Chittenden County
I-89 2050 Study

South Burlington City Council

February 16th, 2021

Presentation Overview

1. Project Background & Overview
2. Review Interchange Concept Plans
3. Review Interchange Evaluation
   – *seeking input on metrics and scoring*
   - leading to direction on Interchange Investments
4. Introduce beginning concepts for Bundles
   – *seeking initial input on the bundles*
5. Next Steps

Project Background & Overview

Chittenden County
I-89 2050 Study

Demographic Forecasts

	2015	2050	2015 to 2050 % increase
Population	161,382	183,172	**14%**
Employment	135,511	182,688	**35%**
Household	63,498	79,151	**25%**

CCRPC Board Approved, March 2017

2018 ECOS Plan Metropolitan Transportation Plan Priorities

- 70% of Funding goes to System Preservation
- Concentrate growth in our Villages and Downtowns
  - 90% of HH growth in areas planned for growth
- Safety (HCL) Improvements
- ITS Investments
- TDM Programs
- Increases in walking/biking
- Capacity expansion only when needed

The strategies strike a balance between:


Reducing congestion


Fixing high-crash locations


Enhancing walking, biking & transit


Increasing livability by investing in areas planned for growth

MTP Priorities (Cont'd)

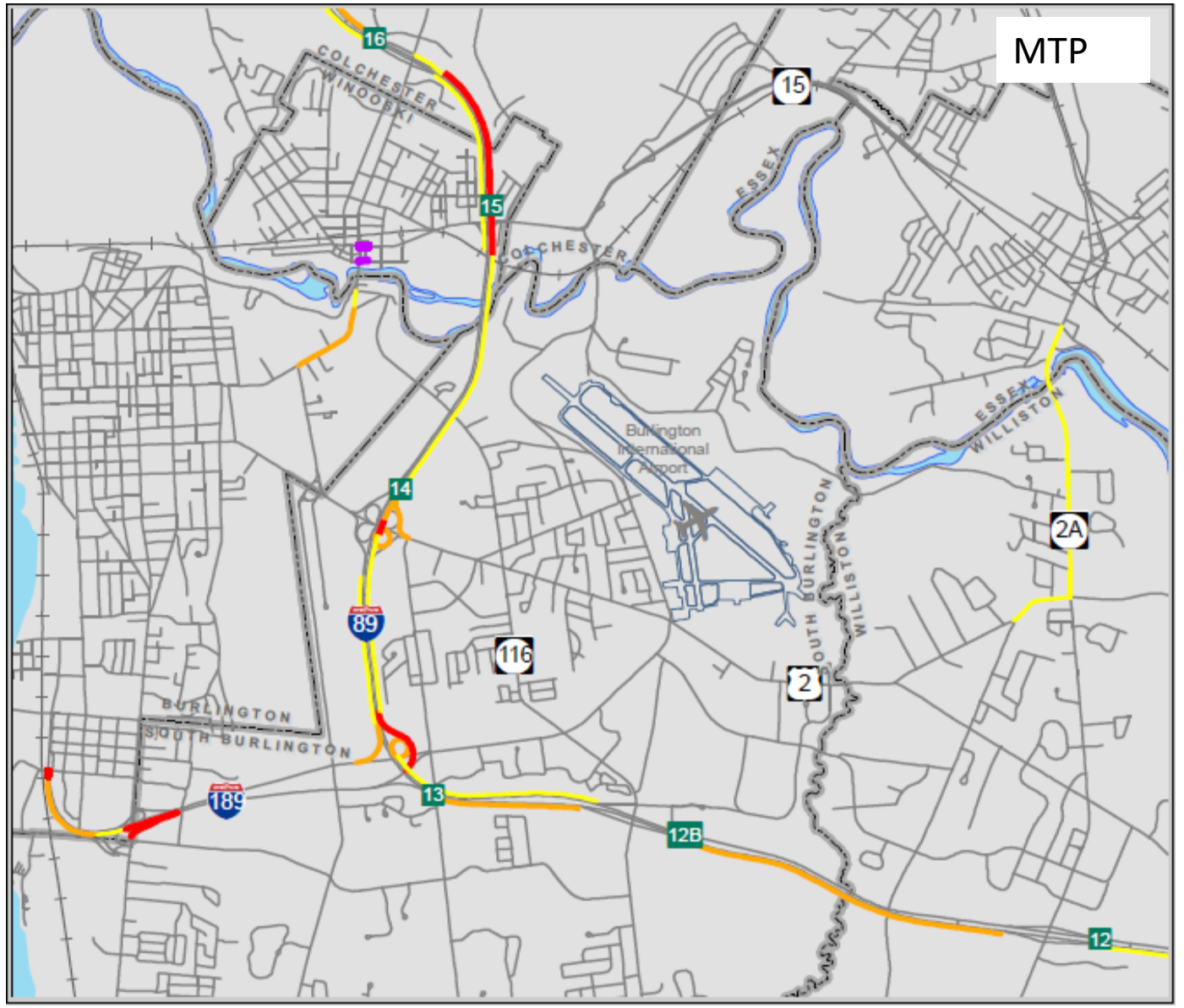
- Transit enhancements
  - 15 minute headways on all trunk routes (US2, US7, VT15 & North Ave)
  - 20 – 30 min headways on all other routes and improved weekend service
  - New Colchester loop
- Identified Need for I-89 2050 Study (Exits 12 to 16)
  - I-89 Third Lane between Exits 14 and 15?
  - Interchange Improvements: Exit 12B (placeholder) **or** Exit 14 reconstruction **or** Exit 14N **or** Exit 13 **or** other?

MTP Outcomes – meeting our transportation /climate/energy goals

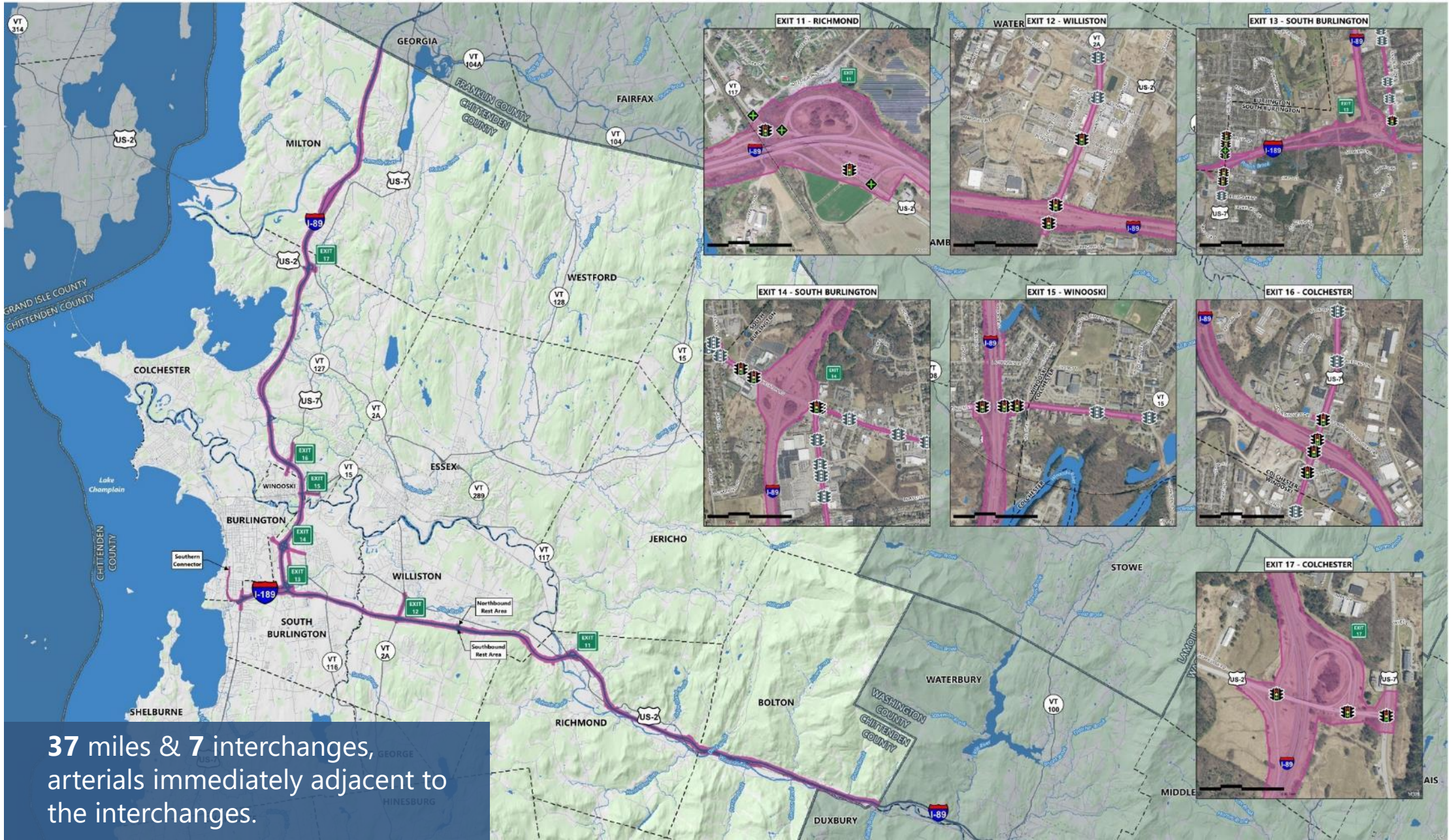
- The significant MTP investment in bike/ped, transit, and park & ride projects, if fully implemented, is estimated to have the following impacts on regional travel through 2050:
  - **2.4%** decrease in Vehicle Miles Traveled (VMT)
  - **4.6%** decrease in Vehicle Hours of Travel (VHT)
  - Increase in Non-Automobile Mode-Share from about **12% to 16%**
  - **90%** fleet electrification to meet the State's energy goal of having 90% of Vermont's energy needs provided by renewable sources by 2050
  - **77%** Reduction in Fuel Consumption compared to 2015

Roadway Capacity

- Balance possible I-89 widening vs. local road improvements
- Pursue alternative ways to reduce congestion
  - Transit, HOV lane, Connected & Autonomous Vehicles
- Increase funding share for alternative modes



Project Study Area



37 miles & **7** interchanges, arterials immediately adjacent to the interchanges.

Chittenden County
I-89 2050 Study

Project Overview

Our schedule for successfully moving from project kick-off through stakeholder engagement and technical evaluations to develop a comprehensive, forward-looking plan for the I-89 corridor.

DISCOVERY

EVALUATION

DECISION MAKING

REPORTING

TASK 1 Project Initiation & Kick-Off

May – June 2019

- Project initiation and kick-off meetings with Technical and Advisory Committees.
- Study area map, Committee meeting materials.
- TC 1 Meeting
- AC 1 Meeting

TASK 2 Analyze Current Conditions & Future Base

May – December 2019

- Existing conditions data collection, coordinate with resource agencies, and develop integrated modeling suite.
- Existing conditions summary, calibrated 2035 and 2050 No build models, Committee meeting materials.
- TC 2 Meetings
- AC 1 Meeting

TASK 3 Corridor Vision & Goals

October 2019 – July 2020

- Articulate Vision and Goals for the corridor through input from Committees, Focus Groups, and the public. Develop 2035 and 2050 Build models.
- Corridor Vision & Goals, Vision & Goals graphic, meeting materials.
- TC 1 Meeting
- AC 1 Meeting
- FG Up to 4
- PM Up to 3

TASK 4 Interchange Evaluation

June – April 2021

- Evaluate transportation and land use implications of new and/or improved interchanges.
- Interchanges evaluation results, selection of interchange improvements to carry forward, Committee meeting materials.
- TC 1 Meeting
- AC 1 Meeting

TASK 5 Alternatives Identification & Evaluation

Late Spring/Summer/ Fall 2021

- Identify preliminary strategies for the corridor and evaluate three 2050 Build alternatives. Present results to Committees, Focus Groups, and the public.
- Three alternatives, evaluation matrix, meeting materials
- TC 2 Meetings
- AC 2 Meetings
- FG Up to 4
- PM Up to 3

TASK 6 Implementation Plan

Fall/Winter 2021/2022

- Identify preferred alternative with phasing recommended for 2035 and 2050.
- Preferred alternative, evaluation matrix, implementation plan, meeting materials.
- TC 1 Meeting
- AC 1 Meeting

TASK 7 Final Report

Winter 2022

- Develop draft and final report.
- Dynamic, action-oriented, future-looking I-89 Corridor Plan
- TC 1 Meeting
- AC 1 Meeting
- PM Up to 3

Activities *Deliverables* *Meetings*

TC *Technical Committee* AC *Advisory Committee* FG *Focus Groups* PM *Public Meeting/ Workshop*

Process after this study

There are likely to be three kinds of recommendations coming out of this study. Each will have a different implementation process. All projects must be included in CCRPC's MTP and TIP if federal funding is required.

