## Every Day Counts - Case Study 5

Project name Prefabricated Alt. CS 5

Fla

Labor rate table Labor 2011

Equipment rate table Equip 2011

**Notes** 1. Pricing is 2011 \$.

2. Construction Schedule of 30 mos.

3. Rates reflect majority of work performed on and over water and

prefabricated.

4. 2 Bridges.

5. Labor Cost/Unit - This reflects the cost of Labor to put one unit of measure of work in place. This is comprised of a typical crew with associated productivity required to perform the activity. Labor is priced up to include base rate, fringes, taxes, insurance, etc.

Material Cost/Unit - This cost represents the final installed cost for all

the materials associated with the item of work.

7. Sub Contract Cost/Unit - this represents the Sub Contract all in Cost to put one unit of work in place. This cost includes all costs necessary to reflect a total installed cost (incls. Labor, equipment and material)

reflect a total installed cost (incls. Labor, equipment and material).

8. Equipment Cost/Unit - This represents the cost of Construction
Equipment necessary to put one unit of work in place. This cost includes

equipment ownership and maintenance and operational costs.

9. Other Cost/Unit - This cost represents all other costs necessary to perform the item of work and not covered by the abovementioned costs.

10. Total cost/unit - This is the summation of all unit costs to arrive at a total cost per unit to put one one item of work in place.

11. Total Amount - Total cost to put the quantity of units specified in

place.

Report format Sorted by 'LOCATION/Pay Item/Group phase/Phase'

'Detail' summary Allocate addons Print sort level notes

Spreadsheet Level	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount	Notes
Additional Cost Additional Cost 110-3 Structure Removal of Existing 01-54-26.00 Marine Equipment 01-54-33.80 Marine equipment									
Marine equipment rental;barge,400 ton,30'wide x 90'long	300.00 day	1,942.26	-	-	870.28	-	2,812.54	843,762	
Marine equipment rental;tugboat,diesel,250 HP	150.00 day	1,294.84	-	-	746.16	-	2,041.00	306,150	
Marine equipment Marine Equipment								1,149,912 1,149,912	
02-41-16.00 Structure Demolition 02-41-16.33 Bridge Demolition	407.070.00	45.04			0.40		24.42	4.000.000	
Bridge demolition  Bridge Demolition  Structure Demolition  110-3 Structure Removal  of Existing	187,950.00 sf	15.31	-	-	9.18	-	24.49 _	4,603,666 4,603,666 4,603,666 5,753,578	
* unassigned * 35-59-00.00 Marine Specialties 35-59-33.50 Jetties, Dock Accesso	pries								
Fender System and Navagational Lights Jetties, Dock Accessories Marine Specialties * unassigned *	1.00 ls			-	-	1,793,657.25	1,793,657.25 -	1,793,657 1,793,657 1,793,657 1,793,657	
Additional Cost Additional Cost								7,547,235	
Approach Slab Approach Slab 400-2-10 Concrete Class II 03-30-00.00 Cast-In-Place Concrete 03-30-53.40 Concrete In Place									
Approach Slab Approach Slab Concrete In Place Cast-In-Place Concrete 400-2-10 Concrete Class II	131.30 cy 131.30 cy	142.65 142.65	173.39 173.39	- -	20.87 20.87		336.90 336.90 _	44,234 44,234 88,469 88,469 88,469	
415-1-9 Reinforcing Steel 03-21-05.00 Reinforcing Steel Access 03-21-10.60 Reinforcing In Place									
Reinforcing Steel Approach Slabs	26,916.00 lb	0.37	0.06	-	0.08		0.51	13,611	
Reinforcing Steel Approach Slabs Reinforcing In Place	26,916.00 lb	0.37	0.06	-	0.08	-	0.51	27,222	
Reinforcing Steel Accessories								27,222	
415-1-9 Reinforcing Steel								27,222	

