



Exterior Façade

Week Six: Class 12

Class outline

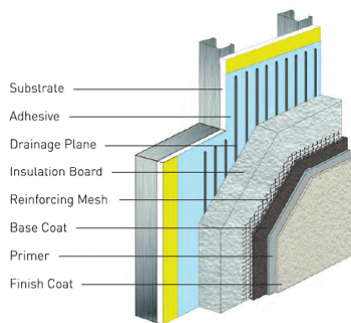
- Overview of Cladding types
- Rough draft of exterior research due
- Case studies from the solar decathlon
 - Southern California Institute of Architecture and California Institute of Technology
 - Stevens Institute of Technology
- Plan development discussion/workshop
- Set up Autodesk 360 accounts
- Research with details due 1/2 weeks (class XIV)
- Midterm set doing one 1/2 weeks (class XV)

ARCH 2430



Wall types: (group assigned by the professor)

EIFS
(Exterior Insulation and Finish Systems)



<http://www.eima.com/>



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Wall types: (group assigned by the professor)

Glass curtain wall



Siamese Towers / Alejandro Aravena, Santiago, Chile

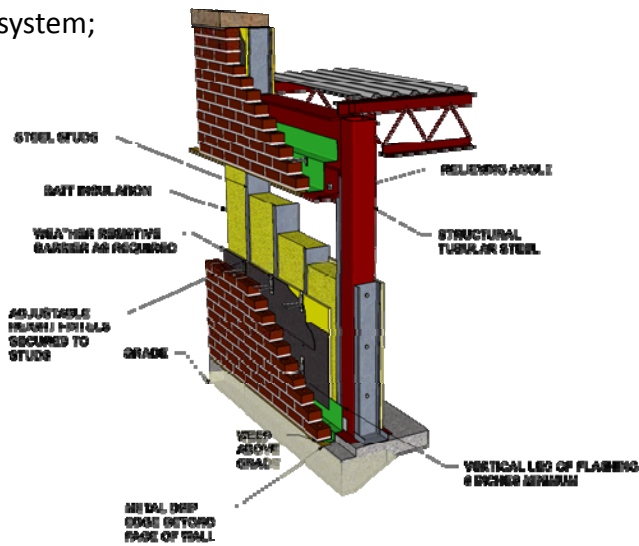
ARCH 2430

<http://www.archdaily.com/1277/siamese-towers-alejandro-aravena/>

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Wall types: (group assigned by the professor)

Masonry wall system;
brick veneer



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<http://www.masonrysystems.org/information/cavity-wall-brick-veneer-steel-stud/>

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Wall types: (group assigned by the professor)

Masonry wall system;
CMU



<http://brothersmasonry.com/education.html#>

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Wall types: (group assigned by the professor)

Metal panel



<http://www.centriaportfolio.com/ProjectDetails.aspx?projectId=355#>

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Wall types: (group assigned by the professor)

Precast;
brick panel



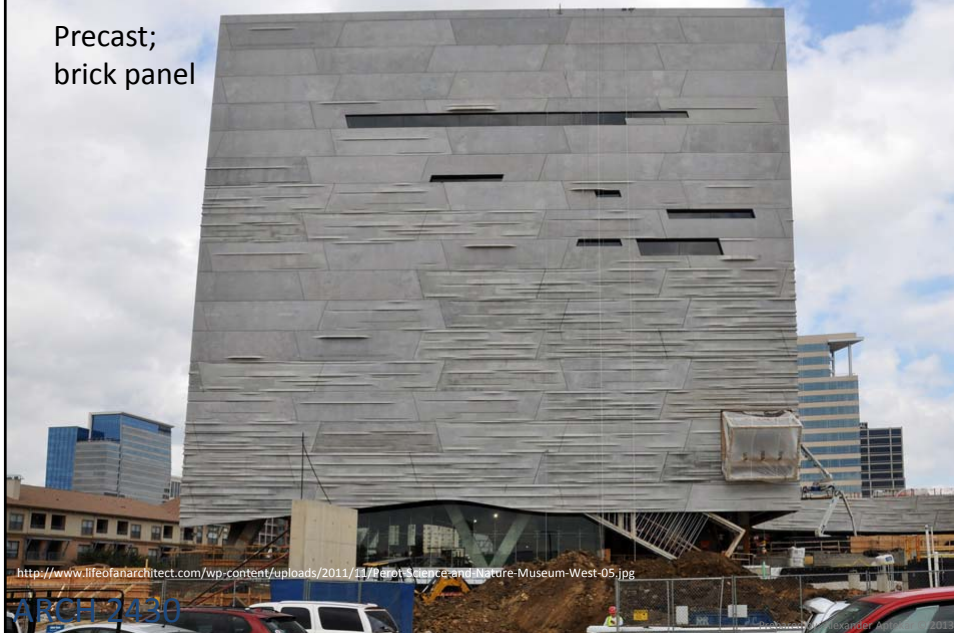
http://curbednetwork.com/cache/gallery/2479/3655212127_dfc1c9c51f_o.jpg

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Wall types: (group assigned by the professor)

Precast;
brick panel



<http://www.lifeofanarchitect.com/wp-content/uploads/2011/11/Paris-Science-and-Nature-Museum-West-05.jpg>