- Minor capital investments (shared-use paths, sidewalks, crosswalks, park and ride lots, technology, signage, lane or ramp changes, etc.) – These will follow the normal capital budgeting and implementation process of the responsible agency (VTrans or municipality).
- Operational investments (transit services, transportation demand management programs, etc.) – These will follow the normal operating budget process of the responsible agency (VTrans, GMT, or municipality).
- Major capital investments (Interchange or I-89 projects) – These will have to go through the federally-required NEPA process and will require an Environmental Impact Study (EIS).

The timing of the different types of investments will be included in Task 6 – Implementation Plan and include monitoring of conditions and triggers (what circumstances will trigger the need for improvements).

Current I-89 Vision & Goals

Chittenden County
I-89 2050 Study

The 2050 Vision for the I-89 Corridor through Chittenden County is an interstate system (mainline and interchanges) that is safe, resilient, and provides for reliable and efficient movement of people and goods in support of state, regional, and municipal plans and goals.

- **Safety**: Enhance safety along the I-89 Study Corridor and Adjacent interchanges for all users.
- **Livable, Sustainable and Healthy Communities**: Promote compact growth that supports livable, affordable, vibrant, and healthy communities.
- **Mobility & Efficiency**: Improve the efficiency and reliability of the I-89 Corridor and Adjacent Interchanges for all users.
- **Environmental Stewardship & Resilience**: Establish a resilient I-89 Corridor that minimizes environmental impacts associated with the transportation system.
- **Economic Access & Vitality**: Improve economic access and vitality in Chittenden County.
- **System Preservation**: Preserve and improve the condition and performance of the I-89 Corridor

There is significant uncertainty about long-lasting changes on where people will live and how they will travel in the future due to the COVID-19 pandemic, technology, demographics, and other dynamics. We recognize that the I-89 Vision, Goals, Objectives and implementation actions that will follow will need to be monitored and reassessed periodically to ensure that they address the evolving situation.

• Two Rounds of Interchange Evaluation

Chittenden County
I-89 2050 Study

First Round of Interchanges Evaluated

1. Exit 10A – Bolton
2. Exit 12B – South Burlington
3. Exit 13 Full Interchange – South Burlington
4. Exit 13 U-Turn – South Burlington
5. Exit 13 Hybrid – South Burlington
6. Exit 14N – South Burlington
7. Exit 15 Full Interchange – Winooski
8. Exit 17N - Milton

Second Round of Interchanges Evaluated

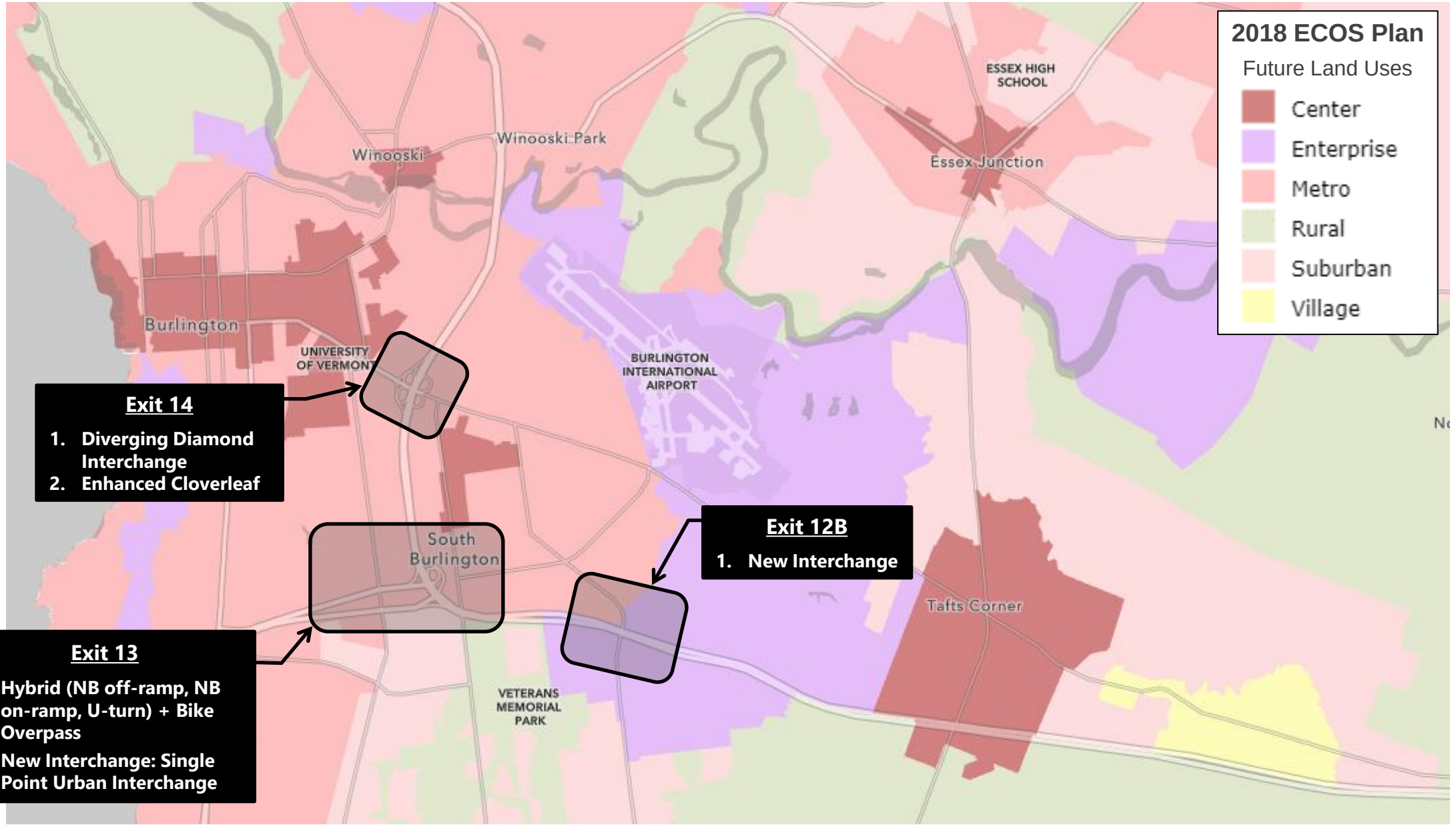
- Exit 12B – South Burlington
- Exit 13 – South Burlington
- Exit 14 – South Burlington

Based on results from the first round of interchange evaluation, the I-89 Advisory Committee voted to advance Exits 12B, 13, and 14 to the second round of evaluation

