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Project Approval Form

Project Title: [redacted] New Service	Project Number: CD02153
Date Prepared: 12/13/2023	Company: Eversource CT
Organization: Distribution Engineering	Project Category: SPECIFIC PROJECTS-NEW SRVCE
Project Initiator: [redacted]	Project Type: Specific
Initiating Organization: Distribution	Capital Investment part of original Op Plan: Yes
Project Manager: [redacted]	Emergency Related Request? No
Project Sponsor: [redacted]	Facility Type (check all that apply): ☐ PTF ☐ non-PTF ☒ Distribution ☐ N/A (General Plant)
Required in service date: 6/1/2024	
Total Capital Request: $1,156.6	Authorization Type: Full Funding

1. Executive Summary

This project was established to provide electric service to a new development on [redacted] Cheshire, CT. The first phase of the development, to be called [redacted] will initially include 300 residential units and a Club house. A hotel, Dunkin' Donuts, gas station and electric vehicle charging station are also planned for this site, to be built later. In addition, there are preliminary plans for a strip mall, which will be [redacted]

- Approved Initial Funding Authorization: $1,138K at the 2/18/2023 CT-PAC meeting.
- Requesting Full Funding authorization: $1,156.6K, a difference of $18.6K or 1.6% of the Initial Funding authorization.
- Project Location:
  - Division: Central
  - District: Cheshire AWC
  - Towns: Southington & Cheshire

There is no change in scope.

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	Year 2024	Year 2025	Year 2026+	Total
Direct Capital Costs	79.3	0.0	0.0	79.3
Internal Labor and Construction Equipment	29.5	0.0	0.0	29.5
Outside Services	569.3	0.0	0.0	569.3
Materials	33.3	0.0	0.0	33.3
Removals	80.7	0.0	0.0	80.7
Risk and Contingency	0.0	0.0	0.0	0.0
Other	**792.0**	**0.0**	**0.0**	**792.0**
Subtotal – Direct Costs	79.3	0.0	0.0	79.3
Indirect Capital Costs				
Indirect/Overheads (including benefits)	364.6	0.0	0.0	364.6
Capitalized interest or AFUDC, if any	0.0	0.0	0.0	0.0
Subtotal – Indirect Costs	**364.6**	**0.0**	**0.0**	**364.6**
Total Gross Capital Costs	**1,156.6**	**0.0**	**0.0**	**1,156.6**
Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Total Net Capital Project Costs	**1,156.6**	**0.0**	**0.0**	**1,156.6**

Explain unique payment provisions, if applicable:

3. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

[redacted]

b. Project Need

[redacted]

[redacted]

c. Project Scope

The scope of this project is as follows:

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

4. Alternatives Considered

Option 1 – [redacted] Therefore, this option was not chosen as the preferred option.

Option 2 – [redacted] Therefore, this option was not chosen as the preferred option.

Option 3 – [redacted] gs. This option, therefore, was chosen as the preferred option.

Option 4 – Same as option 1 but [redacted] Therefore, this alternative was not chosen as the preferred option.

Project Option Comparison

	Option			
[redacted]				
Authorization Type	Partial	Partial	Full	Partial
Capital Cost	$2.26M	$2.47M	$1.16M	$1.16M
Expense Cost	$0.05M	$0.05M	$0.02M	$0.02M
Total Cost	$2.31M	$2.52M	$1.18M	$1.18M
Preferred option			X	

5. Project Schedule

Milestone/Phase Name	Estimated Date
Partial Approval	2/18/2023
100% Detailed Engineering Completion	6/30/2023
Fully Funded	12/13/2023

Milestone/Phase Name	Estimated Date
Construction Start	1/1/2024
In Service Date	6/1/2024

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.	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	2024	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach.
Internal construction resources not available to perform the work.	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	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.

