Connecticut Department of Transportation

Capital Plan Overview and Information Session

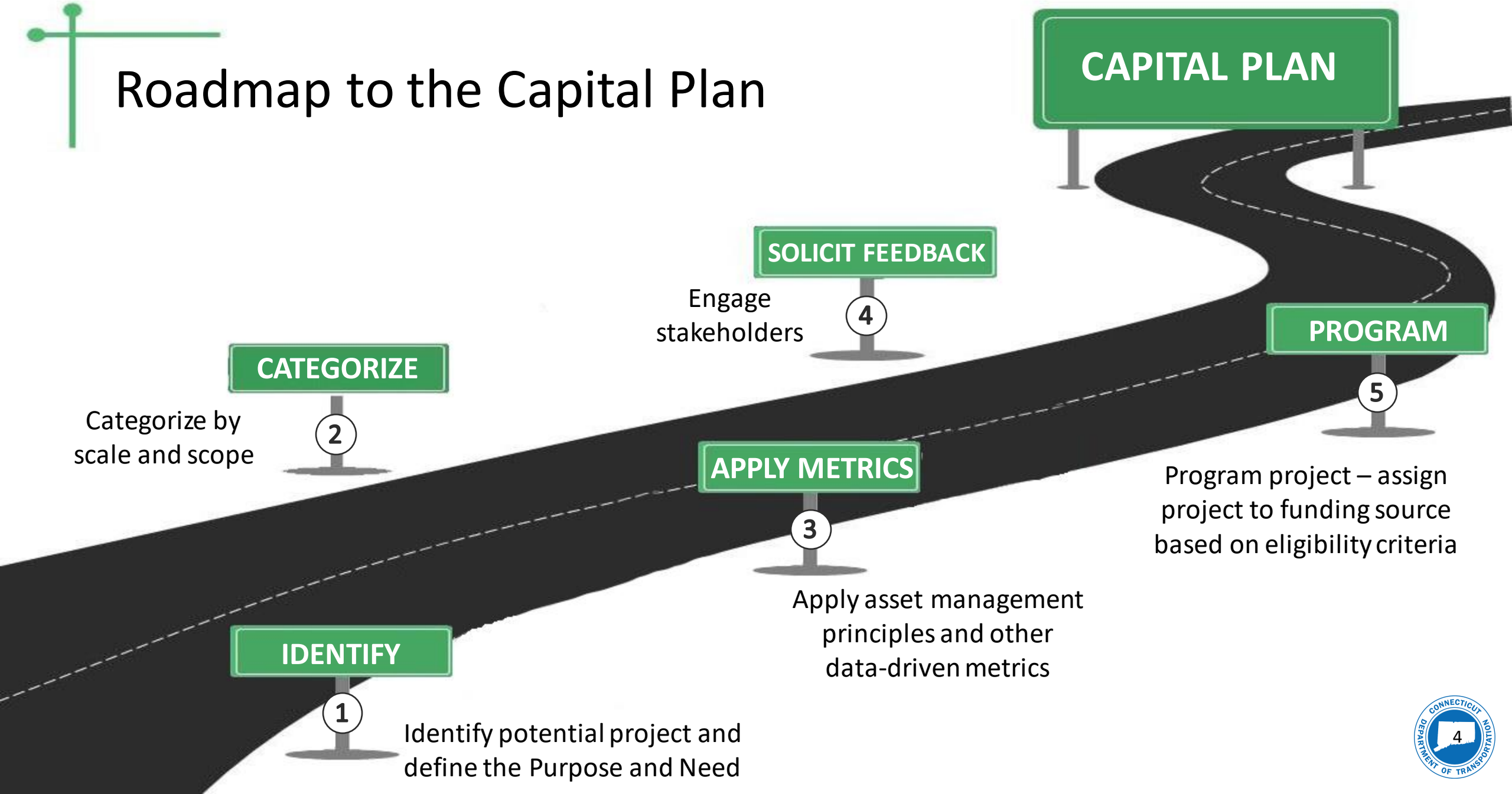
February 23, 2022

Agenda

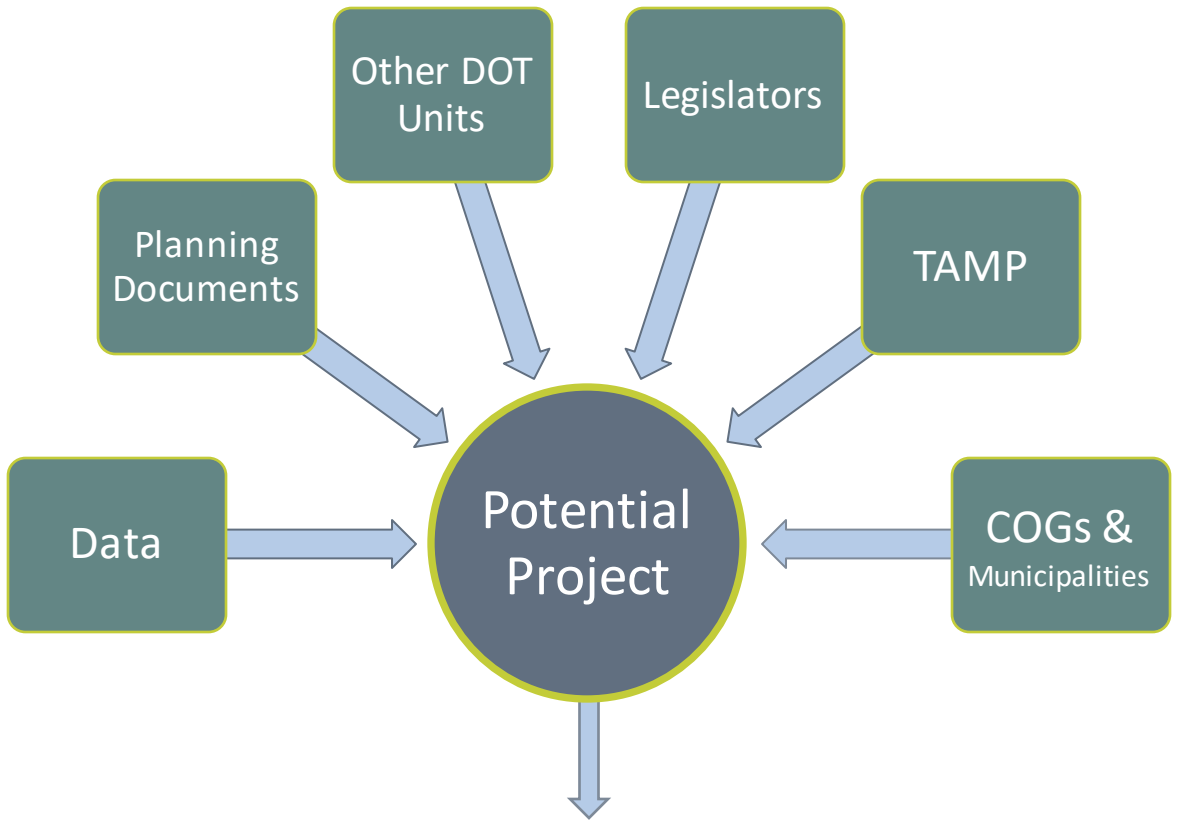
- Introduction
- Project Identification and Selection
- Sources of Funding
- Capital Plan
- Next Steps

Project Identification & Selection

Roadmap to the Capital Plan



Road Map to the Capital Plan



Define

Purpose and Need

Step 1: Identify

Potential projects and initiatives are identified from many sources:

- Statewide or Regional Planning Documents
- Corridor/Feasibility Studies
- Federal Regulations and Mandates
- Councils of Government (COGs)
- Legislator Requests
- Municipality Requests
- Data-Driven Analysis
  - **High Crash Rates**
  - **Congestion**
  - **State of Good Repair**
  - **Sub-Standard Geometrics**

What is a *PURPOSE AND NEED* Statement?