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Wall types: (group assigned by the professor)

Terra-cotta rainscreen



http://www.astecprojects.co.uk/projects/vodafone_world_hq

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Wall types: (group assigned by the professor)

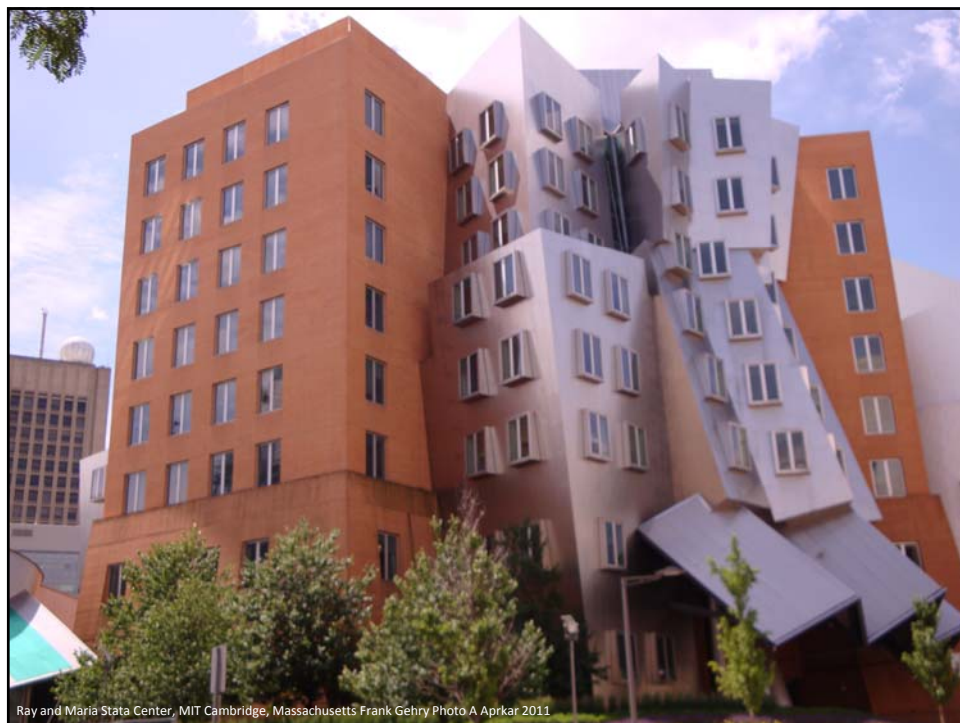
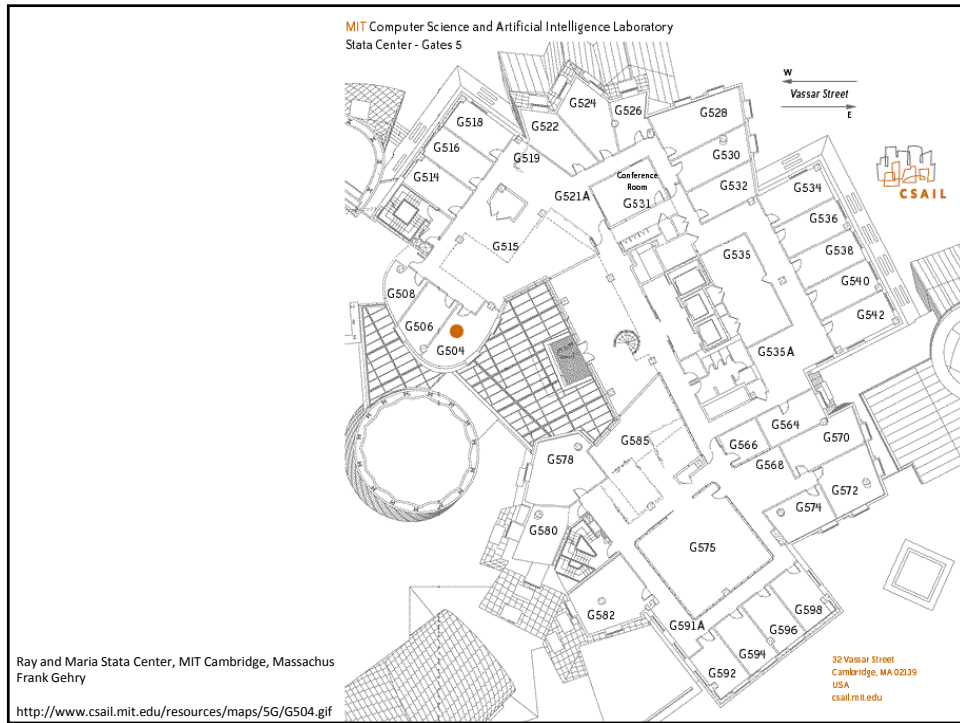
Thin stone veneer panels



