

APPENDICES

Appendix A - Detailed Project Schedule

ID	Task Name	Duration	Start	Finish	2006																													
					June		July		August		September		October		November		December		January		February		March		April		May		June		July		Aug	
					6/5	6/19	7/3	7/17	7/31	8/14	8/28	9/11	9/25	10/9	10/23	11/6	11/20	12/4	12/18	1/1	1/15	1/29	2/12	2/26	3/12	3/26	4/9	4/23	5/7	5/21	6/4	6/18	7/2	7/16
	Sitework	222 days	7/1/05	5/8/06																														
1	UG Storm & Sanitary	20 days	7/1/05	7/28/05																														
2	Site Demolition	5 days	3/1/06	3/7/06																														
3	Site Wall	10 days	3/8/06	3/21/06																														
4	New Curb and Gutter	10 days	3/22/06	4/4/06																														
5	Subbase & Paving	10 days	4/5/06	4/18/06																														
6	Signage & Accessories	10 days	4/19/06	5/2/06																														
7	Landscaping	12 days	4/21/06	5/8/06																														
	Area G	214 days	7/25/05	5/18/06																														
	Demolition	37 days	7/25/05	9/13/05																														
8	Ceiling Demo	5 days	7/25/05	7/29/05																														
9	Negative Air Systems & Temp. Water	10 days	7/25/05	8/5/05																														
10	Interior Demo	25 days	8/4/05	9/7/05																														
11	Courtyard Demo & Excavation	25 days	8/1/05	9/2/05																														
12	Structural Demolition	14 days	8/1/05	8/18/05																														
13	Window Removal	10 days	8/31/05	9/13/05																														
	Structure	52 days	8/26/05	11/7/05																														
14	Underslab Electrical/Piping	18 days	8/26/05	9/20/05																														
15	Courtyard Footings, 1st Column Lift	5 days	9/9/05	9/15/05																														
16	Courtyard SOG	5 days	9/20/05	9/26/05																														
17	FRP 1st Floor Slab	6 days	9/27/05	10/4/05																														
18	FRP 2nd Floor Columns & Slab	8 days	10/5/05	10/14/05																														
19	FRP 3rd Floor Columns & Slab	8 days	10/17/05	10/26/05																														
20	FRP 4th Floor Columns & Slab	8 days	10/27/05	11/7/05																														
21	Bridge Footings and Piers	6 days	9/7/05	9/14/05																														
22	Bridge Structural Steel/Deck	15 days	9/19/05	10/7/05																														
23	Connector Bridge Concrete	5 days	10/10/05	10/14/05																														
24	New Entrance Footings/Piers	7 days	9/7/05	9/15/05																														

Appendix B - RAM Output



Echo of Input Data

Layout Types:

typical
 roof

Tables Selected:

Deck Table: ramdecks
 Master Steel Table: ramaisc
 Default Steel Table: ramaisc
 Alternate Steel Table: ramaisc
 Column Steel Table: ramaisc
 Reinforcement Table: RAMASTM
 Pan Form Table: RamCECO

Story Data:

Level	Story Label	Layout Type	Height (ft)
4	roof	roof	11.000
3	3	typical	11.000
2	3	typical	11.000
1	3	typical	11.000

Composite Deck Properties:

ID	Thick in	Unit Wt pcf	f'c ksi	Stud in	Diam in	Shoring	Deck Type
1	5.00	115.00	3.00	4.00	0.75	No	USD 2" Lok-Floor

ID	Hr in	Rib Spacing in	Wr in	AcRib in	YBar in
1	2.00	12.00	6.000	12.000	1.056

Load Properties:

Surface:

ID	DL psf	Constr DL psf	LL psf	Reduction Type	Constr LL psf	Mass DL psf
Load	30.0	0.0	80.0	Reducible	0.0	0.0
roof	8.0	0.0	25.0	Reducible	0.0	0.0

Grid Systems:

System Label	Type	X Offset ft	Y Offset ft	Rotation
grid1	Orthogonal	0.000	0.000	0.00

Grids:

System: grid1

X Grids	Label	X ft	Min Y ft	Max Y ft
	1	0.0000	----	----
	2	10.0000	----	----



Echo of Input Data

X Grids	Label	X	Min Y	Max Y
	3	20.0000	----	----
	4	30.0000	----	----
	5	40.0000	----	----

Y Grids	Label	Y ft	Min X ft	Max X ft
	1	0.0000	----	----
	2	10.5000	----	----
	3	21.0000	----	----
	4	31.5000	----	----
	5	42.0000	----	----

DATA FOR FLOOR TYPE: typical

Grid Systems:

grid1

Columns:

ID	X ft	Y ft	Shape	Orientation Angle	Param* ksi	Max% LLRed	Frame Type
2	0.000	31.500	W	90.00	50.0	None	Gravity
3	40.000	31.500	W	90.00	50.0	None	Gravity
4	40.000	10.500	W	90.00	50.0	None	Gravity
5	0.000	10.500	W	90.00	50.0	None	Gravity
6	20.000	0.000	W	90.00	50.0	None	Gravity
7	20.000	42.000	W	90.00	50.0	None	Gravity

* Parameter: Steel - Fy
 Concrete - f'c
 Other - E

Beams:

ID	Xi ft	Yi ft	Xj ft	Yj ft	Param* ksi	Max% LLRed	Type	Frame Type	User Size
1	0.000	10.500	40.000	10.500	50.0	None	Comp	Gravity	None
2	0.000	31.500	40.000	31.500	50.0	None	Comp	Gravity	None
3	0.000	0.000	0.000	42.000	50.0	None	Comp	Gravity	None
4	40.000	0.000	40.000	42.000	50.0	None	Comp	Gravity	None
5	0.000	21.000	40.000	21.000	50.0	None	Comp	Gravity	None
6	0.000	42.000	20.000	42.000	50.0	None	Comp	Gravity	None
7	20.000	42.000	40.000	42.000	50.0	None	Comp	Gravity	None
8	20.000	0.000	40.000	0.000	50.0	None	Comp	Gravity	None
9	0.000	0.000	20.000	0.000	50.0	None	Comp	Gravity	None

* Parameter: Steel - Fy
 Concrete - f'c



Other - E

Steel Beam Properties:

ID	Max Depth in	Min Depth in	Min Width in	Steel Table	Defl Criteria
1	None	0.00	0.00	Def.	Def.
2	None	0.00	0.00	Def.	Def.
3	None	0.00	0.00	Def.	Def.
4	None	0.00	0.00	Def.	Def.
5	None	0.00	0.00	Def.	Def.
6	None	0.00	0.00	Def.	Def.
7	None	0.00	0.00	Def.	Def.
8	None	0.00	0.00	Def.	Def.
9	None	0.00	0.00	Def.	Def.

Slab Edges:

Xi ft	Yi ft	Xj ft	Yj ft	Edge Dist in
0.000	31.500	0.000	42.000	1.0
0.000	42.000	20.000	42.000	1.0
20.000	42.000	40.000	42.000	1.0
40.000	31.500	40.000	42.000	1.0
40.000	10.500	40.000	31.500	1.0
40.000	0.000	40.000	10.500	1.0
20.000	0.000	40.000	0.000	1.0
0.000	0.000	20.000	0.000	1.0
0.000	0.000	0.000	10.500	1.0
0.000	10.500	0.000	31.500	1.0

Deck Polygons:

Deck Prop ID	Angle	X-Coord ft	Y-Coord ft
1	90.00	-5.00	47.00
		45.00	47.00
		45.00	-5.00
		-5.00	-5.00
		-5.00	47.00

Load Polygons:

Load Properties ID	X-Coord ft	Y-Coord ft
Load	-5.00	47.00
	45.00	47.00
	45.00	-5.00
	-5.00	-5.00
	-5.00	47.00



DATA FOR FLOOR TYPE: roof

Grid Systems:

grid1

Columns:

ID	X ft	Y ft	Shape	Orientation Angle	Param* ksi	Max% LLRed	Frame Type
1	0.000	31.500	W	90.00	50.0	None	Gravity
2	40.000	31.500	W	90.00	50.0	None	Gravity
3	0.000	10.500	W	90.00	50.0	None	Gravity
4	40.000	10.500	W	90.00	50.0	None	Gravity
5	20.000	0.000	W	90.00	50.0	None	Gravity
6	20.000	42.000	W	90.00	50.0	None	Gravity

* Parameter: Steel - Fy
 Concrete - f'c
 Other - E

Beams:

ID	Xi ft	Yi ft	Xj ft	Yj ft	Param* ksi	Max% LLRed	Type	Frame Type	User Size
1	0.000	31.500	40.000	31.500	50.0	None	Comp	Gravity	None
2	0.000	10.500	40.000	10.500	50.0	None	Comp	Gravity	None
3	40.000	0.000	40.000	42.000	50.0	None	Comp	Gravity	None
4	0.000	0.000	0.000	42.000	50.0	None	Comp	Gravity	None
5	0.000	21.000	40.000	21.000	50.0	None	Comp	Gravity	None
6	20.000	42.000	40.000	42.000	50.0	None	Comp	Gravity	None
7	0.000	42.000	20.000	42.000	50.0	None	Comp	Gravity	None
8	20.000	0.000	40.000	0.000	50.0	None	Comp	Gravity	None
9	0.000	0.000	20.000	0.000	50.0	None	Comp	Gravity	None

* Parameter: Steel - Fy
 Concrete - f'c
 Other - E

Steel Beam Properties:

ID	Max Depth in	Min Depth in	Min Width in	Steel Table	Defl Criteria
1	None	0.00	0.00	Def.	Def.
2	None	0.00	0.00	Def.	Def.
3	None	0.00	0.00	Def.	Def.
4	None	0.00	0.00	Def.	Def.
5	None	0.00	0.00	Def.	Def.
6	None	0.00	0.00	Def.	Def.



Echo of Input Data

ID	Max	Min	Min	Steel	Defl
7	None	0.00	0.00	Def.	Def.
8	None	0.00	0.00	Def.	Def.
9	None	0.00	0.00	Def.	Def.

