



Appendix E: Cost Estimation

Morrissey Boulevard Corridor Study Alternatives

Massachusetts Department of Transportation

Morrissey Boulevard Commission

Concepts Estimate Draft

Basis of Estimate/Assumptions:

This estimate has been prepared based on the conceptual study alternative quantities provided.

All Base Costs are in 2024 dollars

Labor is based on local Davis Bacon prevailing wage rates.

Assumes standard 10-hr work days

Weather effects are not considered in this estimate

Full cooperation between stakeholders is assumed

Construction Duration

60 months

No waterline or water services construction

6 Years for design & bidding to NTP)

Estimate Markups:

Overall Contractor's Markup including Bonds & Insurance (assuming 50% is subcontracted out)

33%

Mobilization/General Conditions

See Mark-Ups Above

Sales Tax

6.25%

Applied to material and construction equipment

Escalation

3.00%

annually

Unallocated Contingency

10%

Excluded

80.01 Project Development (Section 100)

0%

Excluded

80.02 Engineering (not applicable to Small Starts) (Section 100)

0%

Excluded

80.03 Project Management for Design and Construction (Section 100)

0%

Excluded

80.04 Construction Administration & Management (Section 100)

0%

Excluded

80.05 Professional Liability and other Non-Construction Insurance (Section 100)

0%

Excluded

80.06 Legal; Permits; Review Fees by other agencies, cities, etc. (Section 100)

0%

Excluded

80.07 Surveys, Testing, Investigation, Inspection (Section 100)

0%

Excluded

80.08 Start up (Section 100)

0%

Excluded

Sum of 80.01 to 80.08 Professional Services

30%

900 Project Development (Percentages as Indicated)

Allocated Contingency per FHWA category:

204.00 Import Embankment Fill

35%

207.00 Geosynthetics for Earthwork

25%

211.00 Roadway Obliteration

30%

301.00 Roadway, Bike Paths, Sidewalks, Driveways Gravel & Crushed Stone Subbase

25%

401.00 Superpave Asphalt Concrete Pavement Structure

25%

551 Driven Pile

35%

552.00 Structural Concrete

30%

554 Steel Bar Reinforcement

30%

555 Steel Structures

30%

559 Waterproofing

30%

562 Cofferdams and Steel Sheet Piling

40%

578 Precast Structures

40%

603 Structural Plate Structures

40%

604 Manholes Inlets and Catch Basins

35%

605 Storm Drains, Underdrains and Pavement Edge Drains

35%

608.11 Asphalt Sidewalks, Driveways and Bikepaths

35%

609 Curbs and Gutter

25%

624 Topsoil

25%

625 Turf Establishment

25%

626 Plants, Trees, Shrubs Vines and Groundcover

25%

634 Pavement Markings

25%

636 Traffic Signals and Highway Signs

35%

670 Highway Lighting Systems

35%

635 Temporary Traffic Control

35%

637 Facilities

40%

900 ROW Acquisition

50%

Professional Services

5%

Government Bond Interest Rate

Finance Charges

0%

Summary of Highest Combinations vs. Lowest Combinations for Morrissey Blvd
11/14/2024

Base Year 2024 \$

	Neponset to Freeport	Middle Section	Bianculli - Columbia	Total Cost
Least Cost Path	\$ 77,000,000	\$ 43,000,000	\$ 62,000,000	\$ 182,000,000
Highest Cost Path	\$ 77,000,000	\$ 93,000,000	\$ 64,000,000	\$ 234,000,000

YOE \$

	Neponset to Freeport	Middle Section	Bianculli - Columbia	Total Cost
Least Cost Path	\$ 99,000,000	\$ 56,000,000	\$ 80,000,000	\$ 235,000,000
Highest Cost Path	\$ 99,000,000	\$ 122,000,000	\$ 83,000,000	\$ 304,000,000

Project Let "Tomorrow", 2024 Construction Cost

	Neponset to Freeport	Middle Section	Bianculli - Columbia	Total Cost
Least Cost Path	\$ 56,000,000	\$ 33,000,000	\$ 47,000,000	\$ 136,000,000
Highest Cost Path	\$ 57,000,000	\$ 69,000,000	\$ 48,000,000	\$ 174,000,000

Concepts Estimate Draft				Today's Date 1/01/2020					
Morrissey Boulevard Corridor Study Alternatives				Yr of Base Year \$ 2024					
Massachusetts Department of Transportation									
Morrissey Boulevard Commission									
Summary North-South BRT				Project Summary					
Road Name	Morrissey Boulevard	Segment Length		Subtotal	% Combined Contingency	Combined Contingency	Base Year Total (Year 2024 \$)	YOE Total - All	YOE Comparison
From:	1000+00	Miles	4.59	\$ 166,496,710	35%	\$ 57,514,166	\$ 224,010,877	\$ 193,027,547	#DIV/0!
To:	1149+80	LF	24,240	Cost/Route-Mile (\$ million)		\$ 48.79	\$ 16.79	#DIV/0!	
Description	Unit	2024 Unit Cost (\$)	Quantity	Subtotal	% Allocated Contingency	\$ Allocated Contingency	Base Year Total (Year 2024 \$)	YOE Total	YOE Total
200 EARTHWORK				\$ 4,377,536		\$ 1,364,453	\$ 5,741,988	\$ 14,419,459	\$ 14,419,459
204 Import Embankment Fill	CY	\$ 30	41,100	\$ 1,246,085	35%	\$ 436,130	\$ 1,682,215	\$ 3,688,368	\$ 3,688,368
207 Geosynthetics for Earthwork	SF	\$ 8	26,400	\$ 222,250	25%	\$ 55,562	\$ 277,812	\$ 150,632	\$ 150,632
211 Roadway Obliteration and Disposal	SY	\$ 12	251,805	\$ 2,909,201	30%	\$ 872,760	\$ 3,781,961	\$ -	\$ -
300 BASES & SUBBASES				\$ 6,720,205		\$ 1,680,051	\$ 8,400,257	\$ 23,741,836	\$ 23,741,836
301 Roadway, Sidewalk, Bike Paths Gravel & Crushed Stone Subbase	SY	\$ 30	222,789	\$ 6,720,205	25%	\$ 1,680,051	\$ 8,400,257	\$ -	\$ -
400 ASPHALT MIXTURE & PAVEMENTS				\$ 11,206,824		\$ 2,801,706	\$ 14,008,530	\$ -	\$ -
401 Superpave Asphalt Concrete Pavement Structure	SY	\$ 67	167,692	\$ 11,206,824	25%	\$ 2,801,706	\$ 14,008,530	\$ -	\$ -
500 PORTLAND CEMENT CONCRETE				\$ -		\$ -	\$ -	\$ 73,914,538	\$ 73,914,538
550 STRUCTURES				\$ 23,285,175		\$ 7,943,677	\$ 31,228,852	\$ 21,182,126	\$ 21,182,126
551 Driven Pile	VF	\$ 657	4,000	\$ 2,628,959	35%	\$ 920,136	\$ 3,549,095	\$ 2,166,571	\$ 2,166,571
552 Structural Concrete	CY	\$ 860	5,130	\$ 4,414,150	30%	\$ 1,324,245	\$ 5,738,394	\$ 63,910	\$ 63,910
554 Steel Bar Reinforcement	LB	\$ 3	436,050	\$ 1,354,082	30%	\$ 406,225	\$ 1,760,307	\$ 3,060,456	\$ 3,060,456
559 Waterproofing	SF	\$ 24	26,400	\$ 643,516	30%	\$ 193,055	\$ 836,571	\$ 7,366,343	\$ 7,366,343
562 Cofferdams and Steel Sheet Piling	SF	\$ 39	17,335	\$ 681,078	40%	\$ 272,431	\$ 953,509	\$ 690,595	\$ 690,595
555 Steel Structures (Pedestrian Bridge)	SF	\$ 3,516	1,700	\$ 5,977,706	30%	\$ 1,793,312	\$ 7,771,018	\$ 938,487	\$ 938,487
578 Underground Flood Water Structure	EA	\$ 2,503,526	3	\$ 7,585,685	40%	\$ 3,034,274	\$ 10,619,958	\$ -	\$ -
600 INCIDENTAL CONSTRUCTION				\$ 66,963,729		\$ 23,359,655	\$ 90,323,383	\$ 1,849,189	\$ 1,849,189
604 Manholes, Inlets, and Catch Basins	VF	\$ 1,589	1,775	\$ 2,820,024	35%	\$ 987,009	\$ 3,807,033	\$ -	\$ -
605 Underdrains, Sheet Drains & Pavement Edge Drains	LF	\$ 373	11,950	\$ 4,457,704	35%	\$ 1,560,196	\$ 6,017,901	\$ -	\$ -
606 Guide Railing	LF	\$ 90	2,205	\$ 199,108	20%	\$ 39,822	\$ 238,930	\$ 1,259,264	\$ 1,259,264
608 Concrete Sidewalks, Driveways and Bikepaths	SY	\$ 158	31,350	\$ 4,941,381	35%	\$ 1,729,483	\$ 6,670,864	\$ 150,467	\$ 150,467
608 Asph. Sidewalks, Driveways and Bikepaths	SY	\$ 95	23,761	\$ 2,254,472	35%	\$ 789,065	\$ 3,043,538	\$ 439,459	\$ 439,459
609 Curb, Granite (V-A-4, T-100, Sloped)	LF	\$ 75	83,199	\$ 6,231,017	25%	\$ 1,557,754	\$ 7,788,772	\$ -	\$ -
624 Topsoil (Greenspace)	SY	\$ 13	118,990	\$ 1,534,156	25%	\$ 383,539	\$ 1,917,695	\$ -	\$ -
625 Turf Establishment (Greenspace)	SY	\$ 6	118,990	\$ 754,666	25%	\$ 188,667	\$ 943,333	\$ -	\$ -
626 Plants, Trees, Shrubs, Vines & Groundcover	EA	\$ 1,704	1,235	\$ 2,104,316	25%	\$ 526,079	\$ 2,630,394	\$ -	\$ -
634 Pavement Markings	LF	\$ 7	93,944	\$ 634,490	25%	\$ 158,622	\$ 793,112	\$ -	\$ -
636 Traffic Signals & Signs (Intersection)	EA	\$ 604,744	10	\$ 5,835,776	35%	\$ 2,042,522	\$ 7,878,298	\$ -	\$ -
670 Highway Lighting Systems	EA	\$ 12,962	476	\$ 6,170,072	35%	\$ 2,159,525	\$ 8,329,597	\$ -	\$ -
635 Temporary Traffic Control	EA	\$ 7,464,938	1	\$ 7,464,938	35%	\$ 2,612,728	\$ 10,077,666	\$ -	\$ -
637 Placemaking Opportunities	EA	\$ 291,094	1	\$ 291,094	40%	\$ 116,438	\$ 407,531	\$ -	\$ -
603 Structural Plate Structures	ALLOW	\$ 21,270,514	1	\$ 21,270,514	40%	\$ 8,508,205	\$ 29,778,719	\$ -	\$ -
Construction Subtotal (200 - 600)				\$ 112,553,469		\$ 37,149,541	\$ 149,703,010	\$ 133,257,959	\$ 133,257,959
800 PROFESSIONAL SERVICES (applies to Cats. 100)		0%	\$ 112,553,469	\$ -	25.0%	\$ -	\$ -	\$ 36,931,712	\$ 36,931,712
80 Project Development		0%	\$ -	\$ -	25.0%	\$ -	\$ -	\$ 14,772,686	#DIV/0!
80 Engineering (not used for Small Starts)		0%	\$ -	\$ -	25.0%	\$ -	\$ -	\$ -	#DIV/0!
80 Project Management for Design and Construction		0%	\$ -	\$ -	25.0%	\$ -	\$ -	\$ 3,165,575	#DIV/0!
80 Construction Administration & Management		0%	\$ -	\$ -	25.0%	\$ -	\$ -	\$ 11,607,109	#DIV/0!
80 Professional Liability and other Non-Construction Insurance		0%	\$ -	\$ -	25.0%	\$ -	\$ -	\$ 2,110,384	#DIV/0!
80 Legal, Permits, Review Fees by other agencies, cities, etc.		0%	\$ -	\$ -	25.0%	\$ -	\$ -	\$ 2,110,384	#DIV/0!
80 Surveys, Testing, Investigation, Inspection		0%	\$ -	\$ -	25.0%	\$ -	\$ -	\$ 2,110,384	#DIV/0!
80 Start up cost & Agency Force Acct work		0%	\$ -	\$ -	25.0%	\$ -	\$ -	\$ 1,055,192	#DIV/0!
Subtotal (200 - 800)				\$ 112,553,469		\$ 37,149,541	\$ 149,703,010	\$ 172,038,860	\$ 172,038,860
900 Project Development (ROW, Utility Coordination, Service Agreements) & Unallocated Contingency				\$ 53,943,241		\$ 74,307,867	\$ 74,307,867	\$ 17,203,887	#DIV/0!
900 Categories 10-50 RESERVED	Percentage	10%	-	\$ -		\$ -	\$ -	\$ 13,213,402	#DIV/0!
900 Category 60 - ROW, Land, Existing Improvements	Percentage	10%	90,323,383	\$ -		\$ 9,032,338	\$ 9,032,338	\$ 193,027	#DIV/0!
900 Category 70 - RESERVED	Percentage	10%	-	\$ -		\$ -	\$ -	\$ -	#DIV/0!
900 Category 80 - Professional Services	Percentage	30%	149,703,010	\$ -	5%	\$ 44,910,903	\$ 44,910,903	\$ 3,797,458	#DIV/0!
900 Unallocated Contingency	Percentage	10%	203,646,251	\$ -		\$ 20,364,625	\$ 20,364,625	\$ -	#DIV/0!
100 FINANCE CHARGES				\$ -		\$ -	\$ -	\$ 3,784,800	\$ -
Finance charges as a percentage:				\$ -	25%	\$ -	\$ -	\$ 3,784,800	#DIV/0!
Total Project Cost				\$ 166,496,710		\$ 111,457,408	\$ 224,010,877	\$ 193,027,547	#DIV/0!
				Project Summary					
Subtotal	% Combined Contingency	Combined Contingency	Base Year Total (Year 2024 \$)	YOE Total - All	YOE Comparison				
\$ 166,496,710	35%	\$ 57,514,166	\$ 224,010,877	\$ 193,027,547	#DIV/0!				
Cost/Route-Mile (\$ million)		\$ 48.79	\$ 42.05	#DIV/0!					

WORKBOOK VALIDATION			
	Sum of Sheets	This Sheet ("Summary")	Validation
Project Subtotal (by as	#REF!	\$ 166,496,710	#REF!
Project Contingency T	#N/A	\$ 57,514,166	#N/A
Project Summary Total	#N/A	\$ 224,010,877	#N/A
INTERNAL VALIDATION			
Project summary equal	#N/A	\$ 224,010,877	#N/A
MASTER UNIT COST CONSISTENCY			
	Master Unit Cost	This Sheet	Validation
Number of Rows:	\$ 81	\$ 47	FAILED
Unit Costs:	#REF!	\$ 32,157,135	#REF!
Contingencies:	#N/A	\$ 11	#N/A

Concepts Estimate Draft Morrissey Boulevard Corridor Study Alternatives Massachusetts Department of Transportation Morrissey Boulevard Commission				Today's Date1/0/1900 Yr of Base Year \$2024					
Summary North-South BRT				Project Summary				\$210,206,147	
Road Name:Morrissey Boulevard	Segment Length		Subtotal		% Combined Contingency	Combined Contingency	Base Year Total (Year 2024 \$)	YOE Total	YOE Total Before Edits
From:1000+00	LF	4.59	\$130,683,455	34%	\$44,068,384	\$174,751,839			150700000
To:1149+80	Miles	24.240	Cost/Route-Mile (\$ million)		\$38.06				13.1
Description				Unit	2024 Unit Cost (\$)	Quantity	Subtotal	% Allocated Contingency	\$ Allocated Contingency
200 EARTHWORK							\$5,534,139		\$1,774,593
204 Import Embankment Fill	CY	30	80,321	\$2,435,202	35%	\$852,321	\$3,287,523		\$3,287,523
207 Geosynthetics for Earthwork	SF	8	17,600	\$18,175	25%	\$3,042	\$185,208		\$185,208
211 Roadway Obliteration and Disposal	SY	12	255,403	\$2,950,770	30%	\$885,231	\$3,836,001		\$3,836,001
300 BASES & SUBBASES							\$6,825,176		\$1,706,294
301 Roadway, Sidewalk, Bike Paths Gravel & Crushed Stone Subbase	SY	30	225,269	\$6,825,176	25%	\$1,706,294	\$8,531,470		\$8,531,470
400 ASPHALT MIXTURE & PAVEMENTS							\$11,427,362		\$2,856,841
401 Superpave Asphalt Concrete Pavement Structure	SY	67	170,992	\$11,427,362	25%	\$2,856,841	\$14,284,203		\$14,284,203
500 PORTLAND CEMENT CONCRETE							\$20,414,736		\$7,172,157
551 Driven Pile	VF	657	-	\$-	35%	\$-	\$-		\$-
552 Structural Concrete	CY	860	3,140	\$2,701,838	30%	\$810,551	\$3,512,390		\$3,512,390
554 Steel Bar Reinforcement	LB	3	265,900	\$628,815	30%	\$188,644	\$1,077,459		\$1,077,459
559 Waterproofing	SF	24	17,600	\$429,011	30%	\$128,703	\$557,714		\$557,714
562 Cofferdams and Steel Sheet Piling	SF	39	73,600	\$2,891,682	40%	\$1,156,673	\$4,048,355		\$4,048,355
555 Steel Structures (Pedestrian Bridge)	SF	3.516	1,700	\$5,977,706	30%	\$1,793,312	\$7,771,018		\$7,771,018
578 Underground Flood Water Structure	EA	2,503.526	3	\$1,585,685	40%	\$634,274	\$10,619,956		\$10,619,956
600 INCIDENTAL CONSTRUCTION							\$45,214,190		\$14,671,968
604 Manholes, Inlets, and Catch Basins	VF	1,589	1,988	\$3,158,427	35%	\$1,105,450	\$4,263,877		\$4,263,877
605 Underdrains, Sheet Drains & Pavement Edge Drains	LF	373	11,950	\$4,457,704	35%	\$1,560,196	\$6,017,901		\$6,017,901
606 Guide Railing	LF	90	2,205	\$199,108	20%	\$39,822	\$238,930		\$238,930
608 Concrete Sidewalks, Driveways and Bikepaths	SY	158	32,774	\$5,165,831	30%	\$1,808,041	\$6,973,872		\$6,973,872
608 Asph. Sidewalks, Driveways and Bikepaths	SY	95	23,735	\$2,282,008	35%	\$788,202	\$3,040,207		\$3,040,207
609 Curb, Granite (VA-4, T-100, Sloped)	LF	75	84,924	\$6,360,208	25%	\$1,590,052	\$7,950,260		\$7,950,260
624 Topsoil (Greenspace)	SY	13	118,420	\$1,526,807	25%	\$381,702	\$1,908,509		\$1,908,509
625 Turf Establishment (Greenspace)	SY	6	118,420	\$751,051	25%	\$187,763	\$938,814		\$938,814
626 Plants, Trees, Shrubs, Vines & Groundcover	EA	1,704	1,235	\$2,104,316	25%	\$526,079	\$2,630,394		\$2,630,394
634 Pavement Markings	LF	7	93,944	\$634,490	25%	\$158,622	\$793,112		\$793,112
636 Traffic Signals & Signs (Intersection)	EA	604.744	8	\$4,626,289	35%	\$1,619,201	\$6,245,490		\$6,245,490
670 Highway Lighting Systems	EA	12.962	480	\$2,221,921	35%	\$2,177,672	\$6,399,594		\$6,399,594
635 Temporary Traffic Control	EA	7,464.938	1	\$7,464,938	35%	\$2,612,728	\$10,077,666		\$10,077,666
637 Placemaking Opportunities	EA	291.094	1	\$291,094	40%	\$116,438	\$407,531		\$407,531
693 Structural Plate Structures	ALLOW	21,270.514	-	\$-	40%	\$-	\$-		\$-
Construction Subtotal (200 - 600)							\$89,415,602		\$28,181,853
800 PROFESSIONAL SERVICES (applies to Cats. 100)				0%	\$89,415,602		\$-		\$-
80 Project Development		0%				25.0%	\$-		\$-
80 Engineering (not used for Small Starts)		0%				25.0%	\$-		\$-
80 Project Management for Design and Construction		0%				25.0%	\$-		\$-
80 Construction Administration & Management		0%				25.0%	\$-		\$-
80 Professional Liability and other Non-Construction Insurance		0%				25.0%	\$-		\$-
80 Legal, Permits, Review Fees by other agencies, cities, etc.		0%				25.0%	\$-		\$-
80 Surveys, Testing, Investigation, Inspection		0%				25.0%	\$-		\$-
80 Start up cost & Agency Force Acct work		0%				25.0%	\$-		\$-
Subtotal (200 - 800)							\$89,415,602		\$28,181,853
900 Project Development (ROW, Utility Coordination, Service Agreements) & Unallocated Contingency							\$41,267,852		\$7,154,353
900 Categories 10-50 RESERVED	Percentage	10%	-	\$-			\$-		\$-
900 Category 60 - ROW, Land, Existing Improvements	Percentage	10%	59,886,157	\$5,988,616			\$5,988,616		\$5,988,616
900 Category 70 - RESERVED	Percentage	10%		\$-			\$-		\$-
900 Category 80 - Professional Services	Percentage	30%	117,597,455	\$35,279,237	5%	\$35,279,237	\$35,279,237		\$35,279,237
900 Unallocated Contingency	Percentage	10%	158,865,308	\$15,886,531			\$15,886,531		\$15,886,531
100 FINANCE CHARGES							\$-		\$-
Finance charges as a percentage:				25%			\$-		\$-
Total Project Cost							\$130,683,455		\$85,336,236
Project Summary				Subtotal	% Combined Contingency	Combined Contingency	Base Year Total (Year 2024 \$)	YOE Total	YOE Total - All
				\$130,683,455	34%	\$44,068,384	\$174,751,839		\$193,027,547
				Cost/Route-Mile (\$ million)		\$38.06			\$42.05
WORKBOOK VALIDATION				Sum of Sheets	This Sheet ("Summary")		Validation		
Project Subtotal (by ad	#REF!	\$	130,683,455	#REF!					
Project Contingency T1	#N/A	\$	44,068,384	#N/A					
Project Summary Total	#N/A	\$	174,751,839	#N/A					
INTERNAL VALIDATION				Project summary equa	#N/A	\$	174,751,839	#N/A	
MASTER UNIT COST CONSISTENCY				Master Unit Cost	This Sheet		Validation		
Number of Rows:	\$	#REF!	81	\$	47	FAILED			
Unit Costs:	#REF!	\$	32,157,136	#REF!					
Contingencies:	#N/A	\$	11	#N/A					