<http://markstephensarchitects.com>

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Sketching in Architecture

GLASS

FLOOR

SLAB

BEAM

CURTAIN WALL

CONNECTION BETWEEN GLASS AND SLAB

ANALYTICAL SKETCH OF THE FREEDOM TOWER CURTAIN WALL FACADE

SITE LOCATION: ONE WORLD TRADE CENTER, NY, NY

ARCHITECTS

PROJECT INFORMATION

PROJECT NAME: ONE WORLD TRADE CENTER

PROJECT ADDRESS: 200 WEST STREET, NEW YORK, NY 10038

CLIENT: ONE WORLD TRADE CENTER LLC

ARCHITECT: PERKINS+WILL

DATE: 10/24/2013

SCALE: AS SHOWN

REVISIONS

NO. DESCRIPTION

DATE

ANALYTICAL SKETCH
Curtain Wall Facade

A101

TWO BEAMS ATTACHED TO COLUMN

BEAM ATTACHED TO COLUMN

STEEL FRAMED BUILDING (UNDER CONSTRUCTION)
SITES 1 (5th FLOOR) & 4th FLOOR - MANHATTAN
550 AVE. ECT. 2 & 4 (2013) - MANHATTAN

BEAM ATTACHED TO COLUMN 1

FLOOR DECKING

BEAMS (2 BEAMS)

