EVERSOURCE

Supplement Authorization Form

Project Title: [redacted] Overload	**Project Number:** CD02303
Date Prepared: 08/10/2026	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** OVERLOADS-SPECIFIC PROJECTS
Initiating Organization: Distribution	**Project Type:** Specific
Project Engineer: [redacted]	**Capital Investment part of 5-year plan?** Yes
Operations Representative: [redacted]	**Emergency Related Request?** No
Project Sponsor: [redacted]	**Facility Type** (check all that apply)**:** ☐ PTF ☐ non-PTF ☒ Distribution ☐ N/A (General Plant)
Current Authorized Amount: $1,036.0K	**Approved In-Service Date:** 6/30/2026
Supplement Request: $207.0K	**Estimated In-Service Date:** 12/31/2026
Total Capital Request ($): 1,243.0K	**Authorization Type: Supplement Request**
	Reason: : Cost Overage

1. Supplement Justification Detail

Supplemental funding of $207.0K is being requested to complete the project driven mainly by material related costs. The $207K in addition to the previously approved $1,036.0K makes the total project cost $1,243.0K, or 120% of the previously approved full funding.

2. Supplement Cost Summary (Project Total)

Line-item Category	To Date Spend Year(s)	Prior Authorized Year(s)	Variance (Supplemental Request) Year(s)	New Total Request (Add Prior Authorized and Variance) Year(s)
Internal Labor and Construction Equipment	$19.5	$43.4	$-25.3	$18.1
Outside Services	$328.3	$352.6	$-47.0	$305.6
Materials	$251.5	$176.9	$57.2	$234.1
Removals	$0.0	$78.3	$-36.8	$41.5
Risk and Contingency	$0.0	$0.0	$24.4	$24.4
Other	$0.1	$6.9	$-6.8	$0.1
SUBTOTAL DIRECTS W/ RISKS	**$599.4**	**$658.1**	**$-34.4**	**$623.7**
Indirect / Overhead (including benefits)	$611.5	$354.4	$257.1	$611.5
AFUDC	$7.8	$23.5	$-15.7	$7.8
Subtotal – Indirect Costs	**$619.2**	**$377.9**	**$241.3**	**$619.2**
TOTAL CAPITAL REQUEST	**$1,218.6**	**$1,036.0**	**$207.0**	**$1,243.0**
Reimbursables/Customer Contribution	$0.0	$0.0	$0.0	$0.0
PROJECT TOTAL (LESS REIMBURSABLES)	**$1,218.6**	**$1,036.0**	**$207.0**	**$1,243.0**

New Total Request by Year (if applicable)

Capital Costs	2022 Actual	2023 Actual	2024 Actual	Jul YTD 2026 Actual	2026 Estimate	TOTAL
Internal Labor & Equipment	0.0	0.6	0.1	17.5	-0.1	18.1
Outside Services	0.0	9.4	2.3	294.8	-0.9	305.6
Materials	0.0	7.2	1.7	225.8	-0.7	234.1
Removals	0.0	1.2	0.3	38.3	1.6	41.5
Risk and Contingency	0.0	0.0	0.0	0.0	24.4	24.4
Other	0.0	0.0	0.0	0.1	0.0	0.1
SUBTOTAL Direct Cost	**0.0**	**18.5**	**4.4**	**576.5**	**24.4**	**623.7**
Indirects / Overheads	0.0	23.6	5.7	582.1	0.0	611.5
AFUDC	0.0	0.3	1.1	6.4	0.0	7.8
SUBTOTAL Indirect Cost	**0.0**	**23.9**	**6.8**	**588.5**	**0.0**	**619.2**
TOTAL Capital Request	**0.0**	**42.4**	**11.2**	**1,165.0**	**24.4**	**1,243.0**
Less Total Customer Contribution	0.0	0.0	0.0	0.0	0.0	**0.0**
TOTAL Project Cost	**0.0**	**42.4**	**11.2**	**1,165.0**	**24.4**	**1,243.0**

