

South Stage Road Extension Plan
Modified O-2 Overpass
ODOT



Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas & Emilio Calderon Date: July 2024

Reviewed By: Darren Hippenstiel, PE

This Estimate has a Rating of: **3C** (See rating scale guide below.)

ITEM	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
Mobilization	LS	ALL	\$7,397,000.00	\$7,397,000.00
Traffic Control	LS	ALL	\$5,927,000.00	\$5,927,000.00
Construction Staging	LS	ALL	\$0.00	\$0.00
Erosion Control	AC	12.3	\$10,000.00	\$123,000.00
Removal of Structures and Obstructions	LS	ALL	\$722,000.00	\$722,000.00
Clearing and Grubbing	LS	ALL	\$1,083,000.00	\$1,083,000.00
General Earthworks	CY	55,389	\$40.00	\$2,215,560.00
Asphalt Roadway - Full Depth	SF	326,592	\$9.20	\$3,004,646.40
Asphalt Roadway - Grind & Inlay (2" Depth)	SF		\$3.10	\$0.00
Concrete Roadway - Full Depth	SF	0	\$15.60	\$0.00
Subgrade Geotextile	SY	36,288	\$1.50	\$54,432.00
Concrete Curbs - Standard Curb	LF	0	\$30.90	\$0.00
Concrete Curbs - Standard Curb & Gutter	LF	13,440	\$36.70	\$493,248.00
Raised Concrete Island	SF		\$12.90	\$0.00
Truck Apron (Concrete)	SF		\$19.30	\$0.00
Concrete Cycle Track	SF	0	\$8.40	\$0.00
Separated Bicycle Facility - Asphalt	SF	0	\$3.00	\$0.00
Concrete Walks	SF	80,640	\$8.40	\$677,376.00
Separated Multi-Use Path - Concrete	SF	0	\$8.40	\$0.00
Separated Multi-Use Path - Asphalt	SF	0	\$3.00	\$0.00
Detectable Warnings	EA	8	\$500.00	\$4,000.00
Pedestrian Ramps	EA	8	\$7,500.00	\$60,000.00
Bike Ramps	EA		\$2,500.00	\$0.00
Extra for Pedestrian Ramps	EA	8	\$1,500.00	\$12,000.00
Chain Link Fence	LF		\$50.00	\$0.00
Residential Driveway Reconstruction	EA	0	\$1,500.00	\$0.00
Commercial Driveway Reconstruction	EA	0	\$3,000.00	\$0.00
Retaining Walls, Gravity	SF		\$55.00	\$0.00
Retaining Walls, MSE	SF	16,800	\$200.00	\$3,360,000.00
Retaining Walls, Cut (Soldier pyle, tie back, soil nail)	SF		\$300.00	\$0.00
Sound Walls	SF	0	\$45.00	\$0.00
Fish Friendly Box Culvert, Complete	LF		\$1,000.00	\$0.00
Bridge Structure, Complete	SF	127,200	\$450.00	\$57,240,000.00
Guardrail System, Complete	LF	1,400	\$50.00	\$70,000.00
Storm Water Conveyance System, Complete	LS	ALL	\$1,957,000.00	\$1,957,000.00
Regional Water Quality and Hydromodification System, Complete	SF	44,100	\$28.00	\$1,234,800.00
Permanent Landscaping	SF	94,080	\$4.20	\$395,136.00
Irrigation, Complete	SF	94,080	\$2.50	\$235,200.00
Pavement Markings, Complete	LS	ALL	\$131,000.00	\$131,000.00
Signage, Complete	LS	ALL	\$98,000.00	\$98,000.00
Illumination System, Complete	LS	ALL	\$913,000.00	\$913,000.00
Traffic Signal Modifications, Complete	LS	ALL		\$0.00
Traffic Signal System, Complete	LS	ALL		\$0.00
Fiber Optic Interconnect System Complete	LS	ALL		\$0.00
Utility Undergrounding, Complete	LF	0	\$100.00	\$0.00
TOTAL CONSTRUCTION COST \$				87,407,398

