Putnam Bridge Multimodal Trail Connections

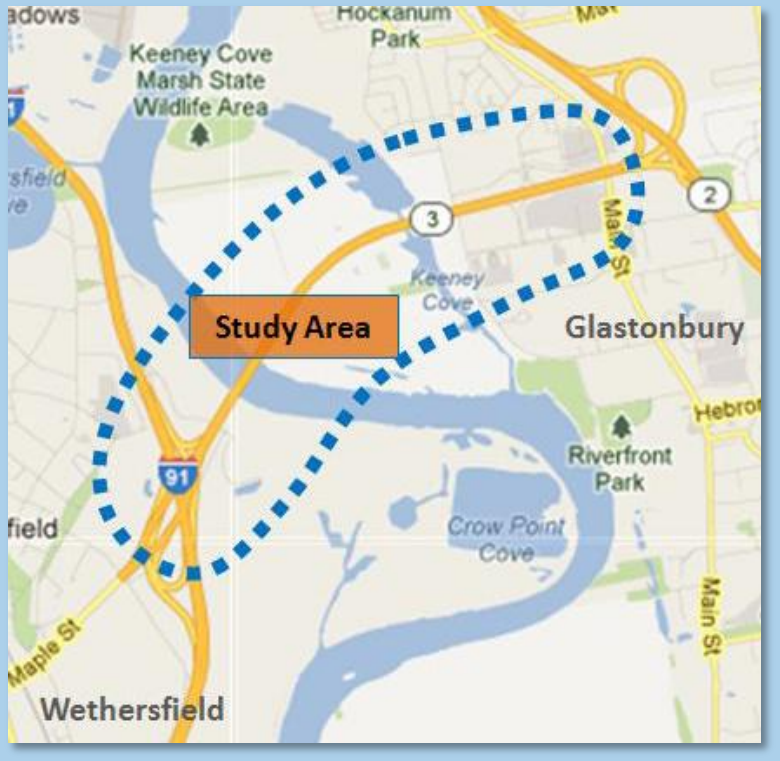
Feasibility Study

Advisory Committee Kick-off Meeting

January 31, 2013

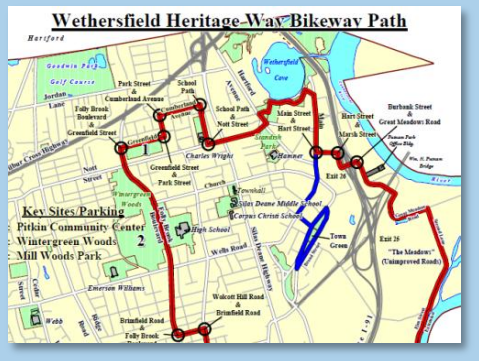
Study Overview

- **Purpose**
  - Advance planning work for bike/pedestrian access to bridge
  - Evaluate potential connections to the transportation network



