EVERSOURCE

Project Approval Form

Project Title: Reloc [redacted] in ROW	**Project Number:** CD01773
Date Prepared: 09/18/2023	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** LINE WORK FOR TRANSMISSION
Project Initiator: [redacted]	**Project Type:** Specific
Initiating Organization: Transmission / Major Projects	**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: 12/31/24	
Total Capital Request: $1,496.7K, ($1,496.7K)	**Authorization Type:** Full Funding

1. Executive Summary

Transmission projects will be [redacted] Per a request from Transmission Engineering [redacted] will be relocated to create adequate clearance between transmission and distribution facilities.

The [redacted]

This is for full funding:

The Full Funding/Partial is 97%.

The Full Funding estimate is $1,497K and the partial estimate is $1,544K.

Change is scope:

The relocation of five residential services to from overhead to direct buried will not be pursued by Transmission. These customers will continue to be fed by the existing facilities. This reduces the total cost by $50K, shown is segment 4.

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	2022	2023	2024	Total
Internal Labor and Construction Equipment	0.0	18.0	35.9	53.9
Outside Services	14.7	9.3	486.1	510.1
Materials	0.0	50.5	173.0	223.5
Removals	0.9	5.5	49.4	55.8
Risk and Contingency	0.0	10.1	92.5	102.6
Other	0.0	0.0	0.0	0.0
Subtotal	**15.6**	**93.3**	**837.0**	**945.9**

Indirect Capital Costs	2022	Year 1	Year 1	Total
Indirects/Overheads (including benefits)	10.0	51.0	489.5	550.5
Capitalized interest or AFUDC, if any	0.3	0.0	0.0	0.3
Subtotal	**10.3**	**51.0**	**489.5**	**550.8**
Total Capital Costs (Gross)	**25.9**	**144.3**	**1,326.4**	**1,496.7**
Less Total Customer Contribution	**-25.9**	**-144.3**	**-1,326.4**	**-1,496.7**
Project Costs (Net of Reimbursement)	**0.0**	**0.0**	**0.0**	**0.0**

Explain unique payment provisions, if applicable: This project is fully reimbursable by Transmission.

3. Technical Justification

a. Background

[redacted]

[redacted]

b. Project Need

Transmission maintenance has requested the [redacted]

c. Project Scope

[redacted]

Major Material:

27 steel poles

4800feet of 750 Al aerial cable

4. Alternatives Considered

Per the transmission request there is only one option that fulfills the requirements.

Project Option Comparison

Design Criteria	Option		
	1 – Create New Circuit		
Create adequate clearance between transmission and distribution conductors	X		
Authorization Type	Full		
Capital Cost	$1,496.7K		
Expense Cost	$34K		
Total Cost	$1,530.7K		
Preferred option	X		

5. Project Schedule

Add any additional milestones that are pertinent to the project.

Milestone/Phase Name	Estimated Date
Partial Approval	4/2023
100% Detailed Engineering Completion	8/2023
Full Funding	10/2023
Construction Start	10/2023
In Service Date	12/31/24

6. Regulatory Decisions

7. Codes and Standards

8. Risk and Contingencies

Contingencies:

Risk Mitigation:

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2023/2024	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	2023/2024	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach.
Internal construction resources not available to perform the work.	2023/2024	Medium	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Internal engineering resources not available to perform the work.	2023/2024	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.

Materials Shortage or long lead times	2023/2024	Medium	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2023/2024	Medium	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2023/2024	Medium	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	2023/2024	Medium	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	2023/2024	Medium	Use of mats and specialty equipment, only work during certain times of the year.

9. References

References
1.
2.
3.
4.
5.

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

Attachment	Included in Submittal?
A. Cost Estimate	*YES*
B. P6 Schedule	*NO*
C. Geographic Map	*YES*
D. System and Station One-Lines	*NO*
E. Other	
F.	

Cost Estimate (original partial estimate):

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Work Classification

Category: Line

Type: BLG4

Type Desc: LINE WORK FOR TRANSMISSION

Work Type:

Ownership / Management

AWC: Cheshire

Statewide: No

Owner: [redacted]

Manager:

Project Information

Status: Prelim Design Approved

Associated Projects:

SPS #:

Assignment ID:

AIS Score:

Patrol Find ID:

Budget Summary - Preferred Option

Reloc 12F46 to T monopoles and put 12F47 & 12F48 UG at Luccini Jcn

2023

ID	Title	Status	Rev #	Contingency	Expenditure Amount	Net Estimate
3	[redacted]sing Aerial cable	Prelim	0	24%	$350,777	$0
				2023 Total:	**$350,777**	**$0**

2024

ID	Title	Status	Rev #	Contingency	Expenditure Amount	Net Estimate
1	Reloc [redacted]to T Strucures	Prelim	1	24%	$1,165,766	$0
4	Recond OH to 5 radially fed homes	Prelim	0	24%	$49,581	$49,581
				2024 Total:	**$1,215,347**	**$49,581**
				Total Project:	**$1,566,124**	**$49,581**

Project Approval Form

Design Alternative CD01773-01

Estimate

	Preliminary Estimate Summary
Revision Number:	1
Contingency:	24.00%
SubTotal:	$940,134
Contingency Amount:	$225,632
Estimate:	$1,165,766
Reimbursement:	$1,165,766
Net Amount:	**$0**

Description:

Item Description	CU	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	16-ALL17	$3,509.60
OH WIRE OH - Remove circuit wire (3 phase)	16-OH37A	$13,440.00
OTHER OTHER 10% ROW adder	16-ALL14	$161,334.00
POLE OH - JUNCTION POLE - 3ph (CL&P custodian) 21 poles @200 feet/span, aerial cable does not include poles @$11,6	16-OH14A	$245,498.40
OTHER OTHER 30% contractor adder for aerial cable and removal	16-ALL14	$119,952.00
OH WIRE OH-Install Aerial Cable-existing poles (any gauge) aerial cable excluding poles	16-OH36	$386,400.00
OTHER OTHER for UG street crossing for single phase riser at pole 93574 to feed single phase pads	16-ALL14	$10,000.00

Project Approval Form

Design Alternative CD01773-03

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$282,884
Contingency Amount:	$67,892
Estimate:	$350,777
Reimbursement:	$350,777
Net Amount:	**$0**

Description:

Item Description	CU	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	16-ALL17	$7,019.20
SECTIONALIZE OH-Vertical Disconnect Switches-600/900 amp 3-1ph	16-OH43	$41,132.80
OTHER OTHER 10 ROW adder	16-ALL14	$23,447.00
OH WIRE OH - Line Extension w/Aerial Cable - (any gauge) 12F47	16-OH35	$43,200.00
OH WIRE OH-Install Aerial Cable-existing poles (any gauge) 12F48	16-OH36	$27,600.00
OTHER OTHER 30% contractor adder	16-ALL14	$70,343.00
POLE OH - JUNCTION POLE - 3ph (CL&P custodian) steel poles to replace 680, 680 S, 678, 3442 and two new midstpan poles	16-OH14A	$70,142.40

Project Approval Form

Design Alternative CD01773-04

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$39,985
Contingency Amount:	$9,596
Estimate:	$49,581
Reimbursement:	$0
Net Amount:	**$49,581**
Description:	

Item Description	CU	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	16-ALL17	$3,509.60
OH WIRE OH-Reconductor w/175 Mil Tree Wire-1ph (any gauge)	16-OH25	$14,400.00
XF OH - OH XF - 1ph	16-OH45	$4,219.20
OTHER OTHER 10% row adder	16-ALL14	$3,114.00
OTHER OTHER 30% contractor adder	16-ALL14	$3,300.00
POLE OH - POLE - 1ph (CL&P custodian) 50% balance of poles	16-OH13	$5,768.00
TRAFFIC OH/DB/UG - Traffic Control - Police Officer police 15% of precontingecy subtotal	16-ALL18	$4,234.00
OH WIRE OH - Remove circuit wire (1 phase) rem conductor	16-OH37	$1,440.00

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[redacted]

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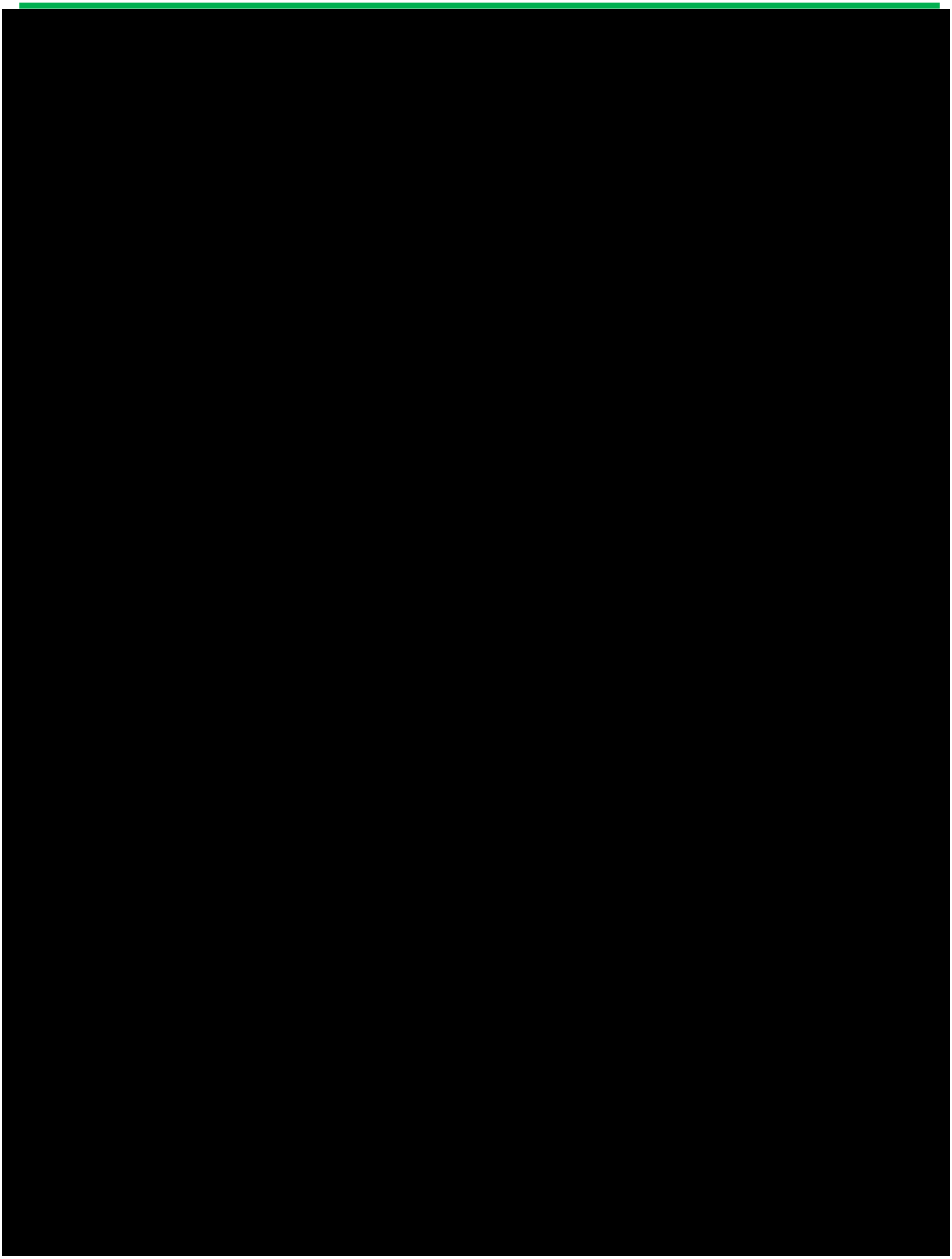