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Reviewed By: Darren Hippenstiel, PE					
This Estimate has a Rating of:			3C (See rating scale guide below.)		
ITEM	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL COST	
ENGINEERING SUPPORT					
Engineering & Construction Management	LS	ALL	\$21,852,000.00	\$21,852,000.00	
Right-of-Way Support	EA	0	\$18,000.00	\$0.00	
County Staff Time	YR		\$50,000.00	\$0.00	
ENGINEERING SUPPORT SUBTOTAL				\$	21,852,000
TOTAL PROJECT SUBTOTAL				\$	109,262,132
35% Contingency				\$	38,241,750
TOTAL ESTIMATED PROJECT COST				\$	147,503,882

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the on-street bicycle facility the assumed storm inlet spacing is 150 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 60% based on risk.

South Stage Road Extension Plan
Modified O-4 Underpass
 ODOT



Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas & Emilio Calderon Date: August 2024

Reviewed By: Darren Hippenstiel, PE

This Estimate has a Rating of: **3C** (See rating scale guide below.)

ITEM	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
Mobilization	LS	ALL	\$9,202,000.00	\$9,202,000.00
Traffic Control	LS	ALL	\$7,375,000.00	\$7,375,000.00
Construction Staging	LS	ALL	\$9,218,000.00	\$9,218,000.00
Erosion Control	AC	16.7	\$10,000.00	\$167,000.00
Removal of Structures and Obstructions	LS	ALL	\$898,000.00	\$898,000.00
Clearing and Grubbing	LS	ALL	\$1,347,000.00	\$1,347,000.00
General Earthworks	CY	182,230	\$40.00	\$7,289,200.00
Asphalt Roadway - Full Depth	SF	515,392	\$9.20	\$4,741,606.40
Asphalt Roadway - Grind & Inlay (2" Depth)	SF		\$3.10	\$0.00
Concrete Roadway - Full Depth	SF	0	\$15.60	\$0.00
Subgrade Geotextile	SY	57,266	\$1.50	\$85,899.00
Concrete Curbs - Standard Curb	LF	0	\$30.90	\$0.00
Concrete Curbs - Standard Curb & Gutter	LF	13,440	\$36.70	\$493,248.00
Raised Concrete Island	SF		\$12.90	\$0.00
Truck Apron (Concrete)	SF		\$19.30	\$0.00
Concrete Cycle Track	SF	0	\$8.40	\$0.00
Separated Bicycle Facility - Asphalt	SF	0	\$3.00	\$0.00
Concrete Walks	SF	80,640	\$8.40	\$677,376.00
Separated Multi-Use Path - Concrete	SF	0	\$8.40	\$0.00
Separated Multi-Use Path - Asphalt	SF	0	\$3.00	\$0.00
Detectable Warnings	EA	8	\$500.00	\$4,000.00
Pedestrian Ramps	EA	8	\$7,500.00	\$60,000.00
Bike Ramps	EA		\$2,500.00	\$0.00
Extra for Pedestrian Ramps	EA	8	\$1,500.00	\$12,000.00
Chain Link Fence	LF		\$50.00	\$0.00
Residential Driveway Reconstruction	EA	0	\$1,500.00	\$0.00
Commercial Driveway Reconstruction	EA	0	\$3,000.00	\$0.00
Retaining Walls, Gravity	SF		\$55.00	\$0.00
Retaining Walls, MSE	SF	11,000	\$200.00	\$2,200,000.00
Retaining Walls, Cut (Soldier pyle, tie back, soil nail)	SF	10,238	\$300.00	\$3,071,250.00
Sound Walls	SF	0	\$45.00	\$0.00
Fish Friendly Box Culvert, Complete	LF		\$1,000.00	\$0.00
Bridge Structure, Complete	SF	138,400	\$450.00	\$62,280,000.00
Guardrail System, Complete	LF	2,200	\$50.00	\$110,000.00
Storm Water Conveyance System, Complete	LS	ALL	\$4,009,000.00	\$4,009,000.00
Regional Water Quality and Hydromodification System, Complete	SF	63,000	\$28.00	\$1,764,000.00
Permanent Landscaping	SF	94,080	\$4.20	\$395,136.00
Irrigation, Complete	SF	94,080	\$2.50	\$235,200.00
Pavement Markings, Complete	LS	ALL	\$268,000.00	\$268,000.00
Signage, Complete	LS	ALL	\$201,000.00	\$201,000.00
Illumination System, Complete	LS	ALL	\$1,870,900.00	\$1,870,900.00
Traffic Signal Modifications, Complete	LS	ALL		\$0.00
Traffic Signal System, Complete	LS	ALL		\$0.00
Fiber Optic Interconnect System Complete	LS	ALL		\$0.00
Utility Undergrounding, Complete	LF	0	\$100.00	\$0.00
TOTAL CONSTRUCTION COST \$				117,974,815