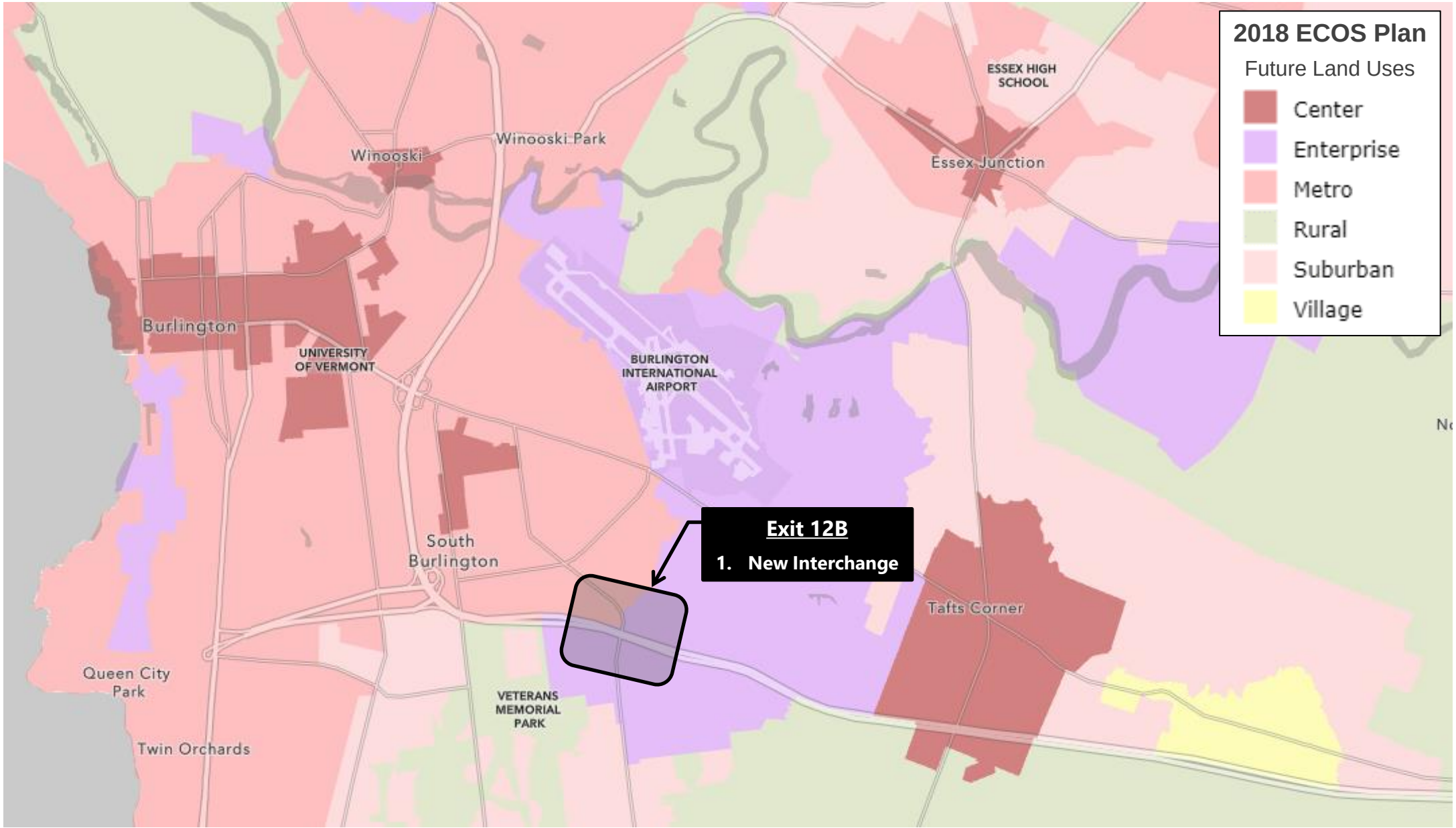
Interchange Concept Plans

Chittenden County
I-89 2050 Study

Second Round of Interchange Evaluation - Overview

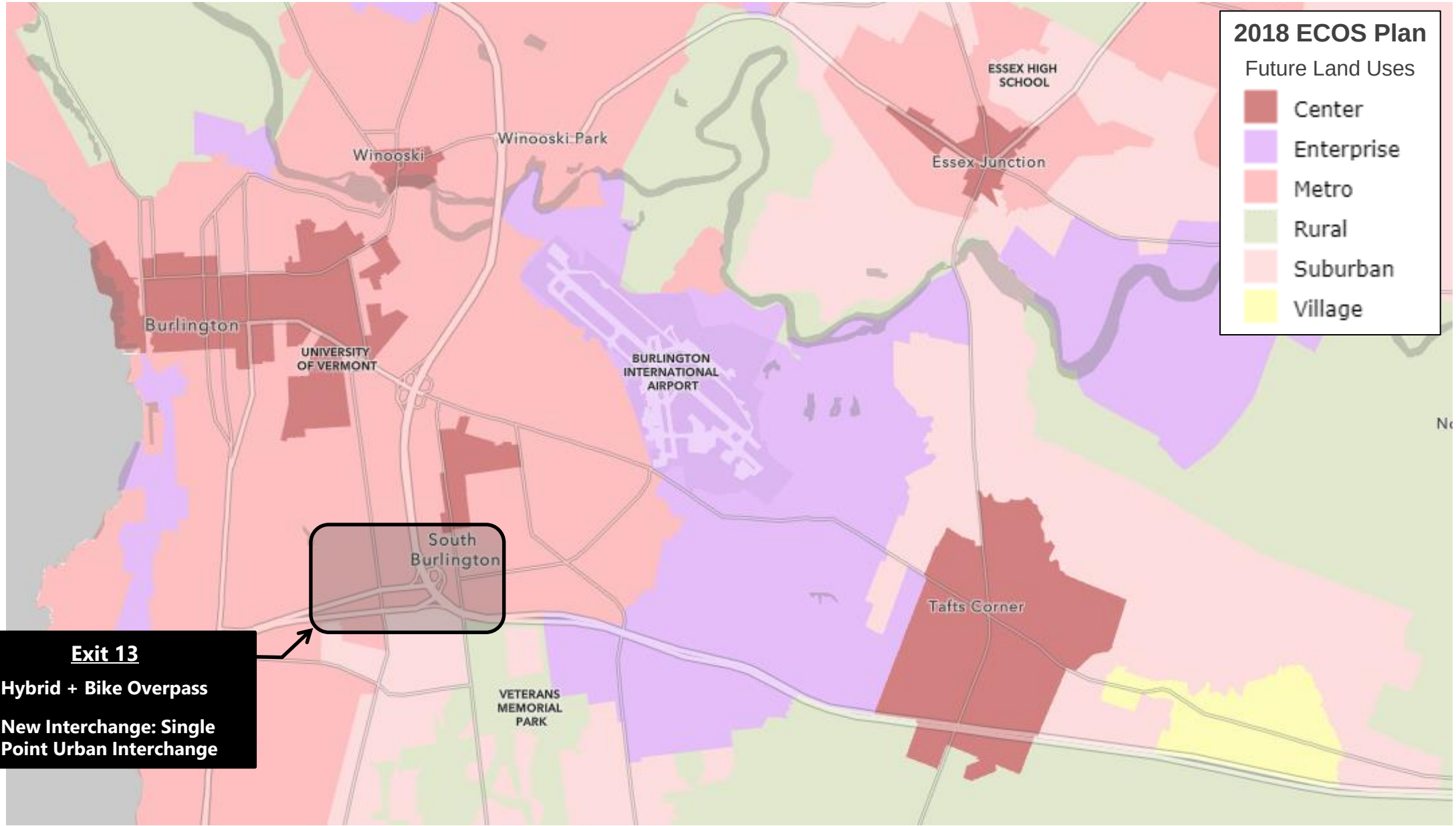


Second Round of Interchange Evaluation: Exit 12B



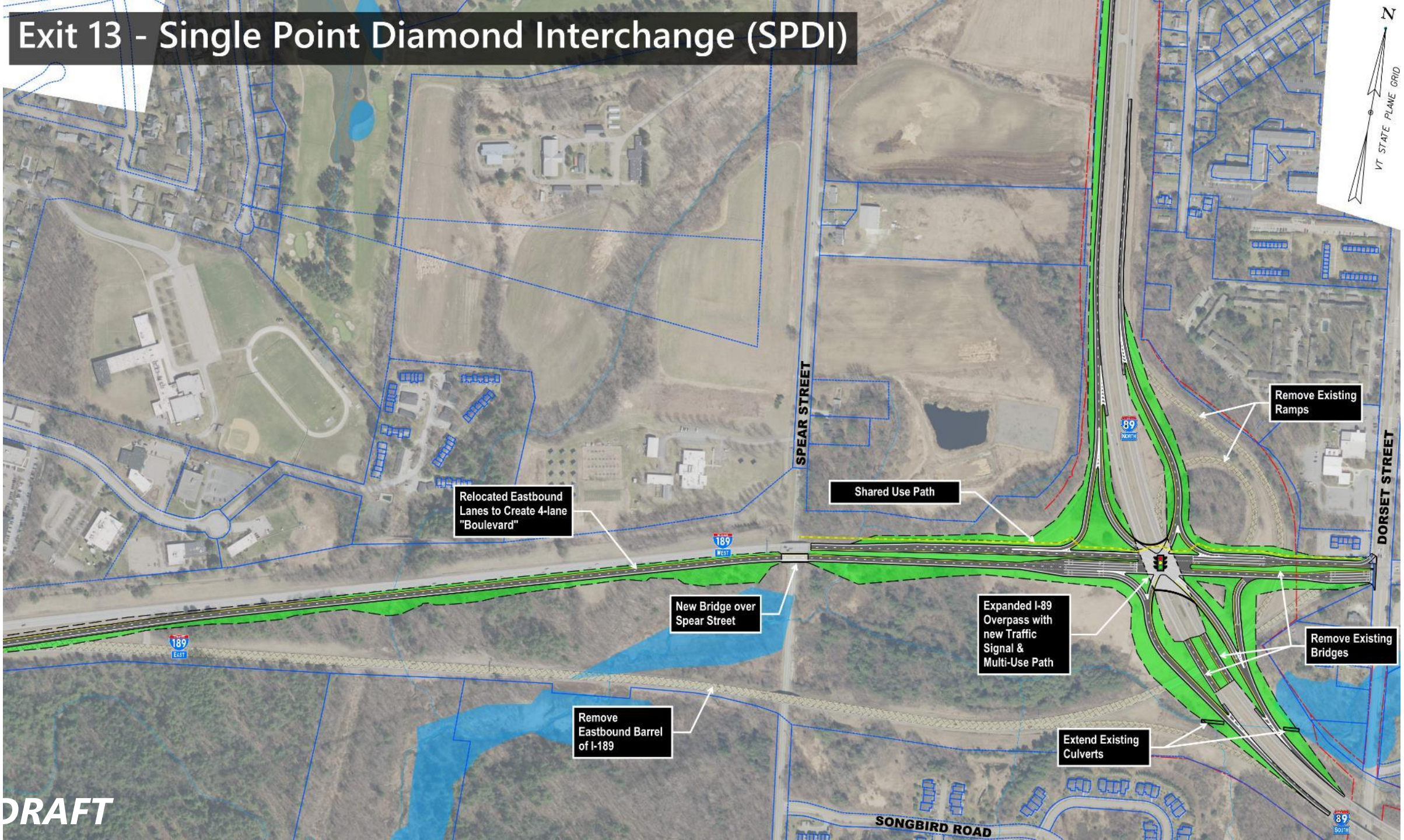

Exit 12B
OLD FARM ROAD
Planned City Street Connection
New Traffic Signal or Roundabout
VT 116 Widened to 4 Lanes
New Traffic Signal or Roundabout
TILLEY DRIVE
New Bridge with Sidewalk & Multi-Use Path
COMMUNITY DRIVE
Northbound On/Off Ramps
Planned Tilley Drive Extension
Southbound On/Off Ramps
New Traffic Signal or Roundabout
116
89 NORTH
89 SOUTH
N
DRAFT

Interchange Evaluation: Exit 13

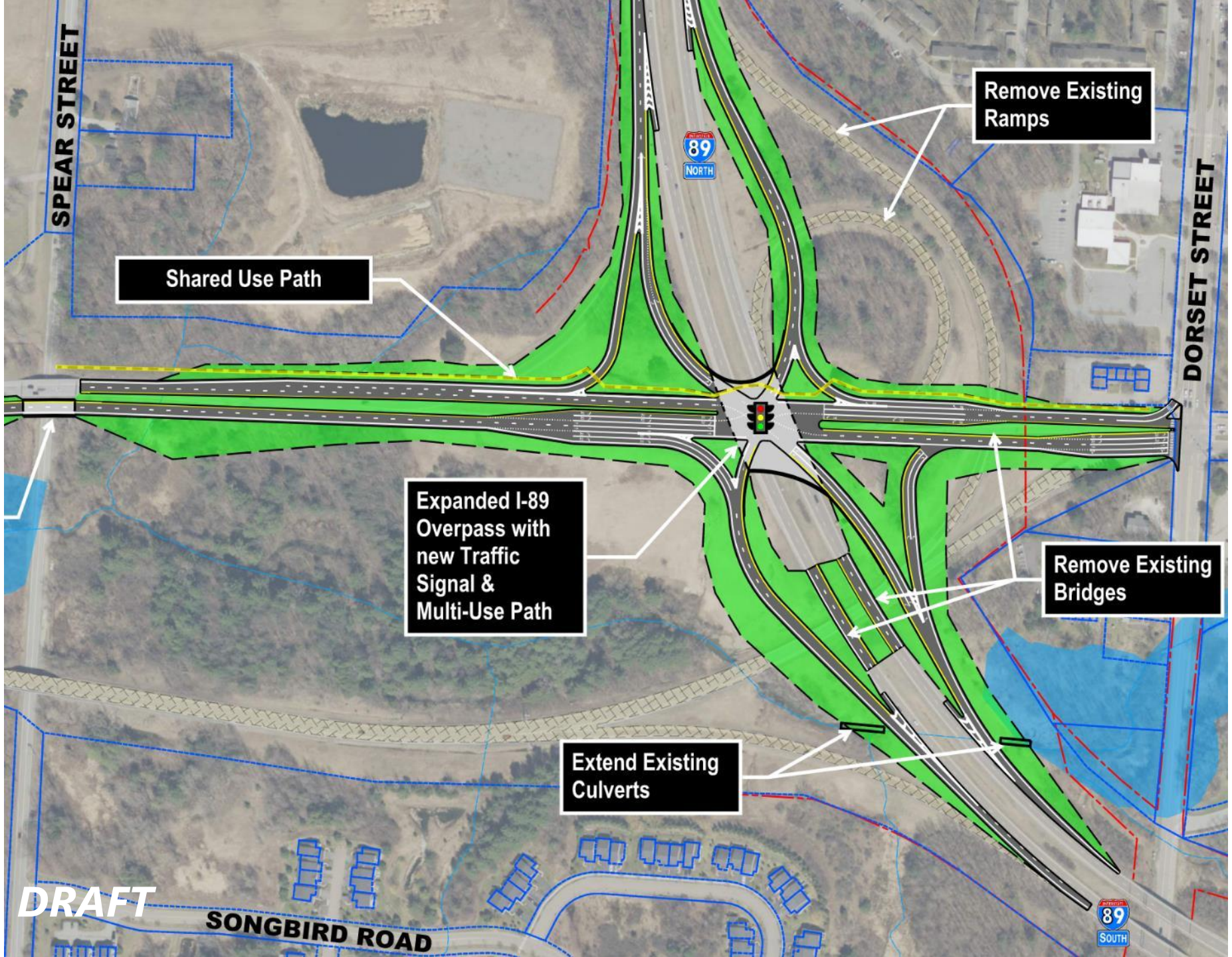



Exit 13 - Hybrid
Pedestrian / Bicycle Overpass
New Shared Use Path
SPEAR STREET
New Northbound On-Ramp
DORSET STREET
KENNEDY DRIVE
189 WEST
89 NORTH
89 SOUTH
New Northbound Off-Ramp
New U-Turn Ramp
189 EAST
N
VT STATE PLANE GRID
DRAFT

