APCL: Apprenticeship Construction Technology Norcal

New Degrees and Certificates:

1. Presentation to Academic Senate, including:

   - Anticipated resources and costs, including classified professional support and administrative oversight

     The only resources needed are Admission and Records to enroll the students into the college. The courses are taught offsite are the LiUNA Norcal Regional Training Center. (San Ramon)

   - Need or demand: o CTE (LMI, advisory board)

     To be Approved by the Automotive Advisory Board on Nov 30, 2022.

     LMI included in PDF.

   - Transfer

     N/A

   - Local (similar programs in service area, some measure of need)

     The closest program to this is the LiUNA program in Los Angeles Area.

   Mission appropriateness – educational master plan (not required for Transfer programs)

     Relevant to: offers educational opportunities and support for completion of students' career-technical goals

   - Curriculum required – course sequence

     Apprenticeship Construction Technology See below.

   - FTEF required (if applicable)

     N/A

   - Implementation schedule

     Fall 2023 with CPL for students currently taking the Teamster classes.

   - Program Student Learning Outcomes (PSLOs)

     See attached file

   - Program map (as part of the Guided Pathway process)

     See attached file
Construction Laborers in California
# Contents

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What is Lightcast Data?

Lightcast data is a hybrid dataset derived from official government sources such as the US Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics. Leveraging the unique strengths of each source, our data modeling team creates an authoritative dataset that captures more than 99% of all workers in the United States. This core offering is then enriched with data from online social profiles, resumés, and job postings to give you a complete view of the workforce.

Report Parameters

1 Occupation

47-2061  Construction Laborers

1 State

6  California

Class of Worker

QCEW Employees, Non-QCEW Employees, and Self-Employed

The information in this report pertains to the chosen occupation and geographical area.
Executive Summary

Light Job Posting Demand Over an Average Supply of Regional Jobs

California is about average for this kind of job. The national average for an area this size is 169,323* employees, while there are 157,556 here.

Earnings are high in California. The national median salary for Construction Laborers is $36,420, compared to $44,218 here.

Job posting activity is low in California. The national average for an area this size is 1,760* job posting/mo, while there is 1,412 here.

*National average values are derived by taking the national value for Construction Laborers and scaling it down to account for the difference in overall workforce size between the nation and California. In other words, the values represent the national average adjusted for region size.
Jobs

Regional Employment Is About Equal to the National Average

An average area of this size typically has 169,323* jobs, while there are 157,556 here.

<table>
<thead>
<tr>
<th>Region</th>
<th>2022 Jobs</th>
<th>2027 Jobs</th>
<th>Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>157,556</td>
<td>164,059</td>
<td>6,503</td>
<td>4.1%</td>
</tr>
<tr>
<td>National Average</td>
<td>169,323</td>
<td>175,631</td>
<td>6,308</td>
<td>3.7%</td>
</tr>
</tbody>
</table>

*National average values are derived by taking the national value for Construction Laborers and scaling it down to account for the difference in overall workforce size between the nation and California. In other words, the values represent the national average adjusted for region size.
**Regional Breakdown**

<table>
<thead>
<tr>
<th>MSA</th>
<th>2022 Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Los Angeles-Long Beach-Anaheim, CA</td>
<td>48,085</td>
</tr>
<tr>
<td>San Francisco-Oakland-Berkeley, CA</td>
<td>20,217</td>
</tr>
<tr>
<td>Riverside-San Bernardino-Ontario, CA</td>
<td>19,747</td>
</tr>
<tr>
<td>San Diego-Chula Vista-Carlsbad, CA</td>
<td>13,128</td>
</tr>
<tr>
<td>Sacramento-Roseville-Folsom, CA</td>
<td>11,258</td>
</tr>
</tbody>
</table>

**Most Jobs are Found in the Residential Building Construction Industry Sector**

<table>
<thead>
<tr>
<th>Industry</th>
<th>% of Occupation in Industry (2022)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Building Construction</td>
<td>22.1%</td>
</tr>
<tr>
<td>Other Specialty Trade Contractors</td>
<td>16.5%</td>
</tr>
<tr>
<td>Foundation, Structure, and Building Exterior Contractors</td>
<td>10.7%</td>
</tr>
<tr>
<td>Building Finishing Contractors</td>
<td>9.9%</td>
</tr>
<tr>
<td>Nonresidential Building Construction</td>
<td>8.0%</td>
</tr>
<tr>
<td>Building Equipment Contractors</td>
<td>7.6%</td>
</tr>
<tr>
<td>Other</td>
<td>25.3%</td>
</tr>
</tbody>
</table>
Compensation

Regional Compensation Is 21% Higher Than National Compensation

For Construction Laborers, the 2021 median wage in California is $44,218, while the national median wage is $36,420.
Job Posting Activity

11,292 Unique Job Postings
The number of unique postings for this job from Jan 2022 to Aug 2022.

2,533 Employers Competing
All employers in the region who posted for this job from Jan 2022 to Aug 2022.

38 Day Median Duration
Posting duration is 8 days longer than what's typical in the region.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Laborers</td>
<td>1,412</td>
<td>7,946</td>
</tr>
</tbody>
</table>

*A hire is reported by the Quarterly Workforce Indicators when an individual's Social Security Number appears on a company's payroll and was not there the quarter before. Lightcast hires are calculated using a combination of Lightcast jobs data, information on separation rates from the Bureau of Labor Statistics (BLS), and industry-based hires data from the Census Bureau.*
## Top Companies

<table>
<thead>
<tr>
<th>Company</th>
<th>Unique Postings</th>
</tr>
</thead>
<tbody>
<tr>
<td>PeopleReady</td>
<td>278</td>
</tr>
<tr>
<td>Aerotek</td>
<td>255</td>
</tr>
<tr>
<td>E.Construct.USA</td>
<td>202</td>
</tr>
<tr>
<td>Schnitzer Steel</td>
<td>54</td>
</tr>
<tr>
<td>Mastec North America</td>
<td>48</td>
</tr>
<tr>
<td>Hci</td>
<td>45</td>
</tr>
<tr>
<td>Edison International</td>
<td>44</td>
</tr>
<tr>
<td>Sunrun</td>
<td>41</td>
</tr>
<tr>
<td>Randstad</td>
<td>37</td>
</tr>
<tr>
<td>Installed Building Products</td>
<td>36</td>
</tr>
</tbody>
</table>

## Top Job Titles

<table>
<thead>
<tr>
<th>Job Title</th>
<th>Unique Postings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Laborers</td>
<td>1,615</td>
</tr>
<tr>
<td>Handymen</td>
<td>1,505</td>
</tr>
<tr>
<td>Construction Workers</td>
<td>677</td>
</tr>
<tr>
<td>General Laborers</td>
<td>603</td>
</tr>
<tr>
<td>Fiber Construction Engineers</td>
<td>376</td>
</tr>
<tr>
<td>Laborers</td>
<td>374</td>
</tr>
<tr>
<td>Skilled Laborers</td>
<td>344</td>
</tr>
<tr>
<td>Construction Coordinators</td>
<td>217</td>
</tr>
<tr>
<td>General Construction Laborers</td>
<td>211</td>
</tr>
<tr>
<td>Plumbing Installers</td>
<td>158</td>
</tr>
</tbody>
</table>
Top Specialized Skills

<table>
<thead>
<tr>
<th>Skills</th>
<th>Postings</th>
<th>% of Total Postings</th>
<th>Profiles</th>
<th>% of Total Profiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>4,306</td>
<td>38%</td>
<td>778</td>
<td>6%</td>
</tr>
<tr>
<td>Carpentry</td>
<td>2,018</td>
<td>18%</td>
<td>225</td>
<td>2%</td>
</tr>
<tr>
<td>Plumbing</td>
<td>2,001</td>
<td>18%</td>
<td>154</td>
<td>1%</td>
</tr>
<tr>
<td>Painting</td>
<td>1,659</td>
<td>15%</td>
<td>162</td>
<td>1%</td>
</tr>
<tr>
<td>Drywall (Installation And Repair)</td>
<td>1,593</td>
<td>14%</td>
<td>141</td>
<td>1%</td>
</tr>
<tr>
<td>Hand Tools</td>
<td>1,578</td>
<td>14%</td>
<td>37</td>
<td>0%</td>
</tr>
<tr>
<td>Power Tool Operation</td>
<td>1,304</td>
<td>12%</td>
<td>73</td>
<td>1%</td>
</tr>
<tr>
<td>Demolition</td>
<td>1,255</td>
<td>11%</td>
<td>478</td>
<td>4%</td>
</tr>
<tr>
<td>Trenching</td>
<td>910</td>
<td>8%</td>
<td>71</td>
<td>1%</td>
</tr>
<tr>
<td>Renovation</td>
<td>851</td>
<td>8%</td>
<td>276</td>
<td>2%</td>
</tr>
</tbody>
</table>
### Top Common Skills

The following are the top common skills mentioned in job postings and profiles.

<table>
<thead>
<tr>
<th>Skills</th>
<th>Postings</th>
<th>% of Total Postings</th>
<th>Profiles</th>
<th>% of Total Profiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid Driver's License</td>
<td>3,626</td>
<td>32%</td>
<td>2</td>
<td>0%</td>
</tr>
<tr>
<td>Communications</td>
<td>2,307</td>
<td>20%</td>
<td>166</td>
<td>1%</td>
</tr>
<tr>
<td>Lifting Ability</td>
<td>1,834</td>
<td>16%</td>
<td>24</td>
<td>0%</td>
</tr>
<tr>
<td>Loading And Unloading</td>
<td>1,261</td>
<td>11%</td>
<td>71</td>
<td>1%</td>
</tr>
<tr>
<td>Detail Oriented</td>
<td>1,208</td>
<td>11%</td>
<td>25</td>
<td>0%</td>
</tr>
<tr>
<td>Good Driving Record</td>
<td>1,194</td>
<td>11%</td>
<td>3</td>
<td>0%</td>
</tr>
<tr>
<td>Customer Service</td>
<td>1,034</td>
<td>9%</td>
<td>691</td>
<td>5%</td>
</tr>
<tr>
<td>Management</td>
<td>968</td>
<td>9%</td>
<td>393</td>
<td>3%</td>
</tr>
<tr>
<td>Operations</td>
<td>909</td>
<td>8%</td>
<td>184</td>
<td>1%</td>
</tr>
<tr>
<td>Strong Work Ethic</td>
<td>648</td>
<td>6%</td>
<td>25</td>
<td>0%</td>
</tr>
</tbody>
</table>

Note: The data is derived from the Lightcast Q3 2022 Data Set.
### Top Software Skills

#### Frequency in Job Postings vs. Frequency in Profiles

<table>
<thead>
<tr>
<th>Skills</th>
<th>Postings</th>
<th>% of Total Postings</th>
<th>Profiles</th>
<th>% of Total Profiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microsoft Excel</td>
<td>364</td>
<td>3%</td>
<td>301</td>
<td>2%</td>
</tr>
<tr>
<td>Microsoft Office</td>
<td>336</td>
<td>3%</td>
<td>384</td>
<td>3%</td>
</tr>
<tr>
<td>Microsoft Outlook</td>
<td>216</td>
<td>2%</td>
<td>47</td>
<td>0%</td>
</tr>
<tr>
<td>Microsoft PowerPoint</td>
<td>137</td>
<td>1%</td>
<td>190</td>
<td>1%</td>
</tr>
<tr>
<td>Microsoft Word</td>
<td>131</td>
<td>1%</td>
<td>277</td>
<td>2%</td>
</tr>
<tr>
<td>Primavera (Software)</td>
<td>114</td>
<td>1%</td>
<td>14</td>
<td>0%</td>
</tr>
<tr>
<td>Microsoft Project</td>
<td>89</td>
<td>1%</td>
<td>15</td>
<td>0%</td>
</tr>
<tr>
<td>Chef (Configuration Management Tool)</td>
<td>57</td>
<td>1%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Microsoft Access</td>
<td>49</td>
<td>0%</td>
<td>7</td>
<td>0%</td>
</tr>
<tr>
<td>AutoCAD</td>
<td>43</td>
<td>0%</td>
<td>65</td>
<td>1%</td>
</tr>
</tbody>
</table>
Demographics

Retirement Risk Is High, While Overall Diversity Is High

Retirement risk is high in California. The national average for an area this size is 29,375* employees 55 or older, while there are 32,606 here.

Racial diversity is high in California. The national average for an area this size is 71,642* racially diverse employees, while there are 114,264 here.

Gender diversity is high in California. The national average for an area this size is 7,050* female employees, while there are 7,970 here.

