EVERSOURCE

Project Approval Form

Project Title: [redacted]	**Project Number: CD01335**
Date Prepared: 09/11/2023	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** UG CABLE & EQUIPMNT REPLACEMNT
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: 12/31/2023	
Total Capital Request: $1,278.3K	**Authorization Type:** Full Funding

1. Executive Summary

This project was established to address [redacted]

This project proposes to [redacted]

- Approved Initial Funding Authorization: $492.6K at the 8/8/2019 OCRC meeting.
- Requesting Full Funding authorization: $1,278.3K or 260% of the Initial Funding authorization.
- Project Location:
  - Division: Western
  - District: Waterbury AWC
  - Town: Waterbury

The variance is due to the following:

- $431K – Additional Conduit Required. In reviewing the field inspection results for detail design it was determined that there was insufficient duct space [redacted] (see Attachment C 2).

[redacted]

- $186K - Increased Labor and Material Charges. The legacy estimating units used to produce the Initial Funding estimate are about 30% lower than the estimates used today, which were updated to reflect increased labor & material costs.

- $82K – Switching Time. The remainder of the variance was due to underestimated amount of switching time allotted in the original estimate. Due to complexity of the reconfiguration required to bring the new load loop to its final configuration, the affected feeders had to be taken out of service more times than was originally estimated.

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	Year 2022	Year 2023	Year 2024+	Total
Direct Capital Costs				
Internal Labor and Construction Equipment	0.9	5.5	0.0	6.3
Outside Services	80.0	514.4	0.0	594.5
Materials	20.9	134.4	0.0	155.3
Removals	2.6	17.4	0.0	20.0
Risk and Contingency	0.0	25.1	0.0	25.1
Other	0.0	0.1	0.0	0.1
Subtotal – Direct Costs	**104.4**	**696.9**	**0.0**	**801.4**
Indirect Capital Costs				
Indirect/Overheads (including benefits)	77.0	396.1	0.0	473.1
Capitalized interest or AFUDC, if any	3.9	0.0	0.0	3.9
Subtotal – Indirect Costs	**80.9**	**396.1**	**0.0**	**477.0**
Total Gross Capital Costs	**185.3**	**1,093.0**	**0.0**	**1,278.3**
Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Total Net Capital Project Costs	**185.3**	**1,093.0**	**0.0**	**1,278.3**

Explain unique payment provisions, if applicable:

3. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

[redacted]

[redacted]

b. Project Need

[redacted] as shown on the attached map (Attachment C).

[redacted]

c. Project Scope

The scope of this project is as follows:

[redacted]

4. Alternatives Considered

[redacted]

Project Option Comparison

Design Criteria	Option [redacted]	
Authorization Type	Full *	Full
Capital Cost	$1,172.6K	$1,278.3K
Expense Cost	$36.2K	$39.5K
Total Cost	$1,208.8K	$1.317.8K
Total Cost / CM Saved	$2,038/CM	$2,222/CM
Total Cost / CI Saved	$284.4K/CI	$310.1K/CI
Preferred option		X

* Note: the estimate for option one was modified to reflect the full funding cost estimate for option two minus the cost to extend the [redacted]

5. Project Schedule

Milestone/Phase Name	Estimated Date
Partial Approval	8/8/2019
100% Detailed Engineering Completion	3/28/2023
Fully Funded	9/14/2023
In Service Date	12/31/2023

6. Regulatory Decisions

N/A

7. Codes and Standards

DSEM 11.501 – Switchgear Design Philosophy (Attachment E)

8. Risk and Contingencies

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2023	Medium	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	2022	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach
Internal construction 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.
Internal engineering resources not available to perform the work.	2022	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.
System abnormal configuration	2023	Low	Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system will be abnormal for extended periods

9. References

- N/A

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

Attachment	Included in Submittal?
A. Cost Estimate	*YES*
B. Geographic Map	*YES*
C. System and Station One-Lines	*YES*
D. Load Summary Sheet	*YES*
E. DSEM 11.501 Switchgear Design Philosophy	*YES*
F. Initial Funding PAF	*YES*

Attachment A – Cost Estimate

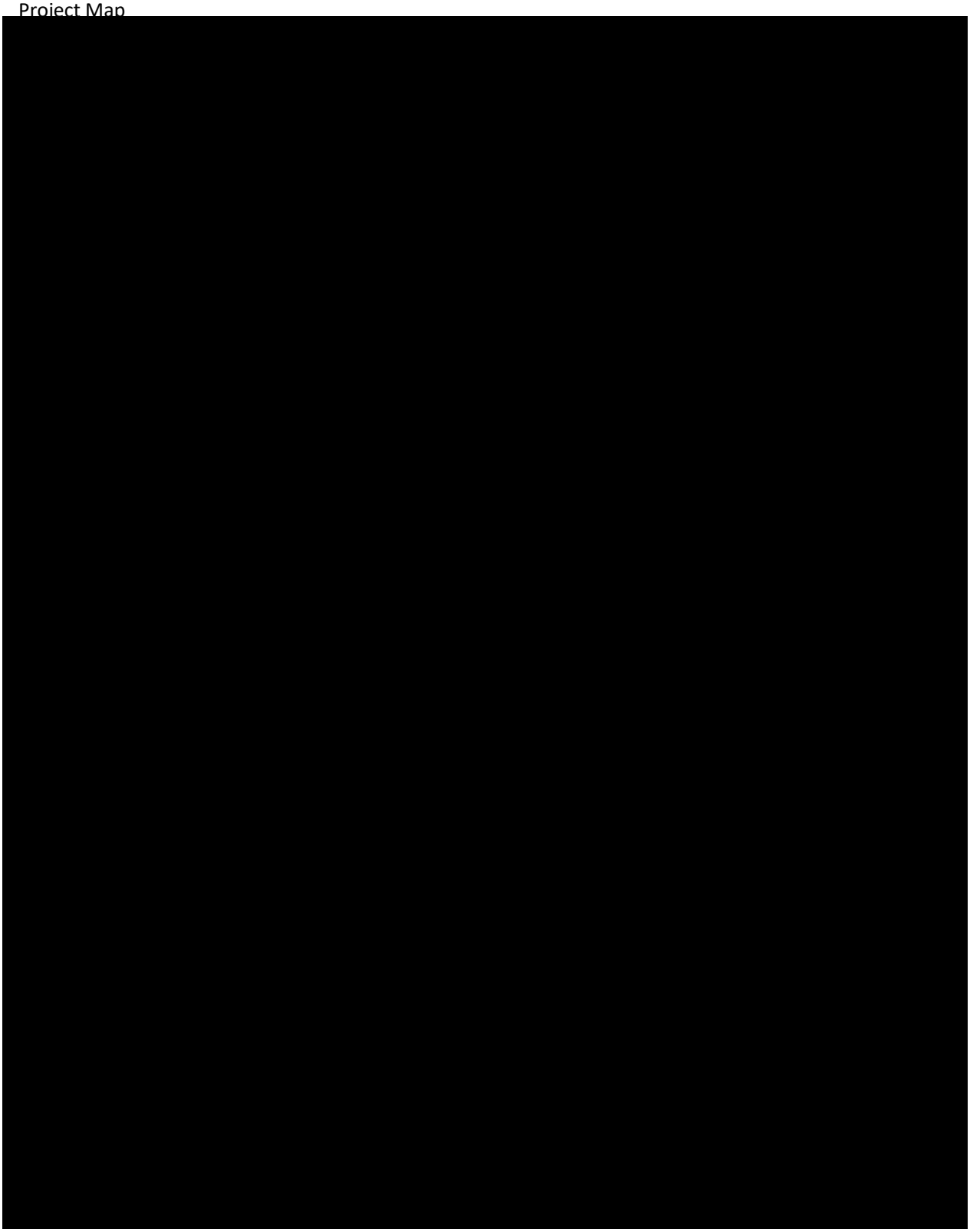
Project Number	CD01335
Project Manager	[redacted]
Charge Cost Centers	2AU
Project Type	UG Network Automation
ACT Date	9/8/2023
ACT Contact	[redacted]

