



# Minnesota State Capitol Restoration

Capitol Preservation Commission

February 10<sup>th</sup> 2014

Meeting

MOCA

# Agenda

## Call to Order

- WP2 and WP2A discussion
- Commission Action to approve Remaining WP2/WP2A
  - Roofing and Under-Slab Infrastructure Work
- Design Development
  - Additive Alternate List for Review
- Fine Art – Stephen Elliott



# WP 2 Underground: Systems Design & Coordination

Scope includes:

Mechanical Ductwork

Electrical – Power Distribution

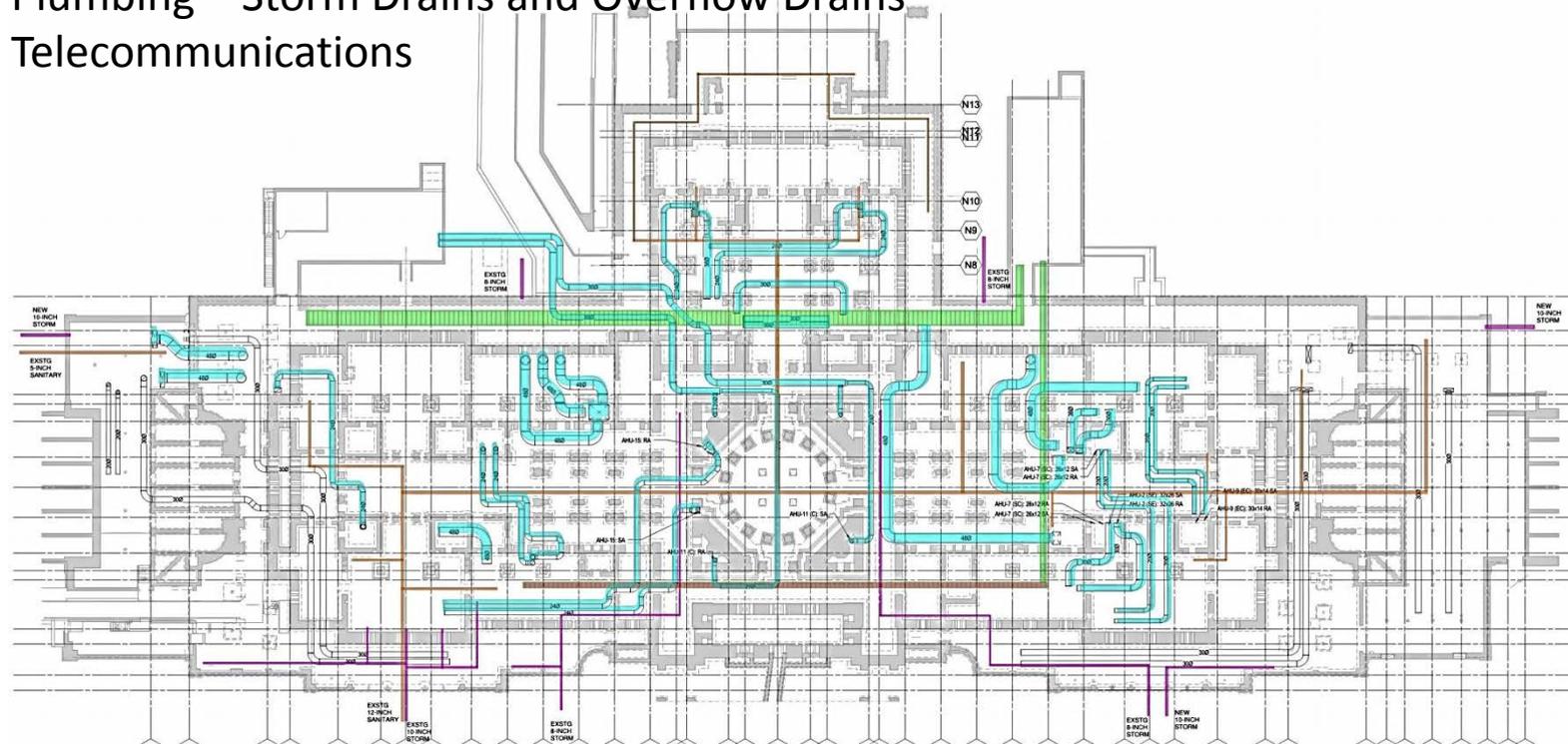
Plumbing – Cold water lines distribution