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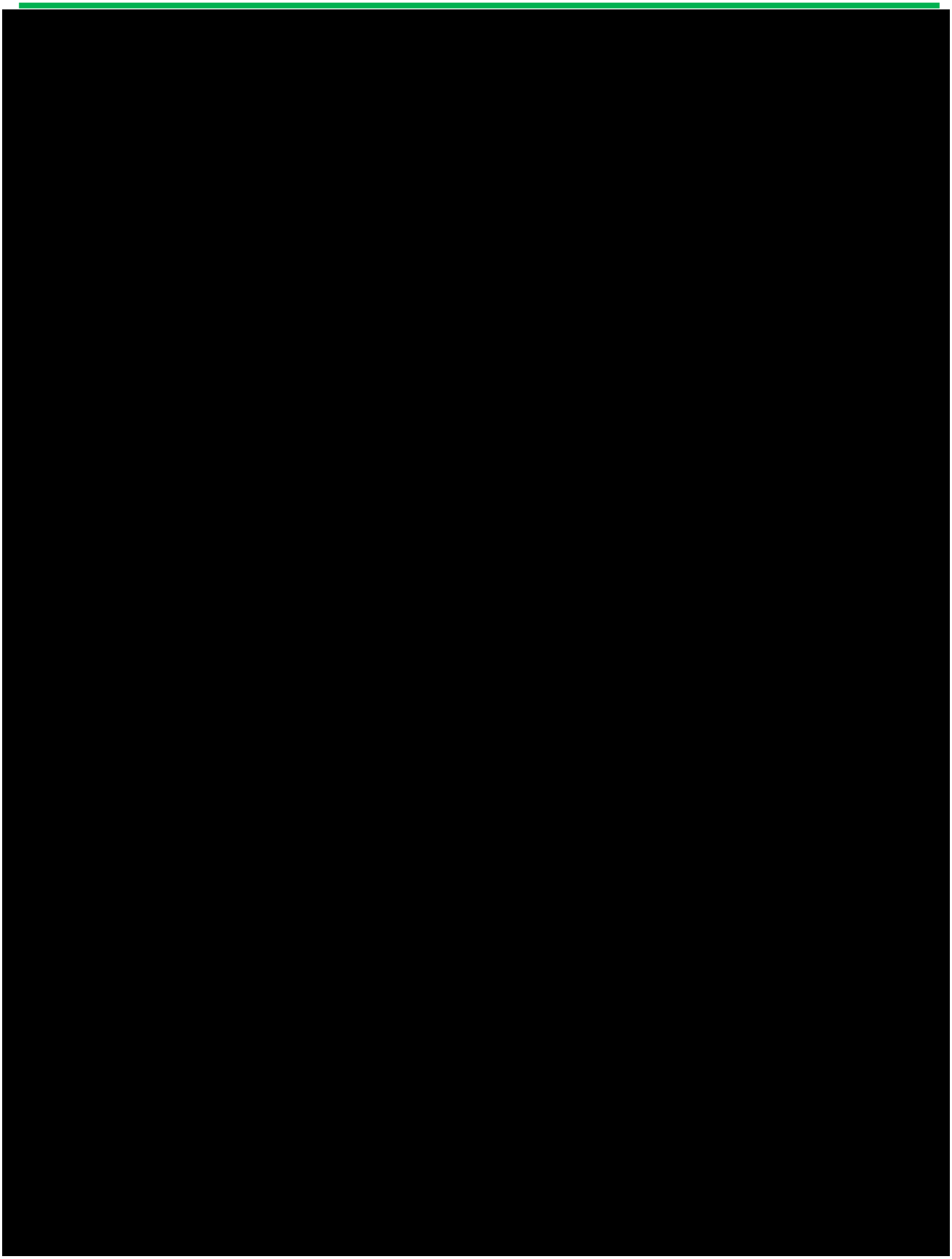

