EVERSOURCE

Supplement Authorization Form

Project Title: Town of Union Reliability Improvements	Project Number: CD02567
Date Prepared: 10/30/2025	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** SMART SWITCHES PROGRAM
Initiating Organization: Distribution	**Project Type:** Specific
Project DDE: [redacted]	**Capital Investment part of 5-year 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)
Current Authorized Amount: $731.7K	**Approved In-Service Date:** 06/30/2025
Supplement Request: $134.9K	**Estimated In-Service Date: 12**/31/2025
Total Capital Request: $866.6K	**Authorization Type: Supplement Request**
	Reason: Cost Overage

1. Project Background

Project CD02567 was established after a town inquiry into the poor reliability performance in the Town of Union as demonstrated on the 2023 Union Reliability Scorecard.

[redacted]

- Project Location:
  - Division: Central
  - District: Tolland
  - City: Union

2. Supplement Justification Overview

This project was established to improve the reliability in the Town of Union.

- [redacted]

There was no change in scope in the project.

3. Supplement Justification Detail

There was no increase in scope or man hours on the project. This supplement is the result of overall costs increases in 2025 from $731.7K to $866.6K as a result of actual material and labor costs versus costs estimated during Full Funding design in 2024.

4. Supplement Cost Summary (Project Total)

Capital Costs	To Date Spend	Prior Authorized	Supplement Request	**Total** (Add Prior and Supplement Request)
Internal Labor & Equipment	43.8	51.9	27.8	79.7
Outside Services	140.3	36.9	11.5	48.5
Materials	268.3	310.1	27.1	337.2
Removals	10.7	10.6	1.8	12.4
Risk and Contingency	0.0	51.0	9.5	60.5
Other	0.0	0.0	0.0	0.0
SUBTOTAL Direct Cost	**463.1**	**460.6**	**77.7**	**538.3**
Indirects / Overheads	194.1	271.1	45.8	316.9
AFUDC	11.4	0.0	11.4	11.4
SUBTOTAL Indirect Cost	**205.6**	**271.1**	**57.2**	**328.3**
TOTAL Capital Request	**668.7**	**731.7**	**134.9**	**866.6**
Less Total Customer Contribution		0.0	0.0	0.0
TOTAL Project Cost	**668.7**	**731.7**	**134.9**	**866.6**

New Total Request by Year (if applicable)

Note: If multi-year project, include actuals for current and years past, and then show forecasted spend for upcoming years.

Capital Costs	2024	2025	Projected Spend
Internal Labor & Equipment	3.2	76.5	79.7
Outside Services	16.4	32.0	48.5
Materials	7.3	330.0	337.2
Removals	0.6	11.7	12.4
Risk and Contingency	0.0	60.5	60.5
Other	0.0	0.0	0.0
SUBTOTAL Direct Cost	**27.6**	**510.7**	**538.3**
Indirects / Overheads	37.9	279.0	316.9
AFUDC	0.4	11.0	11.4
SUBTOTAL Indirect Cost	**38.3**	**290.0**	**328.3**
TOTAL Capital Request	**65.9**	**800.7**	**866.6**
Less Total Customer Contribution			
TOTAL Project Cost	**65.9**	**800.7**	**866.6**

5. Lessons Learned

EVERSOURCE

Supplement Authorization Form

Project Title: Town of Union Reliability Improvements	Project Number: CD02567
Date Prepared: 12/12/2024	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** SMART SWITCHES PROGRAM
Project Initiator: [redacted]	**Project Type:** Specific
Initiating Organization: Distribution	**Capital Investment part of original Op Plan:** No
Project Manager: [redacted]	**Emergency Related Request?** Yes
Project Sponsor: [redacted]	**Facility Type** (check all that apply): ☐ PTF ☐ non-PTF ☒ Distribution ☐ N/A (General Plant)
Required in service date: 6/30/2025	
Total Capital Request: $731K	**Authorization Type:** Full Funding

1. Executive Summary

Full funding is being requested for this project at a cost of $731K, which is 94% of the partial funding estimate of $777K. CD02567 was partially approved on 9/26/2024. There is no scope change on the project. This project falls within the 15% threshold relative to the partial funding estimate and is being requested with no further changes anticipated.