Plumbing – Domestic Water distribution

Plumbing – Waste /Sanitary Sewer lines

Plumbing – Storm Drains and Overflow Drains

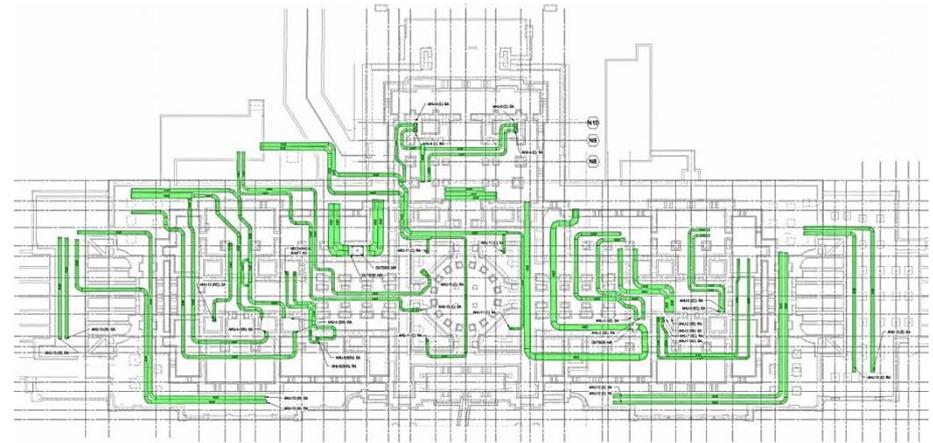
Telecommunications



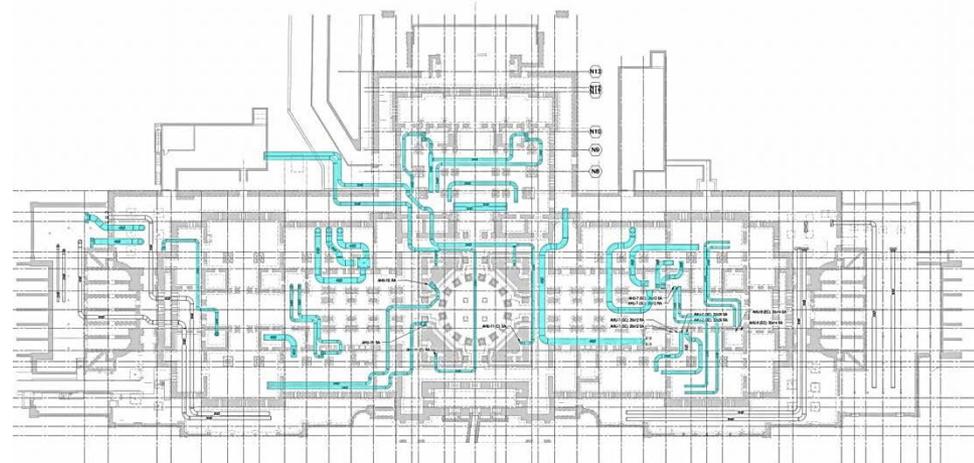
# WP 2 Underground Ductwork: Comparison

## Reduced Underground Ductwork

- Four AHUs moved to (2) new South Mechanical rooms
- Outside Air brought in Southwest Quad
- Relief Air routed to existing outside air intakes at the plaza
- Plenum detail at exterior foundations



