



COMPASS
INTERNATIONAL INC.

SAMPLE

2024 INTERNATIONAL INFRASTRUCTURE PUBLIC WORKS



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01 INTRODUCTION AND CALIBRATION FACTORS

Includes the following:

- The Estimating Process.
- Location (Calibration) Factors - International values compared to Washington D.C. (Base of 1.00). Calibrations in this application are used to adjust the unit prices / schedule of rates depicted in the following Divisions 1 – 17.
- 188 # International Cities Location / Calibration Factors.
- General Conversion Values - Imperial to Metric Units.
- Import Duties General Sales Tax / Value. Added Tax / Consumption Tax.
- 280 # USA Location (Calibration) Factors.
- Detailed Design / Engineering / Architectural and CM Fees 51 # Facility Types.
- Merit Shop Labor Costs.
- USA and Canada State & Province Sales Tax / GST.
- Inflation Cost Indexes.

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27 COST MODELS / COST BENCHMARKS

Includes cost and quantity data on the following:

- Highways / Roads
- Bridges / Overpasses
- Tunnels / Underground Transit
- Railway Benchmarks
- Airports / EPC Metrics
- Home Office Engineering Costs
- General Civil related Benchmarks

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63 GENERAL REQUIREMENTS / GENERAL CONDITIONS / PRELIMINARIES

Includes cost data on the following:

- Rules of thumb
- Insurance Costs
- Protection of Completed Work
- Scaffolding
- Temporary Utilities, Structures & Fences
- Permits
- Testing / Inspection / Surveys
- Bonds
- Site Staff / Field Personnel
- Construction Equipment Costs / Rental
- Temporary Construction Items

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87 SITE CONSTRUCTION

Includes schedule of rates for:

- Demolition (including asbestos)
- Excavation
- Rock removal
- Hardcore / Stone
- Shoring
- Planking & Strutting / Sheet Piling
- Foundation Piling
- Utilities
- Miscellaneous Site Improvements
- Paving / Concrete Curbing
- Fencing
- Site Lighting
- Marine Work
- Underground Storage Tanks

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CONCRETE WORK

includes schedule of rates for:

- Concrete
- Formwork
- Reinforcement
- Precast Concrete
- Grouting

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MASONRY

Includes schedule of rates for:

- Brickwork / Masonry

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Includes schedule of rates for:

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- Metal Joists
- Metal Framing
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WOOD AND PLASTICS

Includes schedule of rates for:

- Rough Carpentry
- Finish Carpentry
- Carpentry Specialties

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179 THERMAL AND MOISTURE PROTECTION

includes schedule of rates for:

- Concrete
- Formwork
- Reinforcement
- Precast Concrete
- Grouting

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183 DOORS AND WINDOWS

Includes schedule of rates for:

- Wood and Plastic Doors
- Metal Doors and Frames
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185 FINISHES

Includes schedule of rates for:

- Painting and Coatings

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189 SPECIALTIES

Includes schedule of rates for:

- Miscellaneous Facility Specialties

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193 **EQUIPMENT**

Includes schedule of rates for:

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- Loading Dock Equipment
- Industrial and Process Equipment
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195 **FURNISHINGS**

Includes schedule of rates for:

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197 **SPECIAL CONSTRUCTION**

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- Radiation Protection
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201 **CONVEYING SYSTEMS**

Includes schedule of rates for:

- Elevators
- Escalators and Moving Walks
- Hoists and Cranes

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- Building Services Piping
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Includes schedule of rates for:

- Electrical Equipment / Transformers
- Cable / Control wire
- Conduit / Cable tray
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- Instrumentation and Controls
- Traffic Control

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(D) Roads Order of Magnitude Cost Benchmarks

COSTS INCLUDES ROW, TREE / BRUSH CLEARING, TEMPORARY ROADS, EXCAVATION, ENGINEERED FILL / STONE, TARMACADAM, PAVING, CONCRETE REBAR, FORMWORK, STRUCTURAL STEEL, SAFETY BARRIERS, LABOR, CONSTRUCTION EQUIPMENT, DETAILED DESIGN & CONSTRUCTION MANAGEMENT. (ACCURACY +/-20%). 2024 COST BASIS MID-WEST USA LOCATION:

#	DESCRIPTION	\$ LOW COST IN MILLION PER MILE	\$ HIGH COST IN MILLION PER MILE
1	Major 2 lane highway rural setting, excludes bridges. Includes detailed design, construction & construction oversight.	5,317,000	7,680,500
2	Major 2 lane highway urban setting, excludes bridges, ditto as above	6,498,850	11,816,250
3	Major Freeway / Interstate 4 lanes rural setting, excludes bridges, ditto as above	14,179,500	29,540,600
4	Major Freeway / Interstate 4 lanes rural setting, excludes bridges, excludes bridges, ditto as above	23,632,500	47,265,000
5	Elevated Major Freeway / Interstate, 4 lanes rural setting, excludes bridges, ditto as above	59,081,250	118,162,500
6	Elevated Major Freeway / Interstate, 4 lanes urban setting, excludes bridges, ditto as above	88,621,650	177,243,750

(E) US / Canada Highway Costs Rules of Thumb Benchmarks (2024)

DESCRIPTION	\$ COST IN MILLIONS (LOW)	\$ COST IN MILLIONS (HIGH)
1 2 lane rural undivided road / highway c/w drainage ditches	\$2.68	\$3.21
2 2 lane urban undivided road / highway c/w drainage ditches	\$3.21	\$5.36
3 2 lane city / town undivided road / highway c/w drainage ditches will cost between	\$4.28	\$6.43
4 4 lane rural undivided road / highway c/w drainage ditches will cost between	\$5.36	\$7.50
5 4 lane urban undivided road / highway c/w drainage ditches will cost between	\$7.50	\$9.64
6 4 lane city / town undivided road / highway c/w drainage ditches will cost between.	\$9.64	\$12.85
7 2 lane rural road converted to 4 lane c/w drainage ditches will cost between	\$1.61	\$2.68
8 2 lane urban road converted to 4 lane c/w drainage ditches will cost between	\$2.68	\$3.75
9 2 lane city / town road converted to 4 lane c/w drainage ditches will cost between	\$4.28	\$6.43
10 6 lane interstate highway in a rural area will cost between	\$6.43	\$10.71
11 6 lane interstate highway in a urban area will cost between	\$8.57	\$17.14

(G) New 7.3 Mile Highway c/w 6' central divide:

US – MID WEST 2023 COST BASIS:

#	DESCRIPTION	QTY	UOM	\$ COST/ MILE	\$ COST TOTAL	REMARKS
1	Construction Cost of highway described above per mile	7.3	Mile	3,466,550	25,305,815	9" Stone & 2.75" Asphalt paving / wearing course
2	Roundabout tie-in to existing road system	1	Each	278,500	278,500	
3	Signs / Road markings	7.3	Mile	65,200	475,960	
4	Re-route existing utilities	1	Each	173,530	173,530	
5	Engineering / Detailed Design	7.3	Mile	232,100	1,694,330	5.9% of construction cost
6	Construction Management	7.3	Mile	83,440	609,112	2.1% of construction cost
7	Inspection Services	7.3	Mile	48,340	352,882	1.2% of construction cost
8	TOTAL COST	7.3	MILE	4,297,690	28,890,129	
Accuracy +/- 20%						

(H) RURAL HIGHWAY US SOUTH EAST LOCATION 1.98 MILES IN LENGTH - 2023 COST BASIS: & EXTEND EXISTING BRIDGE OVER NEW HIGHWAY:

Convert existing 2 lane undivided highway 12' wide each direction complete with 60" wide paved breakdown / bike lane on each shoulder:

New scope includes 2 # 12' wide road lanes complete with 72" wide paved breakdown / bike lanes on each shoulder & 18' wide median drainage swale:

Scope includes: Milling & removal of exiting asphalt, augment existing stone / sub-base, stabilization, sediment barrier, clearing & grubbing, excavation, new asphalt paving, manholes, concrete catch pits, miscellaneous concrete foundations & pads, concrete pipe, corrugated pipe, fencing, turf, seeding, roadway striping painting, all necessary roadway signs & tie-into existing road system.