Concepts Estimate Draft									
Morrissey Boulevard Corridor Study Alternatives						Today's Date		1/0/1900	
Massachusetts Department of Transportation						Yr of Base Year \$		2024	
Morrissey Boulevard Commission						Yr of Revenue Ops		0	
Southern Terminal to South of Greenway Cross						Project Summary			
Road Name:	Morrissey Boulevard (NB Stationing)		Segment Length		Total # of Signalized Intersections	Subtotal	% Combined Contingency	Combined Contingency	Summary Total (Year 2024 \$)
From:	1000+00		Miles	-		\$ 12,490,879	39%	\$ 4,828,640	\$ 17,319,518
To:	1000+00		LF	-		Cost/Route-Mile (\$ million)			
NORHBOUND STATIONING									
Description	Unit	2024 Unit Cost (\$)		Quantity	Notes	Subtotal	% Allocated Contingency	\$ Allocated Contingency	Summary Total (Year 2024 \$)
200 EARTHWORK									
204.00 Import Embankment Fill	CY	\$	30	-		\$ 368,276		\$ 110,483	\$ 478,759
207.00 Geosynthetics for Earthwork	SF	\$	8	-		\$ -	35%	\$ -	\$ -
211.00 Roadway Obliteration and Disposal	SY	\$	12	31,876		\$ 368,276	30%	\$ 110,483	\$ 478,759
300 BASES & SUBBASES									
301.00 Roadway, Sidewalk, Bike Paths Gravel & Crushed Stone Subbase	SY	\$	30	20,742		\$ 625,662	25%	\$ 156,415	\$ 782,077
400 ASPHALT MIXTURE & PAVEMENTS									
401.00 Superpave Asphalt Concrete Pavement Structure	SY	\$	67	16,860		\$ 1,126,751	25%	\$ 281,688	\$ 1,408,438
500 PORTLAND CEMENT CONCRETE									
550 STRUCTURES									
551.00 Driven Pile	VF	\$	657	-		\$ -	35%	\$ -	\$ -
552.00 Structural Concrete	CY	\$	860	-		\$ -	30%	\$ -	\$ -
554.00 Steel Bar Reinforcement	LB	\$	3	-		\$ -	30%	\$ -	\$ -
559.00 Waterproofing	SF	\$	24	-		\$ -	30%	\$ -	\$ -
562.00 Cofferdams and Steel Sheet Piling	SF	\$	39	-		\$ -	40%	\$ -	\$ -
555.00 Steel Structures (Pedestrian Bridge)	SF	\$	3,516	-		\$ -	30%	\$ -	\$ -
578.00 Underground Flood Water Structure	EA	\$	2,503,526	0.25		\$ 625,882	40%	\$ 250,353	\$ 876,234
600 INCIDENTAL CONSTRUCTION									
604.00 Manholes, Inlets, and Catch Basins	VF	\$	1,589	-		\$ 5,654,671		\$ 1,910,294	\$ 7,564,965
605.00 Underdrains, Sheet Drains & Pavement Edge Drains	LF	\$	373	-		\$ -	35%	\$ -	\$ -
606.00 Guide Railing	LF	\$	90	1,200		\$ 108,358	20%	\$ 21,672	\$ 130,030
608.10 Concrete Sidewalks, Driveways and Bikepaths	SY	\$	158	3,712		\$ 585,085	35%	\$ 204,780	\$ 789,864
608.11 Asph. Sidewalks, Driveways and Bikepaths	SY	\$	95	184		\$ 17,458	35%	\$ 6,110	\$ 23,568
609.00 Curb, Granite (VA-4, T-100, Sloped)	LF	\$	75	4,475		\$ 335,146	25%	\$ 83,786	\$ 418,932
624.00 Topsoil (Greenspace)	SY	\$	13	11,120		\$ 143,372	25%	\$ 35,843	\$ 179,215
625.00 Turf Establishment (Greenspace)	SY	\$	6	11,120		\$ 70,526	25%	\$ 17,632	\$ 88,158
626.00 Plants, Trees, Shrubs, Vines & Groundcover	EA	\$	1,704	52		\$ 88,603	25%	\$ 22,151	\$ 110,753
634.00 Pavement Markings	LF	\$	7	5,000		\$ 33,770	25%	\$ 8,442	\$ 42,212
636.00 Traffic Signals & Signs (Intersection)	EA	\$	604,744	3		\$ 1,814,231	35%	\$ 634,981	\$ 2,449,212
670.00 Highway Lighting Systems	EA	\$	12,962	52		\$ 674,041	35%	\$ 235,915	\$ 909,956
635.00 Temporary Traffic Control	EA	\$	7,464,938	0.20		\$ 1,492,988	35%	\$ 522,546	\$ 2,015,533
637.00 Placemaking Opportunities	EA	\$	291,094	1		\$ 291,094	40%	\$ 116,438	\$ 407,531
Construction Subtotal (200 - 600)						\$ 8,401,240		\$ 2,709,233	\$ 11,110,473
800 PROFESSIONAL SERVICES (applies to Cats. 100)						\$ -		\$ -	\$ -
80.01 Project Development	Percentage	0%				\$ -	25.0%	\$ -	\$ -
80.02 Engineering (not used for Small Starts)	Percentage	0%				\$ -	25.0%	\$ -	\$ -
80.03 Project Management for Design and Construction	Percentage	0%				\$ -	25.0%	\$ -	\$ -
80.04 Construction Administration & Management	Percentage	0%				\$ -	25.0%	\$ -	\$ -
80.05 Professional Liability and other Non-Construction Insurance	Percentage	0%				\$ -	25.0%	\$ -	\$ -
80.06 Legal, Permits; Review Fees by other agencies, cities, etc.	Percentage	0%				\$ -	25.0%	\$ -	\$ -
80.07 Surveys, Testing, Investigation, Inspection	Percentage	0%				\$ -	25.0%	\$ -	\$ -
80.08 Start up cost & Agency Force Acct work	Percentage	0%				\$ -	25.0%	\$ -	\$ -
Subtotal (200 - 800)						\$ 8,401,240		\$ 2,709,233	\$ 11,110,473
900 Project Development (ROW, Utility Coordination, Service Agreements) & Unallocated Contingency						\$ 4,089,638		\$ 2,119,407	\$ 6,209,045
900 Categories 10-50 RESERVED	Percentage	10%		-		\$ -		\$ -	\$ -
900 Category 60 - ROW, Land, Existing Improvements	Percentage	10%		7,564,965		\$ 756,497	50%	\$ 378,248	\$ 1,134,745
900 Category 70 - RESERVED	Percentage	10%				\$ -		\$ -	\$ -
900 Category 80 - Professional Services	Percentage	30%		11,110,473		\$ 3,333,142	5%	\$ 166,657	\$ 3,499,799
900 Unallocated Contingency	Percentage	10%		15,745,017		\$ 1,574,502		\$ 1,574,502	\$ 1,574,502
100 FINANCE CHARGES						\$ -		\$ -	\$ -
Finance charges as a percentage:	LS	\$	3,495,556	-		\$ -	0.0%	\$ -	\$ -
Total Project Cost						\$ 12,490,879		\$ 4,828,640	\$ 17,319,518

Project Summary				
Subtotal	% Combined Contingency	Combined Contingency	Summary Total (Year 2024 \$)	
\$ 12,490,879	39%	\$ 4,828,640	\$ 17,319,518	
Cost/Route-Mile (\$ million)			#DIV/0!	

INTERNAL VALIDATION			
			Validation
Project summary accur	\$ 17,319,518	\$ 17,319,518	PASSED

MASTER UNIT COST CONSISTENCY			
		Master Unit Cost	This Sheet
Number of Rows:	\$	81	\$ 80
Unit Costs:	#REF!		#REF!
Contingencies:	#N/A	#N/A	#N/A

Concepts Estimate Draft									
Morrissey Boulevard Corridor Study Alternatives						Today's Date		1/0/1900	
Massachusetts Department of Transportation						Yr of Base Year \$		2024	
Morrissey Boulevard Commission						Yr of Revenue Ops		0	
Neponset to Victory						Project Summary			
Road Name:	Morrissey Boulevard (NB Stationing)		Segment Length		Total # of Signalized Intersections	Subtotal	% Combined Contingency	Combined Contingency	Summary Total (Year 2024 \$)
From:	1000+00		Miles	0.98		\$ 24,760,217	37%	\$ 9,089,900	\$ 33,850,117
To:	1051+50		LF	5,150		Cost/Route-Mile (\$ million)			
			Dedicated Lane LF	2,006					
Description	Unit	2024 Unit Cost (\$)	Quantity	Notes	Subtotal	% Allocated Contingency	\$ Allocated Contingency	Summary Total (Year 2024 \$)	
200 EARTHWORK									
204.00 Import Embankment Fill	CY	\$ 30	-		\$ 498,390		\$ 149,517	\$	647,907
207.00 Geosynthetics for Earthwork	SF	\$ 8	-		\$ -	35%	\$ -	\$	-
211.00 Roadway Obliteration and Disposal	SY	\$ 12	43,138		\$ 498,390	30%	\$ 149,517	\$	647,907
300 BASES & SUBBASES									
301.00 Roadway, Sidewalk, Bike Paths Gravel & Crushed Stone Subbase	SY	\$ 30	43,138		\$ 1,301,214	25%	\$ 325,304	\$	1,626,518
400 ASPHALT MIXTURE & PAVEMENTS									
401.00 Superpave Asphalt Concrete Pavement Structure	SY	\$ 67	32,252		\$ 2,155,395	25%	\$ 538,849	\$	2,694,244
500 PORTLAND CEMENT CONCRETE									
550 STRUCTURES									
551.00 Driven Pile	VF	\$ 657	-		\$ 1,502,116		\$ 600,846	\$	2,102,962
552.00 Structural Concrete	CY	\$ 860	-		\$ -	35%	\$ -	\$	-
554.00 Steel Bar Reinforcement	LB	\$ 3	-		\$ -	30%	\$ -	\$	-
559.00 Waterproofing	SF	\$ 24	-		\$ -	30%	\$ -	\$	-
562.00 Cofferdams and Steel Sheet Piling	SF	\$ 39	-		\$ -	40%	\$ -	\$	-
555.00 Steel Structures (Pedestrian Bridge)	SF	\$ 3,516	-		\$ -	30%	\$ -	\$	-
578.00 Underground Flood Water Structure	EA	\$ 2,503,526	0.60		\$ 1,502,116	40%	\$ 600,846	\$	2,102,962
600 INCIDENTAL CONSTRUCTION									
604.00 Manholes, Inlets, and Catch Basins	VF	\$ 1,589	355		\$ 10,760,182		\$ 3,436,741	\$	14,196,923
605.00 Underdrains, Sheet Drains & Pavement Edge Drains	LF	\$ 373	4,050		\$ 564,005	35%	\$ 197,402	\$	761,407
606.00 Guide Railing	LF	\$ 90	1,005		\$ 1,510,770	35%	\$ 528,770	\$	2,039,540
608.10 Concrete Sidewalks, Driveways and Bikepaths	SY	\$ 158	5,712		\$ 90,750	20%	\$ 18,150	\$	108,900
608.11 Asph. Sidewalks, Driveways and Bikepaths	SY	\$ 95	5,174		\$ 900,324	35%	\$ 315,114	\$	1,215,438
609.00 Curb, Granite (VA-4, T-100, Sloped)	LF	\$ 75	20,575		\$ 490,915	35%	\$ 171,820	\$	662,736
624.00 Topsoil (Greenspace)	SY	\$ 13	52,310		\$ 1,540,922	25%	\$ 385,231	\$	1,926,153
625.00 Turf Establishment (Greenspace)	SY	\$ 6	52,310		\$ 674,441	25%	\$ 168,610	\$	843,051
626.00 Plants, Trees, Shrubs, Vines & Groundcover	EA	\$ 1,704	260		\$ 331,764	25%	\$ 82,941	\$	414,705
634.00 Pavement Markings	LF	\$ 7	24,720		\$ 443,014	25%	\$ 110,753	\$	553,767
636.00 Traffic Signals & Signs (Intersection)	EA	\$ 604,744	1.5		\$ 166,957	25%	\$ 41,739	\$	208,696
670.00 Highway Lighting Systems	EA	\$ 12,962	127		\$ 907,116	35%	\$ 317,490	\$	1,224,606
635.00 Temporary Traffic Control	EA	\$ 7,464,938	0.20		\$ 1,646,217	35%	\$ 576,176	\$	2,222,392
					\$ 1,492,988	35%	\$ 522,546	\$	2,015,533
Construction Subtotal (200 - 600)					\$ 16,217,297		\$ 5,051,257	\$	21,268,554
800 PROFESSIONAL SERVICES (applies to Cats. 100)					\$ -		\$ -	\$	-
80.01 Project Development	Percentage	0%			\$ -	25.0%	\$ -	\$	-
80.02 Engineering (not used for Small Starts)	Percentage	0%			\$ -	25.0%	\$ -	\$	-
80.03 Project Management for Design and Construction	Percentage	0%			\$ -	25.0%	\$ -	\$	-
80.04 Construction Administration & Management	Percentage	0%			\$ -	25.0%	\$ -	\$	-
80.05 Professional Liability and other Non-Construction Insurance	Percentage	0%			\$ -	25.0%	\$ -	\$	-
80.06 Legal, Permits; Review Fees by other agencies, cities, etc.	Percentage	0%			\$ -	25.0%	\$ -	\$	-
80.07 Surveys, Testing, Investigation, Inspection	Percentage	0%			\$ -	25.0%	\$ -	\$	-
80.08 Start up cost & Agency Force Acct work	Percentage	0%			\$ -	25.0%	\$ -	\$	-
Subtotal (200 - 800)					\$ 16,217,297		\$ 5,051,257	\$	21,268,554
900 Project Development (ROW, Utility Coordination, Service Agreements) & Unallocated Contingency					\$ 7,800,259		\$ 4,038,643	\$	11,838,902
900 Categories 10-50 RESERVED	Percentage	10%	-		\$ -		\$ -	\$	-
900 Category 60 - ROW, Land, Existing Improvements	Percentage	10%	14,196,923		\$ 1,419,692	50%	\$ 709,846	\$	2,129,538
900 Category 70 - RESERVED	Percentage	10%	-		\$ -		\$ -	\$	-
900 Category 80 - Professional Services	Percentage	30%	21,268,554		\$ 6,380,566	5%	\$ 319,028	\$	6,699,594
900 Unallocated Contingency	Percentage	10%	30,097,687		\$ 3,009,769		\$ 3,009,769	\$	3,009,769
100 FINANCE CHARGES					\$ 742,661		\$ -	\$	742,661
Finance charges as a percentage:	LS	\$ 3,495,556	0		\$ 742,661	0.0%	\$ -	\$	742,661
Total Project Cost					\$ 24,760,217		\$ 9,089,900	\$	33,850,117

Project Summary				
Subtotal	% Combined Contingency	Combined Contingency	Summary Total (Year 2024 \$)	
\$ 24,760,217	37%	\$ 9,089,900	\$	33,850,117
Cost/Route-Mile (\$ million)			\$	34.70

INTERNAL VALIDATION				
				Validation
Project summary accrui	\$ 33,850,117	\$ 33,850,117	PASSED	

MASTER UNIT COST CONSISTENCY				
	Master Unit Cost		This Sheet	Validation
Number of Rows:	\$	81	\$ 45	FAILED
Unit Costs:		#REF!	14,091,083	#REF!
Contingencies:		#N/A	10	#N/A

