

DIVISION 01

General Requirements / General Conditions / Preliminaries:

Note: To determine man-hours, divide labor cost by \$77

#	2025 - Division 1 - General Requirements / Preliminaries - Union Site	Unit	Factor # 1 Material Uplift M+5 (1.05)	Factor # 1 Labor Uplift L+30 (1.30)	Factor # 1 CE Uplift	Total Factor # 1	Factor # 2 Material Uplift M+20 (1.20)	Factor # 2 Labor Uplift L+65 (1.65)	Factor # 2 CE Uplift	Total Factor # 2
	General Requirement / General Conditions									
1	Rule of Thumb: General Requirements / General Conditions will typically range from 5% to as much as 15% of the total construction projects total cost of the project, this percentage covers site establishment, temporary facilities, construction aids, plant, supervision and other administrative items									
	Architectural Design Fees (A/E) \$0.25 million construction project - review tables in Division 0 & 00 for additional data.(Refer to Division # 0 Table # 17 for additional data)									
2	Minimum - Maximum percentage of total project cost									
3	Average percentage of total project cost									
	Architectural Design Fees (A/E) \$1 - \$2.50 million construction project - review tables in Division 0 & 00 for additional data. (Refer to Division # 0 Table # 17 for additional data)									
4	Minimum - Maximum percentage of total project cost									
5	Average percentage of total project cost									
	Architectural Design Fees (A/E) \$2.50 - \$25 million construction project - review tables in Division 0 & 00 for additional data. (Refer to Division # 0 Table # 17 for additional data)									
6	Minimum - Maximum percentage of total project cost									
7	Average percentage of total project cost									
	Architectural Design Fees (A/E) \$25 - \$100 million construction project - review tables in Division 0 & 00 for additional data. (Refer to Division # 0 Table # 17 for additional data)									
8	Minimum - Maximum percentage of total project cost									
9	Average percentage of total project cost									
10	Structural Engineering Fees will typically range between 10% - 20% of above A/E percentages									
11	Mechanical, Electrical and Plumbing (MEP) will typically range between 20% - 40%									
12	Construction Management Fees will typically range between 40% - 60% of above A/E fees									
	Project Overhead (Home Office Support, i.e Estimating, Accounting, Procurement, Payroll, Safety Audits, Office Rent and Utilities) - review tables in Division 0 & 00 for additional data.									
	\$0.25 million project									
13	Minimum - Maximum percentage of total project cost									
14	Average percentage of total project cost									
	\$1.00 - \$2.50 million project									
15	Minimum - Maximum percentage of total project cost									
16	Average percentage of total project cost									

DIVISION 05

Metals:

Note: To determine man-hours, divide labor cost by \$77

#	2025 - Division 5 - Metals - Union Site	Unit	Factor # 1 Material Uplift M+5 (1.05)	Factor # 1 Labor Uplift L+30 (1.30)	Factor # 1 CE Uplift	Total Factor # 1	Factor # 2 Material Uplift M+20 (1.20)	Factor # 2 Labor Uplift L+65 (1.65)	Factor # 2 CE Uplift	Total Factor # 2
	Retrofit & Repair Work Items									
1	Stiffen and reinforce existing columns with steel plate including single pass weld to combine metals from baseplate to top of steel column (Maximum)									
2	Stiffen and reinforce existing columns with steel plate including single pass weld to combine metals from baseplate to top of steel column (Minimum)									
3	Stiffen and reinforce existing beams with steel plate including single pass weld to combine metals from baseplate to top of steel column (Maximum)									(60)
4	Stiffen and reinforce existing beams with steel plate including single pass weld to combine metals from baseplate to top of steel column (Minimum)									
5	Remove, stack and reinstall existing steel after repair / alteration work has been completed									
6	Remove, stack and reinstall existing steel grating / miscl metals after repair / alteration work has been completed									
7	Make good and repair single pass welding 1/8" seam									
8	Ditto 3/16"					-				
9	Ditto 1/4"									
10	Take down and replace 16 g galv metal furring / framing 3-5/8" @ 16" centers									
11	Take down and replace 18 g galv metal furring / framing 3-5/8" @ 16" centers									
12	Remove and replace existing damaged galv metal grating including associated angles and supports (Maximum)									
13	Remove and replace existing damaged galv metal grating including associated angles and supports (Minimum)									
14	Replace steel lintel including cutting, pinning and temporary support									
15	Replace galvanized steel lintel including cutting, pinning and temporary support									
16	Remove and replace 6" square structural support tubing (Maximum)									
17	Remove and replace 6" square structural support tubing (Minimum)									
18	Remove and replace 3" dia structural support tubing (Maximum)									
19	Remove and replace 3" dia structural support tubing (Minimum)									
20	Remove and repace steel floor or roof metal decking (Maximum)									
21	Remove and repace steel floor or roof metal decking (Minimum)									
22	Vertical galv steel ladders and cages c/w bolts and brackets									
23	Galv steel grating and angle brackets									
24	Galv metal floor decking & landings									
	Demolition Work									
25	Labor only (m - h' s) to take down, cut up and remove structural steel from site (Maximum)									
26	Ditto (Minimum)									

