Decision Matrix

### Sustainability
- **Being Native**: Lego Concept 30, ConXtech 30, Truss Systems 20, Cable System 20
- **Building Envelope in terms of Energy Consumption**: Lego Concept 30, ConXtech 30, Truss Systems 30, Cable System 20
- **MEP systems's energy consumption**: Lego Concept 24, ConXtech 24, Truss Systems 24, Cable System 16
- **optimizing active systems**: Lego Concept 12, ConXtech 12, Truss Systems 12, Cable System 6

### Economy
- **Estimate’s compliance to target**: Lego Concept 20, ConXtech 20, Truss Systems 20, Cable System 20
- **Structural cost**: Lego Concept 15, ConXtech 15, Truss Systems 5, Cable System 10
- **Achievement of milestones**: Lego Concept 18, ConXtech 27, Truss Systems 18, Cable System 18

### Discipline Based
- **Complexity Level**: Lego Concept 12, ConXtech 18, Truss Systems 18, Cable System 12
- **Clarity of Concept/Idea**: Lego Concept 20, ConXtech 20, Truss Systems 30, Cable System 10
- **Clarity of Program Organization**: Lego Concept 15, ConXtech 15, Truss Systems 10, Cable System 10
- **Additional Int&ext Social Space**: Lego Concept 15, ConXtech 15, Truss Systems 5, Cable System 5
- **Constructability**: Lego Concept 20, ConXtech 30, Truss Systems 20, Cable System 10

### TOTAL
- Lego Concept: 231
- ConXtech: 256
- Truss Systems: 212
- Cable System: 157
Lego Concept
Core Concept
Big Ideas

NEVADA

NEVADA

RENO UNIV.
A Building that Teaches

*Slide from presentation from Cole Roberts; ARUP
Program Distribution

terrain configuration

+26 ft

146 ft

116 ft

classrooms

offices

students

communic.
Building Relocation

With client permission – we now have additional plazas
New Plazas
Landscape that Teaches

Integration of formulas into landscape
Native Landscape
Floorplans Design

116 ft

116 ft
Floorplans 1 - 4
Auditorium Section

Roof 155 ft

Groundfloor 116 ft

62 ft
Office/Elevator Section

Groundfloor 116 ft

62 ft
Facades

Unified the windows and used local sand in concrete facade to get native colour
Roof Adjustment

Fishbowl - 2011 Ridge Team

Architect: Sinan  
Structural: Justin and Caroline  
MEP: Linnette  
CM: Maria and Fernando  
Apprentice: Annemarie
Interior Concept

