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018637.00 Westbrook: Cumberland Mill Rotary Signalization

Vanasse Hangen Brustlin, Inc.

Mileone & MacBroom

State of Maine. Department of Transportation

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018637.00 Westbrook
Cumberland Mill Rotary Signalization

Public Hearing

May 17, 2017
Presentation Talking Points

- Project Team
- Project Purpose and Need
- Project Area
- Project Timeline
- Existing Conditions
- Project Objectives – Operations and Design
- Key Design Elements and Anticipated Results
- Project Schedule
- Questions and Comments
Project Team

- MaineDOT and PACTS
  - Project Management
- VHB and Milone & MacBroom, Inc.
  - Project Designers and Engineers
- Westbrook Public Works, Police, & Fire
  - Review, Comment, and Coordination
- Contractor and Supplier/Integrator (TBD)
Purpose and Need

- Improve Traffic and Pedestrian Operations and Increase Mobility (Multimodal)
- Address a High Crash Location (HCL)
- Satisfy Recommendations from Cumberland Mills Long-Range Traffic Improvements Study (2005)
Project Area
Conceptual Project

Project Timeline

- **2004**: MaineDOT looks at safety project for intersection of Cumberland/Warren, City requests consideration for area improvements (fatality May 2004 Main/Rite Aid)

- **Aug 2005**: Cumberland Mills Long-Range Traffic Improvement Study (Sebago Technics for MaineDOT, Westbrook, and PACTS)

- **Feb 2014**: Milone & MacBroom, Inc. and City apply for project to PACTS
Project Timeline

- July 2014: Traffic Signal Warrant Study (Sebago Technics for Westbrook)
- August 2014: City endorsement of Cumberland Mills Improvement Project.
- October 2014: MPO Project Identification Form (PACTS for MaineDOT)
- March 2016: MaineDOT, PACTS, Westbrook, VHB and MMI design scoping meeting
Project Timeline

- October 2016: MaineDOT, PACTS, Westbrook, VHB and MMI project meeting / site walk
- November 2016: Field data collection (supplemental traffic and survey) completed
- January 2017: VHB and MMI team meeting on Preliminary Design (initial layout based on 2005 Preferred Alternative discussed, result was need for Coach Point Meeting)
## Project Timeline

- **February 2017:** Coach Point Meeting
- **March 2017:** MaineDOT, PACTS, Westbrook, VHB and MMI Preliminary Design project meeting
- **April 2017:** Preliminary Design Report submitted to MaineDOT (copy to PACTS and City)
- **May 17, 2017:** Public Hearing
Existing Conditions

TRAFFIC CONTROL

- STOP/Yield traffic control throughout “Rotary” / Yield to Pedestrian in the Crosswalk

- One existing intersection provides traffic signals (Main Street at Forest Street)
  
  - Very old “legacy” equipment with limited capabilities.
  
  - Hand/Person pedestrian signal indications with mechanical type pushbuttons.
Existing Conditions

OPERATIONS

- Free/’on-demand’ signal operations at Main/Forest.
- Levels of Service (LOS) “F” operations along many approaches during peak conditions.
Existing Conditions

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Existing Conditions

SAFETY

- 93 crashes (31/year average) over most recent 3-year period, 56 crashes (60%) at Cumberland/Warren intersection (High Crash Location).
- 88 crashes (95%, ~29/year average) rear-end type.
- 17 crashes (18%, ~6/year average) had injuries.
Project Objectives – Operations and Design

- Analytical Results (continue) to Support Project

- Alternatives:
  - Do Nothing (but does not address Purpose & Need)
  - Full (2005) Preferred Alternative
  - Reduced Geometric Impact Alternative
Project Objectives – Operations

- Signals + controller/cabinet at each intersection.
  - Free operations feasible (“coordination” for peaks to be tested / late night flash)
  - Good LOS (C or better) at all project intersections
  - No Right-Turn on Red throughout Rotary

- The “reduced” geometry alternative is shown to be feasible, higher b/c ratio.
  - Single eastbound approach lane (Main/Harnois)
  - 2-Lane Section (Main/Seavey thru Main/Cumberland)
  - 3-Lane Section (Main/Cumberland to Main/State)
Project Objectives – Operations

- Note: much greater right-of-way impacts with full (2005) preferred alternative
- Note: greater number (up to 30) of on-street parking opportunities could be removed under full (2005) preferred alternative
- Note: both design alternatives close Rite Aid Drive to Cumberland Street
Project Objectives – Operations
Preliminary Design
Preliminary Design

Cumberland St at Harnois Ave & Warren Ave
Preliminary Design
Preliminary Design

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Preliminary Design – Key Highlights

- Design provides 4 new signalized intersections and upgrades 1 existing intersection. All signals will be interconnected into PACTS Advanced Traffic Management System.

- Design provides additional travel/turning lanes:
  - Westbound Main St. from Forest St. thru Cumberland St.
  - Westbound Cumberland St; Warren Ave. to Harnois Ave.
  - Southbound Harnois Avenue (1 through and 2 left-turns)
  - Eastbound Cumberland St. at Harnois St. (2 rights)
  - Southbound Warren Ave. at Cumberland St. (2 rights)
  - Eastbound Main St. from Harnois Ave. to Seavey St.
Preliminary Design – Key Highlights

- Design does **not** allow for on-street parking along the north side of Main Street between Cumberland Street and Forest Street.

- Design will provide ADA curb ramps and detectable warning fields but will **not** upgrade all the sidewalks within the project area.

- Design proposes to formalize bus stop at Cumberland Street and Harnois Avenue.
Preliminary Design – Key Highlights

- Design impacts existing right-of-way, presently:
  - Southeast and southwest corners of Main St. at Forest St.
  - Northeast corner of Cumberland St. at Warren Ave.
  - Northwest and southeast corners of Main St. at Harnois.

- Design closes Rite Aid access to Cumberland St.

- Design may remove existing tree on southeast corner of Main St. at Forest St.
Preliminary Design – Key Highlights

- Design removes existing midblock pedestrian crossing at Main St. and Lamb St.
- Design does not propose to provide formal striping for on-street parking.
- Design does not presently coincide with a paving project through the area.
Preliminary Design – Key Highlights

- Design may coordinate with other planned City projects to minimize traffic impact to Cumberland Mills area.

- Design proposes to provide signing for how bicycles are to travel through the area but does not provide formal bicycle lanes or bicycle detection at the signalized intersections.
Anticipated Results

- Improved traffic flow throughout project area.
- Improved transit (bus) accommodations.
- Improved pedestrian serviceability.
- Signing for bicyclist on how to navigate through area (and motorists be alert).
- Cumberland/Warren Avenue to no longer fall within the High Crash listing.
- ~15+/- less crashes per year.
Project Schedule

- May 17, 2017 – Public Hearing
- June 2017 – Preliminary Design Completed
- July 2017 – PIC Submission (~2+/- months)
- Begin 8-12 month Right-of-Way process + Utility Coordination
- Fall 2018 – Final Design Completed
- 8 -12 month Construction Schedule
THANK YOU FOR YOUR INTEREST

Questions?