*National average values are derived by taking the national value for Construction Laborers and scaling it down to account for the difference in overall workforce size between the nation and California. In other words, the values represent the national average adjusted for region size.

Occupation Age Breakdown

<table>
<thead>
<tr>
<th>Age Group</th>
<th>% of Jobs</th>
<th>Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>14-18</td>
<td>1.2%</td>
<td>1,864</td>
</tr>
<tr>
<td>19-24</td>
<td>8.6%</td>
<td>13,355</td>
</tr>
<tr>
<td>25-34</td>
<td>22.1%</td>
<td>34,318</td>
</tr>
<tr>
<td>35-44</td>
<td>25.4%</td>
<td>39,556</td>
</tr>
<tr>
<td>45-54</td>
<td>21.7%</td>
<td>33,747</td>
</tr>
<tr>
<td>55-64</td>
<td>16.1%</td>
<td>24,950</td>
</tr>
<tr>
<td>65+</td>
<td>4.9%</td>
<td>7,656</td>
</tr>
</tbody>
</table>
Occupation Race/Ethnicity Breakdown

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>% of Jobs</th>
<th>Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic or Latino</td>
<td>63.8%</td>
<td>99,212</td>
</tr>
<tr>
<td>White</td>
<td>26.5%</td>
<td>41,183</td>
</tr>
<tr>
<td>Asian</td>
<td>4.2%</td>
<td>6,458</td>
</tr>
<tr>
<td>Black or African American</td>
<td>3.0%</td>
<td>4,639</td>
</tr>
<tr>
<td>Two or More Races</td>
<td>1.8%</td>
<td>2,763</td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>0.5%</td>
<td>711</td>
</tr>
<tr>
<td>Native Hawaiian or Other Pacific Islander</td>
<td>0.3%</td>
<td>481</td>
</tr>
</tbody>
</table>

Occupation Gender Breakdown

<table>
<thead>
<tr>
<th>Gender</th>
<th>% of Jobs</th>
<th>Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>94.9%</td>
<td>147,477</td>
</tr>
<tr>
<td>Females</td>
<td>5.1%</td>
<td>7,970</td>
</tr>
</tbody>
</table>
National Educational Attainment

<table>
<thead>
<tr>
<th>Education Level</th>
<th>% of Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than high school diploma</td>
<td>32.0%</td>
</tr>
<tr>
<td>High school diploma or equivalent</td>
<td>40.1%</td>
</tr>
<tr>
<td>Some college, no degree</td>
<td>16.3%</td>
</tr>
<tr>
<td>Associate's degree</td>
<td>4.9%</td>
</tr>
<tr>
<td>Bachelor's degree</td>
<td>5.4%</td>
</tr>
<tr>
<td>Master's degree</td>
<td>0.9%</td>
</tr>
<tr>
<td>Doctoral or professional degree</td>
<td>0.3%</td>
</tr>
</tbody>
</table>
Occupational Programs

2 Programs
Of the programs that can train for this job, 2 have produced completions in the last 5 years.

387 Completions (2020)
The completions from all regional institutions for all degree types.

18,556 Openings (2020)
The average number of openings for an occupation in the region is 4,132.

<table>
<thead>
<tr>
<th>CIP Code</th>
<th>Top Programs</th>
<th>Completions (2020)</th>
</tr>
</thead>
<tbody>
<tr>
<td>46.0415</td>
<td>Building Construction Technology/Technician</td>
<td>368</td>
</tr>
<tr>
<td>46.9999</td>
<td>Construction Trades, Other</td>
<td>19</td>
</tr>
</tbody>
</table>

Top Schools

<table>
<thead>
<tr>
<th>Top Schools</th>
<th>Completions (2020)</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Jose City College</td>
<td>59</td>
</tr>
<tr>
<td>CET-El Centro</td>
<td>46</td>
</tr>
<tr>
<td>Orange Coast College</td>
<td>37</td>
</tr>
<tr>
<td>Palo Verde College</td>
<td>25</td>
</tr>
<tr>
<td>CET-Watsonville</td>
<td>24</td>
</tr>
<tr>
<td>CET-San Diego</td>
<td>23</td>
</tr>
<tr>
<td>CET-Soledad</td>
<td>19</td>
</tr>
<tr>
<td>Butte College</td>
<td>17</td>
</tr>
<tr>
<td>El Camino Community College District</td>
<td>17</td>
</tr>
<tr>
<td>CET-Oxnard</td>
<td>16</td>
</tr>
</tbody>
</table>
Appendix A

Construction Laborers (SOC 47-2061):
Perform tasks involving physical labor at construction sites. May operate hand and power tools of all types: air hammers, earth tampers, cement mixers, small mechanical hoists, surveying and measuring equipment, and a variety of other equipment and instruments. May clean and prepare sites, dig trenches, set braces to support the sides of excavations, erect scaffolding, and clean up rubble, debris, and other waste materials. May assist other craft workers. Construction laborers who primarily assist a particular craft worker are classified under Helpers, Construction Trades (47-3010). Excludes Hazardous Materials Removal Workers (47-4041).

Sample of Reported Job Titles:
Construction Worker
Construction Laborer
Toolman
Site Work Laborer
Scaffolding Operator
Post Framer
Form Setter
Equipment Operator (EO)
Drop Crew Laborer
Bituminous Asphalt Technician

Related O*NET Occupation:
Construction Laborers (47-2061.00)
Construction Laborers in 4 California MSAs
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Lightcast data is a hybrid dataset derived from official government sources such as the US Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics. Leveraging the unique strengths of each source, our data modeling team creates an authoritative dataset that captures more than 99% of all workers in the United States. This core offering is then enriched with data from online social profiles, resumés, and job postings to give you a complete view of the workforce.

Report Parameters

1 Occupation

47-2061  Construction Laborers

4 MSAs

<table>
<thead>
<tr>
<th>23420</th>
<th>Fresno, CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>32900</td>
<td>Merced, CA</td>
</tr>
<tr>
<td>33700</td>
<td>Modesto, CA</td>
</tr>
<tr>
<td>44700</td>
<td>Stockton, CA</td>
</tr>
</tbody>
</table>

Class of Worker

QCEW Employees, Non-QCEW Employees, and Self-Employed

The information in this report pertains to the chosen occupation and geographical areas.
Executive Summary

Average Job Posting Demand Over an Average Supply of Regional Jobs

Your area is about average for this kind of job. The national average for an area this size is 9,016* employees, while there are 8,345 here.

Earnings are high in your area. The national median salary for Construction Laborers is $36,420, compared to $43,301 here.

Job posting activity is about average in your area. The national average for an area this size is 94* job postings/mo, while there are 96 here.

*National average values are derived by taking the national value for Construction Laborers and scaling it down to account for the difference in overall workforce size between the nation and your area. In other words, the values represent the national average adjusted for region size.
Regional Employment Is About Equal to the National Average

An average area of this size typically has 9,016* jobs, while there are 8,345 here.

<table>
<thead>
<tr>
<th>Region</th>
<th>2022 Jobs</th>
<th>2027 Jobs</th>
<th>Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 California MSAs</td>
<td>8,345</td>
<td>9,009</td>
<td>664</td>
<td>8.0%</td>
</tr>
<tr>
<td>National Average</td>
<td>9,016</td>
<td>9,527</td>
<td>511</td>
<td>5.7%</td>
</tr>
</tbody>
</table>

*National average values are derived by taking the national value for Construction Laborers and scaling it down to account for the difference in overall workforce size between the nation and your area. In other words, the values represent the national average adjusted for region size.

Regional Breakdown

<table>
<thead>
<tr>
<th>MSA</th>
<th>2022 Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresno, CA</td>
<td>3,077</td>
</tr>
<tr>
<td>Stockton, CA</td>
<td>2,368</td>
</tr>
<tr>
<td>Modesto, CA</td>
<td>2,070</td>
</tr>
<tr>
<td>Merced, CA</td>
<td>830</td>
</tr>
</tbody>
</table>
Most Jobs are Found in the Residential Building Construction Industry Sector

<table>
<thead>
<tr>
<th>Industry</th>
<th>% of Occupation in Industry (2022)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Building Construction</td>
<td>20.2%</td>
</tr>
<tr>
<td>Other Specialty Trade Contractors</td>
<td>18.3%</td>
</tr>
<tr>
<td>Foundation, Structure, and Building Exterior Contractors</td>
<td>12.9%</td>
</tr>
<tr>
<td>Building Finishing Contractors</td>
<td>9.3%</td>
</tr>
<tr>
<td>Utility System Construction</td>
<td>7.9%</td>
</tr>
<tr>
<td>Nonresidential Building Construction</td>
<td>7.1%</td>
</tr>
<tr>
<td>Other</td>
<td>24.2%</td>
</tr>
</tbody>
</table>
Compensation

Regional Compensation Is 19% Higher Than National Compensation

For Construction Laborers, the 2021 median wage in your area is $43,301, while the national median wage is $36,420.
Job Posting Activity

771 Unique Job Postings
The number of unique postings for this job from Jan 2022 to Aug 2022.

194 Employers Competing
All employers in the region who posted for this job from Jan 2022 to Aug 2022.

38 Day Median Duration
Posting duration is 8 days longer than what’s typical in the region.

---

* A hire is reported by the Quarterly Workforce Indicators when an individual's Social Security Number appears on a company's payroll and was not there the quarter before. Lightcast hires are calculated using a combination of Lightcast jobs data, information on separation rates from the Bureau of Labor Statistics (BLS), and industry-based hires data from the Census Bureau.
## Top Companies

<table>
<thead>
<tr>
<th>Company</th>
<th>Unique Postings</th>
</tr>
</thead>
<tbody>
<tr>
<td>PeopleReady</td>
<td>25</td>
</tr>
<tr>
<td>E.Construct.USA</td>
<td>19</td>
</tr>
<tr>
<td>Schnitzer Steel</td>
<td>17</td>
</tr>
<tr>
<td>Basalite Concrete Products</td>
<td>11</td>
</tr>
<tr>
<td>Randstad</td>
<td>11</td>
</tr>
<tr>
<td>Aerotek</td>
<td>9</td>
</tr>
<tr>
<td>Mastec North America</td>
<td>9</td>
</tr>
<tr>
<td>Clean Harbors</td>
<td>8</td>
</tr>
<tr>
<td>CRH</td>
<td>7</td>
</tr>
<tr>
<td>Sound Crete Contractors</td>
<td>7</td>
</tr>
</tbody>
</table>

## Top Job Titles

<table>
<thead>
<tr>
<th>Job Title</th>
<th>Unique Postings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Laborers</td>
<td>139</td>
</tr>
<tr>
<td>Handymen</td>
<td>103</td>
</tr>
<tr>
<td>General Laborers</td>
<td>63</td>
</tr>
<tr>
<td>Construction Workers</td>
<td>59</td>
</tr>
<tr>
<td>Fiber Construction Engineers</td>
<td>32</td>
</tr>
<tr>
<td>General Construction Laborers</td>
<td>23</td>
</tr>
<tr>
<td>General Production Laborers</td>
<td>16</td>
</tr>
<tr>
<td>Laborers</td>
<td>15</td>
</tr>
<tr>
<td>Production Laborers</td>
<td>12</td>
</tr>
<tr>
<td>Skilled Laborers</td>
<td>10</td>
</tr>
</tbody>
</table>
Top Specialized Skills

<table>
<thead>
<tr>
<th>Skills</th>
<th>Postings</th>
<th>% of Total Postings</th>
<th>Profiles</th>
<th>% of Total Profiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>271</td>
<td>35%</td>
<td>34</td>
<td>4%</td>
</tr>
<tr>
<td>Hand Tools</td>
<td>145</td>
<td>19%</td>
<td>3</td>
<td>0%</td>
</tr>
<tr>
<td>Carpentry</td>
<td>132</td>
<td>17%</td>
<td>9</td>
<td>1%</td>
</tr>
<tr>
<td>Painting</td>
<td>125</td>
<td>16%</td>
<td>6</td>
<td>1%</td>
</tr>
<tr>
<td>Plumbing</td>
<td>113</td>
<td>15%</td>
<td>12</td>
<td>1%</td>
</tr>
<tr>
<td>Drywall (Installation And Repair)</td>
<td>85</td>
<td>11%</td>
<td>8</td>
<td>1%</td>
</tr>
<tr>
<td>Power Tool Operation</td>
<td>84</td>
<td>11%</td>
<td>4</td>
<td>0%</td>
</tr>
<tr>
<td>Renovation</td>
<td>63</td>
<td>8%</td>
<td>11</td>
<td>1%</td>
</tr>
<tr>
<td>Demolition</td>
<td>58</td>
<td>8%</td>
<td>25</td>
<td>3%</td>
</tr>
<tr>
<td>Flooring</td>
<td>55</td>
<td>7%</td>
<td>8</td>
<td>1%</td>
</tr>
</tbody>
</table>
Top Common Skills