Slab Edges:

Xi ft	Yi ft	Xj ft	Yj ft	Edge Dist in
0.000	31.500	0.000	42.000	1.0
0.000	42.000	20.000	42.000	1.0
20.000	42.000	40.000	42.000	1.0
40.000	31.500	40.000	42.000	1.0
40.000	10.500	40.000	31.500	1.0
40.000	0.000	40.000	10.500	1.0
20.000	0.000	40.000	0.000	1.0
0.000	0.000	20.000	0.000	1.0
0.000	0.000	0.000	10.500	1.0
0.000	10.500	0.000	31.500	1.0

Deck Polygons:

Deck Prop ID	Angle	X-Coord ft	Y-Coord ft
1	90.00	-5.00	47.00
		45.00	47.00
		45.00	-5.00
		-5.00	-5.00
		-5.00	47.00

Load Polygons:

Load Properties ID	X-Coord ft	Y-Coord ft
roof	-5.00	47.00
	45.00	47.00
	45.00	-5.00
	-5.00	-5.00
	-5.00	47.00
roof	-5.00	47.00
	45.00	47.00
	45.00	-5.00
	-5.00	-5.00
	-5.00	47.00



Beam Summary

STEEL BEAM DESIGN SUMMARY:

Floor Type: roof

Bm #	Length ft	+Mu kip-ft	-Mu kip-ft	Mn kip-ft	Fy ksi	Beam Size	Studs
8	20.00	14.2	0.0	68.6	50.0	W8X10	7
3	10.50	0.0	-31.8				
	21.00	48.7	-31.8	169.1	50.0	W12X19	10
	10.50	0.0	-31.8				
2	40.00	87.5	0.0	140.1	50.0	W10X12	18
5	40.00	87.5	0.0	140.1	50.0	W10X12	18
1	40.00	87.5	0.0	140.1	50.0	W10X12	18
6	20.00	14.2	0.0	68.6	50.0	W8X10	7
9	20.00	14.2	0.0	68.6	50.0	W8X10	7
7	20.00	14.2	0.0	68.6	50.0	W8X10	7
4	10.50	0.0	-31.8				
	21.00	48.7	-31.8	169.1	50.0	W12X19	10
	10.50	0.0	-31.8				

Floor Type: typical

Bm #	Length ft	+Mu kip-ft	-Mu kip-ft	Mn kip-ft	Fy ksi	Beam Size	Studs
8	20.00	45.7	0.0	68.6	50.0	W8X10	7
3	10.50	0.0	-100.3				
	21.00	159.9	-100.3	349.4	50.0	W16X31	17
	10.50	0.0	-100.3				
2	40.00	288.2	0.0	351.9	50.0	W16X26	28
5	40.00	288.2	0.0	351.9	50.0	W16X26	28
1	40.00	288.2	0.0	351.9	50.0	W16X26	28
6	20.00	45.7	0.0	68.6	50.0	W8X10	7
9	20.00	45.7	0.0	68.6	50.0	W8X10	7
7	20.00	45.7	0.0	68.6	50.0	W8X10	7
4	10.50	0.0	-100.3				
	21.00	159.9	-100.3	349.4	50.0	W16X31	17
	10.50	0.0	-100.3				

* after Size denotes beam failed stress/capacity criteria.
 # after Size denotes beam failed deflection criteria.
 u after Size denotes this size has been assigned by the User.



Beam Deflection Summary

STEEL BEAM DEFLECTION SUMMARY:

Floor Type: typical

Composite / Unshored

Bm #	Beam Size	Initial in	PostLive in	PostTotal in	NetTotal in	Camber in
9	W8X10	0.041	0.403	0.554	0.595	
3		0.018	0.633	0.734	0.753	
	W16X31	0.004	0.237	0.258	0.263	
		0.018	0.633	0.734	0.753	
1	W16X26	0.172	1.201	1.788	1.961	
5	W16X26	0.172	1.201	1.788	1.961	
2	W16X26	0.172	1.201	1.788	1.961	
6	W8X10	0.041	0.403	0.554	0.595	
8	W8X10	0.041	0.403	0.554	0.595	
7	W8X10	0.041	0.403	0.554	0.595	
4		0.018	0.633	0.734	0.753	
	W16X31	0.004	0.237	0.258	0.263	
		0.018	0.633	0.734	0.753	

Floor Type: roof

Composite / Unshored

Bm #	Beam Size	Initial in	PostLive in	PostTotal in	NetTotal in	Camber in
9	W8X10	0.041	0.124	0.164	0.204	
4		0.070	0.483	0.557	0.627	
	W12X19	0.010	0.164	0.177	0.168	
		0.070	0.483	0.557	0.627	
2	W10X12	0.445	1.073	1.520	1.965	
5	W10X12	0.445	1.073	1.520	1.965	
1	W10X12	0.445	1.073	1.520	1.965	
7	W8X10	0.041	0.124	0.164	0.204	
8	W8X10	0.041	0.124	0.164	0.204	
6	W8X10	0.041	0.124	0.164	0.204	
3		0.070	0.483	0.557	0.627	
	W12X19	0.010	0.164	0.177	0.168	
		0.070	0.483	0.557	0.627	

Percent of Dead Load Used for Camber Calculation = 80.00%

(Constr Dead Load for Unshored)