Scope

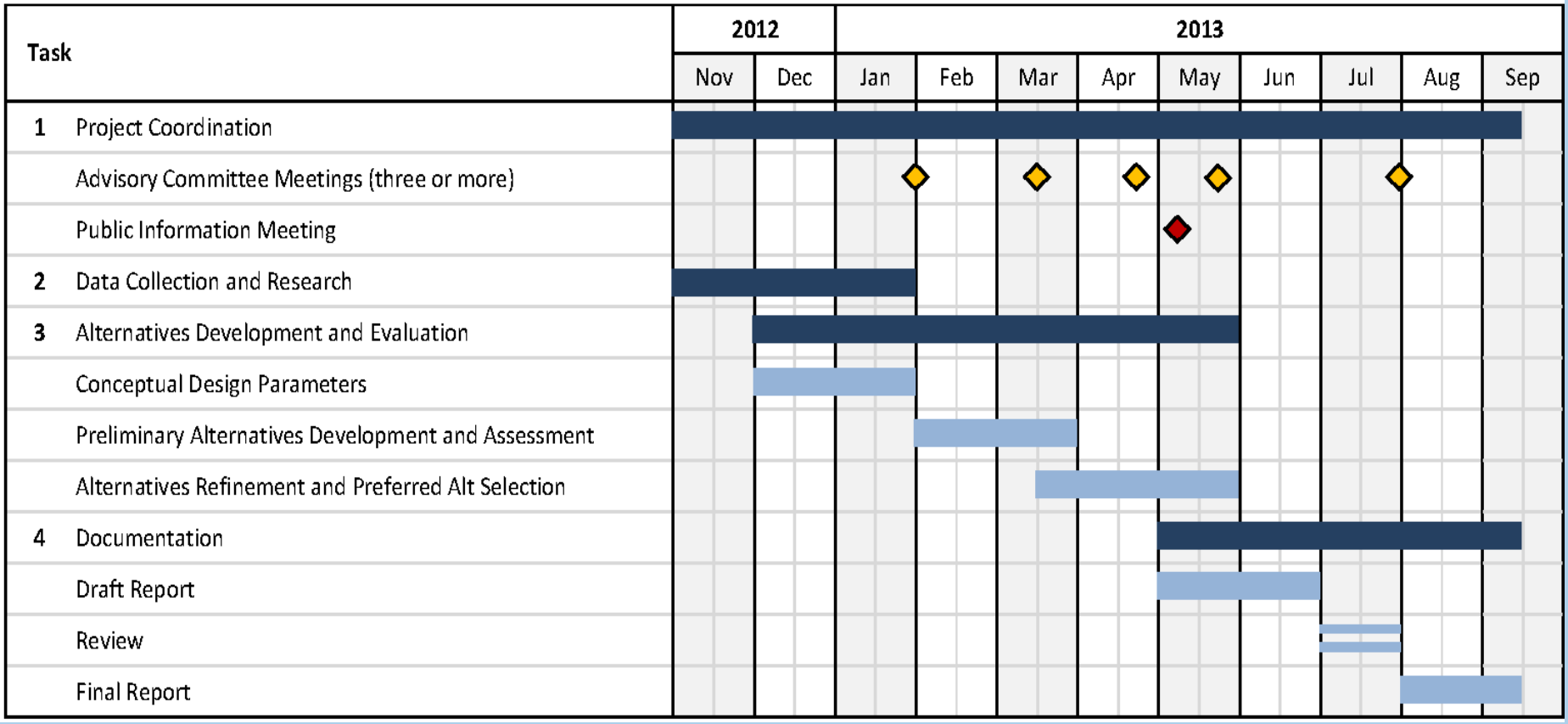
- **Task 1** | Project Coordination
  - Coordination Meetings
  - Advisory Committee Meetings
  - Public Information Meeting
- **Task 2** | Data Collection and Research
  - Existing Multimodal Accommodations and Services
  - Plans, Reports, Studies, GIS Data
  - Site Visits



Scope

- **Task 3** | Alternatives Development and Evaluation
  - Conceptual Design Parameters
  - Preliminary Alternatives Development
  - Alternatives Refinement and Preferred Alternative Selection
- **Task 4** | Documentation
  - Draft and Final Reports

Anticipated Schedule

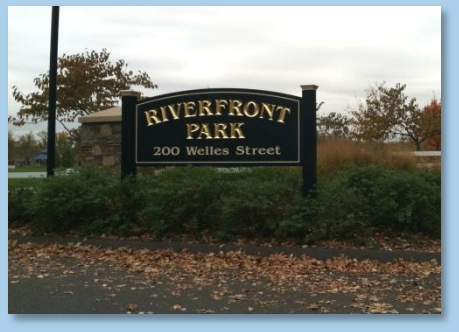


Preliminary Planning & Design Goals

Maximize Transportation and Recreational Utility

The design of the multimodal trail connections to the Putnam Bridge walkway should promote year-round use as a transportation and recreational facility by maximizing the following:

- **Accessibility.** Incorporate design standards and features that: accommodate a variety of users (bicyclists, pedestrians, joggers, skaters, etc.); provide ease of maintenance; and facilitate reliable passage throughout the year.
- **Connectivity.** Link the multimodal trail to existing bicycle, pedestrian, and transit facilities; provide opportunities for future connectivity; and enhance access to other nearby community and recreational facilities.
- **Comfort and Security.** Create a comfortable user experience by mitigating the impacts of adjacent highways (traffic noise, road spray, headlight glare, etc.) and by providing measures to enhance user safety along the trail and at its termini.

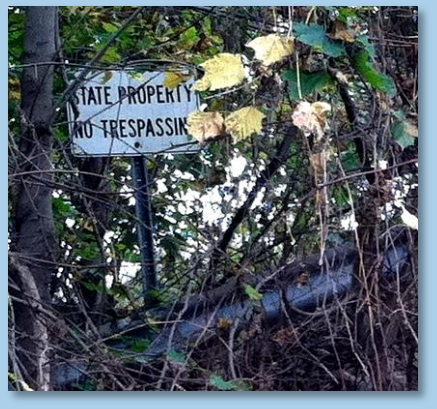


Preliminary Planning & Design Goals

Minimize Impacts

The design of the multimodal trail connections should be sensitive to the context of the surrounding area by minimizing or avoiding negative effects on the following:

- **Environmental Resources.** Minimize the direct and indirect impacts of the planned trail on wetlands, floodplains, natural habitats, and other resources in the area.
- **Private Property.** Minimize the need to acquire rights or land from private property owners.
- **Existing Infrastructure.** Avoid costly impacts to existing roadways, bridges, and utilities.



