

**STEERING COMMITTEE
ALTERNATIVES WORKSHOP
MEETING #3
JULY 25, 2018**



PURPOSE

Improve Mobility of All Users

Improve Access

Facilitate Land Use

Not Adversely Impact Traffic

Aesthetic Gateway & Amenities

East Hollis / Bridge Street Intersection Improvement Project

ALTERNATIVE 1



East Hollis / Bridge Street Intersection Improvement Project

ALTERNATIVE 2



East Hollis / Bridge Street Intersection Improvement Project



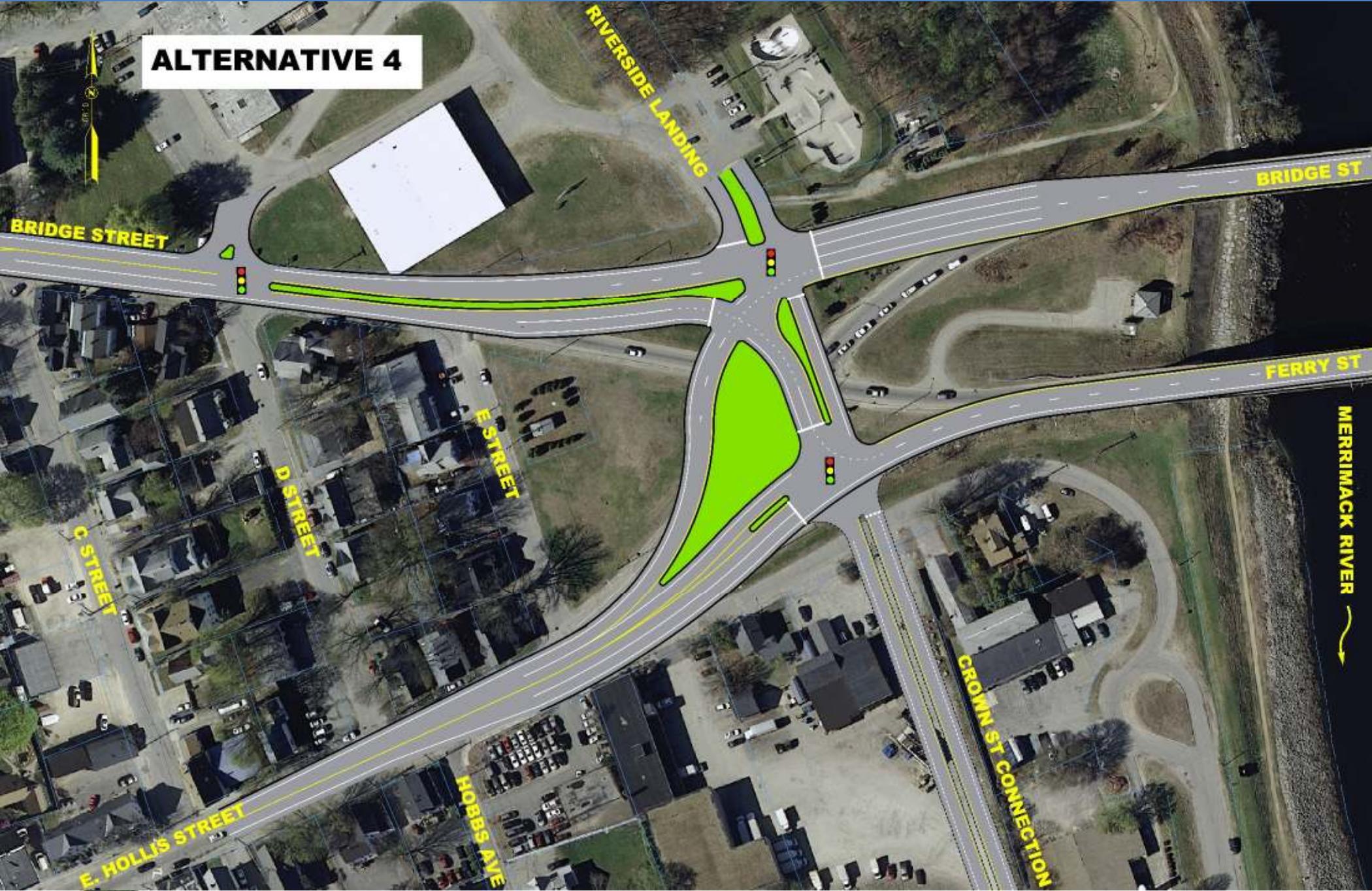
East Hollis / Bridge Street Intersection Improvement Project

