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EXECUTIVE SUMMARY

This technical assignment takes a more in depth look at the costs and methods for the Health Care Center, located in central Pennsylvania. This assignment includes an analysis of a detailed project schedule, site layout planning, assemblies estimate, detailed structural estimate, and general conditions estimate.

The detailed project schedule follows the Health Care Center's addition and renovation construction via activity to activity. The detailed schedule highlights important milestones of the project and shows the construction sequence from the south addition to the gymnasium to the renovation. Next, the site layout plan shows what logistics and coordination went into the layout of the site plan. Along with keeping a safe construction site, it is most important that the existing building remains functional. All planning had to make sure construction would not interfere with the operation of the existing Health Care Center. Following the site plan are the assemblies estimate, detailed structural estimate, and general conditions estimate. Medical facilities will have different equipment costs compared to other buildings, so equipment and finishes were estimated in the assemblies estimate to show their comparative costs to the project. Next is the detailed structural estimate, a section of the building was estimated and then compared to the buildings actual costs. Lastly, the general conditions estimate shows what the staffing costs are for the duration of the project.

DETAILED PROJECT SCHEDULE

Please see Appendix A for Detailed Project Schedule

IMPORTANT PROJECT DATES

Mobilization on Site August 17, 2006 FRP Footings (South Addition) November 20, 2006 Steel Erection (South Addition) January 8, 2007 Building Enclosed (South Addition) June, 8 2007 Substantial Completion (South Addition) October 11, 2007 FRP Footings (Gymnasium) October 12, 2007 Asbestos Removal (Renovation) November 2, 2007 November 9, 2007 Steel Erection (Gymnasium) Building Enclosed (Gymnasium) March 7, 2008 Substantial Completion (Renovation) April 24, 2008 Substantial Completion (Gymnasium) June 26, 2008 Final Acceptance of Project August 14, 2008

FOUNDATION

South Addition

The South Addition's foundation system is constructed of spread footings, continuous footings, and foundation walls. Construction starts from the existing building and continues south, away from the building. A total of ten days for mass excavation is necessary prior to the foundation construction.

Gymnasium

Similarly, the Gymnasium's foundation system is constructed of spread footings, continuous footings, and foundation walls.

Renovation

There is no additional foundation construction required for the renovation. However, it is important that a 3/8" expansion joint is between the existing and new structure with 3/8" expansion bolts tying into the existing structure.

DETAILED PROJECT SCHEDULE

Please see Appendix A for Detailed Project Schedule

STRUCTURE

 $\begin{array}{ccc} \underline{Construction} & \underline{Section(s)} \\ South \ Addition & B-E \\ Gymnasium & F \\ Renovation & A \end{array}$

South Addition

The steel erection sequence starts closest to the existing building in section B. The erection process continues south finishing with section E. No crane has been selected at this time due to the project still being in the early phases of construction. It has been noted that more than one crane location will be needed to cover the entire building.

Gymnasium

The erection sequence continues with section F. Here steel columns and joists are erected. The gym walls are constructed of concrete filled CMU block.

Renovation

Some of the existing bearing walls and steel girders, on the south wall of the existing building, will be removed and replaced with structural steel. This steel erection will occur in section A during the last erection sequence.

FINISHES

Finishes throughout the South Addition, Gymnasium, and Renovation are all sequenced typical in the following order:

- MEP Risers & Mains
- MEP Branches
- Insulation
- Frame Walls & Ceiling
- Light Fixtures
- Painting
- Plumbing Fixtures
- Floor Finishes

SITE LAYOUT PLANNING

Please see Appendix B for Site Plan Layout

The site layout plan is designed during the superstructure phase. It is important that the Health Care Center remain operational throughout the construction process. The entrance south of the existing building must remain accessible throughout construction. The access road to the construction site will also serve as the ambulance path for the existing building. There is a gate located along side the access road where all construction vehicles can enter the site. Also, located near the gate will be dumpsters to allow for easy pick up. Contractor parking and trailer location will be outside the fenced off site along the access road. As mentioned in the detailed project schedule, no crane has been selected for the project yet. It has been noted that there will be more than one location for the crane. These locations have been designated to be located south of the existing building, then south of the south addition, and lastly east of the gymnasium. A crane radius of 170 feet is required to cover all of the building.

ASSEMBLIES ESTIMATE

Please see Appendix C for Detail Assemblies Estimate

ASSEMBLIES ESTIMATE Equipment & Finishes	
Gym Equipment	Amount
	29320
Food Service Equipment	Amount
	275000
Medical Equipment	Amount
	100000
Painting	Amount
	220622
Flooring	Amount
	578695
TOTAL ASSEMBLIES ESTIMATE	1203637

There are extra equipment and finishes involved in the Health Care Center that are not usually contained in a building. Being a medical facility, there are extra costs in equipment. Also, having the addition of a gym and a cafeteria will add extra equipment costs to a project. Cost Works was used to get some of the information needed for the estimate. In areas where information was not found in Cost Works, lump sums were given. The lump sums for the food services and medical equipment were provided by Gilbane. The \$1.2 million of the assemblies estimate is 5.3% of the \$22.3 million construction cost.

