

NASHUA GATEWAY OPTIONS WORKSHOP

AUGUST 15, 2018

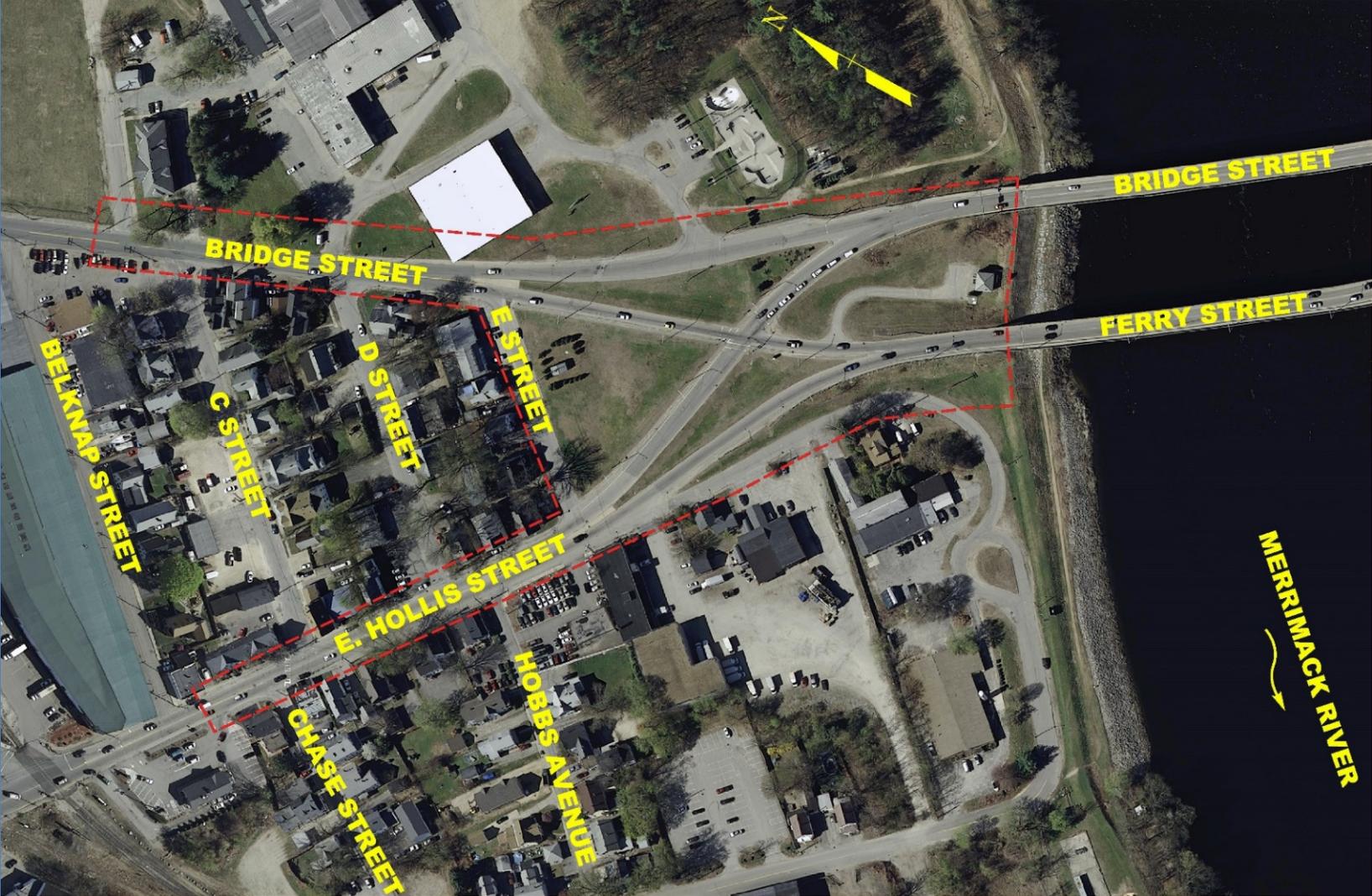


AGENDA

1. Project Overview
2. Role of the Steering Committee
3. Study Tasks & Status
4. Listening Session Feedback
5. Presentation of Alternatives
6. Rating of Alternatives
7. Project Schedule
8. Questions & Answers



PROJECT OVERVIEW



ROLE OF STEERING COMMITTEE

- Develop Project Goals / Vision → Purpose and Need
- Act as a Conduit for Stakeholders
- Build Consensus
- Recommendation of Preferred Alternative

East Hollis / Bridge Street Intersection Improvement Project

STEERING COMMITTEE MEMBERS

CITY of NASHUA:

J. Graziano

Finance Manager

J. Vayo

Downtown Specialist

J. Caron

Ward 7 Alderman

P. Kohalmi

Deputy City Engineer

S. Marchant

Director Community Development

J. Chizmas

Transportation Planner

W. Husband

Senior Traffic Engineer

T. Cummings

Director of Economic Development

Peter Schaefer

Resident

Makelt Labs:

A. Shrey

SMC Management Corp:

S. Riley

TOWN of HUDSON:

E. Dhima

Town Engineer

S. Malizia

Town Administrator



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NEW HAMPSHIRE'S GATE CITY



PROJECT SCOPE / GOALS

- ✓ Address All Modes of Transportation
- ✓ Not Make Traffic Conditions Worse
- ✓ Not a Regional Traffic Project
- ✓ Build on Previous Planning Studies



PROJECT DEVELOPMENT

NHDOT LPA PROGRAM

- A. Engineering Study 
- B. Preliminary Design
- C. Final Design
- D. Construction