Contingency	0.0200

	2022 Actuals	Estimate
- Direct Costs	**104,441**	**776,317**
+ Materials	21,452	272,554
+ Other	18	0
+ Outside Services	82,096	416,060
+ Overtime Labor	122	15,284
+ Straight Time Labor	753	72,418
+ Contingency	-	25,065
- Allocations	**80,856**	**476,914**
+ AFUDC	3,872	0
+ AS&E	1,687	10,366
+ E&S	68,199	325,410
+ MDEC	4,286	0
+ Payroll	306	21,092
+ Stores & Lobby Stock	2,396	98,120
+ Vehicle	110	21,925
TOTAL PROJECT COST	**185,297**	**1,278,295**
CURRENT ENG Estimate	469,000	
ACT/ENG (%)	**273%**	

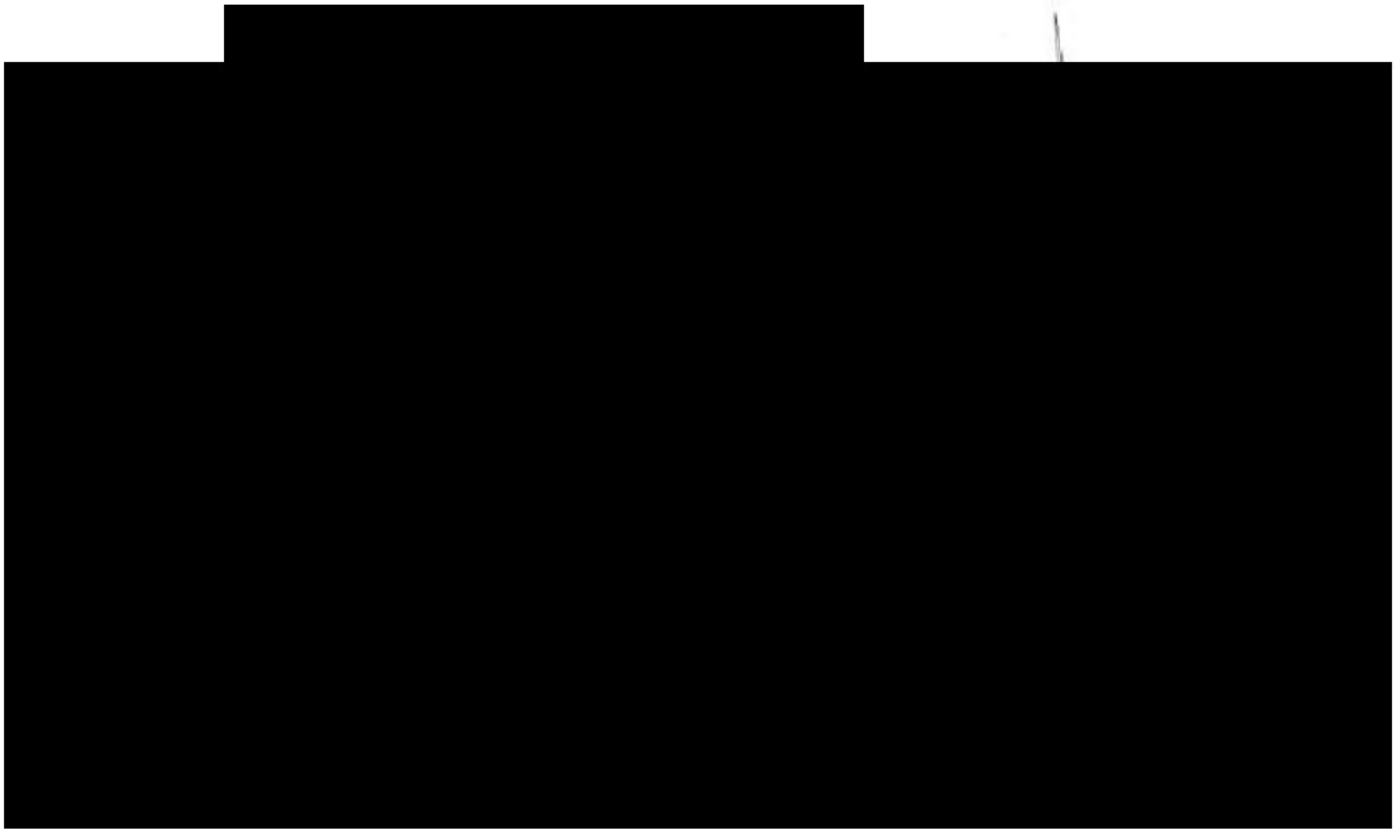
Attachment B – Maps

1. Project Map



2. Additional Conduit Maps





Attachment D – One Line Diagrams







Attachment D – Load Summary Sheets

Project Load Summary



Project Load Summary

Project Number: CD01335

Project Name: [redacted]

[redacted]

Attachment E – Switchgear Design Philosophy

Switches/Switchgear
Section 11.50

Switchgear Design Philosophy

11.501

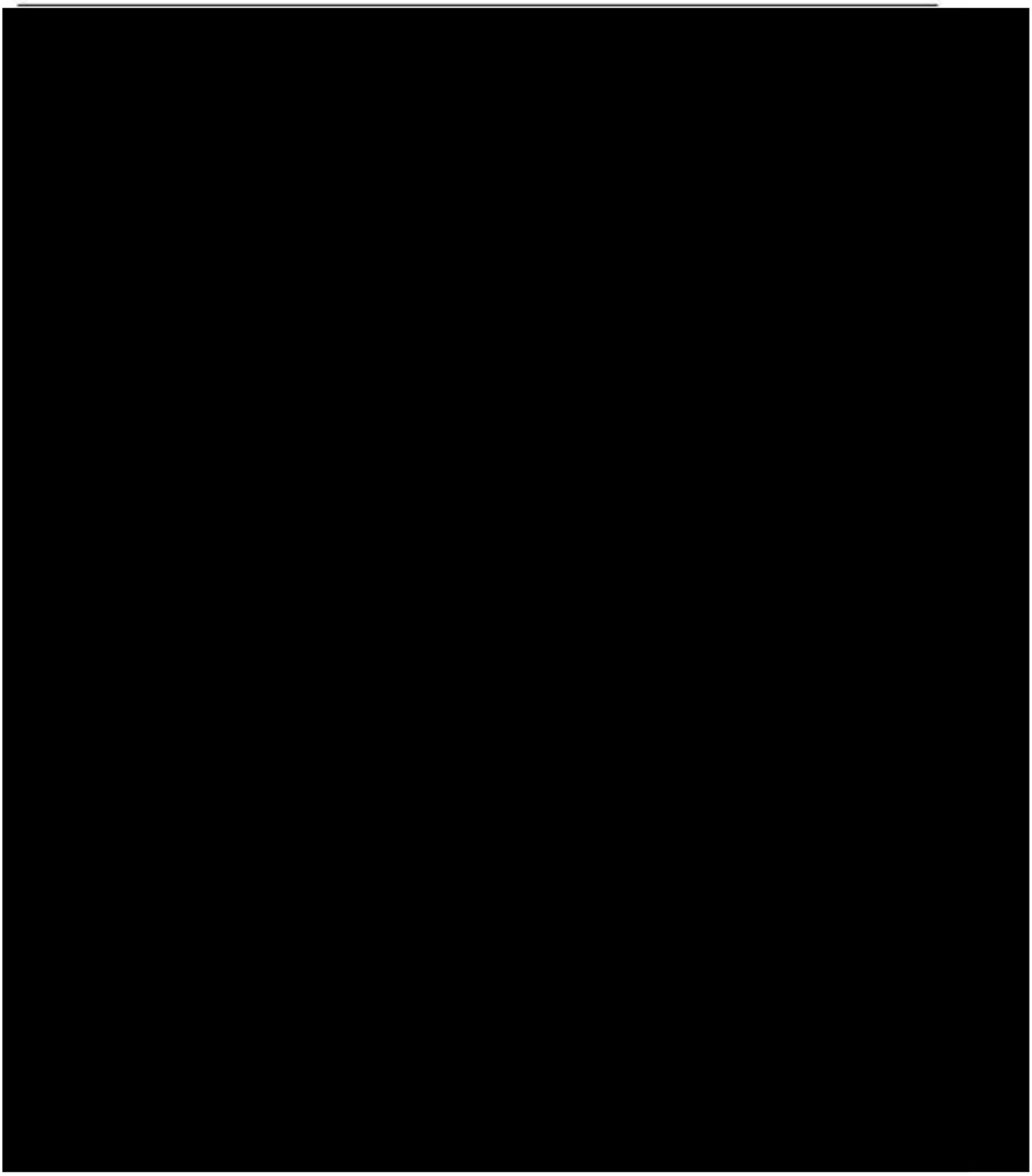
SCOPE – This Standard describes the underlying philosophy in the design and selection of primary voltage switchgear for Eversource Energy. It is intended to help designers of underground and direct-buried systems understand why Standards recommend only a limited number of designs, and what must be considered in the selection among options.