<table>
<thead>
<tr>
<th>Skills</th>
<th>Postings</th>
<th>% of Total Postings</th>
<th>Profiles</th>
<th>% of Total Profiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid Driver's License</td>
<td>245</td>
<td>32%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Communications</td>
<td>123</td>
<td>16%</td>
<td>5</td>
<td>1%</td>
</tr>
<tr>
<td>Lifting Ability</td>
<td>106</td>
<td>14%</td>
<td>1</td>
<td>0%</td>
</tr>
<tr>
<td>Good Driving Record</td>
<td>85</td>
<td>11%</td>
<td>1</td>
<td>0%</td>
</tr>
<tr>
<td>Loading And Unloading</td>
<td>84</td>
<td>11%</td>
<td>2</td>
<td>0%</td>
</tr>
<tr>
<td>Operations</td>
<td>77</td>
<td>10%</td>
<td>12</td>
<td>1%</td>
</tr>
<tr>
<td>Customer Service</td>
<td>73</td>
<td>9%</td>
<td>36</td>
<td>4%</td>
</tr>
<tr>
<td>Detail Oriented</td>
<td>66</td>
<td>9%</td>
<td>1</td>
<td>0%</td>
</tr>
<tr>
<td>Management</td>
<td>58</td>
<td>8%</td>
<td>14</td>
<td>2%</td>
</tr>
<tr>
<td>Multilingualism</td>
<td>35</td>
<td>5%</td>
<td>1</td>
<td>0%</td>
</tr>
</tbody>
</table>
## Top Software Skills

<table>
<thead>
<tr>
<th>Skills</th>
<th>Postings</th>
<th>% of Total Postings</th>
<th>Profiles</th>
<th>% of Total Profiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microsoft Office</td>
<td>16</td>
<td>2%</td>
<td>22</td>
<td>2%</td>
</tr>
<tr>
<td>Microsoft Excel</td>
<td>15</td>
<td>2%</td>
<td>20</td>
<td>2%</td>
</tr>
<tr>
<td>Microsoft Word</td>
<td>8</td>
<td>1%</td>
<td>19</td>
<td>2%</td>
</tr>
<tr>
<td>Chef (Configuration Management Tool)</td>
<td>7</td>
<td>1%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Microsoft PowerPoint</td>
<td>6</td>
<td>1%</td>
<td>12</td>
<td>1%</td>
</tr>
<tr>
<td>Microsoft Outlook</td>
<td>4</td>
<td>1%</td>
<td>4</td>
<td>0%</td>
</tr>
<tr>
<td>Construction Management Software</td>
<td>3</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Procore</td>
<td>2</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Sage 300 Construction And Real Estate</td>
<td>2</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>JavaScript (Programming Language)</td>
<td>2</td>
<td>0%</td>
<td>1</td>
<td>0%</td>
</tr>
</tbody>
</table>

Lightcast Q3 2022 Data Set | www.economicmodeling.com
Demographics

Retirement Risk Is About Average, While Overall Diversity Is High

Retirement risk is about average in your area. The national average for an area this size is 1,537* employees 55 or older, while there are 1,618 here.

Racial diversity is high in your area. The national average for an area this size is 3,750* racially diverse employees, while there are 5,857 here.

Gender diversity is high in your area. The national average for an area this size is 369* female employees, while there are 493 here.

*National average values are derived by taking the national value for Construction Laborers and scaling it down to account for the difference in overall workforce size between the nation and your area. In other words, the values represent the national average adjusted for region size.

Occupation Age Breakdown

<table>
<thead>
<tr>
<th>Age Range</th>
<th>% of Jobs</th>
<th>Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>14-18</td>
<td>1.7%</td>
<td>139</td>
</tr>
<tr>
<td>19-24</td>
<td>9.6%</td>
<td>784</td>
</tr>
<tr>
<td>25-34</td>
<td>22.2%</td>
<td>1,802</td>
</tr>
<tr>
<td>35-44</td>
<td>25.8%</td>
<td>2,096</td>
</tr>
<tr>
<td>45-54</td>
<td>20.8%</td>
<td>1,696</td>
</tr>
<tr>
<td>55-64</td>
<td>14.9%</td>
<td>1,211</td>
</tr>
<tr>
<td>65+</td>
<td>5.0%</td>
<td>407</td>
</tr>
</tbody>
</table>
Occupation Race/Ethnicity Breakdown

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>% of Jobs</th>
<th>Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic or Latino</td>
<td>63.3%</td>
<td>5,152</td>
</tr>
<tr>
<td>White</td>
<td>28.0%</td>
<td>2,279</td>
</tr>
<tr>
<td>Asian</td>
<td>3.8%</td>
<td>308</td>
</tr>
<tr>
<td>Black or African American</td>
<td>2.6%</td>
<td>208</td>
</tr>
<tr>
<td>Two or More Races</td>
<td>1.6%</td>
<td>127</td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>0.5%</td>
<td>39</td>
</tr>
<tr>
<td>Native Hawaiian or Other Pacific Islander</td>
<td>0.3%</td>
<td>23</td>
</tr>
</tbody>
</table>

Occupation Gender Breakdown

<table>
<thead>
<tr>
<th>Gender</th>
<th>% of Jobs</th>
<th>Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>93.9%</td>
<td>7,643</td>
</tr>
<tr>
<td>Females</td>
<td>6.1%</td>
<td>493</td>
</tr>
</tbody>
</table>
National Educational Attainment

<table>
<thead>
<tr>
<th>Educational Attainment</th>
<th>% of Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than high school diploma</td>
<td>32.0%</td>
</tr>
<tr>
<td>High school diploma or equivalent</td>
<td>40.1%</td>
</tr>
<tr>
<td>Some college, no degree</td>
<td>16.3%</td>
</tr>
<tr>
<td>Associate's degree</td>
<td>4.9%</td>
</tr>
<tr>
<td>Bachelor's degree</td>
<td>5.4%</td>
</tr>
<tr>
<td>Master's degree</td>
<td>0.9%</td>
</tr>
<tr>
<td>Doctoral or professional degree</td>
<td>0.3%</td>
</tr>
</tbody>
</table>
**Occupational Programs**

1 Program

Of the programs that can train for this job, 1 has produced completions in the last 5 years.

4 Completions (2020)

The completions from all regional institutions for all degree types.

1,021 Openings (2020)

The average number of openings for an occupation in the region is 236.

<table>
<thead>
<tr>
<th>CIP Code</th>
<th>Top Programs</th>
<th>Completions (2020)</th>
</tr>
</thead>
<tbody>
<tr>
<td>46.0415</td>
<td>Building Construction Technology/Technician</td>
<td>4</td>
</tr>
</tbody>
</table>

**Top Schools**

Fresno City College

<table>
<thead>
<tr>
<th>Top Schools</th>
<th>Completions (2020)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresno City College</td>
<td>4</td>
</tr>
</tbody>
</table>
Appendix A

**Construction Laborers (SOC 47-2061):**
Perform tasks involving physical labor at construction sites. May operate hand and power tools of all types: air hammers, earth tampers, cement mixers, small mechanical hoists, surveying and measuring equipment, and a variety of other equipment and instruments. May clean and prepare sites, dig trenches, set braces to support the sides of excavations, erect scaffolding, and clean up rubble, debris, and other waste materials. May assist other craft workers. Construction laborers who primarily assist a particular craft worker are classified under Helpers, Construction Trades (47-3010). Excludes Hazardous Materials Removal Workers (47-4041).

**Sample of Reported Job Titles:**
- Construction Worker
- Construction Laborer
- Toolman
- Site Work Laborer
- Scaffolding Operator
- Post Framer
- Form Setter
- Equipment Operator (EO)
- Drop Crew Laborer
- Bituminous Asphalt Technician

**Related O*NET Occupation:**
- Construction Laborers (47-2061.00)
Construction Laborers in 2 California MSAs
## Contents

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Compensation .......................................................................... 6
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Occupational Programs .......................................................... 15
Appendix A ............................................................................. 16
What is Lightcast Data?

Lightcast data is a hybrid dataset derived from official government sources such as the US Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics. Leveraging the unique strengths of each source, our data modeling team creates an authoritative dataset that captures more than 99% of all workers in the United States. This core offering is then enriched with data from online social profiles, resumés, and job postings to give you a complete view of the workforce.

Report Parameters

1 Occupation

47-2061  Construction Laborers

2 MSAs

41860  San Francisco-Oakland-Berkeley, CA  41940  San Jose-Sunnyvale-Santa Clara, CA

Class of Worker

QCEW Employees, Non-QCEW Employees, and Self-Employed

The information in this report pertains to the chosen occupation and geographical areas.
Executive Summary

Light Job Posting Demand Over a Thin Supply of Regional Jobs

Your area is not a hotspot for this kind of job. The national average for an area this size is 33,301* employees, while there are 27,399 here.

Earnings are high in your area. The national median salary for Construction Laborers is $36,420, compared to $52,619 here.

Job posting activity is low in your area. The national average for an area this size is 346* job postings/mo, while there are 229 here.

*National average values are derived by taking the national value for Construction Laborers and scaling it down to account for the difference in overall workforce size between the nation and your area. In other words, the values represent the national average adjusted for region size.
Jobs

Regional Employment Is Lower Than the National Average

An average area of this size typically has 33,301* jobs, while there are 27,399 here. This lower than average supply of jobs may make it more difficult for workers in this field to find employment in your area.

*National average values are derived by taking the national value for Construction Laborers and scaling it down to account for the difference in overall workforce size between the nation and your area. In other words, the values represent the national average adjusted for region size.

Regional Breakdown

<table>
<thead>
<tr>
<th>MSA</th>
<th>2022 Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Francisco-Oakland-Berkeley, CA</td>
<td>20,217</td>
</tr>
<tr>
<td>San Jose-Sunnyvale-Santa Clara, CA</td>
<td>7,182</td>
</tr>
</tbody>
</table>
Most Jobs are Found in the Residential Building Construction Industry Sector

<table>
<thead>
<tr>
<th>Industry</th>
<th>% of Occupation in Industry (2022)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Building Construction</td>
<td>26.3%</td>
</tr>
<tr>
<td>Other Specialty Trade Contractors</td>
<td>14.8%</td>
</tr>
<tr>
<td>Nonresidential Building Construction</td>
<td>10.0%</td>
</tr>
<tr>
<td>Building Finishing Contractors</td>
<td>9.2%</td>
</tr>
<tr>
<td>Foundation, Structure, and Building Exterior Contractors</td>
<td>8.9%</td>
</tr>
<tr>
<td>Building Equipment Contractors</td>
<td>7.3%</td>
</tr>
<tr>
<td>Other</td>
<td>23.5%</td>
</tr>
</tbody>
</table>
Compensation

Regional Compensation Is 44% Higher Than National Compensation

For Construction Laborers, the 2021 median wage in your area is $52,619, while the national median wage is $36,420.
Job Posting Activity

1,833 Unique Job Postings
The number of unique postings for this job from Jan 2022 to Aug 2022.

