1. Compared to 2019, do you expect the available dollar value of projects you compete for in 2020 to be (answer for all market areas in which your business operates):

<table>
<thead>
<tr>
<th>Markets</th>
<th>Higher</th>
<th>Lower</th>
<th>Same</th>
<th>Net*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water/Sewer</td>
<td>67%</td>
<td>0%</td>
<td>33%</td>
<td>67%</td>
</tr>
<tr>
<td>Multifamily Residential</td>
<td>56%</td>
<td>11%</td>
<td>33%</td>
<td>44%</td>
</tr>
<tr>
<td>Hospital</td>
<td>38%</td>
<td>5%</td>
<td>57%</td>
<td>33%</td>
</tr>
<tr>
<td>K-12 School</td>
<td>35%</td>
<td>6%</td>
<td>59%</td>
<td>29%</td>
</tr>
<tr>
<td>Public Building</td>
<td>28%</td>
<td>0%</td>
<td>72%</td>
<td>28%</td>
</tr>
<tr>
<td>Federal (e.g., VA, GSA, USACE, NAVFAC)</td>
<td>33%</td>
<td>8%</td>
<td>58%</td>
<td>25%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>35%</td>
<td>12%</td>
<td>53%</td>
<td>24%</td>
</tr>
<tr>
<td>Higher Education</td>
<td>30%</td>
<td>10%</td>
<td>60%</td>
<td>20%</td>
</tr>
<tr>
<td>Bridge/Highway</td>
<td>33%</td>
<td>17%</td>
<td>50%</td>
<td>17%</td>
</tr>
<tr>
<td>Private Office</td>
<td>26%</td>
<td>16%</td>
<td>58%</td>
<td>11%</td>
</tr>
<tr>
<td>Retail, Warehouse, Lodging</td>
<td>24%</td>
<td>18%</td>
<td>59%</td>
<td>6%</td>
</tr>
<tr>
<td>Transportation (e.g., transit, rail, airport)</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Power</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Other</td>
<td>20%</td>
<td>0%</td>
<td>80%</td>
<td>20%</td>
</tr>
</tbody>
</table>

*Net equals difference between number of “Higher” and “Lower” responses as percent of total.

2. What numerical change do you expect in your headcount in 2020?

- Increase of 1-10: 54%
- Increase of 11-25: 12%
- More than 25: 15%
- No change: 19%
- Decrease: 0%

3. What percentage change do you expect in your headcount in 2020?

- Increase of 1-10%: 77%
- Increase of 11-25%: 4%
- More than 25%: 0%
- No change: 19%
- Decrease: 0%
4. How would you describe your current situation in filling salaried and hourly craft positions?

- We are having a hard time filling some or all positions: 81%
- We are having no difficulty filling any positions: 8%
- We have no openings for positions: 12%

5. Do you expect any changes in the availability of hourly craft or salaried personnel over the coming 12 months?

- It will continue to be hard to hire: 58%
- It will become harder to hire: 15%
- No change: 23%
- It will become easier to hire: 4%
- It will continue to be easy to hire: 0%

6. Did your firm increase pay or benefits for salaried or hourly craft personnel in 2019 because of difficulty filling positions? (mark all that apply)

- Yes, our firm increased base pay rates more in 2019 than in 2018: 69%
- Yes, our firm provided similar or smaller increases in 2019 than in 2018: 23%
- Yes, our firm provided incentives/bonuses: 31%
- Yes, our firm increased our portion of benefit contributions and/or improved employee benefits: 15%
- No, not at this time: 4%
- We did not seek to fill any positions: 4%
7. If your firm is experiencing staffing challenges, how would you describe the impact on your projects? (mark all that apply)

- Costs have been higher than we anticipated: 58%
- We have put higher prices into our bids or contracts: 54%
- Projects have taken longer than we anticipated: 42%
- We have put longer completion times into our bids or contracts: 23%
- Completion times or costs have been lower than we anticipated: 0%
- No impact: 8%
- Other (please specify): 15%

8. In the last year, what has your firm done to invest in the training and development of skilled labor/qualified workers?

- Revamped initiatives to recruit labor: 69%
- Increased funding or money allocated to technical education: 58%
- Restructured or changed programming for current skilled labor recruits: 46%
- We have not done anything: 8%
- Other (please specify): 19%

9. Has your firm adopted or increased use of the following to replace workers or skills? (mark all that apply)

- Labor-saving equipment (e.g., drones, robots, 3-D printers, laser-or GPS-guided equipment): 46%
- Methods to reduce onsite worktime (e.g., lean construction, virtual construction such as BIM, offsite fabrication): 42%
- Added specialists (e.g., architects, BIM or lean construction personnel, drone or other equipment operators, data or IT personnel): 23%
- No changes: 38%
10. What are your biggest concerns for 2020 (mark all that apply)?

