Involving Stakeholders in the Professional's Design and Construction Process

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Continuing Education

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Course Description

In October 2010, the AIA/CES System was updated with the new CES Discovery System, in that time we have transferred more than one million records. This new update has made it necessary to remind us of the AIA/CES policies and procedures, to introduce the “new” provider ethics, and to reintroduce the AIA/CES audits/quality assurance program. This presentation covers those areas giving providers the opportunity to give feedback and input.

Learning Objectives

At the end of this program, each participant will be able to:

1.Discuss the importance of stakeholder involvement in the design and construction process
2.Identify and include stakeholders in the design and construction process
3.Understand the importance of the Stakeholder involvement process during data gathering, programming, design, tendering, value engineering, construction, and post construction
4.Discuss in depth the contribution of the Design Charrette, Tender Value Engineering, and the Construction process in the ultimate success of your design project
5.Share lessons learned feedback from the participants of the seminar

Stakeholders

Who is a stakeholder and how do their needs differ?

- Financier (Public – Agency; Private – Owner)
- Facility Managers - Maintenance team
- End Users - People for which the project will be designed
- Others – Project Specific

What can happen if they are not nurtured and satisfied?

- Lack of trust in the professional
- Breakdown in communications
- Loss of project control by the professional

What power do the Stakeholders hold?

- Influence the success of the design of the project
- Influence the professional’s profitability of the project
- Influence the award of future projects with this client and others

Stakeholders

Financier (Public – Agency or Private – Owner)

- They will want to make sure that the professional is fiscally competent
- They will mandate that the professional stay within budget
- The professional will need to give them good value for their investment

Facility Managers

- They will want to set the quality of the project
- They usually have needed information for the project
- They will be responsible for taking care of the building after it is built

End Users

- They will occupy the building on a day to day basis
- They will want as much in the program as they can get usually without regard for budget or reliability