606 Employers Competing
All employers in the region who posted for this job from Jan 2022 to Aug 2022.

38 Day Median Duration
Posting duration is 9 days longer than what's typical in the region.

*Estimated Hires Per Month*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Laborers</td>
<td>229</td>
<td>1,247</td>
</tr>
</tbody>
</table>

*A hire is reported by the Quarterly Workforce Indicators when an individual's Social Security Number appears on a company's payroll and was not there the quarter before. Lightcast hires are calculated using a combination of Lightcast jobs data, information on separation rates from the Bureau of Labor Statistics (BLS), and industry-based hires data from the Census Bureau.
## Top Companies

<table>
<thead>
<tr>
<th>Company</th>
<th>Unique Postings</th>
</tr>
</thead>
<tbody>
<tr>
<td>PeopleReady</td>
<td>70</td>
</tr>
<tr>
<td>E.Construct.USA</td>
<td>55</td>
</tr>
<tr>
<td>Work With Your Handz</td>
<td>29</td>
</tr>
<tr>
<td>Aerotek</td>
<td>28</td>
</tr>
<tr>
<td>Schnitzer Steel</td>
<td>17</td>
</tr>
<tr>
<td>Marin</td>
<td>14</td>
</tr>
<tr>
<td>Marin H2O</td>
<td>14</td>
</tr>
<tr>
<td>Randstad</td>
<td>13</td>
</tr>
<tr>
<td>Itod</td>
<td>12</td>
</tr>
<tr>
<td>Touch Up Home</td>
<td>12</td>
</tr>
</tbody>
</table>

## Top Job Titles

<table>
<thead>
<tr>
<th>Job Title</th>
<th>Unique Postings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handymen</td>
<td>257</td>
</tr>
<tr>
<td>Construction Laborers</td>
<td>246</td>
</tr>
<tr>
<td>Construction Workers</td>
<td>87</td>
</tr>
<tr>
<td>General Laborers</td>
<td>83</td>
</tr>
<tr>
<td>Fiber Construction Engineers</td>
<td>65</td>
</tr>
<tr>
<td>Construction Coordinators</td>
<td>58</td>
</tr>
<tr>
<td>Skilled Laborers</td>
<td>53</td>
</tr>
<tr>
<td>Plumbing Installers</td>
<td>44</td>
</tr>
<tr>
<td>Laborers</td>
<td>38</td>
</tr>
<tr>
<td>Construction Schedulers</td>
<td>32</td>
</tr>
</tbody>
</table>
## Top Specialized Skills

<table>
<thead>
<tr>
<th>Skills</th>
<th>Postings</th>
<th>% of Total Postings</th>
<th>Profiles</th>
<th>% of Total Profiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>760</td>
<td>41%</td>
<td>162</td>
<td>7%</td>
</tr>
<tr>
<td>Carpentry</td>
<td>407</td>
<td>22%</td>
<td>47</td>
<td>2%</td>
</tr>
<tr>
<td>Plumbing</td>
<td>356</td>
<td>19%</td>
<td>25</td>
<td>1%</td>
</tr>
<tr>
<td>Painting</td>
<td>320</td>
<td>17%</td>
<td>25</td>
<td>1%</td>
</tr>
<tr>
<td>Demolition</td>
<td>267</td>
<td>15%</td>
<td>72</td>
<td>3%</td>
</tr>
<tr>
<td>Drywall (Installation And Repair)</td>
<td>236</td>
<td>13%</td>
<td>18</td>
<td>1%</td>
</tr>
<tr>
<td>Hand Tools</td>
<td>208</td>
<td>11%</td>
<td>7</td>
<td>0%</td>
</tr>
<tr>
<td>Power Tool Operation</td>
<td>182</td>
<td>10%</td>
<td>17</td>
<td>1%</td>
</tr>
<tr>
<td>Renovation</td>
<td>150</td>
<td>8%</td>
<td>57</td>
<td>3%</td>
</tr>
<tr>
<td>Flooring</td>
<td>133</td>
<td>7%</td>
<td>14</td>
<td>1%</td>
</tr>
</tbody>
</table>
Top Common Skills

<table>
<thead>
<tr>
<th>Skills</th>
<th>Postings</th>
<th>% of Total Postings</th>
<th>Profiles</th>
<th>% of Total Profiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid Driver’s License</td>
<td>642</td>
<td>35%</td>
<td>1</td>
<td>0%</td>
</tr>
<tr>
<td>Communications</td>
<td>524</td>
<td>29%</td>
<td>38</td>
<td>2%</td>
</tr>
<tr>
<td>Lifting Ability</td>
<td>318</td>
<td>17%</td>
<td>5</td>
<td>0%</td>
</tr>
<tr>
<td>Detail Oriented</td>
<td>254</td>
<td>14%</td>
<td>3</td>
<td>0%</td>
</tr>
<tr>
<td>Customer Service</td>
<td>240</td>
<td>13%</td>
<td>120</td>
<td>5%</td>
</tr>
<tr>
<td>Good Driving Record</td>
<td>223</td>
<td>12%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Management</td>
<td>202</td>
<td>11%</td>
<td>77</td>
<td>3%</td>
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<tr>
<td>Loading And Unloading</td>
<td>186</td>
<td>10%</td>
<td>8</td>
<td>0%</td>
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<tr>
<td>Operations</td>
<td>171</td>
<td>9%</td>
<td>29</td>
<td>1%</td>
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<tr>
<td>Scheduling</td>
<td>128</td>
<td>7%</td>
<td>7</td>
<td>0%</td>
</tr>
</tbody>
</table>
# Top Software Skills

## Skills Frequency

<table>
<thead>
<tr>
<th>Skills</th>
<th>Postings</th>
<th>% of Total Postings</th>
<th>Profiles</th>
<th>% of TotalProfiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microsoft Excel</td>
<td>84</td>
<td>5%</td>
<td>58</td>
<td>3%</td>
</tr>
<tr>
<td>Microsoft Office</td>
<td>72</td>
<td>4%</td>
<td>80</td>
<td>4%</td>
</tr>
<tr>
<td>Microsoft Outlook</td>
<td>48</td>
<td>3%</td>
<td>11</td>
<td>0%</td>
</tr>
<tr>
<td>Primavera (Software)</td>
<td>37</td>
<td>2%</td>
<td>5</td>
<td>0%</td>
</tr>
<tr>
<td>Microsoft PowerPoint</td>
<td>33</td>
<td>2%</td>
<td>37</td>
<td>2%</td>
</tr>
<tr>
<td>Microsoft Word</td>
<td>28</td>
<td>2%</td>
<td>50</td>
<td>2%</td>
</tr>
<tr>
<td>Microsoft Project</td>
<td>23</td>
<td>1%</td>
<td>6</td>
<td>0%</td>
</tr>
<tr>
<td>Microsoft Access</td>
<td>9</td>
<td>0%</td>
<td>1</td>
<td>0%</td>
</tr>
<tr>
<td>SAP Applications</td>
<td>9</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Sage 300 Construction And Real Estate</td>
<td>8</td>
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<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>
Demographics

Retirement Risk Is About Average, While Overall Diversity Is High

Retirement risk is about average in your area. The national average for an area this size is 5,136* employees 55 or older, while there are 5,515 here.

Racial diversity is high in your area. The national average for an area this size is 12,526* racially diverse employees, while there are 19,786 here.

Gender diversity is high in your area. The national average for an area this size is 1,233* female employees, while there are 1,511 here.

*National average values are derived by taking the national value for Construction Laborers and scaling it down to account for the difference in overall workforce size between the nation and your area. In other words, the values represent the national average adjusted for region size.

Occupation Age Breakdown

<table>
<thead>
<tr>
<th>Age Group</th>
<th>% of Jobs</th>
<th>Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>14-18</td>
<td>1.1%</td>
<td>298</td>
</tr>
<tr>
<td>19-24</td>
<td>8.3%</td>
<td>2,248</td>
</tr>
<tr>
<td>25-34</td>
<td>22.7%</td>
<td>6,172</td>
</tr>
<tr>
<td>35-44</td>
<td>25.7%</td>
<td>6,981</td>
</tr>
<tr>
<td>45-54</td>
<td>21.9%</td>
<td>5,966</td>
</tr>
<tr>
<td>55-64</td>
<td>15.5%</td>
<td>4,214</td>
</tr>
<tr>
<td>65+</td>
<td>4.8%</td>
<td>1,301</td>
</tr>
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</table>
Occupation Race/Ethnicity Breakdown

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>% of Jobs</th>
<th>Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic or Latino</td>
<td>60.7%</td>
<td>16,492</td>
</tr>
<tr>
<td>White</td>
<td>27.2%</td>
<td>7,393</td>
</tr>
<tr>
<td>Asian</td>
<td>5.7%</td>
<td>1,555</td>
</tr>
<tr>
<td>Black or African American</td>
<td>3.7%</td>
<td>1,006</td>
</tr>
<tr>
<td>Two or More Races</td>
<td>1.8%</td>
<td>502</td>
</tr>
<tr>
<td>Native Hawaiian or Other Pacific Islander</td>
<td>0.4%</td>
<td>121</td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>0.4%</td>
<td>111</td>
</tr>
</tbody>
</table>

Occupation Gender Breakdown

<table>
<thead>
<tr>
<th>Gender</th>
<th>% of Jobs</th>
<th>Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>94.4%</td>
<td>25,669</td>
</tr>
<tr>
<td>Females</td>
<td>5.6%</td>
<td>1,511</td>
</tr>
</tbody>
</table>
National Educational Attainment

<table>
<thead>
<tr>
<th>Education Level</th>
<th>% of Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than high school diploma</td>
<td>32.0%</td>
</tr>
<tr>
<td>High school diploma or equivalent</td>
<td>40.1%</td>
</tr>
<tr>
<td>Some college, no degree</td>
<td>16.3%</td>
</tr>
<tr>
<td>Associate's degree</td>
<td>4.9%</td>
</tr>
<tr>
<td>Bachelor's degree</td>
<td>5.4%</td>
</tr>
<tr>
<td>Master's degree</td>
<td>0.9%</td>
</tr>
<tr>
<td>Doctoral or professional degree</td>
<td>0.3%</td>
</tr>
</tbody>
</table>
Occupational Programs

1 Program

Of the programs that can train for this job, 1 has produced completions in the last 5 years.

77 Completions (2020)

The completions from all regional institutions for all degree types.

3,220 Openings (2020)

The average number of openings for an occupation in the region is 772.

<table>
<thead>
<tr>
<th>CIP Code</th>
<th>Top Programs</th>
<th>Completions (2020)</th>
</tr>
</thead>
<tbody>
<tr>
<td>46.0415</td>
<td>Building Construction Technology/Technician</td>
<td>77</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Top Schools</th>
<th>Completions (2020)</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Jose City College</td>
<td>59</td>
</tr>
<tr>
<td>CET-San Jose</td>
<td>9</td>
</tr>
<tr>
<td>City College of San Francisco</td>
<td>6</td>
</tr>
<tr>
<td>Diablo Valley College</td>
<td>3</td>
</tr>
</tbody>
</table>
Appendix A

Construction Laborers (SOC 47-2061):
Perform tasks involving physical labor at construction sites. May operate hand and power tools of all types: air hammers, earth tampers, cement mixers, small mechanical hoists, surveying and measuring equipment, and a variety of other equipment and instruments. May clean and prepare sites, dig trenches, set braces to support the sides of excavations, erect scaffolding, and clean up rubble, debris, and other waste materials. May assist other craft workers. Construction laborers who primarily assist a particular craft worker are classified under Helpers, Construction Trades (47-3010). Excludes Hazardous Materials Removal Workers (47-4041).

Sample of Reported Job Titles:
Construction Worker
Construction Laborer
Toolman
Site Work Laborer
Scaffolding Operator
Post Framer
Form Setter
Equipment Operator (EO)
Drop Crew Laborer
Bituminous Asphalt Technician

Related O*NET Occupation:
Construction Laborers (47-2061.00)
Course Outline for APCL 94

WORK EXPERIENCE - LIUNA LABORER’S’ CONSTRUCTION APPRENTICESHIP

Effective: Fall 2023

I. CATALOG DESCRIPTION:
APCL 94 — WORK EXPERIENCE - LIUNA LABORER'S’ CONSTRUCTION APPRENTICESHIP — 1.00 - 14.00 units

College supervised on-the-job training. Apprenticeship work experience in an occupation related to student's apprenticeship program. Cooperative effort of the work supervisor, student, Joint Apprenticeship Training Council (JATC) or Program Sponsor, and instructor to achieve work-based learning objectives. Student must be enrolled in an apprenticeship program. Each Unit of Credit requires 75 hours of paid work experience. Students can earn 1 to 8 units per semester for a maximum of 16 units of Cooperative Work Experience, which includes General Work Experience and Occupational Work Experience/Internship.

1.00 - 14.00 Units Work Experience

Enrollment Limitation
Admission to this course is limited to apprentices registered with the state of California Department of Apprenticeship Standards. Registered Apprentice with LiUNA! Northern California District Council of Laborers.

