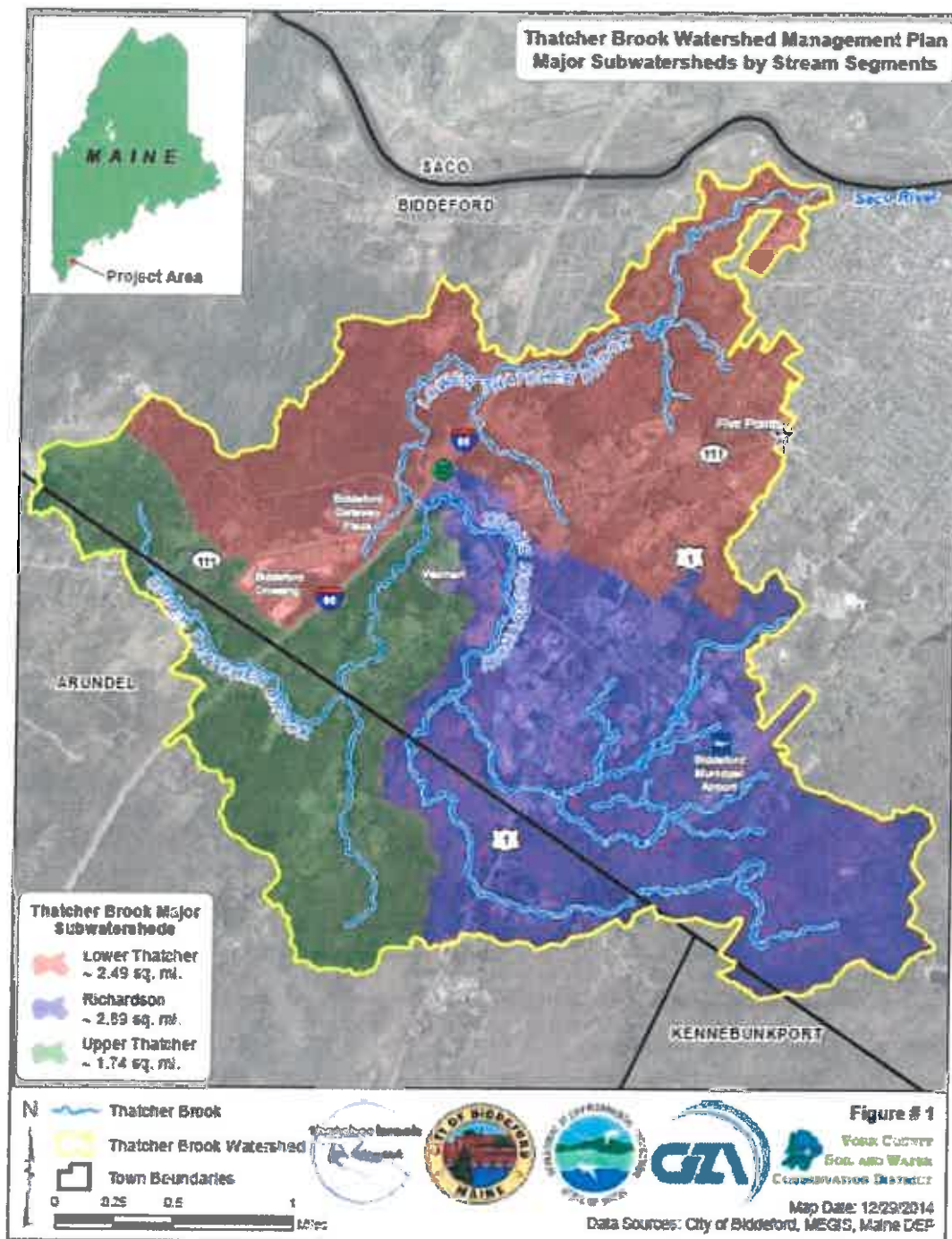
January 7, 2015

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Section II. Location Map



Source: Maine DEP IC TMDL for Aquatic Life

Section III. Progress Implementing Watershed-based Plan

See Appendix A, key Watershed-based Management Plan actions



8.0 THATCHER BROOK ACTION PLAN

The goal of the Thatcher Brook WMP is to restore the health of the stream so that it supports a well-balanced community of aquatic organisms and habitat that meets water quality standards. There are several stressors affecting different parts of Thatcher Brook. The primary stressors include stream channel alteration, elevated phosphorus, depressed dissolved oxygen (likely exacerbated by natural conditions in some areas), and habitat alteration. Elevated chloride is a potential secondary stressor in the watershed. It is not known exactly what level of load reduction or habitat improvements will be required to allow the biological communities and habitat to recover. However, the following section outlines an action plan based on available data, and based on where recovery efforts are believed to be most critical.

8.1 ADAPTIVE MANAGEMENT & PROJECT PHASING

Adaptive management is the process by which new information about the health of the watershed and the proposed actions to address this new information are iteratively incorporated into the Plan. An adaptive management approach is widely recommended for restoring urban watersheds (Center for Watershed Protection 2003), and provides communities a mechanism to update plans as new information becomes available. This approach recognizes that the entire watershed cannot be restored with a single set of restoration actions, within a short time frame. It also recognizes that management plans require that various stakeholders work together to develop solutions. As new data/information and/or technology become available, this approach establishes a mechanism for restoration efforts that can be adjusted to meet the current needs of the watershed over time.

8.2 PLAN OVERSIGHT

It is important for local residents and stakeholders to take an active role in implementing and updating the plan. It is anticipated that the Thatcher Brook Watershed Based Management Plan will be executed by the City of Biddeford in concert with the Town of Arundel, and with extensive involvement from private landowners and stakeholders within the Watershed. It is envisioned that the plan will be reviewed annually and updated formally at least once every five years to incorporate new data and update management recommendations.

The City of Biddeford will take the lead role in the Thatcher Brook Workgroup. Other participants serving on the workgroup may include the YCSWCD, MDEP, Town of Arundel, and watershed landowners. The Workgroup stakeholders will meet at least three times a year as projects are implemented, and at least twice a year following implementation of high priority items. One of these meetings should be structured as a public meeting as a means of providing the community with updates about the brook and implementation efforts.

Additional subcommittees of the workgroup may be necessary to provide more efficient implementation of the Action Plan. All groups may require interaction with each other and collaborative participation is necessary for the successful implementation of the plan. Possible sub-committees could include: Water Quality Monitoring, Restoration and Retrofit Implementation, and Education and Outreach.

8.3 ACTION PLAN

The Thatcher Brook Action Plan identifies the contaminant reduction targets where applicable and recommended actions to achieve water quality objectives in the Thatcher Brook Watershed.

8.3.1 NUTRIENT REDUCTION

The sources of elevated nutrient levels in Thatcher Brook and its tributaries is most likely attributed to stormwater runoff emanating from impervious surfaces, particularly which are subjected to high levels of vehicular traffic. Phosphorus is deposited onto impervious surfaces and therefore is a source of this nutrient addition to surface waters. The treatment of stormwater runoff from paved surfaces with retrofit stormwater treatment measures that address phosphorus is projected to decrease the nutrient levels in Thatcher Brook and its tributaries. Specific retrofit measures that may be implemented to target areas of impervious surfaces that are subjected to high and moderate traffic are presented later in this WMP.

Areas in the Thatcher Brook watershed with large expanses of impervious surfaces under private ownership can be retrofitted with stormwater treatment measures as properties are re-developed or in an otherwise phased approach designed to fit in with planned site improvement projects. Re-development including parking lot and walkway reconfiguration or repaving, or drainage system upgrades is most amenable to the implementation of stormwater treatment practices that can reduce the discharge of nutrients and other pollutants from the site.

Retrofits that may potentially be implemented by this approach generally include the replacement of curb-side catch basins with tree box filters, the replacement of existing catch basins or drain manholes in paved parking lot areas with proprietary manhole units, the installation of open treatment systems in areas that are currently maintained as lawn, and the retrofit of existing detention basins to improve water quality treatment capacity. Other retrofits may include subsurface infiltration systems below parking lots, permeable pavement, and converting parking lot islands to rain gardens. In some cases, re-direction of existing storm drains may be necessary to implement these types of retrofits. There are also Phosphorus removal mechanisms such as absorptive layers that are being incorporated into various BMPs that may be applicable as retrofits in future applications.



Example rain gardens after construction.



A “tool box” of potential retrofit options is summarized below in Table 19. The stormwater treatment measures that may be implemented with redevelopment projects are categorized, listed and described in the following table. As these measures are implemented, additional studies will likely be underway to monitor the health of Thatcher Brook and its tributaries in support of an adaptive management approach to restoring the watershed.

Table 19. Retrofit Tool Box.

Category	Retrofit Measure*	Description	Estimated Pollutant Removal Efficiency
Infiltration: Storage of stormwater runoff until it exfiltrates through the native soils below the floor of the structure. Requires pre-treatment to remove sediments, oils & greases.	Infiltration basin	An open basin that can store and treat runoff from larger drainage areas (5-50 acres). May be installed in areas that are currently maintained as lawn.	80% TSS with pre-treatment 50-60% Total N 60-70% Total P 85-90% Metals 90% Pathogens (MA Stormwater Handbook)
	Infiltration trench	A stone-filled excavation for treating runoff from smaller drainage areas (less than 10 acres). Suitable for long linear applications, such as along the edges of parking lots or roads.	80% TSS with pre-treatment 40-70% Total N 40-70% Total P 85-90% Metals Up to 90% Pathogens (MA Stormwater Handbook)
	Dry well	Small, stone-filled structure for treating runoff from small contributing areas, typically roof runoff.	80% TSS (MA Stormwater Handbook)
	Subsurface infiltration	Infiltration trenches and dry wells may be designed as subsurface systems. In addition, there are a variety of proprietary chamber systems that may be used to provide subsurface storage of runoff for infiltration.	
Bioretention/Filtration: Stormwater runoff is treated via filtration, microbial activity, and/or plant uptake as it percolates through soil media.	Vegetated underdrained soil filter beds	A bed of specific soil media through which stormwater runoff is filtered before it reaches an underdrain and is discharged. Soil media is planted with grass. Suitable for long linear applications, such as along the edges of parking lots or roads.	80% TSS with pre-treatment 20-40% Total N 10-50% Total P 50-90% Metals (MA Stormwater Handbook)
	Tree box filter	Typically a concrete structure filled with porous soil media overlying crushed gravel containing an underdrain, with a tree planted in the soil media. Stormwater is directed to the tree box filter and percolates through the soil media to the underlying crushed gravel layer. Proprietary media that targets pollutants of concern may be used. The concrete container structure and curb	88% TSS 10% Total N 0% Total P 88% Zn (metals) (UNHSC***)



Category	Retrofit Measure*	Description	Estimated Pollutant Removal Efficiency
		inlet design may or may not be proprietary.	
	Rain garden	A shallow depression lined with a bed of specific soil media through which stormwater runoff is filtered before it reaches an underdrain and is discharged. Soil media is planted with dense native vegetation. May be installed in areas that are currently maintained as lawn.	90% TSS with vegetated filter strip (pre-treatment) 30-50% Total N 30-90% Total P 40-90% Metals (MA Stormwater Handbook) For bioretention: 92% TSS 29% Total N 27% Total P (Houle**)
	Detention basin retrofit	Detention basin retrofits may include changes to outlet structures, installation of forebays, or converting the basin to other systems such as a subsurface gravel wetland.	For subsurface gravel wetland: 96% TSS 55% Total N 58% Total P 82% Zn (metals) (UNHSC***) For wet (retention) pond: 68% TSS 0% Total P 68% Zn (metals) For dry (detention) pond: 79% TSS 40% Total N 0% Total P 50% Zn (metals) (UNHSC***)
Site modifications	Decrease amount of pavement or reconfigure to provide buffer distance between edge of pavement and receiving waters	As sites are redeveloped, opportunities to reduce the amount of pavement should be evaluated. Pavement may be reduced by eliminating unused parking spaces, narrowing drive lane widths, eliminating unnecessary sidewalks, and/or replacing paved medians with unpaved surfaces. In locations where the edge of pavement encroaches on the stream, reconfigure to allow space between edge of pavement and channel.	



Category	Retrofit Measure*	Description	Estimated Pollutant Removal Efficiency
	Permeable/ porous pavement	Alternative to traditional asphalt or concrete pavements that allows rainfall/ runoff to penetrate the surface and into the underlying soils. Types of permeable/porous pavement include porous asphalt/concrete, block pavers, and plastic grid pavers.	For porous asphalt: 99-100% TSS 45% Total N 60% Total P 75% Zn (metals) For pervious concrete: 85% TSS 0% Total N 0% Total P 75% Zn (metals) (UNHSC***)
Proprietary	Catch basin inserts	Designed to improve the efficiency of catch basins by providing additional removal of oil and grease, trash, debris, and sediment. (Example = "snout")	Varies
	Media/ membrane filtration	Proprietary stormwater filters are manufactured units, typically with underground chambers which contain filter cartridges that filter water to remove fine solids, nutrients, and other pollutants. The filters may be comprised of media, of which there are several types that may be targeted for removal of the pollutant of interest. Other filter technologies include membrane filtration, which involves the flow of water through a membrane to remove fine particulates and other pollutants. These units are recommended where catch basins are located in paved areas and collect stormwater that can't be directed to an alternative treatment system.	Varies

*Shall be designed in accordance with design criteria specified in Volume III of the *Maine Stormwater Best Management Practices Manual* (<http://www.maine.gov/dep/land/stormwater/stormwaterbmps/index.html>).

**Houle, J.J., et al. (2013). "Comparison of Maintenance Cost, Labor Demands, and System Performance for LID and Conventional Stormwater Management." *J. Environ. Eng.*, 139:932-938.

***University of New Hampshire Stormwater Center (UNHSC). (2012). "2012 Biennial Report."

An example of how the Tool Box retrofit measures could be applied is during planned re-development of properties within the industrial park along Route 1 near the Biddeford Connector. The industrial park consists of an assortment of buildings and paved parking lots, connected by paved roads. Stormwater runoff is collected by a network of catch basins and pipes and discharged, apparently untreated, via outfalls primarily on the western side of the industrial park. In this campus-like setting, there are many potential opportunities for structural BMP retrofits to treat the water quality of stormwater discharges.

The current data suggests that contributing drainage from Route 1 and the properties along it may also be a contributor to stressors in Thatcher Brook and its tributaries. More data may be required to further evaluate this potential. However, in the meantime, if retrofits from the Tool Box are considered and implemented as this area is redeveloped in an adaptive management approach, improvements in the health of the streams may be realized sooner.



The minimum information required to design stormwater treatment retrofits on a given site includes:

- Existing drainage system layout, pipe sizes, and invert elevations,
- Catchment areas to drainage system inlets, including existing and proposed land cover, distribution within each catchment, and
- Existing and proposed topography.

Soil infiltration capacity and subsurface contamination potential should be reviewed when citing locations for infiltration systems. Locations where soils of Hydrologic Soil Group Type A or B are present, as defined by USDA NRCS Web Soil Survey mapping, are more amenable to infiltration practices. These soil types have high to moderate infiltration rates. Soil test pits to confirm infiltration rates and depth to groundwater is recommended in areas of proposed infiltration practices. Also, consideration should be given to the potential for chloride contamination of groundwater where infiltration systems are proposed. In areas where there is likelihood of high deicing salt use or sensitive receiving areas, caution should be used when deciding the suitability of infiltration practices.

8.3.2 STREAM HABITAT RESTORATION

This WMP has identified areas in all three subwatersheds with poor habitat conditions. Both riparian vegetation conditions (e.g. natural vegetated zone width) and in-stream habitat features (e.g. pool variability, substrate type, and stability) influence abundance and diversity of aquatic organisms. Habitat restoration is a key component for reaching attainment of aquatic life use standards in Thatcher Brook. The following restoration options are included in the plan (see Figure 17, Potential Restoration Sites):

- In-stream habitat restoration
- Buffer restoration/planting
- Culvert Replacement
- Bank Stabilization

8.3.2.1 IN-STREAM HABITAT RESTORATION

This WMP identified areas with poor in-stream habitat conditions in otherwise well-vegetated riparian corridors. Portions of Thatcher Brook contain long reaches of silty/clay dominated substrates, which are generally less favorable to colonization by macroinvertebrates, interspersed with shorter cobble riffles. In some cases, the silty/clay dominated reaches also lack other important habitat features including wood. These areas were targeted for restoration efforts due to the presence of macroinvertebrate communities observed nearby where in-stream habitat is more favorable.

Based on field work, Stations A3 and B2 were identified as high priority in-stream restoration sites and are important locations for long-term macroinvertebrate monitoring. Based on review of old aerial photographs, Site A3 was highly altered through historical channel rerouting. Site A3 (behind Kohls) has poor bank stability, marginal channel sinuosity, and marginal pool variability. In addition, the Hydrology and Hydraulic study prepared by HNTB indicates that Station A3 is subject to significant flooding during



storm events. As a result, the impaired geomorphic condition of the station needs to be considered during final restoration design. The design plans should be prepared by a fluvial geomorphologist, and reviewed by a Professional Engineer. This plan recommends in-stream restoration for at least 350 linear feet of stream channel and stream bank at Station A3. Restoration should include the addition of wood as a primary method for creating pool diversity and enhancing microhabitat diversity. The addition of rock substrate would temporarily improve channel habitat conditions. However, the high flows witnessed by the upstream culvert would likely washout material if wood is not used to provide “natural” anchoring and habitat complexity.

Station B2 (off Medical Center Drive) is a long-term macroinvertebrate monitoring station and has optimal buffer width, but marginal stream substrate conditions, channel sinuosity, and bank stability. This station is a high priority site for in-stream habitat restoration. Similar to Station A3, restoration at Station B2 should include the addition of wood as a primary method for creating pool diversity and enhancing microhabitat diversity. However, Station B2 would be an ideal candidate to include the addition of natural bank run materials to the restoration design, subsequent to formal review by a fluvial geomorphologist and/or engineer. The upstream portion of the station is characterized by boulders and a diverse macroinvertebrate community was observed in this boulder area, also known as “the falls.”

8.3.2.2 BUFFER RESTORATION

The WMP identified that approximately 31% of the watershed is characterized by poor riparian buffers. Areas with poor, suboptimal, and marginal riparian zones represent potential buffer restoration sites (see Figure 17, **Potential Restoration Sites** and Table 20). In cases where natural vegetation is present nearby, buffer plantings are not often necessary. As an alternative, stream channel areas located within maintained fields may be appropriately designated as no mow zones. Simply avoiding cutting can benefit stream health by increasing shading, providing nutrient cycling, and by providing habitat for semiaquatic species associated with the brook. This plan recognizes that buffer restoration is not feasible in certain locations, including where public roads directly border drainages and where the presence of a road dictates clear lines of sight. However, in other cases, buffer plantings may be appropriate and beneficial. The plan identifies one high priority (Tier I) buffer restoration site and four moderate priority buffer restoration sites, based on expected benefit to aquatic life and expected project feasibility. In total, the Plan recommends approximately 2505 linear feet of buffer restoration activities, pending review and approval by relevant landowners. At least one potential buffer restoration site was targeted in each subwatershed. These areas were recommended based on buffer classification, expected consistency with current land use, and relative cost. Buffers in the “poor” or worse category were considered the highest priority targets. Buffers impacts by roads and other permanent features are expected to be impractical for buffer restoration. However, agricultural and athletic field edges were targeted as potential Tier II restoration areas as simply altering mowing practices may improve buffer characteristics, with minimal or very little formal planting involved. It is expected that the Thatcher Brook Workgroup would work with landowners to determine overall restoration feasibility, with a target of accomplishing at least one project per year in the first three years of plan implementation. If targeted sites become unavailable, it is expected that the Thatcher Brook workgroup could use the Vegetated Buffer Analysis to target additional areas with an overall project goal of restoring approximately 500 linear feet in each subwatershed in the areas with the poorest buffer condition. The Thatcher Brook Workgroup may wish to identify possible landowner incentives and recognition for project participants.

Table 20. Potential Buffer Restoration Sites.

ID	Location	Subwatershed	Approximate Length of Proposed Restoration	Current Buffer Classification
1	Wellspring Rd	Lower Thatcher Brook	400	Poor
2	Mountain Rd	Upper Thatcher Brook	1200	Poor
3	Mountain Road	Richardson	530	Poor
4	Elm St and Morin St	Richardson	375	Poor

8.3.2.3 CULVERT REPLACEMENT

The WMP identified 51 stream crossings within the watershed, excluding trails and pedestrian bridges. Major stream crossings can function as barriers to aquatic life during low flows and extremely high flood conditions. In addition, poorly sized structures generally contribute to erosion, scour, and stream instability, which impacts habitat conditions for a broad range of aquatic species. Of the identified stream crossings, Culverts 1, 2, and 7 are identified as high priority replacements subject to funding availability. These structures are rated as barriers to aquatic life and contribute to general stream instability.



View of Culvert #1. This structure only passes approximately 50% of the natural channel width.

8.3.2.4 BANK STABILIZATION

The RGA and habitat assessment components of the WMP identified unstable stream banks (i.e. non-optimal conditions) in four out of the five assessed reaches. Stream bank destabilization can be caused by erosion from alterations to stream channels, as well as from erosion caused from concentrated stormwater. Station B1 has favorable in-stream habitat, but significant bank and riparian erosion caused from concentrated roof runoff. To remedy this site condition, the WMP proposes a stormwater retrofit to slow and detain stormwater, as well as the development of bank stabilization plan for this important macroinvertebrate monitoring site. Station B1 was targeted for restoration because it has experienced historical erosion that is ongoing. Currently, there are three eroded bank areas that vary in length from

20 to 40 feet, two to six feet in depth. The WMP recommends that a naturalized bank stabilization and buffer enhancement plan be developed for this site, after the proposed stormwater retrofit is completed. The final plan, if implemented, should maintain the existing wooded buffer and focus on stabilizing the gullies in the existing forested buffer.



