Getting Into the Weeds Of Design Build

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Sharp HealthCare
Reflection

There is no Design Build without discipline; no discipline in execution without a fair partnership.
Sharp HealthCare

- Largest Health Care System in San Diego
  - 4 Acute Care & 3 Specialty Hospitals, w/ > 2,000 beds
  - 2 Affiliated Medical Groups, w/ 27 MOBs
  - Integrated Healthcare System, designated one of only 32 Pioneer ACOs in the nation

- Largest Private Employer in San Diego
  - > 18,000 Employees
  - 2,600 Affiliated Physicians
  - 2,000 Volunteers
Sharp’s Design Build Program

- 4 years & 18 Projects
- $178.4 M in Construction, with a Total Project Cost of $233.4 M
- ~ 50% will be completed by 1/13

All Projects:
- Budget
- Schedule

- No claims, no litigation
Overview

1. It’s all about Balance in the RFP
2. The Healthcare Difference
3. Details Lost the Weeds
4. Flawless Execution & Lessons Learned
5. Looking Forward
1. Detail in the RFP

- A good RFP is the 1st step

- Striking the right balance between:
  - Guidance,
  - Code Compliance,
  - Prescriptive Standards,
  - Freedom for Design Innovation

- Not one size fits all
2. The Healthcare Difference

- Feasibility Studies
  - Space Program & Adjacencies
  - Floor Plans to clarify scope & set a MAC
  - User concurrence between staff & physicians
  - Cornerstone of 5 year Capital Planning
- Six-Sigma before architectural plans
- Mock-Ups for clinical functionality
- Design Build Master Planning
Eight Big Differentiators

1. Uncertainty over revenue
2. Impact of Healthcare reform on bed demand
3. Uncertainty over the affordability of the “design amenities”
4. In California, the impact of SPC-2 buildings coming out of acute care service in 2030
5. Remodel versus new
6. Expanding out-patient services
7. Continuing advances in medical technology
8. Continuing advances in internet services
3. Details Lost in the Weeds

- Deadlines for owner actions
  - Decisions
  - Purchase Orders
  - Delivery dates

- Room data sheets

- Last minute catch up on items like:
  - Seismic bracing of minor equipment
  - Way Finding
  - Elevator Inspections & Variances
  - Make your own list
4. Flawless Execution

- Best Practice begins when …
  - Work is well organized,
  - Communication is excellent, and
  - We put ourselves in the other person’s shoes.
4. Flawless Execution

- We know best practice:
  - Manage change
  - Current paper work … Bulletins, Change Orders, RFIs, Submittals, POs, etc.
  - On-going Schedule recovery
  - Vendor coordination
  - Real time decision making
  - Smooth Shutdowns
  - Well orchestrated moves between phases
  - Fair decisions
  - Respect, friendship & fun!
5 Best Practice Tips for Owners

1. Start with a good RFP
2. DB is a partnership
3. Be responsible for the Owner’s duties:
   - Own the permitting relationship
   - Timely decision-making,
   - JIT process for OF equipment,
   - Managing change & on-site coordination
4. Embrace the discipline of documentation:
   - Bulletins for any changes,
   - Timely payments & monthly Zero Cost Claims review
5. Use all the tools in the toolbox:
   - BIM & Prefabrication
   - Schedules, Pull Planning, Schedule Recovery
1. RFP awards for design improvements
2. RFP set clear schedule for Owner’s moves & empty chairs for construction
3. MACs based on sound understanding of Scope
4. Team work trumps problems
5. Schedule recovery as you go
Lessons To Learn From

- RFP fails to clarify:
  - Who completes the equipment list
  - What rooms need wall elevations
  - Construction schedule impacts required by room, by day
  - Functional testing requirement for exterior mock-up

- When is it not a realistic unforeseen?
  - Changes in amps of multifunction printers & exam tables
  - Shut down by fog
  - Hazardous materials site clean up
5. Looking Forward
Construction Timeline

- Earth 4.6 Billion years
- Genus Homo appearance 2.5 Million years
- Modern humans 200,000 years
- Megalaithic structures 900 BC
- Compression structures, domes … Roman aqueducts ~ 19 BC (Pont du Gard) & domes ~ 126 AD (Pantheon)
- Tension structures … commercial grade steel ~ 1925, pre-stressed concrete ~ 1940’s
- BIM ~ 2000
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**Construction Timeline & Technology**

- Stepped pyramid, Egypt
- Megalithic Structures ~ 900 BC
- Great Wall of China ~ 200 BC
- Aqueduct Pont du Gard 19 BC
- Parthenon ~ 126 CE
- Commercial Steel ~ 1925
- Pre-stressed Concrete ~ 1940's
- BIM 2,000
What next?
The New Normal

Our New Normal has:

• Information at the speed of light,
• Interconnected global market,
• Huge gaps in education & affluence, &
• Demands for faster, smarter & more cost effective design & construction.
Design Build = Breakthrough

- Not enough to learn from the past
- Current breakthroughs = the Norm
- Design Build = problem solving
- What does my client need?
DBIA = Breakthroughs

- Yesterday’s hurdles are today’s norm’s
  - On Time & in Budget = New Norm
  - Design Build procurement, LEED & BIM = New Norm
- Innovation does not mean less quality
- We are in business to solve problems
- What can be done more cost efficiently?
From the execution detail in the Weeds ... to leading tomorrow’s Breakthroughs! Here we go!