

# COMPARATIVE COST REPORT



1/29/2016

City of Eugene, Oregon – City Hall

Five cost models were selected from twenty-two recent and similar projects as a comparative to the construction costs for the City of Eugene City Hall.

# Comparative Cost Report

## CITY OF EUGENE, OREGON – CITY HALL

### THE EXERCISE

On January 27, 2016 DCW Cost was asked to prepare project cost comparatives as they relate to the planned new construction of the Eugene City Hall in Eugene, Oregon.

DCW Cost Management is an independent third-party cost consultancy with offices in Portland, OR and Seattle, WA. We provide managed solutions for our clients who are investing in infrastructure, property maintenance and construction development. For this exercise, we provided in-depth research and cost evaluation in developing comparative examples.

### THE PROCESS

Our team researched related projects nation-wide using the following project profile:

- Four-story building (three floors plus mezzanine) of approximately 30,000 SF in Eugene, Oregon
- Build out to include a public lobby/exhibit space, the City Council Chamber, the City Manager's Office, the offices of the Mayor and Eugene City Council, meeting rooms and support space.
- Exterior features include parking, a civic plaza, landscaping and Right of Way improvements-See Sitework
- LEED Gold design target. The design target for energy performance is a building capable of performing at EUI 30 or better. The design of the building also provides a "Path to Net Zero" strategy for the Owner that will allow the building to be net-zero-energy when renewables equal to the energy performance design target are installed onsite.
- The structural system is designed to meet the essential facility level of earthquake and wind resistance (Risk Category IV) according to the 2014 Oregon Structural Specialty Code.
- City population of: 160,000.

We modeled over 22 similar projects in various stages of construction that either were delivered or have planned delivery between 2011 and 2017. We measured variables based upon the project profile and identified 5 comparables with at least 3 measures of similar criteria. **See Table 1.**

**Table 1** provides a component comparison using each project's total costs and cost per square foot at the time of construction. Using the Engineering News Record (ENR) average Building Construction Index for each location and a time adjustment factor, the lower section of the table provides a snapshot of costs if the same structure was to be built at this time in Eugene, Oregon.