View of recommended bank stabilization area at Station B1.

8.3.3 CHLORIDE REDUCTION

Although chloride was not identified as a significant stressor throughout the watershed, chloride exceedances were documented in a few instances. The restoration target is to have chloride levels in Thatcher Brook below the CCC action level of 230 mg/L. Chloride exceedances have been observed near Route 111, and chloride is likely entering the stream from roadway and parking lot applications of road salt during the winter months. Chloride may also enter groundwater where soil infiltration is occurring.

To prevent chloride from becoming a larger stressor in the watershed, the WMP recommends the following salt management recommendations:

1. Research salt application practices in the watershed to assess current salt blends and application rates. A chloride source study could be conducted to identify areas with high application rates that might benefit from low application alternatives.
2. Educate landowners, snow removal contractors, and municipal workers on appropriate salt application processes. This education component should encourage reduced use and targeted application where appropriate. General guidelines are provided by the University of New Hampshire's Green SnowPro program. The Thatcher Brook Workgroup should work towards identifying possible incentives for encouraging creative, low salt application alternatives.
3. Assess salt application practices and subsurface geology in areas where infiltration BMPs are proposed. Avoid infiltrating chloride-laden stormwater (from roadways, parking lots, and driveways) in areas where the water table is close to the surface.
4. Identify possible partnerships and incentives for encouraging creative, low salt application alternatives and salt alternatives (i.e. non-chloride salts). Liability concerns are often cited as



reasons for excessive salt application rates. For instance, the Thatcher Brook Workgroup could work with local commercial businesses to identify portions of parking lot areas that are used rarely during non-peak shopping seasons. Reduced salt plowing and salt application in these areas could limit chloride load in the watershed. Landowners participating in these initiatives could be rewarded with incentives and public recognition.

5. Identify locations where excess salt use may be attributed to frequent re-freezing of melted snow, such as shaded areas downgradient of melting snow piles, and prioritize these areas for possible implementation of permeable pavement. It has been noted in existing applications of permeable pavement in New England that the more rapid infiltration of melted snow into the permeable pavement reduces puddling and the potential for black ice to form.

8.3.4 STORMWATER TREATMENT AND IMPERVIOUS COVER REDUCTION

Research has demonstrated that IC increases above approximately 10-12% result in a corresponding increase in stormwater flows and degradation in water quality, stream habitat, and diversity of aquatic life (Stanfield and Kilgore 2006; see review in MDEP 2012). The current IC for Thatcher Brook is 14%, based on impervious cover data updated in 2013 by MDEP and further refined by GZA (see Figure 11, Impervious Cover); however, DEP's Statewide IC TMDL Assessment concluded that in order to support Class B aquatic life use, the Thatcher Brook watershed may require the characteristics of a watershed with 8% impervious cover. To meet this goal, the objective is to decrease the adverse effects of IC by installing stormwater treatment measures to capture and treat runoff near its source, and reduce flows and velocities. The removal of pavement may also be considered where feasible, but is not required when stormwater is managed appropriately. Both existing and new development should incorporate stormwater management approaches that reduce or minimize effective impervious cover.

Approximately 270 acres of existing effective IC would need to be retrofitted with stormwater treatment measures that reduce the impacts of IC to reach the target of 8% effective IC in the Thatcher Brook watershed. The following summarizes stormwater retrofit recommendations that may be implemented as the initial steps towards achieving this goal.

Stormwater Retrofit Recommendations

Potential stormwater system retrofit locations in the Thatcher Brook watershed were identified within the areas of the Route 111/Route 95/Biddeford Connector intersection, including the tollbooth plaza operated by Maine Turnpike Authority (MTA) and the 'park and ride' lot off of Route 111. The potential stormwater retrofits for these areas are described below.

Park 'n' Ride Lot

The park and ride area, owned by MTA, consists of two parking lots that are connected by an access road from Route 111. The lower lot is located adjacent to Route 111 and is separated from the upper lot by a steep slope and an unpaved strip which together are about 30 feet wide. The upper lot is higher in elevation than the lower lot. Located within the unpaved strip, to the west of the upper lot, and to the west of the access road are drainage swales that are either grass- or riprap-lined. It appears that stormwater runoff from the lower lot is captured by catch basins and discharged to a drainage system in Route 111. Runoff from the upper lot sheet flows to the edges of the lot and generally towards the southwestern corner of the lot. It appears that the intent of the stormwater management design was for runoff to sheet flow from the edges of the lot and into the bordering swales; however, the



concentration of flow at the southwestern corner of the lot is evident from the repaired erosion scar along the slope from the upper lot to the swales below. Runoff which enters the swales is directed to wetlands located west of the access road, and/or a catch basin which discharges to the catch basin in Route 111.

There are two potential alternatives for retrofits at the park and ride lot. The first potential retrofit (PR) alternative "1" would include the construction of an underdrained bioretention system located in the southwestern corner of the upper lot, at the low point where much of the runoff from the upper parking lot collects before it flows over the slope into the swales between the upper and lower lots (see Figure 18A). Placement of a retrofit at the southwestern corner of the upper lot would necessitate the loss of approximately two (2) parking spaces. The proposed bioretention system would have a discharge outlet for overflows and underdrained flows that would discharge to the existing downstream end of the swale before it is conveyed under the access driveway.

The process of bioretention treats stormwater runoff via filtration, microbial activity, and/or plant uptake as it percolates through soil media. A bioretention system is typically a shallow depression lined with a bed of specific soil media through which stormwater runoff is filtered before it reaches an underdrain and is discharged. The soil media is planted at the surface with dense native vegetation. These types of bioretention systems are often referred to as rain gardens. The soil media mix must be specified and may consist of proprietary media with tested infiltration capacity and treatment capability, such as the proprietary media offered by Filterra.

The second retrofit alternative # "2" would include the construction of an underdrained grassed soil filter bed to replace the downstream section of swale that is located between the upper and lower lots (Figure 18B). Curbing would be installed near the southwestern corner of the upper lot to collect runoff from the upper lot and convey it to PR-2. The existing catch basin would likely be elevated to serve as an overflow structure. The installation of curb cuts or regrading along the northern edge of the lower lot to allow some runoff from the lower lot to enter the filter bed may be considered.

An underdrained grassed soil filter bed is also a type of bioretention system, similar to a rain garden, but the soil media is planted with grass. It is suitable for long linear applications, such as along the edges of parking lots or roads.

The following table summarizes the dimensions and cost estimates of each potential retrofit. The cost estimates are based on an installed unit cost per square foot for a bioretention system or grassed soil filter bed which includes an underdrain, gravel, soil media, mulch and plantings. The installed unit cost was estimated based on literature values and GZA's prior experience. These cost estimates are for preliminary planning purposes only and should be updated when more detailed designs have been developed.



Table 21. Summary of Potential Park n' Ride Retrofits.

Potential Retrofit	Surface Area, square feet	Estimated Storage Volume, cubic feet ¹	2014 Planning Level Cost Estimate ²
1	250	250	\$4,000
2	1920	1920	\$33,000

¹Assumes surface depression with average depth of 1 ft.

²Based on \$17/square foot of underdrained bioretention system/underdrained grassed soil filter bed and rounded to the nearest thousand dollars. These are estimated costs for general planning purposes.

Route 111/Route 95 Intersection/Tollbooth

The roadways within this intersection, including Route 111, the Biddeford Connector, and the tollbooth area are mostly without curbs; thus, stormwater is able to sheet flow from the paved roadway shoulder towards vegetated areas. However, in many areas, the existing grading and soil/vegetated lip at the edge of the pavement promotes gutter flow and does not allow runoff to flow into the adjacent vegetated areas.

Proposed retrofits on MTA property include those numbered 3, 4 and 5 (see Figure 18C). Proposed retrofit "3" is a bioretention system located in the current lawn area southeast of the toll booth plaza. In order for stormwater runoff from the paved connector road to reach the bioretention area, the shoulder and area surrounding the bioretention system would need to be regraded towards the bioretention system. A drain manhole may be necessary to direct the underdrain outlet from the bioretention system to the existing downgradient catch basin to avoid an existing utility pole.

Proposed retrofit "4" is an underdrained grassed filter bed located along the western edge of the collector road to intercept runoff from the road which currently flows towards the shoulder. Curbing may be installed at the intersection with Route 111 to convey additional runoff towards the filter bed.

Proposed retrofit "5" is also an underdrained grassed filter bed located along the eastern edge of the collector road, with curbing at the intersection with Route 111, similar to PR-4.

The following table summarizes the dimensions and cost estimates of each potential retrofit. The cost estimates were developed as described above.

Table 22. Summary of Potential Tollbooth Retrofits.

Potential Retrofit	Surface Area, square feet	Estimated Storage Volume, cubic feet ¹	2014 Planning Level Cost Estimate ²
3	1600	1600	\$27,000
4	1200	1200	\$20,000
5	1150	1150	\$20,000

¹Assumes surface depression with average depth of 1 ft.

²Based on \$17/square foot of underdrained bioretention system/underdrained grassed soil filter bed and rounded to the nearest thousand dollars. These are estimated costs for general planning purposes.



Along Route 111 near the intersection with the tollbooth access road/Precourt Street, there are a few opportunities for retrofits within or adjacent to the roadway shoulder (see Figure 18D). Proposed retrofit “6” does not involve the installation of a specific retrofit measure, but instead is recommended maintenance for the roadway shoulder. This is an example of where the existing grading and soil/vegetated lip at the edge of the pavement promotes gutter flow and does not allow runoff to flow into the adjacent vegetated areas. At this location, there is an existing vegetated buffer which could provide some natural treatment if stormwater runoff from Route 111 could access the buffer. Proposed retrofit “6” includes the removal of buildup at the pavement edge to encourage runoff to sheet flow into the adjacent buffer.

Across the street, on the eastbound side of Route 111 to the west of the Precourt Street intersection, proposed retrofit “7” is the installation of a narrow strip of permeable concrete to allow some infiltration and treatment of runoff. The use of media that provides a higher level of treatment for phosphorus should be evaluated. Some curbing or regrading may be necessary to manage the flow of runoff for maximum effectiveness of this measure.

Proposed retrofit “8” on the eastbound side of Route 111 east of Precourt Street is a proposed underdrained grassed soil filter bed which would accept runoff from Route 111 and a catch basin in the parking lot of the nearby gas station.

Table 23. Summary of Potential Route 111 Retrofits.

Potential Retrofit	Surface Area, square feet	Estimated Storage Volume, cubic feet ¹	2014 Planning Level Cost Estimate
6	1300	N/A	\$1,300 ²
7	400	N/A	\$6,000 ³
8	2100	2100	\$36,000 ⁴

¹Assumes surface depression with average depth of 1 ft.

²Based on \$1/square foot. These are estimated costs for general planning purposes.

³Based on \$15/square foot.

⁴Based on \$17/square foot of underdrained bioretention system/underdrained grassed soil filter bed and rounded to the nearest thousand dollars.

It is recommended that existing catch basins at the Park ‘n’ Ride area and the Route 111/Route 95 Intersection/Tollbooth intersection be retrofitted to be equipped with oil and grease protection, such as a “snout”, if not already present.

The retrofits described herein have been identified as potentially viable options based on preliminary “desktop” and field investigations. It is possible that further investigations, advancement of conceptual designs and more detailed cost-benefit analyses will result in the determination that one or more of these retrofits is not feasible, or the measure proposed here will be altered to a different measure. The retrofits in these areas can generally be prioritized by traffic volume in the following order:

1. Retrofits that treat runoff from collecting roads with the highest moving traffic volume should be given first priority.



2. Retrofits that treat runoff from areas that have frequent stop and go traffic, such as gas station/convenience stores should be given medium priority.
3. Retrofits that treat runoff from locations where cars are parked for extended periods of time, such as the Park n' Ride area, should be given lesser priority.

Thus, priorities for each of the retrofits described above are as follows:

Table 24. Priority Level of Proposed Route 111/Route 95/Toll Booth Retrofits.

Potential Retrofit	Priority
1	3 - low
2	3 - low
3	1 - high
4	1 - high
5	1 - high
6	1 - high
7	2 - medium
8	2 - medium

Industrial Park

As described below, the installation of retrofit measures in the industrial park along Route 1 near the Biddeford Connector should be considered as properties are redeveloped using the "Tool Box" included in this WMP. However, specific retrofits to manage runoff from a property within the industrial park that is closest to Thatcher Brook have been identified and are described here. The edge of the parking lot behind the building at 26 Morin Street is approximately less than 50 feet from Thatcher Brook at its closest location. Much of the runoff from the parking lot and building roof sheet flows to the edge of the parking lot and has caused large erosion rills and gullies as it travels downslope to Thatcher Brook. It is recommended that a grassed swale be installed parallel to the edge of the parking lot to capture the runoff before it has the opportunity to cause erosion on the slope and convey it south to existing wetlands (potential retrofit "9", Figure 18E). A portion of the parking lot edge may be curbed to capture the runoff and direct it into the swale. After the runoff is managed, the existing rills and gullies should be repaired.

Table 25. Proposed Industrial Park Retrofit.

Potential Retrofit	Length, feet	2014 Planning Level Cost Estimate ¹
9	400	\$50,000

¹Based on \$100/linear foot of grassed swale with average depth of 4 feet, width of 4 feet and side slopes of 3 horizontal: 1 vertical, and rounded to the nearest thousand dollars. Assumed approximately 300' of curbing.

This retrofit should be given high priority to stop continued erosion and potential undercutting of the bank, which could eventually result in loss of property.

Estimation of Pollutant Load Reduction

Structural stormwater retrofits for phosphorus were targeted for areas with high vehicle use, such as areas with high traffic and turnover of parking. Based on review by MDEP, it was decided that evaluating the net reduction in annual phosphorus load would be an appropriate method for estimating



the contributions of retrofits within the watershed for pollutant load reduction estimation. The pollutant load analysis focused on the net reduction in pounds per year of algal-available phosphorus that would result from the implementation of the structural stormwater retrofits presented in the Thatcher Brook Action Plan. The analysis uses a generalized approach by defining the pollutant load as a function of land use area. To estimate the net reduction in phosphorus, the first step of the analysis was to determine the pretreatment export by multiplying the treated area (in acres) by the export coefficient for the landuse under consideration (expressed as pounds of phosphorus exported per acre per year). Once the pretreatment export was assessed, the net reduction achieved was estimated by multiplying the removal efficiency by the pretreatment export value. Both the reduction efficiencies and area export coefficients were developed using guidance provided by MDEP. As presented in Table 26, the structural stormwater retrofits result in an estimated reduction of phosphorus export of approximately 47%.



Table 26. Pollutant Load Reduction Analysis

Potential Retrofit ID	BMP Type	Est. Removal Efficiency	Total Drainage Area, Acres	Impervious Drainage Area, Acres	Roads/ Driveways, Acres	Export Coefficient, lb/acre/yr	Parking, Acres	Export Coefficient, lb/acre/yr	Roofs/ Other, Acres	Export Coefficient, lb/acre/yr	Pervious Drainage Area, Acres	Export Coefficient, lb/acre/yr	Pre-treatment Export (lb/yr)	Net Reduction (lb/yr)
1	Underdrained bioretention system	0.6	0.24	0.24	0	1.75	0.24	1.25	0	0.5	3	0.8	0.3	0.18
2	Underdrained grassed soil filter bed	0.6	0.74	0.56	0	1.75	0.56	1.25	0	0.5	0.17	0.8	0.84	0.51
3	Underdrained bioretention system	0.6	0.42	0.33	0.33	2	0	1.25	0	0.5	0.68	0.6	0.73	0.44
4	Underdrained grassed soil filter bed	0.6	0.67	0.65	0.65	2	0	1.25	0	0.5	0.02	0.8	1.32	0.79
5	Underdrained grassed soil filter bed	0.6	0.53	0.52	0.52	2	0	1.25	0	0.5	0.01	0.8	1.05	0.63
6	Natural buffer	0.3	0.35	0.24	0.24	2	0	1.25	0	0.5	0.11	0.8	0.56	0.17
7	Permeable Paved area	0.6	0.2	0.2	0.2	2	0	1.25	0	0.5	0	0.8	0.4	0.24
8	Underdrained grassed soil filter bed	0.6	2.41	1.56	0.45	1.75	0.97	1.25	0.14	0.5	0.65	0.6	2.75	1.65
9	Grassed Swale	0.2	3.14	3.01	0	1.75	1.94	1.25	1.07	0.5	0.34	0.8	3.06	0.61
													TOTAL	5.23
													PERCENT REDUCTION	47%

8.3.5 SUMMARY OF POTENTIAL ACTION ITEMS

The Thatcher Brook Action Plan includes a retrofit tool box to enhance stormwater treatment opportunistically as properties are redeveloped in the watershed. This approach allows municipalities and landowners in the watershed to develop creative and cost-effective solutions to address stormwater during the design phase of a project. In addition, the Action Plan includes recommendations for restoration and retrofit measures at specific sites (see Table 27). The recommendations include measures to address the priority stressors in the watershed including stormwater inputs (including phosphorus), habitat alteration, and riparian buffer conditions. Each recommendation was categorized as a high, medium, or low priority based on expected benefit to the stream, overall feasibility, anticipated interest of the current landowner, and total cost. Projects that have higher expected benefit to the resource and greater opportunity for multiple funding sources were considered higher priorities. During Year 1, Thatcher Brook high priority projects will be reviewed with the appropriate stakeholders to determine cost share/match availability, to then use in applying for grants. An important task of the Thatcher Brook Workgroup will be to develop Requests for Bids/Quotes on each item to be used for grant purposes. The estimated costs in this plan are provided as approximate rough numbers for general project scoping. Each task will require additional review and design to prepare construction plans and more refined cost estimates. However, it is anticipated that high priority retrofits will be pursued in Phase 1 of the project from approximately 2015 to 2020. Medium to low priority retrofits and restoration projects will likely pursued in Phase 2 (2020-2025) and Phase 3 (2025 – 2030, and beyond if needed). All measures will be ultimately reviewed and prioritized by the Thatcher Brook Workgroup based on available funds and current information (see Table 27 for details on project phasing).

The implementation of the Plan will require the input and participation of a variety of stakeholders. MTA, MDOT, and private landowners have been contacted as part of the project, and have provided input on retrofit recommendations. The final approval of these stakeholders is required for successful completion of the project. The implementation of the tool box will also require participation by landowners/applicants of future development projects. The Thatcher Brook Workgroup should include and establish relationships with a variety of stakeholders, including business owners, to refine and



implement the tool box. The Town of Arundel is also an important stakeholder for recommendations (e.g. culvert replacements) that occur in their municipality.

In addition to retrofit and restoration recommendations, the Action Plan includes recommendations for workgroup establishment, monitoring, outreach, and ordinance development, which will likely be conducted in part by Biddeford staff. It is anticipated that these items will be further refined and developed by the Thatcher Brook Workgroup, and certain items may be conducted with assistance from specialists. However, approximate potential costs are presented in Table 27 for initial planning purposes. The total estimated cost to implement all aspects of the Plan is \$1,274,700 over the course of 15 to 20 years.



TABLE 27. SUMMARY OF MEASURES IDENTIFIED IN THE ACTION PLAN INCLUDING ANTICIPATED 2014 PLANNING LEVEL COSTS (SEE FIGURES 17, 18, AND 19).

