BELMONT COMMUNITY PATH
FEASIBILITY STUDY

Public Meeting #2 – Western End

October 26, 2016

PARE CORPORATION
Engineers | Scientists | Planners

K3LA

AGENDA

1. Introduction	Russell Leino, CPIAC
2. Purpose and Level of Design	Amy Archer, Pare
3. Where We Left Off	Amy Archer
4. Edge Treatments	Kathleen Fasser, k3-LA
5. Alternatives Analysis	Amy Archer & Kathleen Fasser
6. Preliminary Matrix	Amy Archer
7. Public Engagement	Open Discussion
8. Next Steps	Amy Archer

PURPOSE

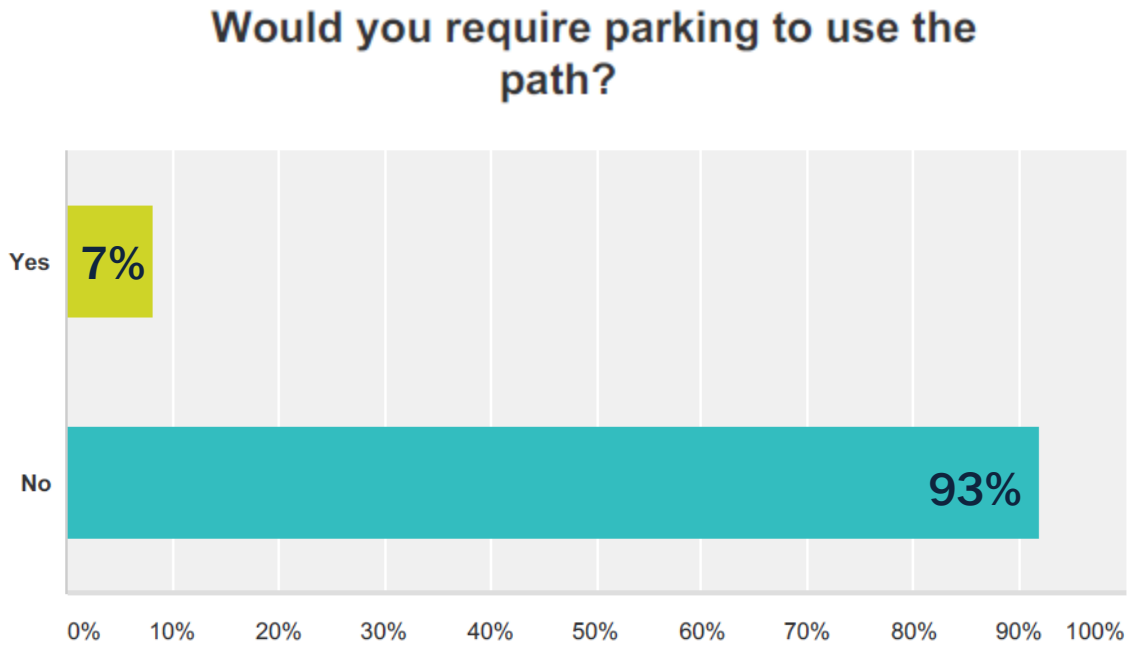
To recommend a preferred alternative for a non-motorized, multi-use path through Belmont that will serve the Town's residents as well as "fill the gap" along the Mass Central Rail Trail (MCRT) between Waltham and Cambridge using the alignments from the CPAC as a base.

LEVEL OF ANALYSIS/DESIGN

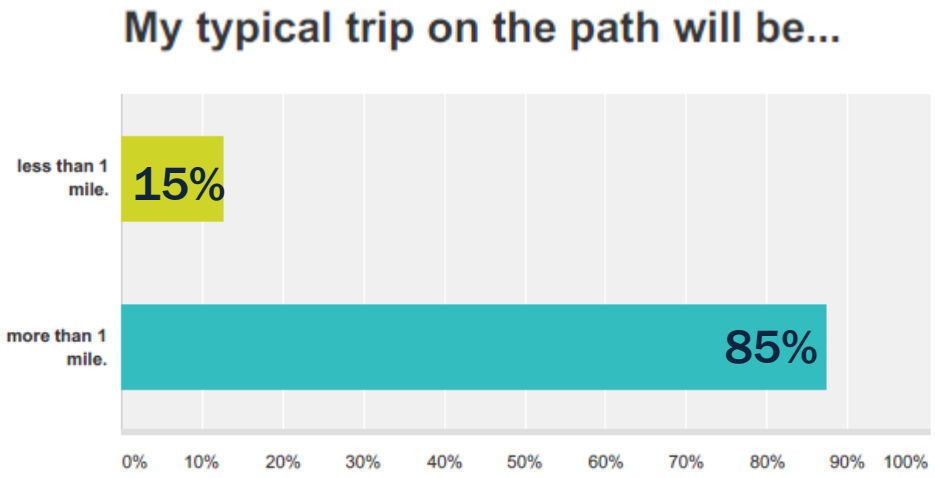
- Feasibility study intended to advance to conceptual design and planning cost estimate
  - Define path options – alignments and typical sections
  - Quantify impacts to property and resources
  - Quantify costs based on path definition
  - Weight and rank pros and cons of alternatives

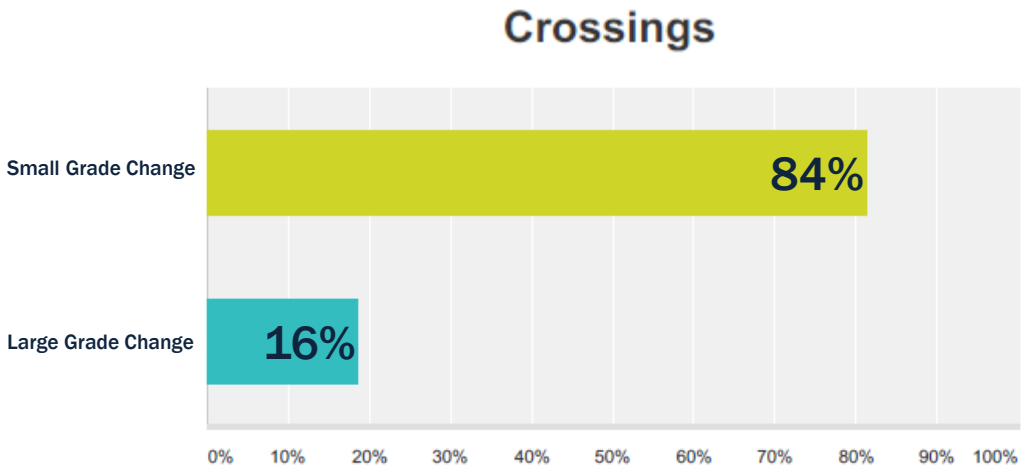
WORKSHOP/SURVEY

- Input from over 50 people attained at kick-off
- Over 130 people completed online survey (as of 10/12/16)
- Key preferences:

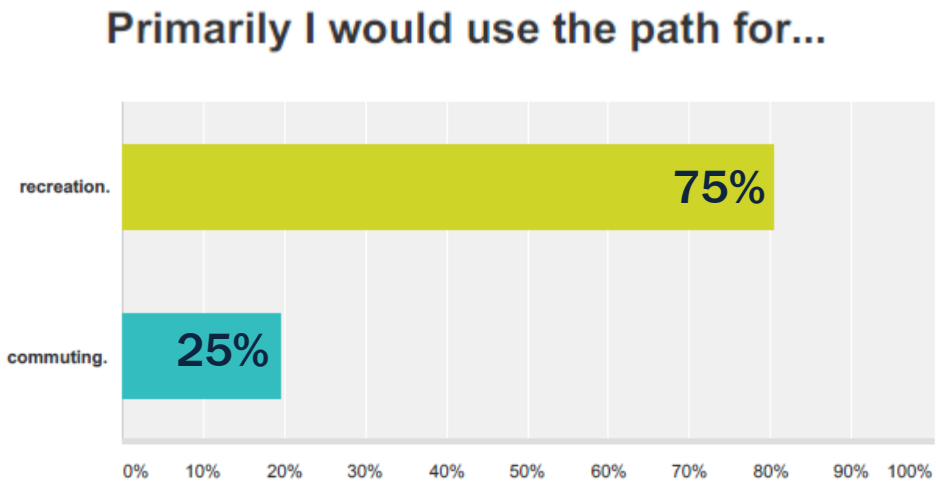


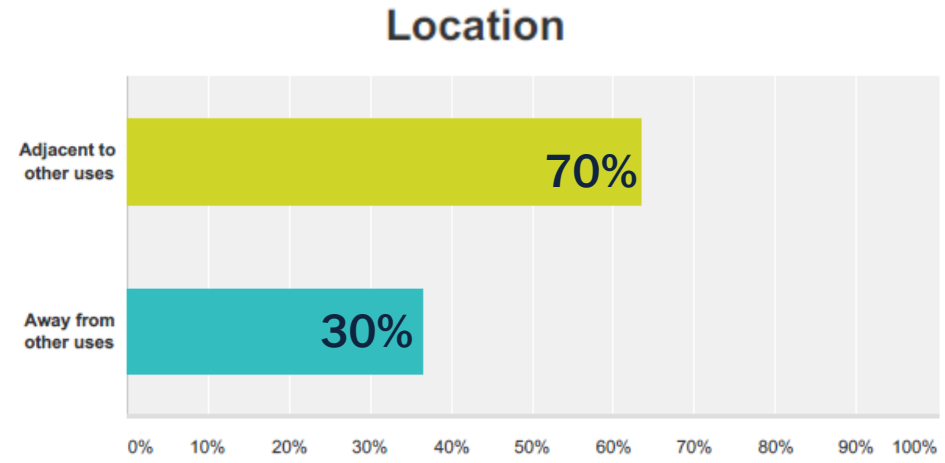
WORKSHOP/SURVEY



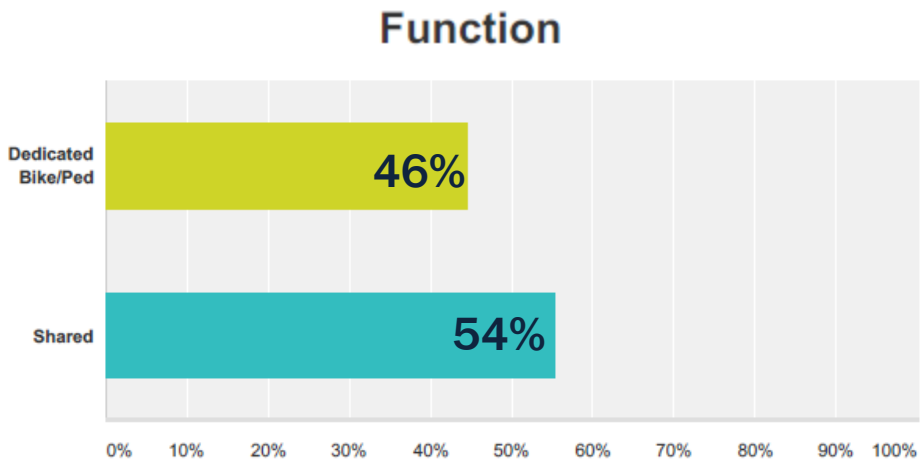


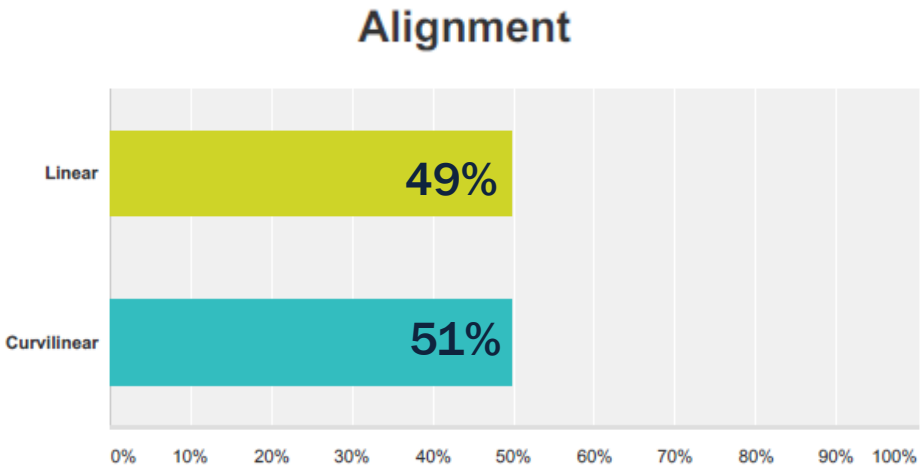
WORKSHOP/SURVEY





WORKSHOP/SURVEY



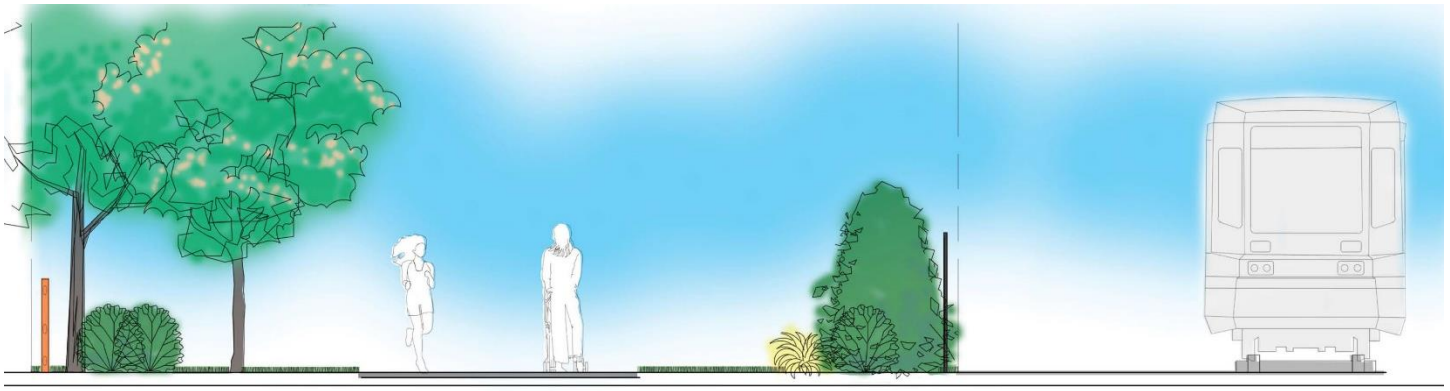


WORKSHOP/SURVEY

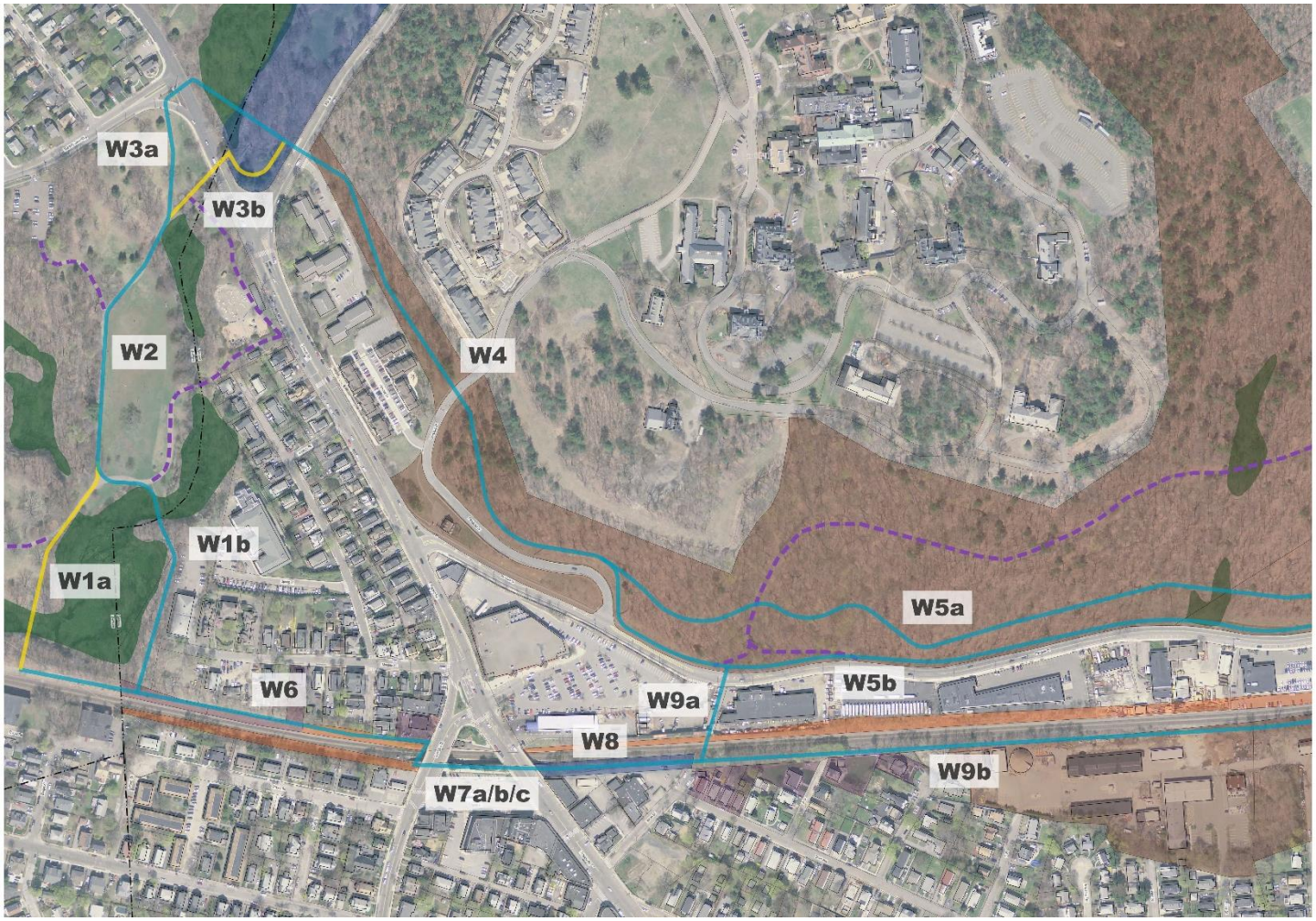
- Effects on design details:
  - Available space will be used primarily for parks not parking
  - Recommend path width of 14’
  - Structures will be designed based on grade
  - Alignments will seek connectivity
  - Path may meander where space permits