ENGINEERING STUDY

Study Tasks

- A. Information Gathering/Base Maps
- B. Detailed Survey
- C. Resource Identification
- D. Project Definition
- E. Alternatives Development
- F. Abstracting
- G. Public Involvement
- H. Utility Coordination



STUDY TASKS / STATUS

Public Involvement

- Project Steering Committee
- Public Listening Session (4/4/18)
- Alternatives Workshop (8/15/18)
- Public Informational Meeting
- Board of Aldermen & Board of Public Works Presentation
- Property Owner/Citizen Meetings
- Project Website: www.nashuagatewayproject.com
- Social Media



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



PURPOSE

Improve Mobility of All Users

Improve Access

Facilitate Land Use

Not Adversely Impact Traffic

Provide Aesthetically Pleasing Gateway



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

PREVIOUS STUDIES

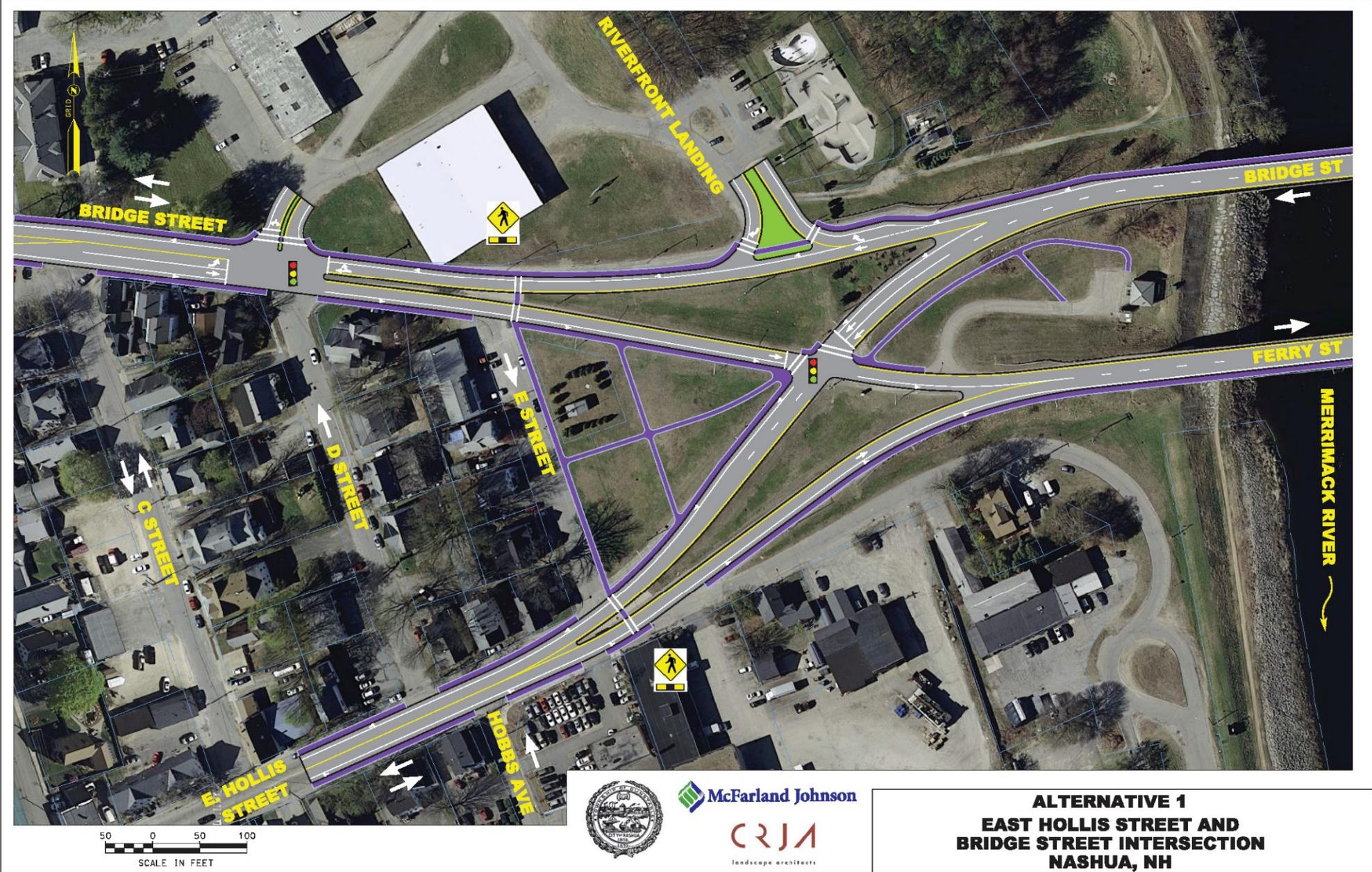


- East Hollis Street Area Plan
- 2015 STV Traffic Study

	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	Thru 15 12 Left 2 1 Right 25 19	20 26 5 4 31 41	15 13 3 2 21 21	6 8	(Similar to 4-legged roundabout)	198	25 25 13 12 35 36	26 32 34 41 44 47	25 24 12 10 35 34	25 24 12 10 35 34
Bancroft Street				>685	52	380	35 48	35 43	39 44	44
Bridge Street	15 50	19 30	17 16 17 16 15 14	>919	>566	100	32 35 32 35 39 40 32 35	27 37 27 37 32 54 27 37	40 41 43 49 40 41	40 41
E. Hollis Street	1 1	1 1	4 9	3 14		32	19 43 34 52 34 52	27 37 27 35 39 56	32 40	40
Crown Street						73	19 42	32 43	31 44	44
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 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