3. Full Funding PAF

Project Title: [redacted] Overload	**Project Number:** CD02303
Date Prepared: 12/16/2025	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** OVERLOADS-SPECIFIC PROJECTS
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: 6/30/2026	**NWS Excludable:** ☐ Yes ☒ No
Total Capital Request: $1,036K	**Authorization Type:** Full Funding

4. Executive Summary

Full Funding is being requested for this project at a capital cost of $1,036K, which is $185.4K less or 85% of the approved partial funding of $1221.4K. The originally approved option was option 3, which was to reconductor existing PILC and install 500 Cu EPR in parallel. However, the preferred scope of this project has now changed to option 1, which is to install 500 Cu EPR alongside existing cable to increase the rating of the [redacted]. Had option 1 originally received partial funding approval, the full funding request would be $180K more or 121% of the partial funding request of $856K.

This project addresses overload conditions on the [redacted] feeder.

Location Information:

Division: Western

Districts: Stamford

City: Stamford

5. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	Year 2026	Year 2027	Year 2028+	Total
Direct Capital Costs				
Internal Labor and Construction Equipment	43.4	0.0	0.0	43.4
Outside Services	352.6	0.0	0.0	352.6
Materials	176.9	0.0	0.0	176.9
Removals	78.3	0.0	0.0	78.3
Risk and Contingency	0.0	0.0	0.0	0.0
Other	6.9	0.0	0.0	6.9
Subtotal – Direct Costs	658.0	0.0	0.0	658.0
Indirect Capital Costs				
Indirect/Overheads (including benefits)	345.5	0.0	0.0	345.5
Capitalized interest or AFUDC, if any	23.5	0.0	0.0	23.5
Subtotal – Indirect Costs	378.0	0.0	0.0	378.0
Total Gross Capital Costs	**1,036.0**	0.0	0.0	**1,036.0**
Customer Contribution	0.0	0.0	0.0	0.0
Total Net Capital Project Costs	**1,036.0**	0.0	0.0	**1,036.0**

6. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

The [redacted] circuit does not directly serve any critical facilities. There have not been any outages on the [redacted] in the last four years that can be classified as a cable failure. As of August

2023, one backbone outage has occurred in the last four years; it was on July 31, 2020, and was animal/bird related. However, the existing 500 Cu cable is limiting the feeder with a UG rating of 345 amps. If the UG rating on the [redacted] is increased, the new limiting factor for the feeder would be the overhead 336.4 AAC cable, which has a rating of 460 amps. Under normal operation, the loading on the feeder would drop from 81% to 61% of its rated value. Under contingency (picking up [redacted], the load on the feeder would drop from 122% to 92%.

b. Project Need

The driver for this project is that the high phase of the [redacted] at the [redacted] is currently at 87% of its summer normal rating. The objective/solution is to reconductor existing getaway cables on this circuit to increase the UG rating and improve circuit reliability.

Under contingency, [redacted] currently reaches 122% of its summer normal rating when picking up [redacted] zone. Installing parallel 500 Kcmil Cu EPR cable would result in a [redacted] increase in circuit load capacity as the circuit would now be limited by its overhead cables.

c. Project Scope

This project proposes the following cable replacement:

- Replace [redacted] of 700 Cu and [redacted]
- Install [redacted] of 500 Cu EPR in parallel with 22M9 getaway cables.

Major Material:

- 5,208’ of 500 Kcmil Cu EPR cable

7. Alternatives Considered

Reconductoring existing getaway cables on the [redacted] is the only acceptable solution to the current overload. Option 3 originally received partial approval. However, option 1 is the preferred approach since it directly addresses the overload condition on the [redacted].

The preferred option (alternative option one) is to install [redacted] cable. This would increase the UG rating of the [redacted]. This option was chosen due to its cost-effective approach to addressing the overload on the 22M9.

The alternative option two is to reconductor existing getaway cables with 750 Cu EPR cable. Reconductoring with 750 Cu EPR cable would increase the UG rating of the [redacted] by only 3.2 MVA but decrease the rating on the neighboring circuits by approx. 5-10 amps.

