#### Route 1 North Project - Phase 2: Preliminary Engineering

PUBLIC FORUM 2 - Wednesday, May 19, 2021





**INCORPORATED 1718** 

## Tonight We Would Like to Cover the Following

- Draft Project Design
- Cost Estimate for the Planned Scope of Work
- Proposed Financing Plan
- Next Steps and Schedule
- Three Polling Questions
- Your Questions and Feedback



## 2017 Route 1 North Vision Plan

#### Developed by Ad Hoc Route 1 North Committee

"Framework for future decisions and managing growth"

#### **Recommendations on:**

- Land Use
- Open Space
- Mobility/Transportation





June 2017



# Route 1 North Plan - Infrastructure Component

- Step 1: Preliminary Engineering
- Step 2: Final Engineering
- Step 3: Bidding
- Step4: Construction





### Route 1 North Corridor





# Summary of Planned Infrastructure Improvements

- Johnson Road intersection Improvements
- Sidewalks, shared use paths, and bicycle lanes
- Sanitary sewer upgrade
- Bus stop improvements
- Lighting
- Landscaping





# Project Team for Preliminary Engineering Phase

#### TOWN OF FALMOUTH

- Town Manager
- Town Engineer
- Administration Analyst
- Director of Long-Range Planning

#### **GREENMAN-PEDERSEN, INC. (GPI)**

- Project Manager
- Engineering + Landscape Staff
- Surveyors
- Lighting/Utilities Staff



















































#### Johnson Road Sidewalk Layout





#### Johnson Road Sidewalk Layout





# New Johnson Road Bridge over I-295 by MaineDOT





# New Johnson Road Bridge over I-295 by MaineDOT



PROPOSED BRIDGE SECTION





#### Johnson Road Sidewalk Layout







**Cross Ramps at** right angle with warning signage (red circles)

**Option 1 rejected** by MaineDOT (due to vehicle speeds on ramps)

Segment Cost: \$1,000,000 (included in overall cost estimate)





Suggested by MaineDOT:

Modify West Ramps to create new intersection at Route 1 (yellow and red lines)

Path Crosses Ramps at new intersection with Route 1 (green line)

Segment Cost: \$1,500,000





Consultant Idea:

Modify East Ramps, Remove West Ramps (red and yellow lines)

Path Does Not Cross Any Ramp (green line)

Segment Cost: \$1,500,000 to \$3,500,000, depending on intersection type





**Default Option:** 

Eliminate this section of the Shared Use Path (2800 lf)

**Option depends** on available funding and approvals

Segment Cost: \$0





Eliminate entire **Shared Use Path** up to Cumberland Town line

Cost: \$0



#### Route 1 Bus Stop Designs – Northbrook Drive & 374 Route 1





#### Johnson Road Intersection – Existing Condition





#### Johnson Road Intersection – Two Options

#### Updated Signalization with Left Turn Lanes on Route 1

#### Roundabout







# Modified Signalization Option



#### **Benefits:**

- Less expensive to construct
- Fewer property and wetland impacts

- Shorter construction time
- More easily navigated by those with visual impairments
- Drivers are more familiar with traffic signals



#### Roundabout Option



#### Benefits:

- Traffic calming (reduced speeds)
- Reduced severity of crashes
- Less overall traffic delay
- Provides a gateway opportunity for travelers

entering Falmouth from the north

- Landscaping opportunities in central island
- Reduced long-term maintenance costs
- Lower volume of vehicle emissions due to reduced idling times



#### Two Intersection Options - Comparing the Impacts



## Intersection Option Comparison

**Revised Signalization** 

- Construction Cost:
- Annual Maintenance:
- Safety:
- Mobility:
- CO2 Emissions:
- Property Impact:

- \$1,800,000
- \$10,000
  - Somewhat better
  - About same
  - About same
  - ROW: <0.01 acre
  - Easements: 0.04 acre