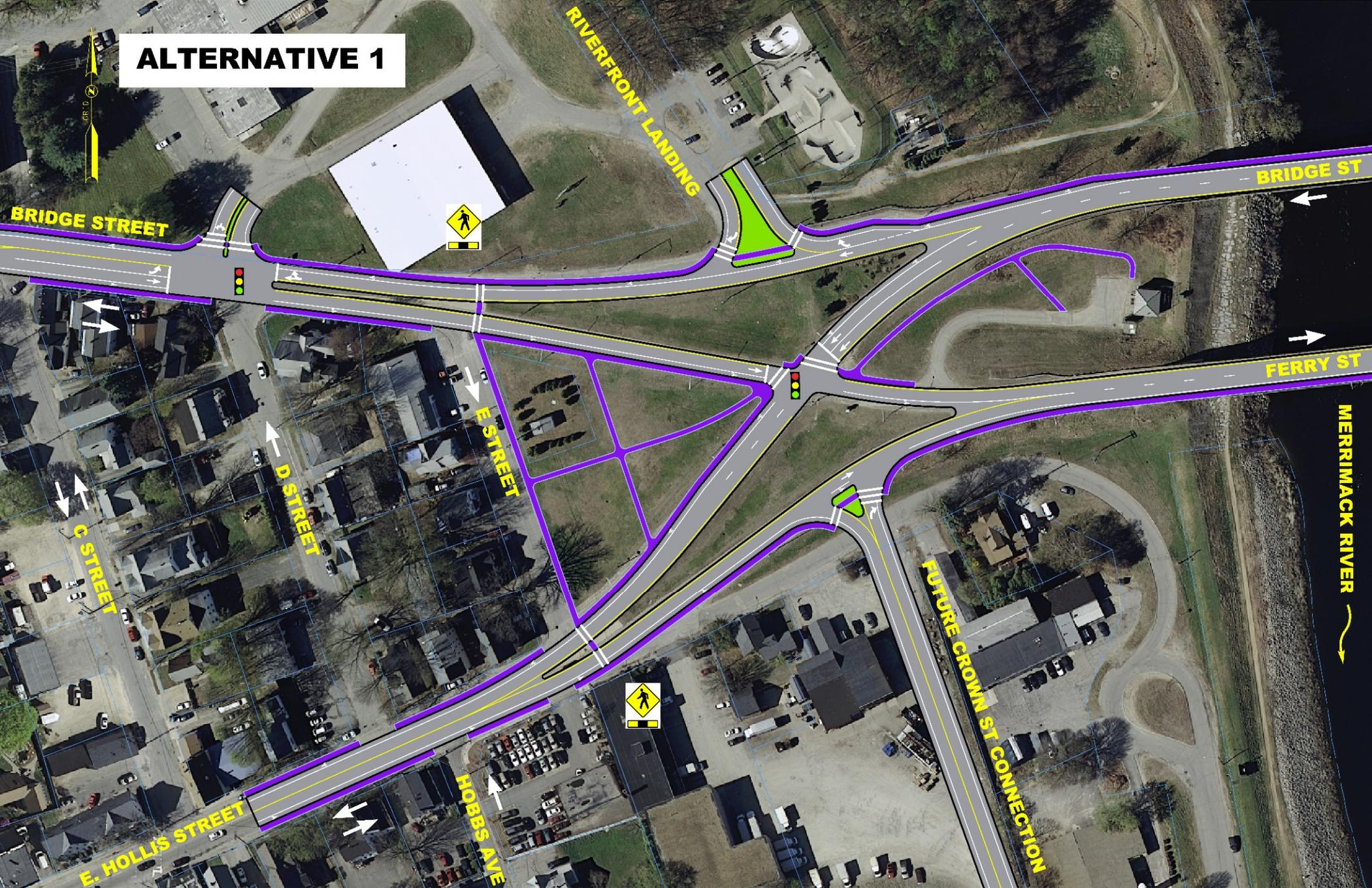


East Hollis / Bridge Street Intersection Improvement Project



East Hollis / Bridge Street Intersection Improvement Project

ALTERNATIVE 1



East Hollis / Bridge Street Intersection Improvement Project

LANDSCAPE CONCEPTUAL PLAN OPTION 1 - BASIC DESIGN



- ① NEW STREET TREES
- ② NEW PEDESTRIAN SIDEWALKS
- ③ OPEN GREEN SPACE
- ④ EXISTING BUILDINGS TO REMAIN
- ⑤ ACCESS DRIVE
- ⑥ PEDESTRIAN CROSSWALKS
- ⑥ TODDLER PLAYGROUND WITH FENCING



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LANDSCAPE CONCEPTUAL PLAN OPTION 1 - BASIC COSTS



COST INFORMATION: \$399,640 (BUDGET \$400,000+/-) CITY COSTS: \$0

- SOFTSCAPE**
- 52 SHADE TREES
 - 0 FLOWERING
 - EARTHWORK
 - PLANTING
 - LOAM + SEED

COST

- \$900 EACH
- \$800 EACH
- \$30,000 ALLOWANCE
- \$0 ALLOWANCE
- \$1 /SF

TOTAL \$191,202

- SITE AMENITIES**
- 13 PEDESTRIAN LIGHT FIXTURES
 - 5 BENCHES
 - 2 TRASH RECEPTACLES
 - 1 FLAGPOLE

COST

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

TOTAL \$71,500

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

COST

- \$0 ALLOWANCE
- \$50,000 ALLOWANCE
- \$0 ALLOWANCE
- \$0 ALLOWANCE

TOTAL \$50,000

- HARDSCAPE**
- CONCRETE SIDEWALKS
 - BITUMINOUS

COST

- \$68,368
- \$18,570

TOTAL \$86,938



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LANDSCAPE CONCEPTUAL PLAN OPTION 1 - FULL BUILD DESIGN



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



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LANDSCAPE CONCEPTUAL PLAN OPTION 1 - FULL BUILD COSTS



COST INFORMATION: \$1,020,354 (BUDGET \$400,000+/-)