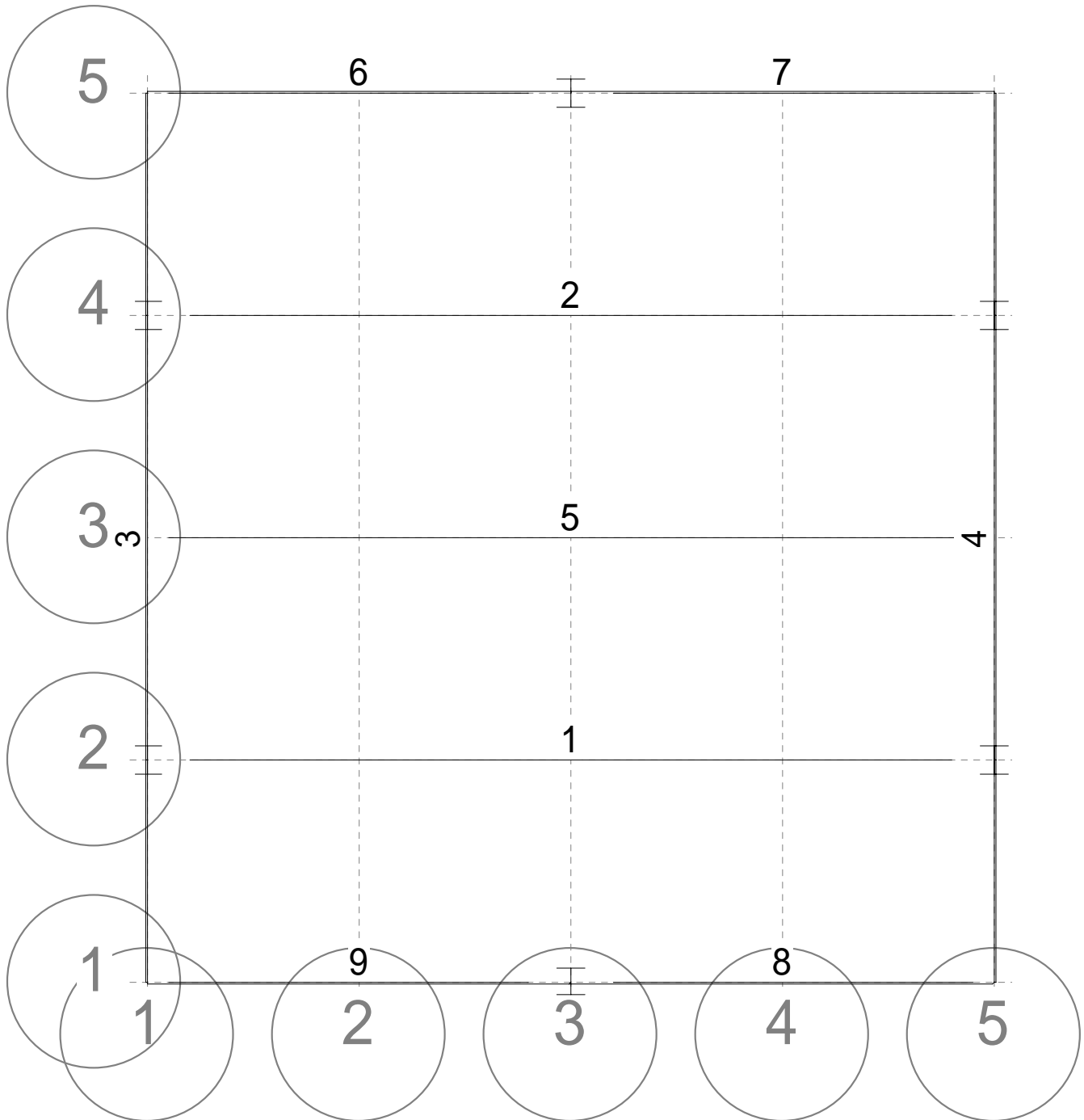
Camber Increment (in) = 0.250

Minimum Camber (in) = 0.750



Floor Map

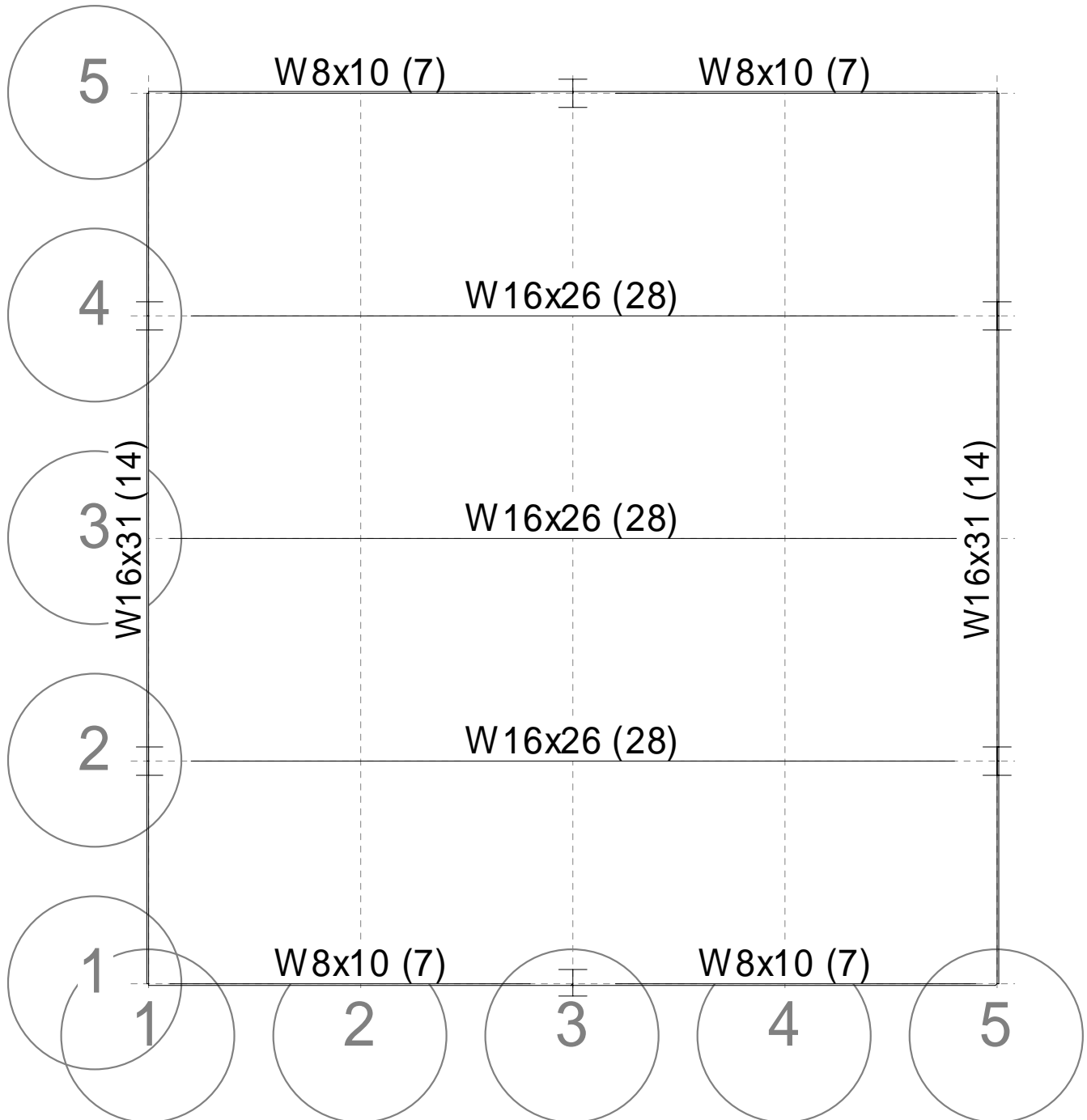
Floor Type: typical





Floor Map

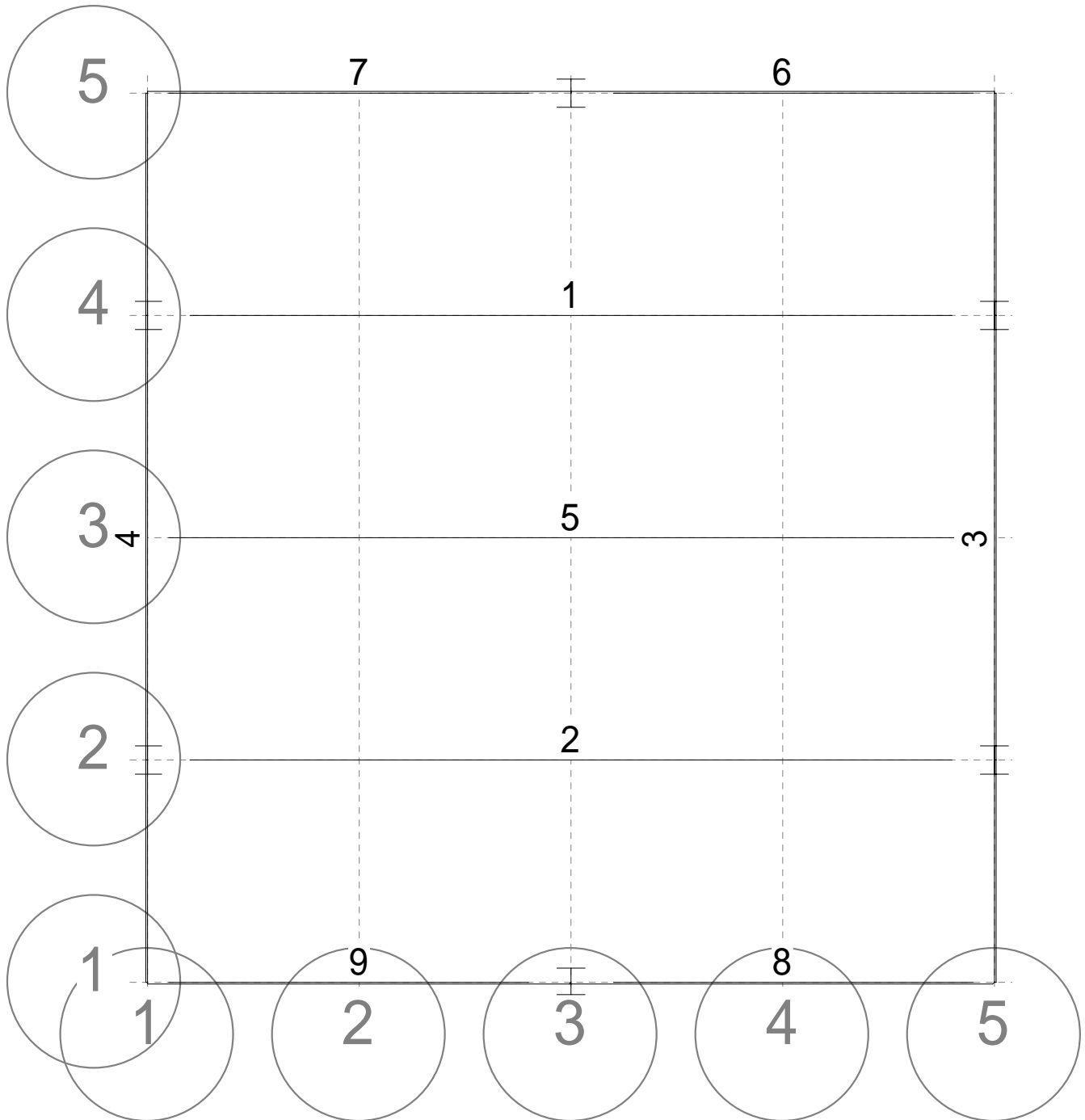