Others

- Government jurisdictions
- Community groups
- Other special interests

Major Client Touchpoints

Project Interview Process*

Charrette*

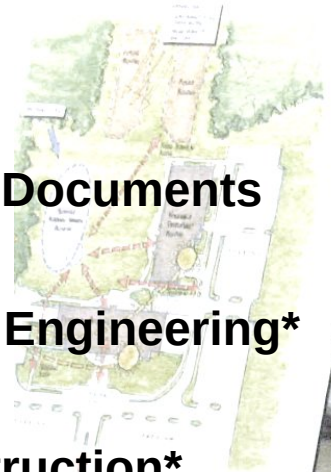
Design

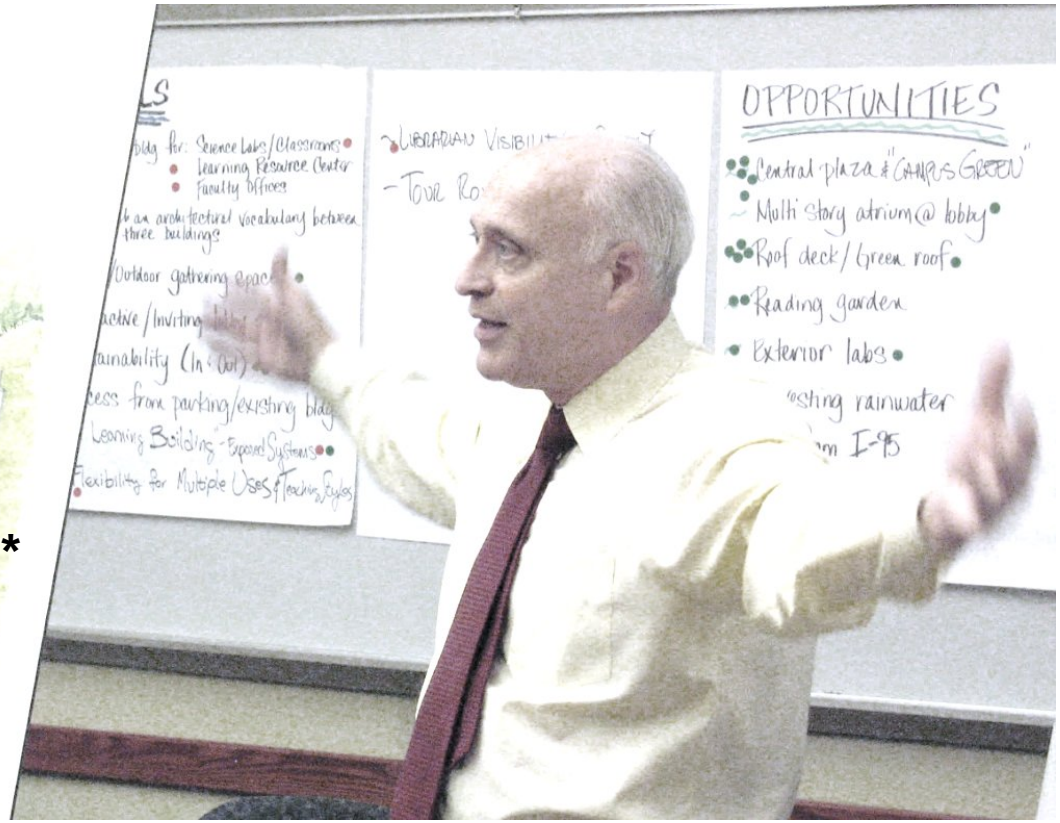
Construction Documents

Tender Value Engineering*

Project Construction*

Post-Construction