WORKSHOP/SURVEY

- Preference for planting along path
- Preference for shorter wood fence at abutting property but higher chainlink-type fence at RR
- Preference for fences near property lines, not near path edge
- Preference for berms was not significant



WEST SEGMENT ALIGNMENTS



WALTHAM CONNECTION

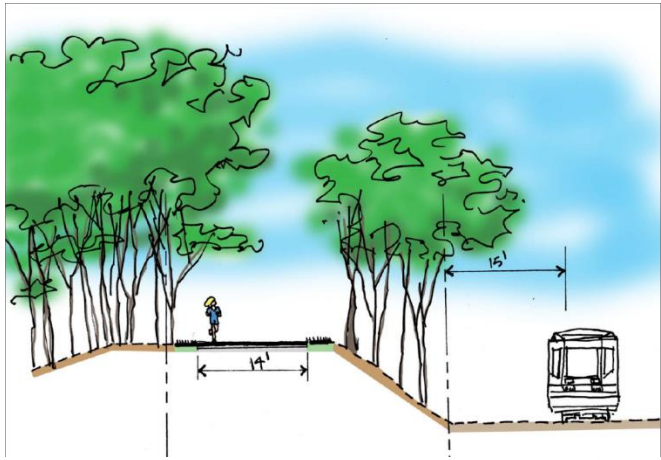
- Begin on north side of tracks close to Waltham/Belmont line
  - **Continue north through Beaver Brook Reservation (W1)**
  - Continue east through Waverley Square (W6)

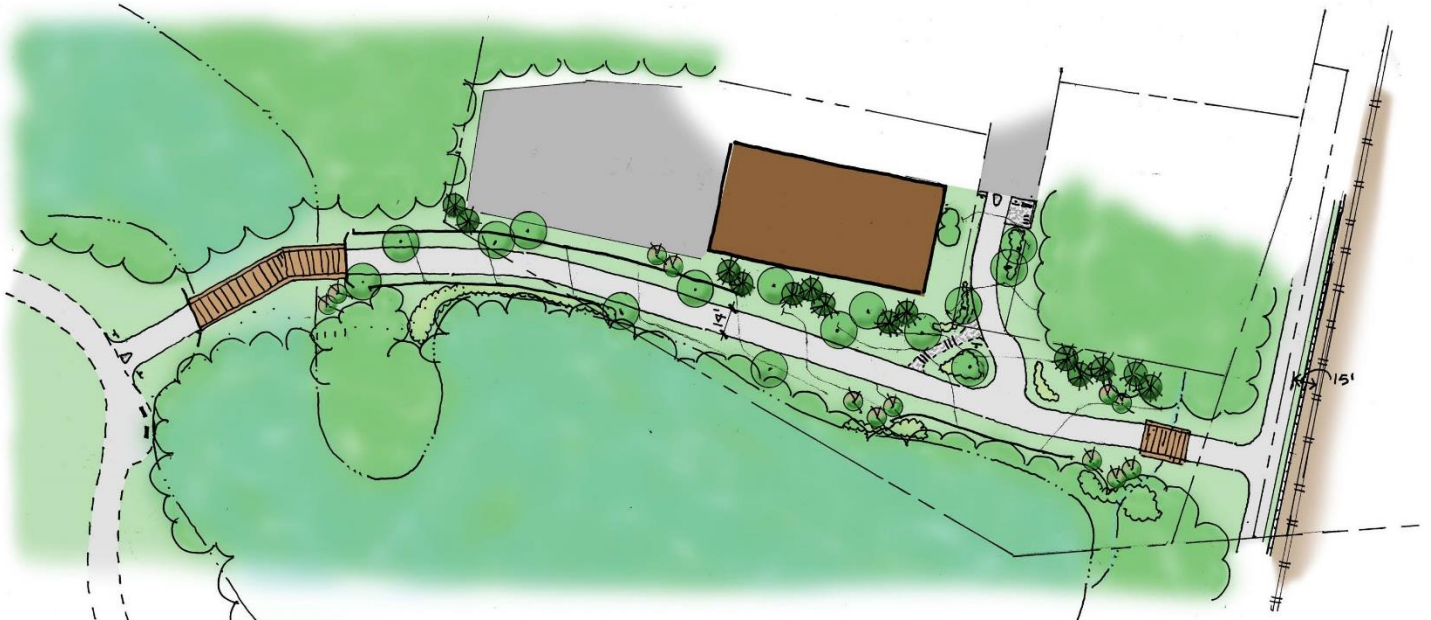
BEAVER BROOK (W1, W2 & W3)