- SOFTSCAPE**
- 145 SHADE TREES
 - 49 FLOWERING
 - EARTHWORK
 - PLANTING
 - LOAM + SEED

- COST**
- \$900 EACH
 - \$800 EACH
 - \$30,000 ALLOWANCE
 - \$50,000 ALLOWANCE
 - \$1 /SF

TOTAL \$327,872

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

TOTAL \$213,000

CITY COSTS: \$620,354 +/-

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

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

TOTAL \$380,000

- COST**
- \$200,000 ALLOWANCE
 - \$80,000 ALLOWANCE
 - \$100,000 ALLOWANCE

- HARDSCAPE**
- CONCRETE SIDEWALKS
 - BITUMINOUS

TOTAL \$99,482



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LANDSCAPE CONCEPTUAL PLAN OPTION 1 - FULL BUILD PERSPECTIVE

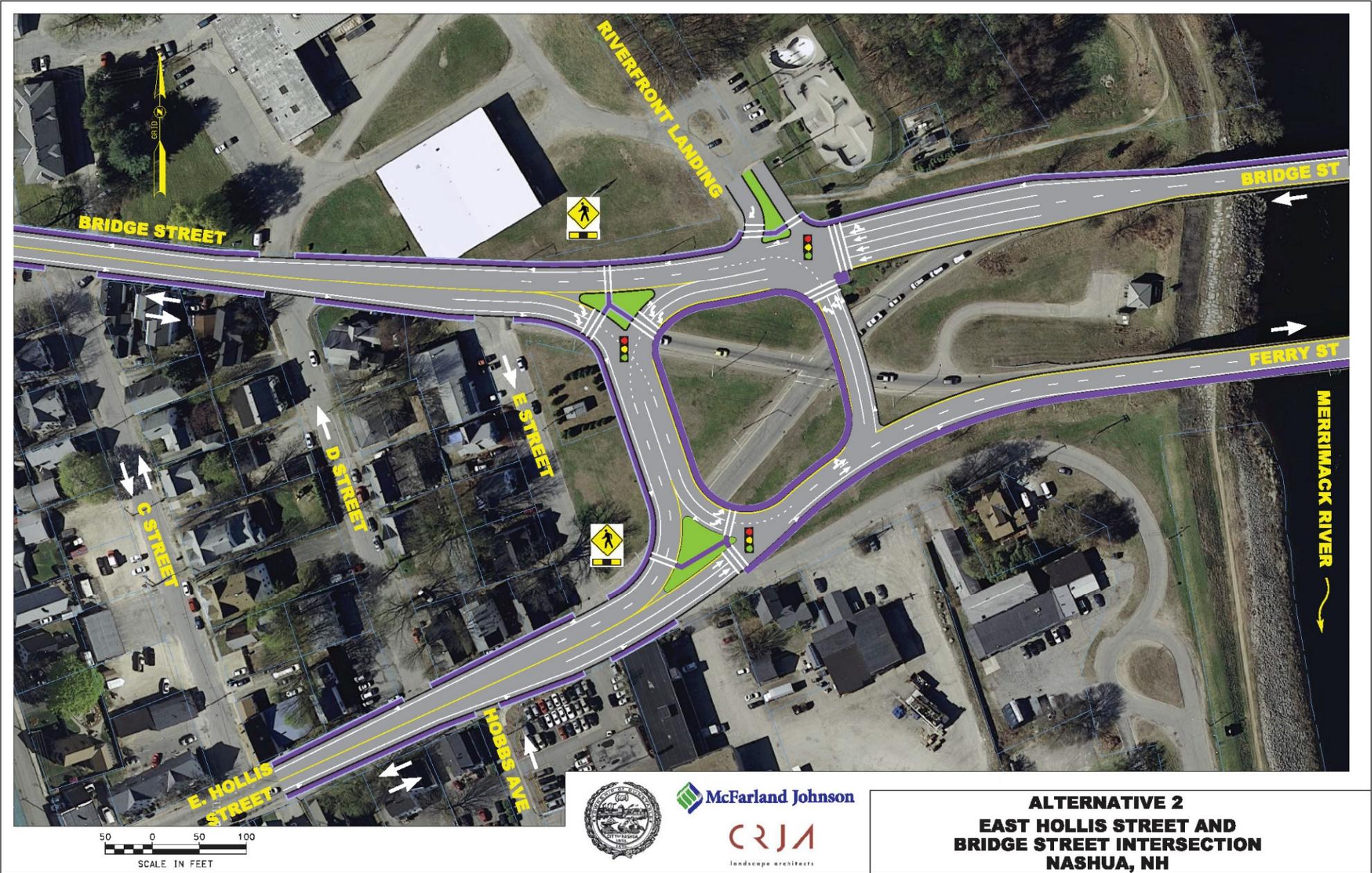


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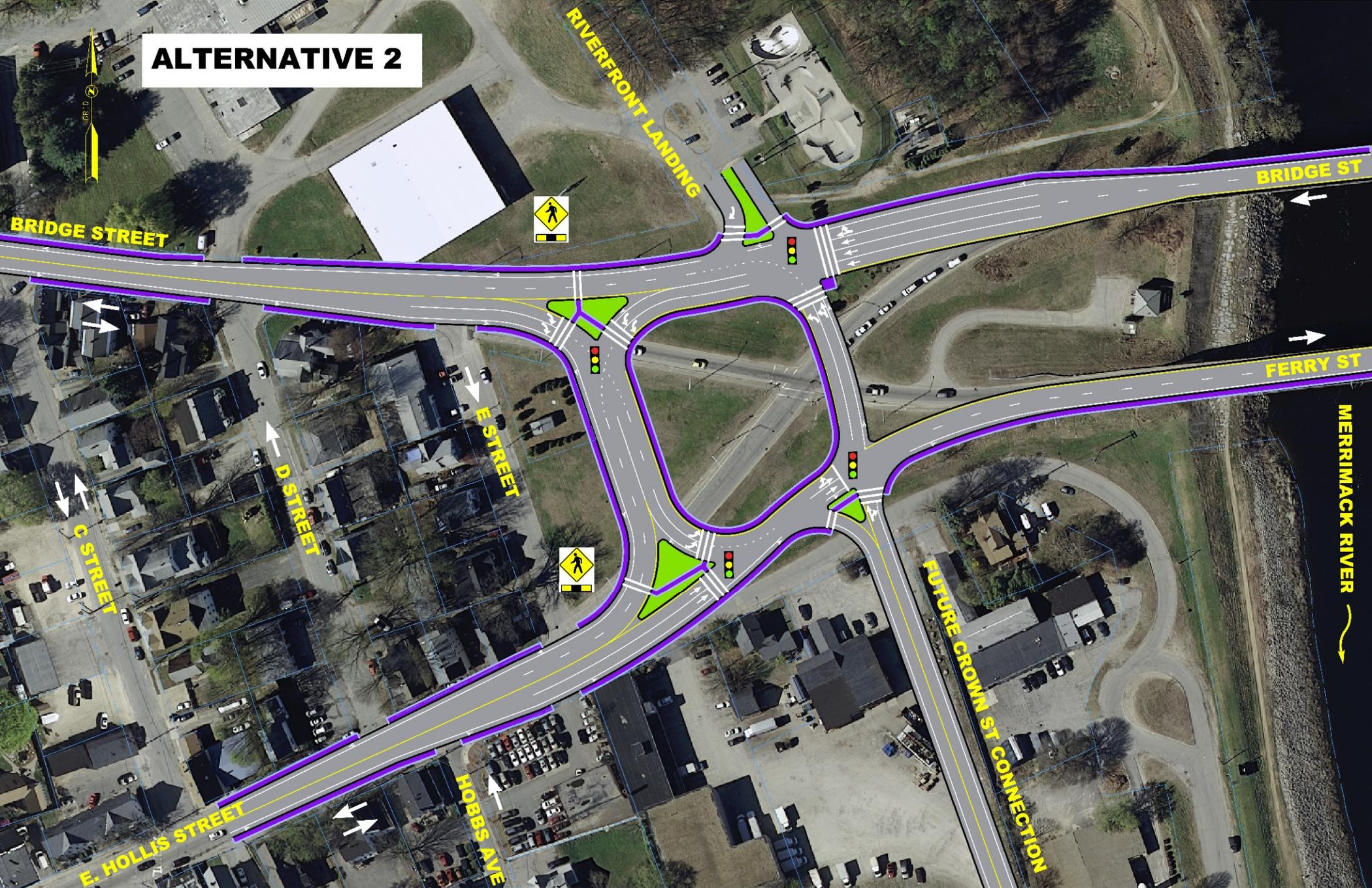


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**ALTERNATIVE 2
EAST HOLLIS STREET AND
BRIDGE STREET INTERSECTION
NASHUA, NH**

East Hollis / Bridge Street Intersection Improvement Project

ALTERNATIVE 2



East Hollis / Bridge Street Intersection Improvement Project

LANDSCAPE CONCEPTUAL PLAN OPTION 2 - BASIC DESIGN



- ① STREET TREES
- ② NEW PEDESTRIAN SIDEWALKS