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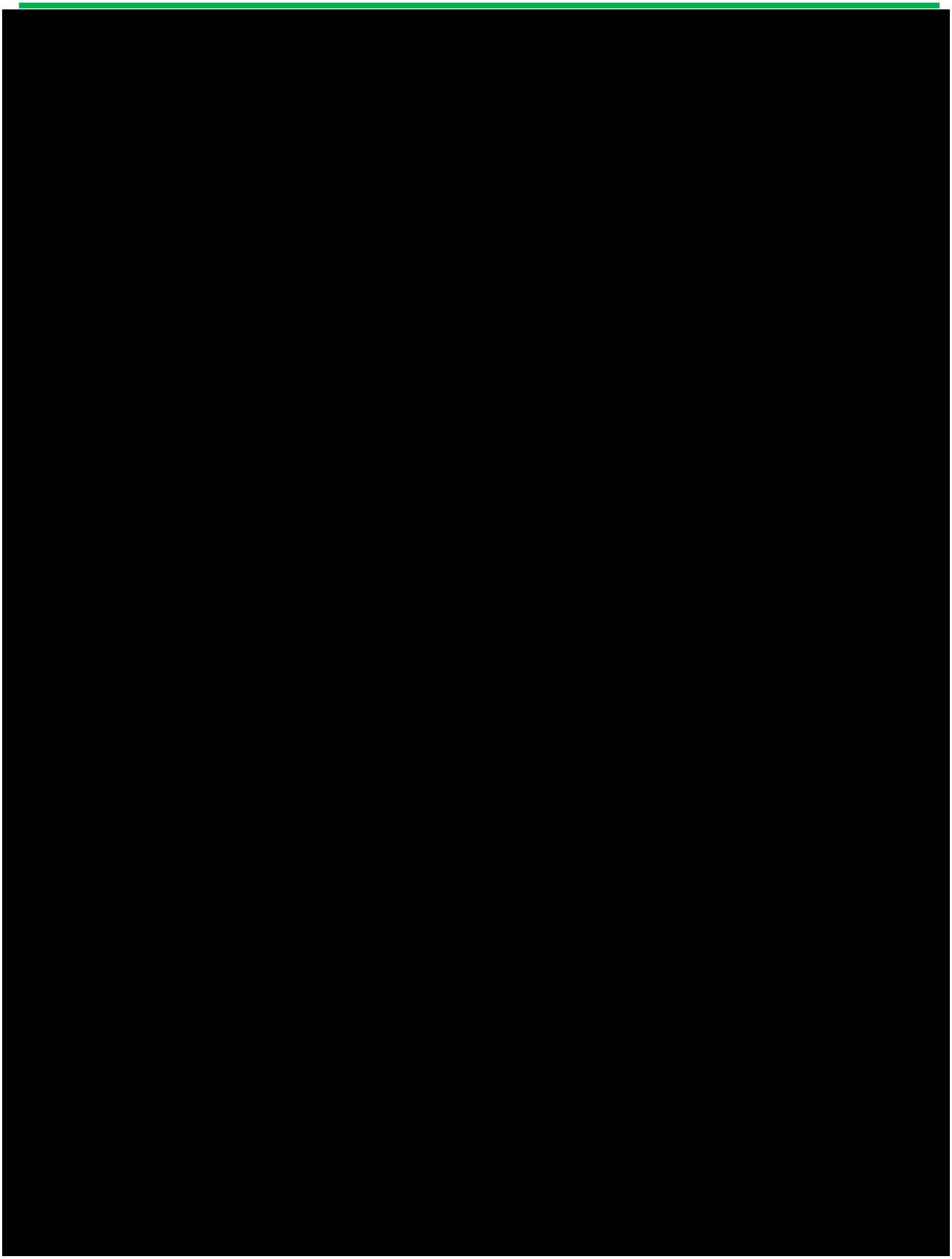

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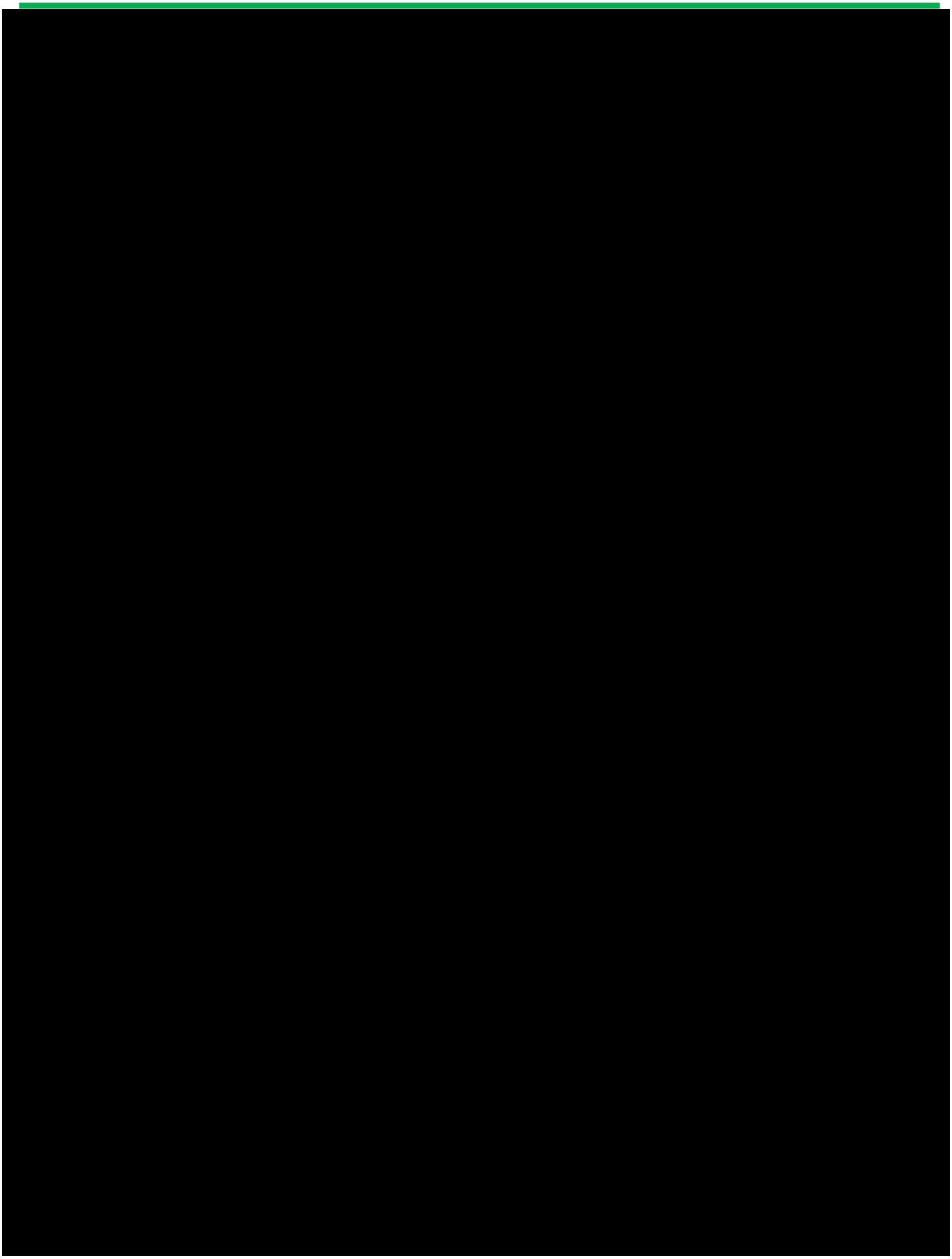