ALTERNATIVE 3



East Hollis / Bridge Street Intersection Improvement Project

ALTERNATIVE 4

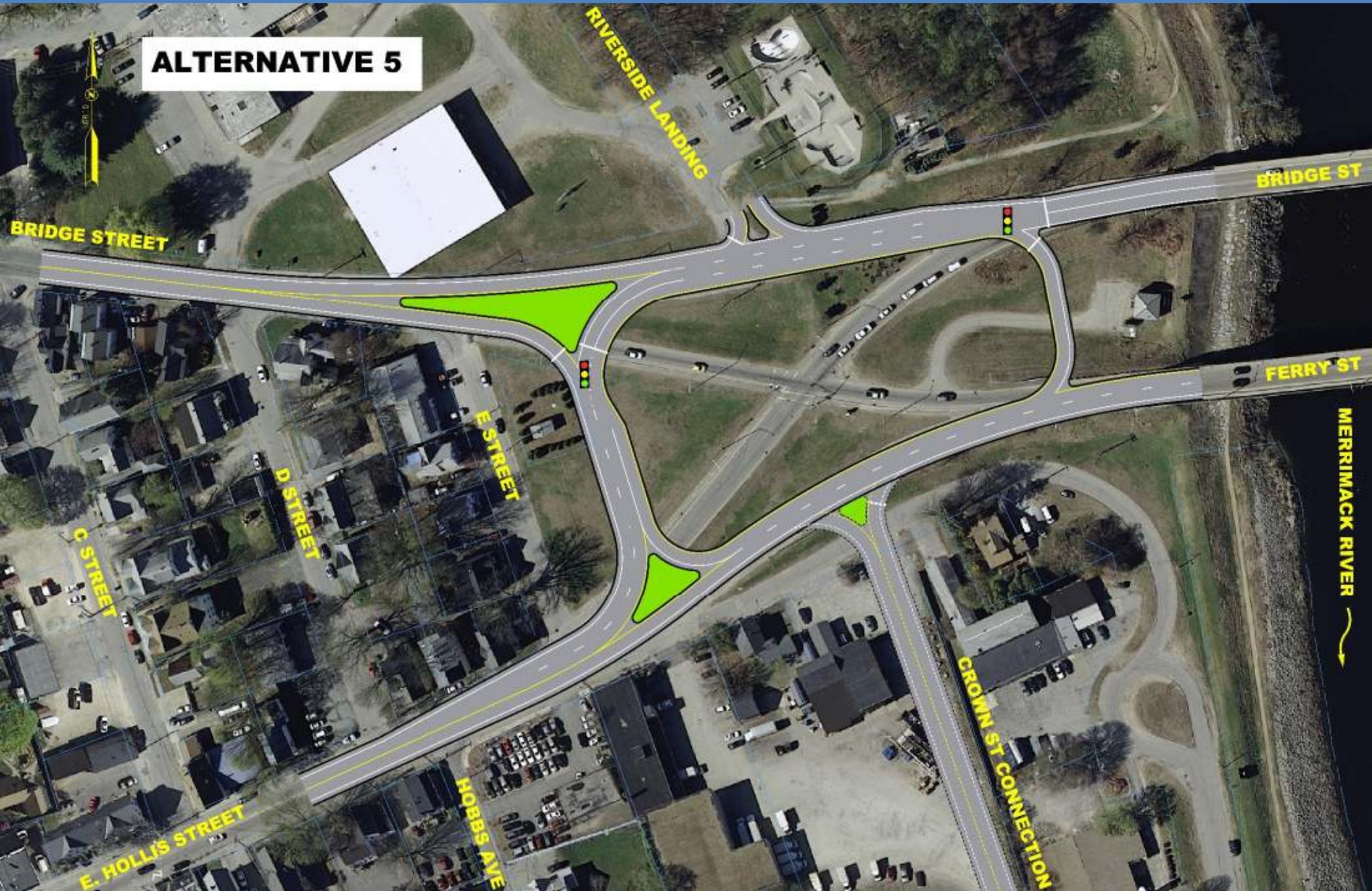


East Hollis / Bridge Street Intersection Improvement Project



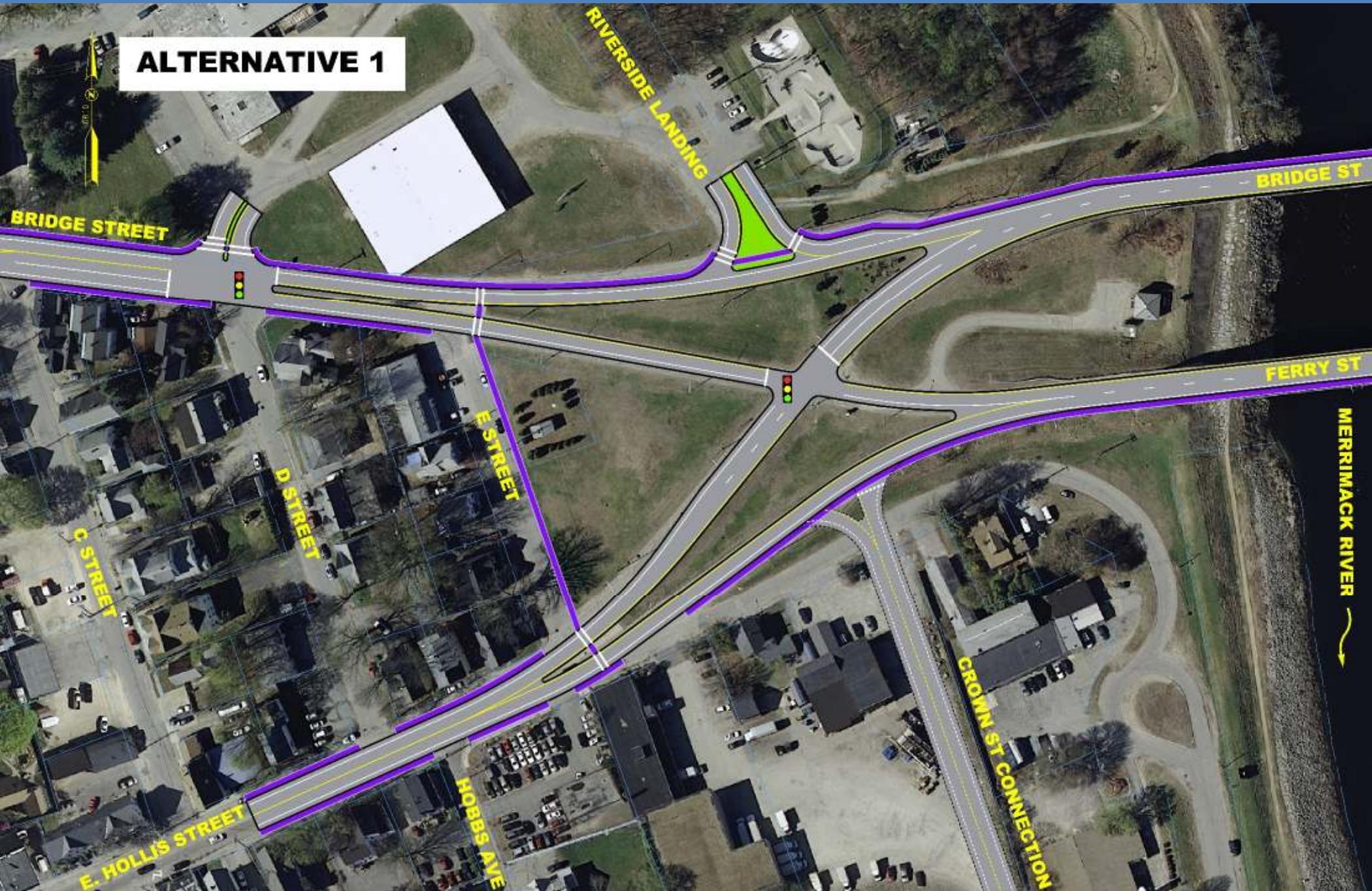
East Hollis / Bridge Street Intersection Improvement Project