"Purpose" can be defined as the reason to conduct the project

e.g.: The *purpose* of the project is to reduce congestion and improve mobility at the intersection of Town Road and Main Street

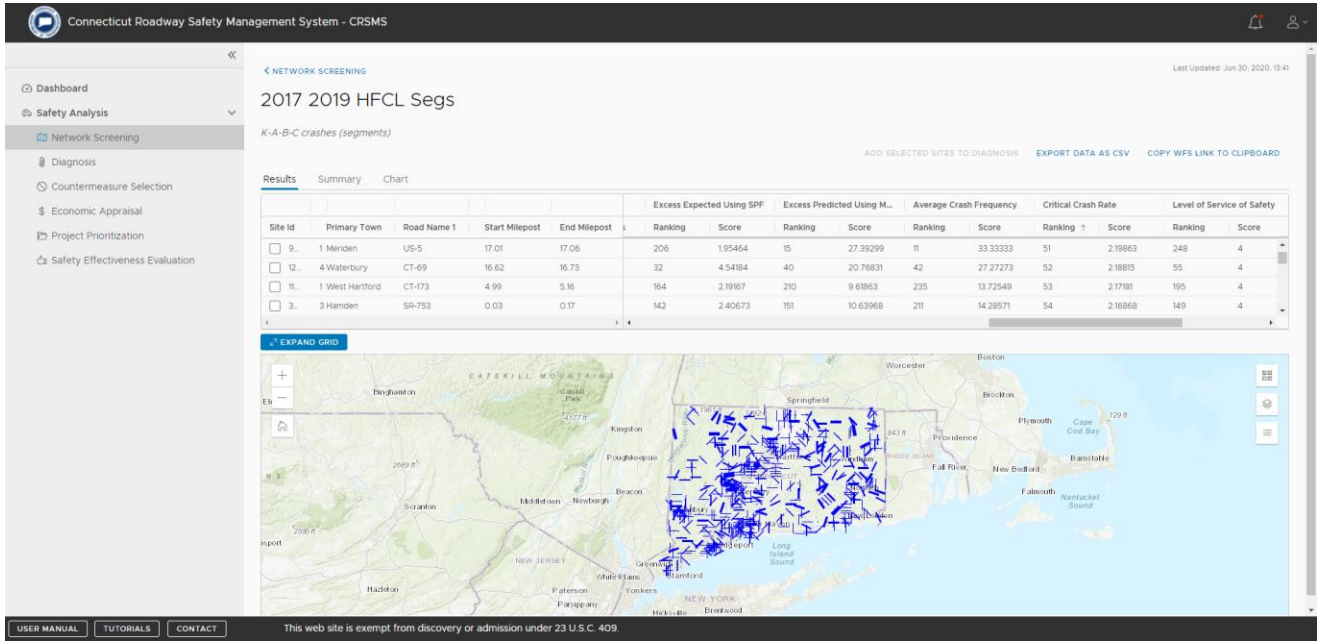
"Need" can be defined as the identification of deficiencies of the project supported by facts or data

e.g.: This project is *needed* because the capacity of the intersection of Town Road and Main Street is inadequate to meet current and future traffic volumes, resulting in congestion, reduced mobility and Level of Service D on this stretch of highway.

Identification Example: Improve Safety – Crash Reduction

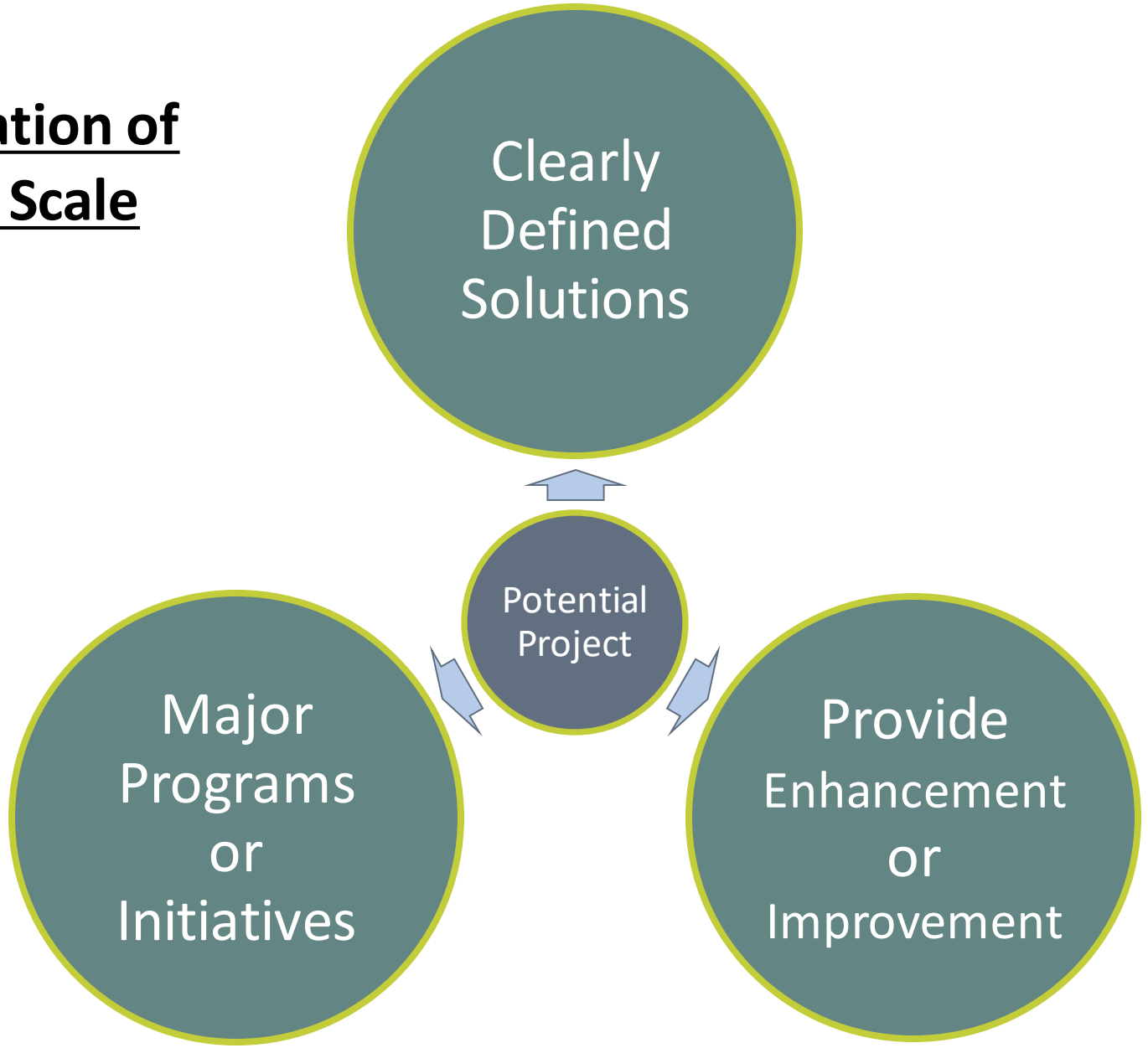
Department uses the Connecticut Roadway Safety Management System (CRSMS) – Developed in partnership with UCONN – to screen the entire roadway network for locations with highest potential for crash reduction

- Not just "total" number of crashes, but evaluate crash-type and injuries
- Focus on Fatal and Serious Injury Crash reduction
- Determines if crash-type is "Over-Represented" i.e. other locations with similar characteristics have fewer crashes
- Used to develop "High Frequency Crash Location" (HFCL) list for further investigation and review



Road Map to the Capital Plan

Step 2: Categorization of Project by Scale and Scope



Road Map to the Capital Plan – Step 2: Categorize

Type A: Clearly Defined Solutions

Projects that provide condition upgrade (SOGR), improve general safety conditions, or address federal mandates.