South Stage Road Extension Plan
Modified O-4 Underpass
 ODOT



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Prepared By: Eza Gaigalas & Emilio Calderon			Date: August 2024		
Reviewed By: Darren Hippenstiel, PE					
This Estimate has a Rating of:			3C (See rating scale guide below.)		
ITEM	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL COST	
ENGINEERING SUPPORT					
Engineering & Construction Management	LS	ALL	\$29,494,000.00	\$29,494,000.00	
Right-of-Way Support	EA	0	\$18,000.00	\$0.00	
County Staff Time	YR		\$50,000.00	\$0.00	
ENGINEERING SUPPORT SUBTOTAL				\$	29,494,000
				TOTAL PROJECT SUBTOTAL	\$ 147,471,549
				35% Contingency	\$ 51,615,050
				TOTAL ESTIMATED PROJECT COST	\$ 199,086,599

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the on-street bicycle facility the assumed storm inlet spacing is 150 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 60% based on risk.

South Stage Road Extension Plan
I-2 Overpass O-2 Modified
ODOT



Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas & Emilio Calderon Date: July 2024

Reviewed By: Darren Hippenstiel, PE

This Estimate has a Rating of: **3C** (See rating scale guide below.)

ITEM	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
Mobilization	LS	ALL	\$9,490,000.00	\$9,490,000.00
Traffic Control	LS	ALL	\$7,606,000.00	\$7,606,000.00
Construction Staging	LS	ALL	\$0.00	\$0.00
Erosion Control	AC	16.6	\$10,000.00	\$166,000.00
Removal of Structures and Obstructions	LS	ALL	\$926,000.00	\$926,000.00
Clearing and Grubbing	LS	ALL	\$1,389,000.00	\$1,389,000.00
General Earthworks	CY	86,819	\$40.00	\$3,472,760.00
Asphalt Roadway - Full Depth	SF	512,778	\$9.20	\$4,717,557.60
Asphalt Roadway - Grind & Inlay (2" Depth)	SF		\$3.10	\$0.00
Concrete Roadway - Full Depth	SF	0	\$15.60	\$0.00
Subgrade Geotextile	SY	56,976	\$1.50	\$85,464.00
Concrete Curbs - Standard Curb	LF	0	\$30.90	\$0.00
Concrete Curbs - Standard Curb & Gutter	LF	13,440	\$36.70	\$493,248.00
Raised Concrete Island	SF		\$12.90	\$0.00
Truck Apron (Concrete)	SF		\$19.30	\$0.00
Concrete Cycle Track	SF	0	\$8.40	\$0.00
Separated Bicycle Facility - Asphalt	SF	0	\$3.00	\$0.00
Concrete Walks	SF	80,640	\$8.40	\$677,376.00
Separated Multi-Use Path - Concrete	SF	0	\$8.40	\$0.00
Separated Multi-Use Path - Asphalt	SF	0	\$3.00	\$0.00
Detectable Warnings	EA	8	\$500.00	\$4,000.00
Pedestrian Ramps	EA	8	\$7,500.00	\$60,000.00
Bike Ramps	EA		\$2,500.00	\$0.00
