

Burlington TEUC Meeting

Burlington-Winooski BF RAIZ(2)
Burlington STP 5000(29)

December 19, 2023



**BURLINGTON
WINOOSKI
BRIDGE**



Introductions

- **Bob Klinefelter** – VTrans Structures Project Manager
- **Mike LaCroix** – VTrans Traffic Project Manager
- **Josh Olund** – HNTB Structures Project Manager
- **Steve Spear** – HNTB Roadway Project Manager

Agenda



Project Location



Past Efforts



Current Efforts



Future Efforts

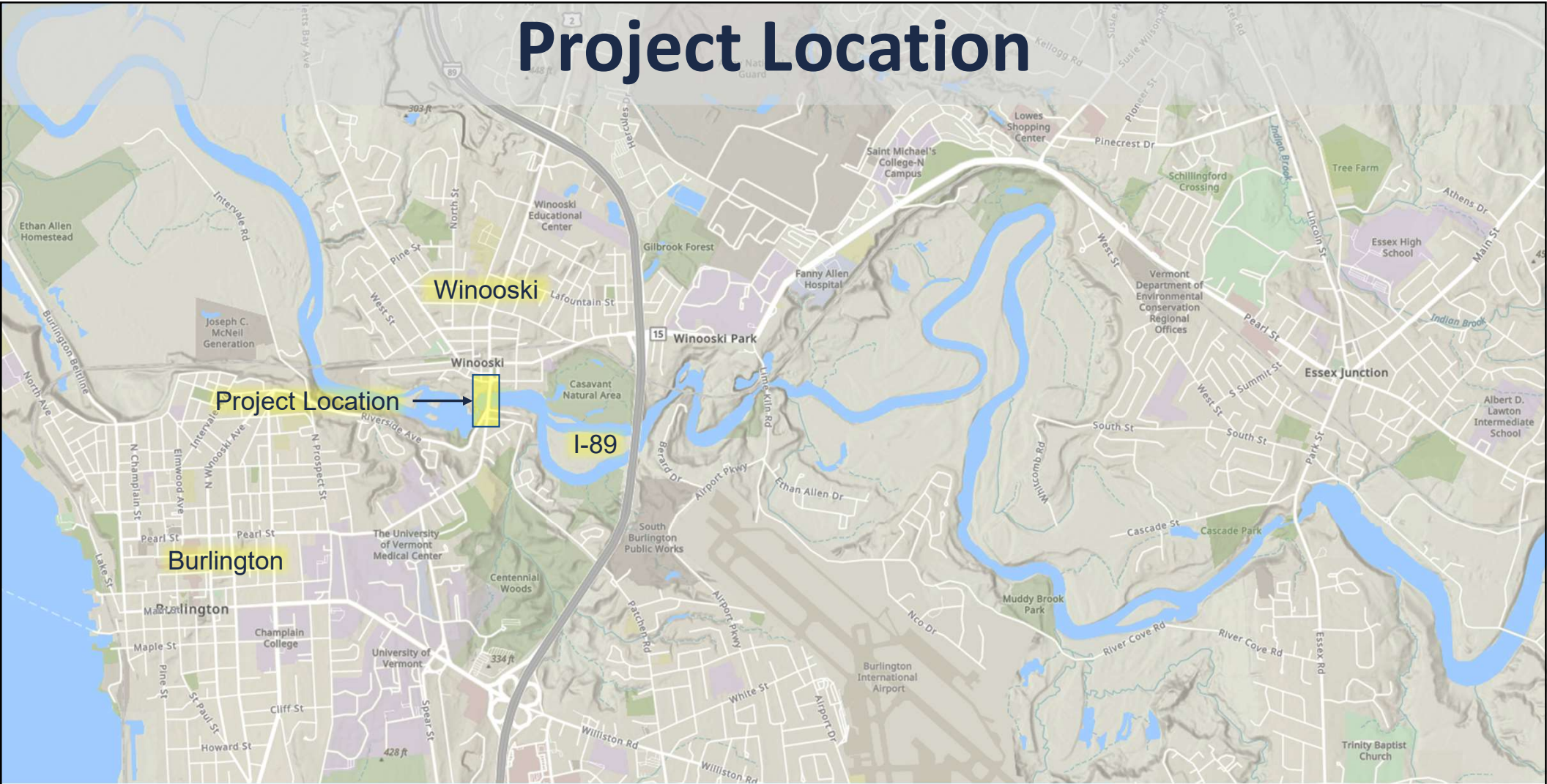


Project Delivery

Project Location



Project Location



Project Site



Image Landsat / Copernicus

Project Area



Project Focal Points

Intersection

Bridge

Past Efforts



Project Definition

April 2017 – May 2019

- Purpose and Need Established
- Public Meetings
- Project Advisory Committee Meetings
- City Council Meetings
- Traffic Study
- Alternatives Evaluation
- Preferred Alternative Defined

Project Reports

- Bridge Scoping Report
- Intersection Scoping Report
- Bridge Grant Application

The collage features three report covers and several logos. The top-left cover is for the Colchester Avenue/Riverside Avenue intersection in Burlington, Vermont, titled 'Final Scoping Report', with a photo of the intersection and logos for Stantec and Chittenden County RPD. The top-right cover is for the Winooski River Bridge Replacement, titled 'Enhancing the Economic and Social Connections Between Communities', with a photo of the bridge and logos for Chittenden County and the Cities of Burlington and Winooski. The middle cover is for the Main Street Bridge (US Routes 2 & 7) over the Winooski River, titled 'SCOPING REPORT FOR', with a photo of the bridge and logos for Chittenden County RPD and McFarland Johnson. At the bottom right are logos for the Vermont Agency of Transportation and the Burlington Winooski Bridge.