The alternative option 3 is to replace existing 500 Cu PILC cable with 500 Cu EPR cable and to install 500 Cu EPR cable in parallel. This would increase the UG rating of the 22M9 by 3.6 MVA and eliminate PILC from the [redacted] This option was not chosen due to high cost in comparison to the preferred option.

An NWS alternative would require a battery capable of supplying 3.25MW during a 4-hour peak period. Given the average cost of $2M/MWH, this option would cost $26M. This option was not chosen due to high cost in comparison to the preferred option.

Project Option Comparison

Design Criteria	Option			
	1 – Replace UG cables with parallel 500 Cu Cable.	2 – Replace UG cable with 750 Cu EPR Cable	3 – Replace existing PILC cable with parallel 500 Cu EPR cable	4- NWS alternative
Normal loads < 80% of UG rating	X	X	X	X
Normal loads < 90% of OH rating	X	X	X	X
Contingent loads < 100% of rating	X	X	X	X
Eliminates PILC		X	X	
Authorization Type	Full	Full	Full	Partial
Capital Cost	$1,036.0K	$1,311.4K	$1,436K	$25,213.6K
Expense Cost	$32.3K	$40.9K	$51.8K	$786.4
Total Cost	$1,068.3K	$1,352.3K	$1,486.8K	$26,000K
Total Cost / MVA added	$296.8K/MVA	$422.6K/MVA	$413.0K/MVA	$8,000/MVA
MVA Added	3.6	3.2	3.6**	3.25
Preferred option	X			

** UG rating can be increased as high as 700A (8.2 MVA added) for the parallel 500 cu cable in a duct bank.

8. Project Schedule

Add any additional milestones that are pertinent to the project

Milestone/Phase Name	Estimated Date
Partial Approval	December 2023
100% Detailed Engineering Completion	October 2025
Fully Funded	February 2026
Construction Start	March 2026
In Service Date	June 2026

9. Regulatory Decisions

N/A

10. Codes and Standards

N/A

11. Risk and Contingencies

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2026	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.	2026	Medium	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.

Materials Shortage or long lead times	2026	Medium	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2026	Low	If storm activity delays work, we may be forced to use external resources.
Technological risks involving integration of new technology	2026	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.

12. References

References
N/A

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

Attachment	Included in Submittal?
A. Partial Funding PAF	*YES*

Attachment A: Partial Funding PAF

Project Title: [redacted] Overload	**Project Number:** CD02303
Date Prepared: 08/23/2023	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** OVERLOADS-SPECIFIC PROJECTS
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: 06/30/2026	
Total Capital Request: 1,221K	**Authorization Type: Partial Funding**

14. Executive Summary

Project CD02303 serves to address concerns with the [redacted] that relate to the cable's UG rating. As it stands, the high phase (in the breaker zone) of [redacted] is at 87% of its UG rating during summer normal operation. The limiting factor in this zone is 500kcmil Cu cable.

This project consists of the following:

- Replace [redacted]' of 700 cu, 750 JUTE and 500 cu PILC cable with 500 Kcmil Cu EPR cable.
- Install [redacted]' of 500 Cu EPR in parallel with 22M9 getaway cables.

Reconductoring the getaway cables between manhole [redacted] with 500 Kcmil Cu EPR will allow for an increased circuit rating and aid in achieving less than 70% of the UG rating (on all phases) for the breaker zone. Parallel 500 Kcmil Cu EPR was chosen over 750 Kcmil Cu EPR. This duct bank comprises of [redacted] ducts. Completing this project as specified will also rid the [redacted]' PILC cable.

