

INFRASTRUCTURE COMMITTEE

Tuesday, March 21, 2023

5:15 P.M.

City Hall Council Chambers

Agenda

1. **Sidewalk Snow Clearing**
(No Materials Attached)

2. **MaineDOT Pilot Program with Municipalities for Traffic Signal Maintenance Stipend**
(Materials Attached)

3. **MaineDOT Village Partnership Initiative Grant Program**
(Materials Attached)

4. **Pickering Square Conceptual Improvement Plan**
(Materials Attached)



DEPARTMENT OF PUBLIC WORKS

CITY OF BANGOR

AARON HUOTARI
DIRECTOR

To: Infrastructure Committee

From: Aaron Huotari, Public Works Director

Date: March 21, 2023

RE: Sidewalk Snow Clearing

Currently, the City of Bangor clears snow from approximately 85 miles of sidewalks. We clear sidewalks on both sides of major arterials, with the exception of the downtown district where private property owners are responsible for clearing their own, and one-side of certain neighborhood streets, spread throughout the City as shown in the attached map. Public Works has 5 sidewalk clearing tractors and it takes approximately 1 week to clear assigned sidewalks after a storm of less than 1' of snow (assuming it is a true snow event with little to no ice or sleet activity). The clearing rate depends not only on the type of precipitation (snow, sleet, mix), but also the obstructions we encounter, including snow piled on sidewalks by others. Damage to machines from hidden objects in the snow and ice is frequent and often puts us behind our clearing plan.

Municipal clearing of sidewalks varies greatly across the State. Many municipalities clear no snow from sidewalks, some who did clear sidewalks in the past have stopped due to costs and labor shortages, some only clear snow from sidewalks in their business district and others clear a couple major arteries in close proximity to their business district and require property owners in the business to clear their own sidewalks. We weren't able to identify any municipality where the Public Works department clears all sidewalks.

Portland has one of the more robust, yet varied approaches to sidewalk snow clearing. City employees clear sidewalks within walking distance of schools – a one mile radius. This amounts to approximately 1/3 of all sidewalks in the city – approximately 92 miles of sidewalk, utilizing 7 sidewalk clearing machines and the rental of an additional tractor. The other 2/3 of sidewalks are cleared by property owners who own property behind the sidewalk – approximately 200 miles of sidewalk. In addition, the City coordinates a volunteer group that assists elderly residents in clearing snow.

Our residents have an expectation of a particular level of service, unfortunately due to the changing storm precipitation, staffing challenges and equipment breakdowns, we are not always able to meet our goal. Additionally we receive requests to expand our sidewalk clearing work to more sidewalks. Being a pedestrian friendly city supports our neighborhoods, livable community work, climate action plans and health and wellbeing of our residents. Which brings us to our discussion, what sidewalk snow clearing should look like in our community and how do we best achieve it in the most efficient, effective and fiscally responsible way.