The original project was presented as follows:

Project CD02567 is being established after a town inquiry into the poor reliability performance in the Town of Union as demonstrated on the 2023 Union Reliability Scorecard.

- [redacted]
- [redacted]
- [redacted]
- [redacted]
- *Project Location:*
  - *Division: Central*
  - *District: Tolland*

- *City: Union*

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	2025	2026	Year 3+	Total
Internal Labor and Construction Equipment	51.9	0.0	0.0	51.9
Outside Services	36.9	0.0	0.0	36.9
Materials	310.1	0.0	0.0	310.1
Removals	10.6	0.0	0.0	10.6
Risk and Contingency	51.0	0.0	0.0	51.0
Other	0.0	0.0	0.0	0.0
Subtotal	**460.6**	**0.0**	**0.0**	**460.6**

Indirect Capital Costs	2025	2026	Year 3+	Total
Indirects/Overheads (including benefits)	271.1	0.0	0.0	271.1
Capitalized interest or AFUDC, if any	0.0	0.0	0.0	0.0
Subtotal	**271.1**	**0.0**	**0.0**	**271.1**
Total Capital Costs (Gross)	**731.7**	**0.0**	**0.0**	**731.7**
Less Total Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Project Costs (Net of Reimbursement)	**731.7**	**0.0**	**0.0**	**731.7**

3. Technical Justification

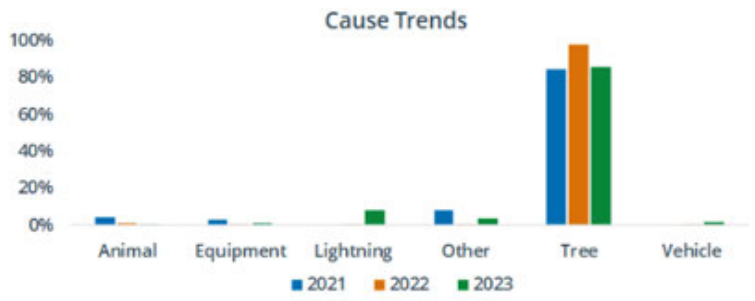
Background, Project Need/Justification, and Project Scope

a. Background

- This project is being established after a town inquiry into the poor reliability performance in the Town of Union as demonstrated on the 2023 Union Reliability Scorecard shown below.

2023 Union Reliability Scorecard

474 customers served in town



In Union,

The average customer experienced 1 outage every 7 months.	Outages in your community were more frequent than the state average of 1 outage every 19 months. MBI
The average customer experienced a 451-minute-long outage. This includes all customers in your community even if they did not experience an outage.	Your community's outages were longer than the state average of 72 minutes. SAIDI
When an outage occurred, it took Eversource an average of 280 minutes to restore power. CAIDI	
125 customers experienced 3 or more outages. 117 customers experienced an outage that lasted 7 or more hours. CEMI/CELID	

What does this mean for you?

This information is meant to help you understand how frequently outages occur and how long they last, on average, in your community. It also shows you how your community compares to the state's averages. Those that do lose power may be restored faster or be without power longer than the average.

- [redacted]
- [redacted]
- [redacted]

- [redacted]
- [redacted]
- [redacted]

b. Project Need

The project was created to address the Town of Union's concern with poor reliability. The town's reliability suffered in 2023 and is projected to suffer again in 2024 with poor reliability due to the outage events that have occurred already in 2024.

c. Project Scope

As discussed earlier the project will focus on 3 areas in the Town of Union that are fed off the [redacted]

- [redacted]
  - [redacted]
  - [redacted]
  - [redacted]
- [redacted]
  - [redacted]
  - [redacted]
  - [redacted]

[redacted]

Major Material:

- 3 - Three phase reclosers
- 4 - Single phase reclosers with DSCADA
- 10 Trip Savers
- 1 – 333 kVA 23/13.8 kV Step Transformer

4. Alternatives Considered

There are three options considered to help improve the reliability to the Town of Union:

Option 1 ($761k) – [redacted]

[redacted]

Option 2 ($1,530k) – [redacted]

[redacted]

Option 3 ($511k) – [redacted]

[redacted]

[redacted]