- Initiation and prioritization are data or condition driven with few alternatives to consider
- Purpose and Need is largely condition-based
- Primary metrics considered : Condition and Safety
- Example Project Types:

  Bridge Rehabilitation

  Traffic Signal Upgrade or Replacement

  Pavement Rehabilitation or Preservation

  Railroad Safety and Federal Mandates

  Maintenance of Transit Assets

Road Map to the Capital Plan – Step 2: Categorize

Type B: Provide Enhancement or Improvement

Projects that enhance the transportation network, add or significantly modify a facility, where the solutions are less straight forward.

- Purpose and Need requires investigation & must be clearly defined
- Initiation requires development and comparison of alternatives and careful consideration of costs.
- Primary metrics considered: Safety and Mobility
- Example Project Types:

  Interchange Reconfigurations

  Highway and Bridge Improvements

  Rail Line Enhancement and Expansion

  Improvement to Multimodal Transportation

  Electrification of Statewide Network

Road Map to the Capital Plan – Step 2: Categorize

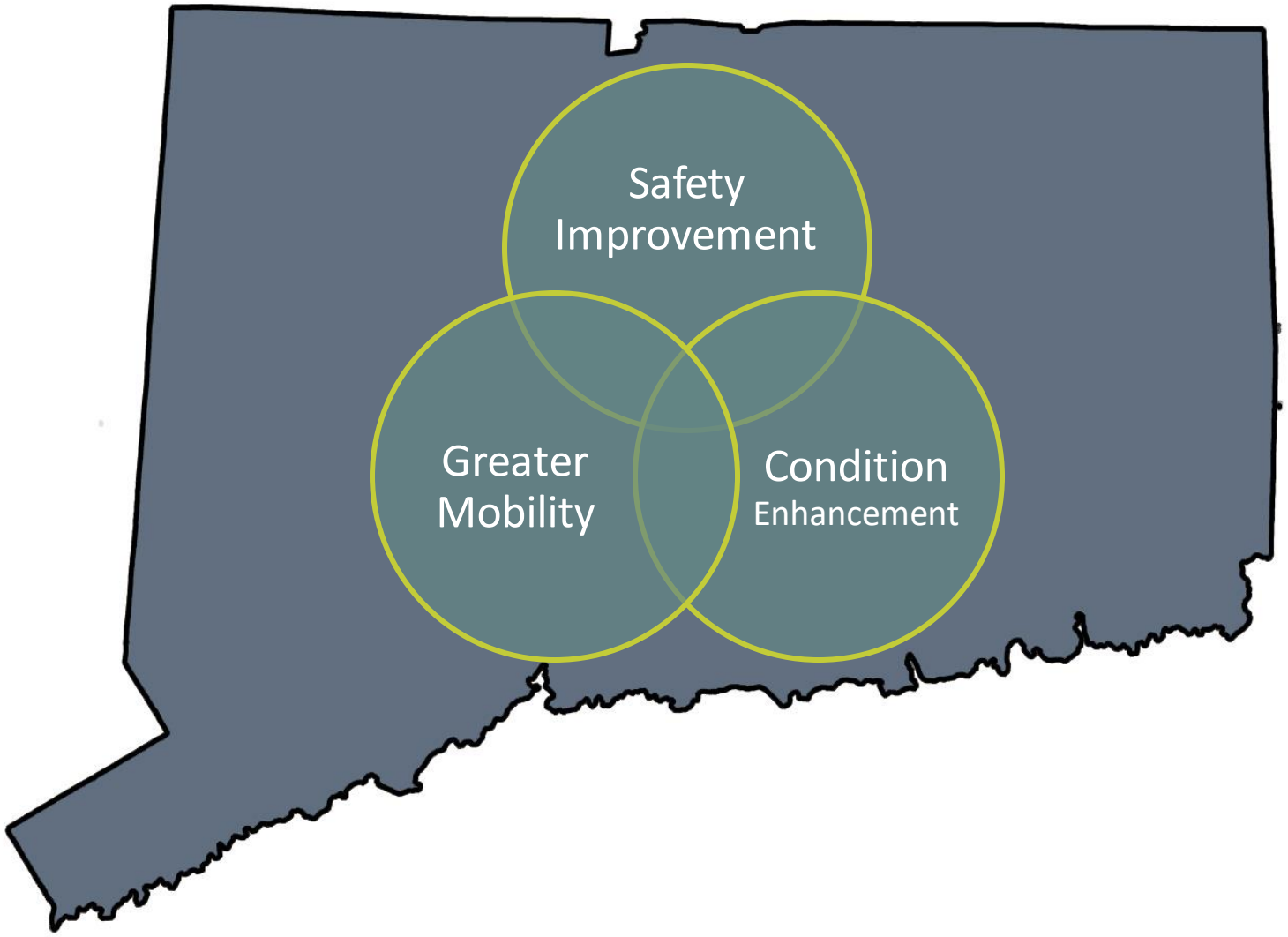
Type C: Major Programs or Initiatives

Significant initiatives that span all modes of transportation. Solutions are multi-faceted, challenging, costly, and likely take substantial time to implement.

- Vision and Goals are developed for the overarching program or initiative. Once individual projects are identified within the program, a succinct Purpose and Need is developed for each project.

- Primary metrics considered : Condition, Safety, and Mobility with influence from other elements.

Road Map to the Capital Plan – Step 3: Apply Metrics



Step 3: Apply Metrics

The overarching goals of the Department define the metrics by which each project is measured, but quantification of those metrics differs by project type and mode.

Primary Metrics:

- **Increase Mobility for All Users**
- **Improve Safety Across All Modes**
- **Maintain or Enhance Condition of Assets**

Other Factors and Considerations:

- **Freight Movement Around the State**
- **Economic Development**
- **Community Input and Involvement**

Road Map to the Capital Plan – Step 3: Apply Metrics

Metric Example: Enhance Condition – Rail Station Improvements

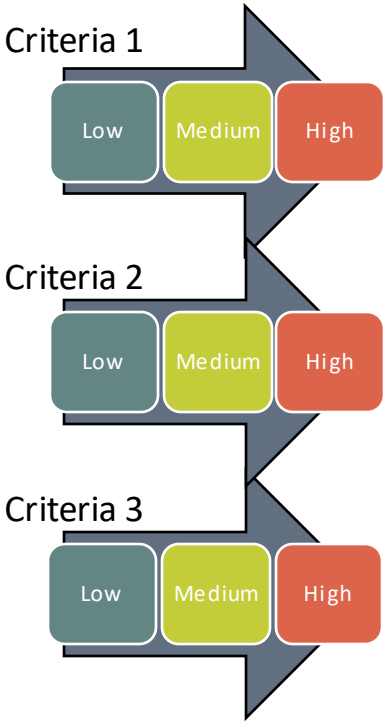
The prioritization of rail station improvement projects is based on three (3) data-driven criteria and the severity of the condition within each. As station improvement projects are implemented, the overall condition of the asset class is improved and can be documented.