GENERAL – This Standard discusses switchgear for use primarily on the distribution system, outside of substations. It is not a Standard for substation design although some substations, especially smaller ones, can use this switchgear in place of more traditional substation equipment.

[redacted]

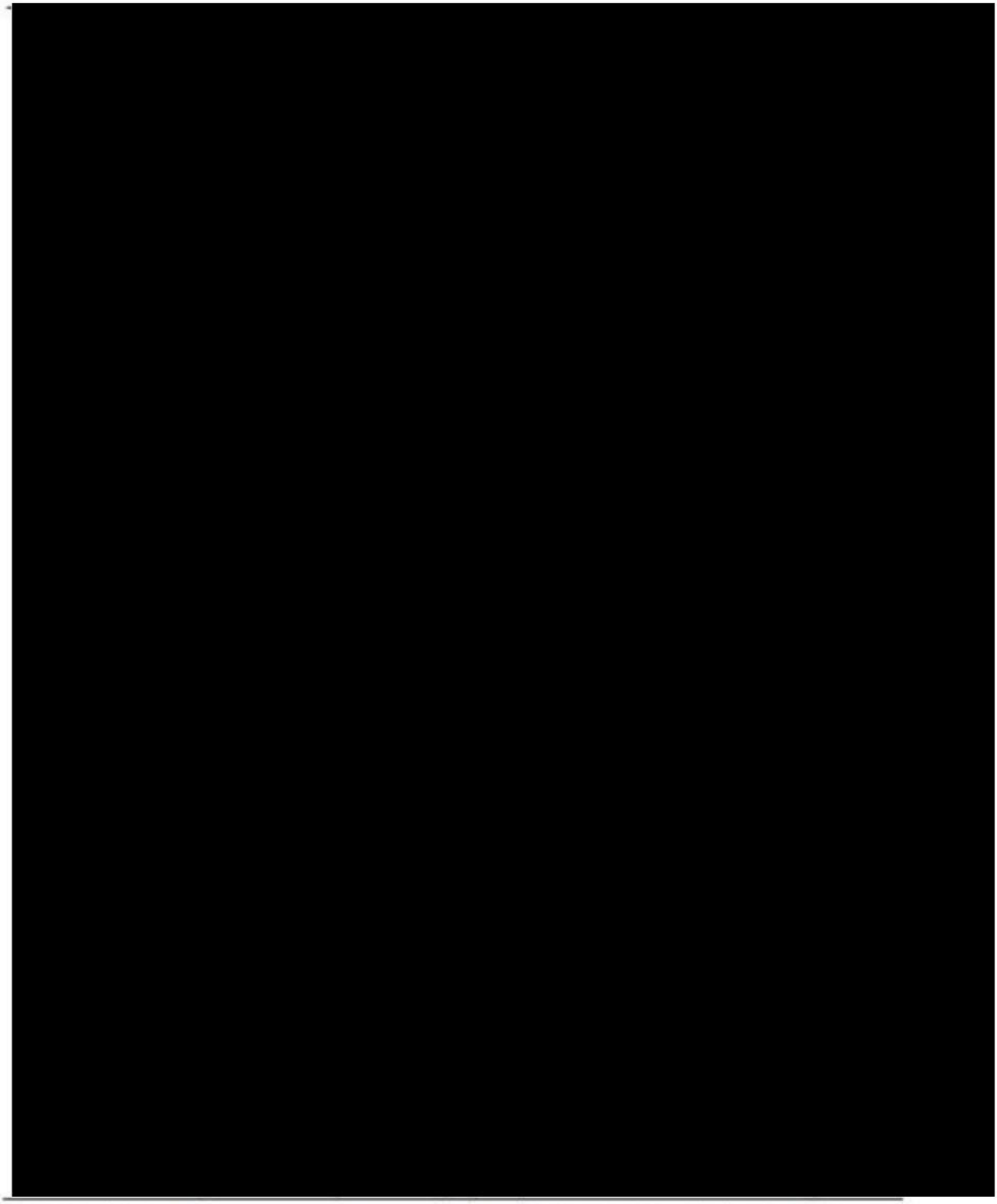
Switches/Switchgear
Section 11.50

Switchgear Design Philosophy **11.502**



Switches/Switchgear
Section 11.50

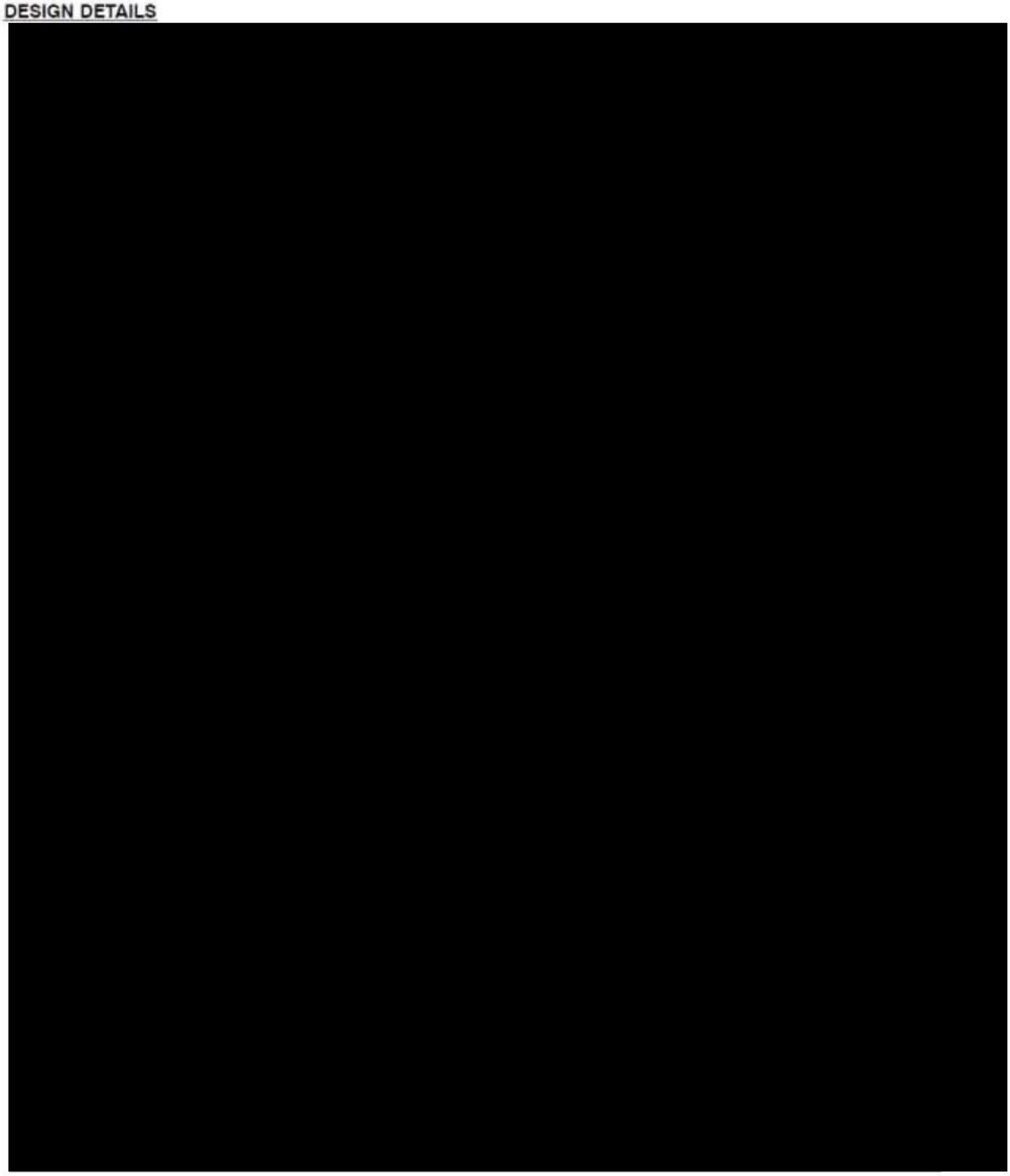
Switchgear Design Philosophy **11.503**

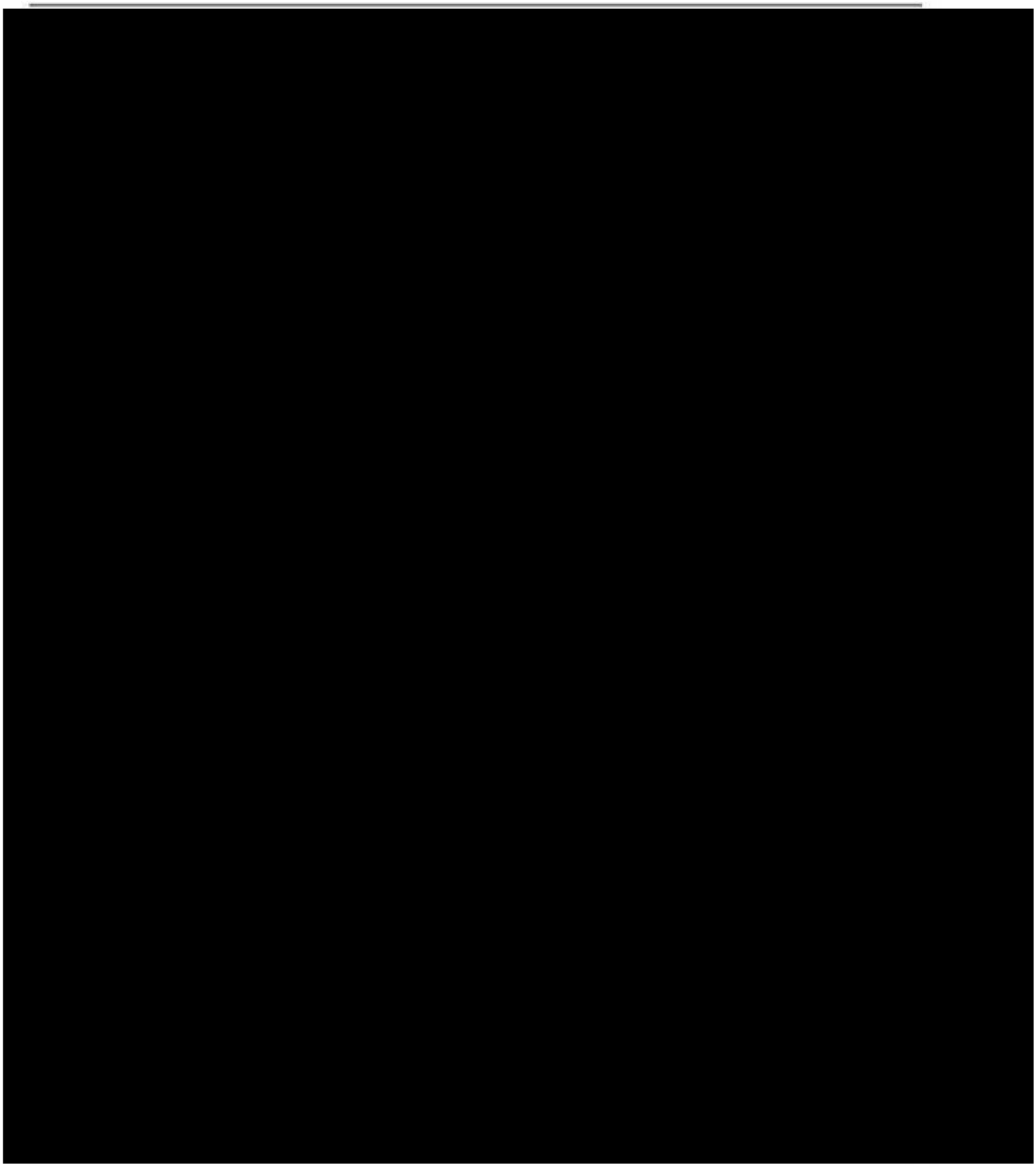


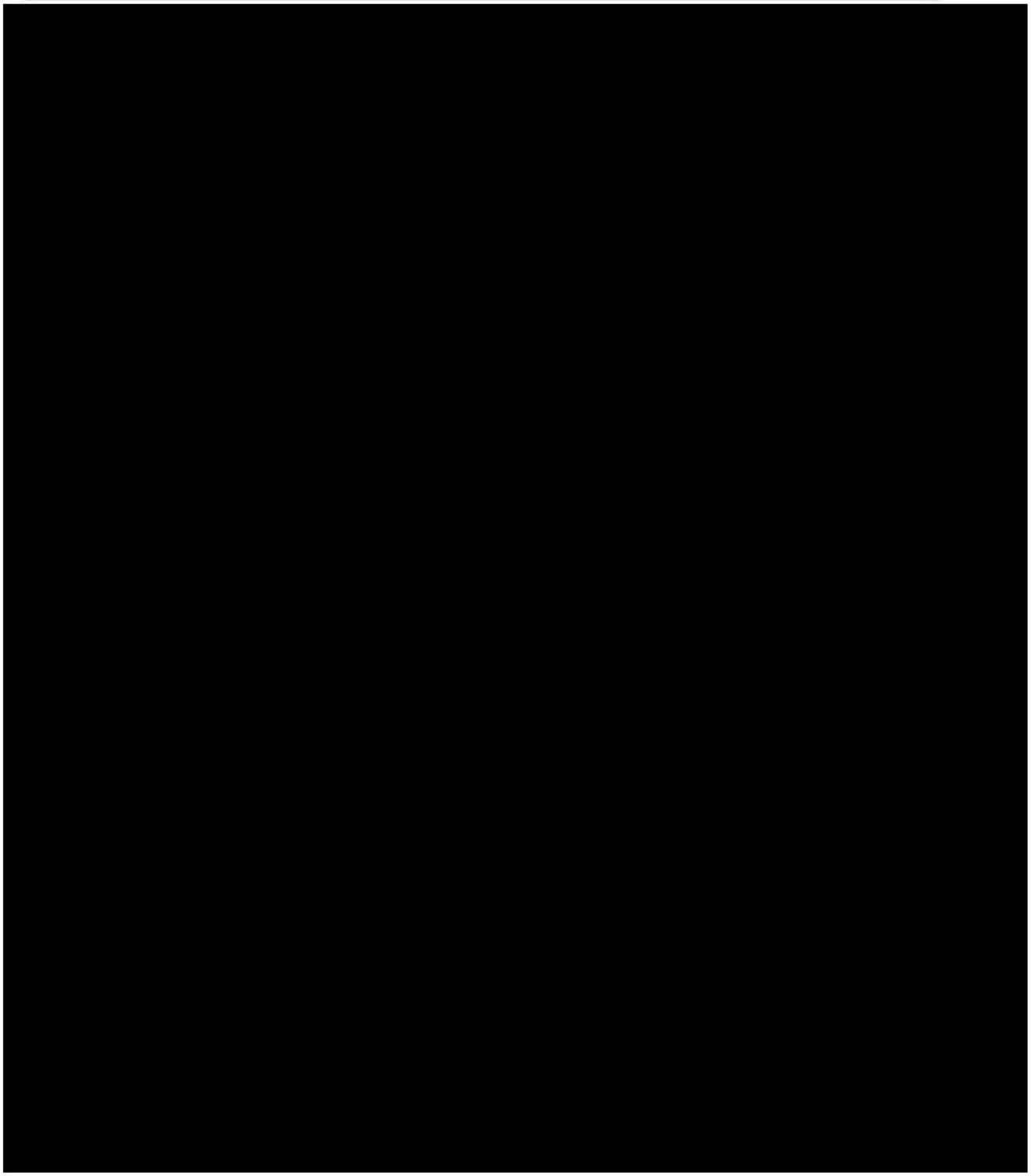
Switches/Switchgear
Section 11.50

Switchgear Design Philosophy 11.504

DESIGN DETAILS







Attachment F – Initial Funding PAF

Operations Project Authorization Form

Date Prepared: July 29, 2019	**Project Title:** [redacted]
Company/ies: Eversource CT	**Project ID Number: CD01335**
Organization: Distribution	**Class(es) of Plant: Underground**
Project Initiator: [redacted]	**Project Category: UG Cable & Equipment Replacement**
Project Manager: [redacted]	**Project Type: Specific**
Project Sponsor: [redacted]	**Project Purpose: Eliminate Manual Switchgear**
Estimated in service date: 12/31/2021	**If Transmission Project: PTF? N/A**
Eng. /Constr. Resources Budgeted? No	**Capital Investment Part of Original Operating Plan? N**
Authorization Type: Initial Funding	**O&M Expenses Part of the Original Operating Plan? N**
Total Request: $492,566	

Financial Requirements:

Project Authorization

ERM: _____

FP&A: _____

Executive Summary

This project has been established to address [redacted]

[redacted]

This project is part of an overall program to eliminate manual switchgear to eliminate the need to manually transfer customers to their alternate source for loss of the preferred source. This project will also improve operational flexibility with the addition of DSCADA capability.

Project Costs Summary

Note: Dollar values are in thousands