Extra for Pedestrian Ramps	EA	8	\$1,500.00	\$12,000.00
Chain Link Fence	LF		\$50.00	\$0.00
Residential Driveway Reconstruction	EA	0	\$1,500.00	\$0.00
Commercial Driveway Reconstruction	EA	0	\$3,000.00	\$0.00
Retaining Walls, Gravity	SF		\$55.00	\$0.00
Retaining Walls, MSE	SF	29,400	\$200.00	\$5,880,000.00
Retaining Walls, Cut (Soldier pyle, tie back, soil nail)	SF		\$300.00	\$0.00
Sound Walls	SF	0	\$45.00	\$0.00
Fish Friendly Box Culvert, Complete	LF		\$1,000.00	\$0.00
Bridge Structure, Complete	SF	153,900	\$450.00	\$69,255,000.00
Guardrail System, Complete	LF	2,240	\$50.00	\$112,000.00
Storm Water Conveyance System, Complete	LS	ALL	\$2,857,000.00	\$2,857,000.00
Regional Water Quality and Hydromodification System, Complete	SF	62,800	\$28.00	\$1,758,400.00
Permanent Landscaping	SF	94,080	\$4.20	\$395,136.00
Irrigation, Complete	SF	94,080	\$2.50	\$235,200.00
Pavement Markings, Complete	LS	ALL	\$191,000.00	\$191,000.00
Signage, Complete	LS	ALL	\$143,000.00	\$143,000.00
Illumination System, Complete	LS	ALL	\$1,333,200.00	\$1,333,200.00
Traffic Signal Modifications, Complete	LS	ALL		\$0.00
Traffic Signal System, Complete	LS	ALL	\$900,000.00	\$900,000.00
Fiber Optic Interconnect System Complete	LS	ALL		\$0.00
Utility Undergrounding, Complete	LF	0	\$100.00	\$0.00
TOTAL CONSTRUCTION COST \$				112,159,342

South Stage Road Extension Plan
I-2 Overpass O-2 Modified
 ODOT



Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas & Emilio Calderon			Date: July 2024	
Reviewed By: Darren Hippenstiel, PE				
This Estimate has a Rating of:			3C (See rating scale guide below.)	
ITEM	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	\$28,040,000.00	\$28,040,000.00
Right-of-Way Support	EA	0	\$18,000.00	\$0.00
County Staff Time	YR		\$50,000.00	\$0.00
ENGINEERING SUPPORT SUBTOTAL				\$ 28,040,000
TOTAL PROJECT SUBTOTAL				\$ 140,202,076
35% Contingency				\$ 49,070,730
TOTAL ESTIMATED PROJECT COST				\$ 189,272,806

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the on-street bicycle facility the assumed storm inlet spacing is 150 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 60% based on risk.

South Stage Road Extension Plan
I-4 Underpass O-4 Modified
ODOT



Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas & Emilio Calderon Date: August 2024

Reviewed By: Darren Hippenstiel, PE

This Estimate has a Rating of: **3C** (See rating scale guide below.)