Condition Before

Priority Group 1

Condition After

Priority Group 5

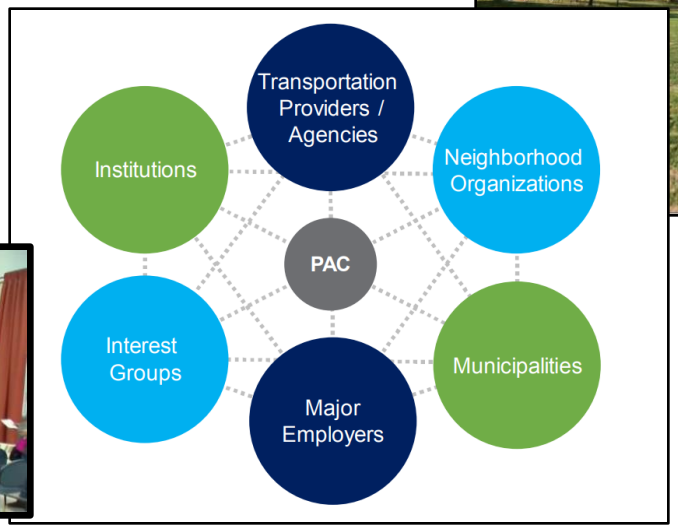


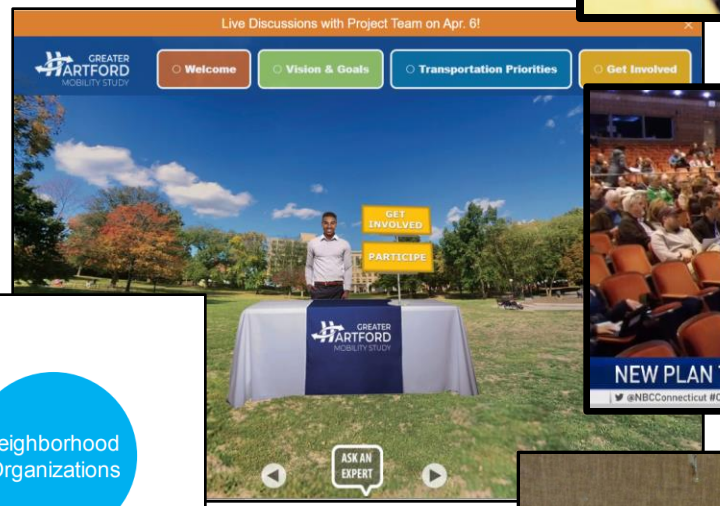
Priority Group	Program Rank	Station
1	1	Darien
1	2	Westport
1	3	Noroton Heights
1	4	South Norwalk
1	5	East Norwalk
1	6	Rowayton
1	7	Southport
2	8	Green's Farms
2	9	Talmadge Hill
2	10	Greenwich
2	11	Cos Cob
2	12	New Haven State
2	13	Old Greenwich
2	14	Riverside
3	15	Fairfield
3	16	Stratford
3	17	Milford
3	18	Springdale
3	19	Redding
3	20	Wilton
3	21	Cannondale
3	22	Branchville
3	23	Stamford
3	24	Glenbrook
3	25	Bethel
3	26	Beacon Falls
3	27	Ansonia
3	28	Naugatuck
3	29	Branford
3	30	West Haven
4	31	New Haven Union
4	32	Bridgeport
4	33	Waterbury
4	34	Derby-Shelton
4	35	Danbury
4	36	Merritt 7
4	37	Seymour
4	38	New Canaan
5	39	Westbrook
5	40	Madison
5	41	Clinton
5	42	Guilford
5	43	Fairfield Metro

Road Map to the Capital Plan – Step 4: Solicit Feedback

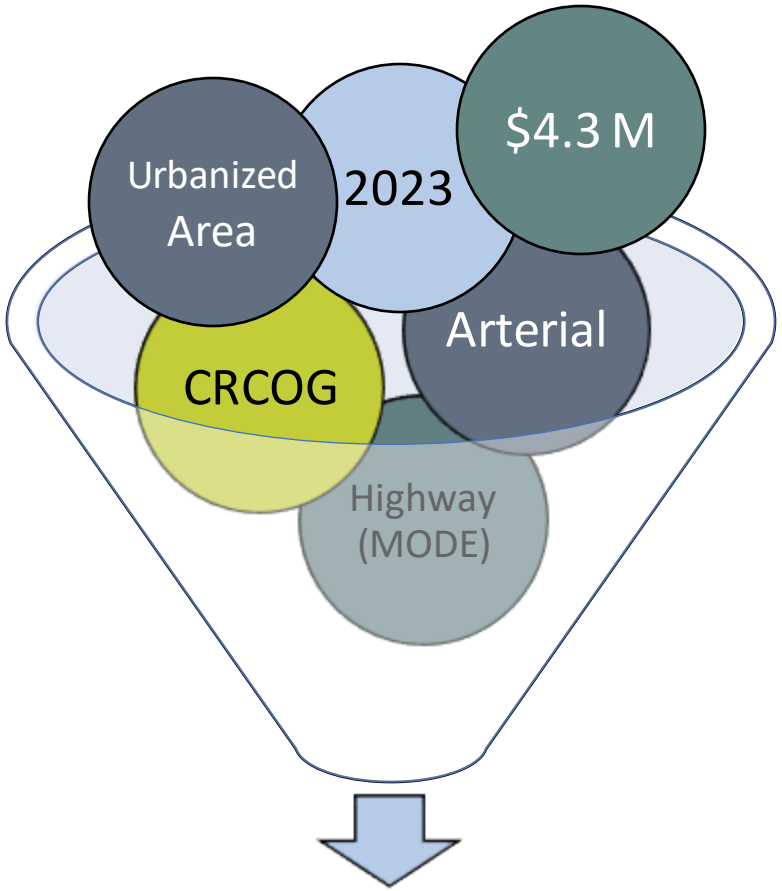
Step 4: Solicit Feedback

Conversations with Elected Officials
Concept-Level Public Meetings
Coordination with Stakeholders
Creation of a Project Advisory Committee (PAC)
Websites
Community Surveys
Newsletters
Press Releases





Road Map to the Capital Plan – Step 5: Program



Assign Funding Source(s)

Step 5: Program

What does it mean to "Program" a project?

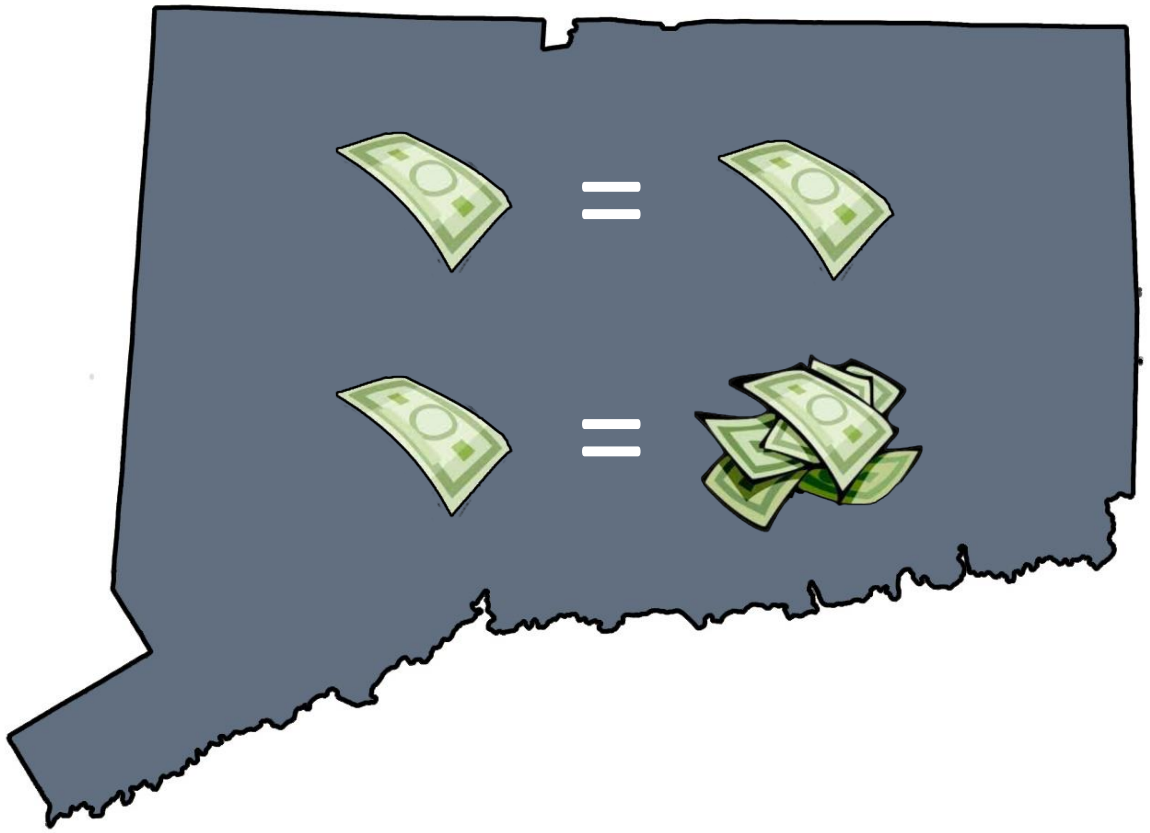
To program is to assign a specific funding source to the estimated costs of a project, drawing down from the anticipated available funding in the year of expenditure.