- W1a: CPAC Alignment
  - In Waltham
  - DCR Land
  - Long wetland crossing
- W1b: Alternative – shift east
  - In Belmont
  - Smaller wetland crossing
  - Enters private property

BEAVER BROOK (W1, W2 & W3)

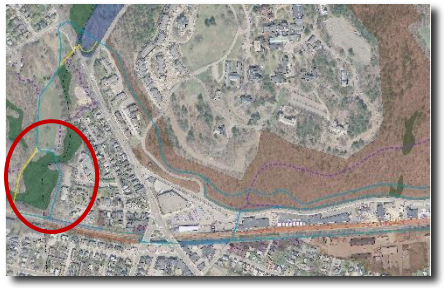
- W1b: Alternative – shift east
  - Trail Head
  - Connection to Moraine
  - Boardwalk, bridge

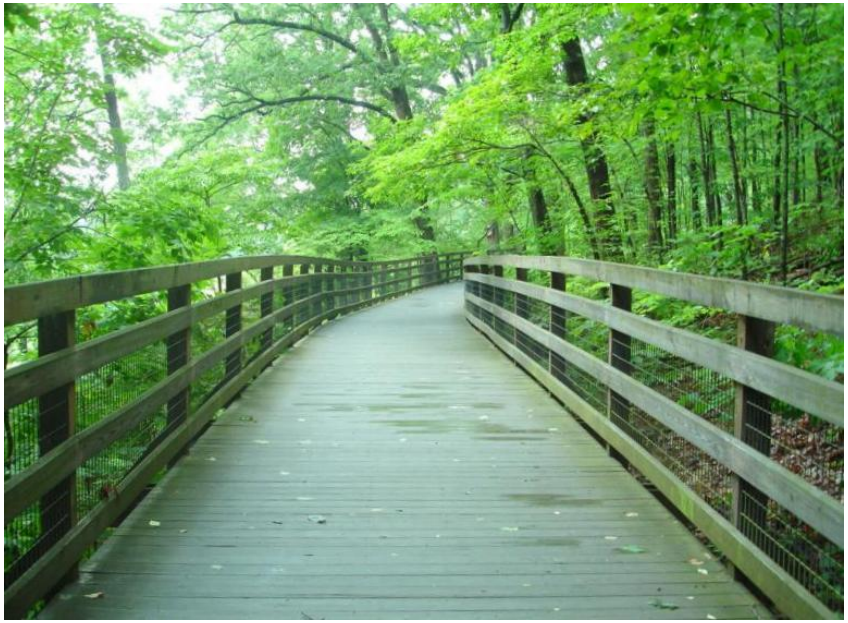




BEAVER BROOK (W1, W2 & W3)

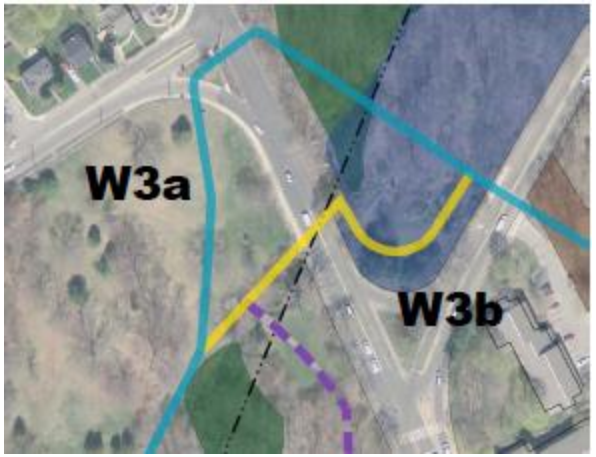
- W1b: Alternative – shift east
  - Propose boardwalk over wetland
  - minimize impact and need for mitigation



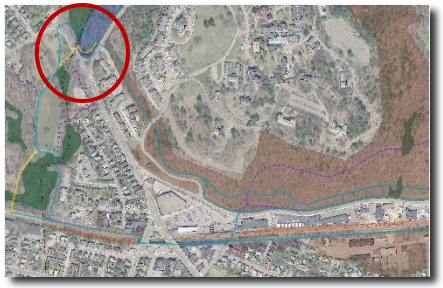


BEAVER BROOK (W1, W2 & W3)

- W2: Utilize/widen existing path
- W3: Crossing Trapelo Road
  - Avoid midblock crossing
  - Low Point – Drainage issues
  - Cross instead at Waverley Oaks intersection (Waltham)
  - Signalized crossing needed – requires traffic analysis/signal redesign



Example crossing at intersection (W3a)



LONE TREE HILL (W4 & W5)

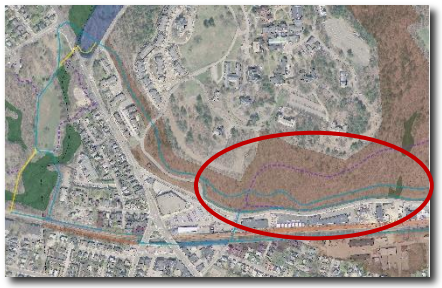
- Continue into Lone Tree Hill Conservation
- Manipulated CPAC alignment to follow contour
- Able to achieve ADA accessible running slope – no switchbacks

LONE TREE HILL (W4 & W5)

- W4 and W5a: Wooded Area
  - Has extreme cross slope
  - Requires retaining wall approximately 12’ in height
  - Requires minimum 30’ width swath of mature tree removal
  - Total impact – 3.25 acres of mature forest

LONE TREE HILL (W4 & W5)

- W5b: Alternative – shift to the north side of Pleasant Street
  - Utilize existing wall
  - Less impact to mature trees (over ½ mile)
  - Closer to roadway
    - Increased access
    - Fosters redevelopment

