



National Institute of Building Sciences Provider #G168

BEST4 Conference

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The Importance of Translating an OPR to a BOD

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Learning Objectives

Participants will :

1. Understand the relationship between the OPR, BOD and program and the contribution that each makes to the holistic success of a project.
2. Understand the critical components of and participants in an OPR and BOD charette.
3. Have a methodology for translating the OPR and project program to the BOD.
4. Understand how the process for developing the BOD inherently provides for verification of the OPR requirements.

Presentation Outline

- Intent of the project OPR and BOD
 - Significance of each in establishing project direction
 - Relevance to current project design phase model and associated technology
 - OPR and BOD charrette participants
- Project program components
- Translation of the project program and OPR to the BOD
- Translation of BOD to design
- Benefits of a comprehensive process and product
- Discipline specific responsibilities and contribution to process (materials, systems and diagrams)
- Enclosure Consultant's role in process
- Questions

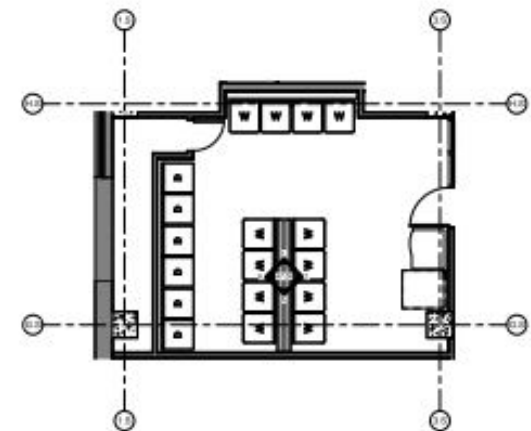
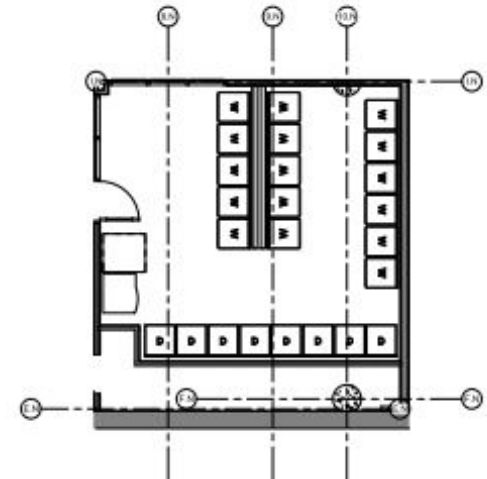
Intent of the project OPR and BOD

- OPR
 - Visioning
 - Goals
 - Requirements
 - Assumptions
 - Charette Participants and contribution
- BOD
 - Process and Product
 - Testing
 - Validation and Verification
 - Responsiveness to project program
 - Accountability
 - Charette Participants and contribution
 - responsiveness to design process and technology
 - Important Considerations



Project Programming Components

- Blocking and stacking
- Specific day-lighting requirements
- Unique environments
- Preferred views
- Below grade space characteristics
- Terraces and occupied roof spaces
- Clerestory space requirements
- Interior court spaces
- Adjacencies and dissimilar environments



Translation of OPR to BOD

- OPR goals and vision translation
 - Define fundamental, discipline-specific components required to achieve goals and vision
 - Verifying alignment with programming
 - Document assumptions based on interpretation
 - Vetting interpretation with ownership group and team
 - Document process relative to owner response
 - Evaluate ideas relative to ROM costing
 - Document options based on process

Translation of BOD to design

(performed, communicated and coordinated primarily within design team)

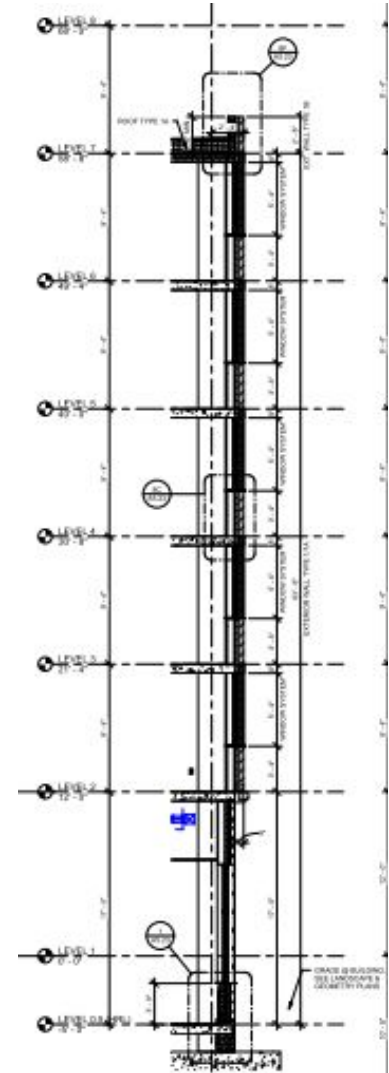
- Testing translated ideas (systems, assemblies and components)
- Continue Verifying compliance with OPR and alignment with program
- Document process associated with testing and results
- Propose refined ideas to design team (minimizing options through process of elimination)