ALTERNATIVE 5



East Hollis / Bridge Street Intersection Improvement Project

ALTERNATIVE 1



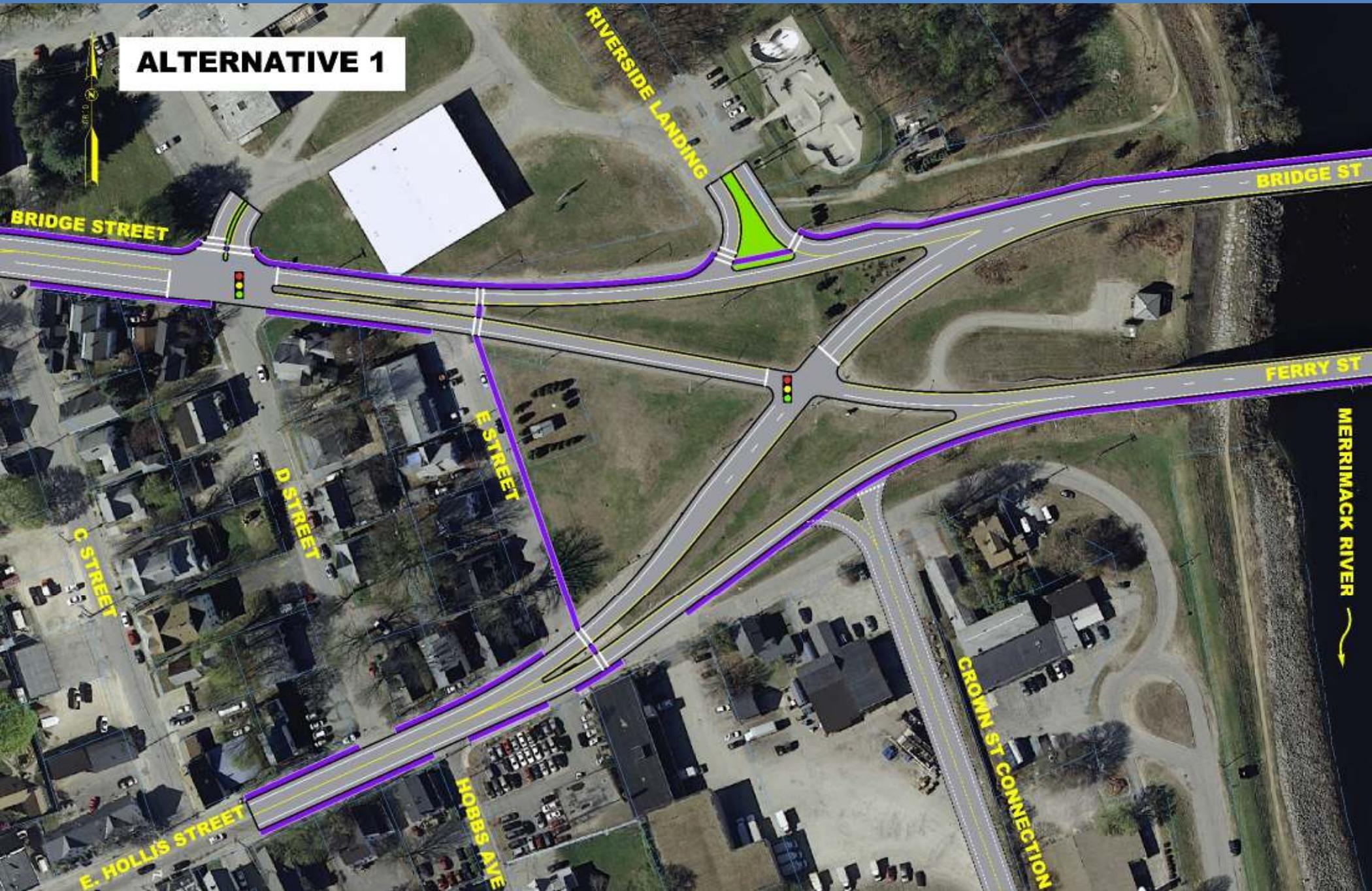
East Hollis / Bridge Street Intersection Improvement Project