Project Option Comparison

Design Criteria	Options
Normal loads < 80% of UG rating	[redacted]
Normal loads < 90% of OH rating	
Contingency loads < 100% of rating	
All zones < 500 customers	
No single event impacts more than 33% o the Town's customers	
Uses trip saver automation	

[redacted]

Authorization Type	Full	Partial	Partial
Total Cost	$761k	$1,530k	$511k
Capital Cost	$731k	$1,448k	$489k
Expense Cost	$30k	$82k	$22k
Circuit MVA capacity added/removed	0	0	0
Circuit Cost / MVA added	0	0	0
Preferred option	X		

5. Project Schedule

Add any additional milestones that are pertinent to the project

Milestone/Phase Name	Estimated Date
Partial Approval	Sept 2024
100% Detailed Engineering Completion	Oct 2024
Fully Funded	Dec 2024
Construction Start	Jan 2025
In Service Date	Jun 2025

6. Regulatory Decisions

N/A

7. Codes and Standards

N/A

8. Risk and Contingencies

Risk Mitigation:

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk / Mitigation
Actual cost higher than estimated due to scope changes.	2025	Medium	Constructing a 1,000 ft section of line in a heavily treed area proposes some risk of overruns
Customer Permission/Siting Council/Municipal Approvals	2025	Medium	Constructing a 1,000 ft pole line extension will require adjacent owner consent. Preliminary discussions with the Town will help will obtaining all necessary approvals
Internal construction resources not available to perform the work.	2025	Medium	The extent of the planned work is not extensive. Internal resources planned.
Internal engineering resources not available to perform the work.	2024	Medium	External resources may need to write the project. Internal resources tentatively planned to support remainder of the project, particularly within the areas of construction supervision, equipment settings.
Materials Shortage or long lead times	2025	Medium	Some long lead items are required for this project and will need to be pre-ordered to minimize the impact to the project
Storm delays	2025	Medium	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.
Wetlands / Environmentally sensitive area	2025	Low	No poles will be placed in the wetlands

9. References

References
1. N/A

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

Attachment	Included in Submittal?
A1. Partial Funding PAF	*YES*
A. Cost Estimate	*YES*
B. Geographic Map – Town of Union Backbone	*YES*
C. Geographic Map – Buckley Highway Side tap	*YES*
D. Geographic map – [redacted] Area	*YES*
E. [redacted] One-Line	*YES*
F. [redacted] Load Sheet	*YES*

EVERSOURCE

Supplement Authorization Form

A1 - Partial Funding PAF:

Project Title: Town of Union Reliability Improvements	**Project Number: CD02567**
Date Prepared: 09/05/2024	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** SMART SWITCHES PROGRAM
Project Initiator: [redacted]	**Project Type:** Specific
Initiating Organization: Distribution	**Capital Investment part of original Op Plan:** No
Project Manager: [redacted]	**Emergency Related Request?** Yes
Project Sponsor: [redacted]	**Facility Type** (check all that apply)**:** ☐ PTF ☐ non-PTF ☒ Distribution ☐ N/A (General Plant)
Required in service date: 6/30/2025	
Total Capital Request: $777K	**Authorization Type:** Partial Funding

1. Executive Summary

Project CD02567 is being established after a town inquiry into the poor reliability performance in the Town of Union as demonstrated on the 2023 Union Reliability Scorecard.

- [redacted]

- Project Location:
  - Division: Central
  - District: Tolland
  - City: Union

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	2024	2025	Total
Internal Labor and Construction Equipment	24.2	26.4	50.6
Outside Services	69.3	75.7	144.9
Materials	77.3	84.5	161.8
Removals	53.4	58.3	111.6
Other	0.5	0.5	1.0
Risk and Contingency	0.0	0.0	0.0
Subtotal	**224.7**	**245.4**	**470.0**

Indirect Capital Costs	2024	2025	Total
Indirects/Overheads (including benefits)	137.7	150.4	288.2
Capitalized interest or AFUDC, if any	9.1	10.0	19.1
Subtotal	**146.9**	**160.4**	**307.3**
Total Capital Costs (Gross)	**371.5**	**405.8**	**777.3**
Less Total Customer Contribution	**0.0**	**0.0**	**0.0**
Project Costs (Net)	**371.5**	**405.8**	**777.3**