Floor Type: typical





Floor Map

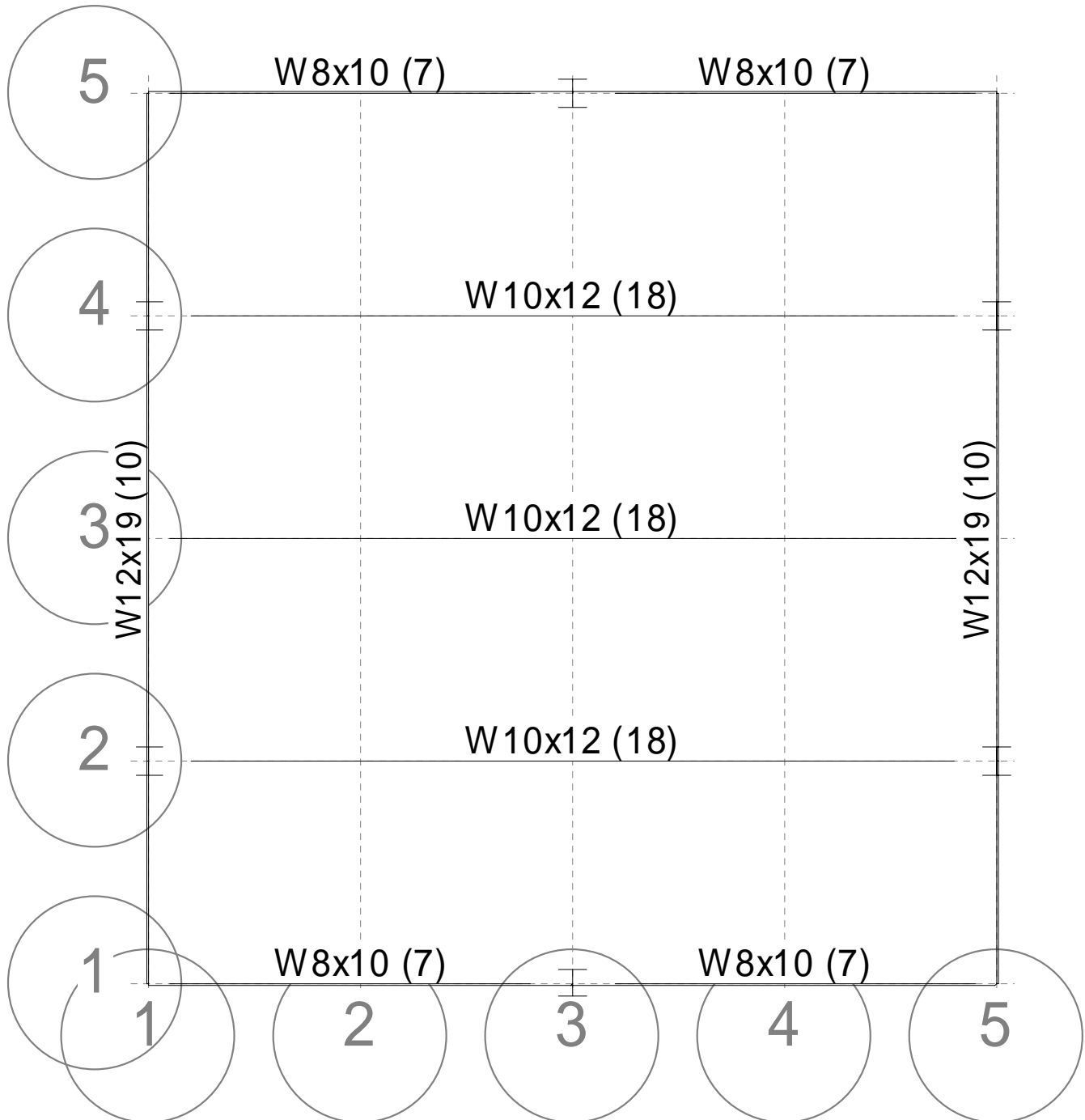
Floor Type: roof





Floor Map

Floor Type: roof





Gravity Column Design Summary

Column Line 1 - 2

Level	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
roof	16.0	0.0	0.0	1	0.05 Eq H1-1b	90.0	50	W10X33
3	58.5	0.0	0.0	1	0.20 Eq H1-1b	90.0	50	W10X33
3	96.1	0.0	0.0	1	0.33 Eq H1-1a	90.0	50	W10X33
3	131.7	0.0	0.0	1	0.45 Eq H1-1a	90.0	50	W10X33