What are the challenges to Programming?

Each funding source or "bucket" has different eligibility requirements

- Mode
- Scope of Work
- Geographic area within the State (MPO)
- Urban vs Rural Characterization
- Cost of Project vs Available Funding in Program
- Functional Classification of the Roadway

Road Map to the Capital Plan – Step 5: Program



Step 5: Program

If Every Bucket is a Funding Source:

- Over 55 Federal Buckets for 2020 for Highway/Bridge
- 15 State Buckets for all modes
- Each bucket has unique eligibility requirements
- Each bucket has different funding level

Additional Challenges

- Balancing Project Types (SOGR vs. Enhancement)
- Compare within Modes and Divisions
- Provide Regional/Geographic diversity around State

Always tries to maximize spending available federal funds

Under State Program, $1 State = $1 spendable

Under Federal Program, $1 State = $5 spendable

Sources of funding

Overview of IIJA

Reauthorizes federal surface transportation programs for FY 2022 - FY 2026

Provides for over **$100 billion in national competitive grant opportunities** between FY 2022 and FY 2026

Unlike the 2008 Recovery Act, IIJA is long-term, continuous investment in transportation infrastructure, **not a "Shovel Ready" Stimulus program**

What it means for Connecticut: **<u>$5.38 billion</u>** in **<u>formula-based funding</u>** over **<u>five years</u>** - a $1.62 billion increase over FAST Act (last reauthorization)

Overview of USDOT Federal Formula Funding

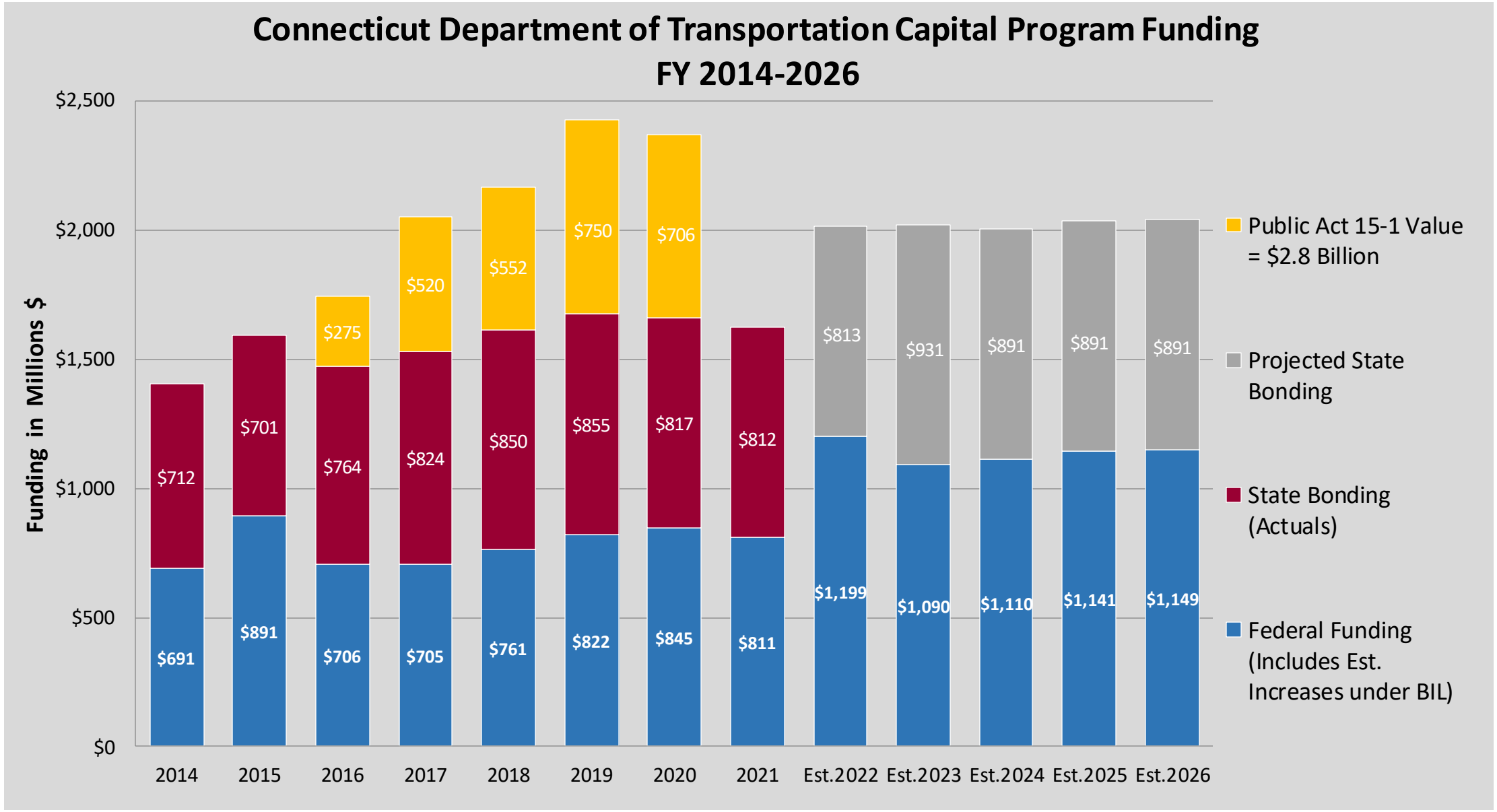
FHWA	Yearly Total	Program Size Relative to 2021 Program	Increase over 2021 Program
2021	$ 549,841,415		
2022	$ 788,243,862	143%	$ 238,402,447
2023	$ 801,552,715	146%	$ 251,711,300
2024	$ 815,127,746	148%	$ 265,286,331
2025	$ 828,974,277	151%	$ 279,132,862
2026	$ 843,097,737	153%	$ 293,256,322

FTA	Yearly Total	Program Size Relative to 2021 Program	Increase over 2021 Program
2021	$ 200,684,201		
2022	$ 249,586,741	124%	$ 48,902,540
2023	$ 254,675,083	127%	$ 53,990,882
2024	$ 261,505,210	130%	$ 60,821,009
2025	$ 267,029,567	133%	$ 66,345,366
2026	$ 273,990,153	137%	$ 73,305,952

FHWA + FTA Formula Funding	Grand Total by Year	Program Size Relative to 2021 Program	Increase over 2021 Program
2021	$ 750,525,616		
2022	$ 1,037,830,603	138%	$ 287,304,987
2023	$ 1,056,227,798	141%	$ 305,702,182
2024	$ 1,076,632,956	143%	$ 326,107,340
2025	$ 1,096,003,844	146%	$ 345,478,228
2026	$ 1,117,087,890	149%	$ 366,562,274

Note: These values do not include matching State funds.

