EVERSOURCE

Project Approval Form

Project Title: Plumtree Heights UG Loop	Project Number: CD02357
Date Prepared: 10/27/2025	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** DB CABLE REPLACE-SPECIFIC PROJ
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: 12/31/25	**NWS Excludable:** ☒ Yes ☐ No
Total Capital Request: $762.0K	**Authorization Type:** Full Funding

1. Executive Summary

Full funding is being requested for $762K which is 203% of the partial funding request amount. The difference in request amounts is attributed to the tight area in the condo complex leading to increased cost estimate for work in the area. Construction will consist of a combination of cable in conduit and open trenching. The majority of the cost increase is due to the increase in indirect costs associated with this project.

Plumtree Heights is a residential development located in Bethel, CT on [redacted]

- Title: **Plumtree Heights UG Loop**
- Division: Western
- District: Newtown AWC
- Town: Bethel

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	Year 2025	Year 2026	Year 2027+	Total
Internal Labor and Construction Equipment	38.6	0.0	0.0	38.6
Outside Services	185.5	0.0	0.0	185.5
Materials	49.3	0.0	0.0	49.3
Removals	22.6	0.0	0.0	22.6
Other	0.0	0.0	0.0	0.0
Risk and Contingency	69.3	0.0	0.0	69.3
Subtotal	**365.3**	**0.0**	**0.0**	**365.3**

Indirect Capital Costs				
Indirects/Overheads (including benefits)	396.7	0.0	0.0	396.7
Capitalized interest or AFUDC, if any	0.0	0.0	0.0	0.0
Subtotal	**396.7**	**0.0**	**0.0**	**396.7**

Total Capital Costs (Gross)	**762.0**	**0.0**	**0.0**	**762.0**
Less Total Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Project Costs (Net)	**762.0**	**0.0**	**0.0**	**762.0**

Explain unique payment provisions, if applicable:

3. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

Plumtree Heights is a residential development with electric heating located in Bethel, CT on the [redacted]. The development was built over the course of 10 years from 1973 to 1983 and contains Direct Buried cables. [redacted]. The development is located on a hill and is surrounded by dense forest, a cliff face to the east, and wetlands in nearby areas. [redacted]

b. Project Need

Multiple solutions were initially investigated but because of the existing rock/cliff face, the solutions were limited. The preferred option is option 2. [redacted]

c. Project Scope

[redacted]

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:

This project aims to address aging infrastructure to reduce customer exposure. Some of the direct buried cables in this development are over 50 years old. The cables in this development have failed multiple times and this work is required to prevent extended outages for the 294 customers in the development.

Project Option Comparison

	Option			
[redacted]				
Authorization Type	Partial	Full	Partial	Partial
Capital Cost	$328.0K	$762.0K	$444.5K	$852.9K
Expense Cost	$7.3K	$16.9K	$9.9K	$19.0K
Total Cost	$335.3K	$778.9K	$454.4K	$871.9K
Total Cost / CM Saved	$67.07	$47.95	$90.91	$69.15
Total Cost / CI Saved	$7,022	$6,310	$9,518	$10,748
Preferred option		X		

Option Summary

Preferred Option 2:

Option 2 will install an [redacted]

Other(s):

Option 1 will install an additional [redacted]

Option 3 will install [redacted]

Option 4 includes the same work as option 3, but additionally [redacted]

5. Project Schedule

Add any additional milestones that are pertinent to the project

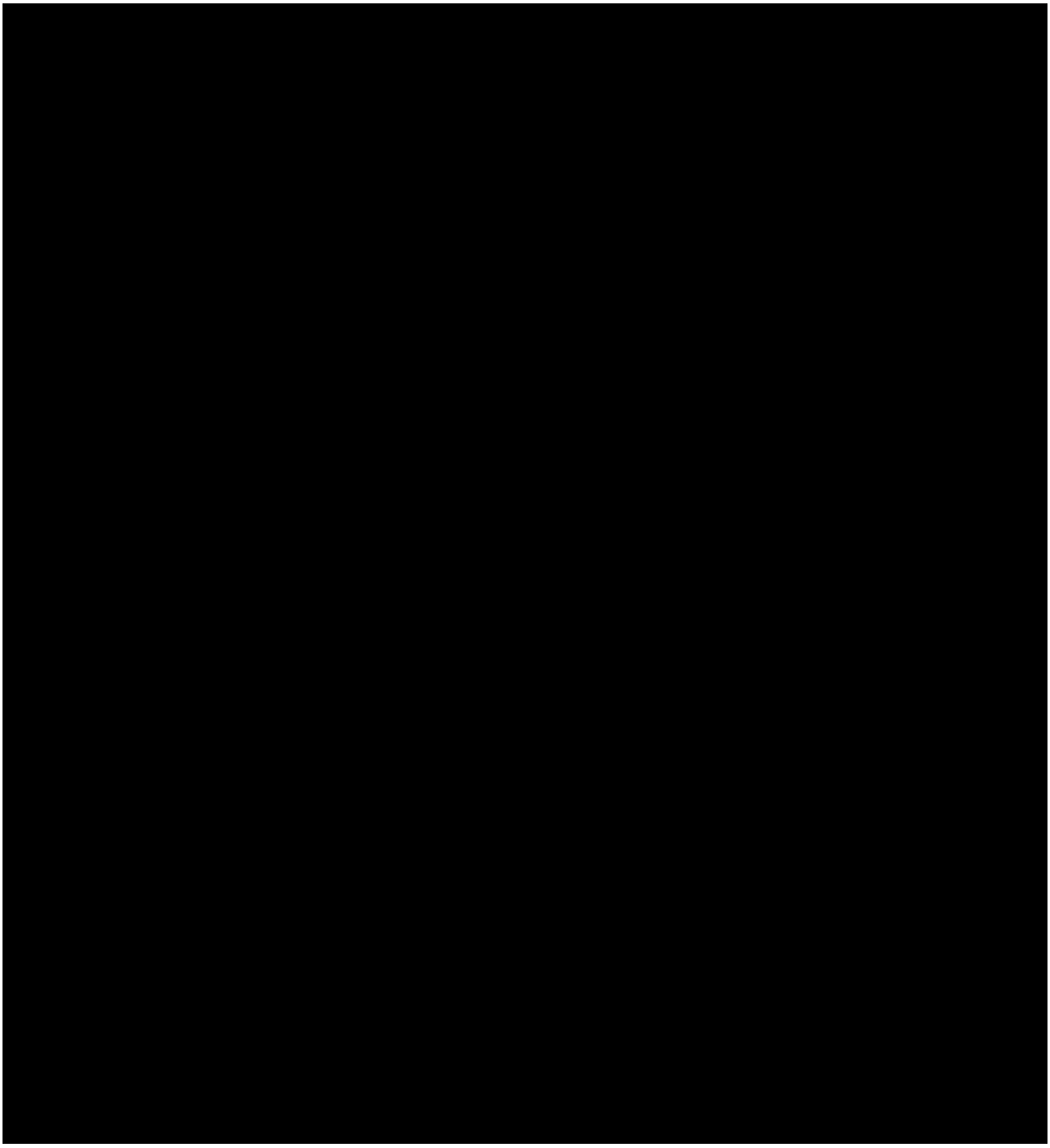
Milestone/Phase Name	Estimated Date
Partial Approval	8/29/24
100% Detailed Engineering Completion	7/31/25
Fully Funded	10/31/25
Construction Start	11/31/25
In Service Date	12/31/25

6. Regulatory Decisions

N/A

7. Codes and Standards

DSEM 7.883 - Conventional and Conduit Underground System Design Philosophy and Details:



8. Risk and Contingencies

Contingencies:

The standard 20% contingency was added for same year projects.

Risk Mitigation:

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2025	Low	Included contingency costs in the funding request. Perform detailed Field Analysis and walk down in project development to avoid potential issues.
Customer Permission / Siting Council / Municipal approvals	2025	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach.
Internal construction 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.
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	2025	Medium	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2025	Low	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2025	Low	Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system will be abnormal for extended periods.

Technological risks involving integration of new technology	2025	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.
Wetlands / Environmentally sensitive area	2025	Low	Use of mats and specialty equipment, only work during certain times of the year.

9. References

References
1.