Collaboration/communication

Faculty offices

Hallways

Student labs
God is in the Details – Mies van der Rohe

[Diagram with dimensions and sections labeled 01, 02, 03]
Facade Detail

Structure - ConXtech

MEP – insulation thickness – sunshade size

Architect & Management – Facade cost
Skylight Detail

Management – ETFE cost

MEP – cold bridge

Structure – dimensions, loads

Architect - size
Cantilever Detail

CM – Cost

MEP – Window performance and shading
Structural Development

**Challenges**
- A&E Integration
- Local materials
- Seismic resisting system

**Solutions**
- Modularity
- Regional companies
- ConXtech moment frame
Loads

Live = 60 psf  Dead = 100 psf  Snow = 10 psf

EQ = 535 kips
ConXtech: 2nd Floor Framing

Framing:
- W21x55
- W21x73

Column:
- HSS 16x16x5/8
ConXtech: 3rd Floor Framing

Framing:
W21x55
W21x73
W40x211

Column:
HSS 16x16x5/8
ConXtech: 4th Floor Framing

Framing:
- W21x55
- W21x73
- W40x211

Column:
- HSS 16x16x5/8
ConXtech: Roof Framing

Framing:
W21x55
W21x73
Curved Beam:
W14x30
Column:
HSS 16x16x5/8
# Soil Profile

<table>
<thead>
<tr>
<th>Depth of Excavation</th>
<th>Soil Type</th>
<th>Thickness</th>
<th>Bearing Capacity</th>
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</thead>
<tbody>
<tr>
<td>Grade at 4,580 ft. Elevation: 0 inches (0 ft.)</td>
<td>Stony Sandy Loam and Heavy Loam</td>
<td>19 inches (1.58 ft.)</td>
<td>1,500 psf.</td>
</tr>
<tr>
<td>19 inches (1.58 ft.)</td>
<td>Sandy Clay Loam</td>
<td>10 inches (0.83 ft.)</td>
<td>1,500 psf.</td>
</tr>
<tr>
<td>29 inches (2.42 ft.)</td>
<td>Clay and Clay Loam</td>
<td>27 inches (2.25 ft.)</td>
<td>1,500 psf.</td>
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<tr>
<td>56 inches (4.67 ft.)</td>
<td>Very Gravelly Sandy Loam and Very Gravelly Loam</td>
<td>28 inches (2.33 ft.)</td>
<td>5,000 psf.</td>
</tr>
<tr>
<td>84 inches (7 ft.)</td>
<td>Volcanic Rock</td>
<td>Unknown</td>
<td>8,000 psf.</td>
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</tbody>
</table>

Soil conditions at building foundation
Foundation System

Sizing:
Grade Beams: 36 in. x 36 in.
Retaining Wall: 12 in.
ConXtech Grade Beam Elevation

NOTE:
1. CENTER ALL LAP SPLICES @ MIDDLE OF GRADE BEAM
2. PROVIDE (5)#5 TIES @ 8" O.C. FOR FULL LENGTH OF ANY LAP SPLICE
Foundation System

Base Plate

Moment Connection
Retaining Walls

Wall Reinforcement:
12 in. Wall #5’s at 4 in. on center each way
ConXtech Composite Deck

NOTE:
STUDS TO THE RIGHT OF BEAM SPAN ☼ SHALL BE LOCATED IN THE RIGHT SIDE OF THE DECK RIB; AND STUDS TO THE LEFT OF BEAM SPAN ☼ SHALL BE LOCATED IN THE LEFT SIDE OF THE RIB.
Roof

- Single curvature to ease fabrication
- Spaced approx. 10 feet on center
- Steel decking perpendicular

56 ft

116 ft

114 ft
Cantilever Load Path
Load Path

- Load Path Image
- Dimensions: 116 ft. x 56 ft.
Drift

Section A-A: Deflected Shape

Δ = 0.7 in.

116 ft.

56 ft.
Dynamic Structural Model

Code Level Earthquake (DBE)
Max Amplified Deflection: 3.9 in. > 13 in.
Max Amplified Story Drift: 2.2 in. > 3.3 in.
Period: 0.94s
Structure 4D Video
# Climate Data

## Annual relative air humidity %

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<th>Morning</th>
<th>Noon</th>
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<td><strong>Highest</strong></td>
<td>January</td>
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<tr>
<td></td>
<td>Morning</td>
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<td></td>
<td>Noon</td>
<td>50</td>
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<td><strong>Lowest</strong></td>
<td>September</td>
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<td></td>
<td>Morning</td>
<td>61</td>
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<td>19</td>
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## Analytical model

### Building Summary

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<th>Inputs</th>
<th>Value</th>
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<tr>
<td>Building Type</td>
<td>SchoolOrUniversity</td>
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<tr>
<td>Area (m²)</td>
<td>2,716</td>
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<tr>
<td>Volume (m³)</td>
<td>12,459.21</td>
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### Calculated Results

- **Peak Cooling Total Load (W)**: 178,056
- **Peak Cooling Month and Hour**: August 2:00 PM
- **Peak Cooling Sensible Load (W)**: 137,186
- **Peak Cooling Latent Load (W)**: 40,87
- **Maximum Cooling Capacity (W)**: 204,795
- **Peak Cooling Airflow (L/s)**: 12,996.9
- **Peak Heating Load (W)**: 55,008
- **Peak Heating Airflow (L/s)**: 3,866.7