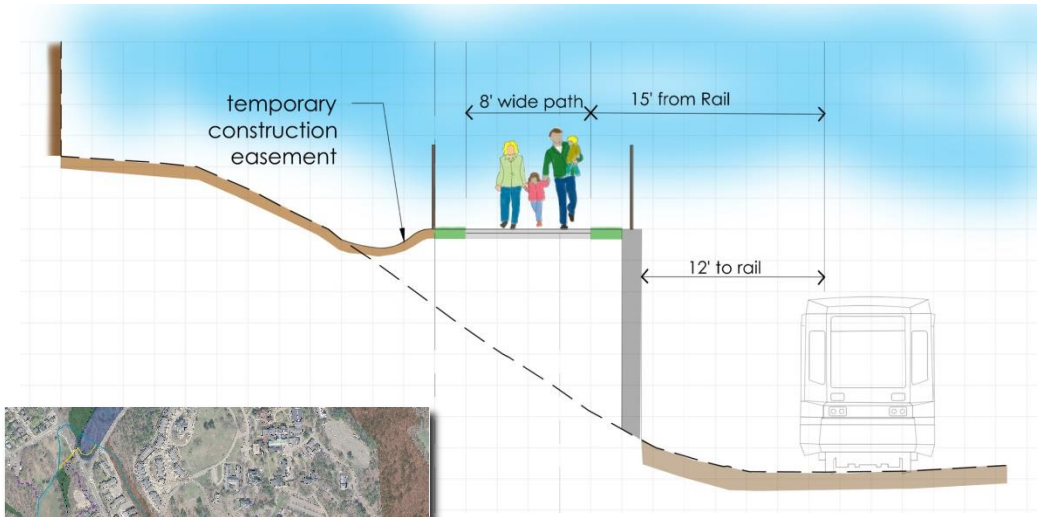


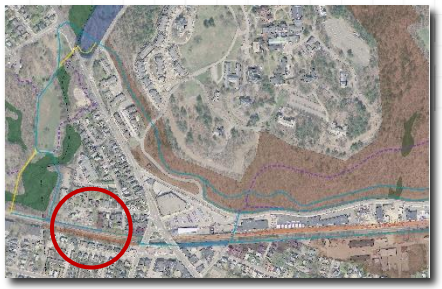
WALTHAM CONNECTION

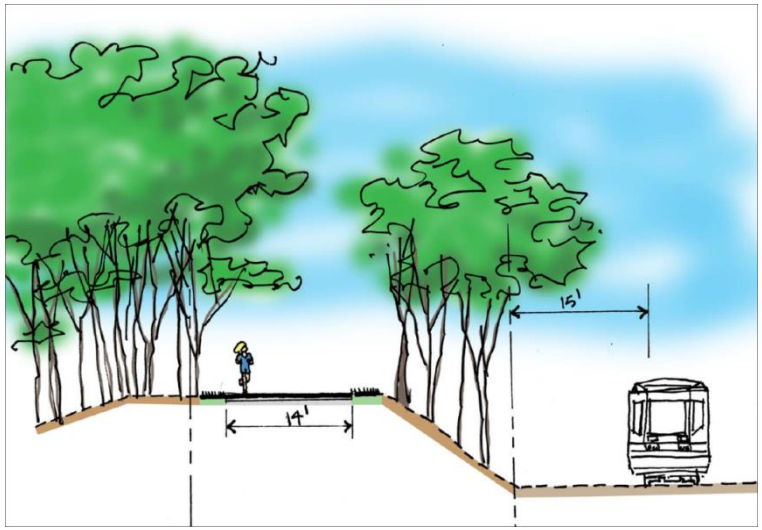
- Begin on north side of tracks close to Waltham/Belmont line
- Continue north through Beaver Brook Reservation (W1)
- **Continue east through Waverley Square (W6)**

WALTHAM CONNECTION (W6)

- Continue along north side of rail to Waverley Station
- Provide direct connections to Waverley Station platforms if possible (MBTA Coordination)



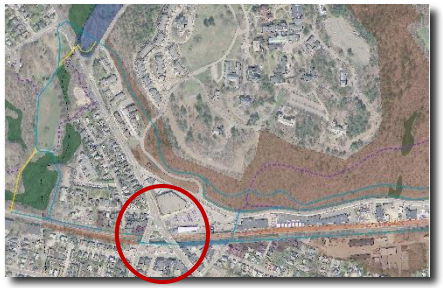




WALTHAM CONNECTION (W6)

WAVERLEY STATION (W7)

- W7-a: Elevated over existing platform within station box (CPAC original)
- W-7b: “Box over” Waverley Station
- W-7c: Traverse existing roadways/station at grade



WAVERLEY STATION (W7)

- W7a: Elevated over Platform
  - Requires cantilever along Lexington Street structure
  - Requires series of ramps

WAVERLEY STATION (W7)

- W7a: Elevated over Platform
  - 10’ maximum width
  - Provides 9’ clearance for covered platform
  - MBTA to determine separation requirement
  - May become infeasible if MBTA elects full-high platforms

WAVERLEY STATION (W7)

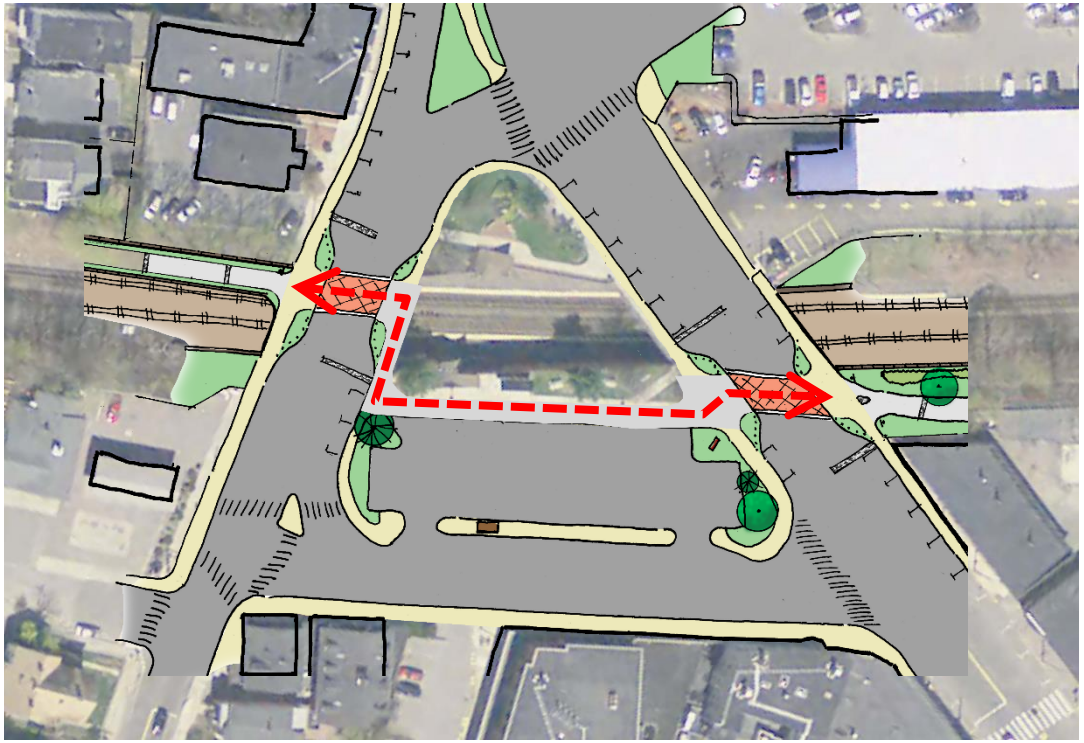
- W7b: “Box Over” Station
  - Prioritize community path
  - Create park:
    - Head houses w/elevators
    - Memorial/signage
    - Seating and picnicking

WAVERLEY STATION (W7)

- W7b: “Box Over” Station
  - Convert Church Street to one-way WB
  - Expand park further connecting to businesses
- Create larger park:
  - Head houses w/elevators
  - Memorial/signage
  - Seating and picnicking
  - Water features, trellis, great lawn, gardens

WAVERLEY STATION (W7)

- W7c: Traverse Roadways
  - Add bumpouts and utilize space between station and parking
  - Least costly
  - Could consider for phasing as MBTA coordination advances