DECISION MATRIX DISCUSSION



East Hollis / Bridge Street Intersection Improvement Project

ALTERNATIVE 1



East Hollis / Bridge Street Intersection Improvement Project

LANDSCAPE CONCEPTUAL DESIGN OPTION 1



- | | | | | | | | |
|---------------------|-------------------|--------------------------------------|----------------------------|--|--|-------------------------|------------|
| ① NEW STREET TREES | ③ BUFFER PLANTING | ⑤ CHILDREN'S PLAYGROUND WITH FENCING | ⑦ OPEN GREEN SPACE | ⑨ EXISTING BUILDINGS TO REMAIN | ⑪ SCULPTED LAWN LAND FORM FOR GATHERING / PLAY | ⑬ ACCESS DRIVE | ⑮ DOG PARK |
| ② GATEWAY STRUCTURE | ④ FLAG POLE | ⑥ COMMUNITY GARDEN | ⑧ NEW PEDESTRAIN SIDEWALKS | ⑩ LANDSCAPED BERM WITH PLANTING TO HELP SCREEN TRAFFIC | ⑫ PEDESTRIAN CONNECTION TO THE MERRIMACK RIVER | ⑭ PEDESTRIAN CROSSWALKS | |

East Hollis / Bridge Street Intersection Improvement Project

LANDSCAPE CONCEPTUAL DESIGN OPTION 1



COST INFORMATION: \$1,113,000 (BUDGET \$400,000+/-)