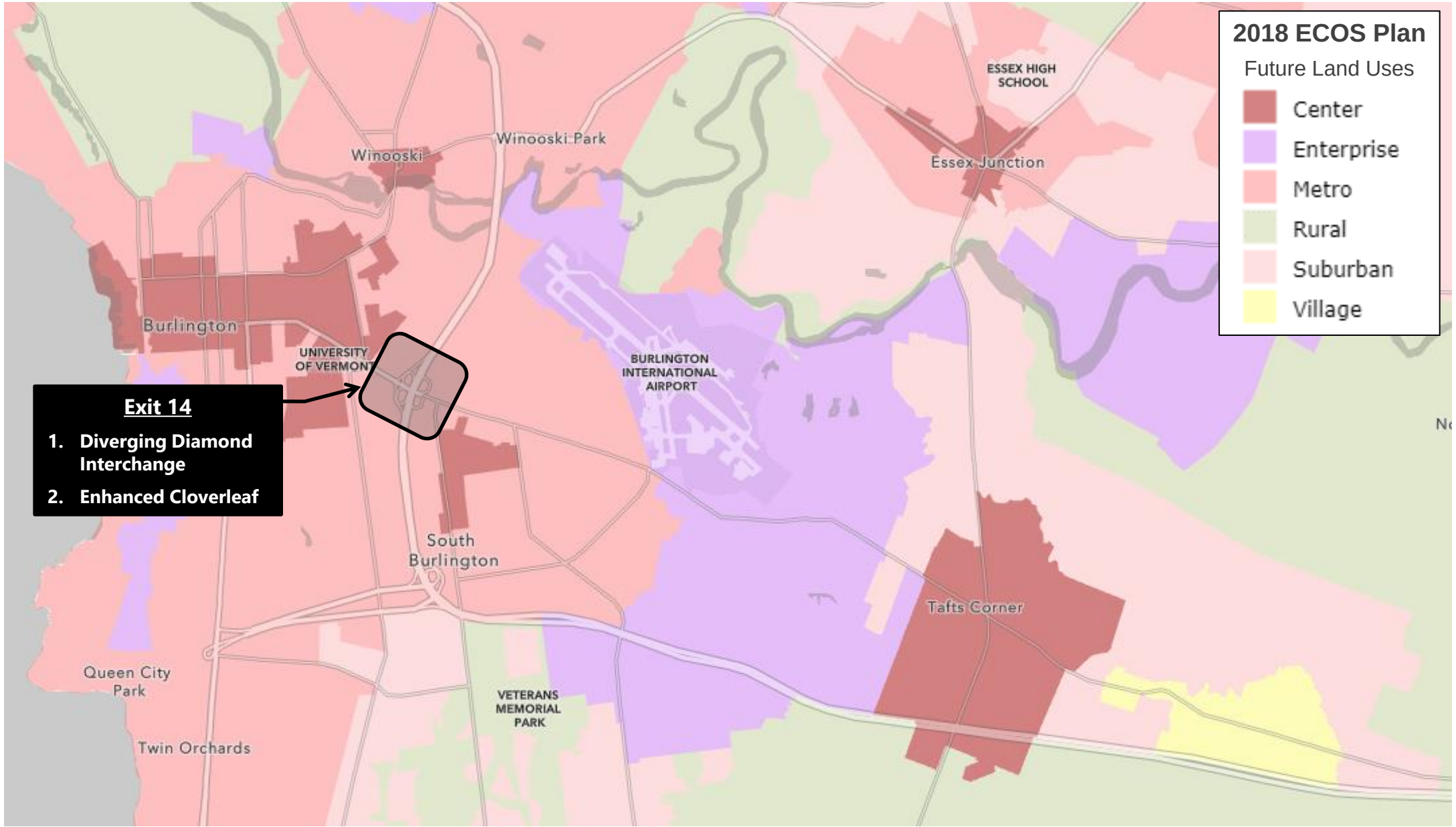
Exit 13 - Single Point Diamond Interchange (SPDI)

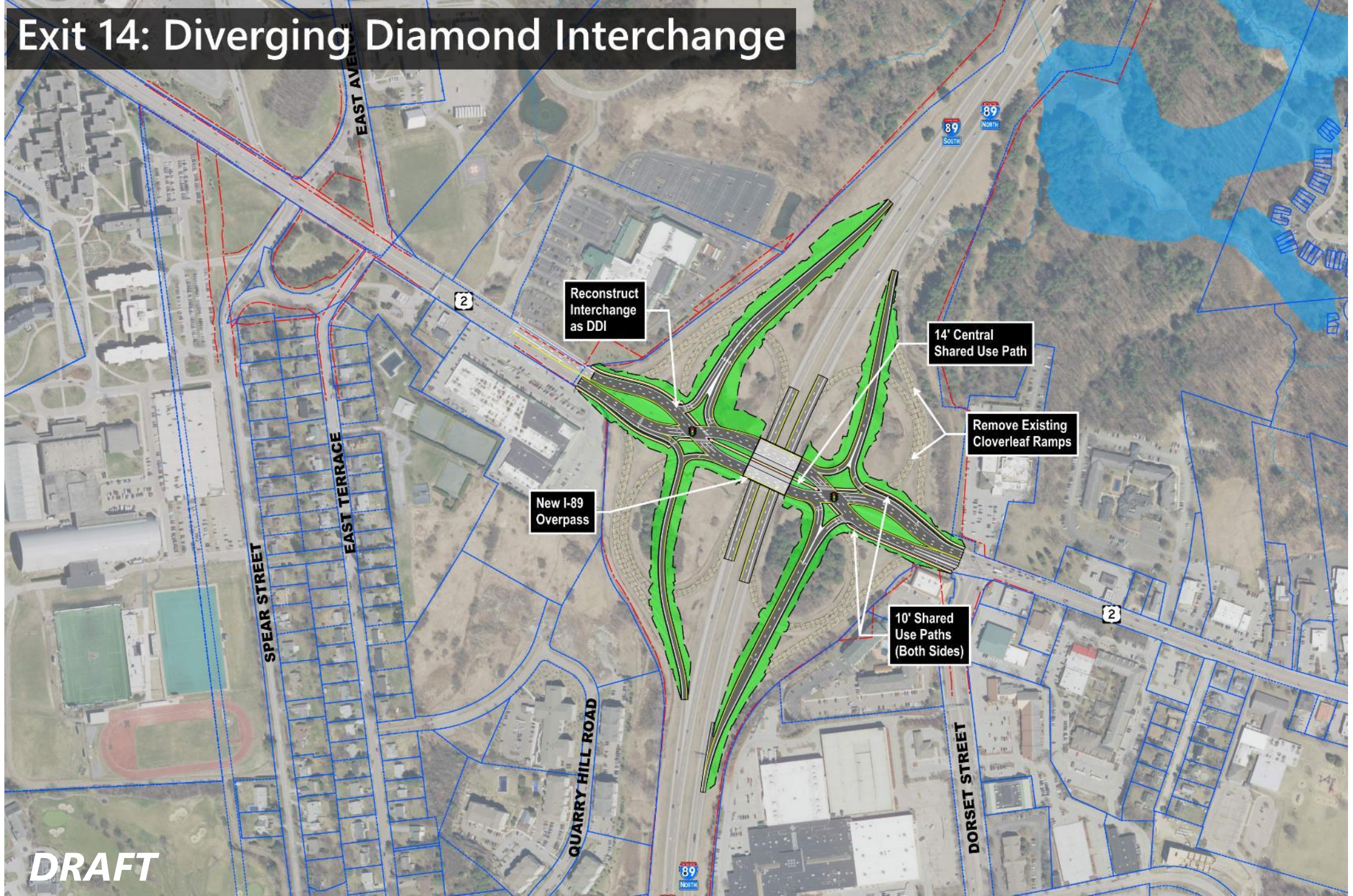


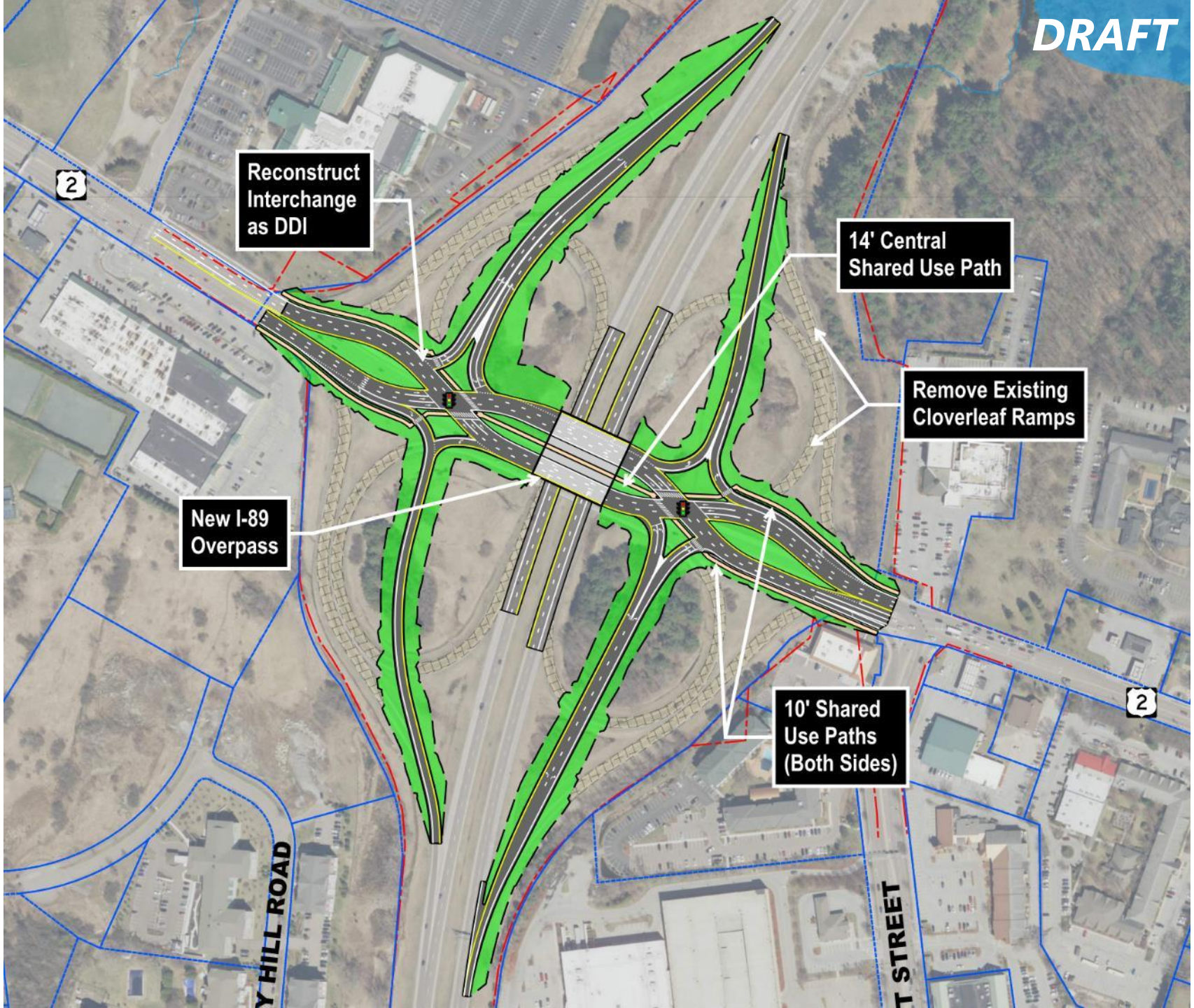
DRAFT


SPEAR STREET
DORSET STREET
Remove Existing Ramps
Shared Use Path
Expanded I-89 Overpass with new Traffic Signal & Multi-Use Path
Remove Existing Bridges
Extend Existing Culverts
89 NORTH
89 SOUTH
SONGBIRD ROAD
DRAFT