<u>Location Information:</u>

Division: Western

District: Stamford

City: Stamford

15. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	Year 2026	Year 2027	Year 2028+	Total
Direct Capital Costs				
Internal Labor and Construction Equipment	63.1	0.0	0.0	63.1
Outside Services	299.4	0.0	0.0	299.4
Materials	284.3	0.0	0.0	284.3
Removals	205.5	0.0	0.0	205.5
Risk and Contingency	5.4	0.0	0.0	5.4
Other	0.0	0.0	0.0	0.0
Subtotal – Direct Costs	**857.7**	**0.0**	**0.0**	**857.7**
Indirect Capital Costs				
Indirect/Overheads (including benefits)	325.9	0.0	0.0	325.9
Capitalized interest or AFUDC, if any	37.8	0.0	0.0	37.8
Subtotal – Indirect Costs	**363.7**	**0.0**	**0.0**	**363.7**
Total Gross Capital Costs	**1,221.4**	**0.0**	**0.0**	**1,221.4**
Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Total Net Capital Project Costs	**1,221.4**	**0.0**	**0.0**	**1,221.4**

16. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

The [redacted] circuit does not directly serve any critical facilities. There have not been any outages on the 22M9 feeder in the last four years that can be classified as a cable failure. Only one backbone outage has occurred in the last four years; it was on July 31, 2020, and was animal/bird related. However, the existing 500 Cu cable is limiting the feeder with a UG rating of 345 amps. If all 500 Cu cables are replaced on the [redacted], the new limiting factor for the feeder would be the overhead 336.4 AAC cable, which has a rating of 460 amps. Under normal operation, the loading on the feeder would drop from 81% to 61% of its rated value. Under contingency (picking up [redacted], the load on the feeder would drop from 122% to 92%.

b. Project Need

The driver for this project is that the high phase of the [redacted] feeder at the [redacted] substation is currently at 87% of its summer normal rating. The objective/solution is to reconductor existing getaway cables on this circuit to increase the UG rating and improve circuit reliability.

Under contingency, [redacted] currently reaches 122% of its summer normal rating when picking up [redacted] zone. Installing parallel 500 Kcmil Cu EPR cable would result in a 2.6 MVA increase in circuit load capacity as the circuit would now be limited by its overhead cables.

c. Project Scope

This project proposes the following cable replacement:

- Replace [redacted]' of 700 cu, 750 JUTE and 500 Cu PILC cable with 500 Kcmil Cu EPR Cable.
- Install [redacted] of 500 Cu EPR in parallel with [redacted] getaway cables.

Major Material:

- [redacted]' of 500 Kcmil Cu EPR cable

17. Alternatives Considered

Reconductoring existing getaway cables on the [redacted] is the only acceptable resolution to the current overload.

The alternative option one is to install 500 cu EPR cable in parallel with the existing 500 Cu PILC cable. However, PILC cable is Eversource's most mature asset and has reached its end of life. It is not only prone to failure but requires longer repair time.

The alternative option two is to reconductor existing getaway cables with 750 Cu EPR cable. Reconductoring with 750 Cu EPR cable would increase the UG rating of the [redacted] by only 3.2 MVA but decrease the rating on the neighboring circuits by approx. 5-10 amps.

The preferred option (alternative option 3) has the added future benefit of increasing the UG rating should the OH conductors be replaced with a larger size. Also, the preferred option covers the PILC cable replacement.

Project Option Comparison

Design Criteria	Option		
	1 – Replace UG cables with parallel 500 Cu Cable.	2 – Replace UG cable with 750 Cu EPR Cable	3 – Replace existing PILC cable with parallel 500 Cu EPR cable
Normal loads < 80% of UG rating	X	X	X
Normal loads < 90% of OH rating	X	X	X
Contingent loads < 100% of rating	X	X	X
Eliminates PILC		X	X
Authorization Type	Partial	Partial	Partial
Capital Cost	$856K	$1,110.7K	$1,221.4K
Expense Cost	$26.8K	$34.8K	$38.3K
Total Cost	$883K	$1,146K	$1,260K
Total Cost / MVA added	$167K/MVA	$358K/MVA	$350K/MVA
MVA Added	3.6	3.2	3.6**
Preferred option			X

** UG rating can be increased as high as 700A (8.2 MVA added) for the parallel 500 cu cable in a duct bank.

18. Project Schedule

Milestone/Phase Name	Estimated Date
Partial Approval	December 2023
100% Detailed Engineering Completion	October 2025
Fully Funded	June 2025
Construction Start	January 2026
In Service Date	June 2026

19. Regulatory Decisions

N/A

20. Codes and Standards

N/A

21. Risk and Contingencies

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2026	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.	2026	Low	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.	2025	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2026	Low	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2026	Low	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2026	Medium	Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system will be abnormal for extended periods.