Touchpoints We Will Cover

Project Interview Process

Charrette

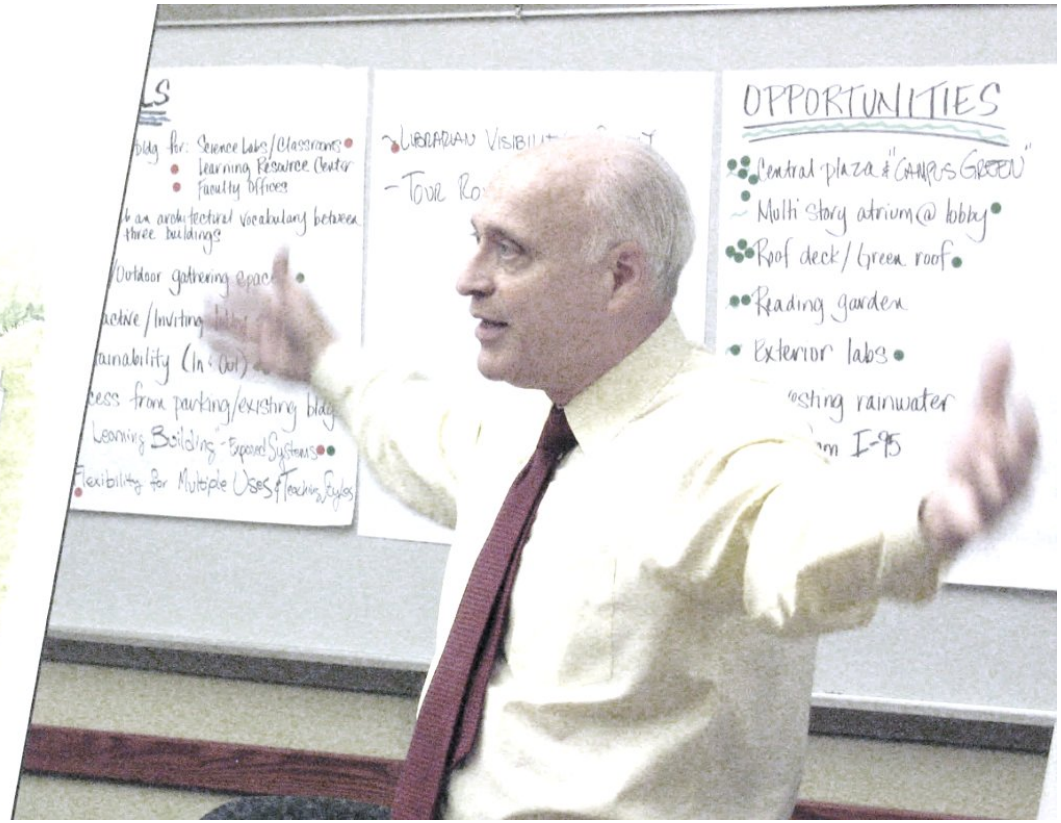
Design

Construction Documents

Tender Value Engineering

Project Construction

Post-Construction

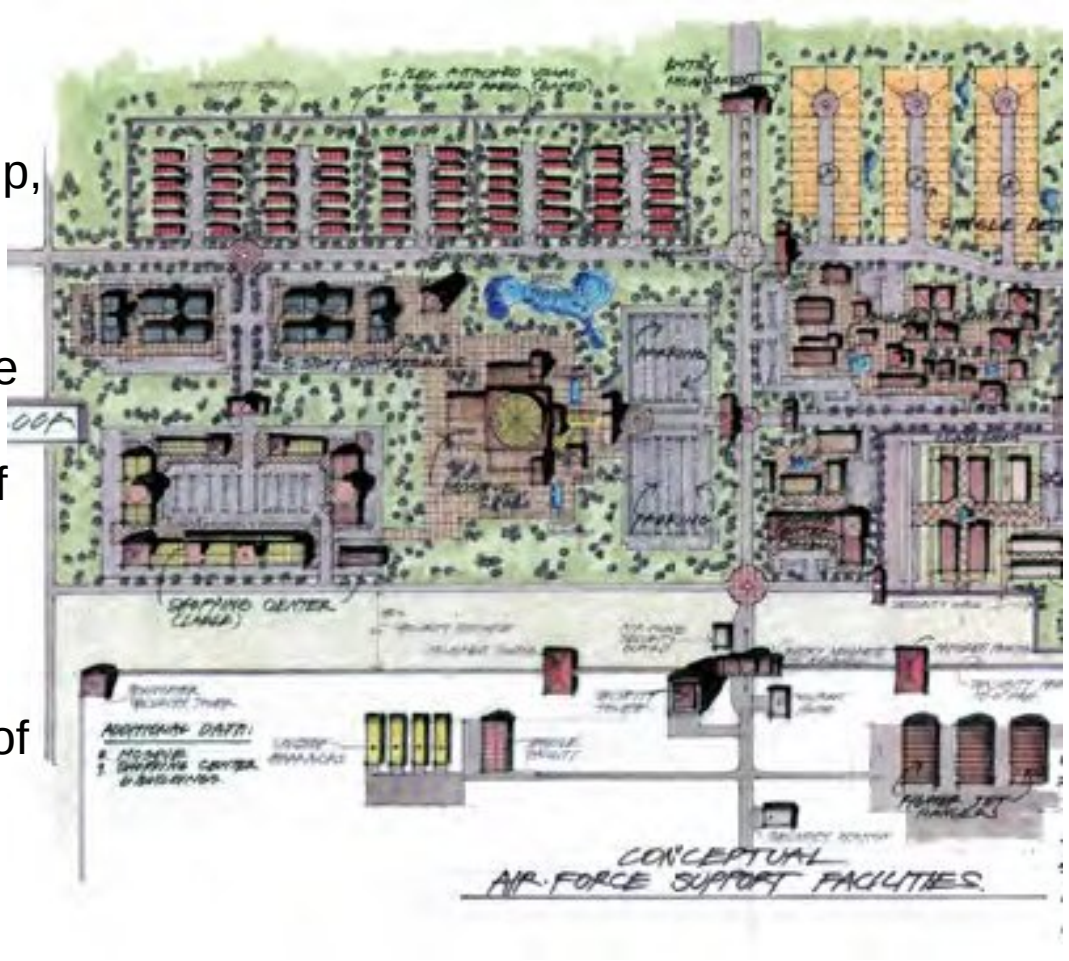


Project Interview Process

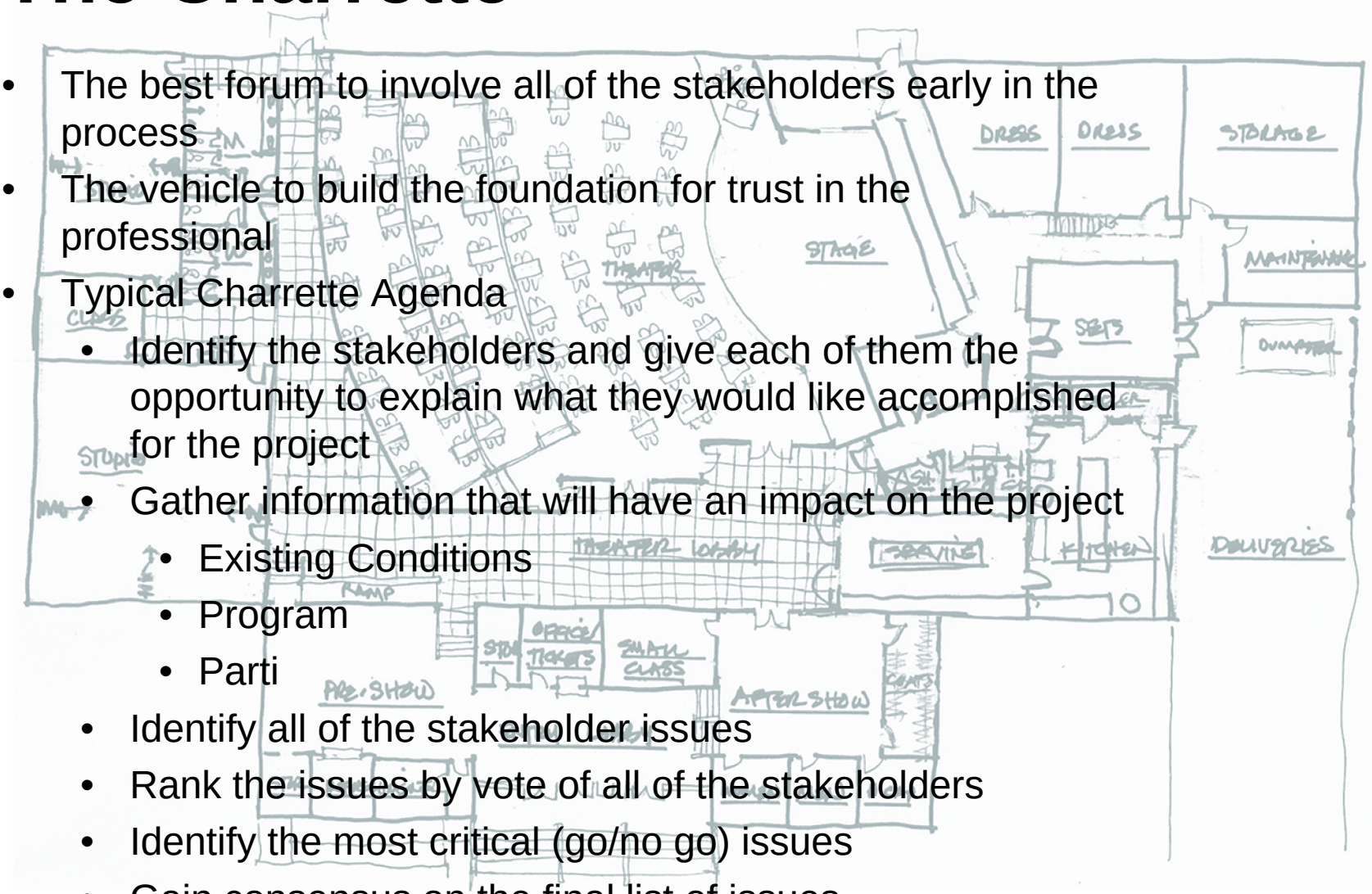
This is usually the professional's first contact with the client's financial group, the facilities group, and the end users

The success in being awarded the project is directly attributed to stakeholder buy-in at this stage of the project

Seize this opportunity to discuss how your team can satisfy each of their interests during the project