### Checksums

- **Cooling Load Density (W/m²)**: 65.55
- **Cooling Flow Density (L/(s·m²))**: 4.78
- **Cooling Flow / Load (L/(s·kW))**: 72.99
- **Cooling Area / Load (m²/kW)**: 15.26
- **Heating Load Density (W/m²)**: 20.25
- **Heating Flow Density (L/(s·m²))**: 1.42

5/6/2011
Ventilation

Distribution ducts in rooms: 2 - 3 m/s
Distribution ducts between rooms: 3 - 6 m/s
Main duct: 6 - 8 m/s
Duct Routing - Ground floor
Duct Routing – 1st floor
Duct Routing – 2nd floor

- Less than 1.3 m/s
- 1.3 m/s - 2.5 m/s
- 2.5 m/s - 3.1 m/s
- 3.1 m/s - 3.8 m/s
- 3.8 m/s - 5.0 m/s
- 5.0 m/s - 10.0 m/s
- 10.0 m/s - 20.0 m/s
- 20.0 m/s or more
Duct Routing - 3rd floor
IESVE simulation
- indoor climate analysis

<table>
<thead>
<tr>
<th>Type of building/space</th>
<th>Summer activity category</th>
<th>Operative temperature</th>
<th>Atmospheric CO₂ above outdoors [350 PPM] in PPM for energy calculations</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Summer [°C]</td>
<td>Winter [°C]</td>
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<td>office</td>
<td></td>
<td>A</td>
<td>B</td>
</tr>
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<td>75.2-77</td>
<td>69.8-73.4</td>
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<td>73.4-78.8</td>
<td>68-75.2</td>
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<td>71.6-80.6</td>
<td>66.2-77</td>
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</table>

**Performance**

![PMV-values graph](chart.png)
IESVE Simulation
– Indoor climate analysis

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<th>Description</th>
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<tr>
<td>Time set</td>
<td>8 AM - 5 PM</td>
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<td>Facade [W/m²K]</td>
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<td>Glazing [W/m²K]</td>
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<td>Solar shading</td>
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<td>2 People [W/P]</td>
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<td>Computers [W/m²]</td>
<td>10</td>
<td>100 % of time set</td>
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<td>Lighting [W/m²]</td>
<td>5</td>
<td>100 % of time set</td>
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<td>Infiltration [l/s]</td>
<td>0,06</td>
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<td>Cooling setpoint [°F]</td>
<td>75,2</td>
<td>100 % of time set</td>
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<tr>
<td>Heating setpoint [°F]</td>
<td>69,8</td>
<td>100 % of time set</td>
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</table>
IESVE Simulation
– Indoor climate analysis

East facing section placed in indoor climate categories

- Thermal indoor climate:
  - Category 1: 8%
  - Category 2: 92%

- Air quality:
  - Category 1: 100%
IESVE simulation
- indoor climate analysis

west facing section placed in indoor climate category

- thermal indoor climate
  - category 1: 9%
  - category 2: 91%

- air quality
  - category 1: 100%
IESVE Simulation
- Indoor climate analysis

corner section placed in indoor climate categories

- Thermal indoor climate:
  - Category 1: 7%
  - Category 2: 93%

- Air quality:
  - Category 2: 100%
IESVE Simulation
– Indoor climate analysis

<table>
<thead>
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<th>Type of building/space</th>
<th>summer</th>
<th>winter</th>
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<th>Atmospheric</th>
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<table>
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<th>category</th>
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<tr>
<td>C</td>
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Performance

![PMV-values chart](image)

![Relative Performance chart](image)
**Energy Consumption**

-eQUEST simulation

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<th>Project Name:</th>
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<td>Building Type:</td>
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<td>Location Set:</td>
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<tr>
<td>Utility: Gas</td>
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<td>Region/Zone:</td>
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Energy Consumption
-eQUEST simulation
Energy Consumption
-eQUEST simulation

Total of 115 Kwh/m²
# Energy Consumption
## -eQUEST simulation

**Total of 115 Kwh/m²**

### Electric Consumption (kWh x000)

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<td>6.24</td>
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### Gas Consumption (Btu x000,000)