DETAILED STRUCTURAL ESTIMATE

Please see Appendix D for Detailed Structural Estimate

	STRUCTURAL ESTIMATE Costs of Section Takeoff
CONCRETE	Amount
	224150
MASONRY	Amount
	63280
STEEL	Amount
	1113040
STRUCTURAL TOTAL	1400470

	STRUCTURAL COSTS	
CONCRETE		Amount
		2824228
MASONRY		Amount
		1284784
STEEL		Amount
		2000000
STRUCTURAL TOTAL		6109012

GENERAL INFORMATION

Due to no typical bay design in the Health Care Center, the detail structural estimate was taken off of the section shown in Appendix D, instead of the entire structure. This section includes part of the first floor, part of the second floor/low roof, the penthouse floor/high roof, and penthouse roof. Columns were estimated separately. The columns were estimated this way because some columns are from floor to floor, while others are the entire height of the building. All pricing was taken from the computer program Cost Works. Included in the estimate are the following:

Concrete

- o Rebar
- o Welded Wire Mesh
- o Slab-On-Grade
- o Slab-On-Deck
- o Footings

DETAILED STRUCTURAL ESTIMATE

Please see Appendix D for Detailed Structural Estimate

- Masonry
 - o 8" CMU with rebar
- Steel
 - o Beams
 - o Columns
 - Metal Deck

COMPARISON

The structural costs come from the design development estimate provided by Gilbane. These costs are currently out to bid and are not the actual structural costs. These costs also include non-structural and non-load bearing components. The concrete in the estimate is 8% of the actual construction cost for concrete. Masonry is 5% of the actual cost for masonry and steel is 55% of the actual cost for steel. The total estimated structural cost is 23% of the actual costs. Some reasons for the concrete and masonry percentages being low include the following:

- Building perimeter of non estimated sections is constructed of foundation walls and concrete filled CMU
- A large amount of masonry is in the façade (brick veneer)
- Non load bearing CMU walls not estimated

GENERAL CONDITIONS ESTIMATE

Please see Appendix E for Detailed General Conditions Estimate

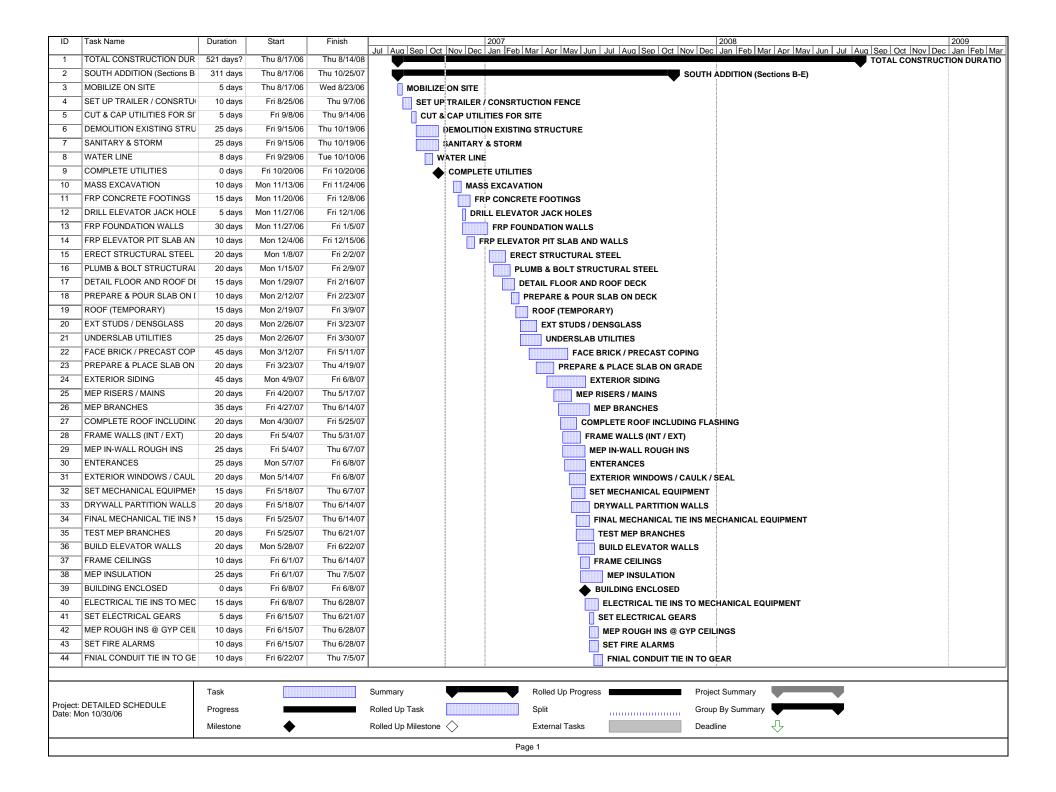
GENERAL CONDITIONS / REIMBURSABLE COST ESTIMATE	
Personnel	Amount
	457839
Field Office Support	
	57394
Travel / Relocation / Meals	
	13000
Temporary Utilities	
	0
Temporary Facilities / Fence / Barricades	
Coloth	0
Safety	1500
Clean Up	1500
Clean Op	0
Tools & Equipment	ů
10013 & Equipment	200
Material Handling & Hoists	
	0
SUBTOTAL COST	529933
Insurance	
	0.44%
TOTAL GENERAL CONDITIONS / REIMBURSABLE COST	763103.5

The general conditions estimate was calculated by Cost Works. A lump sum was given to certain items that were not found in Cost Works. Gilbane is contracted as a CM Agent for the Health Care Center. They are not managing risk, so in some areas items were placed into the contractor's contract. Using Gilbane's staffing plan, Cost Works was used to determine an approximate cost for personnel. All other categories were based off of general conditions that can be found in all projects. The total cost for general conditions is \$763,103 which is 3.4% of the total cost of the project.