3. Technical Justification

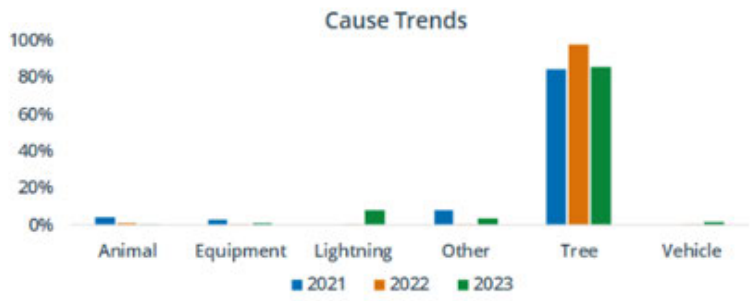
Background, Project Need/Justification, and Project Scope

a. Background

- This project is being established after a town inquiry into the poor reliability performance in the Town of Union as demonstrated on the 2023 Union Reliability Scorecard shown below.

2023 Union Reliability Scorecard

474 customers served in town



In Union,

The average customer experienced 1 outage every 7 months.	Outages in your community were more frequent than the state average of 1 outage every 19 months. MBI
The average customer experienced a 451-minute-long outage. This includes all customers in your community even if they did not experience an outage.	Your community's outages were longer than the state average of 72 minutes. SAIDI
When an outage occurred, it took Eversource an average of 280 minutes to restore power. CAIDI	
125 customers experienced 3 or more outages. 117 customers experienced an outage that lasted 7 or more hours. CEMI/CELID	

What does this mean for you?

This information is meant to help you understand how frequently outages occur and how long they last, on average, in your community. It also shows you how your community compares to the state's averages. Those that do lose power may be restored faster or be without power longer than the average.

- [redacted]
- [redacted]
- [redacted]

[redacted]

b. Project Need

- The project was created to address the Town of Union's concern with poor reliability. The town's reliability suffered in 2023 and is projected to suffer again in 2024 with poor reliability due to the outage events that have occurred already in 2024.

c. Project Scope

As discussed earlier the project will focus on [redacted]

[redacted]

- [redacted]
- [redacted]
- [redacted]

- Work in the [redacted]

  - [redacted]
  - [redacted]
  - [redacted]
  - [redacted]
  - [redacted]
  - [redacted]
  - [redacted]
  - [redacted]
  - [redacted]
  - [redacted]
  - [redacted]

Major Material:

- 3 - Three phase reclosers
- 4 - Single phase reclosers with DSCADA
- 10 Trip Savers
- 1 – 333 kVA 23/13.8 kV Step Transformer

4. Alternatives Considered

There are three options considered to help improve the reliability to the Town of Union:

Option 1 ($817k) – [redacted]

[redacted]

Option 2 ($1,530k) – [redacted]

[redacted]

[redacted]

Option 3 ($511k) – [redacted]

[redacted]

Project Option Comparison

	Options
[redacted]	

Authorization Type	Partial	Partial	Partial
Total Cost	$817k	$1,530k	$511k
Capital Cost	$777k	$1,448k	$489k
Expense Cost	$40k	$82k	$22k
Circuit MVA capacity added/removed	0	0	0
Circuit Cost / MVA added	0	0	0
Preferred option	X		

5. Project Schedule

Milestone/Phase Name	Estimated Date
Partial Approval	September 2024
100% Detailed Engineering Completion	October 2024
Fully Funded	November 2024
Construction Start	December 2024
In Service Date	June 2025

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.	2025	Medium	Constructing a 1,000 ft section of line in a heavily treed area proposes some risk of overruns
Customer Permission/Siting Council/Municipal Approvals	2025	Medium	Constructing a 1,000 ft pole line extension will require adjacent owner consent. Preliminary discussions with the Town will help will obtaining all necessary approvals
Internal construction resources not available to perform the work.	2025	Medium	The extent of the planned work is not extensive. Internal resources planned.
Internal engineering resources not available to perform the work.	2024	Medium	External resources may need to write the project. Internal resources tentatively planned to support remainder of the project, particularly within the areas of construction supervision, equipment settings.
Materials Shortage or long lead times	2025	Medium	Some long lead items are required for this project and will need to be pre-ordered to minimize the impact to the project
Storm delays	2025	Medium	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.
Wetlands / Environmentally sensitive area	2025	Low	No poles will be placed in the wetlands