Concepts Estimate Draft									
Morrissey Boulevard Corridor Study Alternatives						Today's Date		1/0/1900	
Massachusetts Department of Transportation						Yr of Base Year \$		2024	
Morrissey Boulevard Commission						Yr of Revenue Ops		0	
Victory to Freeport						Project Summary			
Road Name:	Morrissey Boulevard (NB Stationing)		Segment Length		Total # of Signalized Intersections	Subtotal	% Combined Contingency	Combined Contingency	Summary Total (Year 2024 \$)
From:	1051+50		Miles	0.19		\$ 18,476,739	37%	\$ 6,908,075	\$ 25,384,814
To:	1061+50		LF	1,000		Cost/Route-Mile (\$ million)			
			Dedicated Lane LF	1,000					
Description	Unit	2024 Unit Cost (\$)	Quantity	Notes	Subtotal	% Allocated Contingency	\$ Allocated Contingency	Summary Total (Year 2024 \$)	
200 EARTHWORK									
204.00 Import Embankment Fill	CY	\$ 30	4300		\$ 803,550		\$ 247,584	\$ 1,051,134	
207.00 Geosynthetics for Earthwork	SF	\$ 8	-		\$ 130,369	35%	\$ 45,629	\$ 175,998	
211.00 Roadway Obliteration and Disposal	SY	\$ 12	58,267		\$ 673,181	30%	\$ 201,954	\$ 875,136	
300 BASES & SUBBASES									
301.00 Roadway, Sidewalk, Bike Paths Gravel & Crushed Stone Subbase	SY	\$ 30	46,217		\$ 1,394,089	25%	\$ 348,522	\$ 1,742,611	
400 ASPHALT MIXTURE & PAVEMENTS									
401.00 Superpave Asphalt Concrete Pavement Structure	SY	\$ 67	32,840		\$ 2,194,691	25%	\$ 548,673	\$ 2,743,364	
500 PORTLAND CEMENT CONCRETE									
550 STRUCTURES									
551.00 Driven Pile	VF	\$ 657	-		\$ 1,424,086		\$ 569,635	\$ 1,993,721	
552.00 Structural Concrete	CY	\$ 860	-		\$ -	35%	\$ -	\$ -	
554.00 Steel Bar Reinforcement	LB	\$ 3	-		\$ -	30%	\$ -	\$ -	
559.00 Waterproofing	SF	\$ 24	-		\$ -	30%	\$ -	\$ -	
562.00 Cofferdams and Steel Sheet Piling	SF	\$ 39	1,200		\$ 47,147	40%	\$ 18,859	\$ 66,006	
555.00 Steel Structures (Pedestrian Bridge)	SF	\$ 3,516	-		\$ -	30%	\$ -	\$ -	
578.00 Underground Flood Water Structure	EA	\$ 2,503,526	0.55		\$ 1,376,939	40%	\$ 550,776	\$ 1,927,715	
600 INCIDENTAL CONSTRUCTION									
604.00 Manholes, Inlets, and Catch Basins	VF	\$ 1,589	355		\$ 6,804,060		\$ 2,188,474	\$ 8,992,534	
605.00 Underdrains, Sheet Drains & Pavement Edge Drains	LF	\$ 373	850		\$ 564,005	35%	\$ 197,402	\$ 761,407	
606.00 Guide Railing	LF	\$ 90	-		\$ 317,075	35%	\$ 110,976	\$ 428,052	
608.10 Concrete Sidewalks, Driveways and Bikepaths	SY	\$ 158	8,000		\$ -	20%	\$ -	\$ -	
608.11 Asph. Sidewalks, Driveways and Bikepaths	SY	\$ 95	5,377		\$ 1,260,958	35%	\$ 441,335	\$ 1,702,294	
609.00 Curb, Granite (VA-4, T-100, Sloped)	LF	\$ 75	16,775		\$ 510,176	35%	\$ 178,562	\$ 688,738	
624.00 Topsoil (Greenspace)	SY	\$ 13	12,050		\$ 1,256,329	25%	\$ 314,082	\$ 1,570,411	
625.00 Turf Establishment (Greenspace)	SY	\$ 6	12,050		\$ 155,363	25%	\$ 38,841	\$ 194,203	
626.00 Plants, Trees, Shrubs, Vines & Groundcover	SY	\$ 12	12,050		\$ 76,424	25%	\$ 19,106	\$ 95,530	
634.00 Pavement Markings	EA	\$ 1,704	240		\$ 408,936	25%	\$ 102,234	\$ 511,170	
636.00 Traffic Signals & Signs (intersection)	LF	\$ 7	4,800		\$ 32,419	25%	\$ 8,105	\$ 40,523	
670.00 Highway Lighting Systems	EA	\$ 604,744	1		\$ 604,744	35%	\$ 211,660	\$ 816,404	
635.00 Temporary Traffic Control	EA	\$ 12,962	96		\$ 1,244,384	35%	\$ 435,534	\$ 1,679,919	
	EA	\$ 7,464,938	0.05		\$ 373,247	35%	\$ 130,636	\$ 503,883	
Construction Subtotal (200 - 600)					\$ 12,620,477		\$ 3,902,887	\$ 16,523,364	
800 PROFESSIONAL SERVICES (applies to Cats. 100)					\$ -		\$ -	\$ -	
80.01 Project Development	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.02 Engineering (not used for Small Starts)	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.03 Project Management for Design and Construction	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.04 Construction Administration & Management	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.05 Professional Liability and other Non-Construction Insurance	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.06 Legal, Permits; Review Fees by other agencies, cities, etc.	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.07 Surveys, Testing, Investigation, Inspection	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.08 Start up cost & Agency Force Acct work	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
Subtotal (200 - 800)					\$ 12,620,477		\$ 3,902,887.07	\$ 16,523,364	
900 Project Development (ROW, Utility Coordination, Service Agreements) & Unallocated Contingency					\$ 5,856,263		\$ 3,005,187	\$ 8,861,450	
900 Categories 10-50 RESERVED	Percentage	10%	-		\$ -		\$ -	\$ -	
900 Category 60 - ROW, Land, Existing Improvements	Percentage	10%	8,992,534		\$ 899,253	50%	\$ 449,627	\$ 1,348,880	
900 Category 70 - RESERVED	Percentage	10%	-		\$ -		\$ -	\$ -	
900 Category 80 - Professional Services	Percentage	30%	16,523,364		\$ 4,957,009	5%	\$ 247,850	\$ 5,204,860	
900 Unallocated Contingency	Percentage	10%	23,077,103		\$ 2,307,710		\$ 2,307,710	\$ 2,307,710	
100 FINANCE CHARGES					\$ -		\$ -	\$ -	
Finance charges as a percentage:					\$ -	0.0%	\$ -	\$ -	
Total Project Cost					\$ 18,476,739		\$ 6,908,075	\$ 25,384,814	

Project Summary			
Subtotal	% Combined Contingency	Combined Contingency	Summary Total (Year 2024 \$)
\$ 18,476,739	37%	\$ 6,908,075	\$ 25,384,814
Cost/Route-Mile (\$ million)			\$ 134.03

INTERNAL VALIDATION			
Project summary accur		\$ 25,384,814	Validation PASSED

MASTER UNIT COST CONSISTENCY			
Master Unit Cost		This Sheet	Validation
Number of Rows:	\$ 81	\$ 45	FAILED
Unit Costs:	#REF!	\$ 10,595,528	#REF!
Contingencies:	#N/A	\$ 10	#N/A

Concepts Estimate Draft									
Morrissey Boulevard Corridor Study Alternatives						Today's Date		1/0/1900	
Massachusetts Department of Transportation						Yr of Base Year \$		2024	
Morrissey Boulevard Commission						Yr of Revenue Ops		0	
Victory to Freeport						Project Summary			
Road Name:	Morrissey Boulevard (NB Stationing)		Segment Length		Total # of Signalized Intersections	Subtotal	% Combined Contingency	Combined Contingency	Summary Total
From:	1051+50	Miles	0.19	\$ 18,189,226		38%	\$ 6,860,253	\$ 25,049,479	
To:	1061+50	LF	1,000	Cost/Route-Mile (\$ million)					
		Dedicated Lane LF	1,000						
Description	Unit	2024 Unit Cost (\$)	Quantity	Notes	Subtotal	% Allocated Contingency	\$ Allocated Contingency	Summary Total (Year 2024 \$)	
200 EARTHWORK									
204.00 Import Embankment Fill	CY	\$ 30	4,300		\$ 755,858		\$ 233,276	\$ 989,134	
207.00 Geosynthetics for Earthwork	SF	\$ 8	-		\$ 130,369	35%	\$ 45,629	\$ 175,998	
211.00 Roadway Obliteration and Disposal	SY	\$ 12	54,139		\$ 625,489	30%	\$ 187,647	\$ 813,136	
300 BASES & SUBBASES									
301.00 Roadway, Sidewalk, Bike Paths Gravel & Crushed Stone Subbase	SY	\$ 30	40,989		\$ 1,236,392	25%	\$ 309,098	\$ 1,545,490	
400 ASPHALT MIXTURE & PAVEMENTS									
401.00 Superpave Asphalt Concrete Pavement Structure	SY	\$ 67	29,010		\$ 1,938,733	25%	\$ 484,683	\$ 2,423,416	
500 PORTLAND CEMENT CONCRETE									
550 STRUCTURES									
551.00 Driven Pile	VF	\$ 657	-		\$ -	35%	\$ -	\$ -	
552.00 Structural Concrete	CY	\$ 860	-		\$ -	30%	\$ -	\$ -	
554.00 Steel Bar Reinforcement	LB	\$ 3	-		\$ -	30%	\$ -	\$ -	
559.00 Waterproofing	SF	\$ 24	-		\$ -	30%	\$ -	\$ -	
562.00 Cofferdams and Steel Sheet Piling	SF	\$ 39	1,200		\$ 47,147	40%	\$ 18,859	\$ 66,006	
555.00 Steel Structures (Pedestrian Bridge)	SF	\$ 3,516	-		\$ -	30%	\$ -	\$ -	
578.00 Underground Flood Water Structure	EA	\$ 2,503,526	0.55		\$ 1,376,939	40%	\$ 550,776	\$ 1,927,715	
600 INCIDENTAL CONSTRUCTION									
604.00 Manholes, Inlets, and Catch Basins	VF	\$ 1,589	355		\$ 564,005	35%	\$ 197,402	\$ 761,407	
605.00 Underdrains, Sheet Drains & Pavement Edge Drains	LF	\$ 373	850		\$ 317,075	35%	\$ 110,976	\$ 428,052	
606.00 Guide Railing	LF	\$ 90	-		\$ -	20%	\$ -	\$ -	
608.10 Concrete Sidewalks, Driveways and Bikepaths	SY	\$ 158	6,576		\$ 1,036,508	35%	\$ 362,778	\$ 1,399,286	
608.11 Asph. Sidewalks, Driveways and Bikepaths	SY	\$ 95	5,403		\$ 512,643	35%	\$ 179,425	\$ 692,068	
609.00 Curb, Granite (VA-4, T-100, Sloped)	LF	\$ 75	15,050		\$ 1,127,139	25%	\$ 281,785	\$ 1,408,923	
624.00 Topsoil (Greenspace)	SY	\$ 13	13,150		\$ 169,545	25%	\$ 42,386	\$ 211,931	
625.00 Turf Establishment (Greenspace)	SY	\$ 6	13,150		\$ 83,401	25%	\$ 20,850	\$ 104,251	
634.00 Plants, Trees, Shrubs, Vines & Groundcover	LF	\$ 1,704	240		\$ 408,936	25%	\$ 102,234	\$ 511,170	
634.00 Pavement Markings	LF	\$ 7	4,800		\$ 32,419	25%	\$ 8,105	\$ 40,523	
636.00 Traffic Signals & Signs (Intersection)	EA	\$ 604,744	2		\$ 1,209,487	35%	\$ 423,321	\$ 1,632,808	
670.00 Highway Lighting Systems	EA	\$ 12,962	92		\$ 1,192,535	35%	\$ 417,387	\$ 1,609,922	
635.00 Temporary Traffic Control	EA	\$ 7,464,938	0.05		\$ 373,247	35%	\$ 130,636	\$ 503,883	
Construction Subtotal (200 - 600)					\$ 12,382,008		\$ 3,873,976	\$ 16,255,984	
800 PROFESSIONAL SERVICES (applies to Cats. 100)					\$ -		\$ -	\$ -	
80.01 Project Development	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.02 Engineering (not used for Small Starts)	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.03 Project Management for Design and Construction	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.04 Construction Administration & Management	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.05 Professional Liability and other Non-Construction Insurance	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.06 Legal; Permits; Review Fees by other agencies, cities, etc.	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.07 Surveys, Testing, Investigation, Inspection	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.08 Start up cost & Agency Force Acct work	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
Subtotal (200 - 800)					\$ 12,382,008		\$ 3,873,976.36	\$ 16,255,984	
900 Project Development (ROW, Utility Coordination, Service Agreements) & Unallocated Contingency					\$ 5,807,218		\$ 2,986,276	\$ 8,793,494	
900 Categories 10-50 RESERVED	Percentage	10%	-		\$ -		\$ -	\$ -	
900 Category 60 - ROW, Land, Existing Improvements	Percentage	10%	9,304,224		\$ 930,422	50%	\$ 465,211	\$ 1,395,634	
900 Category 70 - RESERVED	Percentage	10%	-		\$ -		\$ -	\$ -	
900 Category 80 - Professional Services	Percentage	30%	16,255,984		\$ 4,876,795	5%	\$ 243,840	\$ 5,120,635	
900 Unallocated Contingency	Percentage	10%	22,772,253		\$ 2,277,225		\$ 2,277,225	\$ 2,277,225	
100 FINANCE CHARGES					\$ -		\$ -	\$ -	
Finance charges as a percentage:					\$ -	0.0%	\$ -	\$ -	
Total Project Cost					\$ 18,189,226		\$ 6,860,253	\$ 25,049,479	

Project Summary			
Subtotal	% Combined Contingency	Combined Contingency	Summary Total (Year 2024 \$)
\$ 18,189,226	38%	\$ 6,860,253	\$ 25,049,479
Cost/Route-Mile (\$ million)			\$ 132.26

INTERNAL VALIDATION	
Validation	
Project summary accur	PASSED

MASTER UNIT COST CONSISTENCY			
Master Unit Cost		This Sheet	Validation
Number of Rows:	\$ 81	45	FAILED
Unit Costs:	#REF!	10,595,528	#REF!
Contingencies:	#N/A	10	#N/A

Concepts Estimate Draft									
Morrissey Boulevard Corridor Study Alternatives							Today's Date		1/0/1900
Massachusetts Department of Transportation							Yr of Base Year \$		2024
Morrissey Boulevard Commission							Yr of Revenue Ops		0
Middle Section (High Profile)					Project Summary				
17 Morrissey Boulevard (NB Stationing)		Segment Length		Total # of Signalized Intersections	Subtotal	% Combined Contingency	Combined Contingency	Summary Total (Year 2024 \$)	
From:	1061+50	Miles	0.33		\$ 30,692,958	38%	\$ 11,573,488	\$ 42,266,446	
To:	1078+80	LF	1,730		Cost/Route-Mile (\$ million)				
		Dedicated Lane LF	1,730						
Description	Unit	2024 Unit Cost (\$)	Quantity	Notes	Subtotal	% Allocated Contingency	\$ Allocated Contingency	Summary Total (Year 2024 \$)	
200 EARTHWORK									
204.00 Import Embankment Fill	CY	\$ 30	52,021		\$ 1,577,192	35%	\$ 552,017	\$ 2,129,209	
207.00 Geosynthetics for Earthwork	SF	\$ 8	17,600		\$ 148,167	25%	\$ 37,042	\$ 185,208	
211.00 Roadway Obliteration and Disposal	SY	\$ 12	21,000		\$ 242,621	30%	\$ 72,786	\$ 315,408	
300 BASES & SUBBASES									
301.00 Roadway, Sidewalk, Bike Paths Gravel & Crushed Stone Subbase	SY	\$ 30	15,050		\$ 453,968	25%	\$ 113,492	\$ 567,460	
400 ASPHALT MIXTURE & PAVEMENTS									
401.00 Superpave Asphalt Concrete Pavement Structure	SY	\$ 67	9,620		\$ 642,903	25%	\$ 160,726	\$ 803,628	
500 PORTLAND CEMENT CONCRETE									
550 STRUCTURES									
551.00 Driven Pile	VF	\$ 657	-		\$ -	35%	\$ -	\$ -	
552.00 Structural Concrete	CY	\$ 860	3,140		\$ 2,701,838	30%	\$ 810,551	\$ 3,512,390	
554.00 Steel Bar Reinforcement	LB	\$ 3	266,900		\$ 828,815	30%	\$ 248,644	\$ 1,077,459	
559.00 Waterproofing	SF	\$ 24	17,600		\$ 429,011	30%	\$ 128,703	\$ 557,714	
562.00 Cofferdams and Steel Sheet Piling	SF	\$ 39	70,000		\$ 2,750,241	40%	\$ 1,100,096	\$ 3,850,337	
555.00 Steel Structures (Pedestrian Bridge)	SF	\$ 3,516	1,700		\$ 5,977,706	30%	\$ 1,793,312	\$ 7,771,018	
578.00 Underground Flood Water Structure	EA	\$ 2,503,526	0.33		\$ 826,164	40%	\$ 330,465	\$ 1,156,629	
600 INCIDENTAL CONSTRUCTION									
604.00 Manholes, Inlets, and Catch Basins	VF	\$ 1,589	568		\$ 902,408	35%	\$ 315,843	\$ 1,218,251	
605.00 Underdrains, Sheet Drains & Pavement Edge Drains	LF	\$ 373	1,450		\$ 540,893	35%	\$ 189,313	\$ 730,206	
606.00 Guide Railing	LF	\$ 90	-		\$ -	20%	\$ -	\$ -	
608.10 Concrete Sidewalks, Driveways and Bikepaths	SY	\$ 158	3,248		\$ 511,949	35%	\$ 179,182	\$ 691,131	
608.11 Asph. Sidewalks, Driveways and Bikepaths	SY	\$ 95	3,400		\$ 322,596	35%	\$ 112,909	\$ 435,505	
609.00 Curb, Granite (VA-4, T-100, Sloped)	LF	\$ 75	6,920		\$ 518,259	25%	\$ 129,565	\$ 647,824	
624.00 Topsoil (Greenspace)	SY	\$ 13	5,950		\$ 76,714	25%	\$ 19,179	\$ 95,893	
625.00 Turf Establishment (Greenspace)	SY	\$ 6	5,950		\$ 37,736	25%	\$ 9,434	\$ 47,171	
634.00 Plants, Trees, Shrubs, Vines & Groundcover	EA	\$ 1,704	138		\$ 235,138	25%	\$ 58,785	\$ 293,923	
634.00 Pavement Markings	LF	\$ 7	8,304		\$ 56,084	25%	\$ 14,021	\$ 70,106	
636.00 Traffic Signals & Signs (Intersection)	EA	\$ 604,744	0.15		\$ 90,712	35%	\$ 31,749	\$ 122,461	
670.00 Highway Lighting Systems	EA	\$ 12,962	39		\$ 505,531	35%	\$ 176,936	\$ 682,467	
635.00 Temporary Traffic Control	EA	\$ 7,464,938	0.15		\$ 1,119,741	35%	\$ 391,909	\$ 1,511,650	
637.00 Placemaking Opportunities	EA	\$ 291,094	-		\$ -	40%	\$ -	\$ -	
603.00 Structural Plate Structures	ALLOW	\$ 21,270,514	-		\$ -	40%	\$ -	\$ -	
Construction Subtotal (200 - 600)					\$ 21,496,386		\$ 6,976,659	\$ 28,473,045	
800 PROFESSIONAL SERVICES (applies to Cats. 100)		0%	\$ 21,496,386		\$ -		\$ -	\$ -	
80.01 Project Development	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.02 Engineering (not used for Small Starts)	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.03 Project Management for Design and Construction	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.04 Construction Administration & Management	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.05 Professional Liability and other Non-Construction Insurance	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.06 Legal, Permits; Review Fees by other agencies, cities, etc.	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.07 Surveys, Testing, Investigation, Inspection	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.08 Start up cost & Agency Force Acct work	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
Subtotal (200 - 800)					\$ 21,496,386		\$ 6,976,658.85	\$ 28,473,045	
900 Project Development (ROW, Utility Coordination, Service Agreements) & Unallocated Contingency					\$ 9,196,572		\$ 4,596,829	\$ 13,793,401	
900 Categories 10-50 RESERVED	Percentage	10%	-		\$ -		\$ -	\$ -	
900 Category 60 - ROW, Land, Existing Improvements	Percentage	10%	6,546,585		\$ 654,659	50%	\$ 327,329	\$ 981,988	
900 Category 70 - RESERVED	Percentage	10%	-		\$ -		\$ -	\$ -	
900 Category 80 - Professional Services	Percentage	30%	28,473,045		\$ 8,541,913	5%	\$ 427,096	\$ 8,969,009	
900 Unallocated Contingency	Percentage	10%	38,424,042		\$ 3,842,404		\$ 3,842,404	\$ 3,842,404	
100 FINANCE CHARGES					\$ -		\$ -	\$ -	
Finance charges as a percentage:					\$ -	0.0%	\$ -	\$ -	
Total Project Cost					\$ 30,692,958		\$ 11,573,488	\$ 42,266,446	

Project Summary			
Subtotal	% Combined Contingency	Combined Contingency	Summary Total (Year 2024 \$)
\$ 30,692,958	38%	\$ 11,573,488	\$ 42,266,446
Cost/Route-Mile (\$ million)			\$ 129.00

INTERNAL VALIDATION			
Project summary accurate			Validation PASSED

MASTER UNIT COST CONSISTENCY			
Master Unit Cost		This Sheet	Validation
Number of Rows:	\$ 81	\$ 47	FAILED
Unit Costs:	#REF!	\$ 32,157,135	#REF!
Contingencies:	#N/A	\$ 11	#N/A