The Charrette



- The best forum to involve all of the stakeholders early in the process
- The vehicle to build the foundation for trust in the professional
- Typical Charrette Agenda
  - Identify the stakeholders and give each of them the opportunity to explain what they would like accomplished for the project
  - Gather information that will have an impact on the project
    - Existing Conditions
    - Program
    - Parti
  - Identify all of the stakeholder issues
  - Rank the issues by vote of all of the stakeholders
  - Identify the most critical (go/no go) issues
  - Gain consensus on the final list of issues

The Charrette

Objectives

- To listen to the concerns of the Owners/Financiers, the Facility Managers, the End Users, and any Special Interest Groups
- To gather information on existing conditions of the project from each stakeholder
- To gather information on the proposed ideas on the project from each stakeholder
- Set goals and prepare a schedule for meeting those goals
- Set project schedule

Methodology

- Involve all of the stakeholders
- Make sure that all of their information and concerns are addressed
- Develop a method of review and accountability

Tender Value Engineering

A very critical period for the welfare of the project involving a new player on the team who has not been involved in the process to date – the PM/Construction Contractor

Conflicting issues between the financial stakeholders, the facility managers, end users and now the project manager or construction contractor

Explain and define the team approach as you have developed it throughout the project

Emphasize the fact that not all cost-cutting measures are in the best interest of all parties

BUILDING COST SUMMARY PART 2

Project Code 260-17701 Sheet Number 2 of 3

Gross SF 51,458 SF Date Prepared: 2/15/10

Overall Project Title: Phase III Academic Services Bldg, Germanna Community College

Specific Building Included on This Sheet : Phase III Academic Services Building

Type of Work (X) New Building ( ) Addition ( ) Renovation ( ) Master Summary Sheet