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<th>Apr</th>
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<td>Pumps &amp; Aux.</td>
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<td>Ext. Usage</td>
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<td>Misc. Equip.</td>
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<td>Area Lights</td>
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<td>86.27</td>
<td>78.50</td>
<td>58.35</td>
<td>51.31</td>
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<td>71.93</td>
<td>106.80</td>
<td>777.56</td>
</tr>
</tbody>
</table>
MEP 4D Video
Original Soil Conditions

Soil Volume: 279,050 CY
Simply Excavate (Winter)

Soil Delta: 5,000 CY

Soil Movement: 5,000 CY
Add Value and Be Native (Spring)

Soil Delta: ZERO CY

Soil Movement: 10,000 CY
Soil Stability

Very stable soil. Approximately 50ft of soil without a retaining wall for construction.
Construction Site Access
Site Logistics: Structure and Shell
Site Logistics: Structure and Shell
Site Logistics: Foundations
Safety First!
Site Logistics: Lab Access
Site Logistics: Lab Access
Schedule – Phases I and II
Preconstruction, Substructure, and Shell

17 Weeks to Enclose Building

Finished Foundations
Structure Finished (10 Days)
Building Enclosed
Schedule – Phases III and IV
Services, Interiors, and Landscaping

<table>
<thead>
<tr>
<th>Task Mode</th>
<th>Task Name</th>
<th>Duration</th>
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<tr>
<td>58</td>
<td>PHASE 3 - SERVICES AND INTERIORS</td>
<td>26.7 wks</td>
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<tr>
<td>60</td>
<td>Area 2 (Building)</td>
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<tr>
<td>61</td>
<td>Ground Level</td>
<td>12.5 wks</td>
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<tr>
<td>62</td>
<td>Services</td>
<td>7.5 wks</td>
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<tr>
<td>63</td>
<td>Interiors</td>
<td>6.5 wks</td>
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<tr>
<td>64</td>
<td>Equipment and Furnishings</td>
<td>5 wks</td>
</tr>
<tr>
<td>70</td>
<td>Level 2</td>
<td>13.5 wks</td>
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<tr>
<td>71</td>
<td>Services</td>
<td>13.5 wks</td>
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<tr>
<td>72</td>
<td>Interiors</td>
<td>7 wks</td>
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<tr>
<td>73</td>
<td>Level 3</td>
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<td>74</td>
<td>Services</td>
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<td>76</td>
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<tr>
<td>78</td>
<td>Interiors</td>
<td>5.5 wks</td>
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<tr>
<td>79</td>
<td>PHASE 4 - LANDSCAPING AND CONTINGENCY</td>
<td>21.5 wks</td>
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<td>80</td>
<td>Area 0 (Bottom)</td>
<td>6 wks</td>
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<td>81</td>
<td>Ground Level</td>
<td>3 wks</td>
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<tr>
<td>82</td>
<td>Landscaping</td>
<td>3 wks</td>
</tr>
<tr>
<td>83</td>
<td>Area 0 (Top)</td>
<td>6 wks</td>
</tr>
<tr>
<td>84</td>
<td>Ground Level</td>
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<td>85</td>
<td>Landscaping</td>
<td>3 wks</td>
</tr>
<tr>
<td>86</td>
<td>Contingency</td>
<td>3 wks</td>
</tr>
</tbody>
</table>

46 Weeks to Finish Construction

Building Enclosed
Early Lab Access
On time!
Building Finished
Construction 4D Video
Construction 4D Video
4D Constructability Challenge

Roof Coverings were placed before the AHU was installed

Adjusted Schedule to install AHU first
4D Solving Schedule Errors

Two sets of beams built in parallel.