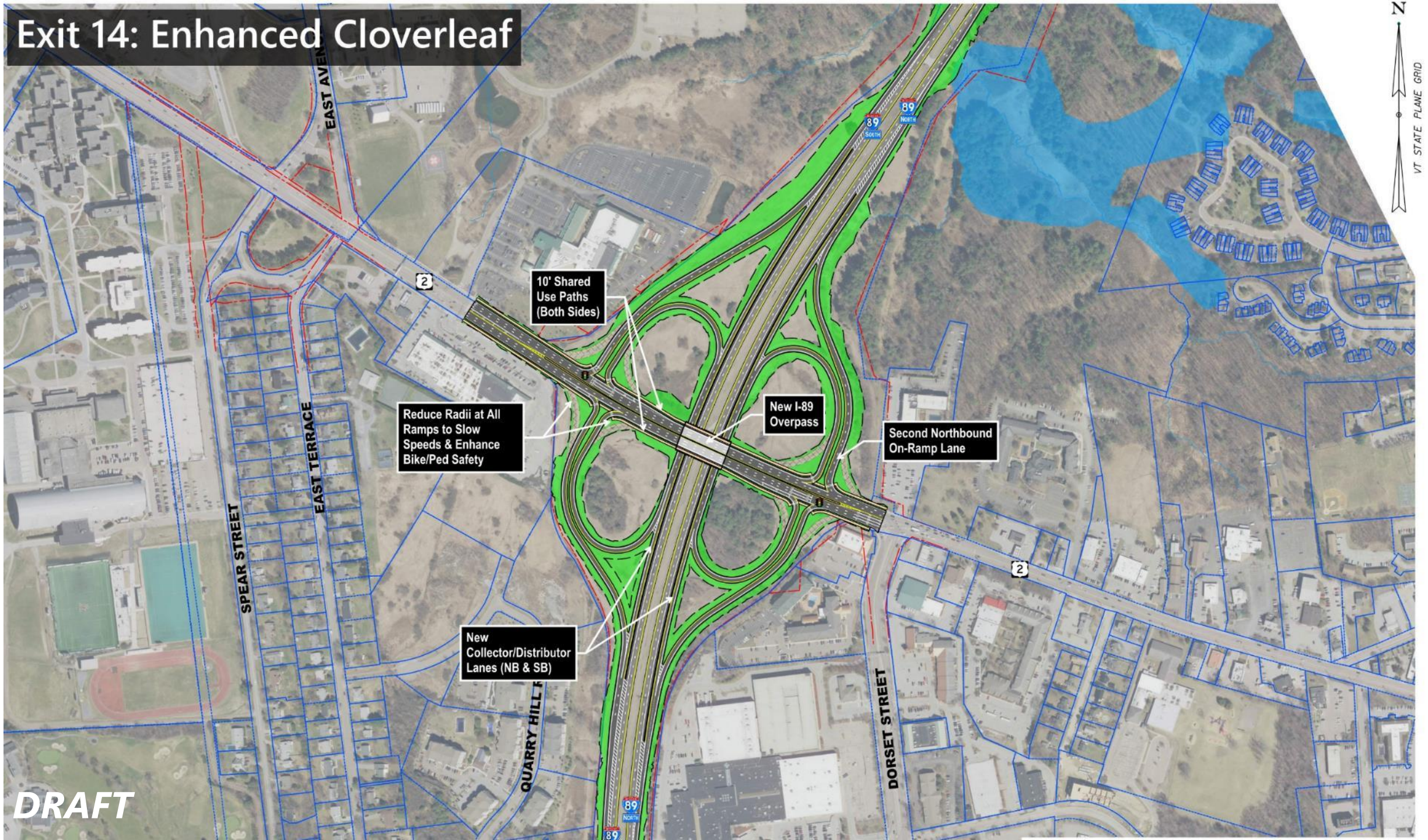
Interchange Evaluation: Exit 14



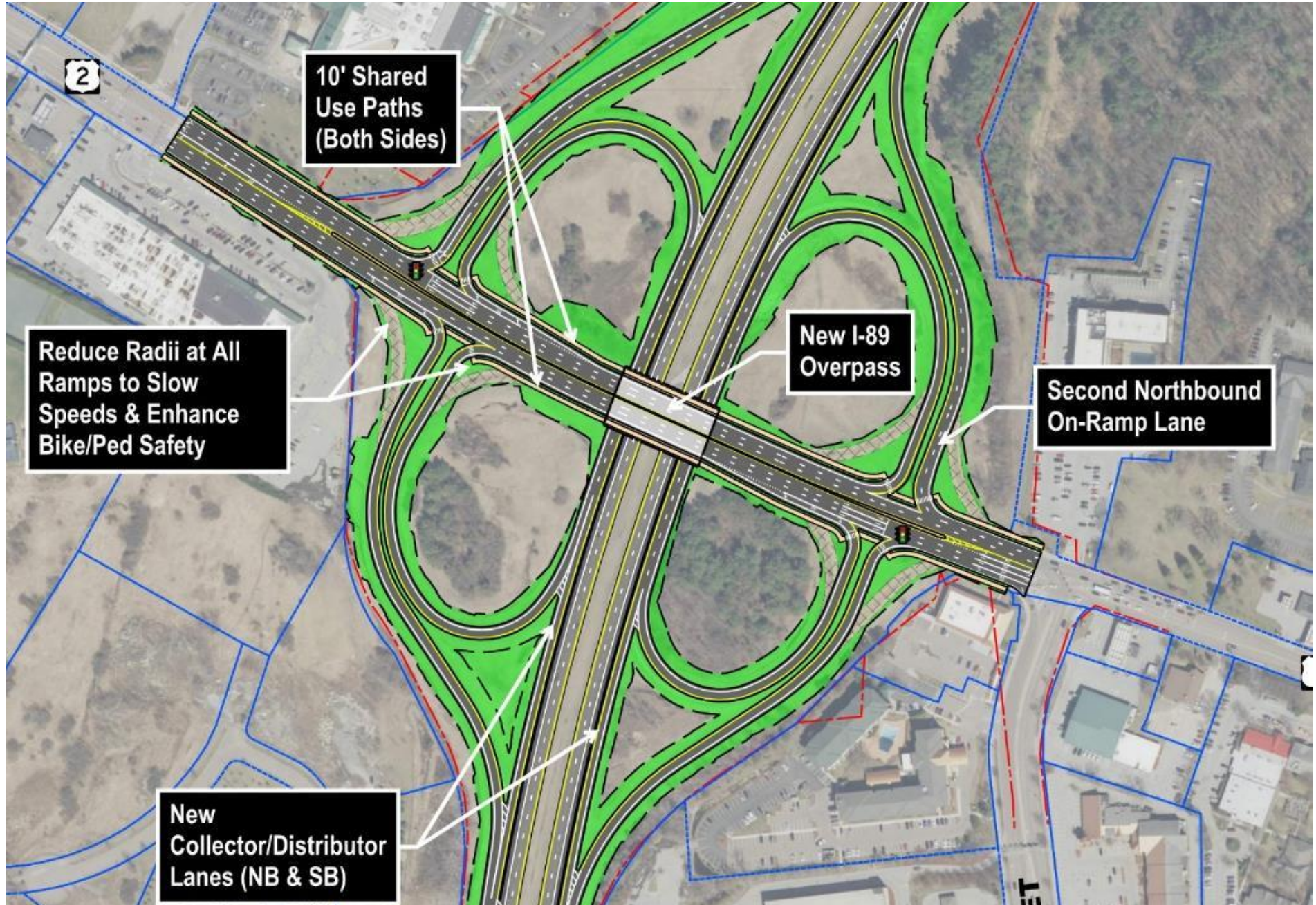

Exit 14: Diverging Diamond Interchange
EAST AVENUE
EAST TERRACE
SPEAR STREET
QUARRY HILL ROAD
DORSET STREET
89 SOUTH
89 NORTH
2
Reconstruct Interchange as DDI
14' Central Shared Use Path
Remove Existing Cloverleaf Ramps
New I-89 Overpass
10' Shared Use Paths (Both Sides)
DRAFT


DRAFT
Reconstruct Interchange as DDI
14' Central Shared Use Path
Remove Existing Cloverleaf Ramps
New I-89 Overpass
10' Shared Use Paths (Both Sides)
2
2
HILL ROAD
STREET

Exit 14: Enhanced Cloverleaf



DRAFT


2
10' Shared Use Paths (Both Sides)
Reduce Radii at All Ramps to Slow Speeds & Enhance Bike/Ped Safety
New I-89 Overpass
Second Northbound On-Ramp Lane
New Collector/Distributor Lanes (NB & SB)

Chittenden County
I-89 2050 Study

Interchange Evaluation

Second Round Interchange Evaluation Metrics – 1 of 2

SAFETY GOAL: *Enhance safety along the I-89 Study Corridor and Adjacent Interchanges for all users*

- Ramp Spacing
- Safety Impact
- Bike/Ped Safety

LIVABLE, SUSTAINABLE, & HEALTHY COMMUNITIES GOAL: *Promote compact growth that supports livable, affordable, vibrant, and healthy communities.*

- Consistent with Regional Plan
- ROW Impacts
- Environmental Justice / Underserved Populations

MOBILITY & EFFICIENCY GOAL: *Improve the efficiency and reliability of the I-89 Corridor and Adjacent Interchanges for all users.*

- Interchange Trips
- VMT
- VHT
- I-89 Corridor V/C
- Average Delay
- Bike/Ped Connectivity

Second Round Interchange Evaluation Metrics – 2 of 2

ENVIRONMENTAL STEWARDSHIP GOAL: *Establish a resilient I-89 Corridor that minimizes environmental impacts associated with the transportation system.*

- Wetland Impacts
- River Corridors
- Natural Habitats
- Fuel Consumption

ECONOMIC ACCESS GOAL: *Improve economic access and vitality in Chittenden County.*

- Connectivity to Areas Planned for Growth
- Job Access

SYSTEM PRESERVATION GOAL: *Preserve and improve the condition and performance of the I-89 corridor.*

- Asset Maintenance Cost
- Construction Cost
- Maintenance & Construction Cost

Draft Evaluation Scoring Process

- Metrics were identified and evaluated for each goal. Many are specific to the interchange evaluation stage. Others are more general and can be used for evaluating bundles in the next stage.
  - Are there any metrics that should be changed or added at this stage?

- Scoring was applied to the metric results to highlight differences between interchanges:
  - The results were scored with a range from 0-4 comparing the lowest to the highest so that each result received points based upon which quintile it fell in.
  - Should some of the metrics be scored on a different basis?
    For example, compared to a base of 0, compared to 2015, or compared to a no-build?

Second Round Interchange Evaluation Matrix

- Two summary tables
  - Raw metric values (left)
  - Metric scores (right)
- Organized by project goal
- 26 total scored metrics
  - *Rows in gray provided for information only (not scored)*
- Metric scores :
  - (0 = low, 4 = high)

These matrices are attached separately and on the website.