- ③ EXISTING BUILDINGS TO REMAIN
- ④ ACCESS DRIVE
- ⑤ PEDESTRIAN CROSSWALKS
- ⑥ OPEN GREEN SPACE



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LANDSCAPE CONCEPTUAL PLAN OPTION 2 - BASIC COSTS



COST INFORMATION: \$182,128 (BUDGET \$100,000+/-)

CITY COSTS: \$82,128 +/-

- SOFTSCAPE**
- 30 SHADE TREES
 - 0 FLOWERING
 - EARTHWORK
 - PLANTING
 - LOAM + SEED

- COST**
- \$900 EACH
 - \$800 EACH
 - \$30,000 ALLOWANCE
 - \$0 ALLOWANCE
 - \$1/SF

TOTAL \$162,798

- SITE AMENITIES**
- 0 PEDESTRIAN LIGHT FIXTURES
 - 0 BENCHES
 - 0 TRASH RECEPTACLES
 - 0 FLAGPOLE

TOTAL \$0

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

TOTAL \$0

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

- COST**
- \$0 ALLOWANCE
 - \$0 ALLOWANCE
 - \$0 ALLOWANCE
 - \$0 ALLOWANCE

TOTAL \$19,330

- HARDSCAPE**
- CONCRETE SIDEWALKS
 - BITUMINOUS

- COST**
- \$0
 - \$19,330



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LANDSCAPE CONCEPTUAL PLAN OPTION 2 - FULL BUILD DESIGN



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



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LANDSCAPE CONCEPTUAL PLAN OPTION 2 - FULL BUILD COSTS



COST INFORMATION: \$987,657 (BUDGET \$100,000+/-)