9. References

N/A

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

Attachment	Included in Submittal?
A. Cost Estimate	*YES*
B. Geographic Map – Town of Union Backbone	*YES*
C. Geographic Map – Buckley Highway Side tap	*YES*
D. Geographic map – [redacted] Area	*YES*
E. [redacted] One-Line	*YES*
F. [redacted] Load Sheet	*YES*

Attachment A: Cost Estimate

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02567
Town of Union Reliability Improvements

Design Alternative CD02567-01

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	20.00%
SubTotal:	$255,530
Contingency Amount:	$51,106
Estimate:	$306,637
Reimbursement:	$0
Net Amount:	$306,637
Description:	Install 2 new reclosers and replace 1 recloser

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			$10,000.00
SECTIONALIZE OH-Vertical Disconnect Switches-600/900 amp 3-1ph	23-OH43			$40,104.48
SECTIONALIZE OH - Recloser Control - setting changes only Change VS to SR pole 35	23-OH39A			$6,351.28
SECTIONALIZE OH - Remove Recloser (any) Pole 420	23-OH42			$7,352.80
SECTIONALIZE OH - Recloser - 3ph Poles 420, 1742 and 190	23-OH38			$187,159.44

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes
Existing	[redacted]						

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02567
Town of Union Reliability Improvements

Design Alternative CD02567-02

Estimate

Preliminary Estimate Summary

Revision Number:	0
Contingency:	20.00%
SubTotal:	$70,000
Contingency Amount:	$14,000
Estimate:	$84,000
Reimbursement:	$0
Net Amount:	$84,000

Description: Install tripsavers on Buckley Highway sidetap

Item Description	CU	$ / Per	Qty	Amount
SECTIONALIZE 1PH Tripsaver 1-40K tripsaver pole 292	23-OH41A	[redacted]		$8,000.00
SECTIONALIZE 1PH Tripsaver 1-40K tripsaver pole 318	23-OH41A			$8,000.00
SECTIONALIZE 1PH Tripsaver 1-65K tripsaver pole 3009	23-OH41A			$8,000.00
SECTIONALIZE 3PH Tripsaver 2-80K tripsavers at pole 218	23-OH41B			$23,000.00
SECTIONALIZE 3PH Tripsaver 3-100K tripsavers pole 200	23-OH41B			$23,000.00

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02567
Town of Union Reliability Improvements

Design Alternative CD02567-03

Estimate

Preliminary Estimate Summary

Revision Number:	0
Contingency:	24.00%
SubTotal:	$344,037
Contingency Amount:	$82,569
Estimate:	$426,606
Reimbursement:	$0
Net Amount:	$426,606

Description: Fill in 1,000 ft gap on [redacted] install 1-333 kVA step, install single phase DSCADA reclosers, tripsavers and fuses

Item Description	CU	$ / Per	Qty	Amount
TRAFFIC OH/DB/UG - Traffic Control - Flagger 15% of subtotal	23-ALL19	[redacted]		$30,000.00
SECTIONALIZE OH - Cutouts or Arresters - 1ph 15K fuse pole [redacted]	23-OH19			$1,782.56
OTHER OTHER 24 Vacuum fuses at $2,193 per location for all unfused 13.8 kV transfc	23-ALL14			$52,632.00 and Webster
OTHER OTHER 4 new single phase reclosers with DSCADA at $27K each	23-ALL14			$108,000.00
SECTIONALIZE 1PH Tripsaver Poles 469, 543 and 20885	23-OH41A			$24,000.00
SECTIONALIZE OH - Cutouts or Arresters - 1ph Replace 30K fuse with solids pole 543	23-OH19			$1,782.56
TREE OH - Tree Trimming tree trimming to fill in the gap on Webster Rd	23-OH61			$39,000.00
OH WIRE OH - Line Extension - 1ph (any gauge) Webster Rd	23-OH32			$78,000.00

