EVERSOURCE

Project Approval Form

Project Title: Greenwich – MH Frame and Cover Replacements	**Project Number:** CD02254
Date Prepared: 09/08/2025	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** UNDERGROUND STRUCTURE ISSUE
Project Initiator: [redacted]	**Project Type:** Specific
Initiating Organization: Distribution	**Capital Investment part of original Op Plan:** Yes
Project Manager: [redacted]	**Emergency Related Request?** No
Project Sponsor: [redacted]	**Facility Type** (check all that apply)**:** ☐ PTF ☐ non-PTF ☒ Distribution ☐ N/A (General Plant)
Required in service date: 12/31/2024	**NWS Excludable:** ☒ Yes ☐ No
Total Capital Request: $272.9K	**Authorization Type:** Full Funding

1. Executive Summary

Full funding is being requested for this project at a cost of $272.9K, which is 120% of the initial funding estimate of $227.9K. There is no scope change in the project. Majority of the variance is due to indirect overhead costs.

The State paved Route 1 in Greenwich from Field Point Road to Indian Field Road under project number 173-558 in 2023. Typically for these projects the state would pave over Eversource's manholes then reimburse Eversource for raising any manhole frames and covers that needed to be raised. Along this path there were 27 manhole covers – 14 of which were directly within the paving path. The others were on the side of the roadway – in sidewalks or a grassy area. This project was presented to "piggy-back" on the state's project and take the opportunity to replace existing manhole covers with the new energy release covers along the route. All 27 manhole covers were to be replaced with new energy release covers, and reimbursement was to be sought from the state for only the covers that had to be raised in the paved roadway. The reimbursement, where applicable, was to be a fixed cost ($800), which was a pre-determined maximum amount to account for raising the buried Manhole Grate(s)/Frame(s) to final grade (See State of CT DOT memo in attachment B).

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	2023 Actual	2024 Actual	2025 Actual	Total
Internal Labor and Construction Equipment	0.0	0.0	0.0	0.0
Outside Services	1.4	76.3	8.3	86.0
Materials	0.8	46.2	5.0	52.0
Removals	0.2	13.6	2.1	15.9
Risk and Contingency	0.0	0.0	5.4	5.4
Other	0.0	0.0	0.0	0.0
Subtotal	**2.5**	**136.1**	**20.7**	**159.3**

Indirect Capital Costs	2023 Actual	2024 Actual	2025 Actual	Total
Indirects/Overheads (including benefits)	1.2	102.2	1.8	105.1
Capitalized interest or AFUDC, if any	0.0	6.4	2.1	8.5
Subtotal	**1.2**	**108.5**	**3.9**	**113.6**

Total Capital Costs (Gross)	**3.7**	**244.6**	**24.6**	**272.9**
Less Total Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Project Costs (Net of Reimbursement)	**3.7**	**244.6**	**24.6**	**272.9**

3. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

Eversource plans on installing new energy release covers on its manholes moving forward. Existing manhole covers will be replaced with the new covers over time. The State paved a section of Route 1 in Greenwich in 2023. Eversource took the opportunity to replace covers on manholes along this path.

b. Project Need

The State paved Route 1 in Greenwich from Field Point Road to Indian Field Road under project number 173-558 in 2023. Eversource took the opportunity to replace MH covers along this route with new energy release MH covers. This represented a public safety improvement for the company and its customers.

c. Project Scope

Replace 27 manhole frames and covers on Route 1 from Field Point Road to Indian Field Road in the Town of Greenwich according to the maps in attachment C.

4. Alternatives Considered

NWS Exclusion Criteria (select all that apply)

☐ Project cost < $250k	☐ New Service
☐ CDOT Relocation	☐ Generator interconnection project
☒ Maintenance, Asset condition or safety related*	

*Maintenance, Asset condition or safety related justification: New energy release MH covers for public safety

Project Option Comparison

Design Criteria	Option		
	1 – Replace MH covers		
Required to meet project need			
Normal loads < 80% of UG rating			
Normal loads < 90% of OH rating			
Contingent loads < 100% of rating			
Additional Benefits (not required to meet scope of project)			
All zones < 500 customers			
Additional ties created			
Eliminates PILC			
Reconfigure double circuit pole lines where both the normal and alternate supply the same group of customers			
No automatic circuit ties with circuits emanating from the same bus			
Eliminate triple circuit pole line			
Authorization Type	Full		