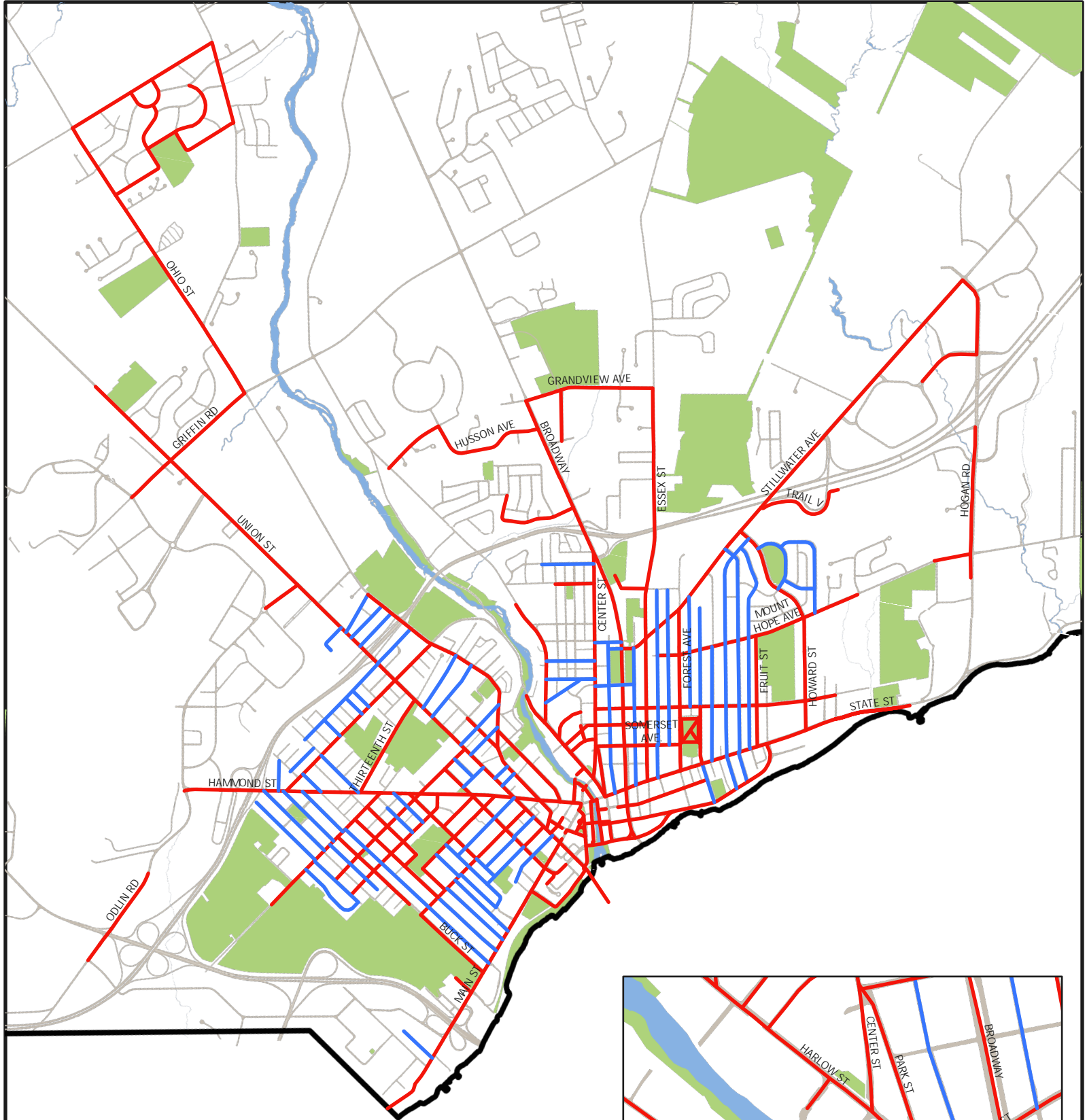
- Do we maintain the status quo?
- Do we maintain the status quo, but add additional units to minimize downtime and provide the opportunity to operate more than 5 machines at times (it is unlikely we would be able to add personnel in the current employment environment)?

- Do we reduce the number of sidewalks being cleared?
- Do we implement a hybrid method – some city, some property owners?
- Other?

If the sentiment of the Committee is to maintain something akin to our current service, staff will take some steps internally to refine the current routes and practices as well as new program funding requests to support this direction.

If the sentiment of the Committee is to move to a hybrid method or scale back our current approach, staff will develop alternatives to bring back to the Committee for consideration.





Sidewalk Plowing Priorities



- Legend**
- Priority 1
 - Priority 2

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1/21/2021



DEPARTMENT OF ENGINEERING

CITY OF BANGOR

JOHN THERIAULT PE, PTOE
CITY ENGINEER

To: Infrastructure Committee
From: Engineering Department, John Theriault
Date: March 15, 2023
Re: MaineDOT Pilot Program with Municipalities for Traffic Signal Maintenance Stipend

Dear Councilors,

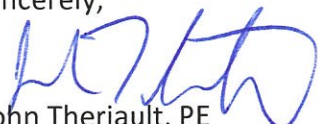
The Maine Department of Transportation (MaineDOT) has been considering a program for traffic signal maintenance with the larger municipalities within the State for the last couple of years. MaineDOT has reached out to city officials of Portland, Lewiston, and Bangor to develop a program where the State of Maine provides a stipend to be utilized by the municipalities to maintain and update traffic signal equipment. This test program is intended to begin in 2023 and last until 2025. The amount of the stipend has not been finalized but the current amount being considered is \$500.00 per traffic signal for the first year and then increased to \$1,500.00 and \$2,000.00 per signal for the second and third year.

The City of Bangor currently has 78 traffic signals that we maintain with the majority of the signals being on State highways. Typically, funding received from MaineDOT for traffic signals comes from BACTS through a very competitive process.

The Engineering Department and Public Works Department are very interested in this proposed program and believe it will provide a significant source of funding to maintain, repair, and replace vital traffic signal equipment. Additional reporting by the City will be required to MaineDOT as a part of this program. The Engineering Department believes that our new asset management program will assist staff in tracking the data required to be provided to MaineDOT.