- Worker quality: 73%
- Worker shortages: 69%
- Rising direct labor costs (pay, benefits, employer taxes): 69%
- Subcontractor availability or quality: 54%
- Inadequate construction career education and training: 54%
- Safety: 38%
- Impact of immigration policy on labor supply: 27%
- State and local regulations: 27%
- Materials costs: 27%
- Impact of trade policy on materials cost, availability or on...: 19%
- Federal regulations: 15%
- Other costs (e.g., trucking, insurance, services): 15%
- Increased competition for projects: 12%
- Not enough private sector work: 8%
- Relations with owners, subs and/or vendors: 4%
- Inadequate funding for infrastructure: 0%
- Inadequate funding for public building projects: 0%
- Other (please specify): 8%

11. What challenges, if any, do you see regarding the safety and health of your firm’s workers? (mark all that apply)

- Inexperienced skilled labor/workforce shortage: 52% Major challenge, 40% Minor challenge, 8% No challenge
- Poor subcontractor safety and health performance: 38% Major challenge, 46% Minor challenge, 17% No challenge
- Safety hazards created by 3rd parties (e.g. motorist crashes into work zones): 15% Major challenge, 50% Minor challenge, 35% No challenge
- Lack of cooperation from government agencies or regulators: 14% Major challenge, 38% Minor challenge, 48% No challenge
- Low quality of available safety and health training: 5% Major challenge, 38% Minor challenge, 57% No challenge
- Other: 33% Major challenge, 0% Minor challenge, 67% No challenge
12. What change do you expect in 2020 in the number of your firm’s projects that involve Building Information Modeling (BIM)?

- Increase: 18%
- Stay the same (+ or -10%): 64%
- Decrease: 0%
- We do not expect to use BIM: 18%

13. What is your firm using BIM for? (mark all that apply)

- Clash detection: 50%
- Constructability input into the design process: 50%
- Design of 3D model: 38%
- Construction means and methods: 33%
- Visually communicate project scope to clients: 33%
- 3D model-based takeoff for cost estimating: 29%
- Scheduling and workforce planning: 4%
- Safety (identify safety issues, safety by design, safety training, etc.): 0%
- We do not use BIM: 33%

14. Does your firm use any of the following to collaborate with project partners (mark all that apply)?

- File-sharing sites such as Dropbox: 77%
- Online project collaboration software: 73%
- BIM: 50%
- Home-grown project web site: 15%
- None: 8%
- Other (please specify): 4%
- Don’t know: 4%
15. What business or IT functions does your firm outsource or plan to outsource to a technology provider? (mark all that apply)

- **Backup and disaster recovery**: 50% currently outsource, 0% plan to outsource.
- **Desktop (light maintenance)**: 45% currently outsource, 0% plan to outsource.
- **Network management**: 30% currently outsource, 0% plan to outsource.
- **Voice over IP (phone service over the internet)**: 25% currently outsource, 0% plan to outsource.
- **Payroll**: 5% currently outsource, 0% plan to outsource.
- **Subcontractor insurance processing**: 5% currently outsource, 0% plan to outsource.
- **Accounts payable automation**: 0% currently outsource, 0% plan to outsource.
- **Accounts receivable payment automation**: 0% currently outsource, 0% plan to outsource.
- **Inventory**: 0% currently outsource, 0% plan to outsource.
- **Lien waiver processing**: 0% currently outsource, 0% plan to outsource.
- **Prequalification**: 0% currently outsource, 0% plan to outsource.
- **Other business or IT functions**: 20% currently outsource, 0% plan to outsource.
- **Our firm doesn’t currently outsource or plan to outsource any business or IT functions**: 10% current outsource, 0% plan to outsource.

16. Approximately what percent of your firm’s gross annual revenue is spent on IT?

- **Less than 1%**: 42%.
- **1 to 1.9%**: 31%.
- **2 to 2.9%**: 8%.
- **3% or more**: 0%.
- **Don’t know**: 19%.
17. Compared to 2019, how will your firm’s 2020 investment in IT change?

