CITY OF BERKELEY

DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

SPECIFICATIONS

FOR

MEASURE T1 STREET IMPROVEMENTS
ADELINE STREET, HEARST AVENUE & MILVIA STREET

SPECIFICATION NO. 19-11278-C
MARCH 2019

PRE-BID CONFERENCE: NONE
BID OPENING DATE: APRIL 18, 2019

1947 CENTER STREET, 4TH FLOOR, BERKELEY, CALIFORNIA 94704
(510) 981-6400
CITY OF BERKELEY
DEPARTMENT OF PUBLIC WORKS
SPECIFICATIONS
FOR
MEASURE T1 STREET IMPROVEMENTS
ADELINE STREET, HEARST AVENUE & MILVIA STREET
SPECIFICATION NO. 19-11278-C

Civil specs. prepared under the direction of:

Joe Enke, P.E.
Supervising Civil Engineer

3-20-19

and Striping Plans prepared under the direction of:

Farid Javandel, P.E.
Transportation Manager

3-19-19

Reviewed By:

Nisha Patel, P.E.
City Engineer

3-21-19

Engineering Division
1947 Center Street, 4th Floor
Berkeley, California 94704
Project Manager: Srinivas Muktevi
NOTICE TO BIDDERS

1. Sealed bids will be received by the Finance Department – General Services Division in their office, 2180 Milvia Street, 3rd Floor, Berkeley, California up to the hour of:

   2:00 P.M., Thursday, April 18, 2019.

At which time bids will be publicly opened and read by the General Services Manager for MEASURE T1 STREET IMPROVEMENTS, ADELINE STREET, HEARST AVENUE & MILVIA STREET provided for in the plans and specifications. Proposals must be submitted, on forms prepared for this purpose furnished by the City, in an envelope marked MEASURE T1 STREET IMPROVEMENTS, ADELINE STREET, HEARST AVENUE & MILVIA STREET, SPECIFICATION NO. 19-11278-C.

Pre-Award Conference: The apparent low bidder will be invited to a pre-award conference tentatively scheduled for 2:00 P.M., Thursday, May 14, 2019, at 1947 Center Street, 4th Floor, Berkeley, CA.

2. Scope of Work: The work done under these specifications includes but is not limited to: traffic control, adjustment of valve boxes and utility boxes, frames, and covers, protection and relocation of underground utility services (e.g. gas, water, sewer, electrical, telecom), concrete curbs and gutters, sidewalk, curb ramps, driveways, cross drains at curb ramps, storm drain pipe replacement, storm drain inlets, base failure repairs, pavement milling, removal and disposal of pavement surfaces and base materials, subgrade preparation, stabilization and compaction, aggregate base course, hot-mix asphalt (HMA) paving, Rubberized HMA, Full Depth Reclamation (FDR) and pavement markings, striping, and markers as specified.

3. California Contractor License Classification required: A - General Engineering

4. Location: The work is located on Adeline Street, Milvia Street & Hearst Avenue. See the vicinity maps included in the plan set. The exact limits of work are shown on the project plans.

5. Project plans and specifications may be obtained online at the City of Berkeley’s Public Works website under Current Construction Project Bid Opportunities: https://www.cityofberkeley.info/Public_Works/Bids_-_Contracts/Current_Construction_Project_Bid_Opportunities.aspx
Bidders are responsible for notifying Srinivas Muktevi, Associate Civil Engineer by email at smuktevi@cityofberkeley.info to be included on the Planholders List.

6. It is the Contractor’s responsibility to check for any addenda on the City of Berkeley’s website https://www.cityofberkeley.info/Public_Works/Bids_-_Contracts/Current_Construction_Project_Bid_Opportunities.aspx

7. No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations.
pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].

No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

8. Each proposal must be accompanied by an unconditionally certified or cashier's check or bid bond made payable to the City of Berkeley, and such check or bond shall be in an amount equal to at least 10% of the amount of the bid.

9. Pursuant to City Council Resolution No. 59,853-N.S., each proposal must include a signed copy of the Oppressive States Resolution Disclosure Form regarding the Contractor’s relationships with certain entities in the Oppressive States.

10. Each proposal must include a signed copy of the Nuclear Free Zone Disclosure Form.

11. Each proposal must include a signed copy of the Equal Benefits Ordinance Disclosure Form.

12. This contract will be subject to the Community Workforce Agreement approved by the Berkeley City Council on January 23, 2018. The successful bidder and all subcontractors, at any tier, will be required to sign an Agreement to be Bound as a condition precedent to entering into any contract for this project.

13. Prior to starting work, the Contractor must furnish the following:

   a. Faithful Performance Bond in an amount not less than 100% of the amount of the contract, executed on the City of Berkeley Standard Performance Bond agreement form.

   b. Labor and Material Bond in the sum of not less than 100% of the amount of the contract.

   c. A certificate of Worker's Compensation Insurance with a waiver of subrogation in favor of the City of Berkeley.

   d. Commercial general liability insurance coverage is $2 million each occurrence Bodily Injury and $2 million each occurrence Property Damage, with defense costs payable in addition to policy limits.

   e. Automobile liability insurance is $2 million each occurrence Bodily Injury and $2 million each occurrence Property Damage.
f. Insurance policies shall contain an endorsement naming the City, their employees, representatives, and agents as additional insureds, but only with respect to liability arising out of the activities of the named insured.

g. The policies shall apply separately to each insured against whom claim is made, or suit is brought except with respect to the limits of the company's liability.

h. Written notice of cancellation or any limits reduction or change in said policy shall be mailed to the City and the Project Manager thirty (30) days in advance of the effective date thereof. Insurance policies shall contain a Notice of Cancellation endorsement.

i. Contractor's insurance shall be primary insurance and no other insurance or self-insured retention carried or held by City shall be called upon to contribute to a loss covered by insurance for the named insured.

14. In accordance with California State Labor Code, the wage scale is on file with the Engineering Office or is attached herewith.

15. Award will be made by the City Council at a meeting within 75 days subsequent to the date set for bid opening. The Council reserves the right to reject any or all bids or any combination of bids.

16. General information or plan holder’s list: (510) 981-6400. Questions concerning the anticipated work or scope of the project should be directed to Srinivas Muktevi, Associate Civil Engineer, by email at smuktevi@cityofberkeley.info, no later than 10:00 A.M., April 09, 2019.

General Services Manager
BIDDER'S PROPOSAL

Bidders submitting proposals shall be very careful to follow all requirements in connection therewith. A checklist has been attached for guidance in complying with all phases of the bid process and project. Any proposal not complying with all these requirements may be rejected.

TO THE HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL

Pursuant to the provisions of the plans, specifications and contract documents, the undersigned proposed to perform the work as described therein a manner satisfactory to the responsible City official. All material, equipment, tools, labor, and services necessary to the work will be furnished. All laws and ordinances relating to the work will be complied with, and a business license to do business in the City will be obtained. The undersigned declares that the plans, specifications, contract documents and the site of the work have been thoroughly examined and that this proposal is made without collusion with any person, firm, or corporation.

Execution of the proposal by the undersigned bidder shall become a binding contract on the parties when the award of a contract pursuant to the said proposal is authorized by resolution of the City Council, where required by the Charter of the City by the City Manager, or an officer who is his/her authorized representative.

The undersigned agrees that when his proposal is executed he will furnish specified bonds and insurance, and he will begin work within the time specified, and complete work within the contract period or agree to the assessment of liquidated damages, all as stipulated in the attached pages of the Bidder's Proposal.

As a guaranty that the terms of this proposal will be complied with, the undersigned submits herewith a proposal guaranty for an amount equal to at least Ten Percent (10%) of his total bid.

All subcontractors who will perform work for the bidder on this project in the amount in excess of one-half of one percent (0.5%) of the total bid, including labor, materials, and equipment, or work specifically fabricated off the job site according to detailed drawings contained in the plans, shall be listed, pursuant to Sections 4100 to 4113, inclusive of the California Government Code.
BIDDER'S PROPOSAL (continued)

<table>
<thead>
<tr>
<th>Name of Subcontractor and address:</th>
<th>Subcontractor License No.</th>
<th>Type of Work</th>
<th>$ Amount</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

Contractor’s California License Number: ______________________

License Expiration Date: ______________________

I declare that representations made in this bid are under penalty of perjury.

_________________________  ____________________________  
Signature                    Title
<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description*</th>
<th>Estimated Quantity</th>
<th>Unit</th>
<th>Unit Cost</th>
<th>Total Cost</th>
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<tbody>
<tr>
<td>1.</td>
<td>Mobilization</td>
<td>1</td>
<td>LS</td>
<td>$</td>
<td>$</td>
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<tr>
<td>2.</td>
<td>Clearing, Grubbing, Tree Protection And Root Pruning</td>
<td>1</td>
<td>LS</td>
<td>$</td>
<td>$</td>
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<td>3.</td>
<td>Tree Removal (6-12&quot; Diameter)</td>
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<td>4.</td>
<td>Storm water Pollution Controls</td>
<td>1</td>
<td>LS</td>
<td>$</td>
<td>$</td>
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<tr>
<td>5.</td>
<td>Traffic Control</td>
<td>1</td>
<td>LS</td>
<td>$</td>
<td>$</td>
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<td>6.</td>
<td>Construction Area Signs</td>
<td>1</td>
<td>LS</td>
<td>$</td>
<td>$</td>
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<tr>
<td>7.</td>
<td>Changeable Message Boards</td>
<td>4</td>
<td>EA</td>
<td>$</td>
<td>$</td>
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<tr>
<td>8.</td>
<td>Potholing</td>
<td>1</td>
<td>LS</td>
<td>$</td>
<td>$</td>
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<tr>
<td>9.</td>
<td>Remove &amp; Replace Concrete Barrier Curb</td>
<td>1</td>
<td>LS</td>
<td>$</td>
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<tr>
<td>10.</td>
<td>Remove &amp; Replace Standard Vertical Curb</td>
<td>160</td>
<td>LF</td>
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<td>11.</td>
<td>Remove &amp; Replace Concrete Sidewalk</td>
<td>29,517</td>
<td>SF</td>
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<tr>
<td>12.</td>
<td>Remove &amp; Replace Standard Curb &amp; Gutter – 0.5 foot Wide</td>
<td>260</td>
<td>LF</td>
<td>$</td>
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<td>13.</td>
<td>Remove &amp; Replace Standard Curb &amp; Gutter – 1.5 feet Wide</td>
<td>1425</td>
<td>LF</td>
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<td>14.</td>
<td>Remove &amp; Replace Standard Curb &amp; Gutter – 2 feet Wide</td>
<td>140</td>
<td>LF</td>
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<td>15.</td>
<td>Remove &amp; Replace Driveway- Residential</td>
<td>2175</td>
<td>SF</td>
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<td>16.</td>
<td>Remove &amp; Replace Driveway- Commercial</td>
<td>3,555</td>
<td>SF</td>
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<tr>
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<td>Description</td>
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<td>17.</td>
<td>Remove &amp; Replace Concrete Curb Ramp</td>
<td>34</td>
<td>EA</td>
<td>$</td>
<td>$</td>
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<td>18.</td>
<td>Remove Concrete in Planter and Backfill with Top soil, Mulch</td>
<td>4,100</td>
<td>SF</td>
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<td>19.</td>
<td>Install Root Barrier</td>
<td>2</td>
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<td>20.</td>
<td>Pulverize 7” and Grade</td>
<td>10,965</td>
<td>SY</td>
<td>$</td>
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<td>21.</td>
<td>Roadway Excavation</td>
<td>627</td>
<td>CY</td>
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<td>$</td>
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<td>22.</td>
<td>Cold Milling Asphalt Pavement (2 to 2.5-inch Depth)</td>
<td>24,142</td>
<td>SY</td>
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<td>23.</td>
<td>Keycut A (2”)</td>
<td>5,160</td>
<td>LF</td>
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<td>$</td>
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<tr>
<td>24.</td>
<td>**Furnish &amp; Install Hot Mix Asphalt (Revocable Item)</td>
<td>100</td>
<td>TON</td>
<td>$</td>
<td>$</td>
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<tr>
<td>25.</td>
<td>3/8” Rubberized Hot Mix Asphalt (2 to 2.5-inch Depth)</td>
<td>4,571</td>
<td>TON</td>
<td>$</td>
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<td>26.</td>
<td>Foamed Cement Treatment-5”</td>
<td>10,965</td>
<td>SY</td>
<td>$</td>
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<td>27.</td>
<td>**Full Depth Base Repair (Revocable Item)</td>
<td>300</td>
<td>SY</td>
<td>$</td>
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<td>28.</td>
<td>**Subgrade Over-Excavation (Revocable Item)</td>
<td>548</td>
<td>SY</td>
<td>$</td>
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<tr>
<td>29.</td>
<td>Furnish &amp; Install 26” Wide Glasgrid Over Cross Drain</td>
<td>185</td>
<td>LF</td>
<td>$</td>
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<tr>
<td>30.</td>
<td>Remove Cross Drain Under Sidewalk / Curb Ramp</td>
<td>100</td>
<td>LF</td>
<td>$</td>
<td>$</td>
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<td>31.</td>
<td>Remove &amp; Replace Cross Drain Under Sidewalk / Curb Ramp</td>
<td>270</td>
<td>LF</td>
<td>$</td>
<td>$</td>
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<tr>
<td>32.</td>
<td>Remove &amp; Replace Cross Drain Under Street</td>
<td>225</td>
<td>LF</td>
<td>$</td>
<td>$</td>
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<td>33.</td>
<td>Remove &amp; Replace Cross Drain Junction Box in Sidewalk</td>
<td>2</td>
<td>EA</td>
<td>$</td>
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</table>
### BIDDER'S PROPOSAL

#### (continued)

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Unit</th>
<th>Quantity</th>
<th>Rate</th>
<th>Amount</th>
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<td>34.</td>
<td>Remove &amp; Replace Cross Drain Junction Box in Street</td>
<td>EA</td>
<td>5</td>
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<td>35.</td>
<td>Remove &amp; Replace Sidewalk Under Drain</td>
<td>LF</td>
<td>40</td>
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<td>36.</td>
<td>Adjust Storm Drain Manhole Frame &amp; Cover</td>
<td>EA</td>
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<td>37.</td>
<td>Adjust Sewer Manhole Frame &amp; Cover</td>
<td>EA</td>
<td>10</td>
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<td>38.</td>
<td><strong>Adjust Utility Manhole Frame &amp; Cover (Revocable Item)</strong></td>
<td>EA</td>
<td>12</td>
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<td>39.</td>
<td><strong>Adjust Gas Valve Frame &amp; Cover (Revocable Item)</strong></td>
<td>EA</td>
<td>4</td>
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<td>40.</td>
<td>Adjust Sewer Cleanout Frame &amp; Cover</td>
<td>EA</td>
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<td>41.</td>
<td>Adjust Survey Monument Frame &amp; Cover</td>
<td>EA</td>
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<td>42.</td>
<td><strong>Install Water Valve Box (Revocable Item)</strong></td>
<td>EA</td>
<td>28</td>
<td>$</td>
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<td>43.</td>
<td>Replace Survey Monument</td>
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<td>7</td>
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<td>44.</td>
<td>Not Used</td>
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<td>45.</td>
<td>Construction Staking</td>
<td>LS</td>
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<tr>
<td>46.</td>
<td>Painted Curb</td>
<td>LF</td>
<td>1320</td>
<td>$</td>
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<td>47.</td>
<td>Armadillo Buffer Treatment</td>
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<td>48.</td>
<td>Flexible Delineator (K71 Bollards)</td>
<td>EA</td>
<td>102</td>
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<td>49.</td>
<td>Circular Planters</td>
<td>EA</td>
<td>2</td>
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<td>50.</td>
<td>Relocate &amp; Re-Install Concrete Planters</td>
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<td>4</td>
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<td>51.</td>
<td>Pavement Markers (Type C)</td>
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<td>52.</td>
<td>Install Sign and Post</td>
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<td>24</td>
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<tr>
<td>53.</td>
<td>Install Sign on Post / Signal Pole</td>
<td>EA</td>
<td>20</td>
<td>$</td>
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### BIDDER'S PROPOSAL

<table>
<thead>
<tr>
<th>Bid Item</th>
<th>Quantity</th>
<th>Unit</th>
<th>$</th>
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<tr>
<td>Transit Island Concrete</td>
<td>2,310 SF</td>
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<td>Drainage Culvert</td>
<td>4</td>
<td>EA</td>
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<td>Detectable Warning Surface</td>
<td>500 SF</td>
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<tr>
<td>In-Lane Detector Loops (Type A &amp; Type D)</td>
<td>26 EA</td>
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<tr>
<td>Traffic Striping (Detail 9)</td>
<td>2,710 LF</td>
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<td>Traffic Striping (Detail 21)</td>
<td>585 LF</td>
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<td>Traffic Striping (Detail 22)</td>
<td>950 LF</td>
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<tr>
<td>Traffic Striping (Detail 38A)</td>
<td>500 LF</td>
<td></td>
<td>$</td>
<td>$</td>
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<tr>
<td>Traffic Striping (Detail 39)</td>
<td>9,080 LF</td>
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<td>Traffic Striping (Detail 39A)</td>
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<td>Traffic Striping (8&quot; White Stripe)</td>
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<td>Traffic Striping (12&quot; White Stripe)</td>
<td>2,250 LF</td>
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<td>Traffic Striping (12&quot; Yellow Stripe)</td>
<td>957 LF</td>
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<td>Traffic Striping (Detail 41)</td>
<td>35 LF</td>
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<td>Parking Bay Striping</td>
<td>378 LF</td>
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<td>High Visibility Crosswalk Markings</td>
<td>2,700 SF</td>
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<td>Pavement Markings</td>
<td>3,372 SF</td>
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<td>Khaki-Colored Pavement Marking</td>
<td>1,200 SF</td>
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<td>Green Pavement Marking</td>
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<tr>
<td>Supplemental Work</td>
<td>1 LS</td>
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<td>$150,000</td>
<td>$150,000</td>
</tr>
</tbody>
</table>

The following Bid Item “Supplemental Work” is an addition to the Project’s scope of work. This additional work may or may not be authorized to be performed by the Contractor as part of this Contract. The additional work is located on streets throughout the City of Berkeley and may be outside the limits of streets scheduled for rehabilitation.
TOTAL COST OF BID IN WORDS AND FIGURES: ____________________________Dollars and ____ Cents/
($_________________________).  

Notes:
* Refer to Project Plans and/or Description of Bid Items section in Special Provisions section of specifications for description of work included in bid items.

** Bid Items 24, 27, 28, 38, 39 and 42 are revocable bid items. The City reserves the right to delete these bid items prior to award of contract or during construction at its own discretion. No compensation will be allowed the Contractor by reason of such omission.
The undersigned bidder agrees to accept payment in full for the work at the price set forth above in accordance with provisions of the specifications and agrees to start within Fifteen (15) WORKING days following issuance of the Notice to Proceed and to complete all work specified in the contract documents in accordance with the plans and specifications within One Hundred (100) WORKING days. The Notice to Proceed will be issued when the contract is fully executed. The contract construction time is inclusive of the time for delivery of materials. By execution of this contract, the City and the Bidder do hereby agree that the value of damage associated with the delay of the work is difficult to ascertain. Therefore the Bidder agrees further to the assessment of liquidated damages in the amount of Two Thousand Dollars ($2,000.00) for each working day that the construction work remains incomplete beyond the above construction time. The term of the contract is One Hundred and Twenty (120) WORKING days which includes an additional Twenty (20) WORKING days for project closeout beyond the above construction time.

Company __________________________ Address __________________________

By __________________________ Phone () __________________________

Title __________________________ Taxpayer I.D. No. __________ Date __________________________

Corporation Yes [ ] No [ ]

(The following spaces to be used by the City)

Pursuant to City of Berkeley Council Resolution No. __________ N.S. adopted on __________, the City of Berkeley agrees to pay __________________________ the prices set forth above for the Total Bid Items in the amount of __________________________ ($ __________________________), in accordance with the terms and conditions set forth in Specification No. 19-11278-C. The contractor shall complete all work specified in the contract documents in accordance with the plans and specifications within one hundred and Twenty (120) working days from the date established in the Notice to Proceed.

CITY OF BERKELEY

Dated: __________ By: __________________________

City Manager

Registered By: __________________________

Auditor

Attested By: __________________________

City Clerk
BIDDERS AND CONTRACTORS CHECKLIST

Items Required at Bid opening: 2:00 P.M, Thursday, April 18, 2019, at Finance Department – General Services Division, 2180 Milvia Street, 3rd Floor, Berkeley, California
☑ Bidder's Proposals (One Full Set of Originals and 2 Additional Original Signature Pages)
☑ Addenda (if any)
☑ Experience and Financial Qualifications
☑ Taxpayer Identification Report
☑ Oppressive States Resolution Disclosure Form
☑ Nuclear Free Zone Disclosure Form
☑ Equal Benefits Ordinance Disclosure Form
☑ Bid Guarantee - 10% of Total Base Bid

Items Required at Pre-Award Conference: 2:00 P.M., Tuesday, May 14, 2019, at 1947 Center Street, 4th Floor, Berkeley, California
☑ Memorandum of Understanding
☑ Agreement for Change in Sub-Contractors
☑ Work Force Composition
☑ Certificate of Compliance with Equal Benefits Ordinance (Form EBO-1)
☑ Community Workforce Agreement– Agreements to be Bound and Hiring Plans

Items Required After Contract Award and Prior to Construction:
☑ City of Berkeley Business License
☑ Work Schedule
☑ Worker's Compensation Insurance - Statutory Amount
☑ Liability Insurance - $2,000,000
☑ Performance Bond - 100% (executed on enclosed Performance Bond form)
☑ Labor and Material Bond- 100%
☑ Commercial General and Automobile Liability Endorsement form
☑ Submittals required at preconstruction meeting
☑ Right to Audit Form

Items Required During Construction:
☑ Work Schedule Updates
☑ Weekly Payroll Statement (Fed Form WH-347 or equivalent)
☑ Community Workforce Agreement – Agreements to be Bound and Hiring Plans for any subcontractors added to project
☑ Correspondence with unions and minority/female organizations

Items Required Upon Completion of Project:
☑ Guarantee Bond - 10%
☑ As-Built Drawings
EXPERIENCE AND FINANCIAL QUALIFICATIONS

The bidder has been engaged in the contracting business under State License Number ______________ for a period of _______________ years.

The bidder's three most recently completed contracts are:

<table>
<thead>
<tr>
<th>Title of Project</th>
<th>I</th>
<th>II</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner</td>
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<tr>
<td>Address</td>
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<tr>
<td>Telephone No.</td>
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<td>Engineer in Charge</td>
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<tr>
<td>Date Accepted</td>
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Reference is hereby made to the following Bank or Banks as to the financial responsibility of the bidder:

Name of Bank __________________________ Address __________________________
                                        __________________________

Reference is hereby made to the following Surety Companies as to the financial responsibility and general reliability of the bidder:

Company __________________________ Address __________________________
                                       __________________________

________________________________________
Signature of Bidder
TAXPAYER IDENTIFICATION REPORT

COMPANY NAME

________________________________________________________________________

________________________________________________________________________

MAILING ADDRESS

________________________________________________________________________

________________________________________________________________________

SOCIAL SECURITY NUMBER: ________________________________

OR

EMPLOYER IDENTIFICATION NUMBER: ________________________________

My Company is a Corporation [ ]

My Company is not a Corporation [ ]

I certify that the above information is true and correct:

_________________________________________  ______________________________
Name                                                                 Title

The Tax Equity and Fiscal Responsibility Act of 1982 (Public Law 97-248) requires the above reporting information be furnished to the City.

Persons who do not furnish their tax information numbers become subject to backup withholding by the City at a rate of 20% from each disbursement made to the recipient.
I (we) certify that:

1. I am (we are) fully cognizant of any and all contracts held, products made or otherwise handled by this business entity, and of any such that are anticipated to be entered into, produced or handled for the duration of its contract(s) with the City of Berkeley. (To this end, more than one individual may sign this disclosure form, if a description of which type of contracts each individual is cognizant is attached.)

2. I (we) understand that Section 12.90.070 of the Nuclear Free Berkeley Act (Berkeley Municipal Code Ch. 12.90; Ordinance No. 5784-N.S.) prohibits the City of Berkeley from contracting with any person or business that knowingly engages in work for nuclear weapons.

3. I (we) understand the meaning of the following terms as set forth in Berkeley Municipal Code Section 12.90.130:

"Work for nuclear weapons" is any work the purpose of which is the development, testing, production, maintenance or storage of nuclear weapons or the components of nuclear weapons; or any secret or classified research or evaluation of nuclear weapons; or any operation, management or administration of such work.

"Nuclear weapon" is any device, the intended explosion of which results from the energy released by reactions involving atomic nuclei, either fission or fusion or both. This definition of nuclear weapons includes the means of transporting, guiding, propelling or triggering the weapon if and only if such means is destroyed or rendered useless in the normal propelling, triggering, or detonation of the weapon.

"Component of a nuclear weapon" is any device, radioactive or non-radioactive, the primary intended function of which is to contribute to the operation of a nuclear weapon (or be a part of a nuclear weapon).

4. Neither this business entity nor its parent nor any of its subsidiaries engages in work for nuclear weapons or anticipates entering into such work for the duration of its contract(s) with the City of Berkeley.

Based on the foregoing, the undersigned declares under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Printed Name: ________________________________
Title: ________________________________

Signature: ________________________________
Date: ________________________________

Business Entity: ________________________________
Contract Description/Specification No: Measure T1 Adeline Street, Hearst Avenue & Milvia Street Improvement Project / 19-11278-C
CITY OF BERKELEY

OPPRESSIVE STATES COMPLIANCE STATEMENT FOR PERSONAL SERVICES

The undersigned, an authorized agent of ____________________________________________ (hereafter "Vendor"), has had an opportunity to review the requirements of Berkeley City Council Resolution No. 59,853-N.S. (hereafter "Resolution"). Vendor understands and agrees that the City may choose with whom it will maintain business relations and may refrain from contracting with those Business Entities which maintain business relationships with morally repugnant regimes. Vendor understands the meaning of the following terms used in the Resolution:

"Business Entity" means "any individual, firm, partnership, corporation, association or any other commercial organization, including parent-entities and wholly-owned subsidiaries" (to the extent that their operations are related to the purpose of the contract with the City).

"Oppressive State" means:
Tibet Autonomous Region and the Provinces of Ado, Kham, and U-Tsang,

“Personal Services” means “the performance of any work or labor and shall also include acting as an independent contractor or providing any consulting advice or assistance, or otherwise acting as an agent pursuant to a contractual relationship.”

Contractor understands that it is not eligible to receive or retain a City contract if at the time the contract is executed, or at any time during the term of the contract it provides Personal Services to:

a. The governing regime in any Oppressive State.
b. Any business or corporation organized under the authority of the governing regime of any Oppressive State.
c. Any person for the express purpose of assisting in business operations or trading with any public or private entity located in any Oppressive State.

Vendor further understands and agrees that Vendor's failure to comply with the Resolution shall constitute a default of the contract and the City Manager may terminate the contract and bar Vendor from bidding on future contracts with the City for five (5) years from the effective date of the contract termination.

The undersigned is familiar with, or has made a reasonable effort to become familiar with, Vendor's business structure and the geographic extent of its operations. By executing the Statement, Vendor certifies that it complies with the requirements of the Resolution and that if at any time during the term of the contract it ceases to comply, Vendor will promptly notify the City Manager in writing.
Based on the foregoing, the undersigned declares under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Printed Name: __________________________   Title: __________________________

Signature: _______________________________   Date: _____________

Business Entity: ___________________________________________________________________

I am unable to execute this Statement; however, Vendor is exempt under Section VII of the Resolution. I have attached a separate statement explaining the reason(s) Vendor cannot comply and the basis for any requested exemption.

Signature: _______________________________   Date: _____________

Contract Description/Specification No. Measure T1 Adeline Street, Hearst Avenue & Milvia Street Improvement Project / 19-11278-C
CITY OF BERKELEY

MEMORANDUM OF UNDERSTANDING (MOU)

1. In the performance of this contract the Contractor (and all Sub-contractors) agree not to discriminate pursuant to Section 13.26 of the Berkeley Municipal Code.

2. In the performance of this contract the Contractor agrees that he/she is also responsible for his/her Sub-Contractors’ Compliance with Section 13.26 of the Berkeley Municipal Code.

3. For contracts that are not governed by a Community Workforce Agreement, the Contractor agrees to comply with Section 13.26 of the Municipal Code as it applies to the First Source Program (see Section 13.26.080).

The Contractor agrees to submit periodic employment and wage reports to the City's Contract Compliance Officer upon reasonable request.

________________________________  ___________________________________
Contractor       City Engineer or designee

_______________________________  _________________________________
Date       Date
AGREEMENT FOR CHANGE IN SUB-CONTRACTORS

I agree to use the Subcontractor(s) listed in the signed contract with the City of Berkeley. If it should become necessary to change Subcontractors, I will notify the Public Works Engineering Division by completing the following information:

<table>
<thead>
<tr>
<th>Current Subcontractor(s)</th>
<th>Alternate Subcontractors</th>
<th>Reason for Change</th>
<th>Date</th>
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Signed by: _________________________  Verified by: _________________________

Prime Contractor  Subcontractor  City of Berkeley City Engineer or designee

Date: ________________  Date: ________________  Date: ________________
WORKFORCE COMPOSITION FORM FOR ALL CONSTRUCTION CONTRACTS

This form is to be completed and submitted prior to the Non-Discrimination Conference. The Contractor and all Subcontractors who will do work valued at $3,000 or more are required to submit this form. Weekly payroll reports will be compared to this listing to monitor compliance with the City of Berkeley Municipal Code Section 13.26. A payroll printout or other listing of employees providing the same information will be accepted.

Name of Contractor/Subcontractor: _______________________________________________________

Project: ___________________________________________________________________________

<table>
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<tr>
<th>Name</th>
<th>Race*</th>
<th>Sex**</th>
<th>Trade/Craft</th>
<th>Basic Hourly Rate</th>
<th>Hire Date</th>
<th>Employees to be used on this job</th>
</tr>
</thead>
</table>

* A=Asian or Pacific Islander  **M = Male
AI=American Indian  **F = Female
B=Afro American
C=Caucasian
H=Hispanic (Mexican, Puerto Rican, Spanish, Cuban, Chicano, Central or South American)  

Signature of Contractor/Subcontractor ___________________________ Date ____________

Verified By: _________________________________________________
City of Berkeley-City Engineer or designee
OCCUPATIONAL CATEGORIES

Officials and Administrators: Occupations in which employees set broad policies, exercise overall responsibility for execution of these policies, or provide specialized consultation on a regional, district or area basis. Includes: department heads, bureau chiefs, division chiefs, directors, deputy superintendents, unit supervisors and kindred workers.

Professionals: Occupations which require specialized and theoretical knowledge which is usually acquired through college training or through work experience and other training which provides comparable knowledge. Includes: personnel and labor relations workers, social workers, doctors, psychologists, registered nurses, economists, dietitians, lawyers, systems analysts, accountants, engineers, employment and vocational rehabilitation counselors, teachers or instructors, and kindred workers.

Technicians: Occupations which require a combination of basic scientific or technical knowledge and manual skill which can be obtained through specialized post-secondary school education or through equivalent on-the-job training. Includes: computer programmers and operators, technical illustrators, highway technicians, technicians (medical, dental, electronic, physical sciences) and kindred workers.

Protective Service Workers: Occupations in which workers are entrusted with public safety, security and protection from destructive forces. Includes: Police officers, fire fighters, guards, sheriffs, bailiffs, correctional officers, detectives, marshals, harbor patrol officers and kindred workers.

Paraprofessionals: Occupations in which workers perform some of the duties of a professional or technician in a supportive role, which usually requires less formal training and/or experience normally required for professional or technical status. Such positions may fall within an identified pattern of a staff development and promotion under a "New Careers" concept. Includes: library assistants, research assistants, medical aides, child support workers, police auxiliary, welfare service aides, recreation assistants, homemaker aides, home health aides, and kindred workers.

Office and Clerical: Occupations in which workers are responsible for internal and external communication, recording and retrieval of data and/or information and other paperwork required in an office. Includes: bookkeepers, messengers, office machine operators, clerk-typists, stenographers, court transcribers, hearings reporters, statistical clerks, dispatchers, license distributors, payroll clerks, and kindred workers.

Skilled Craft Workers: Occupations in which workers perform jobs which require special manual skill and a thorough and comprehensive knowledge of the processes involved in the work which is acquired through on-the-job training and experience or through apprenticeship or other formal training programs. Includes: mechanics and repairpersons, electricians, heavy equipment operators, stationary engineers, skilled machining occupations, carpenters, compositors and typesetters, and kindred workers.

Service/Maintenance: Occupations in which workers perform duties which result in or contribute to the comfort, convenience, hygiene or safety of the general public or which contribute to the upkeep and care of buildings, facilities or grounds of public property. Workers in this group may operate machinery. Includes: chauffeurs, laundry and dry cleaning operatives, truck drivers, bus drivers, garage laborers, custodial personnel, gardeners and groundskeepers, refuse collectors, and construction laborers.
NOTICE REGARDING THE EQUAL BENEFITS ORDINANCE

As a condition of being awarded a contract with the City of Berkeley, the selected Contractor shall be required, during the performance of the agreement, to comply with the City’s non-discrimination provisions of the Equal Benefits Ordinance (EBO) as set forth in Berkeley Municipal Code, Chapter 13.29.

The EBO requires that during the performance of a contract, the Contractor shall provide equal benefits to its employees with spouses and employees with domestic partners.

The EBO is applicable to the following employers:

- For-profit employers that have a contract with the City for the purchase of goods, services, public works or improvements, and other construction projects in the amount of $25,000 or more
- Non-profit employers that have a contract with the City for the purchase of goods, services, public works or improvements, and other construction projects in the amount of $100,000 or more
- Lessees of public property, licensees, concessionaires, and franchises that generate $350,000 or more in annual gross receipts
- Entities which receive a grant agreement of $100,000 or more

Contractors who are subject to the EBO must certify to the City that they are in compliance with the EBO and post this notice in a conspicuous place where all employees can see it. Subject contractors must also allow authorized City representatives access to records so the City can verify compliance with the Ordinance.

Compliance with the EBO

If a Contractor has not received a waiver from complying with the EBO and the timeframe within which it can delay implementation has expired but it has failed to comply with the EBO, the Contractor may be deemed to be in material breach of the City agreement. In such cases, the City may cancel, terminate or suspend the City agreement, in whole or in part. The City also may deem the Contractor an irresponsible bidder and disqualify the Contractor from contracting with the City for a period of five years. In addition, the City may assess liquidated damages against the Contractor which may be deducted from money otherwise due the Contractor, and pursue any other remedies available at law or in equity.

Violations

Any suspected violations of the EBO should be reported to:

EBO Compliance Officer
City Manager’s Office
2180 Milvia St
Berkeley, CA 94704
510-981-7000
EQUAL BENEFITS ORDINANCE DISCLOSURE FORM

As a condition of being awarded a contract with the City of Berkeley, the selected Contractor/Vendor ("Contractor") may be required, during the performance of the contract, to comply with the City’s non-discrimination provisions of the Equal Benefits Ordinance ("EBO") as set forth in Berkeley Municipal Code, Chapter 13.29. The EBO requires that during the performance of a contract, the Contractor shall provide equal benefits to its employees with spouses and employees with domestic partners. Benefits include, but are not limited to, health benefits, bereavement leave, family medical leaves, membership and membership discounts, moving expenses, retirement benefits, and travel benefits. A cash equivalent payment is permitted if an employer has taken all reasonable efforts to provide domestic partner’s with access to benefits but is unable to do so. A situation in which a cash equivalent payment might be used is if the employer has difficulty finding an insurance provider that is willing to provide domestic partner benefits.

The EBO is applicable to the following employers:

- For-profit employers that have a contract with the City for the purchase of goods, services, public works or improvements, and other construction projects in the amount of $25,000 or more
- Non-profit employers that have a contract with the City for the purchase of goods, services, public works or improvements, and other construction projects in the amount of $100,000 or more
- Lessees of public property, licensees, concessionaires, and franchises that generate $350,000 or more in annual gross receipts
- Entities which receive a grant agreement of $100,000 or more

Contractors who are subject to the EBO must certify to the City before execution of the contract by completing form EBO-1 that they are in compliance with the EBO or have been issued a waiver by the City. Contractors must also allow authorized City representatives access to records so the City can verify compliance with the Ordinance.

The EBO includes provisions that address difficulties associated with implementing procedures to comply with the EBO. Contractors can delay implementation of procedures to comply with the EBO in the following situations:

(1) until the first effective date after the first open enrollment process following the contract execution date, not to exceed two years if the Contractor submits evidence of engaging in reasonable efforts to comply with the EBO;
(2) until administrative steps can be taken to incorporate nondiscrimination in benefits in the contractor’s infrastructure, not to exceed three months, unless extended at the discretion of the City Manager; and
(3) until the expiration of a Contractor’s current collective bargaining agreement(s)

Compliance with the EBO
If a Contractor has not received a waiver from complying with the EBO and the timeframe within which it can delay implementation has expired but it has failed to comply with the EBO, the Contractor may be deemed to be in material breach of the City agreement. In the event of a material breach, the City may cancel, terminate or suspend the City agreement, in whole or in part. The City also may deem the Contractor an irresponsible bidder and disqualify the Contractor from contracting with the City for a period of five years. In addition, the City may assess liquidated damages against the Contractor which may be deducted from money otherwise due the Contractor, and pursue any other remedies available at law or in equity.