COLCHESTER AVENUE/RIVERSIDE AVENUE
Burlington, Vermont

Final Scoping Report

Prepared by: Prepared for:

CHITTENDEN COUNTY REGIONAL PLANNING COMMISSION

SCOPING REPORT
FOR
MAIN STREET BRIDGE (US ROUTES 2 & 7) OVER THE
WINOOSKI RIVER

CHITTENDEN COUNTY RPD
Communities Planning Together
May 30, 2019

McFarland Johnson

WINOOSKI RIVER
BRIDGE REPLACEMENT
Enhancing the Economic and
Social Connections Between Communities
CHITTENDEN COUNTY
CITIES OF BURLINGTON AND WINOOSKI, VERMONT

VT
ON

BURLINGTON
VERMONT

WINOOSKI
VERMONT

VERMONT
AGENCY OF TRANSPORTATION

BURLINGTON
WINOOSKI
BRIDGE

CHITTENDEN COUNTY REGIONAL PLANNING COMMISSION

SCOPING REPORT

FOR

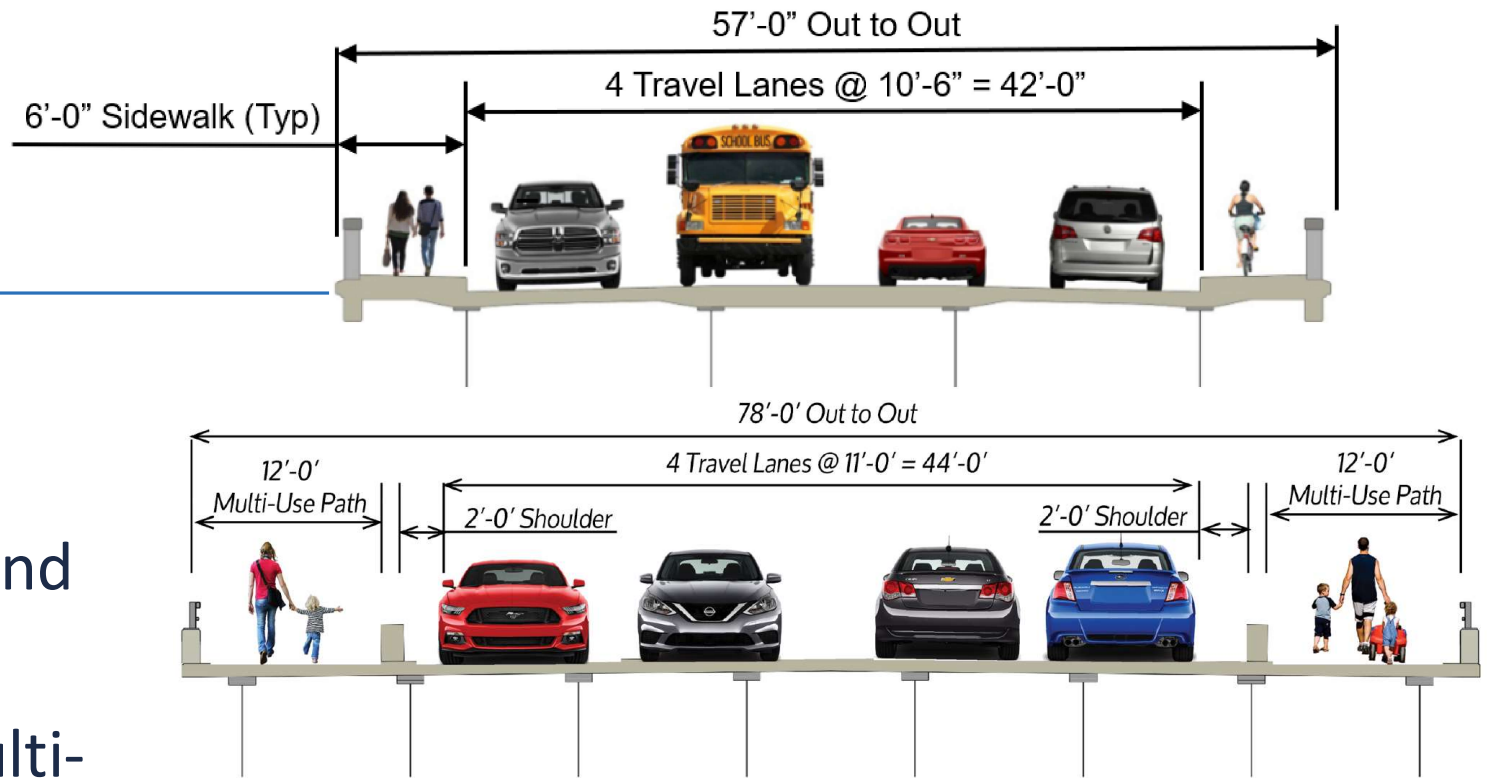
MAIN STREET BRIDGE (US ROUTES 2 & 7) OVER THE
WINOOSKI RIVER

Bridge Scoping Report (2019)

- Recommended replacement
- Focus on bike/pedestrian accommodations
- Conceptual construction methods



Bridge Features



- Complete replacement
- Wider lanes and shoulders
- Separated multi-use paths

Intersection Scoping Report (2019)

- Recommended 4-Way intersection
- Focus on bike/pedestrian accommodations, mobility, and safety

COLCHESTER AVENUE/RIVERSIDE AVENUE
Burlington, Vermont

Final Scoping Report



Prepared by:

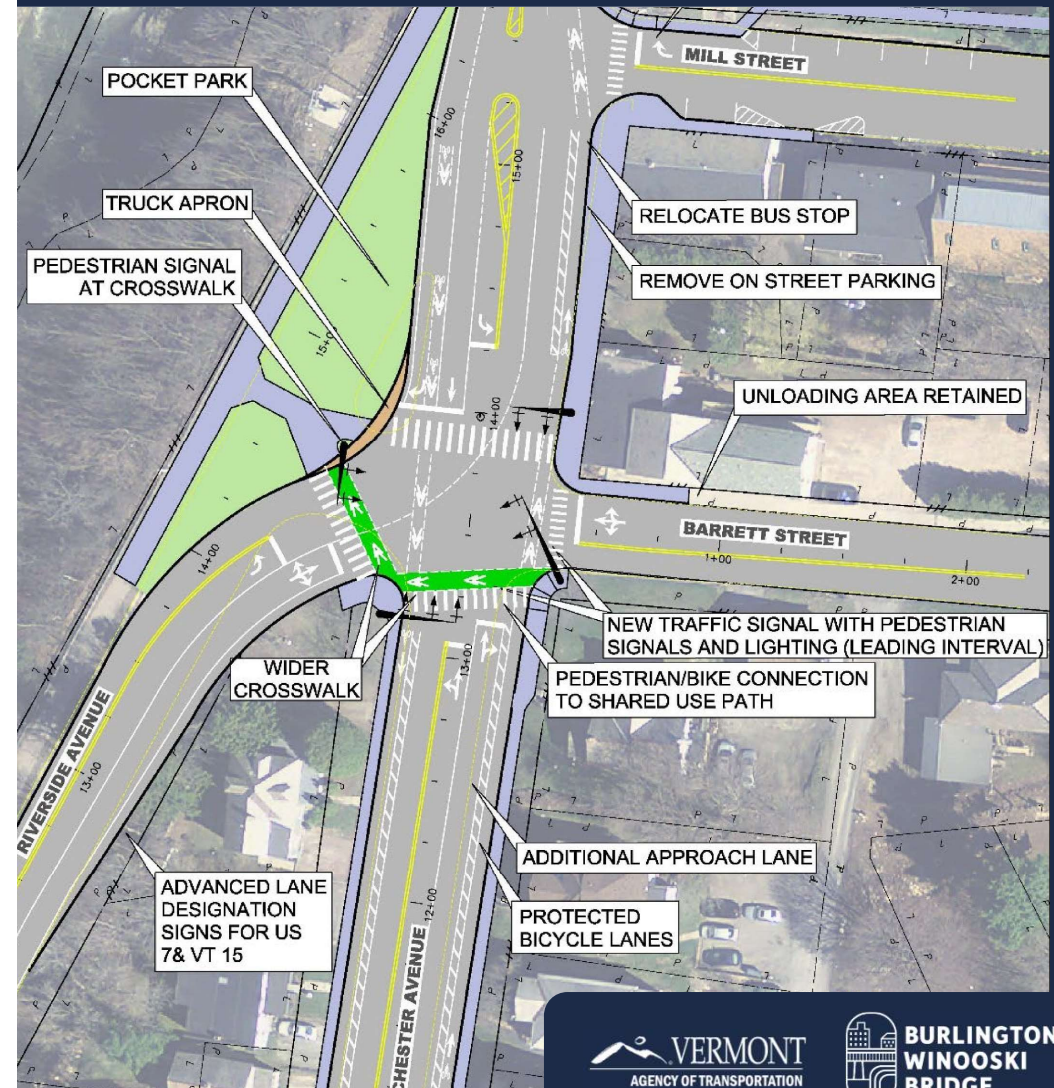


Prepared for:



Intersection Features

- Consolidated intersection
 - Improved safety and mobility
- Emphasis on Bike/Pedestrian improvements



Bridge Grant Application (2022)

- Obligated to:
 - Improve safety
 - Address bike/pedestrian accommodations
 - Complement the natural and cultural environment
 - Provide appealing bridge



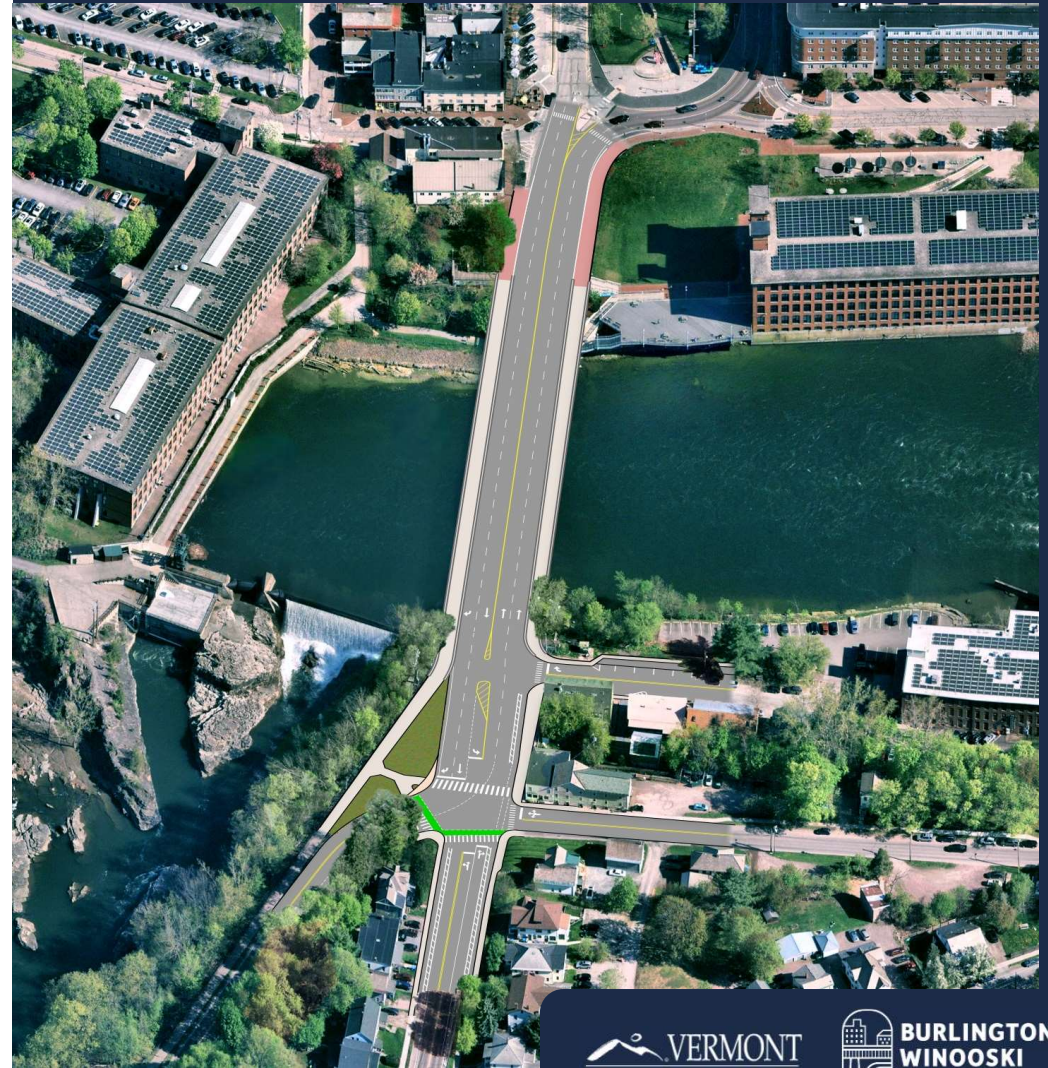
**WINOOSKI RIVER
BRIDGE REPLACEMENT**
Enhancing the Economic and
Social Connections Between Communities
*CHITTENDEN COUNTY
CITIES OF BURLINGTON AND WINOOSKI, VERMONT*

Current Efforts



Project Compilation

- Concept Plans complete
- Need to combine recommendations of intersection and bridge project



Project Design

Feb 2023 – June 2026 *(est)*

- Preferred Alternative Refinement
- Preliminary Design
- Traffic Control
- ROW Process
- Utility Relocation
- Environmental Permitting
- RFQ and RFP Development
(Design-Build Contracting)

Project Design

Feb 2023 – June 2026 *(est)*

- Preferred Alternative Refinement
- Preliminary Design
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Preferred Alternative Refinement

- Public Outreach
- Stakeholder Engagement
- Property Owner Meetings
- Initial Utility Coordination
- Initial Environmental Coordination