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

Attachment	Included in Submittal?
A. Cost Estimate	*YES*
B. Geographic Map	*YES*
C. Alternative Geo Map	*YES*
D. Oneline	*YES*
E. Partial Funding PAF	*YES*

A: Cost Estimate

Project Option Summary

ID	Description	Segments	Preliminary Estimate	Construction Estimate	Variance	IEEE $/CMS	All (w/Storm)	Prfrd
O3	Option 1 Additional UG Source	1	$335,256	$0	100%	$0.00	$0.00	☐
O4	Option 2 Additional UG Source and Sectionalize	1,7	$370,596	$0	100%	$0.00	$0.00	☑
O5	Option 3 Two Systems, Partial	3	$454,418	$0	100%	$0.00	$0.00	☐
O6	Option 4 Two Systems, Full	4	$871,876	$0	100%	$0.00	$0.00	☐

Budget Summary - Preferred Option — Option 2 Additional UG Source and Sectionalize

2025

ID	Title	Status	Rev #	Contingency	Expenditure Amount	Net Estimate
1	Additional UG Cable	Draft	0	20%	$335,256	$335,256
7	VFI and Ubicquia Sensors	Draft	0	20%	$35,340	$35,340
				2025 Total:	**$370,596**	**$370,596**
				Total Project:	**$370,596**	**$370,596**

A: Cost Estimate Continued

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02357
Plumtree Heights UG Loop

Design Alternative — CD02357-01

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	20.00%
SubTotal:	$279,380
Contingency Amount:	$55,876
Estimate:	$335,256
Reimbursement:	$0
Net Amount:	**$335,256**

Description:

Item Description	CU	[redacted]	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	23-ALL17		$4,562.48
DB CABLE DB/UG - #1 - 3-1/C (3ph) Al	23-UG112		$55,328.00
POLE DB/UG - Riser - 3ph	23-UG146		$14,032.72
OTHER OTHER $146,897 * 5% for 2024 to 2025 estimates	23-ALL14		$7,345.00
OTHER OTHER 15 x Conduit Tie Ins to Transformers (per conduit)	23-ALL14		$25,557.00
OTHER OTHER 2 x 4" Galv Steel Riser 10 ft w/ sweep	23-ALL14		$4,293.00
OTHER OTHER 610 LF Drill and Install 1 - 4" HDPE in Rock/Ledge	23-ALL14		$43,951.00
OTHER OTHER 610 LF Drill and Install 1 - 4" HDPE in Sand/Dirt	23-ALL14		$23,448.00
OTHER OTHER 80 LF Drill and Install 2 - 4" HDPE in Rock/Ledge	23-ALL14		$6,975.00

A: Cost Estimate Continued

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02357
Plumtree Heights UG Loop

Design Alternative			CD02357-01
OTHER OTHER 80 LF Drill and Install 2 - 4" HDPE in Sand/Dirt	23-ALL14		$3,740.00
OTHER OTHER Access Drill Pit in Asphalt Roadway	23-ALL14		$1,552.00
OTHER OTHER Access Drill Pit in Dirt/Grass/Sand	23-ALL14		$1,552.00
OTHER OTHER Concrete Transformer Pad Top & Bottom 76" x 54" x 36" 3Ph 75-300k	23-ALL14		$3,765.00
OTHER OTHER Hydroseed 1000 sq ft	23-ALL14		$570.00
OTHER OTHER labor cost to install the cable and terminations, 5 days x $6k per day	23-ALL14		$30,000.00
OTHER OTHER Mobilization and Demobilization	23-ALL14		$2,000.00
UG CABLE DB - Splice Box New Coffin Box	23-UG154	4	$9,135.36
ENCLOSURE DB - Fiberglass Enclosure - 3ph - Doghouse New Switch for new 3ph cable	23-UG148	8	$8,076.64
OTHER OTHER Restore Asphalt Roadway (to 6" thick) - permanent 400 sq ft	23-ALL14		$10,552.00
OTHER OTHER Restore Dirt/Grass/Sand 1000 sq ft	23-ALL14		$3,900.00
OTHER OTHER Survey and As-built	23-ALL14		$5,147.00
OTHER OTHER Test Hole in Asphalt Roadway	23-ALL14		$3,104.00

A: Cost Estimate Continued

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02357
Plumtree Heights UG Loop

Design Alternative — CD02357-01

OTHER OTHER Test Hole in Dirt/Grass/Sand	23-ALL14	[redacted]	$6,790.00
OH WIRE OH - Reconductor w/ 175 Mil Tree Wire - 3ph -1/0 To connect to new riser pole	23-OH26a		$4,004.00

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02357
Plumtree Heights UG Loop