COLUMN

550 AVE. & 4th AVE. SITE

ARCH 400

ARCH 400 DETAILS OR
PATSY SANCHEZ 1/28/09 - 2 BEAM ATTACHED TO COLUMN
ADDRESS: 550 AVE. ECT. 2 & 4

STEEL FRAMES & SLABS AT COLLECTIVE POINT 1 4th FLOOR
ACROSSING ANCHORS = 2.2.2008 = 3 X 24. DETAILS # 1 & 2

COLUMN TIES

NEED PIERCE FAST INTO COLUMNS

ESCAPE ANCHOR

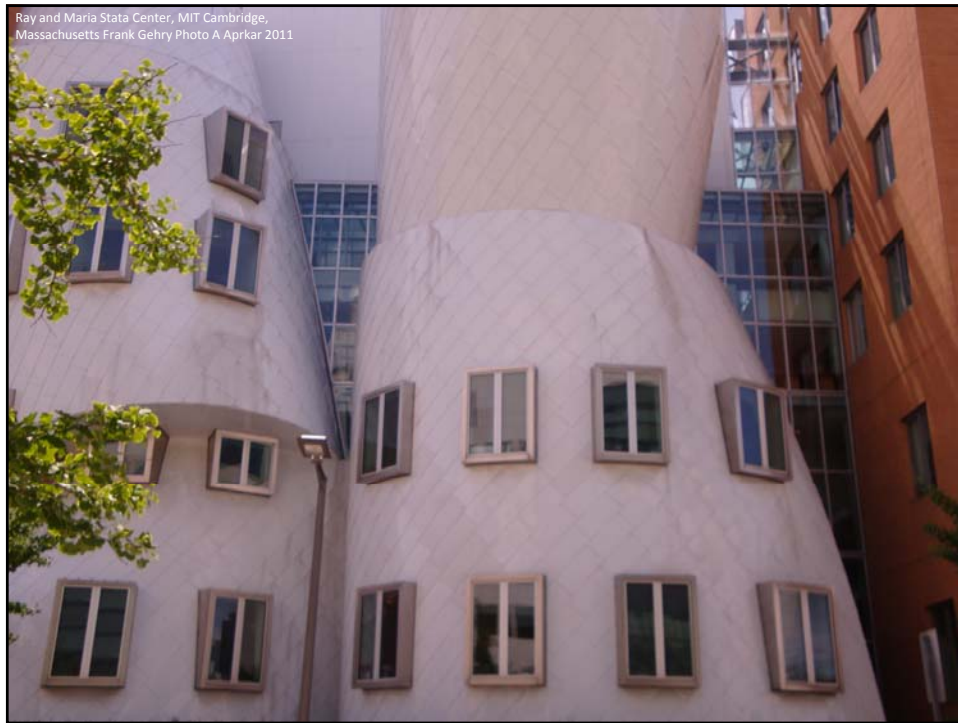
WALL AT 2 ELEVATION ETC

THE BEAM CONNECTION TO COLUMN

550 AVE

COLUMN AND BEAM DETAILING

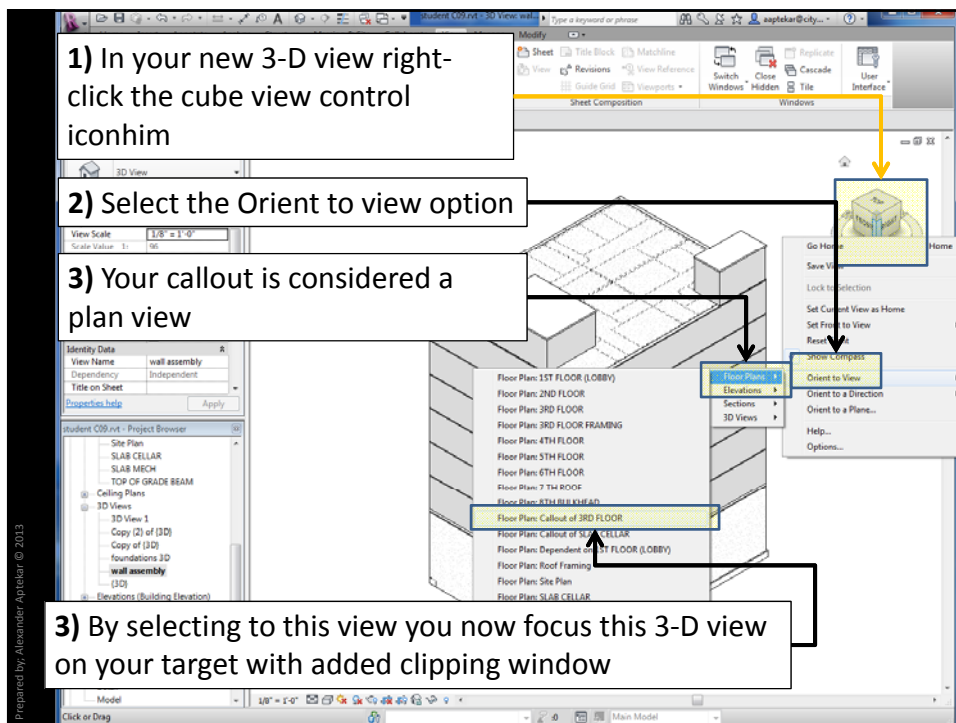
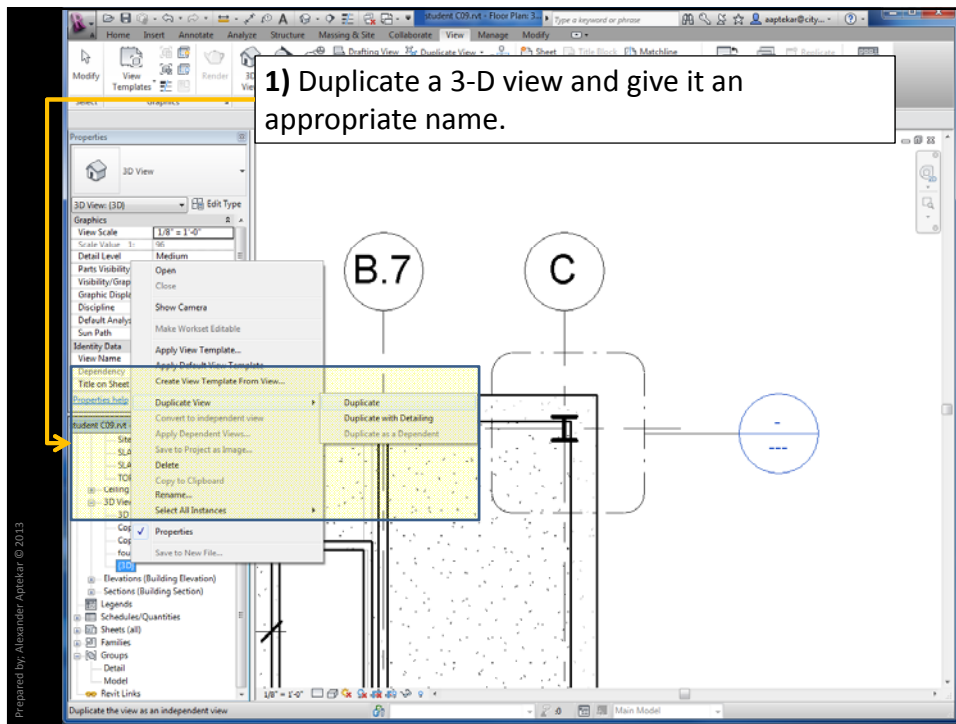
550 AVE. FLOOR CONNECTION