(H) Rural Highway US South East Location

1.98 MILES IN LENGTH - 2023 COST BASIS: & EXTEND EXISTING BRIDGE OVER NEW HIGHWAY:

#	DESCRIPTION	TOTAL \$ COST	\$ COST PER MILE	\$ COST PER KM
1	Total Construction Cost for 1.98 miles	\$9,222,235	\$4,657,694	\$2,892,978
2	Design / Engineering	\$276,667	\$139,731	\$86,789
3	Inspection Services	\$96,865	\$48,922	\$30,386
4	TOTAL COST	\$9,595,767	\$4,846,347	\$3,010,153
5	Low cost range -20%	\$7,676,614	\$3,877,078	\$2,408,123
6	High cost range + 20%	\$11,514,920	\$5,815,616	\$3,612,184

(A) Highway Bridges Order of Magnitude Cost Benchmarks

COSTS INCLUDES CLEARING, EXCAVATION, STONE, TARMACADAM, PAVING, CONCRETE REBAR, FORMWORK, STRUCTURAL STEEL, SAFETY BARRIERS, LABOR, CONSTRUCTION EQUIPMENT, DETAILED DESIGN & CONSTRUCTION MANAGEMENT. (ACCURACY +/-20%). 2023 COST BASIS:

#	BRIDGE TYPE	TYPICAL SPAN IN FEET	\$ COST PER SF	\$ COST PER M2 PER M2
1	Reinforced Concrete Slab.	15 – 40	\$280	\$3,020
2	Reinforced Concrete T Beam.	30 – 50	\$203	\$2,179
3	Reinforced Concrete Box Beam.	40 - 80	\$203	\$2,179
4	Pre Cast Slab / Beams.	20 - 40	\$225	\$2,421
5	Structural Steel / Concrete Joists & Beams.	40 - 100	\$371	\$3,995
6	For demo use 5% to 20 % of above cost values			
7	Reinforced Concrete (Includes Excavation, Rebar, Formwork & 3,500 PSI Concrete)	\$530 / Cubic Yard	\$695 / Cubic Meter	
8	Reinforced Concrete (Includes Excavation, Rebar, Formwork & 3,000 PSI Concrete)	\$475 / Cubic Yard	\$620 / Cubic Meter	
9	Reinforced Concrete (Includes Excavation, Rebar, Formwork & 2,500 PSI Concrete)	\$410 / Cubic Yard	\$537 / Cubic Meter	
10	Reinforced Concrete (Includes Excavation, Rebar, Formwork & 2,000 PSI Concrete)	\$370 / Cubic Yard	\$485 / Cubic Meter	

(B) Bridges Benchmarks

2024 COST BASIS:

#	DESCRIPTION	\$ COST (MINIMUM)	\$ COST (MAXIMUM)
1	Demolition of existing bridge & removal (SF Deck Area)	\$19	\$31
2	High Pressure / Hydro demolition to expose rebar (SF)	\$56	\$86
3	Roadway structural repair coating (SF) 1" thick	\$11	\$18
4	Ditto 2" thick	\$17	\$23
5	New Bridge (SF Deck Area)	\$198	\$256
6	Widen existing bridge / maintain existing deck (SF Deck Area)	\$226	\$284
7	Reinforced Concrete Flat Slab - Simple Span (SF Deck Area)	\$198	\$272
8	Reinforced Concrete Flat Slab - Continuous Span (SF Deck Area)	\$234	\$326
9	Steel Deck / Girder – Simple Span (SF Deck Area)	\$241	\$315
10	Steel Deck / Girder - Continuous Span (SF Deck Area)	\$324	\$399
11	Prestressed Concrete Deck / Girder - Simple Span (SF Deck Area)	\$238	\$308
12	Prestressed Concrete Deck / Girder - Continuous Span (SF Deck Area)	\$305	\$435
13	Post-tensioned - cast-in-place - Concrete Box Girder (SF Deck Area)	\$305	\$453
14	Steel Box Deck / Girder (SF Deck Area)	\$324	\$460
15	Add 10% to 20% to above values for curved applications	10%	21%
16	Concrete Box Girders / Sections (SF Deck Area)	\$101	\$148
17	Moveable bridge / bascule / counter weight bridge (SF Deck Area)	\$328	\$356

#	NEW RAIL ROAD COSTS:	\$ LOW COST PER MILE	\$ HIGH COST PER MILE	\$ LOW COST PER KM	\$ HIGH COST PER KM
CONTINUED					
30	Radio control system c/w cable & conduit	-	-		
31	Leaving Signal c/w cable & conduit	135,801	148,121		
32	Mounted signal device c/w support, cable & conduit	25,163	33,721		
33	Two lane remote Vehicle / Pedestrian crossing / signal device c/w moveable barrier	30,553	35,800		
DETAILED DESIGN AND CONSTRUCTION MANAGEMENT FEES					
35	Detailed Design	5.25%	7.50%		
36	Construction Management and Inspection	3.50%	4.75%		
37	Owner Engineering / Oversight	1.25%	2.25%		
TOTAL		10.00%	14.50%		