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

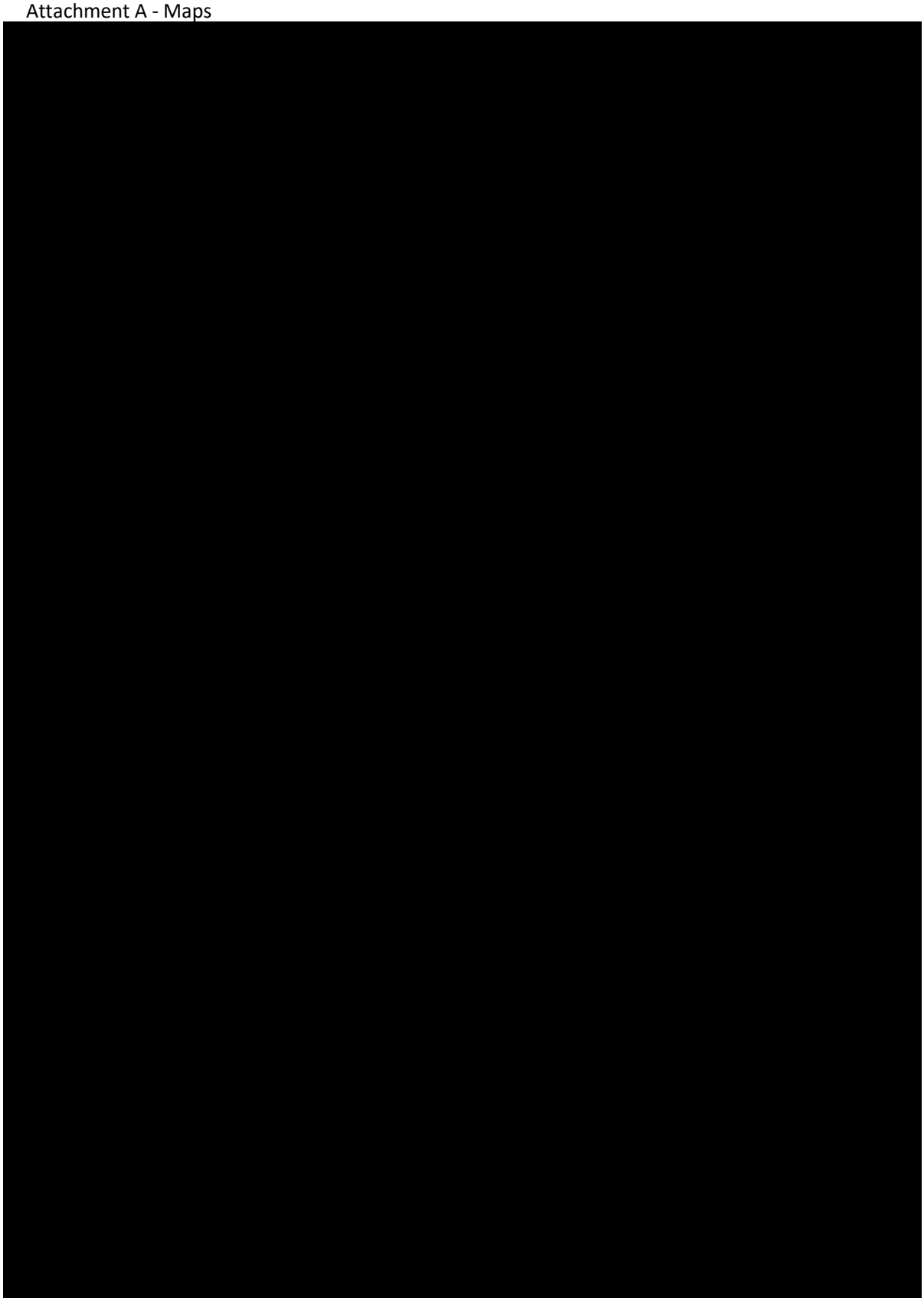
9. References

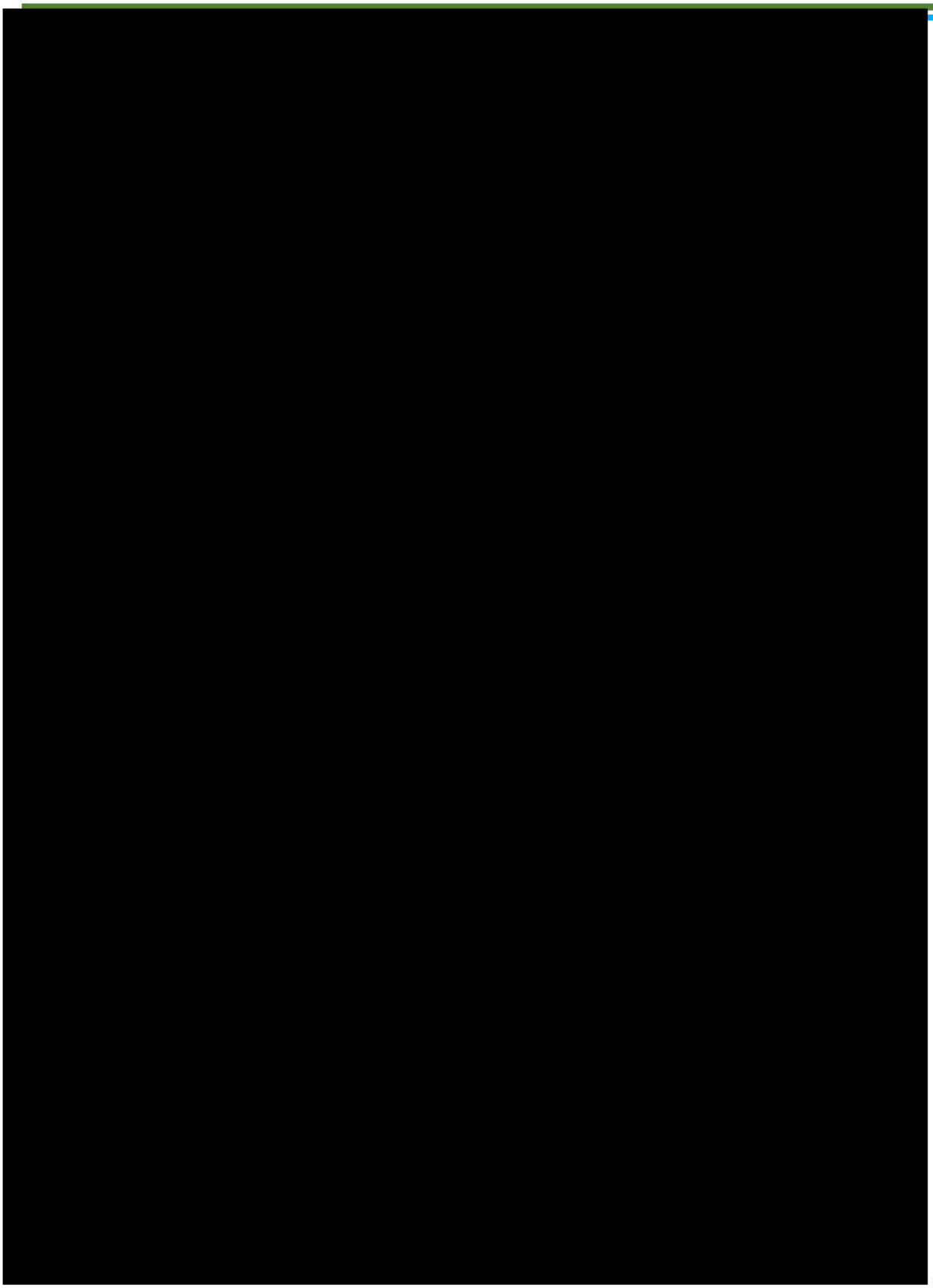
References
1. None

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

Attachment	Included in Submittal?
A. Maps	*YES*
B. One-Lines	*YES*
C. Load Summary	*YES*
D. Initial Funding PAF	*YES*

Attachment A - Maps





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Attachment B – One-Lines



[redacted]

Loads shown are 2023 projected loads
Reflects completion of project CD01546

Project CD02153
Stone Bridge Commons New Service
15Q1 – 15Q5 – 12F48 Loop Schemes
4/19/2023

[redacted]