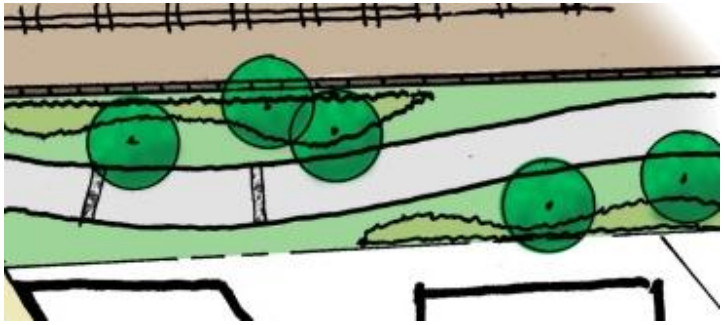


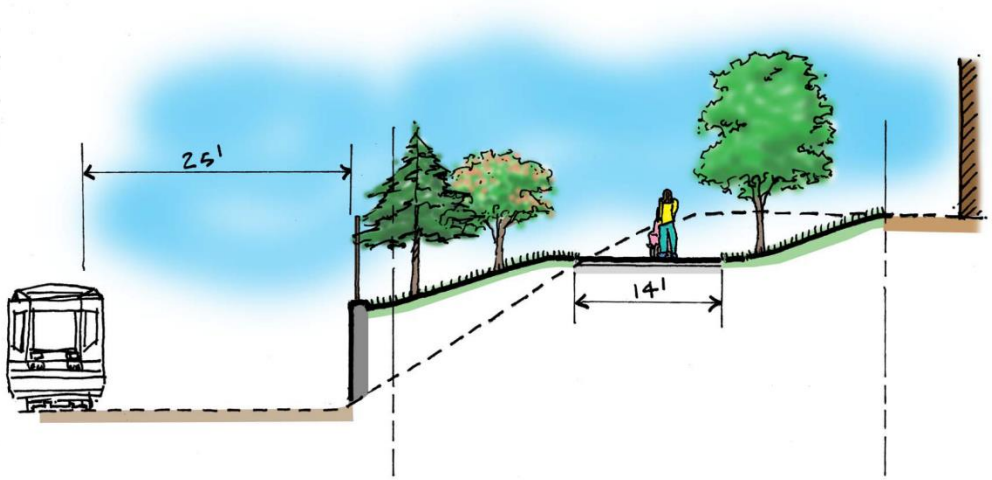
EAST OF TRAPELO ROAD (W8 & W9)

- W8 and W9a represent CPAC recommended alternative

EAST OF TRAPELO ROAD (W8 & W9)

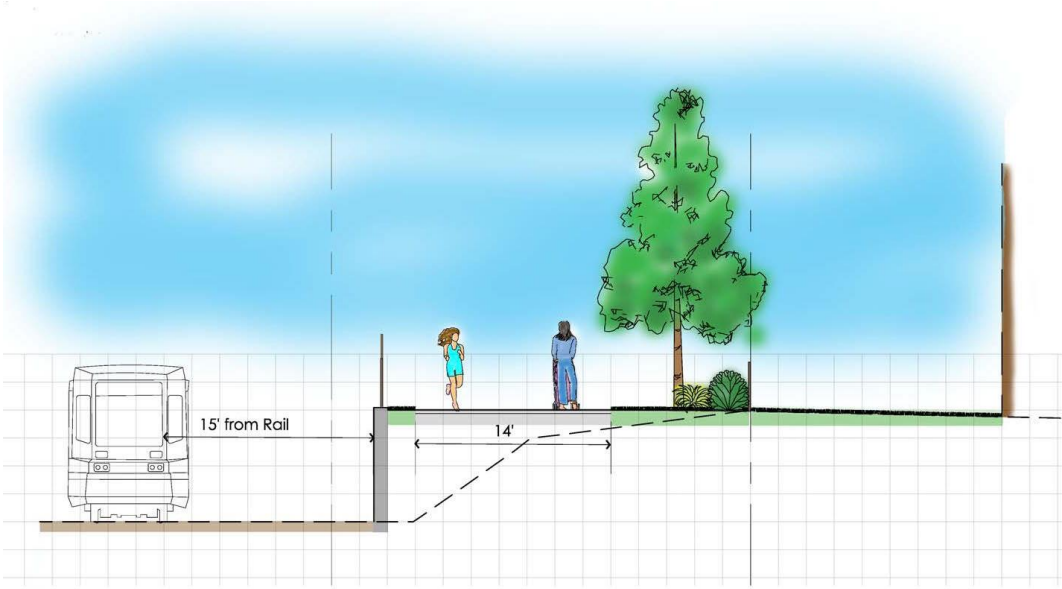
- W8: Continue east of Waverley Station on south side of rail
  - Wide ROW provides room for curvilinear alignment and plantings

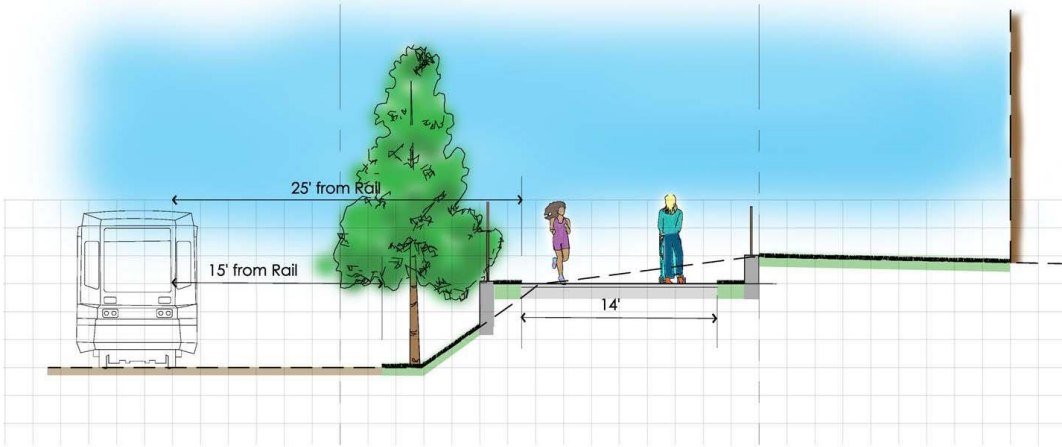


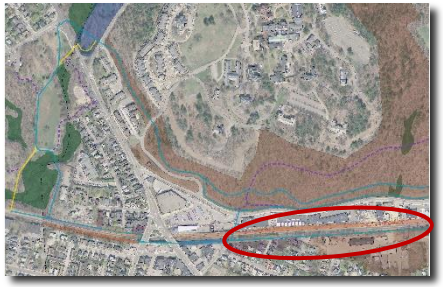


EAST OF TRAPELO ROAD (W8 & W9)

- W9b: Remain on south side of rail through DPW
  - Varying ROW
  - Options for wall and planting locations
  - Varying distance from tracks

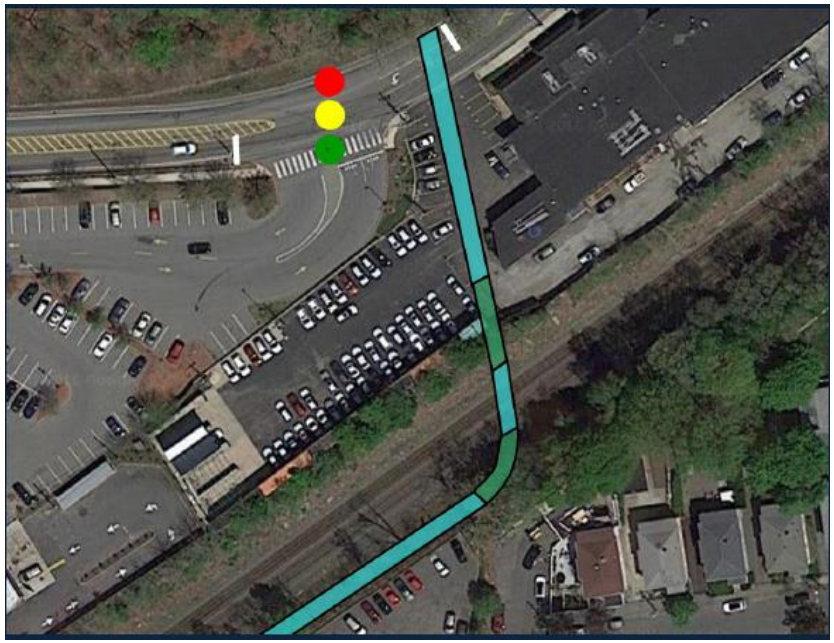


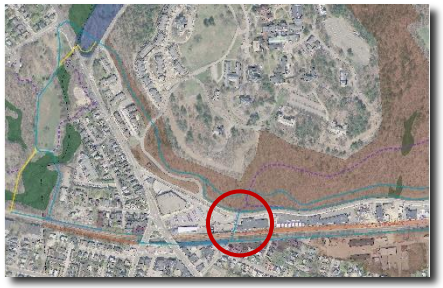




EAST OF TRAPELO ROAD (W8 & W9)