Capital Cost	$272.9K		
Expense Cost			
Total Cost			
Total Cost / MVA added	$/MVA		
Total Cost / CM Saved	$/CM		
Total Cost / CI Saved	$/CI		
Preferred option	X		

5. Project Schedule

Add any additional milestones that are pertinent to the project

Milestone/Phase Name	Estimated Date
Fully Funded	April 2024
Construction Start	June 2024
In Service Date	December 2024

6. Regulatory Decisions

N/A

7. Codes and Standards

N/A

8. Risk and Contingencies

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2024	Low	Included contingency costs in the funding request. Perform detailed Field Analysis and walk down in project development to avoid potential issues.

Internal construction resources not available to perform the work.	2024	High	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Internal engineering resources not available to perform the work.	2024	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2024	Medium	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2024	Low	If storm activity delays work, we may be forced to use external resources.
Technological risks involving integration of new technology	2024	Low	Before use of new technology ensure support of standards and manufacturer. Schedule project to accommodate for extra time or ensure new technology is not on the critical path.

9. References

References
1. N/A

10. Attachments (One Line Diagrams, Images, etc.)

Attachment	Included in Submittal?
A. Cost Estimate	*YES*
B. State of CT DOT Memo	*YES*
C. MH Locations	*YES*
D. Partial Funding PAF	*YES*

Attachment A: Cost Estimate

Segment CD02254-01

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	20.00%
SubTotal:	$195,500
Contingency Amount:	$39,100
Estimate:	$234,600
Reimbursement:	$0
Net Amount:	**$234,600**
Description:	Replace 47 MH frames & covers @ $6,500 x 27 = $175,500

Item Description	CU	Amount
TRAFFIC	16-ALL18	$20,000.00
OH/DB/UG - Traffic Control - Police Officer		
OTHER	16-ALL14	$175,500.00
OTHER		
Labor, Equipment & mat'l to replace 27 MH frames & covers @ $6,500 per location		

[redacted]

Attachment B: State of CT DOT Memo

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
DISTRICT II
171 SALEM TURNPIKE
NORWICH, CONNECTICUT 06360
PHONE: (860) 823-3211

December 8, 2022

To Whom It May Concern:

Subject: Utility Adjustments on State Maintained Highways
Maintenance VIP Resurfacing Program
2023 Construction Season

As part of the Department of Transportation (Department) Infrastructure Renewal Program, the roadways on the enclosed tentative listing are being scheduled for pavement resurfacing by the Department during the 2023 construction season.

The Department will be reimbursing the utility companies for the adjusting of utilities in the State right-Of-way as follows:

- Public and Cooperatively Owned Utility Companies will be reimbursed 100%
- Private Utility Companies will be reimbursed 50%

It is requested that the enclosed 2023 tentative terminus locations be reviewed, and all your utility structures inspected. Any adjustments must be completed to the satisfaction of the Department. Any adjustments which result in a poor ride surface will be required to be corrected at the expense of the utility within 30 calendar days of notification as such, once corrected, payment will be made in full.

Upon completion of your review of the enclosed listing, please notify this office in writing of the locations where your facilities will require adjusting. Also, advise as to whether the required adjustments of manholes or gate valves will be performed with adjustment rings or raising of the frame/grate itself. Please note that all manhole adjustments will be done post paving and the Department will only pay for the raising or adjusting of the utility if the circular saw cut/bore method is used. Gate valves may be adjusted during paving if the paving operation is not hindered. For each location where your facilities do not conflict with our proposed resurfacing, a negative reply is required. **Your company or municipality must secure an encroachment permit for this work from this office, a standard requirement for all work performed within the State right-of-way**. The permit will act as your letter of authorization to proceed to adjust your facilities.

In order to facilitate reimbursement, you must submit an estimated number of structures to be adjusted for each location that affects your utility at the time of the pre-construction meeting. A pre-construction meeting for each terminus will be held in which all affected utilities will be invited to; it is essential that a representative be present at these meetings.