Grading Methods:
Pass/No Pass

Discipline:
Work Experience Instructors or Coordinators

<table>
<thead>
<tr>
<th>MIN</th>
<th>MAX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Experience Hours:</td>
<td>75.00</td>
</tr>
<tr>
<td>Total Hours:</td>
<td>75.00</td>
</tr>
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</table>

II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: WX - May be taken any number of times for a maximum of 16 units of Cooperative Work Experience

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:
Upon completion of this course, the student should be able to:

A. Achieve learning objectives established with the instructor, supervisor, and student at the beginning of the school term
B. Apply and refine skills learned in the classroom to the work site
C. Apply educational content, level of maturity, personality, behavior, attitudes toward a job, inter-personal relationships, and identify areas for improvement
D. Relate work experience to apprenticeship courses
E. Identify career opportunities, job requirements, employer expectations, and promotional requirements in an occupational setting
F. Assess personal goals and needs, making a concerted effort towards self-improvement

V. CONTENT:
A. Instructor, student, and work site supervisor will:
   1. Determine activities related to the apprenticeship training program and the required professional trade skills
   2. Determine learning opportunities
   3. Determine experiences to broaden knowledge of the job and profession.
B. Each learning objective will be approved by college instructor and have alignment with the approved apprenticeship program. The semester will include college/JATC:
   1. Visits to the student's work site
   2. Discussions with supervisor as to the quality/importance of each objective
   3. Identifying level of accomplishment
   4. Determining personal and professional development of student
VI. METHODS OF INSTRUCTION:
   A. Individual consultation with students
   B. Individual consultation with employer

VII. TYPICAL ASSIGNMENTS:
   A. Student journal/report
   B. Draft of objectives
   C. Final list of objectives

VIII. EVALUATION:
   Methods/Frequency
   A. Class Performance
      Semester long
   B. Other
      1. Instructor's appraisal of student's journal and final report
         a. Once per semester
      2. Supervisor's and instructor's evaluations of completion of objectives
         a. Minimum two per semester

IX. TYPICAL TEXTS:
   1. No textbooks are required for this course. Instructors will provide references to or compilations of resources as needed.

X. OTHER MATERIALS REQUIRED OF STUDENTS:
   A. Access to a computer and internet connection.
Course Outline for APCL 100

FORKLIFT ORIENTATION INITIAL

Effective: Fall 2023

I. CATALOG DESCRIPTION:
   APCL 100 — FORKLIFT ORIENTATION INITIAL — 2.50 units
   An introduction to gain an understanding of current regulations, common types of Rough Terrain Variable Reach Lift trucks and understand why you conduct pre-shift inspections. Learn techniques for the safe operation of Rough Terrain Variable Reach lift truck by hands-on operation and maneuvering in accordance with OSHA Standard 29 CFR 1910.178(l).
   2.00 Units Lecture 0.50 Units Lab

Enrollment Limitation
Admission to this course is limited to apprentices registered with the state of California Department of Apprenticeship Standards. Registered Apprentice with LIUNA! Northern California District Council of Laborers.

Grading Methods:
Letter or P/NP

Discipline:
- Transportation

<table>
<thead>
<tr>
<th>MIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture Hours:</td>
</tr>
<tr>
<td>Expected Outside of Class Hours:</td>
</tr>
<tr>
<td>Lab Hours:</td>
</tr>
<tr>
<td>Total Hours:</td>
</tr>
<tr>
<td>36.00</td>
</tr>
<tr>
<td>72.00</td>
</tr>
<tr>
<td>27.00</td>
</tr>
<tr>
<td>135.00</td>
</tr>
</tbody>
</table>

II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:

   Upon completion of this course, the student should be able to:

   A. Describe job site safety applications
   B. Assess OSHA regulations and safety for Variable Reach Lift trucks
   C. Identify the various types of Rough Terrain Lift trucks.
   D. Identify the main parts of Rough Terrain Lift trucks.
   E. Perform Safe Operate Rough Terrain Lift Trucks.

V. CONTENT:

   A. Variable Reach Lift truck regulations
   B. Types of Rough Terrain Lift trucks
   C. Parts of Rough Terrain Lift trucks
   D. Lift Truck Safety
   E. Equipment Limitations
   F. Procedures for lifting loads

VI. LAB CONTENT:

   A. Rough Terrain Lift truck Operation and procedures
   B. Pre-shift inspections

VII. METHODS OF INSTRUCTION:

   A. Lecture - Lecture on various topics
   B. Written Exercises - Substantial writing assignments are NOT required (less than 25% of grade).
   C. Lab - Demonstration of pre-shift inspection, Lift Truck Safety, operation, equipment limitations, and procedures for lifting loads.
   D. Discussion - Explain current regulations Explain common types of Rough Terrain Variable Reach Lift trucks
   E. Written Exercises - Written Exams will be given regarding safe operation and regulations for operating lift trucks.

VIII. TYPICAL ASSIGNMENTS:
A. Lecture-based assignments
   1. Take notes on safety lecture

B. Text reading
   1. Read Chapter One

C. Hands-On
   1. Demonstration of pre-shift inspection, Lift Truck Safety, operation, equipment limitations, and procedures for lifting loads.

D. Oral Assessments
   1. Explain current regulations Explain common types of Rough Terrain Variable Reach Lift trucks

E. Exams
   1. Written Exams will be given regarding safe operation and regulations for operating lift trucks.

IX. EVALUATION:
   Methods/Frequency
   A. Exams/Tests
      After each module.
   B. Class Participation
      Weekly.
   C. Class Work
      Weekly.
   D. Class Performance
      Weekly.

X. TYPICAL TEXTS:
   2. Proprietary IVES Rough Terrain Lift Truck Operator Workbook Materials provided by LiUNA! Northern California District Council of Laborers Union

XI. OTHER MATERIALS REQUIRED OF STUDENTS:
   A. Safety Glasses
   B. Safety Vests
   C. Work Gloves
   D. Sturdy non-slip steel toe shoes
Course Outline for APCL 101
FUNDAMENTALS OF CONSTRUCTION
Effective: Fall 2023

I. CATALOG DESCRIPTION:
APCL 101 — FUNDAMENTALS OF CONSTRUCTION — 4.50 units

An introduction to provide the trainees with basic overview of the general practices of construction work, including safety, tools, techniques, terms, safe work habits and knowledge of the industry. In accordance with the CAL-OSHA CCR Title 8 and OSHA CFR 1926 Construction Standards that are applicable to courses being covered.

3.00 Units Lecture 1.50 Units Lab

Enrollment Limitation
Admission to this course is limited to apprentices registered with the state of California Department of Apprenticeship Standards. Registered Apprentice with LIUNA! Northern California District Council of Laborers.

Grading Methods:
Letter or P/NP

Discipline:
• Transportation

<table>
<thead>
<tr>
<th>MIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture Hours:</td>
</tr>
<tr>
<td>Expected Outside of Class Hours:</td>
</tr>
<tr>
<td>Lab Hours:</td>
</tr>
<tr>
<td>Total Hours:</td>
</tr>
</tbody>
</table>

II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:
Upon completion of this course, the student should be able to:

A. Describe job site safety applications
B. Interpret OSHA Construction standards.
C. Identify various tools used in the construction industry.

V. CONTENT:
A. General practices of construction work
B. Safe work habits
C. Identification and use of tools
D. Industry terminology
E. Grade Checking
F. Pavement Breakers and compaction
G. Techniques for laying asphalt, concrete and pipes

VI. LAB CONTENT:
A. Handling tools
B. techniques in grade checking
C. Techniques for laying asphalt, concrete and pipes

VII. METHODS OF INSTRUCTION:
A. Lecture - Lecture on various topics
B. Lab - Various hands-on lab assignments

VIII. TYPICAL ASSIGNMENTS:
A. Lecture-based assignments
   1. Take notes on the safety lecture
B. Text reading
1. Read Chapter One
C. Lab Based Assignments
   1. Demonstration of proper use of pavement breakers and compaction tools.
D. Oral Assessments
   1. Explain current OSHA regulations applicable to course content.
E. Exams
   1. Written Exams may be given regarding tool identification, construction techniques, safety, etc.

IX. EVALUATION:
   Methods/Frequency
   A. Exams/Tests
      After each module.
   B. Class Participation
      Weekly.
   C. Class Work
      Weekly.
   D. Class Performance
      Weekly.

X. TYPICAL TEXTS:
   2. Proprietary Handouts from Laborers’ Education and Training. All Materials will be provided by LiUNA! Laborers’ Union

XI. OTHER MATERIALS REQUIRED OF STUDENTS:
   A. Safety Glasses
   B. Safety Vests
   C. Work Gloves
   D. Sturdy non-slip steel toe shoes
Course Outline for APCL 102

HAZARDOUS WASTE REMOVAL INITIAL

Effective: Fall 2023

I. CATALOG DESCRIPTION:
APCL 102 — HAZARDOUS WASTE REMOVAL INITIAL — 2.50 units

An introduction to instruct trainees in the types of hazards and situations that can be encountered on the job site. Trainees will learn protective measures, proper use of equipment and learn safety and health issues, in accordance with 29 CFR 1910.120, 132, 143, 146, and 1200.

2.00 Units Lecture 0.50 Units Lab

Enrollment Limitation
Admission to this course is limited to apprentices registered with the state of California Department of Apprenticeship Standards. Registered Apprentice with LIUNA! Northern California District Council of Laborers.

Grading Methods:
Letter or P/NP

Discipline:
• Transportation

<table>
<thead>
<tr>
<th>MIN</th>
<th>Lecture Hours:</th>
<th>36.00</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Expected Outside of Class Hours:</td>
<td>72.00</td>
</tr>
<tr>
<td></td>
<td>Lab Hours:</td>
<td>27.00</td>
</tr>
<tr>
<td></td>
<td>Total Hours:</td>
<td>135.00</td>
</tr>
</tbody>
</table>

II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:

Upon completion of this course, the student should be able to:

A. Describe job site safety applications
B. Apply the general requirements of Hazardous Waste Standards.
C. Define Key terms associated with Hazardous Waste.
D. Identify and classify hazardous wastes.

V. CONTENT:

A. Hazard Recognition
B. Hazard communication
C. Health Effects
D. Personal Protective Equipment
E. Decontamination Procedures
F. Site Safety and Health Plan
G. Material handling and sampling
H. Workplace Monitoring
I. Permit-required confined space
J. Superfund
K. Community relations

VI. LAB CONTENT:

A. Proper adjustments/fit of personal protective equipment
B. Identify hazardous situations
C. Practice material handling

VII. METHODS OF INSTRUCTION:

A. Lecture - Lecture on various topics
B. Lab - Demonstration of safe handling of hazardous materials. Demonstration of proper use of personal protective equipment.
VIII. TYPICAL ASSIGNMENTS:
   A. Lecture-based assignments
      1. Take notes on safety lecture
   B. Text reading
      1. Read Chapter One
   C. Hands-On
      1. Demonstration of pre-shift inspection, Lift Truck Safety, operation, equipment limitations, and procedures for lifting loads.
   D. Oral Assessments
      1. Explain current regulations Explain common types of Rough Terrain Variable Reach Lift trucks
   E. Exams
      1. Written Exams will be given regarding safe operation and regulations for operating lift trucks.

IX. EVALUATION:

   Methods/Frequency
   A. Exams/Tests
      After each module.
   B. Class Participation
      Weekly.
   C. Class Work
      Weekly.
   D. Class Performance
      Weekly.

X. TYPICAL TEXTS:

XI. OTHER MATERIALS REQUIRED OF STUDENTS:
   A. Safety Glasses
   B. Safety Vests
   C. Work Gloves
   D. Sturdy non-slip steel toe shoes
Course Outline for APCL 103
SAFETY CERTIFICATION
Effective: Fall 2023

I. CATALOG DESCRIPTION:
APCL 103 — SAFETY CERTIFICATION — 2.50 units

Introduction to safety requirements set forth by the Occupational Safety and Health Administration (OSHA), Construction Industry Standards and General Standards, as they relate to the Construction Industry. Students may earn OSHA 10, OSHA 30, Cal-OSHA 10, and/or Cal-OSHA 30.

2.00 Units Lecture 0.50 Units Lab

Enrollment Limitation
Admission to this course is limited to apprentices registered with the state of California Department of Apprenticeship Standards. Registered Apprentice with LIUNA! Northern California District Council of Laborers.

Grading Methods:
Letter or P/NP

Discipline:
• Transportation

<table>
<thead>
<tr>
<th>MIN</th>
<th></th>
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<tbody>
<tr>
<td>Lecture Hours:</td>
<td>36.00</td>
</tr>
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<td>Expected Outside of Class Hours:</td>
<td>72.00</td>
</tr>
<tr>
<td>Lab Hours:</td>
<td>27.00</td>
</tr>
<tr>
<td>Total Hours:</td>
<td>135.00</td>
</tr>
</tbody>
</table>

II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:
Upon completion of this course, the student should be able to:

A. Describe job site safety applications
B. Examine general guidelines to safely operate equipment.
C. Categorize proper material handling and storage procedures.
D. Identify and explain appropriate personal protective equipment necessary for different job situations.

V. CONTENT:
A. OSHA introduction
B. General Safety and Health
C. Personal Protective Equipment
D. Material Handling
E. Tools: Hand and Power
F. Electrical safety
G. Fall protection
H. Cranes, Derricks, Hoists, Elevator and Conveyors
I. Excavation
J. Stairways and Ladders.