Concepts Estimate Draft										
Morrissey Boulevard Corridor Study Alternatives Massachusetts Department of Transportation Morrissey Boulevard Commission						Today's Date		1/0/1900		
						Yr of Base Year \$		2024		
						Yr of Revenue Ops		0		
Middle Section (Low Profile)						Project Summary				
Road Name:	Morrissey Boulevard (NB Stationing)		Segment Length		Total # of Signalized Intersections	Subtotal	% Combined Contingency	Combined Contingency	Summary Total (Year 2024 \$)	
From:	1061+50		Miles	0.33		\$ 65,798,518	41%	\$ 26,866,527	\$ 92,665,045	
To:	1078+80		LF	1,730		Cost/Route-Mile (\$ million)				
			Dedicated Lane LF	1,730						
Description			Unit	2024 Unit Cost (\$)	Quantity	Notes	Subtotal	% Allocated Contingency	\$ Allocated Contingency	Summary Total (Year 2024 \$)
200 EARTHWORK							\$ 852,946		\$ 264,175	\$ 1,117,121
204.00 Import Embankment Fill			CY	\$ 30	12,800		\$ 388,075	35%	\$ 135,826	\$ 523,901
207.00 Geosynthetics for Earthwork			SF	\$ 8	26,400		\$ 222,250	25%	\$ 55,562	\$ 277,812
211.00 Roadway Obliteration and Disposal			SY	\$ 12	21,000		\$ 242,621	30%	\$ 72,786	\$ 315,408
300 BASES & SUBBASES							\$ 490,708		\$ 122,677	\$ 613,385
301.00 Roadway, Sidewalk, Bike Paths Gravel & Crushed Stone Subbase			SY	\$ 30	16,268		\$ 490,708	25%	\$ 122,677	\$ 613,385
400 ASPHALT MIXTURE & PAVEMENTS							\$ 642,903		\$ 160,726	\$ 803,628
401.00 Superpave Asphalt Concrete Pavement Structure			SY	\$ 67	9,620		\$ 642,903	25%	\$ 160,726	\$ 803,628
500 PORTLAND CEMENT CONCRETE							\$ -		\$ -	\$ -
550 STRUCTURES							\$ 16,384,213		\$ 5,183,292	\$ 21,567,505
551.00 Driven Pile			VF	\$ 657	4,000		\$ 2,628,959	35%	\$ 920,136	\$ 3,549,095
552.00 Structural Concrete			CY	\$ 860	5,130		\$ 4,414,150	30%	\$ 1,324,245	\$ 5,738,394
554.00 Steel Bar Reinforcement			LB	\$ 3	436,050		\$ 1,354,082	30%	\$ 406,225	\$ 1,760,307
559.00 Waterproofing			SF	\$ 24	26,400		\$ 643,516	30%	\$ 193,055	\$ 836,571
562.00 Cofferdams and Steel Sheet Piling			SF	\$ 39	13,735		\$ 539,637	40%	\$ 215,855	\$ 755,491
555.00 Steel Structures (Pedestrian Bridge)			SF	\$ 3,516	1,700		\$ 5,977,706	30%	\$ 1,793,312	\$ 7,771,018
578.00 Underground Flood Water Structure			EA	\$ 2,503,526	0.33		\$ 826,164	40%	\$ 330,465	\$ 1,156,629
600 INCIDENTAL CONSTRUCTION							\$ 25,849,873		\$ 10,018,588	\$ 35,868,460
604.00 Manholes, Inlets, and Catch Basins			VF	\$ 1,589	355		\$ 564,005	35%	\$ 197,402	\$ 761,407
605.00 Underdrains, Sheet Drains & Pavement Edge Drains			LF	\$ 373	1,450		\$ 540,893	35%	\$ 189,313	\$ 730,206
606.00 Guide Railing			LF	\$ 90	-		\$ -	20%	\$ -	\$ -
608.10 Concrete Sidewalks, Driveways and Bikepaths			SY	\$ 158	3,248		\$ 511,949	35%	\$ 179,182	\$ 691,131
608.11 Ash. Sidewalks, Driveways and Bikepaths			SY	\$ 95	3,400		\$ 322,596	35%	\$ 112,909	\$ 435,505
609.00 Curb, Granite (VA-4, T-100, Sloped)			LF	\$ 75	6,920		\$ 518,259	25%	\$ 129,565	\$ 647,824
624.00 Topsoil (Greenspace)			SY	\$ 13	5,950		\$ 76,714	25%	\$ 19,179	\$ 95,893
625.00 Turf Establishment (Greenspace)			SY	\$ 6	5,950		\$ 37,736	25%	\$ 9,434	\$ 47,171
634.00 Plants, Trees, Shrubs, Vines & Groundcover			EA	\$ 1,704	138		\$ 235,138	25%	\$ 58,785	\$ 293,923
634.00 Pavement Markings			LF	\$ 7	8,304		\$ 56,084	25%	\$ 14,021	\$ 70,106
636.00 Traffic Signals & Signs (Intersection)			EA	\$ 604,744	0.15		\$ 90,712	35%	\$ 31,749	\$ 122,461
670.00 Highway Lighting Systems			EA	\$ 12,962	39		\$ 505,531	35%	\$ 176,936	\$ 682,467
635.00 Temporary Traffic Control			EA	\$ 7,464,938	0.15		\$ 1,119,741	35%	\$ 391,909	\$ 1,511,650
637.00 Placemaking Opportunities			EA	\$ 291,094	-		\$ -	40%	\$ -	\$ -
603.00 Structural Plate Structures			ALLOW	\$ 21,270,514	1.00		\$ 21,270,514	40%	\$ 8,508,205	\$ 29,778,719
Construction Subtotal (200 - 600)							\$ 44,220,642		\$ 15,749,457	\$ 59,970,100
800 PROFESSIONAL SERVICES (applies to Cats. 100)							\$ -		\$ -	\$ -
80.01 Project Development			Percentage	0%			\$ -	25.0%	\$ -	\$ -
80.02 Engineering (not used for Small Starts)			Percentage	0%			\$ -	25.0%	\$ -	\$ -
80.03 Project Management for Design and Construction			Percentage	0%			\$ -	25.0%	\$ -	\$ -
80.04 Construction Administration & Management			Percentage	0%			\$ -	25.0%	\$ -	\$ -
80.05 Professional Liability and other Non-Construction Insurance			Percentage	0%			\$ -	25.0%	\$ -	\$ -
80.06 Legal, Permits; Review Fees by other agencies, cities, etc.			Percentage	0%			\$ -	25.0%	\$ -	\$ -
80.07 Surveys, Testing, Investigation, Inspection			Percentage	0%			\$ -	25.0%	\$ -	\$ -
80.08 Start up cost & Agency Force Acct work			Percentage	0%			\$ -	25.0%	\$ -	\$ -
Subtotal (200 - 800)							\$ 44,220,642		\$ 15,749,457.44	\$ 59,970,100
900 Project Development (ROW, Utility Coordination, Service Agreements) & Unallocated Contingency							\$ 21,577,876		\$ 11,117,070	\$ 32,694,945
900 Categories 10-50 RESERVED			Percentage	10%	-		\$ -		\$ -	\$ -
900 Category 60 - ROW, Land, Existing Improvements			Percentage	10%	35,868,460		\$ 3,586,846	50%	\$ 1,793,423	\$ 5,380,269
900 Category 70 - RESERVED			Percentage	10%			\$ -		\$ -	\$ -
900 Category 80 - Professional Services			Percentage	30%	59,970,100		\$ 17,991,030	5%	\$ 899,551	\$ 18,890,581
900 Unallocated Contingency			Percentage	10%	84,240,950		\$ 8,424,095		\$ 8,424,095	\$ 8,424,095
100 FINANCE CHARGES							\$ -		\$ -	\$ -
Finance charges as a percentage:							\$ -	0.0%	\$ -	\$ -
Total Project Cost							\$ 65,798,518		\$ 26,866,527	\$ 92,665,045

Project Summary			
Subtotal	% Combined Contingency	Combined Contingency	Summary Total (Year 2024 \$)
\$ 65,798,518	41%	\$ 26,866,527	\$ 92,665,045
Cost/Route-Mile (\$ million)			282.82

INTERNAL VALIDATION			
			Validation
Project summary accurate	\$ 92,665,045	\$ 92,665,045	PASSED

MASTER UNIT COST CONSISTENCY			
		This Sheet	Validation
Number of Rows:	\$ 81	\$ 47	FAILED
Unit Costs:	#REF!	32,157,135	#REF!
Contingencies:	#N/A	11	#N/A

Concepts Estimate Draft									
Morrissey Boulevard Corridor Study Alternatives					Today's Date 1/0/1900				
Massachusetts Department of Transportation					Yr of Base Year \$ 2024				
Morrissey Boulevard Commission					Yr of Revenue Ops 0				
Middle Section (Hybrid)					Project Summary				
Road Name:	Morrissey Boulevard (NB Stationing)		Segment Length		Total # of Signalized Intersections	Subtotal	% Combined Contingency	Combined Contingency	Summary Total (Year 2024 \$)
From:	1061+50		Miles	0.33		\$ 63,736,324	41%	\$ 26,222,095	\$ 89,958,419
To:	1078+80		LF	1,730		Cost/Route-Mile (\$ million)			
			Dedicated Lane LF	2,297					
Description	Unit	2024 Unit Cost (\$)	Quantity	Notes	Subtotal	% Allocated Contingency	\$ Allocated Contingency	Summary Total (Year 2024 \$)	
200 EARTHWORK									
204.00 Import Embankment Fill	CY	\$ 30	36,383		\$ 1,509,014		\$ 499,692	\$ 2,008,706	
207.00 Geosynthetics for Earthwork	SF	\$ 8	19,400		\$ 1,103,073	35%	\$ 386,076	\$ 1,489,149	
211.00 Roadway Obliteration and Disposal	SY	\$ 12	21,000		\$ 242,621	30%	\$ 72,786	\$ 315,408	
300 BASES & SUBBASES									
301.00 Roadway, Sidewalk, Bike Paths Gravel & Crushed Stone Subbase	SY	\$ 30	15,050		\$ 453,968		\$ 113,492	\$ 567,460	
					\$ 453,968	25%	\$ 113,492	\$ 567,460	
400 ASPHALT MIXTURE & PAVEMENTS									
401.00 Superpave Asphalt Concrete Pavement Structure	SY	\$ 67	9,620		\$ 642,903		\$ 160,726	\$ 803,628	
					\$ 642,903	25%	\$ 160,726	\$ 803,628	
500 PORTLAND CEMENT CONCRETE									
550 STRUCTURES									
551.00 Driven Pile	VF	\$ 657	2,000		\$ 1,314,480	35%	\$ 460,068	\$ 1,774,547	
552.00 Structural Concrete	CY	\$ 860	3,600		\$ 3,097,649	30%	\$ 929,295	\$ 4,026,943	
554.00 Steel Bar Reinforcement	LB	\$ 3	306,000		\$ 950,233	30%	\$ 285,070	\$ 1,235,303	
559.00 Waterproofing	SF	\$ 24	19,400		\$ 472,887	30%	\$ 141,866	\$ 614,753	
562.00 Cofferdams and Steel Sheet Piling	SF	\$ 39	36,735		\$ 1,443,287	40%	\$ 577,315	\$ 2,020,602	
555.00 Steel Structures (Pedestrian Bridge)	SF	\$ 3,516	1,700		\$ 5,977,706	30%	\$ 1,793,312	\$ 7,771,018	
578.00 Underground Flood Water Structure	EA	\$ 2,503,526	0.33		\$ 826,164	40%	\$ 330,465	\$ 1,156,629	
600 INCIDENTAL CONSTRUCTION									
604.00 Manholes, Inlets, and Catch Basins	VF	\$ 1,589	460		\$ 730,823	35%	\$ 255,788	\$ 986,611	
605.00 Underdrains, Sheet Drains & Pavement Edge Drains	LF	\$ 373	1,450		\$ 540,893	35%	\$ 189,313	\$ 730,206	
606.00 Guide Railing	LF	\$ 90	-		\$ -	20%	\$ -	\$ -	
608.10 Concrete Sidewalks, Driveways and Bikepaths	SY	\$ 158	3,248		\$ 511,949	35%	\$ 179,182	\$ 691,131	
608.11 Asph. Sidewalks, Driveways and Bikepaths	SY	\$ 95	3,400		\$ 322,596	35%	\$ 112,909	\$ 435,505	
609.00 Curb, Granite (VA-4, T-100, Sloped)	LF	\$ 75	6,920		\$ 518,259	25%	\$ 129,565	\$ 647,824	
624.00 Topsoil (Greenspace)	SY	\$ 13	5,950		\$ 76,714	25%	\$ 19,179	\$ 95,893	
625.00 Turf Establishment (Greenspace)	SY	\$ 6	5,950.0		\$ 37,736	25%	\$ 9,434	\$ 47,171	
634.00 Plants, Trees, Shrubs, Vines & Groundcover	EA	\$ 1,704	138		\$ 235,138	25%	\$ 58,785	\$ 293,923	
634.00 Pavement Markings	LF	\$ 7	8,304		\$ 56,084	25%	\$ 14,021	\$ 70,106	
636.00 Traffic Signals & Signs (intersection)	EA	\$ 604,744	0.15		\$ 90,712	35%	\$ 31,749	\$ 122,461	
670.00 Highway Lighting Systems	EA	\$ 12,962	39		\$ 505,531	35%	\$ 176,936	\$ 682,467	
635.00 Temporary Traffic Control	EA	\$ 7,464,938	0.15		\$ 1,119,741	35%	\$ 391,909	\$ 1,511,650	
637.00 Placemaking Opportunities	EA	\$ 291,094	-		\$ -	40%	\$ -	\$ -	
603.00 Structural Plate Structures	ALLOW	\$ 21,270,514	1.00		\$ 21,270,514	40%	\$ 8,508,205	\$ 29,778,719	
Construction Subtotal (200 - 600)					\$ 42,704,981		\$ 15,368,274	\$ 58,073,256	
800 PROFESSIONAL SERVICES (applies to Cats. 100)					\$ -		\$ -	\$ -	
80.01 Project Development	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.02 Engineering (not used for Small Starts)	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.03 Project Management for Design and Construction	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.04 Construction Administration & Management	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.05 Professional Liability and other Non-Construction Insurance	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.06 Legal; Permits; Review Fees by other agencies, cities, etc.	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.07 Surveys, Testing, Investigation, Inspection	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.08 Start up cost & Agency Force Acct work	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
Subtotal (200 - 800)					\$ 42,704,981		\$ 15,368,274.49	\$ 58,073,256	
900 Project Development (ROW, Utility Coordination, Service Agreements) & Unallocated Contingency					\$ 21,031,343		\$ 10,853,820	\$ 31,885,163	
900 Categories 10-50 RESERVED	Percentage	10%	-		\$ -		\$ -	\$ -	
900 Category 60 - ROW, Land, Existing Improvements	Percentage	10%	36,093,665		\$ 3,609,367	50%	\$ 1,804,683	\$ 5,414,050	
900 Category 70 - RESERVED	Percentage	10%	-		\$ -		\$ -	\$ -	
900 Category 80 - Professional Services	Percentage	30%	58,073,256		\$ 17,421,977	5%	\$ 871,099	\$ 18,293,076	
900 Unallocated Contingency	Percentage	10%	81,780,381		\$ 8,178,038		\$ 8,178,038	\$ 8,178,038	
100 FINANCE CHARGES					\$ -		\$ -	\$ -	
Finance charges as a percentage:					\$ -	0.0%	\$ -	\$ -	
Total Project Cost					\$ 63,736,324		\$ 26,222,095	\$ 89,958,419	

Project Summary				
Subtotal	% Combined Contingency	Combined Contingency	Summary Total (Year 2024 \$)	
\$ 63,736,324	41%	\$ 26,222,095	\$ 89,958,419	
Cost/Route-Mile (\$ million)				274.56

INTERNAL VALIDATION				
Project summary accur			Validation	
\$ 89,958,419	\$ 89,958,419		PASSED	

MASTER UNIT COST CONSISTENCY				
Master Unit Cost		This Sheet	Validation	
Number of Rows:	\$ 81	\$ 47	FAILED	
Unit Costs:	#REF!	\$ 32,157,135	#REF!	
Contingencies:	#N/A	\$ 11	#N/A	

Concepts Estimate Draft									
Morrissey Boulevard Corridor Study Alternatives						Today's Date		1/0/1900	
Massachusetts Department of Transportation						Yr of Base Year \$		2024	
Morrissey Boulevard Commission						Yr of Revenue Ops		0	
Bianculli Intersection						Project Summary			
Road Name:	48	Segment Length		Total # of Signalized Intersections 0		Subtotal	% Combined Contingency	Combined Contingency	Summary Total (Year 2024 \$)
From:	1078+80	Miles	0.91			\$ 31,942,664	38%	\$ 12,067,065	\$ 44,009,729
To:	1126+80	LF	4,800			Cost/Route-Mile (\$ million)			
		Dedicated Lane LF	-						
Description	Unit	2024 Unit Cost (\$)	Quantity	Notes	Subtotal	% Allocated Contingency	\$ Allocated Contingency	Summary Total (Year 2024 \$)	
200 EARTHWORK									
204.00 Import Embankment Fill	CY	\$ 30	12,000		\$ 1,150,514		\$ 363,345	\$ 1,513,859	
207.00 Geosynthetics for Earthwork	SF	\$ 8	-		\$ 363,820	35%	\$ 127,337	\$ 491,158	
211.00 Roadway Obliteration and Disposal	SY	\$ 12	68,092		\$ 786,693	30%	\$ 236,008	\$ 1,022,701	
300 BASES & SUBBASES									
301.00 Roadway, Sidewalk, Bike Paths Gravel & Crushed Stone Subbase	SY	\$ 30	68,092		\$ 2,053,927	25%	\$ 513,482	\$ 2,567,408	
400 ASPHALT MIXTURE & PAVEMENTS									
401.00 Superpave Asphalt Concrete Pavement Structure	SY	\$ 67	51,760		\$ 3,459,111	25%	\$ 864,778	\$ 4,323,889	
500 PORTLAND CEMENT CONCRETE									
550 STRUCTURES									
551.00 Driven Pile	VF	\$ 657	-		\$ -	35%	\$ -	\$ -	
552.00 Structural Concrete	CY	\$ 860	-		\$ -	30%	\$ -	\$ -	
554.00 Steel Bar Reinforcement	LB	\$ 3	-		\$ -	30%	\$ -	\$ -	
559.00 Waterproofing	SF	\$ 24	-		\$ -	30%	\$ -	\$ -	
562.00 Cofferdams and Steel Sheet Piling	SF	\$ 39	1,200		\$ 47,147	40%	\$ 18,859	\$ 66,006	
555.00 Steel Structures (Pedestrian Bridge)	SF	\$ 3,516	-		\$ -	30%	\$ -	\$ -	
578.00 Underground Flood Water Structure	EA	\$ 2,503,526	0.90		\$ 2,253,174	40%	\$ 901,269	\$ 3,154,443	
600 INCIDENTAL CONSTRUCTION									
604.00 Manholes, Inlets, and Catch Basins	VF	\$ 1,589	355		\$ 12,741,302		\$ 4,133,220	\$ 16,874,522	
605.00 Underdrains, Sheet Drains & Pavement Edge Drains	LF	\$ 373	3,800		\$ 564,005	35%	\$ 197,402	\$ 761,407	
606.00 Guide Railing	LF	\$ 90	-		\$ 1,417,513	35%	\$ 496,129	\$ 1,913,642	
608.10 Concrete Sidewalks, Driveways and Bikepaths	SY	\$ 158	7,792		\$ 1,228,173	35%	\$ 429,861	\$ 1,658,034	
608.11 Asph. Sidewalks, Driveways and Bikepaths	SY	\$ 95	8,540		\$ 810,286	35%	\$ 283,600	\$ 1,093,885	
609.00 Curb, Granite (VA-4, T-100, Sloped)	LF	\$ 75	24,719		\$ 1,851,278	25%	\$ 462,820	\$ 2,314,098	
624.00 Topsoil (Greenspace)	SY	\$ 13	27,120		\$ 349,662	25%	\$ 87,416	\$ 437,078	
625.00 Turf Establishment (Greenspace)	SY	\$ 6	27,120		\$ 172,002	25%	\$ 43,001	\$ 215,003	
634.00 Plants, Trees, Shrubs, Vines & Groundcover	EA	\$ 1,704	385		\$ 656,001	25%	\$ 164,000	\$ 820,001	
634.00 Pavement Markings	LF	\$ 7	34,560		\$ 233,415	25%	\$ 58,354	\$ 291,769	
636.00 Traffic Signals & Signs (intersection)	EA	\$ 604,744	3		\$ 1,814,231	35%	\$ 634,981	\$ 2,449,212	
670.00 Highway Lighting Systems	EA	\$ 12,962	166		\$ 2,151,748	35%	\$ 753,112	\$ 2,904,859	
635.00 Temporary Traffic Control	EA	\$ 7,464,938	0.20		\$ 1,492,988	35%	\$ 522,546	\$ 2,015,533	
Construction Subtotal (200 - 600)									
					\$ 21,705,174		\$ 6,794,953	\$ 28,500,127	
800 PROFESSIONAL SERVICES (applies to Cats. 100)									
		0%	\$ 21,705,174			\$ -	\$ -	\$ -	
80.01 Project Development	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.02 Engineering (not used for Small Starts)	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.03 Project Management for Design and Construction	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.04 Construction Administration & Management	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.05 Professional Liability and other Non-Construction Insurance	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.06 Legal, Permits; Review Fees by other agencies, cities, etc.	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.07 Surveys, Testing, Investigation, Inspection	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.08 Start up cost & Agency Force Acct work	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
Subtotal (200 - 800)					\$ 21,705,174		\$ 6,794,952.60	\$ 28,500,127	
900 Project Development (ROW, Utility Coordination, Service Agreements) & Unallocated Contingency									
					\$ 10,237,490		\$ 5,272,112	\$ 15,509,603	
900 Categories 10-50 RESERVED	Percentage	10%	-		\$ -		\$ -	\$ -	
900 Category 60 - ROW, Land, Existing Improvements	Percentage	10%	16,874,522		\$ 1,687,452	50%	\$ 843,726	\$ 2,531,178	
900 Category 70 - RESERVED	Percentage	10%	-		\$ -		\$ -	\$ -	
900 Category 80 - Professional Services	Percentage	30%	28,500,127		\$ 8,550,038	5%	\$ 427,502	\$ 8,977,540	
900 Unallocated Contingency	Percentage	10%	40,008,845		\$ 4,000,884		\$ 4,000,884	\$ 4,000,884	
100 FINANCE CHARGES									
Finance charges as a percentage:					\$ -	0.0%	\$ -	\$ -	
Total Project Cost					\$ 31,942,664		\$ 12,067,065	\$ 44,009,729	