Reimbursements will be made by a purchase order after **final** adjusting of your utility. Adjustments must be made no longer than one year from the final paving date to be reimbursed unless written approval is given by the Department. Reimbursement will only be for those costs associated with adjusting facilities to meet the new pavement grades including actual hours for traffic control. The inspection of, and any repairs to your facilities are not reimbursable. Manhole frames or covers requiring replacement will not be reimbursed and will be the responsibility of the utility. Repairs should be done prior to paving.

The rate schedule for adjusting utility structures is as follows:

An Equal Opportunity Employer
Printed on Recycled or Recovered Paper

Public and Cooperatively-Owned Utility Companies – Adjusting Manhole Frame and Grate
Maximum Reimbursement $1,600.00 each
Public and Cooperatively-Owned Utility Companies – Adjusting manhole with rings
Maximum Reimbursement $800.00 each
Public and Cooperatively-Owned Utility Companies – Adjusting Gate Valve
Maximum Reimbursement $350.00 each

Private Utility Companies – Adjusting Manhole Frame and Grate
Maximum Reimbursement $800.00 each
Private Utility Companies – Adjusting Manhole with Rings
Maximum Reimbursement $400.00 each
Private Utility Companies – Adjusting Gate Valve
Maximum Reimbursement $175.00 each

You are the sole recipient of this letter within your municipality or company. If other offices or divisions within your organization may be affected by the resurfacing work, we request that copies of this letter be forwarded to the appropriate parties and this office contacted.

Please note: This procedure will only apply to maintenance vendor-in-place projects such as those on the enclosed list. It is ***NOT*** meant to apply to construction-type projects.

You may contact the Department of Transportation, District 2 Maintenance office, Monday through Friday between the hours of 7:30 a.m. and 4:00 p.m. by E-Mailing or calling Transportation Maintenance Planner Amanda May at (Amanda.May@ct.gov) or (860) 823-3212 for **Section 21** and Transportation Maintenance Planner Brian Doyle (Brian.Doyle@ct.gov) or (860) 823-3223 for **Section 23**, or in writing to 171 Salem Turnpike, Norwich, CT 06360, to answer any questions you may have or to arrange for an on-site meeting, if necessary, to review the adjustments to your utilities that will conflict with our proposed resurfacing.

Respectfully,

Carlos Wimberly
Transportation District Maintenance Special Services
Section Manager
Bureau of Highway Operations

Attachment

12/5/2022

2023VIP
DISTRICT 2

RTE	TOWNS			TERMINI	MILES BGN LOG	MILES END LOG	LOG LENGTH	2-LANE MILES
				SECTION 21				
395 N/S	Plainfield			Bgn OP Rte14A to 0.45 mi s/o Plainfield/Killingly TL	29.65	35.15	5.50	11.82
193	Thompson			East Thompson Rd to Mass SL	3.26	6.63	3.37	3.37
16	Colchester	Lebanon		West jct Rt 85 Main Street to End Rte 16	12.09	17.05	4.96	4.96
14	Plainfield			From Rte 12 Main Street to Allen Street	17.26	18.52	1.26	1.26
44	Eastford	Pomfret		Ent. to Frog Rock Rest Area to w. jct Rte 169 Pomfret Street	88.64	94.09	5.45	5.45
200	Thompson			Rte 12 Riverside Drive to End Rte 200	0.00	1.87	1.87	1.87
							0.00	0.00
							22.41	28.73
				SECTION 23				
395N/S	Griswold	Plainfield		0.26 mi, s/o bgn O/P Rt 201 to Begin O/P Rt 14A Academy Hill Rd	24.00	29.65	5.65	11.54
97	Norwich			Rt 12 Jewett City Rd to 0.2 mi N/O N.jct Rt 169 S/B Providence Str	0.00	1.19	1.19	1.19
1	New London			Jefferson Ave to Vauxhall Street	99.55	100.24	0.69	0.69
908	New London			US Rt 1 N/B to Exit From SR 623	0.00	0.16	0.16	0.16
9 S/B	Chester	Haddam		End O/P Turkey Hill Rd to Middletown TL (inc ramps)	11.33	18.79	7.46	8.71
154	Deep River	Chester		Spring Street to Meadow Lane	14.87	17.35	2.48	2.48
635	New London			SR 641 Huntington Street to SR 638 Briggs Street	0.00	0.58	0.58	0.58
638	New London			SR 635 Williams Street to SR 636 Briggs Street	0.00	0.16	0.16	0.16
636	New London			Norwood Avenue to Exit From Coast Guard Academy	0.00	0.64	0.64	0.64
163	Montville			Rt 32 New London Tpke to Lynch Hill Road	0.00	1.94	1.94	1.94
395SB	Norwich	Lisbon		0.04 mi S/O O/P Lawler Lane to 0.03 mi S/O Exit to Rt 97	16.96	18.08	1.12	1.20
							22.07	29.29
				District II Grand Totals			44.48	58.02
				Carry Overs Section 21				
16	Colchester			Cabin Road to west of jct Rte 85 Main Street	11.38	12.02	0.64	0.64
				Carry Overs Section 23				
138	Sprague			Route 97 Scotland Rd to the Lisbon townline	0.00	2.59	2.59	2.59
156	Old Lyme			From w/b jct US Rte 1 Halls Road to Four Mile River Road	8.44	15.29	6.85	6.85