- SOFTSCAPE**
- 152 SHADE TREES
 - 50 FLOWERING
 - EARTHWORK
 - PLANTING

COST
 \$1,000 EACH
 \$800 EACH
 \$150,000 ALLOWANCE
 \$50,000 ALLOWANCE
TOTAL \$392,000

- SITE AMENITIES**
- 47 PEDESTRIAN LIGHT FIXTURES
 - 10 BENCHES
 - 3 TRASH RECEPTACLES
 - FLAGPOLE

COST
 \$4,000 EACH
 \$2,500 EACH
 \$1,000 EACH
 \$5,000 EACH
TOTAL \$221,000

- COMMUNITY AMENITIES**
- CHILDREN'S PLAYGROUND
 - COMMUNITY GARDEN
 - GATEWAY ELEMENT

COST
 \$200,000 ALLOWANCE
 \$80,000 ALLOWANCE
 \$100,000 ALLOWANCE
TOTAL \$380,000

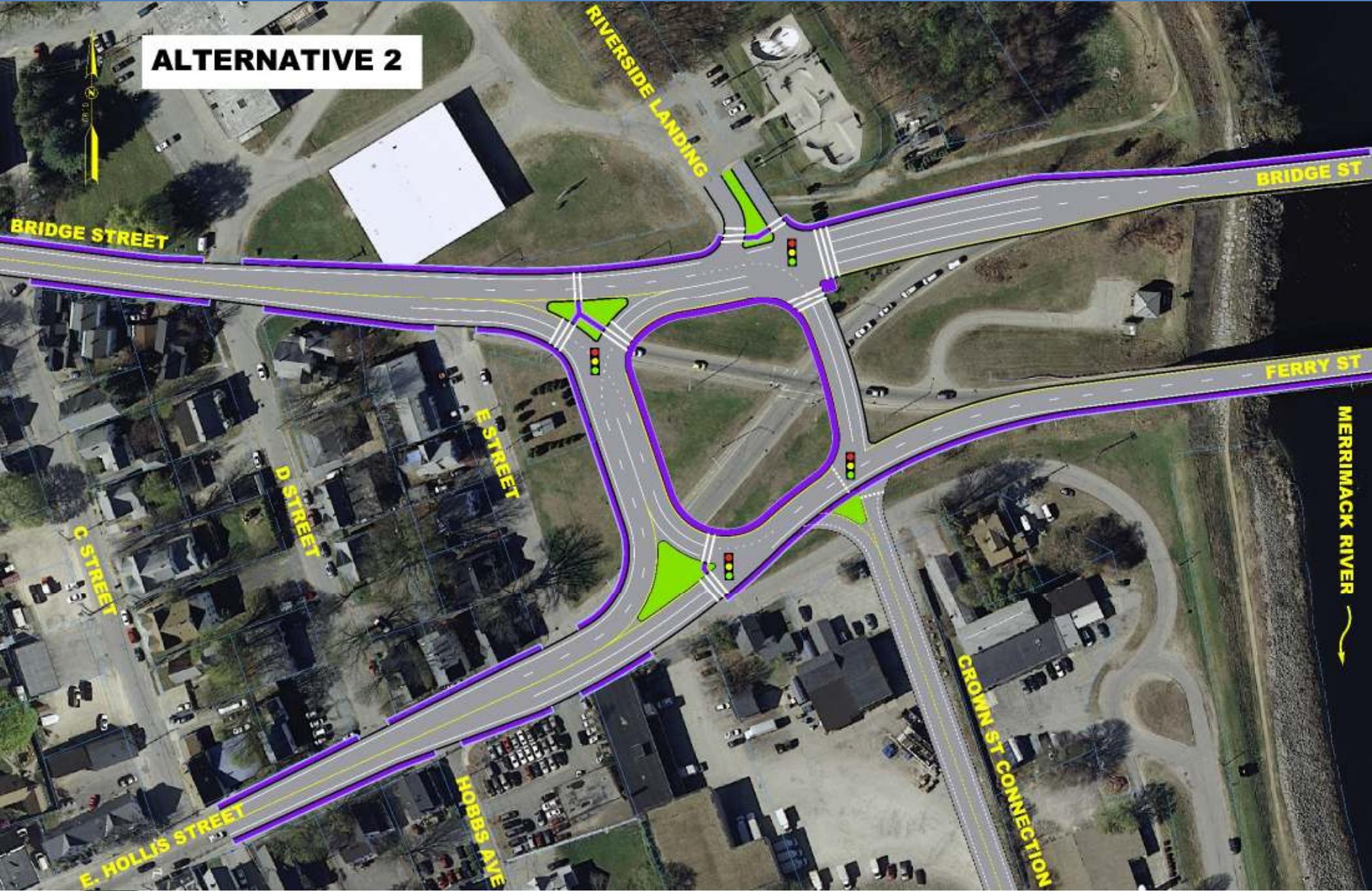
- HARDSCAPE**
- CONCRETE SIDEWALKS

COST
 \$120,000
TOTAL \$120,000



East Hollis / Bridge Street Intersection Improvement Project

ALTERNATIVE 2



East Hollis / Bridge Street Intersection Improvement Project

LANDSCAPE CONCEPTUAL DESIGN OPTION 2



- | | | | | | | | |
|---------------------|-------------------|--------------------------------------|----------------------------|--|--|-------------------------|-----------------------------------|
| ① NEW STREET TREES | ③ BUFFER PLANTING | ⑤ CHILDREN'S PLAYGROUND WITH FENCING | ⑦ OPEN GREEN SPACE | ⑨ EXISTING BUILDINGS TO REMAIN | ⑪ SCULPTED LAWN LAND FORM FOR GATHERING / PLAY | ⑬ ACCESS DRIVE | ⑮ DOG PARK |
| ② GATEWAY STRUCTURE | ④ FLAG POLE | ⑥ COMMUNITY GARDEN | ⑧ NEW PEDESTRIAN SIDEWALKS | ⑩ LANDSCAPED BERM WITH PLANTING TO HELP SCREEN TRAFFIC | ⑫ PEDESTRIAN CONNECTION TO THE MERRIMACK RIVER | ⑭ PEDESTRIAN CROSSWALKS | ⑯ TODDLER PLAYGROUND WITH FENCING |

East Hollis / Bridge Street Intersection Improvement Project

LANDSCAPE CONCEPTUAL DESIGN OPTION 2



COST INFORMATION: \$949,400 (BUDGET \$100,000+/-)