Spreadsheet Level	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount	Notes
Approach Slab								115,691	
Approach Slab								110,001	
General Conditions General Con	alitia aa								
	aitions								
* unassigned *	10								
01-31-00.00 Project Management And	Coordination								
01-31-13.20 Field Personnel Field Personnel, clerk,	107.00 week	717.46				_	717.46	76,769	
average	107.00 Week	717.40	-	-	-	-	717.40	70,709	
Field engineer	520.00 week	2,032.81	_	_	_	_	2,032.81	1,057,062	
Field Personnel, general	215.00 week	1,434.93	_	_	_	_	1,434.93	308,509	
purpose laborer, average	210.00 WOOK	1,101.00					1,101.00	000,000	
Field Personnel, project	130.00 week	2,989.43	_	_	-	-	2,989.43	388,626	
manager		_,					_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Field Personnel,	256.00 week	2,032.81	-	_	-	-	2,032.81	520,400	
superintendent									
Field Personnel, timekeeper,	107.00 week	1,201.75	-	-	-	-	1,201.75	128,587	
average									
Field Personnel								2,479,952	
Project Management And								2,479,952	
Coordination									
0.4 00 00 00 PU									
01-32-33.00 Photographic Documenta	ation								
01-32-33.50 Photographs  Construction Photographs	129.00 set		567.99				567.99	73,271	
Photographs	129.00 361	_	307.99	_	_	_	307.99	73,271	
Photographic								73,271	
Documentation								70,277	
01-45-00.00 Quality Control									
01-45-23.50 Testing									
Field Testing	1.00 prjc	-	-	-	-	298,942.87	298,942.87	298,943	
Testing								298,943	
Quality Control								298,943	
01-52-13.00 Field Offices And Sheds									
01-52-13.20 Office And Storage Sp	pace								
Office Trailer, furnished, rent	60.00 ea	-	288.18	-	-	-	288.18	17,291	
per month, 32' x 8', excl.									
hookups									
Storage Boxes, rent per	120.00 ea	-	87.89	-	-	-	87.89	10,547	
month, 20' x 8'							_		
Office And Storage Space								27,838	
01-52-13.40 Field Office Expense									
,	60.00 ma		170.27			_	170.27	10.762	
Field Office Expense, office equipment rental, average	60.00 mo	-	179.37	-	-	-	179.37	10,762	
Field Office Expense, office	60.00 mo	_	113.60	_	_	-	113.60	6,816	
supplies, average	00.00 1110	-	113.00	-	-	-	113.00	0,010	
Field Office Expense,	60.00 mo	_	251.11	_	_	-	251.11	15,067	
telephone bill; avg.	00.00 1110	_	201.11	_	_	_	201.11	13,007	
bill/month, incl. long dist.									
Field Office Expense, field	60.00 mo	-	131.54	-	-	-	131.54	7,892	
office lights & HVAC								,	
-									

Spreadsheet Level	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount	Notes
Field Office Expense							_	40,537	
Field Offices And Sheds								68,374	
01-54-09.00 Protection Equipment 01-54-09.60 Safety Nets									
Safety Nets	300,000.00 sf	_	1.38	_	-	-	1.38	412,541	
Safety Nets							-	412,541	
Protection Equipment								412,541	
01-54-26.00 Marine Equipment									
01-54-33.80 Marine equipment									
Marine equipment	320.00 day	1,942.26	-	-	870.28	-	2,812.54	900,013	
rental;barge,400 ton,30'wide x 90'long									
Marine equipment	320.00 day	1,942.26	_	_	870.28	-	2,812.54	900,013	
rental;barge,400 ton,30'wide	020.00 day	1,012.20			0.0.20		2,0 12.0 1	000,010	
x 90'long									
Marine equipment rental;barge,400 ton,30'wide	320.00 day		-	-	870.28	-	870.28	278,490	
x 90'long									
Marine equipment	320.00 day		-	-	870.28	-	870.28	278,490	
rental;barge,400 ton,30'wide x 90'long									
Marine equipment rental;tugboat,diesel,250 HP	320.00 day	1,294.84	-	-	746.16	-	2,041.00	653,120	
Marine equipment rental;tugboat,diesel,250 HP	320.00 day	1,294.84	-	-	746.16	-	2,041.00	653,120	
Marine equipment							-	3,663,247	
Marine Equipment								3,663,247	
01-56-26.00 Temporary Fencing									
01-56-26.50 Temporary Fencing									
Temporary Fencing, chain link, 6' high, 11 ga	1,000.00 If	3.17	8.37	-	-	-	11.54	11,539	
Temporary Fencing							-	11,539	
Temporary Fencing  Temporary Fencing								11,539	
								11,559	
01-58-00.00 Project Identification									
01-58-13.50 Signs									
Project Signs	400.00 sf	-	21.40	-	-	-	21.40 _	8,562	
Signs								8,562	
Project Identification								8,562	
01-71-23.00 Field Engineering 01-71-23.13 Construction Layout									
Survey Crew	320.00 day	1,898.45			90.63	_	1,989.08	636,506	
Construction Layout	320.00 udy	1,090.45	-	-	30.03	-	1,303.00 _	636,506	
Field Engineering								636,506	
* unassigned *								7,652,935	
General Conditions								7,652,935	
								7,002,930	
General Conditions									