Preliminary Planning & Design Goals

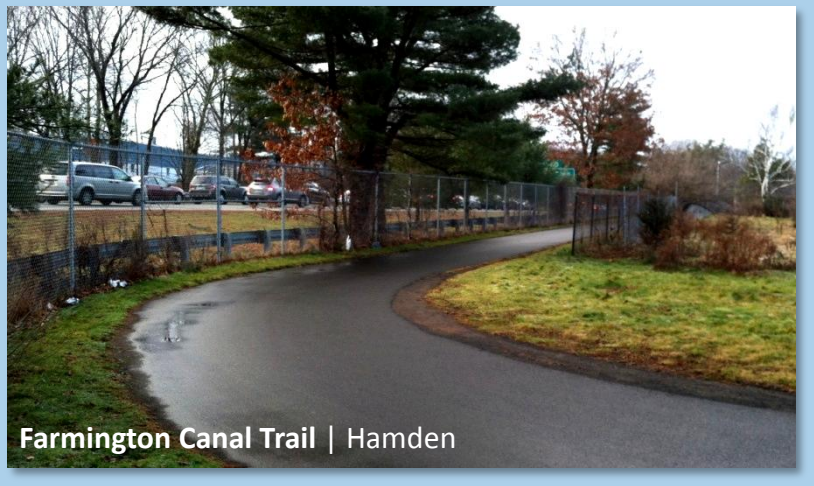
Facilitate Implementation

The planning and design processes for the multimodal trail connections should build community and agency support for the project, ultimately lending to its implementation, by addressing the following:

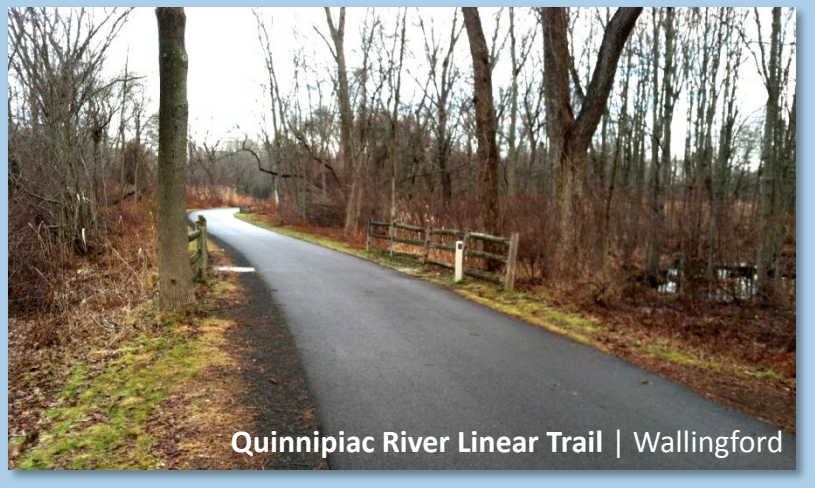
- **Community Needs and Priorities.** Respond to community input on the design and long-term functional aspects of the trail.
- **Fiscal Constraints.** Provide cost-effective design solutions that reasonably satisfy the other project goals of maximizing utility and minimizing impacts. Consider a variety of funding and implementation mechanisms for project components.
- **Agency Requirements.** Respond to regulatory agency input on the design and permitting requirements of the trail to facilitate subsequent approval processes.

Design Considerations

- **Shared Use Path** | AASHTO Definition
  - Bikeway physically separated from motor vehicle traffic by open space or barrier
  - Used by pedestrians , skaters, joggers, wheelchair users, others
  - Most designed for two-way travel
- **Examples**



Farmington Canal Trail | Hamden



Quinnipiac River Linear Trail | Wallingford

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- **Examples**


I-890 Shared Use Path | Schenectady, NY


Charter Oak Greenway | Manchester

Design Considerations

» **Shared Use Path** | Design Standards

- AASHTO Guide for the Development of Bicycle Facilities

Design Element	Design Value[1]
Design Speed	18 mph for level terrain
Path Width[2]	10 ft minimum
Shoulder Width	3 - 5 ft 5 ft desirable adjacent to 1:3 slope or steeper
Horizontal Clearance	2 ft minimum from lateral obstructions 1 ft minimum from railings (or "smooth" features)
Separation between Path and Roadway[3]	5 ft minimum
Path Cross Slope[4]	1.0% recommended, 2.0% maximum
Shoulder Cross Slope	1:6 maximum
Grade[5]	5% maximum, or grade of adjacent roadway
Vertical Clearance	8 ft minimum, 10 ft desirable
Horizontal Curvature[6]	60 ft minimum @ 18 mph design speed
Stopping Sight Distance[7]	135 ft minimum @ 18 mph design speed
Pedestrian Accommodations	See Americans with Disabilities Act Accessibility Guidelines (ADAAG) and Proposed Accessibility Guidelines for Ped. Facilities in the Public Right-of-Way (PROWAG)
Railing Height[8]	42 in minimum