If MaineDOT finds this program successful, they will extend the program and expand it to other municipalities in the State. I have attached the draft Agreement for this program that MaineDOT has provided. Staff recommends that the Council authorize the City Manager to sign this agreement once it is finalized.

Sincerely,


John Theriault, PE
Bangor City Engineer

**MUNICIPAL/STATE
AGREEMENT**
BETWEEN THE
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
AND THE
City of ?????
REGARDING THE
**OPERATION & MAINTENANCE OF
ALL TRAFFIC SIGNALS WITHIN THE CITY OF ?????**

This AGREEMENT is entered into by and between the STATE OF MAINE DEPARTMENT OF TRANSPORTATION (hereafter the DEPARTMENT) and the **City of ????**, a municipal corporation located in the County of **????** (hereafter the MUNICIPALITY) regarding the operation and maintenance of all traffic signals in the **City of ?????**, (hereafter project) as follows:

Whereas; Municipalities are responsible for maintaining all traffic signals within their communities; and

There are 801 traffic signals on State and State Aid Highways across the state. 750 of those signals are currently maintained by Towns and Cities. As one might expect the significant number (approx.. 31%) of those signals are maintained by the three largest municipalities within the state; and

Whereas; the Maine Department of Transportation published a mobility report in November 2018, and some of the findings were:

- Maine needs a new strategy, along with additional funding to effectively manage the existing statewide signal system infrastructure.
- Properly working signals increase mobility, reduce congestion, save time, money, and fuel, and enhance economic opportunity.
- Properly times signals can reduce crashes by up to 30%.
- MaineDOT should partner with all communities across Maine-sometimes assuming complete responsibility and other times offering a stipend-to maintain traffic signal controllers and traffic signal detection systems; and

Whereas, qualified technicians within the MaineDOT, Cities and in the contracting communities are limited and no one entity can meet the goals of the mobility report; and

Whereas, MaineDOT seeks to pilot a program that will augment resources of the three largest municipalities in the State to advance the goals of the Mobility report and develop a model for future municipal partnerships.

Now Therefore:

- A. The **DEPARTMENT** agrees to provide a stipend in calendar year 2023 for each fully functioning traffic signal within the Municipal boundary shown in Appendix A. The Stipend will be negotiated annually, prior to the beginning of the calendar year, between the Department and the participating Municipalities based on statewide past experience and a share ratio. The **DEPARTMENT** shall retain all ownership of the traffic signals they currently own and all equipment appurtenant thereto and agrees to work with the Municipality to fund replacement of traffic signals at the end of their service life. The Department agrees to provide the stipend annually, until such time that the Department decides not to fund future stipends or the Municipality decides not to receive the stipend. The initial stipend rate for CY2023 will be set at \$X, XXX per fully functioning signal, future stipend rates will be revised as necessary to provide an equitable compensation to the municipality for signal operations. .
- B. The **Municipality** agrees to operate and maintain all the traffic signals in the municipality in such a manner as is necessary to preserve the use and function thereof as designed and intended by the original project, within the service life of the facility, as follows:
1. The **Municipality** shall repair or correct all malfunctions and deficiencies in the traffic signal expeditiously. Any failure to correct the traffic signal to function as designed could, upon prior written notification from the **DEPARTMENT**, result in the **DEPARTMENT** making all necessary repairs at the **Municipality**'s expense.
 2. The **Municipality** agrees to be responsible for the electrical service for the traffic signal and agrees to execute any necessary documentation required to establish/maintain such service and provide any local permits necessary for the installation of such service.
 3. The **Municipality** shall preserve and maintain the visibility of the traffic signal at all times by removing all visual impairments thereto.
 4. The **Municipality** shall make routine maintenance and operational changes or modifications to the traffic signal as needed to maintain traffic signal coordination. End of service life signal replacement will remain the responsibility of the Department.
 5. The **Municipality** shall notify the **DEPARTMENT** in writing prior to any removal or replacement of the traffic signal.
 6. The **Municipality** agrees to maintain the signal with equipment technology equal to or greater than that in place at the signing of this agreement. .
 7. The **Municipality** agrees to develop and implement an annual preventative maintenance plan for every traffic signal covered by this agreement. Preventative maintenance would include but not limited to cleaning cabinets, changing cabinet filter, checking wire connections, testing communications, changing batteries (if battery back-up is included), checking for and eradicating pests (rodents, snakes, bees, wasps, etc), cleaning lens on cameras, ensuring detection is properly detecting its zone, ensuring backplates are in place (if part of the original signal), pedestrian push buttons tested, signal heads/pedestrian heads functioning. A record of the maintenance performed will be maintained.