Capital Program Funding Summary



Overview of New Federal Formula Programs

CT SHARE OF NEW FORMULA FUNDING		
Bridge	$561 M	***NEW* Bridge Program** • New formula funding to **repair, replace and rehab aging bridges and bring them into a state of good repair**. This is the single largest dedicated bridge investment since the construction of the interstate highway system.
EV	$52.5 M	***NEW* EV Charging formula funding** • Allows the state to build out CT's publicly accessible charging stations for the national EV charging network on highway corridors and in communities.
CO_2 Carbon Reduction	$79 M	***NEW* Carbon Reduction formula funding** • Establishes a carbon reduction program to reduce transportation emissions in Connecticut, with broad eligibility. Also requires the state DOT develop a carbon reduction strategy.
Resiliency PROTECT	$90 M	***NEW* PROTECT formula funding** • Will help make transportation assets in CT more resilient to weather and natural disasters and allow our state to rapidly recover/continue operations.
$782.5 Million		+ PLUS **$837.5 Million** additional for existing formula programs over the next 5 years means Connecticut will receive **$1.62 Billion MORE** than the previous 5 years

Overview of Discretionary Federal Grant Opportunities

NEC COMPETITIVE GRANTS		
Rail	$30 B	• **Northeast Corridor grants** to procure & address deferred maintenance backlog on Amtrak's Northeast Corridor ($6 B) • **Intercity Passenger Rail Fed-State Partnership grants** to repair/replace/ rehabilitate qualified railroad assets to improve state of good & performance ($24 B)

NATIONAL COMPETITIVE GRANTS		
Highways Roads	$9 B	• ***NEW* Safe Streets & Roads for All grants** for local governments to improve safety and reduce crashes in local communities ($6 B) • ***NEW* Reconnecting Communities grants** for planning, design, demolition, and reconstruction of street grids/parks divided by transportation infrastructure ($1 B) • ***NEW* Rural Surface Transportation Grants** for state and local governments to improve and expand surface transportation infrastructure and mobility service in rural areas ($2 B)
Bridge	$15.8 B	• ***NEW* Bridge grants** to repair, replace and rehab bridges *(grants to supplement CT's $561 M in formula funding)*
Major Projects	$38 B	• **RAISE Grants** for projects of local or regional significance, formerly TIGER/BUILD ($15 B) • ***NEW* Megaproject grants** for multi-modal, multi-jurisdictional projects of national or regional significance ($15 B) • **INFRA grants** for highway/rail projects of regional & national economic significance ($8 B)

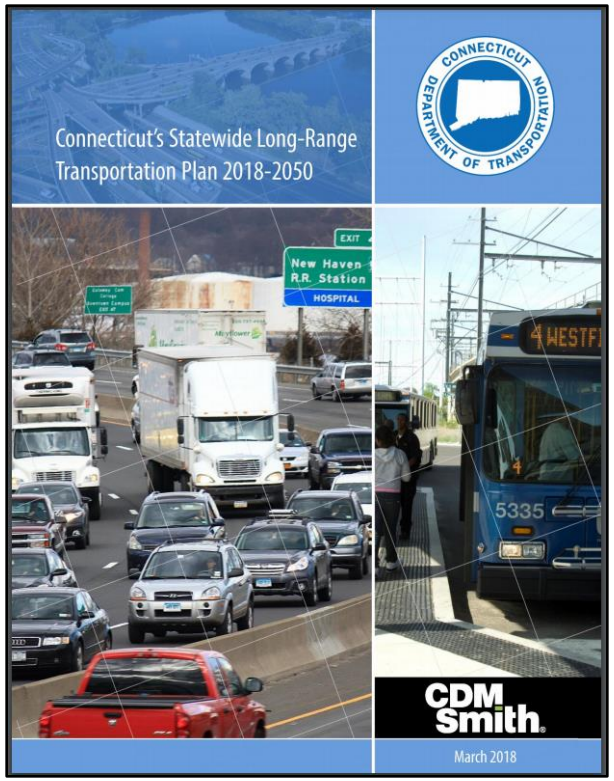
Overview of Discretionary Federal Grant Opportunities

NATIONAL COMPETITIVE GRANTS		
Rail Bus	$23 B	• **Capital Investment Grants** for new or expanded commuter rail and bus rapid transit service
Rail	$17.25 B	• **CRISI Grants** to improve safety, efficiency, and reliability of intercity passenger rail ($10 B) • **Railroad Crossing Elimination grants** to eliminate railway-highway crossing hazards ($5.5 B) • ***NEW* ADA Upgrades to Rail Transit grants** to eliminate access barriers ($1.75 B)
Bus	$5.6 B	• **Low-No Emissions Bus grants** for low and no emissions buses and the facilities that support them *(grants to supplement formula funding for the conversion of CT bus transit fleet)*
Culverts	$5 B	• ***NEW* Culvert grants** to remove/replace/restore culverts & address the flow of water through roads, bridges, railroads, tracks and trails *(related to flooding, many of CT's culverts are +50 years old & at the end of their service life)*
EV	$2.5 B	• ***NEW* EV Charging grant** funding to supplement the formula funding provided to CT, allowing the build out of CT's publicly accessible charging stations.
Over $100 B		**Competitive transportation grants over the next 5 years for Connecticut to pursue** (above outlines a targeted list of competitive grants not all grant programs in bill)

FY22-26 Capital Plan

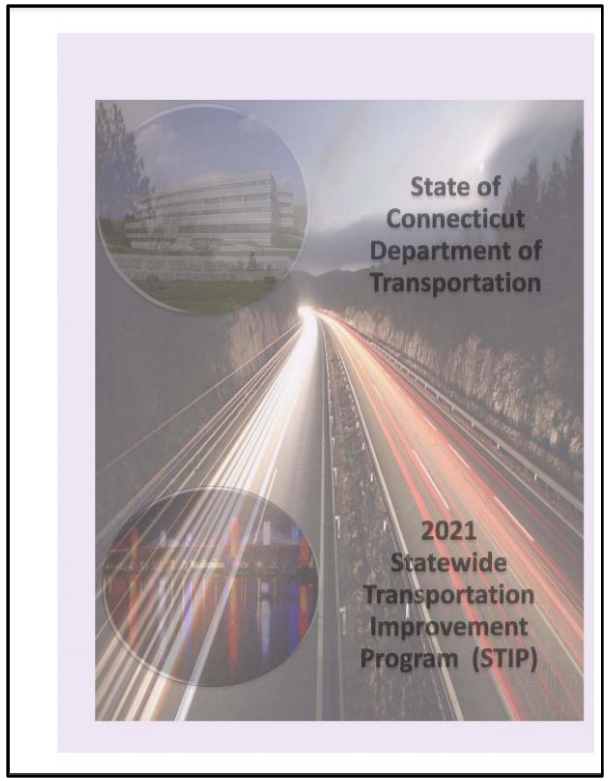
Transportation Documents – How They Fit Together

The Vision --> Where we want to Go



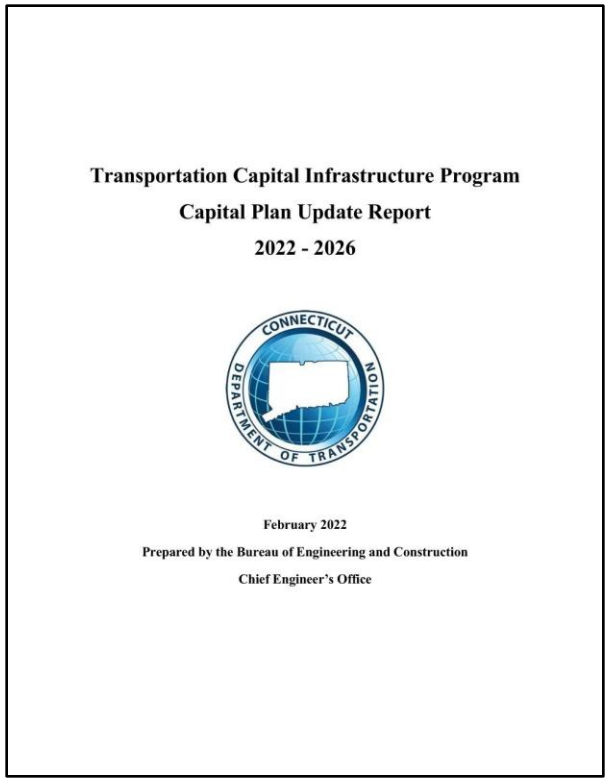
The Long-Range Transportation Plan is a federally mandated policy document that serve as a framework for preparing future, project-specific transportation plans. The Plan is generally updated every three to five years.