22. References

References
1. N/A

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

Attachment	Included in Submittal?
A. Cost Summary	*YES*
B. Geographic Map	*YES*
C. Load Sheet	*YES*
D. Oneline	*YES*
E. UG Duct Positions	*YES*

Attachment A: Cost Summary: Segment 1 (Option 1):

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	32.00%
SubTotal:	$668,808
Contingency Amount:	$214,019
Estimate:	$882,827
Reimbursement:	$0
Net Amount:	**$882,827**
Description:	

Item Description	CU	$ / Per	Qty	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	23-ALL17	[redacted]		$4,562.48
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	23-ALL18	1.00 / $	15,000	$15,000.00
OTHER OTHER 30% Contractor Cost added	23-ALL14	[redacted]		$154,340.00
UG CABLE DB/UG - 350/500 - 3-1/C (3ph) Cu 500 Cu Parallel from [redacted]	23-UG114			$471,219.84
UG CABLE UG - Cable Removal - all cables Remove Cable from [redacted]	23-UG117			$23,686.00

Segment 2 (Option 2):

Estimate

Preliminary Estimate Summary

Revision Number:	0
Contingency:	32.00%
SubTotal:	$867,815
Contingency Amount:	$277,701
Estimate:	$1,145,516
Reimbursement:	$0
Net Amount:	**$1,145,516**
Description:	

Item Description	CU	$ / Per	Qty	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	23-ALL17	[redacted]		$4,562.48
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	23-ALL18	1.00 / $	15,000	$15,000.00
UG CABLE UG - Cable Removal - all cables	23-UG117	[redacted]		$111,722.00
OTHER OTHER 30% Contractor cost added	23-ALL14	[redacted]		$200,265.00
UG CABLE DB/UG - 750/1000 - 3-1/C (3ph) Cu 750 Cu from [redacted]	23-UG114B	[redacted]		$536,265.60

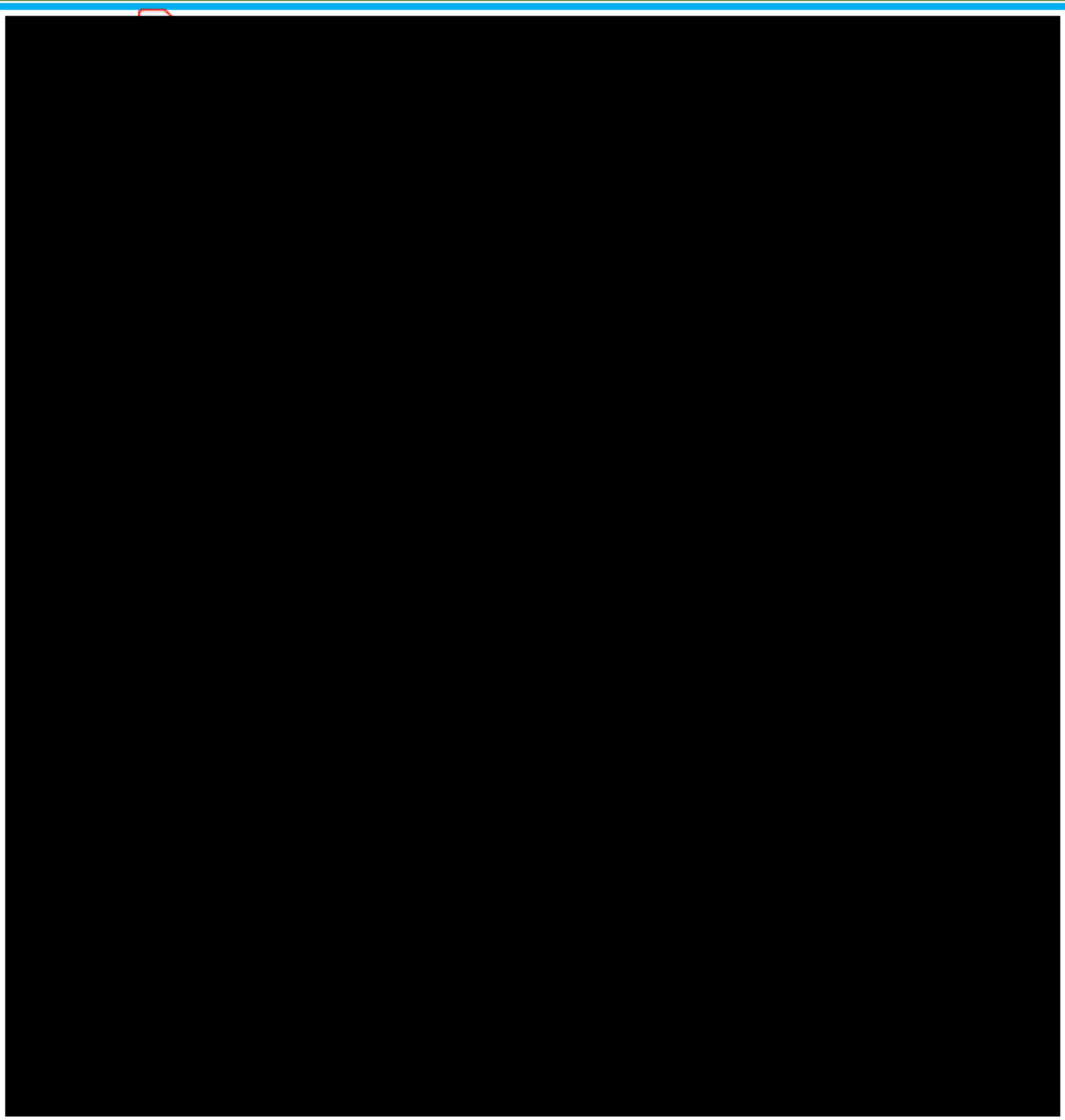
Segment 3 (option 3 – preferred option):