#### **Recommendation: Install Roundabout**

#### Roundabout

- \$2,000,000
- <mark>\$4,000</mark>
- Much better
- Slightly better
- Slightly better
- ROW: 0.09 acre
- Easements: 0.25 acre



#### Roundabout at Longwoods, Middle, and Woods Roads





## Landscaping – Planting Samples



Yellow Twig Dogwood Bush



Catmint



Winterberry



Red Twig Dogwood Bush

**GP** 



Twig Dogwood Bush Mix



Willow Bush



#### Landscaping – Areas of Focus

- Screening the sewer pump station at the Johnson Road and Route 1 intersection
- Bus stop locations
- Replacing vegetation removed at private properties
- Roundabout central island and vicinity (if selected)
- Areas of interest along the shared use path
- In coordination with a welcome sign

Plantings will be similar to Route 1 South and Route 100

We plan to focus on tree preservation along this wooded corridor

\$450,000 is reserved for landscaping in cost estimate



# Shared Use Path Lighting Options

Three Options Have Been Investigated:

**Option 1:** Continuous **pedestrian-scale lighting** similar to Route 1 South and Route 100 \$800,000 - *in current cost estimate* 

**Option 2:** Diffused lighting by mounting **streetlight fixtures** on existing utility poles on east side of the road \$300,000

**Option 3: Minimal additional lighting**: only at bus stops and Johnson Road and Northbrook Drive intersections \$200,000







## Preliminary Cost Estimate – Phase 1

Phase 1		
A. Shared Use Path: Route 1 - Bucknam Road to Mill Creek	\$	990,000
B. Shared Use Path: Route 1 - Mill Creek to Johnson Road		1,130,000
C. Shared Use Path: Route 1 - Johnson Road to Cumberland T/L		1,240,000
D. Sidewalk: Route 1 - Northbrook Drive to Johnson Road	\$	400,000
E. Metro Bus Stop Improvements	\$	50,000
F. Landscaping: Route 1	\$	300,000
G. Sanitary Sewer Force Main Upgrade		225,000
H. Pedestrian Lighting: Route 1 (Underground Installation)		180,000
Phase 1 Subtotal	\$	4,515,000



## Preliminary Cost Estimate – Phase 2

Phase 2		
I. Sidewalk: Johnson Road - Middle Road to Route 1	\$	960,000
IA. Johnson Road Mill and Overlay	\$	180,000
J. Landscaping: Johnson Road	\$	150,000
K. Pedestrian Lighting: Johnson Road (Underground Installation)		100,000
Phase 2 Subtotal	\$	1,390,000



#### Preliminary Cost Estimate – Phase 3

Phase 3 (One of the Following Two Options)	
L1. Route 1 / Johnson Road Signalized Intersection Improvements OR	\$ 1,770,000
L2. Route 1 / Johnson Road Roundabout	\$ 1,970,000
Phase 3 Subtotal	\$ 1,970,000



### Preliminary Cost Estimate - Phase 4

Phase 4		
M. Pedestrian Lighting: Route 1 (Fixtures)		\$ 320,000
N. Pedestrian Lighting: Johnson Road (Fixtures)		\$ 128,000
	Phase 4 Subtotal	\$ 448,000



## Preliminary Cost Estimate – Engineering & Total

Phase	e 1 Subtotal	\$ 4,515,000
Phase	e 2 Subtotal	\$ 1,390,000
Phase	e 3 Subtotal	\$ 1,960,000
Phase	e 4 Subtotal	\$ 448,000
Design Engineering		
Preliminary Engineering		\$ 166,000
Final Engineering		\$ 200,000