CITY COSTS: \$887,657 +/-

- SOFTSCAPE**
- 124 SHADE TREES
 - 33 FLOWERING
 - EARTHWORK
 - PLANTING
 - LOAM + SEED

- COST**
- \$900 EACH
 - \$800 EACH
 - \$30,000 ALLOWANCE
 - \$50,000 ALLOWANCE
 - \$1 /SF

TOTAL \$274,315

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

TOTAL \$203,500

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

TOTAL \$430,000

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

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

- HARDSCAPE**
- CONCRETE SIDEWALKS
 - BITUMINOUS

TOTAL \$79,842



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LANDSCAPE CONCEPTUAL PLAN OPTION 2 - FULL BUILD PERSPECTIVE

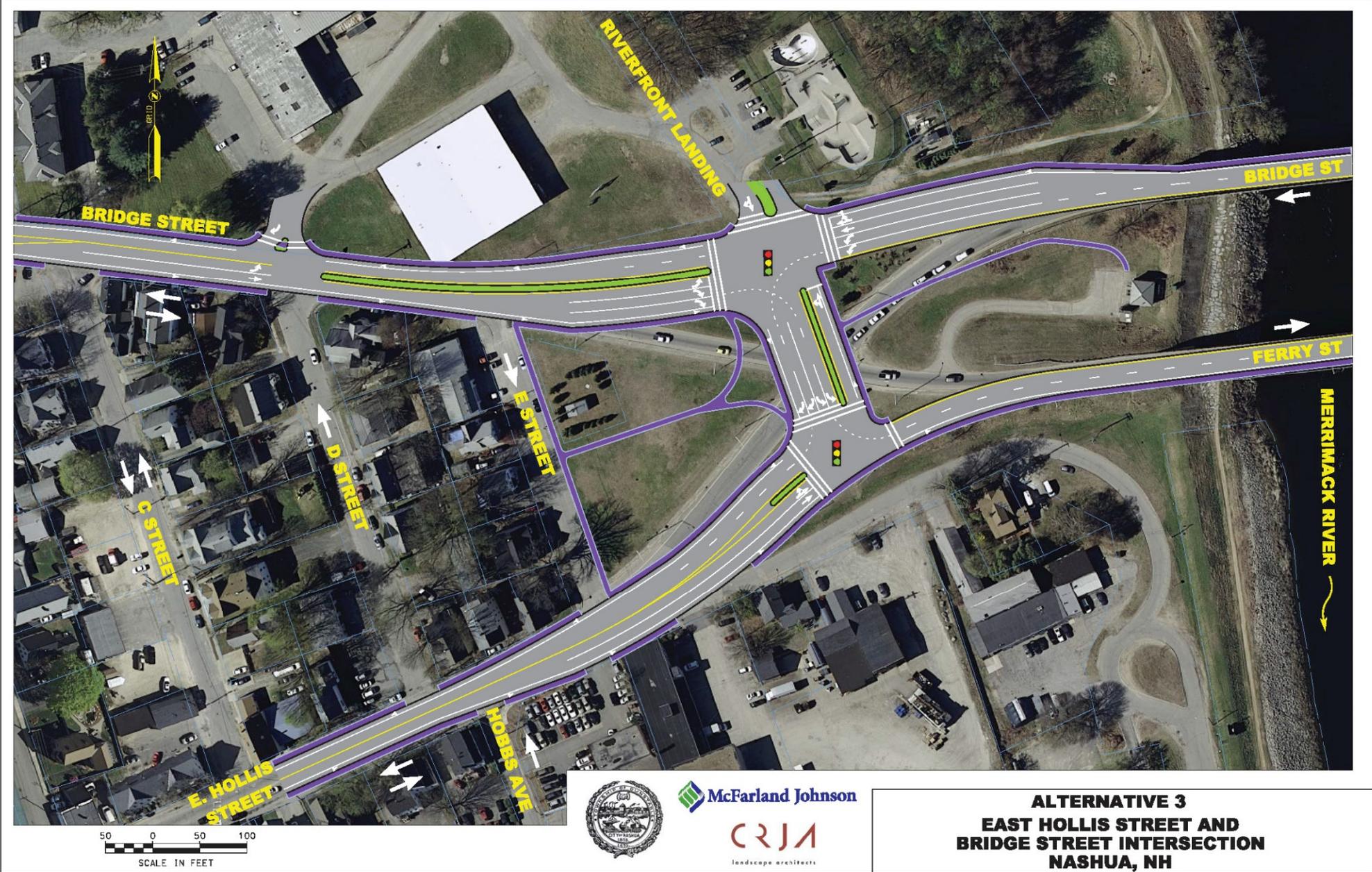


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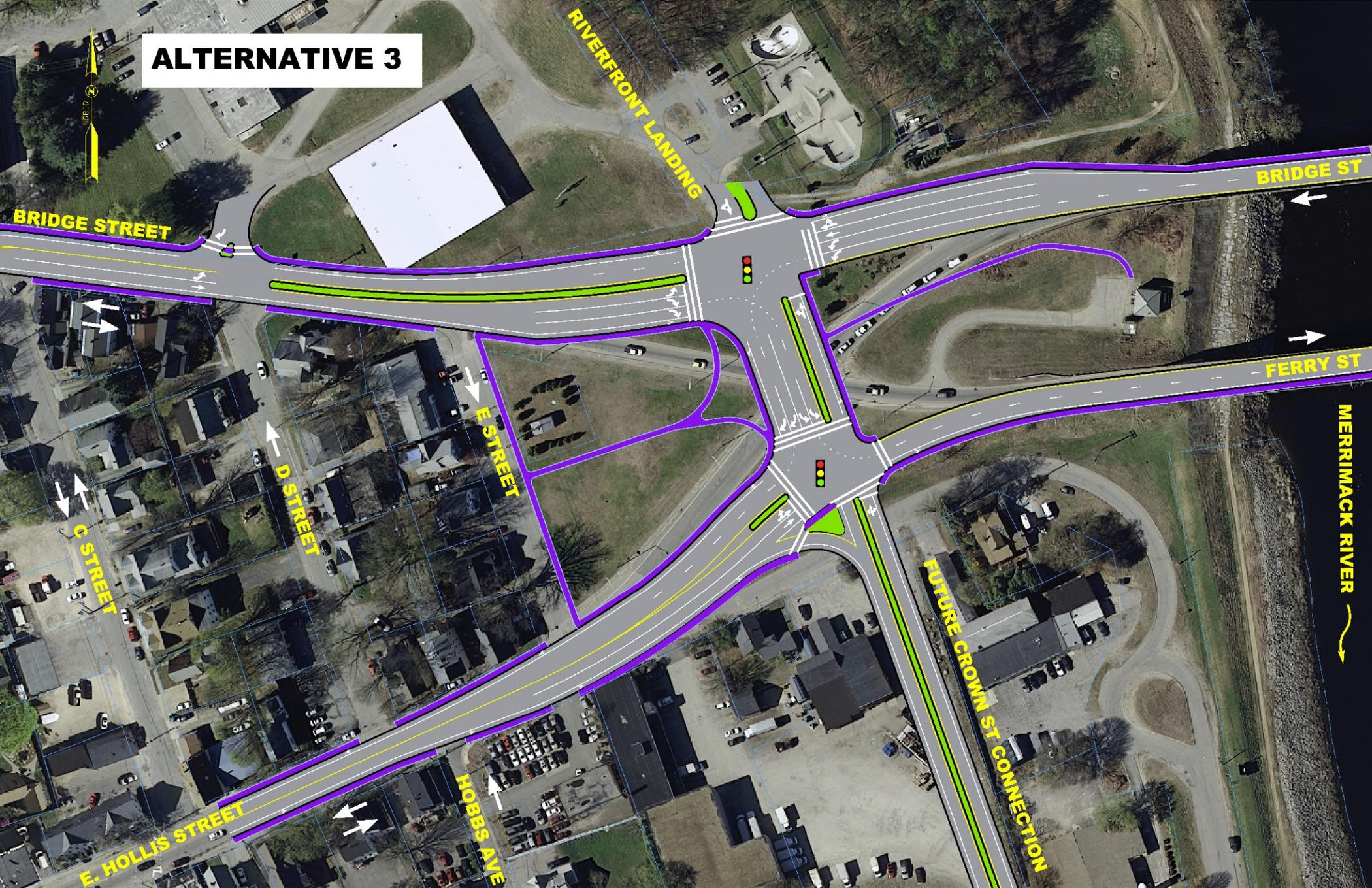
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**ALTERNATIVE 3
EAST HOLLIS STREET AND
BRIDGE STREET INTERSECTION
NASHUA, NH**

East Hollis / Bridge Street Intersection Improvement Project

ALTERNATIVE 3



East Hollis / Bridge Street Intersection Improvement Project

LANDSCAPE CONCEPTUAL PLAN OPTION 3 - BASIC DESIGN



- ① NEW STREET TREES
- ② OPEN GREEN SPACE
- ③ NEW PEDESTRIAN SIDEWALKS