- SOFTSCAPE**
- 132 SHADE TREES
 - 33 FLOWERING
 - EARTHWORK
 - PLANTING

COST

- \$1,000 EACH
- \$800 EACH
- \$150,000 ALLOWANCE
- \$50,000 ALLOWANCE

TOTAL \$202,400

- SITE AMENITIES**
- 46 PEDESTRIAN LIGHT FIXTURES
 - 11 BENCHES
 - 3 TRASH RECEPTACLES
 - FLAGPOLE

COST

- \$4,000 EACH
- \$2,500 EACH
- \$1,000 EACH
- \$5,000 EACH

TOTAL \$212,000

- COMMUNITY AMENITIES**
- CHILDREN'S PLAYGROUND
 - TODDLER PLAYGROUND
 - COMMUNITY GARDEN
 - GATEWAY ELEMENT

COST

- \$200,000 ALLOWANCE
- \$50,000 ALLOWANCE
- \$80,000 ALLOWANCE
- \$100,000 ALLOWANCE

TOTAL \$430,000

- HARDSCAPE**
- CONCRETE SIDEWALKS

COST

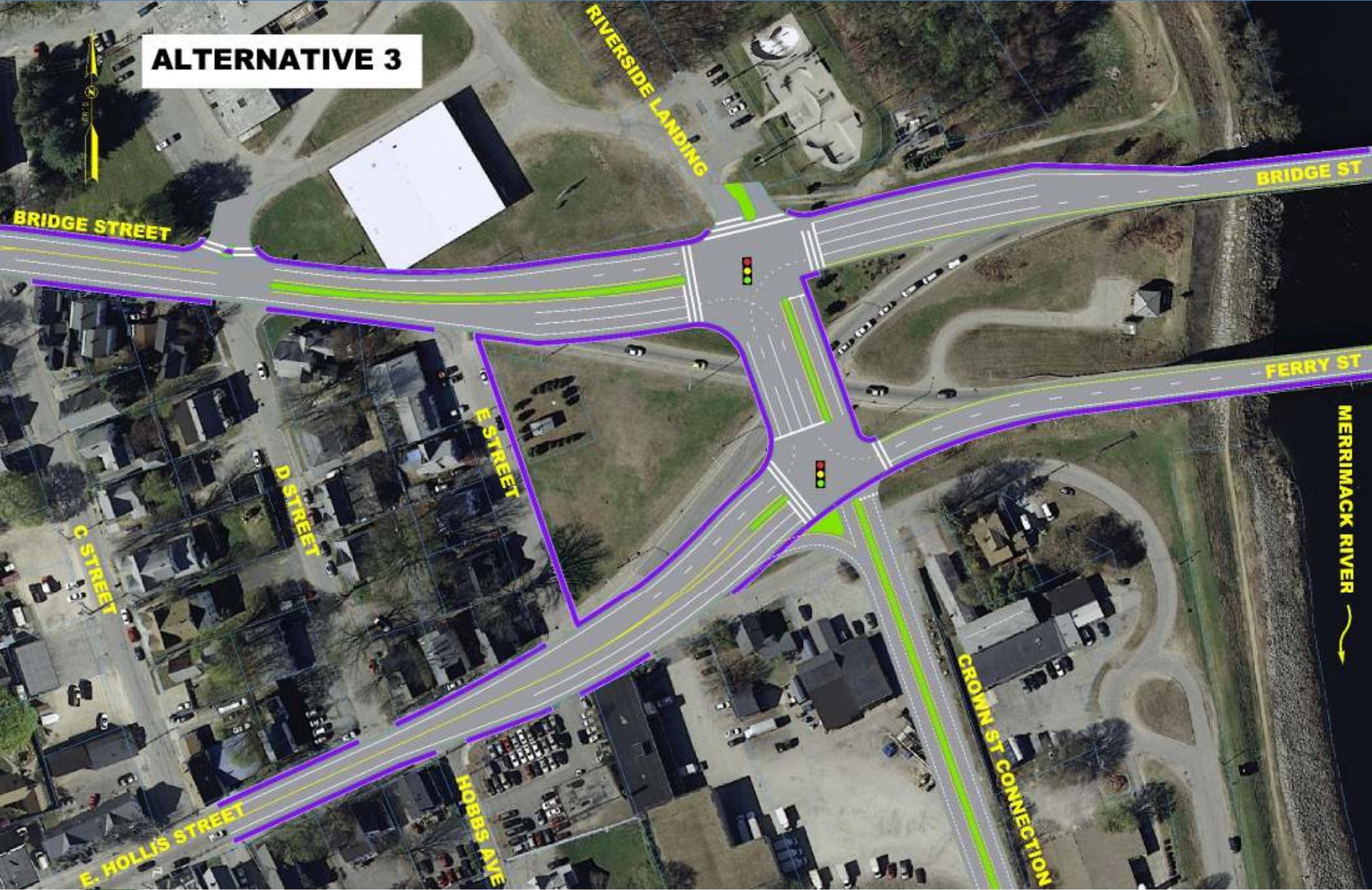
- \$105,000 ALLOWANCE

TOTAL \$105,000



East Hollis / Bridge Street Intersection Improvement Project

ALTERNATIVE 3



East Hollis / Bridge Street Intersection Improvement Project

LANDSCAPE CONCEPTUAL DESIGN OPTION 3



- | | | | | | | | |
|---------------------|-------------------|--------------------------------------|----------------------------|--|--|-------------------------|-----------------------------------|
| ① NEW STREET TREES | ③ BUFFER PLANTING | ⑤ CHILDREN'S PLAYGROUND WITH FENCING | ⑦ OPEN GREEN SPACE | ⑨ EXISTING BUILDINGS TO REMAIN | ⑪ SCULPTED LAWN LAND FORM FOR GATHERING / PLAY | ⑬ ACCESS DRIVE | ⑮ DOG PARK |
| ② GATEWAY STRUCTURE | ④ FLAG POLE | ⑥ COMMUNITY GARDEN | ⑧ NEW PEDESTRIAN SIDEWALKS | ⑩ LANDSCAPED BERM WITH PLANTING TO HELP SCREEN TRAFFIC | ⑫ PEDESTRIAN CONNECTION TO THE MERRIMACK RIVER | ⑭ PEDESTRIAN CROSSWALKS | ⑯ TODDLER PLAYGROUND WITH FENCING |

East Hollis / Bridge Street Intersection Improvement Project

LANDSCAPE CONCEPTUAL DESIGN OPTION 3



COST INFORMATION: \$1,147,900 (BUDGET \$300,000+/-)

- SOFTSCAPE**
- 139 SHADE TREES
 - 33 FLOWERING TREES
 - EARTHWORK
 - PLANTING

COST

- \$1,000 EACH
- \$800 EACH
- \$150,000 ALLOWANCE
- \$50,000 ALLOWANCE

TOTAL \$365,400

- SITE AMENITIES**
- 54 PEDESTRIAN LIGHT FIXTURES
 - 11 BENCHES
 - 3 TRASH RECEPTACLES
 - FLAGPOLE

COST

- \$4,000 EACH
- \$2,500 EACH
- \$1,000 EACH
- \$5,000 EACH

TOTAL \$251,500

- COMMUNITY AMENITIES**
- CHILDREN'S PLAYGROUND
 - TODDLER PLAYGROUND
 - COMMUNITY GARDEN
 - GATEWAY ELEMENT

COST

- \$200,000 ALLOWANCE
- \$50,000 ALLOWANCE
- \$80,000 ALLOWANCE
- \$100,000 ALLOWANCE

TOTAL \$430,000

- HARDSCAPE**
- CONCRETE SIDEWALKS

COST

- \$101,000 ALLOWANCE

TOTAL \$101,000



East Hollis / Bridge Street Intersection Improvement Project

NASHUA GATEWAY OPTIONS WORKSHOP

You're Invited!