8. The **Municipality** shall develop a process to ensure that parts are on hand or can be appropriated in a timely manner.
9. The **Municipality** agrees to develop a Level of Service plan for maintaining the traffic signals.

Issue	Coordinated System	Isolated intersection
Detection	Evaluated within 24 hours Repaired within 2 days *	Evaluated within 48 hours Repaired within 5 days *
Controller/cabinet	Evaluated within 24 hours Repaired within 2 days *	Evaluated within 48 hours Repaired within 5 days *
Signal Coordination	Evaluated within 24 hours Repaired within 5 days *	N/A
Signal heads/ped heads	Evaluated within 24 hours Repaired within 5 days *	Evaluated within 48 hours Repaired within 10 days *
Pedestrian push-buttons	Evaluated within 24 hours Repaired within 2 days *	Evaluated within 48 hours Repaired within 5 days *
Retiming of traffic signals	Reviewed and adjusted every 3 years as necessary	Reviewed and adjusted every 5 years as necessary

* The Department acknowledges that performance under this plan may be impacted by hardware or personnel availability.

10. The **Municipality** agrees to develop a plan and timeline for developing/implementing a communication protocol with their traffic signals (central office, modem connection, local, etc).
11. The **Municipality** shall develop a process for retiming traffic signals within a signal system and for stand-alone signals. Plan should include methodology for retiming the signals, frequency, what performance measures are being used (travel time, arrival on green, etc.)
12. The **Municipality** shall develop a process to track all preventative maintenance, routine maintenance and emergency repairs to the traffic signals and develop a yearly report for maintenance expenditures to turn into the state traffic engineer. This will be done by the calendar year and is due by the end of January for the previous year.
13. The **Municipality** shall develop an asset management plan which will include timelines for proactive replacement of detection devices and traffic controllers. The plan should also recommend timeline for full replacement through the Departments work plan.
14. The **Municipality** shall develop a process to accept the above stipend. The municipality agrees to certify the amount of stipend funding was used for the purposed outlined in this agreement on an annual basis, no later than February 28th. The Municipality will provide backup data supporting those expenditures upon request by MaineDOT. If the traffic signal expenditures do not exceed the amount of the stipend, the **Municipality agrees to:**
 - a. Return the unspent portion to MaineDOT, or
 - b. Roll-over the money into the next years portfolio, with the understanding that this money can only be used for traffic signal repair, or
 - c. Unspent money gets deducted from the next years allotment.

15. The **Municipality** understands that failure to adhere to the above standards, that it could/will result in the Department terminating this agreement.
16. The Department shall notify the **Municipality** in advance whenever they plan to enter a signal controller cabinet or make alterations to a signal system, except in the cases of emergency. This will reduce miscommunication or accidental overlap of efforts.
17. The Department shall make an earnest effort to fund this maintenance and operations program along the signal upgrade and replacement program as outlined in the recommendations of the Mobility Report of 40 per year, Statewide.

C. TRAFFIC CONTROL PLAN

The **Municipality's** shall implement a Traffic Control Plan in compliance with the Manual on Uniform Traffic Control Devices (MUTCD) including a provision for **Municipality** employees and/or contractors entering the State's right-of-way for long-term maintenance.

D. COMPLIANCE WITH APPLICABLE LAWS AND STANDARDS

This Agreement imposes an obligation of good faith and fair dealing on both parties in the execution, performance, interpretation, and enforcement of the Agreement. With a positive commitment to honesty and integrity, the **Municipality** and the **DEPARTMENT** agree to function within all applicable laws, statutes, regulations, MUTCD, OSHA standards, and Agreement provisions; avoid hindering each other's performance; fulfill all obligations diligently; and cooperate in achievement of the intent of this Agreement.

The parties hereto agree to be bound by the terms and conditions of this Agreement and hereby execute this Agreement in duplicate effective on the day and date signed by the Department.

E. Term

This agreement shall automatically renew annually, on January 1, unless either party agrees to terminate the agreement 30 days prior to January 1st. Stipend rates will be set no later than 30 days prior to each January 1st.

City of ??????

DATE: _____

By: _____
 ???????
 City Manager, City of ????

STATE OF MAINE

DEPARTMENT OF TRANSPORTATION

DATE: _____

By: _____

David Bernhardt

Director of Maintenance and Operations

Draft



DEPARTMENT OF ENGINEERING

CITY OF BANGOR

JOHN THERIAULT PE, PTOE
CITY ENGINEER

To: Infrastructure Committee
From: Engineering Department, John Theriault
Date: March 15, 2023
Re: MaineDOT Village Partnership Initiative Grant Program

Dear Councilors,

In December of 2022, City staff met with Jarod Farn-Guillette, a Regional Planner from the Maine Department of Transportation (MaineDOT), to discuss the Department's Village Partnership Initiative Grant Program. This program provides funding for large scale downtown redevelop projects. The Department has a couple of these projects in Southern Maine and Mr. Farn-Guillette believes that Bangor would be a great location north of Augusta to have the Department work on one of these betterment projects.