Project-Specific approval of the Federal portion



The Statewide Transportation Improvement Program (STIP) is a four-year financial document that lists all projects expected to be funded in those four years with Federal participation.

Recap and Look-Ahead: the Execution of the Plan



The Capital Program Report is to inform the Department's stakeholders about the past year's program and outline the plan for the upcoming year.

What is CTDOT's Capital Plan?

- Annual report prepared by CTDOT to inform stakeholders and outline the capital investments **for the upcoming 5-year period**.

- Describes the Department's **plan to address** critical transportation **needs and current challenges.**

- Details a comprehensive financial summary of **Capital Program expenditures.**

- Data presented in the report is based on the **Federal Fiscal Year**: October 1 to September 30.

Components of the Capital Program

Programmed

- Actively being advanced through the design process
- Projects which are eligible for federal or state funding

Overprogrammed

- Projects and/or phases of projects where there is no identified construction funding source

Future Needs

- New initiatives for which a project scope has not been defined
- Projects and programs identified in the long-range plan or published studies which are not funded





Example Projects in the Capital Plan

Programmed – Public Transportation

Service Improvements

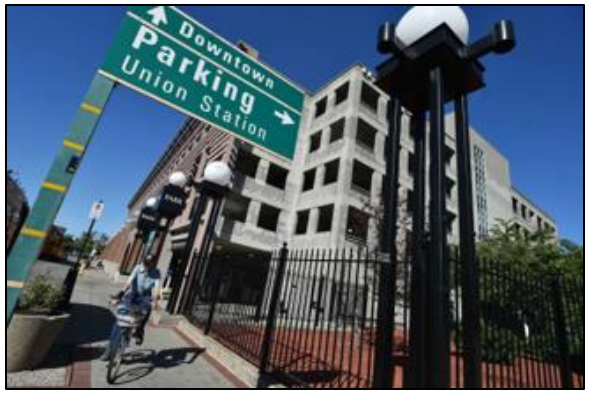
- CT*transit Move New Haven* Infrastructure Improvements Phase 1
- New Haven Line Speed Improvements, Phase 1
- Traffic Signal Technology Improvements, Statewide

Equipment Purchases

- New coaches for rail fleet
- Bus Replacements (electric)
- Final M8 Deliveries

Station and Facility Improvements

- Stamford Parking Garage
- Hartford Line – Windsor Locks Station
- New Haven Line – Darien Station Improvements
- Bus Stop and Shelter Modernization, Statewide
- New Haven Line Signal Improvements
- New Haven Union Station Campus Improvements
- Naugatuck Railroad Station Relocation



Example Projects in the Capital Plan

Programmed – Highway/Bridge

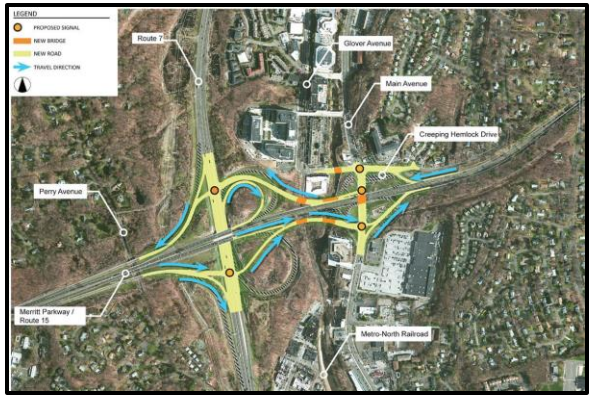
Annual Programs

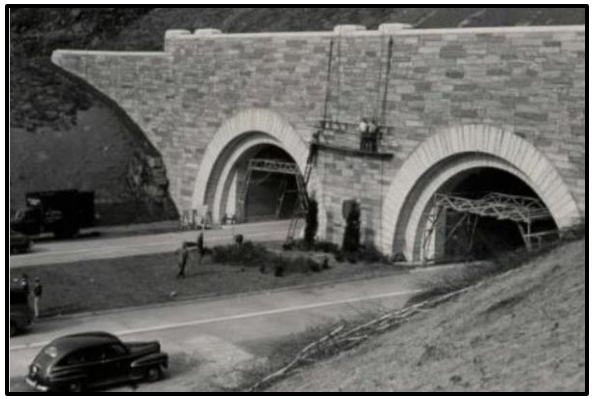
- Capital Resurfacing Program, Statewide
- General Asset SOGR Programmatic Improvements
- Local Transportation Capital Improvement Program (LOTCIP)
- Community Connectivity Grant Program
- ADA Transition Plan
- Congestion Mitigation and Air Quality (CMAQ) Improvement Program
- Highway Safety Improvement Program (HSIP)

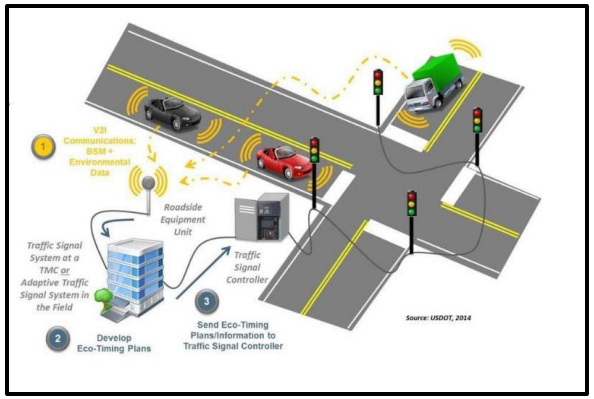
Projects

- I-91/I-691/Route 15 Interchange, Meriden
- I-95 Goldstar Bridge, New London
- I-84 Interchange 17 Improvements, Middlebury
- I-95 at Route 161 Interchange Improvements, East Lyme
- Route 9 Traffic Signal Removal, Middletown
- I-95 Bridge Operational Improvements, West Haven
- Steele Brook Greenway Multi-Use Trail, Watertown
- Airline Trail Reconstruction, Pomfret

Example Projects in the Capital Plan







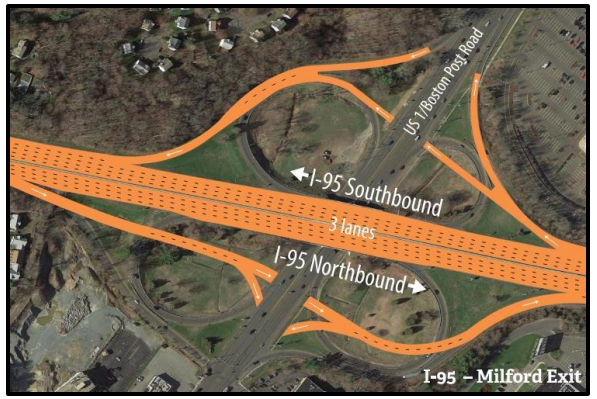
Overprogrammed, All Modes

- Additional Hartford Line Stations
- CT*transit* Move New Haven Infrastructure Improvements Phase 2
- Hartford Line Phase 3B Double Tracking – Windsor to Windsor Locks
- Computerized Traffic Signal System Replacement/Upgrade Program
- Heroes Tunnel Improvement Project, Woodbridge/New Haven
- Farmington Heritage Canal Trail Gap Closure Phase 3, Plainville