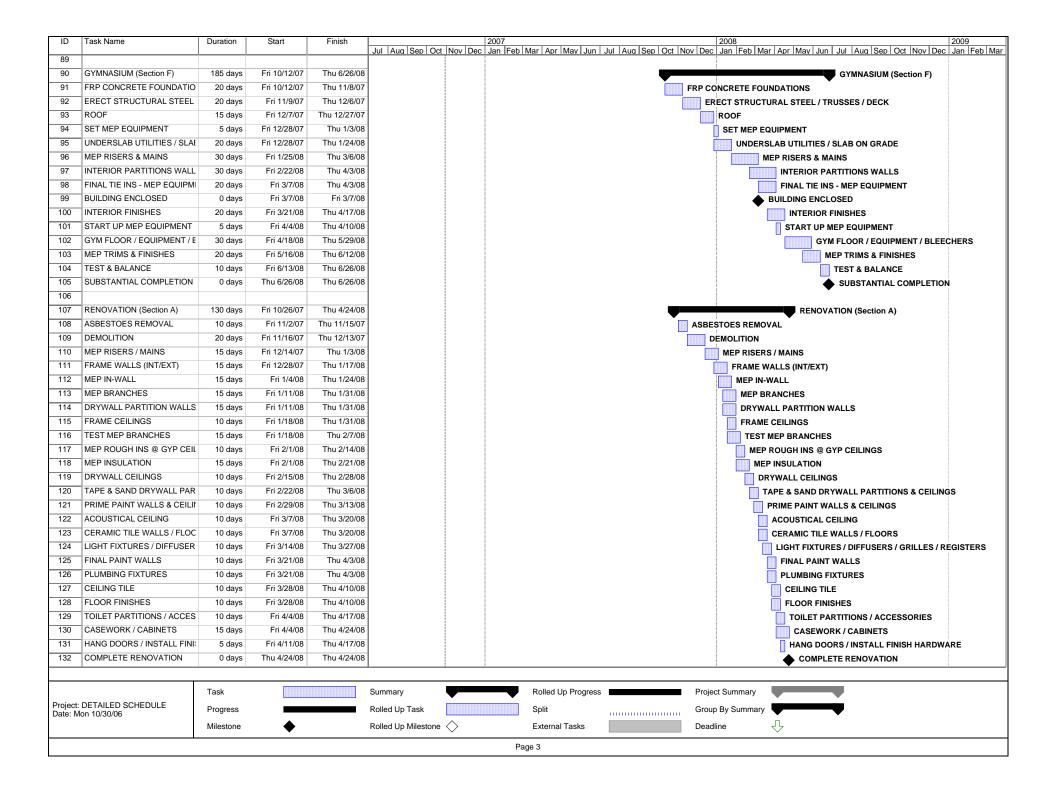
Health Care Center Central Pennsylvania October 30, 2006