Attachment C: MH Locations

CD02254 - Greenwich - MH Frame & Cover Replacements
UG Map: WEST_PUTNAM_AVE_47
MH# 138, 137, 340, 136

MH# 138, 137, 340, 136, 123 (D), 122, 118 (D), 124 (D), 125, 126, 350, 221, 223, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256

(D) - Double frame/cover



CD02254 - Greenwich - MH Frame & Cover Replacements
UG Map: WEST_PUTNAM_AVE_47
MH# 123, 122



Pg 2 - 16

CD02254 - Greenwich - MH Frame & Cover Replacements
UG Map: E_Putnam_Ave_01
MH# 118, 124, 125



Pg 3 - 16

CD02254 - Greenwich - MH Frame & Cover Replacements
UG Map: E_Putnam_Ave_01
MH# 126, 350, 221



Pg 4 - 16

CD02254 - Greenwich - MH Frame & Cover Replacements
UG Map: E_Putnam_Ave_02
MH# 222



CD02254 - Greenwich - MH Frame & Cover Replacements
UG Map: E_Putnam_Ave_02
MH# 223



CD02254 - Greenwich - MH Frame & Cover Replacements
UG Map: E_Putnam_Ave_03
MH# 246, 247



Pg 7 - 16

CD02254 - Greenwich - MH Frame & Cover Replacements
UG Map: E_Putnam_Ave_03
MH# 248



CD02254 - Greenwich - MH Frame & Cover Replacements
UG Map: E_Putnam_Ave_04
MH# 249



Pg 9 - 16

CD02254 - Greenwich - MH Frame & Cover Replacements
UG Map: E_Putnam_Ave_04
MH# 250



Pg 10 - 16

CD02254 - Greenwich - MH Frame & Cover Replacements
UG Map: E_Putnam_Ave_04
MH# 251



Pg 11 - 16

CD02254 - Greenwich - MH Frame & Cover Replacements
UG Map: E_Putnam_Ave_05
MH# 252



CD02254 - Greenwich - MH Frame & Cover Replacements
UG Map: E_Putnam_Ave_05
MH# 253



Pg 13 - 16

CD02254 - Greenwich - MH Frame & Cover Replacements
UG Map: E_Putnam_Ave_05
MH# 254



Pg 14 - 16

CD02254 - Greenwich - MH Frame & Cover Replacements
UG Map: E_Putnam_Ave_06
MH# 255



Pg 15 - 16

CD02254 - Greenwich - MH Frame & Cover Replacements
UG Map: E_Putnam_Ave_06
MH# 256



Pg 16 - 16

Attachment D: Partial Funding PAF

Operations Project Authorization Form

Project Title: Greenwich - MH Frame & Cover Replacements	**Project Number:** CD02254
Date Prepared: 05/12/2023	**Company:** Eversource CT
Organization: Distribution Engineering	**Class(es) of Plant:** D Line
Project Initiator: [redacted]	**Project Category:** UNDERGROUND STRUCTURE ISSUE
Project Manager: [redacted]	**Project Type:** Specific
Project Sponsor: [redacted]	**Capital Investment part of original Operating Plan:** No
Estimated in service date: 12/31/24	**Emergency Related Request?** No
Eng./Constr. Resources Budgeted? Yes	**Facility Type** (check all that apply)**:**
Total Gross Capital Request: $227.9K (Cust. Reimb. 22.4K)	**Authorization Type:** Initial Funding