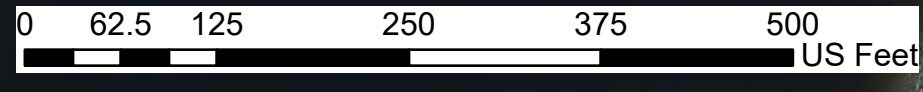
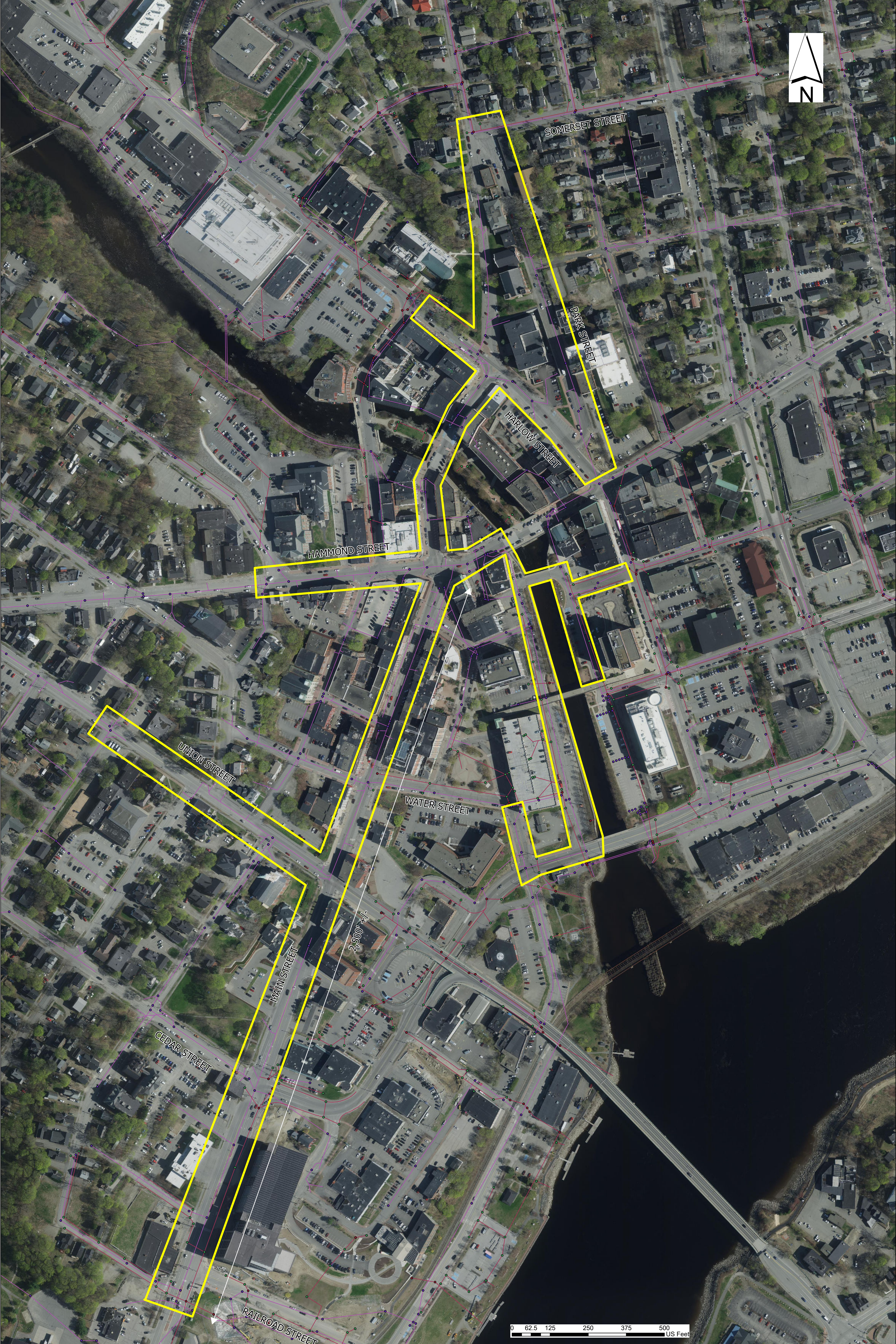
The City has been discussing a major utility upgrade for downtown Main Street that will include new sewer main, storm water, and drinking water. The Village Partnership Initiative Program seems to be a great opportunity to get much needed infrastructure improvements completed as well as improving sidewalks, street amenities, parking, landscaping, and lighting under one large project with a significant portion funded with State and Federal dollars.