Example Projects in the Capital Plan

Future Needs, All Modes

- Route 1 High Performance Bus Program
- Moveable Bridge Program (Devon, SAGA, Cos Cob)
- Conversion to an Electric Bus Fleet
- CTtransit Move New Haven Infrastructure Impvts (Phase 3)
- New Haven Line – Additional Track Speed Improvements
- Rail Maintenance Shops and Storage Yard Improvements
- Route 15 - Remove Stop Sign on Entrance/Exit Ramps
- I-95 & Route 7 Interchange Improvements, Norwalk
- Realign I-95 and Replace Bridge 00032, Stamford
- I-84 Reconstruction, Danbury
- I-84 and Route 8 Interchange Modifications, Waterbury
- I-95 Improvements Exits 19-27a, Fairfield/Bridgeport
- I-95 Improvements East of New Haven
- Roadway System Improvements as a result of the Greater Hartford Mobility Study



84 new mix

I-84 Danbury Project

CT transit

MOVE NEW HAVEN Transit Mobility Study

GREATER HARTFORD MOBILITY STUDY

HARTFORD LINE CT rail

New USDOT Funding Programs of Interest

Safe Streets and Roads for All

IIJA authorizes $6 billion over 5 years in Safe Streets grants

- Safe Streets and Roads for All is open to MPOs and Local Governments, not State DOTs.
- The new grant program will support Vision Zero planning efforts, as well as capital projects to improve safety for all users.

VISION4NETWORK

Rural Surface Transportation Grants

IIJA authorizes $2 billion over 5 years in Rural Transportation grants

- New competitive grant program to “improve and expand the surface transportation infrastructure in rural areas”
- Includes on-demand mobility projects
- Applications can be for bundled projects in a region

CTDOT Programs of Interest

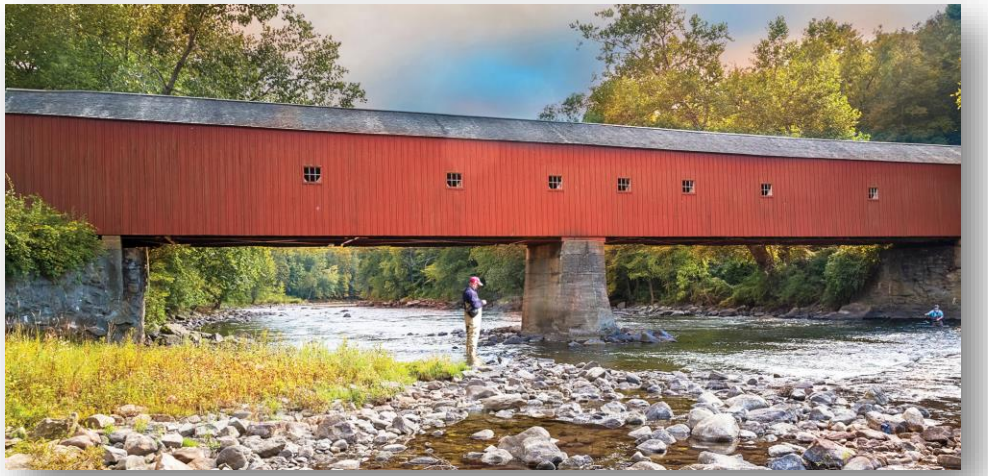
CTDOT will Continue Local Funding Programs

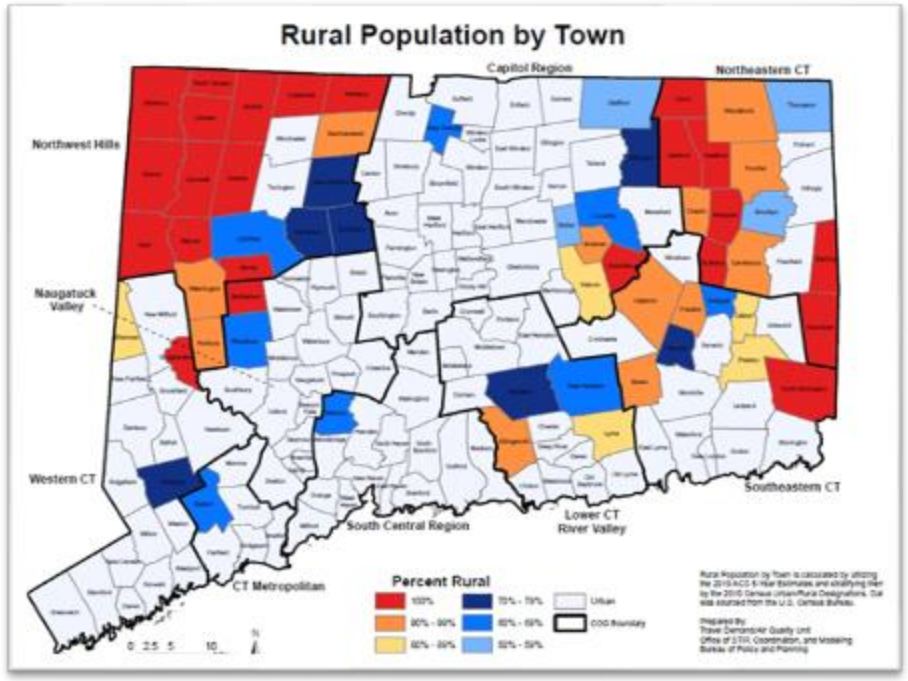
- CTDOT launched the *Community Connectivity Grant Program* in 2018 and has awarded over $38 million in grants to 107 municipalities to improve safety in municipal centers.

- State Local Bridge Program will continue, as will LOTCIP, Town Aid Road, CMAQ set-aside, and return of Multi-Use Trails investments.

New Program to Launch in 2022

- CTDOT will be launching a new *RURAL* local transportation improvement program based on feedback received from rural communities.

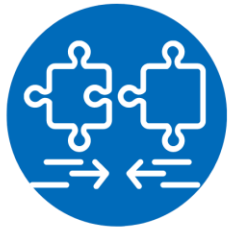




- Transportation Rural Improvement Program will be funded with state funds at between $2-$5 million per year.
- Projects will be screened by COGs, as with LOTCIP today.

IIJA Implementation Approach

CTDOT will take a phased approach to implementation:



- Focus on Existing Formula Funds Programs
- Develop and Implement Strategies for New Formula Funds Programs
- Identify Projects in FY 23 + for Competitive Grant Programs

Key Actions CTDOT is taking:

Started **recruitment** for 206 additional positions and back-filled pending retirements.

Establish a **new Grants and Socio-Economic Unit,** dedicated to preparing grant applications and conducting cost-benefit analyses.

Launch a **new Sustainability and Resilience Unit,** aligning with USDOT and CTDOT's goals.

Next Steps

- Preparations for an expanded capital program began months ago
- November passage of IIJA left little time to collaborate before publishing the Capital Plan
- Capital Planning is complicated by the lack of guidance on new federal programs
- The Capital Plan currently being prepared will be considered an interim plan to allow additional time for consultation and collaboration with stakeholders
- The final Capital Plan will be delayed until early summer

Feedback Wanted

- The interim Capital Plan narrative and project listing has been published on the CTDOT website
- We encourage you to review the narrative document and project list, both of which can be found here: https://tinyurl.com/3tcbzma8
- After you review the documents, we welcome comments and feedback on the interim plan.
- Comments on specific projects, or general comments, can be submitted via this online form: https://forms.office.com/g/B6BCSFvDub
- Comments can also be submitted via email at DOT.CapitalPlan@ct.gov

Available Resources

Connecticut Department of Transportation

Transportation Infrastructure Capital Plans

- Transportation Infrastructure Capital Plan Spreadsheet (2022-2026)
- Transportation Infrastructure Capital Plan Report (2022-2026)

Major Projects Weblink

CTDOT Fast Facts

Transportation Plans (ct.gov)

Transportation Studies (ct.gov)

Bipartisan Infrastructure Law - FHWA | Federal Highway Administration (dot.gov)

Bipartisan Infrastructure Law | FTA (dot.gov)

Thank You!

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