Adjusted Dependencies in Schedule
4D Modeling for Construction

Interior Wall Modeled as Exterior Wall

Remodeled the Two Walls Accordingly
4D Modeling for Construction

Exterior Wall Built to Double Height

Remodeled the Wall Accordingly
Clash Detection: Architecture and MEP

Wall and MEP Duct Intersecting

Removed Wall to allow MEP through
Clash Detection: MEP and Structure

MEP Duct and Structural Beam Intersecting

Moved Structure Up (Plenty of room available)
Clash Detection: Architecture and Structure

Architectural and Structural Curves did not match

Architectural Curves were adjusted to match
Clash Detection: Architecture and Structure

Columns Modeled
Outside Walls

Model Adjusted so
Columns are in
between Inner and
Outer Walls
The Target

Donation (in 2011 Dollars): $7,500,000

Budget (in 2011 Dollars): $7,145,000

Construction starts in June 2015

Target Value: $7,145,000
NOT a Moving Target...

...But there is Some Flexibility
Detailed Targets (Winter)

TVD - TARGETS BY CLUSTER (Winter)

Target Value: $7,145,000
Detailed Targets (Spring)

TVD - TARGETS BY CLUSTER (SPRING)

Target Value: $7,145,000

Indicates Winter Targets
### Detailed Options

#### Floor Systems

#### Exterior Walls

#### Exterior Windows
## Estimating Method

### Quantity

- **Line Items**
- **Cost Data**
- **Target Source and Target**
- **Delta**
- **Estimated Cost**

### Quantity and Cost RELIABILITY

<table>
<thead>
<tr>
<th>Assembly Number</th>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Material O&amp;P</th>
<th>Installation O&amp;P</th>
<th>Total O&amp;P</th>
<th>% of Total</th>
<th>BMR ESTIMATE</th>
<th>ESTIMATE RELIABILITY</th>
<th>% of Total</th>
<th>BMR ESTIMATE</th>
<th>MAX ADJUSTED ESTIMATE</th>
<th>% of Total</th>
<th>TARGET VALUE</th>
<th>VALUE DELTA</th>
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<tr>
<td>C1011214525</td>
<td>Good plywood, 1′ × 4′ × 8′ plywood, 2′ × 4′, &amp; 2′ × 6′ plywood, same opposite face, 2′ × 4′, same opposite face</td>
<td>17962</td>
<td>S.F.</td>
<td>$2.77</td>
<td>$5.16</td>
<td>$7.93</td>
<td>12%</td>
<td>$824,364</td>
<td>15%</td>
<td>$1,102,300</td>
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<td>S.F.</td>
<td>$2.35</td>
<td>$4.83</td>
<td>$7.18</td>
<td>12%</td>
<td>$824,364</td>
<td>15%</td>
<td>$1,102,300</td>
<td>9%</td>
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<td>S.F.</td>
<td>$34.14</td>
<td>$53.13</td>
<td>$87.27</td>
<td>0%</td>
<td>$24,377.58</td>
<td>2%</td>
<td>$178,000</td>
<td>9%</td>
<td>$204,000</td>
<td>$17,157</td>
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<tr>
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<td>S.F.</td>
<td>$34.14</td>
<td>$53.13</td>
<td>$87.27</td>
<td>1%</td>
<td>$24,377.58</td>
<td>2%</td>
<td>$178,000</td>
<td>9%</td>
<td>$204,000</td>
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<td>S.F.</td>
<td>$34.14</td>
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<td>1%</td>
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<td>S.F.</td>
<td>$34.14</td>
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<td>$178,000</td>
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<td>$34.14</td>
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<td>S.F.</td>
<td>$34.14</td>
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<td>1%</td>
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<td>2%</td>
<td>$178,000</td>
<td>9%</td>
<td>$204,000</td>
<td>$17,157</td>
<td></td>
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</tr>
</tbody>
</table>
TVD Wall – Teleplace (Winter)
TVD Wall – Teleplace (Spring)
TVD Wall – The Real Deal
TVD Wall – The Data

Budget = $7,145,000

<table>
<thead>
<tr>
<th>TOTAL</th>
<th>ESTIMATED VALUE</th>
<th>TARGET VALUE</th>
<th>VALUE DELTA</th>
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<tbody>
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<td></td>
<td>$ 6,979,943</td>
<td>$ 7,145,000</td>
<td>$ 165,057</td>
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TVD - TARGETS BY CLUSTER (SPRING)