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Project Approval Form

Project Title: Reloc [redacted] n ROW	**Project Number:** CD01773
Date Prepared: 09/18/2023	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** LINE WORK FOR TRANSMISSION
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: 12/31/24	
Total Capital Request: $1,544, ($1,544K)	**Authorization Type:** Partial Funding

1. Executive Summary

[redacted]

1

Refer to Distribution Capital Project Approval Process
JA-AM-2001-B, Rev.1

Project Approval Form

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	2023	2024	2025+	Total
Internal Labor and Construction Equipment	$3	$10	$0	$13
Outside Services	$26	$91	$0	$117
Materials	$10	$34	$0	$44
Removals	$20	$71	$0	$91
Risk and Contingency	$0	$1	$0	$1
Other	$0	$0	$0	$0
Subtotal	**$60**	**$207**	**$0**	**$267**

Indirect Capital Costs	2023	2024	2025+	Total
Indirects/Overheads (including benefits)	$282	$985	$0	$1,267
Capitalized interest or AFUDC, if any	$3	$9	$0	$11
Subtotal	**$284**	**$993**	**$0**	**$1,278**
Total Capital Costs (Gross)	**$344**	**$1,200**	**$0**	**$1,544**
Less Total Customer Contribution	($351)	($1,215)	$0	($1,566)
Project Costs (Net)	**($7)**	**$9**	**$0**	**$2**

Explain unique payment provisions, if applicable:

2

Refer to Distribution Capital Project Approval Process
JA-AM-2001-B, Rev.1

Project Approval Form

3. Technical Justification

a. Background

[redacted]

b. Project Need

Transmission maintenance has requested [redacted]

c. Project Scope

[redacted]

Major Material:

27 steel poles

4800feet of 750 Al aerial cable

3

Project Approval Form

4. Alternatives Considered

Per the transmission request there is only one option that fulfills the requirements.

Project Option Comparison

Design Criteria	Option		
	1 – Create New Circuit		
Create adequate clearance between transmission and distribution conductors	X		
Authorization Type	Partial		
Capital Cost	$1,544K		
Expense Cost	$22K		
Total Cost	$1,566		
Preferred option	X		

5. Project Schedule

Add any additional milestones that are pertinent to the project

Milestone/Phase Name	Estimated Date
Partial Approval	4/2023
100% Detailed Engineering Completion	8/2023
Fully Funded	
Construction Start	10/2023

4

Refer to Distribution Capital Project Approval Process
JA-AM-2001-B, Rev.1

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Milestone/Phase Name	Estimated Date
In Service Date	12/31/24

6. Regulatory Decisions

7. Codes and Standards

8. Risk and Contingencies

Contingencies:

Risk Mitigation:

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2023/2024	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	2023/2024	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach.
Internal construction resources not available to perform the work.	2023/2024	Medium	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.

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Internal engineering resources not available to perform the work.	2023/2024	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2023/2024	Medium	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2023/2024	Medium	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2023/2024	Medium	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	2023/2024	Medium	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	2023/2024	Medium	Use of mats and specialty equipment, only work during certain times of the year.

9. References

References
1.
2.
3.
4.

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Project Approval Form

5.

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

Attachment	Included in Submittal?
A. Cost Estimate	YES
B. P6 Schedule	NO
C. Geographic Map	YES
D. System and Station One-Lines	NO
E. Other	
F.	