Action Item Category	Potential Action Item ID on Figures	Location	2014 Planning Level Cost Estimates	Priority	Anticipated Schedule	Possible Project Sponsors
RETROFITS						
Stormwater	Retrofit 1	MTA Park n' Ride	\$4,000	Low	2025-2030	MTA and City of Biddeford (grants)
Stormwater	Retrofit 2	MTA Park n' Ride	\$33,000	Low	2025-2030	MTA and City of Biddeford (grants)
Stormwater	Retrofit 3	MTA Toll Booth Exit 32	\$27,000	High	2015-2020	MTA and City of Biddeford (grants)
Stormwater	Retrofit 4	MTA Toll Booth Exit 32	\$20,000	High	2015-2020	MTA and City of Biddeford (grants)
Stormwater	Retrofit 5	MTA Toll Booth Exit 32	\$2,000	High	2015-2020	MTA and City of Biddeford (grants)
Stormwater	Retrofit 6	Route 111 (Alfred Rd)	\$1,300	High	2015-2020	MDOT and City of Biddeford (grants)
Stormwater	Retrofit 7	Route 111 (Alfred Rd)	\$6,000	Medium	2020-2025	MDOT and City of Biddeford (grants)
Stormwater	Retrofit 8	Route 111 (Alfred Rd)	\$36,000	Medium	2020-2025	MDOT and City of Biddeford (grants)
Stormwater	Retrofit 9 (near Station B1)	Morin St	\$50,000	High	2015-2020	City of Biddeford (grants) in cooperation with landowner
HABITAT RESTORATION						
Instream Habitat Restoration	Station A3	NE of Gateway Plaza, West of I-95	\$20,000 - \$50,000 based on similar projects in other watersheds	High	2015-2020	City of Biddeford (grants) in cooperation with landowner
Instream Habitat Restoration	Station B2	Off Medical Center Dr	\$20,000-\$50,000 based on similar projects in other watersheds	High	2020-2025	City of Biddeford (grants) in cooperation with landowner
Buffer Restoration	TH3 (near Station B1)	Morin St	\$10,000 - \$50,000 depending on landowner interest	High	2015-2020	City of Biddeford (grants) in cooperation with landowner
Buffer Restoration	Buffer 1	Wellspring Rd	N/A - voluntary mowing restriction	Low	2020-2025 (contact owner)	City of Biddeford in cooperation with landowner
Buffer Restoration	Buffer 2	Mountain Rd	N/A - voluntary mowing restriction	Medium	2020-2025 (contact owner)	City of Biddeford in cooperation with landowner
Buffer Restoration	Buffer 3	Mountain Rd	N/A - voluntary mowing restriction	Medium	2020-2025 (contact owner)	City of Biddeford in cooperation with landowner
Buffer Restoration	Buffer 4 (near Station B1)	Elm St and Morin St	N/A - voluntary mowing restriction	Medium	2020-2025 (contact owner)	City of Biddeford in cooperation with landowner
Culvert Replacement	Culvert 1	Jeffs Way	\$213,300	Medium	2025-2030	Town of Arundel (grants) with assistance from the Thatcher Brook Workgroup
Culvert Replacement	Culvert 2	Cote Dr	\$165,100	Low	2025-2030	Town of Arundel (grants) with assistance from the Thatcher Brook Workgroup
Culvert Replacement	Culvert 7	Briar Ln	\$233,900	Medium	2025-2030	Town of Arundel (grants) with assistance from the Thatcher Brook Workgroup
Bank Stabilization	Station B1	Morin St	\$23,600	High	2015-2020	City of Biddeford (grants) in cooperation with landowner



COMMUNITY OUTREACH						
1.	Outreach to residential landowners on fertilizers, yard/pet waste disposal, and Yardscaping		\$20,000	High	2015-ongoing	City of Biddeford and Town of Arundel
2.	Outreach to commercial landowners on stormwater the retrofit toolbox, and salt reduction methods.		\$20,000	High	2015-ongoing	City of Biddeford
3.	Outreach and technical assistance to agricultural landowners		\$10,000	Medium	2025-2030	City of Biddeford and Town of Arundel
4.	Outreach to schools on watershed cycling, stormwater, and stream health. Assess the feasibility of school participation in installing retrofits (e.g. rain gardens, rain barrels) at schools.		\$20,000	High	2015-2020	City of Biddeford and Town of Arundel
5.	Strengthen ties with local schools and the University of New England. Engage schools during the implementation of each project		N/A	High	2015-ongoing	City of Biddeford
6.	Develop an incentive program for landowners with existing developments to implement tool box recommendations		\$80,000 (dependent on focus of Workgroup)	High	2015-ongoing	City of Biddeford
7.	Install educational signs at stream crossings and at completed projects		\$3,000	High	2015-ongoing	City of Biddeford
8.	Identify partnerships and incentives for encouraging low salt application alternatives		\$3,000	Medium	2020-2025	MDEP and City of Biddeford
ORDINANCE DEVELOPMENT						
1.	Require stormwater treatment for projects under 1 acre in size.		\$5,000	High	2015-2020	City of Biddeford
2.	Encourage the reduction and disconnection of impervious surface (e.g. maximum versus minimum parking requirements)		\$3,000	High	2015-2020	City of Biddeford
3.	Encourage conservation and buffer implementation in areas with High Interest Habitats or intact riparian buffers.		N/A (But potential land purchase costs are not included)	Med/High	2015-ongoing	City of Biddeford and Town of Arundel
PLAN IMPLEMENTATION						
1.	Establish Thatcher Brook Workgroup		\$7,000	High	2015 – first step	City of Biddeford
2.	Prepare grants/secure funds		\$8,000 (if not performed by volunteers)	High	2015-ongoing	City of Biddeford and Thatcher Brook Workgroup
3.	Track completed sites, pollutant load reductions, and milestones		\$2,000	High	2015-ongoing	City of Biddeford
4.	Provide annual updates to the Biddeford City Council and Town of Arundel		\$2,500	High	2015-ongoing	City of Biddeford
5.	Maintain and update the Thatcher Brook Project web page and provide updates to an e-mail list serve of interested watershed stakeholders		\$2,000	High	2015-ongoing	City of Biddeford
MONITORING						
1.	Conduct macroinvertebrate monitoring after implementation of high priority retrofits and restoration projects.		\$31,000 (\$7,700/cycle if all 4 stations are assessed)	High	2020-2025 (depending on actual implementation dates)	MDEP and City of Biddeford consultant as approved by MDEP where sampling does not overlap MDEP schedule
2.	Conduct habitat evaluations at all in-stream and buffer restoration areas after implementation		\$4,000	High	2020-2025 (depending on actual implementation dates)	City of Biddeford consultant
3.	Complete dissolved oxygen sampling to assess the influence of wetlands and relic nutrient sources on low dissolved oxygen values.		\$82,000	Med	2020-2025	City of Biddeford consultant



4.	Research salt application practices in the watershed and consider a chloride source study.		\$5,000	Low	2025-2030	City of Biddeford
5.	Assess salt application practices and subsurface geology where future infiltration BMPs are proposed.		\$2,000	Medium	2020-2025	MDEP and City of Biddeford

8.3.6 DEVELOP AN OUTREACH PROGRAM FOR CITIZENS

A major task of the Thatcher Brook Workgroup will be to develop a locally tailored outreach program for citizens. Densely developed residential areas (e.g. in the northeastern portion of the watershed) should be targeted for educational campaigns on both stormwater and natural landscaping options.

The following are targeted goals for the public outreach campaign:

1. Develop and implement a presentation on yardscaping for either a residential neighborhood or local garden club.
2. Develop a presentation for local middle and high school classes on stream health and aquatic communities. Coordinate with local science teachers to complete school monitoring.
3. Host a BMP or yardscaping installation workshop. Target measures that individual owners can implement on their own property (e.g. rain garden, rain barrel, or pervious patios).
4. Develop signs for restoration/retrofit projects, and stream crossings at public access trails, to increase awareness of Thatcher Brook. Develop at least five signs.

8.3.7 FUTURE PROTECTION STRATEGIES

The potential BMPs and restoration projects discussed throughout this plan provide measures to encourage stream recovery. However, conditions of the watershed are not static, and the plan will need to account for changes in the watershed. The following strategies are recommended to foster future protection efforts:

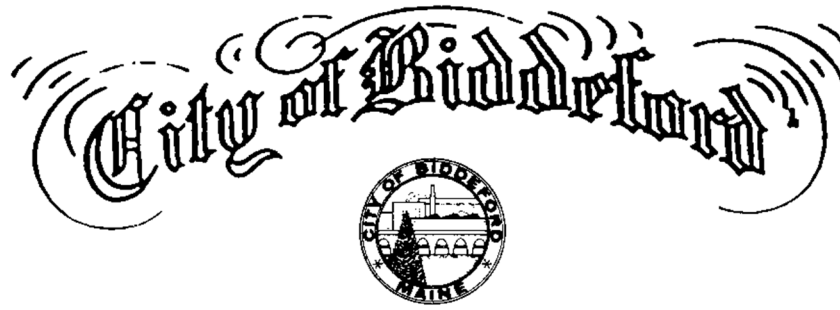
1. Require stormwater treatment for projects less than one acre in size. The City of Biddeford currently requests, but does not require, stormwater treatment for new development projects. IN addition, stormwater treatment is not required by the State of Maine for projects with impervious cover under one acre in size, or for projects under five acres of developed area (that have less than one acre of impervious surface). As a result, requesting stormwater treatment for projects (via ordinance changes) would provide additional protection for future build-out in the watershed. The Technical Committee recommends that the City develop a stormwater ordinance and consider implementing the treatment standards already in place for projects greater than one acre in size (see Figure 16, Stormwater Catchments and Impervious Cover).
2. Monitor development plans throughout the watershed. New developments should strive to avoid acerbating priority stressors within each subwatershed. The City of Biddeford currently requests mitigation for projects greater than five acres in size that pose impacts to significant wildlife or fisheries habitats. Mitigation measures could include items identified in the plan.
3. The watershed should strive to reduce and disconnect impervious surface. Pervious surface technologies, in areas where salt contamination is not a concern, should be encouraged and implemented where possible.
4. Pursue Conservation in Areas with High Interest Habitats (see Figure 19, High Interest Habitat and Conserved Land), and/or where conservation can protect riparian corridor buffers.



8.3.8 DEVELOP A THATCHER BROOK WORKGROUP TO OVERSEE PLAN IMPLEMENTATION

A critical component of the Thatcher Brook Action Plan is to establish the Thatcher Brook Workgroup in order to ensure that Watershed-wide restoration goals are being met. The workgroup will:

- Ensure that all watershed stakeholders are represented
- Conduct at least three meetings per year to oversee and guide plan implementation
- Promote one of the meetings with the public and share information about the progress made in restoration efforts
- Apply for grants and other funding to implement plan (see Section 11 for potential funding opportunities)



2019.125

IN BOARD OF CITY COUNCIL..NOVEMBER 19, 2019

BE IT ORDERED, that the City Council of the City of Biddeford does hereby authorize the City Manager to enter into an agreement with Wright-Pierce in an amount not-to-exceed \$137,000 for engineering and design of a pump station and CSO holding tank at Gooch Street with associated gravity and force main connections.

Funding for this project shall be through the existing CSO Bond at 31459-61009.

Finance & City Council

Meeting Date: November 19, 2019
Meeting Time: 6:00 p.m.
Agenda Item No: Orders of the Day - 8.e
Item Description: 2019.125) Authorization/Appropriation for Engineering Services/Design of Pump Station - CSO Tank (to also include gravity line and force main)

Summary:

This Order authorizes the design of a proposed pump station and conceptual combined sewer overflow (CSO) holding tank on lower Gooch Street as part of the ongoing regulatory requirement to reduce CSO discharges. The proposed pump station and CSO holding tank are intended to reduce CSO discharges at Horrigan's Court (CSO#6) and at the Elm St./Rt.1 CSO#7. The design will serve as the basis for future bidding and construction. If approved, construction will occur in two phases. Phase I will include the pump station and associated gravity and force main sewer lines. Phase II will include the CSO holding tank with the decision/necessity to construct dependent on the effectiveness of ongoing sewer separation projects.

Supporting Documentation:

Figure 1 – Biddeford Sewersheds

Figure 2 – Gooch Street Pump Station

Wright-Pierce Proposal: Gooch St Pump Station and CSO Holding Tank Design, dated 11/15/19

Key Terms:

Sewer – a generic term used to describe a system of underground pipes conveying storm water, sanitary waste, or a combination of storm water and sanitary waste.

Storm Sewer – a sewer intended only for storm water flows and is usually dry during periods other than storm events.

Sanitary Sewer – a sewer intended only for sanitary waste (sinks, toilets, showers, etc.) and acceptable industrial discharges.

Combined Sewer – a sewer that carries a mixture of storm water and sanitary waste. For regulatory purposes, the length of sewer downstream of the point at which storm water and sanitary waste mix is considered a combined sewer.

Combined Sewer Overflow (CSO) – A physical structure that allows combined sewer flows to leave the sewer system untreated when the flows exceed the sewer's carrying capacity.

Combined Sewer Overflow (CSO) Discharge – an event when an actual discharge occurs at a CSO.

Sewer Carrying Capacity – the maximum flow a section of sewer line is able to handle based on its physical dimensions or pumping capability.

Excess Flow – flow that exceeds a sewer’s carrying capacity or flow that exceeds the wastewater treatment plant’s treatment capability.

Diversion Structure – a physical structure connecting a sanitary sewer and a storm sewer with the express purpose of allowing excess flow to divert from the system to prevent a sewer backup. In most cases this creates a combined sewer.

CSO Holding Tank – a large tank designed to provide additional carrying capacity within a combined sewer system by “holding” excess flow during a storm event, which can be metered into the sewer system for treatment after storm water influenced combined sewer flows subside rather than discharging to a watershed untreated during a storm event.

Sewer Separation – the act of removing storm water flows from sanitary sewers. The latest engineering projection is that the estimated cost to perform complete sewer separation in Biddeford is in excess of \$100,000,000 dollars.

Detailed Description:

This project is part of a larger strategy to reduce CSO discharges within the city in compliance with the Clean Water Act, State regulations, and the City’s Consent Agreement with the Maine Department of Environmental Protection (MEDEP). Out of an original 14 CSOs the City currently manages seven CSOs. The two CSOs associated with this design work are #6 – Horrigan’s Court (at Horrigan’s Court), and #7-Elm St./Re.1, located near where Elm St./Rt. 1 intersects with the Saco River near Gooch Street.

In order to grasp the complexity of the issue and by way of background information, it is important to understand the scale of the problem being addressed and the options available.

Addressing the latter first, in general the ideal situation is to have two distinct sewer systems – one to serve as a storm sewer and the other to serve as a sanitary sewer. Both can be sized appropriately for the flows expected and with no combined sewers there will be no CSO discharges. In reality, Biddeford was established well before the existence of environmental regulations governing the management of storm water and sanitary waste. Biddeford’s sewer infrastructure evolved over a long period. The City still has sewer infrastructure that consists of everything from carved Oak log sewers and vaults to granite and brick sewers and in many instances these aging systems were installed as combined sewers or were modified over time to be combined sewers.

Municipalities can reduce CSO discharges by, among other things, completing sewer separation projects designed to eliminate combined sewers and thus eliminate CSO discharges and by installing physical structures like CSO holding tanks to collect excess flows for later treatment.

It bears mentioning that installing a holding tank does not solve a CSO issue since it would be very expensive and impractical to size a CSO holding tank properly to eliminate all CSO discharges. This means that sewer separation work will still be required. If a CSO holding tank is installed prior to sewer separation work the holding tank may become oversized when the separation measures are complete. In other words, sewer separation is a permanent solution to the issue of CSO discharges because the separation eliminates the storm water flow in a combined system. A CSO holding tank only deals with the symptoms, so to speak. That said

there are reasons that justify the installation of CSO holding tanks. The CSO holding tank at Mechanics Park is one example. The main sewer from most of the western portion of the city comes through Water Street and there are several combined sewers that contribute significant flows that could easily overwhelm the treatment capacity of the wastewater treatment plant. The Mechanics Park CSO holding tank has a capacity of 2.0 million gallons and even at that it can easily fill in less than 40-minutes during major storm events resulting in discharges at CSO #9-Water Street.

As to scale, Figure 1 – Biddeford Sewersheds, depicts the surface area feeding the various CSOs associated with this Order. The map is oriented left to right with the left edge extending out toward Arundel at Morin Street and the right edge showing the in-town area abutting the Saco River. The gold shaded zone reflects the surface area collecting storm water, sanitary, and combined sewer flows associated with the CSO at Horrigan's Court (right edge of map). The purple area reflects the surface area collecting storm water, sanitary, and combined sewer flows for the Elm St./Rt.1 CSO (shown just below the Horrigan's Court CSO). In just one day in 2018 during a storm, both CSOs discharged in excess of 1.32 million gallons of untreated combined sewer flows.

The CSO Mater Plan, a required planning document and a live document intended to be updated as conditions change, contemplated the installation of a CSO holding tank near the Horrigan's Court pump station and CSO. The MEDEP was initially advising that the city proceed with the installation of a holding tank as an immediate measure to reduce CSO discharges at Horrigan's Court. In preparation for this work, Public Works initiated a flow study within the sewersheds several years ago. The flow study is ongoing and provides valuable data that is used to accurately report CSO discharges and to shape CSO reduction efforts. This ongoing study is a driving force in the recommendation to place a pump station and possible CSO holding tank at Gooch Street rather than sizing a holding tank for historic excess flows at Horrigan's Court. The initial flow data showed that while there are significant combined sewer flows contributing to CSO discharges, there are also key points well within the sewershed where targeted separation work had the potential to reduce combined sewer flows. One such separation project was recently completed on Elm Street in the vicinity of Lamothe and Lessard Avenues. This area contained diversion structures that were installed to address sewer backups caused by legacy issues in the area. The flow study showed that in conjunction with previous sewer separation work a significant volume of combined sewer flows could be removed from the system by eliminating the diversion structures for all but a major storm event. A valve is now in place that only activates during a major storm event to prevent any sewer backups.

The data also shows the significant value that sewer separation projects have on overall CSO discharges. Figure 1 shows the reduction in CSO activity in relation to rainfall for 2014 through 2019 YTD as a result of sewer separation activity and direct monitoring.

The flow data has had an impact on CIP planning as well. For example, the 2018 CIP contemplated a holding tank at Horrigan's Court at a cost of \$3.6 million dollars based on flow estimates and sizing projections and an Elm Street pump station at a cost of \$2.3 million dollars for a total of \$5.9 million dollars. The Elm Street pump station would serve to eliminate the connection to Horrigan's Court reducing CSO loading at that pump station and directing the Elm St./Rt.1 sewershed flows up to Lincoln Street via Elm Street and then to the WWTP via Main Street. There are force mains in Lincoln Street available for this connection.

In 2019, the Horrigan's Court CSO holding tank construction estimate was reduced to \$2.6 million to reflect a size reduction based on reduced flows as a result of sewer separation activity performed by DPW. At the same time, the Elm Street pump station estimate increased to \$5.0 million based on data available at the time and conceptual discussion with MEDEP for a total of \$7.6 million.

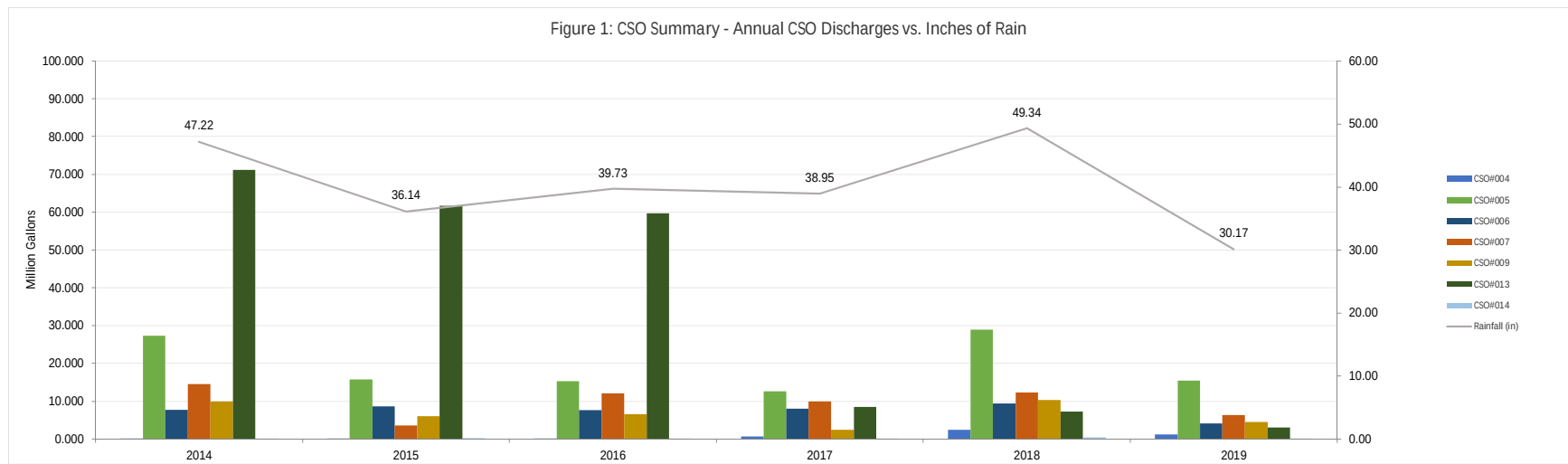
The 2020 CIP, based on updated flow data, indicates that there is a possibility that the Horrigan's Court CSO holding tank may not be needed and can be moved to the Gooch Street area to better serve that CSO if continued sewer separation work is as successful as the previous initiatives. The current plan is to move the proposed Elm Street pump station to lower Gooch Street. This along with sewer separation work in the sewershed allows for a further reduction in project costs. Current cost estimates carry \$2.3 million for the proposed Gooch Street CSO holding tank and \$2.6 million for the Gooch Street pump station and associated sewer lines (gravity and force main) to service the lower Elm Street CSO area for a total of \$4.9 million; see Figure 2 – Gooch Street Pump Station, for a general location reference. The sewer lines, pump station, and conceptual CSO holding tank are outlined in yellow.

This design eliminates technical issues associated with adding a force main from lower Elm St., to Lincoln St. Work under the railroad bridge requires added cost and approval of the railroad not to mention creating significant traffic impacts during construction. By installing the pump station at lower Gooch Street, everything in the area gravity feeds to the pump station and can be discharged through the force main to Lincoln Street by going through the 3 Lincoln Street site and up Pearl Street. While there is still a necessity to cross under the railroad tracks, Maine Energy installed a 96-in cooling water discharge line below the underpass. The line was filled (with flowable fill) as part of the Maine Energy closure process. Public Works proposes to bore through the center of the filled pipe significantly reducing concerns for impacts on railroad footings and traffic impacts to Rt. 1 are eliminated. Additionally, new development on the 3 Lincoln Street site and the abutting mill properties would have sewer access at Pearl Street.

The takeaway is that sewer separation work, where possible, has a significant impact on the need for and sizing of CSO holding tanks. The hope is that, like the Horrigan's Court separation work, the current proposed Gooch Street CSO holding tank may be further reduced in size and or eliminated. In order to confirm this and to maintain CSO reduction momentum required by the MEDEP, DPW proposes to design the Gooch Street pump station and CSO holding tank and phase in the installation. The pump station is proposed as Phase I, which is needed to send the Elm St./Rt.1 watershed flows to Lincoln Street vs Horrigan's Court. Phase II would be installation of a CSO holding tank appropriately sized to reflect actual flows accounting for ongoing sewer separation efforts and only if needed.

Funding Source:

Funding is intended to be covered under the existing CSO Bond at 31459-61009.