TRACKING TARGET OVER TIME

RIDGE TEAM

Gross Square Footage 33,736

Price = 207 $/SF

TVD - SUMMARY

COST ESTIMATE

Estimate Quantity Reliability

Estimate Cost Data Reliability

5/6/2011
TVD – Tracking Target

TRACKING TARGET OVER TIME

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<th>Date</th>
<th>Estimate</th>
<th>Delta</th>
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<td>2-Mar</td>
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<td>9-Mar</td>
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<td>16-Mar</td>
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<td>$117,957</td>
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<tr>
<td>30-Apr</td>
<td>$7,027,0</td>
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</table>
TVD – Visualize the Target

TVD - SUMMARY

|$8,000,000 | $7,145,000 | $6,979,943 |
|$7,000,000 |
|$6,000,000 |
|$5,000,000 |
|$4,000,000 |
|$3,000,000 |
|$2,000,000 |
|$1,000,000 |
|-$ |

TARGET VALUE

ESTIMATED VALUE

VALUE DELTA

$165,057
TVD – Measuring Performance

TVD - TARGETS BY CLUSTER (SPRING)

- TARGET VALUE
- ESTIMATED VALUE
- VALUE DELTA

A Substructure | B Shell | C Interiors | D Services | E Equipment and Furnishing | F Specialty Construction | G General Requirements

- $3,000,000
- $2,500,000
- $2,000,000
- $1,500,000
- $1,000,000
- $500,000
- $-
- $(500,000)
TVD – Estimate Results

- B Shell: $2,118,044 (30%)
- D Services: $2,532,038 (36%)
- C Interiors: $824,284 (12%)
- A Substructure: $382,960 (6%)
- F Specialty Construction: $200,000 (6%)
- E Equipment and Furnishing: $99,293 (1%)
- G General Requirements: $823,324 (12%)

Gross Square Footage: 33,736
Price = 207 $/SF
TVD – Measure Reliability

**Estimate Quantity Reliability**
- HIGH: 62%
- MEDIUM: 32%
- LOW: 6%

**Estimate Cost Data Reliability**
- HIGH: 17%
- LOW: 11%
- MEDIUM: 72%
Being Native
Landscaping
Local and Regional Providers

University of Nevada, Reno

10 Miles
20 Miles
30 Miles

Steel Fabrication
Concrete
Cement

230 Miles
Reflecting the Environment
## LEED Gold

<table>
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<tr>
<th>Category</th>
<th>Max Possible Points</th>
<th>Points Earned</th>
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<td>Sustainable Sites</td>
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<td>6</td>
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<tr>
<td>Water Efficiency</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Energy &amp; Atmosphere</td>
<td>17</td>
<td>7</td>
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<tr>
<td>Materials &amp; Resources</td>
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<td>7</td>
</tr>
<tr>
<td>Indoor Environmental Quality</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td>Innovation &amp; Design Process</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>69</strong></td>
<td><strong>40</strong></td>
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</table>
Water Conservation
Alternative Transportation

Line 395 Stop
Building Management Systems
Communications

- Skype
- GoToMeeting
- Teleplace
- Google Wave
- Google Docs
- Dropbox
Integrated Real Time Meeting Notes

10:00 - 10:15 Discuss progress within the week and next steps
10:15 - 10:30 Discuss Fishbowl notes and how we want to develop the roof design further
10:30 - 10:55 Discuss facade
10:55 - 11:05 Determine naming conventions and level of detail in the design
11:05 - 11:25 Run a coordination test of a combined model
11:25 - 11:35 Discuss the schedule and the construction sequence of the building
11:35 - 11:50 Discuss feedback for Robin
11:50 - 12:00 Discuss next steps and final presentation practice times