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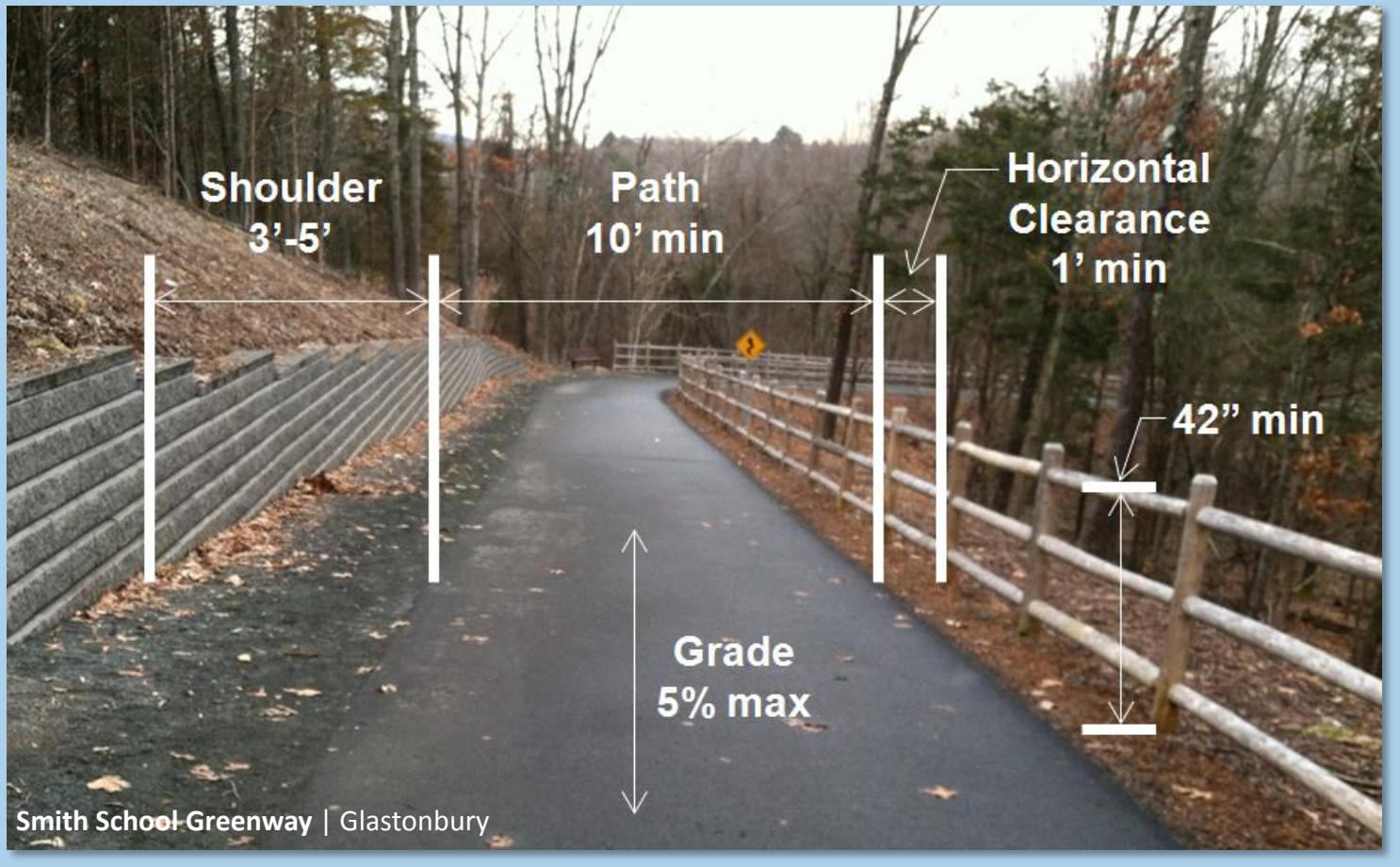

Design Considerations

- **Bridge Walkway**
  - Northbound Side
- **Path Termini**
  - Connectivity – Sidewalks, Bike Facilities, Transit, Origins/Destinations
  - Safety – Crossings, Traffic Volumes, Visibility, Sight Lines
  - Accommodations – Trailhead Amenities, Parking

Design Considerations

- **Path Alignment**
  - Cove Crossing Opportunities
  - Potential Impacts – Floodplain, Wetlands, Private Property, Infrastructure
  - Constructability
  - User Experience

Design Considerations

- What are the opportunities & constraints?
- What do we need to be aware of?
- What is important to you?
- What is <u>most</u> important to you?

Next Steps

- **Preliminary Alternatives Development**
- **Next AC Meeting**
  - Target: Mid March
  - Topic: Preliminary Alternatives Review/Discussion