Loads shown are 2023 projected loads
Reflects completion of project CD01546

Project CD02153
Stone Bridge Commons New Service
Proposed - Option 3
4/19/2023

Attachment C – Load Summary

Project Load Summary

Project Number: CD02153

Project Name: Stone Bridge Commons New Service

Before



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Project Load Summary

Project Number: CD02153

Project Name: Stone Bridge Commons New Service

Proposed: Option 3

[redacted]

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Project Load Summary

Project Number: CD02153

Project Name: Stone Bridge Commons New Service

Alternatives: Options 1 or 4

[redacted]

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Project Approval Form

Project Load Summary

Project Number: CD02153

Project Name: Stone Bridge Commons New Service

Alternative: Options 2

[redacted]

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Operations Project Authorization Form

Project Title: [redacted] **New Service**	**Project Number: CD02153**
Date Prepared: 04/19/2023	**Company:** Eversource CT
Organization: Electric Field Operations	**Class(es) of Plant:** D Line
Project Initiator: [redacted]	**Project Category:** New Customer-ED
Project Manager: [redacted]	**Project Type:** Specific
Project Sponsor: [redacted]	**Capital Investment part of original Operating Plan:** No
Estimated in service date: 6/1/2024	**Emergency Related Request?** No
Eng./Constr. Resources Budgeted? No	**Facility Type** (check all that apply): ☐ PTF ☐ non-PTF ☒ Distribution
Total Gross Capital Request: 1,138K	**Authorization Type:** Initial Funding

Executive Summary

This project is being established to provide electric service to a new development on [redacted] Cheshire, CT. The first phase of the development, to be called [redacted] will initially include 300 apartments and a Club house. A hotel, Dunkin' Donuts, gas station and electric vehicle charging station are also planned for this site, to be built later. In addition, there are preliminary plans for a strip mall, [redacted]

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Project Costs Summary

Note: Dollar values are in thousands

Capital Costs	Year 2023	Year 2024	Year 2025+	Total
Direct Capital Costs				
Internal Labor and Construction Equipment	$0	$43	$0	$43
Outside Services	$0	$405	$0	$405
Materials	$0	$126	$0	$126
Removals	$0	$65	$0	$65
Risk and Contingency	$0	$55	$0	$55
Other	$0	$0	$0	$0
Subtotal – Direct Costs	**$0**	**$694**	**$0**	**$694**
Indirect Capital Costs				
Indirect/Overheads (including benefits)	$0	$421	$0	$421
Capitalized interest or AFUDC, if any	$0	$23	$0	$23
Subtotal – Indirect Costs	**$0**	**$444**	**$0**	**$444**
Total Gross Capital Costs	**$0**	**$1,138**	**$0**	**$1,138**
Customer Contribution (TBD)	**$0**	**$0**	**$0**	**$0**
Total Net Capital Project Costs	**$0**	**$1,138**	**$0**	**$1,138**

Technical Justification:

Project Need, Objective and Justification:

[redacted]

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Project Scope:

The scope of this project is as follows:

[redacted]

Major Material:

- 3,875' of 1000 CU EPR 25kV cable
- 3 – Cooper Nova recloser for 25kV with Form 6 controls.

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Background:



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Alternatives Considered:

Alternatives were considered (please describe below)

[redacted]

Project Option Comparison

[redacted]

Cost	$2.3M	$2.5M	$1.16M	$1.18M
Preferred option			X	

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Regulatory Approvals:

Are Regulatory body approvals needed for the project?
No

Project Schedule

Milestone/Phase Name	Estimated Date
100% Engineering Completion	June 1, 2023
Protection Settings Requested	July 1, 2023
Construction Start	April 1, 2024
Construction Complete	December 31, 2024

Risks and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	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	2024	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach.
Internal construction resources not available to perform the work.	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	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2024	Medium	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2024	Low	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2024	Low	Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system will be abnormal for extended periods.

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Technological risks involving integration of new technology	2024	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	2024	Low	Use of mats and specialty equipment, only work during certain times of the year.

