

Consultant Team Ranking - Engineering

Bridge Types ("Many")

8/28/2008

Code	1	2	3	4	5	6	7	8	9	10a	10b	11a	11b	12a	12b
	Stl. I-Girder	Stl. Box	Conc. Seg.	Wave frame	Sail Blade	Tied Arch	Thru Arch	Extradosed	Cable-Stay'd	Swing		Vert. Lift		Stl. I-Girder	Composite
										Hi	Low	Hi	Low		

Screening Criteria ("Many to Some")

Code	Engineering															
<i>Fundamental</i>																
a1	Initial Cost	15	14	13	11	7	12	10	9	8	6	5	4	3	2	1
a2	Cost Escalation Risk	10	9	15	8	7	11	12	14	13	6	5	4	3	2	1
b	Constructability/Schedule Risk	15	14	13	11	7	12	8	9	10	5	6	3	4	2	1
c	Lifecycle Cost/Maintenance	7	8	15	12	11	9	10	14	13	4	3	2	1	5	6
d	Location, and Size of Piers	9	8	7	13	15	12	10	11	14	5	6	3	4	2	1
e	Flexibility	9.0	11.5	13.9	7.6	7.4	9.5	9.3	6.3	6.8	9.0	9.3	8.2	8.5	5.2	4.9
f	Seismic Performance	9	12	7	13	11	8	10	14	15	5	6	3	4	2	1
g	Navigation Performance	4	5	3	9	8	10	6	7	11	14	12	15	13	2	1
<b>Total Engineering Score:</b>		<b>78.00</b>	<b>81.45</b>	<b>86.91</b>	<b>84.64</b>	<b>73.36</b>	<b>83.55</b>	<b>75.27</b>	<b>84.27</b>	<b>90.82</b>	<b>54.00</b>	<b>52.27</b>	<b>42.18</b>	<b>40.45</b>	<b>22.18</b>	<b>16.91</b>
<b>Rank</b>		<b>7</b>	<b>6</b>	<b>2</b>	<b>3</b>	<b>9</b>	<b>5</b>	<b>8</b>	<b>4</b>	<b>1</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>

<i>Flexibility Considerations</i>																
h	Deflection (OCS and Pedestrian Comfort)	4	4	5	3	2	2	2	2	1	4	4	5	5	4	4
i	Not Used															
j	Transit Duct Bank Integration	1	4	5	3	2	3	3	3	1	5	5	3	3	1	1
k	OCS Integration Complexity	4	5	5	2	2	3	3	3	2	2	2	2	2	1	1
l	Not Used															
m	Deck Program Efficiency	5	5	5	3	3	3	2	1	1	5	5	3	3	3	3
n	Navigation Clearance- Vertical (more than minimum)	1	2	4	4	4	4	4	4	5	3	3	3	3	1	1
o	Navigation Clearance- Horizontal (more than minimum)	1	1	2	3	3	3	3	3	5	3	3	3	3	1	1
p	Flexibility to Accommodate Profile Changes	1	1	5	2	5	5	5	3	5	3	4	3	4	1	1
q	Accommodation of Curved Side Spans	2	5	5	1	1	3	3	1	1	5	5	5	5	1	1
r	Accommodates Localized Widening ("view points")	5	5	5	3	3	3	3	1	1	1	1	1	1	1	1
s	Accommodates more than 24' of path (more than 12'/side)	5	5	5	1	1	3	3	1	2	1	1	1	1	3	3
t	Could Accommodate Asymmetric Loading	4	5	5	3	1	3	3	1	1	1	1	1	1	2	1
u	Not Used															
v	Not Used															
<b>Flexibility average- (compute averages of codes h-v)</b>		<b>9.0</b>	<b>11.5</b>	<b>13.9</b>	<b>7.6</b>	<b>7.4</b>	<b>9.5</b>	<b>9.3</b>	<b>6.3</b>	<b>6.8</b>	<b>9.0</b>	<b>9.3</b>	<b>8.2</b>	<b>8.5</b>	<b>5.2</b>	<b>4.9</b>
<b>Flexibility Rank</b>		<b>6</b>	<b>2</b>	<b>1</b>	<b>10</b>	<b>11</b>	<b>3</b>	<b>4</b>	<b>13</b>	<b>12</b>	<b>6</b>	<b>4</b>	<b>9</b>	<b>8</b>	<b>14</b>	<b>15</b>