Traffic Calming

Aesthetics

Construction Congestion

Bike/Ped Safety

Mobility

Business Impacts

Construction Costs

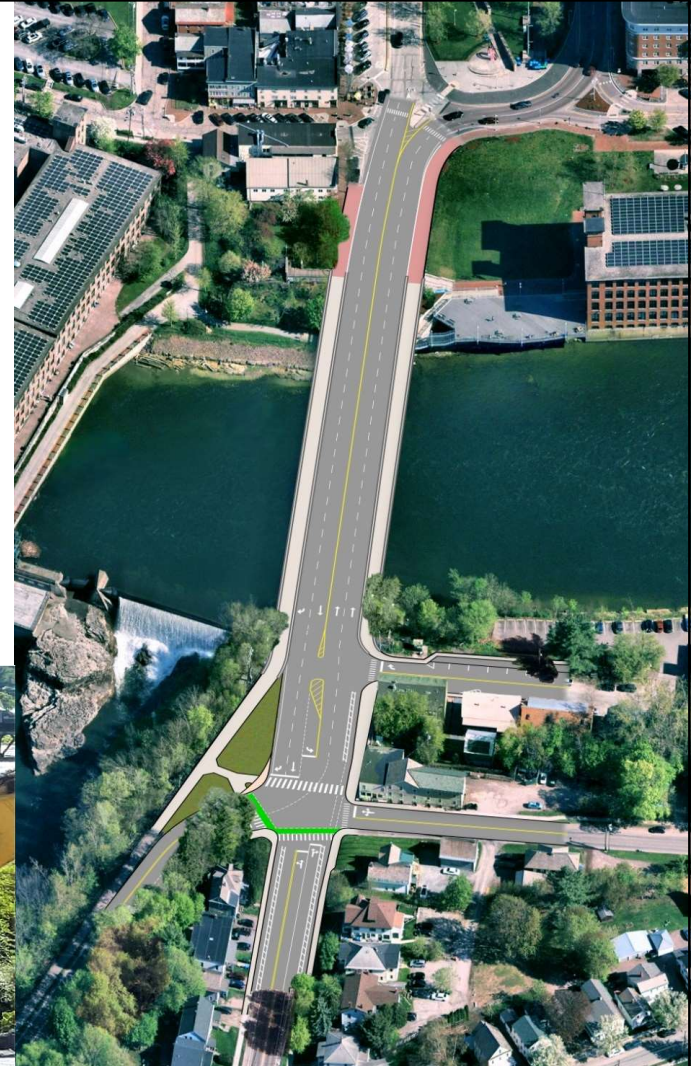
Contaminated Soils

Historic Significance



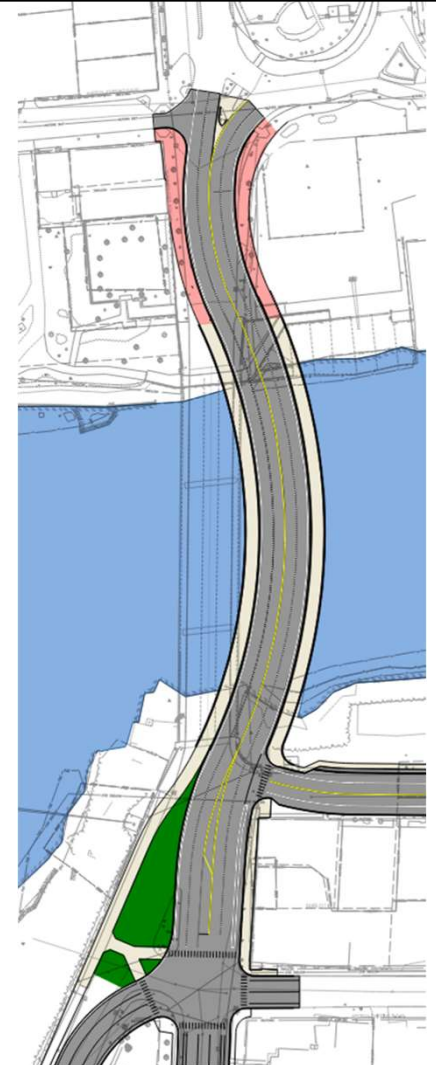
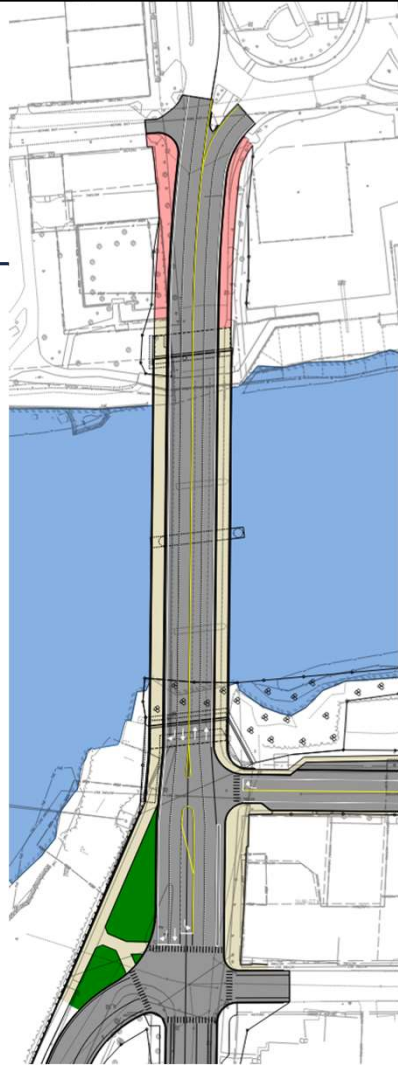
Preliminary Design

- Ground Survey
- Combining Bridge and Intersection
- Reviewing Constructability



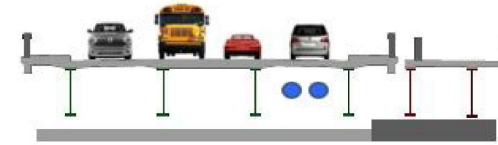
Alignments

- Multiple Variations Explored
- Different Phasing, Traffic Control

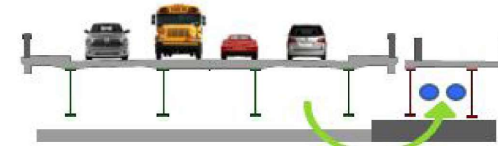


Bridge Phasing

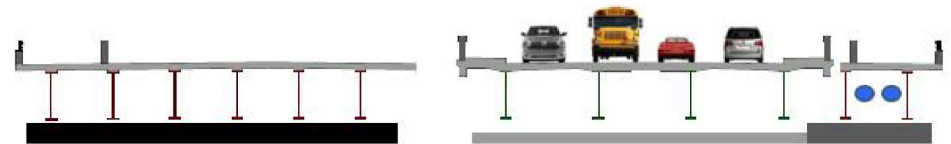
- Build new bridge, next to existing bridge
- Transfer Pedestrians and utilities
- Temporary 4 to 6 week closure for demolition and sliding new bridge together