Design Alternative — CD02357-07

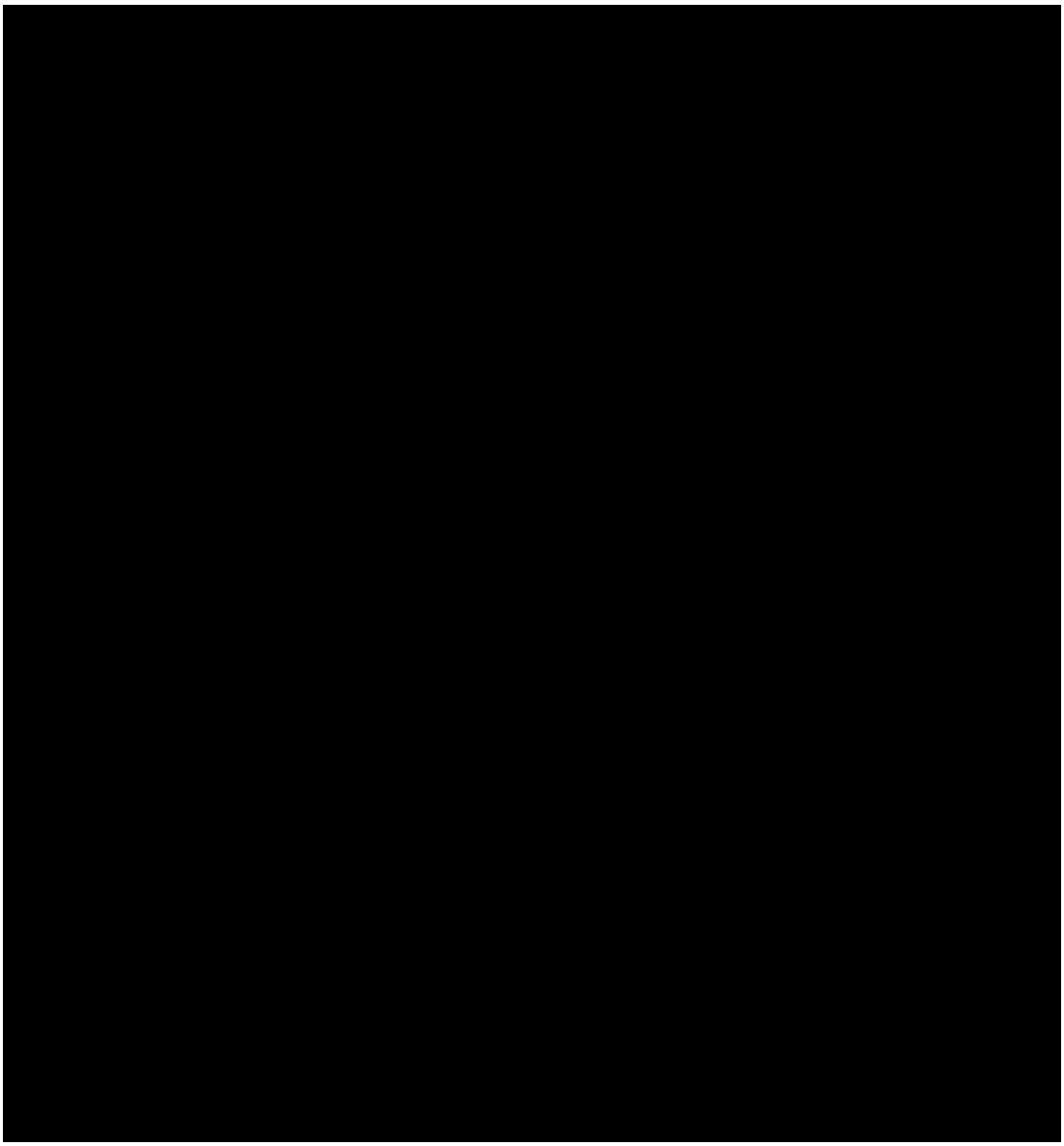
Estimate

Preliminary Estimate Summary

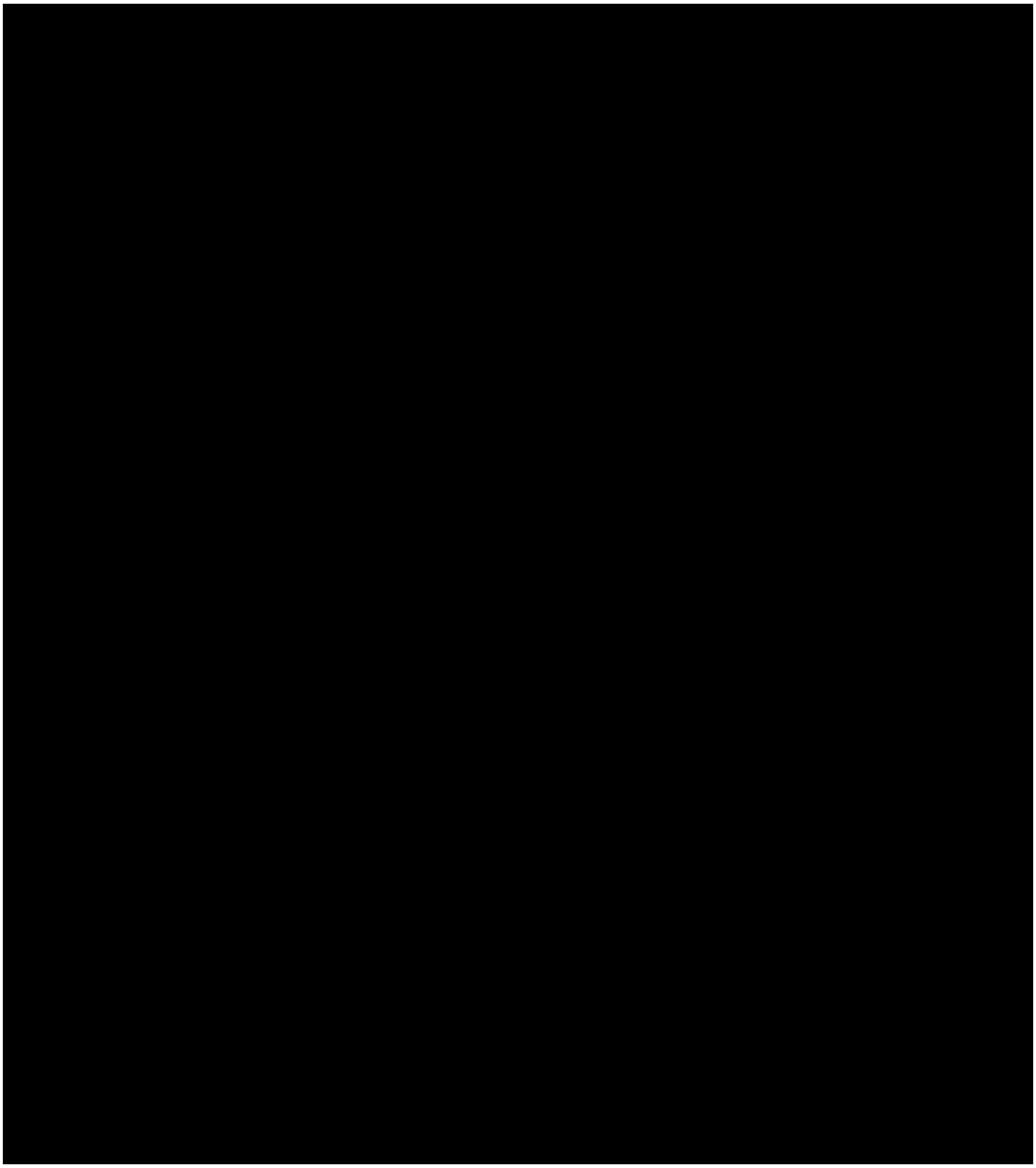
Revision Number:	0
Contingency:	20.00%
SubTotal:	$29,450
Contingency Amount:	$5,890
Estimate:	$35,340
Reimbursement:	$0
Net Amount:	**$35,340**
Description:	

Item Description	CU		Amount
OTHER OTHER 1 x VFI (Vacuum Fault Interrupter)	25-ALL14	[redacted]	$12,000.00
OTHER OTHER 3 x Ubicquia sensors $1,550 per unit	25-ALL14		$4,650.00
OTHER OTHER 30% contractor adder	25-ALL14		$6,800.00
OTHER OTHER labor cost to install the cable and terminations, 1 days x $6k per day	25-ALL14		$6,000.00