- ④ EXISTING BUILDINGS TO REMAIN
- ⑤ ACCESS DRIVE
- ⑥ PEDESTRIAN CROSSWALKS



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LANDSCAPE CONCEPTUAL PLAN OPTION 3 - BASIC COSTS



COST INFORMATION: \$302,994 (BUDGET \$300,000+/-)

CITY COSTS: \$2,994 +/-

SOFTSCAPE
 • 40 SHADE TREES
 • 0 FLOWERING TREES
 • EARTHWORK
 • PLANTING
 • LOAM + SEED

COST
 \$1,000 EACH
 \$800 EACH
 \$30,000 ALLOWANCE
 \$0 ALLOWANCE
 \$1.60/SF
TOTAL \$171,152

SITE AMENITIES
 • 16 PEDESTRIAN LIGHT FIXTURES
 • 4 BENCHES
 • 2 TRASH RECEPTACLES
 • 1 FLAGPOLE

COST
 \$4,000 EACH
 \$2,500 EACH
 \$1,000 EACH
 \$5,000 EACH
TOTAL \$81,000

COMMUNITY AMENITIES
 • CHILDREN'S PLAYGROUND
 • TODDLER PLAYGROUND
 • COMMUNITY GARDEN
 • GATEWAY ELEMENT

COST
 \$0 ALLOWANCE
 \$0 ALLOWANCE
 \$0 ALLOWANCE
 \$0 ALLOWANCE

TOTAL \$0

HARDSCAPE
 • CONCRETE SIDEWALKS
 • BITUMINOUS

COST
 \$31,512
 \$19,330

TOTAL \$50,842



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LANDSCAPE CONCEPTUAL PLAN OPTION 3 - FULL BUILD DESIGN



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



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LANDSCAPE CONCEPTUAL PLAN OPTION 3 - FULL BUILD COSTS



COST INFORMATION: \$1,045,928 (BUDGET \$300,000+/-)