Cost Estimate:

Work Classification

Category: Line
Type: BLG4
Type Desc: LINE WORK FOR TRANSMISSION
Work Type:

Ownership / Management

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

Project Information

Status: Prelim Design Approved
SPS #:
AIS Score:
Associated Projects:
Assignment ID:
Patrol Find ID:

Budget Summary - Preferred Option

Reloc 12F46 to T monopoles and put 12F47 & 12F48 UG at Luccini Jcn

2023

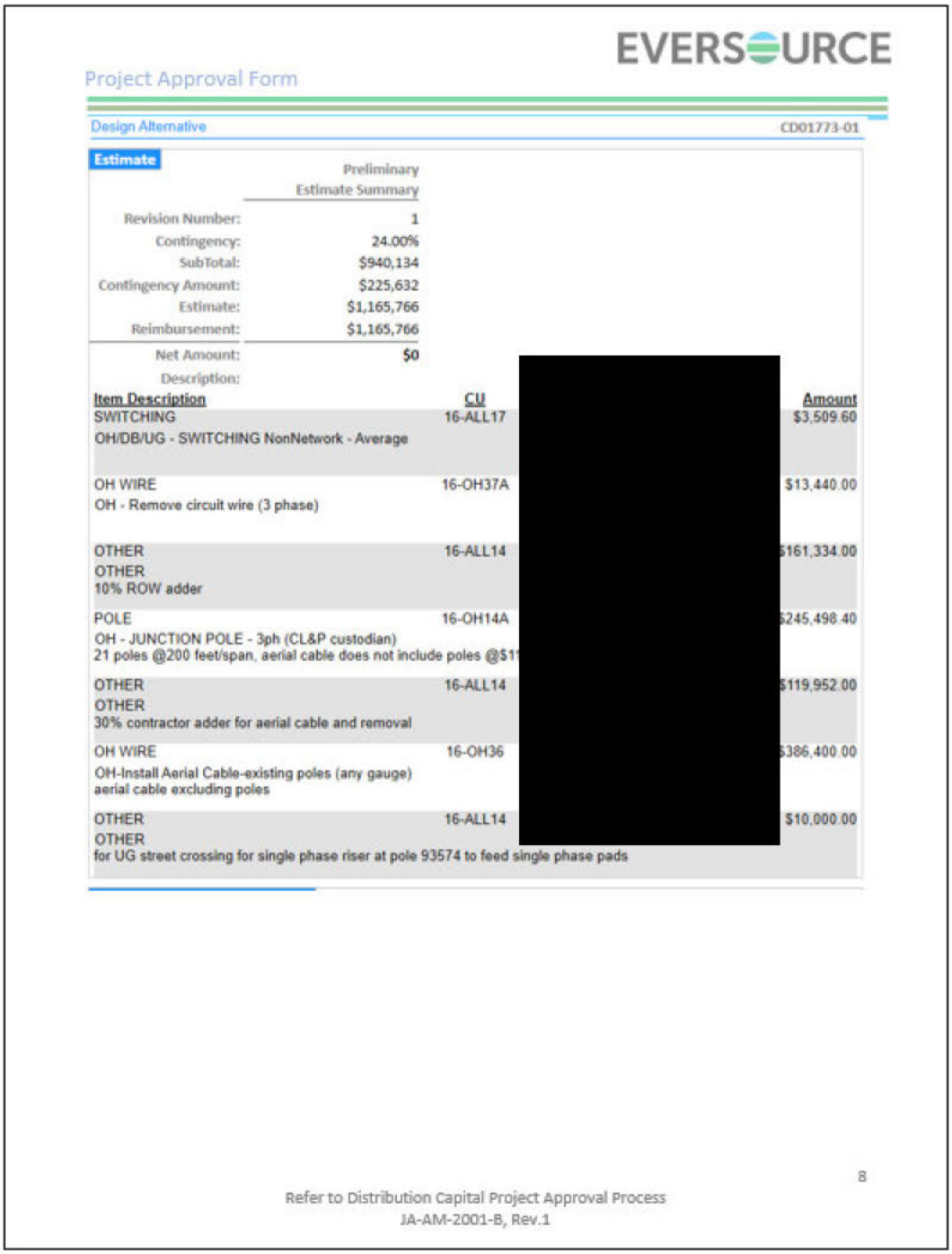
ID	Title	Status	Rev #	Contingency	Expenditure Amount	Net Estimate
3	Reloc [redacted] using Aerial cable	Prelim	0	24%	$350,777	$0
				2023 Total:	$350,777	$0

2024

ID	Title	Status	Rev #	Contingency	Expenditure Amount	Net Estimate
1	Reloc [redacted] o T Strucures	Prelim	1	24%	$1,165,766	$0
4	Recond OH to 5 radially fed homes	Prelim	0	24%	$49,581	$49,581
				2024 Total:	$1,215,347	$49,581
				Total Project:	$1,566,124	$49,581

7

Refer to Distribution Capital Project Approval Process
JA-AM-2001-B, Rev.1



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Project Approval Form

Design Alternative CD01773-01

Estimate

	Preliminary Estimate Summary
Revision Number:	1
Contingency:	24.00%
SubTotal:	$940,134
Contingency Amount:	$225,632
Estimate:	$1,165,766
Reimbursement:	$1,165,766
Net Amount:	$0