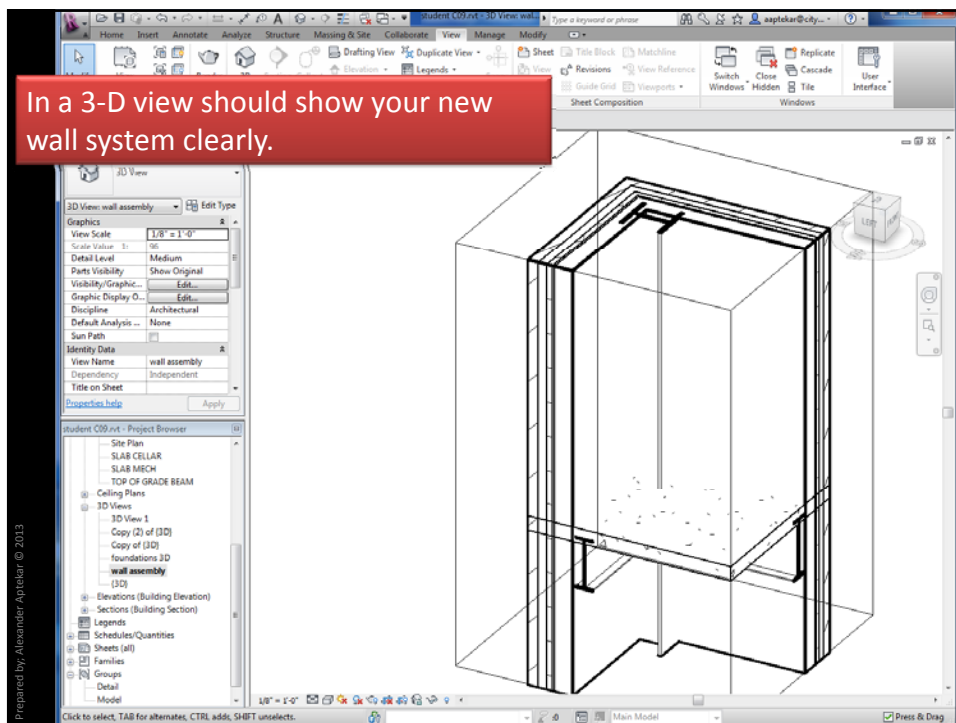
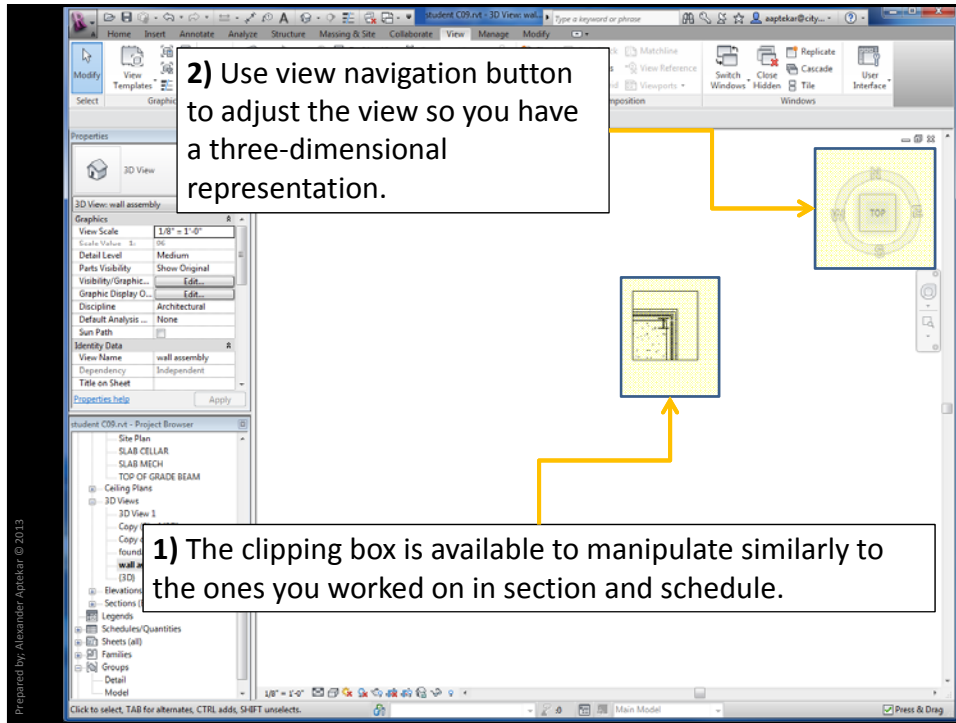


The following steps review setting up a oriented 3-D detail view.

1) Select the corner that will show your wall assembly clearly and use the callout tool to indicate it.

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Ray and Maria Stata Center, MIT Cambridge,
Massachusetts Frank Gehry
ARTstor - Lieberman

Reading assignment:

http://www.wbdg.org/design/env_wall.php



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California Institute of Technology



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GENERAL SHEET NOTES

1. THIS SHEET IS A GENERAL OVERVIEW OF THE CANOPY AND ITS INTEGRATION WITH THE BUILDING FACADE. FOR MORE DETAILED INFORMATION, REFER TO THE OTHER SHEETS IN THIS SET.
2. THE CANOPY IS DESIGNED TO PROVIDE SHADING AND PROTECTION FROM WEATHER WHILE MAINTAINING VISIBILITY AND ACCESS TO THE BUILDING.
3. THE CANOPY IS TO BE CONSTRUCTED USING ALUMINUM FRAMING AND GLASS PANELS.

REFERENCE KEYNOTES

1. TO CLASH: REFERENCE TO THE ARCHITECTURAL DRAWINGS FOR THE BUILDING FACADE AND STRUCTURE.

SHEET KEYNOTES

1. CANOPY/FPV ISOMETRIC

GENERAL INFORMATION

PROJECT: SCA/CI ARCHITECTURE CENTER
 LOCATION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA
 ARCHITECT: SCA/CI ARCHITECTURE CENTER
 DATE: 09.20.2013
 LOT NUMBER: #101
 CHECKED BY: NEAL YAMADA
 COPYRIGHT: NONE

SHEET TITLE
 CANOPY/FPV OVERVIEW
XA-001

Southern California Institute of Architecture and California Institute of Technology

GENERAL SHEET NOTES

1. THIS SHEET SHOWS THE SECTIONAL DETAILS OF MODULE A, INCLUDING THE LONGITUDINAL, TRANSVERSE, AND INTERIOR STEP SECTIONS.
2. THE LONGITUDINAL SECTION (C1) SHOWS THE OVERALL LENGTH AND THE POSITIONING OF THE CANOPY AND BUILDING FACADE.
3. THE TRANSVERSE SECTION (A1) SHOWS THE WIDTH AND THE INTEGRATION OF THE CANOPY WITH THE BUILDING.
4. THE INTERIOR STEP SECTION (A4) SHOWS THE DETAIL OF THE INTERIOR SPACE AND THE CANOPY'S PROJECTION.