By my signature below, I acknowledge that the Contractor understands that to the extent it is subject to the provisions of B.M.C. Chapter 13.29, the Contractor shall comply with this provision.

Printed Name:_________________________________________ Title:_________________________________________

Signature:_________________________________________ Date:_________________________________________

Business Entity:
________________________________________________________________________________________

Contract Description/Specification No: Measure T1 Adeline Street, Hearst Avenue & Milvia Street Improvement Project / 19-11278-C
Form EBO-1
CITY OF BERKELEY
CERTIFICATION OF COMPLIANCE WITH EQUAL BENEFITS ORDINANCE

If you are a contractor, return this form to the originating department/project manager. If you are a vendor (supplier of goods), return this form to the Purchasing Division of the Finance Dept.

SECTION 1. CONTRACTOR/VENDOR INFORMATION

<table>
<thead>
<tr>
<th>Article I.</th>
<th>Name:</th>
<th>Article II.</th>
<th>Vendor No.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Article III.</td>
<td>Address:</td>
<td>Article IV.</td>
<td>City:</td>
</tr>
<tr>
<td>Article VII.</td>
<td>Contact Person:</td>
<td>Article VIII.</td>
<td>Telephone:</td>
</tr>
<tr>
<td>Article IX.</td>
<td>E-mail Address:</td>
<td>Article X.</td>
<td>Fax No.:</td>
</tr>
</tbody>
</table>

SECTION 2. COMPLIANCE QUESTIONS

A. The EBO is inapplicable to this contract because the contractor/vendor has no employees.
   - Yes
   - No
   (If “Yes,” proceed to Section 5; if “No”, continue to the next question.)

B. Does your company provide (or make available at the employees’ expense) any employee benefits?
   - Yes
   - No
   If “Yes,” continue to Question C.
   If “No,” proceed to Section 5. (The EBO is not applicable to you.)

C. Does your company provide (or make available at the employees’ expense) any benefits to the spouse of an employee? 
   - Yes
   - No

D. Does your company provide (or make available at the employees’ expense) any benefits to the domestic partner of an employee?
   - Yes
   - No
   If you answered “No” to both Questions C and D, proceed to Section 5. (The EBO is not applicable to this contract.)
   If you answered “Yes” to both Questions C and D, please continue to Question E.
   If you answered “Yes” to Question C and “No” to Question D, please continue to Section 3.

E. Are the benefits that are available to the spouse of an employee identical to the benefits that are available to the domestic partner of the employee?
   - Yes
   - No
   If you answered “Yes,” proceed to Section 4. (You are in compliance with the EBO.)
   If you answered “No,” continue to Section 3.

SECTION 3. PROVISIONAL COMPLIANCE

A. Contractor/vendor is not in compliance with the EBO now but will comply by the following date:
   - By the first effective date after the first open enrollment process following the contract start date, not to exceed two years, if the Contractor submits evidence of taking reasonable measures to comply with the EBO; or
   - At such time that administrative steps can be taken to incorporate nondiscrimination in benefits in the Contractor’s infrastructure, not to exceed three months; or
   - Upon expiration of the contractor’s current collective bargaining agreement(s).

B. If you have taken all reasonable measures to comply with the EBO but are unable to do so, do you agree to provide employees with a cash equivalent? 
   - Yes
   - No
   * The cash equivalent is the amount of money your company pays for spousal benefits that are unavailable for domestic partners.
SECTION 4. REQUIRED DOCUMENTATION

At time of issuance of purchase order or contract award, you may be required by the City to provide documentation (copy of employee handbook, eligibility statement from your plans, insurance provider statements, etc.) to verify that you do not discriminate in the provision of benefits.

SECTION 5. CERTIFICATION

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that I am authorized to bind this entity contractually. By signing this certification, I further agree to comply with all additional obligations of the Equal Benefits Ordinance that are set forth in the Berkeley Municipal Code and in the terms of the contract or purchase order with the City.

Executed this _______day of _________________, in the year __________, at __________________, _____ (City)             (State)

_____________________________________
Name  (please print)       Signature

_____________________________________
Title         Federal ID or Social Security Number

Article XI. FOR CITY OF BERKELEY USE ONLY

☐ Non-Compliant (The City may not do business with this contractor/vendor)
☐ One-Person Contractor/Vendor       ☐ Full Compliance       ☐ Reasonable Measures
☐ Provisional Compliance Category, Full Compliance by Date: ________________________________

Staff Name(Sign and Print): ________________________________ Date: ______________
BIDDING & CONTRACTING UNDER THE COMMUNITY WORKFORCE AGREEMENT

- Local Workforce Hiring Goals
  The City of Berkeley’s local workforce-hiring goal is 20% of craft hours worked, on a craft by craft basis on locally funded projects. City Staff will provide a template to be used by the general contractor (GC) for reporting the summary of the total work hours and total number of Berkeley residents, this report is to be submitted with each certified payroll (CP), including CP for each subcontractor. GC can compile the report for the subcontractors or can require each sub to prepare their own report. Please include documentation detailing efforts to meet the local hire goals, i.e., dispatch requests to the unions. Please note the GC is responsible for the local hire component for the entire project. This report will be reviewed by the Joint Administrative Committee (JAC) to monitor compliance of the local workforce hiring goals. The JAC may periodically request contractors to attend a JAC meeting to describe and discuss their local hire efforts. GC and the subs are strongly encouraged to utilize the city-funded pre-apprenticeship program, Rising Sun Energy Center, for the hiring of Berkeley residents on the projects. Rising Sun staff will work closely with the trades and the contractor to facilitate the hiring of the program graduates for entry into the trades. City staff will conduct periodic interviews of workers throughout the project.

- Certified Payrolls
  Contractors are required to submit certified payrolls (CP) on a monthly basis to the Public Works Project Manager. The monthly report described above shall reflect the information provided on the Certified Payrolls. Address & trade for each worker must be included in Certified Payroll and is subject to verification by City staff. Please redact Social Security Numbers from CP prior to sending to city staff. When submitting CP, please attach any documentation pertinent to your good faith efforts, such as dispatch requests & union hall responses to those requests.

- Core (Regular, experienced) Employees
  A non-signatory contractor may use up to five (5) of its own “core” employees provided that the first worker hire comes from the union, second worker is “core”, third worker from the union, fourth worker is “core”, and so forth. The contractors’ worker must comply with the Union Hall's registration process; the contractor and subcontractor may request by name, and the local will honor, referral of the core employee(s) who have applied to the local union hall for work on the project and who demonstrate the following qualifications: 1) possess any license required by state or federal law, 2) have worked at least 1,000 hours in the construction craft during the prior three years, 3) have been on the Contractor’s active payroll for at least sixty (60) out of the one hundred and eighty (180) hours in the calendar year immediately prior to contract award, 4) must have the ability to safely perform the basic functions of the applicable trade, and 5) must reside in Berkeley.

- Hiring Plan
  A hiring plan is to be submitted prior to the Notice to Proceed date, with the understanding that the workforce may change during the project. The hiring plan is used as baseline information, with the monthly workforce utilization reports, certified payroll and dispatch request documentation serving as confirmation of good faith efforts to hire locally.

- Apprentices
  Consistent with the requirements of California Labor Code § 1776, 1777.5 and 1777.6, contractors and their subcontractors are required to hire at least one Berkeley resident as a First Period Apprentice for $500,000 or more of total bid amount, thereafter, for every five million dollars of the total bid amount the Prime Contractor and their subcontractors are required to hire one additional first period apprentice. Berkeley residents that participate in local workforce development programs will be screened and referred for the apprenticeship opportunities, city staff, union halls & training programs will facilitate this process.
California Prevailing Wages
All construction workers will be paid prevailing wages as determined by the State of California. Benefits are the established labor-management vacation, pension or other form of deferred compensation plan, apprenticeship and health benefit funds for each hour worked. Any local collectively bargained wage and/or fringe benefit increase shall be recognized on the date on which they become effective.

• Agreement to be Bound
All general contractors and all sub-contractors, including trucking, and regardless of tier, must sign an Agreement to be Bound to the CWA. This agreement binds the contractor to the terms of the CWA for the awarded project only. It does not bind any contractor to a union agreement for any other project.

• Pre-Job Conference
Prior to start of construction, the successful general contractor and all subcontractors are required to attend a pre-job conference with the affected Building & Construction Trades Council. The Pre-Job request form shall include subcontractor information including scopes of work. The Agreements to be Bound shall be submitted prior to the Pre-job Conference. General Contractor and subcontractors will make craft/trade work assignments at this meeting. Should any union disagree, it may follow the established jurisdictional dispute resolution process provided in the Community Workforce Agreement. The pre-job conference may be held via conference call arranged by the building trades, city staff will also participate in the pre-job conference.

• Joint Administrative Committee
This Committee shall be comprised of up to two (2) representative selected by the City; up to two (2) representatives of the signatory Unions and Alameda County Building and Construction Trades Council; and one (1) contractor representative, mutually selected by the City and the Alameda County Building and Construction Trades Council. Each representative shall designate an alternate who shall serve in his or her absence for any purpose contemplated by this Agreement. The Joint Administrative Committee shall meet regularly to review the implementation of the Agreement and the progress of the Projects including, but not limited to, compliance with Article 8, prevailing wage, safety, craft workforce levels and construction progress. The JAC may contact the Contractor and/or their subcontractors in writing to request their presence at a JAC meeting to describe good faith efforts throughout the project or at the end of a project.

Delfina Geiken
Employment Programs Administrator
Department of Health, Housing and Community Services
2180 Milvia, 2nd floor Berkeley, CA 94704 dgeiken@cityofberkeley.info
(510) 981-7551

Nathan Dahl
Community Development Project Coordinator
Department of Health, Housing and Community Services
2180 Milvia, 2nd floor Berkeley, CA 94704 ndahl@cityofberkeley.info
(510) 981-5405

To view the complete & most recent City Council report:
AGREEMENT TO BE BOUND

The undersigned, as a Contractor or Subcontractor ("Contractor") on a City Project ("Project"), for and in consideration of the award to it of a contract to perform work on said Project, and in further consideration of the mutual promises made in the Project’s Community Workforce Agreement ("Agreement"), a copy of which was received and is acknowledged, hereby:

1. Accepts and agrees to be bound by the terms and conditions of the Agreement, together with any and all amendments and supplements now existing or which are later made to said Agreement.

2. Certifies that it has no commitments or agreements which would preclude its full and complete compliance with the terms and conditions of said Agreement;

3. Agrees to secure from any Contractor (as defined in said Agreement) which is or becomes a subcontractor (of any tier) to it, and from any successors, a duly executed Agreement to be bound in form identical to this document.

4. Contractor agrees that it shall be bound by all applicable trust agreements and plans for the provision of such fringe benefits as accrue to the direct benefit of the construction persons, including Health and Welfare, Pension, Training, Vacation, and/or other direct benefits provided pursuant to the appropriate craft agreement contained in Schedule "A" of Agreement.

Date: _______________

Company Name: ____________________________________________

Name of Prime Contractor or Higher Level Subcontractor: ___________________________________________________________

Name of Project: MEASURE T1 STREET IMPROVEMENTS, 19-11278-C

Signature: __________________________________________________________

Print Name: __________________________________________________________

Title: __________________________________________________________

Contractor’s License #: _____________________________

Motor Carrier Permit (CA) #: _____________________________
CITY OF BERKELEY
CWA HIRING PLAN
(to be submitted with signed Agreement to be Bound)

Name of Project: __________________________________________________

Name of Company Reporting: _________________________________________

Name of Person Completing Form: ____________________________

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<th>Name/Title</th>
<th>Signature</th>
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<tr>
<th>Employee Name*</th>
<th>Employee Address</th>
<th>City &amp; Zip Code</th>
<th>Trade</th>
<th>Estimated Hours on Project</th>
<th>Journey or Apprentice &amp; Period</th>
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*If employee is TBD please enter the trade & planned hours only, and re-submit form with names and addresses after workforce is determined.

20% local hire goal-Berkeley residents only

Signatory to union: □Yes □No  
If yes, please list trades: __________________________________________________

Comments:
PERFORMANCE BOND
CALIFORNIA PUBLIC WORKS

KNOW ALL MEN BY THESE PRESENTS,
That we, _______________________________________________________
_________________________________________________________________
as Principal, and
_____________________________________________________, a Corporation organized and
existing under the laws of the State of ____________________________, and authorized to
transact surety business in the State of California, as Surety, are held and firmly bound unto the City
of Berkeley (hereinafter called Obligee), in the sum of ______________________ Dollars
($______________________________), for the payment whereof well and truly to be made and
we each of us bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and
severally, firmly by these presents.

THE CONDITION of the above obligation is such that, Whereas, the above named bounden
principal entered into a contract dated ________________________, 20 ___ with the said Obligee to
do and perform the following work, to-wit:
which contract is hereby referred to, incorporated by reference, and made a part hereof as fully
and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, That
if the above bounden Principal shall well and truly keep, do, pay and perform, each and every, all and
singular, all the matters, provisions, undertakings, covenants, terms, conditions, agreements and
things in said contract set forth and specified to be by the said principal kept, done, paid and performed
at the time and in the manner in said contract specified, and shall pay over, make good and reimburse
to the above-named Obligee, all loss and damages which said Obligee may sustain by reason of failure
or default, or breach on the part of said Principal, then this obligation shall be void; otherwise to be
and remain in full force and effect.

Whenever Principal shall be, and is declared by Obligee to be in default under the Contract,
the Obligee having performed Obligee's obligations thereunder, the Surety may promptly remedy the
default, or shall promptly:

1) Complete the Contract in accordance with its terms, provisions, undertakings, covenants,
agreements, clauses, and conditions, or

2) Obtain a bid or bids for completing the Contract in accordance with its terms, provisions,
undertakings, covenants, agreements, clauses, and conditions, and upon determination by Surety of
the lowest responsible bidder, or, if the Obligee elects, upon determination by the Obligee and the
Surety jointly of the lowest responsible bidder, arrange for a contract between such bidder and
Obligee, and make available as Work progresses (even though there should be a default or a
succession of defaults under the contract of completion arranged under this paragraph) sufficient
funds to pay the cost of completion less the balance of the contract price, but not exceeding, including
other costs and damages for which the Surety may be liable hereunder, the amount set forth in the
first paragraph hereof. The term "balance of the contract price," as used in this paragraph, shall mean
the amount payable by Obligee to principal under the contract and amendments, thereto, less the amount properly paid by Obligee to Contractor.

Any suit under this bond must be instituted before the expiration of two (2) years from the date on which final payment under the Contract falls due.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the Obligee named herein or the heirs, executors, administrators or successors of Obligee.

If any action or law or in equity is brought to enforce or interpret the provisions of this bond, the prevailing party shall be entitled to reasonable attorney's fees in addition to any other relief to which it may be entitled.

SIGNED AND SEALED THIS ______________________________ day of ______________________________, 20________.

____________________________________________
Principal

____________________________________________
Surety Attorney In Fact
COMMERCIAL GENERAL AND AUTOMOBILE LIABILITY ENDORSEMENT

The attached Certificates of Insurance are hereby certified to be a part of the following policies having the following expiration dates:

<table>
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<tr>
<th>Policy No.</th>
<th>Company Providing Policy</th>
<th>Expir. Date</th>
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The scope of the insurance afforded by the policies designated in the attached certificates is not less than that which is afforded by the Insurance Service Organization's or other "Standard Provisions" forms in use by the insurance company in the territory in which coverage is afforded.

Such Policies provide for or are hereby amended to provide for the following:

1. The named insured is ________________________________________.

2. CITY OF BERKELEY ("City") is hereby included as an additional insured with respect to liability arising out of the hazards or operations under or in connection with the following agreement:
   ________________________________________________________.

The insurance provided applies as though separate policies are in effect for both the named insured and City, but does not increase the limits of liability set forth in said policies.

3. The limits of liability under the policies are not less than those shown on the certificate to which this endorsement is attached.

4. Cancellation or material reduction of this coverage will not be effective until thirty (30) days following written notice to City Engineer, Engineering Division, Department of Public Works, Berkeley, CA.

5. This insurance is primary and insurer is not entitled to any contribution from insurance in effect for City.

The term "City" includes successors and assigns of City and the officers, employees, agents and volunteers.

_______________________________________
Insurance Company

Date: _____________ By: ______________________________________
Signature of Underwriter's Authorized Representative
CITY OF BERKELEY

RIGHT TO AUDIT FORM

The contractor agrees that pursuant to Section 61 of the Berkeley City Charter, the City Auditor’s office may conduct an audit of Contractor’s financial, performance and compliance records maintained in connection with the operations and services performed under this contract.

In the event of such audit, Contractor agrees to provide the Auditor with reasonable access to Contractor’s employees and make all such financial, performance and compliance records available to the Auditor’s office. City agrees to provide Contractor an opportunity to discuss and respond to/any findings before a final audit report is filed.

Signed: ___________________________ Date: _________________
Print Name & Title: ___________________________
Company: ___________________________

Questions regarding this form may be directed to the Auditor's Office, at (510) 981-6750
PART A – GENERAL PROVISIONS

SECTION 1 - DEFINITION OF TERMS

SECTION 2 - PROPOSAL REQUIREMENTS AND CONDITIONS

SECTION 3 - AWARD AND EXECUTION OF CONTRACT

SECTION 4 - SCOPE OF WORK

SECTION 5 - CONTROL OF THE WORK

SECTION 6 - CONTROL OF MATERIAL

SECTION 7 - LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC

SECTION 8 - PROSECUTION AND PROGRESS

SECTION 9 - MEASUREMENT AND PAYMENT
PART A - GENERAL PROVISIONS

SECTION 1 - DEFINITION OF TERMS

101.1 Whenever in these specifications, or in any documents or instruments where these specifications govern, the following terms are used, they shall have the following meanings:

101.2 AASHTO -- The latest revised specifications of the American Association of State Highway and Transportation officials.

101.3 As Directed -- As directed by the Engineer or his designated representative.

101.4 ASTM -- The latest revised specifications of the American Society for Testing Materials.

101.6 Bidder -- Any individual, firm, partnership, or corporation submitting a proposal for the work contemplated, acting directly or through a duly authorized representative.

101.7 City, Agency -- City of Berkeley.

101.8 Council -- City Council of the City of Berkeley.

101.9 Engineer -- The Assistant City Manager for Public Works of the City of Berkeley or his designated representatives.

101.10 Contract -- The written agreement covering the performance of the work.

101.11 Contractor -- The person or persons, partnership, association or corporation, private or municipal, who have entered into a contract with the City, as party or parties of the second part of his or their legal representatives.

101.12 Laboratory -- The official testing laboratory of the City or other laboratories authorized by the Engineer.

101.13 Proposal -- The written offer of the bidder for the work when made out and submitted on the
prescribed proposal form, properly signed and guaranteed.

101.14 Proposal Guaranty

- The security required by the notice to bidders to be furnished by the bidder as a guaranty that the bidder will enter into a contract for the construction of the work if it is awarded to him.

101.15 Plans

- The official plans, profiles, cross-sections, details working drawings, and mental drawings, or reproductions thereof, approved by the Engineer, which show the location, character, dimensions, and details of the work to be done, and which are to be considered as a part of the contract supplementary to these specifications.

101.16 Purchasing Agent

- The Purchasing Agent of the City of Berkeley.

101.17 Specifications

- The directions, provisions, and requirements contained herein, supplemented by special provisions, pertaining to the method and manner of performing the work, and to the quantities and qualities of materials to be furnished under the contract. The term specifications shall include the General Provisions,
### 101.18 Subcontractor

The person or persons, partnership, association, or corporation, private or municipal, who have a direct contract with the contractor. It includes one who furnishes material worked to a special design according to the plans or specifications of the work, but does not include one who merely furnishes material.

### 101.19 Street

Any dedicated right-of-way for public use as an avenue, highway, lane alley, court, crossing, or intersection.

### 101.20 The Work

All the work described in the specifications and contract or indicated on the plans as the contemplated improvement covered by the contract.

### 101.21 Contract Change Order

A written order to the Contractor signed by the Engineer directing an addition, deletion or revision in the work, or an adjustment in the contract price or the contract time issued after the effective date of the contract. A
change order may or may not also be signed by the Contractor.

101.22 Allowance -- An inexact bid quantity listed on the Bidder's Proposal in anticipation that work of the particular nature will be required, but the quantity is not known until the work of the whole is in progress or completed. The quantity listed is for comparison of total bids. Bidder agrees to do each unit of work for the unit price bid in the proposal.

101.23 Resident Engineer -- Designated inspection representative(s) of the Engineer.
SECTION 2 - PROPOSAL REQUIREMENTS AND CONDITIONS

201.1 Availability of Plans and Specifications. Plans and specifications may be examined at the office of the Engineering Division. Copies of the plans and specifications are available at the office of the Engineering Division. Copies of the Notice to Bidders and proposal forms may be obtained from the Engineering Division.

201.2 Approximate Estimate. The quantities given in the Notice to Bidders, proposal, and contract forms are approximate only, being given as a basis for the comparison of bids, and the City does not, expressly or by implication, agree that the actual amount of work will correspond therewith. For work bid on a lump sum price basis, any estimate of quantities is provided only for the convenience of Bidders and is not guaranteed correct by the City.

201.3 Examination of Plans, Specifications, and Site of the Work. The Bidder shall examine carefully the site of the work contemplated and the proposal, plans, specifications, and contract forms therefore. It will be assumed that the Bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and quantities of work to be performed and materials to be furnished, and as to the requirements of these specifications, the plans, and the contract.

201.4 Proposal Form. All proposals must be submitted on forms for that purpose furnished by the City. Letters of transmittal cannot be considered as part of the bid.
All proposals shall give the prices proposed, and shall be signed by the Bidder, who must give his address. The Bidder shall fill out all blanks in the proposal form as therein required. In case of error, unit prices will govern over extensions and written words will govern over numerals, unless it can be established that an obviously incorrect entry has been made.

201.5 Rejection of Proposals Containing Alterations or Irregularities. Proposals may be rejected if they show any alterations of form, additions not called for, conditional bids, incomplete bids, or irregularities of any kind. When proposals are signed by an agent, other than an officer or manager of a corporation or a member of a partnership, a power of attorney or written authorization must be on file with the City prior to opening bids or shall be submitted with the proposal; otherwise, the proposal will be rejected as irregular and unauthorized.

201.6 Proposals Guaranty. All bids shall be presented in a sealed envelope and shall be accompanied by a "proposal guaranty) made payable to "City of Berkeley) and for the amount equal to at least ten percent (10%) of the bid unless otherwise specified on the "Notice to Bidders. Said guaranty shall be an unconditional certified or cashier's check, or a bank or postal money order, or bid bond executed as surety by a corporation authorized to issue surety bonds in the State of California.

201.7 Withdrawal of Proposals. Any bid may be withdrawn at any time prior to but not after, the hour fixed in the public notice for the opening of bids, provided that a request in writing executed by the Bidder or his duly authorized representative, for the
withdrawal of such bid is filed with the Purchasing Agent. The withdrawal of a bid shall not prejudice the right of a Bidder to file a new bid.

201.8 Disqualification of Bidders. More than one proposal from an individual, a firm or partnership, a corporation or an association under the same or different names will not be considered. Reasonable ground for believing that any Bidder is interested in more than one proposal for the work contemplated will cause the rejection of all proposals in which such Bidder is interested. If there is a reason of believing that collusion exists among the Bidders, none of the participants in such collusion will be considered in this or future proposals. Proposals in which the prices are unbalanced may be rejected.

201.9 Competency of Bidders. Prior to the submission of bids, the Contractor shall be licensed in accordance with the provisions of Chapter 9 of Division III of the Business and Professional Code of the State of California and evidence of such license shall be presented to the Engineer on request.

The Engineer may require the Bidder to present satisfactory evidence that he has sufficient experience and that he is fully prepared with the necessary capital, materials, machinery, and skilled workmen to carry out the contract.

201.10 Material Guaranty. Before any contract is awarded, Bidders may be required to furnish a complete statement of the origin, composition, and manufacture of any or all materials to be used in the construction of the work, together with samples, which samples may be subjected to the tests provided for in these specifications to determine their quality and fitness for the work.
201.11 **Addenda.** Prior to the time set for opening of bids, the Engineer may issue addenda for clarification of the plans or specifications or for minor alterations in the work. Such addenda shall take precedence over plans, specifications, and all other Contract Documents issued prior to the opening of bids.
SECTION 3 - AWARD AND EXECUTION OF CONTRACT

301.1 Consideration of Bids. Bids will be opened publicly by the Purchasing Agent of the City on the date and at the time set forth in the "Notice to Bidders." The right is reserved by the City by action of the Council to reject any or all bids, to advertise for new proposals, to negotiate in the open market for a contract at a reasonable price, to purchase in the open market, or to have the work performed by City employees, or to abandon the work, if in the judgement of the Council, the best interests of the City will be promoted thereby.

301.2 Award of Contract. The award of the contract, if awarded, will be to the lowest responsive Bidder whose proposal complies with all the requirements prescribed. The award, if made, will be made within seventy-five (75) calendar days after the opening of the proposals.

All bids will be compared on the basis of the Engineer's estimate of the quantities of work to be done.

301.3 Return of Proposal Guarantees. All proposal guarantees will be held by the City until the contract has been authorized by Council resolution and signed by the City Manager after which guarantees for unsuccessful proposals will be returned to the unsuccessful Bidders. If bids are rejected, the proposal guarantees will be returned after the date of the rejection.
301.4 **Contract Bonds.** At the time of execution of the contract by the City Manager, the Contractor will be required to furnish a Surety Company contract bond for faithful performance in the sum of not less than one hundred percent (100%) of the amount of his contract, in addition to which he will be required to furnish a Surety Company labor and material bond in the sum of not less than one hundred percent (100%) of the amount of the contract in accordance with the provisions of state laws.

Alterations, extensions of time, extra and additional work, and other changes authorized by these specifications or any part of the contract may be made without securing the consent of the Surety or Sureties on the contract bonds.

301.5 **Execution of Contract.** The Bidder's Proposal (offer) shall become a binding contract on the parties when the award of a contract pursuant to said proposal is authorized by resolution of the City Council. The proposal will then be executed in writing by the City Manager, or his/her authorized representative, in the name of the City.

301.6 **Failure to Perform Contract.** If the successful Bidder fails to begin performance of the contract within thirty (30) calendar days from the date of the award of the contract, the City will either let the contract to the next lowest Bidder or will reject all other bids and call for new bids. The successful Bidder who has failed to begin performance of the contract shall be liable to the City for the sum, not exceeding the amount of such cash, check, money order or bond as shall have been deposited as a proposal guaranty, by which the amount of the contract, covering the said proposal, executed by and between the City and some third party, may exceed the amount bid by the original successful Bidder. Such portion of said cash, check, money order, or original bond as
equals said sum shall be deemed to be liquidated damages and shall be declared forfeited to the City and shall be collected and paid to the City.
401.1 Work to be Done. The intent is to prescribe complete work or improvement which the Contractor undertakes to do in full compliance with the plans, specifications, and contract. The Contractor shall perform all items of work covered and stipulated in the specifications and contract, together with any extra work, all in accordance with lines, grades, cross-sections, and dimensions shown on the plans. It is further intended that all miscellaneous work required to make driveways, sidewalks, intersections, roof drains, and other privately owned improvements conform to the new work shall be performed by the Contractor. The Contractor shall furnish, unless otherwise provided in these specifications, all material, implements, machinery, equipment, tools, supplies, transportation, and labor necessary to the prosecution and completion of the work.

All work described in the plans and specifications will be let under one contract unless otherwise set forth in the Notice to Bidders or on the Bidder's Proposal.

401.2 Alterations and Increased or Decreased Quantities. The City reserves the right in writing, to increase or decrease the quantity, to order additions to, omissions from, or corrections, alterations and modifications in the line, grade, form dimensions, plan or kind or amount of work, or materials herein contemplated, or any part thereof, either before or after the beginning of construction, as may be deemed necessary or advisable by the Engineer, provided such alterations do not change the total cost of the project, based on original estimated quantities and the unit prices bid, by more than twenty percent (20%), and provided further that such items do not change the total cost of any major item by more than fifty percent (50%).
(A major item is one, the total cost of which is more than ten percent (10%) of the total contract price.) Any alterations in excess of these limits will be treated as extra work and will be covered by a contract change order, the same as though the alteration were an extra work item.

Should conditions during the progress of the work make it impossible for the Contractor to comply strictly with the terms of the contract, the Contractor shall apply in writing to the Engineer for an alteration, provided that it is not detrimental to the work or does not entail additional cost. If such alteration is acceptable to the Engineer, the Contractor shall be notified in writing, whereupon the alteration may be made. When such alteration is not acceptable to the Engineer, the Contractor shall determine some other method of doing the work which shall be acceptable.

Such alteration and increased or decreased quantities shall in no way affect or make void this contract or any part thereof, except what is necessarily affected by such alteration and is clearly the evident intention of the parties to this contract.

401.3 Extra Work. New and unforeseen items of work will be classed as extra work when they cannot be covered by any of the various items for which there is a bid price or by combinations of such items, or if the character of an item is materially changed on which the Contractor based his bid price, and that change materially increases or decreases the cost of the item as outlined in Section 401.2 hereof.

Prices for extra work shall be itemized and covered by a contract change order submitted by the Contractor and approved by the Engineer prior to actual starting of such work.
Should the parties be unable to agree on unit prices for the extra work, or if it is impractical, the Engineer may instruct the Contractor to proceed with the work by force account and he shall be paid as provided in Section 901.2 of these specifications.

401.4 Unauthorized Work. Work done without lines and grades being given, work done beyond the lines and grades shown on the plans, work done in the absence or without the knowledge of the Engineer, including any work performed by subcontractors without proper superintendence by the Contractor, as provided for in Section 501.6, or any extra work done without written authority, will be considered as unauthorized and at the expense of the Contractor and will not be measured or paid for by the City.

401.5 Protection of Utilities. A preliminary study of the location of underground utilities within the limits of the work has been made. The location of the underground utilities indicated on the plans is not guaranteed to be accurate or complete, but is plotted for the general information of the Contractor. The Contractor shall contact Underground Service Alert (USA) at (800) 227-2600 at least four (4) working days before excavating, to allow utility companies to mark and identify their respective utilities within the limit of the work. Aboveground utilities are not shown on the plans. It shall be the responsibility of the Contractor to coordinate and determine the exact locations and/or depths of all of the aboveground utilities, underground utilities, and their service locations.

The Contractor shall be responsible for protecting and supporting the aboveground utilities and the identified underground utilities that occur in the limits of the work with a method acceptable to the respective utility owners. The cost of protecting and supporting the utilities shall be included in the bid prices for the various items of work. Any identified damage to the SBC Telephone, PG&E, EBMUD, or Cable
TV lines shall be repaired by the respective utility owner at the Contractor's expense.

See also Sections 701.25.1 and 701.25.2.

401.6 Cleaning Up. The Contractor shall not allow the site of the work to become littered with trash, rubbish, and waste material but shall maintain the same in a neat and orderly condition throughout the construction period. The Engineer shall have the right to determine what is or is not trash, rubbish or waste material and the place and manner of disposal.

The Contractor shall maintain a neat appearance to the work. Contractor shall promptly remove splattered concrete, asphalt, oil, paint, corrosive liquids and cleaning solutions from surfaces to prevent marring or other damage.

Broken concrete debris, and unsuitable excavated native soil during construction shall be disposed of concurrently with its removal. If stockpiling is necessary all debris shall be placed in trash bins daily and shall be removed or disposed of weekly. Any waste shall not be buried on the site or disposed of into storm drains, sanitary sewers, streams, or waterways.

Forms or falsework that are to be re-used shall be stacked neatly concurrently with their removal. Forms and falsework that are not to be re-used shall be disposed of concurrently with their removal.

Full compensation for conforming to the provisions in this section, not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.
Sidewalks, street area, parking strips, and driveway approaches must be kept reasonably clean at all times during construction and be completely and carefully cleaned after the work has progressed beyond the immediate vicinity to the satisfaction of the Engineer. Reasonable cleanup is defined as no dust, rock, or mud on any portion of the public right-of-way or the private properties as a result of the Contractor's work.

401.7 Dust and Debris Control. The Contractor shall be responsible for controlling dust in the air and rocks, debris, mud or dirt which are scattered as a result of his operations on the job. The Contractor shall be responsible for cleaning all mud, rock, dust, dirt, and debris-producing materials that originate in the project area and are deposited on other public or private property by truck tires, spillages, or by other means. The Contractor shall have suitable and adequate street cleaning equipment on the project site at all times.

The Contractor shall begin cleanup operation by 3 PM and before the end of each day's work, clean all paved portions of the project and paved streets leading from the project that have dust-producing materials or debris deposited upon them. The work areas shall be swept clean at the end of each day's work and at other times when directed by the Engineer.

The Contractor shall endeavor, whenever possible, to restrict the use of water to control dust for his convenience in order to conserve water during drought situations or mandated rationing required by the Water Utility Company. Whenever flushing of streets or any other work is necessary, the Contractor shall provide filter materials at the catch basin to retain any debris and dirt flowing into the City's drainage system.
The cost of the above work, including the providing of barricades, water and other materials, labor, and equipment shall be at the sole cost and expense of the Contractor.

The Engineer may determine that an emergency exists when dust, rocks, debris, mud, or dirt are scattered in the public right of way or in the private properties as a result of Contractor's activities and/or deterioration of such conditions due to rain. The emergency conditions may also be declared when traffic or the Contractor's equipment travelling through a job causes dust to fly or rocks, debris, mud, or dirt to be scattered. Similar emergency conditions may be determined by the Engineer if the storage of materials, tools, or any other equipment related to the project, in the public rights of way, is causing any obstruction or blocks access to the neighboring properties and/or dangerously placed without proper barricades and lights and/or backfill stockpiles or debris washing away into the street gutter and catch basins.

401.7-1 Emergency Cleanup Work. In any case in which the Contractor fails to satisfactorily complete the cleanup work described in this section, the Engineer or his representative may determine that an emergency exists. In the event an emergency is determined by the Engineer, the Contractor shall immediately make available manual labor or mechanical equipment capable of handling the cleaning process. During such an emergency, City forces may be called upon to complete the cleanup work, or the City may contract for the cleanup work. All construction work shall be shut down during this cleanup work by the City/contract forces. The Engineer may shut down further construction work until the violations are corrected to the satisfaction of the Engineer. The cost of the work performed by City/Contract forces plus an additional 70% surcharge shall be paid by the

GENERAL PROVISIONS
Contractor by deduction from payment due him on the contract. No compensation shall be given to the Contractor for stoppage of work.

Such action by the Engineer, however, shall not relieve the Contractor of his responsibility for any damages which may occur before, during or after such action has been taken by the Engineer, and shall place no liability upon the City or the Engineer.

401.8 Noise Control. All construction machinery and vehicles employed on the project shall be equipped with approved sound muffling devices, and operated in a manner to cause the least noise consistent with efficient performance of the work. Section 701.11 specifies time limitation in which engine driven equipment shall not be operated.

401.9 Temporary Light, Power, and Water. The Contractor shall at its own expense, furnish, install, maintain, and remove all temporary light, power, and water, including piping, wiring, lamps, and other equipment, necessary for the work. The Contractor shall not draw water from any fire hydrant, except to extinguish a fire, without first obtaining permission from the water agency concerned.

401.10 Coordination With Affected Residents. This contract may include a significant amount of work within construction easements in private property. The Contractor shall be required to provide adequate notification to, and coordination with, the affected residents. At least 1 week prior to working in easements, the Contractor shall notify the affected residents in writing of the intention to perform work within their properties, the starting dates of work, and duration of the work. The Contractor shall only initiate an amount of work that can be reasonably completed on the same day. If the initiated work is unfinished, the Contractor shall provide
adequate covers and appropriate barricades and warning signs to ensure public safety to the satisfaction of the Engineer. After completion of work in the easement area, the Contractor shall obtain written release from the property owners and give a copy to the Engineer. Any damages to the properties shall be restored and handled in accordance with Section 401.11 of this specification.

In addition, service connections may be required to be temporarily stopped for rehabilitation of the sewer mains and/or laterals. At least 1 week prior to working in a particular area, the Contractor shall notify the affected residents in writing of the intended work, the starting date and duration, and any coordination requirements to facilitate work progress. The Contractor shall be required to adequately notify affected residents of schedule changes.

For service connection disruptions required to make system improvements, the Contractor shall provide a second notice to residents/businesses not less than 48 hours prior to service interruption. For interruptions in service longer than the limits specified below, the Contractor shall at his cost arrange for and provide in-kind services. Maximum interruption time without provision of in-kind services for private residences shall be as follows:

- Water Services: 4 hours
- Sewer Services: 7 hours

All interruptions shall be restored by the Contractor at the end of each day.