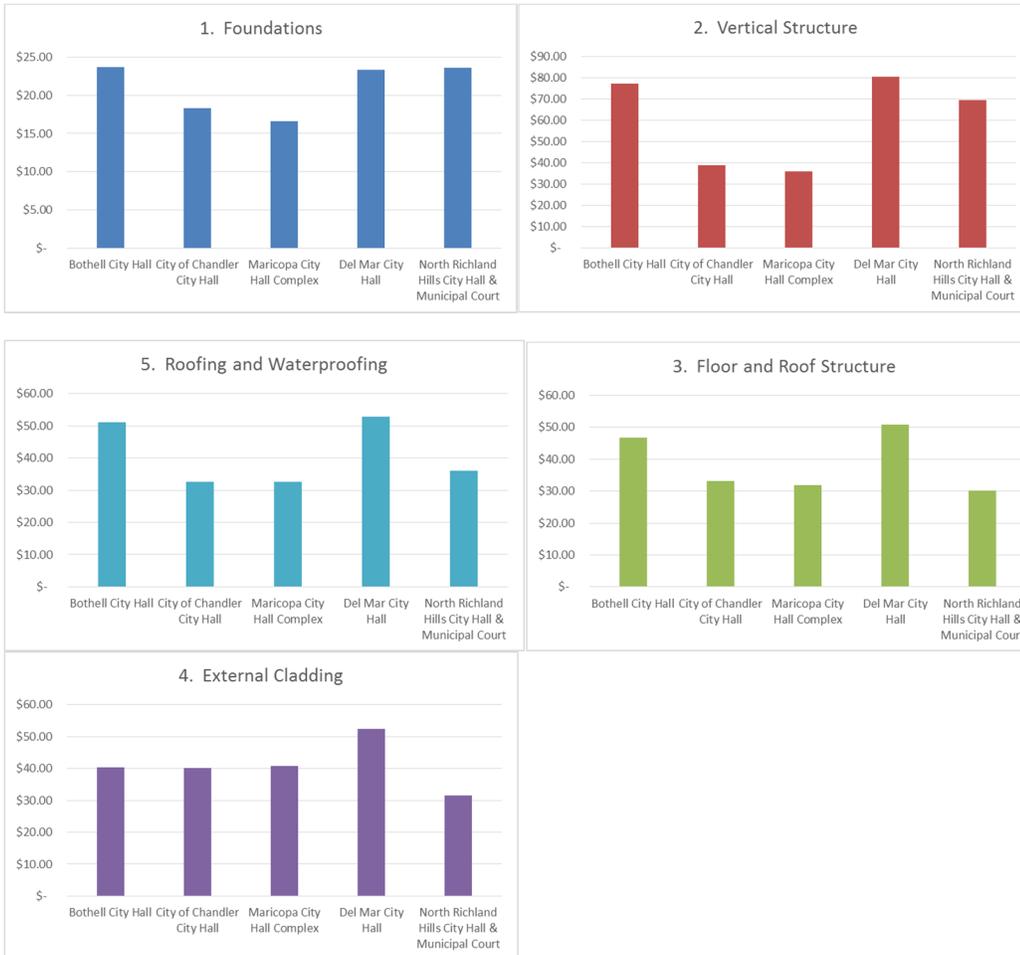
TABLE 1

City of Eugene -City Hall Comparatives												
CONTROL QUANTITIES AND COMPONENT COST SUMMARY										Population	159,190	30-Jan-16
Component Name:	Bothell City Hall	City of Chandler City Hall	Maricopa City Hall Complex	Del Mar City Hall	North Richland Hills City Hall & Municipal Court							
Location:	Bothell, WA	Chandler, AZ	Maricopa, AZ	Del Mar, CA	North Richland Hills, TX							
Construction Completion Date:	Q4 2015	Q4 2012	Q3 2013	Q3 2017	Q2 2016							
LEED:	Gold	Gold	Gold	Gold	Not stated							
Parking:	Below grade 254 Stalls- 82,020 SF	Plaza and landscaping	Plaza and landscaping	160 above and below grade	Plaza and landscaping							
Stories	3.5	5	2	1	4							
Stage	Completed	Complete	Phase 1 complete	Early Work	Near Completion							
City Population	36,567	249,146	45,508	4,311	64,652							
<b>CONTROL QUANTITIES</b>	<b>UNIT</b>	<b>Quantity</b>	<b>Ratio</b>	<b>Quantity</b>	<b>Ratio</b>	<b>Quantity</b>	<b>Ratio</b>	<b>Quantity</b>	<b>Ratio</b>	<b>Quantity</b>	<b>Ratio</b>	
Gross Area	SF	53,096	1.000	137,000	1.000	45,000	1.000	11,894	1.000	182,000	1.000	
Area of City Hall		53,096		137,000				11,894		78,500		
<b>COMPONENT COST SUMMARY</b>												
		Comp. Cost - \$	\$ / SF	Comp. Cost - \$	\$ / SF	Comp. Cost - \$	\$ / SF	Comp. Cost - \$	\$ / SF	Comp. Cost - \$	\$ / SF	
1. Foundations		\$ 1,189,350.40	\$ 22.40	\$ 2,016,640.00	\$ 14.72	\$ 599,850.00	\$ 13.33	\$ 255,007.36	\$ 21.44	\$ 3,021,200.00	\$ 16.60	
2. Vertical Structure		\$ 3,891,936.80	\$ 73.30	\$ 4,266,180.00	\$ 31.14	\$ 1,299,600.00	\$ 28.88	\$ 881,702.22	\$ 74.13	\$ 8,903,440.00	\$ 48.92	
3. Floor and Roof Structure		\$ 2,347,905.12	\$ 44.22	\$ 3,645,570.00	\$ 26.61	\$ 1,147,500.00	\$ 25.50	\$ 555,687.68	\$ 46.72	\$ 3,860,220.00	\$ 21.21	
4. External Cladding		\$ 2,028,798.16	\$ 38.21	\$ 4,405,920.00	\$ 32.16	\$ 1,469,700.00	\$ 32.66	\$ 572,220.34	\$ 48.11	\$ 4,040,400.00	\$ 22.20	
5. Roofing and Waterproofing		\$ 2,569,846.40	\$ 48.40	\$ 3,578,440.00	\$ 26.12	\$ 1,178,100.00	\$ 26.18	\$ 578,167.34	\$ 48.61	\$ 4,610,060.00	\$ 25.33	
<b>SHELL 1 - 5</b>		<b>\$ 12,027,836.88</b>	<b>\$ 226.53</b>	<b>\$ 17,912,750.00</b>	<b>\$ 130.75</b>	<b>\$ 5,694,750.00</b>	<b>\$ 126.55</b>	<b>\$ 2,842,784.94</b>	<b>\$ 239.01</b>	<b>\$ 24,435,320.00</b>	<b>\$ 134.26</b>	