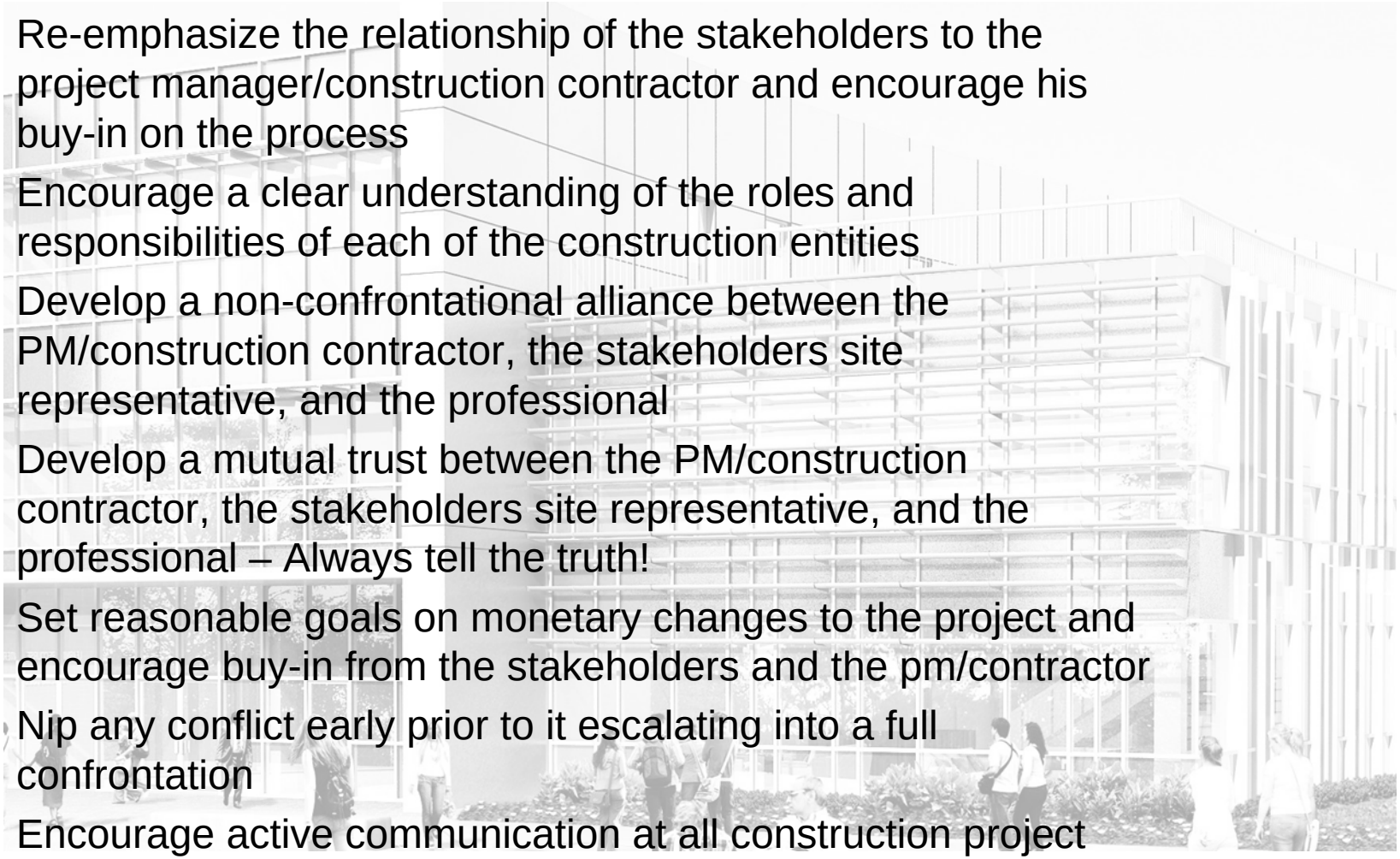
LINE NO.	SYSTEM DESCRIPTION	SYSTEM MEASURE	UNIT OF MEAS.	SYSTEM QUANTITY	SYSTEM UNIT COST	TOTAL COST	COST PER GROSS SF
	BUILDING:						
1	FOUNDATION	Ground Floor Area	SF	19,342	$12.48	$241,424	$4.69
2	SLAB ON GRADE	Slab-on-Grade Area	SF	19,342	$4.56	$88,227	$1.71
3	STRUCTURAL FRAME	Gross Bldg. Area	SF	51,458	$17.00	$874,617	$17.00
4	SUPPORTED FLOOR	Supp'd Floor Area	SF	31,900	$8.29	$264,305	$5.14
5	ROOF STRUCTURE	Roof Surface Area	SF	18,900	$22.79	$430,676	$8.37
6	ROOFING	Roof Surface Area	SF	18,900	$16.30	$308,116	$5.99
7	STAIRS	Total No. of Risers	EA	142	$1,293.75	$183,713	$3.57
8	ELEVATORS	Total No. of Stops	EA	3	$97,627.21	$292,882	$5.69
9	EXTERIOR WALLS	Wall Area (1 Side)	SF	17,049	$41.26	$703,491	$13.67
10	INTERIOR WALLS	Wall Area (1 Side)	SF	51,458	$11.27	$579,850	$11.27
11	INTERIOR FINISHES	Gross Bldg. Area	SF	51,458	$20.54	$1,057,190	$20.54
12	DOORS & HARDWARE	Surf. Area (1 Side)	SF	4,668	$82.57	$385,418	$7.49
13	WINDOWS & GLAZED WALLS	Surf. Area (1 Side)	SF	14,049	$108.04	$1,517,837	$29.50
14	SPECALTIES	Gross Bldg. Area	SF	51,458	$18.80	$967,353	$18.80
15	PLUMBING (DOMESTIC)	No. of Fixtures	EA	42	$19,589.54	$822,761	$15.99
16	HVAC SYSTEM	(X) MBH (X) TONS	TN	240	$8,866.59	$2,127,981	$41.35
17	FIRE PROTECTION	Protected Area	SF	51,458	$5.68	$292,143	$5.68
18	POWER	Gross Bldg. Area	SF	51,458	$17.97	$924,784	$17.97
19	LIGHTING	Gross Bldg. Area	SF	51,458	$11.29	$580,779	$11.29
20	SPECIAL ELECTRICAL	Gross Bldg. Area	SF	51,458	$8.22	$423,060	$8.22
21	SPECIAL SYSTEMS	Gross Bldg. Area	SF	0	$0.00		$0.00
22	SUBTOTAL					$13,066,606	$253.93
23	INTERIOR DEMOLITION	Demolition Area	SF		$0.00	$0	$0.00
24	HAZARDOUS MATERIAL ABATEMENT	Abatement Area	SF		$0.00	$0	$0.00
25	SUBTOTAL					$13,066,606	$253.93
26	BUILT-IN EQUIPMENT	Gross Bldg. Area	SF	51,458	$35.64	$1,834,179	$35.64
27	TOTAL BUILDING					$14,900,786	$289.57
	SITEWORK & UTILITIES:						
28	EXT. ELECTR. DISTRIBUTION	Length of Run	LF	1	$143,570.00	$143,570	
29	AREA LIGHTING	No. of Fixtures	EA	50	$2,930.26	$146,513	
30	EXT. MECH. DISTRIBUTION	Length of Run	LF	0	$0.00	$0	
31	WATER DISTRIBUTION SYSTEM	Length of Run	LOT	987	$107.77	$106,372	
32	SANITARY SEWER	Length of Run	LF	408	$152.19	$62,094	
33	STORM DRAINAGE SYSTEM	Length of Run	LF	580	$201.86	$117,077	
34	SUBTOTAL UTILITIES					$575,626	
35	ROADS	Surface Area	SY	1,089	$0.00	$70,356	
36	PARKING	Surface Area	SY	375	$0.00	$19,884	
37	EARTHWORK	Volume (Cut/Fill)	CY	2,865	$0.00	$263,422	
38	LANDSCAPING	Area Planted	SY	5,444	$0.00	$130,660	
39	SITE IMPROVEMENTS	Area Developed	SY	2,000	$0.00	$308,419	
40	FENCING	Length of Fence	LF	0	$0.00	$0	
41	SPECIAL BLDG. FOUNDATIONS	Combined Length	LF	0	$0.00	$0	
42	SITE DEMOLITION	Demolition Area	SY	670	$0.00	$33,754	
43	SUBTOTAL SITEWORK					$826,495	
44	TOTAL SITEWORK & UTILITIES					$1,402,121	
	TOTAL CONSTRUCTION					$16,302,907	