The Contractor shall plan for and provide the services of a septic tank pumper truck to periodically pump out any sewage which may accumulate in excavation pits at the two-way cleanout location. Alternatively, the Contractor may utilize
submersible sewage pumps or trash pumps to convey the sewage from the pits to a functional portion of the existing sanitary sewer within the project area.

The Contractor shall at all times perform his lateral connection work so as to minimize the quantity of sewage which may accumulate, to minimize adverse impacts on public health and sanitation and to minimize the potential for odors. The Contractor shall at all times maintain an adequate supply of bottled chlorine bleach (sodium hypochlorite solution) to treat any accumulated sewage should this be determined necessary by the Engineer to minimize odors and to protect the public and workers' health.

All costs to the Contractor for coordination with the affected residents shall be included in bid prices for the replacement or rehabilitation of sewer mains and laterals.

401.11 Protection and Restoration of Existing Improvements. The Contractor shall be responsible for the protection of public and private property adjacent to the Work and shall exercise due caution to avoid damage to such property.

The Contractor shall repair or replace all existing improvements and street pavements which are not designated for removal (e.g., street sections, curbs, gutters, driveways, fences, walls, structures, landscaping, etc.) which are damaged or removed as a result of its operations. Repairs and replacements shall be at least equal to existing improvements, and shall match them in finish and dimensions.

Prior to initiating work in the public right of way and in the easements, the Contractor shall make an audio/video cassette tape recording of the affected areas showing all existing improvements, and their conditions. The tapes shall be turned
over to the Engineer and shall be used as a historical recording of the pre-
construction conditions. The costs of the pre-construction audio-visual survey
shall be the responsibility of the Contractor.

Any damages to the private properties will be restored to the satisfaction of the
property owners/Engineer within seven (7) days of the damage(s).

Damages within the public right of way including street pavement will be restored
to the satisfaction of the Engineer after work on that particular block is completed.

401.12 Submittals. Where required by the specifications, the Contractor shall submit
descriptive information which will enable the Engineer to advise the Agency
whether the Contractor's proposed materials, equipment or methods of work are in
general conformance to the design concept and in compliance with the drawings
and specifications. The information to be submitted shall consist of proposed
construction schedule, traffic control plan, shoring, sheeting and bracing as
required drawings, specifications, descriptive data, certificates, samples, test
results and such other information, all as specifically required in the specifications.
In some instances, specified submittal information described some, but not all,
features of the material, equipment, or method of work. Features not requiring
submittals shall be as specified.

401.12-1 Contractor's Responsibilities. Contractor shall be responsible for the accuracy
and completeness of the information contained in each submittal and shall assure
that the material, equipment or method of work shall be as described in the
drawings. Submittal documents shall be clearly edited to indicate only those items,
models, or series of equipment, which are being submitted for review. All
extraneous materials shall be crossed out or otherwise obliterated. The Contractor
shall insure that there is no conflict with other submittals and notify the Engineer in each case where his submittal may affect the work of another contractor or the Agency. The Contractor shall insure coordination of submittals among the related crafts and subcontractors.

401.12-2 Transmittal Procedure

401.12-2a General. Submittals regarding material and equipment shall be accompanied by a transmittal form. A separate form shall be used for each specific item, class of material, equipment, and items specified in separate, discrete sections, for which the submittal is required. Submittal documents common to more than one piece of equipment shall be identified with all the appropriate equipment numbers. Submittals for various items shall be made with a single form when the items taken together constitute a manufacturer's package or are so functionally related that expediency indicates checking or review of the group or package as a whole.

401.12-2b Deviation from Contract. If the Contractor proposes to provide material, equipment, or method of work which deviates from the requirements of the plans and specifications, he shall indicate as "deviation" on the transmittal form accompanying the submittal copies.

401.12-2c Submittal Completeness. Submittals which do not have all the information required to be submitted, including deviations, are not acceptable and will be returned without review.

401.12-3 Review Procedure. Submittals are specified for those features and characteristics of materials, equipment, and methods of operation which can be
selected based on the Contractor's judgment of their conformance to the requirements of the plans and specifications. Other features and characteristics are specified in a manner which enables the Contractor to determine acceptable options without submittals. The review procedure is based on the Contractor's guarantee that all features and characteristics not requiring submittals conform to the plans and specifications. Review shall not extend to means, methods, techniques, sequences or procedures of construction, or to verifying quantities, dimensions, weights or gages, or fabrication processes except where specifically indicated or required by the contract documents or to safety precautions or programs incident thereto. Review of a separate item, as such, will not indicate approval of the assembly in which the item functions.

When the contract documents require a submittal, the Contractor shall submit the specified information as follows:

1. One reproducible original of all the submitted information. When individual sheets in the submittal exceed 8-1/2 inches x 11 inches, a sepia shall be submitted.

2. Four copies of all the submitted information.

Unless otherwise specified, within 10 calendar days after receipt of the submittal, the Engineer shall review the submittal and return one copy of the marked-up reproducible original noted in 1 above. The reproducible original will be retained by the Engineer. The returned submittal shall indicate one of the following actions:

1. If the review indicates that the material, equipment or work method complies with the contract documents, submittal copies will be marked "NO EXCEPTIONS
TAKEN." In this event, the Contractor may begin to implement the work method or incorporate the material or equipment covered by the submittal.

2. If the review indicates limited corrections are required, copies will be marked "MAKE CORRECTIONS NOTED." The Contractor may begin implementing the work method or incorporating the material and equipment covered by the submittal in accordance with the noted corrections.

3. If the review reveals that the submittal is insufficient or contains incorrect data, copies will be marked "AMEND AND RESUBMIT." Except at his own risk, the Contractor shall not undertake work covered by this submittal until it has been revised, resubmitted and returned marked either "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED."

4. If the review indicates that the material, equipment, or work method does not comply with the contract documents, copies of the submittal will be marked "REJECTED -SEE REMARKS." Submittals with deviations which have not been identified clearly may be rejected. Except at his own risk, the Contractor shall not undertake the work covered by such submittals until a new submittal is made and returned marked either "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED."

401.12-4 Effect of Review of Contractor's Submittals. Review of drawings, methods of work, or information regarding materials or equipment the Contractor proposes to provide, shall not relieve the Contractor of his responsibility for errors therein and shall not be regarded as an assumption of risks or liability by the Engineer or the Agency, or by any officer or employee thereof, and the Contractor shall have no claim under the contract on account of the failure, or partial failure, of the
method of work, material, or equipment so reviewed. A mark of "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED" shall mean that the Agency has no objection to the Contractor, upon his own responsibility, using the plan or method of work proposed, or providing the materials or equipment proposed.

401.13 Final Cleaning Up. Upon completion of the work, and before acceptance and final payment, the Contractor shall clean the project areas and remove all surplus and discarded materials, falsework, rubbish and temporary structures and restore in an acceptable manner all property, both public and private, which has been damaged during the prosecution of the work, and shall leave the improvement in a neat and presentable condition throughout the entire length of the improvement under contract to the satisfaction of the Engineer. If the Conditions as noted above are not corrected immediately, the Engineer may declare an emergency and take necessary action in accordance with Section 401.7-1 of this specification.

401.14 Changed Conditions. The Contractor shall notify the Engineer in writing of the following Work site conditions, hereinafter called changed conditions, promptly upon their discovery and before they are disturbed.

1. Subsurface or latent physical conditions differing materially from those represented in the Contract; and

2. Unknown physical conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in work of the character being performed.
The Engineer will promptly investigate conditions when notified or any conditions discovered by him which appear to be changed conditions. If the Engineer determines that the conditions are changed conditions and that they will materially increase or decrease the costs of any portion of the Work, a Change Order will be issued adjusting the compensation for such portion of the work in accordance with Subsection 401.3. If the Engineer determines that conditions of which has been notified by the Contractor do not justify an adjustment in compensation, the Contractor will be so advised in writing. Should the Contractor disagree with such determination, it may submit a notice of potential claim to the Engineer, as provided in Subsection 501.12.

If the Engineer determines that the conditions are changed conditions and that they will materially affect the performance time, the Contractor, upon submitting a written request, may be granted an extension of time subject to the provisions of Subsection 801.7.1.

The Contractor's failure to give notice of changed conditions promptly upon their discovery and before they are disturbed shall constitute a waiver of all claims in connection therewith.

401.15 As-Built Records. The Contractor shall maintain at the jobsite one (1) set of Plans marked to show any deviations which have been made from the Plans, including buried or concealed construction and utility features revealed during the course of construction. Record the horizontal and vertical location of all buried utilities that differ from the Plans. These Plans shall be available for review by the Engineer at all times. Upon completion of the work, deliver the marked set of prints in good condition to the Engineer for incorporation into the original drawings.
SECTION 5 - CONTROL OF THE WORK

501.1 **Authority of the Engineer.** The Engineer shall decide all questions which may arise as to the quality or acceptability of materials furnished and work performed, and as to the manner or performance and rate of progress of the work; all questions which may arise as to the interpretation of the Plans and Specifications; all questions as to the acceptable fulfillment of the contract on the part of the Contractor; and all questions as to compensation. His decision shall be final and he shall have authority to enforce and make effective such decisions and orders which the Contractor fails to carry out promptly.

501.2 **Plans.** All authorized alterations affecting the requirements and information given on the approved plans shall be in writing. No changes shall be made in any plan or drawing after the same has been approved by the Engineer, except by direction of the Engineer. Where at any time reference is made to the plans, the interpretation shall be the plans as affected by all authorized alterations then in effect.

501.3 **Conformity with Plans and Allowable Deviation.** Finished surfaces in all cases shall conform with the lines, grades, cross sections, and dimensions shown on the approved plans. Deviation from the approved plans, as may be required by the exigencies of construction, will, in all cases, be determined by the Engineer and authorized in writing.

501.4 **Coordination with Contract Documents.** These specifications, the plans, and all supplementary documents are essential parts of the contract, and a requirement
occurring in one is as binding as though occurring in all. They are intended to be cooperative, to describe and provide for a complete work. If there is a conflict between Contract Documents, the document highest in precedence shall control. The precedence shall be:

1. Federal and State requirements.

2. Permits from other agencies as may be required by law.


5. Contract Plans, including General Notes.


Change orders, supplemental agreements, and approved revisions to Plans and Specifications will take precedence over documents listed above. Detailed plans shall have precedence over general plans.

501.5 Interpretation of Plans and Specifications. Should it appear that the work to be done or any of the matters relative thereto are not sufficiently detailed or explained in the Plans or Specifications, the Contractor shall apply to the Engineer for such further explanations as may be necessary and shall conform to the same as part of the contract, so far as may be consistent with the original specifications; and in the event of any doubt or question arising regarding the true meaning of the Specifications, reference shall be made to the Engineer, whose decision thereon shall be final.

In the event of any discrepancy between any drawing and the figures written thereon, the figures shall be taken as correct.

Any part of the work which is not mentioned in the Specifications, but is shown in the Plans, or any part not shown on the Plans but described in the Specifications, shall be performed by the Contractor.

501.6 Superintendence. The Contractor will be supplied with five copies of the Plans and Specifications. Additional sets of Plans and Specifications shall be provided at the Contractor's cost which shall be equal to the City's reproduction costs. The Contractor shall have available on the work, at all times, one copy of each of said Plans and Specifications; he shall give the work the constant attention necessary to facilitate the progress thereof and shall cooperate with the Engineer and with other contractors in every way. The Contractor shall, at all times, have a competent superintendent capable of reading and thoroughly understanding the Plans and Specifications, as his
agent on the work, who shall receive instructions from the Engineer or his authorized representatives.

The superintendent shall have full authority to execute the order or directions of the Engineer without delay and to promptly supply such materials, tools, plant equipment, and labor as may be required. Such superintendent shall be furnished irrespective of the amount of work sublet.

501.7 Lines and Grades. Lines and grades for the work will be given by the Engineer. The Contractor shall give at least 48 hours' notice when he will require the services of the Engineer for laying out any portion of the work.

The Contractor may be required to furnish labor, at no extra cost to the City, to assist the City survey party. In general, this would mean the occasional furnishing of a laborer to drive stakes, pull manhole covers, move obstructions, etc., in order to expedite the work.

The Contractor shall protect stakes set by City surveyors by placing guard stakes or large objects to protect them from damage. The Engineer shall charge the Contractor for all time spent resetting stakes.

501.8 Authority and Duties of Resident Engineer. Duly authorized Resident Engineers, who shall perform their duties under the direction of the Engineer, will be assigned to the project or each part thereof. The presence of the Resident Engineer shall in no way lessen the responsibility of the Contractor. In case of any dispute arising between the Contractor and the Resident Engineer as to materials furnished or the manner of performing work, the Resident Engineer shall have authority to reject materials or suspend the work until the questions at issue can be referred to and decided by the
Engineer. The Resident Engineer is not authorized to revoke, alter, enlarge, relax, or release any requirement to these specifications, nor to approve or accept any portion of the work, nor to issue instructions contrary to the Plans and Specifications.

501.9 **Inspection.** The Contractor shall furnish the Engineer or his designated representative with access to the work for ascertaining whether the work performed and materials used are in accordance with the requirements and intent of the specifications and contract.

The Contractor shall give the Engineer or his representative notice of the time when he or his subcontractors will start the various units or operations of the work. Notice shall be given at least 24 hours in advance of starting or resumption time exclusive of Saturdays, Sundays, or holidays, for the purpose of permitting the Engineer to make the necessary assignment of his representative or inspector on the work. Any work performed by the Contractor or his subcontractors in conflict with said notice shall be removed if so ordered by the Engineer, his representative or inspector on the work.

The inspection of the work shall not relieve the Contractor of any of his obligations to fulfill the contract as prescribed. Defective work shall be made good, and unsuitable materials may be rejected, notwithstanding the fact that such defective work or unsuitable materials may have been previously overlooked by the Engineer and accepted or estimated for payment.

501.10 **Traffic Control.** The Contractor shall submit three copies of proposed traffic control plan to the Engineer for approval at least five (5) working days prior to commencement of work. No work will be started unless the traffic plan and requirements in Section 801.2 is duly approved. This plan will be submitted in the
form of a drawing locating the project area and all major and minor access and exits to and out of this area. The plan will also include the immediate neighboring areas where the traffic shall be directly or indirectly affected as a result of construction work in the project area.

The traffic control plan shall be developed for various traffic situations and street configurations in the work and surrounding areas in full conformance with the "State of California Business, Transportation and housing Agency Department of Transportation Manual of Traffic Controls for Construction and Maintenance Work Zone" dated 1985, hereinafter referred to as Traffic Control Manual.

At main entry and exit points of each work location, the Contractor shall provide a 30" x 30" sign advising the public of the anticipated period of time that traffic delays may be anticipated. This sign will also include name and telephone number of the Contractor along with starting and completion dates of the contract. Sign will be erected 7 days in advance of any work.

If traffic is to be detoured over a centerline or detoured in advance of the work, detour plan must be incorporated in the traffic control plan. Police, Fire, and Public Works Department shall be notified at least 48 hours in advance of any work which will interfere with the normal flow of vehicular or pedestrian traffic. Intersection closure may only occur if, in the traffic plan, the two adjacent intersections remain open, unless otherwise approved by the Engineer.

All signs and devices proposed to warn, direct, and control traffic in the vicinity of the work shall conform in size, shape, and color to the requirements set forth in the Traffic
Control Manual mentioned above and approved by the Engineer in accordance with the traffic control plan.

The full width of the traveled way shall be open for use by public traffic on Saturdays, Sundays, designated legal holidays, after 3:00 P.M. on Fridays and the day preceding designated legal holidays, and when construction operations are not actively in progress.

Cost of traffic controls, including flag person, shall be included and spread among appropriate bid items as determined by the Contractor.

Public parking on streets may be restricted as necessary.

The Contractor shall furnish, erect, and maintain all signs except "No Parking" signs which shall be obtained by the Contractor from the City of Berkeley. All signs shall be placed as directed by the Engineer. The "No Parking" signs must be posted by the Contractor no later than 48 hours or as directed by the Engineer in advance of the time of need. "No Parking" signs shall bear the name of the Contractor and shall also specify the "No Parking" dates and locations.

The Contractor shall replace within a 24 hour period any sign that has been damaged, lost, or worn out.

The Traffic Engineer shall have authority to change the traffic plan and make recommendations through the Engineering Inspector after the project has started and throughout the project.
The Contractor shall comply with the traffic engineering recommendations within a 24 hour period or immediately if requested. Failure to comply with this item shall be enough reason for the Engineer to stop the project.

501.11 Defective and Unauthorized Work. All work which is defective in its construction or deficient in any of the requirements of these specifications shall be remedied, or removed and replaced by the Contractor in an acceptable manner, and no compensation will be allowed for such correction.

Upon failure of the Contractor to comply forthwith with any order of the Engineer made under the provisions of these specifications, the Engineer shall have the authority to cause defective work to be remedied, or removed and replaced, and unauthorized work to be removed, and to deduct the costs thereof from any monies due or to become due the Contractor.

501.12 Disputed Claims. In any case where the Contractor deems extra compensation is due him for work or materials not clearly covered in the contract, or not ordered by the Engineer as extra work, the Contractor shall notify the Engineer in writing of his intention to make claim for such extra compensation before he begins the work on which he bases the claim. If such notification is not given or the Engineer is not afforded proper facilities by the Contractor for keeping strict account of actual cost, then the Contractor hereby agrees to waive the claims for such extra compensation.

Such notice by the Contractor, and the fact that the Engineer has kept account of the cost as aforesaid, shall not in any way be construed as proving the validity of the claim. The claim must be passed upon by the Engineer. In case the claim is found to be just, it shall be allowed and paid for as extra work. Unless the Contractor gives notice of his
501.13 **Arbitration.** Disputed claims may be settled by arbitration if both parties mutually agree. The arbitration procedures shall be in accordance with the construction industry arbitration rules of the American Arbitration Association. Arbitration awards shall be presented in writing and shall include the following elements: (1) legal "finding of fact" established by the arbiter; (2) specific breakdown of the dollar amounts allocated for each issue under arbitration; (3) the arbiter's "conclusion of law"; (4) a summary of the evidence; and (5) reasons underlying the arbiter's award.

501.14 **Final Inspection.** Whenever the work provided and contemplated by the contract shall have been satisfactorily completed and the final cleaning up performed, the Engineer will make the final inspection.

501.15 **Progress Meetings.** The Contractor shall schedule and hold regular on-site progress meetings weekly and at other times as requested by the Engineer or as required by progress of the Work. The Contractor, Engineer, and all subcontractors active on the site shall be represented at each meeting. The Contractor may, at its discretion, request attendance by representatives of its suppliers, manufacturers, and other subcontractors. The purpose of the meetings will be to review the progress of the work, maintain coordination of efforts, discuss changes in scheduling, and resolve other problems which may develop.

501.16 **Substitution.** Any materials, process, or article may be requested for a substitution by the Contractor, in lieu of that specified or shown, under the following conditions:
1. Requests must be submitted in writing sixty (60) days prior to starting the work, as established by the Engineer, so as not to cause any delay in completion of the project.

2. The Contractor shall, at no cost to the City, furnish all testing, data, engineering, and design services (including the review costs incurred by the Engineer) for items offered as equivalent to those specified. Test methods and findings shall, prior to installation, be subject to approval of the Engineer.

3. On sewer rehabilitation projects, the sewer rehabilitation methods shown on the Plans are the minimum levels acceptable for the respective reaches. The three sewer rehabilitation methods, in descending order of acceptability, are as follows:
   - Replacement
   - Inversion-Lining
   - Sliplining

   Substitution with a lower level rehabilitation method will not be permitted unless field conditions dictate that a lesser method will provide comparable sewer integrity. A credit change order will be prepared accordingly. The foregoing shall require the approval of the City and the Engineer. Substitution with higher level rehabilitation method may be acceptable subject to approval of the Engineer.

1. No requests for substitution will be considered during the bidding period.

2. Any substitution of any material, process, or article shall be at no additional costs to the City. Substitution with a lesser level rehabilitation method shall be accomplished by credit change order. Substitution with a higher level method shall be accomplished by a no cost change order.
The Engineer reserves all rights and will have final approval as to the substitution of alternative rehabilitation methods.

501.17 **Reinspection, Retesting, and Re-staking.** All costs incurred by the City for reinspection of poor workmanship, failing air tests, failing compaction tests, failing tests of any kind, and re-staking caused by the Contractor shall be deducted from the amounts due the Contractor by contract change order. The Engineer's decision as to determination of poor workmanship shall be final.
601.1 **Sample and Tests.** At the option of the Engineer, the source of each of the materials shall be approved by the Engineer before delivery is started and before such material is used in the work. Representative preliminary samples of the character and quality prescribed shall be submitted by the Contractor or producer of all materials to be used in the work, for testing or examination as desired by the Engineer.

All tests of materials furnished by the Contractor shall be made in accordance with commonly recognized standards as set forth in the specifications and such other special methods and tests as may be prescribed.

The Contractor shall furnish such samples of materials as are requested by the Engineer, without charge. No material shall be used until it has been approved by the Engineer. Samples will be secured and tested by the laboratory whenever necessary to determine the quality of material.

601.2 **Defective Materials.** All materials not conforming to the requirements of these specifications shall be considered as defective, and all such defective materials, whether in place or not, shall be rejected. They shall be removed immediately from the site of the work unless otherwise permitted by the Engineer. No rejected material, the defects of which have subsequently been corrected, shall be used until approved in writing by the Engineer.
Upon failure on the part of the Contractor to comply with any order of the Engineer made under this provision of these specifications, the Engineer shall have authority to remove and replace defective material and deduct the cost of removal and replacement from any monies due or to become due the Contractor.

601.3 **Storage of Materials.** Materials shall be so stored as to ensure the preservation of their quality and fitness for the work. Stored materials shall be so located as to facilitate prompt inspection. Space for main storage/construction yard shall be the Contractor's responsibility.

No construction material shall be stockpiled in the street for a period of more than five (5) days at a particular location. Contractor shall coordinate with the Engineer to designate such temporary storage areas. The delivery of materials on site should be scheduled in installments in such a way that all stockpiled materials are used within the above specified period. Proper lighted barricades and other required traffic controls shall be maintained at all times around the stored materials. No material shall be stored on the sidewalk area and/or in front of driveways or within 15 feet of a fire hydrant or catch basin, passageways, or in such a way as to hinder pedestrians, vehicular flow, or drainage.

Street curbs and gutters shall be clear from stockpiled materials. To maintain flow of unobstructed surface water on the street, 4" diameter minimum drain pipes shall be provided along the gutters if any materials are stockpiled in those areas.
At least one lane shall be kept open in the street at every time during the time material is stockpiled in the public right of way. Any violation of the above requirements will result in a declaration of an emergency situation by the Engineer and proper remedial action shall be taken in accordance with Section 401.7 of this specification.

Clean up and tidiness under Section 401.6 shall be adhered to and enforced.

601.4 Trade Names or Alternatives. Whenever any article or any class of materials is specified by a trade name or by the name of any particular patentee, manufacturer or dealer, it shall be and is mutually understood to mean and specify the article or class of materials described, or any other equal thereto in quality, finish, and durability, and equally as serviceable for the purpose for which it is intended, subject to the approval and acceptance of the Engineer.
SECTION 7 - LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC

701.1 Laws to be Observed. The Contractor shall keep himself fully informed of all state and national laws and all municipal ordinances and regulations of the City which in any manner affect those engaged or employed in the work, or which in any way affect the conduct of the work, and or all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same.

The Contractor shall at all times observe and comply with, and shall cause all agents and employees to observe and comply with all such laws, ordinances, regulations, orders and decrees, including all provisions of the Occupational Safety and Health Act of 1979 and all amendments thereto, and all applicable federal, state, municipal, and local safety regulations; and shall protect and indemnify the City, the Council, and the Engineer, and all of its and their officers and agents and servants against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by himself or his employees. If such discrepancy or inconsistency is discovered in the plans, drawings, specifications, or contract for the work in relation to any such law, ordinance, regulation, order or decree, the Contractor shall forthwith report the same, in writing, to the Engineer.

701.2 Hours of Labor. Eight (8) hours of labor shall constitute a legal day's work for all workers employed on this contract and the Contractor and any subcontractor under him shall comply with and be governed by the laws of the State of California.
having to do with working hours as set forth in Division 2, Part 7, Chapter 1, Article 3 of the Labor Code of the State of California as amended.

The Contractor shall forfeit, as penalty to the City of Berkeley, twenty-five dollars ($25.00) for each laborer, worker, or mechanic employed in the execution of the contract, by him or any subcontractor under him, upon any of the work hereinbefore mentioned, for each calendar day during which said laborer, worker, or mechanic is required or permitted to work more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week in violation of said Labor Code.

701.3 Apprentices. The Contractor and any subcontractor working under him must comply with and be governed by the laws of the State of California having to do with the employment of apprentices on public works as set forth in Sections 1777.5 and 1777.6 of the Labor Code of the State of California.

Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Director of Industrial Relations, San Francisco, California, or from the Division of Apprenticeship Standards and its branch offices.

701.4 Nondiscrimination. There shall be no discrimination against any employee who is employed in the work covered by this contract, or against any applicant for such employment, because of race, religion, color, disability, national origin, or sexual preference. This provision shall include, but not be limited to, the following:
employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training including apprenticeship.

In order that this provision against discrimination shall achieve the intended result, before a contract is awarded to the apparent successful bidder there shall be a pre-award conference between such apparent successful bidder and the City Manager, or the City Manager's designated representative. Such pre-award conference shall be held after the opening of bids and before award of the contract at a date and time to be designated by the City Manager, or his representative, and at such pre-award conference the apparent successful bidder shall present to the City Manager, or his authorized representative, the program of affirmative action he proposed to undertake to ensure that persons are employed and employees are treated so that they receive equal opportunities without regard to race, religion, color, disability, national origin, or sexual preference. Such program shall include not only the affirmative action proposed to be undertaken by the apparent successful bidder in his own employment practices but also the affirmative action that he proposes to undertake to assure that all subcontractors working under him provide equal employment opportunities for all without regard to race, religion, color or national origin. Failure to carry out the proposed program of affirmative action shall be deemed to be a violation of the contract within the meaning of Section 701.26 of the General Provisions.

In the event that the apparent successful bidder refuses or fails to participate in such pre-award conference or refuses or fails to present a program of proposed
affirmative action, the Council may determine that he is not the lowest responsive bidder and his bid shall be rejected. In such event, the City Council shall have the right to declare such apparent successful bidder to be a nonresponsive bidder, in which case no contract shall be awarded to him by the City for a period of at least three (3) years from the date of the declaration by the Council that he is a nonresponsive bidder, and then only after satisfactory evidence that he will comply with the requirements of this Section of the General Provisions.

If the bid of the apparent successful bidder is rejected by the Council and the Council wishes to award the contract to another bidder, such contract shall not be awarded until such bidder has complied with the requirements of this Section relating to pre-award conference and the effects thereof, as hereinabove set forth, shall be applicable to said other bidder, except that such pre-award conference shall be held within five (5) days following the action of the Council in rejecting the bid. The other bidders shall be considered for award pursuant to this paragraph in the order of their bids starting with the next lowest responsive bidder and continuing until a bidder complies with the requirements of this Section, or until the council takes other action as authorized by Section 67 of the Charter.

701.5 Prevailing Wage. The Contractor and any subcontractor working under him must comply with and be governed by the laws of the State of California having to do with the prevailing wage to be paid as is set forth in Division 2, Part 7, Chapter 1, Article 2 of the Labor Code of the State of California as amended.
The Contractor shall forfeit, as penalty to the City, twenty-five dollars ($25.00) for each laborer, workman, or mechanic employed, for each calendar day or portion thereof, such laborer, workman, or mechanic is paid less than the general prevailing wages hereinafter stipulated for any work done under the attached contract, by him or by any subcontractor under him, in violation of the provisions of said Labor Code. In addition, the Contractor shall pay to the workmen the wages resulting from the difference between the stipulated wage rate and the wages actually paid.

The Engineer has a current copy of general prevailing wage rates applicable to the work, a copy of which is made part of these specifications by reference.

701.6 **Compensation Insurance.** Before beginning work, the Contractor shall furnish to the Engineer a certificate of insurance as proof that he has taken out full compensation insurance for all persons whom he may employ directly or through subcontractors in carrying out the work specified herein, in accordance with laws of the State of California. Such insurance shall be maintained in full force and effect during the period covered by this contract.

701.7 **Governmental Regulations.** Bid price shall not be in excess of maximum prices permitted by the federal or state government.

All orders are subject to ability to obtain and use materials and deliver finished products under federal and state regulations and orders. If shipping dates are subject to delays resulting from preference rating or priority shipments order or
requested by the United States Government or by any department, commission or agency thereof, the Contractor shall not be held liable for such delay.

701.8 **Taxes.** The City is liable for the State Sales Tax and where the County of purchase has adopted the Uniform Sales Tax law and a City and/or County tax is collected by the State, the City of Berkeley is liable for this tax also.

The City if exempt from the Federal Excise Tax and exemption certificates will be furnished. In certain instances, the bidder and subcontractor may be liable for Federal Excise Tax. Bidder must determine whether Federal Excise Tax is chargeable to him and if so, the amount of the tax should be included in the amount bid.

Any new or additional taxes levied after the adoption of these specifications that are payable by the City are not to be included in the price bid, but added thereto when invoiced.

701.9 **Permit and Licenses.** The Contractor shall procure all permits and licenses, pay all charges and fees, and give all notice necessary for the lawful prosecution of the work.

701.10 **Royalties and Patents.** The Contractor shall pay all royalties and patent fees. He shall defend all suits and claims for infringements of any patent rights and shall save the City harmless from loss on account thereof, except that the City shall be responsible for all such loss when a particular process or the product of a particular
manufacturer is specified. If, however, the Contractor has information that the procedures or article specified is an infringement of a patent, he shall be responsible for any loss unless he promptly gives said information to the City.

The Contractor shall assume all responsibilities arising from the use of patented materials, equipment, devices or processes used on or incorporated in the work.

All fees and royalties for any patented invention or process used in connection with the work shall be included in the price bid for such work, and the Contractor shall obtain a permit from the patentee for use of the same.

701.11 Public Convenience and Safety. The Contractor shall so conduct his operations as to cause the least possible obstruction and inconvenience to the public.

Residents along the work shall be provided passage as far as practicable. Convenient access to driveways, houses, and buildings along the work shall be maintained and temporary crossings shall be provided and maintained in good conditions. Contractor shall maintain access to all driveways except when actually doing construction within the driveway boundaries, at which time parking access will be maintained unless alternate arrangement can be made with the property owners or tenants in advance. No more than one intersection street shall be closed at any one time without the approval of the Engineer.

The Contractor shall furnish all flagpersons, barricades, barriers, lanterns, flares, "DR" type detour signs, and other devices which may be necessary for adequate
Traffic control shall be performed in accordance with the following requirements:

- Safe pedestrian passage shall be provided at all times on the project site.

- All open trenches will be covered with appropriately thick steel plates in accordance with page 25 of the "Work Area Traffic Control Handbook" published by Building News, Inc. (213) 870-9871. Safe passage for all vehicles shall be maintained at all times in both directions.

- Sufficient number of reflectorized signs shall be supplied and used on the job site at all times to efficiently control traffic in accordance with this specification. Each and all barricades shall be equipped with operative automatic flashers.

- Berkeley Police and Fire Departments, Berkeley School District, City Streets and Utilities Division, and A.C. Transit shall be advised of the planned construction, blocked streets, and other changes affecting traffic conditions (48 hours in advance), every work day -- or more frequently. Additionally, the Police and Fire Departments and Resident Engineer must be given telephone numbers where the Contractor may be reached at all hours in the event of an emergency involving the work. Appropriate Police, Fire, Berkeley School District, City Streets and Utilities Division, and A.C. Transit telephone numbers are as follows:
Proper signs and devices shall be used to warn, direct, and control traffic in the vicinity of
the work and shall conform in size, shape, and color to the requirements set forth
in the specifications and approved by the Engineer in accordance with the Traffic
Control Plan.

Where such facilities are not provided or are out of service, and an emergency
exists that necessitates protective measures, the Engineer or his representative, may
provide such facilities during the emergency and the cost thereof shall be paid by
the Contractor or deducted from monies due or to become due him on the contract.
Such action by the Engineer, however, shall not relieve the Contractor of his
responsibility for any damages which may occur before, during or after such
precaution has been taken by the Engineer, and shall place no liability upon the
City or the Engineer.

To keep evening and night noise levels to a minimum, no engine driven equipment
shall be operated between 5:00 p.m. and 7:30 a.m. unless previously authorized by
the Engineer.
701.12 Responsibility for Damage. The City, the Council, or the Engineer shall not be answerable or accountable in any manner for any loss or damage that may happen to the work or any part thereof; or for any materials or equipment used in performing the work; or for injury or damage to person or persons, either workmen or the public; or for damage to adjoining property from any cause whatsoever during the progress of the work or at any time before final acceptance.

The Contractor shall be held responsible for any and all loss, accidents, injury or damage to persons or property which may be the result of this contract and for which the City might be held liable. The Contractor shall protect and indemnify the City and save it harmless in every way from all claims, suits or actions of law for damage or injury to persons or property that may arise or be occasioned in any way because of this contract. The Council may retain so much of the money due the Contractor as shall be considered necessary, until disposition has been made of such suits or claims for damages as aforesaid.

701.13 Public Liability and Property Damage Insurance. Before commencing the work, the Contractor shall furnish to the City Attorney of the City satisfactory evidence of public Liability and Property Damage insurance with limits of liability as listed in the Notice to Bidders and as approved by the City's Risk Manager. Such insurance shall name the City of Berkeley officers, employees, agents and its consultants associated with the project (City to provide names of the consultant(s)) as additional named insured and it shall be provided that any cancellation or reduction in coverage of the insurance by either the assured or the insurance
company will not be effective until thirty (30) days after written notice thereof has been given to the City.

701.14 **Contractor's Responsibility for Work.** Until the formal acceptance of the work by the Engineer, the Contractor shall have the charge and care thereof, except as provided in Section 701.11, **Public Convenience and Safety,** and shall bear the risk of injury or damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or from the nonexecution of the work. The Contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work occasioned by any cause before final acceptance and shall bear the expense thereof, except such injuries or damages as occasioned by acts of war.

701.15 **Entry Rights.** The right is reserved to the City, and also to railway, water, gas, telephone, telegraph, cable television and electric power transmission companies to enter upon the work for the purpose of making repairs and changes that have become necessary by reason of work. Projects financed in whole or in part with State funds shall be subject to inspection at all times by the State of California agency having jurisdiction or his agent.

701.16 **Cooperation between Contractor and Utility Companies.** The Contractor shall be responsible for ascertaining the nature and extent of any simultaneous, collateral, and essential work by others. The City, its workers and contractors, and others shall have right to operate within or adjacent to the workers to perform such work.
The City, the Contractor, and each of such workers, contractors, and others shall coordinate their operations and cooperate to minimize interference.

The Contractor shall include in its bid all costs involved as a result of coordinating its work with others. The Contractor will not be entitled to additional compensation from the City for damages resulting from such simultaneous, collateral, and essential work. If necessary to avoid or minimize such damage, or delay, the Contractor shall redeploy its work force to other parts of the work.

Should the Contractor be delayed by the City, and such delay could not reasonably have been foreseen and prevented by the Contractor, the Engineer will determine the extent of the delay, the effect of the delay on the project as a whole, and any commensurate extension of time.

If the work of the Contractor is delayed because of any acts or omissions of any other contractor or utility company, the Contractor shall on that account have no claim against the City other than for an extension of time.

701.17 Obstruction. No material or other obstruction shall be placed within fifteen (15) feet of fire hydrants, which must be at all times readily accessible to the Fire Department.

Where the completion of the work requires their removal, the Contractor shall remove and dispose of all structures, debris, or other obstructions encountered in making the improvement.
701.18 **Sanitary Conveniences.** Necessary sanitary facilities for the use of workers properly secluded from public observation and in compliance with health ordinances and laws, shall be constructed and maintained in an approved manner by the Contractor, and their use shall be strictly enforced.

701.19 **Preservation of Monuments.** The Contractor shall carefully preserve bench marks, reference points and stakes, and in case of willfully or careless destruction, he will be charged with the entire cost of replacing them and shall be responsible for any mistakes that may be caused by their unnecessary loss or disturbance. Monuments which have to be removed shall not be disturbed until authorized by the Engineer. The Contractor shall provide the City with a minimum of 48 hours notice of any activities which may result in the displacement damage or destruction of monuments.

701.20 **Opening Sections of New Work.** Whenever, in the opinion of the Engineer, any section of the work is in a condition for beneficial use by the City it may be opened for use. Such openings, when authorized in writing by the Engineer shall not represent acceptance of that portion of the work unless all specified testing has been satisfactorily completed.