APPENDIX A

Project Schedule



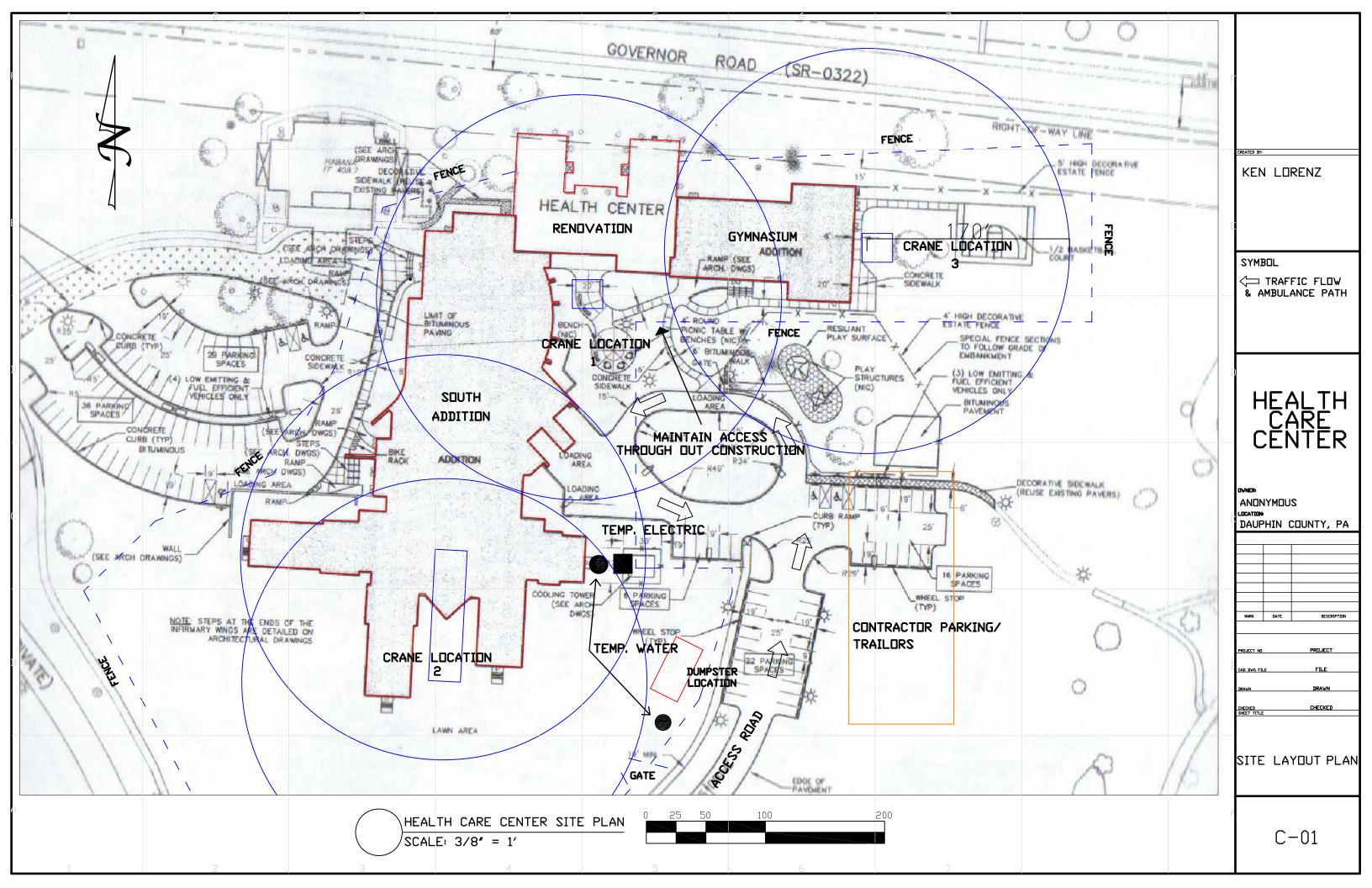
ID	Task Name	Duration	Start	Finish	Jul Aug Sen Oct Nov Doo	2007 2008 20 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Ja	
45	CONTROLS / INSTRUMENTAT	15 days	Fri 6/22/07	Thu 7/12/07	Jul Aug Jep Oct Nov Dec	CONTROLS / INSTRUMENTATION TO MECHANICAL EQUIPMENT	III II EN INIGI
46	TAPE & SAND DRYWALL PAR	20 days	Fri 6/22/07	Thu 7/19/07		TAPE & SAND DRYWALL PARTITIONS & CEILINGS	
47	ELEVATOR RAILS / BRACKET	30 days	Mon 6/25/07	Fri 8/3/07		ELEVATOR RAILS / BRACKETS / CWTS	
48	DRYWALL CEILINGS	10 days	Fri 6/29/07	Thu 7/12/07		DRYWALL CEILINGS	
49	PULL CABLES / TERMINATION	30 days	Fri 6/29/07	Thu 8/9/07		PULL CABLES / TERMINATION FA PANELS	
50	CONTROLLED AIR AVAILABLE	0 days	Thu 7/5/07	Thu 7/5/07		▲ CONTROLLED AIR AVAILABLE	
51	PULL CABLE & TERMINATE T	10 days	Fri 7/6/07	Thu 7/19/07		PULL CABLE & TERMINATE TO GEARS	
52	PRIME PAINT WALLS & CEILI	15 days	Fri 7/6/07	Thu 7/26/07		PRIME PAINT WALLS & CEILINGS	
53	ACOUSTICAL CEILING GRID	15 days	Fri 7/13/07	Thu 8/2/07		ACOUSTICAL CEILING GRID	
54	CERAMIC TILE WALLS / FLOC	20 days	Fri 7/13/07	Thu 8/9/07		CERAMIC TILE WALLS / FLOORS	
55	BUILD ELEVATOR PLATFORN	30 days	Mon 7/16/07	Fri 8/24/07		BUILD ELEVATOR PLATFORMS /ELEVATOR CABS	
56	ENERGIZE GEAR	5 days	Fri 7/20/07	Thu 7/26/07		□ ENERGIZE GEAR	
57	LIGHT FIXTRURES / DIFFUSE	15 days	Fri 7/20/07	Thu 8/9/07		LIGHT FIXTRURES / DIFFUSERS / REGISTERS	
58	FINAL PAINT WALLS	15 days	Fri 7/27/07	Thu 8/16/07		FINAL PAINT WALLS	
59	PLUMBING FIXTURES	15 days	Fri 7/27/07	Thu 8/16/07		PLUMBING FIXTURES	
60	ATC TRIM & FINISHES	20 days	Fri 7/27/07	Thu 8/23/07		ATC TRIM & FINISHES	
61	FLOOR FINISHES	15 days	Fri 8/3/07	Thu 8/23/07		FLOOR FINISHES	
62	OWNER INSTALL FF&E	40 days	Fri 8/3/07	Thu 9/27/07		OWNER INSTALL FF&E	
63	HOISTWAY / ELEVATOR CAB	30 days	Mon 8/6/07	Fri 9/14/07		HOISTWAY / ELEVATOR CAB WIRING	
64	CEILING TILE	10 days	Fri 8/10/07	Thu 8/23/07		CEILING TILE	
65	FINAL TIE INS FIRE ALARM PA	10 days	Fri 8/10/07	Thu 8/23/07		FINAL TIE INS FIRE ALARM PANELS	
66	TOILET PARTITIONS / ACCES	15 days	Fri 8/10/07	Thu 8/30/07			
67	CASEWORK / CABINETS	20 days	Fri 8/10/07	Thu 9/6/07		TOILET PARTITIONS / ACCESSORIES	
68	FOOD SERVICE EQUIPMENT	20 days	Fri 8/10/07	Thu 9/6/07		CASEWORK / CABINETS	
69	HANG DOORS / INSTALL FINI:	20 days	Fri 8/17/07	Thu 9/6/07		FOOD SERVICE EQUIPMENT	
70		•				HANG DOORS / INSTALL FINISH HARDWARE	
70	MECHANICAL EQUIPMENT W	5 days	Fri 8/24/07	Thu 8/30/07		MECHANICAL EQUIPMENT WALK THRU	
71	MECHANICAL EQUIPMENT ST	5 days 30 days	Fri 8/31/07 Fri 8/31/07	Thu 9/6/07 Thu 10/11/07		MECHANICAL EQUIPMENT START UP	
73	MECHANICAL SYSTEMS STAI		Fri 9/7/07	Thu 10/11/07		MEP TIE INS TO FOOD SERVICE EQUIPMENT	
74	FIRE ALARM DEVICES / TERN	10 days 15 days	Fri 9/14/07	Thu 9/20/07		MECHANICAL SYSTEMS START UP	
75	TEST & ADJUST ELEVATOR	10 days	Mon 9/17/07	Fri 9/28/07		FIRE ALARM DEVICES / TERMINATIONS	
76	PRELIMINARY TEST & BALAN	-	Fri 9/21/07	Thu 10/4/07		TEST & ADJUST ELEVATOR	
	MECHANICAL SYSTEMS CON	10 days		Thu 10/4/07		PRELIMINARY TEST & BALANCE	
77 78	PREPARE TEST & BALANCE F	20 days	Fri 9/21/07	Thu 10/18/07		MECHANICAL SYSTEMS COMMISSIONING	
	PRELIMINARY TEST FIRE AL	5 days	Fri 9/28/07			PREPARE TEST & BALANCE REPORTS	
79	R&A PRELIMINARY TEST & B	2 days	Fri 10/5/07	Mon 10/8/07 Thu 10/11/07		PRELIMINARY TEST FIRE ALARM	
80	OWNER TRAINING	5 days	Fri 10/5/07	Thu 10/11/07		R&A PRELIMINARY TEST & BALANCE REPORT	
81		20 days	Fri 10/5/07			OWNER TRAINING	
82	LOCAL INSPECTION	2 days	Tue 10/9/07	Wed 10/10/07		LOCAL INSPECTION	
83	SUBSTANTIAL COMPLETION	0 days	Thu 10/11/07	Thu 10/11/07		SUBSTANTIAL COMPLETION	
84	CORRECTVE WORK	4 days	Thu 10/11/07	Tue 10/16/07		CORRECTVE WORK	
85	TEST FOOD SERVICE EQUIPI	5 days	Fri 10/12/07	Thu 10/18/07		TEST FOOD SERVICE EQUIPMENT	
	FINAL INSPECTION FA	2 days	Wed 10/17/07	Thu 10/18/07		FINAL INSPECTION FA	
	L&I WALK THRU / INSPECTION	5 days	Fri 10/19/07	Thu 10/25/07		L&I WALK THRU / INSPECTION	
88	PROJECT FINISH	0 days	Thu 10/25/07	Thu 10/25/07		◆ PROJECT FINISH	
		Task			Summary	Rolled Up Progress Project Summary	
Project:	DETAILED SCHEDULE				Rolled Up Task	Solit Group By Summany	
Date: M	on 10/30/06	Progress	_			The state of the s	
		Milestone	•		Rolled Up Milestone	External Tasks Deadline	
						Page 2	· · · · · · · · · · · · · · · · · · ·



