

Class 1, November 2, 2009: What is a good detail design & how does it fit into comprehensive design?

Essential Questions To Be Considered?

1. What is a detail?
1. What is comprehensive design?
1. How do detail designs fit into comprehensive design?
1. What is your design process?
1. How do you apply principles of design to create a detail?
1. How do you know you have a good detail design?

Desired Understandings

1. Definition of a detail
1. details are a 'design' problem
1. the five 'S's' = structure, skin, services, safety, sustainability
1. Relationship of other elements to structure
1. Physical characteristics of each type of building service
1. Organizing information in written and graphic format

in-class exercise

- 1: heating system one-line diagram translation

In-class work counts as 15% of mark

homework

- 1: 1/8" drawings, written description (12%)

Class 2, November 9, 2009: How do detail designs affect personal comfort and safety?

Essential Questions To Be Considered?

2. how do people's different characteristics affect detail design
2. how do detail designs support personal comfort?
2. What are characteristics of each kind of building service?

Desired Understandings

2. perspective of detail designs by different users
2. architect's responsibility for 'blocking'
2. acoustic strategies with building materials - airtight, heavy, iimp
2. Physical impact of services on building design

in-class exercise

2. ARE access design for locker rooms existing building

homework

- 2: Accessible kitchenette casework drawings (12%)

Class 3, November 16, 2009: How do detail designs affect a building's behavior in a catastrophe?

Essential Questions To Be Considered?

3. how does a building behave in a catastrophe?
3. How can detail designs mitigate the effects of a catastrophe?
3. How can fire protection & life safety systems mitigate the effects of a catastrophe?

Desired Understandings

3. "fire barrier, partition & wall" requirements and designing details
3. "means of egress" requirements and designing details

in-class exercise

3. alternatives for stair tower construction - with sketches

homework

- 3: 3/4" fire wall detail (12%)

Class 4, November 23, 2009: What is the purpose of the building envelope?

Essential Questions To Be Considered?

4. What is the purpose of the building envelope?
4. What are time honored strategies to mitigate natural forces?

Desired Understandings

4. Forces of Nature generally
4. Impact of different climates on envelope design

in-class exercise

4. Precipitation / thermal conductance / condensation 3 climates

homework

- 4: 3/4" exterior wall summary detail (12%)

Class 5, November 30, 2009: What are components of an envelope design?

Essential Questions To Be Considered?

5. What are the components of an envelope design?

in-class exercise

5. R-40 roof, R-30 wall detail design issues

Desired Understandings

5. Allen's condition for leak in assembly - water, force, opening
5. How Water vapor condenses within an envelope
5. Thermal conductance affects mechanical equipment sizing

homework

5: 1-1/2" head/jamb/sill Washington St. window detail (12%)

Class 6, December 7, 2009: How do 'green principles' affect detail design?

Essential Questions To Be Considered?

6. What is the Impact of 'green' principles on detail design

in-class exercise

6. Green roof details applied

Desired Understandings

6. Relationship of 'Integrated Design' to 'Comprehensive Design'
6. Architectural implications of cross ventilation
6. Architectural implications of day lighting
6. Architectural implications of sun control for heat gain

homework

6: updated package with 3/4" drawings and edited description (25%)

Class 7, December 14, 2009: Revisiting comprehensive design

Essential Questions To Be Considered?

7. Revisit all questions

in-class exercise

7. heating system selected architectural details

Desired Understandings

7. Revisit all understandings

homework

continue work on homework 6

Class 8, December 21, 2009: Have I increased my understanding of the detail design process?

Essential Questions To Be Considered?

in-class exercise
8: presentation of conclusions

Desired Understandings

homework
none