6. Interior Partitions		\$ 3,043,462.72	\$ 57.32	\$ 2,663,280.00	\$ 19.44	\$ 850,500.00	\$ 18.90	\$ 706,265.72	\$ 59.38	\$ 4,468,100.00	\$ 24.55	
7. Interior Finishes		\$ 3,244,165.60	\$ 61.10	\$ 4,260,700.00	\$ 31.10	\$ 1,348,200.00	\$ 29.96	\$ 660,354.88	\$ 55.52	\$ 5,132,400.00	\$ 28.20	
<b>INTERIORS 6 - 7</b>		<b>\$ 6,287,628.32</b>	<b>\$ 118.42</b>	<b>\$ 6,923,980.00</b>	<b>\$ 50.54</b>	<b>\$ 2,198,700.00</b>	<b>\$ 48.86</b>	<b>\$ 1,366,620.60</b>	<b>\$ 114.90</b>	<b>\$ 9,600,500.00</b>	<b>\$ 52.75</b>	
8. Equipment and Specialties		\$ 4,401,658.40	\$ 82.90	\$ 1,972,800.00	\$ 14.40	\$ 579,600.00	\$ 12.88	\$ 912,269.80	\$ 76.70	\$ 2,821,000.00	\$ 15.50	
9. Vertical Transportation		\$ 1,205,279.20	\$ 22.70	\$ 2,326,260.00	\$ 16.98	\$ 711,000.00	\$ 15.80	\$ 319,948.60	\$ 26.90	\$ 3,294,200.00	\$ 18.10	
<b>EQUIPMENT &amp; VERT. TRANS 8 - 9</b>		<b>\$ 5,606,937.60</b>	<b>\$ 105.60</b>	<b>\$ 4,299,060.00</b>	<b>\$ 31.38</b>	<b>\$ 1,290,600.00</b>	<b>\$ 28.68</b>	<b>\$ 1,232,218.40</b>	<b>\$ 103.60</b>	<b>\$ 6,115,200.00</b>	<b>\$ 33.60</b>	
10. Plumbing		\$ 1,295,542.40	\$ 24.40	\$ 1,978,280.00	\$ 14.44	\$ 695,250.00	\$ 15.45	\$ 429,730.22	\$ 36.13	\$ 2,768,220.00	\$ 15.21	
11. HVAC		\$ 2,634,623.52	\$ 49.62	\$ 4,712,800.00	\$ 34.40	\$ 1,454,850.00	\$ 32.33	\$ 660,711.70	\$ 55.55	\$ 6,948,760.00	\$ 38.18	
12. Electrical		\$ 4,041,136.56	\$ 76.11	\$ 4,271,660.00	\$ 31.18	\$ 1,329,300.00	\$ 29.54	\$ 950,568.48	\$ 79.92	\$ 4,863,040.00	\$ 26.72	
13. Fire Protection		\$ 646,709.28	\$ 12.18	\$ 709,660.00	\$ 5.18	\$ 252,000.00	\$ 5.60	\$ 186,141.10	\$ 15.65	\$ 1,070,160.00	\$ 5.88	
<b>MECHANICAL AND ELECTRICAL 10 - 13</b>		<b>\$ 8,618,011.76</b>	<b>\$ 162.31</b>	<b>\$ 11,672,400.00</b>	<b>\$ 85.20</b>	<b>\$ 3,731,400.00</b>	<b>\$ 82.92</b>	<b>\$ 2,227,151.50</b>	<b>\$ 187.25</b>	<b>\$ 15,650,180.00</b>	<b>\$ 85.99</b>	
<b>BUILDING 1 - 14</b>		<b>\$ 32,540,414.56</b>	<b>\$ 612.86</b>	<b>\$ 40,808,190.00</b>	<b>\$ 297.87</b>	<b>\$ 12,915,450.00</b>	<b>\$ 287.01</b>	<b>\$ 7,668,775.44</b>	<b>\$ 644.76</b>	<b>\$ 55,801,200.00</b>	<b>\$ 306.60</b>	
General Conditions/ General Req		21.00%	\$ 128.70	10.00%	\$ 29.79	12.00%	\$ 34.44	20.20%	\$ 130.24	10.00%	\$ 30.66	
Contractor's Overhead & Profit/Bonds		6.00%	\$ 44.49	4.85%	\$ 15.89	4.50%	\$ 14.47	7.25%	\$ 56.19	4.00%	\$ 13.49	