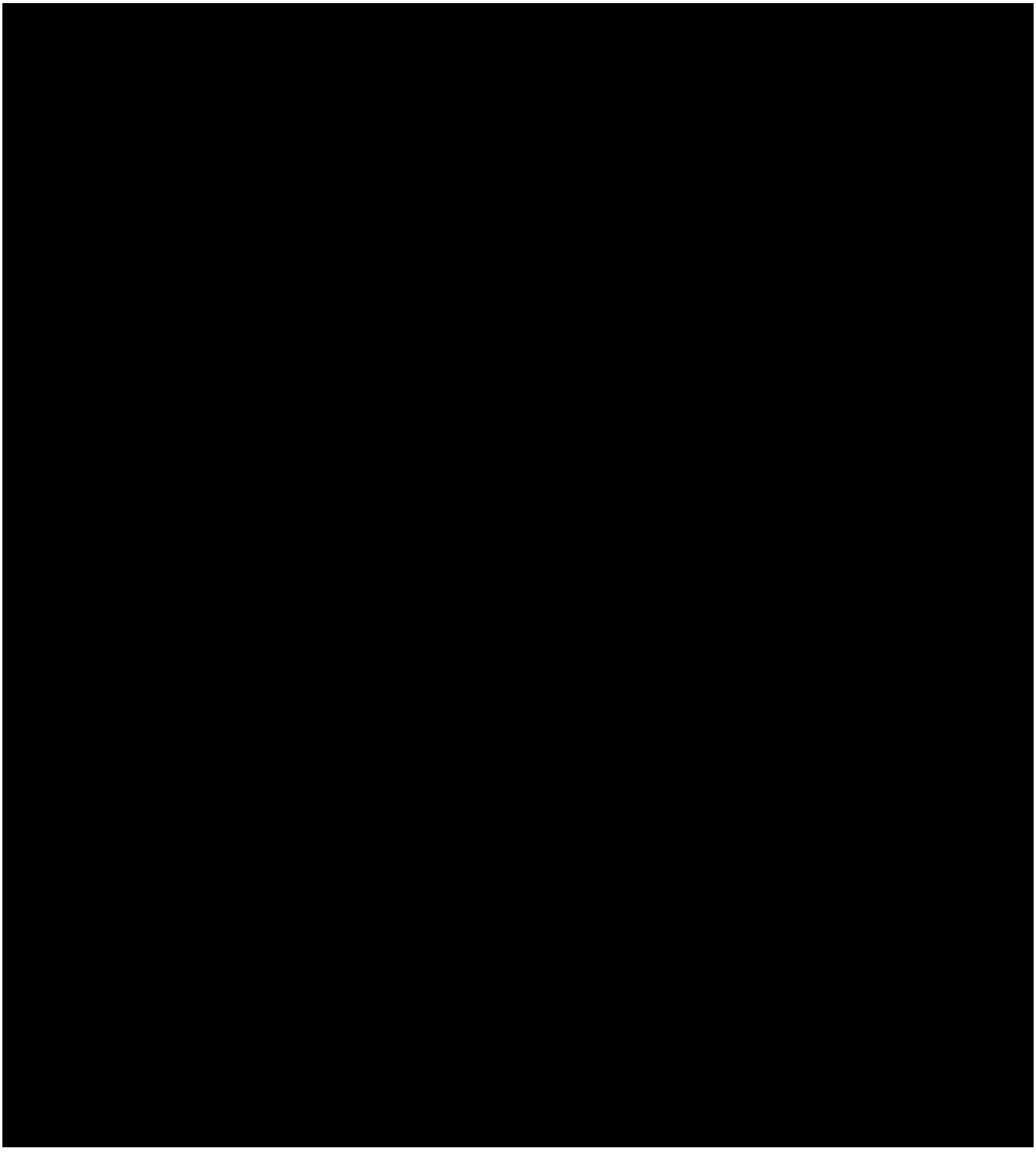
B: Geographic Map – Existing



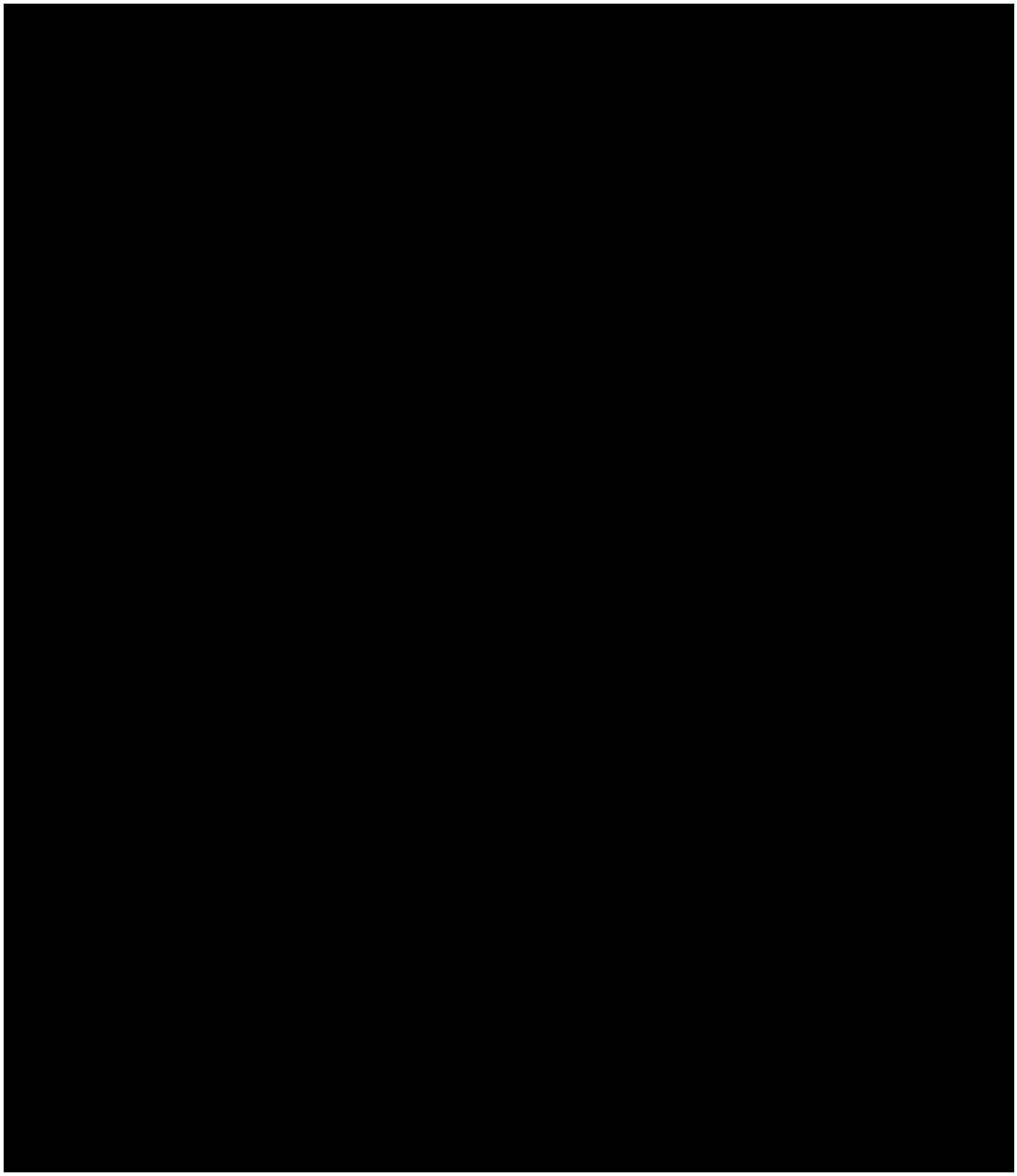
B: Geographic Map – After



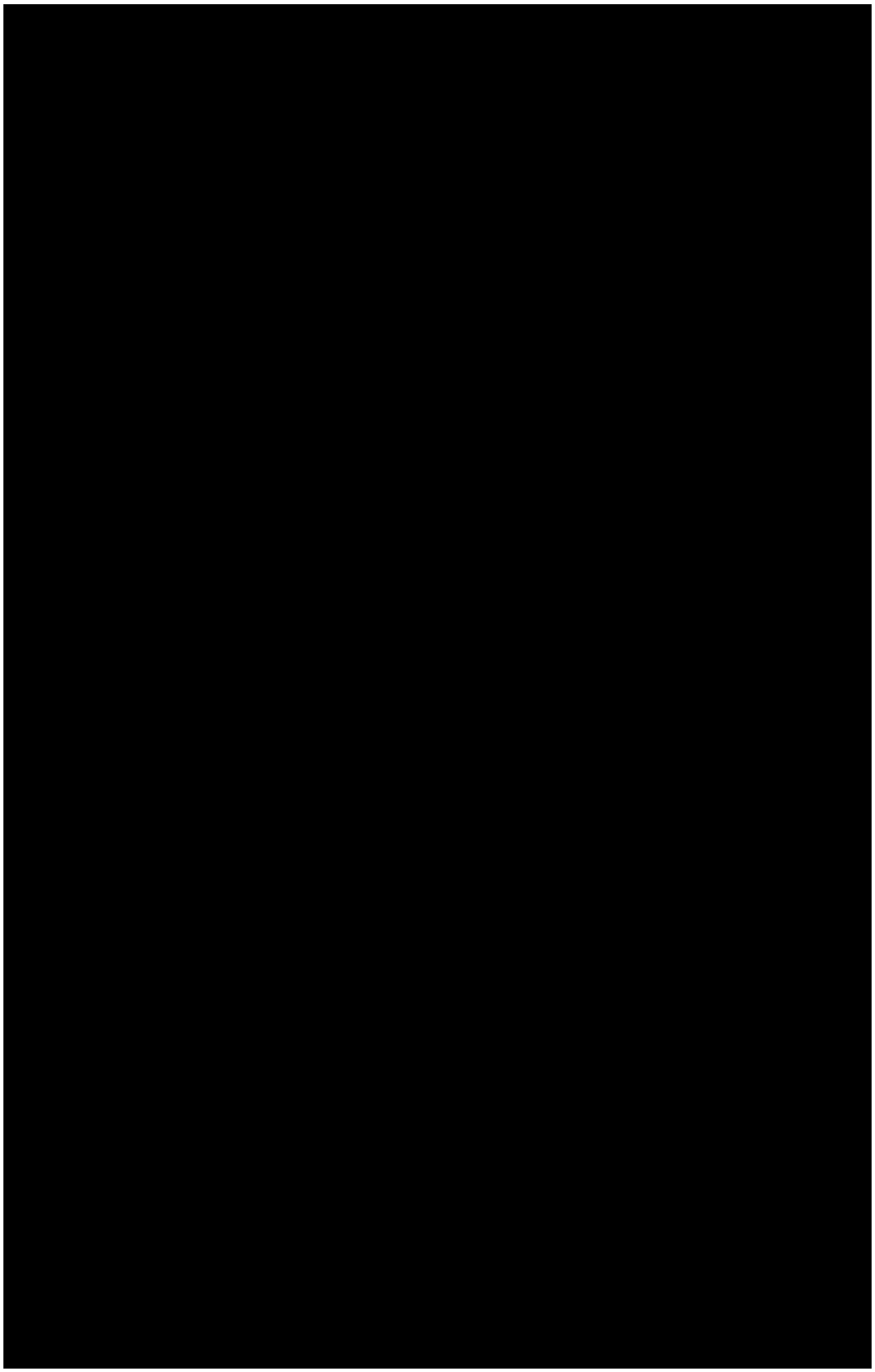
C: Alternative Geo Map



C: Alternative Geo Map



D: Oneline – Existing/After



Project Title: Plumtree Heights UG Loop	Project Number: CD02357
Date Prepared: 08/14/2024	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** DB CABLE REPLACE-SPECIFIC PROJ
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: 12/31/25	
Total Capital Request: $362.5K	**Authorization Type:** Partial Funding