Chittenden County I-89 2050 Study

DRAFT Second Round Interchange Screening Matrix

Metric	Metric Description	Units	2050 Base Scenario	Exit 12B New Interchange	Exit 13 Hybrid + Bike Overpass	Exit 13 SPDI	Exit 14 Enhanced Cloverleaf	Exit 14 DDI
SAFETY: Enhance safety along the I-89 Study Corridor and Adjacent Interchanges for all users								
Ramp Spacing	Meets AASHTO Standard for Ramp Spacing to Next Closest Interchange	Yes / No	N/A	Yes	Yes*	Yes	Yes	Yes
Safety Impact	Interactive Highway Safety Design Model (IHSDM) Change in Total Crashes across the Network	% Change in Total Estimated Crashes Compared to 2050 Base Scenario	N/A	-3.2%	-1.3%	0.4%	-5.0%	-2.8%
	Interactive Highway Safety Design Model (IHSDM) Change in Fatal and Injury Crashes across the Network	% Change in Estimated Injury / Fatal Crashes Compared to 2050 Base Scenario	N/A	-1.1%	-1.9%	-3.1%	-4.5%	-2.3%
Bike/Ped Safety	Safety Improvements for Bicyclists and Pedestrians based on Proposed Accommodations, Number of Conflicts Points, and Type of Conflict Point	Relative Level of Safety Improvement for Bicyclists and Pedestrians	N/A	Improved	Significantly Improved	Improved	Improved	Improved
Safety / Operational Commentary					*Left Off-Ramp and Left On-Ramp Not Advised	Declassify I-189 from Interstate to Limited Access State Highway	C-D Road Advised at Current/Future Volumes for Loop Ramps	Removes Merge on Mainline
LIVABLE, SUSTAINABLE, & HEALTHY COMMUNITIES: Promote compact growth that supports livable, affordable, vibrant, and healthy communities.								
Consistent with Regional Plan	Proportion of 2020 to 2050 Household Growth Located in Growth Zones Inclusive of Secondary Growth (includes Center, Enterprise, Metro, Village and Suburban Designations)	Total Secondary Growth Households	0	593	203	203	0	0
		Proportion of 2020 to 2050 Household Growth Located in Growth Zones Inclusive of Secondary Growth	90.24%	90.40%	90.33%	90.33%	90.24%	90.24%
ROW Impacts	Approximate area of ROW impacts based on limit of disturbance around the interchange	Acres of ROW Disturbance	N/A	4.0	0.2	0.0	0.4	0.1
Environmental Justice / Underserved Populations	Additional Travel Time for Traffic Analysis Zones Identified as EJ communities	Minutes of Additional Travel Time in 2050	N/A	0.019	0.022	0.011	0.018	0.023
	Average Trip Length in the Model	Average Trip Length in minutes	15.69	15.61	15.66	15.68	15.69	15.72
	Additional Travel Time for EJ TAZs as a Percent of Average Trip Length	% Additional Travel Time per Average Trip in 2050	N/A	0.12%	0.14%	0.07%	0.12%	0.15%
MOBILITY & EFFICIENCY: Improve the efficiency and reliability of the I-89 Corridor and Adjacent Interchanges for all users.								
Interchange Trips	Daily trips using new interchange in 2050	Total Trips Using New Interchange in 2050	N/A	24,321	56,198	57,334	49,677	46,924
	Number of daily trips using the Exit 14 Interchange	# of Daily Trips Using Exit 14	51,929	47,226	46,654	45,319	49,677	46,924
		Percent Change in # of Daily Trips Using Exit 14	N/A	-9.1%	-10.2%	-12.7%	-4.3%	-9.6%
VMT	Networkwide change in Vehicle Miles of Travel (VMT) per vehicle trip with interchange improvement and projected growth compared to the Future Base Model	Total VMT	5,207,449	5,219,058	5,206,473	5,201,707	5,203,632	5,200,102
		VMT per vehicle trip	8.103	8.087	8.097	8.090	8.097	8.092
		% Change in VMT per vehicle trip in 2050	N/A	-0.20%	-0.07%	-0.17%	-0.07%	-0.14%
VHT	Networkwide change in Vehicle Hours of Travel (VHT) with interchange improvement and projected growth compared to the Future Base Model	Total VHT	147,758	147,394	147,452	147,636	147,737	147,906
		% Change in VHT in 2050	N/A	-0.25%	-0.21%	-0.08%	-0.01%	0.10%
I-89 Corridor V/C	Mainline corridor congestion as indicated by the number of miles with v/c of greater than or equal to 0.9	Miles of Mainline with Severe Congestion	1.34	2.18	1.34	1.34	1.34	1.34
Average Delay	Change in 2050 PM Peak Hour Delay at Exit 14	Change in Average Delay per Trip (seconds)	N/A	-40	-34	-37	-47	-41
Bike/Ped Connectivity	Bicyclist and Pedestrian Connectivity Improvements Across I-89 Based on Existing and Proposed Accomodations	Level of Bike/Ped Connectivity Improvements	N/A	Improved	Significantly Improved	Significantly Improved	Improved	Improved
ENVIRONMENTAL STEWARDSHIP: Establish a resilient I-89 Corridor that minimizes environmental impacts associated with the transportation system.								
Wetland Impacts	Approximate area of wetland/wetland buffer impacts based on the estimated limits of disturbance for the interchange improvements	Acres of Impact to VSWI Wetlands	N/A	0	0.4	0.1	0.1	0
		Acres of Impact to 50 ft Wetland Buffers	N/A	0.1	1.0	0.5	0.3	0
River Corridors	Approximate area of river corridor, floodway, and 100-year flood zone impacts based on the estimated limits of disturbance for the interchange improvements	Acres of Impact to River Corridors	N/A	0	1.1	1.8	0	0
		Acres of Impact to 100-year Flood Zone	N/A	0	1.1	0.5	0	0
Natural Habitats	Approximate area of rare, threatened, and endangered (RTE) species impacts based on the estimated limits of disturbance for the interchange improvements	Acres of RTE Impacts	N/A	7	0	0	0	0
Resilience	Percent Change Network Trip Robustness (NTR)	Percent change in robustness	N/A	-0.38%	0.81%	0.93%	-0.08%	-0.14%
Fuel Consumption	Total Fuel Consumption Across Model Network (based on 2050 projection assuming MTP Investments and 90% electric vehicle fleet)	Total Gallons of Fuel Consumed per Day in 2050	40,744	40,835	40,736	40,699	40,714	40,686
		% Change in Gallons of Fuel Consumed per Day in 2050	N/A	0.22%	-0.02%	-0.11%	-0.07%	-0.14%
ECONOMIC ACCESS: Improve economic access and vitality in Chittenden County.								
Connectivity to Areas Planned for Growth	Percentage of land area within 1 mile of interchange that is classified as an ECOS Growth Zone (includes Center, Enterprise, Metro, Village and Suburban Designations)	Percentage of area within 1 mile of interchange in ECOS Growth Zone	N/A	87%	90%	90%	100%	100%
Job Access	Total number of projected new jobs in 2050 compared to 2020 within 1 radial mile of the interchange including adopted job projections and secondary growth	Total number of New Jobs within 1 Radial Mile of the Interchange	N/A	3,054	2,461	2,461	4,133	4,133
	Total number of projected 2050 jobs within 1 radial mile of the new interchange infrastructure including adopted job projections and secondary growth	Total Number of Jobs Within 1 Radial Mile of Interchange	N/A	11,416	9,592	9,592	27,220	27,220
SYSTEM PRESERVATION: Preserve and improve the condition and performance of the I-89 corridor.								
Asset Maintenance Cost	Estimated 30-year asset maintenance costs at Exits 12B, 13 & 14 combined	Asset Maintenance Cost (Bridges & Culverts) for Exits 12B, 13, & 14 combined (not including assets replaced with construction)	$94,151,074	$88,516,699	$90,832,324	$48,464,064	$74,859,153	$84,840,338
Construction Cost	Estimated cost for the interchange improvements	Planning-Level Cost Estimate (millions of 2020 dollars) (includes PE, CON, and contingency)	$0	$29,000,000	$15,000,000	$61,000,000	$44,000,000	$37,000,000
		Remaining MTP Allocation for Interstate and Interchange Projects (MTP Allocation - Cost Estimate)	$74,300,000	$45,300,000	$59,300,000	$13,300,000	$30,300,000	$37,300,000
Maintenance & Construction Cost	Estimated cost for the interchange improvements plus 30-year asset maintenance costs at Exits 12B, 13 & 14 combined	Total 2050 Cost (inclusive of asset maintenance and new construction costs)	$94,151,074	$117,516,699	$105,832,324	$109,464,064	$118,859,153	$121,840,338
		Incremental Additional Cost	$0	$23,365,625	$11,681,250	$15,312,990	$24,708,079	$27,689,264

Chittenden County I-89 2050 Study

DRAFT Second Round Interchange Screening Matrix

Metric	Metric Description	Units	Exit 12B New Interchange	Exit 13 Hybrid + Bike Overpass	Exit 13 SPDI	Exit 14 Enhanced Cloverleaf	Exit 14 DDI
SAFETY: Enhance safety along the I-89 Study Corridor and Adjacent Interchanges for all users							
Ramp Spacing	Meets AASHTO Standard for Ramp Spacing to Next Closest Interchange	Yes / No	4	3	4	4	4
Safety Impact	Interactive Highway Safety Design Model (IHSDM) Change in Total Crashes across the Network	% Change in Total Estimated Crashes Compared to 2050 Base Scenario	3	1	0	4	2
	Interactive Highway Safety Design Model (IHSDM) Change in Fatal and Injury Crashes across the Network	% Change in Estimated Injury / Fatal Crashes Compared to 2050 Base Scenario	0	1	2	4	1
Bike/Ped Safety	Safety Improvements for Bicyclists and Pedestrians based on Proposed Accommodations, Number of Conflicts Points, and Type of Conflict Point	Relative Level of Safety Improvement for Bicyclists and Pedestrians	2	4	3	2	2
Safety / Operational Commentary				*Left Off-Ramp and Left On-Ramp Not Advised	Declassify I-189 from Interstate to Limited Access State Highway	C-D Road Advised at Current/Future Volumes for Loop Ramps	Removes Merge on Mainline
LIVABLE, SUSTAINABLE, & HEALTHY COMMUNITIES: Promote compact growth that supports livable, affordable, vibrant, and healthy communities.							
Consistent with Regional Plan	Proportion of 2050 Households Located in ECOS Growth Zones Inclusive of Secondary Growth (includes Center, Enterprise, Metro, Village and Suburban Designations)	Total Secondary Growth Households					
		Proportion of 2050 Households Located in Growth Zones Inclusive of Secondary Growth	4	4	4	4	4
ROW Impacts	Approximate area of ROW impacts based on limit of disturbance around the interchange	Acres of ROW Disturbance	0	3	4	3	4
Environmental Justice / Underserved Populations	Additional Travel Time for Traffic Analysis Zones Identified as EJ communities	Minutes of Additional Travel Time in 2050					
	Average Trip Length in the Model	Average Trip Length in minutes					
	Additional Travel Time as a Percent of Average Trip Length	% Additional Travel Time per Average Trip in 2050	2	2	2	2	2
MOBILITY & EFFICIENCY: Improve the efficiency and reliability of the I-89 Corridor and Adjacent Interchanges for all users.							
Interchange Trips	Daily trips using new interchange in 2050	Total Trips Using New Interchange in 2050					
	Number of daily trips using the Exit 14 Interchange	# of Daily Trips Using Exit 14					
		Percent Change in # of Daily Trips Using Exit 14	2	3	4	4	1
VMT	Networkwide change in Vehicle Miles of Travel (VMT) per vehicle trip with interchange improvement and projected growth compared to the Future Base Model	Total VMT					
		VMT per vehicle trip					
		% Change in VMT per vehicle trip in 2050	4	0	3	0	2
VHT	Networkwide change in Vehicle Hours of Travel (VHT) with interchange improvement and projected growth compared to the Future Base Model	Total VHT					
		% Change in VHT in 2050	4	4	2	1	0
I-89 Corridor V/C	Mainline corridor congestion as indicated by the number of miles with v/c of greater than or equal to 0.9	Miles of Mainline with Severe Congestion	0	4	4	4	4
Average Delay	Change in 2050 PM Peak Hour Delay at Exit 14	Change in Average Delay per Trip (seconds)	2	0	1	4	2
Bike/Ped Connectivity	Bicyclist and Pedestrian Connectivity Improvements Across I-89 Based on Existing and Proposed Accomodations	Level of Bike/Ped Connectivity Improvements	2	4	4	2	2
ENVIRONMENTAL STEWARDSHIP: Establish a resilient I-89 Corridor that minimizes environmental impacts associated with the transportation system.							
Wetland Impacts	Approximate area of wetland/wetland buffer impacts based on the estimated limits of disturbance for the interchange improvements	Acres of Impact to VSWI Wetlands	4	0	4	4	4
		Acres of Impact to 50 ft Wetland Buffers	4	0	2	3	4
River Corridors	Approximate area of river corridor, floodway, and 100-year flood zone impacts based on the estimated limits of disturbance for the interchange improvements	Acres of Impact to River Corridors	4	1	0	4	4
		Acres of Impact to 100-year Flood Zone	4	0	2	4	4
Natural Habitats	Approximate area of rare, threatened, and endangered (RTE) species impacts based on the estimated limits of disturbance for the interchange improvements	Acres of RTE Impacts	0	4	4	4	4
Resilience	Percent Change Network Trip Robustness (NTR)	Percent change in robustness	0	4	4	1	0
Fuel Consumption	Total Fuel Consumption Across Model Network (based on 2050 projection assuming MTP Investments and 90% electric vehicle fleet)	Total Gallons of Fuel Consumed per Day in 2050					
		% Change in Gallons of Fuel Consumed per Day in 2050	0	3	4	4	4
ECONOMIC ACCESS: Improve economic access and vitality in Chittenden County.							
Connectivity to Areas Planned for Growth	Percentage of land area within 1 mile of interchange that is classified as an ECOS Growth Zone (includes Center, Enterprise, Metro, Village and Suburban Designations)	Percentage of area within 1 mile of interchange in ECOS Growth Zone	0	1	1	4	4
Job Access	Total number of projected new jobs in 2050 compared to 2020 within 1 radial mile of the interchange including adopted job projections and secondary growth	Total number of New Jobs within 1 Radial Mile of the Interchange	1	0	0	4	4
	Total number of projected 2050 jobs within 1 radial mile of the new interchange infrastructure including adopted job projections and secondary growth	Total Number of Jobs Within 1 Radial Mile of Interchange	0	0	0	4	4
SYSTEM PRESERVATION: Preserve and improve the condition and performance of the I-89 corridor.							
Asset Maintenance Cost	Estimated 30-year asset maintenance costs at Exits 12B, 13 & 14 combined	Asset Maintenance Cost (Bridges & Culverts) for Exits 12B, 13, & 14 combined (not including assets replaced with construction)	0	0	4	1	0
Construction Cost	Estimated cost for the interchange improvements	Planning-Level Cost Estimate (millions of 2020 dollars) (includes PE, CON, and contingency)	3	4	0	1	2
		Remaining MTP Allocation for Interstate and Interchange Projects (MTP Allocation - Cost Estimate)					
Maintenance & Construction Cost	Estimated cost for the interchange improvements plus 30-year asset maintenance costs at Exits 12B, 13 & 14 combined	Total 2050 Cost (inclusive of asset maintenance and new construction costs)	1	4	3	0	0
		Incremental Additional Cost					