My understanding of how this program works is that the City of Bangor would split the cost of the initial planning and scoping study for an improvement project with MaineDOT 50/50 and then MaineDOT would assist the City in chasing federal dollars for the final design and construction of the project. The City would provide a ten percent local share towards the final design and construction of the project.

I have attached the study area that the City provided to MaineDOT to kick off the Village Partnership Initiative process as well as a summary of the program from the MaineDOT webpage. I believe this grant program provides a great opportunity for the City to get much needed utility infrastructure work completed as well as providing improvements to enhance our streets and sidewalks for all users of our downtown. I hope Council will support staff pursuing this grant opportunity.

Sincerely,

John Theriault, PE
Bangor City Engineer



Village Partnership Initiative

The Village Partnership Initiative is designed to be available to all willing communities that have or can agree upon a local vision. Village projects can vary from small, spot improvements to large, once-in-a-lifetime investments if we can successfully partner to access federal discretionary funds. Working with other agencies, these communities should have access to broadband, as good internet connections are as important as physical connections are today.

Village Centers and Downtowns are mixed-use areas that serve the surrounding community(ies) with goods, services, and housing; and have at least one civic or religious facility. Village Centers and Downtowns when built will be at least a half mile in length, have characteristics supporting speed limits of 30 mph or less and be built on a human scale making them walkable and bikeable for patrons and residents and have broadband available. Villages should be the focal point of a community and should reflect the personality, character, and history of that community. Some Maine municipalities may have more than one village center that serve distinct communities within the municipality.

MaineDOT's Village Partnership Initiative may be used in partnership with local officials to reinvest and revitalize Village Centers or Downtowns reflecting the community's future vision. This Initiative may be used to enhance existing or create new Village Centers that meet the criteria listed above. Investments must be made in a way that balances the use and safety of all village patrons, whether in automobile, walking or bicycling. To that end, improvements should result in speed limits and actual average speeds of 30 miles per hour or less and provide for vehicles, pedestrians, and bicyclists in a balanced approach. Most investments will be made where provisions for broadband internet are or will be available.

Focus

This program is new for 2022. MaineDOT has set aside \$4 million in state seed monies in the first year and \$4 million in each of the subsequent years as matching funds for investment in Maine village and downtown centers. MaineDOT will work in partnership with local officials to reinvest and revitalize one of the distinguishing features of New England: our iconic village centers. Depending upon the vision of each individual municipality, we can look to make once-in-a-lifetime investments in the lower-speed areas where people meet, shop, and do business. These village areas need to be built on a human scale: walkable, bicycle-friendly, and business-friendly. In sum, this can be bigger than just transportation; it is potentially place-making. These investments, when coupled with broadband if currently unavailable, will create an incentive for businesses to want to locate, people to live, and others to visit and possibly relocate. We believe

these projects will improve pedestrian, bicycle, and vehicular safety and have the potential to reduce greenhouse gas emissions by allowing people to do more business locally.

Types of Projects

MaineDOT has had success with projects like this in the past. A look at Naples, Bridgton, and now Fryeburg on the Route 302 corridor provides examples in western Maine. Woodford's Corner in Portland and the downtown in Ogunquit show our vision in more urban areas. The downtowns and villages of Hallowell and Belgrade also show realized potential. To build on these successes, MaineDOT has been designing and standing up a Village Partnership Initiative on a modest scale, using state and local funds. The federal Bipartisan Infrastructure Law (BIL), through various grant opportunities, has the potential to expand that vision many times by allowing the state and local funds to be used as match to federal grant funding. We believe we will be able to truly partner with communities to envision, plan, and revitalize their villages.

Due to their complexity, it is anticipated that most of these projects will be designed and constructed by MaineDOT and its contractors.

Eligibility

Opportunities are available for any Maine village or downtown on a state or state aid highway where a community has a vision for significant improvements to lower-speed areas that are or could become a community center inviting businesses and community facilities and are walkable and bicycle friendly. These projects are anticipated to cost \$10 million or more and would likely be contingent on securing special federal allocations such as earmarks or grants. The BIL offers a unique set of opportunities for this program that were not viable in the past.