1. Executive Summary

Plumtree Heights is a residential development located in Bethel, CT [redacted]

- Title: **Plumtree Heights UG Loop**
- Division: Western
- District: Newtown AWC
- Town: Bethel

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	Year 2025	Year 2026	Year 2027+	Total
Direct Capital Costs				
Internal Labor and Construction Equipment	6.7	0.0	0.0	6.7
Outside Services	164.7	0.0	0.0	164.7
Materials	18.6	0.0	0.0	18.6
Removals	30.2	0.0	0.0	30.2
Other	-0.5	0.0	0.0	-0.5
Risk and Contingency	0.0	0.0	0.0	0.0
Subtotal – Direct Costs	**219.7**	**0.0**	**0.0**	**219.7**
Indirect Capital Costs				
Indirect/Overheads (including benefits)	139.0	0.0	0.0	139.0
Capitalized interest or AFUDC, if any	3.9	0.0	0.0	3.9
Subtotal – Indirect Costs	**142.8**	**0.0**	**0.0**	**142.8**
Total Gross Capital Costs	**362.5**	**0.0**	**0.0**	**362.5**
Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Total Net Capital Project Costs	**362.5**	**0.0**	**0.0**	**362.5**

Explain unique payment provisions, if applicable: N/A

3. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

Plumtree Heights is a residential development with electric heating located in Bethel, CT on the [redacted]. The development was built over the course of 10 years from 1973 to 1983 and contains Direct Buried cables. [redacted]. The development is located on a hill and is surrounded by dense forest, a cliff face to the east, and wetlands in nearby areas. [redacted]

b. Project Need

[redacted]

c. Project Scope

[redacted]

[redacted]

4. Alternatives Considered

[redacted]

Option 1 will install an additional [redacted]

Option 2 includes the same work as option 1 but additionally will install [redacted]

Option 3 will install two new [redacted]

Option 4 includes the same work as option 3, but additionally [redacted]

Project Option Comparison

[redacted]				
Authorization Type	Partial	Partial	Partial	Partial
Capital Cost	$328.0K	$362.5K	$444.5K	$852.9K
Expense Cost	$7.3K	$8.1K	$9.9K	$19.0K
Total Cost	$335.3K	$370.6K	$454.4K	$871.9K
Total Cost / CM Saved	$67.07	$47.95	$90.91	$69.15
Total Cost / CI Saved	$7,022	$6,310	$9,518	$10,748
Preferred option		X		

5. Project Schedule

Add any additional milestones that are pertinent to the project

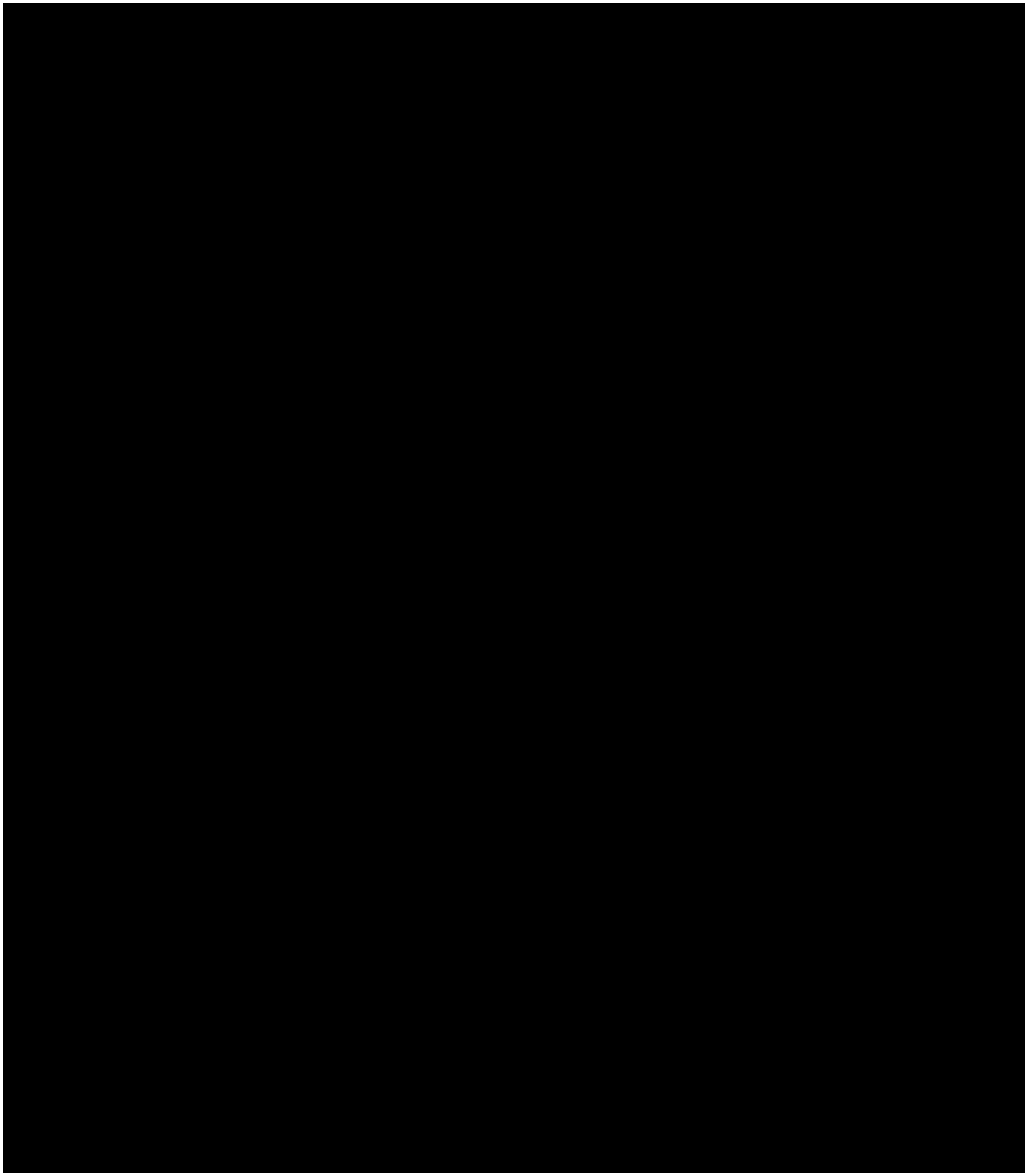
Milestone/Phase Name	Estimated Date
Partial Approval	10/31/25
100% Detailed Engineering Completion	10/31/25
Fully Funded	10/31/25
Construction Start	11/31/25
In Service Date	12/31/25

6. Regulatory Decisions

N/A

7. Codes and Standards

DSEM 7.883 - Conventional and Conduit Underground System Design Philosophy and Details:



8. Risk and Contingencies

Contingencies:

The standard 20% contingency was added for same year projects.

Risk Mitigation:

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2025	Low	Included contingency costs in the funding request. Perform detailed Field Analysis and walk down in project development to avoid potential issues.
Customer Permission / Siting Council / Municipal approvals	2025	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach.
Internal construction 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.
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	2025	Medium	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2025	Low	If storm activity delays work, we may be forced to use external resources.

9. References

References
1. DSEM 07.883
2.
3.

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

Attachment	Included in Submittal?
A. Cost Estimate	*YES*
B. Geographic Map	*YES*
C. Alternative Geo Map	*YES*
D. Oneline	*YES*
E. Initial Funding PAF	*YES*
F.	