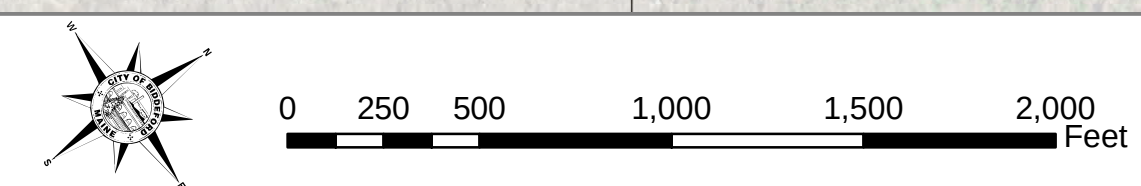
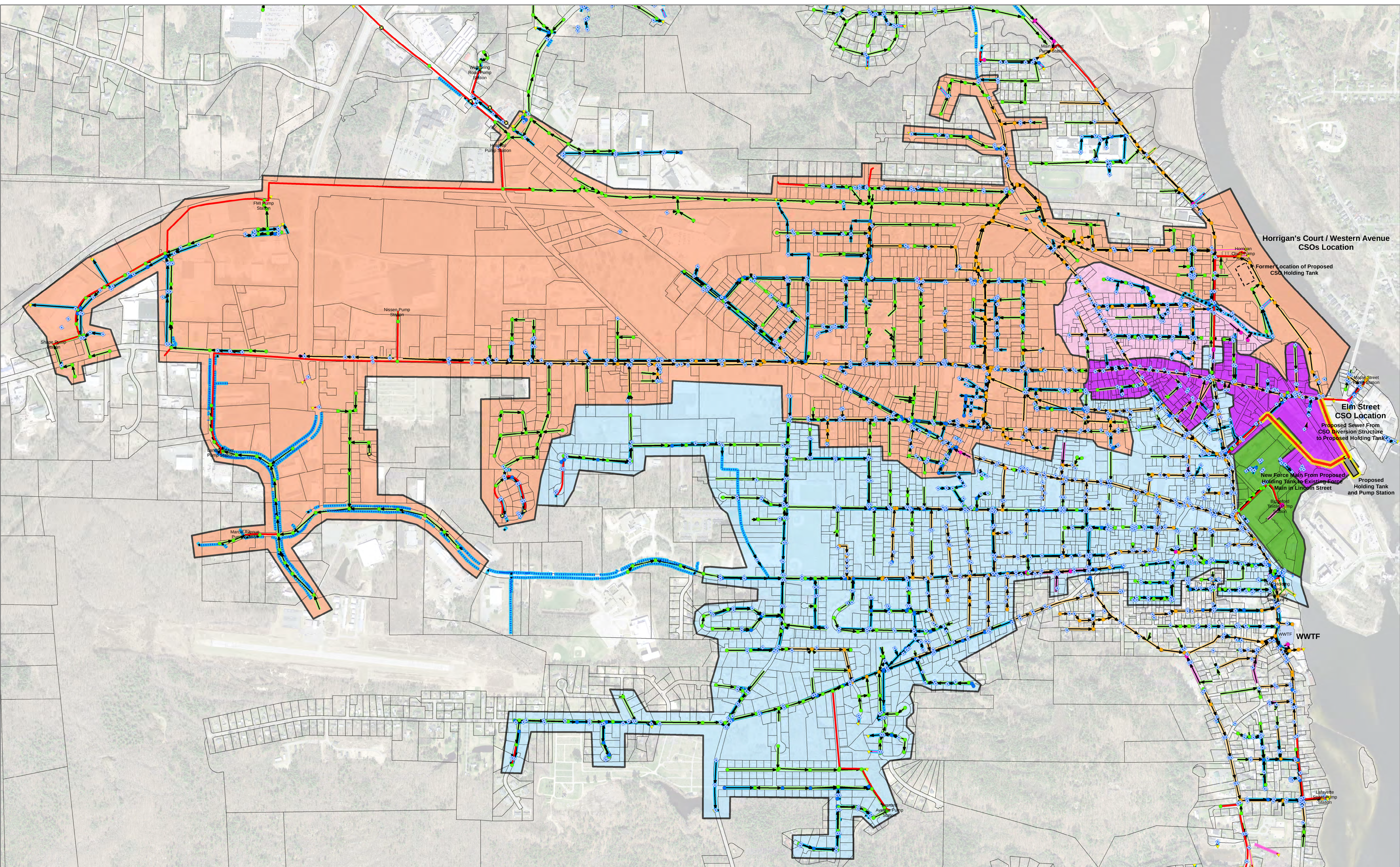
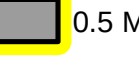


Figure 1
Biddeford Sewersheds

Legend

Name	 CSO 004	 CSO 009	 CSO 005/6	 CSO 007	 CSO 011	 Proposed Structures	 Pump Station
						 0.5 Million Gallon Holding Tank	 Old Location of Proposed Holding Tank
							 Proposed Sewer Lines

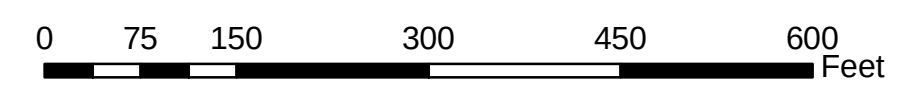
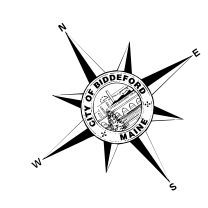
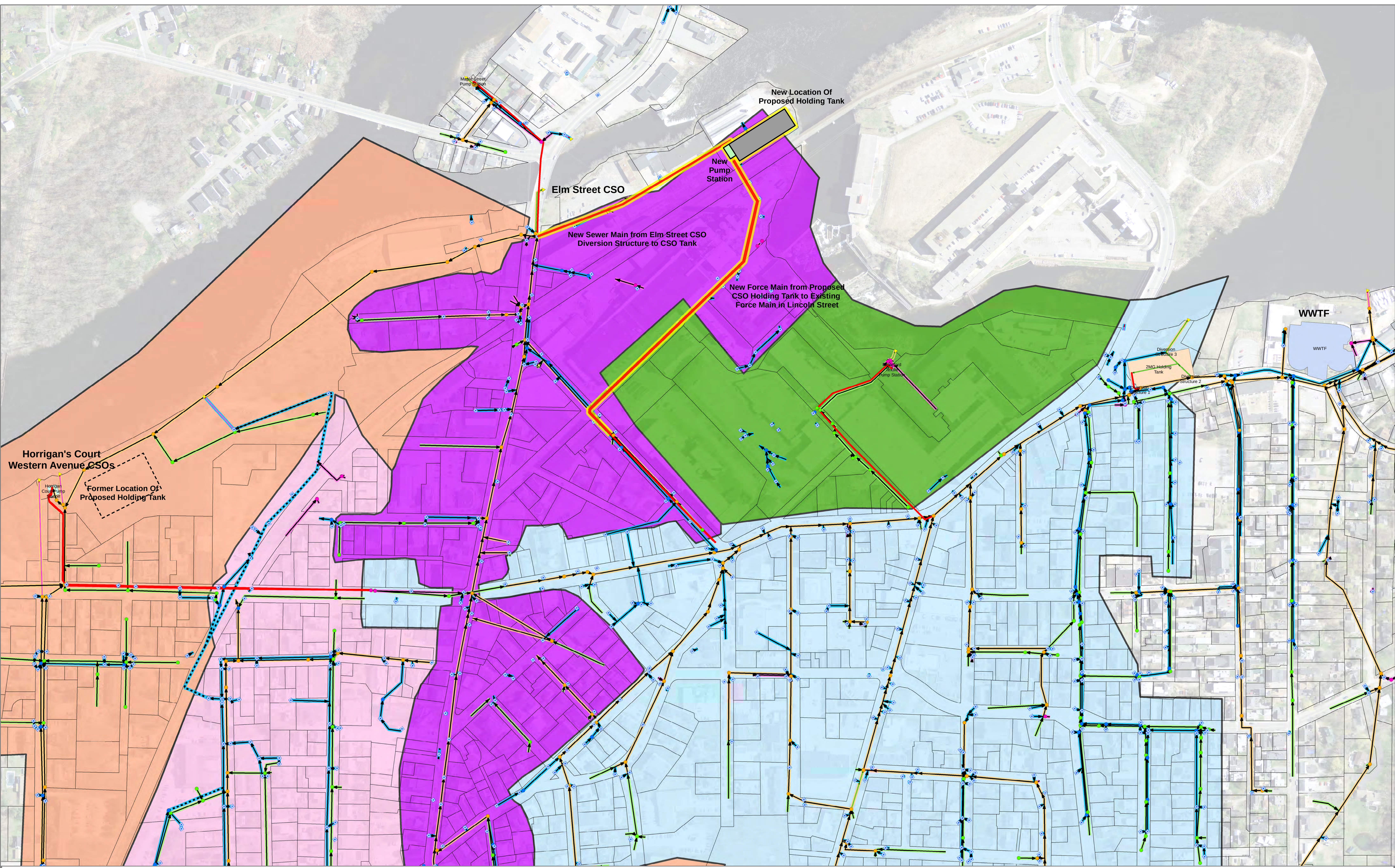
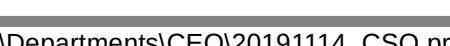


Figure 2
Gooch Street Pump Station

Legend

 CSO 004	 CSO 007	 Proposed Structures	 Pump Station
 CSO 005/6	 CSO 009	 0.5 Million Gallon Holding Tank	 Old Location of Proposed Holding Tank
 CSO 011		 Proposed Sewer Lines	

November 15, 2019

Mr. Jeff Demers, Public Works Director
City of Biddeford
371 Hill Street
Biddeford, Maine 04005

SUBJECT: Proposal for Engineering and Design Services
Gooch Street Pump Station, Biddeford Maine

Dear Mr. Demers,

We appreciate the opportunity to assist you and the City of Biddeford with design and engineering services associated with the Gooch Street Pump Station. As discussed during our site walk on October 24, 2019, we understand the City is currently looking to design and install a dry weather wastewater pump station at the end of Gooch Street near the railroad trestle. The purpose of the pump station would be to collect local gravity sewer flow from Gooch Street, local gravity sewer flow from Pearl Street and pump to the gravity sewer at the intersection of Pearl Street and Lincoln Street.

In addition, the City is considering the installation of a CSO storage tank and potential wet weather pump station at the end of Gooch Street near the proposed dry weather pump station at a later date. Given the location and elevation of the proposed storage tank, it is possible that combined sewer flow would need to be pumped into the tank (if above grade) or pumped out of the tank (if below grade). Given the need for pumping associated with draining of a future the storage tank and the proposed dry weather pump station considered at the same location, there is likely an opportunity to design a slightly oversized dry weather pump station that can handle low flows from the local sewershed and higher flows from a discharging CSO storage tank.

With current on-going projects in and around the area including the proposed parking garage, Riverwalk extension, and redevelopment of adjacent properties, including but not limited to, the Lincoln Mill and 3 Lincoln Mill property, we understand the City of Biddeford would like the ability to pump the dry weather flows within the next year to support the current development. The force main associated with the pump station would be installed under Pearl Street, which is anticipated to be reconstructed in 2020, so the design and construction of the dry weather pump station would need to be completed so it can be installed during construction of Pearl Street. The City would like the ability to construct these wastewater related projects in the following phases:

- Phase 1 - Dry weather pump station and associated gravity sewer and force main (prior to Pearl Street).
- Phase 2 - Storage tank and wet weather pump station.

Scope of Services

Based on our project understanding we have prepared the following scope of services to assist the City in design of the Gooch Street Pump Station and associated gravity sewer and force main piping. We have divided the design tasks into pump station related tasks and force main/gravity sewer related tasks in case the City would like to separate this work into phases to correspond with Pearl Street design services.

Gooch Street Pump Station

Based on preliminary discussions with the City, Wright-Pierce has outlined the following Tasks associated with the design of a new submersible style pump station with the capability to pump the sanitary wastewater from the relatively small service area around Gooch Street and Pearl Street as well as the potential to pump wastewater drained from a future CSO storage tank after an overflow event. It is assumed this new submersible station will not pump storm flows into the future CSO tank, but a future wet weather pump station would need to be constructed for that duty. The new pump station for sanitary flows and potential for future tank drain flows will likely include the following:

- A 10'diameter precast concrete wet well with influent pipes from the sanitary sewer in Gooch Street and a drain pipe from a future CSO storage tank. The wet well will contain the following:
 - Two submersible pumps on slide rails, each with a pumping capacity of approximately 700 gpm, which is assumed to be adequate to handle sanitary flows in the area and the drain flows from a future CSO storage tank. The wet well would be a Class 1 Division 1 rated space, so the pumps will be rated appropriately (explosion-proof).
 - A submersible pressure transducer to measure the water level and control the pumps.
 - A high-high float switch to activate alarms outside the normal operating levels and activate a pump if the pressure transducer or PLC controls fail. The pump called to run by the high-high float will be shut off based on adjustable timer.
- An 8' diameter precast concrete valve pit to contain the following:
 - Discharge piping from each pump, including a check valve and gate valve.
 - Gate boxes installed in the valve pit cover over each gate valve to allow operation of the valves without entering the valve pit. Valve pit cover to be approximately 1-foot above finished grade.
 - A drain pipe back to the wet well to drain any water entering through the hatch in the cover.
- A force main bypass assembly will be installed near the valve pit to allow a bypass pumping system to connect to the force main and to allow the force main to be "pigged" for cleaning.
- A new electrical building constructed adjacent to the pump station. The building will house all the electrical and instrumentation equipment for the new dry weather pump station as well an emergency generator to run the station during a power outage. It is assumed the building floor elevation is 3-feet above the 100-year flood elevation. The building is assumed to be a wood-framed building, with approximate dimensions of 21'x18'. Note, this structure is not assumed to house power and controls for any future wet weather pump stations or CSO Storage Tank. It is assumed a separate larger structure will be required for any future wet weather pump station or CSO Storage Tank.

- It is assumed the pumps will run on VFDs and the pump control panel will be a PLC based custom panel per the City's standards.
- It is assumed there is existing 3-phase power in the area of the proposed pump station for the new electrical service to the station.

Task 1 - Preliminary Design

Wright-Pierce will gather existing condition information, including existing and future flow rates, existing utility infrastructure, and other data necessary to prepare preliminary design plans and cost estimates. Key tasks for this effort would include:

- Kick-off Meeting: Wright-Pierce will conduct a "kick-off" meeting with the City of Biddeford to confirm project goals, constraints and schedule, and to establish a clear means of project communications. This meeting will review the proposed pump station location, configuration, and available data.
- Topographic Survey Review: The City will provide a topographic/utility survey for use by Wright-Pierce in the development of baseline drawings showing existing conditions within the proposed areas of work. We have assumed that any boundary information and easement coordination will also be completed by the City of Biddeford. Wright-Pierce will review the survey information and submit requests for clarification to the City for action.
- Preliminary Design Phase: Upon receipt of the existing conditions information, Wright-Pierce will move into the Preliminary design phase. This work shall include:
 - Preliminary Plans: Wright-Pierce will develop a preliminary site plan showing the proposed location of the pump station precast concrete wet well, precast concrete valve pit, and electrical building.
 - The preliminary plans will also include a preliminary layout of the interior of the electrical building for the City's review and comment.
 - Preliminary Design Basis Memo: Wright-Pierce will also develop a memo for the City's consideration indicating the proposed pump station capacity, pump selection, basic control scheme, and proposed electrical layout.
- Geotechnical Explorations and Report: Wright-Pierce will enlist the services of a Geotechnical Engineer to conduct subsurface explorations in the vicinity of the proposed wet well. It is anticipated a single boring will be required extending to a depth of approximately 40-feet, or refusal.
- Cost Estimate: Wright-Pierce will prepare an estimate of probable construction costs for preliminary design submissions. Construction cost estimates will be based on standard costs and previous work.
- Project Design Meetings: Wright-Pierce will attend project design meetings to review the project progress and ensure the project related details are being discussed/addressed. For the purpose of this proposal, we have assumed up to two (2) meetings will be needed with City staff and have included in our budget time for up to two (2) meetings with specific stakeholders to discuss the project.

Task 2 – Final Design – Pump Station

Following acceptance of the preliminary design and revised construction estimate, Wright-Pierce will move into Final Design. Key tasks for this effort would include:

- Final Plans and Specifications: Wright-Pierce will prepare 75% and 100% construction Contract Documents in the form of design drawings and specifications for the City's Review.
 - It is anticipated the plans would consist of a cover page and up to three Civil plans for general notes, site plans and details, and plan and section views of the pump station structures, two Architectural plans and one mechanical plan for the building, two instrumentation plans, and six electrical plans.
- Cost Estimate: Wright-Pierce will update the estimate of probable construction cost based on the 75% and 100% design submissions.
- Finalize the Bidding Documents in response to the City's comments, as appropriate, and furnish the final Bidding Documents. We will provide 2 hardcopies and an electronic copy in PDF format.

Force Main and Gravity Sewers

Task 3 – Preliminary Design

Wright-Pierce will gather existing conditions information, including existing utility infrastructure, and other data necessary to prepare preliminary design plans and cost estimates. Key tasks for this effort would include:

- Topographic Survey Review: The City will provide a topographic/utility survey for use by Wright-Pierce in the development of baseline drawings showing existing conditions within the proposed areas of work. We have assumed that any boundary information and easement coordination will also be completed by the City of Biddeford. Wright-Pierce will review the survey information and submit requests for clarification to the City for action.
- Preliminary Design Phase: Upon receipt of the existing conditions information, Wright-Pierce will move into the Preliminary design phase. This work shall include:
 - A new sanitary sewer gravity line along Gooch Street (size to be confirmed) carrying dry weather sewer flow to the new pump station, it is anticipated this sewer will be roughly 800 feet long.
 - A new sanitary sewer gravity line along Pearl Street (size to be confirmed) carrying sanitary sewer flow to the new pump station. It is anticipated this sewer will be roughly 1,200 feet long.
 - A new 8-inch force main pipe will be designed from the force main bypass assembly near the valve pit of the pump station to the discharge point near the intersection of Lincoln Street and Pearl Street.
- Railroad Coordination: Wright-Pierce will work with the City to assist with Railroad company coordination. It is understood there may be an existing casing pipe available that could potentially incorporate both the force main and gravity sewer line under the railroad. However, due to the unknowns associated with this pipe and the unknowns associated with the expectations of the railroad, we have included an allowance of \$5,000 for coordination purposes.
- Geotechnical Explorations: Wright-Pierce will enlist the services of Geotechnical Engineer to conduct subsurface explorations along the pipeline routes and near the railroad for use in the design of the gravity and force main sewers.
 - It is anticipated that approximately 12 borings will be required, extending to a depth of approximately 12 to 15 feet.

- Preliminary Plans: The preliminary design will be compiled and depicted on an engineering plan set.
 - It is anticipated that Force Main and Gravity Sewer plans would be combined with either the Pearl Street reconstruction plans or the Gooch Street Pump Station plans and would consist of approximately four plan and profile sheets, two standard detail sheets, and an erosion and sediment control sheet.
- Cost Estimates: Wright-Pierce will prepare engineers estimate of construction costs for the 75% and 100% design submissions. Construction cost estimates will be based on standard costs and previous work

Task 4 – Final Design – Force Main and Gravity Sewers

Following acceptance of the preliminary design and revised construction estimate, Wright-Pierce will move into Final Design. Key tasks for this effort would include:

- Final Plans and Specifications: Prepare construction Contract Documents in the form of final Drawings and Specifications. The estimate of probable construction cost will be updated based on the final design.
- Finalize the Bidding Documents in response to the City's comments, as appropriate, and furnish the final Bidding Documents. We will provide 2 hardcopies and an electronic copy in PDF format.

Task 5 – Bidding Services

Following acceptance of the final design, we will support the City during advertisement and procurement of bids for construction. We have assumed the pump station and piping work will be bid together in the same package for the purposes of this proposal.

Bidding services will include:

- Advertising for bids in appropriate newspapers and bidding services
- Distributing drawings and specifications to prospective bidders
- Maintaining a record of prospective bidders to whom bidding documents were issued
- Responding to bidders' questions
- Preparing for and attending a pre-bid conference (if requested)
- Preparing and issuing addenda to the bid documents
- Attending the bid opening
- Preparing a tabulation of bids
- Evaluating bids
- Preparing a letter of recommendation regarding award of the contract

11/15/2019

Mr. Jeff Demers, Public Works Director

Page 6 of 7

Budget Estimate

We have prepared the following budget for each Scope of Services task for a total budget estimate as noted below.

Task		Budget Estimate
Task 1	Preliminary Design – Pump Station	\$30,500 - \$31,500
Task 3	Final Design – Pump Station	\$57,000 - \$58,500
Task 2	Preliminary Design – Force Main and Gravity Sewers	\$30,000 - \$31,000
Task 4	Final Design - Force Main and Gravity Sewers	\$10,000 - \$12,000
Task 5	Bidding Services	\$3,500 - \$4,000
Total Budget Estimate		\$ 131,000 - \$137,000

This budget estimate is based on our project understanding. Should available information or data change from the above noted assumptions, we will coordinate with the City immediately to discuss any necessary adjustments to the scope and/or fee.

Schedule

Assuming we receive authorization to proceed and receipt of the existing conditions base plan information from the City by November 25, 2019, we anticipate the following schedule:

Authorization to Proceed:	November 25, 2019
Receive Existing Conditions Survey	November 25, 2019
Preliminary Design – Pump Station	February 21, 2020
Preliminary Design – Piping	February 21, 2020
Final Design – Pump Station	May 15, 2020
Final Design – Piping	May 15, 2020
Bidding Services Start	May 29, 2020

We appreciate being considered for this opportunity and look forward to coordinating on this project in the future or answering any questions you may have.