Goal: **Safety**

Chittenden County I-89 2050 Study

DRAFT Second Round Interchange Screening Matrix

Metric	Metric Description	Units	*2050 Base Scenario*		Exit 12B *New Interchange*	Exit 13 *Hybrid + Bike Overpass*	Exit 13 *SPDI*		Exit 14 *Enhanced Cloverleaf*	Exit 14 *DDI*
SAFETY: Enhance safety along the I-89 Study Corridor and Adjacent Interchanges for all users										
Ramp Spacing	Meets AASHTO Standard for Ramp Spacing to Next Closest Interchange	*Yes / No*	N/A		Yes	Yes*	Yes		Yes	Yes
Safety Impact	Interactive Highway Safety Design Model (IHSDM) Change in Total Crashes across the Network	*% Change in Total Estimated Crashes Compared to 2050 Base Scenario*	N/A		-3.2%	-1.3%	0.4%		-5.0%	-2.8%
	Interactive Highway Safety Design Model (IHSDM) Change in Fatal and Injury Crashes across the Network	*% Change in Estimated Injury / Fatal Crashes Compared to 2050 Base Scenario*	N/A		-1.1%	-1.9%	-3.1%		-4.5%	-2.3%
Bike/Ped Safety	Safety Improvements for Bicyclists and Pedestrians based on Proposed Accommodations, Number of Conflicts Points, and Type of Conflict Point	*Relative Level of Safety Improvement for Bicyclists and Pedestrians*	N/A		Improved	Significantly Improved	Significantly Improved		Improved	Improved
Safety / Operational Commentary						*Left Off-Ramp and Left On-Ramp Not Advised	Declassify I-189 from Interstate to Limited Access State Highway		C-D Road Advised at Current/Future Volumes for Loop Ramps	Removes Merge on Mainline

Goal: **Safety**

Chittenden County I-89 2050 Study
DRAFT Second Round Interchange Screening Matrix

Metric	Metric Description	*Units*	Exit 12B *New Interchange*	Exit 13 *Hybrid + Bike Overpass*	Exit 13 *SPDI*	Exit 14 *Enhanced Cloverleaf*	Exit 14 *DDI*
SAFETY: Enhance safety along the I-89 Study Corridor and Adjacent Interchanges for all users							
Ramp Spacing	Meets AASHTO Standard for Ramp Spacing to Next Closest Interchange	*Yes / No*	4	3	4	4	4
Safety Impact	Interactive Highway Safety Design Model (IHSDM) Change in Total Crashes across the Network	*% Change in Total Estimated Crashes Compared to 2050 Base Scenario*	3	1	0	4	2
	Interactive Highway Safety Design Model (IHSDM) Change in Fatal and Injury Crashes across the Network	*% Change in Estimated Injury / Fatal Crashes Compared to 2050 Base Scenario*	0	1	2	4	1
Bike/Ped Safety	Safety Improvements for Bicyclists and Pedestrians based on Proposed Accommodations, Number of Conflicts Points, and Type of Conflict Point	*Relative Level of Safety Improvement for Bicyclists and Pedestrians*	2	4	4	2	2
Safety / Operational Commentary				*Left Off-Ramp and Left On-Ramp Not Advised	Declassify I-189 from Interstate to Limited Access State Highway	C-D Road Advised at Current/Future Volumes for Loop Ramps	Removes Merge on Mainline

Goal: **Livable, Sustainable, & Healthy Communities**

Chittenden County I-89 2050 Study **DRAFT** Second Round Interchange Screening Matrix									
Metric	**Metric Description**	***Units***	***2050 Base Scenario***		**Exit 12B** *New Interchange*	**Exit 13** *Hybrid + Bike Overpass*	**Exit 13** *SPDI*		**Exit 14** *Enhanced Cloverleaf*	**Exit 14** *DDI*
LIVABLE, SUSTAINABLE, & HEALTHY COMMUNITIES: Promote compact growth that supports livable, affordable, vibrant, and healthy communities.										
Consistent with Regional Plan	Proportion of 2020 to 2050 Household Growth Located in Growth Zones Inclusive of Secondary Growth (includes Center, Enterprise, Metro, Village and Suburban Designations)	*Total Secondary Growth Households*	0		593	203	203		0	0
		Proportion of 2020 to 2050 Household Growth Located in Growth Zones Inclusive of Secondary Growth	**90.24%**		**90.40%**	**90.33%**	**90.33%**		**90.24%**	**90.24%**
ROW Impacts	Approximate area of ROW impacts based on limit of disturbance around the interchange	*Acres of ROW Disturbance*	**N/A**		**4.0**	**0.2**	**0.0**		**0.4**	**0.1**
Environmental Justice / Underserved Populations	Additional Travel Time for Traffic Analysis Zones Identified as EJ communities	*Minutes of Additional Travel Time in 2050*	N/A		0.019	0.022	0.011		0.018	0.023
	Average Trip Length in the Model	*Average Trip Length in minutes*	15.69		15.61	15.66	15.68		15.69	15.72
	Additional Travel Time for EJ TAZs as a Percent of Average Trip Length	*% Additional Travel Time per Average Trip in 2050*	**N/A**		**0.12%**	**0.14%**	**0.07%**		**0.12%**	**0.15%**

Goal: **Livable, Sustainable, & Healthy Communities**

Chittenden County I-89 2050 Study
DRAFT Second Round Interchange Screening Matrix

Metric	Metric Description	Units	Exit 12B	Exit 13			Exit 14	
			New Interchange	*Hybrid + Bike Overpass*		*SPDI*	*Enhanced Cloverleaf*	*DDI*
LIVABLE, SUSTAINABLE, & HEALTHY COMMUNITIES: Promote compact growth that supports livable, affordable, vibrant, and healthy communities.								
Consistent with Regional Plan	Proportion of 2050 Households Located in ECOS Growth Zones Inclusive of Secondary Growth (includes Center, Enterprise, Metro, Village and Suburban Designations)	*Total Secondary Growth Households*						
		Proportion of 2050 Households Located in Growth Zones Inclusive of Secondary Growth	4	4		4	4	4
ROW Impacts	Approximate area of ROW impacts based on limit of disturbance around the interchange	*Acres of ROW Disturbance*	0	3		4	3	4
Environmental Justice / Underserved Populations	Additional Travel Time for Traffic Analysis Zones Identified as EJ communities	*Minutes of Additional Travel Time in 2050*						
	Average Trip Length in the Model	*Average Trip Length in minutes*						
	Additional Travel Time as a Percent of Average Trip Length	*% Additional Travel Time per Average Trip in 2050*	2	2		2	2	2

Goal: **Mobility & Efficiency**

Chittenden County I-89 2050 Study

DRAFT Second Round Interchange Screening Matrix

Metric	Metric Description	Units	2050 Base Scenario	Exit 12B New Interchange	Exit 13 Hybrid + Bike Overpass	Exit 13 SPDI	Exit 14 Enhanced Cloverleaf	Exit 14 DDI
MOBILITY & EFFICIENCY: Improve the efficiency and reliability of the I-89 Corridor and Adjacent Interchanges for all users.								
Interchange Trips	Daily trips using new interchange in 2050	*Total Trips Using New Interchange in 2050*	N/A	24,321	56,198	57,334	49,677	46,924
	Number of daily trips using the Exit 14 Interchange	*# of Daily Trips Using Exit 14*	51,929	47,226	46,654	45,319	49,677	46,924
		Percent Change in # of Daily Trips Using Exit 14	N/A	-9.1%	-10.2%	-12.7%	-4.3%	-9.6%
VMT	Networkwide change in Vehicle Miles of Travel (VMT) per vehicle trip with interchange improvement and projected growth compared to the Future Base Model	*Total VMT*	5,207,449	5,219,058	5,206,473	5,201,707	5,203,632	5,200,102
		VMT per vehicle trip	8.103	8.087	8.097	8.090	8.097	8.092
		% Change in VMT per vehicle trip in 2050	N/A	-0.20%	-0.07%	-0.17%	-0.07%	-0.14%
VHT	Networkwide change in Vehicle Hours of Travel (VHT) with interchange improvement and projected growth compared to the Future Base Model	*Total VHT*	147,758	147,394	147,452	147,636	147,737	147,906
		% Change in VHT in 2050	N/A	-0.25%	-0.21%	-0.08%	-0.01%	0.10%
I-89 Corridor V/C	Mainline corridor congestion as indicated by the number of miles with v/c of greater than or equal to 0.9	*Miles of Mainline with v/c > 0.9*	1.34	2.18	1.34	1.34	1.34	1.34
Average Delay	Change in 2050 PM Peak Hour Delay at Exit 14	*Change in Average Delay per Trip (seconds)*	N/A	-40	-34	-37	-47	-41
Bike/Ped Connectivity	Bicyclist and Pedestrian Connectivity Improvements Across I-89 Based on Existing and Proposed Accomodations	*Level of Bike/Ped Connectivity Improvements*	N/A	Improved	Significantly Improved	Significantly Improved	Improved	Improved

Goal: **Mobility & Efficiency**

Chittenden County I-89 2050 Study

DRAFT Second Round Interchange Screening Matrix

Metric	Metric Description	Units	Exit 12B	Exit 13			Exit 14	
			New Interchange	*Hybrid + Bike Overpass*		*SPDI*	*Enhanced Cloverleaf*	*DDI*
MOBILITY & EFFICIENCY: Improve the efficiency and reliability of the I-89 Corridor and Adjacent Interchanges for all users.								
Interchange Trips	Daily trips using new interchange in 2050	*Total Trips Using New Interchange in 2050*						
	Number of daily trips using the Exit 14 Interchange	*# of Daily Trips Using Exit 14*						
		Percent Change in # of Daily Trips Using Exit 14	2	3		4	0	3
VMT	Networkwide change in Vehicle Miles of Travel (VMT) per vehicle trip with interchange improvement and projected growth compared to the Future Base Model	*Total VMT*						
		Average Trip Length in miles						
		% Change in average trip length in 2050	4	0		3	0	2
VHT	Networkwide change in Vehicle Hours of Travel (VHT) with interchange improvement and projected growth compared to the Future Base Model	*Total VHT*						
		% Change in VHT in 2050	4	4		2	1	0
I-89 Corridor V/C	Mainline corridor congestion as indicated by the number of miles with v/c of greater than or equal to 0.9	*Miles of Mainline with v/c > 0.9*	0	4		4	4	4
Average Delay	Change in 2050 PM Peak Hour Delay at Exit 14	*Change in Average Delay per Trip (seconds)*	2	0		1	4	2
Bike/Ped Connectivity	Bicyclist and Pedestrian Connectivity Improvements Across I-89 Based on Existing and Proposed Accomodations	*Level of Bike/Ped Connectivity Improvements*	2	4		4	2	2

Goal: **Environmental Stewardship**

Chittenden County I-89 2050 Study
DRAFT Second Round Interchange Screening Matrix

Metric	Metric Description	Units	2050 Base Scenario	Exit 12B New Interchange	Exit 13 Hybrid + Bike Overpass	Exit 13 SPDI	Exit 14 Enhanced Cloverleaf	Exit 14 DDI
ENVIRONMENTAL STEWARDSHIP: Establish a resilient I-89 Corridor that minimizes environmental impacts associated with the transportation system.								
Wetland Impacts	Approximate area of wetland/wetland buffer impacts based on the estimated limits of disturbance for the interchange improvements	*Acres of Impact to VSWI Wetlands*	N/A	0	0.4	0.1	0.1	0
		Acres of Impact to 50 ft Wetland Buffers	N/A	0.1	1.0	0.5	0.3	0
River Corridors	Approximate area of river corridor, floodway, and 100-year flood zone impacts based on the estimated limits of disturbance for the interchange improvements	*Acres of Impact to River Corridors*	N/A	0	1.1	1.8	0	0
		Acres of Impact to 100-year Flood Zone	N/A	0	1.1	0.5	0	0
Natural Habitats	Approximate area of rare, threatened, and endangered (RTE) species impacts based on the estimated limits of disturbance for the interchange improvements	*Acres of RTE Impacts*	N/A	7	0	0	0	0
Resilience	Percent Change Network Trip Robustness (NTR)	*Percent change in robustness*	N/A	-0.38%	0.81%	0.93%	-0.08%	-0.14%
Fuel Consumption	Total Fuel Consumption Across Model Network (based on 2050 projection assuming MTP Investments and 90% electric vehicle fleet)	*Total Gallons of Fuel Consumed per Day in 2050*	*40,744*	*40,835*	*40,736*	*40,699*	*40,714*	*40,686*
		% Change in Gallons of Fuel Consumed per Day in 2050	N/A	0.22%	-0.02%	-0.11%	-0.07%	-0.14%