Concrete Class III (Seal)

798.00 cy

309.15

197.30

Spreadsheet Level	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount	
00-4-5 Concrete Class IV (Substructur	те)								
03-30-00.00 Cast-In-Place Concrete									
03-30-53.40 Concrete In Place									
Concrete Class IV	133.50 cy	285.29	197.30	-	41.73	-	524.32	69,997	
Concrete Class IV	133.50 cy	285.29	197.30	-	41.73	-	524.32	69,997	
Concrete In Place	•						-	139,994	
Cast-In-Place Concrete								139,994	
400-4-5 Concrete Class IV								139,994	
(Substructure)								103,334	
5-1-5 Reinforcing Steel Substructure	•								
03-21-05.00 Reinforcing Steel Accessor	ories								
03-21-10.60 Reinforcing In Place									
Reinforcing Steel	18,023.00 lb	0.49	0.50	_	0.11	-	1.09	19,659	
Reinforcing Steel	18,023.00 lb	0.49	0.50	_		_	1.09	19,659	
Reinforcing In Place	10,020.00 10	0.43	0.30	_	0.11	_	1.03	39,318	
=									
Reinforcing Steel								39,318	
Accessories									
415-1-5 Reinforcing Steel Substructure								39,318	
5-143-5 Test Piles									
31-62-00.00 Driven Piles									
31-62-13.23 Prestressed Concrete	Piles								
Prestressed concrete piles,	181.00 vlf	29.69	65.77	_	18.54	_	114.00	20,634	
24" square, Test Pile	101100 111	20.00						20,00	
Prestressed concrete piles,	181.00 vlf	29.69	65.77	_	18.54	_	114.00	20 624	
The state of the s	101.00 VII	29.09	03.77	-	10.34	-	114.00	20,634	
24" square, Test Pile							-	44.000	
Prestressed Concrete Piles								41,268	
Driven Piles								41,268	
455-143-5 Test Piles								41,268	
5-34-5 Concrete Piling Prestressed									
31-62-00.00 Driven Piles									
31-62-13.23 Prestressed Concrete									
Prestressed concrete piles, 24" square,	1,034.00 vlf	10.80	65.77	-	6.74	-	83.31	86,138	
Prestressed concrete piles, 24" square,	1,034.00 vlf	10.80	65.77	-	6.74	-	83.31	86,138	
Prestressed Concrete Piles							_	172,277	
Driven Piles								172,277	
455-34-5 Concrete Piling								172,277	
Prestressed									
Substructure-End								392,856	
Substructure-End								,	
Bents									
bstructure-Piers Substructure	-Piers								
400-3-20 Concrete Class III (Seal)									
03-30-00.00 Cast-In-Place Concrete									
03-30-53.40 Concrete In Place									
	700.00	200.45	407.00		44 70		E40.40	407 447	
Concrete Class III (Seal)	798.00 cy	309.15	197.30	-	41.73	-	548.18	437,447	