11/15/2019

Mr. Jeff Demers, Public Works Director

Page 7 of 7

Sincerely,

WRIGHT-PIERCE



Stephanie Hubbard, PE

Project Manager

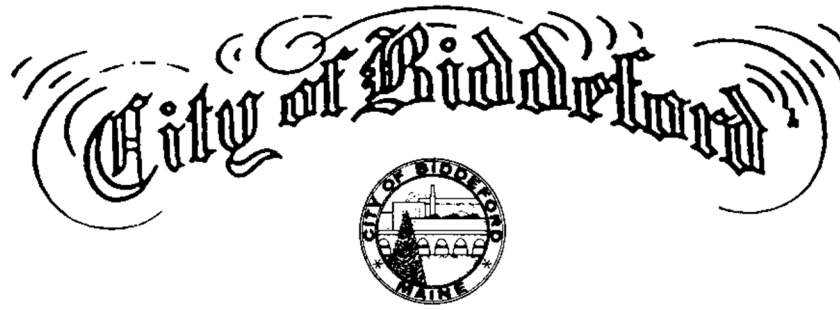
stephanie.hubbard@wright-pierce.com



Ryan T. Wingard, PE

Vice President

ryan.wingard@wright-pierce.com



2019.126

IN BOARD OF CITY COUNCIL..NOVEMBER 19, 2019

BE IT ORDERED, that the City Council of the City of Biddeford does hereby approve a budget amendment to appropriate funds from Route 111 Mill Redevelopment TIF (Tax Increment Financing) for the completion of Public Process for Green Space located at 3 Lincoln Street. For an amount not to exceed \$15,000.

Funding from the project shall be from account number 31179-61010.

Finance & City Council

Meeting Date: November 19, 2019
Meeting Time: 6:00 p.m.
Agenda Item No: Orders of the Day - 8.f
Item Description: 2019.126) Approval/Budget Amendment for Completion of Public Process for Green Space at 3 Lincoln Street

Summary:

This Order authorizes appropriation of funds from the Route 111 Mill Redevelopment TIF in the amount of \$15,000 for a public process associated with design of green spaces at the 3 Lincoln Street site reserved for a public park connected with the RiverWalk. This is the establishment of a funding mechanism and not approval for actual services

Supporting Documentation:

None

Key Terms:

None

Detailed Description:

The Order creates an appropriation to fund a process for developing a professionally derived concept plan, involving the Downtown Development Commission (DDC) and the public, for the Riverfront Park at 3 Lincoln Street. While there is an initial concept plan developed for the existing Riverwalk, much of it was completed prior to entering into agreement with BEfitler for the development of the rest of the 3 Lincoln Street property. The key components of the planning project would be:

- A public participation process, including a public forum;
- Possible integration with the concept planning of BEfitler and the implementation of the Parking Garage and Pearl Street;
- Possible integration of the park with other redevelopment activities in the Mill District and connectivity with other pedestrian/neighborhood systems (including the Eastern Trail; and,
- Establishing a highest and best use for the park within a flexible design.

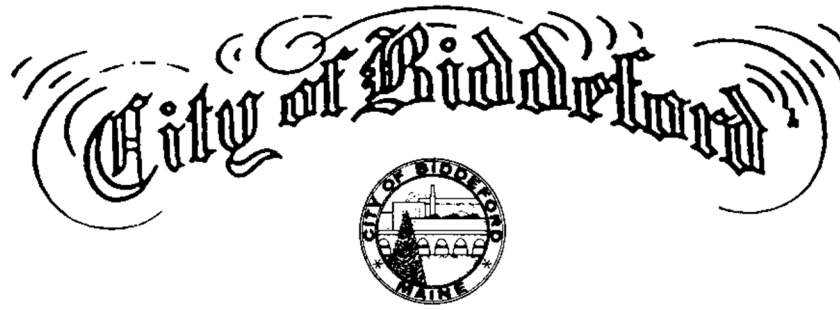
The actual design work would be addressed through a separate Order. This Order simply allocates funds for the project. The \$15,000 design cap is based on interviews with consultant teams (the range was \$9,000-20,000). Once the funding is established an RFP will be prepared to obtain competitive bids. Selection of a consultant would follow the established purchasing policy approval process. The intent would be to go out for bid immediately after funding is available and have the design completed by February or March of 2020, in conjunction with the work of BEfitler and Pearl Street.

The specific location of the park is the area north of the stack located on the property and reserved by the City for park space above the existing PCB cap.

The environmental clearances obtained during the Maine Energy closure process specifically authorize use of the area for a public park.

Funding Source:

Funding is requested as a budget allocation to 31179-61010 from the Route 111 Mill Redevelopment TIF.



2019.127

IN BOARD OF CITY COUNCIL..NOVEMBER 19, 2019

BE IT ORDERED, that the City Council of the City of Biddeford does hereby authorize the City Manager to enter into an agreement with Wright-Pierce for engineering services and design services for the RiverWalk in an amount not to exceed \$47,100.

Funding for this project shall be within the \$3,000,000 allocation for the RiverWalk under the garage project. For accounting purposes, expenses will be charged to 10011-10162 Miscellaneous A/R.

Finance & City Council

Meeting Date: November 19, 2019
Meeting Time: 6:00 p.m.
Agenda Item No: Orders of the Day - 8.g
Item Description: 2019.127) Authorization/Appropriation for Engineering Services/RiverWalk

Summary:

This Order authorizes execution of an contract amendment with Wright-Pierce for final design of the RiverWalk from Laconia Plaza to Pearl Street with the accompanying pedestrian connections.

Supporting Documentation:

Wright-Pierce proposal: Amendment No 1 to Agreement Between the City of Biddeford and Wright-Pierce for Engineering Services Associated with the Biddeford RiverWalk.

Key Terms:

None

Detailed Description:

The proposed parking structure development plan includes a \$3,000,000 allocation for the RiverWalk from Laconia Plaza to Pearl Street with associated pedestrian connections. Construction-level plans and bid documents are required to construct this section of the RiverWalk.

Wright-Pierce (W-P) is the engineer of record for design of the RiverWalk to date. W-P is currently under contract with the City for preliminary design through to Elm Street. In order to expedite the final design to coordinate with the garage construction project. The City proposes to eliminate preliminary design work for RiverWalk section west of Pearl Street and apply resourced to completion of final design for the section through Pearl Street.

W-P estimates completion of the assigned scope of work to be \$92,000. Eliminating the westerly section from preliminary design frees up \$44,900 leaving a balance of \$47,100 as reflected in the proposed Amendment 1.

Funding Source:

Funding for the project is proposed to be within the \$3,000,000 allocation for the RiverWalk under the garage project. For accounting purposes expense will be charged to 10011-10162 Miscellaneous A/R.

AMENDMENT NO. 1
TO
AGREEMENT BETWEEN
THE CITY OF BIDDEFORD
AND
WRIGHT-PIERCE
FOR
ENGINEERING SERVICES ASSOCIATED WITH
BIDDEFORD RIVERWALK

AMENDMENT NO. 1
TO
AGREEMENT BETWEEN
THE CITY OF BIDDEFORD
AND
WRIGHT-PIERCE
FOR
ENGINEERING SERVICES ASSOCIATED WITH
BIDDEFORD RIVERWALK

This AMENDMENT made the ____ day of October, 2019, by and between THE CITY OF BIDDEFORD, (hereinafter called CLIENT), and WRIGHT-PIERCE (hereinafter called ENGINEER).

WHEREAS, an Agreement was entered on November 15, 2017 between the CLIENT and ENGINEER, which Agreement is entitled *Engineering Services Associated with the Biddeford Riverwalk* (hereinafter referred to as AGREEMENT).

WHEREAS, CLIENT wishes ENGINEER to proceed with Design Development, design coordination in/around the Riverdam Mill complex and Permitting of portions of the Biddeford Riverwalk directly along the Saco River. It is our understanding that project related work will be coordinated with the City of Biddeford and the City's parking garage consultant, Sewall Company.

Design development shall include the following segments of the Biddeford Riverwalk:

- Segment A: Laconia Plaza Switchback
- Segment B: Saco Falls Boardwalk
- Lincoln Mill Sidewalk Connection (Lincoln Mill to York Street).

Design Coordination around the Riverdam Mill complex shall include the following segments:

- Segment C: Saco Falls Plaza
- Segment D: Riverdam Boardwalk (Saco Falls Plaza to Pearl Plaza Overlook)

Permitting shall include the following segments of the Biddeford Riverwalk:

- Segment A: Laconia Plaza Switchback
- Segment B: Saco Falls Boardwalk
- Segment C: Saco Falls Plaza
- Segment D: Riverdam Boardwalk (Saco Falls Plaza to Pearl Plaza Overlook)
- Lincoln Mill Sidewalk Connection (Lincoln Mill to York Street)

The CLIENT also wishes to eliminate the preliminary design work associated with Segment F – Spring Island Boardwalk and Connector, Segment G – Elm Street Crossing and Segment H – Diamond Street Connector and Boardwalk from the original agreement. Limited topographic

survey and conceptual plans have been prepared for these segments, however the CLIENT wishes to stop further design related work.

NOW, THEREFORE, in consideration of said AGREEMENT and other good and valuable considerations, it is hereby agreed and acknowledged by and between CLIENT and ENGINEER to amend the AGREEMENT as follows:

1. The AGREEMENT shall be amended to include this AMENDMENT, a copy of which shall be attached thereto and made a part thereof.
2. SECTION 1 – SCOPE OF SERVICES: ENGINEER will amend the original agreement and undertake the following additional tasks.

II. Design Development (Segments A, B, and Lincoln Mill Sidewalk Connection)

- A. Design Development: Wright-Pierce will work with the City and finalize design plans and details associated for Segment A – Laconia Switchback, Segment B – Saco Falls Boardwalk and the Lincoln Mill Sidewalk Connection in preparation for future construction.
- B. Utility and Lighting/Security Coordination: Wright-Pierce will work with the City and property owner to formalize review of existing utilities and define any further upgrades/updates to utility services and lighting concepts. It is assumed lighting will be completed in accordance with the City's "smart technology" upgrades and will be coordinated directly with City Staff/Electrician. Our design does not include an electrical design, only coordination on conduit needs/layout.
- C. Materials and Amenities: We will coordinate with City Staff, Property Owners and Stakeholders to refine selection of materials and amenities for incorporation into the design along with landscape plantings (species, location, etc.). We anticipate one meeting in review of the materials and amenities with City Staff and Stakeholders to refine the materials pallet.
- D. We will prepare a 90% set of design drawings, 90% cost estimate and associated technical specifications for review with City Staff and Property Owners. As we understand the work will be completed by the Parking garage contractor under their contract details, we do not anticipate the completion of a full project manual.
- E. Following review by the City and Property Owners, we will finalize the Design Drawings and engineers estimate of probable construction costs.
- F. Wright-Pierce will attend a Value Engineering meeting with the Parking garage contractor, City Staff and Sewall Company to review project design details and discuss opportunities for value engineering.

- G. Meetings: The above scope assumes attendance at three (3) meetings with City Staff and two (2) meetings with Property Owner/stakeholders.

III. Design Coordination (Segments C and D)

- A. Design Development: Wright-Pierce will work with the City and Riverdam Mill Owners to refine and finalize design related details associated with the portion of the Riverwalk in/around the Riverdam Mill building and Lincoln Mill area. Design coordination will include Riverwalk layout, materials, ADA connectivity and connectivity to the adjacent portions of the Riverwalk.
- B. Meetings: The above scope assumes attendance at two (2) meetings with the City Staff and Riverdam property owner.

IV. Permitting (Segments A, B, C, D and Lincoln Mill Sidewalk Connection)

- A. Permit Coordination: Wright-Pierce will finalize preliminary design plans associated with the above identified segments to prepare permit applications for portions of the Riverwalk along the Saco River. The permitting application will include Segments A and B (with design development elements). Segments C and D (portions of the Riverwalk in and around the Riverdam complex) will be based on preliminary design with the understanding that refinement of the design in/around the building may require a future amendment.
- B. State and Federal Permitting: Wright-Pierce will move forward with acquisition of regulatory approvals for the proposed project. Work will include coordination on a pre-application meeting with the Maine Department of Environmental Protection (Maine DEP), Army Corps of Engineers (ACOE) and Saco River Corridor Commission (SRCC) to discuss the complete Biddeford Riverwalk project and specific design elements associated with the segments moving forward into Final Design and submittal of permitting application. Wright-Pierce will prepare permit application documents for submission to the regulatory agencies, attend a pre-submission meeting if required, coordinate with the regulatory agencies during the permit review process and respond to questions. It is assumed that the City will provide documentation of Right, Title and Interest and/or easements for submission of permit applications and application fees directly.
- C. Local Permitting: We will coordinate with the Planning Department on local permit requirements and prepare local permit applications for review and approval. We would anticipate one meeting with planning staff and attendance at a planning board meeting, if required.

- 3. SCHEDULE: ENGINEER will proceed expeditiously with such tasks upon approval and direction from the City to move forward with Design Development and Permitting of the segments noted above. It is our understanding that we are looking to move forward into

permitting by late 2019 with final design details for contractor coordination by Spring 2020.

4. SECTION 2 – COMPENSATION: For Scope Items defined above in the Design Development (Segments A, B and Lincoln Mill Sidewalk), Design Coordination (Segment C and D), and Permitting (Segments A, B, C, D and Lincoln Mill Sidewalk), we recommend the City budget \$92,000.

With removal of the preliminary design work associated with Segments F through H, the current budget remaining under the current agreement is \$44,900. Therefore, the net increase in Amendment No. 1 would be \$47,100. This is summarized below

Budget Estimate Summary

Budget Estimate

Design Development and Permitting \$ 92,000

Budget Remaining

*Elimination of Preliminary Design for
Segments F, G and H from Original Scope* \$ 44,900

Net Increase – Amendment No 1 Fee **\$ 47,100**

This assumes fees associated with the submittal of permitting applications will be paid for by the City.

IN WITNESS WHEREOF, the parties hereto have made and executed this AMENDMENT to said AGREEMENT as of the day and year first above written.

CLIENT:

ENGINEER:

By: James A. Bennett

Title: City Manager

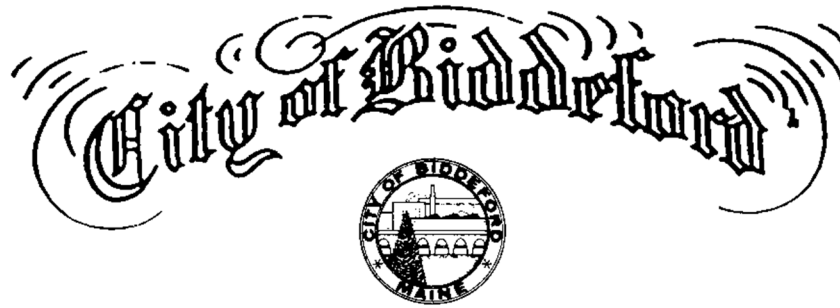
Date:



By: Ryan T. Wingard, PE

Title: Vice President

Date:



2019.128

IN BOARD OF CITY COUNCIL..NOVEMBER 19, 2019

BE IT ORDERED, that the City Council of the City of Biddeford does hereby authorize the City Manager to enter into an agreement with James W. Sewall Co in the amount of \$47,570 for engineering services associated with long-term transportation planning and traffic study for the Elm Street, Pearl Street, Lincoln Street triangle.

Funding for the project will be covered under the Route 111 Mill Redevelopment TIF (Tax Increment Financing) at 31179-61012.

Finance & City Council

Meeting Date: November 19, 2019

Meeting Time: 6:00 p.m.

Agenda Item No: Orders of the Day - 8.h

Item Description: 2019.128) Authorization/Appropriation/Engineering Services with James W. Sewall Co/Traffic and Design of Lincoln/Pearl/Elm Intersections

Summary:

This Order authorizes execution of an agreement with James W. Sewall Co in the amount of \$47,570 for engineering services associated with long-term transportation planning and traffic study for the Elm Street, Pearl Street, Lincoln Street triangle.

Supporting Documentation:

Sewall proposal dated November 14, 2019

Key Terms:

None

Detailed Description:

The proposed development of the 3 Lincoln Street site, Lincoln Mill, Riverdam Mill, proposed BEFitler projects and RiverWalk will affect interest in the area and by association impact traffic and pedestrian flow in the immediate area particularly at full buildout.

In order to understand the impact this development will have on local traffic flow and to mitigate negative impacts or enhance existing conditions it is prudent to begin a formal review for planning purposes.

The Order authorizes a long-term transportation planning and traffic study for the area within the Pearl St./Elm St./Lincoln St triangle and Elm/Main and Lincoln/Main intersections. The scope of work includes evaluation of existing conditions, analysis of future conditions and alternate intersection designs and options for improvements, such as roadway realignments, circulation limitations (one-way streets), the addition of turn lanes, changes to pedestrian access, traffic signal installation and roundabouts to address any long range identified deficiencies.

A report will be prepared summarizing the findings with detail on three preferred improvement options to include associated cost estimates, right of way impacts, utility impacts and opportunities for the creation of developable space. Other design options that are considered and dismissed will be detailed in the report only.

Funding Source:

Funding for the project will be covered under the Route 111 Mill Redevelopment TIF (Tax Increment Financing) at 31179-61012.

November 14, 2019

James A. Bennett, ICMA-CM
Biddeford City Manager
205 Main Street
Biddeford, Maine 04005

RE: PROPOSAL FOR LONG-TERM TRANSPORTATION PLANNING AND TRAFFIC STUDY FOR DOWNTOWN BIDDEFORD

Dear Mr. Bennett:

INTRODUCTION

James W. Sewall Company (Sewall) is pleased to submit to the City of Biddeford our proposal to provide transportation planning, traffic analysis and conceptual design for the triangle area outlined by Elm Street, Pearl Street and Lincoln Street in downtown. The catalyst for this effort is a number of development projects currently proposed in the Mill District, including a new parking facility, Lincoln Mill, Riverdam Mill, potential BE Fitler projects, RiverWalk improvements, infrastructure upgrades on Pearl Street itself and additional planned commercial development in the area of the new parking garage.

The study will examine existing traffic conditions and project future volumes and traffic conditions for the typical twenty-year design life. The study will evaluate current system constraints, alternate intersection configurations to address functional limitations including such options as roadway realignments, circulation limitations (one-way streets), the addition of turn lanes, changes to pedestrian access, traffic signal installation and roundabouts. The overall objective will be to provide for convenient and safe access to downtown parking and development sites while also enhancing traffic operations, pedestrian and bicycle access and amenities and the aesthetics of this vibrant and growing area.

STUDY AREA

Based upon information provided, it is assumed that there are adequate turning movement counts available from other recent traffic studies, such as the Riverdam project. The following intersections are within the defined study area or are in close proximity and will be impacted by potential improvements or modifications made within the triangular study area:

- 
- Elm Street and Lincoln Street – primary study area
 - Elm Street and Pearl Street – primary study area
 - Lincoln and Pearl Street – primary study area
 - Elm Street and Main Street – secondary study area
 - Lincoln and Main Street – secondary study area

EXISTING CONDITIONS ANALYSIS

The existing traffic data will be factored and compiled to obtain base (year 2020) volumes for the study area. Volumes for already approved but not yet fully occupied developments, such as Riverdam, will be added to the base volumes. Traffic analysis will be performed to determine existing operations, defined in terms of level of service, for two analysis periods; one of which will be the weekday PM peak hour.

FUTURE CONDITIONS ANALYSIS

Future traffic volumes will be projected to the year 2040. These future volumes will consider historical background traffic growth as well as the new volumes expected to be generated by planned reoccupation of the mill buildings and by new commercial development and shifts in parking due to the planned garage. It is expected that several capacity constraints will be identified by the future conditions analysis.

Hence, alternate intersection designs and options for improvements, such as roadway realignments, , circulation limitations (one-way streets), the addition of turn lanes, changes to pedestrian access, traffic signal installation and roundabouts will be considered to address the long range identified deficiencies. As appropriate the Sewall Team will perform warrant analyses for turn lanes and traffic signals to assure that the identified improvements options are warranted. Consideration will be given to pedestrians and bicycles so that any design will be reflective of the Complete Streets design concept.

MEETINGS

Sewall believes communication is of the utmost importance throughout design projects. A Sewall representative will attend two (2) planning meetings with City staff and one (1) City Council meeting to report study findings.

CONCEPT DESIGN & DOCUMENTATION

A summary memorandum will be prepared at the completion of the future conditions analysis. This memorandum will outline existing conditions and projected future conditions. The identified constraints will be detailed along with the alternative options for improvement.

A maximum of three (3) preferred options for improvement will be conceptually designed to a level suitable for public display and discussion. Other design options that are considered and dismissed will be detailed in the memorandum only. Preliminary impacts and considerations such as order of magnitude cost estimates, Right of Way impacts, utility impacts and creation of developable space will be prepared for the concept designs for planning purposes.

PRICING

Sewall will provide the technical services described herein for the proposed fee amounts listed in the following table:

Task	Description	Contract Basis	Fee
1	Existing Conditions Analysis	Lump Sum	\$6,750
2	Future Conditions Analysis	Lump Sum	\$13,460
3	Meetings	Lump Sum	\$4,700
4	Concept Design & Documentation	Lump Sum	\$22,660
TOTAL			\$47,570

Payment is due within 30 days after the date of invoice and balances outstanding beyond these terms will accrue interest at the rate of 1.5% per month (18% per annum), or the legally permitted maximum if that rate is lower.

The prices and schedule listed above are valid for 60 days. If the City decides to proceed with the project after 60 days from the date of this proposal, Sewall reserves the right to review the cost estimate and schedule, and to make changes as needed.

Your notice to proceed can be a letter or purchase order that makes reference to this proposal, or a copy of this letter with an authorizing signature in the space provided below.

We look forward to the opportunity to work with the City of Biddeford on this project. If you have questions, or require further information, please do not hesitate to call my direct line at (207) 318-2166, or email me at diema@sewall.com.