A: Cost Estimate

Project Option Summary

ID	Description	Segments	Preliminary Estimate	Construction Estimate	Variance	IEEE $/CMS	All (w/Storm)	Prfrd
O3	Option 1 Additional UG Source	1	$335,256	$0	100%	$0.00	$0.00	☐
O4	Option 2 Additional UG Source and Sectionalize	1,7	$370,596	$0	100%	$0.00	$0.00	☑
O5	Option 3 Two Systems, Partial	3	$454,418	$0	100%	$0.00	$0.00	☐
O6	Option 4 Two Systems, Full	4	$871,876	$0	100%	$0.00	$0.00	☐

Budget Summary - Preferred Option — Option 2 Additional UG Source and Sectionalize

2025

ID	Title	Status	Rev #	Contingency	Expenditure Amount	Net Estimate
1	Additional UG Cable	Draft	0	20%	$335,256	$335,256
7	VFI and Ubicquia Sensors	Draft	0	20%	$35,340	$35,340
				2025 Total:	**$370,596**	**$370,596**
				Total Project:	**$370,596**	**$370,596**

A: Cost Estimate Continued

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02357

Plumtree Heights UG Loop

Design Alternative — CD02357-01

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	20.00%
SubTotal:	$279,380
Contingency Amount:	$55,876
Estimate:	$335,256
Reimbursement:	$0
Net Amount:	**$335,256**
Description:	

Item Description	CU	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	23-ALL17	$4,562.48
DB CABLE DB/UG - #1 - 3-1/C (3ph) Al	23-UG112	$55,328.00
POLE DB/UG - Riser - 3ph	23-UG146	$14,032.72
OTHER OTHER $146,897 * 5% for 2024 to 2025 estimates	23-ALL14	$7,345.00
OTHER OTHER 15 x Conduit Tie Ins to Transformers (per conduit)	23-ALL14	$25,557.00
OTHER OTHER 2 x 4" Galv Steel Riser 10 ft w/ sweep	23-ALL14	$4,293.00
OTHER OTHER 610 LF Drill and Install 1 - 4" HDPE in Rock/Ledge	23-ALL14	$43,951.00
OTHER OTHER 610 LF Drill and Install 1 - 4" HDPE in Sand/Dirt	23-ALL14	$23,448.00
OTHER OTHER 80 LF Drill and Install 2 - 4" HDPE in Rock/Ledge	23-ALL14	$6,975.00

A: Cost Estimate Continued

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02357
Plumtree Heights UG Loop

Design Alternative			CD02357-01
OTHER OTHER 80 LF Drill and Install 2 - 4" HDPE in Sand/Dirt	23-ALL14	[redacted]	$3,740.00
OTHER OTHER Access Drill Pit in Asphalt Roadway	23-ALL14		$1,552.00
OTHER OTHER Access Drill Pit in Dirt/Grass/Sand	23-ALL14		$1,552.00
OTHER OTHER Concrete Transformer Pad Top & Bottom 76" x 54" x 36" 3Ph 75-30	23-ALL14		$3,765.00
OTHER OTHER Hydroseed 1000 sq ft	23-ALL14		$570.00
OTHER OTHER labor cost to install the cable and terminations, 5 days x $6k per day	23-ALL14		$30,000.00
OTHER OTHER Mobilization and Demobilization	23-ALL14		$2,000.00
UG CABLE DB - Splice Box New Coffin Box	23-UG154		$9,135.36
ENCLOSURE DB - Fiberglass Enclosure - 3ph - Doghouse New Switch for new 3ph cable	23-UG148		$8,076.64
OTHER OTHER Restore Asphalt Roadway (to 6" thick) - permanent 400 sq ft	23-ALL14		$10,552.00
OTHER OTHER Restore Dirt/Grass/Sand 1000 sq ft	23-ALL14		$3,900.00
OTHER OTHER Survey and As-built	23-ALL14		$5,147.00
OTHER OTHER Test Hole in Asphalt Roadway	23-ALL14		$3,104.00

A: Cost Estimate Continued

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02357
Plumtree Heights UG Loop

Design Alternative — CD02357-01

OTHER OTHER Test Hole in Dirt/Grass/Sand	23-ALL14	[redacted]	$6,790.00
OH WIRE OH - Reconductor w/ 175 Mil Tree Wire - 3ph -1/0 To connect to new riser pole	23-OH26a		$4,004.00

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02357
Plumtree Heights UG Loop