VI. LAB CONTENT:
A. Proper adjustments/fit of personal protective equipment
B. Practicing Proper lifting/carrying techniques
C. Identifying hazardous situations with tools and equipment

VII. METHODS OF INSTRUCTION:
A. Lecture - Lecture on various topics
B. Written Exercises - Substantial writing assignments are NOT required (less than 25% of grade).
C. Lab - Demonstration of pre-shift inspection, Lift Truck Safety, operation, equipment limitations, and procedures for lifting loads.
D. Discussion - Explain current regulations Explain common types of Rough Terrain Variable Reach Lift trucks
E. **Written Exercises** - Written Exams will be given regarding safe operation and regulations for operating lift trucks.

VIII. **TYPICAL ASSIGNMENTS:**

A. Lecture-based assignments
   1. Take notes on safety lecture
B. Text reading
   1. Read Chapter One
C. Hands-On
   1. Demonstration of pre-shift inspection, Lift Truck Safety, operation, equipment limitations, and procedures for lifting loads.
D. Oral Assessments
   1. Explain current regulations Explain common types of Rough Terrain Variable Reach Lift trucks
E. Exams
   1. Written Exams will be given regarding safe operation and regulations for operating lift trucks.

IX. **EVALUATION:**
   **Methods/Frequency**
   A. Exams/Tests
      After each module.
   B. Class Participation
      Weekly.
   C. Class Work
      Weekly.
   D. Class Performance
      Weekly.

X. **TYPICAL TEXTS:**

2. Proprietary Construction Industry Regulations student Manual. All materials are provided by LiUNA! Laborers' Union

XI. **OTHER MATERIALS REQUIRED OF STUDENTS:**

A. Safety Glasses
B. Safety Vests
C. Work Gloves
D. Sturdy non-slip steel toe shoes
Course Outline for APCL 104

AERIAL WORK PLATFORM INITIAL

Effective: Fall 2023

I. CATALOG DESCRIPTION:
APCL 104 — AERIAL WORK PLATFORM INITIAL — 1.00 units

An introduction to provide the trainees with the knowledge of current regulations, common type of aerial work platforms and understand the need to conduct pre-shift inspections. Learn techniques for safe operation and maneuvering. Teach trainees to work safely on and around self-propelled aerial work platforms, such as scissor-lifts and boom lifts.

0.25 Units Lecture 0.75 Units Lab

Enrollment Limitation
Admission to this course is limited to apprentices registered with the state of California Department of Apprenticeship Standards. Registered Apprentice with LIUNA! Northern California District Council of Laborers

Grading Methods:
Letter or P/NP

Discipline:
• Transportation

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II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:

Upon completion of this course, the student should be able to:

A. Describe job site safety applications
B. Identify various types of Aerial Work Platforms.
C. Compare strategies to promote safety on and around self-propelled Aerial Work Platforms.

V. CONTENT:

A. Types of Aerial Work Platforms
B. Parts of Aerial Work Platforms including the scissor and boom lifts
C. Safety Regulation for Aerial Work Platforms
D. Safe operation
E. Lift Capacity

VI. LAB CONTENT:

A. Procedures for safe operation
B. Maneuvering scissor-lifts and boom lifts

VII. METHODS OF INSTRUCTION:

A. Lecture - Lecture on various topics
B. Written Exercises - Substantial writing assignments are NOT required (less than 25% of grade).
C. Lab - Demonstration of safe operation of aerial work platforms.
D. Written Exercises - Written Exams will be given regarding safe operation and regulations for aerial work platforms. Explain current regulations Explain common types of aerial work platforms.

VIII. TYPICAL ASSIGNMENTS:

A. Lecture-based assignments
   1. Take notes on safety lecture
B. Text reading
1. Read Chapter One
   C. Hands-On
      1. Demonstration of pre-shift inspection, Lift Truck Safety, operation, equipment limitations, and procedures for lifting loads.
   D. Oral Assessments
      1. Explain current regulations Explain common types of Rough Terrain Variable Reach Lift trucks
   E. Exams
      1. Written Exams will be given regarding safe operation and regulations for operating lift trucks.

IX. EVALUATION:
    Methods/Frequency
    A. Exams/Tests
    After each module.
    B. Class Participation
    Weekly.
    C. Class Work
    Weekly.
    D. Class Performance
    Weekly.

X. TYPICAL TEXTS:
   2. Proprietary IVES Aerial Lift Operator Workbook, Book lift, Scissors lift Materials provided by LiUNA! Northern California District Council of Laborers union

XI. OTHER MATERIALS REQUIRED OF STUDENTS:
    A. Safety Glasses
    B. Safety Vests
    C. Work Gloves
    D. Sturdy non-slip steel toe shoes
Course Outline for APCL 105

RIGGING AND SIGNALING

Effective: Fall 2023

I. CATALOG DESCRIPTION:
APCL 105 — RIGGING AND SIGNALING — 2.50 units

Provide the trainees with an understanding of the safe approach to Rigging and Signaling. Describe and demonstrate the state procedures of Rigging and Signaling in accordance with OSHA CFR 1926.251 and 1926.5 Construction.

2.00 Units Lecture 0.50 Units Lab

Enrollment Limitation
Admission to this course is limited to apprentices registered with the state of California Department of Apprenticeship Standards. Registered Apprentice with LIUNA! Northern California District Council of Laborers.

Grading Methods:
Letter or P/NP

Discipline:
• Transportation

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II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:
Upon completion of this course, the student should be able to:

A. Describe job site safety applications
B. Determine the importance of safe rigging.
C. Identify the safety hazards of rigging.
D. Understand why standard hand signals must be used.

V. CONTENT:
A. What is rigging
B. Hazards of rigging
C. OSHA Safety Regulations
D. Hand Signals
E. Inspection requirements
F. Safe working loads
G. Sling angles

VI. LAB CONTENT:
A. Rigging loads
B. Hand Signals

VII. METHODS OF INSTRUCTION:
A. Lecture - Lecture on various topics
B. Written Exercises - Substantial writing assignments are NOT required (less than 25% of grade).
C. Lab - Demonstration of the safe approach to Rigging and Signaling.
D. Discussion - Explain current regulations. Explain procedures for safe approach to Rigging and Signaling.
E. Written Exercises - Written Exams will be given regarding regulations and safety regarding rigging & signaling.

VIII. TYPICAL ASSIGNMENTS:
A. Lecture-based assignments
1. Take notes on safety lecture
   B. Text reading
      1. Read Chapter One
   C. Hands-On
      1. Demonstration of pre-shift inspection, Lift Truck Safety, operation, equipment limitations, and procedures for lifting loads.
   D. Oral Assessments
      1. Explain current regulations Explain common types of Rough Terrain Variable Reach Lift trucks
   E. Exams
      1. Written Exams will be given regarding safe operation and regulations for operating lift trucks.

IX. EVALUATION:
   Methods/Frequency
   A. Exams/Tests
      After each module.
   B. Class Participation
      Weekly.
   C. Class Work
      Weekly.
   D. Class Performance
      Weekly.

X. TYPICAL TEXTS:
   2. Proprietary LiUNA! Hoisting and Rigging All materials provided by LiUNA! Laborers' Union

XI. OTHER MATERIALS REQUIRED OF STUDENTS:
   A. Safety Glasses
   B. Safety Vests
   C. Work Gloves
   D. Sturdy non-slip steel toe shoes
Course Outline for APCL 106

SKID STEER LOADER ORIENTATION INITIAL

Effective: Fall 2023

I. CATALOG DESCRIPTION:
APCL 106 — SKID STEER LOADER ORIENTATION INITIAL — 2.50 units

An introduction to provide student trainees with a good understanding of how to operate mobile equipment, learn current safety procedures, and proper maintenance of a skid steer loader (Bobcat).

2.00 Units Lecture 0.50 Units Lab

Enrollment Limitation
Admission to this course is limited to apprentices registered with the state of California Department of Apprenticeship Standards. Registered Apprentice with LIUNA! Northern California District Council of Laborers.

Grading Methods:
Letter or P/NP

Discipline:
• Transportation

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II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:
Upon completion of this course, the student should be able to:

A. Describe job site safety applications
B. Explain how weight distribution affects skid-steer loader stability and steering.
C. Important factors of maintenance for safe, efficient, and productive operation.
D. Identify the loader's safety features and their importance.

V. CONTENT:
A. Regulations
B. Safe Operation of Skid Steer Loader (Bobcat)
C. Types of attachments for Skid Steer Loaders
D. Main Parts of a Skid Steer Loader
E. Understanding Skid Steer Loader Safety
F. Fuel types and Fire Safety
G. Lifting capabilities

VI. LAB CONTENT:
A. Safe Skid Steer Loader Operation
B. Maintenance of Skid Steer Loaders.

VII. METHODS OF INSTRUCTION:
A. Lecture - Lecture on various topics
B. Written Exercises - Substantial writing assignments are NOT required (less than 25% of grade).
C. Lab - Demonstrate safe operation of bobcat (skid steer loader)
D. Discussion - Explain current regulations Explain common types of skid steer loader attachments.
E. Written Exercises - Written Exams will be given regarding safe operation of skid steer loaders.

VIII. TYPICAL ASSIGNMENTS:
A. Lecture-based assignments
1. Take notes on safety lecture

B. Text reading
   1. Read Chapter One

C. Hands-On
   1. Demonstration of pre-shift inspection, Lift Truck Safety, operation, equipment limitations, and procedures for lifting loads.

D. Oral Assessments
   1. Explain current regulations Explain common types of Rough Terrain Variable Reach Lift trucks

E. Exams
   1. Written Exams will be given regarding safe operation and regulations for operating lift trucks.

IX. EVALUATION:
    Methods/Frequency
    A. Exams/Tests
       After each module.
    B. Class Participation
       Weekly.
    C. Class Work
       Weekly.
    D. Class Performance
       Weekly.

X. TYPICAL TEXTS:
   2. Proprietary IVES Skid Steer Loader Operator Workbook. Materials will be provided by LiUNA! Laborers' Union

XI. OTHER MATERIALS REQUIRED OF STUDENTS:
    A. Safety Glasses
    B. Safety Vests
    C. Work Gloves
    D. Sturdy non-slip steel toe shoes
Course Outline for APCL 107

CONCRETE TECHNIQUES

Effective: Fall 2023

I. CATALOG DESCRIPTION:
   APCL 107 — CONCRETE TECHNIQUES — 5.00 units

   Familiarize students with concrete safety, its history, properties and components. It includes a hands-on portion in accordance with Cal-OSHA CCR Title 7 1712-1722 and OSHA CFR 1926.703.

   3.50 Units Lecture 1.50 Units Lab

II. ENROLLMENT LIMITATION
   Admission to this course is limited to apprentices registered with the state of California Department of Apprenticeship Standards. Registered Apprentice with LIUNA! Northern California District Council of Laborers.

Grading Methods:
Letter or P/NP

Discipline:
• Transportation

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II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:
   Upon completion of this course, the student should be able to:
   A. Describe job site safety applications
   B. Analyze the importance of proper curing and protection of concrete.
   C. Apply the materials, processes, and safety related to concrete work.

V. CONTENT:
   A. Safety and Health
   B. Personal Protective Clothing
   C. Introduction to concrete
   D. Concrete math
   E. Concrete forms
   F. Pouring
   G. Pumping concrete
   H. Placing and vibrating
   I. Finishing and curing
   J. Maintenance and clean-up
   K. Walls and flat work

VI. LAB CONTENT:
   A. Forms
   B. Mixing
   C. Pouring
   D. Finishing

VII. METHODS OF INSTRUCTION:
   A. Lecture - Lecture on various topics
   B. Written Exercises - Substantial writing assignments are NOT required (less than 25% of grade).
   C. Lab - Demonstrate safe operation of concrete laying equipment
   D. Discussion - Explain current regulations Explain the basic components of concrete
E. **Written Exercises** - Written Exams will be given regarding concrete mixing and laying.

VIII. **TYPICAL ASSIGNMENTS:**
   A. Lecture-based assignments
      1. Take notes on safety lecture
   B. Text reading
      1. Read Chapter One
   C. Hands-On
      1. Demonstration of pre-shift inspection, Lift Truck Safety, operation, equipment limitations, and procedures for lifting loads.
   D. Oral Assessments
      1. Explain current regulations Explain common types of Rough Terrain Variable Reach Lift trucks
   E. Exams
      1. Written Exams will be given regarding safe operation and regulations for operating lift trucks.

IX. **EVALUATION:**
    **Methods/Frequency**
    A. Exams/Tests
       After each module.
    B. Class Participation
       Weekly.
    C. Class Work
       Weekly.
    D. Class Performance
       Weekly.