Executive Summary

The State will be paving Route 1 in Greenwich from Field Point Road to Indian Field Road under project number 173-558 this year (2023). Typically for these projects the state would pave over our manholes then reimburse Eversource for raising any manhole frames and covers that needed to be raised. Along this path there are 27 manhole covers – 14 of which are directly within the paving path. The others are on the side of the roadway – in sidewalks or a grassy area. This project is being presented to "piggy-back" on the state's project and take the opportunity to replace existing manhole covers with the new energy release covers along the route. All 27 manhole covers will be replaced with new energy release covers, and reimbursement will be sought from the state for only the covers that have to be raised in the paved roadway. The reimbursement, where applicable, will be a fixed cost ($1600), which is a pre-determined maximum amount to account for raising the buried Manhole Grate(s)/Frame(s) to final grade (see attached document below).



Utility Adjustments
on State Maintained

Project Costs Summary

Note: Dollar values are in thousands

Capital Costs	2023	2024	2025+	Total
Internal Labor and Construction Equipment	4.8	0.0	0.0	4.8
Outside Services	93.6	0.0	0.0	93.6
Materials	5.8	0.0	0.0	5.8
Removals	54.2	0.0	0.0	54.2
Other	0.2	0.0	0.0	0.2
Risk and Contingency	0.0	0.0	0.0	0.0
Subtotal	**158.6**	**0.0**	**0.0**	**158.6**

Indirect Capital Costs	2023	2024	2025+	Total
Indirects/Overheads (including benefits)	68.6	0.0	0.0	68.6
Capitalized interest or AFUDC, if any	0.8	0.0	0.0	0.8
Subtotal	**69.3**	**0.0**	**0.0**	**69.3**
Total Capital Costs (Gross)	**227.9**	**0.0**	**0.0**	**227.9**
Less Total Customer Contribution	**-22.4**	**0.0**	**0.0**	**-22.4**
Project Costs (Net)	**205.5**	**0.0**	**0.0**	**205.5**

Technical Justification:

Project Need, Objective and Justification:

The State will be paving Route 1 in Greenwich from Field Point Road to Indian Field Road under project number 173-558 this year (2023). Eversource will take this opportunity to replace MH covers along this route with new energy release MH covers. This represents a public safety improvement for the company and its customers.

Project Scope:

Replace 27 manhole frames and covers on Route 1 from Field Point Road to Indian Field Road in the Town of Greenwich according to the attached map.

Major Material:

- Energy Release Manhole frames and covers - 27

Background:

Eversource plans on installing new energy release covers on its manholes moving forward. Existing manhole covers will be replaced with the new covers over time. The State will be paving a section of Route 1 in Greenwich in 2023. Eversource will be taking this opportunity to replace covers on manholes along this path.

Alternatives Considered:

Alternatives were considered (please describe below)

Eversource can wait until a future date to replace these manhole covers. However, it is prudent to replace them now while the road is being paved so that the road will not have to be dug up in the future after it has already been paved.

Regulatory Approvals:

Are Regulatory body approvals needed for the project?

No

Project Schedule

Milestone/Phase Name	Estimated Date
100% Engineering Completion	May 2023
Construction Start	July 2023
In Service Date	December 2023

Risks and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2023	Low	Included contingency costs in the funding request. Perform detailed Field Analysis and walk down in project development to avoid potential issues.
Internal construction resources not available to perform the work.	2023	High	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Internal engineering resources not available to perform the work.	2023	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2023	Medium	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2023	Low	If storm activity delays work, we may be forced to use external resources.
Technological risks involving integration of new technology	2023	Low	Before use of new technology ensure support of standards and manufacturer. Schedule project to accommodate for extra time or ensure new technology is not on the critical path.

References

CD02254_project_needs_statement.pdf

Appendices (One-Line Diagrams, Images, etc.)



CD02254 -
Greenwich - MH Fra