Design Alternative — CD02357-07

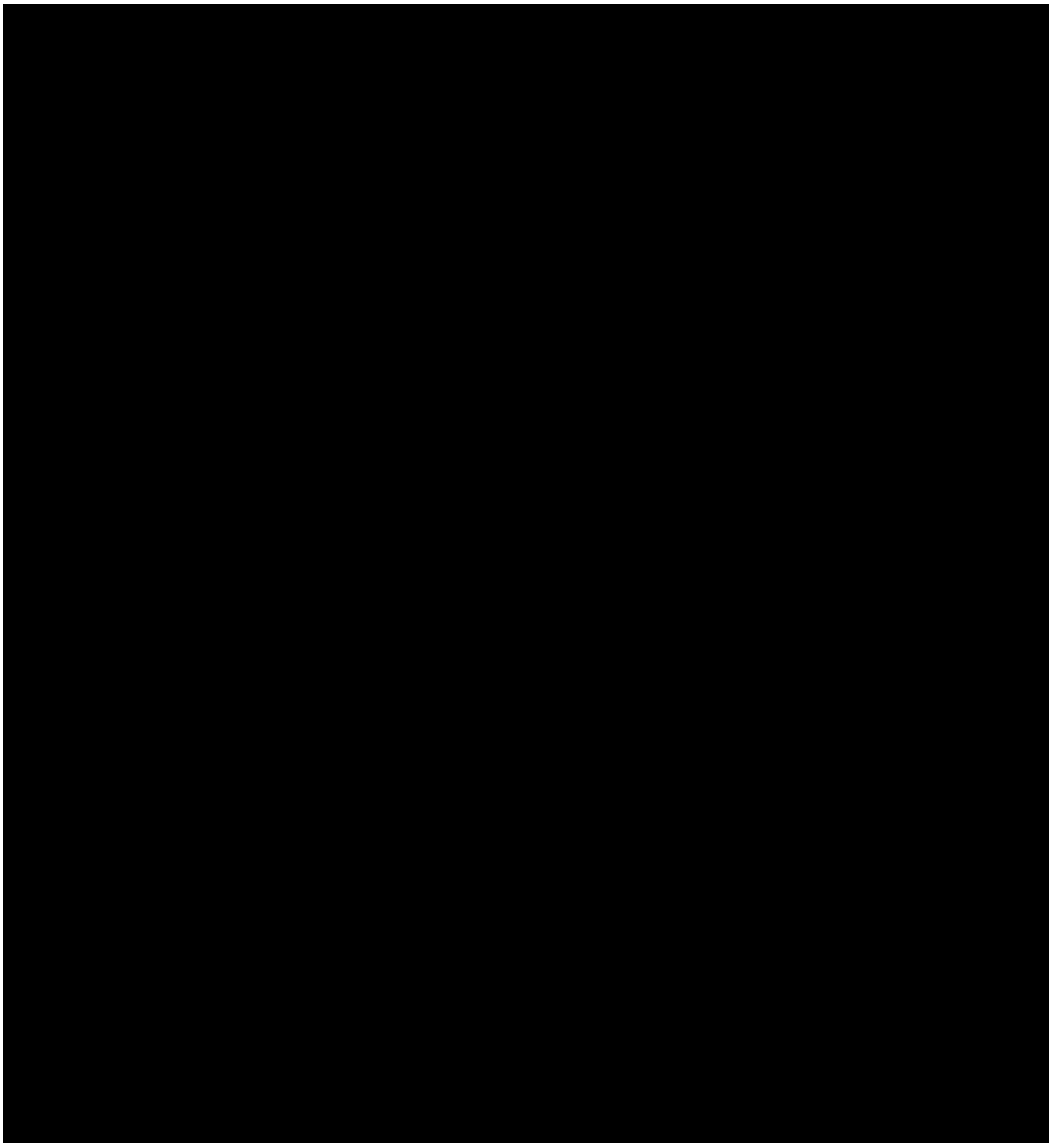
Estimate

Preliminary Estimate Summary

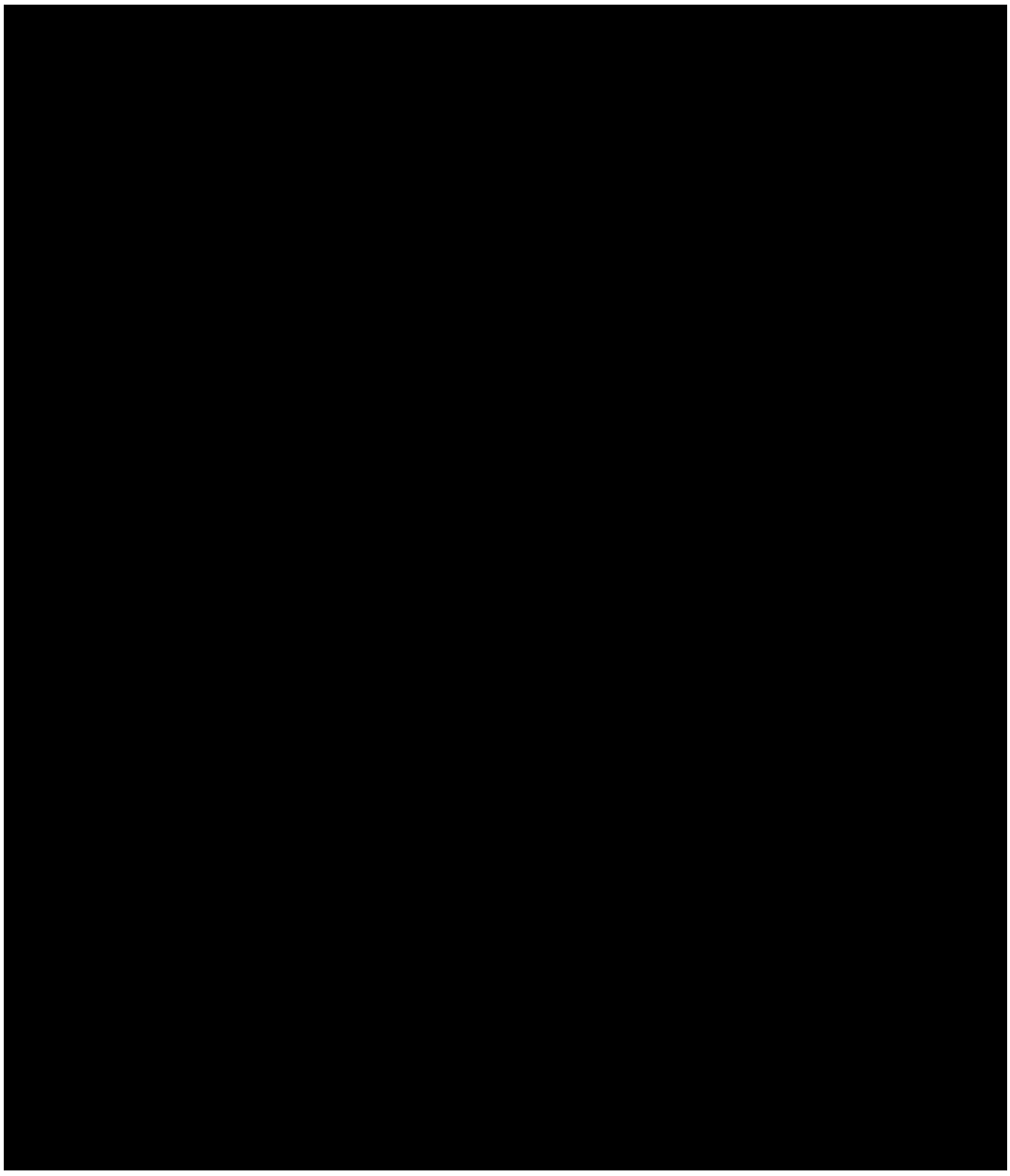
Revision Number:	0
Contingency:	20.00%
SubTotal:	$29,450
Contingency Amount:	$5,890
Estimate:	$35,340
Reimbursement:	$0
Net Amount:	**$35,340**
Description:	

Item Description	CU		Amount
OTHER OTHER 1 x VFI (Vacuum Fault Interrupter)	25-ALL14	[redacted]	$12,000.00
OTHER OTHER 3 x Ubicquia sensors $1,550 per unit	25-ALL14		$4,650.00
OTHER OTHER 30% contractor adder	25-ALL14		$6,800.00
OTHER OTHER labor cost to install the cable and terminations, 1 days x $6k per day	25-ALL14		$6,000.00