Construction Contingency		2.00%	\$ 15.72	0.00%	\$ -	2.00%	\$ 6.72	5.00%	\$ 41.56	1.50%	\$ 5.26	
<b>TOTAL (w/contingencies)</b>		<b>\$ 42,571,062.43</b>	<b>\$ 801.78</b>	<b>\$ 47,066,125.94</b>	<b>\$ 343.55</b>	<b>\$ 15,416,567.53</b>	<b>\$ 342.63</b>	<b>\$ 10,380,471.69</b>	<b>\$ 872.75</b>	<b>\$ 64,794,121.39</b>	<b>\$ 356.01</b>	
<b>Adjustment Factors (using ENR)</b>												
Base Location Index		5598.52		4892.31		4891.11		5718.09		4230.13		
<b>Eugene, OR</b>		<b>5329.11</b>		<b>5329.11</b>		<b>5329.11</b>		<b>5329.11</b>		<b>5329.11</b>		
Location Adjustment		0.952		1.089		1.090		0.932		1.260		
Time Adjustment		1.11		1.145		1.145		1.167		1.13		
Cumulative Adjustment Factor		1.057		1.247		1.248		1.088		1.424		
<b>COMPONENT COST SUMMARY (Adjusted)</b>												
		Comp. Cost - \$	\$ / SF	Comp. Cost - \$	\$ / SF	Comp. Cost - \$	\$ / SF	Comp. Cost - \$	\$ / SF	Comp. Cost - \$	\$ / SF	
1. Foundations		\$ 1,256,649.76	\$ 23.67	\$ 2,515,211.91	\$ 18.36	\$ 748,333.87	\$ 16.63	\$ 277,349.42	\$ 23.32	\$ 4,300,895.49	\$ 23.63	
2. Vertical Structure		\$ 4,112,161.94	\$ 77.45	\$ 5,320,903.45	\$ 38.84	\$ 1,621,296.50	\$ 36.03	\$ 958,991.16	\$ 80.62	\$ 12,674,887.20	\$ 69.64	
3. Floor and Roof Structure		\$ 2,480,761.27	\$ 46.72	\$ 4,546,860.66	\$ 33.19	\$ 1,431,546.42	\$ 31.81	\$ 604,373.37	\$ 50.81	\$ 5,495,300.81	\$ 30.19	
4. External Cladding		\$ 2,143,597.65	\$ 40.37	\$ 5,495,191.23	\$ 40.11	\$ 1,833,502.20	\$ 40.74	\$ 622,354.52	\$ 52.33	\$ 5,751,800.00	\$ 31.60	
5. Roofing and Waterproofing		\$ 2,715,261.09	\$ 51.14	\$ 4,463,134.17	\$ 32.58	\$ 1,469,720.99	\$ 32.66	\$ 628,822.55	\$ 52.87	\$ 6,562,751.98	\$ 36.06	
<b>SHELL 1 - 5</b>		<b>\$ 12,708,431.70</b>	<b>\$ 239.35</b>	<b>\$ 22,341,301.42</b>	<b>\$ 163.08</b>	<b>\$ 7,104,399.98</b>	<b>\$ 157.88</b>	<b>\$ 3,091,851.03</b>	<b>\$ 259.95</b>	<b>\$ 34,785,435.49</b>	<b>\$ 191.13</b>	
6. Interior Partitions		\$ 3,215,676.97	\$ 60.56	\$ 3,321,720.07	\$ 24.25	\$ 1,061,028.52	\$ 23.58	\$ 768,144.07	\$ 64.58	\$ 6,360,661.71	\$ 34.95	
7. Interior Finishes		\$ 3,427,736.62	\$ 64.56	\$ 5,314,068.64	\$ 38.79	\$ 1,681,926.70	\$ 37.38	\$ 718,210.82	\$ 60.38	\$ 7,306,340.54	\$ 40.14	