ID	Task Name	Duration	Start	Finish	Jul Aug Sen Oct	Nov Dec 12	007 an Feb Mar Apr May Jun .	Jul Aug Sen Oct No	2008 Dec Jan Feb Ma	ır Apr Mav Jun Lu	J Aug Sen Oct Nov	2009 Dec Jan Feb Ma
133						11101 200 01	in postman president	74.	, poor carrir ob ima		1 / tud Cop Cot 1 to 1	200 00.1. 1. 02 111.
134	PROJECT CLOSEOUT	35 days	Fri 6/27/08	Thu 8/14/08						_	PROJECT CLOS	SEOUT
135	A/E PREPARE & ISSUE PUNC	10 days	Fri 6/27/08	Thu 7/10/08						Ĭ.	A/E PREPARE & ISSUE	PUNCH LIST
136	CORRECTIVE WORK BASED	15 days	Fri 7/11/08	Thu 7/31/08							CORRECTIVE WOR	K BASED ON PUN
137	A/E & OWNER FINAL WALK TI	5 days	Fri 8/1/08	Thu 8/7/08						02	A/E & OWNER FIN	AL WALK THROU
138	FINAL SIGN OFF	5 days	Fri 8/8/08	Thu 8/14/08	-						FINAL SIGN OFF	1
139	FINAL ACCEPTANCE OF PRO	0 days	Thu 8/14/08	Thu 8/14/08	1						FINAL ACCEPTA	
		Task			Summary		Rolled Up Progress		Project Summary		, 	<u> </u>
						-	<u> </u>			_	ı	
Project.	DETAILED SCHEDLILE	_										
Project: Date: M	DETAILED SCHEDULE on 10/30/06	Progress			Rolled Up Task		Split		Group By Summary	• •		
Project: Date: M	DETAILED SCHEDULE on 10/30/06	Progress Milestone	•		Rolled Up Task Rolled Up Milestone	\Diamond	External Tasks		Deadline	\bigcirc		