**WE NEED
YOUR
OPINION!**



The East Hollis and Bridge Street Intersection is a key gateway to the City.

We've taken all of the input from residents and business owners and created three potential options for this Nashua Gateway project. We want your opinion so the best option can be selected.

Please attend and help us create the vision and the plan for the future of the East Hollis and Bridge Street Intersection.

Workshop Details

- When?** Wednesday, August 15, 2018
6:00 - 8:00 PM
- Where?** Hunt Memorial Building
6 Main St, Nashua
- Why?** We want your opinion on the future of this intersection
- Who?** YOU! Residents, business owners, and commuters.

QUESTIONS / COMMENTS

www.nashuagatewayproject.com



LISTENING SESSIONS

Safety

- Vehicles
- Pedestrians
- Bicycles
- Merging Issues

Traffic

- A lot of Traffic
- Side Road Cut-through
- Left Turns to Side Roads
- D Street Signal

Access

- Northern Development
- Crown St. Area
- River

Aesthetics

- Gateway
- Garden
- River walk
- Trees
- Green Space

PURPOSE & NEED STATEMENT



EXISTING TRAFFIC MODEL



East Hollis / Bridge Street Intersection Improvement Project

PREVIOUS STUDIES



- East Hollis Street Area Plan
- 2015 STV Traffic Study

	Existing Conditions	No-Build	"Minimal" Build	4-Legged Roundabout	5-Legged Roundabout	Asymmetrical Circle	4-Legged Signal	5-Legged Signal	Twin Signals	One-Way Couplet	
Delay (s)	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	
Ferry Street	15 12	20 20	15 13	6 8	8 (Similar to 4-legged roundabout)	198	25 25	26 32	25 24	24	
Thru	2	5	3				13	34	12	10	
Left	25	31	21				35	44	35	34	
Right		41	21				13	15	12	10	
Bancroft Street				>685	52	380	35	48	39	44	
Thru											
Left											
Right											
Bridge Street	15 50	19 30	17 16	>919	>568	100	32 35	27 37	40 41	41	
Thru			17				32	35	37		
Left			15				39	40	43	49	
Right			4	9	14	32	32	35	40	41	
E. Hollis Street	1 1	1 1	4 9	3	14	32	19 43	27 37	32 40	40	
Thru							34	27	35		
Left							34	52	39	56	
Right							19	42	27	35	
Crown Street						73		52	43	44	
Thru											
Left											
Right											
Intersection total	12 19	19 19	12 13	128	102	140	26 34	27 35	30 34	34	
Access	Poor	Poor	Fair	Fair	Good	Good	Fair	Good	Good	Fair	
Delay	Good	Good	Good	Poor	Poor	Poor	Fair	Fair	Fair	Fair	
Footprint	Fair	Fair	Fair or good	Fair	Fair	Fair	Poor	Poor	Poor	Good	
Notes	No access to Renaissance or Crown Street. Low delay except for Bridge St in PM Minimal hardscaping but creates dead space in interior	Same as existing with slight increase in overall delay.	Accommodates movements between Renaissance (west entrance) and E. Hollis. Low delay for all movements Minimal hardscaping. Possible to reduce dead space in interior.	Direct access to Renaissance. Not to Crown Street. Unacceptable delays.	Provides access to Renaissance and Crown Street Unacceptable Delays Moderate hardscaping, but creates dead space in interior	Provides access to Renaissance and Crown Street Unacceptable Delays Moderate hardscaping, but creates dead space in interior	Provides access to Renaissance and Crown Street Unacceptable Delays Moderate hardscaping, but creates dead space in interior	Provides access to Renaissance. Not to Crown Street Acceptable Delays Intensive hardscaping	Provides access to Renaissance and Crown Street Acceptable Delays Intensive hardscaping	Provides access to Renaissance and Crown Street Acceptable Delays Intensive hardscaping	Provides access to Renaissance and Crown Street, but increases travel distances. Low control delay from signals, but increased travel time for out-of-direction travel Minimal hardscaping Potential secondary impacts from conversion to one-way streets