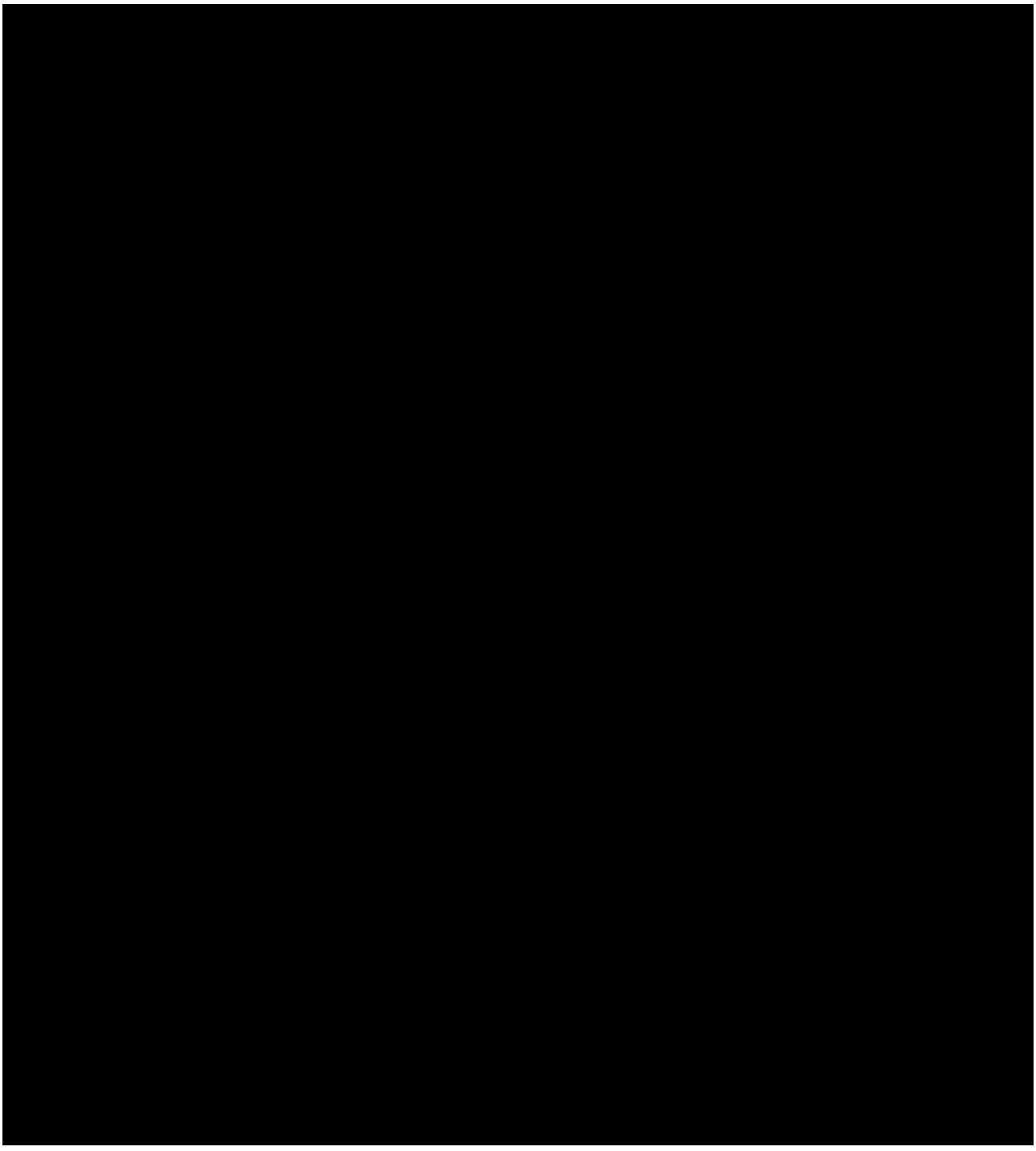
B: Geographic Map – Existing



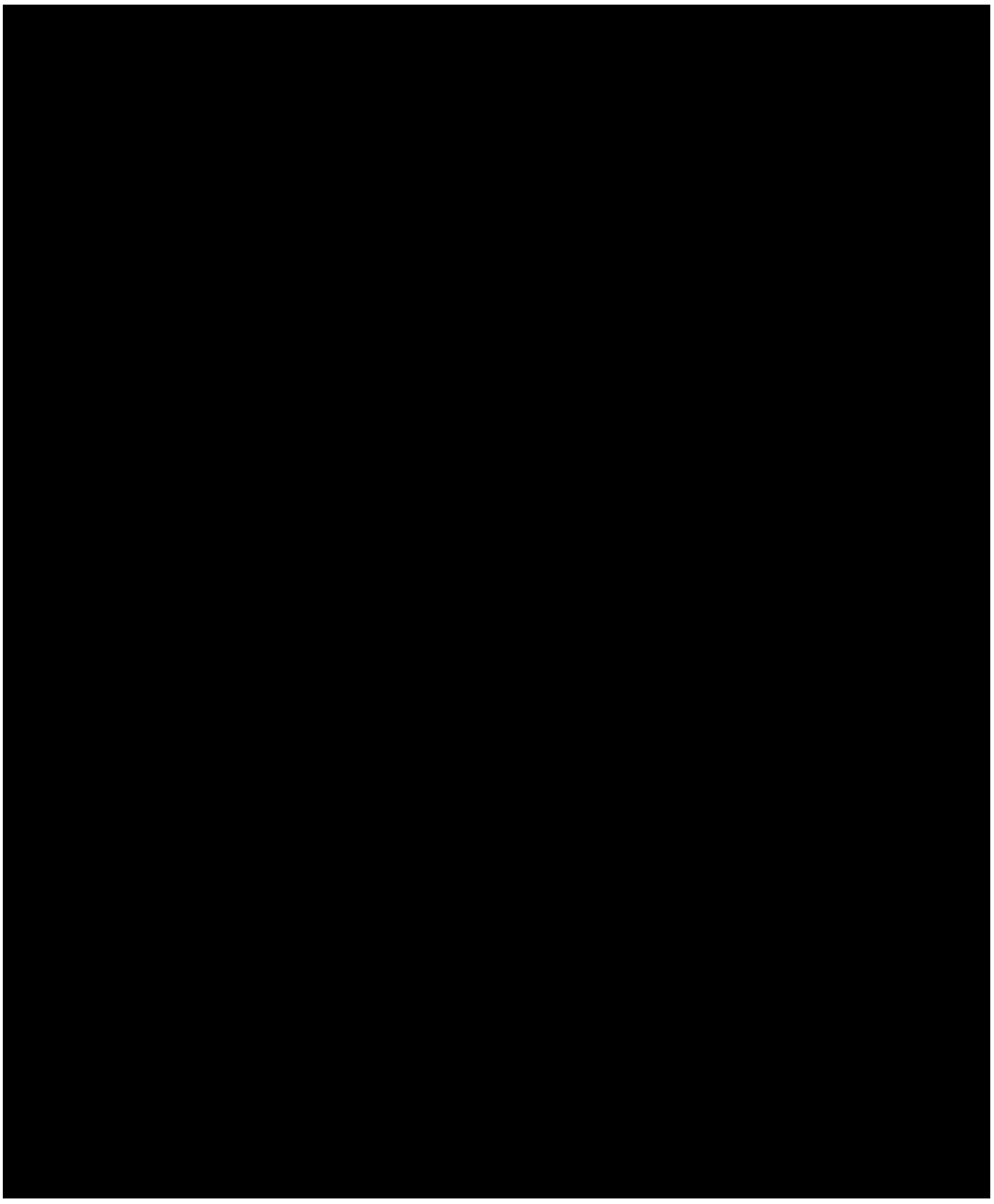
B: Geographic Map – After



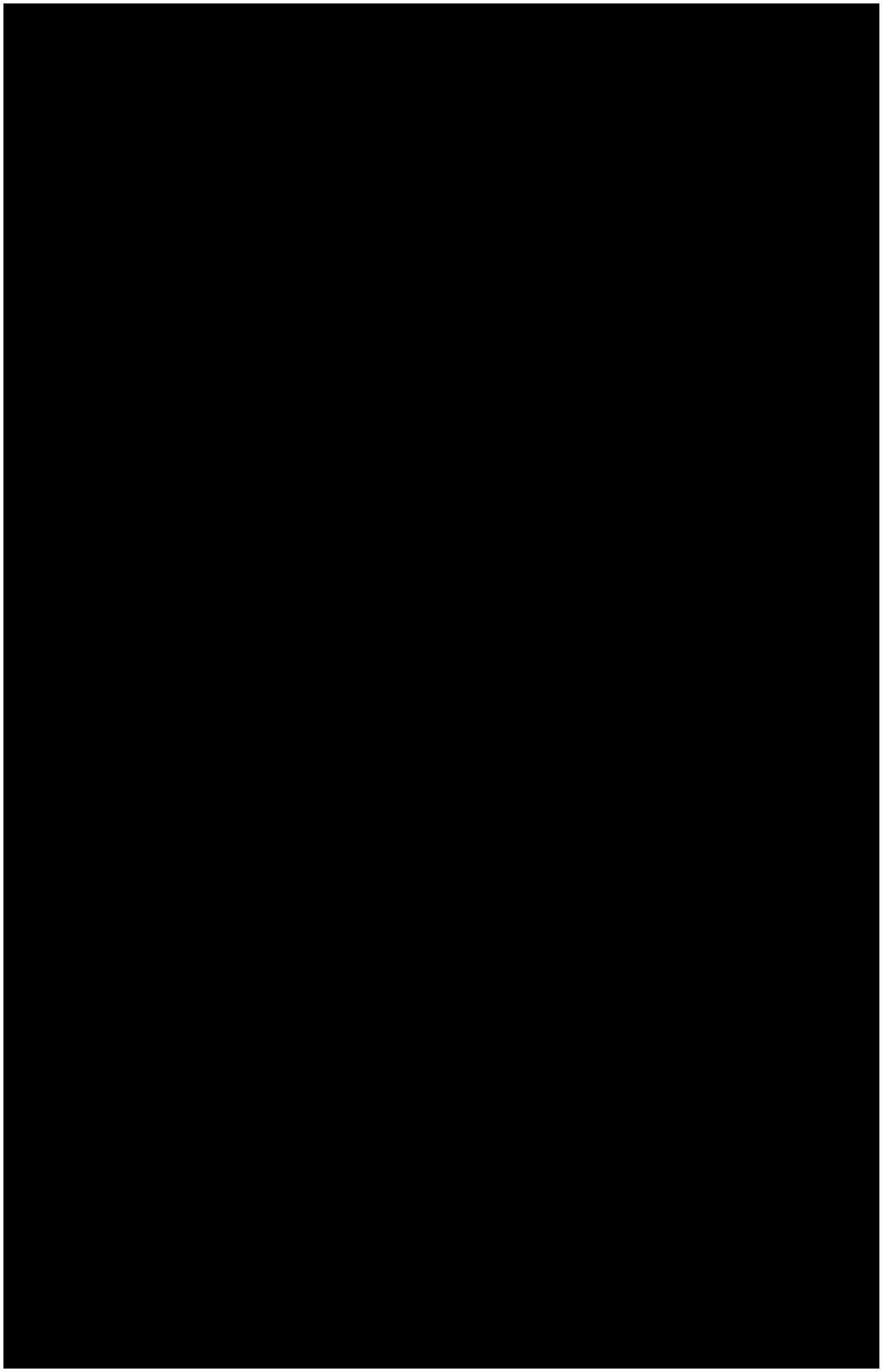
C: Alternative Geo Map



C: Alternative Geo Map



D: Oneline – Existing/After



EVERSOURCE

Project Approval Form

E. Initial Funding PAF

Project Title: Plumtree Heights UG Loop	Project Number: CD02357
Date Prepared: 10/20/2023	**Company:** Eversource CT
Organization: Distribution Engineering	**Class(es) of Plant:** D Line
Project Initiator: [redacted]	**Project Category:** DB CABLE REPLACE-SPECIFIC PROJ
Project Manager: [redacted]	**Project Type:** Specific
Project Sponsor: [redacted]	**Capital Investment part of 5-year plan?** No
	Emergency Related Request? No
Total Request ($): 30,000	**Authorization Type:** Initial Funding

1. Project Need Statement

Plumtree Heights is a residential development located in Bethel, CT [redacted]

Title: **Plumtree Heights UG Loop**
Division: Western
District: Newtown AWC
Town: Bethel

2. Project Objectives

[redacted]. The initial requested amount is $30,000.

Project Initiator:___[redacted]_____

Engineering Approval:_____