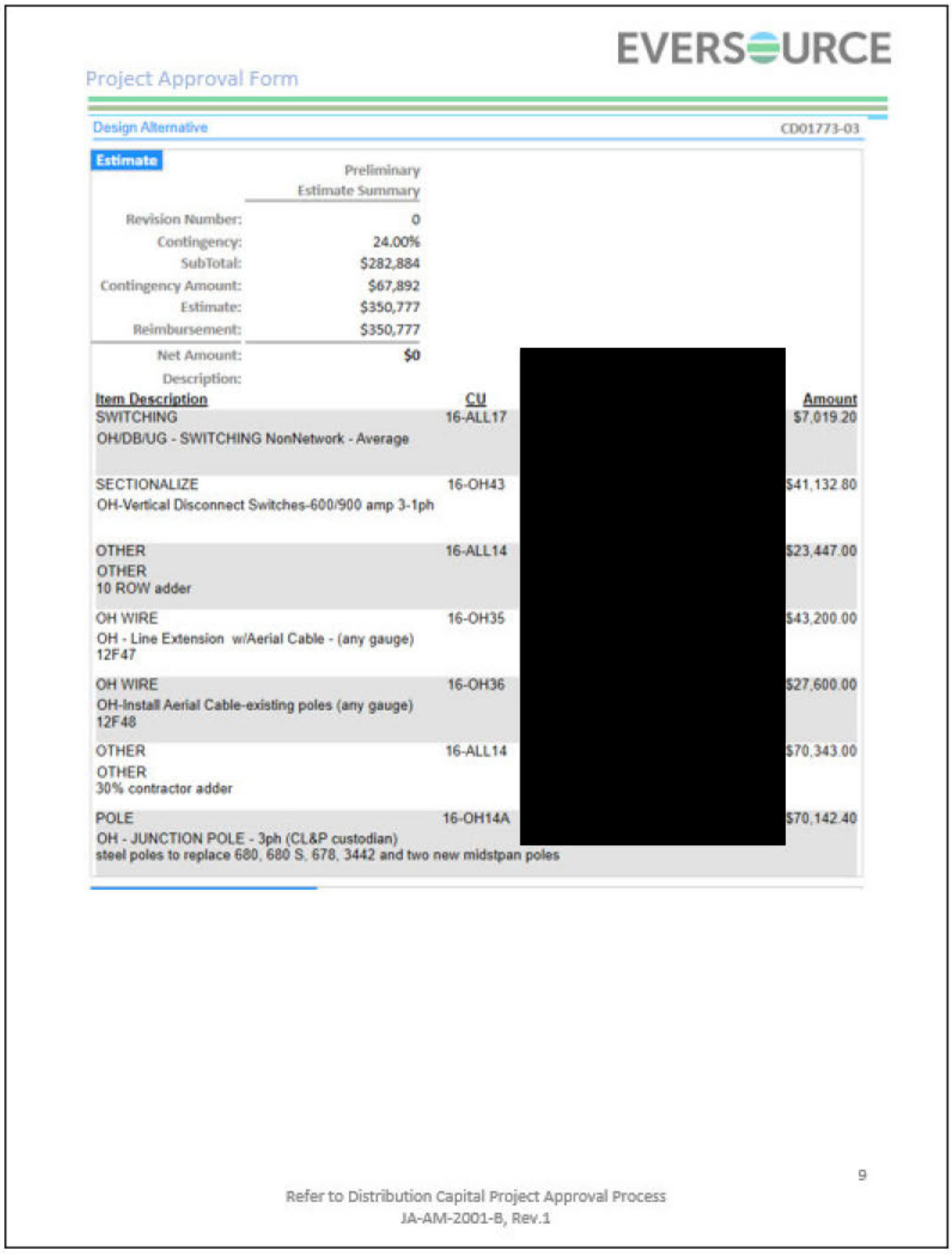
Description:

Item Description	CU	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	16-ALL17	$3,509.60
OH WIRE OH - Remove circuit wire (3 phase)	16-OH37A	$13,440.00
OTHER OTHER 10% ROW adder	16-ALL14	$161,334.00
POLE OH - JUNCTION POLE - 3ph (CL&P custodian) 21 poles @200 feet/span, aerial cable does not include poles @$1	16-OH14A	$245,498.40
OTHER OTHER 30% contractor adder for aerial cable and removal	16-ALL14	$119,952.00
OH WIRE OH-Install Aerial Cable-existing poles (any gauge) aerial cable excluding poles	16-OH36	$386,400.00
OTHER OTHER for UG street crossing for single phase riser at pole 93574 to feed single phase pads	16-ALL14	$10,000.00

[redacted]

8

Refer to Distribution Capital Project Approval Process
JA-AM-2001-B, Rev.1



EVERSOURCE

Project Approval Form

Design Alternative CD01773-03

Estimate

Preliminary Estimate Summary

Revision Number:	0
Contingency:	24.00%
SubTotal:	$282,884
Contingency Amount:	$67,892
Estimate:	$350,777
Reimbursement:	$350,777
Net Amount:	$0