	Prior Authorized	2019	2020	2021	Totals
Capital Additions - Direct	$0	$0	$0	$210	$210
Less Customer Contribution	$0	$0	$0	$0	$0
Removals net of Salvage ____%	$0	$0	$0	$64	$64
Total - Direct Spending	$0	$0	$0	$274	$274
Capital Additions - Indirect	$0	$0	$0	$191	$191
Subtotal Request	$0	$0	$0	$465	$465
AFUDC	$0	$0	$0	$4	$4
Total Capital Request	$0	$0	$0	$469	$469
O&M	$0	$0	$0	$24	$24
Total Request	**$0**	**$0**	**$0**	**$493**	**$493**

Financial Evaluation

Note: Dollar values are in thousands

Direct Capital Costs	2019	2020	2021	Total
Straight Time Labor	$0	$0	$34	$34
Overtime Labor	$0	$0	$8	$8
Outside Services	$0	$0	$166	$166
Materials	$0	$0	$64	$64
Other, including contingency amounts (describe)	$0	$0	$2	$2
Total	**$0**	**$0**	**$274**	**$274**

Indirect Capital Costs	2019	2020	2021	Total
Indirects/Overheads (including benefits)	$0	$0	$191	$191
Capitalized interest or AFUDC, if any	$0	$0	$4	$4
Total	**$0**	**$0**	**$195**	**$195**

Total Capital Costs	**$0**	**$0**	**$469**	**$469**
Less Total Customer Contribution	**$0**	**$0**	**$0**	**$0**
Total Capital Project Costs	**$0**	**$0**	**$469**	**$469**
Total O&M Project Costs	**$0**	**$0**	**$24**	**$24**

Future Financial Impacts:

Provide below the estimated future costs that will result from the project:
Note: Dollar values are in thousands:

Future Costs	Year 20__	Year 20__	Year20__	Year 20__ +	Total Future Project Costs
Capital	$ -	$ -	$ -	$ -	$ -
O&M	-	-	-	-	-
Other	-	-	-	-	-
TOTAL	$ -	$ -	$ -	$ -	$ -

Describe the estimated future Capital, O&M and/or Other costs noted above:

What functional area(s) will these future costs be funded in?_____
A representative from the respective functional area is required to be included as a project approver.

If this is other than a Reliability Project, please complete the section below.

Provide below the estimated financial benefits that will result from the project:
Note: Dollar values are in thousands:

Future Benefits	Year 20__	Year 20__	Year20__	Year 20__ +	Total Future Project Benefits
Capital	$ -	$ -	$ -	$ -	$ -
O&M	-	-	-	-	-
Other	-	-	-	-	-
TOTAL	$ -	$ -	$ -	$ -	$ -

Describe the estimated future Capital, O&M and/or Other benefits noted above:

What functional area(s) will these benefits be reflected in?_____
A representative from the respective functional area is required to be included as a project approver.

Asset Retirement Obligation (ARO) and/ or Environmental Cleanup Costs (Environmental Liabilities):

Is there an ARO associated with this project? If yes, please provide details:

Are there other environmental cleanup costs associated with this project? If yes, please provide details:

Technical Justification:

Project Need Statement

This project proposes replacing the [redacted] (ref. DSEM 05.301). See attached Project Load Summary.

Project Objectives

The purpose of this project is to eliminate the need to manually switch customers to their alternate source for the loss of the preferred source via replacement of the existing manual switchgear with automatic switchgear, as well as to provide for DSCADA operating and load monitoring capability at this location.

Project Scope

The scope of this project is as follows:

[redacted]

Background / Justification





Business Process and / or Technical Improvements:

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

Alternatives Considered with Cost Estimates

[redacted]

With this option, an additional 1,000' of 4/0 AL EPR cable would need to be installed, as well as a hex hole to connect the new source to the existing loop. The cost of this option is $493k, or 31% greater than the proposed option. Therefore, this option was not chosen as the preferred option.

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Initial Funding Authorization	July 2019
Detailed Design	June 2020
Full Funding Authorization	July 2020
Construction Begin	January 2021
Construction End	December 2021

Regulatory Approvals

None required.