REFERENCE KEYNOTES

1. TO CLASH: REFERENCE TO THE ARCHITECTURAL DRAWINGS FOR THE BUILDING FACADE AND STRUCTURE.

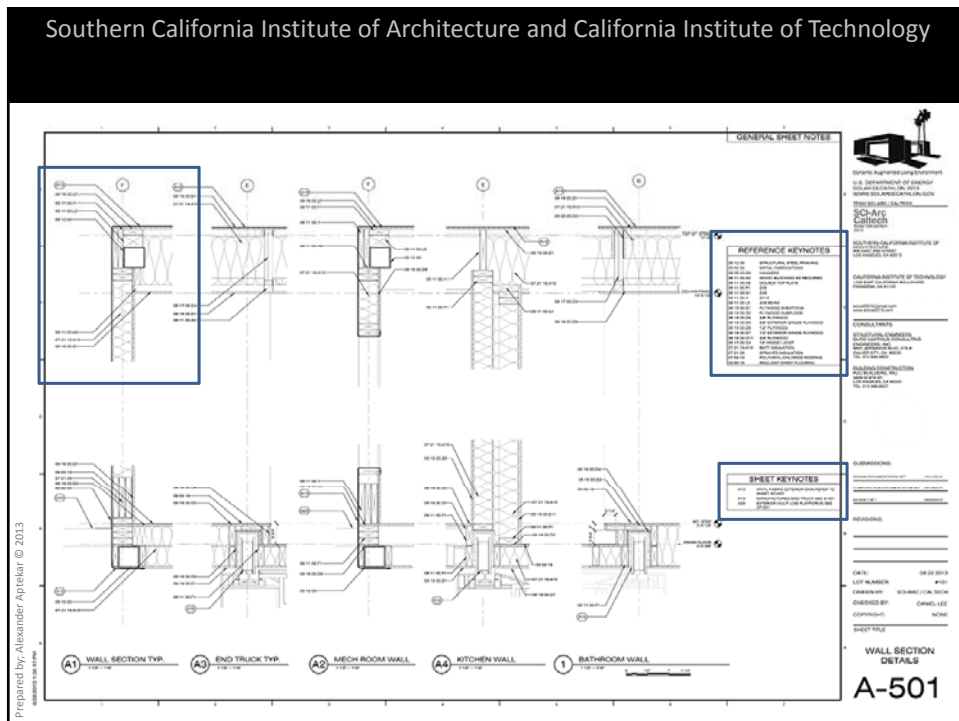
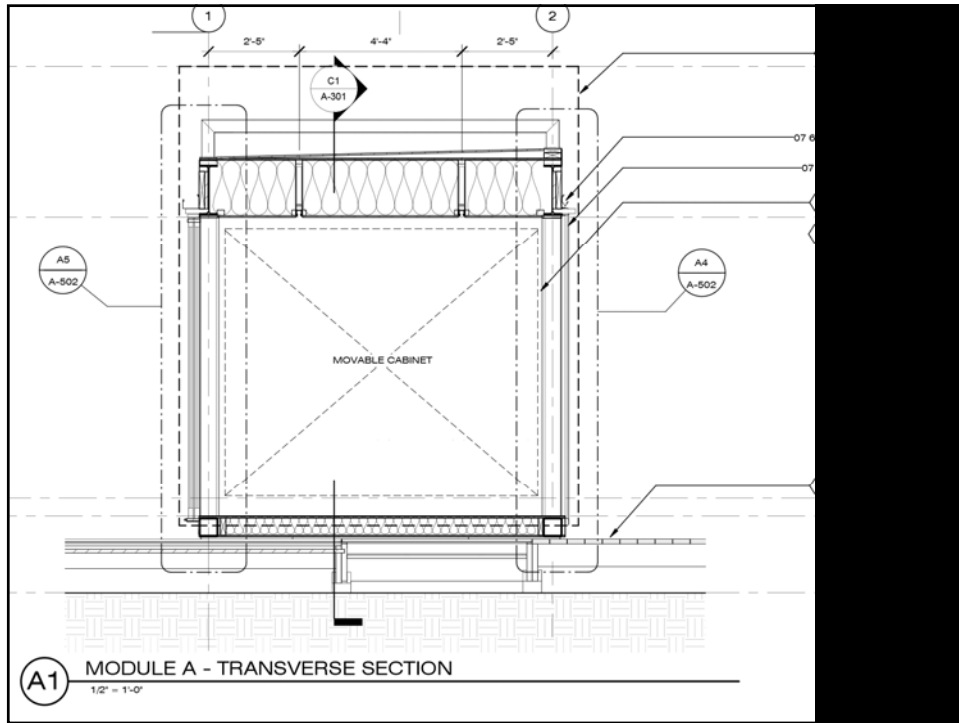
SHEET KEYNOTES

1. MODULE A - LONGITUDINAL SECTION
 2. MODULE A - TRANSVERSE SECTION
 3. MODULE A - INTERIOR STEP SECTION

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SHEET TITLE
 MODULE (A) SECTIONS
A-301