NEEDS

Daily Traffic Congestion, Queues, & Delay

Lack of Bike & Ped Accommodations

Merging Vehicles Creates Safety Concerns

Limited Access to Crown St. & New Development

Not a Welcoming Gateway Into the City

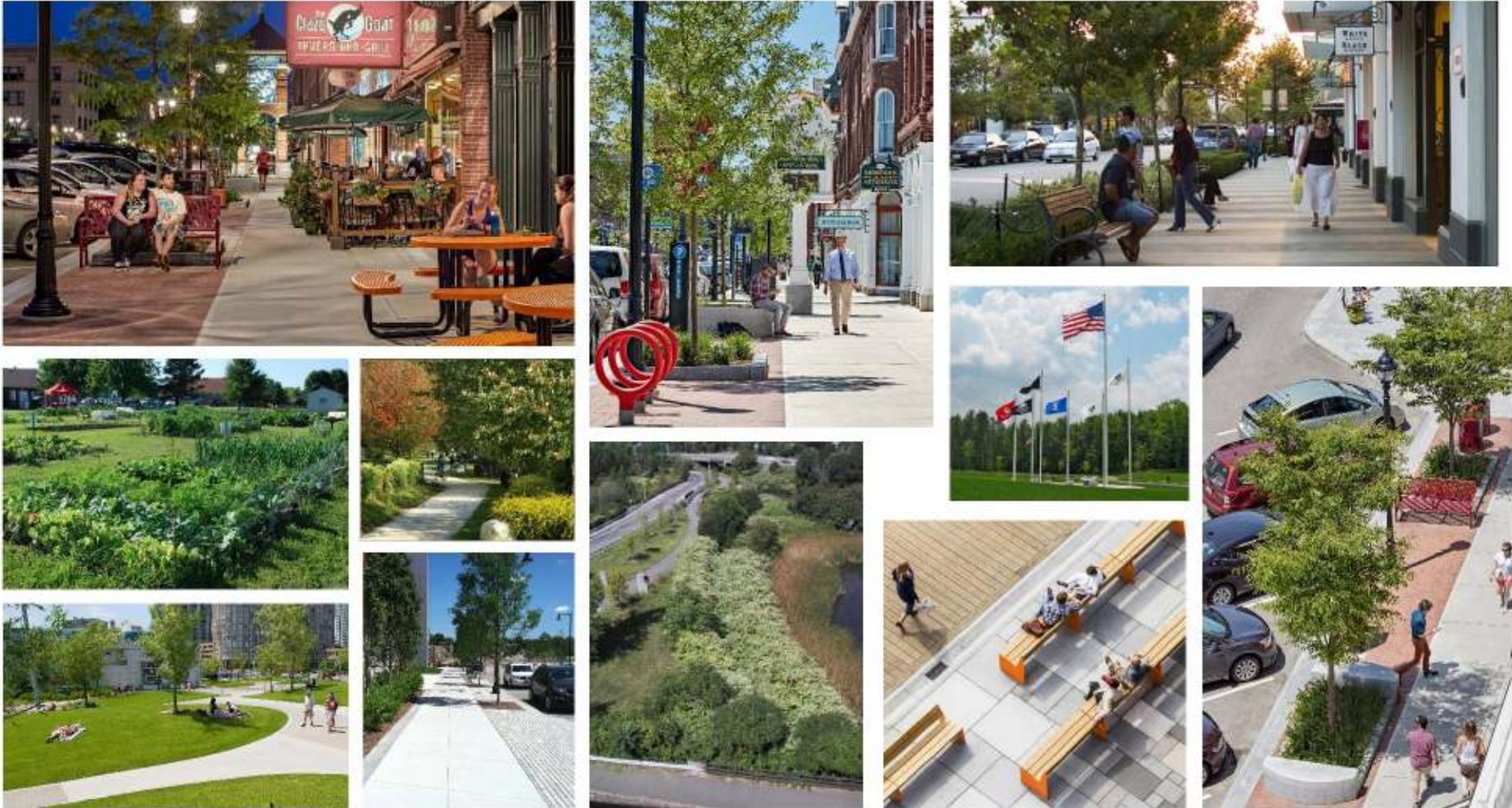
East Hollis / Bridge Street Intersection Improvement Project

Gateways / Art Elements / Historical Features



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Streetscape and Park Imagery



East Hollis / Bridge Street Intersection Improvement Project

Typical Street Trees and Planting



Acer x freemanii



Acer x freemanii



Honey Locust



DECIDUOUS TREES -
Acer x freemanii: Armstrong Red Maple
Ginkgo biloba: Ginkgo
Gleditsia triacanthos "Skyline": Skyline Honeylocust
Platanus x acerifolia: London Plane Tree

ORNAMENTAL TREES-
Cercis canadensis: Eastern redbud
Cornus florida: Dogwood

GROUNDCOVER AND PERENNIALS-
Juniperus Horizontalis "Wiltonii": Blue Rug Juniper
Liriope Muscari: Blue Lilyturf
Hemerocallis: Daylilies
Pennisetum alopecuroides: Fountain Grass
Rudbeckia fulgida "Goldstrum": Blackeyed Susan



Ginkgo biloba



Ginkgo biloba



Cornus florida



Gleditsia triacanthos fall color



London Plane tree



Cercis canadensis



Juniperus Horizontalis "Wiltonii"



Hemerocallis



Liriope muscari



Fountain Grass



Rudbeckia fulgida



Platanus x Acerifolia

East Hollis / Bridge Street Intersection Improvement Project

SITE AMENITIES - Contemporary



BENCH -

Landscape Forms: Neoliviano Bench

TRASH/RECYCLING RECEPTACLE -

Landscape Forms: FGP Trash Receptacle

BIKE RACK -

Landscape Forms: MultipliCITY Bike Rack

TREE GRATE -

Urban Accessories: Jamison Tree Grate

LIGHT -

Landscape Forms: FGP Pedestrian Light



East Hollis / Bridge Street Intersection Improvement Project

SITE AMENITIES - Traditional / Contemporary



BENCH -

Landscape Forms: Scarborough Bench

TRASH/RECYCLING RECEPTACLE -

Landscape Forms: Scarborough Trash Receptacle

BIKE RACK -

Forms + Surfaces: Trio Bike Rack

TREE GRATES -

Urban Accessories: Coho Tree Grate

LIGHT -

Landscape Forms: Alcott Pedestrian Light



East Hollis / Bridge Street Intersection Improvement Project

SITE AMENITIES - Traditional



BENCH -

Landscape Forms: Plainwell Bench

TRASH/RECYCLING RECEPTACLE -

Landscape Forms: Plainwell Litter

BIKE RACK -

Victor Stanley: BK - 4

TREE GRATE -

Urban Accessories: Fan Tree Grate

LIGHT -

Sentry Electric: SBP Battery Park

