



DESIGN: GMW DATE: 7/16/17 UPDATE: _____ DATE: _____
 CHECK: LAH DATE: 7/17/17 RECHECK: MRV DATE: 6/1/20
 STRUCTURE: MOT-75-1078 SFN: 5707080 PID: 91606

1801 Watermark Drive, Suite 310 • Columbus, Ohio 43215
 614-586-0642 • Fax 614-586-0648

ITEM: 513E10260 PAY UNIT: LB
 SUBJECT: ESTIMATED QUANTITIES

DESCRIPTION: STRUCTURAL STEEL MEMBERS, LEVEL 3

SUPPLEMENTAL DESCRIPTION: _____

	SUBTOTAL	TOTAL
Length of Each Beam = 202.964 ft # of Beams = 18 Density of Steel = 490 lb/ft ³ Cross-Sectional Area of W30x173 Beam = 50.9 in ² = 0.353 ft ²		
Total Weight of Beams = 202.964 ft * 0.353 ft ² * 18 beams * 490 lb/ft ³ = 632,764.2 LB	632,765	632,765
SPLICE PLATES		
14 7/8" x 1/2" x 3'-7" Plates Area = 4.44 sq ft Thickness = 0.50 in # Plates = 2 ea # Locations = 2 ea # Girders = 18 ea Density of Steel = 490.00 lb/ft ³ Total = 6529.74 lb		
6" x 1/2" x 3'-7" Plates Area = 1.79 sq ft Thickness = 0.50 in # Plates = 4 ea # Locations = 2 ea # Girders = 18 ea Density of Steel = 490.00 lb/ft ³ Total = 5268.48 lb		
2'-2 1/2" x 1/2" x 2'-4 1/4" Plates Area = 5.20 sq ft Thickness = 0.50 in # Plates = 2 ea # Locations = 2 ea # Girders = 18 ea Density of Steel = 490.00 lb/ft ³ Total = 7642.53 lb		
Thickness updated from ft to in.		
	19,441	652,206
Crossframes		
L3" x 3" X 5/16" Bottom Crossframe Length = 6.16 ft # Angles = 1 ea # Locations = 14 ea # Bays = 17 ea Weight/ft 6.10 lb/ft Total = 8936.55 lb		
Diagonal Crossframe Length = 6.42 ft # Angles = 2 ea # Locations = 14 ea # Bays = 17 ea Weight/ft 6.10 lb/ft Total = 18632.40 lb		
5" x 5" x 3/8" Filler Plate Area = 0.17 sq ft Thickness = 0.03 ft # Plates = 1 ea # Locations = 14 ea # Bays = 17 ea Density of Steel = 490.00 lb/ft ³		
Stiffener Plate Area = 1.47 sq ft Thickness = 0.03 ft # Plates = 2 ea # Locations = 14 ea # Bays = 17 ea Density of Steel = 490.00 lb/ft ³		



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SUPPLEMENTAL DESCRIPTION: _____

		SUBTOTAL	TOTAL
Total =	631.65 lb		
		38,913	691,119
Bolts, nuts, etc.	5% Contingency		
	691,119 lb		
	x 5.00% =		
	34555.95	34,556	725,675
SPECIAL INSTRUCTIONS: CHECK UNIT OF MEASURE		TOTAL	725,675