ITEM	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
Mobilization	LS	ALL	\$11,192,000.00	\$11,192,000.00
Traffic Control	LS	ALL	\$8,971,000.00	\$8,971,000.00
Construction Staging	LS	ALL	\$11,213,000.00	\$11,213,000.00
Erosion Control	AC	20.9	\$10,000.00	\$209,000.00
Removal of Structures and Obstructions	LS	ALL	\$1,092,000.00	\$1,092,000.00
Clearing and Grubbing	LS	ALL	\$1,638,000.00	\$1,638,000.00
General Earthworks	CY	213,457	\$40.00	\$8,538,280.00
Asphalt Roadway - Full Depth	SF	701,578	\$9.20	\$6,454,517.60
Asphalt Roadway - Grind & Inlay (2" Depth)	SF		\$3.10	\$0.00
Concrete Roadway - Full Depth	SF	0	\$15.60	\$0.00
Subgrade Geotextile	SY	77,954	\$1.50	\$116,931.00
Concrete Curbs - Standard Curb	LF	0	\$30.90	\$0.00
Concrete Curbs - Standard Curb & Gutter	LF	13,440	\$36.70	\$493,248.00
Raised Concrete Island	SF		\$12.90	\$0.00
Truck Apron (Concrete)	SF		\$19.30	\$0.00
Concrete Cycle Track	SF	0	\$8.40	\$0.00
Separated Bicycle Facility - Asphalt	SF	0	\$3.00	\$0.00
Concrete Walks	SF	80,640	\$8.40	\$677,376.00
Separated Multi-Use Path - Concrete	SF	0	\$8.40	\$0.00
Separated Multi-Use Path - Asphalt	SF	0	\$3.00	\$0.00
Detectable Warnings	EA	8	\$500.00	\$4,000.00
Pedestrian Ramps	EA	8	\$7,500.00	\$60,000.00
Bike Ramps	EA		\$2,500.00	\$0.00
Extra for Pedestrian Ramps	EA	8	\$1,500.00	\$12,000.00
Chain Link Fence	LF		\$50.00	\$0.00
Residential Driveway Reconstruction	EA	0	\$1,500.00	\$0.00
Commercial Driveway Reconstruction	EA	0	\$3,000.00	\$0.00
Retaining Walls, Gravity	SF		\$55.00	\$0.00
Retaining Walls, MSE	SF	21,050	\$200.00	\$4,210,000.00
Retaining Walls, Cut (Soldier pyle, tie back, soil nail)	SF	10,238	\$300.00	\$3,071,400.00
Sound Walls	SF	0	\$45.00	\$0.00
Fish Friendly Box Culvert, Complete	LF		\$1,000.00	\$0.00
Bridge Structure, Complete	SF	164,050	\$450.00	\$73,822,500.00
Guardrail System, Complete	LF	2,870	\$50.00	\$143,500.00
Storm Water Conveyance System, Complete	LS	ALL	\$4,907,000.00	\$4,907,000.00
Regional Water Quality and Hydromodification System, Complete	SF	81,600	\$28.00	\$2,284,800.00
Permanent Landscaping	SF	94,080	\$4.20	\$395,136.00
Irrigation, Complete	SF	94,080	\$2.50	\$235,200.00
Pavement Markings, Complete	LS	ALL	\$328,000.00	\$328,000.00
Signage, Complete	LS	ALL	\$246,000.00	\$246,000.00
Illumination System, Complete	LS	ALL	\$2,289,900.00	\$2,289,900.00
Traffic Signal Modifications, Complete	LS	ALL		\$0.00
Traffic Signal System, Complete	LS	ALL	\$900,000.00	\$900,000.00
Fiber Optic Interconnect System Complete	LS	ALL		\$0.00
Utility Undergrounding, Complete	LF	0	\$100.00	\$0.00
TOTAL CONSTRUCTION COST \$				143,504,789

South Stage Road Extension Plan
I-4 Underpass O-4 Modified
 ODOT



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Reviewed By: Darren Hippenstiel, PE				
This Estimate has a Rating of:			3C (See rating scale guide below.)	
ITEM	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	\$35,877,000.00	\$35,877,000.00
Right-of-Way Support	EA	0	\$18,000.00	\$0.00
County Staff Time	YR		\$50,000.00	\$0.00
ENGINEERING SUPPORT SUBTOTAL				\$ 35,877,000
TOTAL PROJECT SUBTOTAL				\$ 179,384,523
35% Contingency				\$ 62,784,590
TOTAL ESTIMATED PROJECT COST				\$ 242,169,113

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the on-street bicycle facility the assumed storm inlet spacing is 150 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

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Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 60% based on risk.