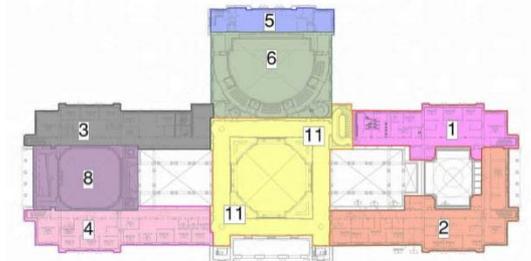
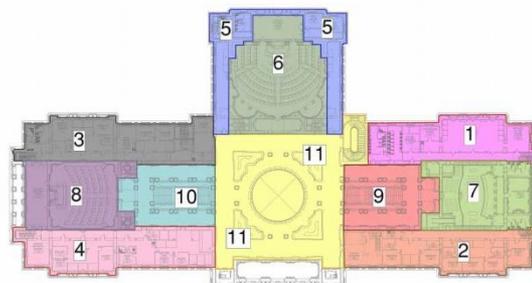
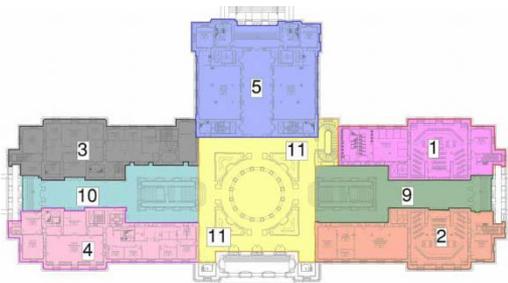
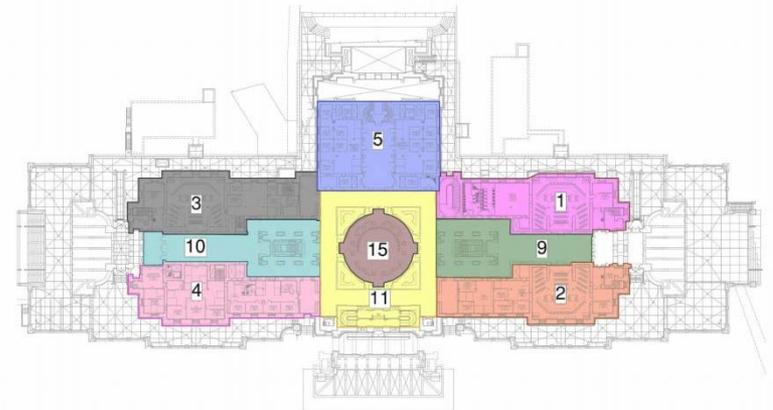
Schematic Design