(C) Overhead Catenary Electrical Benchmarks

(CATENARY ELECTRIFICATION - AN OVERHEAD-WIRE ELECTRICAL / POWER SYSTEM)

2023 COST BASIS:

#	DESCRIPTION	\$ COST (MINIMUM)	\$ COST (MAXIMUM)	COMMENTS
1	Single Track System per Mile	120,000	250,000	Complete system for projects exceeding 5 miles
2	Double Track Ditto	210,000	320,000	Ditto
MAIN COMPONENT % SPLIT		% LOW	% HIGH	
3	Materials	48	53	Cable, Structural Steel, miscellaneous electrical equipment, concrete, stone & paint etc.
4	Direct Labor	23	28	
5	In-Directs	7	9	Site Supervision / Temporary field offices
6	Construction Equipment	8	10	
7	Detailed Design / O-H & P	8	10	

	2024 - Division 3 - Concrete - Merit Shop Labor	Unit	Material	Labor	Construction Equipment	Total
58	Plastizer agent	CY	\$4.15 - \$6.05			\$4.15 - \$6.05
59	Coloring agent	CY	\$9.45 - \$28.45			\$9.45 - \$28.45
60	Purchase price of rebar (USA National Average) in straight lengths d/d to site	TON				\$795 - \$985
61	Man-hours placing concrete in foundations per CY	HOURS				0.80 - 1.25
62	Man-hours placing concrete in columns & piers per CY	HOURS				0.90 - 1.40
63	Man-hours placing concrete in SOG over 6" thick per CY	HOURS				0.50 - 0.75
64	Man-hours placing concrete in beams per CY	HOURS				0.95 - 1.60
65	Man-hours placing concrete in suspended flatwork per CY	HOURS				0.85 - 1.40
66	Man-hours placing rebar in foundations per Ton	HOURS				17 - 25
67	Man-hours placing rebar in SOG per Ton	HOURS				14 - 20
68	Man-hours placing rebar in columns & beams per Ton	HOURS				24 - 35
69	Man-hours to fabricate (cut & bend) rebar per Ton	HOURS				14 - 31
	Reinforced 3,000 PSI Concrete Foundations, total installed cost, includes formwork, concrete and rebar, excludes excavation and backfill					
70	Continuous spread footings 36" wide X 12" deep - 36" below grade with 6 # 1/2" dia rebars (Maximum)	CY	212.46	158.75	36.86	408.07
71	Continuous spread footings 36" wide X 12" deep - 36" below grade with 6 # 1/2" dia rebars (Minimum)	CY	179.42	116.76	27.11	323.28
72	Pile caps & strip footings over 5 CY	CY	180.79	128.76	29.89	339.44
73	Pile caps & strip footings under 5 CY	CY	208.05	145.55	33.79	387.39
74	Ground beams (Maximum)	CY	404.02	278.35	64.62	746.99
75	Ground beams (Minimum)	CY	332.96	239.60	55.62	628.18
76	Retaining wall foundations (Maximum)	CY	322.13	231.71	53.79	607.63
77	Retaining wall foundations (Minimum)	CY	234.79	163.02	37.85	435.66