X. **TYPICAL TEXTS:**
   2. Proprietary Concrete Techniques Laborer booklet. All materials are provided by LiUNA! Laborers' Union

XI. **OTHER MATERIALS REQUIRED OF STUDENTS:**
   A. Safety Glasses
   B. Safety Vests
   C. Work Gloves
   D. Sturdy non-slip steel toe shoes
Course Outline for APCL 108
ASPHALT PAVING TECHNIQUES
Effective: Fall 2023

I. CATALOG DESCRIPTION:
APCL 108 — ASPHALT PAVING TECHNIQUES — 4.50 units
An introduction to familiarize the trainees with the skills they need to work with Asphalt safely and learn the proper use of tools and equipment needed when working with Asphalt.

3.00 Units Lecture 1.50 Units Lab

Enrollment Limitation
Admission to this course is limited to apprentices registered with the state of California Department of Apprenticeship Standards. Registered Apprentice with LIUNA! Northern California District Council of Laborers.

Grading Methods:
Letter or P/NP

Discipline:
• Transportation

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II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:
Upon completion of this course, the student should be able to:

A. Describe job site safety applications
B. Utilize proper skills to work with asphalt safely.
C. Assess of the proper utilization of tools when working with asphalt.

V. CONTENT:
A. Terms and Definitions
B. Safety procedures
C. Protective Equipment and clothing
D. Heat Stress
E. Health Hazards from Fumes and Chemicals
F. Compaction
G. Basic asphalt laying techniques
H. Raking
I. Safe operation of equipment

VI. LAB CONTENT:
A. Utilization of proper protective equipment and clothing
B. Compaction
C. Laying techniques and raking
D. Heat scenarios
E. Safe operation of equipment

VII. METHODS OF INSTRUCTION:
A. Lecture - Lecture on various topics
B. Written Exercises - Substantial writing assignments are NOT required (less than 25% of grade).
C. Lab - Demonstrate safe operation of asphalt laying equipment
D. Discussion - Explain current regulations Explain health hazards from fumes and chemicals.
E. Written Exercises - Written Exams will be given regarding safety regulations and proper techniques for laying asphalt.
VIII. TYPICAL ASSIGNMENTS:
   A. Lecture-based assignments
      1. Take notes on safety lecture
   B. Text reading
      1. Read Chapter One
   C. Hands-On
      1. Demonstration of pre-shift inspection, Lift Truck Safety, operation, equipment limitations, and procedures for lifting loads.
   D. Oral Assessments
      1. Explain current regulations Explain common types of Rough Terrain Variable Reach Lift trucks
   E. Exams
      1. Written Exams will be given regarding safe operation and regulations for operating lift trucks.

IX. EVALUATION:
   **Methods/Frequency**
   A. Exams/Tests
      After each module.
   B. Class Participation
      Weekly.
   C. Class Work
      Weekly.
   D. Class Performance
      Weekly.

X. TYPICAL TEXTS:
   2. Proprietary Laborers' Education and training Asphalt Raking Training Manual and/or student handouts. Materials provided by LiUNA
      Northern California District Council of Laborers Union

XI. OTHER MATERIALS REQUIRED OF STUDENTS:
   A. Safety Glasses
   B. Safety Vests
   C. Work Gloves
   D. Sturdy non-slip steel toe shoes
Course Outline for APCL 109

BLUEPRINT READING ORIENTATION, BASIC

Effective: Fall 2023

I. CATALOG DESCRIPTION:
APCL 109 — BLUEPRINT READING ORIENTATION, BASIC — 1.50 units

An introduction to provide student trainees with a good understanding of how to read construction blueprints.

1.50 Units Lecture

Enrollment Limitation
Admission to this course is limited to apprentices registered with the state of California Department of Apprenticeship Standards. Registered Apprentice with LIUNA! Northern California District Council of Laborers.

Grading Methods:
Letter or P/NP

Discipline:
• Transportation

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II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:
Upon completion of this course, the student should be able to:

A. Describe job site safety applications
B. Understand blueprints.

V. CONTENT:
A. Regulations
B. How to find and understand legends
C. How to find and understand the compass
D. How to use the scale ruler
E. Understanding how to read details and sections
F. How to locate specific items on blue prints

VI. METHODS OF INSTRUCTION:
A. Lecture - Lecture on various topics
B. Written Exercises - Substantial writing assignments are NOT required (less than 25% of grade).
C. Discussion - Explain current regulations
D. Written Exercises - Written Exams will be given regarding safe operation of skid steer loaders.

VII. TYPICAL ASSIGNMENTS:
A. Lecture-based assignments
   1. Take notes on safety lecture
B. Text reading
   1. Read Chapter One
C. Hands-On
   1. Demonstration of pre-shift inspection, Lift Truck Safety, operation, equipment limitations, and procedures for lifting loads.
D. Oral Assessments
   1. Explain current regulations
E. Exams
   1. Written Exams will be given regarding safe operation and regulations for operating lift trucks.

VIII. EVALUATION:
Methods/Frequency

A. Exams/Tests
   After each module.
B. Class Participation
   Weekly.
C. Class Work
   Weekly.
D. Class Performance
   Weekly.

IX. TYPICAL TEXTS:
   2. Proprietary IVES Blueprint reading. Materials will be provided by LiUNA Laborers' Union

X. OTHER MATERIALS REQUIRED OF STUDENTS:
   A. Safety Glasses
   B. Safety Vests
   C. Work Gloves
   D. Sturdy non-slip steel toe shoes
Course Outline for APCL 110

CONFINED SPACE AWARENESS

Effective: Fall 2023

I. CATALOG DESCRIPTION:
APCL 110 — CONFINED SPACE AWARENESS — 0.50 units
An introduction to provide students with basic awareness training only regarding the hazards and health effects when working around confined spaces. (This class does not qualify trainees for work inside a confined space)

0.50 Units Lecture

Enrollment Limitation
Admission to this course is limited to apprentices registered with the state of California Department of Apprenticeship Standards. Registered Apprentice with LIUNA! Northern California District Council of Laborers.

Grading Methods:
Letter or P/NP

Discipline:
• Transportation

| MIN |
| Lecture Hours: | 9.00 |
| Expected Outside of Class Hours: | 18.00 |
| Total Hours: | 27.00 |

II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:
Upon completion of this course, the student should be able to:

A. Describe job site safety applications
B. Understand regulations pertaining to confined spaces.

V. CONTENT:
A. Introduction
B. Types of Confined Spaces
C. Controlling hazards in confined spaces
D. Testing for Hazardous Atmospheres
E. The Laws, rules and regulations

VI. METHODS OF INSTRUCTION:
A. Lecture - Lecture on various topics
B. Written Exercises - Substantial writing assignments are NOT required (less than 25% of grade).
C. Discussion - Explain current regulations
D. Written Exercises - Written Exams will be given regarding safe operation of skid steer loaders.

VII. TYPICAL ASSIGNMENTS:
A. Lecture-based assignments
   1. Take notes on safety lecture
B. Text reading
   1. Read Chapter One
C. Oral Assessments
   1. Explain current regulations
D. Exams
   1. Explain common types of Rough Terrain Variable Reach Lift trucks
Written Exams will be given regarding safe operation and regulations for operating lift trucks.

VIII. EVALUATION:
   **Methods/Frequency**
   
   A. Exams/Tests
      After each module.
   B. Class Participation
      Weekly.
   C. Class Work
      Weekly.
   D. Class Performance
      Weekly.

IX. TYPICAL TEXTS:
   2. Proprietary IVES Confined Spaces workbook. Materials will be provided by LiUNA! Laborers' Union

X. OTHER MATERIALS REQUIRED OF STUDENTS:
   A. Safety Glasses
   B. Safety Vests
   C. Work Gloves
   D. Sturdy non-slip steel toe shoes
Course Outline for APCL 111
FIRST AID, CPR AND AED
Effective: Fall 2023

I. CATALOG DESCRIPTION:
APCL 111 — FIRST AID, CPR AND AED — 0.50 units
An introduction to provide students with the basic skills necessary to perform the immediate help needed for sudden emergency situations at the job site such as accidents, injury or illness, by the use of CPR and or First Aid and proper use of AED.
0.50 Units Lecture

Enrollment Limitation
Admission to this course is limited to apprentices registered with the state of California Department of Apprenticeship Standards. Registered Apprentice with LIUNA! Northern California District Council of Laborers.

Grading Methods:
Letter or P/NP

Discipline:
- Transportation

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II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:
Upon completion of this course, the student should be able to:
A. Describe job site safety applications
B. Perform Basic life support

V. CONTENT:
A. Why Learn first Aid
B. Take Action in an Emergency
C. Basic Life Support
D. Bleeding and Wound Care
E. Shock
F. Burns/Serious Injuries
   Bone, joint and muscle injuries
G. Sudden illness
H. Poisoning
I. Heat and Cold Emergencies
J. Rescuing and moving victims

VI. METHODS OF INSTRUCTION:
A. Lecture - Lecture on various topics
B. Written Exercises - Substantial writing assignments are NOT required (less than 25% of grade).
C. Discussion - Explain current regulations Explain common types of skid steer loader attachments.
D. Written Exercises - Written Exams will be given regarding safe operation of skid steer loaders.
VII. TYPICAL ASSIGNMENTS:
   A. Lecture-based assignments
      1. Take notes on safety lecture
   B. Text reading
      1. Read Chapter One
   C. Oral Assessments
      1. Explain current regulations Explain common types of Rough Terrain Variable Reach Lift trucks
   D. Exams
      1. Written Exams will be given regarding safe operation and regulations for operating lift trucks.

VIII. EVALUATION:
   **Methods/Frequency**
   A. Exams/Tests
      After each module.
   B. Class Participation
      Weekly.
   C. Class Work
      Weekly.
   D. Class Performance
      Weekly.

IX. TYPICAL TEXTS:
   2. National safety Council Standard First Aid , CPR, and AED Manual. Materials will be provided by LiUNA! Laborers' Union

X. OTHER MATERIALS REQUIRED OF STUDENTS:
   A. Safety Glasses
   B. Safety Vests
   C. Work Gloves
   D. Sturdy non-slip steel toe shoes
Course Outline for APCL 112

FLAGGING CERTIFICATION

Effective: Fall 2023

I. CATALOG DESCRIPTION:
APCL 112 — FLAGGING CERTIFICATION — 0.50 units

This ATSSA Flagging Certification class teaches trainees how to protect fellow construction workers, motorists, and pedestrians by safely directing vehicle operators through traffic-controlled construction zone. In accordance with the ATSSA Part 6E of the MUTCD Federal Standards.

0.50 Units Lecture

Enrollment Limitation
Admission to this course is limited to apprentices registered with the state of California Department of Apprenticeship Standards. Registered Apprentice with LIUNA! Northern California District Council of Laborers.

Grading Methods:
Letter or P/NP

Discipline:
• Transportation

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II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:
Upon completion of this course, the student should be able to:

A. Describe job site safety applications
B. Perform Basic flagging signs

V. CONTENT:
A. Requirements listed in the MUTCD Part 6E Flogger Control
B. Basic Principles of TTC zones
C. Learning Signs and devices associated with Traffic Control
D. Tools and equipment needed for flagging
E. Handle the stop and slow paddles
F. Recognize different types of drivers
G. Alternative methods to communicate with other Flogger Setup of night time flagging
H. Communicating effectively with public, supervisors and co-workers

VI. METHODS OF INSTRUCTION:
A. Lecture - Lecture on various topics
B. Written Exercises - Substantial writing assignments are NOT required (less than 25% of grade).
C. Discussion - Explain current regulations Explain common types of skid steer loader attachments.
D. Written Exercises - Written Exams will be given regarding safe operation of skid steer loaders.

VII. TYPICAL ASSIGNMENTS:
A. Lecture-based assignments
   1. Take notes on safety lecture
B. Text reading
1. Read Chapter One
   C. Oral Assessments
      1. Explain current regulations
      2. Explain common types of Rough Terrain Variable Reach Lift trucks
   D. Exams
      1. Written Exams will be given regarding safe operation and regulations for operating lift trucks.

VIII. EVALUATION:
      Methods/Frequency
         A. Exams/Tests
            After each module.
         B. Class Participation
            Weekly.
         C. Class Work
            Weekly.
         D. Class Performance
            Weekly.