- Increase: 42%
- Stay the same: 42%
- Decrease: 15%
- Don’t know: 0%

18. Compared to 2019, how will your firm’s 2020 investment in the following technologies change? (mark all that apply)

<table>
<thead>
<tr>
<th>Technologies</th>
<th>Increase</th>
<th>Stay the same</th>
<th>Decrease</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Information Modeling (BIM)</td>
<td>33%</td>
<td>61%</td>
<td>0%</td>
<td>6%</td>
</tr>
<tr>
<td>Document management software</td>
<td>30%</td>
<td>60%</td>
<td>0%</td>
<td>10%</td>
</tr>
<tr>
<td>Project collaboration software</td>
<td>30%</td>
<td>65%</td>
<td>0%</td>
<td>5%</td>
</tr>
<tr>
<td>Project management software</td>
<td>30%</td>
<td>60%</td>
<td>0%</td>
<td>10%</td>
</tr>
<tr>
<td>Estimating software</td>
<td>29%</td>
<td>67%</td>
<td>0%</td>
<td>5%</td>
</tr>
<tr>
<td>Subcontractor bid management/ITB software</td>
<td>20%</td>
<td>70%</td>
<td>0%</td>
<td>10%</td>
</tr>
<tr>
<td>Accounting software</td>
<td>17%</td>
<td>78%</td>
<td>0%</td>
<td>4%</td>
</tr>
<tr>
<td>Tool/asset management/tracking</td>
<td>16%</td>
<td>68%</td>
<td>5%</td>
<td>11%</td>
</tr>
<tr>
<td>Human resources (HR) software</td>
<td>15%</td>
<td>75%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Service management software</td>
<td>12%</td>
<td>76%</td>
<td>0%</td>
<td>12%</td>
</tr>
<tr>
<td>Client relationship management (CRM) software</td>
<td>11%</td>
<td>79%</td>
<td>0%</td>
<td>11%</td>
</tr>
<tr>
<td>Scheduling software</td>
<td>11%</td>
<td>84%</td>
<td>0%</td>
<td>5%</td>
</tr>
<tr>
<td>Payroll software</td>
<td>10%</td>
<td>86%</td>
<td>0%</td>
<td>5%</td>
</tr>
<tr>
<td>Prequalification software</td>
<td>6%</td>
<td>88%</td>
<td>0%</td>
<td>6%</td>
</tr>
<tr>
<td>Fleet tracking/management software</td>
<td>6%</td>
<td>83%</td>
<td>0%</td>
<td>11%</td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
<td>50%</td>
<td>25%</td>
<td>25%</td>
</tr>
</tbody>
</table>
19. How does your company plan to use mobile software technology? (mark all that apply)

- Daily field reports: 84%
- Sharing of drawings, photos and documents: 80%
- Access to customer and job information from the field: 76%
- Employee time tracking and approval: 76%
- RFI/Issue tracking: 64%
- Access to job cost and project reports from the field: 60%
- Submittals and commitments: 56%
- Punch lists: 52%
- Scheduling: 44%
- Building Information Modeling (BIM): 36%
- Change management: 36%
- Equipment tracking: 36%
- GPS tracking (e.g. fleet tracking): 28%
- Reports to owners, regulatory compliance reports: 24%
- Estimating: 16%
- Inventory tracking: 16%
- Processing service work orders in the field: 16%
- Material acceptance at the job site: 8%
- Processing payments in the field: 0%
- No plan to use mobile technology software: 8%
- Other (please specify): 4%
- Don't know: 4%

20. Does your firm currently have a mobile security plan in place?

- Yes: 46%
- No: 42%
- Don't know: 12%

21. Does your firm currently have a formal IT plan to support your business objectives?

- Yes: 42%
- No: 31%
- Not yet, but plan to in 2020: 8%
- Don't know: 19%
25. When you self-perform construction work, do you operate as a union contractor or an open-shop contractor?

- We always operate as a union contractor: 92%
- We primarily operate as a union contractor but not always: 4%
- We primarily operate as an open-shop contractor but not always: 4%
- We always operate as an open-shop contractor: 0%
- We do not self-perform or directly hire craft personnel: 0%

26. Estimate the total dollar amount of work your firm performed in 2019:

- Under $50 million: 60%
- $50.1 million - $100 million: 4%
- $100.1 million - $500 million: 36%
- Over $500 million: 0%

27. How many total employees does your firm employ at all of its locations?

- 1-19: 4%
- 20-99: 42%
- 100-499: 35%
- 500 or more: 19%