The Contractor will be responsible for all necessary repairs on any section of work, so opened, due to defective material or work, damage by Contractor's operation, or to natural causes other than ordinary wear and tear until final completion and acceptance of the work. Such repairs shall be at the expense of the Contractor.
701.21 Acceptance of Work on Contract. When the final inspection is completed and it has been determined that the work is in accord with the plans and specifications, the Engineer will formally accept the contract. After such acceptance, the Contractor will be relieved of protecting the work, except for such correction or repair as shall be required to correct any defect in the work. The Contractor will not be required to perform any further work thereon except such items as may be reserved specifically in the specifications or formal written acceptance, and he shall be relieved of responsibility for injury to persons or property or damage which occurs after the formal written acceptance.

701.22 Correction of Errors, Recovery for Errors, Dishonesty or Collusion. The City reserves the right to correct any error that may have been made in any estimate that has been paid. The City also reserves the right to claim and recover by process of law any sums sufficient to correct any error or make good any deficiency in the work, regardless of when such error, dishonesty or collusion shall be discovered.

701.23 Rights in Materials and Salvage. Ownership of materials incorporated in the work is vested in the name of the City. Any material delivered and paid for in part by the City or any material furnished by the City to be incorporated in the work, is or becomes the property of the City. Any salvageable materials or installations existing at the site of the work (such as manhole rings and covers, catch basin gratings, angle iron, pipe railings, valve boxes and lamphole boxes, and other steel, cast iron or metallic materials) that are the property of the City, if they are to be removed shall be delivered F.O.B. to the storage yard designated by the City. The
salvageable materials shall be cleaned of clinging concrete and debris and delivered to the storage yard in the same condition as it existed prior to removal, unless the Contractor is instructed otherwise by the Engineer.

701.24 Right-of-Way. The right-of-way for the work to be constructed will be provided by the City. The Contractor shall make his own arrangements, and pay all expenses for additional area required by him outside the limits of the right-of-way, unless otherwise provided in the Special Provisions.

701.25.1 Underground Facilities. The City has investigated underground conditions to the extent allowed by the City records and has indicated on the drawings such underground structures and conditions as are known to exist. In addition, the drawings indicate information furnished to the City by the utility agencies concerning their facilities. The City does not guarantee, either expressly or by implication, that the underground conditions indicated are either complete or exact as to locations and depths. No additional allowance will be made in cases where underground conditions vary as to number, structures, depths, locations or any other condition from the information shown on the drawings. In all cases, the cost of dealing with the identified underground facilities encountered will be considered as being included in the bid prices for the various items of work.

701.25.2 Protection of and Liability for Unidentified Underground Public Utilities. The following is pursuant to California Government Code Division 5, Chapter 3.1, Section 4215. The City is responsible for the removal, relocation or protection of existing utilities located on the construction site that is subject of these plans and
specifications if such existing underground utilities are not identified in the plans and specifications and made a part of the invitation for bids. The Contractor will not be assessed liquidated damages for delay in completion of the contract, when such delay is caused by failure of the City or utility owner to provide for removal or relocation of the unidentified existing utility facilities.

701.26 Compliance with Contract. In the event any provision of the contract including the General Provisions and specifications, is violated, and the Contractor refuses to comply after 10 days written notice is given by the City, the City shall have the additional right, without further notice, to cancel the contract and/or declare such Contractor to be a nonresponsive bidder, in which case no contract shall be awarded him by the City of a period of at least three (3) years from the date of violation, and then only after satisfactory evidence that he will comply with City specification and contract provisions.
SECTION 8 - PROSECUTION AND PROGRESS

801.1 Subletting and Assignment. The Contractor shall give his personal attention to the fulfillment of the contract and shall keep the work under his control. The contract may be assigned only upon written consent of the Engineer.

Subcontractors will not be recognized as such, and all persons engaged in the work of construction will be considered as employees of the Contractor, and their work shall be subject to the provisions of the contract and specifications.

When a portion of the work sublet by the Contractor is not being prosecuted in a manner satisfactory to the Engineer, the subcontractor shall be removed immediately on the written request of the Engineer and shall not again be employed on the work.

801.2 Progress of the Work and Time for Completion. The Contractor shall begin work within 30 calendar days after the award of the contract and shall diligently prosecute the same to completion before the expiration of the time specified in the Bidding Documents. After issuing of Notice to Proceed and prior to commencement of mobilization and construction, the Contractor shall be required to attend a pre-construction meeting.

The Engineer may extend the starting date.
801.3 **Programming Work.** After notification of award and at least five (5) working days prior to start of any work, the Contractor shall submit to the Engineer for approval its proposed construction schedule. No construction work will start unless the schedule is approved by the Engineer. The construction schedule shall be in the form of a tabulation, chart, or graph and shall be in sufficient detail to show the chronological relationship of all activities of the project including, but not limited to, estimated starting and completion dates of various activities, submittal of shop drawings to the Engineer for approval, procurement of materials, and scheduling of equipment. The construction schedule shall reflect completion of all work under the contract within the specified time and in accordance with these specifications. The schedule shall include completion dates of all major activities on a block to block basis.

If the Contractor desires to make a major change in the method of operations after commencing construction, or if the schedule fails to reflect the actual progress, the Contractor shall submit to the Agency a revised construction schedule in advance of beginning revised operations.

Loss of work for any cause during the period of time prior to the submission of the progress schedule will not be considered by the Engineer in his computation of time extensions. In addition, the Contractor shall submit a complete list of subcontractors who will perform the work on this project and a list of all major material suppliers. No substitutions of any kind will be allowed, either of subcontractors or material suppliers without the written approval of the Engineer.
In case of any delays from the original schedule due to any reason, the Contractor will immediately notify the Engineer and resubmit the revised schedule within forty-eight (48) hours of that change. Any request for change in the original schedule shall be evaluated and approved or denied in accordance with requirements listed in these specifications.

All work on the project shall be performed between the hours of 7:30 AM and 5:00 PM on a regular work day. No work shall be scheduled beyond these hours on a regular work day, holiday, or weekend without prior approval from the Engineer. The Contractor shall submit this request in writing at least one week in advance. The Contractor shall pay for the inspection time of the City's resident Engineer or his designated representative on an overtime basis for required inspection of work performed beyond the mentioned regular day working hours and on holidays or weekends. This inspection charge will be deducted from the Contractor's progress payment.

All work, including finish paving on a City block and final clean up, shall be completed within five (5) weeks from the start of construction on the respective City block.

801.4 Character of Workers. If any subcontractor or person employed by the Contractor shall refuse to carry out the provisions of the plans and specifications or shall appear to the Engineer to be incompetent or to act in a disorderly or improper manner, he shall be discharged immediately on the written request of the Engineer, and such person shall not again be employed on the work.
801.5 **Temporary Suspension of Work.** The Engineer shall have the authority to suspend the work wholly or in part, for such period as he may deem necessary due to unsuitable weather, or to such other conditions as are considered unfavorable for the suitable prosecution of the work, or for such time as he may deem necessary due to the failure on the part of the Contractor to carry out orders given, or to perform any provisions of the work. In addition, the Contractor shall comply with the Traffic Engineering recommendation within a 24-hour period or immediately if requested. Failure to comply with this shall be sufficient reason for the Engineer to suspend the work. The Contractor shall immediately obey such orders of the Engineer and shall not resume the work until ordered in writing by the Engineer.

801.6 **Liquidated Damages for Failure to Complete Work in Specified Time.** Time is of the essence and an essential condition of the Contract. If all the work called for under the contract is not completed before or upon the expiration of the time set forth in the Bidding Documents, damage will be sustained by the City. Since it is and will be impracticable to determine the actual damage which the City will sustain in the event of and by reason of such delay, it is therefore agreed that the Contractor will pay to the City the sum specified in the Bidding Documents for each and every working day beyond the time prescribed to complete the work, not as a penalty, but as a predetermined liquidated damage. The Contractor agrees to pay such liquidated damages as are herein provided, and in case the same are not paid, agrees that the City may deduct the amount thereof from any money due or that may become due the Contractor under the contract.
801.7 Extension of Time. If the work called for under the contract is not completed within the time specified, the Engineer may extend the time for completion if it serves the best interest of the City. If the time limit for the completion of the contract is extended, the Engineer may charge to the Contractor or deduct from the final payment for the work, all or any part of the actual cost of engineering, inspection, superintendence, and other overhead expenses which are incident to the work, and which accrue during the period of such extension. The cost of final surveys and preparation of final estimate shall not be included in such charges.

801.7.1 Extension of Time Due to Extra Work and Inclement Weather. Extensions of time for extra work, when granted, shall be based upon the effect of delays to the Work and will not be granted for noncontrolling delays to minor portions of the work unless it can be shown that such delays did or will delay the progress of the Work. Extensions of time for inclement weather, when granted, shall be based upon impacts to the Contractors work operations causing not less than 50 percent of the effort to be shut down.

801.8 Delays and Suspension of Work. The Contractor shall not be assessed with liquidated damages nor the cost of engineering and inspection during any delay in the completion of the work caused by the wrongful act or negligence of the City or its employees, agents or representatives, by acts of God, acts of the public enemy, fire, floods, epidemics, quarantine restrictions, labor disputes, freight embargoes, materials delays when approved by the Engineer, inclement weather or delays of subcontractors due to such causes; provided, that the Contractor shall within five (5) working days from the end of any such delay notify the Engineer in writing of
the cause of delay. The Engineer will determine the extent of delay and his findings of the facts thereon shall be final.

In the event the Contractor is delayed in the work by the wrongful act or negligence of the City or its employees, agents or representatives, which said delay is not caused by or the continuance of which is not due to any act or conduct on the part of the Contractor, reimbursement or payment to the Contractor for such delay, if at all, shall be limited to any money actually and necessarily expended on the job during the period of delay, solely by reason of said delay. No reimbursement, payment or allowance will be made for anticipated profits, rental charges for equipment owned by the Contractor, or any overhead or indirect costs.

801.9 Acceptance of Payment Does Not Constitute Waiver. If the City accepts any work or makes any payment under this contract after a default by reason of delays, the payment or payments shall in no respect constitute a waiver or modification of any of the provisions in regard to time of completion and liquidated damages.

801.10 Suspension of Contract. If at any time the Contractor has failed to supply an adequate working force or materials of proper quality, or has failed in any other respect to prosecute the work as intended by the terms of the contract, notice thereof in writing will be served upon him and his surety by the Engineer. Should the Contractor neglect or refuse to provide means for satisfactory compliance with the contract within three (3) working days, the Engineer shall have the power to suspend the operations of the Contractor. Upon receiving notice of such suspension, the Contractor shall discontinue said work or such parts of it as the
Engineer may designate. Upon such suspension, the Contractor's control of the work shall terminate. The City or its duly authorized representative, may take possession of all or any part of the Contractor's materials, tools, equipment, and appliances upon the premises, and use the same for the purpose of completing said contract, and hire such force and buy or rent such additional machinery, tools, appliance and equipment, and buy such additional materials and supplies at the Contractor's expense as may be necessary for the proper conduct of the work and for the completion thereof. The City may employ other parties to carry the contract to completion, employ the necessary workmen, substitute other machinery or materials, and purchase the materials contracted for, in such manner as the Engineer may deem proper. The City may annul and cancel the contract and re-let the work or any part thereof.

801.11 Liability of Contractor in Event of Suspension or Cancellation. Any excess of cost over and above the contract price because of suspension of the contract will be charged against the Contractor and his sureties, who will be liable therefor. In the event of such suspension, all moneys due the Contractor or retained under the terms of this contract shall be forfeited to the City until all obligations of the contract have been met. Such forfeiture will not release the Contractor or his sureties from liability for failure to fulfill the contract.

The Contractor and his sureties will be credited with any surplus of money so forfeited by the suspension or cancellation of the contract after the completion of the work by the City as above provided. The Contractor or his surety may claim
any surplus remaining after all just claims for such completion of the contract have been paid.

801.12 Decision of Council Binding on All Parties. The final determination of the question as to whether there has been non-compliance with the contract sufficient to warrant the suspension or annulment thereof, rests with the Council. Its decision shall be binding on all parties to the contract.

801.13 Guarantee. The Contractor shall guarantee the entire work constructed by him under the Contract to be free of defects in materials and workmanship for a period of one year after completion and acceptance by the Agency. The date of initiation of this guarantee period shall be the date of the filing of the notice of completion by the Agency. The Contractor shall agree to make, at his own expense, any repairs or replacements made necessary by defects in materials and workmanship which become evident within said guarantee period. The Contractor hereby agrees to defend, to indemnify and hold harmless the Agency; its officers, agents and employees, and its consultants associated with the project (City to provide name of consultant), against and from all claims and liability arising from damage and injury due to said defects. The Contractor shall make all repairs and replacements promptly upon receipt of written order from the Engineer. If the Contractor fails to make the repairs and replacements promptly, the Agency may do the work and the Contractor and his surety shall be liable to the Agency for the cost of such work.

The performance of guarantee and conditions specified above shall be secured by a surety bond which shall be delivered by the Contractor to the Agency prior to the
date on which final payment is made to the Contractor. Said bond shall be in an approved form and executed by a surety company or companies satisfactory to the Agency, in the amount of 10 percent of the Contract price. Said bond shall remain in force for the duration of the guarantee period.
SECTION 9 - MEASUREMENT AND PAYMENT

901.1 Measurement of Quantities. For all items of work, other than those to be paid for by lump sum, after the work is completed and before final payment is made therefore, the Engineer shall make final measurements to determine the quantities of various items of work performed as the basis for final settlement. The Contractor, in case of unit price items, will be paid for the actual amount of work performed and for the actual amount of materials in place, in accordance with these specifications as shown by the final measurements. All work completed under this contract shall be measured by the Engineer according to the standards of weight and measures recognized by the National Bureau of Standards. A ton shall consist of two thousand (2,000) pounds avoirdupois.

Measurement for items paid for on the basis of lineal or surface area shall be along centerline distances and in horizontal planes. In computing volumes, the method of average end areas will be used with the aid of planimeter. The pay weight for all items to be paid for by weight shall be determined by actual certified scale weight, certified shipping weight or computed weight if so specified.

In order that the City of Berkeley shall have control over materials paid for on a tonnage basis, certain procedures, as outlined below, shall be followed.

1. The Resident Engineer shall be notified prior to the delivery of materials which are to be paid for on a tonnage basis.
2. Material delivered must be accompanied by a weight tag at the time of delivery.

3. The Resident Engineer must validate each tag at the time of delivery.

4. Tags will be accepted and initialed **only** on the date shown on the tag, which shall be the date of delivery.

5. Final quantities will be based on initialed tags only.

Materials specified for measurement by tallying of vehicles having predetermined carrying capacity shall be hauled only in approved units, struck off at the top of the carrying unit or to permanent lines at the loading point and tallied at the point of delivery. Unless all vehicles have uniform carry capacity, each hauling unit shall be marked identifying the approved capacity.

**901.2 Extra and Force Account Work.** Extra work as defined in Section 401.3, when ordered and accepted, shall be paid for under a contract change order in accordance with the terms therein provided. Payment for extra work will be made at the unit price or lump sum previously agreed upon by the Contractor and the Engineer; or by force account.

If the work is done on force account, an amount equal to the sum of the following items shall be used as full and proper compensation therefor, and such amount shall be added to the price fixed by the terms of this contract for the part of the work affected:
1. The actual cost to the Contractor of the material required for the work as furnished and delivered by him at the site of the work.

2. The actual cost to the Contractor of the labor (including foremen devoting their exclusive attention to the work in question) required to incorporate all of said material into the work and to finish the work in accordance with directions and the cost of workers compensation insurance premiums for said labor.

3. The actual cost to the Contractor of equipment required for the extra work, except that the rate paid shall not exceed the current prevailing equipment rental rates. The charge for equipment shall be only for that time of actual operation devoted exclusively to the work in question.

4. Ten percent (10%) of Item 2, which shall be considered as covering the cost of small tools, plant and superintendence, and clerical work in connection with the changes.

5. Fifteen percent (15%) of the sum of Items 1., 2., and 3. which shall be considered as covering all other expenses and profit.

The City reserves the right to furnish such materials required as it deems expedient, and the Contractor shall have no claim for profit on the cost of such materials.
In order that a proper estimate may be made by the Engineer of the net cost of labor and materials entering into extra work, in accordance with the procedure herein stated, the Contractor shall furnish daily an itemized statement of materials and labor supplied, together with the cost of such material and the wages paid and shall furnish vouchers for quantities and prices of such labor, material or work. In case the Contractor fails to comply with the above provisions, he shall have no claim for compensation against the City for such extra work.

This method of determining the price of work shall not apply to the performance of any work or the furnishing of any materials which is susceptible of classification under the items for which prices are established in this contract as is required or reasonably implied to be performed or furnished under this contract.

901.3 Progress Payments. The Engineer shall, once in each month, cause an estimate in writing to be made of the total amount of work done and the acceptable materials furnished and delivered by the Contractor on the ground and not used to the time of such estimate, and the value thereof according to the schedule of prices contained in the accepted bid for work. The Engineer may make an estimate of such items of work that are only partially completed on a prorating basis and pay for that portion of the item of work completed as work done. The Contractor may request the Engineer to establish a basis for prorating the unfinished items of work, but must use such a schedule for said prorating as will then be established by the Engineer. In order to receive payment, the Contractor shall make his bills in triplicate and deliver to the office of the Engineer.
901.3.1 **Bid Item Breakdown.** The Contractor shall submit proposed bid item breakdowns for progress payment purpose within 5 days following Award. Engineer shall establish a basis for prorating unfinished items of work utilizing Contractor's proposal, but Engineer shall not be limited to breakdown of items as proposed by the Contractor. Unbalanced or "front loaded" breakdowns shall be rejected.

901.4.1 **Retained Funds.** Pursuant to Article XI, Section 66 of the City Charter, the City shall retain ten percent (10%) of such estimated value of work done as part security for the fulfillment of this contract by the Contractor and shall monthly pay to the Contractor, while carrying on the work, the balance not retained, as aforesaid, after deducting therefrom all previous payment and all sums to be kept or retained under the provisions of this contract. No such estimate or payment shall be required to be made when in the judgment of the Engineer, the work is not proceeding in accordance with the provisions of this contract or when, in his judgment, the total value of the work done since the last estimate amounts to less than one thousand dollars ($1,000.00).

901.4.2 **Payment of Retained Funds.** Attention is directed to Section 901.3 of the General Provisions "Progress Payments" and in particular to the retention provisions of said section.

1. At the request and expense of Contractor, the City will make payments of funds withheld from progress payments to Contractor or to an Escrow Agent, pursuant to the terms of Government Code Section 4590 if Contractor deposits with the City or with a state or federally chartered bank as escrow agent an equal value of
securities eligible for substitution pursuant to Government Code Section 4590. Contractor agrees that any escrow agreement under this contract provision must substantially conform to the form escrow agreement in Government Code 4590. Securities will be held in the name of the City, with the Contractor as beneficial owner. The City will determine market value of substituted securities. Contractor will deposit additional securities to restore the total market value of deposited securities if the market value decreases below the retention amount.

2. The Contractor shall bear the expense of the Escrow Agent who may be either the City Treasurer or the bank, in connection with the escrow deposit made.

3. The Contractor shall obtain the written consent of the surety to such agreement.

901.5 Final Payments. The Engineer shall, after the completion of the requested work in each area, make a final estimate of the amount of work done thereunder, and the value of such work, and the City shall pay the entire sum so found to be due after deducting therefrom all previous payments and all amounts to be kept and all amounts subject to correction in the final estimate and payment.

The final payment shall not be due and payable until the expiration of thirty-five (35) calendar days from the date of acceptance of a specific phase of the work by the Engineer, and upon receipt of a bill for the amount due on the work from the Contractor.
No certificate given or payments made under the contract, except the final certificates or final payment, shall be conclusive evidence of the performance of the contract, either wholly or in part, against any claim of the Contractor, and no payment shall be construed to be an acceptance of any defective work or improper materials.

The payment of the final amounts due under the contract, and the adjustment and payment for any work done in accordance with any alterations of same, shall release the City, the Council, and the Engineer from any and all claims or liability on account of work performed under the contract or any alteration thereof.
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1. **STANDARD SPECIFICATIONS**

The Pavement Resurfacing work embraced herein shall be done in accordance with the project plans, the City’s General Provisions, these Special Provisions, and the State of California Department of Transportation (Caltrans) 2015 Standard Specifications and 2015 Standard Plans, revised July 21, 2017, herein, called the “Standard Specifications” and “Standard Plans” respectively, unless otherwise noted. In case of conflict between the Standard Specifications and Plans and the Special Provisions and/or General Provisions, the Special and/or General Provisions, shall prevail. It is the intent of this contract to obtain a finished, workmanlike job, complete in place.

2. **LOCATIONS OF WORK**

The work described in these specifications is located at various sites within the City of Berkeley as shown on the plans.

The exact limits of work are shown on the project plans.

3. **NATURE OF WORK**

The work done under these specifications includes but is not limited to: traffic control, adjustment of valve boxes and utility boxes, frames, and covers, protection and relocation of underground utility services (e.g. gas, water, sewer, electrical, telecom), concrete curbs and gutters, sidewalk, curb ramps, driveways, cross drains at curb ramps, storm drain pipe replacement, storm drain inlets, base failure repairs, pavement milling, removal and disposal of pavement surfaces and base materials, subgrade preparation, stabilization and compaction, aggregate base course, hot-mix asphalt (HMA) paving, Rubberized HMA, Full Depth Reclamation (FDR) and pavement markings, striping, and markers as specified.

4. **CONTRACTOR'S LICENSE: STATE SB #223**

State Senate Bill No. 223, signed into law by the Governor on September 27, 1985, requires all public entities to specify the type of Contractor's license which a prime Contractor must possess at the time a contract is awarded. In order to be considered for award of this contract, the prime Contractor must possess one of the following Contractor's licenses:

A - General Engineering Contractor
5. **STATE SENATE BILL SB #854**

Per State Senate Bill No. 854, signed into law by the Governor on June 20, 2014:

No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].

No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

6. **PERFORMANCE BOND**

The required 100% performance bond must be submitted on the attached performance bond form provided by the City. The form must be properly executed by the Contractor and a duly authorized representative of a surety company licensed to offer surety bonds in the State of California. All signatures must be properly authorized and notarized.

7. **LABOR AND MATERIAL BOND**

The required Labor and Material Bond in the sum of not less than 100% of the amount of the contract may must be submitted on your Surety Company's standard certificate with original signatures.

8. **OPPRESSIVE STATES COMPLIANCE STATEMENT**

“Oppressive State” means: 1) Tibet Autonomous Region and the Provinces of Ado, Kham, and U-Tsang.

Resolution No. 59,853-N.S. allows the City to refrain from entering into personal services contracts with certain entities that maintain business relationships with morally repugnant regimes. A Contractor is not eligible to receive or retain a City contract if at the time the contract is executed, or at any time during the term of the contract, it provides Personal Services to:

a. The governing regime in any Oppressive State.
b. Any business or corporation organized under the authority of the governing regime of any Oppressive State.
c. Any person for the express purpose of assisting in business operations or trading with any public or private entity located in any Oppressive State.
The Contractor must further understand and agree that Contractor’s failure to comply with the Resolution shall constitute a default of the contract and the City Manager may terminate the contract and bar Contractor from bidding on future contracts with the City for five (5) years from the effective date of the contract termination.

In compliance with this Section, the Contractor must submit the attached Oppressive States Compliance Statement along with the bid.

9. **NUCLEAR FREE ZONE DISCLOSURE FORM**

Contractor agrees to comply with the provisions of Nuclear Free Berkeley Ordinance No. 5784-N.S. as described in the Nuclear Free Zone Disclosure Form included herein. Contractor must submit said Disclosure Form along with the bid.

10. **EQUAL BENEFITS ORDINANCE DISCLOSURE FORM**

Contractor agrees to comply with the provisions of Berkeley Equal Benefits Ordinance No. 6623-N.S. Contractor must submit both the Equal Benefits Ordinance Disclosure Form and the Certification of Compliance with Equal Benefits Ordinance (Form EBO-1) included herein along with the bid prior to execution of the contract.

11. **COMMUNITY WORKFORCE AGREEMENT**

Contractor and any subcontractor at any tier shall comply with the City’s Community Workforce Agreement included herein.

Under the Community Workforce Agreement, Contractor must sign and comply with the Agreement to be Bound prior to execution of the Contract. Subcontractors at any tier must also sign and comply with an Agreement to be Bound prior to execution of their respective subcontracts. The signing of an Agreement to be Bound is a condition precedent to entering into any contract for this project.

12. **INSURANCE CERTIFICATE**

The required insurance certificate must be accompanied by the General and Automobile Liability Endorsement contained herein. The endorsement must be properly executed by a duly authorized representative of the insurance company. All signatures must be original in blue ink.

13. **PERMITS (CALTRANS & BART)**

**Caltrans Encroachment Permit Requirements**: The construction must not begin until the contractor performing the work applies for and obtains a separate encroachment permit (referred
to as a Double Permit) for the work authorized herein. An initial fee/deposit of $492.00 is required at the time of application for permit processing and inspection.

A pre-job meeting with the State Representative is required at least 7 days prior to the start of any work under this encroachment permit. Failure to do so may result in permit revocation with no prejudice. The permittee must provide the stage construction plans, traffic handling plans, work schedule, and a list of all sub-contractors to the State Representative at the time of the pre-job meeting. Appendix B of these special provisions includes Caltrans encroachment permit.

**BART Permit Requirements:** All the work within the Bay Area Rapid Transit District (BART) operating right of way (ROW) shall require a BART permit and must meet BART’s insurance requirements. Appendix C of these special provisions includes: Exhibit “B”, “General Terms and Conditions Relating to Utility Permits”, Exhibit “C”, “Insurance Requirements”.

### 14. PUBLIC RELATIONS REQUIREMENTS

Public Relations Policy. In the course of serving its citizens, it is the policy of the City of Berkeley to be responsive, helpful and courteous to its residents at all times. Any City employee or CITY CONTRACTOR that will be in contact with residents, in person or by telephone, will adhere to this policy.

The Contractor is required to prepare a Public Relations Plan to implement the above policy. The Plan shall be submitted for approval before commencing the work under this contract. The Contractor shall certify that he understands and will adhere to the City's Public Relation Policy, and that all Contractor employees will be briefed on proper relations with the public in accordance with above policy statement.

Contractor employees without specific public relations responsibilities shall be informed of the name of the Contractor's and the City's Public Relation Coordinators for referral purposes.

ANY CONTRACTOR EMPLOYEE WHO DOES NOT ADHERE TO THE ABOVE PUBLIC RELATIONS POLICY BY DISPLAYING RUDE, OFFENSIVE AND UNCOOPERATIVE BEHAVIOR SHALL BE DISCHARGED IMMEDIATELY ON WRITTEN REQUEST OF THE ENGINEER PER SUBSECTION 801.4.

**Public Relations Plan.** The Public Relations Plan shall include but is not limited to the following:

a. Name of the Contractor's Public Relations Coordinator and his/her experience with interfacing with the public.

b. Plans for conducting public impact assessments prior to commencing the total project, each stage of the project, as necessary to execute the provisions of this contract without undue impact on the public.

c. Techniques or plans for interfacing with the public and agencies at various stages of the project.
d. Method of notifying and informing the public and agencies prior to construction stages, providing ample time to address their concerns.

e. Plans for coordinating public relations matters with the City during the pre-construction conference, weekly meetings and during review of the construction schedule.

f. Provisions for and frequency of briefing employees on the details of executing the Public Relations Plan.

POOR PERFORMANCE AND NON-ADHERENCE TO THE CITY'S PUBLIC RELATIONS POLICY ARE GROUNDS FOR BEING DECLARED A NON-RESPONSIVE CONTRACTOR THAT MAY RESULT IN THE CITY REJECTING BIDS ON FUTURE CONTRACTS.

No additional compensation will be paid by the City for implementing Public Relations Policy requirements. All such related effort is a mandatory requirement of the contract.

15. PROGRESS SCHEDULE

A detailed progress schedule will be required for this contract. The progress schedule shall be submitted prior to commencement of work and updated Bi-weekly. The Contractor shall provide a graphic description, in the form of a bar chart that outlines the items of work to be completed, and provide weekly updated written documentation that the work is proceeding on schedule and will be completed within the specified time frame. This schedule will assist the City in advanced notification of adjacent residents and businesses. Therefore, the schedule and any changes to the schedule must be approved by the City and adhered to by the Contractor.

16. HOLIDAYS

The full width of the street's traveled way shall be opened for use by public traffic on designated legal holidays.

Designated legal holidays are January 1, the third Monday in February, the last Monday in May, July 4, the first Monday in September, November 11, Thanksgiving Day, and December 25. When a designated legal holiday falls on a Sunday, the following Monday shall be observed as a designated legal holiday. When November 11 falls on a Saturday, the preceding Friday shall be observed as a designated legal holiday.

The following are recognized City Holidays. No work shall be performed on these days unless previously authorized by the Engineer.

- Third Monday in January (Martin Luther King’s Birthday)
- Lincoln’s Birthday
- Monday or Friday nearest May 19 (Malcom X Day)
- Second Monday in October (Indigenous People’s Day)
- Day After Thanksgiving Day
No work shall be performed during the Christmas holiday season from November 21 through January 3 within the designated City streets in the business districts and all designated highway routes.

- Adeline Street
- Milvia Street
- Hearst Avenue

17. **SUBMITTALS**

The Contractor shall provide submittals for all materials, product data, working/shop drawings, diagrams, schedules, or other data prepared by the Contractor in accordance with the Contract requirements. The submittals shall not modify any Contract requirement.

The Contractor shall provide Certificates of Compliance from its material suppliers, in advance of the work, certifying that all materials to be used on the project conform to the requirements of these specifications. In conformance with Section 6-2.03C, “Certificates of Compliance,” of the Standard Specifications, each submittal will be signed by the manufacturer of the material and state that the material complies with the Contract. The City reserves the right to refuse to permit the use of material based on a Certificate of Compliance alone.

The list of technical submittals shall include, but not be limited to the following:

- a) Emergency Contact Names and Phone Numbers
- b) CPM Schedule
- c) Public Notice of Roadwork
- d) Water Pollution Control Plan
- e) Waste Management Plan
- f) Public Relations Plan
- g) Health and Safety Plan

Material Certificates of Compliance for:

- h) Portland Cement
- i) Hot Mix Asphalt Concrete Job Mix Formulas
- j) Portland Cement Concrete Mix Designs
- k) Aggregate Base
- l) Drainage Structures
- m) Top Soil

Submittals shall be shown on the construction schedule and shall not be critical path items of work.

All required submittals, except as noted, shall be reviewed by the Owner or Engineer and returned to the Contractor within ten (10) working days from the date of receipt by the Engineer. In addition,
the Contractor shall allow the City equivalent time periods to review re-submittals for any previously rejected or incomplete submittals.

No work may begin under contract until the CPM Schedule has been approved by the Engineer. Time required for review and approval of these items shall not constitute a basis for time extension.

The Engineer’s review of Contractor shop drawing submittals shall not relieve the Contractor of the entire responsibility for the correctness of details and dimension. The Contractor shall assume all responsibility and risk for any misfits due to any errors in Contractor submittals. The Contractor shall be responsible for the dimensions and the design of adequate connections and details. Acceptance by the Engineer of a substitute item proposed by the Contractor shall not relieve the Contractor of the responsibility for full compliance with the Contract Documents and for adequacy of the substitute item.

18. **OVERAGE PERMITS**

Contractor is hereby notified that permits must be obtained for transporting overheight, overwidth, and/or overweight loads within the limits of the City of Berkeley. These permits which may be obtained from the Engineering Counter of the City's Permit Service Center are enforced by the Berkeley Police Department. **Truck routes shall be approved by the City’s Traffic Engineer prior to start of work. Truck traffic is not allowed on Marin Avenue within the City of Albany.**

19. **WEIGHT CERTIFICATES**

A duplicate certified ticket, giving weight of material in the truck and the date and time of weighing, shall be given to the Engineer on the job as soon as the truck arrives at the site. All trucks used for hauling hot mix asphalt shall be weighed empty daily at such times as directed by the Engineer.

20. **OBSTRUCTIONS**

Attention is directed to the possible existence of abandoned underground utilities, manholes, monuments, or any other facilities which may exist within the limits of work. The Contractor shall exercise due caution in performing his work so as not to damage said facilities.

Attention is also directed to the presence of overhead and underground utilities in the construction area. The Contractor shall exercise due caution in performing his work so as not to damage said utilities.

The work specified shall be so conducted as to permit the utility companies to maintain their services without interruption.
Utilities and underground pipelines are to remain in place and shall be worked around and protected from damage or interruption of service. All costs caused by delays or extra work associated with maintaining utilities and pipelines shall be borne by the Contractor.

The Contractor shall determine the unknown location of main and service utilities in advance in order not to delay the schedule of construction. Advance potholing shall be included in the planning and execution of the work. No additional compensation will be paid by the City for the performance of this work. At the direction of the Engineer, it is the Contractor's responsibility to make corrections if conflicts arise among utilities. If conflict arises, the Contractor shall inform the Engineer in advance before any correction is made.

Where various utilities are to be relocated or set to grade by the utility companies, the Contractor shall notify the various utility companies well in advance so as not to impede this work. Contractor shall mark locations of such utilities and maintain said markings for a period of 30 days after final paving.

21. **AUDIO/VIDEO SURVEY**

The Contractor shall perform a pre-construction audio/video survey in order to adequately document the condition of existing improvements and supplemented by still photographs as needed. It is the responsibility of the Contractor to adequately document the condition of existing improvements and the Contractor may be held liable for any damage or condition whose pre-existence he/she is unable to document. No additional compensation for such survey and still photographs will be allowed. A copy of this audio/video documentation shall be provided to the City prior to construction.

22. **PROTECTION AND PRESERVATION OF SURVEY MONUMENTS**

The Contractor shall be responsible for the preservation of existing survey monuments, benchmarks, reference points, and stakes. The Contractor shall replace City Monuments and reference marks disturbed or removed during the performance of the work. Whenever a City Monument is disturbed or removed during the performance of the work, the Contractor shall replace the monument in accordance with Standard Plans 7940, 8090, 8091 or 8179, as applicable. Monument boxes and lids shall be provided by the contractor, and dome brass markers shall be supplied by the City.

Monument replacement must be done in a neat, workman-like manner. Pavement cuts shall be accurate, with vertical cuts to exact dimensions as shown on the Standard Plan. Each replacement monument shall be constructed such that the center of the dome brass marker is set within 0.04 foot of the referenced position. Monument boxes and lids shall be placed at the proper finished grade and as detailed by Standard Plan 8090 or Standard Plan 8091 as applicable. Existing monument covers shall be salvaged by the Contractor and delivered to the City Survey Staff or Project Inspector.
If the City has elected to reference known monuments within the project site, a copy of the corner records for the referenced monuments shall be provided to the Contractor prior to the start of construction. Otherwise, monument referencing shall be done by a licensed land surveyor hired by the contractor, and a copy of the corner records for the referenced monuments shall be provided to the City prior to the start of construction. For each monument that has been disturbed or removed, the replacement monument location(s) will be established by the referencing surveyor after final pavement is completed. The new dome brass marker shall not receive final punching prior to seven (7) days after completion of the Monument construction.

In the event that any non-referenced monuments become in danger of being disturbed due to construction, the Contractor shall cease the threatening activity and notify the Project Manager and City Survey Staff immediately. Response to endangered monument(s) or reference points is a priority call, and they shall be referenced in accordance with the City of Berkeley Monument Reference Guidelines (see Appendix). In no case may an unreferenced monument be damaged during construction.

Should any monument not designated for replacement sustain damage during construction, the Contractor shall bear the expense for rebuilding it as well as for the survey work the City survey crew or its survey consultant must perform in the process. In any instance where the City deems a damaged monument to be irreplaceable, whether designated or not designated for replacement, the Contractor shall be fined $20,000 per monument.

23. **PEDESTRIAN ACCESS DURING CONSTRUCTION PROJECT**

The purpose of the following standards for construction in the public right-of-way is to ensure pedestrian safety and access. The standards apply to City of Berkeley crews, contractors with the City and all other persons working in the public right-of-way. With the unique nature of each project, situations may arise which have not been covered in these standards; each project requires review on a case-by-case basis to ensure that complete, safe, usable and accessible paths of travel are maintained during construction.

The Contractor’s attention is directed to the State Standard Plans for Temporary Pedestrian Access Routes - Nos. RSP T30 through RSP T34.

All construction activities involving work affecting pedestrian access or safety within the public right-of-way shall comply with the Appendix D, “Pedestrian Access during Construction Projects.”

**Liquidated damages**

The Contractor will be assessed liquidated damages in the amount of $1,000 per calendar day for failing to fulfill the requirements of this standard.
24. **LINES AND GRADES**

This section hereby revises Section 501.7 of the General Provisions of these specifications.

Construction surveys and stakes to establish the lines and grades will be the responsibility of the Contractor and not provided by the City.

The Contractor will be responsible for setting lines and grades for the execution and completion of the work in accordance with the Plans and Specifications. The Contractor will be held responsible for all errors in staking discovered during the performance of the work and no additional compensation shall be charged to the City for correction of such deficiency.