Column Line 1 - 4

Level	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
roof	16.0	0.0	0.0	1	0.05 Eq H1-1b	90.0	50	W10X33
3	58.5	0.0	0.0	1	0.20 Eq H1-1b	90.0	50	W10X33
3	96.1	0.0	0.0	1	0.33 Eq H1-1a	90.0	50	W10X33
3	131.7	0.0	0.0	1	0.45 Eq H1-1a	90.0	50	W10X33

Column Line 3 - 1

Level	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
roof	5.8	0.0	1.8	2	0.04 Eq H1-1b	90.0	50	W10X33
3	19.9	0.0	0.0	1	0.07 Eq H1-1b	90.0	50	W10X33
3	31.8	0.0	0.0	1	0.11 Eq H1-1b	90.0	50	W10X33
3	43.0	0.0	0.0	1	0.15 Eq H1-1b	90.0	50	W10X33

Column Line 3 - 5

Level	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
roof	5.8	0.0	1.8	2	0.04 Eq H1-1b	90.0	50	W10X33
3	19.9	0.0	0.0	1	0.07 Eq H1-1b	90.0	50	W10X33
3	31.8	0.0	0.0	1	0.11 Eq H1-1b	90.0	50	W10X33
3	43.0	0.0	0.0	1	0.15 Eq H1-1b	90.0	50	W10X33

Column Line 5 - 2

Level	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
roof	16.0	0.0	0.0	1	0.05 Eq H1-1b	90.0	50	W10X33
3	58.5	0.0	0.0	1	0.20 Eq H1-1b	90.0	50	W10X33
3	96.1	0.0	0.0	1	0.33 Eq H1-1a	90.0	50	W10X33
3	131.7	0.0	0.0	1	0.45 Eq H1-1a	90.0	50	W10X33

Column Line 5 - 4

Level	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
roof	16.0	0.0	0.0	1	0.05 Eq H1-1b	90.0	50	W10X33
3	58.5	0.0	0.0	1	0.20 Eq H1-1b	90.0	50	W10X33
3	96.1	0.0	0.0	1	0.33 Eq H1-1a	90.0	50	W10X33
3	131.7	0.0	0.0	1	0.45 Eq H1-1a	90.0	50	W10X33



Spread Footing Design Summary

Grid	Orientation Col/Foot	Dimensions (ft)			f'c/fy ksi	Bottom Reinforcement		Top Reinforcement	
		Length	Width	Thick		Parallel to Length	Parallel to Width	Parallel to Length	Parallel to Width
(1 - 2)	90.00/90.00	5.00	5.00	1.50	3.00/60.00	10-#4	10-#4	None	None
(1 - 4)	90.00/90.00	5.00	5.00	1.50	3.00/60.00	10-#4	10-#4	None	None
(3 - 1)	90.00/90.00	3.00	3.00	1.50	3.00/60.00	6-#4	6-#4	None	None
(3 - 5)	90.00/90.00	3.00	3.00	1.50	3.00/60.00	6-#4	6-#4	None	None
(5 - 2)	90.00/90.00	5.00	5.00	1.50	3.00/60.00	10-#4	10-#4	None	None
(5 - 4)	90.00/90.00	5.00	5.00	1.50	3.00/60.00	10-#4	10-#4	None	None

* - Number between () in reinforcement is quantity of bars in center strip of rectangular footing

Appendix C - General Conditions Estimate

Item	Unit Cost/Hr	Time (Hrs)	Cost
Project Manager	\$52	1852	\$96,304
Project Engineer	\$36	2046	\$73,656
Superintendent	\$65	2210	\$143,650
MEP Coordinator	\$89	330	\$29,370
Office Manager	\$21	1780	\$37,380
Safety Director	\$50	62	\$3,100
	Unit Cost/Wk	Time (Wks)	Cost
Trailer Setup	\$3,000	LS	\$3,000
Trailer Rental	\$175	44	\$7,700
Final Clean-Up	\$225	44	\$9,900
Rubbish Removal	\$450	44	\$19,800
Temporary Fence	\$175	44	\$7,700
Job Signs	\$3,000	LS	\$3,000
Telephone	\$90	44	\$3,960
Office Supplies	\$250	44	\$11,000
Safety Supplies	\$4,000	LS	\$4,000
Bond Premiums	\$26,000	LS	\$26,000
Liability Insurance	\$17,500	LS	\$17,500
Computers	\$10,500	LS	\$10,500
Hoist Set-Up	\$10,000	LS	\$10,000
Hoist Rental	\$500	44	\$22,000
Travel Expenses	\$400	44	\$17,600
Temporary Utilities	\$175	44	\$7,700
Estimate Total			\$564,820