IX. TYPICAL TEXTS:
   2. Proprietary workbook and manuals for Flagging. Materials will be provided by LiUNA! Laborers' Union

X. OTHER MATERIALS REQUIRED OF STUDENTS:
   A. Safety Glasses
   B. Safety Vests
   C. Work Gloves
   D. Sturdy non-slip steel toe shoes
Course Outline for APCL 113

TRAFFIC CONTROL

Effective: Fall 2023

I. CATALOG DESCRIPTION:
APCL 113 — TRAFFIC CONTROL — 0.50 units

To provide students with the knowledge of how to protect fellow construction workers, motorists and pedestrians, by safety directing vehicle operators through the traffic controlled construction zone, in accordance with the ATSSA Part 6 MUTCD Federal Standards.

0.50 Units Lecture

Enrollment Limitation
Admission to this course is limited to apprentices registered with the state of California Department of Apprenticeship Standards. Registered Apprentice with LIUNA! Northern California District Council of Laborers.

Grading Methods:
Letter or P/NP

Discipline:
• Transportation

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II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:
Upon completion of this course, the student should be able to:

A. Describe job site safety applications
B. Summarize temporary traffic control elements

V. CONTENT:
A. Fundamental Principles
B. Temporary Traffic Control Elements
C. Pedestrian and Worker safety
D. Temporary Traffic control zone Devices
E. Temporary Traffic control zone activities
F. Typical Applications
G. Control of traffic through Traffic Incident Management Areas

VI. METHODS OF INSTRUCTION:
A. Lecture - Lecture on various topics
B. Written Exercises - Substantial writing assignments are NOT required (less than 25% of grade).
C. Discussion - Explain current regulations Explain common types of skid steer loader attachments.
D. Written Exercises - Written Exams will be given regarding safe operation of skid steer loaders.

VII. TYPICAL ASSIGNMENTS:
A. Lecture-based assignments
   1. Take notes on safety lecture
B. Text reading
   1. Read Chapter One
C. Oral Assessments
   1. Explain current regulations Explain common types of Rough Terrain Variable Reach Lift trucks
D. Exams
   1. Written Exams will be given regarding safe operation and regulations for operating lift trucks.

VIII. EVALUATION:

Methods/Frequency

A. Exams/Tests
   After each module.
B. Class Participation
   Weekly.
C. Class Work
   Weekly.
D. Class Performance
   Weekly.

IX. TYPICAL TEXTS:

2. Proprietary workbook and manuals for Flagging. Materials will be provided by LiUNA! Laborers’ Union

X. OTHER MATERIALS REQUIRED OF STUDENTS:

A. Safety Glasses
B. Safety Vests
C. Work Gloves
D. Sturdy non-slip steel toe shoes
Course Outline for APCL 114
OSHA 10 HOUR NORCAL
Effective: Fall 2023

I. CATALOG DESCRIPTION:
APCL 114 — OSHA 10 HOUR NORCAL — 1.00 units
Introduce the student to the safety requirements set forth by the Federal Occupational Safety and Health Administration (OSHA), 29 CFR 1926 Construction Industry Standards, and 29 CFR 1910 General Standards, as they relate to the Construction Industry.
1.00 Units Lecture

Enrollment Limitation
Admission to this course is limited to apprentices registered with the state of California Department of Apprenticeship Standards. Registered Apprentice with LIUNA Northern California District Council of Laborers.

Grading Methods:
Letter or P/NP

Discipline:
• Transportation

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II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:
Upon completion of this course, the student should be able to:

A. Describe job site safety applications
B. Understand regulations OSHA rules.

V. CONTENT:
A. OSHA Introduction
B. General Safety and Health Subpart C
C. Personal Protective Equipment Subpart E
D. Material handling Subpart H
E. Tools- Hand and Power Subpart I
F. Electrical Subpart K
G. Fall protection Subpart M
H. Cranes, Derricks, Hoists, Elevator and Conveyors Subpart N
I. Excavation Subpart P
J. Stairways and ladders Subpart X

VI. METHODS OF INSTRUCTION:
A. Lecture - Lecture on various topics
B. Written Exercises - Substantial writing assignments are NOT required (less than 25% of grade).
C. Discussion - Explain current regulations Explain common types of skid steer loader attachments.
D. Written Exercises - Written Exams will be given regarding safe operation of skid steer loaders.

VII. TYPICAL ASSIGNMENTS:
A. Lecture-based assignments
   1. Take notes on safety lecture
B. Text reading
   1. Read Chapter One
C. Oral Assessments
   1. Explain current regulations Explain common types of Rough Terrain Variable Reach Lift trucks
D. Exams
Written Exams will be given regarding safe operation and regulations for operating lift trucks.

VIII. EVALUATION:
Methods/Frequency

A. Exams/Tests
   After each module.
B. Class Participation
   Weekly.
C. Class Work
   Weekly.
D. Class Performance
   Weekly.

IX. TYPICAL TEXTS:
2. Proprietary IVES Smart mark workbook. Materials will be provided by LiUNA! Laborers' Union

X. OTHER MATERIALS REQUIRED OF STUDENTS:
A. Safety Glasses
B. Safety Vests
C. Work Gloves
D. Sturdy non-slip steel toe shoes
Course Outline for APCL 115  
OSHA 30 HOUR NORCAL  
Effective: Fall 2023

I. CATALOG DESCRIPTION:  
APCL 115 — OSHA 30 HOUR NORCAL — 2.00 units

Introduce the student supervisors to the safety requirements and how to navigate through regulations set forth by the Federal Occupational Safety and Health Administration (OSHA), 29 CFR 1926 Construction Industry Standards, and 29 CFR 1910 General Standard, as they relate to the Construction Industry.

2.00 Units Lecture

Enrollment Limitation  
Admission to this course is limited to apprentices registered with the state of California Department of Apprenticeship Standards. Registered Apprentice with LIUNA! Northern California District Council of Laborers.

Grading Methods:  
Letter or P/NP

Discipline:  
• Transportation

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II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:  
Upon completion of this course, the student should be able to:

A. Describe job site safety applications  
B. Understand regulations pertaining general safety in health subpart C

V. CONTENT:  
A. OSHA Introduction  
B. General Safety and Health Subpart C  
C. Personal Protective Equipment Subpart E  
D. Material handling Subpart H  
E. Tools- Hand and Power Subpart I  
F. Electrical Sub part K  
G. Fall protection Subpart M  
H. Cranes, Derricks, Hoists, Elevator and Conveyors Subpart N  
I. Excavation Sub part P  
J. Stairways and ladders Subpart X

VI. METHODS OF INSTRUCTION:  
A. Lecture - Lecture on various topics  
B. Written Exercises - Substantial writing assignments are NOT required (less than 25% of grade).  
C. Discussion - Explain current regulations Explain common types of skid steer loader attachments.  
D. Written Exercises - Written Exams will be given regarding safe operation of skid steer loaders.

VII. TYPICAL ASSIGNMENTS:  
A. Lecture-based assignments  
1. Take notes on safety lecture  
B. Text reading  
1. Read Chapter One  
C. Oral Assessments  
1. Explain current regulations Explain common types of Rough Terrain Variable Reach Lift trucks  
D. Exams
1. Written Exams will be given regarding safe operation and regulations for operating lift trucks.

VIII. EVALUATION:
   Methods/Frequency
   A. Exams/Tests
      After each module.
   B. Class Participation
      Weekly.
   C. Class Work
      Weekly.
   D. Class Performance
      Weekly.

IX. TYPICAL TEXTS:
   2. Proprietary IVES Smart mark workbook. Materials will be provided by LiUNA! Laborers' Union

X. OTHER MATERIALS REQUIRED OF STUDENTS:
   A. Safety Glasses
   B. Safety Vests
   C. Work Gloves
   D. Sturdy non-slip steel toe shoes
Norcal Laborers Construction - A CA - Certificate of Achievement (16 to fewer than 60 semester units)

Fall 2023

Course Sequence

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<thead>
<tr>
<th>Required Core</th>
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<tr>
<td>APCL 102 Hazardous Waste Removal Initial</td>
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<tr>
<td>APCL 106 Skid Steer Loader Orientation Initial</td>
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<td>APCL 94 Work Experience - LiUNA Laborer's' Construction Apprenticeship</td>
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<td>APCL 100 Forklift Orientation Initial</td>
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<td>APCL 101 Fundamentals of Construction</td>
<td>4.5</td>
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<td>APCL 103 Safety Certification</td>
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<td>APCL 104 Aerial Work Platform Initial</td>
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<td>APCL 105 Rigging and Signaling</td>
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**Total Units** 34
## Course Sequence

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<td>APCL 94</td>
<td>Work Experience - LiUNA Laborer's' Construction Apprenticeship</td>
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<td>Forklift Orientation Initial</td>
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<td>Rigging and Signaling</td>
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<td>APCL 107</td>
<td>Concrete Techniques</td>
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<td>APCL 108</td>
<td>Asphalt Paving Techniques</td>
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## Total Units

**43.5**

PID 1152
## Norcal Laborers Traffic Control - A CA - Certificate of Achievement (16 to fewer than 60 semester units)
### Fall 2023

### Course Sequence

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<td>APCL 114</td>
<td>OSHA 10 Hour Norcal</td>
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<td>APCL 111</td>
<td>First Aid, CPR and AED</td>
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<td>APCL 112</td>
<td>Flagging Certification</td>
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<td>Traffic Control</td>
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<td>APCL 110</td>
<td>Confined Space Awareness</td>
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<td>APCL 94</td>
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### Total Units

27.5

PID 1150
LiUNA - APCL

Course – 100

SLO's: Upon completion of this course, student will be able to

Identify the main parts of Rough Terrain Lift trucks.

Perform pre-shift inspection and safe operation of Variable Reach Lift truck as determined by the instructor.
LiUNA - APCL
Course – 101

SLO’s: Upon completion of this course, student will be able to

Determine the proper tool(s) to use for a specified job.
Understand the OSHA Construction standards.
LiUNA - APCL

Course – 102

SLO's : Upon completion of this course, student will be able to

Identify and explain protective measures to be taken when dealing with hazardous waste.
Understand the purpose and general requirements of Hazardous Waste Standards.
LiUNA - APCL

Course – 103

SLO's: Upon completion of this course, student will be able to

Know general guidelines to safely operate equipment.
Identify, evaluate, and control health and safety hazards in the work place.
LiUNA - APCL

Course – 104

SLO's : Upon completion of this course, student will be able to

Safely operate and maneuver scissor-lifts and boom lifts.
Identify various types of Aerial Work Platforms.
LiUNA - APCL

Course – 105

SLO's: Upon completion of this course, student will be able to

Demonstrate the safety procedures of rigging and signaling.
Understand why standard hand signals must be used.
LiUNA - APCL

Course – 106

SLO's: Upon completion of this course, student will be able to

Demonstrate concrete construction techniques to industry standards.

Explain how weight distribution affects skid-steer loader stability and steering.
LiUNA - APCL

Course – 107

SLO’s: Upon completion of this course, student will be able to

Demonstrate concrete construction techniques to industry standards.

Understand the materials, processes, and safety related to concrete work.
LiUNA - APCL

Course – 108

SLO's: Upon completion of this course, student will be able to

Demonstrate proper use of tools and equipment needed when working with Asphalt.

Utilize proper skills to work with asphalt safely.
LiUNA - APCL

Course – 109

SLO's: Upon completion of this course, student will be able to

Demonstrate proper reading of blueprint legends.

Utilize proper skills to work with blueprint scaling.
LiUNA - APCL

Course – 110

SLO's: Upon completion of this course, student will be able to

Describe different types of Confined Spaces
Summarize regulations pertaining to confined spaces.
LiUNA - APCL

Course – 111

SLO's: Upon completion of this course, student will be able to

Summarize why to learn first aid
Perform Basic Life Support
LiUNA - APCL

Course – 112

SLO’s: Upon completion of this course, student will be able to

Summarize the requirements listed in the MUTCD Part 6E Flogger Control
Recognize different types of drivers
LiUNA - APCL

Course – 113

SLO’s: Upon completion of this course, student will be able to

Summarize the requirements listed in the MUTCD Part 6 Flagger Control
Recognize different types of drivers
LiUNA - APCL

Course – 114

SLO’s: Upon completion of this course, student will be able to

Summarize General Safety and Health requirements from Subpart C
Describe Personal Protective Equipment from Subpart E
LiUNA - APCL

Course – 115

SLO’s: Upon completion of this course, student will be able to

Summarize General Safety and Health requirements from Subpart C
Describe Personal Protective Equipment from Subpart E
PSLO's: Upon completion of this program, student will be able to

Discuss overview of CAL/OSHA regulations.

Explain the operating procedures for equipment safety

Discuss compliance issues with vehicle inspections
LIUNA - APCL

Program:

PSLO's: Upon completion of this program, student will be able to

Discuss overview of CAL/OSHA regulations.
Explain the operating procedures for equipment safety
Discuss compliance issues with vehicle inspections