

OPINION OF PROBABLE CONSTRUCTION COST

WORK ITEM	QUANTITY	UNIT	UNIT COST	TOTAL
STRUCTURAL REPAIRS				
I. TYPICAL REPAIRS				
1. Ledger beam delamination Partial depth beam patch, with shoring during repair	8	EA	\$1,500.00	\$12,000
2. Column corbel delamination Partial depth corbel patch, with shoring during repair	2	EA	\$250.00	\$500
3. Corroded steel plates, angles and bolts – double tees, wall panels, and stair towers Clean and paint	78	EA	\$100.00	\$7,800
4. Exposed, corroded steel with spalled concrete – ledger beam undersides Clean and coat	218	EA	\$25.00	\$5,450
5. Structural cracks in concrete – all elements Epoxy injection	814	LF	\$100.00	\$81,400
6. Exposed steel and concrete spalling on double tee flange edges Removal of loose concrete, clean and paint exposed steel	782	LF	\$75.00	\$58,650
7. Weathered control joints on deck topping slab Replace control joint sealant	11,646	LF	\$4.00	\$46,584
8. Concrete delamination – ledger beam undersides, and double tees Overhead partial depth patch	298	SF	\$200.00	\$59,600
9. Concrete delamination – ledger beam tops, columns, retaining walls, and wall panels Vertical and horizontal partial depth patch	162	SF	\$150.00	\$24,225
10. Deck topping slab delamination – all levels Horizontal partial depth patch	1,822	SF	\$75.00	\$136,650
11. Deck topping slab delamination – upper levels: 3 (west) and 4 Horizontal full depth patch, topping slab replacement	605	SF	\$125.00	\$75,625
12. Concrete delamination – ledger beam undersides, double tee, column, panels Overhead/vertical deep concrete patch with forming	89	SF	\$350.00	\$30,975
13. Corroded shear transfer plate and corroded supplemental steel – double tees Clean and coat, minor demo required for embedded steel inspection	55	EA	\$250.00	\$13,750
14. Broken shear transfer plate – double tees Shear transfer plate replacement with "sandwich plates"	8	EA	\$500.00	\$4,000
15. Deck topping slab deterioration – upper levels: 3 (west) and 4 Apply urethane traffic coating system – waterproofing	26,150	SF	\$6.00	\$156,900
16. Deck topping slab cracks – all levels Rout cracks and seal with joint sealant	3,776	LS	\$5.00	\$18,880
17. Exposed, corroded steel with spalled concrete – double tees, pedestrian walkway, columns, and stair towers Clean and coat	466	LF	\$25.00	\$11,638
18. Corroded steel plates and bolts – ledger beams and columns Clean and paint	54	EA	\$100.00	\$5,400
19. Non-structural cracks in concrete – double tees Epoxy injection	467	LF	\$100.00	\$46,700
20. Deteriorated cove joint material – all elements Replace cove joints sealant	4,737	LF	\$5.00	\$23,685
21. Excessive water Leaking through deteriorated concrete – double tees and columns corbel Silane Sealer	318	SF	\$5.00	\$1,590
22. Landing Concrete delamination – stair towers Miscellaneous partial depth patch	167	SF	\$100.00	\$16,700
23. Landing topping slab cracks – stair towers Rout cracks and seal with joint sealant	18	LF	\$5.00	\$90
24. Missing handrail post cap at landing – stair towers Replace handrail post cap	3	EA	\$75.00	\$225
25. Corroded stair tread nosing – stair tower Stair tread nosing repair	47	EA	\$200.00	\$9,400
26. Landing topping slab pour stop delamination – stair towers Replace landing pour stop (repour)	3	EA	\$300.00	\$900
27. Landing handrail post section loss – stair towers Supplemental handrail post steel	12	EA	\$400.00	\$4,800
28. Severe staircase steel corrosion – North stair tower Clean and paint staircase steel	1	LS	\$8,000.00	\$8,000

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II. SPECIAL REPAIRS				
29. Walkway Bridge Beam Exterior Beam – top connection (1/S003 and 2/S003) Connection repair	1	EA	\$500.00	\$500
30. Mechanical Room Precast Panel Support – (5/S003) Beam support supplementation	1	EA	\$1,500.00	\$1,500
Concrete Flange Delamination				
31. Double tee flange strengthening <i>**Repair procedure TBD**</i>	20	SF	\$900.00	\$18,000
32. Double Tee Delamination at Bearing – (3/S003 and 4/S003) Additional double tee bearing steel support	1	EA	\$3,700.00	\$3,700
33. South Stair Landing Beam Repair – upper landings (6/S003 and 6/S003) Additional beam steel support	2	EA	\$2,000.00	\$4,000
34. South Stair Landing Beam Repair – level 1 landing (8/S003 and 9/S003) Additional beam steel support	1	EA	\$5,500.00	\$5,500
Walkway Bridge Interior Beam Deterioration near Support				
35. Rebuild concrete beam and provide additional steel support <i>**Repair procedure TBD**</i>	1	EA	\$13,750.00	\$13,750
STRUCTURAL WORK SUBTOTAL				\$909,067
<u>PLUMBING REPAIRS</u>				
36. Drainage Plumbing Rehabilitation	1	LS	\$69,129.00	\$69,129
PLUMBING WORK SUBTOTAL				\$69,129
<u>ARCHITECTURAL REPAIRS</u>				
37. Skywalk Roof Replacement	1	LS	\$22,000.00	\$22,000
ARCHITECTURAL WORK SUBTOTAL				\$22,000
<u>CONVEYANCE EQUIPMENT</u>				
38. Elevator Cab Floor Replacement	1	LS	\$5,000.00	\$5,000
CONVEYANCE WORK SUBTOTAL				\$5,000
CONSTRUCTION SUBTOTAL				\$1,005,196
General Conditions	20	%		\$201,039.10
Mobilization and Demobilization	5	%		\$50,259.78
Design Contingency	15	%		\$150,779.33
GRAND TOTAL				\$1,407,274
<i>Notes:</i>				
1. All costs are current as of the time of the report submission (February, 2019)				