Sincerely,
JAMES W. SEWALL COMPANY



Matthew C. Dieterich – *Executive Vice President*

Enclosures: Standard Conditions of Agreement

Accepted by: _____

Signature: _____ Date: _____

Standard Conditions of Agreement

RIGHT-OF-ENTRY

Unless otherwise agreed, Client will obtain and furnish right-of-entry on the land on which Project is to be sited, and on any adjacent land for which limited right-of-entry may be needed such as for reference measurements, drainage analysis or similar valid Project purposes. While Engineer will take all reasonable precautions to minimize damage to any property entered upon in pursuit of Project functions, it is understood by Client that in the normal course of the work some damage may occur, the correction of which is not part of this Agreement. If Engineer is required to restore the land to its former condition, this will be accomplished and the cost will be added to Engineer's fee.

STANDARD OF CARE

Services performed by Engineer under this Agreement will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions. No other warranty, expressed or implied, is made.

OWNERSHIP OF DOCUMENTS & EQUIPMENT

All documents, including drawings, estimates, analyses, specifications, reports, field notes, computer hardware, software and other capital items acquired for the project, computer tapes/disks or other media, and data of every kind prepared or developed by the Engineer, are and shall remain the property of Engineer as instruments of service. Copies of such documents as are specifically described in the Agreement Scope will be furnished to Client in the quantities stipulated including, in behalf of Client, furnishing copies thereof to other parties for valid Project purposes. Copies of Project documents not specifically described in the Agreement Scope will be furnished to Client upon request, at cost of reproduction, to the extent such documents are necessary for valid Project-related purposes.

Client agrees that all documents furnished hereunder are solely for use in this Project and are not intended for use in other work of similar nature or for extensions of this Project. Any reuse without written verification or adaptation by Engineer for the specific purpose intended will be at Client's sole risk and without liability or legal exposure to Engineer, or to Engineer's independent consultants and subcontractors, and Client shall indemnify and hold harmless Engineer and his associates from all claims, damages, losses and expenses including attorney's fees arising out of or resulting therefrom.

Client further agrees that all plans, specifications, reports and other instruments of service furnished to Client, or his agents, for which payment to Engineer is not made will be returned upon demand and will not be used by Client for any purpose whatsoever.

All original data, plans and documents furnished by Client to Engineer shall be returned to Client when so requested. In this event, Engineer shall be permitted to make copies of such documents as may be necessary for Project record purposes.

INSURANCE

Engineer is protected against most risks of liability exposure by Workmen's Compensation and General Liability Insurance in amounts Engineer deems to be adequate. Certificates of all such insurance will be furnished to Client upon written request. Within the limits and conditions of such insurance, Engineer agrees to indemnify and save Client harmless from and against loss, damage or liability arising from any negligent acts by Engineer, its agents and employees, and Engineer agrees to require similar insurance coverage by any independent consultants or subcontractors engaged by Engineer. Engineer shall not be responsible for any loss, damage, or liability beyond the amounts, limits and conditions of such insurance. Engineer shall not be responsible for any loss, damage, or liability arising from negligent acts by Client, its staff, agents, and other consultants engaged by it.

PROFESSIONAL LIABILITY

Engineer's liability for damages due to professional negligent acts, errors or omissions shall be limited to \$50,000 or Engineer's fee, whichever is greater, in the aggregate to Client, Owner, and all construction contractors and subcontractors on the Project.

CLAIMS AGAINST ENGINEER

Client acknowledges that Engineer is a corporation and agrees that any claim made by Client arising out of any act or omission by any officer or employee of Engineer shall be made against Engineer and not against such officer or employee.

PAYMENTS TO ENGINEER

Engineer will submit invoices for progress payments at monthly or such other intervals as may be stipulated in the Agreement. Invoices will be sent by e-mail unless otherwise requested. Payment via ACH or wire transfer is preferred. Electronic payment instructions are attached. A late payment fee of 1 1/2% per month will be assessed on unpaid invoices beginning 30 days after invoice date. In event any such invoice remains unpaid after 30 days from invoice date, Engineer will further be entitled to suspend work until payment is received and such suspension shall not be deemed to constitute abrogation of the Agreement or grounds for claims of loss, damage or other liability due to delay.

In event payments are not received within 120 days after invoice date, Engineer shall be entitled to take any reasonable action or actions, including bringing suit to enforce payment, and shall additionally be entitled to recover all reasonable costs, including attorney's fees, incurred thereby.

ARBITRATION

With the exception of actions to recover payment as described in the preceding section, any and all claims, disputes, and other matters in question arising out of or relating to this Agreement or the breach thereof which is not disposed of by mutual agreement of the parties hereto shall be submitted to arbitration conducted and governed by the rules of the American Arbitration Association applicable to the Construction Industry in effect at the time of the execution of this Agreement. This agreement to arbitrate shall be specifically enforceable under the prevailing arbitration law.

Should a Demand for Arbitration be submitted by any party to this Agreement, all parties shall have full right of discovery of books, documents, or other tangible things to the extent permitted by the Maine Rules of Civil Procedures.

ASSIGNS

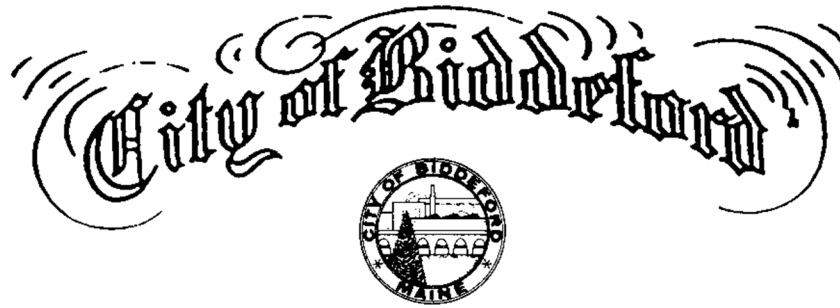
Neither Client nor Engineer may delegate, assign, sublet or transfer its duties or interest in this Agreement without written consent of the other party.

TERMINATION

This Agreement may be terminated in whole or in part in writing by either party in the event of substantial failure by the other party to fulfill its obligations under this Agreement through no fault of the terminating party: Provided, that no such termination may be effected unless the other party is given (1) not less than 10 calendar days written notice (delivered by certified mail, return receipt requested) of intent to terminate and (2) an opportunity for consultation with the terminating party prior to termination.

If termination is effected by Client, an equitable adjustment in the price provided for in this Agreement shall be made, which shall include a reasonable profit for services or other work performed. The equitable adjustment of any termination shall provide for payment to Engineer for services rendered and expenses incurred prior to termination, in addition to termination settlement costs reasonably incurred by Engineer relating to commitments which had become firm prior to the termination.

Upon termination Client may take over the work and prosecute same to completion by agreement with another party or otherwise. Any work taken over by Client for completion will be completed at Client's risk, and Client will hold harmless Engineer from all claims and damages arising out of improper use of Engineer's work



2019.129

IN BOARD OF CITY COUNCIL..NOVEMBER 19, 2019

BE IT ORDERED, that the City Council of the City of Biddeford does hereby authorize the City Manager to enter into an agreement with James W. Sewall Co in the amount of \$38,970 for engineering services associated with the redesign of Pearl Street.

Funding for the project will be covered under the Route 111 Mill Redevelopment TIF (Tax Increment Financing) at 31179-61012.

Finance & City Council

Meeting Date: November 19, 2019
Meeting Time: 6:00 p.m.
Agenda Item No: Orders of the Day - 8.i
Item Description: 2019.129) Authorization Design of Pearl Street

Summary:

This Order authorizes execution of an agreement with James W. Sewall Co for design services associated with reconstruction of Pearl Street at a cost of \$38.970.

Supporting Documentation:

Sewall proposal dated November 14, 2019
Wright Pierce proposal dated November 4, 2019

Key Terms:

None

Detailed Description:

The proposed development of the 3 Lincoln Street site and planned CSO work with Pearl Street require consideration of improving Pearl Street from Lincoln Street to a point where it intersects with the Saco River.

Currently Pearl Street terminates at Smith Street, between the so-called Bugby Brown facility and the Counting House. From that point to the river the “street” is a compilation of ownerships and right-of-ways with no single entity having underlying ownership. With the planned development on and around the 3 Lincoln Street site and the planned RiverWalk, it is proposed that the City begin the process of creating a formal street with the intent of creating a cohesive streetscape from Lincoln Street to the river.

The first step is to create a reconstruction plan than can be discussed with the various parties with boundaries and utility layout. Once boundaries are defined and appropriate access rights established the final design will be completed to include any required permits.

Funding Source:

Funding for the project will be covered under the Route 111 Mill Redevelopment TIF (Tax Increment Financing) at 31179-61012.

November 14, 2019

James Bennett
City Manager
City of Biddeford
205 Main Street
Biddeford, ME 04005

RE: PROPOSAL FOR ENGINEERING SERVICES PEARL STREET RECONSTRUCTION

Dear Mr. Bennett:

INTRODUCTION

James W. Sewall Company (Sewall) is pleased to submit to the City of Biddeford our proposal to provide design services for the reconstruction of Pearl Street.

A number of development projects are currently proposed in the Mill District, including a new parking facility, Lincoln Mill, Riverdam Mill, potential BE Fitler projects, RiverWalk improvements, and infrastructure upgrades within Pearl Street itself. As a result, we understand the City intends to reconstruct Pearl Street from Elm Street to the easterly terminus near the Saco River in order to provide a formal streetscape including pedestrian accommodations.

We further understand that the utility work contemplated within Pearl Street includes a sewer force main and gravity sewer main as well as an adjacent pump station to serve the wastewater needs of the area and to help meet the City's objectives pertaining to their combined sewer overflow (CSO) program. However, it is our understanding that this utility design work will be performed by a separate consultant firm. Sewall is prepared to closely coordinate our Pearl Street design with the utility infrastructure efforts.

PROJECT APPROACH & SCOPE OF SERVICES

The following Scope of Services summarizes the major tasks we believe to be necessary in completing the design for the proposed Pearl Street reconstruction project.

Initial Project Scoping Meeting

Sewall believes communication is of the utmost importance throughout design projects. Prior to beginning any significant design effort, Sewall will meet with City officials to discuss project objectives and to conduct a field visit of the project area and go over the critical issues that need to be incorporated into the project design. At this meeting we expect to discuss the limits of the overall project, existing street condition, anticipated pedestrian accommodations including ADA compliance, potential right-of-way (ROW) issues, drainage concerns, and existing elements and/or challenges that need to be addressed with the design. We also expect that identifying all project stakeholders is crucial at this meeting so that as many concerns as

practical can be incorporated within the design. We believe that this initial meeting will be beneficial in getting the project off to an efficient start.

Topographic Survey

We understand the City is in the process of obtaining topographic survey and utility information. Sewall will utilize this data to prepare a base plan for our design. We also understand that the City will determine right-of-way (ROW), adjacent boundary information, and coordinate necessary easements.

Subsurface Investigation

Sewall will coordinate with the City to observe test pits. This will allow us to evaluate existing base/subbase/subgrade conditions within the street visually. Should questionable material be encountered, a formal geotechnical evaluation may be warranted. However, for the purposes of this proposal, we have assumed this will not be required and that the typical street cross section will be based upon the City of Biddeford's ordinance requirements as well as typical engineering judgement. It is assumed the City will provide the equipment and personnel to perform this field work and will also be responsible for contacting Dig Safe.

Preliminary Design

We will prepare preliminary design plans based on applicable City ordinances. We anticipate improvements to Pearl Street will include full reconstruction requiring design of a box cut to install subbase and base aggregates, design of a stormwater drainage system (catch basins & underdrains), and paving full depth hot mix asphalt. Sewall will utilize stormwater modeling software to determine stormwater pipe sizes.

Sewall will review the existing conditions to determine appropriate locations for sidewalks and to determine compliance with the Americans with Disabilities Act (ADA). Efforts will be made during the design process to keep permanent improvements and construction impacts within the existing right of way limits such that the need for temporary and permanent easements can be minimized or eliminated.

The location of existing utilities will also be considered during design and we will try to avoid the need for utility relocation. Sewall will coordinate with existing utilities during this process.

During the design process, the safety of the users will be given the highest priority when considering locations where pedestrian and vehicle traffic may co-exist. Sidewalks and crosswalk locations and the number of crosswalks will be reviewed to ensure appropriate visibility for pedestrians, bicyclists, and motor vehicles. We assume that street lighting information such as fixture types, locations, and conduit requirements will be provided by the City. Sewall will depict this information on the design plans.

To the extent practicable, Sewall will review and coordinate the preliminary design with available property development plans for adjacent properties. This will help to meet the City's objectives of reconstructing Pearl Street while providing for appropriate access to abutting developments.

A preliminary plan of the improvements will be created in sufficient detail to define project intent, show project limits, and demonstrate impacts. The proposed street and sidewalks and the limits of impacts will be shown on the plans. The plan will be submitted to the City for review and comment. In addition, Sewall will prepare a preliminary opinion of probable construction cost (OPC). Cost estimates will be based on available bid result data.

Environmental Permitting

Based on the current conditions of the street, we do not anticipate the need for Maine Department of Environmental Protection (MaineDEP) Site Law or Stormwater permitting. However, given the proximity of the project to the Saco River (less than 75 ft.), we have assumed that a Natural Resource Protection Act (NRPA) permit by rule will be required. In addition, Sewall will prepare the necessary materials/application for City Planning Department requirements.

Final Design, Construction Documents, and Probable Construction Cost Estimate

In this phase, we will further modify our design and adjust plans to reflect mutually agreed upon changes that may be a result of City input and/or utility requests. Sewall will monitor changes to the construction cost estimates during this phase to communicate budget concerns with the City.

We will create Construction Documents including: cover sheet, typical sections, general notes, plan and profile sheets, drainage, and cross-section sheets at 50-foot intervals and at critical locations such as driveways/entrances. Technical specifications will also be prepared at this time.

Final quantities and a probable construction cost estimate will be generated using available as-bid unit prices. Although Sewall will regularly communicate with the City about cost estimates during the design phase, we are also available to develop construction scopes of work that potentially phase work, reduce overall scope, or re-assess estimates to ensure the project is viable.

The completion of this phase of work will culminate with the development of the final Plans, Specifications, and Estimate (PS&E) package. Plans and specifications will be stamped by a Professional Engineer licensed in the State of Maine and will be suitable for public bidding for construction.

Project Meetings

We anticipate having meetings with the City and appropriate stakeholders to review the project and to address project concerns. We anticipate one (1) meeting during preliminary design and an additional meeting during final design. We feel this is an important aspect to maintain quality communications between Sewall and the City.

Bidding

Sewall will oversee the bidding process including distributing plans and specifications and responding to questions. In addition, we propose to distribute addenda (if required), assist the City at bid opening, review

bids for compliance, prepare a bid tabulation, provide a letter of recommendation, and prepare construction contract documents and oversee their review and execution by all parties.

CAVEATS/EXCEPTIONS

Traffic and intersection analysis as well as traffic control plans and construction phasing are not included in our scope of services. Sewall will coordinate with the firm responsible for designing the gravity sewer and force main but will not be responsible for the design aspects of these utilities. In addition, Sewall will coordinate with adjacent developers based on information they provide, but design of these potential developments are not included in our scope of services.

SCHEDULE

The following is a preliminary schedule of the time required to complete the major tasks as outlined within this proposal along with tentative completion dates. Given our scheduled workload, Sewall has the capacity to complete projects in a timely manner. This schedule assumes the receipt of survey data and a notice to proceed in late November 2019.

Task	Duration	Tentative Date of Completion
Initial Project Scoping Meeting	1 Day	Early Dec. 2019
Base Plan Development	2 Weeks	Mid-Dec. 2019
Preliminary Design Plans/Prelim Cost Estimate	6 Weeks	Late Jan. 2020
City Review	2 Weeks	Mid-Feb. 2020
Final Plans/Specifications/Cost Estimate	6 Weeks	Late March 2020
Bidding	3 Weeks	Late April 2020

PRICING

Sewall will provide the technical services described herein for the proposed fee amounts listed in the following table:

Task	Description	Contract Basis	Fee
1	Scoping Meeting, Base Plan Development, & Subsurface Investigation	Lump Sum	\$4,625
2	Preliminary Design & Environmental Permitting	Lump Sum	\$18,975
3	Final Plans, Specifications, and Estimate	Lump Sum	\$11,800
4	Bidding	Lump Sum	\$3,575
TOTAL			\$38,975

Permitting application fees are not included in our pricing table.

Payment is due within 30 days after the date of invoice and balances outstanding beyond these terms will accrue interest at the rate of 1.5% per month (18% per annum), or the legally permitted maximum if that rate is lower.

The prices and schedule listed above are valid for 60 days. If the City decides to proceed with the project after 60 days from the date of this proposal, Sewall reserves the right to review the cost estimate and schedule, and to make changes as needed.

Your notice to proceed can be a letter or purchase order that makes reference to this proposal, or a copy of this letter with an authorizing signature in the space provided below.

We look forward to the opportunity to work with the City of Biddeford on this project. If you have questions, or require further information, please do not hesitate to call my direct line at (207) 817-5444, or email me at harb@sewall.com.

Sincerely,
JAMES W. SEWALL COMPANY



Brett Hart, PE – *Vice President of Engineering*

Enclosures: Standard Conditions of Agreement

Accepted by: _____

Signature: _____ Date: _____

(190259 Pearl Street)



Standard Conditions of Agreement

RIGHT-OF-ENTRY

Unless otherwise agreed, Client will obtain and furnish right-of-entry on the land on which Project is to be sited, and on any adjacent land for which limited right-of-entry may be needed such as for reference measurements, drainage analysis or similar valid Project purposes. While Engineer will take all reasonable precautions to minimize damage to any property entered upon in pursuit of Project functions, it is understood by Client that in the normal course of the work some damage may occur, the correction of which is not part of this Agreement. If Engineer is required to restore the land to its former condition, this will be accomplished and the cost will be added to Engineer's fee.

STANDARD OF CARE

Services performed by Engineer under this Agreement will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions. No other warranty, expressed or implied, is made.

OWNERSHIP OF DOCUMENTS & EQUIPMENT

All documents, including drawings, estimates, analyses, specifications, reports, field notes, computer hardware, software and other capital items acquired for the project, computer tapes/disks or other media, and data of every kind prepared or developed by the Engineer, are and shall remain the property of Engineer as instruments of service. Copies of such documents as are specifically described in the Agreement Scope will be furnished to Client in the quantities stipulated including, in behalf of Client, furnishing copies thereof to other parties for valid Project purposes. Copies of Project documents not specifically described in the Agreement Scope will be furnished to Client upon request, at cost of reproduction, to the extent such documents are necessary for valid Project-related purposes.

Client agrees that all documents furnished hereunder are solely for use in this Project and are not intended for use in other work of similar nature or for extensions of this Project. Any reuse without written verification or adaptation by Engineer for the specific purpose intended will be at Client's sole risk and without liability or legal exposure to Engineer, or to Engineer's independent consultants and subcontractors, and Client shall indemnify and hold harmless Engineer and his associates from all claims, damages, losses and expenses including attorney's fees arising out of or resulting therefrom.

Client further agrees that all plans, specifications, reports and other instruments of service furnished to Client, or his agents, for which payment to Engineer is not made will be returned upon demand and will not be used by Client for any purpose whatsoever.

All original data, plans and documents furnished by Client to Engineer shall be returned to Client when so requested. In this event, Engineer shall be permitted to make copies of such documents as may be necessary for Project record purposes.

INSURANCE

Engineer is protected against most risks of liability exposure by Workmen's Compensation and General Liability Insurance in amounts Engineer deems to be adequate. Certificates of all such insurance will be furnished to Client upon written request. Within the limits and conditions of such insurance, Engineer agrees to indemnify and save Client harmless from and against loss, damage or liability arising from any negligent acts by Engineer, its agents and employees, and Engineer agrees to require similar insurance coverage by any independent consultants or subcontractors engaged by Engineer. Engineer shall not be responsible for any loss, damage, or liability beyond the amounts, limits and conditions of such insurance. Engineer shall not be responsible for any loss, damage, or liability arising from negligent acts by Client, its staff, agents, and other consultants engaged by it.

PROFESSIONAL LIABILITY

Engineer's liability for damages due to professional negligent acts, errors or omissions shall be limited to \$50,000 or Engineer's fee, whichever is greater, in the aggregate to Client, Owner, and all construction contractors and subcontractors on the Project.

CLAIMS AGAINST ENGINEER

Client acknowledges that Engineer is a corporation and agrees that any claim made by Client arising out of any act or omission by any officer or employee of Engineer shall be made against Engineer and not against such officer or employee.

PAYMENTS TO ENGINEER

Engineer will submit invoices for progress payments at monthly or such other intervals as may be stipulated in the Agreement. Invoices will be sent by e-mail unless otherwise requested. Payment via ACH or wire transfer is preferred. Electronic payment instructions are attached. A late payment fee of 1 1/2% per month will be assessed on unpaid invoices beginning 30 days after invoice date. In event any such invoice remains unpaid after 30 days from invoice date, Engineer will further be entitled to suspend work until payment is received and such suspension shall not be deemed to constitute abrogation of the Agreement or grounds for claims of loss, damage or other liability due to delay.

In event payments are not received within 120 days after invoice date, Engineer shall be entitled to take any reasonable action or actions, including bringing suit to enforce payment, and shall additionally be entitled to recover all reasonable costs, including attorney's fees, incurred thereby.

ARBITRATION

With the exception of actions to recover payment as described in the preceding section, any and all claims, disputes, and other matters in question arising out of or relating to this Agreement or the breach thereof which is not disposed of by mutual agreement of the parties hereto shall be submitted to arbitration conducted and governed by the rules of the American Arbitration Association applicable to the Construction Industry in effect at the time of the execution of this Agreement. This agreement to arbitrate shall be specifically enforceable under the prevailing arbitration law.

Should a Demand for Arbitration be submitted by any party to this Agreement, all parties shall have full right of discovery of books, documents, or other tangible things to the extent permitted by the Maine Rules of Civil Procedures.