- W9a: Alternative – cross using paper street and connect to W5b
  - Owned by Town
  - Used as parking lot
  - Reduces need for walls and adds crossing/connection
  - Traffic study needed at Pleasant Street crossing





SURVEY MATRIX OPTIONS RESULTS

- Environmental, Land Use, Design, Social, and Fiscal: ALL Important
- Land Use- Reduce Negative Impacts on Adjacent private property:

  29% Less Important, 36% Important, 35% Most Important
- Least Important: Pocket parks and dog runs
- Most Important:
  - **Community connections**
  - **High quality recreation**

INITIAL COMPARISON

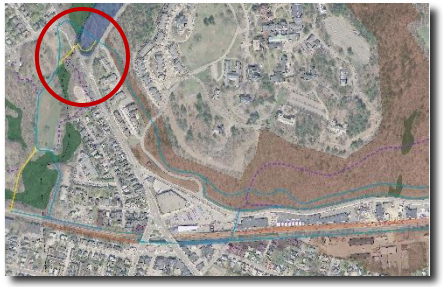
1= least feasible, 3=most feasible Highest Total = BEST

West Segment Stretch/Link	Access and Connectivity	Environmental Impacts	Property Impacts	Sense of Security/ Comfort	Relative Cost	Total
W1-a Access at Beaver Brook	3	1	3	2	2	11
W1-b Access at Beaver Book	3	2	2	3	3	13

INITIAL COMPARISON

1= least feasible, 3=most feasible Highest Total = BEST

West Segment Stretch/Link	Access and Connectivity	Environmental Impacts	Property Impacts	Sense of Security/ Comfort	Relative Cost	Total
W3-a Access across Trapelo	3	3	3	3	2	14
W3-b Access across Trapelo	3	1	3	1	1	9



INITIAL COMPARISON

1= least feasible, 3=most feasible Highest Total = BEST

West Segment Stretch/Link	Access and Connectivity	Environmental Impacts	Property Impacts	Sense of Security/ Comfort	Relative Cost	Total
W5-a Access thru Conservation	1	1	3	1	2	8
W5-b Access thru Conservation	2	2	3	2	2	11

INITIAL COMPARISON

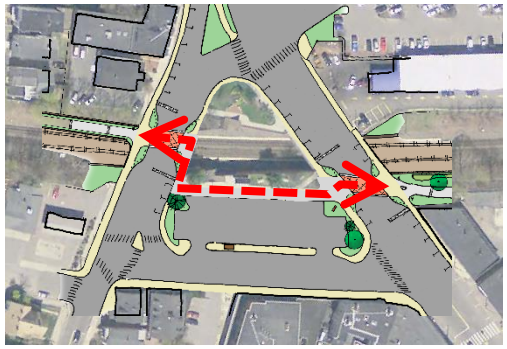
1= least feasible, 3=most feasible Highest Total = BEST

West Segment Stretch/Link	Access and Connectivity	Environmental Impacts	Property Impacts	Sense of Security/ Comfort	Relative Cost	Total
W7-a Waverley	2	3	3	2	2	12
W7-b.i Waverley	3	3	3	3	1	13
W7-b.ii Waverley	3	3	3	3	1	13
W7-c Waverley	3	3	3	3	3	15

W7-a

W7-b.i

W-7b.ii



W-7c

INITIAL COMPARISON

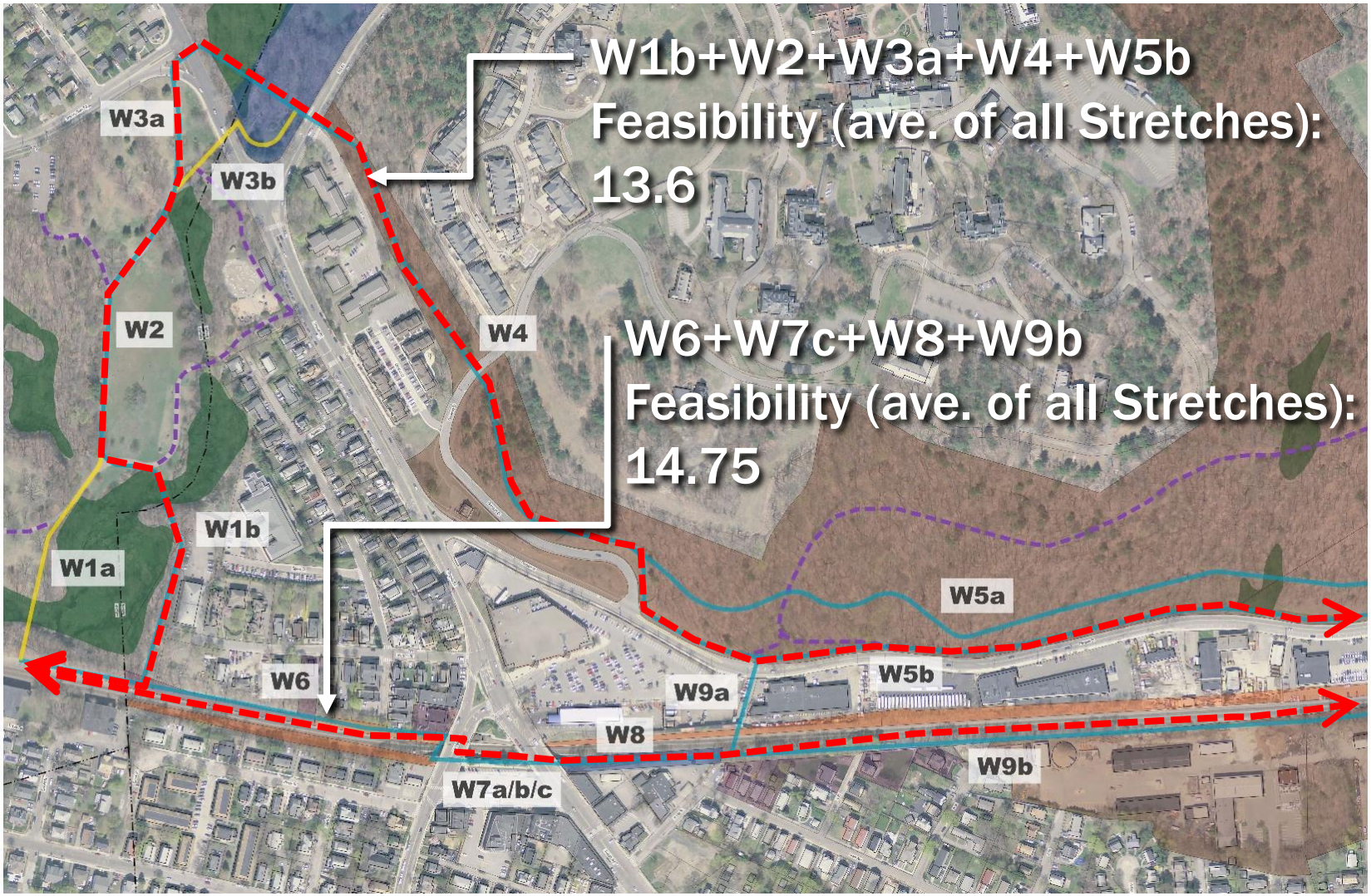
1= least feasible, 3=most feasible Highest Total = BEST

West Segment Stretch/Link	Access and Connectivity	Environmental Impacts	Property Impacts	Sense of Security/ Comfort	Relative Cost	Total
W9-a West of Waverley	3	3	3	2	1	12
W9-b West of Waverley	2	3	3	3	3	14

INITIAL COMPARISON
WHAT RISES TO THE TOP?