Risks and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2021	Medium	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	2020	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach
Internal construction resources not available to perform the work.	2021	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.	2020	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2021	Medium	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2021	Low	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2021	Low	Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system will be abnormal for extended periods

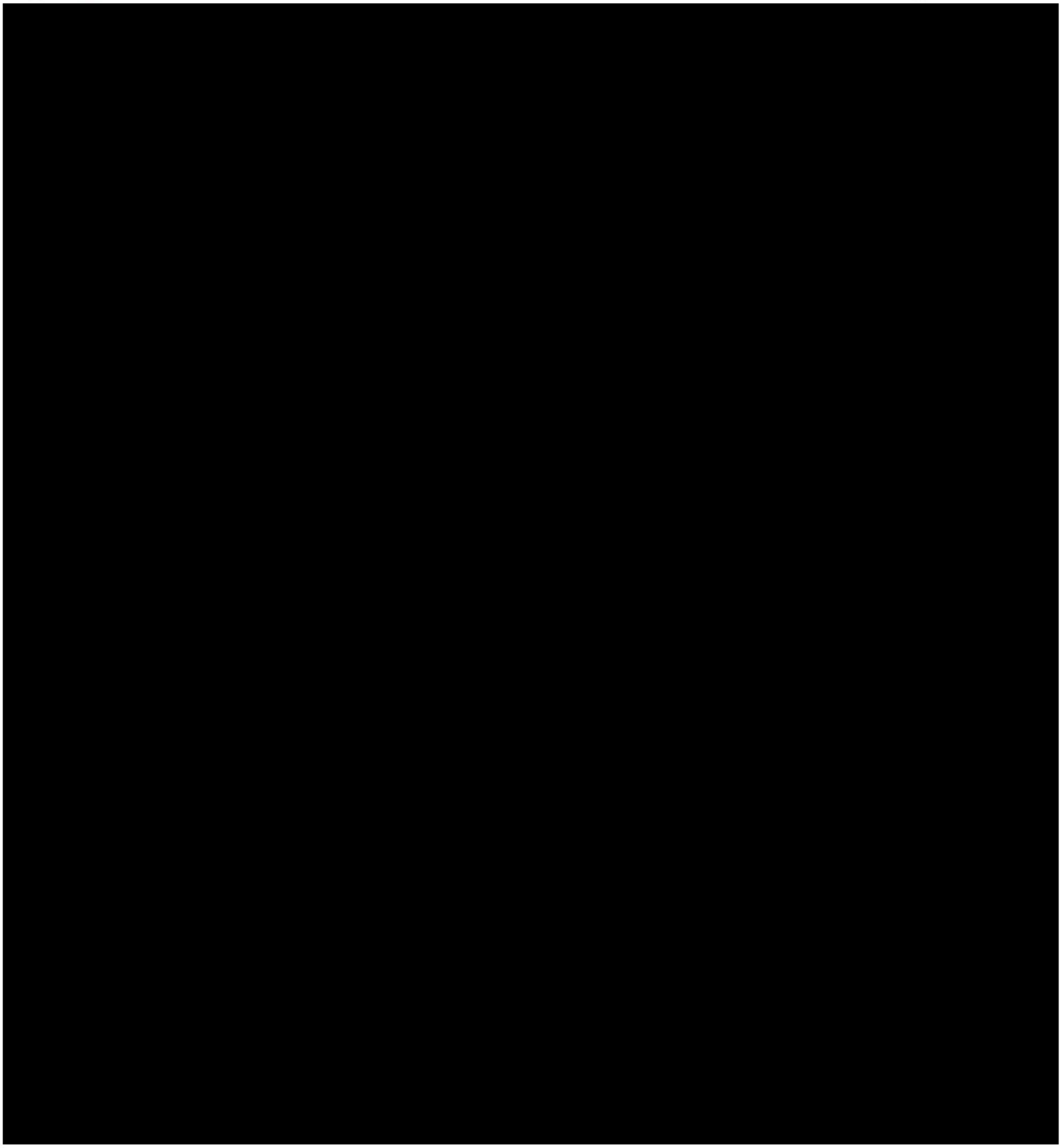
References

None

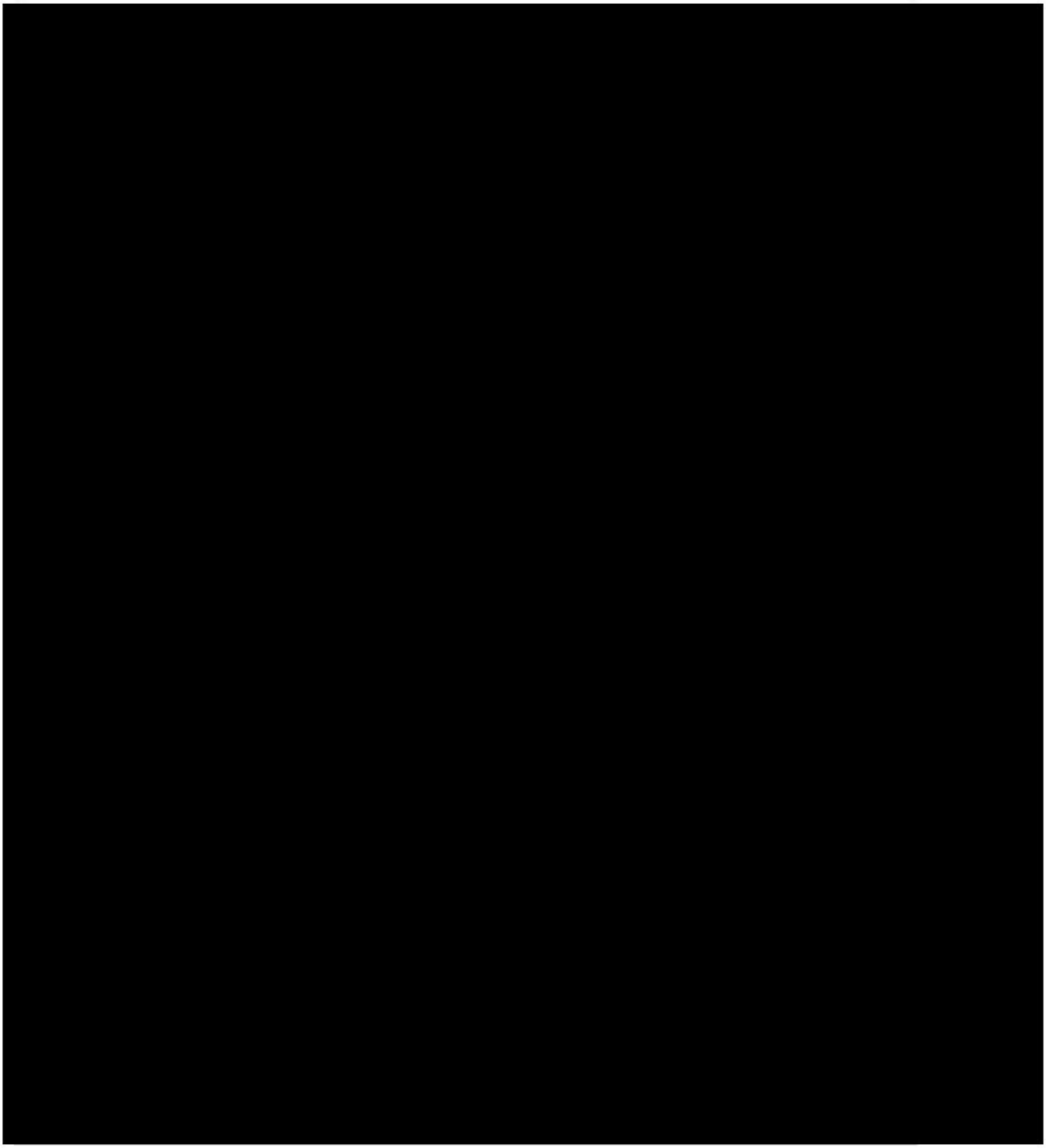
Design General Section 05.30	Contingency Planning	CT/MA	05.301