Stakes or marks will be set by the Contractor, utilizing a qualified land surveyor in conformance with the requirements in Chapter 12, "Construction Surveys," of the California Department of Transportation's Surveys Manual.

In all other respects, Section 501.7 and the General Provisions of these specifications remain in full force and effect.

25. **STORM WATER POLLUTION CONTROLS**

The intent of these requirements is compliance with federal, state, City, and other local agencies’ regulations that prohibit non-stormwater discharges from construction sites. Pollutants (any substance, material, or waste other than rainfall derived stormwater) discharged to storm drains is strictly prohibited. Further, the Contractor is informed that Federally Endangered species have been identified in creeks within the City limits. Point source, pollutants, stormwater, and other relevant information are defined in Berkeley Municipal Code (BMC) Chapter 17.20 – DISCHARGE OF NON-STORMWATER INTO CITY’S STORM DRAIN SYSTEM – REDUCTION OF STORMWATER POLLUTION, and the City’s stormwater NPDES (National Pollutant Discharge Elimination System) Permit No. CAS612008. These documents are available upon request.

**Best Management Practices (BMP) and Source Control.** The Contractor shall use appropriate BMPs and source control techniques on the site(s) at all times, regardless of time of year or rainfall conditions, in order to prevent non-stormwater discharges from construction sites. BMPs shall be in conformance with the California Stormwater Quality Association’s “Stormwater Best Management Practice Handbook,” current edition.

**Water Pollution Control Plan (WPCP) and Coordinator.** The Contractor shall prepare, submit for favorable review by the City, and implement a WPCP which shall contain at a minimum the items included in this section. The WPCP shall show the locations of all storm drains, storm drain pipes, creeks, creek culverts, points of entry (catch basins, inlets, outlets), and other features through which
stormwater flows. The WPCP shall identify each point of entry and show how each entry point will be protected. The WPCP shall include a protocol for allowing drainage to flow properly during rainfall events WHILE STILL PREVENTING non-stormwater discharges from entering the storm drains, creeks, and Bay. The Contractor shall designate an individual (to be approved by the City) available at all times of sufficient authority to halt work and implement BMPs and source control measures for the Contractor and all sub-contractors, suppliers, and other personnel that may be at the construction site(s), to prevent non-stormwater discharges from the construction site(s). This individual shall be the contact person for all matters of the project regarding non-stormwater discharges. The WPCP shall include descriptions and sketches of all BMPs, show locations and describe protocols for implementing and maintaining the following BMPs for but not limited to material storage, dewatering operations, bypass pumping, saw-cutting operations, pavement operations, concrete operations, grading and excavation operations, spill prevention and control, vehicle and equipment cleaning, vehicle and equipment operation and maintenance, litter control, dust control, pavement cleaning, and construction waste management. All employees, subcontractors, suppliers, and any others involved with the construction site(s) shall be trained in implementing, the importance of, and purpose of the WPCP. Training records shall be submitted to the City along with requests for progress payment. Where BMPs affect traffic or parking, they shall be shown on the traffic control plans for the construction site(s). The WPCP shall be updated to meet changing stages of the construction site(s). Work shall not begin without the City completing its review and finding no exceptions taken on the WPCP and finding at City’s sole discretion that the WPCP meets the intent and goals of the project.

In addition, the Contractor shall observe the following guidelines:

- Paving during wet weather:
  a. No paving while it is raining.
  b. No paving of the top lift of asphalt concrete (AC) on any day that experiences \( \frac{1}{4} \)” of rain in a twenty-four period
  c. No paving of bottom lift if previous seventy-two (72) hour period experienced more than \( \frac{1}{2} \)” of rain, unless directed by the City Engineer or his designee.
- Store materials as required under Section 6-1.01, “Control of Materials, General,” of the Standard Specifications.
- Cover inlets and manholes when applying asphalt, seal coat, tack coat, slurry seal, fog seal, etc. in conformance with the provisions in Section 13-4.03E(7), “Paving, Sealing, Sawcutting, Grooving, and Grinding Activities,” of the Standard Specifications.
- Place drip pans or absorbent materials under paving equipment when not in use.
- During wet weather store paving equipment indoors or cover with tarp or other waterproof covering.
- Sweep site daily to prevent sand, gravel or excess asphalt from entering or being transported by rain into the storm drain system.
- Keep ample supplies of drip pans or absorbent materials on-site.
- If paving involves Portland cement concrete, refer to Concrete Waste Management Section of the Standard Specifications.
Do not wash out concrete trucks into storm drains, open ditches, streets, streams, etc. The Contractor shall prevent the discharge of pollutants from concrete operations by using measures to prevent run-on and run-off pollution, properly disposing of wastes, and by implementing the following BMPs:

- Store all materials in waterproof containers or under cover away from drain inlets or drainage areas.
- Whenever possible, perform washout of concrete trucks off-site where discharge is controlled and not permitted to discharge to the storm drain system. For on-site washout:
  - Locate washout area at least fifty (50) feet from storm drains, open ditches or other water bodies, preferably in a dirt area. Confine run-off from this area by constructing a temporary pit or bermed area large enough for the liquid and solid waste.
- Wash out concrete wastes into the temporary pit where the concrete can set, be broken up and then disposed of properly. If the volume of water is greater than what will allow concrete to set, allow the wash water to infiltrate and/or evaporate, if possible. Remove or vacuum the remaining silt and debris from the ponding or bermed area and dispose of it properly.
- Dispose of waste water from washing of exposed aggregate to dirt area. The dirt area shall be adequate to contain all the waste water and once the waste water has infiltrated, any remaining residue must be removed.
- Collect and return sweepings from exposed aggregate concrete to a stockpile or dispose of the waste in trash container.

Training. The Contractor is responsible for ensuring all personnel, laborers, sub-contractors, suppliers, and any other personnel that are involved with the construction site(s) are trained in the importance of preventing non-stormwater discharges. Each worker shall be certified as being trained before being allowed to work. Before any work begins, the Contractor shall submit and certify under penalty of perjury a list of all workers who have been trained on the importance of pollution prevention, BMP and source control operation and maintenance, and recognize the authority of the City to stop the work in the event of a non-stormwater discharge. The training shall include as a minimum, review of the BMP and WPCP, and all BMPs (including BMP operation and maintenance) that are planned for the construction site(s).

Enforcement. The City has the authority through this contract and appropriate sections of the BMC to enforce any portions of this section. City enforcement may include but is not limited to: citations, orders to abate, bills for City cleanup costs and administration, civil suits, and criminal charges and enforcement. Enforcement action by the City does not void or suspend any enforcement actions by other agencies and actions by the City and other agencies shall be cumulative.
Submittals and Contract Time. Contractor is cautioned and advised to have appropriately trained staff with any applicable certifications prepare all submittals for Storm Water Pollution Controls including the WPCP, and have appropriately trained staff available to meet with City staff to review the submittals. It is considered reasonable that the Contractor shall make a complete and acceptable submittal at least by the second submission. City reserves the right to deduct monies from payments due Contractor to cover additional costs of project manager’s and Architect/Engineer’s review beyond the second submission. Illegible submittals will be rejected and returned to the Contractor.

26. **DUST CONTROL**


The Contractor shall exercise diligence in preventing dust nuisance. When necessary or when directed by the Engineer, the Contractor shall apply water for laying dust. Water shall be applied by means of pressure-type distributors equipped with a spray system that will ensure a uniform application.

27. **CONFORMANCE TO PLANS AND SPECIFICATIONS**

The Contractor’s work shall conform to these specifications and project plans.

Upon notification of the Engineer, the Contractor shall correct any deficiencies within 72 hours. The City may request the City crews or contract with another Contractor to perform the necessary work and repairs if the deficiencies have not been corrected after the 72-hour notification. The Contractor shall pay the cost of the work performed by the City crews or other contractor plus an additional seventy percent (70%) surcharge by deduction from payment due on the contract.

28. **EXISTING UTILITIES**

It is not the intent of the plans to show the exact location of existing or relocated utilities, and the Engineer assumes no responsibility therefor. Whenever any such utilities are indicated thereon, the Contractor shall be responsible for verifying their actual location and depth in the field. The Contractor shall notify Underground Service Alert at (800) 227-2600 prior to excavation.

It shall be the Contractor’s responsibility to coordinate with the utility agencies for relocation or adjustment of utilities. Utilities to notify include:
Contact EBMUD before working in the vicinity of all of EBMUD facilities.

The Contractor shall be cognizant of the existing utility lines in the proximity of the work area and take precautions, as necessary, to not disturb these facilities.

Where excavations are performed in the vicinity of underground utility mains and/or services the Contractor shall, as necessary, perform initial exploratory excavations to determine their exact depth and location. Extreme care shall be exercised to avoid damage, and it will be the Contractor’s responsibility to have repairs made to existing facilities at his/her expense in the event of damage.

Styrofoam shall be placed between new storm drain and existing utilities where vertical clearance between utility crossings is less than six (6) inches.

Attention is directed to the possible existence of underground facilities not indicated on the plans or in the Special Provisions and to the possibility that underground main or trunk lines may be in a location different from that which is indicated on the plans or in the Special Provisions. The Contractor shall ascertain the exact location of underground main or trunk lines whose presence is indicated on the plans or in the Special Provisions, the location of their service laterals or other appurtenances, and of existing service lateral or appurtenances of any other underground facilities which can be inferred from the presence of visible facilities such as buildings, meters and junction boxes prior to doing work that may damage any of the facilities or interfere with their service.

If the Contractor cannot locate an underground facility whose presence is indicated on the plans or in the Special Provisions, the Contractor shall so notify the Engineer in writing. If the facility for which the notice is given is in a substantially different location from that indicated on the plans or in the Special Provisions, the additional cost of locating the facility will be paid for as extra work as provided in Section 4-1.05, “Changes and Extra Work,” of the Standard Specifications.

If the Contractor discovers underground main or trunk lines not indicated on the plans or in the Special Provisions, the Contractor shall immediately give the Engineer and the Utility Company written notification of the existence of those facilities. The main or trunk lines shall be located and protected from damage as directed by the Engineer, and the cost of that work will be paid for as extra work as provided in Section 4-1.05 of the Standard Specifications. The Contractor shall,
if directed by the Engineer, repair any damage that may occur to the main or trunk lines. The cost of that repair work, not due to the failure of the Contractor to exercise reasonable care, will be paid for as extra work as provided in Section 4-1.05 of the Standard Specifications. Damage due to the Contractor's failure to exercise reasonable care shall be repaired at the Contractor's cost and expense.

Where it is determined by the Engineer that the rearrangement of an underground facility is essential in order to accommodate the highway improvement and the plans and specifications do not provide that the facility is to be rearranged, the Engineer shall provide for the rearrangement of the facility by other forces or the rearrangement shall be performed by the Contractor and will be paid for as extra work as provided in Section 4-1.05 of the Standard Specifications.

When ordered by the Engineer in writing, the Contractor shall rearrange any utility or other non-highway facility necessary to be rearranged as a part of the street improvement, and that work will be paid for as extra work as provided in Section 4-1.05 of the Standard Specifications.

Should the Contractor desire to have any rearrangement made in any utility facility, or other improvement, for the Contractor's convenience in order to facilitate the Contractor's construction operations, which rearrangement is in addition to, or different from, the rearrangements indicated on the plans or in the Special Provisions, the Contractor shall make whatever arrangements are necessary with the owners of the utility or other non-highway facility for the rearrangement and bear all expenses in connection therewith.

The Contractor shall immediately notify the Engineer of any delays to the Contractor's operations as a direct result of underground main or trunk line facilities which were not indicated on the plans or in the Special Provisions or were located in a position substantially different from that indicated on the plans or in the Special Provisions, or as a direct result of utility or other non-highway facilities not being rearranged as herein provided (other than delays in connection with rearrangements made to facilitate the Contractor's construction operations or delays due to a strike or labor dispute). These delays shall be considered within the meaning of Section 8-1.07, “Delays,” of the Standard Specifications, and compensation for the delay will be determined in conformance with the provisions in Section 8 of the Standard Specifications. The Contractor shall be entitled to no other compensation for that delay.

Any delays to the Contractor's operations as a direct result of utility or other non-highway facilities not being rearranged, due to a strike or labor dispute, shall entitle the Contractor to an extension of time as provided in Section 8-1.07B, “Time Adjustments,” of the Standard Specifications. The Contractor shall be entitled to no other compensation for that delay.

29. **REVOCABLE BID ITEMS**

Bid items noted as "revocable items" may be deleted entirely or in part from the Work at the option of the City. The provisions in Section 401.2, “Alterations and Increased or Decreased Quantities,”
of the Standard Provisions shall not apply to such omission, and no compensation will be allowed the Contractor by reason of such omission.

30. **BOND RIDERS FOR ADDITIONAL WORK DURING CONSTRUCTION**

During construction, the City may request or authorize additional work as part of the contract. Prior to commencement of any Contract Change Order (CCO) or Contract Amendment (CA), the Contractor shall submit Surety Company Bond Riders for the new contract amount. The new contract amount is the Contractor’s bid amount or authorized contract amount plus the CCO or CA. The Riders for any additional work shall be provided at no cost to the City. Typically, the maximum authorized contract amount requiring a Rider is the Contractor’s bid amount plus 20%.

31. **RETAINED FUNDS**

Pursuant to California Senate Bill 293 (SB 293), Assembly Bill 1705 (AB 1705), and Assembly Bill 92 (AB 92) until January 1, 2023, the City shall retain five percent (5%) of such estimated value of work done as part security for the fulfillment of the Contract by the Contractor. Section 901.4.1 Retained Funds of the General Provisions of these specifications is hereby revised, decreasing the amount of retained funds from ten percent (10%) to five percent (5%). In all other respects, Section 901.4.1 and the General provisions of these specifications remain in full force and effect.

32. **MOBILIZATION AND DEMOBILIZATION**

Mobilization shall consist of preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies and incidentals to the project site; for the establishment of all offices, buildings and other facilities necessary for work on the project; and for all other work and operations which must be performed or costs incurred prior to beginning work on the various contract items on the project site.

The Contractor shall insure that adequate existing sanitation facilities are available or the Contractor shall provide and maintain adequate sanitation facilities. All wastes and refuse from sanitary facilities provided by the Contractor’s operations shall be disposed of away from the site in accordance with all laws and regulations pertaining thereto.

Demobilization shall consist of preparatory work and operations, including, but not limited to, those necessary for the removal of personnel, equipment, supplies and incidentals from the project site and for all other work and operations which must be performed or costs incurred after completion of the various contract items on the project site.

33. **GENERAL CONDITIONS COMPENSATION**

Full compensation for complying with the General Conditions shall be considered as included in the contract prices paid for the various items of work and no separate payment will be made therefor.
34. **TERMINATION OF CONTRACT FOR CONVENIENCE**

A. Owner may terminate performance of the Work under the Contract Documents in accordance with this clause in whole, or from time to time in part, whenever Owner shall determine that termination is in Owner’s best interest. Termination shall be effected by Owner delivering to the Contractor notice of termination specifying the extent to which performance of the Work under the Contract Documents is terminated, and the effective date of the termination.

B. Contractor shall comply strictly with Owner’s direction regarding the effective date of the termination, the extent of the termination, and shall stop work on the date and to the extent specified.

C. Contractor shall be entitled to a total payment on account of the Contract work so terminated measured by:
   
a. the actual cost to Contractor of Work actually performed, up to the date of the termination, with profit and overhead limited to twelve percent (12%) of actual cost of work performed, up to but not exceeding the actual contract value of the work completed as measured by the Schedule of Values and Progress Schedule,
   
b. offset by payments made and other contract credits. In connection with any such calculation, however, Owner shall retain all rights under the Contract Documents, including but not limited to claims, indemnities, or setoffs.

D. Under no circumstances may Contractor recover legal costs of any nature, nor may Contractor recover costs incurred after the date of the termination.
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**PART C – TECHNICAL PROVISIONS**

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TECHNICAL PROVISIONS

The Technical Provisions were prepared under the direction of:

[Signature]

Joseph L. Ririe, P.E
Pavement Engineering, Inc.

BID ITEM NO. 20 - PULVERIZE 7" AND GRADE
BID ITEM NO. 21 - ROADWAY EXCAVATION
BID ITEM NO. 22 - COLD MILLING ASPHALT PAVEMENT (2"-2.5" Depth)
BID ITEM NO. 23 - KEYCUT A (2")
BID ITEM NO. 24 - FURNISH & INSTALL HOT MIX ASPHALT
BID ITEM NO. 25 - 3/8" RUBBERIZED HOT MIX ASPHALT
BID ITEM NO. 26 - FOAMED CEMENT TREATMENT 5"
BID ITEM NO. 27 - FULL DEPTH BASE REPAIR (REVOCABLE ITEM)
BID ITEM NO. 28 - SUBGRADE OVER EXCAVATION (REVOCABLE ITEM)
BID ITEM NO. 29 - FURNISH & INSTALL 26" WIDE GLASGRID OVER CROSS DRAIN
TECHNICAL PROVISIONS

The following Technical Provisions were prepared under the direction of:

Carlos Valadao, PE
BID ITEM NO. 65 - TRAFFIC STRIPING (12” WHITE STRIPE)
BID ITEM NO. 66 - TRAFFIC STRIPING (12” YELLOW STRIPE)
BID ITEM NO. 67 - TRAFFIC STRIPING (DETAIL 41)
BID ITEM NO. 68 - PARKING BAY STRIPING
BID ITEM NO. 69 - HIGH VISIBILITY CROSSWALK MARKINGS
BID ITEM NO. 70 - PAVEMENT MARKINGS
BID ITEM NO. 71 - KHAKI COLORED PAVEMENT MARKINGS
BID ITEM NO. 72 - GREEN PAVEMENT MARKINGS
BID ITEM NO. 1 - MOBILIZATION

The provisions of Section 9-1.16D, “Mobilization,” of the Standard Specifications shall apply in their entirety except as modified or supplemented herein.

When the final contract price for which the Contractor has bonded for a project increases by over twenty-five percent (25%) of the original base bid price due to change orders and/or increases in the quantities of items incorporated into the project, the Contractor shall be entitled to payment for additional bonding costs that have been paid to the surety company due to this increase. Payment for this cost shall be made via change order and included on the final project billing statement with supporting documentation from the Contractor.

When the final contract price decreases by over twenty-five percent (25%) of the original base bid price due to change orders and/or a decrease in the quantities of items incorporated into the project, the City shall be entitled to a reimbursement of the decrease in bonding costs paid by the Contractor. The refund of these costs shall be made via change order and deducted from the final payment for the release of retention.

It is the responsibility of the Contractor to locate a staging area for office setup, construction laydown areas, or the like and is an appropriate area for mixing and storing materials and equipment. The staging area may be located inside or outside the Berkeley City Limits. Temporary utility controls shall be arranged solely by the Contractor. It is the Contractor’s responsibility to inspect the site to determine its suitability for his operations to execute this contract. The contractor is required to obtain and show proof of all permits required by the State and/or local agencies for the use of the staging area.

The City is not responsible for providing said staging area. However, the City will assist the Contractor in identifying City property available for the staging area. If City property is used for staging area temporary chain link fencing with privacy screening will be required on-site and shall be provided by the Contractor.

It is the Contractor’s responsibility to secure a staging area for contract work, and any associated costs are considered to be included in the various contract prices paid, with no additional compensation allowed therefor. However, if the Contractor only uses City property for a staging area, no additional costs associated with securing a staging area shall be covered by the City. The contractor is not required to obtain permits for the use of City property for the staging area.
The Contractor’s proposed staging site(s) shall be approved by the Engineer. If Contractor utilizes the private property for a staging area, Contractor shall submit proof of an agreement for the use of said staging area with the private property owner(s) prior to mobilization.

The staging area(s) shall be maintained throughout the duration of the project such that it is not construed as visual blight in the opinion of the Engineer. All adjoining streets, sidewalks, and gutters shall be swept free of construction materials tracked onto them at the end of each day. Failure to do so will result in City forces cleaning the area at the Contractor’s expense. The City of Berkeley labor rate to be used shall be $150 per hour per person.

Sanitary restroom facilities shall be provided and maintained by the Contractor. The Contractor’s proposed locations for restroom facilities shall be reviewed with the Engineer prior to delivery of the restroom facility. If the Contractor and/or subcontractors are working at multiple sites simultaneously, then a restroom facility will be required at each site. Failure to provide sanitary restroom facilities is grounds for suspension of work. Contractor shall note that the count of working days will continue.

For job sites in the hills and/or those with narrow roadway access, only ten-wheel type dump trucks or “transfer” type trucks with trailers will be allowed for off-hauling material from the job site or hauling material to the job site, as directed by the Engineer. For job sites in the hills and/or those with narrow roadway access, ten-wheel trucks with extra axles, or “super-dumps,” will not be allowed, as directed by the Engineer.

**Measurement and Payment**

The **Lump Sum** contract price paid for “**Mobilization**” shall include full compensation for furnishing all labor, supervision, materials, tools, equipment, and incidentals, and for all the work involved in mobilization, including, but not limited to, furnishing all specified contract bonds and insurance certificates, public notification, furnishing and installing project identification signs and signposts, transporting equipment, establishing a storage area (revocable item), sanitary restroom facilities and all other work as specified in the Caltrans Standard Specifications and these Special Provisions and as directed by the Engineer and no additional compensation will be allowed therefor. Payment will be made as follows:
a) When 5 percent (5%) of the original contract amount is earned, 50 percent (50%) of the amount bid for mobilization, or 5 percent (5%) of the original contract amount, whichever is lesser, may be paid.

b) When 10 percent (10%) of the original contract amount is earned, 75 percent (75%) of the amount bid for mobilization or 7.5 percent (7.5%) of the original contract amount, whichever is lesser, may be paid.

c) When 20 percent (20%) of the original contract amount is earned, 95 percent of the amount bid for mobilization, or 9.5 percent (9.5%) of the original contract amount, whichever is lesser, may be paid.

d) When 50 percent (50%) of the original contract amount is earned, 100 percent (100%) of the amount bid for mobilization, or 10 percent (10%) of the original contract amount, whichever is lesser, may be paid.

e) Upon completion of all work on the project, payment of any amount bid for mobilization in excess of 10 percent (10%) of the original contract amount will be paid.

**BID ITEM NO. 2 - CLEARING, GRUBBING, TREE PROTECTION, AND ROOT PRUNING**

**BID ITEM NO. 3 - TREE REMOVAL (6”-12”)**

Clearing, Grubbing, Tree Protection, and Root Pruning shall consist of removal and disposal of all objectionable material from the project site, including existing weeds, brush, shrubs, concrete, masonry, other unsuitable material, and obstructions interfering with the new construction. The limits of the clearing, grubbing, tree protection, and root pruning shall be of sufficient area and depth to complete the work as suggested by City’s Urban Forestry Representative. Clearing, grubbing, tree protection, and root pruning shall conform to Section 17-2, “Clearing and Grubbing,” of the Standard Specifications. Clearing, grubbing, tree protection, and root pruning shall include limb, trunk, and root protection and tree and root pruning.

Clearing, grubbing, tree protection, and root pruning must be performed in advance of any other grading or construction operations. The area to be cleared and grubbed must be within the building work construction area.

Shrubs and hedges shall be designated for removal in the project plans or as directed by the Engineer. Existing landscaping and trees which are to remain in place must be protected...
from injury or damage. Existing trees must be protected with a temporary fence around the
drip line, the edge of the tree well or planting strip, or adhere to the requirements set forth
in the “Tree and Root Protection and Root Pruning” section. Unless otherwise specified,
the Contractor shall protect trees at the Contractor’s expense.

Unless otherwise specified, all materials as field marked and as directed by the Engineer
to be removed shall be disposed of outside the project limits. The work area shall be left
with a neat and finished appearance.

The Contractor shall not store or permit debris to accumulate on site. If the Contractor fails
to remove excess debris promptly, the City reserves the right to cause removal at the
Contractor’s expense.

Residue from cutting operations shall not be permitted to flow into storm drains or across
lanes occupied by traffic and shall be removed from the pavement surface, concurrent with
the cutting operation.

When hauling is done over highways or City streets, and when directed by the Engineer,
the loads must be trimmed and all material removed from shelf areas of the vehicles.

Clearing, grubbing, tree protection, and root pruning must be conducted to ensure
minimum interference with roads, street, sidewalks, or other occupied areas. Consider
around 40 trees need root pruning for project bidding estimation purpose.

**Tree and Root Protection and Root Pruning**

**General**

The Contractor is responsible for protecting all public trees, and privately owned coast live
oak trees (Quercus agrifolia) 18 inches in circumference or greater, during all phases of
their work. Contractors shall protect existing street, park, or median trees, and protected
coast live oak trees where the drip line of the tree extends over the area where the
improvements are being made. Contractors shall protect trees with a temporary fence
around the drip line or the edge of the tree well or planting strip; or adhere to the
requirements set forth in Section (II) Trunk and Branch Protection. Should tree or root
pruning be required to construct the improvements shown on the plans, or as directed by
the Engineer, the Contractor or shall notify the Engineer and contact the City’s Urban
Forestry Representative at least three (3) business days before any necessary pruning. See
Section (I) Underground Service Alert (USA) of Northern/Central California and Nevada for additional information. The Urban Forestry Representative will inspect each site to approve the tree or root pruning, or work with the Engineer and Contractor to modify the work to accommodate the tree roots. The Contractor will inform the Urban Forestry Representative of the schedule for when the roots will be exposed. In cases where the proposed root pruning may jeopardize the health or structure of the tree, the Urban Forestry Representative may not allow the root pruning or may require the tree be removed at the Contractor’s expense.

If root pruning would compromise the structural stability of the tree, the tree will be removed. Trees may also be removed based on their condition or location. Tree removal will be decided by the Urban Forestry Representative. Tree removal will be coordinated by the Urban Forestry Representative and scheduled in conjunction with the Contractor.

I. Underground Service Alert (USA) of Northern/Central California and Nevada
   a) The Contractor will contact the Urban Forestry Representative at 510-981-6660 if it is expected that root pruning will be necessary to facilitate the repairs.
   b) The Contractor will contact USA North 811 Call before You Dig in accordance with all applicable requirements.
   c) The Contractor will ensure that the utility location marks are offset so that they are placed on a permanent surface that will not be removed. Offset marks locate the utility by showing the orientation of the utility and the distance from the marks to the utility.
   d) Root pruning will be performed in accordance with USA timeline requirements.

II. Trunk and Branch Protection
This applies when trees are not surrounded by protective fencing. Trees situated in a tree well or sidewalk planting strip shall have the trunk protected by wrapping it with straw tubes (wattle) or vertical wood slats (ex. 2x4), up to a minimum of 8 feet from grade. Wooden slats shall be angled to protect the root flare at the base of the tree and bound securely on the outside. Closed cell foam or equivalent material shall be used to protect the trunk of the tree where it contacts the slats. Lateral branches below 8 feet shall also be protected. Contractor shall keep deleterious materials associated with project construction from contacting any part of the trees or being placed or stored in the tree well or planting strip.

III. Root Protection and Preparation for Root Pruning
Existing sidewalk shall be removed in a manner that prevents any machinery, such as a backhoe, Bobcat®, or mini-excavator, from traveling over the exposed root zone.
a) Where roots must be pruned, the area shall be excavated down to the depth required for the improvements prior to the Urban Forestry Representative inspecting the site; and all rock, concrete or other loose material removed.

b) Root pruning that has been approved by the Urban Forestry Representative will be performed by the Contractor or a sub-contractor using a stump/root cutting machine, saw, axe, or any other sharp blade tool; resulting in a flat surface with the adjacent bark firmly attached.

c) No roots shall be torn or pulled using any other tools or machinery unless already severed on each end by one of the approved pruning tools.

d) At no time will any root pruning cut into the root flare.

e) Exposed roots shall be covered with soil, mulch, or wet burlap if they will be exposed for more than 72 hours without measurable precipitation.

IV. Root Pruning Requirements

a) All pruning of roots shall be performed using a stump/root cutting machine, saw, axe, or any other sharp blade tool; resulting in a flat surface with the adjacent bark firmly attached.

b) Roots 2 inches in diameter or greater shall be pruned by the Contractor in accordance with these provisions.

c) Roots smaller than 2 inches in diameter shall be pruned by the Contractor in accordance with these provisions, with the exception of contacting the Urban Forestry Representative.

d) Large roots may be shaved to a depth of no more than one-third of their thickness, or as approved by the City’s Urban Forestry Representative.

e) At no time will any root pruning cut into the root flare as defined by the City Arborist.

The size of the tree well or planting strip will be assessed by the City Engineer or his/her designee to determine if it can be increased in size and still meet the minimum requirements. All debris resulting from root pruning shall be removed by the Contractor.

Damages

Contractor shall make every effort to avoid damaging any City-owned property, including roots, trunk, and canopy of City maintained trees. If damages to trees are found to be as part of Contractor negligence, Contractor shall be responsible for damages as follows:
a) The contractor will provide full reparation to include: removal of irreparable tree and replacement with similar approved species. The contractor will perform this work themselves (at Contractor’s expense) under the supervision of the City’s Urban Forestry Representative, and/or,

b) The contractor will reimburse City for City expenses incurred in the related reparation work, consisting of but not limited to, site inspections, corrective pruning, tree removal, and tree replacement.

c) Damages shall be graded 1 (minor) through 5 (replacement), as determined by the City, with monetary values noted below.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
<th>Value of Damages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Minor Damage</td>
<td>$200</td>
</tr>
<tr>
<td>2</td>
<td>Avoidable Damage to a Major Limb or Root</td>
<td>$400</td>
</tr>
<tr>
<td>3</td>
<td>Moderate Damage</td>
<td>$600</td>
</tr>
<tr>
<td>4</td>
<td>Severe Damage, but Recovery Expected</td>
<td>$800</td>
</tr>
<tr>
<td>5</td>
<td>Replacement</td>
<td>$1,000</td>
</tr>
</tbody>
</table>

**Measurement and Payment**

The contract **Lump Sum** price paid for “Clearing, Grubbing, Tree Protection, and Root Pruning” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in clearing, grubbing, tree protection, and root pruning, including, but not limited to, removal and disposal of plantings, implementing tree protection measures, and limb pruning as shown on the plans and all other work as specified in the Caltrans Standard Specifications and these Special Provisions and as directed by the Engineer.

The contract **Each** price paid for “Tree Removal 6 to 12” diameter” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in removal of a Tree, but not limited to, removal and all debris resulting from removal shall be disposal, implementing tree protection measures, as shown on the plans and all other work as specified in the Caltrans Standard Specifications and these Special Provisions and as directed by the Engineer.
BID ITEM NO. 4 - STORM WATER POLLUTION CONTROLS

This work includes the project area and stormwater pollution controls in the project area, in accordance with Section 24, “Stormwater Pollution Controls,” of these General Conditions.

Temporary storm drain inlet protection shall be constructed, installed, maintained, and removed at all drainage inlets within the boundaries of the project. The Contractor shall use sediment filter bags to protect the drainage inlet. Throughout the duration of the contract, the Contractor shall maintain and protect to meet the changing conditions around the drainage inlet.

Sediment filter bags shall be installed by removing the drainage inlet grate, placing the sediment bag in the opening, and replacing the grate to secure the sediment filter bag in place. Sediment Filter Bags shall be installed at all storm drain inlets within or adjacent to the project limits. Sediment Filter Bags shall be obtained from a commercial manufacturer, as approved by the Engineer.

When the temporary drainage inlet protection is no longer required the protection materials shall be removed immediately and disposed of in accordance with the provisions in Section 14-10, “Solid Waste Disposal and Recycling,” of the Standard Specifications.

Temporary drainage inlet protection shall be maintained to provide sediment holding capacity and to reduce runoff velocities. Temporary drainage inlet protection shall be repaired or replaced immediately if damage occurs.

Sediment deposits, trash, and debris shall be removed from temporary drainage inlet protection as needed or when directed by the Engineer. Removed sediment shall be deposited within the project limits so that the sediment is not subject to erosion by wind or by water. Trash and debris shall be removed and disposed of in accordance with the provisions in Section 14-10, “Solid Waste Disposal and Recycling,” of the Standard Specifications. All Sediment Filter Bags shall be removed at the conclusion of the project.

Cleanup, repair, removal, disposal, or replacement due to improper installation or as a result of the Contractor's negligence shall not be considered as included in the cost of performing maintenance.
Measurement and Payment

The contract Lump Sum price paid for “Storm Water Pollution Controls” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in preparing and implementing a Water Pollution Control Plan, installing temporary drainage inlet protection in the project area, complete in place, including but not limited to maintenance, replacement, and removal of materials, cleanup and disposal of retained sediment and debris, and removal of all Sediment Filter Bags at the conclusion of the project, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

Payment for Stormwater Pollution controls will be made as follows:

a) Fifty percent (50%) of the total amount bid for Stormwater Pollution Controls will be paid with the first progress payment after at least five percent (5%) of the original Contract Amount for other items of work has been performed.

b) When at least ten percent (10%) of the original Contract Amount for other items of work has been performed, an amount will be included in the next monthly progress payment to increase the total amount of Stormwater Pollution Controls paid to seventy-five percent (75%) of the total amount bid for Stormwater Pollution Controls.

c) When at least twenty percent (20%) of the original Contract Amount for other items of work has been performed, an amount will be included in the next monthly progress payment to increase the total amount of Stormwater Pollution Controls paid to ninety percent (90%) of the total amount bid for Stormwater Pollution Controls.

d) Upon substantial completion, one-hundred percent (100%) of the remaining contract price paid for Stormwater Pollution Controls will be included in the estimate for payment.

BID ITEM NO. 5 - TRAFFIC CONTROL

Traffic control during construction shall be the responsibility of the Contractor. All traffic control devices shall be in accordance with the 2014 California Manual on Uniform Traffic
Control Devices (California MUTCD) Revision 3 herein after referred to as Traffic Control Manual. The Traffic Control Manual may be obtained online at

http://www.dot.ca.gov/trafficops/camutcd/

In general, the paving work shall be done in sections so that traffic disruption is minimized. Paving in one section shall be completed before starting another section. It is expected that some sections will be closed to traffic during actual paving operations. Complete closure of streets to through traffic will not be allowed on collectors and arterials. All the necessary detour route signing shall be in place along with “Road Closure/Work Ahead” signs.”

The Contractor shall submit to the City Traffic Engineer project specific traffic control plans a minimum of one (1) month prior to implementing traffic control measures for road construction. Following City review, any traffic control plans requiring revisions shall be submitted to the City within ten (10) working days prior to implementing traffic control measures for road construction. The traffic control plan (1"=100' scale min. drawing) shall include all locations, which involve all project improvements and shall indicate each stage of work, signage, flagman, detour routes, and any other pertinent information. The traffic control plan will be reviewed and approved by the City before the Contractor shall be allowed to begin work. The City of Berkeley reserves the right to modify any portion of the submitted and approved traffic control plans.

In general, the following guidelines for traffic control plans shall be followed:

- Detailed traffic control plans shall be prepared professionally in accordance with the 2014 California Manual of Uniform Traffic Control Device (CA-MUTCD) Revision 3 and must be formatted similarly to the example provided in Appendix B of the Special Provisions.
  - Specify if the work will be scheduled one block at a time or several blocks at a time.
  - Specify if side streets will remain open or if the work will affect the intersections.
  - Specify how the traffic will be handled with flaggers.
- The traffic control plan shall identify a traffic coordinator responsible for responding to complaints related to traffic, parking, and driveway access.
- Submit a complete set of Traffic Control Plans for approval at least one (1) month prior to the start of construction.
- Submit detailed traffic control plans for each roadway section including side streets according to existing lane configurations/markings. The traffic control plans shall
be prepared professionally in accordance with the 2014 California Manual of Uniform Traffic Control Device (CA-MUTCD) Revision 3.

- “No Parking Signs” must be posted no later than 72 hours in advance for restricted parking.
- Berkeley Dispatch shall be notified by the contractor by calling (510) 981-5900 prior to implementation of this plan by 8:15 a.m. daily of work locations.
- The lane closure is not permitted on major/collector/arterial roadways during the peak morning period (7:00-9:00 AM) and evening peak period (4:00-6:00 PM).

The Contractor shall initially (on the first working day) notify the U. S. Postal Service, the police, public transit (i.e. AC Transit, Bear Transit, Emery-Go-Round, and others with routes on project streets), fire, garbage collection (City Refuse Service), and Engineer of the need for road closure(s) and areas of construction delays. After the first working day, the Contractor shall continue notification to these entities every week in regards to road closures. After the first working day, the Contractor shall notify Berkeley Dispatch and the Engineer updated on road closure(s) and areas of construction delays daily.

All holes, trenches, etc., in pavement area, shall be covered with 1-inch steel plates, shimmed with temporary asphalt on edges, by 3 p.m. or at the end of each workday. As an option to the Contractor, the holes, trenches, etc., can be backfilled and all areas within pavement areas have temporary asphalt toppings. The temporary asphalt shall be regularly maintained. All areas shall be completely restored within ten (10) working days after the work has been completed at that location. All open excavations which are not actively involved in construction activity shall be adequately barricaded against entry by pedestrians or animals.