Validation of Translation

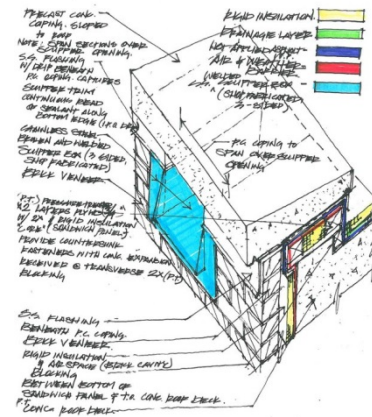
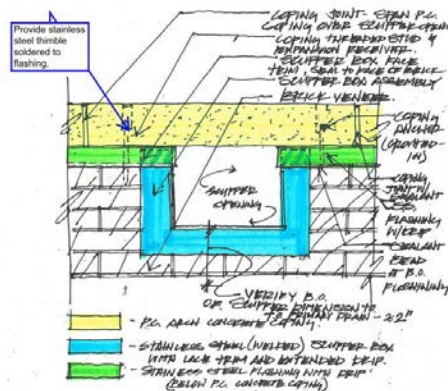
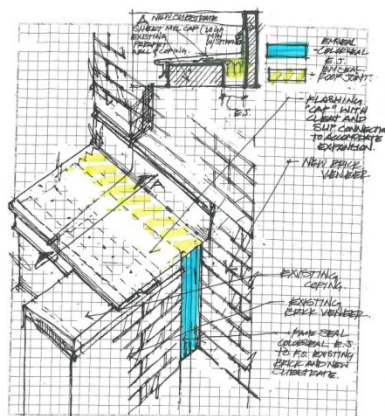
(process involves design team, ownership group, pre-construction team, estimator)

- Propose refined ideas to ownership group
- Validate relative to project cost and schedule and inter-disciplinary coordination
- Reiterate compliance with program
- Validate against OPR goals and vision
- Document validated approach with specific material, systems, reconciled architectural interpretation (graphic representation and draft specification)



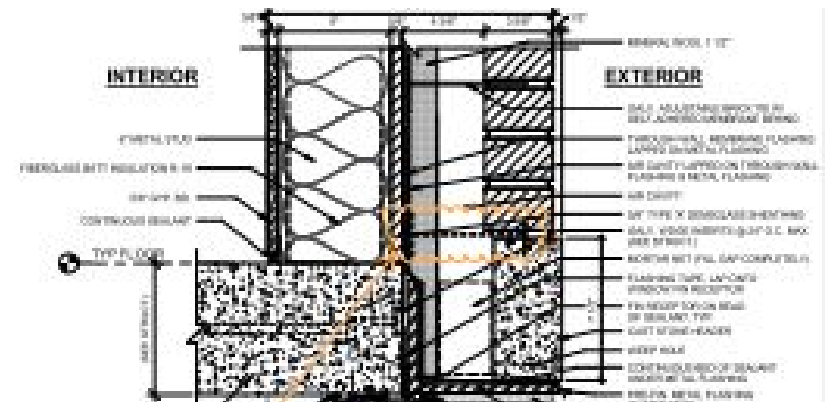
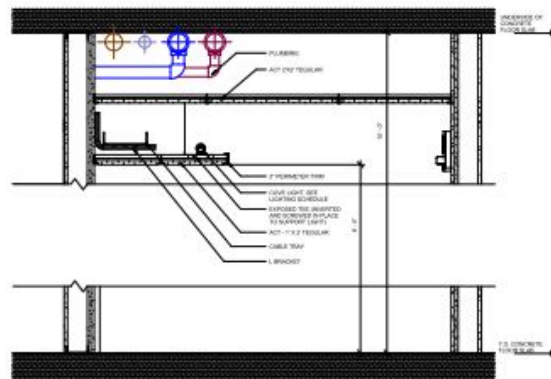
Coordinated BOD Concept Testing

- Importance of continual inter-team communication and documentation of results
- Refined concepts begin having dimensional impact on design
- Introduce and develop graphic representation of coordinated, vetted concepts
- Resultant diagrams are documented as part of BOD process (important bridging information)



Examples of Informative Diagrams

- Plenum stacking and coordination diagram
 - Mechanical, Plumbing, Electrical, Lighting etc.
- Chase and shaft coordination diagrams
- Structural and enclosure assembly and material thickness (representative of rating as necessary)
- Structural bay dimensions, column spacing (specific applications)



Select Dimensional Constraints Referenced in Diagram Testing

- Related to Plenum stacking diagram:
 - Minimum ceiling height(s) (OPR and program)
 - Floor to floor height constraints (cost)
 - Overall building height (zoning requirements)
- Related to chase and shaft diagrams
 - Net space requirements (program)
- Structural assembly and material and thickness (representative of rating as necessary)
- Structural bay dimensions, column spacing (specific applications)

Additional Diagram and System Considerations

(specific to enclosure performance)

- Enclosure systems minimum dimension and preferred locations within assembly
- Enclosure systems and assemblies required to achieve LEED goal(s)
- Additional exterior programmatic requirements
 - Exterior terraces
 - Occupied roof areas
- Resultant conductive component placement and treatment