41.73

548.18

437,447

Spreadsheet Level	Takeoff Quantity	Labor	Material						
		Cost/Unit	Cost/Unit	Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount	Notes
Concrete In Place Cast-In-Place Concrete 400-3-20 Concrete Class III (Seal)							_	874,894 874,894 <b>874,894</b>	
00-4-5 Concrete Class IV (Substructu	ıre)								
03-30-00.00 Cast-In-Place Concrete	,								
03-30-53.40 Concrete In Place	7.740.40	470.00	470.07		00.05		270.07	0.000.054	
Mass Concrete Class IV (Substructure)	7,713.10 cy	176.66	179.37	-	23.85	-	379.87	2,929,951	
Mass Concrete Class IV (Substructure)	7,713.10 cy	176.66	179.37	-	23.85	-	379.87	2,929,951	
Concrete Class IV (Substructure) CIP Column Concrete	91.60 cy	412.20	203.28	-	55.64	-	671.12	61,474	
Concrete Class IV (Substructure) CIP Column Concrete	91.60 cy	412.20	203.28	-	55.64	-	671.12	61,474	
CIP Column Cap	0.00 cy	0.00	0.00	-	0.00	-	0.00	0	
CIP Column Cap	0.00 cy	0.00	0.00	-	0.00	-	0.00	0	
CIP Column Cap Girder Seats	68.10 cy	494.64	358.73	-	00.77	-	920.14	62,661	
CIP Column Cap Girder Seats	68.10 cy	494.64	358.73	-	66.77	-	920.14	62,661	
Concrete In Place Cast-In-Place Concrete								6, 108, 172 6, 108, 172	
03-41-36.00 Precast Structural Post-7	Tensioned Concrete								
03-41-36.50 Post-Tensioned Jobs									
Precast Column Cap	1,267.00 cy	180.32	938.68	-	61.99		1,180.98		Labor, Material and Equipment costs represent the cost of purchasing, delivering to site, loading pieces onto barge and erecting precast pieces utilizing a crane from a marine working environment (working off barges). These costs refelct productivity associated with this type of construction and include increased insurance cost for marine work vs. construction on land. Costs for tug and barges to support these activities are contained in the General Conditions.
Precast Column Concrete	647.80 cy	180.32	938.68	-	61.99	-	1,180.98		Labor, Material and Equipment costs represent the cost of purchasing, delivering to site, loading pieces onto barge and erecting precast pieces utilizing a crane from a marine working environment (working off barges). These costs refelct productivity associated with this type of construction and include increased insurance cost for marine work vs. construction on land. Costs for tug and barges to support these activities are contained in the General Conditions.
Precast Column Cap	1,267.00 cy	180.32	938.68	-	61.99	-	1,180.98	1,496,307	Labor, Material and Equipment costs represent the cost of purchasing, delivering

Spreadsheet Level	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount	Notes
03-41-36.50 Post-Tensioned Jobs Precast Column Cap	1,267.00 cy	180.32	938.68	-	61.99	_	1,180.98	1,496,307	to site, loading pieces onto barge and
									erecting precast pieces utilizing a crane from a marine working environment (work off barges). These costs refelct productivi associated with this type of construction a include increased insurance cost for marin work vs. construction on land. Costs for tuand barges to support these activities are contained in the General Conditions.
Precast Column Concrete	647.80 cy	180.32	938.68	-	61.99	-	1,180.98	765,041	Labor, Material and Equipment costs represent the cost of purchasing, delivering to site, loading pieces onto barge and erecting precast pieces utilizing a crane from a marine working environment (work off barges). These costs refelct productivity associated with this type of construction a include increased insurance cost for maring work vs. construction on land. Costs for turned barges to support these activities are contained in the General Conditions.
Post-Tensioned Jobs							-	4,522,696	•
Precast Structural								4,522,696	
Post-Tensioned Concrete									
400-4-5 Concrete Class IV (Substructure)								10,630,869	
415-1-5 Reinforcing Steel Substructur 03-21-05.00 Reinforcing Steel Access 03-21-10.60 Reinforcing In Place									
Reinforcing Steel	1,567,094.00 lb	0.53	0.50	-	0.11	-	1.13	1,773,128	
Reinforcing Steel Reinforcing In Place Reinforcing Steel	1,567,094.00 lb	0.53	0.50	-	0.11	-	1.13 _	1,773,128 3,546,255 3,546,255	
Accessories 415-1-5 Reinforcing Steel Substructure								3,546,255	
<b>455-143-6 Test Piles (30")</b> 31-62-00.00 Driven Piles 31-62-13.23 Prestressed Concrete	e Piles								
Prestressed concrete piles, 30" square, Test Pile	2,915.00 vlf	42.90	102.84	-	24.72	-	170.46	496,878	
Prestressed concrete piles, 30" square, Test Pile	2,915.00 vlf	42.90	102.84	-	24.72	-	170.46	496,878	
Prestressed Concrete Piles Driven Piles							-	993,755 993,755	
455-143-6 Test Piles (30")								993,755	
455-34-6 Concrete Piling Prestressed 31-62-00.00 Driven Piles	(30")								
31-62-13.23 Prestressed Concrete	e Piles								
Prestressed concrete piles, 30" square,	26,975.00 vlf	18.39	102.84	-	10.59	-	131.82	3,555,735	