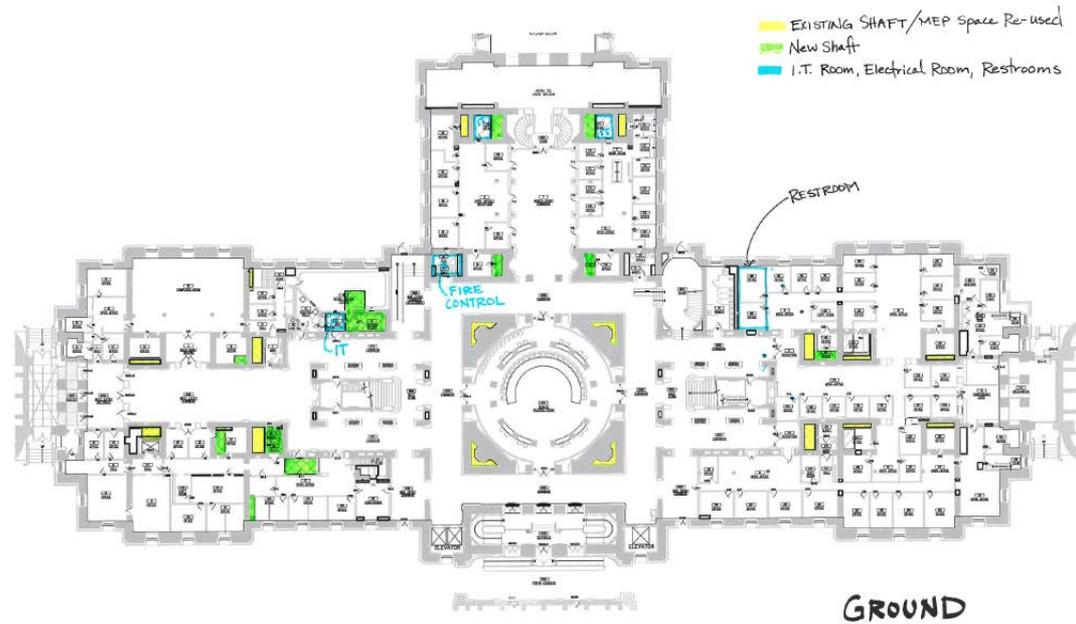
Design Development

# WP 2 Mechanical Zones

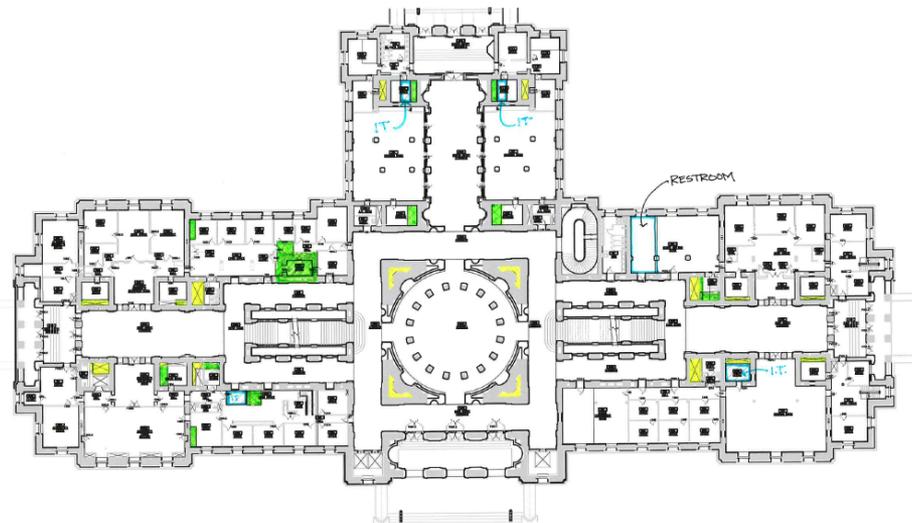
- New Zones will allow for installation of systems during occupancy
- Provide for greater comfort