Project Summary			
Subtotal	% Combined Contingency	Combined Contingency	Summary Total (Year 2024 \$)
\$ 31,942,664	38%	\$ 12,067,065	\$ 44,009,729
Cost/Route-Mile (\$ million)			\$ 48.41

INTERNAL VALIDATION			
Project summary accur		\$ 44,009,729	\$ 44,009,729 PASSED

MASTER UNIT COST CONSISTENCY			
Master Unit Cost		This Sheet	Validation
Number of Rows:	\$ 81	\$ 45	FAILED
Unit Costs:	#REF!	\$ 10,595,528	#REF!
Contingencies:	#N/A	\$ 10	#N/A

Concepts Estimate Draft										
Morrissey Boulevard Corridor Study Alternatives						Today's Date		1/0/1900		
Massachusetts Department of Transportation						Yr of Base Year \$		2024		
Morrissey Boulevard Commission						Yr of Revenue Ops		0		
Bianculli Intersection						Project Summary				
Road Name:	Morrissey Boulevard (NB Stationing)		Segment Length		Total # of Signalized Intersections	Subtotal	% Combined Contingency	Combined Contingency	Summary Total (Year 2024 \$)	
From:	1078+80		Miles	0.91		\$ 30,947,456	38%	\$ 11,662,711	\$ 42,610,166	
To:	1126+80		LF	4,800		Cost/Route-Mile (\$ million)				
			Dedicated Lane LF	7,814						
Description			Unit	2024 Unit Cost (\$)	Quantity	Notes	Subtotal	% Allocated Contingency	\$ Allocated Contingency	Summary Total (Year 2024 \$)
200 EARTHWORK							\$ 1,144,391		\$ 361,508	\$ 1,505,899
204.00 Import Embankment Fill			CY	\$ 30	12,000		\$ 363,820	35%	\$ 127,337	\$ 491,158
207.00 Geosynthetics for Earthwork			SF	\$ 8	-		\$ -	25%	\$ -	\$ -
211.00 Roadway Obliteration and Disposal			SY	\$ 12	67,562		\$ 780,570	30%	\$ 234,171	\$ 1,014,741
300 BASES & SUBBASES							\$ 2,037,940		\$ 509,485	\$ 2,547,424
301.00 Roadway, Sidewalk, Bike Paths Gravel & Crushed Stone Subbase			SY	\$ 30	67,562		\$ 2,037,940	25%	\$ 509,485	\$ 2,547,424
400 ASPHALT MIXTURE & PAVEMENTS							\$ 3,423,691		\$ 855,923	\$ 4,279,614
401.00 Superpave Asphalt Concrete Pavement Structure			SY	\$ 67	51,230		\$ 3,423,691	25%	\$ 855,923	\$ 4,279,614
500 PORTLAND CEMENT CONCRETE							\$ -		\$ -	\$ -
550 STRUCTURES							\$ 2,300,321		\$ 920,128	\$ 3,220,449
551.00 Driven Pile			VF	\$ 657	-		\$ -	35%	\$ -	\$ -
552.00 Structural Concrete			CY	\$ 860	-		\$ -	30%	\$ -	\$ -
554.00 Steel Bar Reinforcement			LB	\$ 3	-		\$ -	30%	\$ -	\$ -
559.00 Waterproofing			SF	\$ 24	-		\$ -	30%	\$ -	\$ -
562.00 Cofferdams and Steel Sheet Piling			SF	\$ 39	1,200		\$ 47,147	40%	\$ 18,859	\$ 66,006
555.00 Steel Structures (Pedestrian Bridge)			SF	\$ 3,516	-		\$ -	30%	\$ -	\$ -
578.00 Underground Flood Water Structure			EA	\$ 2,503,526	0.90		\$ 2,253,174	40%	\$ 901,269	\$ 3,154,443
600 INCIDENTAL CONSTRUCTION				\$ -			\$ 12,146,753		\$ 3,924,108	\$ 16,070,862
604.00 Manholes, Inlets, and Catch Basins			VF	\$ 1,589	355		\$ 564,005	35%	\$ 197,402	\$ 761,407
605.00 Underdrains, Sheet Drains & Pavement Edge Drains			CY	\$ 373	3,800		\$ 1,417,513	35%	\$ 496,129	\$ 1,913,642
606.00 Guide Railing			LF	\$ 90	-		\$ -	20%	\$ -	\$ -
608.10 Concrete Sidewalks, Driveways and Bikepaths			SY	\$ 158	7,792		\$ 1,228,173	35%	\$ 429,861	\$ 1,658,034
608.11 Asph. Sidewalks, Driveways and Bikepaths			SY	\$ 95	8,540.0		\$ 810,286	35%	\$ 283,600	\$ 1,093,885
609.00 Curb, Granite (VA-4, T-100, Sloped)			LF	\$ 75	24,719		\$ 1,851,278	25%	\$ 462,820	\$ 2,314,098
624.00 Topsoil (Greenspace)			SY	\$ 13	27,650		\$ 356,496	25%	\$ 89,124	\$ 445,620
625.00 Turf Establishment (Greenspace)			SY	\$ 6	27,650		\$ 175,364	25%	\$ 43,841	\$ 219,205
626.00 Plants, Trees, Shrubs, Vines & Groundcover			EA	\$ 1,704	385		\$ 656,001	25%	\$ 164,000	\$ 820,001
634.00 Pavement Markings			LF	\$ 7	34,560		\$ 233,415	25%	\$ 58,354	\$ 291,769
636.00 Traffic Signals & Signs (intersection)			EA	\$ 604,744	2		\$ 1,209,487	35%	\$ 423,321	\$ 1,632,808
670.00 Highway Lighting Systems			EA	\$ 12,962	166		\$ 2,151,748	35%	\$ 753,112	\$ 2,904,859
635.00 Temporary Traffic Control			EA	\$ 7,464,938	0.20		\$ 1,492,988	35%	\$ 522,546	\$ 2,015,533
Construction Subtotal (200 - 600)							\$ 21,053,095		\$ 6,571,152	\$ 27,624,247
800 PROFESSIONAL SERVICES (applies to Cats. 100)				0%	\$ 21,053,095		\$ -		\$ -	\$ -
80.01 Project Development			Percentage	0%	-		\$ -	25.0%	\$ -	\$ -
80.02 Engineering (not used for Small Starts)			Percentage	0%	-		\$ -	25.0%	\$ -	\$ -
80.03 Project Management for Design and Construction			Percentage	0%	-		\$ -	25.0%	\$ -	\$ -
80.04 Construction Administration & Management			Percentage	0%	-		\$ -	25.0%	\$ -	\$ -
80.05 Professional Liability and other Non-Construction Insurance			Percentage	0%	-		\$ -	25.0%	\$ -	\$ -
80.06 Legal; Permits; Review Fees by other agencies, cities, etc.			Percentage	0%	-		\$ -	25.0%	\$ -	\$ -
80.07 Surveys, Testing, Investigation, Inspection			Percentage	0%	-		\$ -	25.0%	\$ -	\$ -
80.08 Start up cost & Agency Force Acct work			Percentage	0%	-		\$ -	25.0%	\$ -	\$ -
Subtotal (200 - 800)							\$ 21,053,095		\$ 6,571,152.34	\$ 27,624,247
900 Project Development (ROW, Utility Coordination, Service Agreements) & Unallocated Contingency							\$ 9,894,360		\$ 5,091,558	\$ 14,985,919
900 Categories 10-50 RESERVED			Percentage	10%	-		\$ -		\$ -	\$ -
900 Category 60 - ROW, Land, Existing Improvements			Percentage	10%	16,070,862		\$ 1,607,086	50%	\$ 803,543	\$ 2,410,629
900 Category 70 - RESERVED			Percentage	10%	-		\$ -		\$ -	\$ -
900 Category 80 - Professional Services			Percentage	30%	27,624,247		\$ 8,287,274	5%	\$ 414,364	\$ 8,701,638
900 Unallocated Contingency			Percentage	10%	38,736,515		\$ 3,873,651		\$ 3,873,651	\$ 3,873,651
100 FINANCE CHARGES							\$ -		\$ -	\$ -
Finance charges as a percentage:							\$ -	0.0%	\$ -	\$ -
Total Project Cost							\$ 30,947,456		\$ 11,662,711	\$ 42,610,166

Project Summary			
Subtotal	% Combined Contingency	Combined Contingency	Summary Total (Year 2024 \$)
\$ 30,947,456	38%	\$ 11,662,711	\$ 42,610,166
Cost/Route-Mile (\$ million)			\$ 46.87

INTERNAL VALIDATION	
Validation	
Project summary accurate	PASSED

MASTER UNIT COST CONSISTENCY			
Master Unit Cost		This Sheet	Validation
Number of Rows:	\$ 81	\$ 45	FAILED
Unit Costs:	#REF!	\$ 10,595,528	#REF!
Contingencies:	#N/A	\$ 10	#N/A

Concepts Estimate Draft									
Morrissey Boulevard Corridor Study Alternatives						Today's Date		1/0/1900	
Massachusetts Department of Transportation						Yr of Base Year \$		2024	
Morrissey Boulevard Commission						Yr of Revenue Ops		0	
Old Colony Ave/Columbia Road/Preble Street						Project Summary			
Road Name:	Morrissey Boulevard (NB Stationing)		Segment Length		Total # of Signalized Intersections 3	Subtotal	% Combined Contingency	Combined Contingency	Summary Total (Year 2024 \$)
From:	1126+80		Miles	0.44		\$ 14,117,104	37%	\$ 5,239,668	\$ 19,297,535
To:	1149+80		LF	2,300		Cost/Route-Mile (\$ million)			
			Dedicated Lane LF	-					
Description	Unit	2024 Unit Cost (\$)	Quantity	Notes	Subtotal	% Allocated Contingency	\$ Allocated Contingency	Summary Total (Year 2024 \$)	
200 EARTHWORK									
204.00 Import Embankment Fill	CY	\$ 30	12,000		\$ 751,552		\$ 243,657	\$ 995,209	
207.00 Geosynthetics for Earthwork	SF	\$ 8	-		\$ 363,820	35%	\$ 127,337	\$ 491,158	
211.00 Roadway Obliteration and Disposal	SY	\$ 12	33,560		\$ 387,732	30%	\$ 116,320	\$ 504,051	
300 BASES & SUBBASES									
301.00 Roadway, Sidewalk, Bike Paths Gravel & Crushed Stone Subbase	SY	\$ 30	33,560		\$ 1,012,304	25%	\$ 253,076	\$ 1,265,379	
400 ASPHALT MIXTURE & PAVEMENTS									
401.00 Superpave Asphalt Concrete Pavement Structure	SY	\$ 67	28,190	Kennedy - Separate Project	\$ 1,883,932	25%	\$ 470,983	\$ 2,354,915	
500 PORTLAND CEMENT CONCRETE									
550 STRUCTURES									
551.00 Driven Pile	VF	\$ 657	-		\$ -	35%	\$ -	\$ -	
552.00 Structural Concrete	CY	\$ 860	-		\$ -	30%	\$ -	\$ -	
554.00 Steel Bar Reinforcement	LB	\$ 3	-		\$ -	30%	\$ -	\$ -	
559.00 Waterproofing	SF	\$ 24	-		\$ -	30%	\$ -	\$ -	
562.00 Cofferdams and Steel Sheet Piling	SF	\$ 39	1,200		\$ 47,147	40%	\$ 18,859	\$ 66,006	
555.00 Steel Structures (Pedestrian Bridge)	SF	\$ 3,516	-		\$ -	30%	\$ -	\$ -	
578.00 Underground Flood Water Structure	EA	\$ 2,503,526	0.40		\$ 1,001,411	40%	\$ 400,564	\$ 1,401,975	
600 INCIDENTAL CONSTRUCTION									
604.00 Manholes, Inlets, and Catch Basins	VF	\$ 1,589	355		\$ 4,930,762	35%	\$ 1,583,527	\$ 6,514,288	
605.00 Underdrains, Sheet Drains & Pavement Edge Drains	LF	\$ 373	1,800		\$ 564,005	35%	\$ 197,402	\$ 761,407	
606.00 Guide Railing	LF	\$ 90	-		\$ 671,453	35%	\$ 235,009	\$ 906,462	
608.10 Concrete Sidewalks, Driveways and Bikepaths	SY	\$ 158	4,310		\$ 679,341	35%	\$ 237,769	\$ 917,111	
608.11 Asph. Sidewalks, Driveways and Bikepaths	SY	\$ 95	1,060.0		\$ 100,574	35%	\$ 35,201	\$ 135,775	
609.00 Curb, Granite (VA-4, T-100, Sloped)	LF	\$ 75	11,460		\$ 858,273	25%	\$ 214,568	\$ 1,072,841	
624.00 Topsoil (Greenspace)	SY	\$ 13	9,340		\$ 120,422	25%	\$ 30,106	\$ 150,528	
625.00 Turf Establishment (Greenspace)	SY	\$ 6	9,340.0		\$ 59,237	25%	\$ 14,809	\$ 74,046	
634.00 Plants, Trees, Shrubs, Vines & Groundcover	EA	\$ 1,704	160		\$ 272,624	25%	\$ 68,156	\$ 340,780	
634.00 Pavement Markings	LF	\$ 7	16,560		\$ 111,845	25%	\$ 27,961	\$ 139,806	
636.00 Traffic Signals & Signs (intersection)	EA	\$ 604,744	-		\$ -	35%	\$ -	\$ -	
670.00 Highway Lighting Systems	EA	\$ 12,962	-		\$ -	35%	\$ -	\$ -	
635.00 Temporary Traffic Control	EA	\$ 7,464,938	0.20		\$ 1,492,988	35%	\$ 522,546	\$ 2,015,533	
Construction Subtotal (200 - 600)					\$ 9,627,107		\$ 2,970,665	\$ 12,597,772	
800 PROFESSIONAL SERVICES (applies to Cats. 100)					\$ -		\$ -	\$ -	
80.01 Project Development	Percentage	0%	\$ 9,627,107		\$ -	25.0%	\$ -	\$ -	
80.02 Engineering (not used for Small Starts)	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.03 Project Management for Design and Construction	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.04 Construction Administration & Management	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.05 Professional Liability and other Non-Construction Insurance	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.06 Legal; Permits; Review Fees by other agencies, cities, etc.	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.07 Surveys, Testing, Investigation, Inspection	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
80.08 Start up cost & Agency Force Acct work	Percentage	0%			\$ -	25.0%	\$ -	\$ -	
Subtotal (200 - 800)					\$ 9,627,107		\$ 2,970,665.17	\$ 12,597,772	
900 Project Development (ROW, Utility Coordination, Service Agreements) & Unallocated Contingency					\$ 4,430,761		\$ 2,269,002	\$ 6,699,763	
900 Categories 10-50 RESERVED	Percentage	10%	-		\$ -		\$ -	\$ -	
900 Category 60 - ROW, Land, Existing Improvements	Percentage	10%	6,514,288		\$ 651,429	50%	\$ 325,714	\$ 977,143	
900 Category 70 - RESERVED	Percentage	10%	-		\$ -		\$ -	\$ -	
900 Category 80 - Professional Services	Percentage	30%	12,597,772		\$ 3,779,332	5%	\$ 188,967	\$ 3,968,298	
900 Unallocated Contingency	Percentage	10%	17,543,214		\$ 1,754,321		\$ 1,754,321	\$ 1,754,321	
100 FINANCE CHARGES					\$ -		\$ -	\$ -	
Finance charges as a percentage:					\$ -	0.0%	\$ -	\$ -	
Total Project Cost					\$ 14,057,868		\$ 5,239,668	\$ 19,297,535	

Project Summary			
Subtotal	% Combined Contingency	Combined Contingency	Summary Total (Year 2024 \$)
\$ 14,057,868	37%	\$ 5,239,668	\$ 19,297,535
Cost/Route-Mile (\$ million)			44.30

INTERNAL VALIDATION		
Validation		
Project summary accur	\$ 19,297,535	\$ 19,297,535 PASSED

MASTER UNIT COST CONSISTENCY			
Master Unit Cost		This Sheet	Validation
Number of Rows:	\$ 81	\$ 45	FAILED
Unit Costs:	#REF!	\$ 10,595,528	#REF!
Contingencies:	#N/A	\$ 10	#N/A

[illegible]

6.25%



Morrissey Boulevard Corridor Study Alternatives
Massachusetts Department of Transportation
Morrissey Boulevard Commission
Concepts Estimate Draft

Side Platform Station
Platform
Shelter

1.00

00

\$	22.00						
\$	7.64	\$	-		0.008522		0.001069
\$	12.22				0.05625		0.007031
\$	2.15				0.008522		0.001125
\$	-	\$	-	\$ 64,034.00	\$ (64,034.00)		
\$	6.11						
\$	6.11				0.0225		0
\$	8.38						
\$	1.82				0.005625		0.000703
\$	4.97				0.019688		0.002813
\$	1.59	\$	-				
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\$ 1,361,866	\$5,472,547.25
\$ 656,706	\$6,129,252.92
\$ 2,451,701	\$8,580,954.08
	2.09
assume	2.05
	\$8,426,896.36

0
Morrissey Boulevard Corridor Study Alternatives
Massachusetts Department of Transportation
Morrissey Boulevard Commission
Concepts Estimate Draft

Reduced Curbside Platform Station
Platform 10 ft wide 50 ft long
Shelter 9.5 ft wide 23.5 ft long

Material				Labor				Equipment				Total Cost	Comments				
Description	Quantity	Units	Unit Price	Material Subtotal	Labor Productivity	Labor Hours	Average Labor Rate	Labor Cost	Equipment Productivity	Equipment Unit Rate	Equipment Subtotal						
Section 300 Bases and Subbases																	
Subsection 301 Aggregate Bases for Pvmnt SW																	
Curb	226,799	SY	\$ 11.81					\$ 5.94			\$ 4.15		\$ 21.89				
4" Stone Subbase Foreign Borrow Material	25,200	CY	\$ 69.06	\$ 1,740,375	0.12	3,024	\$115.49	\$ 349,248	0.004	\$ 1,910	\$ 216,506	\$ 2,306,130	\$ 10.17	0.09	0.003374438	0.16	0.006
Gravel Subbase Foreign Borrow Material	25,200	CY	\$ 37.19	\$ 937,125	0.12	3,024	\$103.82	\$ 313,947	0.004	\$ 1,910	\$ 216,506	\$ 1,467,578	\$ 6.47	0.09	0.003374438	0.16	0.006
Gravel Subbase Re-Use Borrow Material	25,200	CY	\$ -	\$ -	0.12	3,024	\$115.12	\$ 348,110	0.004	\$ 1,910	\$ 216,506	\$ 564,616	\$ 2.49	0.09	0.003374438	0.16	0.006
Site Hauling	25,200	CY			0.03	756	\$115.12	\$ 87,027	0.012	\$ 619.14	\$ 187,229	\$ 274,257	\$ 1.21	0.0225	0.009	0.04	0.016
Stockpiling, Storing, Loading	25,200	CY			0.05	1,134	\$115.12	\$ 130,541	0.0015	\$ 858.92	\$ 32,467	\$ 163,008	\$ 0.72	0.03375	0.001125	0.06	0.002
Fine Grading	226,799	SY		\$ -	0.0045	1,021	\$115.12	\$ 117,487	0.00015	\$ 2,112.38	\$ 71,863	\$ 189,349	\$ 0.83	0.003375	0.0001125	0.01	0.0002
Section 400 Asphalt Mixtures and Pavements																	
Subsection 401 Superpave Asphalt Mix Designs																	
SP Base Course (place)	184,899	SY	\$ 43					\$ 14.87			\$ 6.84		\$ 64.57	0	0		
SP Intermediate (place)	37,211	TN	\$ 106.25	\$ 3,953,661	0.18	6,698	\$108.26	\$ 725,101	0.003	\$ 2,789.44	\$ 311,393	\$ 4,990,155	\$ 26.99	0.135	0.00225	0.24	0.004
SP Surface Course (place)	17,797	TN	\$ 111.56	\$ 1,985,425	0.18	3,203	\$108.26	\$ 346,787	0.003	\$ 2,789.44	\$ 148,927	\$ 2,481,140	\$ 13.42	0.135	0.00225	0.24	0.004
Haul	16,988	TN	\$ 116.88	\$ 1,985,425	0.18	3,058	\$108.26	\$ 331,024	0.003	\$ 2,789.44	\$ 142,158	\$ 2,458,607	\$ 13.40	0.135	0.00225	0.24	0.004
Compaction	71,995	TN		\$ -	0.02	1,512	\$100.74	\$ 152,315	0.002	\$ 615.32	\$ 93,030	\$ 245,345	\$ 1.33	0.01575	0.001575	0.03	0.003
	184,899	SY			0.05	9,985	\$119.68	\$ 1,194,941	0.0015	\$ 2,050.54	\$ 568,715	\$ 1,763,656	\$ 9.54	0.0405	0.001125	0.07	0.002
Section 550 Structures Additions																	
														#DIV/0!			
														#DIV/0!			
														#DIV/0!			
														#DIV/0!			
Subsection 554 Reinforcing Bar	436,050	LB	\$ 1.17	\$509,633	0.0075	3,270	\$120.98	\$ 395,662	0.000075	\$ 2,367.39	\$ 77,423	\$ 982,718	\$ 2.25	0.005625	0.00005625	0.01	0.0001
Subsection 559 Waterproofing	26,400	SF	\$ 10.63	\$ 280,500	0.05	1,188	\$115.12	\$ 136,757	0.004	\$ 503	\$ 49,771	\$ 467,028	\$ 17.69	0.03375	0.0028125	0.06	0.005
Subsection 578 Underground Flood Control Structures	5	EA	\$ 829,334.38	\$ 4,262,779	5250.00	26,985	\$115.12	\$ 3,106,397	45.000	\$ 8.516	\$ 1,969,799	\$ 9,338,975	#####	3937.5	33.75	7000.00	60,000
Section 600 Additions																	
Subsection 603 Structural Plate Structures	1	ALLOW	#####	\$ 12,112,500.00	45000.00	45,000	\$120.98	\$ 5,444,268	375.00	\$ 7.985	\$ 2,994,453	\$ 20,551,221		33750	281.25	60000.00	500.00