Spreadsheet Level	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount	Notes
31-62-13.23 Prestressed Concrete	Piles								
Prestressed concrete piles,	26,975.00 vlf	18.39	102.84	-	10.59	-	131.82	3,555,735	
30" square,							=		
Prestressed Concrete Piles								7,111,470	
Driven Piles 455-34-6 Concrete Piling								7,111,470 <b>7,111,470</b>	
Prestressed (30")								7,111,470	
* unassigned *									
01-54-23.00 Temporary Scaffolding Ar 01-54-23.70 Scaffolding	nd Platforms								
Scaffolding, steel tubular,	1,475.00 ccf	16.21	-	-	-	-	16.21	23,916	
regular, labor only to erect & dismantle									
Scaffolding, steel tubular,	1,475.00 ccf	16.21	-	-	-	-	16.21	23,916	
regular, labor only to erect & dismantle									
Scaffolding, steel tubular,	295.00 csf	-	41.25	-	-	-	41.25	12,170	
regular, rent/month only for									
complete system for face of									
walls, 6' -4" x 5' frames, excl. planks									
Scaffolding, steel tubular,	295.00 csf	-	41.25	-	-	-	41.25	12,170	
regular, rent/month only for complete system for face of									
walls, 6' -4" x 5' frames, excl.									
planks									
Scaffolding							-	72,171	
Temporary Scaffolding And								72,171	
Platforms									
31-52-00.00 Cofferdams									
31-52-16.10 Cofferdams			4= =0		= =0		0.4.07	0.405.000	
Cofferdams, barge driven	89,560.00 sf	9.36	17.58	-	7.73		34.67	3,105,309	
Cofferdams, barge driven Cofferdams	89,560.00 sf	9.36	17.58	-	7.73	-	34.67	3,105,309 6,210,618	
Cofferdams								6,210,618	
* unassigned *								6,282,789	
Substructure-Piers								29,440,032	
Substructure-Piers								-, -,	
Superstructure Superstructure									
400-147 Composite Neoprene Pads									
05-05-23.00 Metal Fastenings 05-05-23.80 Vibration & Bearing Pa	ads								
Bearing Pads	273.00 cf	78.49	717.46	-	-	-	795.95	217,294	
Bearing Pads	273.00 cf	78.49	717.46	-	-	-	795.95	217,294	
Vibration & Bearing Pads								434,589	
Metal Fastenings								434,589	
400-147 Composite Neoprene Pads								434,589	
reoprene raus									