- Cost per week - \$12,837

Appendix D - MC² Estimate Summary

Estimate Detail - Frederick Memorial Hospital Courtyard Infill Structure

Detail - Without Taxes and Insurance

Estimator : Abe Vogel
Project Size : sqft

ItemCode	Description	Quantity	UM	Lab.Unit	Mat.Unit	Eqp.Unit	Sub.Unit	Eqp.Rent.Unit	Temp.Mat.Unit	Other Unit	Tot.UnitCost	TotalCost
03111.800		656.00	EACH									
03150.650	SCREEDS FOR SLAB	806.40	LNFT	0.9219	0.320						1.242	1,001.47
03210.210	COLUMN FOOTING REBAR	4.14	CWT	31.7857	26.750						58.536	242.43
03220.010	6x6 W1.4/W1.4 MESH	73.92	SQS	18.8640	8.200						27.064	2,000.57
03310.200	**CONC IN COLUMN FOOTING**		****									
03310.203	3000 PSI W/CART	8.33	CUYD	13.1475	55.000						68.148	567.90
03315.972	* NO. OF COLUMN FOOTINGS *	6.00	EACH									
03311.700	**CONC IN SLAB OVER MTL DECK**		****									
03311.706	3000 PSI W/PUMP	82.96	CUYD	12.5997	55.000	5.280					72.880	6,046.32
03315.991	* SLAB OVER METAL DECK AREA *	6,720.00	SQFT									
03350.130	MACHINE TROWEL FINISH	6,720.00	SQFT	0.3304							0.330	2,220.29
03390.010	PROTECT & CURE	6,720.00	SQFT	0.1102	0.019						0.129	869.57
05129.404	SHEAR STUD, 3/4"	522.00	EACH	0.5434	0.717	0.300					1.560	814.42
05129.101	STEEL BEAMS		****									
05129.102	I BEAMS	140.00	CWT	28.7300	35.000	5.000					68.730	9,622.20
05129.121	STEEL COLUMNS		****									
05129.122	I SHAPES	87.12	CWT	28.7300	35.000	5.000					68.730	5,987.76
05129.141	GIRDERS		****									
05129.142	I BEAMS	94.08	CWT	28.7300	35.000	5.000					68.730	6,466.12
05129.990	* STRUCTURAL STEEL WEIGHT *	16.06	TONS									
05310.018	2" METAL DECK	6,720.00	SQFT	0.4445	0.870						1.315	8,836.13
07810.031	CEMENTITIOUS FIREPROOFING	2,606.02	BDFT	44.8066	0.448	0.080					45.335	118,142.87
	Total Estimate											\$162,818

Estimate Detail - Production - Frederick Memorial Hospital Courtyard Infill Structure

Detail - Without Taxes and Insurance

Estimator : Abe Vogel
Project Size : sqft

ItemCode	Description	Quantity	UM	Crew	Production	Prod.UM	Lab.Unit	Mat.Unit	Eqp.Unit	Sub.Unit	Eqp.Rent.Unit	Temp.Mat.Unit	Other Unit	Tot.UnitCost	TotalCost
03111.800		656.00	EACH												
03150.650	SCREEDS FOR SLAB	806.40	LNFT	C311	1,250.00	DAY	0.9219	0.320						1.242	1,001.47
03210.210	COLUMN FOOTING REBAR	4.14	CWT	C321	56.00	DAY	31.7857	26.750						58.536	242.43
03220.010	6x6 W1.4/W1.4 MESH	73.92	SQS	C320	70.00	DAY	18.8640	8.200						27.064	2,000.57
03310.200	**CONC IN COLUMN FOOTING**		****												
03310.203	3000 PSI W/CART	8.33	CUYD	C220	115.00	DAY	13.1475	55.000						68.148	567.90
03315.972	* NO. OF COLUMN FOOTINGS *	6.00	EACH												
03311.700	**CONC IN SLAB OVER MTL DECK**		****												
03311.706	3000 PSI W/PUMP	82.96	CUYD	C235	120.00	DAY	12.5997	55.000	5.280					72.880	6,046.32
03315.991	* SLAB OVER METAL DECK AREA *	6,720.00	SQFT												
03350.130	MACHINE TROWEL FINISH	6,720.00	SQFT	C276	2,500.00	DAY	0.3304							0.330	2,220.29
03390.010	PROTECT & CURE	6,720.00	SQFT	C276	7,500.00	DAY	0.1102	0.019						0.129	869.57
05129.404	SHEAR STUD, 3/4"	522.00	EACH	C509	1,400.00	DAY	0.5434	0.717	0.300					1.560	814.42
05129.101	STEEL BEAMS		****												
05129.102	I BEAMS	140.00	CWT	C510	80.00	DAY	28.7300	35.000	5.000					68.730	9,622.20
05129.121	STEEL COLUMNS		****												
05129.122	I SHAPES	87.12	CWT	C510	80.00	DAY	28.7300	35.000	5.000					68.730	5,987.76
05129.141	GIRDERS		****												
05129.142	I BEAMS	94.08	CWT	C510	80.00	DAY	28.7300	35.000	5.000					68.730	6,466.12
05129.990	* STRUCTURAL STEEL WEIGHT *	16.06	TONS												
05310.018	2" METAL DECK	6,720.00	SQFT	C510	5,170.00	DAY	0.4445	0.870						1.315	8,836.13
07810.031	CEMENTITIOUS FIREPROOFING	2,606.02	BDFT	C207	36.13	DAY	44.8066	0.448	0.080					45.335	118,142.87
	Total Estimate														\$162,818