REFERENCE KEYNOTES	
05 12 00	STRUCTURAL STEEL FRAMING
05 50 00	METAL FABRICATIONS
06 05 23.D0	HANGERS
06 11 00.A2	WOOD BLOCKING AS REQUIRED
06 11 00.A8	DOUBLE TOP PLATE
06 11 00.F1	2X6
06 11 00.G1	2X8
06 11 00.I1	2X12
06 11 00.L5	4X8 BEAM
06 16 00.D1	PLYWOOD SHEATHING
06 16 00.D2	PLYWOOD SUBFLOOR
06 16 00.D4	3/8" PLYWOOD
06 16 00.D5	3/8" EXTERIOR GRADE PLYWOOD
06 16 00.D6	1/2" PLYWOOD
06 16 00.D7	1/2" EXTERIOR GRADE PLYWOOD
06 16 00.D11	3/4" PLYWOOD
06 17 00.C4	16" WOOD JOIST
07 21 16.A10	BATT INSULATION
07 21 26	SPRAYED INSULATION
07 54 19	POLYVINYL-CHLORIDE ROOFING
09 65 16	RESILIENT SHEET FLOORING

SHEET KEYNOTES	
A13	VINYL FABRIC EXTERIOR SKIN REFER TO SHEET XD-001
A19	MANUFACTURED END TRUCK SEE S-401
A23	EXTERIOR MULTI-USE PLATFORMS SEE XF-001