Tender Value Engineering

Value Engineering Agenda

- Describe the relationship of the stakeholders to the project manager/construction contractor and encourage his buy-in on the process
- If a value engineering moderator has been brought on board, encourage his buy-in into the process also
- Address the project budget in relation to the latest construction estimates
- Identify cost saving measures
- Address each cost saving measure with each and all of the stakeholders and set priorities on cost cutting measures.
- Explore ways to increase the budget if necessary
- Encourage reaching an agreement on cost savings measures by mutual agreement of all of the stakeholders

Construction



- Re-emphasize the relationship of the stakeholders to the project manager/construction contractor and encourage his buy-in on the process
- Encourage a clear understanding of the roles and responsibilities of each of the construction entities
- Develop a non-confrontational alliance between the PM/construction contractor, the stakeholders site representative, and the professional
- Develop a mutual trust between the PM/construction contractor, the stakeholders site representative, and the professional – Always tell the truth!
- Set reasonable goals on monetary changes to the project and encourage buy-in from the stakeholders and the pm/contractor
- Nip any conflict early prior to it escalating into a full confrontation
- Encourage active communication at all construction project meetings among all parties

Construction

- Allow for a time in each meeting agenda to discuss any potential concerns or issues that may have arisen since the previous meeting
- Make sure that each party is living up to its project obligations:
    - Owner paying the construction contractor on time or early
    - Contractor staying on schedule and producing quality workmanship
    - Professional keeping on schedule with shop drawings, RFI’s, change requests, etc.
    - All paperwork addressed in a timely manner by all Stakeholders
- Involve the ‘Other Stakeholders’ when appropriate
- Include all parties in promotional events during the construction phase
- Always emphasize that the construction is being completed by the team and not just by the construction contractor

Construction

Advantages of the stakeholder model of design and construction delivery:

- The project closer meets the needs of the Client
- The project usually is built less expensively and with fewer conflicts in the field
- The Client will want to engage the Professional and the contractor on future projects
- The professional will be able to have better designs accepted by the Client

Thank You For Attending

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