Phase 1 – Widened Portion of Substructure Units and Superstructure Constructed



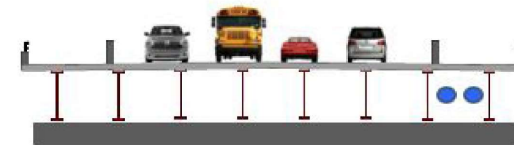
Phase 1a – Utilities Relocated



Phase 2 – New Bridge Superstructure Built Adjacent to Existing Bridge on Temporary Supports



Phase 3 – Bridge Closed to Traffic, Existing Bridge Superstructure Removed, and New Bridge Superstructure Slid to Final Location



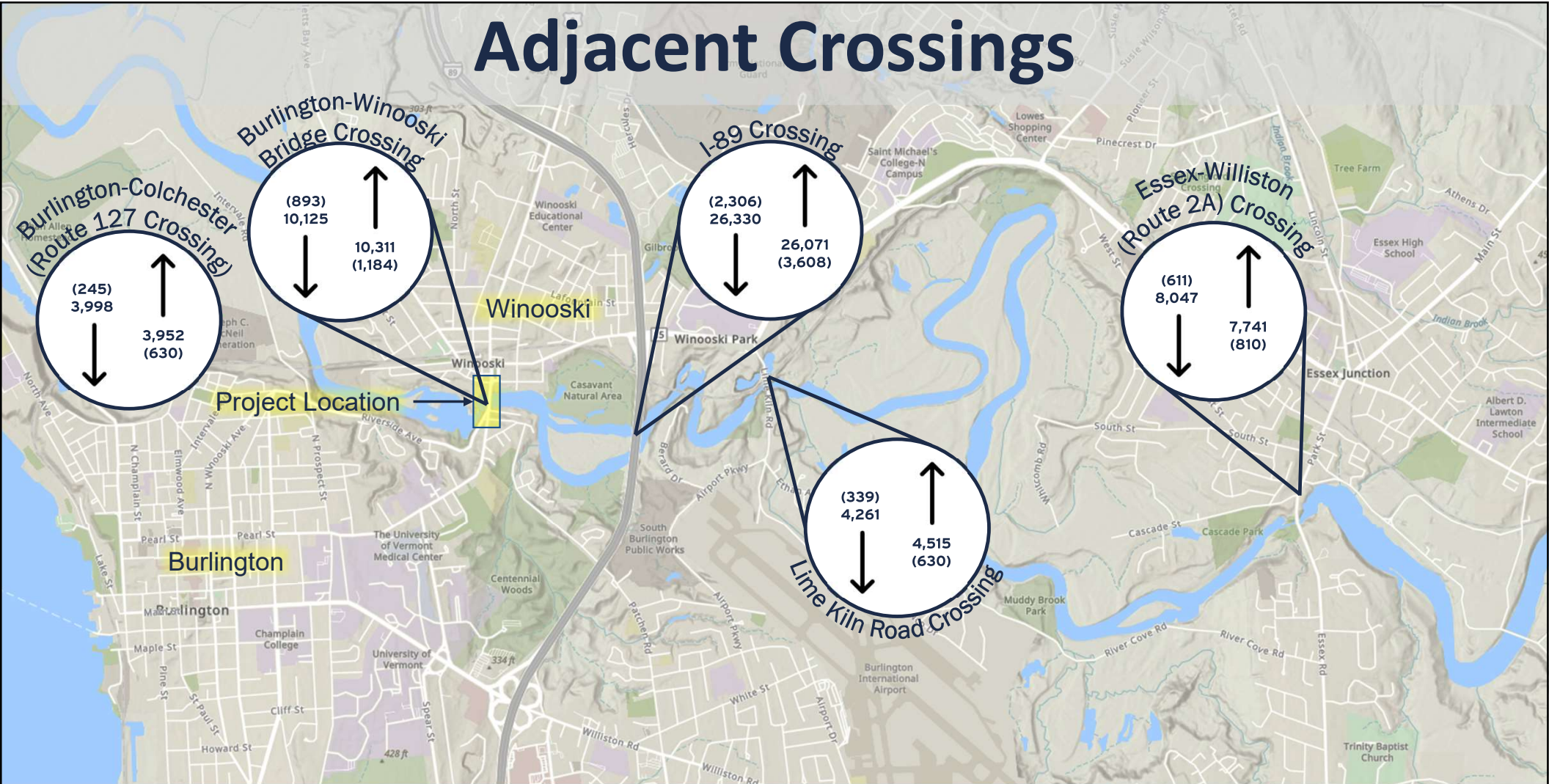
Phase 4 - New Bridge Opened to Traffic