At the end of any working day when work operations have obscured existing traffic striping, the striping shall be restored via permanent reflective painting or other interim materials subject to the approval of the Engineer. Temporary delineation shall be of the same color and type, including nighttime reflectivity.

At the end of each day’s work, and at other times when construction operations are suspended, all equipment and other obstructions shall be removed from that portion of roadway open for use by public traffic. No longitudinal joint shall be left during non-working hours.

Where existing road signs conflict with the proposed work, the Contractor shall relocate such signs to temporary or permanent locations as directed by the Engineer.
If it becomes necessary, in the opinion of the City Engineer, to properly move traffic through the construction area, flagmen shall be present to slow down and reroute traffic, in which case flagmen shall be on duty the entire period the roadway is constructed. Where flagmen are not visible to each other, additional flagmen shall be added as required by the Engineer or the Contractor shall use radios.

Contractor shall take all necessary measures to obtain a normal flow of traffic to prevent accidents and to protect the work throughout the construction stages until completion of the work. The Contractor shall make the necessary arrangements to provide and maintain barriers, cones, guards, barricades, and construction warnings and regulatory signs. The Contractor shall take measures necessary to protect all other portions of the work during construction and until completion, providing and maintaining all necessary barriers, barricade lights, guards, temporary crossovers and watchmen.

In addition to the preceding traffic control and safety measures, the Contractor shall undertake immediately to implement any measures requested by the Engineer, as they deem necessary to ensure the proper flow of traffic and the protection of the public and the safety of the workers. The Contractor shall maintain at all times the ability to respond to calls from the City of Berkeley Police and Fire Departments during non-working hours to replace or provide additional traffic control or safety devices as shall be required by the Police Department.

**Extensive traffic signage, e.g., warning signs and detour signs, may be required for this project.** Contractor shall be responsible for placing all barricades for perimeter street closures as required.

The Contractor shall be responsible for posting "No Parking" signs a minimum of seventy-two (72) hours in advance of concrete work, resurfacing operations, and base repair work to comply with the City’s construction notification requirement of seventy-two (72) hours. Cones shall not be used as barricades. "No Parking" signs may be obtained from the City at no cost to the Contractor. “No Parking” signs must be posted every twenty (20) feet. The "No Parking" signs shall be updated as necessary. The Contractor shall check and maintain (e.g., re-install missing signs, reposition displaced barricades, etc.) postings regularly prior to start of work.

If traffic is to be detoured over a centerline or detoured in advance of the work, detour plans must be submitted to and approved by the Engineer prior to starting work. Police, Fire and Public Works Department/Zero Waste shall be notified at least two days in advance of any work which will interfere with the normal flow of vehicular or pedestrian traffic.
Intersection closure may only occur if the two adjacent intersections remain open unless otherwise approved by the Engineer. The Contractor shall coordinate his traffic control/diversion plan with City personnel, a minimum of three (3) weeks prior to starting work, to assure that traffic is diverted in a safe and convenient manner.

**Truck routes shall be approved by the City’s Traffic Engineer prior to the start of work.**

Personal vehicles of the Contractor's employees shall not be parked within the area of work.

A minimum of one (paved) traffic lane, not less than twelve (12) feet wide, shall remain open for use by public traffic during construction operations unless noted otherwise in the contract traffic control plans. When construction operations are not actively in progress, not less than two such lanes shall be open to public traffic. The Contractor may be allowed to close residential Milvia Street, if approved in writing in advance by the Engineer. No work that interferes with public traffic shall be performed between 5:00 p.m. and 8:00 a.m.

Start of work shall be no earlier than 7:30 a.m. No work process, including starting, warm up, and delivery of equipment, shall be done outside of work hours. The use of vehicle horns to alert residents to move their vehicles out of the construction zone is not permitted. The Contractor should attempt to locate vehicle owners by knocking on doors. If the Contractor violates these provisions, a fine of $1,000 will be assessed for the first violation, $5,000 for the second and $10,000 for the third.

No lane closures shall be permitted on the following streets Monday through Friday between 7:00-9:00 AM, 4:00-6:00 PM and Saturdays between 10:00 AM – 2:00 PM, unless approved in advance by the Traffic Engineer if it can be explained why such closure cannot be reasonably avoided:

- Adeline Street (Ashby Avenue to Ward Street including Cross Streets)
- Hearst Avenue
- Milvia Street (Blake Street to Russell Street including Cross Streets)

Minor deviations from the requirements of this section concerning hours of work may be permitted upon the written request of the Contractor if in the opinion of the Engineer, public traffic will be better served and the work expedited. Such deviations shall not be adopted until the Engineer provides written approval.
If any component in the traffic control system is damaged, displaced or ceases to operate or function as specified, from any cause during the progress of the work, the Contractor shall immediately repair said component to its original condition or replace said component and shall restore the component to its original location.

The Contractor, at the end of each day, shall provide pedestrian and vehicle crossings at all street intersections. If the project is left open overnight, it shall be graded in such a way that pedestrians and vehicles can safely pass through the project. Temporary concrete, asphalt, or wood ramps shall be installed and maintained at all locations where existing ramps have been temporarily removed.

Where a tack coat has been applied, pedestrian crossing areas shall be covered with sand so that the asphalt does not adhere to shoes. No vehicular traffic shall be allowed on a tack coat.

Cleanliness is extremely important. Dust producing conditions shall be eliminated as soon as they are created.

**Access and Egress**

Work shall be accomplished in such a manner as to provide access to all intersecting streets and adjacent properties whenever possible. The Contractor shall endeavor to cooperate with all business owners and residents occupying properties fronting on the streets in the matter of access and egress.

If during the course of the work, it is necessary to restrict access to certain driveways for an extended period of time, the Contractor shall notify the affected residents, in writing, at least forty-eight (48) hours in advance.

**Contractor shall maintain a clear and accessible pedestrian corridor through the work site at all times.**

Where a business property has more than two vehicular paths of access, one path, ten (10) feet in width, shall remain open during all business hours, unless exempted by the Engineer.
Measurement and Payment

The contract Lump Sum price paid for “Traffic Control” shall include full compensation for furnishing all labor (including preparation of the Traffic Control Plan and flaggers when necessary), materials (including barricades, door hangers and temporary traffic delineation), tools, equipment, and incidentals and for doing all the work involved in traffic control, complete in place, including all work necessary to provide for the convenience and safety of the public and to facilitate the performance of the contract work as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

The Contractor will be paid on pro-rata basis for the work done per month and said payment shall be for providing all labor, material, equipment, devices, supervision, and all incidentals as are needed to provide traffic control as specified herein, and as required to complete the work.

BID ITEM NO. 6 - CONSTRUCTION AREA SIGNS

Construction area signs shall be furnished, installed, maintained, and removed when no longer required in conformance with the provisions in the latest edition of the 2014 California Manual on Uniform Traffic Control Devices (California MUTCD) Revision 3, these Special Provisions, and as directed by the Engineer.

The Contractor shall provide a set of the following construction signs for this project per contiguous work area:

- Type 3-barricade mounted – 3’ high x 4’ wide Project Signs
- Single post – W20-1, 36” x 36”, “Road Work Ahead” Signs
- Single post – G20-2, 36” x 18”, “End Road Work” Signs

Signs shall be in place on the project site a minimum of fourteen (14) calendar days in advance of performing work on the street. Locations of these signs shall be coordinated with the Engineer before installation of the sign post.
The Project signs to be provided by the Contractor shall be three (3) by four (4) feet in size with white ASTM D4956 Type I retroreflective sheeting, black border, black lettering, and City logo. The sign shall contain project name, project funding information, Contractor name/contact information, and estimated project completion. The type size for the Contractor information should be no more than half the size of the funding information. The exact wording and design of the sign shall be provided to the Contractor.

The Contractor shall notify the appropriate regional notification center for operators of subsurface installations at least two (2) working days, but not more than fourteen (14) calendar days, prior to commencing excavation for construction area signposts.

Excavations required to install construction area signs shall be performed by hand methods without the use of power equipment, except that power equipment may be used if it is determined there are no utility facilities in the area of the proposed post holes.

Sign substrates for stationary mounted construction area signs may be fabricated from fiberglass reinforced plastic as specified under Caltrans Signing Delineation Materials entitled, “Prequalified and Tested Signing and Delineation Materials.”

The Contractor may be required to cover certain signs during the progress of the work. Signs that are no longer required or that convey inaccurate information to the public shall be immediately covered or removed, or the information shall be corrected. Covers for construction area signs shall be of sufficient size and density to completely block out the complete face of the signs. The retroreflective face of the covered signs shall not be visible either during the day or at night. Covers shall be fastened securely so that the signs remain covered during inclement weather. Covers shall be replaced when they no longer cover the signs properly.

Minor deviations from the requirements of this section concerning hours of work which do not significantly change the cost of the work may be permitted upon the written request of the Contractor if in the opinion of the City Engineer public traffic will be better served and the work expedited. Such deviations shall not be adopted until the City Engineer has indicated his written approval. All other modifications shall be made by contract change order.

If any component in the traffic control system is displaced or ceases to operate or function as specified, from any cause, during the progress of the work, the Contractor shall immediately repair said component to its original condition or replace said component and shall restore the component to its original location.
Measurement and Payment

The contract Lump Sum price paid for “Construction Area Signs” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in construction area signs, complete in place, including placing, maintaining, removing and disposing of construction area signs, or any other equipment used to protect the public or designate construction areas, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

The Contractor will be paid on pro-rata basis for the work done per month and said payment shall be for providing all labor, material, equipment, devices, supervision, and all incidentals as are needed to provide construction area signs as specified herein, and as required to complete the work.

BID ITEM NO. 7 - CHANGEABLE MESSAGE BOARDS

This item is to provide compensation for additional notification near the work area. The Contractor shall provide portable changeable message boards for use on the project at the City’s request. Each portable message sign unit shall consist of a controller unit, a power supply, and a structural support system, all mounted on a trailer, per Caltrans Standard Specification Section 12-3.12. Message board shall be installed as directed by the Engineer one (1) week prior to start of construction and shall be relocated to the next street location as the job progresses or as directed by the Engineer. Construction signs are included under Bid Item “Construction Area Signs.” The board shall be maintained to the satisfaction of the Engineer.

Changeable Message Boards are required on the following major streets and/or collector streets where the project construction activities occur adjacent to these major/collector streets, and any other locations identified by the Traffic Engineer during construction. The base bid quantity assumes four locations where changeable message signs are to be placed. The changeable message sign locations and types shall be included on the Traffic Control Plans.
Measurement and Payment

The contract unit price paid per Each for “Changeable Message Boards” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in providing and properly maintaining changeable message boards for the duration of construction as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

BID ITEM NO. 8 - POTHOLING

Potholing shall conform to Section 5-1.36, “Property and Facility Preservation,” Section 5-1.36D, “Nonhighway Facilities,” and Section 15, "Existing Facilities," of the Standard Specifications and these Technical Specifications.

Protect Existing Facilities To Remain - The Contractor shall work around and protect all existing improvements to remain, including but not limited to existing utilities, monumentation, storm drainage facilities, street lights and conduit, concrete and asphalt concrete pavement, pavement markings, landscaping and appurtenances that are within or adjacent to the construction areas. The Contractor shall notify Underground Service Alert (USA) at 811 prior to beginning any work. Notification shall be in full compliance with USA requirements.

The Contractor, prior to beginning any work on or adjacent to the utility, shall verify the location of all utilities. The Contractor shall protect existing facilities to stay in place, including existing electroliers, when placing construction signs.

The Contractor shall be responsible for the protection of public and private property adjacent to the work and shall exercise due caution to avoid damage to such property.

The Contractor shall repair or replace all existing improvements within the right-of-way which are not designated for removal, but that are damaged or removed as a result of its operations. Repairs and replacements shall be at least equal to existing improvements and shall match them in finish and dimension.

The Contractor shall immediately repair or remove and replace any item damaged by his/her operations at his/her sole expense and to the satisfaction of the Town representative. The Contractor shall immediately notify the appropriate owner of the improvement or facility and the Town representative of any damage as a result of his/her operations to
existing improvements or facilities. If the improvement belongs to a private residence and the property owner or occupant is not at home, such notification shall be attached to the front door of the property.

Location of Existing Facilities - As the first order of work, the Contractor shall pothole all existing utilities to identify potential conflicts. Existing utilities to be located shall include, but not limited to, street light conduit, all manholes (including storm drain, sanitary sewer, and telecommunications), valve boxes (including traffic signal, electrical, water and gas valve boxes), monuments and monument boxes, and all other miscellaneous boxes and facilities.

Measurement and Payment

The contract lump sum price paid for “Potholing” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in potholing complete in place, including but not limited to demolition, removal, excavation, backfill, off haul and surface restoration, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

BID ITEM NO. 9 - REMOVE & REPLACE CONCRETE BARRIER CURB
BID ITEM NO. 10 - REMOVE & REPLACE CONCRETE STANDARD 6” VERTICAL CURB
BID ITEM NO. 11 - REMOVE & REPLACE CONCRETE SIDEWALK
BID ITEM NO. 12 - REMOVE & REPLACE STANDARD CURB & GUTTER (0.5 feet Wide)
BID ITEM NO. 13 - REMOVE & REPLACE STANDARD CURB & GUTTER (1.5 feet Wide)
BID ITEM NO. 14 - REMOVE & REPLACE STANDARD CURB AND GUTTER (2 feet Wide)
BID ITEM NO. 15 - REMOVE & REPLACE CONCRETE DRIVEWAY - RESIDENTIAL
BID ITEM NO. 16 - REMOVE & REPLACE CONCRETE DRIVEWAY-COMMERCIAL
BID ITEM NO. 17 - REMOVE & REPLACE CONCRETE CURB RAMP

The construction of these items shall conform to the requirements of City of Berkeley, Detail Specifications Nos. 11, 20, 50, and 51, and Standard Plans Nos. 8144, 8145, 8146, 8147, 8148, 8149, 8144, 8149, 8151, 8152, 8153, or 8154 except as modified in these Special Provisions.

The work shall include removing existing roadway and other public facilities which interfere with construction as shown on the plans. Removed facilities shall be disposed of, salvaged, re-laid, reset, relocated or reconstructed as specified in the Standard Specifications and these Special Provisions. Removed facilities to be disposed of shall become the property of the Contractor.

The Contractor shall protect from damage, any utilities and other nonhighway facilities that are to remain in place, be installed, relocated, or otherwise rearranged. City-owned electrical facilities may be shallow in the sidewalk, curb ramp, curbs, and driveway areas. The Contractor shall protect such facilities during construction. Damage to such facilities and required repairs to return functionality shall be at the Contractor’s expense.

All work shall conform to Caltrans Standard Specifications Section 73 “Concrete Curbs and Sidewalks,” except as modified in these Special Provisions.

**Removal of Concrete**

Existing concrete to be removed shall be completely removed and disposed of in conformance with the provisions in Section 15-1.03B, “Removing Concrete,” of the Standard Specifications and these Special Provisions, as shown on the plans, and as directed by the Engineer.

The Contractor shall restore all sewer, gas and waterline system markings on the top of curbs. All markings shall be referenced prior to curb removal.
Sawcuts shall be made on the nearest joint or score line. Sawcuts must go entirely through concrete. Cut concrete shall be removed without damaging the concrete that is to remain in place, or any other structures or improvements adjacent to the cut concrete. Damage to concrete or any adjacent existing structure or improvement, which is to remain in place, shall be repaired to a condition satisfactory to the Engineer. Repairing or removing and replacing structures, improvements, and/or the concrete to remain in place, that are damaged outside the limits of concrete to be replaced, shall be at the Contractor's expense and will not be measured nor paid for. City-owned electrical facilities may be shallow in the sidewalk, curb ramp, curbs, and driveway areas. The Contractor shall protect such facilities during construction. Damage to such facilities and required repairs to return functionality shall be at the Contractor’s expense.

Sawcut line on the pavement in front of curb or gutter lip, including gutter for curb ramps, shall be at least 12 inches beyond the concrete edge to allow for construction of forms and six (6) inches deep. This area shall be restored as per City Standard Detail 8136, “Trench Excavation and Surface Restoration.” Payment for the restoration of this portion of pavement shall be included in the unit cost of the curb.

Where no joint exists between concrete to be removed and concrete to remain in place, the concrete shall be cut on a neat line to a minimum depth of four (4) inches with a power-driven saw before the concrete is removed.

Slurry from saw cut operation shall be removed sufficiently by vacuuming or similar method from the concrete surface and shall be prevented from entering any waterway or storm drain system in accordance with best management practices.

City-owned electrical facilities may be shallow in the sidewalk, curb ramp, curb, and driveway areas. The Contractor shall protect such facilities during construction. Damage to such facilities and required repairs to return functionality shall be at the Contractor’s expense.

**Placement of Concrete**

Existing subgrade surface shall be re-graded (if necessary) and re-compacted to conform to the grades shown on the plans.

A four- (4) inch thick Class 2 Aggregate Base shall be placed under curb and gutter, and six- (6) inch thick layer under valley gutter, and shall comply with Section 26, “Aggregate
Bases,” of the Standard Specifications and these Special Provisions. The aggregate base must be Class 2, ¾” maximum.

Where the shown aggregate base thickness is 0.50 foot or less you may spread and compact the aggregate base in one layer. Where the shown thickness is more than 0.50 foot, spread and compact the aggregate base in two or more layers approximately equal in thickness. Compact each aggregate base layer to at least 95 percent relative compaction under California Test 231.

No concrete shall be placed until the Engineer has inspected and approved forms and subgrade. Concrete placed without approval by the Engineer is subject to rejection.

Sidewalks and ramps shall be four (4) inches thick, and driveways shall be six (6) inches thick. A four- (4) inch thick class 2 aggregate base shall be installed under new concrete sidewalk and curb ramp, and six- (6) inch aggregate base under new driveway. Class 2 aggregate base shall conform to Section 31 of the General Conditions of these Special Provisions.

Commercial and industrial driveways throughout the project area shall use reinforced concrete, as indicated on the plans and City Standard Plan 8151.

Approximate curb ramp layout and design slopes are shown in the plans. No concrete shall be placed until the Engineer has inspected and approved forms and subgrade. Concrete placed without approval by the Engineer is subject to rejection.

All new concrete curb or concrete curb & gutter constructed adjacent to an existing concrete curb or curb & gutter shall be doweled to the existing concrete in accordance with City of Berkeley Standard Detail 8144, “Concrete Work General Notes,” and as shown on the Plans.

Sidewalk underdrain alignment and facility shall be restored at within curb and at the face of curb.

Construction of valley gutter and adjacent 6-inch curb or 6-inch curb at curb ramp shall be monolithic. Measurement and payment of concrete valley gutter placement shall include the removal and placement of adjacent 6-inch curb or adjacent 6-inch curb at curb ramp.
Concrete mixture design and proportions shall be approved by the Engineer.

The maximum slump of fresh concrete permitted in these items shall be four (4) inches. Slump shall be determined by ASTM C143. Placement and consolidation of concrete shall be in accordance with Section 73 of the Standard Specifications. Concrete finish for curb and/or gutter and valley gutter shall be steel troweled and lightly brushed to remove the trowel marks.

Joints between existing and new concrete (except existing cold joints) shall be saw cut in a neat, true and straight line.

Weakened plane joints at least 1-1/2 inches deep shall be placed to match joints in existing concrete pavement. If the pavement is not concrete, weakened plane joints at least 1-1/2 inches deep shall be placed at ten (10) feet on center.

New work shall match existing in the finish, score pattern, and color, or as shown on the Plans, or as directed by the Engineer. The Engineer reserves the right to change the colored concrete specification without any additional compensation to the Contractor.

1. Rose colored concrete shall contain six (6) pounds of Davis #160 (rose) per cubic yard.
2. Concrete shall contain 1-1/2 pounds of lampblack per cubic yard.

Any concrete discolored, defaced, or otherwise damaged before official acceptance shall be cleaned, repaired or replaced at the Contractor's expense.

Curbs shall have forms removed and be backfilled within three (3) days after placement.

Final Grade of the concrete work shall conform to the adjacent existing concrete grade. HMA (Type A) placed adjacent to the curb shall comply with Section 39, “Hot Mix Asphalt Concrete,” of the Standard Specifications and these Special Provisions. Restoration work of disturbed grounds or improvements including pavement around new concrete must be done as soon as practicable but no later than seven (7) days after concrete placement.

Any voids left between new concrete and existing unpaved areas adjacent to sidewalks and curbs resulting from excavation, removal, or other construction-related activities, shall be
filled with topsoil conforming to Detail Specification No. 51, tamped in place. Backfill work shall be completed within three (3) days of excavation.

Landscape areas behind new concrete work shall be backfilled with soil that is free of refuse, roots, heavy or stiff clay, lumps of soil larger than 1-inch in size, aggregate, grasses, weeds and other contaminants that would be deleterious to the health of plants, animals or people.

Concrete shall be placed and sawed in such a manner as to complete all placement by 2:00 p.m. the same day unless authorized by the Engineer. The Contractor shall protect the concrete from being defaced during the curing period. Any defaced concrete shall be repaired or replaced by the Contractor at the Contractor’s expense. The City may reject any work that is defaced. The Contractor shall dispose of demolition debris offsite at the end of each day.

The Contractor shall be responsible for adjusting to new finish grades, all utility boxes, public or private. The Contractor shall coordinate with affected agencies as necessary. Any lateral riser damaged by the Contractor shall be repaired in conformance with Standard Plan No. 1700 A at the Contractor’s expense. If any lateral riser is encountered that does not have a frame for the cap, the Contractor shall request a frame from the City before reinstalling the cap. No lateral riser cap shall be installed without a frame. The City will supply frames and caps.

Sprinkler systems damaged by the Contractor shall be repaired at the Engineer’s discretion and tested for functionality at the Contractor’s expense. City-owned electrical facilities may be shallow in sidewalk and curb ramp areas. The Contractor shall protect such facilities during construction. Damage to such facilities and required repairs to return functionality shall be at the Contractor’s expense.

It shall be noted that this contract includes the replacement of approximately 30 curb ramps; hence the Contractor shall mobilize a sufficient number of crews to finish the work as required. The curb return replacement shall be shown on the project schedule, and 2-week look-ahead schedule and weekly updates shall be given during the weekly construction meeting.
Where cross drain replacement is required at locations of curb ramp construction, the layout, profile, and alignment of both the curb ramp and cross drain shall be conducted concurrently so that ADA requirements are met, stormwater drainage patterns maintain a positive flow in the gutter and cross drain flowlines, and sumps are avoided in the gutter flowline.

Contractor shall make every effort to avoid damaging any City-owned property, including (roots, trunk and canopy of) City maintained trees. Where required by site conditions, protect existing tree roots, and concrete curb and concrete curb & gutter shall be bulb ed out at locations determined by the City. The bulb-out shall make room for 18 inches of soil between the trunk/root and the back of curb. Where the bulb-out is greater than 18 inches measured between tree trunk/root and face of curb, the curb / bulb-out shall be painted red.

Restoration work of disturbed grounds or improvements including pavement around new concrete must be done as soon as practicable but no later than seven (7) days after concrete placement.

**Painted Curb**

If the painted curb is removed and replaced with new curb, Contractor shall paint new curb in the same color and length as the removed curb. The paint should be Ennis Flint Paints or an approved equivalent. Color codes for Ennis Fint Paints are as follows:

- Red 985204
- White 985201
- Blue 985205
- Yellow 985202
- Green 985206

Painted curb shall be accounted and paid for separately from concrete work, as described in bid item “Painted Curb.”

**Curb Ramp Construction and Pedestrian and Bicyclist Safety**
The Contractor shall provide a safe path of travel for pedestrians when replacing curb ramps, sidewalks, or driveways. Curb ramps shall be replaced within a maximum of three (3) days from the demolition of the existing improvements.

At intersections, only two (2) curb ramps at a time shall be removed and replaced. These two (2) curb ramps shall be the ones located diagonally from each other. Curb ramps on one street across from each other shall be removed and replaced at different times to allow for a safe path of travel for pedestrians. The sequencing of removal and replacement of curb ramps shall be addressed in the traffic control plans.

**Detectable Warning Surface**

Detectable warning surfaces shall consist of raised truncated domes constructed or installed on curb ramps, in conformance with the details shown on the plans and these Special Provisions. The detectable warning surface shall be prefabricated. The color of the detectable warning surface shall be yellow conforming to Federal Standard 595B, Color No. 33538.

Prefabricated detectable warning surface shall be constructed of an epoxy polymer composite with an ultraviolet stabilized coating employing aluminum oxide particles in the truncated domes, in conformance with the requirements established by the Department of General Services, Division of State Architect and be installed in conformance with the manufacturer's recommendations. The finished surfaces of the detectable warning surface shall be free from blemishes.

The manufacturer shall provide a written five-year warranty for prefabricated detectable warning surfaces, guaranteeing replacement when there is defect in the dome shape, colorfastness, sound-on-cane acoustic quality, resilience, or attachment. The warranty period shall begin upon acceptance of the contract.

Prefabricated detectable warning surface shall meet or exceed the following criteria:

1. Water Absorption: 0.35% maximum, when tested in accordance with ASTM D570.
2. Slip Resistance: 0.90 minimum combined wet/dry static coefficient of friction on top of domes and field area, when tested in accordance with ASTM C1028.
3. Compressive Strength: 18,000 psi minimum, when tested in accordance with ASTM D695.
4. Tensile Strength: 10,000 psi minimum, when tested in accordance with ASTM D638.
5. Flexural Strength: 24,000 psi minimum, when tested in accordance with ASTM C293.
7. Chemical Stain Resistance: No reaction to 1% hydrochloric acid, urine, calcium chloride, stamp pad ink, gum and red aerosol paint, when tested in accordance with ASTM D543.
8. Wear Depth: 0.03” maximum, after 1000 abrasion cycles of 40 grit Norton Metallite sandpaper, when tested in accordance with ASTM D2486-Modified.
9. Flame Spread: 25 maximum, when tested in accordance with ASTM E84.
10. Accelerated Weathering: No deterioration, fading or chalking for 2000 hours, when tested in accordance with ASTM D2565.

In addition to the requirements above, prefabricated detectable warning surface adhered to concrete shall meet or exceed the following performance criteria:

1. Accelerated Aging and Freeze-Thaw of Adhesive System: No cracking, delamination, warping, checking, blistering, color change, loosening, etc. when tested in accordance with ASTM D1037.
2. Salt and Spray Performance: No deterioration after 100 hours of exposure, when tested in accordance with ASTM B117.

All protective plastic coverings shall be removed from the detectable warning surface prior to opening for pedestrian traffic.

**Measurement and Payment**

The contract **Lump Sum** price paid for “Remove & Replace Concrete Barrier Curb” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in removing and replacing concrete barrier curb, complete in place, including but not limited to saw cutting, demolition and removal of curb, pavement, subgrade, hauling, recycling, disposal, rebar, pavement markers, curb painting, cleanup and other incidental work, as shown on the Plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.
The contract price paid per Linear Feet for “Remove & Replace Concrete Standard Vertical Curb” and “Remove and Replace Concrete Curb and Gutter (0.5, 1.5, & 2 feet Wide)” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in removing curb, curb and gutter (standard, 1.5 feet or 2 feet wide), complete in place, including but not limited to saw cutting, demolition and removal of curb, curb and gutter, hauling, recycling, disposal, cleanup and other incidental work, as shown on the Plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

The contract price paid per Square Feet for “Remove & Replace Concrete Sidewalk”, “Remove & Replace Concrete Driveway - Residential” and “Remove & Replace Concrete Driveway – Commercial” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in removing and replacing sidewalk and driveway, complete in place, including but not limited to saw cutting, demolition and removal of concrete, hauling, recycling, disposal, Portland cement concrete, rebar, adjusting utility features and boxes (e.g. water valve box, street light or other electrical box, signposts, etc.), 2-foot HMA plug (1/2” Type A), weakened plane joints, expansion joints, colorant dye, furnishing and applying curing compound, formwork, finishing and curing, protection, cleanup and other incidental work, as shown on the Plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

The contract price paid per Each for “Remove and Replace Concrete Curb Ramp” of the various types and shapes, shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in removing existing concrete and constructing curb ramp, complete in place, including but not limited to field layout, excavation, formwork, adjusting forms for grades, concrete and aggregate base for retaining curbs, prefabricated detectable warning surface (cast in place), and adjusting utility features and boxes (e.g. water valve box, street light or other electrical box, signposts, etc.), finishing and curing, 2-foot HMA plug (1/2” Type A), removing and disposing of formwork, restoring existing irrigation, backfill and regrading at the back of curb ramps, as shown on the Plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

Curb and/or gutter adjacent to driveway and roadway will be measured and paid for as curbs and/or gutters of the various types.

Full compensation for concrete installed within a curb ramp shall be measured and paid for as “Remove & Replace Concrete Sidewalk” unless noted otherwise, and no additional payment will be allowed therefor.
Curb and/or gutter adjacent to curb ramps and roadway will be measured and paid for as curbs and/or gutters of the various types. Any curb ramp retaining curb, unless noted otherwise on the Plans, shall be included in the contract unit price paid for “Remove & Replace Concrete Curb Ramp” and no additional payment will be allowed therefor.

Full compensation for installing surface-mounted detectable warning surfaces on utility boxes shall be considered as included in the contract unit price paid for “Remove & Replace Concrete Curb Ramp” and no separate payment will be made therefor.

The contract price shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in placing concrete curb, curb and gutter (standard, 1.5 feet or 2 feet wide), including aggregate base, dowels and rebar, Portland cement concrete, score marks, 2-foot HMA plug (1/2” Type A), jointing, colorant dye, furnishing and applying curing compound, finishing, sidewalk underdrain, formwork as required to match existing or proposed flowlines and top of curb as shown on the Plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

Full compensation for protecting any utility in place, adjusting any and all utility appurtenance boxes (public and private) to finish grade and to an alignment parallel with adjacent buildings, and coordination with utility agencies, and replacement of damaged public utility appurtenance boxes, shall be considered as included in the contract prices paid for “Remove & Replace Concrete Curb” and “Remove & Replace Concrete Curb & Gutter” of the various types and no separate payment will be made therefor.

Full compensation for removal and disposal of existing asphalt concrete and underlying base or subgrade material, shall be considered as included in the contract prices paid for “Remove & Replace Concrete Curb” and “Remove & Replace Concrete Curb & Gutter” of the various types and no separate measurement or payment will be made therefor.

Full compensation for restore irrigation systems to their pre-project condition, which will be assumed to be fully functional, unless specifically documented to the contrary shall be considered (Residential or Commercial), “Remove & Replace Concrete Sidewalk” and “Remove & Replace Concrete Curb Ramp” and no separate payment will be made therefor.

Full compensation for removal and disposal of roadway material for placement of hot mix asphalt (HMA) plugs, up to 2 feet in front of the new curb, gutter or driveway, shall be considered as included contract price paid for the various items of work involved and no
separate measurement or payment will be made therefor. Hot Mix Asphalt replacement beyond 2 feet, shall be measured and paid for as “Full Depth Base Repair”.

**BID ITEM NO. 18 - REMOVE CONCRETE IN PLANTER & BACKFILL WITH TOP SOIL & MULCH**

The work shall be performed within the concrete planting strip (the area between concrete curb and sidewalk) only. The work involves saw cut and removal of concrete sidewalk, brick work, and/or temporary asphalt. Contractor shall adjust utility appurtenance boxes (public and private). Contractor shall not install concrete in the areas marked for concrete planting strip removal only.

Contractor shall fill the excavated areas with clean fill material conforming to City Detail Specifications Nos. 11 and 51 and graded to a uniform contour one (1) inch below finished grade of the sidewalk.

Import topsoil from the bottom of the excavation to one (1) inch below finished grade of the sidewalk, followed by two (2)-inch thick layer of wood mulch, in the area shown on the plans.

**Topsoil**

The work consists of imported topsoil and fine grading for planting areas and filling any voids left between new concrete and existing unpaved areas adjacent to sidewalks and curbs resulting from excavation, removal, or other construction-related activities, behind improvements.

Topsoil must comply with the following requirements: Imported topsoil must consist of fertile, friable soil of loamy character that contains organic matter in amounts natural to the region and is capable of sustaining healthy plant life. Imported topsoil must be free from deleterious substances such as litter, refuse, toxic waste, stones larger than 1 inch in size, coarse sand, heavy or stiff clay, brush, sticks, grasses, roots, noxious weed seed, weeds, and other substances detrimental to plant, animal, and human health. The thickness of topsoil layer must be 3” minimum.

Soil Moisture Content: Do not work the soil when the moisture content is so great that excessive compaction will occur, or when the soil is so dry that clods will not break readily or dust will form in the air. Apply water as required to prevent the formation of an airborne
dust nuisance and to provide ideal soil moisture content for tilling. Topsoil shall be compacted to 85% relative compaction.

Tests, Inspections and Submittals:

1. The Contractor shall submit to the City Engineer at least fourteen (14) calendar days prior to installation samples of materials for approval. For standard products, also submit the supplier’s certified analysis. For other materials, submit an analysis by a recognized laboratory made in accordance with the current methods established by the Association of Official Agricultural Chemists.
2. The Contractor shall submit to the City Engineer written certification stating quantity, type, composition, weight, and origin of all materials delivered to the site for planting soil import work.
3. Verification of Material: The Contractor shall, upon demand, produce records to verify the ordering and delivery of specified quantities and types of material for this job.

**Mulch**

Mulch shall consist of wood chips or tree bark, or any combination thereof, at the Contractor’s option. Wood chips shall be manufactured from clean wood. The particle size of the chips shall be between 1/2 inch and 3 inches in length, and not less than 3/8 inch in width and 1/16 inch in thickness. Wood chips produced from tree trimmings which contain leaves or small twigs will not be accepted. At least 85 percent (85%), by volume, of wood chips shall conform to the sizes specified.

Tree bark shall have a particle size between 1/2 inch and 1-1/2 inches and shall be free of salt and foreign materials such as clods, coarse objects, sticks, rocks, weeds or weed seeds.

**Measurement and Payment**

The contract price paid per **Square Feet** for "Remove Concrete in Planter Strip and Backfill with Top Soil & Mulch” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in removing concrete, brick or any hardscape and backfilling with topsoil and mulch, including tree area complete in place, including saw cutting, demolition and disposal, excavation, backfill, mulch, cleanup and other incidental work, as shown on the Plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.
Full compensation for protecting any utility in place, adjusting any and all utility appurtenance boxes (public and private) to finish grade and to an alignment parallel with adjacent buildings, and coordination with utility agencies, and replacement of damaged public utility appurtenance boxes, shall be considered as included in the contract price paid for “Concrete Planting Strip Removal (Removal Only)” and no separate payment will be made therefor.

**BID ITEM NO. 19 - INSTALL ROOT BARRIER**

**General**

The work shall consist of installing root barrier as detailed on the Plans, and coordination with City arborist. After the tree roots are removed and a trench dug along the curb, a water permeable impregnated root barrier shall be placed. Removal of tree roots shall be done adjacent to and under all damaged concrete to be removed and replaced under this contract. Any damage to irrigation systems or other utilities caused by the Contractor shall be repaired by the Contractor at his expense. Concrete shall be removed in such a manner that tree roots and trunk are not damaged or scarred.

**Materials**

The barrier shall be 19 inches tall and shall be made of water permeable fabric. The fabric shall have attached nodules spaced no further than 1-1/2 inches apart. The nodules shall be impregnated with slow release trifluralin (Typar Bio Barrier or approved equal).

**Construction**

The contractor shall notify the City 48 hours in advance of any root pruning so that the City arborist can be on site to inspect the operation. No root pruning work can be performed without the City arborist present unless authorized by the City engineer.

A trench 6 inch wide by 23 inch deep below the sidewalk or curb shall be hand dug along the curb line or sidewalk. The trench shall extend a minimum of 7.5 feet beyond the center of the tree or tree root, in both directions, if possible.
All roots encountered within this trench area shall be cut by hand (i.e. chain saw, hand pruners, hand saw, axe, etc.) or a root pruner approved by the City arborist, such as, Dosko Model RC 14SP. Root removal by other mechanical means (trencher, backhoe, loader, etc.) is specifically prohibited.

The root barrier shall be placed against the trench wall adjacent to the concrete curb and gutter or sidewalk. The top of the barrier shall be 2 inches below the soil line at new sidewalk location, 4 inches below the soil line at new curb and gutter locations and shall extend down to the bottom of the trench.

During backfilling with native soil, the barrier shall be held in place to avoid damage. All soil lumps larger than 1-1/2 inches shall be removed from the backfill soil prior to placement. The backfill soil shall be hand tamped in place using tools without sharp edges to prevent damage to the fabric.

Roots between the trench and tree are not to be disturbed. Roots outside the trench may be removed by any means after the hand-dug trench is dug and roots therein removed.

Damage to the tree due to lack of care, protection or following these Specifications shall be subject to financial damages up to the cost of removing and replacing the damaged tree. Damage assessment shall be made by the Parks and Recreation Department.

**Measurement and Payment**

The contract unit price paid per Each for “Install Root Barrier” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in Install Root Barrier, complete in place, including excavation, off-haul, disposal, furnishing and installing root barrier at each distinct tree, backfill and clean-up, as shown on the plans, as specified in the Standard Specifications and in these special provisions, and as directed by the Engineer.