West Segment Stretch/Link	Access and Connectivity	Environmental Impacts	Property Impacts	Sense of Security/ Comfort	Relative Cost	Total
W1-b Access at Beaver Book	3	2	2	3	3	13
W3-a Access across Trapelo	3	3	3	3	2	14
W5-b Access thru Conservation	2	2	3	2	2	11
W7-c Waverley	3	3	3	3	3	15
W9-b West of Waverley	2	3	3	3	3	14

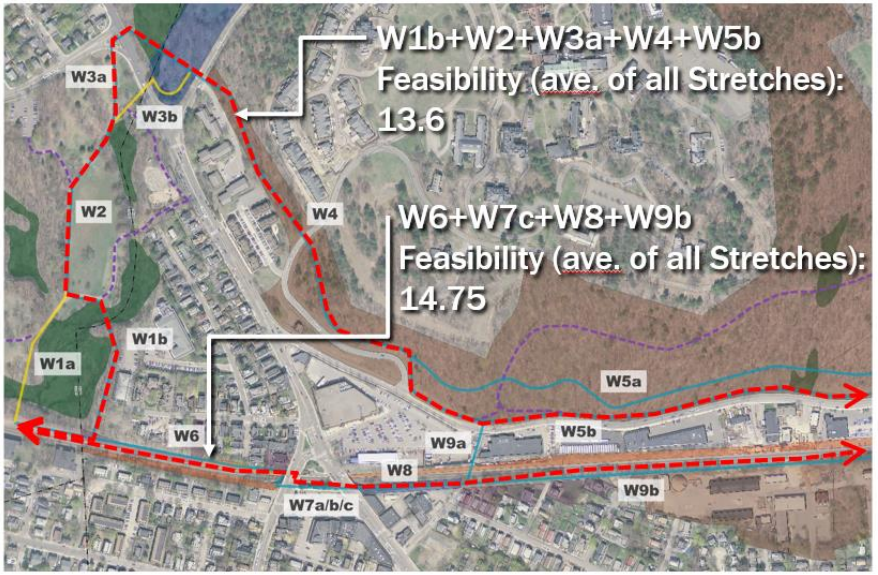
INITIAL COMPARISON
WHAT RISES TO THE TOP?



DISCUSSION

- Input on Evaluations
- Should certain categories be weighted more/less than others?

Access and Connectivity	Environmental Impacts	Property Impacts	Sense of Security/ Comfort	Relative Cost



DISCUSSION

- Interest in separated paths where space allows?

Shared

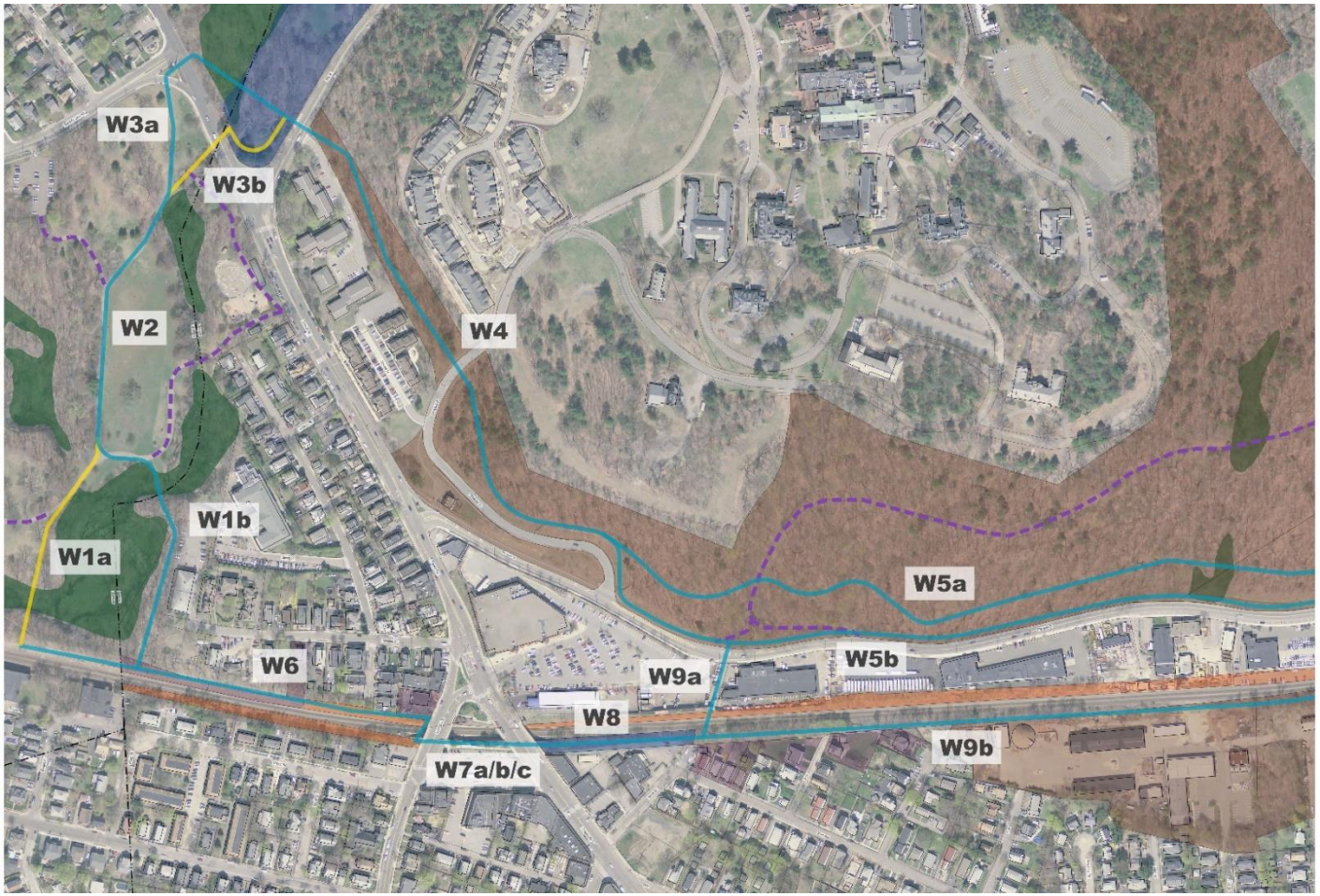
Designated Bike Lane

Separated ‘Quiet’ Path

Image by others

DISCUSSION

- Path access points?



DISCUSSION

- Access Point Amenities:
  - Parking
  - Restrooms
  - Overhead gateway / arch
  - Gateway bollards
  - Signature vertical feature
  - Signage
  - Seating, picnicking
  - Water fountain
  - Bicycle racks
  - Bicycle repair station
  - Mile marker

Images by others

WHAT'S NEXT?

- Walk the trail with us:
  - East End – October 29 @ Noon (rain date October 30)
- Consultant Team refine alternatives, continue coordination and further matrix assessment
- Design presentations and discussion:
  - Meeting 3: Central (Housing Authority to High School) – November 9
  - Meeting 4: East End (High School to Fitchburg) – November 16
  - Meeting 5: Hot Topics/Matrix (from Meetings 2 - 4) – December 7

http://www.belmont-ma.gov/community-path-implementation-advisory-committee-cpiac/pages/community-path-feasibility-study