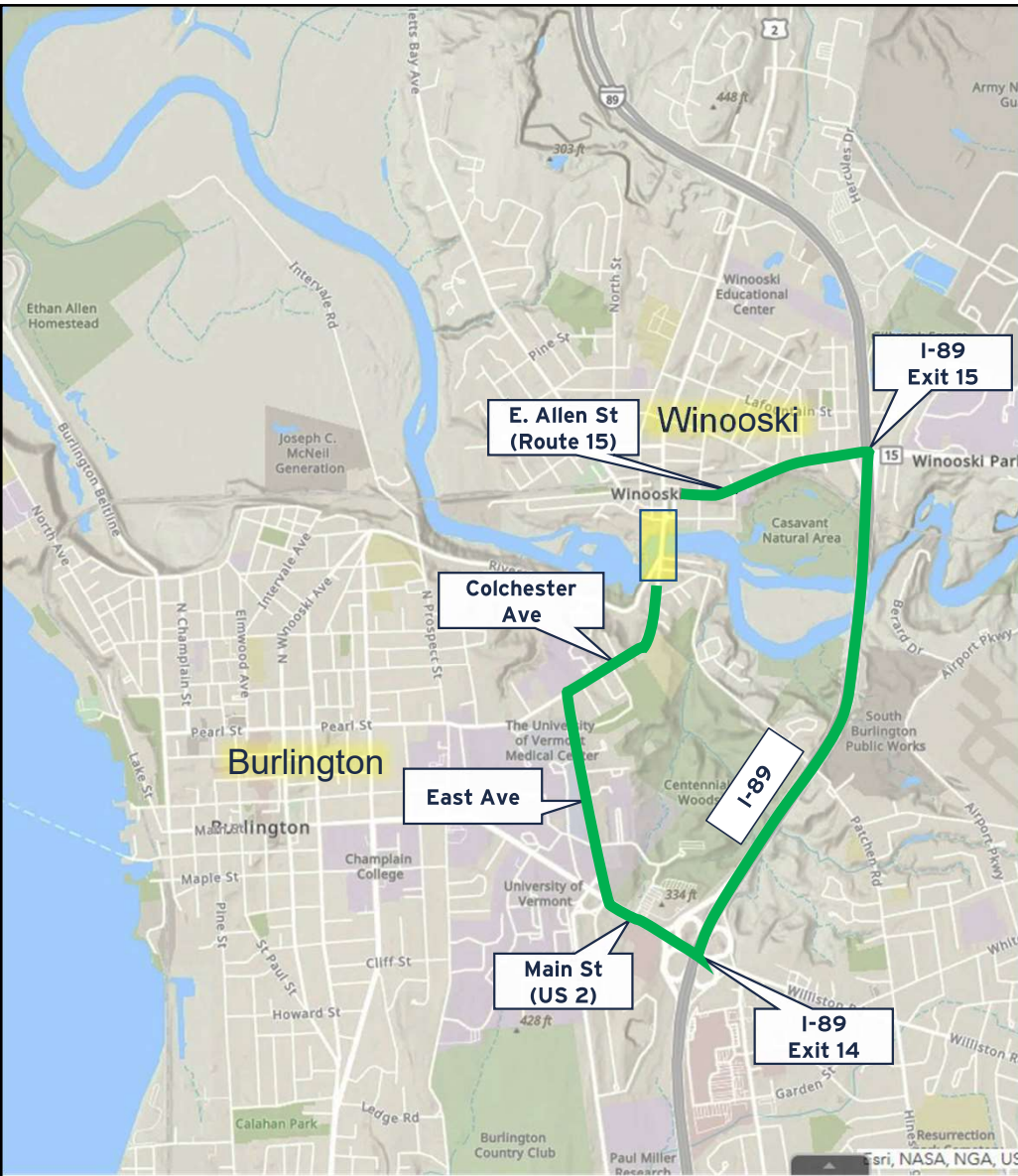
Maintenance of Traffic

- 25,000 Vehicles & 300 Pedestrians per day
- Need to balance:
 - Minimize impact to traveling public, and
 - Safe, sufficient construction site
- Utilize combination of:
 - Temporary lane closures
 - Temporary bridge closure



Adjacent Crossings

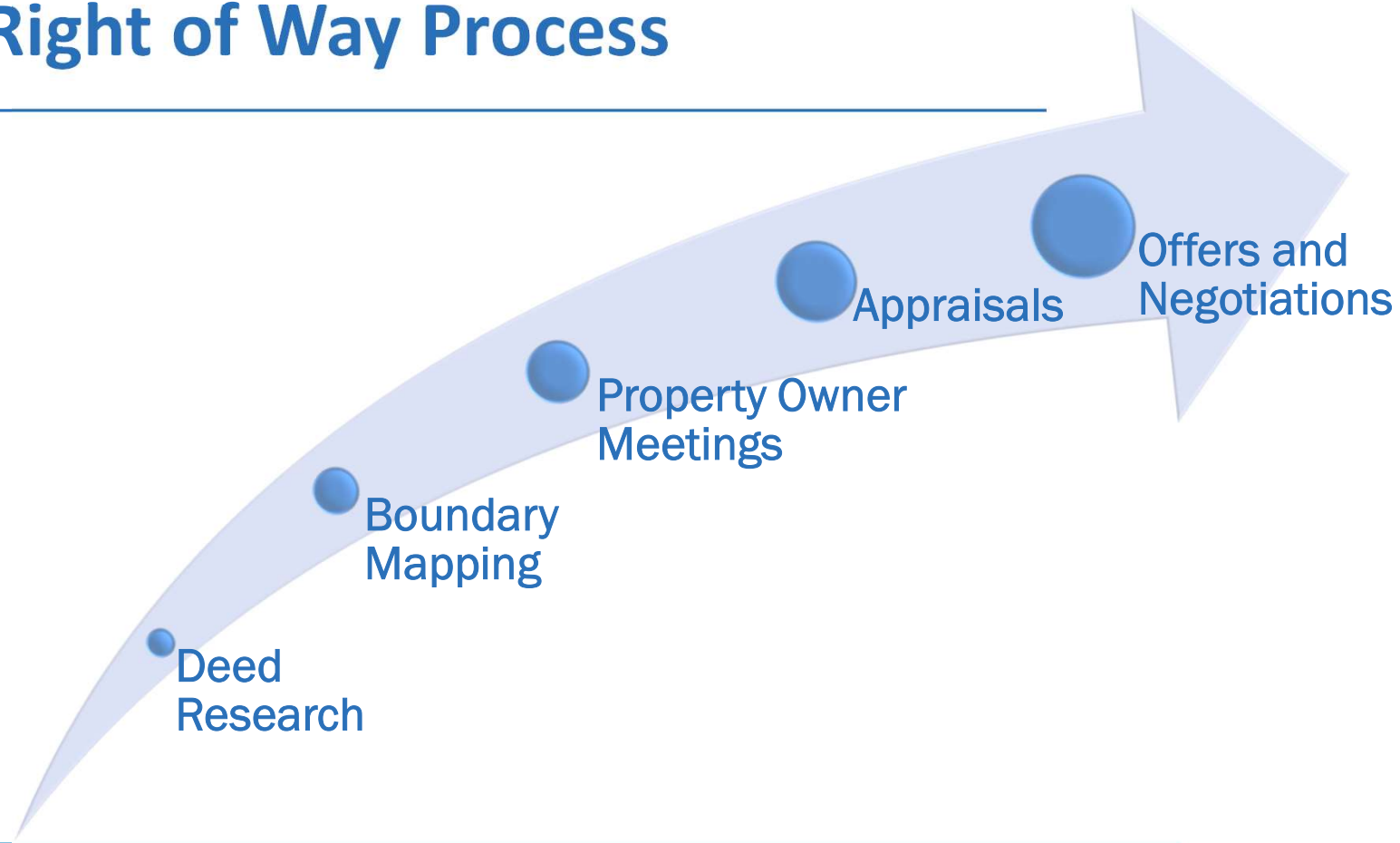




Temporary Detour

- Shortest vehicular detour
- Effects on adjacent roads and intersections
- **All Pedestrians Maintained On Site!**