Full compensation for pruning and removing tree roots prior to installation of root barrier shall be considered as included in the contract price paid for “Clearing, Grubbing, Tree Protection and Root Pruning” and no separate payment will be made therefor.
BID ITEM NO. 20 - PULVERIZE 7” AND GRADE

General
The work shall consist of pulverizing the existing asphalt concrete pavement and base to form a recycled aggregate base consisting of a thoroughly blended mixture of pulverized asphalt concrete and existing aggregate base. In some instances of full depth asphalt concrete on native material, some native soil may be incorporated into the pulverized base material as allowed by the Engineer.

The pulverized aggregate base material shall then become the base material for the new asphalt concrete pavement. The pulverized base shall be graded as shown on the typical sections.

Materials
The recycled aggregate base material shall be uniformly blended and shall conform to the following:

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<tr>
<th>Sieve Sizes</th>
<th>Percentage Passing</th>
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<tbody>
<tr>
<td>2-1/2 inches</td>
<td>100</td>
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<tr>
<td>1-1/2 inches</td>
<td>90-100</td>
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<tr>
<td>3/4 inch</td>
<td>90-100</td>
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<td>25-60</td>
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<td>No. 200</td>
<td>2-12</td>
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Quality Requirements

<table>
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<th>Tests</th>
<th>Requirements</th>
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<td>R-Value</td>
<td>75 minimum</td>
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<tr>
<td>Sand Equivalent</td>
<td>25 minimum</td>
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<tr>
<td>Durability Index</td>
<td>35 minimum</td>
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</tbody>
</table>

Pulverized asphalt concrete pieces larger than 2-1/2 inches, or which are loose and segregated on the surface of the aggregate base, shall be removed by hand.
**Construction**

The recycled base material shall be graded to approximately the same plane as the existing pavement. The grading plane may be adjusted to improve the existing drainage.

To provide the transition to the existing gutter or other grade constraints, grading and removal of the pulverized base material will be necessary. In some instances, the material may be regraded onto the existing travel lanes. In other instances, the material may need to be removed from the project. Refer to the applicable typical sections.

The graded pulverized base material shall be compacted to 95 percent relative compaction based on CTM 216.

It shall be the responsibility of the grading contractor to attain the proper moisture content during compaction. All segregated loose material shall be removed.

On areas where the underlying material appears to be wet or soft, or where it deflects under wheel loads, the Contractor shall employ excavation and grading techniques which do not worsen the subgrade condition.

Prior to placing asphalt concrete, the area shall be proof-rolled with a loaded construction vehicle, preferably a ten cubic yard dump truck or equivalent. The compacted surface shall not visibly yield or deflect. Soft, yielding, unstable, or unsuitable areas shall be removed and replaced with hot mix asphalt. If the areas were caused or significantly worsened by the Contractor’s operations, these areas shall be replaced at the Contractor’s expense.

In the event that the underlying material is soft, yielding, unstable, or unsuitable, it shall be excavated to the depth of 0.5 feet below the depth required above and disposed of in accordance with these Special Provisions. The limits of removal shall be designated by the Engineer. The resulting space shall be filled with a single lift of hot mix asphalt.

Unsuitable material is defined as material the Engineer determines to be:

1. Of such unstable nature as to be incapable of being compacted to specified density using ordinary methods at optimum moisture content, or
2. Too wet to be properly compacted and circumstances prevent in-place drying prior to incorporation into the work, or
3. Otherwise unsuitable for the planned use.
Measurement and Payment

The contract price paid per **Square Yard** for “**Pulverize 7**” and **Grade** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in pulverization and grading, complete in place, as shown on the plans, as specified in the Standard Specifications and in these special provisions, and as directed by the Engineer.

**BID ITEM NO. 21 - ROADWAY EXCAVATION**

**General**

Roadway excavation shall conform to the provisions in Section 19, “Earthwork,” of the Standard Specifications and these Special Provisions. Attention is directed to Section 16, “Clearing and Grubbing,” and Section 19-1.03D, Buried Man-Made Objects,” of the Standard Specifications and these Special Provisions.

**Materials**

Roadway Excavation shall include excavation and removal of all material and objects within the limits of the work to be performed, included not limited to: existing hot mix asphalt, aggregate base, native soil and unsuitable material. All excavated materials shall be removed from the project site and disposed of by the Contractor.

**Construction**

All excess and unsuitable excavated materials shall be removed from the project site and disposed of by the Contractor. The Contractor is encouraged to dispose of excess materials at an appropriate recycling facility. All materials shall be excavated as shown on the plan. If you dispose of any surplus materials prematurely and later find a material shortage, you must replace it with authorized material at your expense.

The outline of the hot mix asphalt to be removed full depth shall be cut in a neat line with a power-driven saw, or a grinder, to a depth as specified on the plans.

Damage to pavement, which is to remain in place shall be repaired to a condition satisfactory to the Engineer. The damaged pavement shall be removed and replaced with new hot mix asphalt if ordered by the Engineer. Repairing or removed and replacing pavement damaged outside the limits of pavement to be replaced, shall be at the Contractor’s expense and will not be measured nor paid for.
All concrete, soft or spongy, or deleterious materials, structured, and other unsuitable materials encountered during the excavation operation, whether shown or not shown on the plans) shall be removed and disposed of. When the planned excavation or subgrade is made all undesirable materials then encountered shall be removed and disposed of as directed by the Engineer.

The accumulation of water in excavated areas shall be prevented by means of pumping or other approved methods. At no time, shall ground water or storm water be allowed to flow into sanitary sewer lines.

Excavation shall be carried to the exact depth indicated on the drawing or as specified. Should the Contractor, through his negligence or other fault, excavate below the designated lines, he shall replace such excavation with approved materials at his own expense.

The subgrade, included any base and pulverized material, shall be thoroughly compacted by an approved mechanical device to not less than 95% relative compaction as determined by CTM Test 216 and CTM 231.

Measurement and Payment

Roadway excavation shall be a Final Pay Item, as described in Section 9-1.02C, “Final Pay Item Quantities” of the Standard Specifications and no adjustment of quantities will be allowed therefor.

The contract price paid per cubic yard for “Roadway Excavation” shall include full compensation for furnishing all labor, materials, tool, equipment, incidentals and for doing all the work involved in performing roadway excavation, complete in place, including sawcutting, hot mix asphalt, base and native material removal, excavation, hauling, disposing of excess material, and compaction of new subgrade, as shown on the plans, as specified in the Standard Specifications and these special provisions and as directed by the Engineer.

Full compensation for “Remove & Dispose of Pulverized Material to a Depth of 2” shall be measured and paid for as “Roadway Excavation” and no additional payment will be allowed therefor.
BID ITEM NO. 22 - COLD MILLING ASPHALT PAVEMENT (2”-2.5” Depth)

BID ITEM NO. 23 - KEYCUT A (2”)

Existing asphalt concrete pavement shall be cold planed (milled) at the locations and to the dimensions shown on the plans and as directed by the Engineer.

The cold planing machine shall be equipped with a cutter head not less than 72 inches in width and shall be operated so as not to produce fumes or smoke. The cold planing machine shall be capable of planing the pavement without requiring the use of a heating device to soften the pavement during or prior to the planing operation.

The depth, width, and shape of the cut shall be as indicated on the typical cross sections or as directed by the Engineer. All conform locations shown on the plans are approximate and shall be verified in the field with the Engineer prior to the start of work. The depth of the cut shall be measured from the existing lip of gutter, or existing flow line at post curb and no additional payment will be made for grinding of material above the existing lip of the gutter. The final cut shall result in a uniform surface conforming to the typical cross sections. The outside lines of the planed area shall be neat and uniform. Planing asphalt concrete pavement operations shall be performed without damage to the adjacent surfacing to remain in place.

Based on previous construction experience in this area, the possibility exists to expose an old weak pavement layer as a result of milling. Such exposed pavement may crumble and disintegrate under traffic that is allowed back on the pavement before the new asphalt concrete pavement is placed. If these circumstances arise, the Contractor shall immediately notify the Engineer and re-route traffic if possible to minimize pavement disintegration and the creation of dust.

Exposed weak pavement layers or exposed fabric shall be removed. AC removal include fabric or Petromat. The Contractor shall be responsible for all damage to cold mill planing machines caused by hitting any hidden objects during the planing operation. In addition, the Contractor shall be responsible for the cost of repairing any facility that is damaged by the cold mill planing machine.

Planed widths of pavement shall be continuous except for intersections at cross streets where the planing shall be carried around the corners and through the conform lines. Following planing operations, a drop-off of more than two (2) inches will not be allowed at any time between adjacent lanes open to public traffic.
The material planed from the roadway surface and remnants or slivers of old asphalt concrete lift, including material deposited in existing gutters, driveways, around structures, or on the adjacent traveled way, shall be removed and disposed of in accordance with local and state laws and regulations. Removal of this material shall be considered as included in this item of work, and no additional compensation will be allowed. Removal operations of cold-planed material shall be concurrent with planing operations and follow within 250 feet of the planer unless otherwise directed by the Engineer.

The Contractor shall furnish and operate a self-loading motor sweeper with spray nozzles for final clean-up work and shall keep the milled area cleaned and maintained at all times until the street has been resurfaced.

Temporary asphalt tapers shall be provided where transverse joints are planed in the pavement at conform lines. No drop-off shall remain between the existing pavement and the planed area when the pavement is opened to public traffic. Asphalt concrete for temporary tapers shall be placed to the level of the existing pavement and tapered on a slope of 30:1 (horizontal: vertical) or flatter to the level of the planed area.

Asphalt concrete for temporary tapers shall be of commercial quality and may be spread and compacted by any method that will produce a smooth riding surface. Temporary asphalt concrete tapers shall be completely removed, including the removal of all loose material from the underlying surface, before placing the permanent surfacing. The removed material shall be disposed of in accordance with local and state laws and regulations. Operations shall be scheduled so that not more than ten (10) days shall elapse between the time when transverse joints are planed in the pavement at the conform lines and the permanent surfacing is placed at the conform lines.

Where asphalt concrete exists over the concrete gutter pan or concrete driveway, it shall be removed by cold milling without damaging the concrete gutter pan, curb, or driveway. Where identified during the design phase, the concealed gutter pan is indicated on the drawings but it is assumed that not all concealed gutter pan locations have been identified during the design. The approximate quantity in the bid schedule is an estimate and any deviation from this quantity, either more or less, shall not constitute the basis for a change in the unit price per the Contractor’s bid.
If the underlying gutter pan is damaged during the work it shall be replaced in kind between the closest expansion joints at no cost to the City. If the cold milling reveals an already broken gutter pan it shall also be replaced in kind between the closest expansion joints but will be compensated for under the Bid Items “Remove and Replace Concrete Curb and Gutter.” The Contractor shall notify the Engineer immediately during the cold planning operations if a broken gutter pan is observed irrespective of existing damage or damaged caused by the Contractor’s operation. Concealed gutter pans are to be paved over according to lines and grades are shown on the drawings.

Measurement and Payment

“Cold Milling Asphalt Pavement– 2.5” inch Depth” will be measured by the square yard. The quantity to be paid for will be the actual area of roadway surface or the length of the gutter pan that is cold planed, irrespective of the number of passes required to obtain the depth shown on the plans as measured from the existing lip of gutter or other reference points established before milling operations.

The contract unit price paid per square yard for “Cold Milling Asphalt Pavement– 2.5” inch Depth” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and doing all work involved in cold planing asphalt concrete surfacing and disposing of planed material, including paving fabric or Petromat, furnishing the asphalt concrete for and constructing, maintaining, removing, and disposing of temporary asphalt concrete tapers, as specified in these Special Provisions and as directed by the Engineer.

The contract price paid per linear feet for “Keycut A (2”) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in keycuts, complete in place, including cold planing, removal and off haul or existing pulverized material to the depths required, as shown on the plans, as specified in the Standard Specifications and in these special provisions, and as directed by the Engineer.
BID ITEM NO. 24 - FURNISH & INSTALL HOT MIX ASPHALT (REVOCABLE ITEM)

General

Summary:
This work includes producing and placing hot mix asphalt (HMA) surface course using a modified Standard Process and placing Minor Hot Mix Asphalt using the Method Process as indicated herein.

Comply with Section 39, "Hot Mix Asphalt," of the 2010 Standard Specifications (unrevised) except as modified in these special provisions.

Submittals:
Submit JMF information on Form CEM-3511 and Form CEM-3512. Submit Form CEM-3513 for mixes that have been verified within the last 12 months. For unverified mixes, coordinate mix verification with Engineer. Material Delivery Tickets shall be submitted daily. Submit a Quality Control Plan that conforms to the current Caltrans Quality Control Plan Review Checklist for Hot Mix Asphalt. Submittals shall be sent to the Engineer at least seven (7) days prior to scheduled use.

Materials

Asphalt Binder:

The grade of asphalt binder mixed with aggregate for all HMA (Type A) must be PG 64-16.

Aggregate:
Generally, the hot mix asphalt to be used will be as follows unless modified by the Engineer:

- Base Courses: 1/2 inch Type A, hot mix asphalt
- Leveling Courses: 3/8 inch Type A, hot mix asphalt
- Surface Courses: 1/2 inch Type A, hot mix asphalt

TSR to be minimum 70 in accordance with CTM 371
Construction

Surface Preparation:
The work shall consist of preparing the existing street surfaces prior to the commencement of paving. Such work shall include removing raised pavement markers, removing thermoplastic traffic markings and legends, controlling nuisance water, sweeping, watering, and removing loose and broken asphalt concrete pavement and foreign material as specified in the Standard Specifications and these Technical Provisions, and as directed by the Engineer.

Sampling:
The Engineer may sample the hot mix asphalt from truck beds at the plant, from the hopper of the spreading machine, or from the completed mat at the discretion of the Engineer. The Contractor shall facilitate the sampling process.

Engineer’s Acceptance:
The City shall be notified of testing needs 48 hours prior to scheduling pavement placement.

Sublots to determine compaction testing shall be based on the following:

1. Each 750 tons, or part thereof, placed on an individual street in a paving day. If over 750 tons are placed in a single paving day on an individual street, up to 150 tons over 750 tons can be moved into the previous 750-ton sublot.

2. If multiple streets are paved in a day, each street will be considered its own sublot with multiple sublots on streets where greater than 750 tons are placed.

The in-place density shall be between 92.0 percent and 97.0 percent of maximum theoretical unit weight using a nuclear gauge. Gauge compaction testing shall be performed in accordance with CTM 375. Final compaction is based on the average nuclear gauge results for the sublot. The nuclear gauge will be core correlated on the first day of paving.

If nuclear gauge compaction testing results are failing, the contractor can request coring to verify the results. Three cores will be sampled for each sublot, and the average of the three cores for each sublot will determine density. The core locations will be determined using random sampling charts in CTM 375. The engineer will mark the core locations.
Cores may be taken up to 5 calendar days after placement and maybe 4 or 6 inches in diameter. The engineer will provide results within three (3) working days of receiving the cores.

Passing cores shall be paid for by the owner. Failing cores will be paid for by the contractor. If the core density produces both passing and failing cores, the cost will be prorated between the contractor and the owner.

For the percent of maximum theoretical density, the following table shall apply to deductions for average compaction of a sublot:
Reduced Payment Factors for Percent of Maximum Theoretical Density

<table>
<thead>
<tr>
<th>HMA Type A Percent of Maximum Theoretical Density</th>
<th>Reduced Payment Factor</th>
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<th>Reduced Payment Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>92.0</td>
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<td>0.0000</td>
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<tr>
<td>91.9</td>
<td>0.0125</td>
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<td>0.0750</td>
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<td>0.0875</td>
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<td>0.1000</td>
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<td>0.1125</td>
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<td>90.8</td>
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<tr>
<td>90.4</td>
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<tr>
<td>90.3</td>
<td>0.2125</td>
<td>98.7</td>
<td>0.2125</td>
</tr>
</tbody>
</table>
The Contractor shall have hand-compaction equipment immediately available for compacting all areas inaccessible to rollers. Hand-compaction shall be performed concurrently with breakdown rolling. If for any reason hand-compaction falls behind breakdown rolling, further placement of hot mix asphalt shall be suspended until hand-compaction is caught up. Hand-compaction includes vibraplates and hand tampers. Hand torches shall be available for rework of areas which have cooled.

After compaction, the surface texture of all hand work areas shall match the surface texture of the machine placed mat. Any coarse or segregated areas shall be corrected immediately upon discovery. Failure to immediately address these areas shall cause suspension of hot mix asphalt placement until the areas are satisfactorily addressed unless otherwise allowed by the Engineer.

Temporary Transitions:

The Contractor shall construct temporary pavement transitions at all transverse paving joints greater than 1 inch prior to allowing traffic onto the paved surface. Temporary pavement transitions shall have a maximum slope of 20:1 or as approved by the engineer and be constructed on Kraft paper or other suitable bond breaker such that upon removal of the temporary pavement transition, a clean notch remains. The temporary transitions may be constructed of either cold mix or hot mix.

The Contractor shall continuously maintain the temporary pavement until final paving. Each temporary transition shall be inspected by the Contractor and repaired as necessary to comply with these provisions at the end of each day including weekends and holidays.

Failure to comply with these provisions will result in a liquidated damage of $250 per day per transition and/or the cost of City crews making the repairs if necessary to correct for public safety.
Leveling, Transitions, and Hot Mix Asphalt Fills:
A leveling course of variable thickness shall be placed and compacted prior to placing the surface course at locations where directed by the Engineer. The leveling course will be used to correct pavement irregularities such as rutting, variable cross slope, or variable longitudinal slope. Where two overlays of different thickness abut at a longitudinal joint, the Contractor shall add to the thinner section to match the thicker lift and provide a smooth transition and uniform cross-fall. Cold planing ridges or other rises in the pavement surface may be required by the Engineer. The Engineer will determine the exact limits and thickness of the leveling courses, transitions, and hot mix asphalt fills.

Rolling and Compaction:
Compaction of all surface courses 0.15 feet (1-3/4 inches) and digouts shall comply with the Standard Process density requirements.

For leveling courses, breakdown rolling shall consist of a single pass of an 8-ton minimum steel wheel roller, three coverages with a pneumatic roller followed by a finishing coverage with a steel wheel roller. Pneumatic rollers shall weigh between 8 and 12 tons.

**Measurement & Payment**
The contract price paid per Ton for “Furnish & Install HMA” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in constructing HMA, complete in place, including surface preparation, tack coat, temporary transition, JMF preparation, submission and verification testing costs, Contractor’s Quality Control Plan, and the costs of coring to verify core densities, if required, as shown on the plans, as specified in the Standard Specification and these special provisions, and as directed by the Engineer.

**BID ITEM NO. 25 - 3/8” RUBBERIZED HOT MIX ASPHALT**

**General**
Summary:
This work includes producing and placing rubberized hot mix asphalt (gap graded) (RHMA-G) using the Standard Process.
Comply with Section 39, "Hot Mix Asphalt," of the 2010 Standard Specifications except as modified herein.
Submittals:
Submit Job Mix Formula (JMF) information on Form CEM-3511 and Form CEM-3512. Submit Form CEM-3513 or CEM-3514 for mixes that have been verified within the last 12 months. For unverified mixes, coordinate mix verification with Engineer.

Materials

General:
All hot mix asphalt materials shall be as specified in Section 39, “Hot Mix Asphalt”, of the 2010 Standard Specifications; these Technical Provisions; and the plans and typical sections.

The aggregate shall be 3/8-inch RHMA-G and shall conform to the following gradation and production tolerances:

<table>
<thead>
<tr>
<th>Sieve sizes</th>
<th>Target value limits</th>
<th>Allowable tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2”</td>
<td>100</td>
<td>---</td>
</tr>
<tr>
<td>3/8”</td>
<td>78 – 92</td>
<td>TV ± 6</td>
</tr>
<tr>
<td>No. 4</td>
<td>28 – 42</td>
<td>TV ± 7</td>
</tr>
<tr>
<td>No. 8</td>
<td>15 – 25</td>
<td>TV ± 6</td>
</tr>
<tr>
<td>No. 30</td>
<td>5 – 15</td>
<td>TV ± 5</td>
</tr>
<tr>
<td>No. 200</td>
<td>2.0 – 7.0</td>
<td>TV ± 2</td>
</tr>
</tbody>
</table>

In addition to complying with all aggregate quality requirements for RHMA-G in Section 39 (Hot Mix Asphalt) of the California Department of Transportation’s 2010 Standard Specifications, the following aggregate quality requirements shall apply:
### Quality Characteristic Table

<table>
<thead>
<tr>
<th>Quality Characteristic</th>
<th>Test method</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coarse durability</td>
<td>California Test 229</td>
<td>65 minimum</td>
</tr>
<tr>
<td>Fine durability</td>
<td>California Test 229</td>
<td>50 minimum</td>
</tr>
</tbody>
</table>

**Asphalt Binder:**

The asphalt binder mixed with asphalt modifier and crumb rubber modifier shall be PG 64-16 and shall conform to Subsection 92-1.02(B) of the Caltrans Standard Specifications.

**Mix Properties:**

The RHMA-G mix design shall target 3.5% air voids and shall comply with all RHMA-G requirements in Section 39 (Hot Mix Asphalt) of the California Department of Transportation’s 2010 Standard Specifications.

**Delivery Tickets:**

Each delivery ticket shall include information on the material type, binder type, oil content, and the mix design number. Material delivered to the project without such annotations shall be subject to rejection.

**Construction**

**General:**

The paving shall be performed in such a way as to not leave any transverse paving joints at the end of each day’s operation.

**Surface Preparation:**

The work shall consist of preparing the existing street surfaces prior to the commencement of paving. Such work shall include removing raised pavement markers, removing thermoplastic traffic markings and legends, controlling nuisance water, sweeping, watering, and removing loose and broken hot mix asphalt pavement and foreign material as specified in the Caltrans Standard Specifications and these Construction Specifications, and as directed by the Engineer.
Cold Joints:
All cold joints, both longitudinal and transverse, shall be heated with a torch immediately prior to paving. Cold joints include previous passes placed more than three hours prior. All cold joints shall be tack coated.

Layout:
The Contractor shall layout and mark the location of the edges of the paving passes of the surface course to match the new layout of the lane lines. The layout shall be made at least 24 hours prior to paving. The layout shall be approved by the Engineer prior to paving.

If the striping is to remain unchanged, the edges of the paving passes shall conform to existing lane edges.

In all cases where practical, each lane shall be paved in a single pass. In tapered transition areas, the shoulder areas shall be paved first, then the through lane shall be hot-lapped immediately after the shoulder paving.

For paving which incorporates new quarter points or grade breaks due to key cuts or other conditions, the contractor shall provide equipment capable of adjusting to the new surface profile at the appropriate locations. The profile adjustments shall be within twelve inches of the actual quarter point or grade break.

The contractor shall take sufficient measurements during laydown to assure that the full design rubberized hot mix asphalt layer depth is provided at each quarter point, grade break, and transition. Failure to provide the design depth at these areas will result in rejection of the work. Correction of this rejected work will include milling out the new hot mix asphalt from the road edge to the centerline or nearest inside lane line and repaving. The minimum length of the milled and corrected area shall be fifty feet.

Tolerances:
The finished rubberized hot mix asphalt surface shall be flush with, to 1/4 inch (0.02 feet or 6 mm) above, the gutter lips. The finished pavement surface shall not be lower than the gutter lips.

The average pavement thickness shall be equal to the specified thickness for the project. For total pavement thicknesses of less than four inches, the minimum allowable thickness
will be 1/4 inch less than that specified. For total pavement thicknesses of four inches or more, the minimum allowable thickness will be 1/2 inch less than that specified.

Engineer’s Acceptance:

*Modify 39-2.03A Testing as follows:*

Change footnote e(1) to read as follows:

“1. Use one location per pavement repair if the repair area is less than 200 square feet. Use three locations for areas between 200 and 1200 square feet. Use three tests per 1200 square feet thereafter.

Compaction shall be between 92.0% and 97.0%.

Add the following footnotes:

k. The engineer shall perform testing in accordance with CT 375 for acceptance, except maximum specific gravity (CT 309) shall replace TMD testing. Contractor shall perform independent quality control testing continuously during paving using nuclear or non-nuclear methods.

l. Failing tests shall be verified by coring if requested by the Contractor. The Contractor will take cores at locations randomly determined by the Engineer and give them to the engineer for testing. A minimum of 1 core per 250 tons or 3 cores per street, whichever is greater, shall be taken. Results shall be reported as the average of 3 cores.

Passing cores shall be paid for by the owner. Failing cores shall be paid for by the Contractor. If the core density testing produces both passing and failing cores, the cost will be prorated between the owner and Contractor.

The table for deductions indicated in the referenced revised Caltrans Section 39 shall apply to individual cores. The following table shall apply to deductions for average compaction of a lot:
### Reduced Payment Factors for Percent of Maximum Theoretical Density

<table>
<thead>
<tr>
<th>RHMA-G Percent of Maximum Theoretical Density</th>
<th>Reduced Payment Factor</th>
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<th>Reduced Payment Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>92.0</td>
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<tr>
<td>91.9</td>
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<td>&lt; 90.0</td>
<td>Remove and Replace</td>
<td>&gt; 99.0</td>
<td>Remove and Replace</td>
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</table>

The Contractor shall have hand-compaction equipment immediately available for compacting all areas inaccessible to rollers. Hand-compaction shall be performed concurrently with breakdown rolling. If for any reason hand-compaction falls behind breakdown rolling, further placement of hot mix asphalt shall be suspended until hand-compaction is caught up. Hand-compaction includes vibraplates and hand tampers. Hand torches shall be available for rework of areas which have cooled.

After compaction, the surface texture of all hand work areas shall match the surface texture of the machine placed mat. Any coarse or segregated areas shall be corrected immediately upon discovery. Failure to immediately address these areas shall cause suspension of hot mix asphalt placement until the areas are satisfactorily addressed unless otherwise allowed by the Engineer.

Temporary Transitions:
The Contractor shall construct temporary pavement transitions at all paving joints greater than 1 inch prior to allowing traffic onto the paved surface. This includes both longitudinal and transverse paving joints for both leveling and surface courses. Temporary pavement transitions shall have a maximum slope of 20:1 or as approved by the engineer and be constructed on Kraft paper or other suitable bond breaker such that upon removal of the temporary pavement transition, a clean vertical face remains. The temporary transitions may be constructed of either cold mix or hot mix. A tack coat is required on the transition area prior to final paving.

The Contractor shall continuously maintain the temporary pavement until final paving. Each temporary transition shall be inspected by the Contractor and repaired as necessary to comply with these provisions at the end of each day including weekends and holidays.

Failure to comply with these provisions will result in a liquidated damage of $250 per day per transition and/or the cost of City crews making the repairs if necessary to correct for public safety.
Measurement and Payment

The contract price paid per Ton for “3/8” Rubberized Hot Mix Asphalt” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in constructing RHMA, complete in place, including surface preparation, tack coat, temporary transition, JMF preparation, submission and verification testing costs, Contractor’s Quality Control Plan, and the costs of coring to verify core densities, if required, as shown on the plans, as specified in the Standard Specification and these special provisions, and as directed by the Engineer.

**BID ITEM NO. 26 - FOAMED CEMENT TREATMENT 5”**

This item of work shall consist of recycling existing pavement into a new roadway base course suitable for overlaying. Included in this work are all mix design, QA/QC, milling, labor, equipment, processing, added materials, placing, compacting, curing, and any incidental items necessary to meet these specifications.

**Mix Design**

A minimum of 14 days prior starting the FDR-FA the contractor will take samples of the existing pavement and prepare and submit a mix design for the Engineers approval. The mix design shall be prepared in a lab certified to perform the tests specified according to the procedures outlined in these specifications.

The design submittal must indicate the following information:
- FDR-FA equipment and method proposed
- Gradation (ASTM C136 )
- Bitumen Grade with Certificate of Compliance
- Bitumen Content
- Bitumen Source
- Bitumen Foaming Temperature
- Bitumen Foaming Water Content
- Foamed Bitumen Expansion
- Foamed Bitumen Half-Life
- Optimum Moisture Content
- Cement or Lime Content
- Cement or Lime Source
- Cement or Lime Grade
- Any other additives
• Dry Indirect Tensile Strength (ASTM D6931)
• Soaked Indirect Tensile Strength (ASTM D6931)
• Tensile Strength Ratio
• Bulk Specific Gravity and Density of Compacted Bituminous Mixtures (ASTM D1188)
• Theoretical Maximum Specific gravity of Bituminous Materials (ASTM D2041) (Report average of three samples – Report Only)
• Job mix specific gravity

Minimum criteria used for acceptance of the proposed mix design will be:

Soaked Indirect Tensile Strength > 35.0 PSI

Mix Design Apparatus

The laboratory production method should closely simulate full-scale foamed asphalt production. Laboratory asphalt foaming equipment should be capable of producing foamed asphalt at a rate from 50 grams to 500 grams per second. The equipment should have a thermostatically controlled chamber or vessel capable of holding at least 22 lbs of asphalt at a temperature from 285°F to 340°F. The equipment should have a low-pressure compressed air supply capable of delivering from 0 to 100 psi. The equipment should have a system for adding from 0 % to 4 % cold water by weight of asphalt. All metering devices shall be calibrated annually in accordance with Caltrans Independent Assurance Standards.

An air cabinet or oven capable of maintaining a temperature of 104°F ± 5°F.

A pug mill style mixer capable of mixing up to 55 lbs of aggregate, sand, and fines. The mixer shall be able to mix the material in a suspended state, and allow for the foamed asphalt to free fall directly on to the suspended material. The mixer shall also be able to provide a material with even material distribution after 2 minutes of mixing.

Calipers to measure the length and diameter of test specimens to the nearest 0.02 in.

A thermometer capable of measuring temperatures from 32°F to 120°F.

Marshall Compaction hammers.

A mechanical or hydraulic testing machine capable of providing accurately controllable rates of vertical deformation at 2.0 inches per minute.

Lottman Breaking Head.
Asphalt Binder Selection and Foaming Parameters

It is important that laboratory tests for mix design use the same asphalt binder that will be used during construction, including grade, source, and manufacturer. Use an asphalt binder that meets the specifications for PG 64-10 in ASTM D6373.

1. Calibrate laboratory asphalt foaming equipment in compliance with the manufacturer’s instructions.

2. Set asphalt temperatures to 280°F, 300°F, 320°F, and 340°F or at appropriate temperatures, no more than 20°F apart, determined from previous experience with the binder.

3. For each asphalt temperature, use foaming water percentages of 2.0 %, 2.5 %, 3.0 %, and 3.5% or at appropriate percentages, no more than 0.5% apart, determined from previous experience with the binder.

4. At each temperature/foaming water percentage combination, determine:
   4.1. Expansion ratio: The ratio of maximum volume of foam relative to original volume of asphalt.
   4.2. Half-life: The time measured in seconds for foamed asphalt to subside to half of the maximum volume from the time the foam nozzle shuts off.

5. The half-life and expansion ratio required will depend on the material temperature during construction. If the material temperature is between 50°F and 60°F select the asphalt temperature and water content with a minimum expansion ratio of 10:1 and half-life of 8 at least seconds, if the material temperature is above 60°F, select a water content with a minimum expansion ratio of 8:1 and a half-life of 6 at least seconds.

6. If two or more asphalt temperatures and water contents meet minimum requirements of expansion ratio and half-life, select the results with highest product of multiplication between the expansion ratio and half-life (expansion ratio × half-life).

7. If highest product of the multiplication between the expansion ratio and half-life determined in step 6 (above) occurs at the highest or lowest temperature or foaming water percentage tested, increase or decrease the asphalt temperature by up to 20°F or the foaming water percentage by up to 0.5%, as applicable. Test and report the expansion ratio, half-life, and the product of the expansion ratio and half-life at the new temperature and foaming water percentage combination. Continue until further increases or decreases in temperature or foaming asphalt percentage do not increase the product of multiplication between the expansion ratio and half-life.
Preparation and Preliminary Testing of Pulverized Material

1. Break down or pulverize the Asphalt Concrete (AC) into material passing the 1 inch sieve.

2. Process the pulverized AC and underlying granular materials (if applicable) under ASTM D75 and ASTM C702. Do NOT heat any sample with bitumen materials present above 110°F at any point during preparation or testing.

3. Split out a minimum of four 50 lbs portions of the materials to complete the desired testing.

4. Determine the gradation of the pulverized AC under ASTM C136

5. Determine the gradation of the underlying granular materials (if applicable) under ASTM C136.

6. Determine the combined gradation of the proposed mixture of pulverized AC and underlying granular materials (if applicable):
   6.1. Discard materials retained on 1 in. and larger sieves.
   6.2. If the fine material (passing #200 sieve) content is less than 5.0 %, extra fines can be incorporated by either blending additional underlying granular materials or adding imported granular fines.
   6.3. If the fines content is greater than 20 %, reduce the fines by reducing the quantity of underlying granular materials.

Optimum Moisture Content

Determine the Optimum Moisture Content (OMC) using the following procedure:

1. Thoroughly mix approximately 15 lbs of prepared materials with targeted amount of active filler (e.g., 1 % to 2 % of Type II Portland cement).

2. Pass the material through a 3/4” sieve and discard the material retained.

3. Separate out 1,100 grams of material.

4. Place the material in a 4 inch diameter Marshall mold and rod the material 10-15 times with a 1/8” rod in a circular motion, making sure to evenly distribute rods across the entire sample.

5. Compact the specimen by placing in in the Marshall compactor and applying 75 blows.

6. Remove the collar and flip the specimen.
7. Apply another 75 blows to the opposite side of the specimen.

8. Gently extrude the specimen from the Marshall mold and record the height, diameter and weight of the mold.


10. Calculate the density of the specimen in g/cm³ using the following equation:

    \[
    \text{Bulk Density} = \frac{m}{\pi h r^2}
    \]

    Where:
    
    \(r\) = radius in cm
    
    \(h\) = height in cm
    
    \(m\) = mass in grams

11. Repeat the steps above, adding 0.5% moisture by dry weight of pulverized materials, until a curve is developed and the material drops in density with at least two successive moisture content increases.

12. Plot the moisture–density relationship and determine maximum density and optimum moisture content (OMC) from the established curve.

13. The OMC generated shall be used for the remainder of the testing.

**Optimum Foamed Asphalt Content**

Prepare approximately 200 lbs of pulverized materials for the optimum foamed asphalt content determination. (Not to be confused with determination of asphalt binder content of the reclaimed material). Steps 2 through 7 may be performed in accordance with manufacturer recommendations, except that the final specimen height must be 2.5 in +/- 0.1 in. and Portland cement content must not exceed 1.5%.

1. Pass the entire sample through the 3/4-inch sieve. Make a note of the percentage of oversized material and discard.

2. Thoroughly mix a sufficient amount of water without active filler to achieve 75% of OMC.

3. Quarter the material into four (4), 50 lbs. bulk samples.

4. Place one 50 lbs bulk sample (or a sample size recommended by the manufacturer) into the pug mill mixer and blend 2.00% foamed asphalt and **1.0% to 1.5% Type II Portland cement**. Other additives may only be used with prior approval, in writing, from the Engineer.

5. Remove the material from the pug mill place into an air tight container.
6. Split the samples down to six (6), 1,000g – 1,250g specimens. Typically between 1000g-1250g of material is sufficient, when compacting bitumen-stabilized materials using the cold foam method. The target final specimen height should be 2.5 in +/- 0.1 in.

7. Add the remaining 25% required to bring the material to the OMC determined in the previous section.

8. Compact six (6) specimens in accordance with steps 4-9 of Section 39-7.1.4 (Optimum Moisture Content) of this specification.

9. Repeat steps 4 through 8, three additional times, increasing the percentage of foamed asphalt added in increments of 0.25% to produce specimens with 2.25%, 2.50%, and 2.75% foamed asphalt.

10. Cure all briquettes in a forced draft oven at 104°F±5°F for 72 hours, or until specimens have reached constant mass. If after the 72 hour cure the specimens have not reached constant mass, allow the samples to continue to cure until constant mass is reached, note the additional time required for cure.

11. Remove specimens from oven, and allow the specimens to cool to ambient temperature. Once the samples have cooled, record mass and height for each specimen.

12. Determine the Indirect Tensile Strength (ITS) of the un-soaked specimens using ASTM D6931. Record the peak loads.

13. Place 3 specimens from each asphalt content in a water bath with a temperature from 77°F ± 3°F for 24 hrs. Water level must be a minimum of 2.0 in. above the specimens’ surface and specimens must not be stacked.

14. After the 24 hour soaking period, remove the specimens from the water and let stand for 15 minutes.

15. Cover specimens with damp cloth to prevent excessive evaporation.


17. Record the peak loads applied to all specimens.

18. Calculate average wet (ITSw), and dry (ITSd) indirect tensile strength of each subset.

19. Determine Tensile Strength Ratio (TSR) of each subset:
TSR = ITSw / ITSd

20. Select asphalt content with test results of minimum ITSw ≥ 35.0 psi.

21. When one or more asphalt content complies with the minimum test results, select the lower asphalt content.

**Quality Control and Quality Assurance**

Provide a quality control plan (QCP) that describes the organization, responsible parties, and procedures you will use to:

1. Control quality
2. Determine when corrective actions are needed (action limits)
3. Implement corrective actions

The QCP must contain copies of the forms that will be used to provide all required inspection records and sampling and testing results. On the form used to record and report the quality control measurements, also show the job mix formula information.