<b>INTERIORS 6 - 7</b>		<b>\$ 6,643,413.60</b>	<b>\$ 125.12</b>	<b>\$ 8,635,788.71</b>	<b>\$ 63.03</b>	<b>\$ 2,742,955.22</b>	<b>\$ 60.95</b>	<b>\$ 1,486,354.89</b>	<b>\$ 124.97</b>	<b>\$ 13,667,002.25</b>	<b>\$ 75.09</b>	
8. Equipment and Specialties		\$ 4,650,726.12	\$ 87.59	\$ 2,460,533.39	\$ 17.96	\$ 723,071.29	\$ 16.07	\$ 992,196.87	\$ 83.42	\$ 4,015,896.40	\$ 22.07	
9. Vertical Transportation		\$ 1,273,479.89	\$ 23.98	\$ 2,901,378.95	\$ 21.18	\$ 886,997.39	\$ 19.71	\$ 347,980.39	\$ 29.26	\$ 4,689,530.63	\$ 25.77	
<b>EQUIPMENT &amp; VERT. TRANS 8 - 9</b>		<b>\$ 5,924,206.01</b>	<b>\$ 111.58</b>	<b>\$ 5,361,912.34</b>	<b>\$ 39.14</b>	<b>\$ 1,610,068.68</b>	<b>\$ 35.78</b>	<b>\$ 1,340,177.26</b>	<b>\$ 112.68</b>	<b>\$ 8,705,427.03</b>	<b>\$ 47.83</b>	
10. Plumbing		\$ 1,368,850.63	\$ 25.78	\$ 2,467,368.20	\$ 18.01	\$ 867,348.71	\$ 19.27	\$ 467,380.35	\$ 39.30	\$ 3,940,760.27	\$ 21.65	
11. HVAC		\$ 2,783,703.62	\$ 52.43	\$ 5,877,940.87	\$ 42.90	\$ 1,814,976.31	\$ 40.33	\$ 718,598.91	\$ 60.42	\$ 9,892,059.64	\$ 54.35	
12. Electrical		\$ 4,269,804.16	\$ 80.42	\$ 5,327,738.27	\$ 38.89	\$ 1,658,348.29	\$ 36.85	\$ 1,033,851.03	\$ 86.92	\$ 6,922,887.21	\$ 38.04	
13. Fire Protection		\$ 683,303.31	\$ 12.87	\$ 885,108.54	\$ 6.46	\$ 314,378.82	\$ 6.99	\$ 202,449.56	\$ 17.02	\$ 1,523,449.73	\$ 8.37	
<b>MECHANICAL AND ELECTRICAL 10 - 13</b>		<b>\$ 9,105,661.72</b>	<b>\$ 171.49</b>	<b>\$ 14,558,155.88</b>	<b>\$ 106.26</b>	<b>\$ 4,655,052.13</b>	<b>\$ 103.45</b>	<b>\$ 2,422,279.84</b>	<b>\$ 203.66</b>	<b>\$ 22,279,156.84</b>	<b>\$ 122.41</b>	
<b>BUILDING 1 - 14 (Adjusted)</b>		<b>\$ 34,381,713.02</b>	<b>\$ 647.54</b>	<b>\$ 50,897,158.35</b>	<b>\$ 371.51</b>	<b>\$ 16,112,476.01</b>	<b>\$ 358.06</b>	<b>\$ 8,340,663.02</b>	<b>\$ 701.25</b>	<b>\$ 79,437,021.61</b>	<b>\$ 436.47</b>	
General Conditions		21.00%	\$ 135.98	10%	\$ 37.15	12.00%	\$ 42.97	20.20%	\$ 141.65	10.00%	\$ 43.65	
Contractor's Overhead & Profit		6.00%	\$ 47.01	6%	\$ 24.52	4.50%	\$ 18.05	7.25%	\$ 61.11	4.00%	\$ 19.20	
Design Development Contingency		2.00%	\$ 16.61	0%	\$ -	2.00%	\$ 8.38	5.00%	\$ 45.20	1.50%	\$ 7.49	
<b>TOTAL ADJUSTED (w/contingencies)</b>		<b>\$ 44,979,944.82</b>	<b>\$ 847.14</b>	<b>\$ 59,346,086.63</b>	<b>\$ 433.18</b>	<b>\$ 19,235,202.76</b>	<b>\$ 427.45</b>	<b>\$ 11,289,940.22</b>	<b>\$ 949.21</b>	<b>\$ 92,239,092.01</b>	<b>\$ 508.81</b>	