Goal: **Environmental Stewardship**

Chittenden County I-89 2050 Study
DRAFT Second Round Interchange Screening Matrix

Metric	Metric Description	Units	Exit 12B *New Interchange*	Exit 13 *Hybrid + Bike Overpass*	Exit 13 *SPDI*	Exit 14 *Enhanced Cloverleaf*	Exit 14 *DDI*
ENVIRONMENTAL STEWARDSHIP: Establish a resilient I-89 Corridor that minimizes environmental impacts associated with the transportation system.							
Wetland Impacts	Approximate area of wetland/wetland buffer impacts based on the estimated limits of disturbance for the interchange improvements	*Acres of Impact to VSWI Wetlands*	4	0	4	4	4
		Acres of Impact to 50 ft Wetland Buffers	4	0	2	3	4
River Corridors	Approximate area of river corridor, floodway, and 100-year flood zone impacts based on the estimated limits of disturbance for the interchange improvements	*Acres of Impact to River Corridors*	4	1	0	4	4
		Acres of Impact to 100-year Flood Zone	4	0	2	4	4
Natural Habitats	Approximate area of rare, threatened, and endangered (RTE) species impacts based on the estimated limits of disturbance for the interchange improvements	*Acres of RTE Impacts*	0	4	4	4	4
Resilience	Percent Change Network Trip Robustness (NTR)	*Percent change in robustness*	0	4	4	1	0
Fuel Consumption	Total Fuel Consumption Across Model Network (based on 2050 projection assuming MTP Investments and 90% electric vehicle fleet)	*Total Gallons of Fuel Consumed per Day in 2050*					
		% Change in Gallons of Fuel Consumed per Day in 2050	0	3	4	4	4

Goal: **Economic Access**

Chittenden County I-89 2050 Study
DRAFT Second Round Interchange Screening Matrix

Metric	Metric Description	Units	*2050 Base Scenario*	Exit 12B *New Interchange*	Exit 13 *Hybrid + Bike Overpass*	Exit 13 *SPDI*	Exit 14 *Enhanced Cloverleaf*	Exit 14 *DDI*
ECONOMIC ACCESS: Improve economic access and vitality in Chittenden County.								
Connectivity to Areas Planned for Growth	Percentage of land area within 1 mile of interchange that is classified as an ECOS Growth Zone (includes Center, Enterprise, Metro, Village and Suburban Designations)	*Percentage of area within 1 mile of interchange in ECOS Growth Zone*	*N/A*	87%	90%	90%	100%	100%
Job Access	Total number of projected new jobs in 2050 compared to 2020 within 1 radial mile of the interchange including adopted job projections and secondary growth	*Total number of New Jobs within 1 Radial Mile of the Interchange*	*N/A*	3,054	2,461	2,461	4,133	4,133
	Total number of projected 2050 jobs within 1 radial mile of the new interchange infrastructure including adopted job projections and secondary growth	*Total Number of Jobs Within 1 Radial Mile of Interchange*	*N/A*	11,416	9,592	9,592	27,220	27,220

Goal: **Economic Access**

Chittenden County I-89 2050 Study **DRAFT** Second Round Interchange Screening Matrix								
			Exit 12B	Exit 13			Exit 14	
Metric	**Metric Description**	***Units***	*New Interchange*	*Hybrid + Bike Overpass*	*SPDI*		*Enhanced Cloverleaf*	*DDI*
ECONOMIC ACCESS: Improve economic access and vitality in Chittenden County.								
Connectivity to Areas Planned for Growth	Percentage of land area within 1 mile of interchange that is classified as an ECOS Growth Zone (includes Center, Enterprise, Metro, Village and Suburban Designations)	*Percentage of area within 1 mile of interchange in ECOS Growth Zone*	0	1	1		4	4
Job Access	Total number of projected new jobs in 2050 compared to 2020 within 1 radial mile of the interchange including adopted job projections and secondary growth	*Total number of New Jobs within 1 Radial Mile of the Interchange*	1	0	0		4	4
	Total number of projected 2050 jobs within 1 radial mile of the new interchange infrastructure including adopted job projections and secondary growth	*Total Number of Jobs Within 1 Radial Mile of Interchange*	0	0	0		4	4

Goal: **System Preservation**

Chittenden County I-89 2050 Study

DRAFT Second Round Interchange Screening Matrix

Metric	Metric Description	Units	*2050 Base Scenario*	Exit 12B *New Interchange*	Exit 13 *Hybrid + Bike Overpass*	Exit 13 *SPDI*	Exit 14 *Enhanced Cloverleaf*	Exit 14 *DDI*
SYSTEM PRESERVATION: Preserve and improve the condition and performance of the I-89 corridor.								
Asset Maintenance Cost	Estimated 30-year asset maintenance costs at Exits 12B, 13 & 14 combined	*Asset Maintenance Cost (Bridges & Culverts) for Exits 12B, 13, & 14 combined (not including assets replaced with construction)*	$94,151,074	$88,516,699	$90,832,324	$48,464,064	$74,859,153	$84,840,338
Construction Cost	Estimated cost for the interchange improvements	*Planning-Level Cost Estimate (millions of 2020 dollars) (Includes PE, CON, and contingency)*	$0	$29,000,000	$15,000,000	$61,000,000	$44,000,000	$37,000,000
		Remaining MTP Allocation for Interstate and Interchange Projects (MTP Allocation - Cost Estimate)	$74,300,000	$45,300,000	$59,300,000	$13,300,000	$30,300,000	$37,300,000
Maintenance & Construction Cost	Estimated cost for the interchange improvements plus 30-year asset maintenance costs at Exits 12B, 13 & 14 combined	*Total 2050 Cost (inclusive of asset maintenance and new construction costs)*	$94,151,074	$117,516,699	$105,832,324	$109,464,064	$118,859,153	$121,840,338
		Incremental Additional Cost	$0	$23,365,625	$11,681,250	$15,312,990	$24,708,079	$27,689,264

Goal: **System Preservation**

Chittenden County I-89 2050 Study

DRAFT Second Round Interchange Screening Matrix

Metric	Metric Description	Units	Exit 12B	Exit 13		Exit 14	
			New Interchange	*Hybrid + Bike Overpass*	*SPDI*	*Enhanced Cloverleaf*	*DDI*
SYSTEM PRESERVATION: Preserve and improve the condition and performance of the I-89 corridor.							
Asset Maintenance Cost	Estimated 30-year asset maintenance costs at Exits 12B, 13 & 14 combined	*Asset Maintenance Cost (Bridges & Culverts) for Exits 12B, 13, & 14 combined (not including assets replaced with construction)*	0	0	4	1	0
Construction Cost	Estimated cost for the interchange improvements	*Planning-Level Cost Estimate (millions of 2020 dollars) (Includes PE, CON, and contingency)*	3	4	0	1	2
		Remaining MTP Allocation for Interstate and Interchange Projects (MTP Allocation - Cost Estimate)					
Maintenance & Construction Cost	Estimated cost for the interchange improvements plus 30-year asset maintenance costs at Exits 12B, 13 & 14 combined	*Total 2050 Cost (inclusive of asset maintenance and new construction costs)*	1	4	3	0	0
		Incremental Additional Cost					

Chittenden County
I-89 2050 Study

Next Steps

Initial Draft I-89 Corridor Bundles

Investments	Bundle 1	Bundle 2	Bundle 3
Transit (new service, increased frequency, etc.)	✓	✓	✓
Biking (lanes, paths, signals, etc.)	✓	✓	✓
Walking (sidewalks, paths, crosswalks, signals, etc.)	✓	✓	✓
Transportation Demand Management (park and ride lots, ridesharing, telecommuting, TMA, etc.)	✓	✓	✓
Intelligent Transportation Systems (signage, signals, etc.)	✓	✓	✓
Ramp improvements at Exit 14 - Route 2 WB to 89 NB	✓	✓	✓?
Reduce ramp terminal radii along US 2 to slow speeds	✓	✓	✓?
Either Exit 12B, Exit 13 Hybrid, *or* Exit 13 Single Point Diamond Interchange		✓	✓
Either Enhanced Cloverleaf *or* Diverging Diamond Interchange at Exit 14			✓

Seeking Input

Metrics and Scoring, February-March:

- Are there any additional metrics that should be evaluated at this stage?
- Should some of the metrics be scored on a different basis?

Next Steps, April:

- Which of Enhanced Cloverleaf *or* Diverging Diamond Interchange at Exit 14 should be included?
- Which of Exit 12B, Exit 13 Hybrid, *or* Exit 13 Single Point Diamond Interchange should be included?
- Any other specific suggestions as to what should be included in bundles?

Next Steps

Chittenden County
I-89 2050 Study

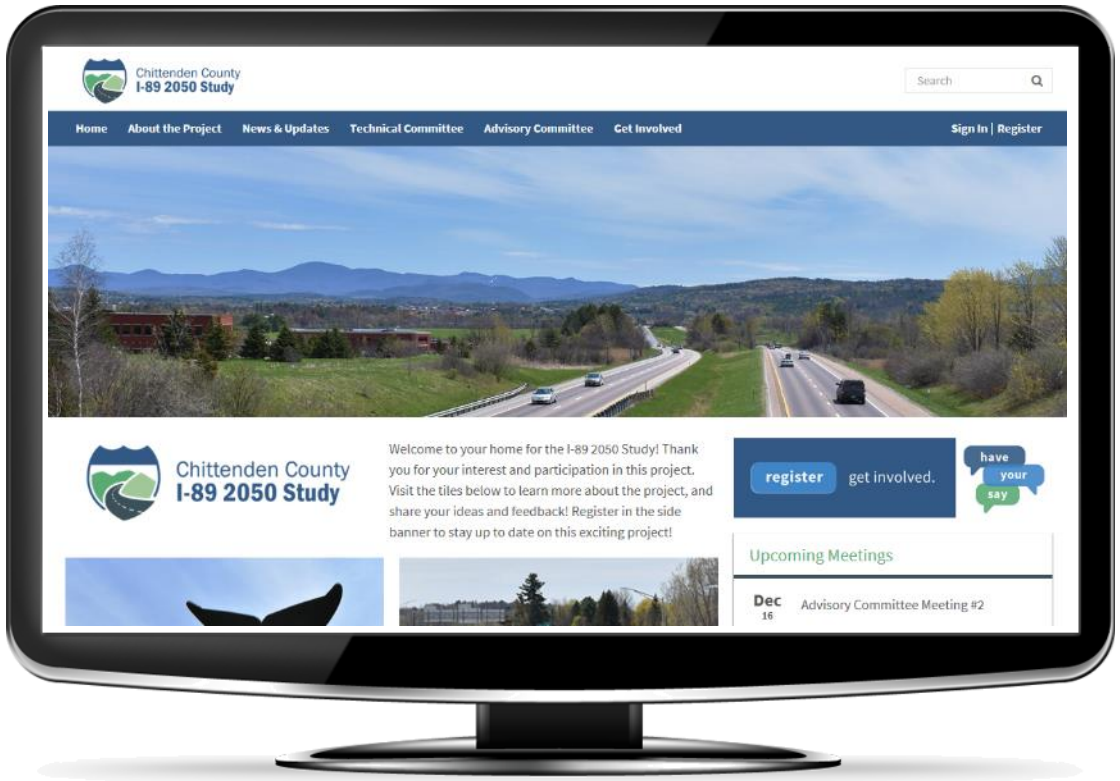
- Second Round Interchange Evaluation
  - Outreach to Underrepresented Populations: **February - March**
  - Other interested committees/groups: **February - March**
  - South Burlington City Council: **February 16th and March 15th**
  - Online Public Meeting: **March 18th**
  - South Burlington City Council: **April 19th**
- Advisory Committee Meeting #5: **April/May**
- Corridor Evaluation & Public/Stakeholder Involvement: **Spring/Summer/Fall 2021**
  - Includes identifying the need for I-89 widening in Bundles 2 and/or 3
- Draft & Final Report: **Winter 2022**

Thank you!

Please reach out to us if you would like to request a similar presentation for a City Committee, Neighborhood Group, etc.

- **Charlie Baker** cbaker@ccrpcvt.org
- **Eleni Churchill** echurchill@ccrpcvt.org

Stay Connected!



This presentation as well as Interchange Evaluation Matrices and Modelling Results and a separate pdf with Technical Memos for review can be found on this project webpage under Task 4: https://envision89.com/project-overview2

Web: www.envision89.com

Twitter: @envision89

Facebook: Envision89