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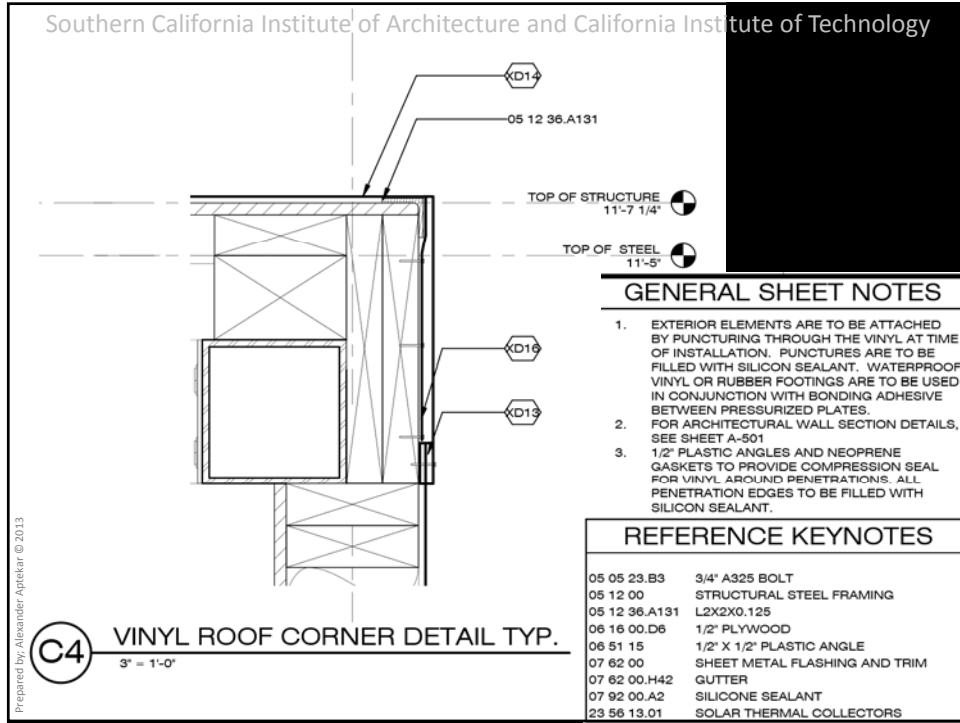
GENERAL SHEET NOTES	
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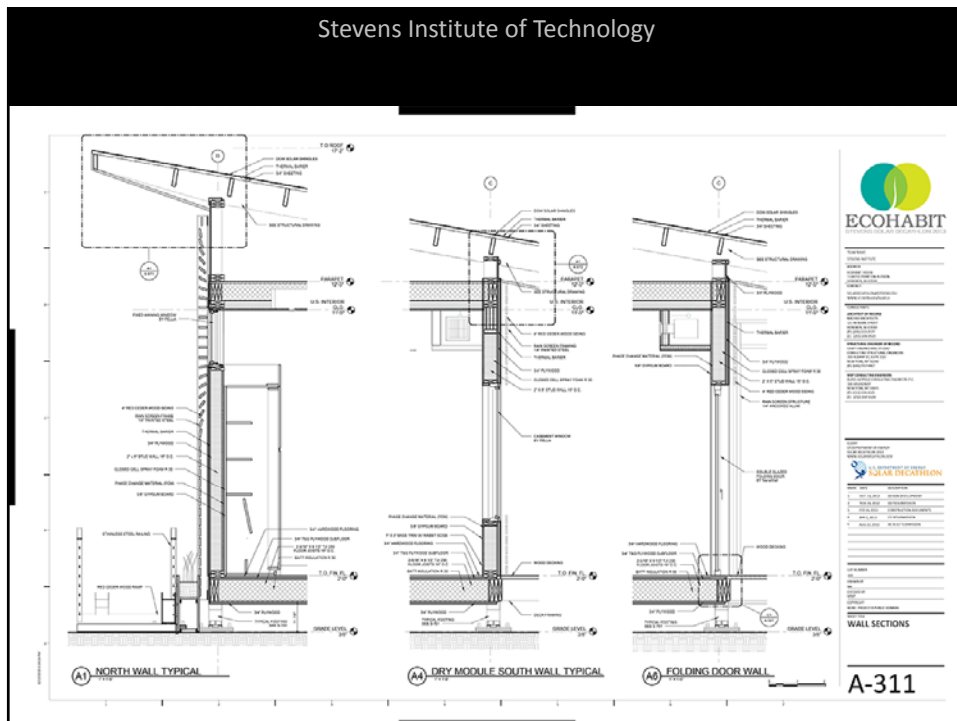
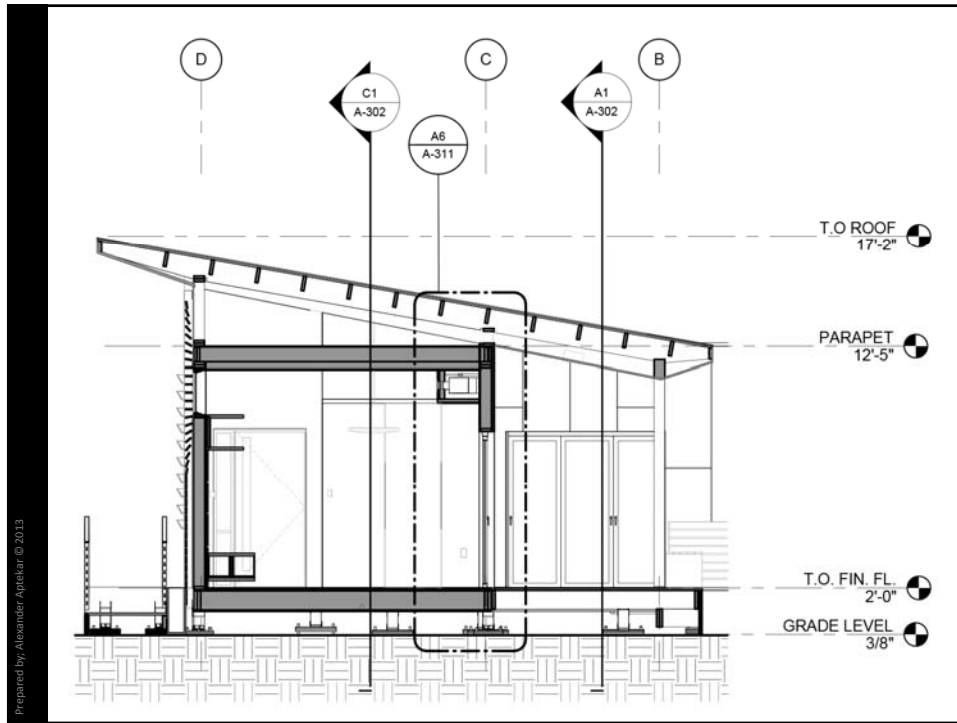
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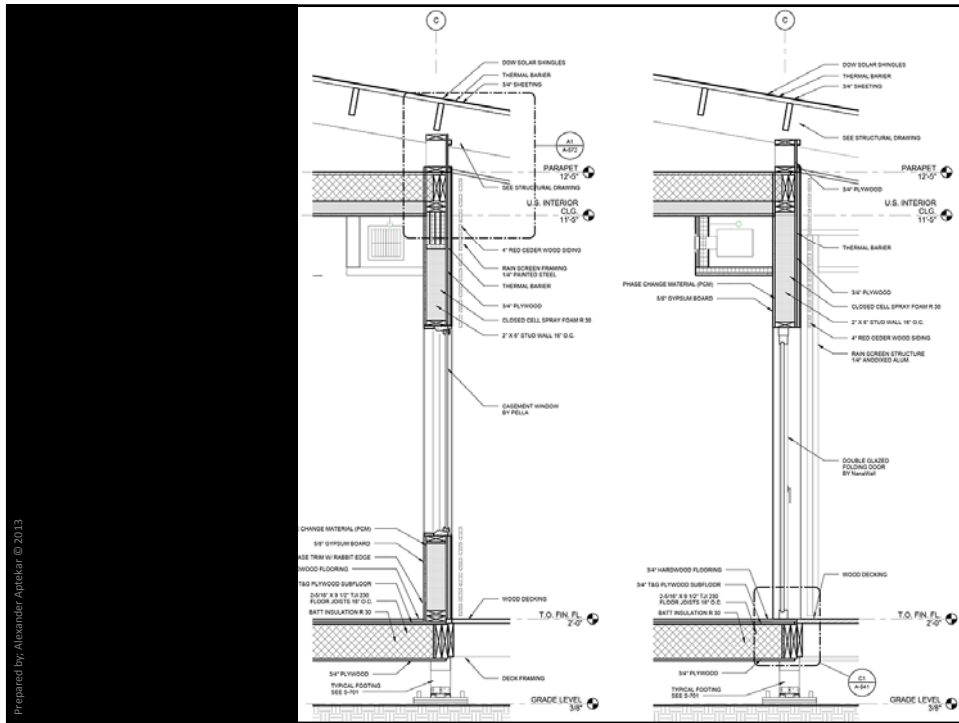
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VINYL SKIN DETAILS
XD-501









Stevens Institute of Technology