32-13-13-00 Concrete Paving Surface Treatment  Concrete growing 32-405.00 sy 2.31 - 5.5.0 - 7.52 243.594  Concrete growing 32-405.00 sy 2.31 - 5.5.0 - 7.52 243.594  Concrete Paving Surface										
Concrete Class   V   S078.00 cy   194.06   239.15   26.92   450.13   3.638.183	Spreadsheet Level	Takeoff Quantity			Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount	Notes
Concrete Class IV	03-30-00.00 Cast-In-Place Concrete									
Superstructure	03-30-53.40 Concrete In Place									
Concrete Class IV	Concrete Class IV	8,078.00 cy	184.06	239.15	-	26.92	-	450.13	3,636,183	
Superstructure	Superstructure									
Cancrie In Place	Concrete Class IV	8,078.00 cy	184.06	239.15	-	26.92	-	450.13	3,636,183	
Cast-In-Place Concrete	Superstructure									
40-44 Concrete Class IV (Superstructure - Deck & Dia)  00-8 Bridge Floor Grooving 32-13-130 Cornere Paving 32-13-130 Concrete Paving Surface Treatment  Concrete grooving 32-405.00 sy 2.31 - 5 5.20 - 7.52 243.594  Concrete Paving Surface Concrete Paving Surface Concrete Paving Surface Treatment Concrete Paving Surface Treatment Concrete Paving IV 1998 400-8 Bridge Floor Grooving Superstructure Concrete Paving Surface Treatment Concrete Invariant Treatment Concrete Paving Surface Treatment Concrete Paving Surface Treatment Tre	Concrete In Place								7,272,367	
Course   C	Cast-In-Place Concrete								7,272,367	
Disa	400-4-4 Concrete Class IV								7,272,367	
10.0   10.0	(Superstructure - Deck &									
32-13-13-00 Concrete Paving Surface Treatment  Concrete growing 32-405.00 sy 2.31 - 5.5.0 - 7.52 243.594  Concrete growing 32-405.00 sy 2.31 - 5.5.0 - 7.52 243.594  Concrete Paving Surface	Dia)									
32-13-12.22 Concrete Paving Surface Treatment Concrete grooving 32,405.00 sy 2.31 - 5.20 - 7.52 243,594 Concrete grooving 32,405.00 sy 2.31 - 5.20 - 7.52 243,594 Concrete Paving Surface	400-9 Bridge Floor Grooving									
32-13-12.22 Concrete Paving Surface Treatment Concrete grooving 32,405.00 sy 2.31 - 5.20 - 7.52 243,594 Concrete grooving 32,405.00 sy 2.31 - 5.20 - 7.52 243,594 Concrete Paving Surface										
Concrete grooving 32,405.00 sy 2.31 - 5.20 - 7.52 243,594 Concrete proving 32,405.00 sy 2.31 - 5.20 - 7.52 243,594 Concrete Paving Surface		face Treatment								
Concrete Paving Surface Concrete Paving Surface Concrete Paving Surface Concrete Paving Concre	_		2.31	-	-	5.20	-	7.52	243,594	
Concrete Paving Surface Treatment Concrete Paving 409- Bridge Floor Grooving  15-14 Reinforcing Steel 03-21-05.00 Reinforcing Steel Accessories 03-21-05.00 Reinforcing in Place, Aerial Structure Reinforcing Steel 1,939,408.00 lb 0.65 0.54 0.14 133 2,580,940 Superstructure Reinforcing Steel 1,939,408.00 lb 0.65 0.54 0.14 133 2,580,940 Superstructure Reinforcing Steel 1,939,408.00 lb 0.65 0.54 0.14 133 2,580,940 Superstructure Reinforcing Steel 1,939,408.00 lb 0.65 0.54 0.54 10.14 133 2,580,940 Superstructure Reinforcing Steel 1,939,408.00 lb 0.65 0.54 0.54 10.14 133 2,580,940 Superstructure Reinforcing Steel 1,939,408.00 lb 0.65 0.54 10.14 133 2,580,940 Superstructure Reinforcing Steel 5,161,879 Accessories 415-1-4 Reinforcing Steel 5,161,879 Accessories 423-40.00 Fabricated Bridges 32-34-01.01 Bridges, Highway Fabricated Injuryay bridges, 30,672.00 lf 13.75 173.39 14.19 0.00 191.32 5,868,273 precast, prestressed concrete, I beams Fabricated Injuryay bridges, 30,672.00 lf 13.75 173.39 14.19 0.00 191.32 5,868,273 precast, prestressed concrete, I beams Fabricated Injuryay bridges, 30,672.00 lf 13.75 173.39 14.19 0.00 191.32 5,868,273 precast, prestressed concrete, I beams Fabricated Injuryay bridges, 30,672.00 lf 13.75 173.39 173.39 14.19 0.00 191.32 5,868,273		•		-	-		-		243,594	
Treatment Concrete Paving 400-9 Bridge Floor Grooving  15-1-4 Reinforcing Steel  03-21-05.00 Reinforcing Steel Accessories 03-21-10.90 Reinforcing In Place, Aerial Structure Reinforcing Steel 1,939,408.00 lb 0.65 0.54 0.14 - 0.14 - 1.33 2,580,940 Superstructure Reinforcing Steel 1,939,408.00 lb 0.65 0.54 0.14 - 0.14 - 1.33 2,580,940 Superstructure Reinforcing In Place, Aerial Structure Reinforcing In Place, Aerial Structure Reinforcing Steel 1,939,408.00 lb 0.65 0.54 0.54 0.14 - 0.14 1.33 2,580,940 Superstructure Reinforcing In Place, Aerial Structure Reinforcing Steel 5,161,879 Structure Reinforcing Steel 5,161,879 Structure Reinforcing Steel 5,161,879 Accessories 415-1-4 Reinforcing Steel 5,161,879  50-2-72 Prestressed Beams S2-24-00.00 Pabricated Bridges 32-24-00.00 Pabricated Brighway Fabricated highway bridges, 30,672.00 lf 13.75 173.39 - 4.19 0.00 191.32 5,868,273 precast, prestressed concrete, I beams Fabricated highway bridges, 30,672.00 lf 13.75 173.39 - 4.19 0.00 191.32 5,868,273 precast, prestressed concrete, I beams Fabricated highway bridges, 30,672.00 lf 13.75 173.39 - 4.19 0.00 191.32 5,868,273 precast, prestressed concrete, I beams Fabricated highway bridges, 30,672.00 lf 13.75 173.39 - 4.19 0.00 191.32 5,868,273 precast, prestressed concrete, I beams Fabricated highway bridges, 30,672.00 lf 13.75 173.39 - 4.19 0.00 191.32 5,868,273		•						-		