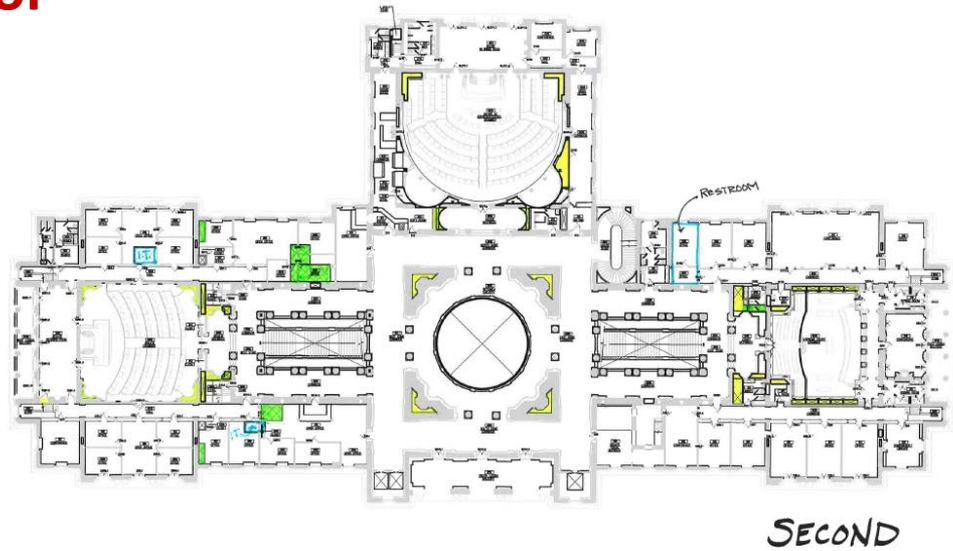
# WP 2 Impact on Ground



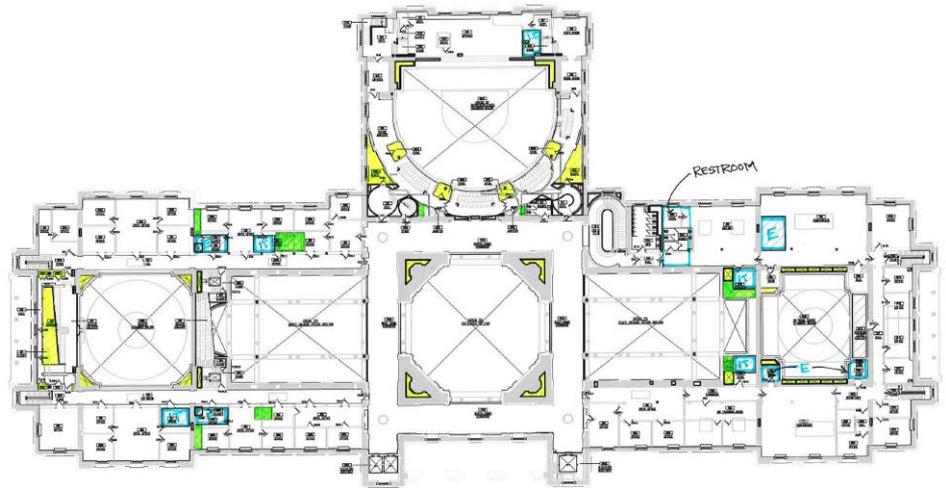
# WP 2 Impact on First Floor



# WP 2 Impact on Second Floor



# WP 2 Impact on Third Floor



## WP 2 Impact Over All

The exact shaft sizes are not yet set. There will still be some fluctuation as coordination continues.

The following will be determined by the WP2 and WP2A construction: ·

Shaft locations will be set.

Electrical and IT rooms will have a some limited flexibility in location

The main public restrooms will be determined by WP2.

	Total Lost to Shafts	Ground Floor Lost to Shafts	1 <sup>st</sup> Floor Lost to Shafts	2 <sup>nd</sup> Floor Lost to Shafts	3 <sup>rd</sup> Floor Lost to Shafts
	-1,357 sf	-520 sf	-488 sf	-338 sf	-351 sf

# Geotechnical Evaluation and Testing

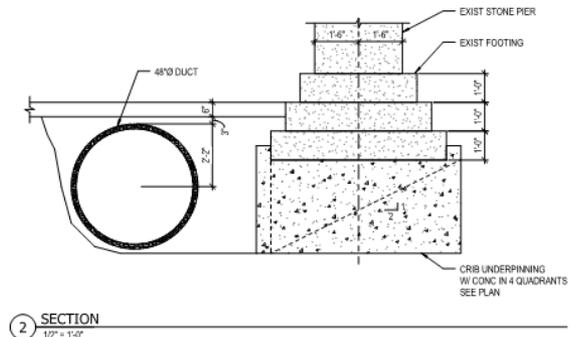
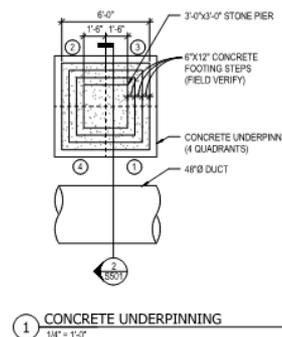
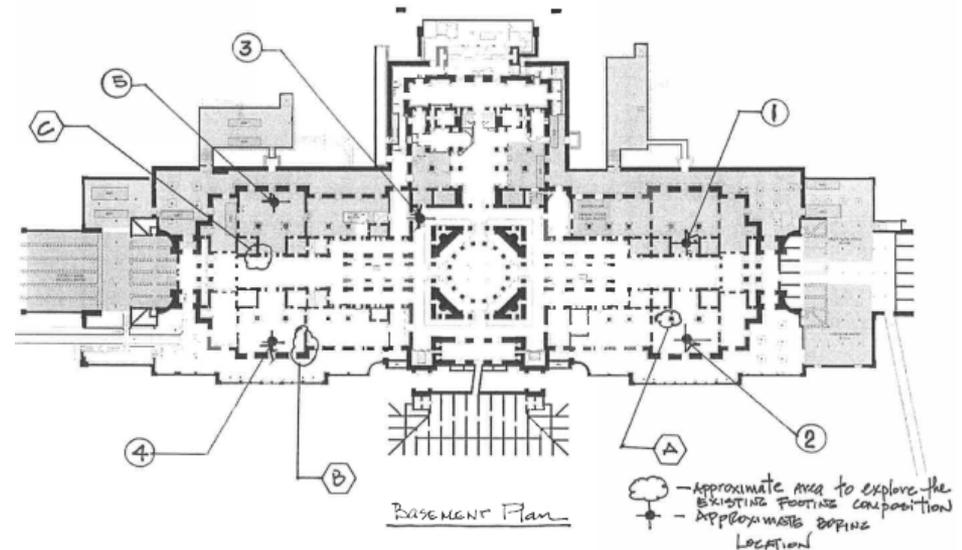
Identified the soil conditions for Structural Modifications.