Estimate

Preliminary Estimate Summary

Revision Number:	0
Contingency:	32.00%
SubTotal:	$954,288
Contingency Amount:	$305,372
Estimate:	$1,259,661
Reimbursement:	$0
Net Amount:	**$1,259,661**
Description:	

Item Description	CU	$ / Per	Qty	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	23-ALL17	[redacted]		$4,562.48
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	23-ALL18	1.00 / $	15,000	$15,000.00
OTHER OTHER 30% Contractor Cost added	23-ALL14	[redacted]		$220,220.00
UG CABLE DB/UG - 350/500 - 3-1/C (3ph) Cu 500 Cu Parallel From MH#677 to MH#685	23-UG114			$642,408.00
UG CABLE UG - Cable Removal - all cables Remove PILC cables and 700Cu and 750 JUTE	23-UG117			$72,098.00



EVERSOURCE

Supplement Authorization Form

[redacted]

[redacted]



Supplement Authorization Form

CD02303 - [redacted] Duct Layout.pdf

Project Title: [redacted] Overload	Project Number: CD02303
Date Prepared: 08/23/2023	**Company:** Eversource CT
Organization: Distribution Engineering	**Class(es) of Plant:** D Line
Project Initiator: [redacted]	**Project Category:** UG CABLE & EQUIPMNT REPLACEMNT
Project Manager: [redacted]	**Project Type:** UG CABLE & EQUIPMNT REPLACEMNT
Project Sponsor: [redacted]	**Capital Investment part of 5-year plan?** No
	Emergency Related Request? No
Total Request ($): $30k	**Authorization Type:** Initial Funding

1. Project Need Statement

The [redacted] coming from the [redacted] substation in Stamford, CT (Western, Stamford AWC), is currently above 80% of its summer normal UG rating. The limiting factor was identified as 500 Cu PILC. The proposed solution to the overload is to reconductor existing 500 Cu PILC with a larger cable size.

2. Project Objectives

The [redacted] experiences both normal and contingency overloads. The initial request of $30k is for UG inspections/investigations which are integral to developing solutions for the overload on 22M9.

Project Initiator: Anthony Karwaski

Engineering Approval: _____