Concrete Paving 409- Bridge Floor Grooving  15-1-4 Reinforcing Steel  03-21-05.00 Reinforcing Steel Accessories  03-21-10.90 Reinforcing Steel Accessories  03-21-10.90 Reinforcing Steel 1,939,408.00 ib 0.65 0.54 ° 0.14 ° 1.33 2,580,940  Superstructure Reinforcing Steel 1,939,408.00 ib 0.65 0.54 ° 0.14 ° 1.33 2,580,940  Superstructure Reinforcing Steel 1,939,408.00 ib 0.65 0.54 ° 0.14 ° 1.33 2,580,940  Superstructure Reinforcing Inlace, Aerial Structure Reinforcing Inlace, Reinforcing Steel Accessories 415-1-4 Reinforcing Steel Accessories 415-1-4 Reinforcing Steel Accessories 415-1-4 Reinforcing Steel A15-1-4 Reinforcing Steel A2-34-00.00 Fabricated Bridges 32-34-00.00 Fabricated Bridges 32-34-00.00 Fabricated Bridges A2-34-00.00 Fabricated Bridges A2-34-00.00 Fabricated Righway bridges, 30,672.00 if 13.75 173.39 ° 4.19 0.00 191.32 5,868,273  Precast, prestressed concrete, I beams Fabricated highway bridges, 30,672.00 if 13.75 173.39 ° 4.19 0.00 191.32 5,868,273  Precast, prestressed concrete, I beams Bridges, Highway  I 1,736,545	=								- ,	
40-9 Bridge Floor Grooving  15-1-4 Reinforcing Steel  03-21-05.00 Reinforcing Steel Accessories  03-21-10.90 Reinforcing Place, Aerial Structure  Reinforcing Steel   1,939,408.00 lb   0.65   0.54     0.14       1.33     2,580,940    Superstructure  Reinforcing Steel   1,939,408.00 lb   0.65   0.54     0.14									487,189	
15-1-4 Reinforcing Steel   15-1-6 Note   15-1-	•									
03-21-05.00 Reinforcing Steel Accessories 03-21-10.90 Reinforcing In Place, Aerial Structure Reinforcing Steel 1,939,408.00 lb 0.65 0.54 - 0.14 - 1.33 2,580,940 Superstructure Reinforcing Steel 1,939,408.00 lb 0.65 0.54 - 0.14 - 1.33 2,580,940 Superstructure Reinforcing In Place, Aerial Structure Reinforcing In Place, Aerial Structure Reinforcing Steel 1,939,408.00 lb 0.65 0.54 - 0.14 - 1.33 2,580,940 Superstructure Reinforcing In Place, Aerial Structure Reinforcing Steel	_								,	
Superstructure   Reinforcing Steel   1,939,408.00   b   0.65   0.54   - 0.14   - 1.33   2,580,940	03-21-10.90 Reinforcing In Place,	Aerial Structure								
Superstructure   Reinforcing In Place, Aerial   5,161,879   5,16	=	1,939,408.00 lb	0.65	0.54	-	0.14	-	1.33	2,580,940	
Reinforcing In Place, Aerial   Structure	<u> </u>	1,939,408.00 lb	0.65	0.54	-	0.14	-	1.33	2,580,940	
Reinforcing Steel Accessories 415-1-4 Reinforcing Steel  5,161,879  50-2-72 Prestressed Beams 32-34-00.00 Fabricated Bridges 32-34-10.10 Bridges, Highway Fabricated highway bridges, 30,672.00 If 13.75 173.39 - 4.19 0.00 191.32 5,868,273 precast, prestressed concrete, I beams Fabricated highway bridges, 30,672.00 If 13.75 173.39 - 4.19 0.00 191.32 5,868,273 precast, prestressed concrete, I beams Bridges, Highway  11,736,545	Reinforcing In Place, Aerial							-	5,161,879	
## 415-1-4 Reinforcing Steel  ## 50-2-72 Prestressed Beams  32-34-00.00 Fabricated Bridges  32-34-10.10 Bridges, Highway  Fabricated highway bridges, 30,672.00 If 13.75 173.39 - 4.19 0.00 191.32 5,868,273 precast, prestressed concrete, I beams  Fabricated highway bridges, 30,672.00 If 13.75 173.39 - 4.19 0.00 191.32 5,868,273 precast, prestressed concrete, I beams  Bridges, Highway  ## 17,736,545									5,161,879	
50-2-72 Prestressed Beams  32-34-00.00 Fabricated Bridges  32-34-10.10 Bridges, Highway  Fabricated highway bridges, 30,672.00 If 13.75 173.39 - 4.19 0.00 191.32 5,868,273 precast, prestressed concrete, I beams  Fabricated highway bridges, 30,672.00 If 13.75 173.39 - 4.19 0.00 191.32 5,868,273 precast, prestressed concrete, I beams  Bridges, Highway  Bridges, Highway  11,736,545									5.161.879	
32-34-00.00 Fabricated Bridges 32-34-10.10 Bridges, Highway Fabricated highway bridges, 30,672.00 lf 13.75 173.39 - 4.19 0.00 191.32 5,868,273 precast, prestressed concrete, I beams Fabricated highway bridges, 30,672.00 lf 13.75 173.39 - 4.19 0.00 191.32 5,868,273 precast, prestressed concrete, I beams Bridges, Highway 191.32 11,736,545	-								2,121,21	
32-34-10.10 Bridges, Highway  Fabricated highway bridges, 30,672.00 lf 13.75 173.39 - 4.19 0.00 191.32 5,868,273  precast, prestressed  concrete, I beams  Fabricated highway bridges, 30,672.00 lf 13.75 173.39 - 4.19 0.00 191.32 5,868,273  precast, prestressed  concrete, I beams  Bridges, Highway  Bridges, Highway  11,736,545										
Fabricated highway bridges, 30,672.00 lf 13.75 173.39 - 4.19 0.00 191.32 5,868,273 precast, prestressed concrete, I beams Fabricated highway bridges, 30,672.00 lf 13.75 173.39 - 4.19 0.00 191.32 5,868,273 precast, prestressed concrete, I beams Bridges, Highway 11,736,545	32-34-10.10 Bridges, Highway									
precast, prestressed concrete, I beams  Fabricated highway bridges, 30,672.00 lf 13.75 173.39 - 4.19 0.00 191.32 5,868,273 precast, prestressed concrete, I beams  Bridges, Highway 11,736,545		30,672.00 If	13.75	173.39	-	4.19	0.00	191.32	5,868,273	
concrete, I beams  Fabricated highway bridges, 30,672.00 lf 13.75 173.39 - 4.19 0.00 191.32 5,868,273  precast, prestressed  concrete, I beams  Bridges, Highway 11,736,545										
precast, prestressed concrete, I beams Bridges, Highway  11,736,545										
precast, prestressed concrete, I beams Bridges, Highway  11,736,545	Fabricated highway bridges,	30,672.00 If	13.75	173.39	-	4.19	0.00	191.32	5,868,273	
Bridges, Highway 11,736,545	precast, prestressed									
								-	11 736 545	
	Fabricated Bridges								11,736,545	
450-2-72 Prestressed 11,736,545										
Beams T1,750,545									11,100,040	
58-1-14 Bridge Deck Expansion Joint 32-34-00.00 Fabricated Bridges	32-34-00.00 Fabricated Bridges	nt								
32-34-10.10 Bridges, Highway										
Bridge Deck Expansion Joint 591.00 If 105.39 326.45 - 3.69 - 435.53 257,399	Bridge Deck Expansion Joint	591.00 If	105.39	326.45	-	3.69	-	435.53	257,399	