ASSIGNS

Neither Client nor Engineer may delegate, assign, sublet or transfer its duties or interest in this Agreement without written consent of the other party.

TERMINATION

This Agreement may be terminated in whole or in part in writing by either party in the event of substantial failure by the other party to fulfill its obligations under this Agreement through no fault of the terminating party: Provided, that no such termination may be effected unless the other party is given (1) not less than 10 calendar days written notice (delivered by certified mail, return receipt requested) of intent to terminate and (2) an opportunity for consultation with the terminating party prior to termination.

If termination is effected by Client, an equitable adjustment in the price provided for in this Agreement shall be made, which shall include a reasonable profit for services or other work performed. The equitable adjustment of any termination shall provide for payment to Engineer for services rendered and expenses incurred prior to termination, in addition to termination settlement costs reasonably incurred by Engineer relating to commitments which had become firm prior to the termination.

Upon termination Client may take over the work and prosecute same to completion by agreement with another party or otherwise. Any work taken over by Client for completion will be completed at Client's risk, and Client will hold harmless Engineer from all claims and damages arising out of improper use of Engineer's work

November 4, 2019

Mr. Jeff Demers, Public Works Director
City of Biddeford
371 Hill Street
Biddeford, Maine 04005

SUBJECT: Proposal for Engineering and Design Services
Pearl Street, Biddeford Maine

Dear Mr. Demers,

We appreciate the opportunity to assist you and the City of Biddeford with design and engineering services associated with the rehabilitation of Pearl Street. As discussed during our site walk on October 24, 2019, we understand the City is currently looking at utility upgrades along Pearl Street extending from Elm Street to the dead end. With current on-going projects in/around the area including the proposed parking garage, Riverwalk extension, and redevelopment of adjacent properties, including but not limited to, the Lincoln Mill and 3 Lincoln Mill property, we understand the City of Biddeford has the responsibility to reconstruct Pearl Street to include a defined roadway and sidewalk. This redevelopment will need to integrate the design of these adjacent properties into the Pearl Street reconstruction along with site utilities.

In addition, the City would like to incorporate a sewer pump station and associated force main and gravity sewer to service the area and accomplish goals linked with their Combined Sewer Overflow (CSO) program. While the design and engineering services associated with the pump station are not included in this scope of services, the Pearl Street project will need to be completed in close coordination with efforts associated with the gravity sewer and force main design.

Scope of Services

Based on our project understanding we have prepared the following scope of services to assist the City in design of the Pearl Street reconstruction project.

Task 1 - Preliminary Design

Wright-Pierce will assimilate existing conditions information, design details for abutting projects to prepare preliminary design plans and cost estimates. Key tasks for this effort would include:

- Kick-off Meeting: Wright-Pierce will conduct a "kick-off" meeting with the City of Biddeford to confirm project goals, constraints and schedule, and to establish a clear means of project communications. This meeting will review abutting property designs and options for the roadway and sidewalk construction.
- Topographic Survey: A topographic/utility survey will be completed to develop baseline drawings showing existing conditions within the proposed areas of work. We understand the City will have the responsibility

to assimilate existing survey information and perform site survey updates to address holes/gaps in the existing available data. We have assumed that boundary information and easement coordination will be completed by the City of Biddeford. Wright-Pierce will review the survey information and submit requests for clarification to the City for action.

- Subsurface Exploration: It is anticipated subsurface data gathering will include test pits to confirm depth and existing roadway construction materials. Wright-Pierce will coordinate with the City to mark out and oversee test pit activities. It is assumed the City will dig-safe the exploration locations and perform geotechnical evaluation.
- Preliminary Design Phase: Upon receipt of the existing conditions information, Wright-Pierce will move into the Preliminary design phase. This work shall include:
 - Preliminary Design: Wright-Pierce will prepare preliminary design plans and details once the survey is complete. Preliminary design will include review of roadway, sidewalk and infrastructure and development of typical cross-sections. These details will be reviewed and discussed with the City for concurrence and approval.
 - Preliminary Plans: The preliminary design will be compiled and depicted on an engineering plan set. The plan set will include existing conditions plans, utility plans with road profiles, layout plans, grading plans and road cross sections, as well as the required construction notes and details.
 - Utility Coordination: Adjustments to pavement/sidewalk width, grading or certain drainage improvements may result in impacts to utilities not owned or managed by the City of Biddeford (i.e. electric, cable, tv, internet and/or natural gas). We will undertake utility location early in the design process to gather accurate utility information, address any potential relocation needs and/or utilities that expect replacement soon, and utilities that may need to be relocated as a result of the proposed project.
 - Lighting and Security Coordination: Wright-Pierce will consult with the City regarding proposed street lighting and security needs. It is assumed that the fixture selection, spacing and conduit requirements will be provided by the City to incorporate into the project design.
 - Cost Estimates: Wright-Pierce will prepare engineers estimate of construction costs for the 75% and 100% design submissions. Construction cost estimates will be based on standard costs and previous work
 - Project Design Meetings: Wright-Pierce will attend project design meetings to review the project progress and ensure the project related details are being discussed/addressed. For the purpose of this proposal, we have assumed up to two (2) meetings will be needed with City staff and have included in our budget time for up to two (2) smaller, more focused meetings with specific property owners/stakeholders to discuss the project integration.

Task 2 – Final Design and Permitting

Following acceptance of the preliminary design and revised construction estimate, Wright-Pierce will move into Final Design. Key tasks for this effort would include:

- Final Plans and Specifications: Prepare construction Contract Documents in the form of final Drawings and Specifications.
- Finalize the Bidding Documents in response to the City's comments, as appropriate, and furnish the final Bidding Documents. We will provide 2 hardcopies and an electronic copy in PDF format.
- Permitting: Based on the location of the upgrades and improvements, we have assumed local permitting thru the Planning Department may be required, and depending on the limits of the project, a NRPA permit by rule for work within 75-feet of the Saco River. Wright-Pierce will prepare necessary permit applications for review and approval.

Task 3 – Bidding Services

Following of acceptance of the final design we will support the City during advertisement and procurement of bids for construction

Bidding services will include:

- Advertising for bids in appropriate newspapers and bidding services
- Distributing drawings and specifications to prospective bidders
- Maintaining a record of prospective bidders to whom bidding documents were issued
- Responding to bidders' questions
- Preparing for and attending a pre-bid conference (if requested)
- Preparing and issuing addenda to the bid documents
- Attending the bid opening
- Preparing a tabulation of bids
- Evaluating bids
- Preparing a letter of recommendation regarding award of the contract

Budget Estimate

For the Scope of Services detailed above, we have prepared the following budget for each task individually for a total budget estimate as noted below.

Task		Budget Estimate
Task 1	Preliminary Design	\$23,000 - \$25,000
Task 2	Final Design	\$9,500 - \$10,500
Task 3	Bidding Services	\$3,500 - \$4,000
Total Budget Estimate		\$ 36,000 - \$39,500

11/4/2019

Mr. Jeff Demers, Public Works Director

Page 4 of 4

This budget estimate is based on our project understanding. Should available information or data change from the above noted assumptions, we will coordinate with the City immediately to discuss any necessary adjustments to the scope and/or fee.

Schedule

Wright-Pierce is available to begin within 2-3 weeks upon authorization to proceed and receipt of the existing conditions base plan information from the City. We would move forward with preliminary layout options integrating abutting property designs and City requirements for discussion with City staff.

We anticipate preliminary design and cost estimates to be available within 2 months after the kick-off/coordination meeting.

We appreciate being considered for this opportunity and look forward to coordinating on this project in the future or answering any questions you may have.

Sincerely,

WRIGHT-PIERCE



Stephanie Hubbard, PE
Project Manager

stephanie.hubbard@wright-pierce.com



Ryan T. Wingard, PE
Vice President

ryan.wingard@wright-pierce.com

EXHIBIT A
SCHEDULE OF TERMS AND CONDITIONS
FOR
AGREEMENT BETWEEN
CITY OF BIDDEFORD
AND
WRIGHT-PIERCE

EXHIBIT A
SCHEDULE OF TERMS AND CONDITIONS
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EXHIBIT A - SCHEDULE OF TERMS AND CONDITIONS (CLIENT IS OWNER)

1.0 Standard of Care

The standard of care for all professional engineering and related services performed or furnished by ENGINEER under this Agreement will be the care and skill ordinarily used by members of ENGINEER's profession practicing under similar conditions at the same time and in the same locality. ENGINEER makes no warranties, express or implied, under this Agreement or otherwise, in connection with ENGINEER's services.

2.0 Client's Responsibilities

Except as otherwise provided in this Agreement, CLIENT shall do the following in a timely manner as requested by ENGINEER and shall bear all costs incident thereto:

2.1. Designate in writing a person to act as CLIENT's representative with respect to the services to be performed or furnished by ENGINEER under this Agreement. Such person will have complete authority to transmit instructions, receive information, interpret and define CLIENT's policies and decision with respect to ENGINEER's services for the Project.

2.2. Provide all criteria and full information as to CLIENT's requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility and expandability, and any budgetary limitations, and furnish copies of all design and construction standards which CLIENT will require to be included in the Drawings and Specifications.

2.3. Assist ENGINEER by placing at ENGINEER's disposal all available information pertinent to the Project including previous reports and any other data relative to design or construction of the Project as requested by ENGINEER.

2.4. Arrange for access to and make all provisions for ENGINEER to enter upon public and private property as required for ENGINEER to perform services under this Agreement.

2.5. Provide approvals and permits from all governmental authorities having jurisdiction to approve the portions of the Project designed or specified by ENGINEER and such approvals and consents from others as may be necessary for completion of such portions of the Project.

2.6. Give prompt written notice to ENGINEER whenever CLIENT observes or otherwise becomes aware of any development that affects the scope or time of performance or furnishing of ENGINEER's services, or any defect or nonconformance in ENGINEER's services or in the work of any Contractor.

3.0 Reuse of Documents, Records

3.1. Documents are Instruments of ENGINEER's Service

All documents including Drawings and Specifications provided or furnished by ENGINEER (or ENGINEER's Consultants) pursuant to this Agreement are instruments of service in respect of the Project, and ENGINEER and ENGINEER's Consultants, as appropriate, shall retain an ownership and property interest therein (including the right of reuse by and at the discretion of ENGINEER and ENGINEER's Consultants, as appropriate) whether or not the Project is completed.

CLIENT may make and retain copies of documents for information and reference in connection with the use and occupancy of the

Project by CLIENT. Such documents are not intended or represented to be suitable for reuse by CLIENT or others on extensions of the Project or on any other project.

Any such reuse, or modification, without written verification or adaptation by ENGINEER and ENGINEER's Consultants, as appropriate, for the specific purpose intended will be at CLIENT's sole risk and without liability or legal exposure to ENGINEER, or to ENGINEER's Consultants, and CLIENT shall indemnify and hold harmless ENGINEER and ENGINEER's Consultants from all claims, damages, losses and expenses including attorneys' fees arising out of or resulting therefrom. Any such verification or adaptation will entitle ENGINEER to further compensation at rates to be agreed upon by CLIENT and ENGINEER.

3.2. Records Retention/Access to Records.

ENGINEER will retain pertinent records relating to the services performed under this Agreement for a period of three (3) years following completion of the services, during which period the records will be made available to CLIENT at ENGINEER's office during normal business hours with reasonable advance notice. Copies will be prepared by ENGINEER for CLIENT for reasonable cost of reproduction and associated labor.

3.3. Electronic Transmittals

CLIENT and ENGINEER may transmit, and shall accept, project-related correspondence, documents, data, drawings, specifications in electronic media or digital format either directly or through access to a secure file transfer protocol. The method of electronic transmittal will be by a mutually agreeable protocol.

CLIENT and ENGINEER make no representations as to the long-term compatibility, usability, or readability of the item resulting from the recipient's use of software applications, operating systems or computer hardware differing from those used by the transmitter.

CLIENT acknowledges that electronic data is changeable. CLIENT acknowledges that any revisions made to electronic data and any consequences of its direct or indirect use by the CLIENT or its agents are beyond the control of the ENGINEER. The ENGINEER cannot be held responsible for software errors, for deterioration of data due to aging, damage to the computer disk, or for failure of the data to respond as intended if used with software and/or operating systems other than those on which it was developed. The original document maintained by the ENGINEER shall be the controlling document.

4.0 Third Party Information

CLIENT acknowledges and agrees that ENGINEER may solicit and reasonably rely on third party information essential and relative to the performance of ENGINEER's duties created and addressed by this Agreement whenever such information is under the control of a third party; and, ENGINEER will not be responsible or liable for the direct or indirect consequences of its reliance on such third party information. Examples of the type of third party information addressed above include, but are not limited to, any information within the control of any of the following: a public, quasi-public or private utility; a governmental body, agency or government (federal, state or local); water and/or sewer facility, district or entity; or, an agent or employee of CLIENT.

5.0 Estimates of Cost

Since ENGINEER has no control over the cost of labor, materials or equipment or over Contractor(s)' methods of determining prices, or over competitive bidding or market conditions, its estimate of probable project costs provided for herein are to be made on the basis of its experience and qualifications and represent its professional judgment as a design professional familiar with the construction industry, but ENGINEER cannot and does not guarantee that proposals, bids or the project costs will not vary from its estimate of probable costs. If, prior to the Bidding or Negotiating Phase, CLIENT wishes greater assurance as to the project costs, CLIENT shall employ an independent cost estimator. Engineering services to modify the Contract Documents to bring the project costs within any limitation established by CLIENT will be considered Additional Services and paid for as such by CLIENT.

The construction cost of the entire Project (herein referred to as "Construction Cost") means the total cost to construct the project including furnishing and installing all equipment and materials, but it will not include ENGINEER's compensation and expenses, the cost of land, right-of-way, or compensation for or damages to properties unless this Agreement so specifies, nor will it include CLIENT's legal, accounting, insurance counseling or auditing services, or interest and financing charges incurred in connection with the Project.

6.0 Allocation of Risks

6.1. ENGINEER shall Indemnify CLIENT from Claims caused by ENGINEER's Negligence

To the fullest extent permitted by law, ENGINEER shall indemnify and hold harmless CLIENT, CLIENT's officers, directors, partners, and employees from and against any and all costs, losses and damages (including but not limited to reasonable attorneys' fees and all court or other dispute resolution costs) arising from claims by third parties, to the extent caused by the negligent acts, errors or omissions of ENGINEER or ENGINEER's officers, directors, partners, employees, agents and ENGINEER's Consultants in the performance and furnishing of ENGINEER's services under this Agreement.

6.2. CLIENT shall Indemnify ENGINEER from Claims caused by CLIENT's Negligence

To the fullest extent permitted by law, CLIENT shall indemnify and hold harmless ENGINEER, ENGINEER's officers, directors, partners, and employees and ENGINEER's Consultants from and against any and all costs, losses and damages (including but not limited to reasonable attorney' fees and court or other dispute resolution costs) arising from claims by third parties, to the extent caused by the negligent acts, errors or omissions of CLIENT or CLIENT's officers, directors, partners, employees, agents and CLIENT's consultants with respect to this Agreement or the Project.

6.3. CLIENT shall Indemnify ENGINEER from Claims caused by Hazardous Waste

In addition to the indemnity provided under Paragraph 6.2 of this Schedule, and to the fullest extent permitted by law, CLIENT shall indemnify and hold harmless ENGINEER and its officers, directors, partners, and employees and ENGINEER's Consultants from and against all claims, costs, losses, and damages (including but not limited to reasonable attorneys' fees and court or other dispute resolution costs) caused by, arising out of or relating to the presence, discharge, release or escape of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material at, on, under or from the Project site.

6.4. ENGINEER's Liability Limited to Amount of Insurance Proceeds Paid

Notwithstanding any other provision of this Agreement, and to the fullest extent permitted by law, the total liability, in the aggregate, of ENGINEER and ENGINEER's officers, directors, partners, employees, agents and ENGINEER's Consultants, and any of them, to CLIENT and anyone claiming by, through or under CLIENT, for any and all claims, losses, costs or damages whatsoever arising out of, resulting from or in any way related to the Project or the Agreement from any cause or causes, including but not limited to the negligence, professional errors or omissions, strict liability or breach of contract or warranty express or implied of ENGINEER or ENGINEER's officers, directors, partners, employees, agents or ENGINEER's Consultants or any of them (hereafter "CLIENT's Claims"), shall not exceed the total insurance proceeds paid up to the limits required in Section 7.1 on behalf of or to ENGINEER by ENGINEER's insurers in settlement or satisfaction of CLIENT's Claims under the terms and conditions of ENGINEER's insurance policies applicable thereto (excluding fees, costs and expenses of investigation, claims adjustment, defense and appeal). If no such insurance coverage is recovered with respect to CLIENT's Claims, then the total liability, in the aggregate, of ENGINEER and ENGINEER's officers, directors, partners, and employees and ENGINEER's Consultants and any of them to CLIENT and anyone claiming by, through or under CLIENT, for any and all such uninsured CLIENT's Claims shall not exceed the ENGINEER's fee or \$100,000, whichever is less.

6.5. Exclusion of Special, Incidental, Indirect and Consequential Damages

To the fullest extent permitted by law, and notwithstanding any other provision in the Agreement, ENGINEER and ENGINEER's officers, directors, partners, employees, agents and ENGINEER's Consultants shall not be liable to CLIENT or anyone claiming by, through or under CLIENT for any special, incidental, indirect or consequential damages whatsoever, arising out of, resulting from or in any way related to the Project or the Agreement from any cause or causes, including but not limited to any such damages caused by the negligence, professional errors or omissions, strict liability, breach of contract or warranty express or implied of ENGINEER or ENGINEER's officers, directors, partners, employees, agents or ENGINEER's Consultants, or any of them.

6.6. Limitation of ENGINEER's Liability on Comparative Negligence Basis

To the fullest extent permitted by law, ENGINEER's total liability to CLIENT and anyone claiming by, through or under CLIENT for any claim, cost, loss or damages caused in part by the negligence of ENGINEER and in part by the negligence of CLIENT or any other negligent entity or individual, shall not exceed the percentage share that ENGINEER's negligence bears to the total negligence of CLIENT, ENGINEER and all other negligent entities and individuals determined on the basis of comparative negligence principles. CLIENT further agrees to hold harmless ENGINEER against any such claim, cost, loss or damages but only to the extent of the percentage share that CLIENT's negligence bears to the total negligence of CLIENT, ENGINEER and all other negligent entities and individuals determined on the basis of comparative negligence principles.

7.0 Insurance

7.1. ENGINEER's Insurance

ENGINEER shall procure and maintain insurance for protection from claims under workers' compensation acts, claims for damages because of bodily injury including personal injury, sickness or

disease or death of any and all employees or of any person other than such employees, from claims or damages because of injury to or destruction of property, and from professional liability claims due to ENGINEER's negligent acts, errors or omissions. Upon request, ENGINEER shall list CLIENT as an additional insured on ENGINEER's general liability insurance policy, and shall provide CLIENT with a copy of the Certificate of Insurance.

As long as it remains commercially available, ENGINEER shall procure and maintain the following insurance coverage:

- A. Worker's Compensation: Statutory Limits.
- B. Employer's Liability: \$500,000 per Accident and \$500,000 per Disease per Employee.
- C. Commercial General Liability, including Bodily Injury and Property Damage: \$1,000,000 occurrence and \$2,000,000 aggregate.
- D. Commercial Automobile Liability, including owned, hired and non-owned vehicles: Combined Single Limit of \$1,000,000 per accident.
- E. Excess Umbrella Liability: \$5,000,000 per occurrence and \$5,000,000 aggregate over the Employer's, Commercial General and Commercial Auto Liability.
- F. Professional Liability Insurance: \$1,000,000 per claim and \$3,000,000 annual aggregate.

7.2. CLIENT's Insurance and Contractor's Insurance

CLIENT shall list ENGINEER and ENGINEER's Consultants as additional insureds on any general liability or property insurance policies carried by CLIENT that are applicable to the Project. CLIENT shall require Contractor to purchase and maintain general liability and other insurance as specified in the Contract Documents and to list ENGINEER and ENGINEER's Consultants as additional insureds with respect to such liability, property and other insurance purchased and maintained by Contractor. All policies of property insurance shall contain provisions to the effect that ENGINEER and ENGINEER's Consultants' interests are covered and that in the event of payment of any loss or damage the insurers will have no rights of recovery against the insured or any additional insureds thereunder.

7.3. Additional Insurance

At any time, CLIENT may request that ENGINEER, at CLIENT's sole expense, provide additional insurance coverage. If so requested by CLIENT, and if commercially available, ENGINEER shall obtain and shall require ENGINEER's Consultants to obtain such additional insurance coverage, different limits or revised deductibles, for such periods of time as requested by CLIENT, at CLIENT's sole expense.

8.0 Subsurface Conditions

8.1 Interpretations and Recommendations Based Solely on Information Available.

CLIENT recognizes that subsurface conditions may vary from those encountered at the location where borings, surveys, or explorations are made by the ENGINEER or ENGINEER's geotechnical Consultant, and that the data, interpretations and recommendations of the ENGINEER or geotechnical Consultant are based solely on the information available to it. The ENGINEER or geotechnical Consultant will be responsible for those data, interpretations, and recommendations, but neither shall be responsible for the interpretation by others of the information developed.

8.2 Utilities

In the prosecution of its work, the ENGINEER, and its Consultants will take reasonable precautions to avoid damage or injury to

subterranean structures or utilities. CLIENT agrees to release, indemnify, and hold the ENGINEER, and its Consultants harmless for any damage to subterranean structures or utilities and for any impact this damage may cause where the subterranean structures or utilities are not called to the ENGINEER, and its Consultants' attention or are not correctly shown on the plans furnished.

9.0 Independent Contractors

It is understood and agreed that all contractors and Consultants engaged by the ENGINEER are independent contractors of the ENGINEER and not employees or agents of the ENGINEER; and ENGINEER shall have no right, duty or obligation to direct or control the means, methods or techniques of any such contractors and consultants.