**FURTHER ANALYSIS**

**Table 1 Component Cost Summary (Adjusted)** provides data that can be useful in comparing contractor and consultant provided cost elements for the Eugene City Hall. Evaluating the component from the comparative projects allow the user to apply High-Low values to each element as a measure for the City Hall project.

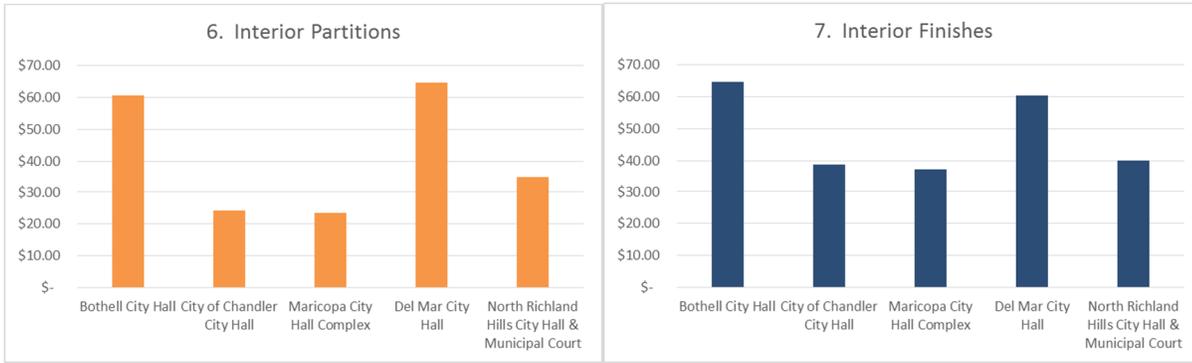
**Components 1 through 5**



COMPONENT	AVG	HIGH	LOW
1. Foundations	\$ 21.12	\$ 23.67	\$ 16.63
2. Vertical Structure	\$ 60.52	\$ 77.45	\$ 36.03
3. Floor and Roof Structure	\$ 38.55	\$ 50.81	\$ 30.19
4. External Cladding	\$ 41.03	\$ 52.33	\$ 31.60
5. Roofing and Waterproofing	\$ 41.06	\$ 51.14	\$ 32.58
<b>SHELL 1 - 5</b>	<b>\$202.28</b>	<b>\$259.95</b>	<b>\$ 163.08</b>

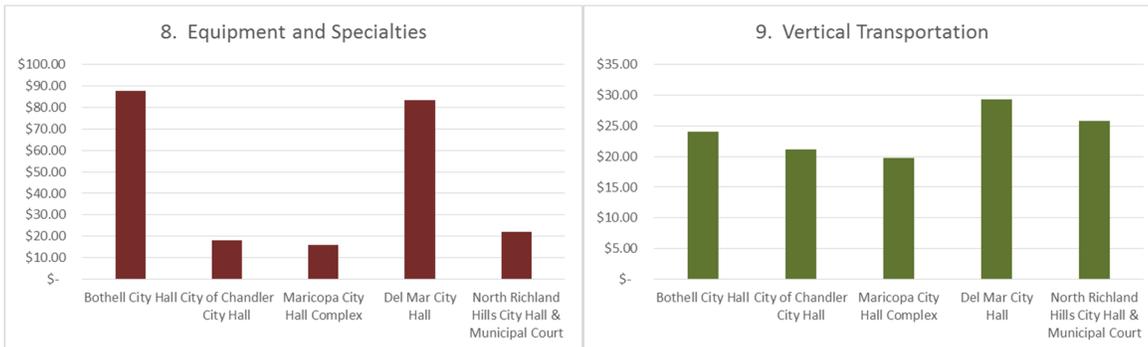
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**Components 6 through 7**