Right of Way Process



Future Efforts



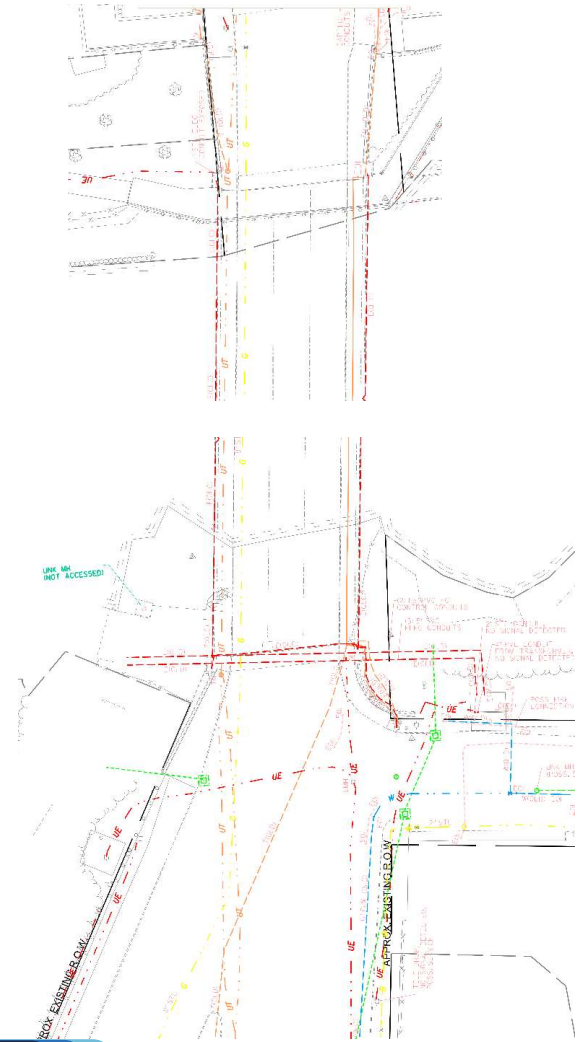
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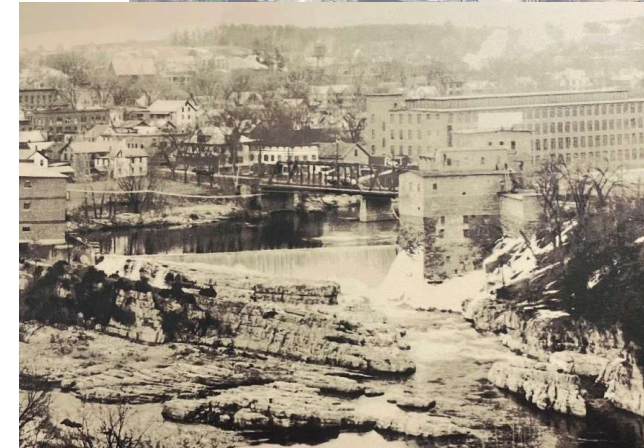
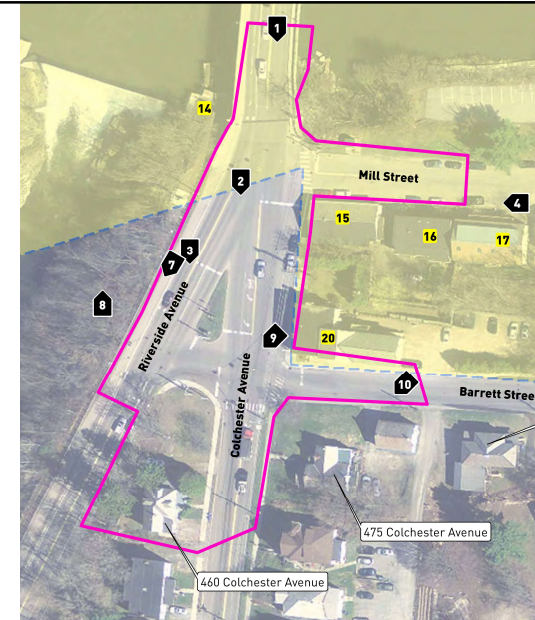
Utility Relocation

- Test Pits
- Relocation Plans and Construction Sequencing
- Utility Agreements
- *Municipal Utility Relocations are Project Reimbursable*



Environmental Permitting

- Permitting Restriction Commitments
- Historic Process (Section 106)
 - Bridge is listed on National Historic Register
 - Replacement will be an Adverse Effect
 - Consultation process for mitigation
 - Winooski Falls Historic District
 - Multiple Historic Properties



What is Design-Build Contracting?

Project delivery method that:

- Incorporates final design and construction into a single contract.
- Places increased responsibilities on the Contractor in an attempt to reduce risks and costs to the State.

Why Use Design-Build Contracting?



Promotes Innovation



Improves Design/Construction Efficiencies



Reduces Construction Costs



Reduces Construction Schedule

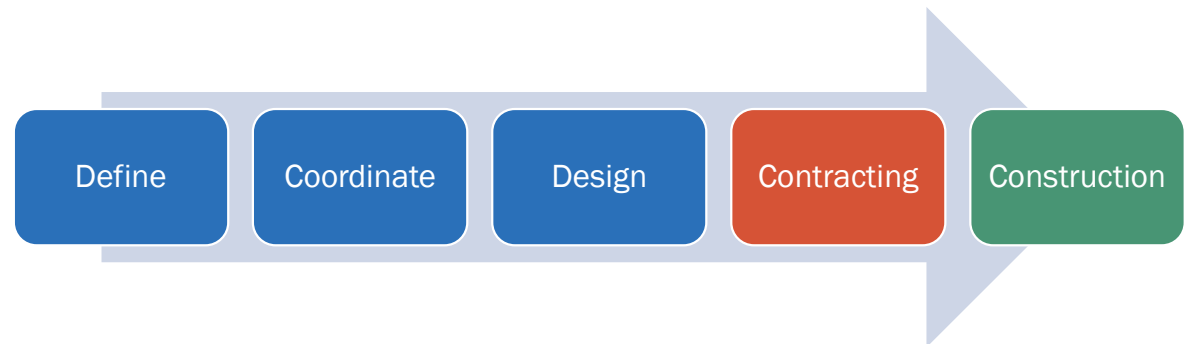
Design-Bid-Build (Traditional) Contracting

VTrans

- Preliminary Design
- Environmental Coordination
- Final Design
- Right of Way Process
- Permitting
- Utility Relocation
- Construction Contracting
- Public Outreach
- Construction Inspection
- Construction Oversight