APPENDIX B

Site Layout Plan



APPENDIX C

Detailed Assemblies Estimate

DETAILED ASSEMBLIES ESTIMATE Equipment & Finishes

FOLUDIATAL	OTV	11.2	D.:	A
EQUIPMENT	QTY	Unit	Price	Amount
Gym		<u> </u>	4=55	4=
Washer / Dryer	3	Sets	1500	4500
Basketball net & backboard	2	Each	2000	4000
Sports net divider curtain	1400	SF	11	15400
Wall padding or mats	192	SF	10	1920
Sports lining in multi purpose room	1	LS	3500	3500
SUBTOTAL GYM EQUIPMENT				29320
Food Services				
equipment	1	LS	275000	275000
SUBTOTAL FOOD SERVICES EQUIPMENT				275000
Medical Equipment				
equipment	1	LS	100000	100000
SUBTOTAL MEDICAL EQUIPMENT				100000
FINISHES	QTY	Unit	Price	Amount
Painting				
Paint gyp wall	183000	SF	0.7	128100
Paint gyp ceiling	22300	SF	0.9	20070
Paint gyp bulkheads & soffits	1200	SF	0.8	960
Paint CMU walls	12700	SF	1.2	15240
Paint single door frames	245	Each	60	14700
Paint double door frames	31	Each	80	2480
Paint metal hallow door	29	Each	120	3480
Paint exposed structure in all purpose room	4610	SF	1.5	6915
Paint other exposed	13141	SF	0.5	6570.5
Sealed concrete floor	22106	SF	1	22106
SUBTOTAL PAINTING FINISHES				220621.5
Flooring				
Quarry tile kitchen area	1450	SF	9	13050
Ceramic floor tile in restrooms	4450	SF	8	35600
Wall tile in kitchen area	1500	SF	7	10500
Wall tile in restrooms	12010	SF	7	84070
Stair treads	880	LF	15	13200
Seamless sheet vinyl	5742	SF	9	51678
Resilient athletic floor	3552	SF	10	35520
Echo floor	360	SF	10	4320
Entrance material	1452	SF	25	36300
VT	9851	SF	2.3	22657.3
Bamboo flooring	1640	SF	14	22960
Carpet tile	49768	SF	5	248840
SUBTOTAL FLOORING FINISHES	49700	3F	<u> </u>	578695.3
SODIOTAL FLOORING FINISHES				37 0093.3

APPENDIX D

Detailed Structural Estimate

DETAILED STRUCTURAL ESTIMATE First Floor

CONCRET		Notes	QTY	Unit	Price	Amount
3200	#4-7 Rebar, footings	material	0.2335	TON	785	183.2975
3200	#4-7 Rebar, footings	labor & equipment	0.2335	TON	560	130.76
3200	#8-18 Rebar, footings	material	0.775	TON	740	573.5
3200	#8-18 Rebar, footings	labor & equipment	0.775	TON	325	251.875
3200	6"x6" W2.1xW2.1	material	204	CSF	26.5	5406
3200	6"x6" W2.1xW2.1	labor & equipment	204	CSF	19	3876
3200	6"x6" W2.9xW2.9	material	112	CSF	34	3808
3200	6"x6" W2.9xW2.9	labor & equipment	112	CSF	20.5	2296
3300	CIP SOG	material	251	CY	82.5	20707.5
3300	CIP SOG	labor & equipment	251	CY	17.85	4480.35
3300	CIP SOG	finishing	753	SF	0.26	195.78
3300	CIP SOD	material	138	CY	82.5	11385
3300	CIP SOD	labor & equipment	138	CY	17.85	2463.3
3300	CIP SOD	finishing	414	SF	0.26	107.64
3300	CIP, foundation wall	material	706	CY	82.5	58245
3300	CIP, foundation wall	labor & equipment	706	CY	16.7	11790.2
3300	CIP, spread footing	material	238	CY	82.5	19635
3300	CIP, spread footing	labor & equipment	238	CY	16.7	3974.6
3300	CIP, cont. footing	material	261	CY	82.5	21532.5
3300	CIP, cont. footing	labor & equipment	261	CY	16.7	4358.7
	AL CONCRETE					175401
MASONR'		Notes	QTY	Unit	Price	Amount
4200	8" CMU w/ rebar	load bearing walls	4520	SF	14	63280
	AL MASONRY					63280
STEEL		Notes	QTY	Unit	Price	Amount
5000	Structural Steel	beams	36	TON	2750	99000
5300	Metal Deck	material	11203	SF	8.95	100266.9
5300	Metal Deck	labor & equipment	11204	SF	1.41	15797.64
SUB TOTA	AL STEEL					215064.5