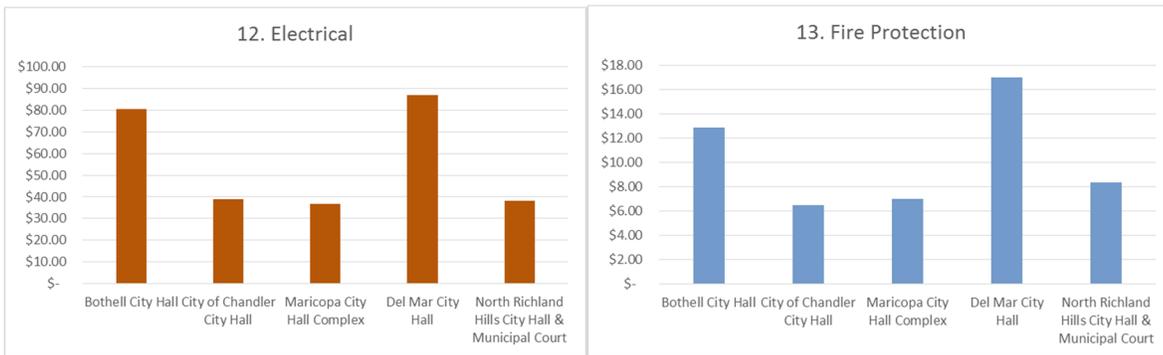
COMPONENT	AVG	HIGH	LOW
6. Interior Partitions	\$ 41.58	\$ 64.58	\$ 23.58
7. Interior Finishes	\$ 48.25	\$ 64.56	\$ 37.38
<b>INTERIORS 6 - 7</b>	<b>\$ 89.83</b>	<b>\$ 125.12</b>	<b>\$ 60.95</b>

**Components 8 through 9**



COMPONENT	AVG	HIGH	LOW
8. Equipment and Specialties	\$ 45.42	\$ 87.59	\$ 16.07
9. Vertical Transportation	\$ 23.98	\$ 29.26	\$ 19.71
<b>EQUIPMENT &amp; VERT. TRANS 8 - 9</b>	<b>\$ 69.40</b>	<b>\$ 111.58</b>	<b>\$ 35.78</b>

Components 10 through 13



COMPONENT	AVG	HIGH	LOW
10. Plumbing	\$ 24.80	\$ 39.30	\$ 18.01
11. HVAC	\$ 50.09	\$ 54.35	\$ 40.33
12. Electrical	\$ 56.22	\$ 86.92	\$ 36.85
13. Fire Protection	\$ 10.34	\$ 17.02	\$ 6.46
<b>MECHANICAL AND ELECTRICAL 10 - 13</b>	<b>\$ 141.45</b>	<b>\$ 203.66</b>	<b>\$ 103.45</b>

**SITWORK**

Sitework is not included in this analysis because the site elements vary significantly. Specifically, utility elements vary depending on obligations and services provided by other service units within the City and franchise utilities that may or may not charge directly to the project. Plaza elements, water features and other civic related enhancements also vary widely. Based upon the 22 original project we evaluated the site costs ranged from \$36.22- \$76.70 per SF.

## FINAL NOTES AND RECOMMENDATIONS

The comparative cost analysis provided herein offers a mechanism for evaluating costs for the City Hall Project. As example, if the contractor's square foot costs fall below or are much higher than the comparative costs, functional reasoning must be provided. It serves as a useful tool during cost reconciliations and contingency and risk planning.

Cost variants for the Eugene City Hall project will include seismic bracing for ACT and MEP elements, structural reinforcements for vertical construction and additional tie-ins for cladding systems to meet the Essential Facilities structural system requirements. LED lighting and other LEED elements can also drive costs however, most LEED measures are considered with the comparable costs.

The Eugene City Hall is also burdened with additional costs which must be included in the project such as the 1.5% for Green Energy and the Oregon Percent for Arts. Based upon the election to use LEED Gold as a performance criteria, the 1.5% for Green should be absorbed within the base cost and should not be additive.

Thank you for the opportunity to provide this information. Please contact us with any questions or comments.

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