Contractor

- Construction



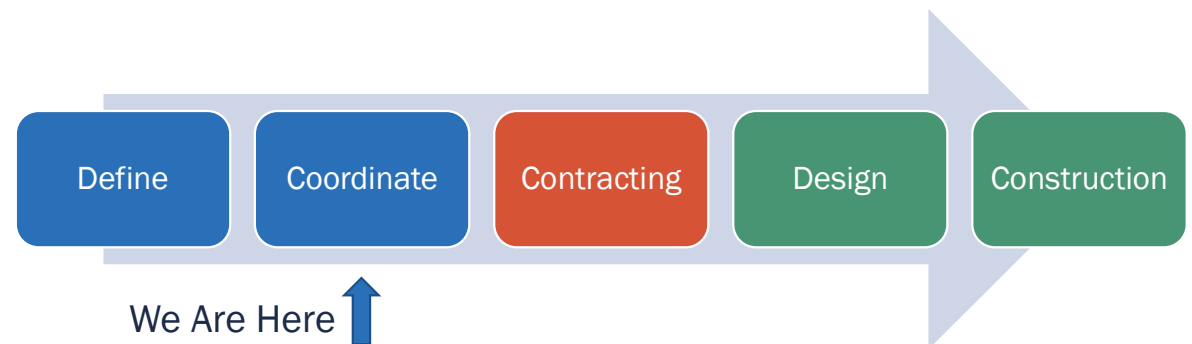
Design-Build Contracting

VTrans

- Preliminary Design
- Environmental Coordination
- ~~Final Design~~
- Right of Way Process
- ~~Permitting~~
- Utility Coordination
- Construction Contracting
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- Construction Oversight

Contractor

- Final Design
- Utility Relocation
- Permitting
- Public Outreach
- Construction



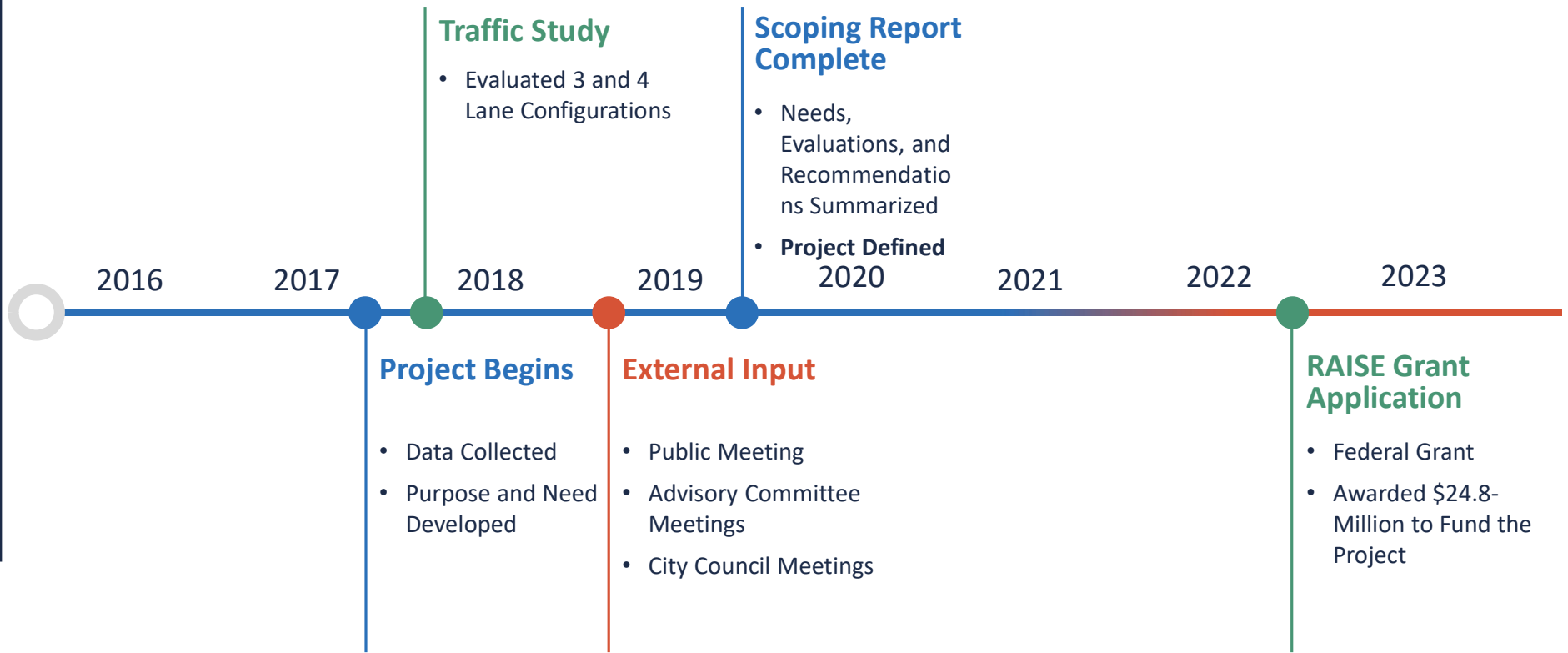
What Does This Mean?

- VTrans will develop design and construction guidelines – need to provide leeway for innovation to occur
- Final features (number of bridge girders, site restoration, etc) may be the decision of the Contractor
- Checks and balances with VTrans maintained

Project Delivery



Schedule – Past

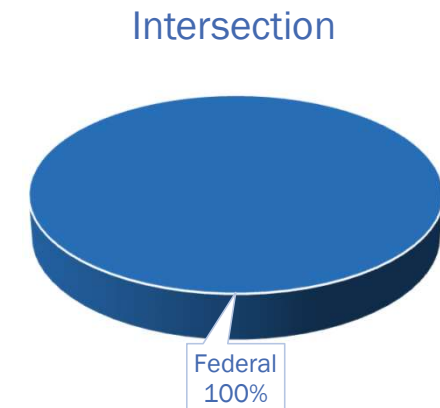
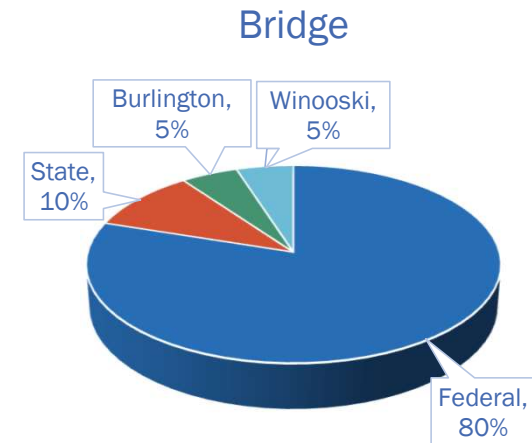


Schedule – Current and Future



Project Costs and Funding

- Project Received a Federal RAISE Grant worth approximately \$24.8-million
- Total Project costs are *conceptually* estimated to be approximately \$60-\$80-million



Questions?



**BURLINGTON
WINOOSKI
BRIDGE**



<https://burlingtonwinooskibridge.vtransprojects.vermont.gov/>