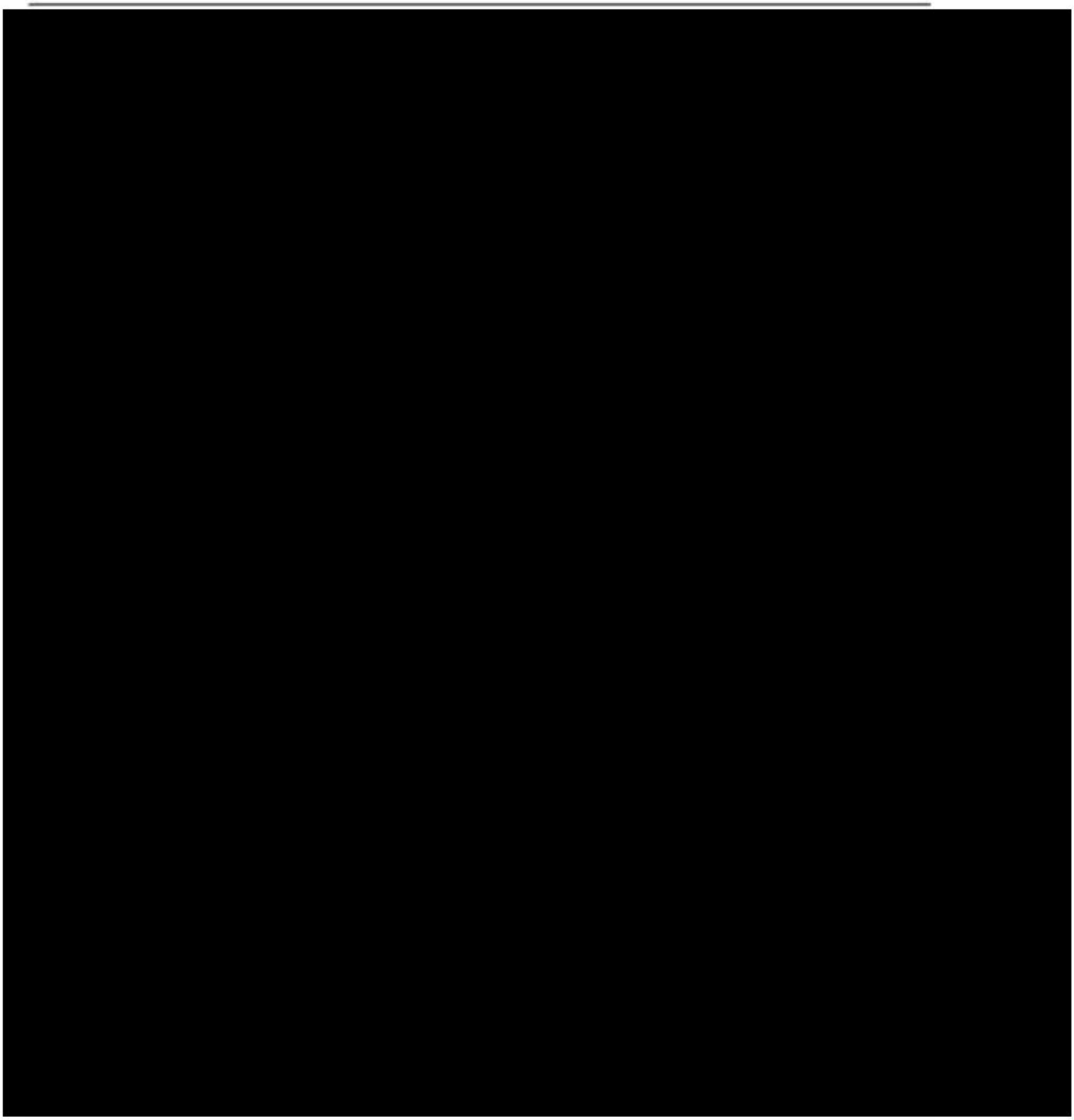
GENERAL – A contingency occurs when an operating line or piece of equipment has been removed from service. Contingencies may be *planned* or *unplanned*.

[redacted]



[redacted]





Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01335

[redacted]

Work Classification

Category: Line
Type: REL1
Type Desc: UG CABLE & EQUIPMNT REPLACEMNT
Work Type:

Ownership / Management

AWC: Cheshire
Statewide: No
Owner: [redacted]
Manager: [redacted]

Project Information

Status: Draft
SPS #:
AIS Score:
Associated Projects:
Assignment ID:
Patrol Find ID:

Budget Summary - Preferred Option

Replace Switchgear - N-2

2021

ID	Title	Status	Rev #	Contingency	Expenditure Amount	Net Estimate
1	Replace SWGR with [redacted]	Prelim	0	28%	$239,650	$239,650
3	Cable work for N-2	Prelim	0	28%	$172,870	$172,870
4	Duct work for new Loop Cables	Prelim	0	28%	$80,046	$80,046
				2021 Total:	$492,566	$492,566
				Total Project:	$492,566	$492,566

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01335 [redacted]

Project Option Summary

ID	Description	Segments	Preliminary Estimate	Construction Estimate	Variance	IEEE $/CMS	All (w/Storm)	Prfrd
O1	Replace Switchgear - N-1	1,2,4	$376,937	$0	100%	$1,978.44	$1,978.44	☐
O2	Replace Switchgear - N-2	1,3,4	$492,566	$0	100%	$2,585.33	$2,585.33	☑

Segments

ID	Title	Preliminary Estimate	Construction Estimate	Variance	IEEE $/CMS	All (w/Storm)
1	Replace SWGR with [redacted]	$239,650			$404.13	$404.13
2	Cable work for N-1	$57,242			$0.00	$0.00
3	Cable work for N-2	$172,870			$0.00	$0.00
4	Duct work for new Loop Cables	$80,046			$0.00	$0.00

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01335 [redacted]

Background / Scope

Issue:

[redacted]

Project Description:

Replace the manual switchgear at [redacted]

Option 1: Install new switchgear & loop cables to make N-1 compliant.

Option 2: Install new switchgear & loop cables to make N-2 compliant.

Other Considerations:

[redacted]

Revision / ACT Comments:

If we don't do this project, what will happen?

The customers fed from this conventional underground loop will continue to be exposed to an outage for loss of the feeder.

Environmental

Water Pollution: No Change Soil Contamination: No Change Natural Habitats: No Change

Alternatives considered based on Environmental Impact or Description of Aspects Oil Spill Risks Considered? ☐

Safety Concerns With This Project? ☐

Explain:

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01335

[redacted]

Design Alternative CD01335-01

General Information

Segment: 1 - Replace SWGR with Type 5 PME
Status: Prelim Design Submitted
Segment Type: SECTIONALIZING - UG
Town: WATERBURY
Budget Year: 2021
Work Type: Other
Trimming Required: ☐
In Service Date: 12/31/2021
Description: [redacted]

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed
1	[redacted]		

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01335 [redacted]

Design Alternative CD01335-01

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	28.00%
SubTotal:	$187,226
Contingency Amount:	$52,423
Estimate:	$239,650
Reimbursement:	$0
Net Amount:	$239,650
Description:	Original estimate for Preliminary Engineering approval

Item Description	CU	$ / Per	Qty	Amount
SWITCHGEAR DB/UG - Switchgear up to 25kV - Auto Type 5 (pair)	16-UG125	[redacted]		140,080.00
OTHER OTHER Cost to remove old switchgear at pads #933 & #934	16-ALL14			$5,000.00
SWITCHING OH/DB/UG - SWITCHING Network Swithing for [redacted]	16-ALL15			$42,146.40

Associated / Impacted Devices

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

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01335 [redacted]

Design Alternative CD01335-02

Estimate

Preliminary Estimate Summary	
Revision Number:	0
Contingency:	28.00%
SubTotal:	$44,720
Contingency Amount:	$12,522
Estimate:	$57,242
Reimbursement:	$0
Net Amount:	$57,242

Description: Original estimate for Preliminary Engineering approval.