	2024 Division 5 - Structural Steel / Metals - Merit Shop	Unit	Material	Labor	Construction Equipment	Total
56	Labor only to install miscellaneous steel brackets, straps, bollards, gussets, corner guards, embedment's, checker plate and other minor metal items	TON				30 - 60 man-hours
57	One coat paint system applied in fabrication facility	TON				1 - 2.5 man-hours
58	Touch up at site after or prior to erection	TON				0.75 - 1.5 man- hours
59	Two coat finish paint application after erection	TON				1.75 - 3.00 man- hours
60	Sandblasting man-hours to structural steel shapes	TON				1.75 - 2.75 man- hours
61	Cost to galvanize structural steel (Maximum)	TON				\$830
62	Ditto (Minimum)	TON				\$575
63	Pressure washing structural steel	TON				0.12 - 0.15
	Structural Steel Metrics					
64	Pounds of steel required for light manufacturing / warehouse facility 1 story - pounds per SF of usable space (Footprint)	POUND				8 - 15 pounds per SF
65	Pounds of steel required for 5 - 10 story office / hotel facility, ditto	POUND				10 - 20 pounds per SF
66	Pounds of steel required for heavy manufacturing facility 1 - 3 story, ditto	POUND				15 - 35 pounds per SF
	Material and Labor Values					
67	A 36 Steel purchased from mill (not fabricated) (Maximum)	TON	1,370			1,370
68	A 36 Steel purchased from mill (not fabricated) (Minimum)	TON	885			885
69	A 36 Heavy steel fabricated with bolted connections d/d to site (Maximum)	TON	4,545			4,545
70	A 36 Heavy steel fabricated with bolted connections d/d to site (Minimum)	TON	3,830			3,830
71	A 36 Heavy steel fabricated with welded connections d/d to site (Maximum)	TON	4,590			4,590
72	A 36 Heavy steel fabricated with welded connections d/d to site (Minimum)	TON	4,020			4,020
73	Erected A 36 Heavy steel fabricated with bolted connections (Maximum)	TON	4,608	387	82	5,077

	2024 Division 13 - Special Construction - Merit Shop	Unit	Material	Labor	Constr Equipt	Total
40	Pre-fabricated metal building 26 g metal - 20' wide span - 14' eaves height- excludes foundations / incoming services	SFFA	12.62	11.82	5.85	30.29
41	Pre-fabricated metal building 26 g metal - 20' wide span - 16' eaves height- excludes foundations / incoming services	SFFA	13.31	12.47	6.17	31.96
42	Pre-fabricated metal building 26 g metal - 20' wide span - 20' eaves height- excludes foundations / incoming services	SFFA	14.29	13.38	6.62	34.29
43	Pre-fabricated metal building 26 g metal - 30' - 40' wide span - 14' eaves height- excludes foundations / incoming services	SFFA	10.68	10.00	4.95	25.63
44	Pre-fabricated metal building 26 g metal - 30' - 40' wide span - 16' eaves height- excludes foundations / incoming services	SFFA	11.37	10.65	5.27	27.30
45	Pre-fabricated metal building 26 g metal - 30' - 40' wide span - 20' eaves height- excludes foundations / incoming services	SFFA	12.34	11.56	5.72	29.63
46	Pre-fabricated metal building 26 g metal - 40' - 60' wide span - 14' eaves height- excludes foundations / incoming services	SFFA	9.02	8.45	4.18	21.64
47	Pre-fabricated metal building 26 g metal - 40' - 60' wide span - 16' eaves height- excludes foundations / incoming services	SFFA	9.71	9.09	4.50	23.30
48	Pre-fabricated metal building 26 g metal - 40' - 60' wide span - 20' eaves height- excludes foundations / incoming services	SFFA	10.68	10.00	4.95	25.63
49	Recording / Broadcasting customized studios - n/e 1,500 SF c/w electrical / audio system	SFFA	81.83	144.36	8.11	234.31
50	Smoke detector including hook up	EACH	122.05	130.89	9.81	262.75
51	Sound deadening panel / enclosure - 4" thick attached to existing wall	SF	51.64	15.01	0.62	67.28
52	Sound isolation flooring system	SF	8.14	10.42	0.43	18.99
53	Storage silo - concrete 12' diameter x 36' high includes foundation	EACH	31,900	17,669	927	50,496
54	Storage silo - concrete 16' diameter x 48' high includes foundation	EACH	41,053	22,740	1,193	64,986