References

None

Work Classification

Category: Line
Type: NB1
Type Desc: SPECIFIC PROJECTS-NEW SRVCE
Work Type:

Ownership / Management

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

Project Information

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

Budget Summary - Preferred Option

Upgrade 15Q5 Cable & Revise Loops

2024

ID	Title	Status	Rev #	Contingency	Expenditure Amount	Net Estimate
5	[redacted]eplace Cable with 1000 CU	Prelim	0	24%	$866,234	$866,234
6	Recloser Modifications	Prelim	0	24%	$296,569	$296,569
				2024 Total:	$1,162,803	$1,162,803
				Total Project:	$1,162,803	$1,162,803

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Project Option Summary

ID	Description	Segments	Preliminary Estimate	Construction Estimate	Variance	IEEE $/CMS	All (w/Storm)	Prfrd
O1	[redacted]	1,2	$2,305,871	$0	100%	$0.00	$0.00	☐
O2		1,4	$2,516,555	$0	100%	$0.00	$0.00	☐
O3		5,6	$1,162,803	$0	100%	$0.00	$0.00	☑
O4		2,3	$1,178,819	$0	100%	$0.00	$0.00	☐

Segments

ID	Title	Preliminary Estimate	Construction Estimate	Variance	IEEE $/CMS	All (w/Storm)
1	[redacted]	$1,799,368			$0.00	$0.00
2		$506,503			$0.00	$0.00
3		$672,316			$0.00	$0.00
4		$717,187			$0.00	$0.00
5		$866,234			$0.00	$0.00
6	Recloser Modifications	$296,569			$0.00	$0.00

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Project Approval Form

Design Alternative CD02153-01

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$1,451,103
Contingency Amount:	$348,265
Estimate:	$1,799,368
Reimbursement:	$0
Net Amount:	**$1,799,368**

Description:

Item Description	CU	Amount
UG CABLE DB/UG - 750/1000 - 3-1/C (3ph) Cu 1000 CU EPR 25kV	16-UG114B	$220,800.00
OTHER OTHER 20% adder for contact labor & additional 10% for UG work	16-ALL14	$350,000.00
CONDUIT UG-Ductline-up to 12 duct - Traveled Way / Paved 2-6" ducts from E Johnson Ave pole [redacted] to new MH "A"	16-UG137	$23,460.00
CONDUIT UG-Ductline-up to 12 duct - Traveled Way / Paved 2-6" ducts from existing MH #8 to new pole across from pole 173	16-UG137	$23,460.00
ENCLOSURE UG - MANHOLE - Precast 3 - pre-cast manholes, 8 X 14'	16-UG139	$188,959.20
OTHER OTHER Clean MH's (3 @ $1k per MH) and rod ducts (2 @ $0.5K per duct run)	16-ALL14	$4,000.00
CONDUIT UG-Ductline-up to 12 duct - Traveled Way / Paved From Pole [redacted] n E Johnson Ave to new pole across from 173 on Hig	16-UG137	$406,640.00
SECTIONALIZE OH - Recloser - 3ph Install recloser at riser pole 314	16-OH38	$47,989.60
POLE DB/UG - Riser - 3ph Install riser at pole 314 on E Johnson Ave	16-UG146	$10,794.40

Design Alternative CD02153-01

TRAFFIC OH/DB/UG - Traffic Control - Police Officer Traffic control - 15% of total	16-ALL18	1.00 / $	175,000	$175,000.00

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Design Alternative CD02153-02

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$408,470
Contingency Amount:	$98,033
Estimate:	$506,503
Reimbursement:	$0
Net Amount:	**$506,503**

Description:

Item Description	CU	Amount
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	16-ALL18	$55,000.00
OH WIRE OH - Neutral	16-OH31	$8,640.00
OH WIRE OH - Line Extension - 3ph (556 kcmil)	16-OH34	$162,000.00
SECTIONALIZE OH - Recloser - 3ph 1-TR on Highland Ave.	16-OH38	$47,989.60
OTHER OTHER 20% adder for contract labor	16-ALL14	$70,000.00
OTHER OTHER differential cost [redacted]	16-ALL14	$33,480.00
SECTIONALIZE OH - GOAB Switch GOAB for [redacted]	16-OH44	$20,566.40
POLE DB/UG - Riser - 3ph Install riser from new [redacted]	16-UG146	$10,794.40