The Geotechnical Evaluation enlarged the zone of influence which limited options for below grade work

## Concrete Underpinning

Stabilize the foundations and to provide for access to locate the MEP equipment

Very expensive option.



## WP#2/2A Underpinning Reduction Plan

- Underpinning of the Basement had a large impact on the overall budget of the project – Very expensive solution.
- A more efficient and less costly basement plan was developed during the design development value selection process.
- Benefits of this revised basement plan include:
  - Reduces approx. 50% of the expensive and risky underground work (i.e. ductwork and associated structural foundation underpinning).
  - Additional above-ground ductwork replaces costly underground installations.
  - This mechanical configuration is much more efficient, minimizing the impact on previously developed basement program space.
- WP#2/2A work previously approved on Jan 21<sup>st</sup> is just getting started. Slab on grade removal will begin on Thursday, Feb 13<sup>th</sup>.



# WP#2/2A Questions



WP2 & 2A

# APPROVAL



# DESIGN DEVELOPMENT



# Design Development

- **Project is on Budget**
- Total Construction Cost  
**\$136,870,870**
- Total Project Costs  
**\$180,873,870**
- Capitol Program Costs  
**\$241,000,000**
- Capitol and Windows  
Program Costs  
**\$272,700,000**

Minnesota State Capitol Restoration Budget Recommendation By MOCA	
February 9, 2014	
<b>MOCA + CPMI</b>	
<b>Program Costs</b>	
Construction Costs	\$ 122,717,815.00
Contractor General Conditions	\$ 11,787,555.00
Contractor Fee	\$ 2,365,500.00
<b>Total Construction Costs</b>	<b>\$ 136,870,870.00</b>
<b>Owner Project Costs</b>	
Project Management	\$ 2,755,000.00
Architects	\$ 9,732,000.00
Construction & Project Contingency	\$ 17,256,100.00
Telecommunications /Voice & data (Infrastructure in Construction)	\$ 3,500,000.00
Inspections - Special construction and General	\$ 741,000.00
Commissioning Energy services	\$ 420,000.00
Security Equipment	\$ 1,747,000.00
Audio/Visual and Broadcast Media	\$ 3,295,500.00
Furniture, Fixtures & Equipment	4,556,400.00
<b>Total Owner Project Costs</b>	<b>\$ 44,003,000.00</b>
<b>Total Project Costs</b>	<b>\$ 180,873,870.00</b>
Inflation/Escalation	\$ 6,161,000.00
<b>Total with inflation</b>	<b>\$ 187,034,870.00</b>
<b>Other Project Costs</b>	
PreDesign	\$ 150,000.00
Relocation moving costs*	\$ -
Historic Structure Report	\$ 150,000.00
General Expenses	\$ 1,665,130.00
Swing Space	\$ 20,000,000.00
Exterior Stone, Windows & French Doors	\$ 32,000,000.00
<b>Total Owner Costs</b>	<b>\$ 53,965,130.00</b>
<b>Subtotal Program Costs</b>	<b>\$ 241,000,000.00</b>
Operable Windows and Tier 3 Stone	\$ 31,700,000.00
<b>Total Program Cost</b>	<b>\$ 272,700,000.00</b>

\* Relocation Costs are not bondable - General Fund Appropriation is Required

\*\*Operating Costs are not included in the above.