Asset & Investment Management System 9/5/2024 Page 11 of 15

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02567
Town of Union Reliability Improvements

Design Alternative CD02567-03

XF	23-OH49	8840.00 / LOC	1	$8,840.00
OH - Stepdown - 1ph - on POLE Webster Rd				

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes
Existing	[redacted]						
Existing							
Existing							

Reliability Projection

Title:

Outage Start Date: 9/4/2020 Outage End Date: 9/4/2024 Years History: 4.00

[redacted]

Attachment B: Geographic Map – [redacted] Backbone in the Town of Union

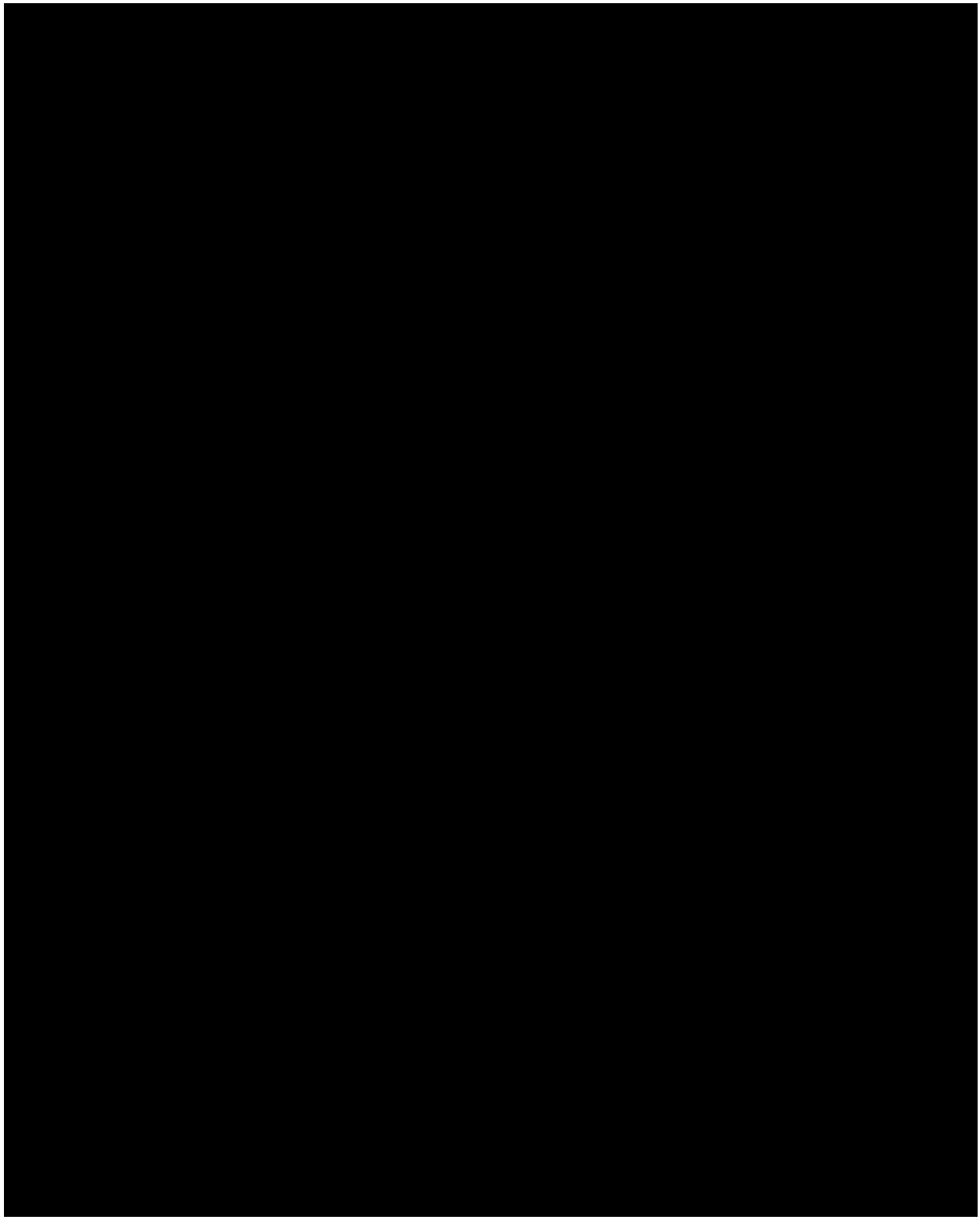
Before:



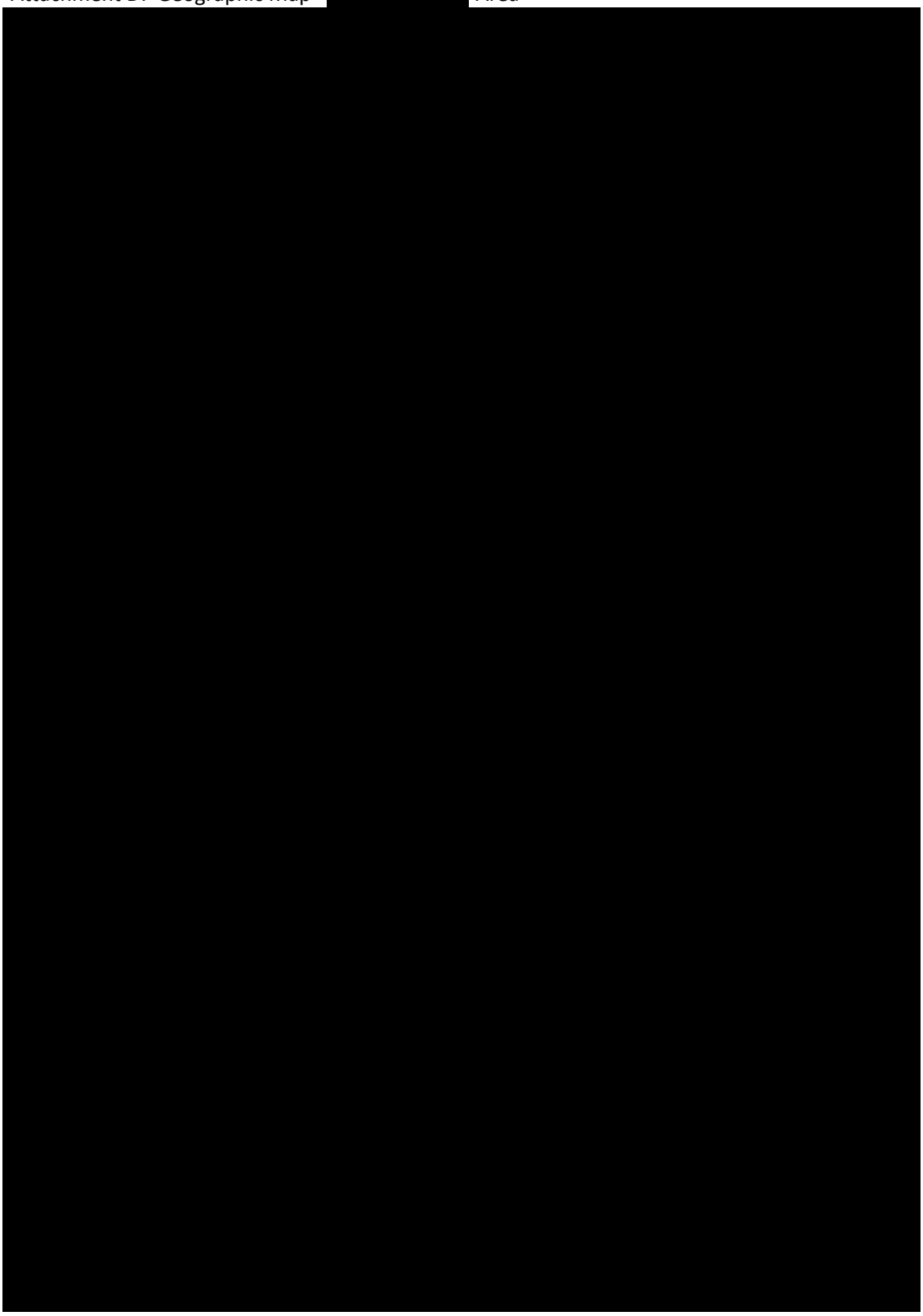
After:



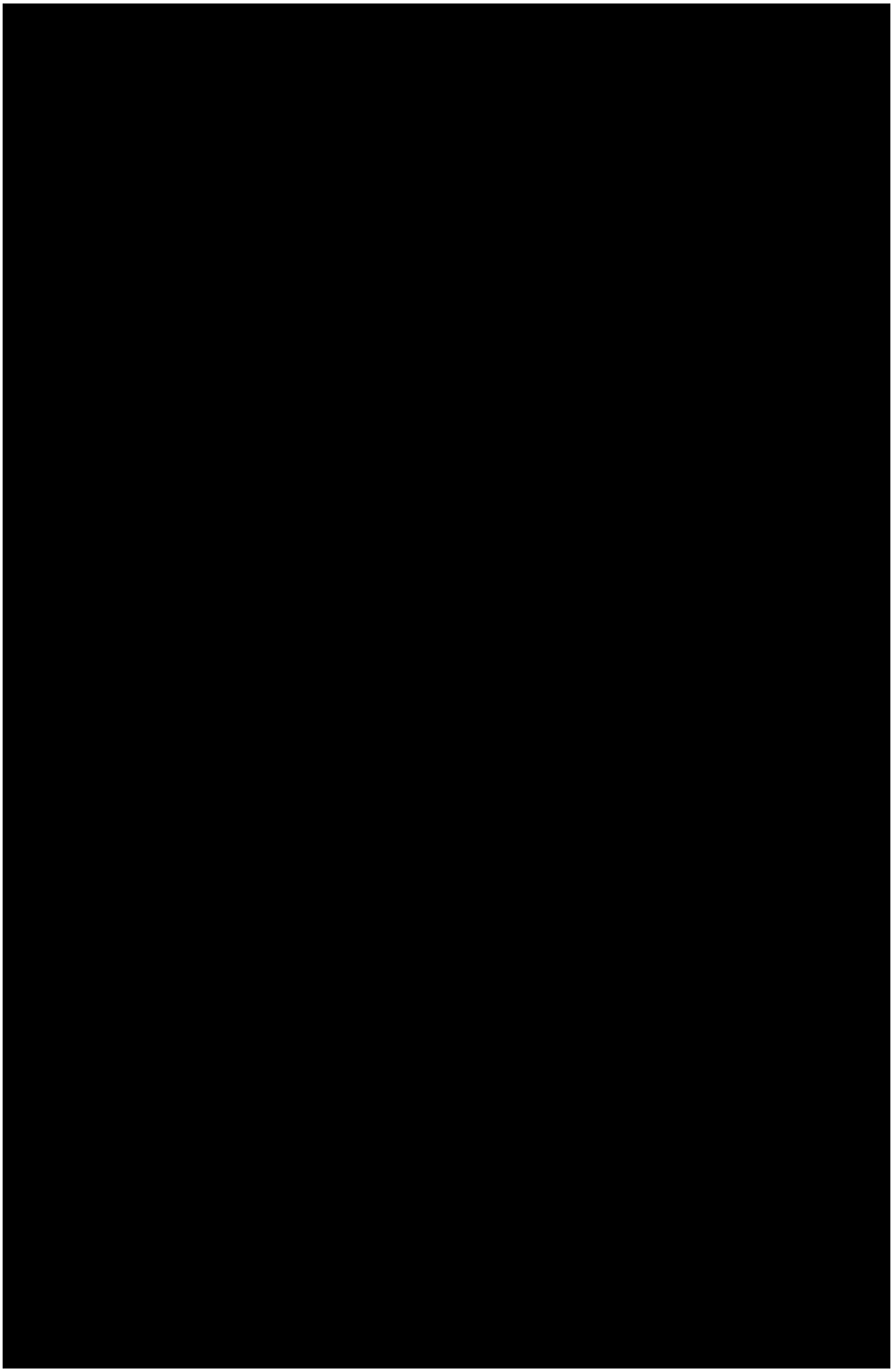
Attachment C: Geographic Map – Buckley Highway Side tap



Attachment D: Geographic Map - [redacted] Area



Attachment E: [redacted] One-line



Attachment F: [redacted] Load Data

[redacted]