	2024 Division 15 - Mechanical Work - Merit Shop	Unit of Measure	Material	Labor	Construction Equipt	Total
392	1" dia	EACH	7.04	46.75	3.80	57.58
393	1 1/2" dia	EACH	12.46	46.75	3.80	63.01
394	2" dia	EACH	20.12	59.65	4.84	84.61
395	3" dia	EACH	77.69	99.79	8.10	185.58
396	4" dia	EACH	139.55	153.14	12.43	305.13
397	Cast iron black pipe fittings - Tee threaded 1/2" dia	EACH	5.12	36.43	2.96	44.51
398	3/4" dia	EACH	5.54	36.43	2.96	44.93
399	1" dia	EACH	7.40	48.04	3.90	59.34
400	1 1/2" dia	EACH	13.11	48.04	3.90	65.05
401	2" dia	EACH	20.63	60.94	4.95	86.51
402	3" dia	EACH	79.67	102.69	8.34	190.69
403	4" dia	EACH	143.10	156.37	12.69	312.16
404	Cast Iron black flanged c/w gasket and bolts 90 degree elbow 2" dia	EACH	228.27	87.05	7.07	322.39
405	Ditto 4" dia	EACH	255.78	137.02	11.12	403.93
406	Ditto 6" dia	EACH	396.04	187.00	15.18	598.22
407	Ditto 8" dia	EACH	695.82	212.79	17.27	925.89
408	Ditto 10" dia	EACH	1,520.91	254.70	20.68	1,796.29
409	Ditto 12" dia	EACH	2,898.81	283.72	23.03	3,205.56
410	Cast Iron black flanged c/w gasket and bolts 45 degree elbow 2" dia	EACH	333.29	87.05	7.07	427.41
411	Ditto 4" dia	EACH	387.79	137.02	11.12	535.94
412	Ditto 6" dia	EACH	533.56	187.00	15.18	735.74
413	Ditto 8" dia	EACH	869.09	212.79	17.27	1,099.16
414	Ditto 10" dia	EACH	1,771.19	254.70	20.68	2,046.57
415	Ditto 12" dia	EACH	2,981.09	283.72	23.03	3,287.84
416	Cast Iron black flanged c/w gasket and bolts Tee 2" dia	EACH	250.28	137.02	11.12	398.42
417	Ditto 4" dia	EACH	382.29	212.79	17.27	612.36
418	Ditto 6" dia	EACH	558.31	286.94	23.29	868.55
419	Ditto 8" dia	EACH	973.60	357.87	29.05	1,360.53
420	Forged steel 150 pound - cost per flange 2" dia	EACH	31.08	36.59	2.97	70.64
421	Ditto 4" dia	EACH	44.83	93.50	7.59	145.92
422	Ditto 6" dia	EACH	74.26	132.19	10.73	217.18
423	Forged steel 300 pound - cost per flange 2" dia	EACH	36.58	36.59	2.97	76.14
424	Ditto 4" dia	EACH	71.78	93.50	7.59	172.87
425	Ditto 6" dia	EACH	135.86	132.19	10.73	278.78
426	PVC sch 40 - 90 degree elbow white with socket joints 1/2" dia	EACH	0.55	20.32	1.65	22.52
427	Ditto 3/4" dia	EACH	0.62	20.32	1.65	22.59
428	Ditto 1" dia	EACH	0.98	20.32	1.65	22.95
429	Ditto 2" dia	EACH	2.81	29.67	2.41	34.89

	2024 Division 16 - Electrical Work - Merit Shop	Unit	Material	Labor	Construct Equip	Total
123	Man-hours to install transformer - dry 100 kva	EACH				24 - 32 hours per unit
124	Man-hours to install transformer - dry 225 kva	EACH				30 - 40 hours per unit
125	Man-hours to install transformer - dry 500 kva	EACH				40 - 50 hours per unit
126	2,000 v power cable 1/C - 750 MCM	LF				0.09 - 0.12 hours per LF
127	2,000 v power cable 1/C - 500 MCM	LF				0.08 - 0.10 hours per LF
128	2,000 v power cable 1/C - 750 MCM - terminations	EACH				2.00 - 3.00 hours per unit
129	2,000 v power cable 1/C - 500 MCM - terminations	EACH				1.80 - 2.50 hours per unit
130	Electronic alarm point	EACH				2.50 per device
131	Electronic flow switch (high / low)	EACH				3.00 per device
132	Electronic magnetic flow meter 1"	EACH				3.50 per device
133	Ditto 2"	EACH				4.25 per device
134	Ditto 3"	EACH				8.00 per device
135	Ditto 4"	EACH				12.00 per device
136	Electronic pressure recorder	EACH				12.00 per device
137	Electronic turbine flow meter 1"	EACH				4.00 per device
138	Ditto 2"	EACH				8.00 per device
139	Electronic swirl meter 1"	EACH				4.50 per device
140	Ditto 2"	EACH				8.00 per device
141	Electronic temperature controller	EACH				6.50 per device
142	Electronic flow indicator	EACH				5.00 per device
143	Electronic PD flow indicator	EACH				5.50 per device