10.0 Compensation

10.1. Direct Labor Costs

Direct Labor Costs means the hourly wages paid to ENGINEER's personnel. For salaried personnel, the imputed direct hourly rate shall be the weekly salary divided by 40.

10.2. Standard Billing Rates

ENGINEER's Standard Billing Rates mean Direct Labor Costs times ENGINEER's Standard Multiplier that is based on ENGINEER's standard and customary overhead rate and profit. Standard Multiplier will be adjusted as may be appropriate to reflect changes in its various elements. All such adjustments will be in accordance with generally accepted accounting practices.

10.3. Reimbursable Expenses

Reimbursable Expenses are those non-labor expenses associated with ENGINEER's conduct of the Project. Some examples of Reimbursable Expenses are meals, transportation, printing and photocopying costs, and field equipment rental. The amount ENGINEER will bill for Reimbursable Expenses will be in accordance with ENGINEER's standard schedule of Reimbursable Expenses Billing Rates or, if the expense item is not listed on the schedule, the cost actually incurred or the imputed cost ENGINEER allocates to the expense item.

10.4. Invoices/Late Payment

Invoices will be prepared in accordance with ENGINEER's standard invoicing practices and will be submitted to CLIENT at least monthly. Invoices are due and payable upon receipt. If CLIENT fails to pay any invoice within thirty days of the invoice date, the amounts due ENGINEER will increase at the rate of 1.0% per month from the thirtieth day following the invoice date; and, in addition, ENGINEER may, after giving seven days' written notice to CLIENT, suspend services under this Agreement until ENGINEER has been paid in full all amounts due. Payments will be credited first to interest and then to principal. In the event of a disputed or contested billing, only that portion so contested may be withheld from payment.

10.5. Professional Services Taxes

If at any time ENGINEER's compensation under this Agreement becomes subject to a professional services tax, sales tax, Value Added Tax, gross receipts tax or similar levy imposed by any local, state, federal or other government or quasi-government agency or authority, CLIENT agrees to pay such tax or levy on ENGINEER's behalf or reimburse ENGINEER for its paying such tax or levy.

11.0 Controlling Law

This Agreement is to be governed by the laws of the State of Maine. Any dispute resulting in legal action and not resolved by arbitration, mediation or such other method as may be mutually agreed to by the parties, shall be adjudicated solely and exclusively within the aforementioned jurisdiction.

12.0 Financial Advisor

ENGINEER is not a financial professional firm and makes no recommendations as to the best way for CLIENT to fund the Project. ENGINEER recommends that CLIENT seek the advice of an Independent Registered Municipal Advisor or other financial professional regarding the type and structure of financing appropriate for the Project. Engineer's services do not include (1) serving as a "municipal advisor" for purposes of the registration requirements of Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (2010) or the municipal advisor registration rules issued by the Securities and Exchange Commission, or (2) advising Owner, or any municipal entity or other person or entity, regarding municipal financial products or the issuance of municipal securities, including advice with respect to the structure, timing, terms, or other similar matters concerning such products or issuances.

13.0 Dispute Resolution

The parties hereto agree that prior to filing litigation they will consider alternative dispute resolution techniques to resolve all claims, counterclaims, disputes and other matters in question between the parties arising out of or relating to this Agreement.

14.0 Notices

Any notice required under this Agreement will be in writing, addressed to the appropriate party at the address which appears on the signature page to this Agreement (as modified in writing from time to time by such party) and given personally, by registered or certified mail, return receipt requested, or by a nationally recognized overnight courier service. All notices shall be effective upon the date of receipt.

15.0 Precedence

These provisions shall take precedence over any inconsistent or contradictory provisions contained in any proposal, contract, purchase order, requisition, notice to proceed, or like document.

16.0 Severability

Any provision or part of the Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon CLIENT and ENGINEER, who agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

17.0 Successors and Assigns

CLIENT and ENGINEER each binds itself and its partners, successors, executors, administrators and assigns to the other party of this Agreement and to the partners, successors, executors, administrators and assigns of such other party, in respect to all covenants of this Agreement. Neither CLIENT nor ENGINEER shall assign, sublet or transfer its interest in this Agreement without the written consent of the other. Nothing herein shall be construed

as creating any personal liability on the part of any officer or agent of any public body that may be a party hereto, nor shall it be construed as giving any rights or benefits hereunder to anyone other than CLIENT and ENGINEER.

18.0 Survival

All express representations, indemnifications or limitations of liability made in or given in this Agreement will survive the completion of all services of ENGINEER under this Agreement or the termination of this Agreement for any reason.

19.0 Termination

The obligation to provide further services under this Agreement may be terminated:

19.1 For cause

For cause by either party upon thirty days' written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party. Notwithstanding the foregoing, this Agreement will not terminate as a result of such substantial failure if the party receiving such notice begins, within seven days of receipt of such notice, to correct its failure to perform and proceeds diligently to cure such failure within no more than thirty days of receipt thereof; provided, however, that if and to the extent such substantial failure cannot be reasonably cured within such thirty-day period, and if such party has diligently attempted to cure the same and thereafter continues diligently to cure the same, then the cure period provided from herein shall extend up to, but in no case more than, sixty days after the date of receipt of the notice.

19.2 By ENGINEER

By ENGINEER upon seven days' written notice if ENGINEER believes that ENGINEER is being requested by CLIENT to furnish or perform services contrary to ENGINEER's responsibilities as a licensed design professional; or upon seven days' written notice if the ENGINEER's services for design or during the construction of the Project are delayed or suspended for more than ninety days for reasons beyond ENGINEER's control.

In the case of termination under this paragraph, ENGINEER shall have no liability to CLIENT on account of such termination.

19.3 For convenience

For convenience by CLIENT effective upon the receipt of notice by ENGINEER.

19.4 ENGINEER's Compensation

In the event of any termination, CLIENT will pay ENGINEER for all services rendered to the date of termination and all reimbursable expenses.

20.0 Equal Employment Opportunity

ENGINEER is an Equal Employment Opportunity employer and is committed to recruiting, hiring, training and promoting for all job classifications without regard to race, religion, color, national origin, sex or age, physical or mental handicap, marital status or status as a disabled veteran, veteran of the Vietnam era, ex-offender or former patient of a state institution except where based on a bona fide occupational qualification.

Finance & City Council

Meeting Date: November 19, 2019

Meeting Time: 6:00 p.m.

Agenda Item No: Orders of the Day - 8.j

Item Description: 2019.130) Authorization/Proceed with Development of a Process for the Establishment of a Special Assessment District

Summary:

The City Council requested that the city manager begin the process of establishing a so called “special assessment district” for the purpose of collecting fees from property owners within the boundaries of the district should stabilization payments be required under the terms of the Joint Development Agreement with Biddeford RiverWalk Community 1 LLC.

Supporting Documentation:

Figure 1 – Proposed Special Assessment District

Key Terms:

None

Detailed Description:

Under the terms of the Biddeford Urban Core Transportation Joint Development Agreement (JDA), the City is obligated to make stabilization payments on a semi-annual basis if the Developer’s net operating income (NOI) in any semi-annual period is below ninety percent (90%) of the projected NOI for the same period, but only if the shortfall is a result of deviations in operation and maintenance costs and expenses and/or parking system revenues.

In preparing the JDA and evaluating municipal risk, the City proposed the creation of a special assessment district comprised of property owners in proximity to the proposed garage. In the event NOI falls below 90% of projections, the City would pay the stabilization payment and collect the corresponding fee from within the special assessment district. The fees being assessed on a prorated basis relative to assessed property value.

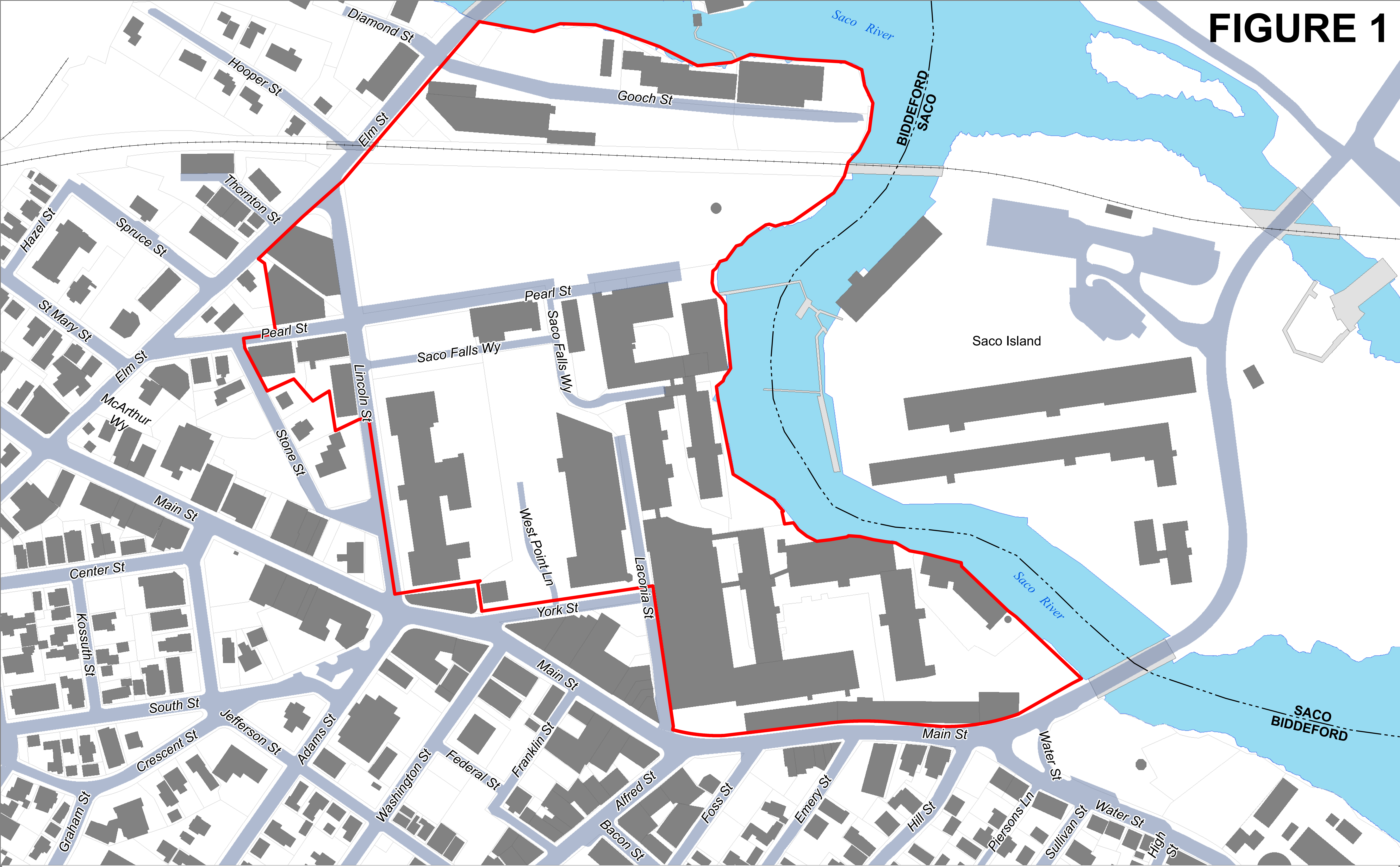
Under the terms of the JDA the first payment, if required, would not be assessed until six-months after garage opening, which is projected to be in the spring of 2021 but no later than December 31, 2021. Using the latter as a benchmark, and assuming NOI falls below 90% in the first six months of operation, the date of the first stabilization payment would be June 30, 2022.

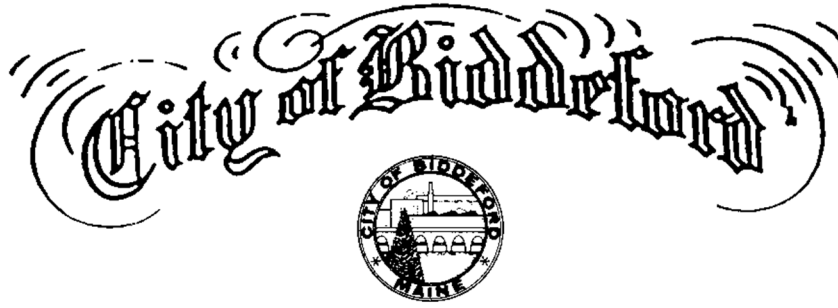
If directed to proceed, the process shall include at a minimum, legal review, direct notice to all affected property owners regarding the process, opportunity for public comment, and presentation to the City Council for final review and acceptance.

Funding Source:

None required.

FIGURE 1





IN BOARD OF CITY COUNCIL...NOVEMBER 19, 2019

ORDERED, that I, Alan M. Casavant, Mayor of the City of Biddeford, do hereby re-appoint:

**Richard "Rick" Laverriere
371 South Street
Ward 6**

to the *Airport Commission*, for a term to expire in December 2022.

BE IT FURTHER ORDERED, that Rick Laverriere be appointed as CHAIR of the Airport Commission for 2020.

CITY OF BIDDEFORD

Application for City Committees, Commissions and Boards

Date:

10/16/2019

Name:

Rick LAVERRIERE

Street Address:

371 South St.

Mailing Address:
(if different)

Phone Number(s):

207-282-5272

Email Address:

Richard.laverriere@biddefordmaine.org

Which City Committee, Board or Commission do you request to be appointed to:

- | | |
|---|--|
| ☒ • Airport Commission | ☐ • Harbor Commission |
| ☒ • Biddeford Fire Advisory Committee | ☐ • Historic Preservation Commission |
| ☐ • Biddeford Housing Authority | ☐ • Planning Board |
| ☐ • Biddeford Police Advisory Committee | ☐ • Policy Committee |
| ☐ • Board of Assessment Review | ☐ • Project Canopy Committee |
| ☐ • Cable T.V. Committee | ☐ • Recreation Commission |
| ☐ • Capital Projects Committee | ☐ • Shellfish Conservation Committee |
| ☐ • Conservation Commission | ☐ • Solid Waste Management Commission |
| ☐ • Downtown Development Commission | ☐ • Wastewater Management Commission |
| ☐ • Economic Improvement Commission | ☐ • Zoning Board of Appeals |

CITY OF BIDDEFORD
Committee Application

Please list any prior experience serving on any Public Boards, Commissions or Committees (and approximate dates)

SERVED ABOUT 10 YEARS ON THE CITY COUNCIL
SERVED ON AIRPORT COMMISSION AS CHAIR
SERVING ON FIRE COMMISSION
SERVED AS COUNCIL PRESIDENT ONE TERM
FINANCE, CAPITOL PROJECT, PERSONNEL, CABLE COMMITTEE,

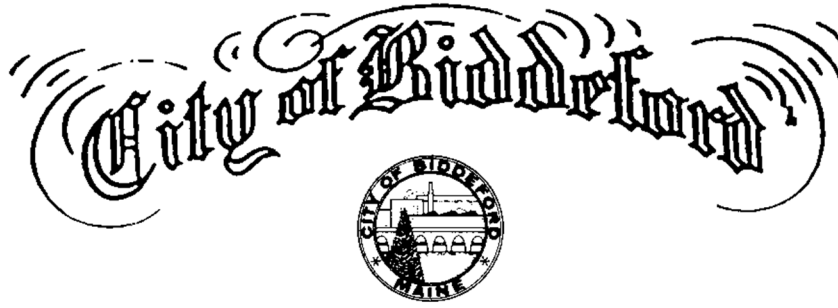
Please list any other experience that may be pertinent to the Board or Committee in which you are requesting to serve on.

I AM STILL ^{SERVING} ON THE AIRPORT COMMISSION AND HAVE
BEEN SINCE THIS NEW COMMISSION STARTED
I AM STILL SERVING ON THE ~~TRAFFIC~~ FIRE COMMISSION
AND ALSO SERVED ON THE FORMER COMMISSION

Please provide a brief statement describing your interest in serving the City of Biddeford.

IT IS MY NATURE TO SERVE AND VOLUNTEER
FOR THE CITY OF BIDDEFORD
I ENJOY HELPING PEOPLE
I AM A PEOPLE PERSON

Attach any additional information to this application and return it to the City Clerk's Office.



IN BOARD OF CITY COUNCIL...NOVEMBER 19, 2019
ORDERED, that I, Alan M. Casavant, Mayor of the City of Biddeford, do hereby
re-appoint:

Gerald Bernier
19 Taylor Street
Ward 7

to the *Airport Commission*, for a term to expire in December 2022.

CITY OF BIDDEFORD

Application for City Committees, Commissions and Boards

Date:

10/10/2019

Name:

GERALD J. BERNIER

Street Address:

19 TAYLOR STREET

Biddeford, ME 04005

Mailing Address:
(if different)

Same

Phone Number(s):

207-229-5508

Email Address:

G.BERNIER@MAINE.RR.COM

Which City Committee, Board or Commission do you request to be appointed to:

- | | |
|--|--|
| ☒ • Airport Commission | ☐ • Harbor Commission |
| ☐ • Biddeford Fire Advisory Committee | ☐ • Historic Preservation Commission |
| ☐ • Biddeford Housing Authority | ☐ • Planning Board |
| ☐ • Biddeford Police Advisory Committee | ☐ • Policy Committee |
| ☐ • Board of Assessment Review | ☐ • Project Canopy Committee |
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CITY OF BIDDEFORD
Committee Application

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Airport Commission

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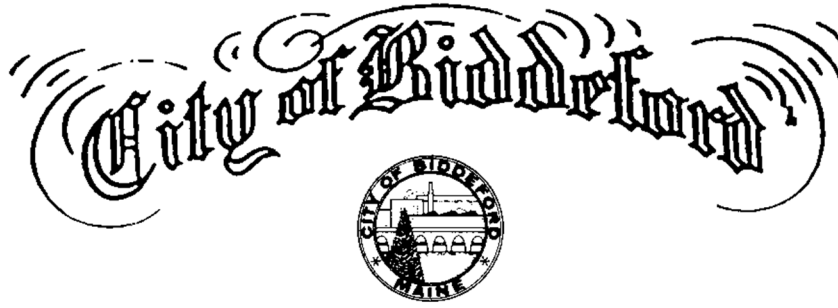
- ① Chairman of The Friends of The Biddeford Airport*
- ② A pilot who has an understanding with the functions of The Airport.*

Please provide a brief statement describing your interest in serving the City of Biddeford.

I am interested in serving on The Airport Commission because I am concerned with the wellbeing of our Community Airport and its pilots.

Gerald J. Bormer.

Attach any additional information to this application and return it to the City Clerk's Office.



IN BOARD OF CITY COUNCIL...NOVEMBER 19, 2019
ORDERED, that I, Alan M. Casavant, Mayor of the City of Biddeford, do hereby
re-appoint:

Richard “Rick” Laverriere
371 South Street
Ward 6

to the *Biddeford Fire Advisory Committee*, for a term to expire in December 2024.

CITY OF BIDDEFORD

Application for City Committees, Commissions and Boards

Date:

10/16/2019

Name:

Rick LAVERRIERE

Street Address:

371 South St.

Mailing Address:
(if different)

Phone Number(s):

207-282-5272

Email Address:

Richard.laverriere@biddefordmaine.org

Which City Committee, Board or Commission do you request to be appointed to:

- | | |
|---|--|
| ☒ • Airport Commission | ☐ • Harbor Commission |
| ☒ • Biddeford Fire Advisory Committee | ☐ • Historic Preservation Commission |
| ☐ • Biddeford Housing Authority | ☐ • Planning Board |
| ☐ • Biddeford Police Advisory Committee | ☐ • Policy Committee |
| ☐ • Board of Assessment Review | ☐ • Project Canopy Committee |
| ☐ • Cable T.V. Committee | ☐ • Recreation Commission |
| ☐ • Capital Projects Committee | ☐ • Shellfish Conservation Committee |
| ☐ • Conservation Commission | ☐ • Solid Waste Management Commission |
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| ☐ • Economic Improvement Commission | ☐ • Zoning Board of Appeals |

CITY OF BIDDEFORD
Committee Application

Please list any prior experience serving on any Public Boards, Commissions or Committees (and approximate dates)

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SERVED ON AIRPORT COMMISSION AS CHAIR
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SERVED AS COUNCIL PRESIDENT ONE TERM
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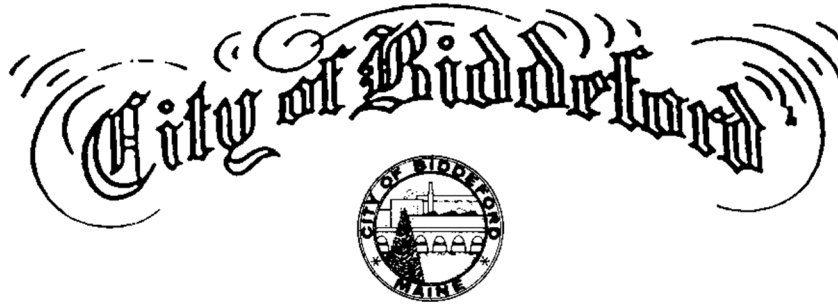
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BEEN SINCE THIS NEW COMMISSION STARTED

I AM STILL SERVING ON THE ~~TRAFFIC~~ FIRE COMMISSION
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FOR THE CITY OF BIDDEFORD
I ENJOY HELPING PEOPLE
I AM A PEOPLE PERSON

Attach any additional information to this application and return it to the City Clerk's Office.



IN BOARD OF CITY COUNCIL...NOVEMBER 19, 2019
ORDERED, that I, Alan M. Casavant, Mayor of the City of Biddeford, do hereby
re-appoint:

Brian Fleurant
77 Prospect Street
Ward 4

as **CHAIR** of the *Wastewater Management Commission* for 2020.