# Detailed Construction Budget

SECTION	TOTAL Work Pkgs 2,3,4
General Requirements	10,667,155
Demolition & Structure Moving	4,206,098
Foundation Underpinning	4,607,710
Concrete Structure	1,072,848
Unit Masonry	1,200,000
Metal Fabrications	3,180,379
Decorative Metal	344,454
Rough Carpentry	241,699
Finish Carpentry	3,573,104
Roofing	3,595,930
Joint Protection	700,000
Doors and Frames	2,702,183
Entrances, Storefronts, and Curtain Walls	1,153,416
Plaster and Gypsum Board	2,581,206
Stone & Tile	886,075
Ceilings	349,999
Flooring	759,800
Restore Marble Flooring & Walls	1,343,310
Decorative Painting	1,176,375
Painting And Coating	1,516,750
Plaster Restoration	2,999,953
Specialties	32,555
Wayfinding & Directories Allowance	206,079
Misc Signage	16,663
Toilet Compartments	447,951
Wall And Door Protection	21,860
Toilet Accessories	52,968
Safety Specialties	7,013
Elevators	1,961,300
Fire Suppression	1,701,784
Plumbing	7,240,365
HVAC	25,542,662
Electrical	18,661,378
Historical Lighting	3,569,850
Communications	3,474,984
Electronic Safety & Security	1,747,399
Earthwork	179,734
Concrete Paving Demo	65,907
Asphalt Paving	13,838
Site Concrete	262,678
Site Improvements	59,660
Planting	55,000
Utilities	447,797
Site Electrical	268,161
Allowances WP-2	1,284,315
Subtotal	116,180,345

Subtotal	116,180,345
Inflation - 7%	6,161,002
Construction Contingency - 5%	6,117,067
Bonds & Insurance - 2.65%	<u>3,404,148</u>
<b>TOTAL COST OF WORK</b>	<b>131,862,563</b>
Contractor's Fee - 1.70%	2,241,664
Satisfaction Fee	<u>91,280</u>
<b>TOTAL COST OF WORK</b>	<b>134,195,506</b>
Hazardous Material Abatement (By Others)	1,150,000
Testing & Inspection Costs (By Others)	<u>741,000</u>
<b>CONSTRUCTION COST TOTAL</b>	<b>136,086,506</b>
Work Package WP-1 Awarded Sept 2013	8,071,855
Pre-Construction Service & Team Office	1,199,613
WP-1 SAs to Date	<u>161,896</u>
<b>TOTAL CONTRACT CONSTRUCTION COST</b>	<b>145,519,870</b>
<b>As Listed in Budget Recommendation:</b>	
TOTAL CONTRACT CONSTRUCTION COST	145,519,870
Less Inflation	-6,161,000
Less Security	-1,747,000
Less Testing & Inspections	<u>-741,000</u>
<b>TOTAL ON BUDGET RECOMMENDATION</b>	<b>136,870,870</b>



# Additive Alternates

- |     |   |             |
|-----|---|-------------|
| 1.  | Add heat trace from north wing gutters =  | \$ 30,276   |
| 2.  | Upgrade balcony & loggia waterproofing system.<br>Specified system has a 10 year life.<br>Upgrade requires discussion with MHS. = | \$ 33,981   |
| 3.  | Install Blown fiber vs. standard armored fiber =  | \$ 140,724  |
| 4.  | Install two (2) 6a lines vs. one (1) 6 for printers & (1) 6a data/voice =<br>93,672   | \$          |
| 5.  | Add Millwork and plumbing @ coffee/copy stations =<br>154,965   | \$          |
| 6.  | North hall decorative paint replication vs. standard painted border =   | \$ 74,500   |
| 7.  | Upgrade finishes (doors, hardware, light fixtures) in Zone 3 =  | \$ 60,000   |
| 8.  | Upgrade wood base from 6" to 12" =  | \$ 200,000  |
| 9.  | Add built in storage cabinets at reception areas =  | \$ 204,516  |
| 10. | Complete additional decorative paint restoration =  | \$ 300,000  |
| 11. | Restore Historic Lamps and fireplace torcheries =   | \$ 150,000  |
| 12. | South Loggia Reopening =  | \$ 220,000  |
| 13. | Aurora Avenue Modifications =   | \$1,435,000 |



# Discussion on Fine Art