SOFTSCAPE
 • 125 SHADE TREES
 • 33 FLOWERING TREES
 • EARTHWORK
 • PLANTING
 • LOAM + SEED

COST
 \$900 EACH
 \$800 EACH
 \$30,000 ALLOWANCE
 \$50,000 ALLOWANCE
 \$1.60/SF

TOTAL \$272,810

SITE AMENITIES
 • 54 PEDESTRIAN LIGHT FIXTURES
 • 11 BENCHES
 • 3 TRASH RECEPTACLES
 • 1 FLAGPOLE

TOTAL \$251,500

CITY COSTS: \$745,928 +/-

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

COMMUNITY AMENITIES
 • CHILDREN'S PLAYGROUND
 • TODDLER PLAYGROUND
 • COMMUNITY GARDEN
 • GATEWAY ELEMENT

TOTAL \$430,000

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

HARDSCAPE
 • CONCRETE SIDEWALKS
 • BITUMINOUS

COST
 \$72,288
 \$19,330

TOTAL \$91,618



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LANDSCAPE CONCEPTUAL PLAN OPTION 3 - FULL BUILD PERSPECTIVE



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DECISION MATRIX DISCUSSION



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LANDSCAPE CONCEPTUAL DESIGN - SITE AMENITIES



TRADITIONAL
VERSUS
CONTEMPORARY?



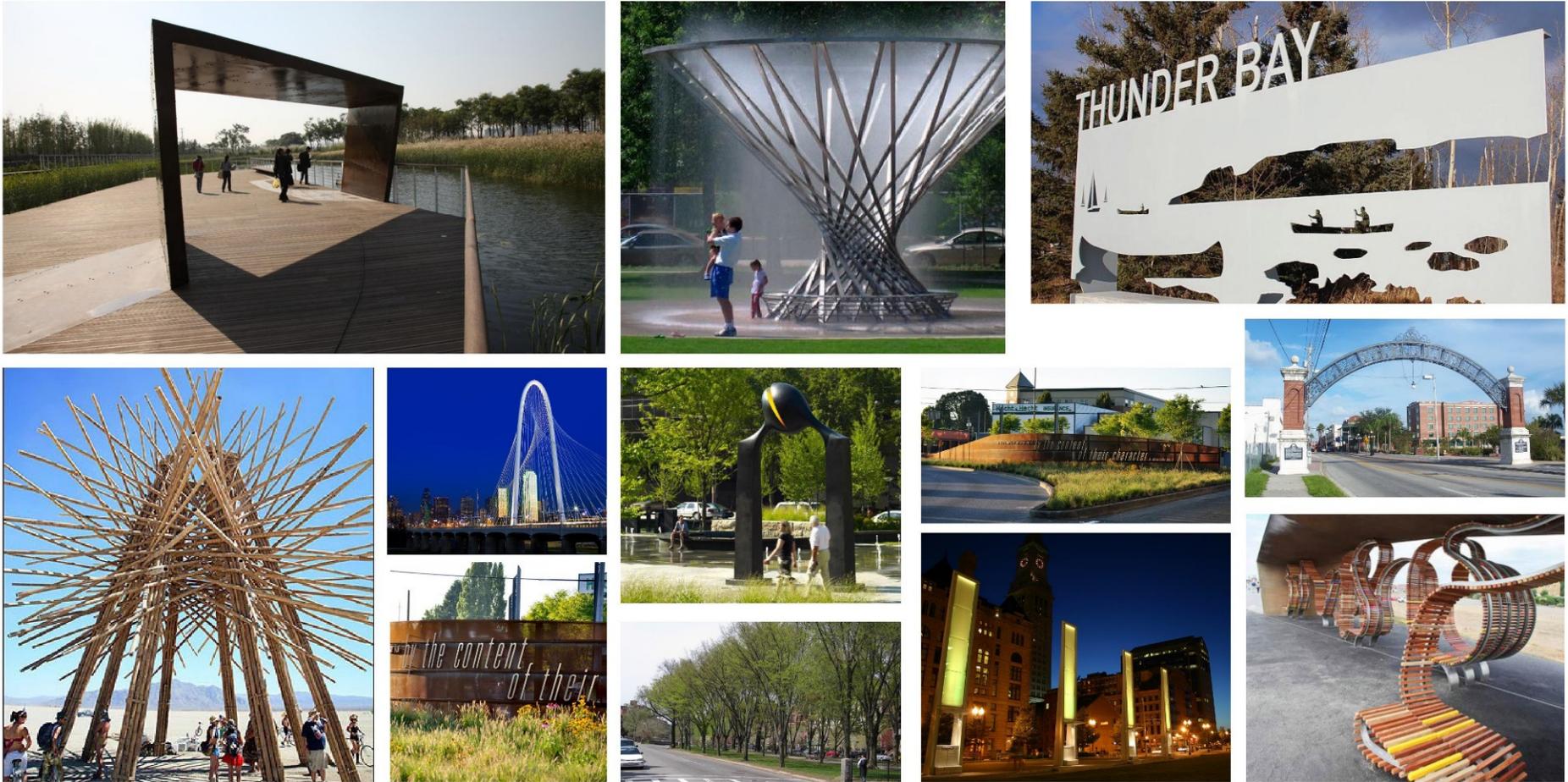
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LANDSCAPE CONCEPTUAL DESIGN - GATEWAY ELEMENT



WHAT SHOULD IT BE / LOOK LIKE?



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PROJECT SCHEDULE

Spring

Today

May-July

Mid August

Mid September

Late September

October

Summer

Resource Identification & Traffic

Public Listening Session

Alternatives Development

(2 Steering Committee Meetings)

Alternatives Workshop

Steering Committee Meeting

Public Informational Meeting

BoA & BoPW Presentations

Survey



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QUESTIONS / COMMENTS

www.nashuagatewayproject.com



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