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Project Approval Form

Design Alternative CD02153-03

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$542,190
Contingency Amount:	$130,126
Estimate:	$672,316
Reimbursement:	$0
Net Amount:	**$672,316**

Description:

Item Description	CU	Amount
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	16-ALL18	$70,000.00
OH WIRE OH - Line Extension - 3ph (556 kcmil)	16-OH34	$156,000.00
SECTIONALIZE OH - Recloser - 3ph	16-OH38	$47,989.60
POLE DB/UG - Riser - 3ph	16-UG146	$10,794.40
UG CABLE DB/UG - 750/1000 - 3-1/C (3ph) Cu 1000 CU EPR in existing duct bank for [redacted]	16-UG114B	$105,600.00
OTHER OTHER 20% adder for contract labor	16-ALL14	$95,000.00
OTHER OTHER Clean MH's & rod dusts	16-ALL14	$4,000.00
OTHER OTHER differential cost [redacted]	16-ALL14	$32,240.00
SECTIONALIZE OH - GOAB Switch New GOAB at riser from S/C to UG	16-OH44	$20,566.40

[redacted]

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Design Alternative CD02153-04

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$578,377
Contingency Amount:	$138,810
Estimate:	$717,187
Reimbursement:	$0
Net Amount:	**$717,187**

Description:

Item Description	CU	Amount
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	16-ALL18	$75,000.00
SWITCHGEAR DB/UG-Switchgear up to 25kV-Auto Type 9/12 (pair)	16-UG126	$197,760.00
OTHER OTHER 20% adder for contract labor	16-ALL14	$98,000.00
CONDUIT UG-Ductline-up to 12 duct - Traveled Way / Paved 2-6" ducts from MH #8 to new [redacted]	16-UG137	$46,920.00
CONDUIT UG-Ductline-up to 12 duct - Traveled Way / Paved 2-6" ducts from pole 171 on Highland Ave to [redacted]	16-UG137	$93,840.00
SECTIONALIZE OH - GOAB Switch Install GOAB on W Johnson Ave at new [redacted]	16-OH44	$20,566.40
POLE DB/UG - Riser - 3ph New riser on pole 171 for [redacted]	16-UG146	$10,794.40
UG CABLE DB/UG - 350/500 - 3-1/C (3ph) Cu run 500 CU EPR cable from Mh #8 for [redacted]	16-UG114	$11,136.00
UG CABLE DB/UG - 350/500 - 3-1/C (3ph) Cu run 500 CU EPR cable from pole 171 for [redacted]	16-UG114	$24,360.00

Project Approval Form

Design Alternative CD02153-05

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$698,576
Contingency Amount:	$167,658
Estimate:	$866,234
Reimbursement:	$0
Net Amount:	**$866,234**

Description:

Item Description	CU	[redacted]	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	16-ALL17		$3,509.60
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	16-ALL18		$90,000.00
SECTIONALIZE OH - GOAB Switch	16-OH44		$20,566.40
UG CABLE DB/UG - 750/1000 - 3-1/C (3ph) Cu	16-UG114B		$372,000.00
UG CABLE UG - Cable Removal - all cables	16-UG117		$77,500.00
OTHER OTHER 20% adder for contract labor	16-ALL14		$120,000.00
OTHER OTHER MH clean & rod ducts	16-ALL14		$15,000.00

Design Alternative CD02153-06

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$239,168
Contingency Amount:	$57,400
Estimate:	$296,569
Reimbursement:	$0
Net Amount:	**$296,569**

Description:

Item Description	CU	[redacted]	Amount
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	16-ALL18		$30,000.00
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	16-ALL18		$1.00
SECTIONALIZE OH - Recloser - 3ph	16-OH38		$143,968.80
SECTIONALIZE OH - Recloser Control - setting changes only	16-OH39A		$19,542.40
SECTIONALIZE OH - Remove Recloser (any)	16-OH42		$5,656.00
OTHER OTHER 20% adder for contract labor	16-ALL14		$40,000.00