Item Description	CU	$ / Per	Qty	Amount
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	16-ALL18	[redacted]		$4,000.00
OTHER OTHER Disconnect cable at MH 115 going to 76K30 from the [redacted] feeder & reconnect to load loop	16-ALL14			$2,000.00
UG CABLE DB/UG - 4/0 - 3-1/C (3ph) Cu Install 4/0 AL EPR cable from line side of switch #934 to MH 117. Connect to feeder [redacted]	16-UG113B	[redacted]		$2,400.00
UG CABLE DB/UG - 4/0 - 3-1/C (3ph) Cu Install 4/0 AL EPR cable from load side of switch #934 to MH 117. Connect to loop cable going to switch [redacted]	16-UG113B	[redacted]		$3,840.00
UG CABLE DB/UG - 4/0 - 3-1/C (3ph) Cu Install 4/0 AL EPR cable from MH 115 to existing switch [redacted] to add [redacted] to load loop	16-UG113B	[redacted]		$12,480.00
UG CABLE DB/UG - 4/0 - 3-1/C (3ph) Cu Install 4/0 AL EPR cable from pad #932 to MH 116 & splice into cable going to switch [redacted]	16-UG113B	[redacted]		$9,600.00
UG CABLE UG - Cable Removal - all cables Remove [redacted] cable from MH 58 to switch [redacted] at [redacted]	16-UG117	[redacted]		$5,900.00
UG CABLE UG - Cable Removal - all cables Remove cable from MH 117 to line side of switch [redacted]	16-UG117	[redacted]		$1,000.00
UG CABLE UG - Cable Removal - all cables	16-UG117	[redacted]		$1,000.00

Asset & Investment Management System 07/26/2019 Page 9 of 16

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01335 [redacted]

Design Alternative CD01335-02

Remove existing cable from [redacted]

OTHER 16-ALL14 [redacted] $2,500.00

OTHER
Remove switch on [redacted] & install pad cover. Connect loop cable coming from MH 116 to [redacted]

Associated / Impacted Devices

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

Reliability Projection

Title:

Outage Start Date: 01/01/2007 Outage End Date: 06/10/2019 Years History: 12.45

[redacted]

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01335 [redacted]

Design Alternative CD01335-03

General Information

Segment: 3 - Cable work for N-2 Status: Prelim Design Submitted

Segment Type: OTHER Town: WATERBURY Budget Year: 2021

Work Type: Other Trimming Required: ☐ In Service Date: 12/31/2021

Description: Install cable as required to reconfigure loop to a preferred / alternate, remote terminal loop for N-2 capability.

[redacted]

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed
1	[redacted]		
2			

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01335 [redacted]

Design Alternative CD01335-03

Estimate

Preliminary Estimate Summary

Revision Number:	0
Contingency:	28.00%
SubTotal:	$135,054
Contingency Amount:	$37,815
Estimate:	$172,870
Reimbursement:	$0
Net Amount:	**$172,870**

Description:

Item Description	CU	$ / Per	Qty	Amount
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	16-ALL18	[redacted]		$20,000.00
UG CABLE DB/UG - 4/0 - 3-1/C (3ph) Cu Disc cable going from pad [redacted] to switch & reconnect to new hex hole.	16-UG113B	[redacted]		$1,200.00
UG CABLE DB/UG - 4/0 - 3-1/C (3ph) Cu Install 4/0 AL EPR cable from line side of switch [redacted] to MH 117. Connect to feeder [redacted]	16-UG113B	[redacted]		$2,400.00
UG CABLE DB/UG - 4/0 - 3-1/C (3ph) Cu Install 4/0 AL EPR cable from load side of switch #934 to MH 117. Connect to loop cable going to switch [redacted]	16-UG113B	[redacted]		$3,840.00
UG CABLE DB/UG - 4/0 - 3-1/C (3ph) Cu Install 4/0 AL EPR cable from MH 103, connecting to [redacted] circuit, to MH 116. Connect to cable going to line side of switch #1071.	16-UG113B	[redacted]		$30,240.00
UG CABLE DB/UG - 4/0 - 3-1/C (3ph) Cu Install 4/0 AL EPR cable from MH 115 to existing switch [redacted] to add [redacted] to load loop	16-UG113B	[redacted]		$12,480.00
UG CABLE DB/UG - 4/0 - 3-1/C (3ph) Cu Install 4/0 AL EPR cable from pad [redacted] to MH 116 to switch [redacted] to new hex hole.	16-UG113B	[redacted]		$26,400.00
ENCLOSURE UG - HEXHOLE Install hex hole between switch [redacted]	16-UG142	[redacted]		$30,594.40
UG CABLE UG - Cable Removal - all cables Remove [redacted] cable from MH 58 to switch [redacted] at [redacted]	16-UG117	[redacted]		$5,900.00

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Connecticut Light & Power
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Specific Project Proposal - Project #: CD01335 [redacted]

Design Alternative CD01335-03

UG CABLE UG - Cable Removal - all cables Remove cable from MH 117 to line side of switch [redacted]	16-UG117	[redacted]	$1,000.00
UG CABLE UG - Cable Removal - all cables Remove existing cable from pad [redacted]	16-UG117		$1,000.00

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes
Existing	[redacted]	[redacted]	WATERBURY	[redacted]		286	

Reliability Projection

Title:

Outage Start Date: 01/01/2007 Outage End Date: 06/10/2019 Years History: 12.45

[redacted]

Connecticut Light & Power
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Specific Project Proposal - Project #: CD01335 [redacted]

Design Alternative CD01335-04

General Information

Segment: 4 - Duct work for new Loop Cables
Status: Prelim Design Submitted
Segment Type: OTHER
Town: WATERBURY
Budget Year: 2021
Work Type: Other
Trimming Required: ☐
In Service Date: 12/31/2021
Description: Install new 5" ducts from MH #117 for new loop cables

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed
1	F9-2A	L-1	Inst 5" ducts from MH 117 to switch [redacted]

Connecticut Light & Power
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Specific Project Proposal - Project #: CD01335 [redacted]

Design Alternative CD01335-04

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	28.00%
SubTotal:	$62,536
Contingency Amount:	$17,510
Estimate:	$80,046
Reimbursement:	$0
Net Amount:	**$80,046**
Description:	Original estimate for Preliminary Design approval

Item Description	CU	$ / Per	Qty	Amount
OTHER OTHER 20% adder for underground duct work in urban area	16-ALL14	[redacted]		$10,000.00
OTHER OTHER 30% adder for contract labor	16-ALL14			$15,000.00
CONDUIT UG-Ductline-up to 12 duct - Traveled Way / Paved Install 5" duct from MH #117 to load side of switch [redacted] for new loop cable	16-UG137			$18,768.00
CONDUIT UG-Ductline-up to 12 duct - Traveled Way / Paved Install 5" duct from MH #117 to [redacted] for new loop cable	16-UG137	[redacted]		$18,768.00

Associated / Impacted Devices

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