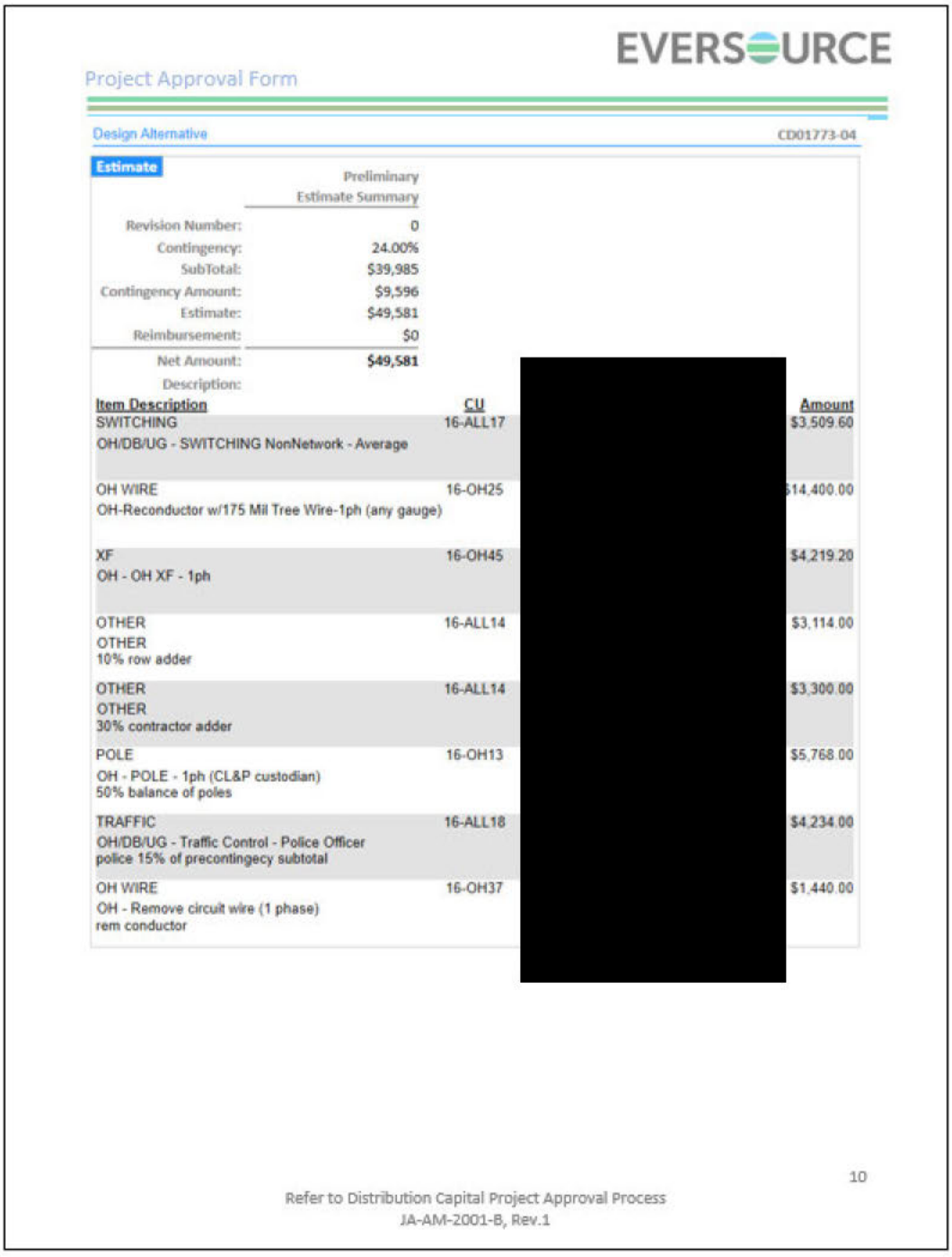
Description:

Item Description	CU	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	16-ALL17	$7,019.20
SECTIONALIZE OH-Vertical Disconnect Switches-600/900 amp 3-1ph	16-OH43	$41,132.80
OTHER OTHER 10 ROW adder	16-ALL14	$23,447.00
OH WIRE OH - Line Extension w/Aerial Cable - (any gauge) 12F47	16-OH35	$43,200.00
OH WIRE OH-Install Aerial Cable-existing poles (any gauge) 12F48	16-OH36	$27,600.00
OTHER OTHER 30% contractor adder	16-ALL14	$70,343.00
POLE OH - JUNCTION POLE - 3ph (CL&P custodian) steel poles to replace 680, 680 S, 678, 3442 and two new midspan poles	16-OH14A	$70,142.40

[redacted]

9

Refer to Distribution Capital Project Approval Process
JA-AM-2001-B, Rev.1



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Project Approval Form

Design Alternative CD01773-04

Estimate

Preliminary Estimate Summary

Revision Number:	0
Contingency:	24.00%
SubTotal:	$39,985
Contingency Amount:	$9,596
Estimate:	$49,581
Reimbursement:	$0
Net Amount:	**$49,581**

Description:

Item Description	CU	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	16-ALL17	$3,509.60
OH WIRE OH-Reconductor w/175 Mil Tree Wire-1ph (any gauge)	16-OH25	$14,400.00
XF OH - OH XF - 1ph	16-OH45	$4,219.20
OTHER OTHER 10% row adder	16-ALL14	$3,114.00
OTHER OTHER 30% contractor adder	16-ALL14	$3,300.00
POLE OH - POLE - 1ph (CL&P custodian) 50% balance of poles	16-OH13	$5,768.00
TRAFFIC OH/DB/UG - Traffic Control - Police Officer police 15% of precontingecy subtotal	16-ALL18	$4,234.00
OH WIRE OH - Remove circuit wire (1 phase) rem conductor	16-OH37	$1,440.00

[redacted]

10

Refer to Distribution Capital Project Approval Process
JA-AM-2001-B, Rev.1