#### **TOTAL EXPENSES \$ 8,679,000**



# Possible Financing

TOTAL EXPENSES	\$ 8,679,000	
Cost Savings - Landscaping Route 1 (item F)	\$ (100,000)	
Cost Savings - Landscaping Johnson Road (item J)	\$ (50,000)	
		\$ 8,529,000
INCOME		
Route 1 North TIF - 2023-2030 Infrastructure Bond	\$ 7,000,000	
Route 1 North TIF - 2021 Route One North Engineering Plan	\$ 150,000	
Route 1 North TIF - 2023 Route 1 North Storm Drainage Repair	\$ 15,000	
PACTS - 2023 MPI Funds - Northern Region allocation	\$ 400,000	
ARP Funds and/or Wastewater Enterprise Funds - Force Main Upgrade (item G)	\$ 225,000	
OceanView/Gas TIF - Shared Use Path outside Route 1 North TIF district	\$ 600,000	
OceanView/Gas TIF - Landscaping outside Route 1 North TIF district	\$ 20,000	
OceanView/Gas TIF - Pedestrian Lighting outside Route 1 North TIF district	\$ 25,000	
OceanView/Gas TIF - Other Improvements inside Route 1 North TIF district	\$ 94,000	
		\$ 8.529.000



## Other Potential Variables from Cost Estimate

#### Shared Use Path – Spur Ramp Crossing

- Option 2 ramp modification
- Option 3 ramp removal
- Option 4 no path along Spur ramps
- Option 5 eliminate entire shared path

#### Shared Use Path Lighting

- Option 2 streetlight fixtures
- Option 3 minimal additional lighting

-\$500,000 -\$600,000

-\$200,000

#### Johnson Road Intersection

• Option 2 - signalized intersection

- +\$500,000 +\$2,500,000 (up to)
- -\$1,000,000
- -\$3,800,000

# Route 1 North Tax Increment Financing (TIF) District

- If project uses 100% TIF and/or grant funds: no tax rate impact
- Due to tax sheltering TIF funds do 2.4x work of General Funds
- R1N TIF is due to expire in FY 2023
- With extension of term with 7 years (to max. 30-year term) a \$7M investment in Route 1 North is feasible, pending the current Property Revaluation



## Route 1 North TIF – Three Proposed Amendments

- 1. Extend term with 7 years to expire in FY 2030
- 2. Revise TIF District Map to remove Underwood Springs property owned by Falmouth Land Trust
- 3. Revise TIF Development Plan to include Bond Payments for R1N Infrastructure Plan

#### Requires approval by:

- Town Council
- State of Maine DECD



#### Next Steps

Spring 2021Start TIF Amendment Preparation

Summer 2021Finalize Preliminary Design & Cost ReportTown Council Review and Approval

Summer 2021Route 1 North TIF Amendment PublicHearing + Council Vote to Submit to DECD

Late Summer 2021 Maine DECD Review and Approval



#### Anticipated Subsequent Steps

**2022** Falmouth Referendum Vote

**2022-2023** Final Design Plan Preparation

Fall 2023Construction Bidding

**2024** Construction Starts

Fall 2024 Construction Completed

#### Polling Question 1: Johnson Road Intersection

#### Which intersection option do you prefer?

**Option 1: Current signalized intersection** with crosswalk improvements (but <u>no</u> dedicated left turn lanes on Route 1)

**Option 2: Signalized intersection with dedicated left turn lanes** on Route 1 and crosswalk improvements

**Option 3:** Single lane **roundabout** with crosswalk improvements

#### **Please Use the Voting Function**





Cross Ramps at right angle with warning signage (purple line)

Option 1 rejected by MaineDOT (due to vehicle speeds on ramps)

Segment Cost: \$1,000,000 (included in overall cost estimate)





Suggested by MaineDOT:

Modify West Ramps to create new intersection at Route 1 (yellow and red lines)

Path Crosses Ramps at new intersection with Route 1 (green line)

Segment Cost: \$1,500,000





Consultant Idea:

Modify East Ramps, Remove West Ramps, New Intersection (red and yellow lines)

Path Does Not Cross Any Ramp (green line)

Segment Cost: \$1,500,000 to \$3,500,000, depending on intersection type FALMOUTH MAIN D

![](_page_55_Picture_1.jpeg)

**Default Option:** 

Eliminate this section of the Shared Use Path (2800 lf)