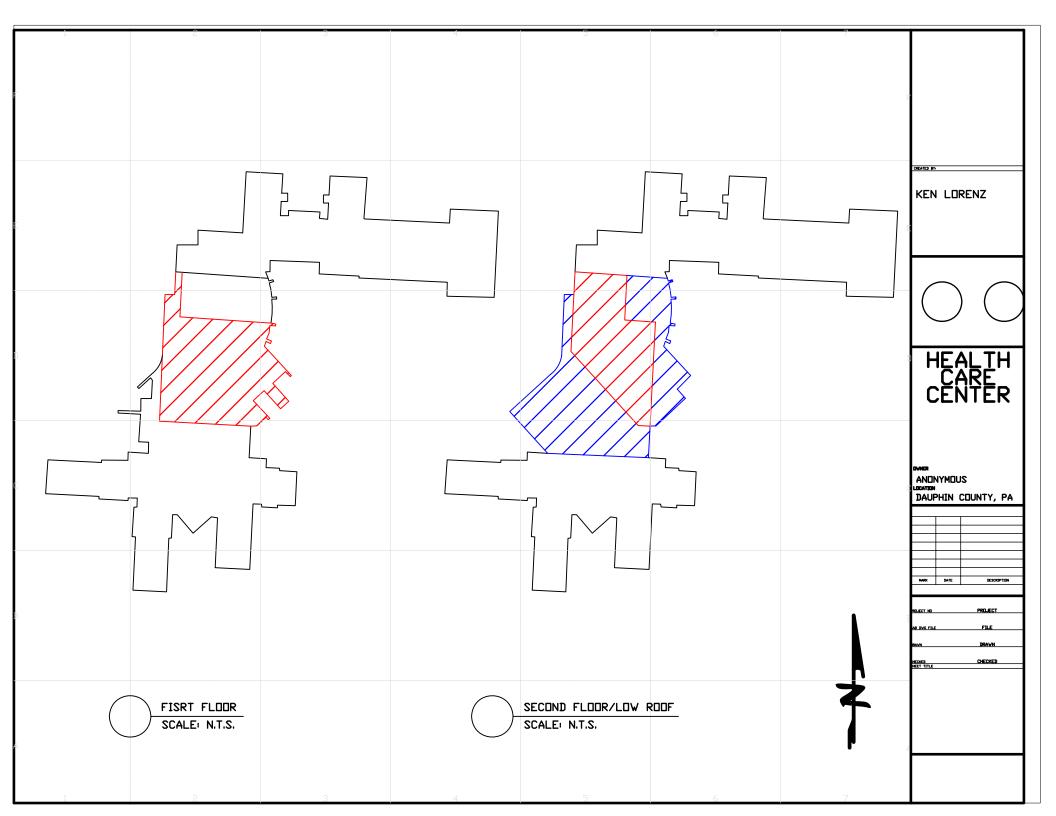
DETAILED STRUCTURAL ESTIMATE Second Floor / Low Roof							
CONCRET	ſΕ	Notes	QTY	Unit	Price	Amount	
3200	6"x6" W2.9xW2.9	material	241	CSF	34	8194	
3200	6"x6" W2.9xW2.9	labor & equipment	241	CSF	20.5	4940.5	
3300	CIP SOD	material	297	CY	82.5	24502.5	
3300	CIP SOD	labor & equipment	297	CY	17.85	5301.45	
3300	CIP SOD	finishing	891	SF	0.26	231.66	
	AL CONCRETE					30035.61	
MASONR	Y	Notes	QTY	Unit	Price	Amount	
-	-	-	-	-	-	-	
SUB TOTA	AL MASONRY					-	
STEEL		Notes	QTY	Unit	Price	Amount	
5000	Structural Steel	beams	120	TON	2750	330000	
5300	Metal Deck	material	24049	SF	8.95	215238.6	
5300	Metal Deck	labor & equipment	24050	SF	1.41	33910.5	
SUB TOTA	AL STEEL					579149.1	

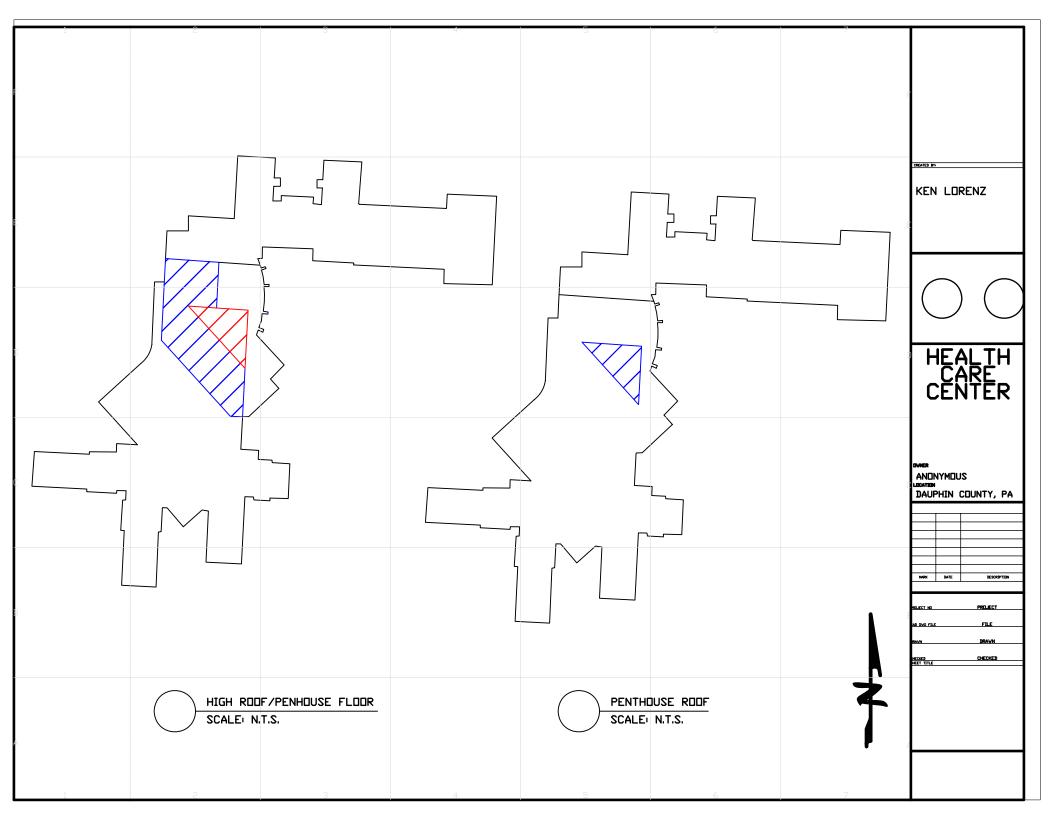
DETAILED STRUCTURAL ESTIMATE High Roof / Penthouse Floor								
CONCRET	ſΕ	Notes	QTY	Unit	Price	Amount		
3200	6"x6" W2.9xW2.9	welded wire mesh	104	CSF	34	3536		
3200	6"x6" W2.9xW2.9	welded wire mesh	104	CSF	20.5	2132		
3300	CIP SOD	material	129	CY	82.5	10642.5		
3300	CIP SOD	labor & equipment	129	CY	17.85	2302.65		
3300	CIP SOD	finishing	387	SF	0.26	100.62		
SUB TOTA	AL CONCRETE					18713.77		
MASONR	Y	Notes	QTY	Unit	Price	Amount		
-	-	-	-	-	-	-		
SUB TOTA	AL MASONRY					-		
STEEL		Notes	QTY	Unit	Price	Amount		
5000	Structural Steel	beams	17	NOT	2750	46750		
5300	Metal Deck	material	10411	SF	8.95	93178.45		
5300	Metal Deck	labor & equipment	10412	SF	1.41	14680.92		
SUB TOTA	AL STEEL					154609.4		