Spreadsheet Level	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount	Notes
32-34-10.10 Bridges, Highway									
Bridge Deck Expansion Joint	591.00 If	105.39	326.45	-	3.69	-	435.53	257,398	
Bridges, Highway								514,797	
Fabricated Bridges								514,797	
458-1-14 Bridge Deck								514,797	
Expansion Joint									
521-5-1 Concrete Traffic Railing									
34-71-13.00 Vehicle Barriers									
34-71-13.26 Vehicle Guide Rails									
Concrete Traffic Railing	10,416.00 If	12.88	49.03	-	4.44	-	66.35	691,110	
Barrier Bridge									
Concrete Traffic Railing	10,416.00 If	12.88	49.03	-	4.44	-	66.35	691,110	
Barrier Bridge							-		
Vehicle Guide Rails								1,382,221	
Vehicle Barriers								1,382,221	
521-5-1 Concrete Traffic								1,382,221	
Railing									
Superstructure								26,989,586	
Superstructure									

## **Estimate Totals**

Description	Amount Cuts/Adds	Net Amount	Totals	Hours	Cost Basis	Percent of Total	
Labor	24,594,296	24.594.296		116,401.622 ch		34.09%	
Material	36,874,831	36,874,831				51.12%	
Subcontract							
Equipment	8,576,609	8,576,609		46,369.006 ch		11.89%	
Other	2,092,600	2,092,600			_	2.90%	
	72,138,336		72,138,336			100.00	100.00%
Total			72,138,336				