Center Platform Station			
Platform	12	ft wide	60 ft long
Shelter	11.0	ft wide	60 ft long
Maintenance Area	13.0	ft wide	30 ft long

13' long 30' wide

	2.09
assume	2.05
	\$59,806,490.80

		TRAFFIC SIGNAL RELATED								Platform Related				
Intersection		NEW (All signals, new cabinet, APS System, meter breaker pedestal)	Full Reconstruction Of Existing (Include meter breaker pedestal)	Minor/Partial Reconstruction (50%)	Cabinet Replacement at Existing	Firmware Upgrade at Existing	Temporary Traffic Signal	APS System	TSP Signal Head	NEW RRFB System	Meter Breaker Pedestal	Disconnection (Median Locations)	Disconnection (When Solar Roof)	NOTES
Segment 1	0 Neponset NB Slip & Morsesey Blvd NB													No Meter Breaker Pedestal (Part of Lo No Grant)
	1 Tollman St & Morrissey NB & SB	1												May need transit head
	2 Conley St and Morrissey Blvd NB & SB										1			
	2 Victory Road & Morrissey Blvd (New Signal)	1							1					
						1					1	1	1	
			1		1		1	1			1	1	1	
				1		1								
							1	1						
											1	1	1	Cabinet in NE quadrant
	Total	2	1	1	1	3	2	2	1	0	4	3	3	
Segment 2	3 Freeport St.	1			1									
						1								
					1									
					1				1		1			May need transit head
	Total	1	0	0	3	1	0	0	1	0	1	0	0	
Segment 3	4 Ped Signal (Hawk System)	1												
											1			
											1	1	1	
	Total	1	0	0	0	0	0	0	0	0	2	1	1	
Segment 4	5 Yacht Club Right Out/Ped	1									1	1	1	These shared a traffic signal cabinet. Only one needed between the two. APS System isn't 2x but more push buttons are needed since it is two intersections
	6 Bianculli & Morrissey	1												
	7 Globe Right Out	1									1	1	1	
	Total	3	0	0	0	0	0	0	0	0	2	2	2	
Segment 5	8 Star Market & Frontage (1)													
	9 Star Market & Frontage (2)													
	Total	0	0	0	0	0	0	0	0	0	0	0	0	
	Total	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
Total		#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	

^ solar panels not part of base assumption

Description	Unit	2023 Unit Cost (\$)
50.02 Traffic signal - New Signalized Intersection	EA	\$288,898
50.02 Traffic Signal - Major Impact	EA	\$144,449
Full Reconstruction of Existing Traffic Signals		
50.02 Traffic signal - Minor Impact	EA	\$72,224
50.02 TSP - cabinet and controller upgrades	EA	\$20,747
TSP Cabinet Replacement of Existing Traffic Signal Cabinet	EA	
TSP Firmware Upgrade at Existing Traffic Signal Cabinet	EA	
50.02 Temporary Signal	EA	\$72,550
50.02 APS Pedestrian System	EA	\$27,809
50.02 New Transit Signal	EA	\$25,378
RRFB System	EA	
50.02 Pole- mast arm support w/(2) vehicular signal	EA	\$73,127
50.02 Overhead Sign Structure	EA	\$25,869

NOTES

Cost should include all signal equipment, new cabinet, APS system, and electrical meter breaker pedestal (No Temporary Signal Required if new)

Replaced this item with Full Reconstruction of Existing Traffic Signal

Cost should include all new signal equipment, traffic signal equipment removal (existing system) and meter breaker pedestal

50% cost of Full reconstruction

Split into new items

Cost of removal and installing a new traffic signal cabinet (If cabinet is old City of Madison asked to replace it entirely)

Current traffic signal cabinet is new and just needs a firmware upgrade of traffic signal controller

Temporary signal needed wherever there is a full reconstruction of existing or minor impact (Half the intersection) (cost seems low based on Madison BRT EW Project)

APS System (one unit inside traffic signal cabinet) plus # of push buttons. One system needed per intersection. Check quantity

Cost is only the new transit signal head (Cost seems high for only one signal head)

New Rapid Rectangular Flashing Beacon

Not sure on this item. Can keep but place as 0 qty for now. Could be used for very small impacts

Red text would be removed

Utility Cost			
Utility Cost	MG&E total cost	\$300,000	All other MG&E service cost for platforms from Madison EW project
	Reconstruction Park Street	\$2,500,000	MG&E email for cost to go underground on park street for Madison NS project
dollars where in 2024 and is total for underground not the difference (This is based on MG&E Email) Sent to Kevin/Siena			

			Material		Labor		Equipment						
Description	Quantity	Units	Unit Price	Material Subtotal	Labor Productivity	Labor Hours	Average Labor Rate	Labor Cost	Equipment Productivity	Equipment Unit Rate	Equipment Subtotal	Total Cost	Comments
Section 600 (cont'd)													
Subsection 636 Traffic Signals	8	EA	\$ 326,081.25									\$ 584,293	unit cost per Intersection
Traffic Signal Pole & Foundations for Mast Arm	48	EA	\$ 22153.125	\$ 1,063,350	60	2,880	\$121.15	\$ 348,902	0.75	\$2,712.55	\$ 97,652	\$ 1,509,904	\$ 584,293.41
Traffic Signal Cable and Wire	24,000	LF	\$ 5.31	\$ 127,500	0.00	72	\$121.15	\$ 8,723	0.002	\$ 669	\$ 30,092	\$ 166,315	\$ 188,738.02
Pedestrian Poles	64	EA	\$ 796.88	\$ 51,000	3.75	240	\$121.15	\$ 29,075	0.188	\$ 669	\$ 8,025	\$ 88,100	\$ 20,789.37
LED Pedestrian Signals Heads	128	EA	\$ 371.88	\$ 47,600	3.00	384	\$121.15	\$ 46,520	0.038	\$ 669	\$ 3,210	\$ 97,330	\$ 11,012.48
Mast Arms 50'	16	EA	\$ 7,968.75	\$ 127,500	37.50	600	\$121.15	\$ 72,688	0.750	\$ 2,713	\$ 32,551	\$ 232,739	\$ 12,166.27
Mast Arms 35'	32	EA	\$ 4,781.25	\$ 153,000	37.50	1,200	\$121.15	\$ 145,376	0.750	\$ 2,713	\$ 65,101	\$ 363,477	\$ 2,812.25
Traffic Signal Heads, 1 Way 3 Section	360	EA	\$ 425.00	\$ 153,000	2.63	945	\$121.15	\$ 114,484	0.188	\$ 669	\$ 45,139	\$ 312,622	\$ 2,215
Traffic Singal Heads 1 Way, 4 Section	128	EA	\$ 531.25	\$ 68,000	3.00	384	\$121.15	\$ 46,520	0.188	\$ 669	\$ 16,049	\$ 130,570	\$ 0.028125
Pedestrian Signal Buttons	64	EA	\$ 159.38	\$ 10,200	1.13	72	\$121.15	\$ 8,723	0.075	\$ 669	\$ 3,210	\$ 22,132	\$ 29,092.33
Traffic Signal Controller	8	EA	\$ 15,937.50	\$ 127,500	90.00	720	\$121.15	\$ 87,226	1.500	\$ 669	\$ 8,025	\$ 222,750	\$ 28,125
Pedestal Signal Post Foundations	64	EA	\$ 1,062.50	\$ 68,000	7.50	480	\$121.15	\$ 58,150	0.375	\$ 669	\$ 16,049	\$ 142,200	\$ 45,434.65
Traffic Signal Control Cabinet	8.0	EA	\$ 5,312.50	\$ 42,500	37.50	300	\$121.15	\$ 36,344	0.750	\$ 669	\$ 4,012	\$ 82,856	\$ 39,077.77
Traffic Signal Control Cabinet Foundation	8.0	EA	\$ 2,125.00	\$ 17,000	52.50	420	\$121.15	\$ 50,882	2.250	\$ 669	\$ 12,037	\$ 79,919	\$ 16,321.20
Permanent Traffic Signs	20,000.0	SF	\$ 21.25	\$ 425,000	0.25	5,000	\$121.15	\$ 605,733	0.005	\$ 669	\$ 65,200	\$ 1,095,933	\$ 1,96875
Electrical Services Connection Aerial	8	ALLOW	\$ 15,937.50	\$ 127,500	0.00							\$ 127,500	\$ 2.25
Subsection 636 Highway Lighting	480	EA	\$ 6,915	\$ 0.00								\$ 12,524	Unit Cost per light
Light Standard Foundation	480	EA	\$ 1,062.50	\$ 510,000	10.5	5,040	\$121.15	\$ 610,579	0.120	\$668.72	\$ 38,518	\$ 1,159,097	\$ 136,991.67
Lighting Load Center	4.0	EA	\$ 5,312.50	\$ 21,250	21.00	84	\$121.15	\$ 10,176	1.500	\$ 669	\$ 4,012	\$ 35,439	\$ 0.1875
Photo Electric Control	480	EA	\$ 106.25	\$ 51,000	0.00	-	\$121.15	\$ -	0.000			\$ 51,000	\$ 0.00365625
Lighting Load Center Foundation	4	EA	\$ 2,125.00	\$ 8,500	15.00	60	\$121.15	\$ 7,269	0.375	\$ 669	\$ 1,003	\$ 16,772	\$ 0
Highway Lighting Pole, Anchor Base	480	EA	\$ 2,125.00	\$ 1,020,000	10.50	5,040	\$121.15	\$ 610,579	0.750	\$ 669	\$ 240,739	\$ 1,871,318	\$ 15.75
Highway Lighting Luminaire	720	EA	\$ 796.88	\$ 573,750	1.50	1,080	\$121.15	\$ 130,838	0.113	\$ 669	\$ 54,166	\$ 758,755	\$ 0
2" Electrical Conduit,	28,000	LF	\$ 29.75	\$ 833,000	0.15	4,200	\$121.15	\$ 508,816	0.015	\$ 669	\$ 280,862	\$ 1,622,678	\$ 11.25
#10 Conductors	84,000	LF	\$ 1.06	\$ 89,250	0.01	473	\$121.15	\$ 57,242	0.000	\$ 669	\$ 4,213	\$ 150,705	\$ 0.084375
Electrical Services Conncoction	4	ALLOW	\$ 10,625.00	\$ 42,500	0.00							\$ 42,500	\$ 0.1125
1/0 Conductors	28,000	LF	\$ 3.72	\$ 104,125	0.01	336	\$121.15	\$ 40,705	0.000	\$ 669	\$ 2,809	\$ 147,639	\$ 0.000421875
Handhole	240	EA	\$ 265.63	\$ 63,750	2.25	540	\$121.15	\$ 65,419	0.094	\$ 669	\$ 15,046	\$ 144,215	\$ 0.00005625
Grounding	4	EA	\$ 531.25	\$ 2,125	15.00	60	\$121.15	\$ 7,269	0.750	\$ 669	\$ 2,006	\$ 11,400	\$ 0
Subsection 635 Temp Traffic Control	1	LS	\$ 2,252,500.00	\$ 2,252,500				\$ 3,960,000			\$ 1,000,000	\$ 7,212,500	\$ 23.75
Subsection 637 Facilities and Services	1	EA	\$ 106,250.00									\$ 281,250	
Placemaking Opportunites	1	ALLOW	\$ 106,250.00	\$ 106,250				\$ 150,000			\$ 25,000	\$ 281,250	
													\$ 281,250.00
Pedestrian Bridge	1700	SF										\$ 2,552	
Pedestrian Bridge	100	ft long		17 ft wide									total
Excavation for Structures Bridges (structure)	1	EACH										\$ 33,951	#####
Cofferdams (structure)	1	EACH										\$ 250,000	1 EACH
Backfill Structure Type A	286.7	TON										\$ 23,809.5	1 EACH
Concrete for Structures	88.0	CY										\$ 264,000.0	200 TON
Expansion Device	43.5	LF										\$ 54,333.3	66 CY
Protective Surface Treatment	286.7	SY										\$ 17,916.7	32.6 LF
Bar Steel Reinforcement HS Structures	6306.7	LB										\$ 42,570.0	215 SY
Bar Steel Reinforcement HS Coated Structure	3613.3	LB										\$ 24,390.0	4,730.00 LB
Prefabricated Steel Truss Pedestrian Bridge LRFD (structure) 01. B-13-864	1	EACH										\$ 952,381	2,710.00 LB
Rubberized Membrane Waterproofing	18.7	SY										\$ 2,520.0	factored based on length and height of truss
Piling CIP Concrete 10 3/4 X 0.365-Inch	720.0	LF	\$ 86.06	\$ 61,965	1.88	1,350	\$115.12	\$ 155,406	0.050	\$ 3,000	\$ 108,000	\$ 325,371	1 EACH
Riprap Heavy	58.7	CY										\$ 58,666.7	14 SY
Pipe Underdrain Wrapped 6-Inch	160.0	LF										\$ 12,000.0	540 LF
Geotextile Type DF Schedule A	50.7	SY										\$ 380.0	44 CY
Geotextile Type HR	300.0	SY										\$ 6,000.0	120 LF
Special 01. Railing Pedestrian Steel B-13-864	64.0	LF										\$ 32,000.0	38 SY
Special 02. Cut-Stone Boulders	634.7	SF										\$ 238,000	8.00
Elevator/Towers	2	EACH										\$ 2,000,000	225 SY
													48 LF
													476 SF
Sales Tax	Sales Tax Rate	6.25%											

Morrissey Blvd.
Contractor Mark-Up Basis

Overall Construction Cost		\$	1.00
% of work subcontracted	50%	\$	0.50
Subcontractor OH and Profit	15%	\$	0.08
Bonds	2%	\$	0.01
Subtotal subcontractor's cost		\$	0.58
General Contractor Markup on Subs	5%	\$	0.03
General Conditions on Subs and GC	12%	\$	0.12
Total - sub		\$	0.73
Self Performed	50%	\$	0.50
GC OH on Self Performed	7.5%	\$	0.04
GC Profit on Self Performed	7.5%	\$	0.04
Bonds	1%	\$	0.01
Total- GC		\$	0.58
Total - Sub and GC		\$	1.31
Insurance	1.5%	\$	0.02
Total		\$	1.33
Overall Markup			33%

Equipment	Description	Unit	Type	Operator	Rent Rate	EOE Rate	Total Rate
8AGSC	***Aggregate Screening***	HR			0.000	0.000	0.000
8AGSCCNV1000	Conveyor, 42x60, 1000 tph	HR	I		10.055	8.810	18.865
8AGSCCNV1300	Conveyor, 36x60, 1300 tph	HR	I		12.050	9.680	21.730
8AGSCCNV2000	Conveyor, 48x60, 2000 tph	HR	I		13.641	10.380	24.021
8AGSCES10005	Elv Stacker,36x100,1000 tph	HR	I		20.514	17.220	37.734
8AGSCES10007	Elv Stacker,36x120,1000 tph	HR	I		23.018	18.450	41.468
8AGSCES10009	Elv Stacker,36x150,1000 tph	HR	I		31.382	22.580	53.962
8AGSCFEED01	Feeder, Vibratory, 5x17	HR	I	OP03	16.750	9.500	26.250
8AGSCRS10005	Rad Stacker,36x100, 1000 tph	HR	I		23.114	19.930	43.044
8AGSCRS10007	Rad Stacker,36x120, 1000 tph	HR	I		25.959	21.440	47.399
8AGSCRS10009	Rad Stacker,36x150, 1000 tph	HR	I		35.409	26.510	61.919
8AGSCSCRN01	Screen Plant, Single, 3x6-60	HR	I	OP03	14.455	14.200	28.655
8AGSCSCRN04	Screen Plant, Double, 3x6-60	HR	I	OP03	20.418	20.180	40.598
8AGSCSCRN06	Screen Plant, Double,5x16-60	HR	I	OP03	31.650	29.290	60.940
8AGSCSCRN07	Screen Plant, Triple,8x20-30	HR	I	OP03	28.686	23.650	52.336
8AP	***Asphalt Paving***				0.000	0.000	0.000
8APHP400	Asphalt Hot Plant - 400 tph	HR	I	OP01	106.000	141.300	247.300
8APMILL	Asphalt Milling, RT RX-900	HR	I	OP03	249.305	494.052	743.357
8APPU5B	Asphalt Pick-Up, RT SB-2500C	HR	I	OP03	195.118	137.265	332.383
8APPUVR	Asphalt Pick-Up, CR MS-4	HR	I	OP03	62.609	80.262	142.871
8APPV010	Asphalt Paver, CAT 655D	HR	I	OP02	157.473	164.462	321.935
8APPV020	Asphalt Paver, CAT 1055D	HR	I	OP02	167.127	181.553	348.680
8APRCLM100	Asphalt Reclaimer, RM500	HR	I	OP02	166.264	166.525	332.789
8BH	***Backhoe***				0.000	0.000	0.000
8BH416	Tractor Backhoe, CAT 416	HR	I	OP04	16.250	21.467	37.717
8BH430	Tractor Backhoe, CAT 430	HR	I	OP04	34.750	35.014	69.764
8BHAM1500	Attach, Hammer, 1500 flb	HR	I		14.250	11.540	25.790
8CMP	***Compressor***				0.000	0.000	0.000
8CMP0100E	Air Compressor, 100 cfm, El	HR	I		1.345	1.190	2.535
8CMP0185D	Air Compressor, 185 cfm, Ds	HR	I		6.682	14.960	21.642
8CMP0375D	Air Compressor, 375 cfm, Ds	HR	I		12.855	23.500	36.355
8CMP0600D	Air Compressor, 600 cfm, Ds	HR	I		21.618	49.860	71.478
8CMP0825D	Air Compressor 825 cfm, Ds	HR	I		23.145	50.650	73.795
8CMP1300D	Air Compressor, 1300 cfm, Ds	HR	I		37.809	82.540	120.349
8COBP	***Concrete Batch Plant***				0.000	0.000	0.000
8COE	***Concrete Equip***				0.000	0.000	0.000
8COEBK01	Concrete Bucket, 1 cy	HR	I		1.286	0.980	2.266
8COEBK02	Concrete Bucket, 2 cy	HR	I		2.082	1.350	3.432
8COEBK03	Concrete Bucket, 3 cy	HR	I		3.050	2.040	5.090
8COEBK04	Concrete Bucket, 4 cy	HR	I		3.850	2.480	6.330
8COEBUG01	Buggy, 1/2 cy Walk Behind	HR	I	LA01	2.982	3.332	6.314
8COECON48	Conveyor, 48 ft	HR	I		4.927	10.105	15.032
8COECON76	Conveyor, 76 ft, Side Disch	HR	I		8.032	13.160	21.192
8COECONPL	Conveyor/Placer, CAT BP 100	HR	I	OP03	23.568	38.136	61.704
8COEMXR06	Concrete Mixer, 6 cf	HR	I	TKHAUL	1.482	2.696	4.178
8COEPU100	Conc.Pump Tlr Mtd.100 cy/Hr	HR	I	TKTANK	39.886	56.733	96.619
8COEPUG20	Grout Pump,20 Gpm,W/6Kva	HR	I		3.109	0.000	3.109
8COEPUS10	Shotcrete Pump/Gun,10cy/Hr	HR	I	TKTANK	10.241	15.335	25.576
8COESAW010	Conc Saw, 35HP, 10" Depth	HR	I	OP03	4.823	0.000	4.823
8COESCR01	Vibratory Screed, Hand	HR	I		1.809	0.000	1.809
8COEVI001	1" Flex Shaft Conc Vibe-Gas	HR	I		0.714	1.245	1.959
8COEVI003	3" Flex Shaft Conc Vibe-Gas	HR	I		0.727	1.255	1.982
8COEWB030	Work Bridge, 30 ft	HR	I		2.536	6.036	8.572
8COEWB050	Work Bridge, 50 ft	HR	I		2.841	6.176	9.017
8COEWB070	Work Bridge, 70 ft	HR	I		3.295	6.366	9.661
8COEWB090	Work Bridge, 90 ft	HR	I		6.950	7.936	14.886
8COEWB110	Work Bridge, 110 ft	HR	I		8.095	8.426	16.521
8COEWBL	Water Blaster, Dsl, 10 ksi	HR	I		12.500	23.500	36.000
8COP	***Concrete Paving***				0.000	0.000	0.000
8COPFIN33	Paving Roller/Finisher, 33'	HR	I	OP03	13.559	18.930	32.489
8COPFIN80	Paving Roller/Finisher, 80'	HR	I	OP03	13.727	17.270	30.997
8COPPAV100	Conc Pave,12-24',Gomaco-2600	HR	I	OP01	71.895	97.405	169.300
8COPPAV110	Conc Pave,12-43',Gom.PS-4000	HR	I	OP01	105.250	145.395	250.645
8COPPAV130	Trim-Place Gomaco 9500	HR	I	OP03	194.514	279.625	474.139
8COPSCRD30	Roller/Screed, 30 ft Wide	HR	I		6.314	10.433	16.747
8COPSCRD60	Roller/Screed, 60 ft Wide	HR	I		9.273	11.523	20.796
8COPSCRD80	Roller/Screed, 80 ft Wide	HR	I		17.782	15.606	33.388
8COPSPF	Curb/Gutter/Barrier Slipform	HR	I		75.318	68.192	143.510
8COPTEXT100	Tine/Cure Gomaco T/C 600	HR	I	OP03	20.127	29.928	50.055
8CRN	***Cranes***				0.000	0.000	0.000
8CRNCR075	Crane, 75 Ton Crawler(111)	HR	I	OP01	158.345	131.945	290.290
8CRNCR100	Crane, 100 Ton Crawler(222)	HR	I	OP01	152.841	145.800	298.641
8CRNCR150	Crane, 150 Ton Crawler(555)	HR	I	OP01	212.768	180.125	392.893
8CRNCR200	Crane 200 Ton Crawler(777)	HR	I	OP01	232.618	208.030	440.648
8CRNCR250	Crane, 250 Ton (999)	HR	I	OP01	310.641	271.475	582.116
8CRNCR300	Crane, 300 Ton Crawl (2250)	HR	I	OP01	360.409	317.390	677.799
8CRNCR750	Crane, 750 Ton Crawl (21000)	HR	I	OP01	272.977	273.650	546.627
8CRNRT100	R.T. Crane, 100 Ton	HR	I		171.641	186.735	358.376
8CRNRT20	R.T. Crane, 20 Ton	HR	I	OP03	43.232	53.175	96.407
8CRNRT35	R.T. Crane, 35 Ton	HR	I	OP03	63.609	67.755	131.364
8CRNRT45	R.T. Crane, 45 Ton	HR	I	OP03	78.314	85.593	163.907