**Option depends** on available funding and approvals

Segment Cost: \$0

![](_page_55_Picture_6.jpeg)

![](_page_56_Picture_1.jpeg)

Eliminate entire **Shared Use Path** up to Town of **Cumberland Town** line

Cost: \$0

![](_page_56_Picture_4.jpeg)

#### Polling Question 2: Shared Use Path

#### Which Shared Use Path/Ramp option do you prefer?

- Option 1: Cross ramps at right angles as proposed (MaineDOT opposed)
- **Option 2: Modify West ramps and Create new intersection**
- Option 3: Remove West ramps, Modify East ramps, and Create new intersection
- Option 4: Eliminate 2,800 If section of Shared Use Path at ramps
- Option 5: Eliminate entire Shared Use Path to Cumberland line

#### **Please Use the Voting Function**

![](_page_57_Picture_8.jpeg)

# Polling Question 3: Shared Use Path Lighting

#### Which lighting option do you prefer?

**Option 1:** Continuous **pedestrian-scale lighting** similar to Route 1 South and Route100

**Option 2:** Diffused lighting by mounting **streetlight fixtures** on existing utility poles on the east side of the road

**Option 3: Minimal additional lighting:** only at the bus stops and intersections

**Please Use the Voting Function** 

![](_page_58_Picture_6.jpeg)

![](_page_58_Picture_7.jpeg)

![](_page_58_Picture_8.jpeg)

#### What Questions or Feedback do you have?

• The Town received three questions/comments ahead of the Forum.

![](_page_59_Picture_3.jpeg)

Q1: What is happening with the Turnpike ramp/bridge removal and making a new intersection? Whatever happens there has to fit with the Route 1 North Project.

A: Complete Turnpike ramp and bridge removal is <u>not</u> part of the original scope of the Route 1 North Vision Plan and is <u>not</u> included in the Infrastructure Plan. The removal idea was originally envisioned to require a major investment by a developer on the land owned by MaineDOT to make that expense pay for itself. No developer proposal is being considered at this time. Some ramp removal may possibly occur as part of proposed shared use path.

![](_page_60_Picture_3.jpeg)

Q2: I live on Middle Road and am concerned with vehicle speeds at Middle Road-Johnson Road-Stormy Brook intersection ever since Middle Road was widened. Can this become a 4-way stop?

A: The Town Engineer checked existing sight distance at this location and the Police Department collected speed data.

The speed limit is 35 mph. There is a greater speed approaching the intersection from the southbound travel out of Cumberland. The pace speed is between 33-43 MPH and the average speed is 37.5 MPH. The Police Department plans to do speed enforcement at this location and install a temporary sign board.

![](_page_61_Picture_4.jpeg)

Q3: I live on Johnson Road and am concerned with excessive vehicle speeds:

- On Johnson Road between Route 1 and Route 88, and
- At Johnson Road-Route 1 intersection

A: The Police Department recently collected speed data on Johnson Road. The results are as follows:

![](_page_62_Picture_5.jpeg)

#### Rt 1-88 section of Johnson Road:

Speed limit is 25 MPH. The pace speed is between 27-37 MPH and the average speed is 31.7 MPH. Johnson Road is difficult for enforcement and sign boards because of the curbing and narrow road.

Johnson Road intersection: Speed limit is 45 MPH. With a roundabout speeds through the intersection will be 10-25 MPH.

![](_page_63_Picture_4.jpeg)

#### What Other Questions or Feedback do you have?

- Please use the "Raise Hand" Feature
- The Moderator will call on you to unmute yourself when it is your turn to speak

#### Thank you for your time and interest!

![](_page_64_Picture_5.jpeg)

# Thank you! Here's how to keep track of this Project

#### Project website: <u>www.falmouthme.org</u>

Put "Route 1 North Infrastructure Plan 2021" in Search Box

#### Project Manager:

Theo Holtwijk, 699-5340, tholtwijk@falmouthme.org

![](_page_65_Picture_5.jpeg)