DIVISION 12

Furnishings:

Note: To determine man-hours, divide labor cost by \$77

#	2025 Division 12 - Furnishings: Union	Unit	Factor # 1 Material Uplift M+5 (1.05)	Factor # 1 Labor Uplift L+30 (1.30)	Factor # 1 CE Uplift	Total Factor #1	Factor # 2 Material Uplift M+20 (1.20)	Factor # 2 Labor Uplift L+65 (1.65)	Factor # 2 CE Uplift	Total Factor # 2
	Retrofit & Repair Work Items									
	Furnishings						-			
1	Conference room chair (Maximum)									
2	Conference room chair (Minimum)									
3	Conference room table 96" long x 36" wide (Maximum)									
4	Conference room table 96" long x 36" wide (Minimum)									
5	Cupboard / cabinet 30" high x 18" wide - birch with two shelves									
6	Cupboard / cabinet 30" high x 18" wide - birch with two shelves, with glass door									
7	Cupboard / cabinet birch 30" high x 24" wide c/w with 24" x 24" x 12" deep sink									
8	Cupboard / cabinet birch 30" high x 24" wide with 4 roll out drawers									
9	Cupboard / cabinet metal - base - 30" high x 24" wide with door and one shelf									
10	Cupboard / cabinet metal - base - 30" high x 24" wide with door and two shelves									
11	Cupboard / cabinet metal - base - 30" high x 24" wide with door and two shelves									
12	Cupboard / cabinet metal - open library shelving 72" high x 18" wide									
13	Cupboard / cabinet metal - wardrobe - 48" wide x 84" high x 30" deep c/w 2 # doors									
14	Cupboard / cabinet wood / Formica faced, 30" high base x 24" wide - with door and 1 shelf									
15	Cupboard / cabinet wood attached to wall 30" high x 18" deep with glass doors & 3 shelves									
16	Curtain rods 1" dia - polished metal									
17	Curtain rods 1" dia - stained wood									
18	Design drafting table (Maximum)									
	Design drafting table (Maximum)									
	Drapes / curtains (Minimum)									
22	Floor mat aluminum frame T section 1 1/2" high x 3/4" wide									
23	Floor mat bronze finish frame T section ! 1/2" high x 3/4" wide									
24	Floor mat, 1" thick hemp - rope / links matting									
25	Floor mat, 1/2" thick black rubber in-layed									
26	Floor mat, 1/4" thick black rubber with felt non slip top surface									
27	Floor mat, 3/8" thick black rubber in-layed									
28	Floor mat, 3/8" thick perforated black rubber in-layed									
29	Floor mat, vinyl 1/2" thick, recessed into metal frame									
30	Floor mat, vinyl 1/4" thick, recessed into metal frame									
	General office / furniture - set up - administrator (Maximum)									

0.13 Labor / Productivity Calibration

Labor Calibration

The following tablesgive examples / methodology of how to calibrate **labor**, material and detailed design specific construction costs for Repair / Retrofit, Upgrade and Maintenance type Construction projects, the degrees of difficulty are listed, and a weighted value has been assigned to each issue.

Table / Example - Good Productivity

Non-Union Workforce on a USA Repair or Maintenance Construction Project:

The following conditions are assumed to prevail in this specific example.

- · An abundance of skilled labor available
- · Good site conditions
- · No anticipated weather conditions
- No complex work

The following percentages below are the uplifts to standard labor hours for the example described above.

Good Productivity: USA Repair or Maintenance Project

Non-Union Workforce

Labor Issues	Assigned %	1	0.7	0.8	0.9	1.1	1.2	1.5	1.7	1.9	Total
Skilled and non skilled worker availability											
Union site - with union work rules											
Non Union site											
Worker commuting time											
Project Management and Supervision experience and communication skills to the work force											
Completed design and completed engineering deliverables											
Site conditions i.e. A clean site and well drained site can positively impact worker productivity											
Worker attitude - this could be the only significant job in this area, workers may work slower to endeavor to keep there job as long as possible											
Work space tight / limited access / congested work area											
Protection of completed work, i.e. tarpaulins, straw, plywood											
Dust noise mitigation Need for protection of floors, walls, ceilings											
Hand excavation and hand packing to existing foundations											
Limited use of construction equipment due to perhaps working in a confined area											
Quality Assurance needs associated paperwork											
Material handling logistics											
Extended work week / Overtime and shift work issues											
Cutting and patching existing materials and equipment and the associated temporary bracing and shoring											
Phasing of the construction effort											