Daily Rate 8 hr shift

\$ 150.92
\$ 173.84
\$ 192.17
\$ 301.87
\$ 331.74
\$ 431.70
\$ 210.00
\$ 344.35
\$ 379.19
\$ 495.35
\$ 229.24
\$ 324.78
\$ 487.52
\$ 418.69
\$ -
\$ 1,978.40
\$ 5,946.86
\$ 2,659.06
\$ 1,142.97
\$ 2,575.48
\$ 2,789.44
\$ 2,662.31
\$ -
\$ 301.74
\$ 558.11
\$ 206.32
\$ -
\$ 20.28
\$ 173.14
\$ 290.84
\$ 571.82
\$ 590.36
\$ 962.79
\$ -
\$ -
\$ 18.13
\$ 27.46
\$ 40.72
\$ 50.64
\$ 50.51
\$ 120.26
\$ 169.54
\$ 493.63
\$ 33.42
\$ 772.95
\$ 24.87
\$ 204.61
\$ 38.58
\$ 14.47
\$ 15.67
\$ 15.86
\$ 68.58
\$ 72.14
\$ 77.29
\$ 119.09
\$ 132.17
\$ 288.00
\$ -
\$ 259.91
\$ 247.98
\$ 1,354.40
\$ 2,005.16
\$ 3,793.11
\$ 133.98
\$ 166.37
\$ 267.10
\$ 1,148.08
\$ 400.44
\$ -
\$ 2,322.32
\$ 2,389.13
\$ 3,143.14
\$ 3,525.18
\$ 4,656.93
\$ 5,422.39
\$ 4,373.02
\$ 2,867.01
\$ 771.26
\$ 1,050.91
\$ 1,311.26

Equipment	Description	Unit	Type	Operator	Rent Rate	EOE Rate	Total Rate
8CRNRT50	R.T. Crane, 50 Ton	HR	I	OP02	46.886	72.710	119.596
8CRNRT80	R.T. Crane, 80 Ton	HR	I	OP02	113.314	142.165	255.479
8CRNTK075	Crane,Hy Trk 75 Ton (TM875)	HR	I	OP02	41.609	0.000	41.609
8CRNTK080	Crane,Hy Trk, 80 Ton (TM890)	HR	I	OP02	64.905	102.065	166.970
8CRNTK140	Crane,Hy Trk, 140 Ton (238A)	HR	I	OP01	103.350	135.230	238.580
8CRNTK200	Crane,LB Trk, 200 Ton (777T)	HR	I	OP01	152.082	124.808	276.890
8CRNTK275	Crane,LB Trk, 275 Ton(2250T)	HR	I	OP01	263.218	198.311	461.529
8CRSH	***Crusher Plants***				0.000	0.000	0.000
8CRSHCON	General Purpose Portable Belt Conveyors	HR	I		10.736	10.490	21.226
8CRSHFEED	Belt Type Feeder, 48"	HR	I		3.359	1.740	5.099
8CRSHGRIZ	Jaw Crusher, 48"	HR	I	OP02	77.345	55.230	132.575
8CRSHIMP	Gravel Plant, 48"	HR	I	OP02	70.023	77.840	147.863
8CRSHSCRN	Dbl Deck Port. Screen, 48"	HR	I	OP02	24.400	27.839	52.239
8CRSHSTKR	Elevating Stacker, 48"	HR	I		20.514	17.220	37.734
8DR	***Drill Equipment***				0.000	0.000	0.000
8DRAT2	Drill, Air Track, 2.5"	HR	I	OP01	22.918	19.170	42.088
8DRAT4	Drill, Air Track, 4.0"	HR	I	OP01	27.032	20.900	47.932
8DRAT5	Drill, Air Track, 5.5"	HR	I	OP01	31.023	26.030	57.053
8DRHRK55	Drill, Rock, Hand, Air, 55lb	HR	I	OP01	0.832	0.690	1.522
8DRHT8	Drill, Hyd Track, 8"	HR	I	OP01	134.886	193.393	328.279
8DS	***Drilled Shaft***				0.000	0.000	0.000
8DSCMHD075	Bauer BG 18, 75'/5'	HR	I	OP02	104.000	121.095	225.095
8DSCMHD100	Bauer BG 28, 100'/7'	HR	I	OP02	145.136	163.406	308.542
8DSCMHD200	Bauer BG 36, 200'/10'	HR	I	OP01	181.450	192.799	374.249
8DSCMHD300	Bauer BG 40, 300'/12'	HR	I	OP01	185.473	207.221	392.694
8DSCMHDMP150	Casagrande B125, 150'/5'	HR	I	OP01	80.455	100.058	180.513
8DSCMHDRH30	Delmag RH-30	HR	I	OP01	155.218	189.941	345.159
8DSCR883	Liebherr 883	HR	I	OP01	82.955	47.250	130.205
8DSDHH	Down-Hole Hammer	HR	O	OP02	0.000	0.000	0.000
8DSGRAB	Hartfuss Ball Grab	HR	I	OP02	10.045	25.000	35.045
8DSOSC	Loeffer Vrm Oscillator	HR	I	OP02	38.636	45.000	83.636
8DSROCK	Hartfuss Rock Chisel 8.0	HR	I	OP02	12.727	33.000	45.727
8DSWIRTH	Wirth Pba 818 Top Drill	HR	I	OP02	186.364	85.000	271.364
8DZ	***Dozers***				0.000	0.000	0.000
8DZ03	CAT D3 K XL, 74 hp	HR	I	OP03	30.082	37.047	67.129
8DZ03LGP	CAT D3K LGP, 74 hp	HR	I	OP03	36.714	40.447	77.161
8DZ04	CAT D4 K XL, 84 hp	HR	I	OP03	35.950	41.494	77.444
8DZ05	CAT D5 K XL, 96 hp	HR	I	OP03	38.550	42.124	80.674
8DZ06	CAT D6 T, 185 hp	HR	I	OP03	85.609	82.088	167.697
8DZ07	CAT D7 R Series II, 240 hp	HR	I	OP03	78.559	88.544	167.103
8DZ08	CAT D8 T, 310 hp	HR	I	OP03	140.286	124.849	265.135
8DZ09	CAT D9 T, 410 hp	HR	I	OP03	146.295	146.284	292.579
8DZ10	CAT D10 T, 574 hp	HR	I	OP02	112.050	141.378	253.428
8DZ11	CAT D11 T, 850 hp	HR	I	OP02	218.577	232.245	450.822
8DZARP075	Attach, Ripper 85 hp	HR	I		2.832	3.260	6.092
8DZARP100	Attach, Ripper 130 hp	HR	I		4.177	4.210	8.387
8DZARP200	Attach, Ripper 190 hp	HR	I		8.359	7.180	15.539
8DZARP300	Attach, Ripper 260 hp	HR	I		10.545	9.720	20.265
8DZARP400	Attach, Ripper 360 hp	HR	I		13.377	11.250	24.627
8DZARP500	Attach, Ripper 520 hp	HR	I		17.486	13.500	30.986
8DZARP600	Attach, Ripper 700 hp	HR	I		23.209	16.600	39.809
8DZCP60	Cable Plow, Case 475, 60 hp	HR	I	OP03	9.495	0.000	9.495
8EL100	8 Ton Crane	HR	I	OP03	0.000	0.000	0.000
8EQPESCAL	Equipment Escalation	HR	I		1.000	0.000	1.000
8EX	***Excavator***				0.000	0.000	0.000
8EX307	CAT 307 Exc - 0.43 cy	HR	I	OP03	25.905	27.733	53.638
8EX321	CAT 321D Exc,1.18 cy,21 tn	HR	I	OP03	62.750	62.264	125.014
8EX324	CAT 324E L Exc,1.74 cy,24 tn	HR	I	OP03	60.441	59.634	120.075
8EX336	CAT 336D L Exc,1.56 cy,36 tn	HR	I	OP03	64.895	73.778	138.673
8EX345	CAT 345 Exc,2.36 cy,45 tn	HR	I	OP02	109.618	113.202	222.820
8EX365	CAT 365C L Exc,3.68 cy,65 tn	HR	I	OP02	125.655	149.941	275.596
8EX385	CAT 385C L Exc,5.0 cy,85 tn	HR	I	OP02	160.800	176.644	337.444
8EXACMP18	Attach, Compact, 18"	HR	I		2.718	2.140	4.858
8EXACMP24	Attach, Compact, 24"	HR	I		3.118	2.280	5.398
8EXACMP36	Attach, Compact, 36"	HR	I		3.473	2.390	5.863
8EXAHAM1500	Attach, Hammer, 1500 flb	HR	I		14.623	11.280	25.903
8EXAHAM2500	Attach, Hammer, 2500 flb	HR	I		17.823	18.340	36.163
8EXAHAM4500	Attach, Hammer, 4500 flb	HR	I		30.505	27.760	58.265
8EXAHAM7500	Attach, Hammer, 7500 flb	HR	I		41.359	36.600	77.959
8EXATHM25	Attach, Thumb, 25 ton	HR	I		7.345	2.680	10.025
8EXATHM40	Attach, Thumb, 40 ton	HR	I		8.982	3.010	11.992
8EXATHM50	Attach, Thumb, 50 ton	HR	I		9.841	3.180	13.021
8EXATHM65	Attach, Thumb, 65 ton	HR	I		11.223	3.460	14.683
8FL	***Fork Lifts***				0.000	0.000	0.000
8FLTELE10	RT Fork Lift, CAT TL-1055	HR	I	OP03	39.609	42.685	82.294
8GEN	***Generators***				0.000	0.000	0.000
8GEN005	Generator, 5Kw	HR	I		2.045	5.750	7.795
8GEN020	Generator, 20 Kw	HR	I		3.495	10.120	13.615
8GEN100	Generator, 100 Kw	HR	I		5.273	33.910	39.183
8GEN300	Generator, 300 Kw	HR	I		8.136	82.840	90.976

Daily Rate 8 hr shift

\$ 956.77
\$ 2,043.83
\$ 332.87
\$ 1,335.76
\$ 1,908.64
\$ 2,215.12
\$ 3,692.23
\$ -
\$ 169.81
\$ 40.79
\$ 1,060.60
\$ 1,182.90
\$ 417.91
\$ 301.87
\$ -
\$ 336.70
\$ 383.46
\$ 456.42
\$ 12.18
\$ 2,626.23
\$ -
\$ 1,800.76
\$ 2,468.34
\$ 2,993.99
\$ 3,141.55
\$ 1,444.10
\$ 2,761.27
\$ 1,041.64
\$ -
\$ 280.36
\$ 669.09
\$ 365.82
\$ 2,170.91
\$ -
\$ 537.03
\$ 617.29
\$ 619.55
\$ 645.39
\$ 1,341.58
\$ 1,336.82
\$ 2,121.08
\$ 2,340.63
\$ 2,027.42
\$ 3,606.58
\$ 48.74
\$ 67.10
\$ 124.31
\$ 162.12
\$ 197.02
\$ 247.89
\$ 318.47
\$ 75.96
\$ -
\$ 8.00
\$ -
\$ 429.10
\$ 1,000.11
\$ 960.60
\$ 1,109.38
\$ 1,782.56
\$ 2,204.77
\$ 2,699.55
\$ 38.86
\$ 43.18
\$ 46.90
\$ 207.22
\$ 289.30
\$ 466.12
\$ 623.67
\$ 80.20
\$ 95.94
\$ 104.17
\$ 117.46
\$ -
\$ 658.35
\$ -
\$ 62.36
\$ 108.92
\$ 313.46
\$ 727.81

238.693

max 60ft depth

Equipment	Description	Unit	Type	Operator	Rent Rate	EOE Rate	Total Rate
8GENLPL	Light Tower, 6000 Watt	HR	I		3.695	4.358	8.053
8GLSIGNDSL	Changeable Message Signs - DSL	HR	I		6.000	3.534	9.534
8GLSIGNSOLAR	Changeable Message Signs - Solar	HR	I		4.959	0.890	5.849
8GR	***Grader***				0.000	0.000	0.000
8GR12	Grader, CAT 12	HR	I	OP02	40.945	47.638	88.583
8GR14	Grader, CAT 14	HR	I	OP02	78.223	76.744	154.967
8GR16	Grader, CAT 16	HR	I	OP02	61.273	71.182	132.455
8GRACTRL	Attach, Sonic Grade Control	HR	I		5.400	4.380	9.780
8GRARP200	Attach, Ripper	HR	I		4.050	4.770	8.820
8LD	***Loaders***				0.000	0.000	0.000
8LD210	Loader, Deere 210, 1.0 cy	HR	I	OP04	18.314	24.692	43.006
8LD950	Loader, Whl, CAT 950, 4.0 cy	HR	I	OP04	43.295	37.792	81.087
8LD966	Loader, Whl, CAT 966, 5.5 cy	HR	I	OP04	51.918	52.294	104.212
8LD980	Loader, Whl, CAT 980, 7.5 cy	HR	I	OP03	43.177	64.188	107.365
8LD988	Loader, Whl, CAT 988, 8.3 cy	HR	I	OP03	66.377	84.175	150.552
8LD990	Loader, Whl, CAT 990, 11 cy	HR	I	OP02	58.064	104.800	162.864
8LD992	Loader, Whl, CAT 992, 14 cy	HR	I	OP02	153.914	174.737	328.651
8LDIT62	Loader, IT, CAT IT62 w/Forks	HR	I	OP04	34.423	40.883	75.306
8LDT953	Loader, Trk, CAT 953, 2.4cy	HR	I	OP03	68.609	67.913	136.522
8LDT963	loader, Trk, CAT 963, 3.0 cy	HR	I	OP03	76.945	81.811	158.756
8LDT973	Loader, Trk, CAT 973, 4.2 cy	HR	I	OP03	107.286	96.401	203.687
8ME	***Marine***				0.000	0.000	0.000
8MEBADK09035	Barge,Deck,90x35(564 ST)	HR	I	OP01	50.432	18.470	68.902
8MEBADK14045	Barge,Deck,140x45(1,253 ST)	HR	I	OP01	66.559	24.920	91.479
8MEBADK20060	Barge,Deck,200x60(3,102 ST)	HR	I	OP01	106.145	50.180	156.325
8MEBADK28075	Barge,Deck,280x75(7,516 ST)	HR	I	OP01	200.623	110.480	311.103
8MEBADK30075	Barge,Deck,300x75(11,184 ST)	HR	I	OP01	279.136	160.580	439.716
8MEBAHP01	Barge, Hopper	HR	I		22.282	54.770	77.052
8MEBAS05-20	Barge, Sect, 10 X 20 X 5	HR	I		2.914	0.460	3.374
8MEBAS05-40	Barge, Sect, 10 X 40 X 5	HR	I		4.559	0.570	5.129
8MEBASRAKE	Barge, Sect, Rake	HR	I		0.968	0.340	1.308
8MEBASRAMP	Barge, Sect, Loading Ramp	HR	I		2.464	0.430	2.894
8MEPB1	Push Boats	HR	I	OP01	82.632	244.094	326.726
8MEPB2	Push Boats	HR	I	OP01	81.536	196.978	278.514
8MERA5016	Runabout, 50 HP, 16'	HR	I	OP01	2.832	15.580	18.412
8METEND10014	Tender, 100 HP, 14'	HR	I	OP01	10.177	26.250	36.427
8METUG175	Tug, 175 HP, 18'	HR	I	OP01	15.218	50.345	65.563
8METUG380	Tug, 380 HP, 40'	HR	I	OP01	55.095	142.470	197.565
8METUG700	Tug, 700 HP, 51'	HR	I	OP01	70.545	209.970	280.515
8MEWIN	Deck Winch	HR	I		20.909	12.500	33.409
8MI	***Miscellaneous***				0.000	0.000	0.000
8MIAGST05	Aggregate Storage Bin, 5 cy	HR	I		9.650	8.270	17.920
8MIAGST10	Aggregate Storage Bin, 10 cy	HR	I		11.432	8.950	20.382
8MIBROOM	Pavement Broom	HR	I	OP05	16.591	26.180	42.771
8MIDIHA	Disk Harrow	HR	I		8.000	7.700	15.700
8MIJHMH	Jack Hammer - 60 lb, Air	HR	I		0.473	0.590	1.063
8MILFT	Manlift, Scissor	HR	I	OP03	3.518	6.470	9.988
8MIPUBROOM	Dual Engine Pavement Sweep	HR	I	OP03	43.577	78.080	121.657
8MISNDBL300	Sand Blaster - 300 lb, Air	HR	I		1.264	0.610	1.874
8MISNDBL500	Sand Blaster - 500 lb, Air	HR	I		1.882	1.020	2.902
8MISNDBL700	Sand Blaster - 1,000 lb, Air	HR	I		19.618	6.850	26.468
8MITBX	Trench Box	HR	I		6.500	0.500	7.000
8MITMK	Telescopic Man Lift, 40 Ft	HR	I	OP03	19.650	15.981	35.631
8MITML	Telescopic Man Lift, 80 Ft	HR	I	OP03	45.391	37.280	82.671
8MITMM	Telescopic Man Lift, 1500 Ft	HR	I		63.200	38.430	101.630
8MITRBX0624	Trench Box, 6'X24'	HR	I		5.814	0.000	5.814
8MITRBX1024	Trench Box, 10'X24'	HR	I		10.250	0.000	10.250
8MIWCHIP	Trailer Mounted Brush Chippers	HR	I		11.055	18.458	29.513
8MIWMCT06	Wheel Mounted Chain Trenchers	HR	I	OP04	21.295	22.909	44.204
8PE	***Pile Driving***				0.000	0.000	0.000
8PED06	Pile Hammer,D6, 10.5 Kft	HR	I	PD02	34.255	25.642	59.897
8PED08	Pile Hammer,D8-22;18Kft-#	HR	I	PD02	34.409	27.316	61.725
8PED12	Pile Hammer,D-12-42;40Kft-#	HR	I	PD02	35.505	31.976	67.481
8PED19	Hammer,D19-32, 42,800Ft-Lb	HR	I	PD02	35.736	34.019	69.755
8PED30	Hammer, D30-32 , 70 Ft-Kip	HR	I	PD02	47.518	39.144	86.662
8PED36	Hammer, D36-32/33,90 Ft-Kip	HR	I	PD02	57.727	52.744	110.471
8PED46	Hammer, D46 -32/3,107 Ft-Kip	HR	I	PD02	63.782	59.892	123.674
8PEH10	Hydr Hammer, ICE 115, 46fcp	HR	I	PD02	43.182	83.945	127.127
8PEH15	Hydr Hammer, ICE 160, 64fcp	HR	I	PD02	50.609	101.980	152.589
8PEH20	Hydr Hammer, APE HHS9, 80fcp	HR	I	PD02	52.873	143.480	196.353
8PEHV080	Vib Hammer, ICE 416 80t/40t	HR	I	PD02	35.609	58.174	93.783
8PEHV200	Vib Hammer,APD 200,200t/150t	HR	I	PD02	58.495	125.005	183.500
8PEHV500	Vib Hammer,APD 400,500t/400t	HR	I	PD02	142.464	251.530	393.994
8PELDFBUT	Fixed Leads,Butt Section: 10 ft	HR	I		1.582	1.370	2.952
8PELDFMID	Fixed Leads,Mid Section: 30 ft	HR	I		2.150	1.570	3.720
8PELDFSWI	Fixed Leads,Swivel Section: 30 ft	HR	I		3.032	1.870	4.902
8PELDFTOP	Fixed Leads,Top Section: 30 ft	HR	I		2.041	1.530	3.571
8PELDSMID	Swinging Leads,Mid Section: 30 ft	HR	I		2.182	1.580	3.762
8PELDSSTAB	Swinging Leads,Stab Sectio: 5 ft	HR	I		0.882	1.130	2.012
8PELDSSWI	Swinging Leads,Swivel Section: 30 ft	HR	I		3.041	1.880	4.921
8PELDSTOP	Swinging Leads,Top Section: 30 ft	HR	I		2.032	1.540	3.572