Funding

The initial scoping and preliminary design for these projects can be funded through a cooperative agreement between MaineDOT and a community. This would be done under or in a similar manner to the Planning Partnership Initiative program below. Some of the seed monies from this program in 2022 may be used to augment the Planning Partnership Initiative program for initial village incentive program scope development. The initial planning will require an agreement between MaineDOT and the community.

The agreement will require a municipal match generally based on the following:

- Municipal Property Valuation less than \$150M, 70% State, 30% Municipal
- Municipal Property Valuation a\$150M to \$350M, 60% State, 40% Municipal
- Municipal Property Valuation >\$350M, 50% State, 50% Municipal

The maximum amount of the agreement will be dependent on the complexity of the project and the amount of design needed to be competitive on the federal level.

These are complex projects and will take several years to develop. Once the project is scoped and an adequate amount of public outreach and design work is complete, MaineDOT and the community will develop a strategy for applying for special federal allocations such as earmarks or BIL grants. The application may be bundled with other communities across the state to make the package more competitive on the federal level. Once a grant or earmark is secured, MaineDOT and the municipality will enter into a construction agreement. Most federal transportation funding requires a 20-percent non-federal match. The non-federal match may be shared by MaineDOT and the community at a ratio similar to those above. For example, a \$10-million construction project could be funded the following way: \$8 million federal, \$1 million state, and \$1 million municipal. MaineDOT may be able to suggest financing opportunities for the municipality.



DEPARTMENT OF ENGINEERING

CITY OF BANGOR

JOHN THERIAULT PE, PTOE
CITY ENGINEER

To: Infrastructure Committee
From: Engineering Department, John Theriault
Date: March 16, 2023
Re: Pickering Square Conceptual Improvement Plan