DETAILED STRUCTURAL ESTIMATE Penthouse Roof							
CONCRET	ſΕ	Notes	QTY	Unit	Price	Amount	
-	-	-	-	-	-	-	
SUB TOTA	AL CONCRETE				-		
MASONR	Y	Notes	QTY	Unit	Price	Amount	
-	-	-	-	-	1	-	
SUB TOTA	AL MASONRY					-	
STEEL		Notes	QTY	Unit	Price	Amount	
5000	Structural Steel	beams	7	TON	2750	19250	
5300	Metal Deck	material	2048	SF	8.95	18329.6	
5300	Metal Deck	labor & equipment	2048	SF	1.41	2887.68	
SUB TOTA	AL STEEL					40467.28	

DETAILED STRUCTURAL ESTIMATE Column								
COLUMN		Notes	QTY	Unit	Price	Amount		
5000	Structural Steel	columns	45	TON	2750	123750		
SUB TOT	AL COLUMN					123750		







APPENDIX E

Detailed General Conditions/Reimbursable Cost Estimate

GENERAL CONDITIONS / REIMBURSABLE COST ESTIMATE

			A-1/			
Code	Description	Notes	QTY	Units	Price	Amount
Personnel				Weeks	\$ / Wk	=2222
1300	Project Executive		1	39	2000	78000
1300	Project Manager		1	96	1500	144000
1300	Superintendent		1	77	1375	105875
1300	Office Engineer		1	82	902	73964
1300	Accountant		1	20	820	16400
1300	Project Assistant		1	72	550	39600
	L PERSONNEL					457839
	e Support	ı	0.4	Marath	0.40	5070
1520	Trailer		24	Month	249	5976
1520	Trailer setup/removal	a a matura anti a di a cont	1	LS	5000	5000
1520	Office cleaning	contracted out	- 24	- N/10-0415	-	4000
1520	Cell phones Office furniture		24	Month	200	4800
1520			1	LS LS	5000	5000
1520	Fax		1		250	250
1520	Office supplies		24	Month LS	83.5	2004
1520	Copiers		1 24		5000	5000
1520	Cameras			Sets LS	286	6864 5000
1520 1520	Computers/printers		1	LS	5000 2000	2000
1520	Computer programs			LS	2500	2500
1520	Postage/mailing			LS	10000	10000
1520	Document reproduction			LS	3000	3000
	Document storage L FIELD OFFICE SUPPORT		<u>'</u>	LO	3000	57394
	elocation / Meals					37 334
1600	Out of town travel		1	LS	2000	2000
1600	Field staff housing			LS	10000	10000
1600	Business meals			LS	10000	10000
		FALS	'	LO	1000	13000
SUBTOTAL TRAVEL / RELOCATION / MEALS Temporary Utilities						
1510	T T	Owner paid				0
	L TEMPORARY UTILITIES	Owner paid	_	-	-	0
	y Facilities / Fence / Barricade	ae .				U
1520	Port a jon	contracted out	_	_	_	0
1560	Temporary fence	contracted out	[[0
1560	Temporary barricades	contracted out	_	_	_	0
					_	0
SUBTOTAL TEMPORARY FACILITIES / FENCE / BARRICADES Safety						J
1500	Extinguishers	each contractor required	_	_	_	0
1500	Exampaisitors	by OSHA		-		J
1500	First Aid	by Joi iA	1	LS	500	500
1580	Signs			LS	500	500
1500	Hard hats/safety glasses			LS	500	500
SUBTOTA			'	LO	500	1500
SOBIOTA	LUNILII					1300

Construction Management Dr. David R. Riley

Clean Up						
1740	Supervision	contracted out	-	-	-	0
1740	Pick up truck	contracted out	-	-	-	0
1740	Dumpsters	contracted out	-	-	-	0
1740	Dump chutes	contracted out	-	-	-	0
SUBTOTAL CLEAN UP						0
Tools & Ed	quipment					
1540	Small tools		1	LS	200	200
SUBTOTAL TOOLS & EQUIPMENT						
Material Handling & Hoists						
1590	Crane	contracted out	-	-	-	0
SUBTOTAL MATERIAL HANDLING & EQUIPMENT						0
SUBTOTAL COST						529933
Insurance						
1350 General Liability						0.44%
TOTAL GENERAL CONDITIONS / REIMBURSABLE COST						763103.5