Edited by Maria and Caroline: APRIL 6th MEETING NOTES

10:00 - 10:27 Discuss Progress

- Sinan: Working on Revit. Now the model Sinanmihelic@cogolewave.com is completely in Revit. Did some thinking about the roof. Meeting with Anja and she was asking on how we are doing about being native.
- We<br>Carolina
- DIM software
  - Linette can't get Revit MEP 2010, only MEP 2011
  - If you save the file in a different format it takes a lot of manual edits.
  - Justin will download Revit MEP 2010 and upload it to dropbox and send the codes and stuff.
- Next meeting
  - Invite Josh and Anja and present them what we are doing
    - Invite Josh and Anja and reply to e-mail Linette
  - Linette and Annemarie will discuss with Sinan the ideal design for the facades.
  - Linette will also work in Revit.
  - Linette will use the ventilation air to heat and cool as much as possible.
  - Structural Engs: working on the model and then imported into the software analysis, then import it back and be ready for the presentation. Arch Revit model is not finished but can be used.

10:27 - 10:40 Discuss Fishbowl Notes

- Very nice idea of making the roof something coming from a microwave oven.
Use of Software
File Tracking

For the files you upload into Dropbox and want to share with the team please share the following:

1.) File Location and File Name
2.) Brief description of file contents.
3.) Who should look at the file.
4.) What kind of feedback do you expect and by when.
5.) Any additional notes or comments

To provide feedback please reply to the wave with you comments by the expected time.

Sinanmihelicic@googlwave.com:

1) 01-01-autocad / SM-SCH-program&axis-01-020611
2) autocad dwg plan (also can be imported to revit or sketchup)
3) everyone
4) i did some changes into first idea, as we talked at the meeting, so in this file, you can find some sections and also all the required plans. ill do some pdfs also at the same folder.
Sketchup model is coming soon!
BIM Integration

Final Models

Navisworks Quantity Takeoff

ETABS

REVIT

EQUEST
Improvements from Winter Quarter

• More Frequent Communication
• More Efficient Communication
• Team Bonding
• More Subgroup Meetings
Winter Quarter Latency: 4 days
Spring Quarter Latency: 3hrs

Sinan: hey guys, but maybe we could use a water from the sinks, to wash the toilets like, when you wash your hands in the sinks, that water is going to a reservoir and from there to the toilets?

Annemarie Golz: that's another example of gray water usage, a good one too. Linette's expertise is probably needed.

Sinan: of course, agree, it's just a thought, what we could do.

Maria Selk: hey guys, one of the orgs is actually designing something like that for individual toilets in El Salvador! It's really cool.

Fernando Castillo: Guys, I have some quite exciting news! I've done the calculations from the original site and the new site configuration and the total amount of dirt that we are excavating is only 6,500 cubic yards, which is really really little for all that we are doing. The total amount of dirt in the site is about 280,000 cubic yards, that means we are only taking out 2% of the dirt.... but even more interesting, I can adjust the site very easily so that it's actually the same! So zero earth removal from our site! That can definitively go into our being native challenge!

Sinan: that's great Fernando!

Caroline Lewis: For sure!

Fernando Castillo: I think we may have a chance at the Native one too!

Saturday, April 23, 2011

Fernando Castillo: Update on Teleplace.... I've been able to get the model and scaled it twice, but when I close it crashes and the model disappears 😞.... I'll keep on trying.

Sinan: Fernando, I think I know what the problem is. It happened to me before, I'll try to help.
## Further Comparison

<table>
<thead>
<tr>
<th></th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg Number Weekly Subgroup Meeting</td>
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<td>6</td>
</tr>
<tr>
<td>Avg Weekly Meeting Length</td>
<td>2hrs 10mins</td>
<td>1hr 50mins</td>
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Lessons Learned

“The Model isn’t done until its done.” -Fernando

“If Shakespeare made up words, I don’t see why you can’t” -Caroline
Lessons Learned

“A positive attitude is essential”  -Justin

“Double check times when dealing in different time zones.”  -Sinan

“Plan far ahead.”  -Annemarie
Thanks To: ConXtech

Erik Kneer  John Nelson
Glenn Katz
Eduardo Mirana Adhamina Rodriguez
Dennis Kwan Greg Luth
Daniel Gonzales Mark Barlett
Thanks To:

Renate Fruchter

Josh Odelson

Anja Jutraz

Mentors

Classmates
Questions?