Daily Rate 8 hr shift

\$ 64.42
\$ 76.27
\$ 46.79
\$ -
\$ 708.66
\$ 1,239.74
\$ 1,059.64
\$ 78.24
\$ 70.56
\$ -
\$ 344.05
\$ 648.70
\$ 833.70
\$ 858.92
\$ 1,204.42
\$ 1,302.91
\$ 2,629.21
\$ 602.45
\$ 1,092.18
\$ 1,270.05
\$ 1,629.50
\$ -
\$ 551.22
\$ 731.83
\$ 1,250.60
\$ 2,488.82
\$ 3,517.73
\$ 616.42
\$ 26.99
\$ 41.03
\$ 10.46
\$ 23.15
\$ 2,613.81
\$ 2,228.11
\$ 147.30
\$ 291.42
\$ 524.50
\$ 1,580.52
\$ 2,244.12
\$ 267.27
\$ -
\$ 143.36
\$ 163.06
\$ 342.17
\$ 125.60
\$ 8.50
\$ 79.90
\$ 973.26
\$ 14.99
\$ 23.22
\$ 211.74
\$ 56.00
\$ 285.05
\$ 661.37
\$ 813.04
\$ 46.51
\$ 82.00
\$ 236.10
\$ 353.63
\$ -
\$ 479.18
\$ 493.80
\$ 539.85
\$ 558.04
\$ 693.30
\$ 883.77
\$ 989.39
\$ 1,017.02
\$ 1,220.71
\$ 1,570.82
\$ 750.26
\$ 1,468.00
\$ 3,151.95
\$ 23.62
\$ 29.76
\$ 39.22
\$ 28.57
\$ 30.10
\$ 16.10
\$ 39.37
\$ 28.58

Equipment	Description	Unit	Type	Operator	Rent Rate	EOE Rate	Total Rate
8PU	***Pumps***				0.000	0.000	0.000
8PU02	Pump Engine Trash 2"	HR	I		1.480	0.610	2.090
8PU03	Pump Elec 3" 230V	HR	I		5.000	4.060	9.060
8PUDSL03	Pump, 3" Dsl, 18k gph	HR	I		2.409	4.223	6.632
8PUDSL04	Pump, 4" Dsl, 40k gph	HR	I		5.318	11.945	17.263
8PUDSL06	Pump, 6" Dsl, 90k gph	HR	I		5.855	15.671	21.526
8PUDSL20	Heavy Duty Centrifugal Pumps	HR	I		11.600	19.811	31.411
8PUSTAND	Pump Stand F.H.	HR	I		7.841	9.680	17.521
8PUSUB03	Pump, 3" Sub Elect. 3.0Hp	HR	I		1.945	1.870	3.815
8PUSUB04	Pump, 4" Sub Elect. 5.0Hp	HR	I		3.095	2.240	5.335
8PUSUB06	Pump, 6" Sub Elect. 30 Hp	HR	I		8.632	4.050	12.682
8PUSUB08	Pump, 8" Sub Elect. 58 Hp	HR	I		10.705	4.730	15.435
8PUSUB10	Pump, 10" Sub Elect. 88 Hp	HR	I		9.359	4.370	13.729
8PUTRSH03	Pump, Trash, 3" Gas, 18k gph	HR	I		2.105	7.820	9.925
8PUWASH	Power Washer	HR	I		4.418	5.222	9.640
8R02	TRUCK - PICKUP	HR	I		0.000	0.000	0.000
8RC	***Rollers/Compactors***				0.000	0.000	0.000
8RCDDS47	Compact,DD Smooth, CAT CB24	HR	I	OP03	17.918	14.051	31.969
8RCDDS51	Compact,DD Smooth, CAT CB34	HR	I	OP03	23.959	18.791	42.750
8RCDDS67	Compact,DD Smooth, CAT CB54	HR	I	OP03	66.950	53.886	120.836
8RCDDS84	Compact,DD Smooth, CAT CB64	HR	I	OP03	104.232	66.586	170.818
8RCPAD66	Compact,SD Padfoot, CAT CP433	HR	I	OP03	17.241	30.699	47.940
8RCPAD825	Compact,Padfoot, CAT 825	HR	I	OP03	151.023	124.959	275.982
8RCPAD84	Compact,SD Padfoot, CAT CP56	HR	I	OP03	35.032	53.879	88.911
8RCPNU90	Compact, Pnumatic, CAT P5360	HR	I	OP03	94.959	40.250	135.209
8RCRMX	Compactor Trench Roller	HR	I	OP03	9.347	5.250	14.597
8RCSDS66	Compact,SD Smooth, CAT CS423	HR	I	OP03	20.895	36.142	57.037
8RCSDS84	Compact,SD Smooth, CAT CS56	HR	I	OP03	29.318	50.749	80.067
8RCVIBE	Hand Tamp,Vibro Plate/Wacker	HR	I	LA02	4.377	4.780	9.157
8RCWALK	Walk Behind Roller	HR	I	LA02	4.255	5.389	9.644
8RR	***Railroad***	HR			0.000	0.000	0.000
8RRADZER	Self-Propelled Adzer	HR	I	OP03	10.664	16.366	27.030
8RRCLIP	Clip Applicator	HR	I	LA02	19.264	24.169	43.433
8RRCRIB	Ballast Cribber	HR	I	LA02	39.182	93.760	132.942
8RRHEAT	Rail, Heater	HR	I	OP03	32.000	12.000	44.000
8RRREG	Ballast Regulator	HR	I	OP03	48.518	80.340	128.858
8RRSPD	Self-Propelled Driver/Setters	HR	I		37.041	50.751	87.792
8RRSPEEDSW	SPEED SWING	HR	I	OP03	25.850	28.927	54.777
8RRSTAB	Ballast Compactor	HR	I	OP03	36.673	53.200	89.873
8RRSWING	Rail Lifter	HR	I	OP03	9.918	14.490	24.408
8RRTLM	Track Lay Machine	HR	O	OP02	400.000	200.000	600.000
8RRTMPMIV	Rail, Tamper, Mark IV	HR	I		128.032	112.060	240.092
8RRTMPS	Rail, Spot Tamper, TT 2400	HR	I		51.982	38.610	90.592
8RRTSPP	Self-Propelled Pullers	HR	I		22.223	39.054	61.277
8RRWRCART	WELDED RAIL CART	HR	I	OP03	13.130	40.130	53.260
8SCL	***Scales***				0.000	0.000	0.000
8SCLTRK	Portable Truck Scales	HR	I	TKSEMI	7.873	7.050	14.923
8SCR	***Scrapers***	HR			0.000	0.000	0.000
8SCR615C	Scraper, CAT 615 EL,14 cy	HR	I	OP03	130.314	155.238	285.552
8SCR623	Scraper, CAT 623 EL,18 cy	HR	I	OP03	165.209	178.186	343.395
8SCR627	Scraper, CAT 627, 16 cy	HR	I	OP03	132.464	224.505	356.969
8SCR627P	Scraper, CAT 627 PP, 16 cy	HR	I	OP03	166.873	245.395	412.268
8SCR631	Scraper, CAT 631, 24 cy	HR	I	OP03	132.673	186.010	318.683
8SCR637	Scraper, CAT 637, 24 cy	HR	I	OP03	203.295	308.677	511.972
8SCR637P	Scraper, CAT 637 PP, 24 cy	HR	I	OP03	218.505	287.817	506.322
8SCR657	Scraper, CAT 657, 32 cy	HR	I	OP03	323.441	372.392	695.833
8SCR657P	Scraper, CAT 657 PP, 32 cy	HR	I	OP03	315.282	368.092	683.374
8SCRPU12	Scraper, Pull Behind, 12 cy	HR	I		20.582	16.140	36.722
8SCRPU18	Scraper, Pull Behind, 18 cy	HR	I		22.768	17.130	39.898
8SCRPU21	Scraper, Pull Behind, 21 cy	HR	I		22.950	17.210	40.160
8SLD	***Skid Steer Loaders***				0.000	0.000	0.000
8SLD226	CAT Skid Steer 226	HR	I	OP04	20.182	21.769	41.951
8SLD246	CAT Skid Steer 246	HR	I	OP04	17.959	22.213	40.172
8SLD247	CAT Skid Steer 247 - Track	HR	I	OP04	20.055	19.336	39.391
8SLD289	CAT Skid Steer 289 - Track	HR	I	OP04	29.105	25.342	54.447
8SLDAUG	Skidsteer Auger Attach	HR	I		5.455	0.000	5.455
8SLDBRM	Skidsteer Broom Attach	HR	I		4.636	0.000	4.636
8SLDHMR	Skidsteer Hammer Attach	HR	I		6.395	0.000	6.395
8SLDRAK	Skidsteer Rake Attach	HR	I		5.264	0.000	5.264
8SLDTIL	Skidsteer Tiller Attach	HR	I		3.890	0.000	3.890
8SLDTRK	Skidsteer Track Attach	HR	I		2.487	0.000	2.487
8SUR	***SURVEY***	HR	I		0.000	0.000	0.000
8SUR1	Topcon Rotating Level	HR	I		1.023	0.000	1.023
8SUR2	Survey EquipTheodolite	HR	I		3.068	0.000	3.068
8SUR3	Topcon Total Station	HR	I		6.136	0.000	6.136
8SUR4	Topcon Total Station-Robotic	HR	I		9.205	0.000	9.205
8SUR5	Data Collector	HR	I		1.135	0.000	1.135
8SUR6	GPS Survey System	HR	I		23.548	0.000	23.548
8SUR7	Laser Alignment System	HR	I		26.847	0.000	26.847
8SUR8	Survey Equip AutoLevel	HR	I		0.909	0.000	0.909
8SUR9	Pipe Laser	HR	I		3.835	0.000	3.835

Daily Rate 8 hr shift

\$ -
\$ 16.72
\$ 72.48
\$ 53.06
\$ 138.10
\$ 172.21
\$ 251.29
\$ 140.17
\$ 30.52
\$ 42.68
\$ 101.46
\$ 123.48
\$ 109.83
\$ 79.40
\$ 77.12
\$ -
\$ -
\$ 255.75
\$ 342.00
\$ 966.69
\$ 1,366.54
\$ 383.52
\$ 2,207.86
\$ 711.29
\$ 1,081.67
\$ 116.78
\$ 456.30
\$ 640.54
\$ 73.26
\$ 77.15
\$ -
\$ 216.24
\$ 347.46
\$ 1,063.54
\$ 352.00
\$ 1,030.86
\$ 702.34
\$ 438.22
\$ 718.98
\$ 195.26
\$ 4,800.00
\$ 1,920.74
\$ 724.74
\$ 490.22
\$ 426.08
\$ -
\$ 119.38
\$ -
\$ 2,284.42
\$ 2,747.16
\$ 2,855.75
\$ 3,298.14
\$ 2,549.46
\$ 4,095.78
\$ 4,050.58
\$ 5,566.66
\$ 5,466.99
\$ 293.78
\$ 319.18
\$ 321.28
\$ -
\$ 335.61
\$ 321.38
\$ 315.13
\$ 435.58
\$ 43.64
\$ 37.09
\$ 51.16
\$ 42.11
\$ 31.12
\$ 19.90
\$ -
\$ 8.18
\$ 24.54
\$ 49.09
\$ 73.64
\$ 9.08
\$ 188.38
\$ 214.78
\$ 7.27
\$ 30.68

Equipment	Description	Unit	Type	Operator	Rent Rate	EOE Rate	Total Rate
8TBAT	***Truck Bed Attachments***				0.000	0.000	0.000
8TBATARTML	Trk Att, Articulated Manlift	HR	I		3.618	1.810	5.428
8TBATASPDST	Trk Att, Asphalt Distributer	HR	I		19.695	13.640	33.335
8TBATBMCRN17	Trk Att, Boom Crane, 17 Ton	HR	I		21.041	17.790	38.831
8TK	***Trucks***				0.000	0.000	0.000
8TKART25	Trk, Artic., CAT 725, 25 T	HR	I	TKARTIC	68.486	63.718	132.204
8TKART35	Trk, Artic., CAT 735, 35 T	HR	I	TKARTIC	80.218	80.034	160.252
8TKART40	Trk, Artic., CAT 740, 40 T	HR	I	TKARTIC	81.582	79.382	160.964
8TKART45	Trk, Artic., CAT 745, 45 T	HR	I	TKARTIC	0.000	0.000	0.000
8TKBCKT30	Trk, Bucket, 30 ft	HR	I		6.350	0.000	6.350
8TKDMP10	Trk, End Dump, 10 cy	HR	I	TKHAUL	15.873	61.520	77.393
8TKDMP15	Trk, End Dump, 15 cy	HR	I	TKHAUL	22.991	72.450	95.441
8TKFB10	Trk, Flatbed/Dump 10 Ton	HR	I	TKHAUL	5.759	21.890	27.649
8TKFB15	Trk, Flatbed/Dump 15 Ton	HR	I	TKHAUL	7.832	25.082	32.914
8TKFB20	Trk, Flatbed/Dump 20 Ton	HR	I	TKHAUL	9.623	32.212	41.835
8TKFUL	Fuel Truck, 2000 Gal	HR	I	TKLUBE	13.636	11.000	24.636
8TKLUB	Lube Truck	HR	I	TKLUBE	15.909	11.000	26.909
8TKMCH	Mechanics Truck	HR	I	OPMECH	23.864	51.290	75.154
8TKOIL	Oil Distributer Truck	HR	I	TKLUBE	13.636	0.000	13.636
8TKPU2	Pickup, 1/2 Ton, 2X4	HR	I		2.582	10.621	13.203
8TKPU4	Pickup, 3/4 Ton, 4X4	HR	I		4.086	8.710	12.796
8TKRIG050	Trk, Rigid, CAT 773, 50 T	HR	I	TKROCK	93.136	97.881	191.017
8TKRIG070	Trk, Rigid, CAT 775, 70 T	HR	I	TKROCK	81.936	92.772	174.708
8TKRIG100	Trk, Rigid, CAT 777, 100 T	HR	I	TKROCK	110.223	128.730	238.953
8TKTRA	Trk, Tractor, 6 X 4, 45K	HR	I	TKSEMI	14.450	51.690	66.140
8TKWAT04	Trk, Water, 4000 G	HR	I	TKTANK	15.968	40.560	56.528
8TKWAT08	Trk, Water, 8000 G (Off Road)	HR	I	OP03	64.050	130.085	194.135
8TL	***Trailers***				0.000	0.000	0.000
8TLBD21	Trailer, Belly Dump, 21	HR	I		6.536	5.700	12.236
8TLED13	Trailer, End Dump, 13 cy	HR	I		4.545	6.010	10.555
8TLEQUIP040	Trailer, Equipment, 40 T	HR	I		7.423	7.700	15.123
8TLEQUIP060	Trailer, Equipment, 60 T	HR	I		11.623	11.270	22.893
8TLEQUIP080	Trailer, Equipment, 80 T	HR	I		10.991	10.740	21.731
8TLEQUIP100	Trailer, Equipment, 100 T	HR	I		12.641	12.140	24.781
8TLEQUIP120	Trailer, Equipment, 120 T	HR	I		14.682	13.880	28.562
8TLFLT32	Trailer, Float, 32 ft	HR	I		4.650	5.730	10.380
8TLFLT40	Trailer, Float, 40 ft	HR	I		4.855	5.920	10.775
8TLFOT12X56	Field Office, Trailer, 12x56	HR	I		2.705	2.130	4.835
8TLFOT24X48	Field Office, Trailer, 24x48	HR	I		2.305	1.890	4.195
8TLFOV08X24	Field Office, Van, 8x24	HR	I		0.682	0.840	1.522
8TLFOV12X32	Field Office, Van, 12x32	HR	I		0.823	0.920	1.743
8TLFB	Folding Gooseneck Equipment Trailers	HR	I		8.295	7.970	16.265
8TLWAT03	Trailer, Water, 3,000 Gal	HR	I		5.977	7.210	13.187
8TLWAT06	Trailer, Water, 6,000 Gal	HR	I		7.673	8.550	16.223
8TLWAT10	Trailer, Water, 10,000 Gal	HR	I		8.895	9.870	18.765
8TLWAT14	Trailer, Water, 14,000 Gal	HR	I		11.105	12.170	23.275
8WM	***Welder***				0.000	0.000	0.000
8WM350	Welding Machine, 350 Amp	HR	I		1.886	5.522	7.408
8WM8PE	Weld Machine, 8 Pack 200 Amp	HR	I		0.623	6.128	6.751

Daily Rate 8 hr shift

\$ -
\$ 43.42
\$ 266.68
\$ 310.65
\$ -
\$ 1,057.63
\$ 1,282.02
\$ 1,287.71
\$ -
\$ 50.80
\$ 619.14
\$ 763.53
\$ 221.19
\$ 263.31
\$ 334.68
\$ 197.09
\$ 215.27
\$ 601.23
\$ 109.09
\$ 105.62
\$ 102.37
\$ 1,528.14
\$ 1,397.66
\$ 1,911.62
\$ 529.12
\$ 452.22
\$ 1,553.08
\$ -
\$ 97.89
\$ 84.44
\$ 120.98
\$ 183.14
\$ 173.85
\$ 198.25
\$ 228.50
\$ 83.04
\$ 86.20
\$ 38.68
\$ 33.56
\$ 12.18
\$ 13.94
\$ 130.12
\$ 105.50
\$ 129.78
\$ 150.12
\$ 186.20
\$ -
\$ 59.26
\$ 54.01