Dear Councilors,

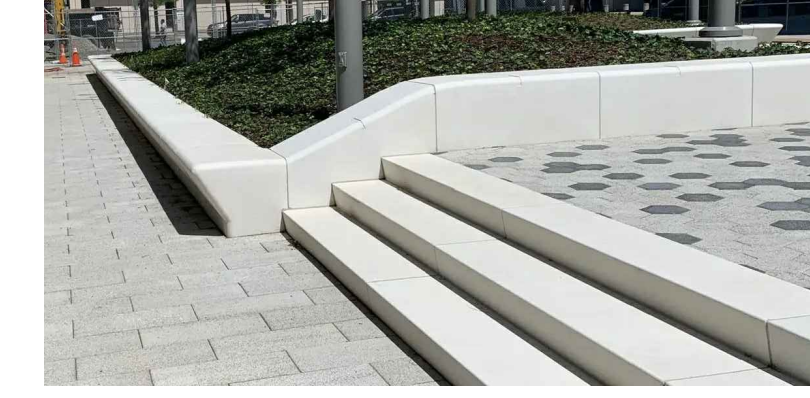
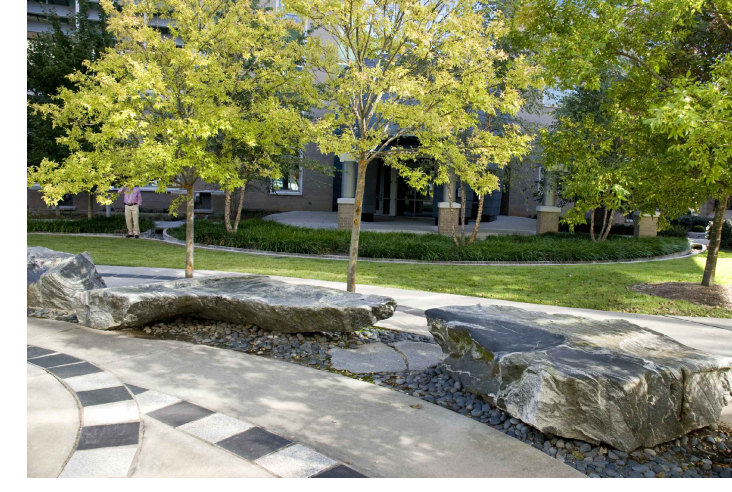
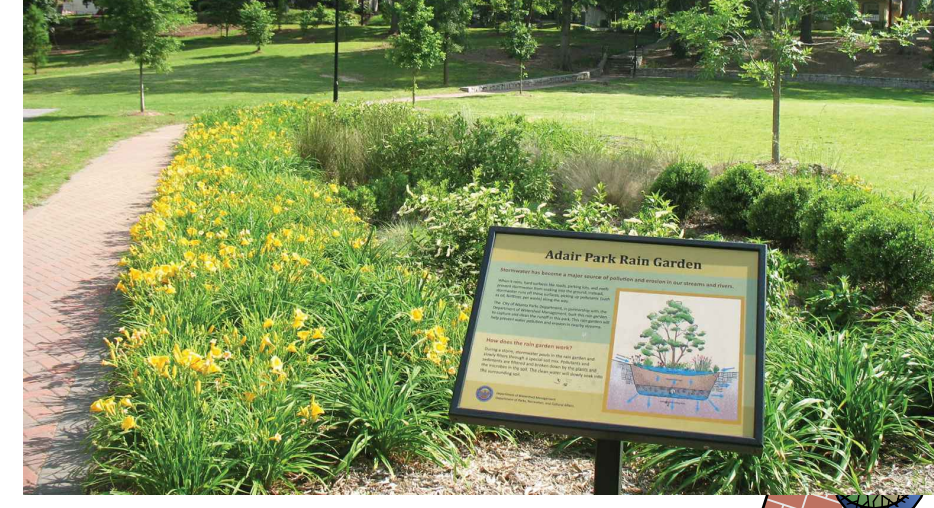
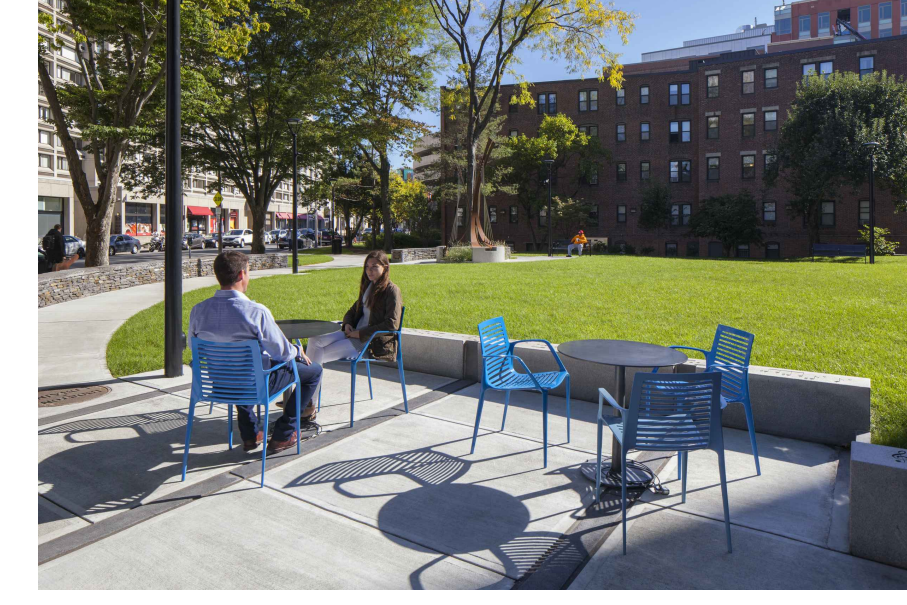
Jefferson Davis, PLA, the City's Landscape Architect, has been recently working on conceptual plans for improvements to the area of Pickering Square between the new Transit Center and south of the Willard C. Orr Pedestrian Bridge.

The City has completed several projects within the last few years within the vicinity of Pickering Square including revisions to Pickering Parking Garage main entrance (2019), landscape and sidewalk improvements north of Willard C Orr Bridge (2019), replacement of Willard C Orr Bridge superstructure (2021), New Transit Center and utility improvements to Water Street (2022), and replacement of the bridge deck for the at-grade pedestrian bridge over the Kenduskeag Stream (2022).

I have attached the current conceptual plan for improvements for Pickering Square for Council's and public review, input, and comment. Tonight's meeting represents the starting point of a public engagement process. City staff will work with interested stakeholders to provide a variety of forums through which to solicit input. Prior to finalizing the bid package, any updates to the plan before you tonight will be reviewed with the Committee. The desire of these improvements is to provide a programmable space that can be utilized by downtown residents and visitors for a large array of activities. I look forward to discussing this project with you at the March 21, 2023 Infrastructure Committee Meeting.

Sincerely,

John Theriault, PE
Bangor City Engineer



CITY OF BANGOR
ENGINEERING DEPARTMENT
Bangor, Maine 04401
Tel: (207)992-4250
Fax: (207)992-4194

Signed _____ Date _____

No.	Date	Revision

DESIGNED BY: _____
DRAWN BY: _____
CHECKED BY: JMT
COORD./DATE: NAB/03/08
Date: MAR. 2023
SCALE: AS NOTED

PICKERING SQUARE
BANGOR, MAINE
AMENITIES / PROGRAMING BOARD