As part of the QCP the contractor will provide a contingency plan that describes the corrective actions you will take in the event of equipment break down or material out of compliance.

**Contingency Plan**

The contingency plan must include any corrective actions including repairing and reopening the roadway to traffic using hot mix asphalt in compliance with Section 39, "Hot Mix Asphalt," of the 2010 Caltrans Standard Specifications or temporary bituminous surfacing in compliance with these special provisions.

Hot mix asphalt must:
1. Be hot mix asphalt (Type A)
2. Use 1/2-inch aggregate grading
3. Use asphalt binder grade PG 64-10 or PG 64-16

Temporary bituminous surfacing must:
1. Be commercial quality bituminous material

Meet with the Engineer at least 7 days before starting FDR-FA work to review the QCP and contingency plan.
QC Laboratory

Provide a certified testing laboratory and personnel to perform quality control inspection, sampling and testing. Provide the Engineer with unrestricted access to the laboratory, sampling and testing sites, and all information resulting from job mix formula and quality control inspection and testing activities. Proficiency of testing laboratories and sampling and testing personnel must be reviewed, qualified, and accredited by Caltrans Independent Assurance Program before starting FDR-FA work. Perform inspection, sampling and testing at a rate sufficient to ensure that FDR-FA mixture, placement, compaction and finishing complies with the specifications.

Production

Once daily the contractor shall sample RAP behind the recycling equipment or the processed RAP. The contractor shall report the test results immediately to the Engineer. Reprocess the RAP or take other corrective action to attain compliance. Divide the project into 3,000-square yard lots. For each lot:

1. Determine the actual recycle depth at each end of the milling drum at least once every 300 feet along the cut length
2. Determine the amount of recycling agent
3. On every third sample taken, perform a wet field gradation for material passing the 1-inch through No. 4 sieves and adjust the foamed asphalt content, if necessary.
4. Determine in place density and relative compaction of 10 random locations. Use the submitted Job Mix density as the basis of comparison.

For each lot, measure or calculate and record the following information:

1. Length, width, depth of cut and calculated weight in tons of material processed
2. Weight of recycling agent added in tons
3. Percentage of added recycling agent in the lot's FDR-FA mixture by weight
4. Weight of recycling additive used in tons (if used)
5. Percentage of recycling additive in the lot's FDR-FA mixture by weight (if used)
6. Maximum particle size of the RAP
7. Maximum obtainable density used for relative compaction calculation.
8. Nuclear gauge in-place density and relative compaction at 10 random locations.
9. Ambient and compacted recycled pavement surface temperatures
10. Maximum theoretical density under ASTM D2041 and void ratio (Report Only)
11. Rate of fog seal coat application
12. Rate of sand cover application

On the form used to record and report the quality control measurements, also show the job mix formula information. Make adjustments during FDR-FA operations for optimum
quality. If adjustments are made, document the reason for the change and identify on the daily quality control inspection records and sampling and test results.

The Contractor shall be responsible for the quality of construction and materials incorporated into the Project. The Contractor’s QC measures shall ensure that operational techniques and activities provide integral and finished material of acceptable quality. Contractor sampling and testing shall be performed to control the processes and ensure material compliance with the requirements of the Contract.

The Contractor shall perform all Quality Control testing and sampling for the project. All QC sampling and testing shall be performed by technicians certified by the State of California for that particular material and all laboratory testing shall be performed by laboratories accredited by AASHTO Materials Reference Laboratory (AMRL) and Cement and Concrete Reference Laboratory (CCRL) for the test methods required. Contractor shall furnish copies of all test results to the Engineer or other authorized Department representative within 24 hours of completing the test of the acquired sample or the next day of business.

**Placement**

FDR-FA shall be performed to a minimum depth of 4-inches within the lines and grades of the project plans and specifications or as directed by the Engineer.

The FDR-FA machine must rear load directly into the paver receiving hopper or the paver’s loading equipment must pick up the FDR-FA mixture and deposit it in the paving machine without waste. Placement of the FDR-FA mixture must be placed by a self-propelled paver equipped with a hopper that automatically feeds the screed. The paving equipment must be equipped with automatic screed controls and sensing devices that control the thickness, longitudinal grade, and transverse screed slope.

The FDR-FA material shall be capable of holding traffic at the end of each day’s production without deformation or damage occurring to the surface. No rutting or raveling shall be tolerated and corrective action per section 39-7.2.1 of these special provisions shall be applied when either occurs.

**Fog Seal and Sand Spreading**

At the end of each day’s production the contractor shall apply a fog seal to the surface at a rate of 0.12 gal/sqy. Fog seal shall meet City Standard Specification 37-3 “Fog Seal”. Sand shall be spread at a rate of 1.0 to 2.0 pounds per square yard at the areas fog seal is placed or as determined by the Engineer. Remove excess sand from the FDR surface by sweeping. Sand cover shall be spread by means of a self-propelled spreader equipped with a mechanical device that will spread the sand at a uniform rate over the FDR surface. The
area treated shall be capable of holding traffic at the end of each day’s production without any deformation or damage to the surface.

Acceptance

The project shall be divided into lots 2500 linear feet long and 12 feet wide extending along the lane lines of the road way. If one day’s production will be less than 2500 linear feet that day’s production shall be a lot. If one day’s production is one lot plus an additional amount, the additional work shall be a separate lot or as directed by the Engineer or Engineer's representative. The Engineer will sample and test at least one sample per lot prior to acceptance. Frequency of testing will be at the Engineers discretion.

Acceptance will be based on the following criteria:

A. IDTS soaked results must be greater than 95% of the minimum design strength (35.0 PSI).
B. The average Relative compaction of a lot shall be a minimum of 98% of the maximum wet density as measured by Cal 216. No single test shall be less than 94% relative compaction.
C.

For lots outside of the acceptance criteria the Engineer determines a deduction for each test result outside the specifications using the reduced payment factors shown in the following tables:
## Marshall Test Results

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<th>% of Minimum Design Strength 35.0 PSI</th>
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In the event a lot is subject to both pay factors, they will be cumulative. (I.E. An 80% pay factor for Marshall and a 70% pay factor for Compaction equals a 56% cumulative pay factor. .80 X .70 = .56)
Measurement and Payment

Quantities of seal coat to be paid for will be measured by the Ton in accordance with the provisions in Section 94, "Asphaltic Emulsions" of the Standard Specifications.

The unit of measurement for “Foamed Cement Treatment 5” shall be per square yard for the depth specified in the contract. The area to be paid shall be the length measured along the centerline of the roadway multiplied by the average perpendicular width. Additional excavation/recycling performed by the Contractor outside the lines provided in the Plans shall not be measured and compensated by the Department without approval by the Engineer.

“Foamed Cement Treatment 5” shall be paid for at the contract unit price per Square Yard adjusted by the pay factor. This amount shall be full compensation for all work necessary within the dimensions shown on the Plans or specified herein, including but not limited to pulverizing existing pavements, additional materials, stabilizing agent(s), mineral filler, water, grading, compaction, sampling, testing, fog seal, sand, sand spreading and for all materials, labor, tools, equipment, hauling permits, mobilization and any incidentals necessary to complete the work.

BID ITEM NO. 27 - FULL DEPTH BASE REPAIR (REVOCABLE ITEM)

BID ITEM NO. 28 - SUBGRADE OVER EXCAVATION(REVOCABLE ITEM)

Failed AC pavement areas to be repaired will be marked out after the cold plane asphalt concrete pavement operation and prior to the start of paving. Contractor shall sweep all milled surfaces sufficiently to identify failed areas and provide traffic control suitable for Engineer to safely mark base repair locations. At failed areas, the Contractor shall excavate to an additional depth of six (6) to eight (8) inches as directed by the Engineer. Further excavation beyond six (6) or eight (8) inches may be required by soil conditions (i.e., yielding subgrade) or as directed by the Engineer, and will be paid for as described in the Measurement and Payment section.

The subgrade shall be compacted to a minimum ninety percent (90%) relative compaction. The excavation shall be squared off, thoroughly cleaned out, primed with SS-1h asphalt emulsion, backfilled in lifts not exceeding three (3) inches, and properly compacted with ¾” HMA (Type A). The finished repair shall be tight, level, and shall match the grade and profile of the existing grade prior to the application of final pavement. The excavation shall be accomplished with proper equipment and in such a manner that the stability of subgrade is not destroyed and underground utilities are not damaged.
Areas with unsuitable subgrade that does not meet compaction requirements shall be over-excavated to a depth of six (6) to 12 inches, as directed by the Engineer, and replaced with aggregate base and Contractor shall install a triaxial geogrid (i.e., Tensar TX 160 or approved equivalent), as directed by the Engineer. The aggregate base shall then be moisture conditioned, placed in lifts not to exceed six (6) inches when compacted to ninety-five (95%) relative compaction. Alternatively, to replacing the unsuitable subgrade material with a geogrid and aggregate base, the Subcontractor may use HMA at the discretion of the Engineer.

**Measurement and Payment**

The material to be used for Full Depth Base Repair and Subgrade Over Excavation shall be 1/2” HMA Type A.

The contract price paid per **Square Yard** for “Full Depth Base Repair” and “Subgrade Over Excavation” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work necessary to repair failed areas of pavement, complete in place, including but not limited to excavation, removal and disposal of asphalt concrete and base, removal of paving fabric or Petromat, compaction, asphaltic emulsion, and HMA (Type A), as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

No adjustment of unit prices will be made for any increase or decrease in the quantities stated in the bid schedule for “Full Depth Base Repair” and “Subgrade Over Excavation” required, regardless of the reason for the increase or decrease. The provisions in Section 4-1.05 “Changes And Extra Work,” of the Standard Specifications shall not apply to “Full Depth Base Repair” and “Subgrade Over Excavation”.

**BID ITEM NO. 29 - FURNISH & INSTALL 26” WIDE GLASGRID OVER CROSS DRAIN**

**General**

The work shall consist of cleaning the surface to receive mesh, filling cracks, skin patching over alligator cracking, supplying and placing the glasgrid reinforcing mesh and protecting the work until the asphalt concrete overlay or surfacing is placed.

**Materials**
The reinforcing mesh shall be a knitted, glass fibre grid and shall conform to the following specifications when tested in conformance with the following:

- **Weight, ounce/(sq^2)**: 13 to 19
- **Tensile Strength, (lbs.)**: 560 to 1120
- **Elongation at Break, (%)**: 4 minimum
- **Melt Point above 1000°C**: 1800°F

The mesh will be self adhesive, with sufficient bond to allow normal construction traffic and paving machinery operations.

Glasgrid by Bay Mills, or equal products are acceptable.

**Construction**

**Surface Preparation:**

Prior to the placement of reinforcing mesh, and if no leveling course of asphalt concrete is specified, all cracks over 3/32 of an inch in width shall be cleaned and filled in accordance with applicable specifications for crack filling or surface preparation. Areas of alligator cracks shall be skin patched with either 3/8 inch or No. 4 sheet mix asphalt concrete.

After skin patching and/or crack filling, the surface shall be cleaned of all loose debris and residue including dirt or oil, and other foreign substances. The entire surface shall be dry prior to placement of the reinforcing mesh.

**Tack Coat:**

Tack coat shall not be sprayed below, or onto, the Glasgrid mesh unless directed by the engineer. If tack coat is required for extra adhesion, it must be applied a minimum of twenty-four (24) hours in advance of Glasgrid mesh placement to ensure complete curing of the tack coat material.

The minimum application temperature of the asphalt cement shall be 300 degrees F. The maximum application temperature shall be 375 degrees Fahrenheit.

The rate of tack coat application will depend on the porosity of the existing pavement. The rate shall generally be between 0.25 and 0.30 gallons per square yard. On steep grades, in intersections or other zones where vehicle speed change is commonplace, the application rate shall be reduced to 0.22 gallons per square yard.
The width of application shall be the width of the fabric plus 2 to 6 inches. Asphalt cement drools or spills shall be removed. Areas of excessive tack on the fabric shall have sand broad cast to absorb the excessive oil.

**Mesh Installation:**
The pavement reinforcing mesh shall be placed the same day as the asphalt concrete overlay is placed.

The mesh shall be placed by mechanical means under sufficient tension to eliminate ripples. Should ripples occur these must be removed by pulling the grid tight or in extreme cases, by cutting the grid and laying flat. Placement of mesh by hand shall be avoided where possible.

If manual laydown methods are used, the mesh shall be unrolled, stretched, aligned and placed in increments of approximately 30 feet.

The mesh shall lap 6 inches at joints in all directions.

The surface of the Glasgrid mesh shall be rolled with a rubber coated drum roller, or pneumatic tired roller one or two passes to activate the adhesive. Tires must be cleaned regularly with asphalt cleaning agent.

**Measurement & Payment**
The contract price paid per Linear Feet for “**Furnish & Install 26” Wide Glasgrid**” shall include full compensation for furnishing all labor, material, tools, equipment, and incidentals, and for doing all the work involved in install gladgrid, complete in place, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

**BID ITEM NO. 30 - REMOVE CROSS DRAIN UNDER SIDEWALK / CURB RAMP**
**BID ITEM NO. 31 - REMOVE & REPLACE CROSS DRAIN UNDER SIDEWALK / CURB RAMP**
**BID ITEM NO. 32 - REMOVE & REPLACE CROSS DRAIN UNDER STREET**
**BID ITEM NO. 33 - REMOVE & REPLACE JUNCTION BOX IN SIDEWALK**
**BID ITEM NO. 34 - REMOVE & REPLACE JUNCTION BOX IN STREET**
**BID ITEM NO. 35 - REMOVE & REPLACE SIDEWALK CROSS DRAIN**

This work shall consist of removing and furnishing and installing cross drain culvert pipes and junction boxes all with necessary fittings and connections to existing storm drain features, protection of existing storm drain related facilities to remain in place, and
modifications to existing storm drain features as shown on the Plans or as directed by the City and as specified in these Special Provisions and the City of Berkeley Standard Details and Detail Specifications (latest Edition).

Cross drains located at curb returns shall be removed and replaced if the curb ramp is to be reconstructed. Contractor shall consider possible long lead time for Hollow Structural Section (HSS) pipes and checkered steel plate non-skid surface when scheduling ramp replacement work.

Where cross drain replacement is required at locations of curb ramp construction, the layout, profile, and alignment of both the curb ramp and cross drain shall be conducted at concurrently so that ADA requirements are met, stormwater drainage patterns maintain a positive flow in the gutter and cross drain flowlines, and sumps are avoided in the gutter flowline.

**Trenching**

Trench excavation, backfill, and shaped bedding shall conform to the provisions in the Standard Details and Detail Specifications of the City of Berkeley.

The pipe shall be laid in a trench excavated to the lines and grades as shown on the Plans or as directed by the Engineer. The bottom of the trench shall be graded and prepared to provide a firm and uniform bearing throughout the entire length of the pipe or culvert. Backfill shall be placed as described in Standard Details and Detail Specifications of the City of Berkeley.

**Existing Utilities**

The Contractor shall locate existing utilities before any excavation to ensure that the proposed cross drain layout can be constructed. Minor adjustments of drain inlet locations are allowed but need to be brought to the City’s attention in the form of a red-lined plan sheet. Water, sewer, or gas utility lines may be relocated after obtaining approval from the City or utility owner.

**Cross Drain Pipe**

Cross drain underlying curb ramps or sidewalk shall be galvanized 14”x4”x5/16” hollow structural section (HSS). Cross drain connection to joint boxes located in the street or cross drains crossing the street shall be galvanized 14”x6”x1/2” hollow structural section (HSS). HSS culverts for cross drains at curb ramps or drains across streets, or required elsewhere on the project, shall be ordered a maximum of seven (7) days after Notice to Proceed with proof of order/purchase. Cross drain repair at curb ramps shall include replacement of
checkered steel plate at curb inlet and outlets. Proof of order/purchase shall be submitted to the Engineer.

Inlet and outlet structure and ½” thick checkered steel plate non-skid surface for cross drain at curb ramps shall conform to the Detail 2 of CD-1 and City of Berkeley Standard Detail Plan 3317 and the plans.

HSS culvert joints and junctions shall be fitted with aluminum joint tape and high strength concrete. HSS culvert joint shall be free of loose material and fixed for a clean, tight seal. Joint tape shall be 555 FlexFix UL Listed Tape, or approved equivalent, and high strength concrete shall be Quikrete 5000 Concrete Mix or approved equivalent.

Backfill cross drain trench with class 2 aggregate base, concrete, and HMA Type A, as indicated on the Plans.

**Storm Drainage Structures, Junction Boxes and Curb Inlets**

Joint boxes shall be constructed and adjusted according to the details shown on the Plans. New curb inlet and outlet structures shall include new, “no dumping” warning medallions on top of the structures at the curb face. Medallions shall be supplied by the City. Medallion shall be installed using a construction grade weatherproof adhesive, SikaFlex or approved alternate.

**Measurement and Payment**

“Remove Cross Drain Under Sidewalk” will be measured per Linear Feet of slope length, and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in removing cross drain, inlet and outlet structure, storm drain junction box, asphalt concrete, concrete, detectable warning surface, rebar, checkered steel plate with non-skid surface, and bolts, and placement of trench backfill material as shown on the Plans, and as specified in these Special Provisions, and as directed by the Engineer.

“Remove & Replace Cross Drain under Sidewalk / Curb Ramp” and “Remove & Replace Cross Drain under Street” will be measured per linear feet of slope length from pipe end to pipe end, and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all work involved in installing cross drain and inlet and outlet structure, complete in place, including but not limited to trench excavation, bedding and backfill, aggregate base, HSS culvert, joint and junction fittings,
HMA Type A pavement, concrete, rebar, checkered steel plate with non-skid surface, bolts, existing utility relocation if required, and connecting new cross drain to existing or new facilities, as shown on the Plans, and as specified in these Special Provisions, and as directed by the Engineer.

“Remove Cross Drain under Sidewalk”, “Remove & Replace Cross Drain under Sidewalk / Curb Ramps” and “Remove & Replace Cross Drain under Street” will be measured per linear feet of slope length from pipe end to pipe end, not including additional length from the checkered plate at inlet and outlet.

“Remove and Replace Junction Box in Sidewalk” and “Remove and Replace Junction Box in Street” will be measured per Each installed, and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in removing and installing storm drain junction box of the various types and sizes, complete in place, including but not limited to existing utility relocation if required, box removal, trench excavation, bedding and backfill, furnishing and placing new SD junction boxes, frames and covers, and connecting junction box to existing and/or new facilities, as shown on the Plans, and as specified in these Special Provisions, and as directed by the Engineer.

“Remove and Replace Sidewalk Underdrain” will be measured per Linear Feet installed, and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in removing and installing Sidewalk Underdrain as per City of Berkeley standard detail 8154, complete in place, including but not limited to existing utility relocation if required, box removal, trench excavation, bedding and backfill, furnishing and placing new underdrain, and as specified in these Special Provisions, and as directed by the Engineer.
BID ITEM NO. 36 - ADJUST STORM DRAIN MANHOLE FRAME AND COVER
BID ITEM NO. 37 - ADJUST SANITARY SEWER MANHOLE FRAME AND COVER
BID ITEM NO. 38 - ADJUST UTILITY MANHOLE FRAME AND COVER (REVOCABLE ITEM)
BID ITEM NO. 39 - ADJUST GAS VALVE FRAME & COVER (REVOCABLE ITEM)
BID ITEM NO. 40 - ADJUST SEWER CLEANOUT FRAME & COVER
BID ITEM NO. 41 - ADJUST SURVEY MONUMENT FRAME & COVER
BID ITEM NO. 42 - INSTALL WATER VALVE FRAME & COVER (REVOCABLE ITEM)
BID ITEM NO. 43 - REPLACE SURVEY MONUMENT INCL. FRAME & COVER
BID ITEM NO. 44 - NOT USED

These items shall include all work necessary to adjust frames and covers of existing valve boxes, monument covers, or other facilities to grade in conformance with the provisions in Section 15, “Existing Facilities,” of the Standard Specifications.

Where encountered, existing covers that are currently not at grade shall be adjusted to the roadway grades as for the various stages of work.

This work includes replacing utility and monument boxes to set these features to finished street grade. Temporarily fill utility depressions with HMA (Type A) before opening the lane to public traffic. Attention is directed to the provisions in Section 15, “Existing Facilities,” of the Standard Specifications.

The location of all utility and City-owned structures that are covered over by the new pavement shall be legibly marked with paint on the new pavement and the adjacent curb and/or sidewalk. In addition, the Contractor must make a list of each utility cover that is paved over and not raised to grade during the paving job (e.g., PG&E utility covers) and must notify the utility in writing of the location of said utility cover and the date that it was paved over. A copy of this written notification must be sent to the City. If a utility cover is paved over and not raised to grade during the paving job, the pavement must be at least 1-1/2 inches thick over the utility cover, and no depression in the roadway surface can be left over the utility cover. If 1-1/2 inches of pavement cannot be laid over a recessed utility cover, then the asphalt concrete shall be feathered to the grade of the utility cover and arrangements with the utility must be made to raise it to grade.
Existing valve covers, meter boxes, monument covers, subsurface vaults, and other items listed in these Special Provisions or shown on the proposal, or as directed by the Engineer, shall be replaced and/or adjusted to the final grade. The final adjustments, which shall not be performed until all of the pavement surfacings has been placed, shall conform to the provisions in Section 15 of the Standard Specifications with the following modifications and as amended to include the adjustment of the facilities that are not owned or maintained by the City.

Where frames and covers cannot be lowered flush after cold planing or before replacing asphalt surfacing, frames and covers shall be protected utilizing the following alternatives:

a) ramp section (cut-back) around “iron” and paint white
b) place lighted Portable Barricade over iron

All covers encountered in the area to be resurfaced or reconstructed shall be carefully referenced out using spray chalk or similar non-permanent marking media prior to the overlay by the Contractor. Using the reference markings, the locations of the covers shall be painted on the pavement surface immediately after paving to assure they can be found in an emergency.

The contractor is responsible for accurately locating any utility to be lowered as part of planned paving operations. Once paved over and prior to raising, the location(s) of these utilities should be marked on the new pavement prior to raising to grade. If during the performance of raising structures, the Contractor or their subcontractor(s) excavate at a location where a utility does not exist the Contractor will be responsible for repaving that location following moratorium paving standards in accordance with City of Berkeley Standard Plan 8136.

**Work by Utility Companies**

Utility companies reserve the right to perform the work using their own forces after the contract is awarded. The Contractor shall notify the utility agencies prior to the start of construction for any coordination effort and to determine if the utility owners will perform the work using their own forces.
**Construction Methods**

Covers shall be adjusted so that there will not be any perceptible difference in elevation between the finished pavement surface and the cover. The Engineer shall be the sole judge of the acceptable degree of smoothness of passage of a motor vehicle over the adjusted covers.

Portland cement concrete used for adjusting covers shall be 3,000 psi concrete conforming to the provisions in Standard Specification Section 51, “Concrete Structures,” and shall be one (1) inch maximum grading specified in Section 90-1.02C(4)(d), “Combined Aggregate Gradation,” of the Standard Specifications.

Mortar used in resetting manhole covers shall conform to the provisions in Section 51-1.02F, “Mortar,” of the Standard Specifications.

Salvaged materials which are undamaged may be reinstalled as directed by the Engineer. Structures built of cast-in-place or precast concrete and brick or vitrified clay pipe parts shall be replaced in kind unless otherwise permitted by the owners of the facilities.

Dirt, rocks or debris shall not be permitted to enter sewer or storm drain lines. When manhole adjustment involves excavation or concrete removal, a temporary cover shall be placed to prevent entry of material into the manhole and sewer pipe.

During paving operations, all surface structures shall be protected, and no adhesive material shall be permitted to fill the joint between the frame and cover.

**Manholes**

Manholes shall be adjusted to grade per utility provider’s standards, as shown on the plans, and as directed by the Engineer.

**Replace Monument Frame and Cover**
The Contractor shall be responsible for the preservation of existing survey monuments, benchmarks, reference points, and stakes. All City of Berkeley monuments located within the project area shall be referenced, prior to work commencing, by a licensed land surveyor as required by Section 8771 of the Business and Professions Code.

**Contractor shall confirm with the City that all monuments within the limits of work have been referenced prior to the start of any pavement removals.**

Monument Box and Cover shall be replaced in accordance with the City of Berkeley Standard Detail Standard City Monument, Plan No. 7940, 8090, 8091 or 8179, as applicable, and as directed by the Engineer. Contractor shall furnish and install Christy G05CT cover and G05T Box frame. Cover marked “MONUMENT.”

In case of willful or careless destruction, the Contractor will be charged with the entire cost to reset the monument by a California Licensed Land Surveyor and shall be responsible for any mistakes that may be caused by their unnecessary loss or disturbance.

**Replace Monument**

Contractor shall protect all monuments. Monuments that will be disturbed shall be identified by the Contractor to the Engineer. Contractor shall provide at least ten (10) days’ notice to the Engineer of any monuments that will be disturbed. No monuments shall be removed without the prior agreement of the Engineer nor before a California Licensed Land Surveyor has set reference points to reestablish the monument. Monuments that will be disturbed shall be removed during the removal of the existing pavement.

Whenever a City Monument is disturbed or removed during the performance of the work, the Contractor shall replace the monument in accordance with Standard Plan 7940, 8090, 8091, or 8179 as applicable. Monument frames and covers shall be provided by the Contractor, and dome brass markers shall be supplied by the City. Full compensation for all work related to replacing or resetting of monuments that are disturbed during construction shall be included in the various items of work, and no additional compensation will be made therefor.

The Contractor shall replace the monument in accordance with Standard Plans 7940, 8090, 8091 or 8179, as applicable. Monument casings (frames and covers) shall be provided by the contractor, and dome brass markers shall be supplied by the City.
Monument replacement must be done in a neat, workman-like manner. Pavement cuts shall be accurate, with vertical cuts to exact dimensions as shown on the Standard Plans. Each replacement monument shall be constructed such that the center of the dome brass marker is set within 0.04 foot of the referenced position. Monument frames and covers shall be placed at the proper finished grade and as detailed by Standard Plans 7940, 8090, 8091 or 8179, as applicable. Existing monument cover shall be salvaged by the Contractor and delivered to the City Survey Staff or Project Inspector.

If the City has elected to reference known monuments within the project site, copies of the corner records for the referenced monuments shall be provided to the Contractor prior to the start of construction. Otherwise, monument referencing shall be done by a licensed land surveyor hired by the contractor, and copies of the corner records for the referenced monuments shall be provided to the City prior to the start of construction. For each monument that has been disturbed or removed, the replacement monument locations will be established by the referencing surveyor after the final pavement is completed. The new dome brass marker shall not receive final punching prior to seven (7) days after completion of the monument construction.

In the event that any non-referenced monuments or monument reference points become in danger of being disturbed due to construction, the Contractor shall cease the threatening activity and notify the Project Manager and City Survey Staff immediately. Response to endangered monuments or reference points is a priority call and will be referenced by the City survey crew or its survey consultant in accordance with the City of Berkeley Monument Reference Guidelines, see Appendix. In no case may an unreferenced monument or monument reference point be damaged during construction.

Should any monument not designated for replacement sustain damage during construction, the Contractor shall bear the expense for rebuilding it as well as for the survey work the City survey crew or its survey consultant must perform in the process. In any instance where the City deems a damaged monument to be irreplaceable, whether designated or not designated for replacement, whether designated or not designated, the Contractor shall be fined $20,000 per monument.

**Terms of Revocation**

Bid items designated as “Revocable” are contingent upon the City reaching a mutual reimbursement agreement with the respective owner/Utility Company. Should the City fail to reach such an agreement prior to the start of the work, the relevant bid items shall be revoked, and no payment shall be made for the respective utility adjustment work. Utility
adjustments per revoked items shall be made at the cost and discretion of the Contractor, and shall adhere to the Project Specifications where applicable.

**Measurement and Payment**

The contract unit price paid per Each for “Adjust Storm Drain Manhole Frame and Cover”, “Adjust Sanitary Sewer Manhole Frame and Cover”, “Adjust Utility Manhole Frame and Cover”, “Adjust Gas Valve Frame and Cover”, “Adjust Sewer Cleanout Frame and Cover”, “Adjust Survey Monument Frame and Cover” “Install Water Valve Frame and Cover (Revocable Item) ”, and “Replace Survey Monument Including Frame & Cover”, shall include full compensation for notifying the respective utility companies, furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in lowering frames and covers prior to cold planing, protecting utilities during construction, adjusting covers and boxes to finished grade, replacing survey monument well box and cover, and constructing concrete collar, complete in place, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

The EBMUD will provide new water valve frame and covers for installation. Full compensation for protecting any utility in place shall be considered as included in the contract prices for the various items of work, and no additional compensation will be made therefor.

**BID ITEM NO. 45 - CONSTRUCTION STAKING**

The work in this section includes the furnishing of all labor, equipment, materials, tools, and incidentals and performing all operations in connection with construction survey and layout and all work necessary to provide for proper layout of the work, and detail necessary to define construction layout and staking requirements of this project.

Contractor shall be responsible to set control points/lines at the work site and provide and establish the construction staking as required during construction.

City Survey Section will oversee City Monuments to be adjusted from existing grade.
Measurement and Payment.

The contract price paid per Lump Sum for “Construction Staking” shall include full compensation for all labor, materials, tools, and incidentals to layout all improvements shown on the plans and no additional compensation shall be made.

BID ITEM NO. 46 - PAINTED CURB

Paint for curbs shall be applied in conformance with the provisions in Section 84-2, “Traffic Stripes and Pavement Markings,” of the Standard Specifications and these Special Provisions at the locations shown on the plans and as directed by the Engineer.

The application shall consist of two separate coats of traffic paint of the appropriate color applied to the face and top of the curb.

White and Yellow paint shall be Waterborne Traffic Line conforming to the requirements of Department of Transportation Specification PTWB-01R2.

Blue, Red, Green, and Gray shall be Waterborne traffic line for the international symbol of accessibility and other curb markings, Federal Specification TT-P-1952E Type I.

Red paint shall be “Pervo Paint Traffic Red 6004” and shall conform to the requirements in ASTM D6628-01.

Retroreflectivity of the paint traffic stripes and pavement markings shall conform to the requirements in ASTM E1710.

Use mechanical wire brushing to remove dirt, contaminants, and loose material from the surface that is to receive the curb painting.

Use abrasive blast cleaning to remove laitance and to cure compound of the surface of new concrete that is to receive the curb painting.

If the painted red curb is removed and replaced with new curb, Contractor shall paint new curb in the same color and length as the removed curb. Contractor shall also paint red curb as shown to the color and length shown on the plans.
Measurement and Payment
The contract price paid per Linear Feet for “Painted Curb” shall include full compensation for furnishing all labor, material, tools, equipment, and incidentals, and for doing all the work involved in applying two coats of paint to the curb, complete in place, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

BID ITEM NO. 47 - ARMADILLO BUFFER TREATMENT

General
Armadillo Buffer Treatments (Cycle Lane Separators) shall be consistent to those of Zicla Zebra Cycle Lane Separator (https://www.zicla.com/en/zebra-cycle-lane-separator/) or approved equal. The Armadillo Buffer Treatments (Cycle Lane Separators) shall conform to the specifications below:

- Provide Size 9 (90 mm tall and 164 mm wide), and Size 13 (130 mm tall and 210 mm wide).
- Made from 100% recycled plastic.
- Comes with anchor holes evenly pre-drilled, facilitating a strong, three-point anchor system.

Measurement and Payment
The contract unit price paid per Each for “Armadillo Buffer Treatment” shall include full compensation for furnishing all labor, material, tools, equipment and incidentals, and for doing all the work involved in the installation of the “Armadillo Buffer Treatment”, complete in place, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

BID ITEM NO. 48 - FLEXIBLE DELINEATOR (K71 BOLLARDS)

General
The K71 Bollards shall white in color and shall be 29 inches in height and 8 inches in diameter with two (2) 4 inch reflective collars for 360 degree reflectivity. The post’s overall dimensions offer a highly visible traffic control device that meets and exceeds NCHRP350 specifications. The K71 Bollard specifications shall be consistent to those of StreetSmart
Solutions Model Type 3S-K71, color white ([http://www.3s-delineations.com/self-re-erecting-flexible-posts.html](http://www.3s-delineations.com/self-re-erecting-flexible-posts.html)) or approved equal.

**Measurement and Payment**

The contract unit price paid per Each for “K71 Bollards” shall include full compensation for furnishing all labor, material, tools, equipment and incidentals, and for doing all the work involved in the installation of the “K71 Bollards”, complete in place, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

**BID ITEM NO. 49 - CIRCULAR PLANTERS**

**General**


**Measurement and Payment**

The contract unit price paid per Each for “Circular Planters” shall include full compensation for furnishing all labor, material, tools, equipment and incidentals, and for doing all the work involved in the installation of the “Circular Planters”, complete in place, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

**BID ITEM NO. 50 - RELOCATE EXISTING & RE-INSTALL CONCRETE PLANTER**

**Measurement and Payment**

The contract unit price paid per Each for “Relocate Existing & Re-Install Concrete Planter” shall include full compensation for furnishing all labor, material, tools, equipment and incidentals, and for doing all the work involved in the installation of the “Relocate existing & Re-Install Concrete Planter”, complete in place, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.
**BID ITEM NO. 51 - PAVEMENT MARKERS (TYPE C)**

**General**

Pavement markings and traffic striping shall be thermoplastic and shall be applied in conformance with the provisions in Section 84, "Traffic Stripes and Pavement Markings," and Section 85, “Pavement Markers” of the Standard Specifications, Pavement Markers, Traffic Lines, And Pavement Markings of the Caltrans Standard Plans, and these Special Provisions. Traffic striping and pavement markings shall include all work and materials required to install thermoplastic traffic striping and pavement markings.

Thermoplastic material shall be free of lead and chromium and shall conform to the requirements in State Specification PTH-02ALKYD.

Retroreflectivity of the thermoplastic pavement markings shall conform to the requirements in ASTM Designation: D 6359-99. White thermoplastic pavement markings shall have a minimum initial retro-reflectivity of 250 mcd m-2 lx-1. Yellow thermoplastic pavement markings shall have a minimum initial retro-reflectivity of 150 mcd m-2 lx-1.

Reflectorized markers shall be installed accurately at the locations called for in the Contract Documents or as required by the MUTCD.

The portion of the street surface, which will receive the pavement markers, shall be free of dirt, oil, moisture, or any other material that would adversely affect the bonding of the adhesive.

Adhesive for pavement markers shall be either rapid set epoxy or hot melt bituminous adhesive conforming to the requirements of Section 85 “Pavement Markers” of the State Standard Specifications.

Adhesive shall be placed in sufficient quantity to completely cover the bottom of the marker with no voids and with slight excess after the marker has been pressed into place. The marker shall be protected against impact until the adhesive has hardened.

Object Markers and Blue Retroreflective Pavement Markers shall be applied in conformance with the provisions in Section 82 “Markers and Delineators” of the Standard Specifications, Pavement Markers, Traffic Lines, And Pavement Markings of the Caltrans Standard Plans, and these Special Provisions.
Blue Retroreflective Pavement Markers shall be installed to mark all fire hydrants. At each hydrant, a marker shall be placed on a line perpendicular to the centerline running through the hydrant, six inches from the centerline towards the hydrant side, with reflective surfaces perpendicular to the centerline. They shall be installed with the same adhesive as the lane markers.

Object marker shall be Type K-2(CA) and shall conform to State Standard Plan No. A73A, “Object Markers” and must be manufactured by a Caltrans approved product list from the Prequalified and Tested Signing and Delineation Materials. Object markers must be surface mount per manufacturer’s recommendations.

Surface Mount Lane Separation System (curb system) shall be installed per the manufacturer’s directions and shall conform to the provisions for Channelizers as listed in the Caltrans Signing Delineation Materials entitled, “Prequalified and Tested Signing and Delineation Materials.” Lane separation system curb segments shall provide a continuous curb system and shall be white in color.

**Measurement and Payment**

The contract price paid per **Each** for “Pavement Marker (Type C)” shall include full compensation for furnishing all labor, material, tools, equipment, and incidentals, and for doing all the work involved in applying pavement markers on PCC or HMA, complete in place including, epoxy as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and directed by the Engineer.

**BID ITEM NO. 52 - INSTALL SIGN AND POST**

**BID ITEM NO. 53 - INSTALL SIGN ON POST / SIGNAL POLE**

**General**

Furnish and install regulatory signs and wayfinding signs and related work thereto. Signs shall be fabricated and furnished in accordance with details shown on the plans, the Traffic Sign Specifications, and these special provisions.

Traffic Sign Specifications for California sign codes are available for review at:

Traffic Sign Specifications for signs referenced with Federal MUTCD sign codes can be found in Standard Highway Signs Book, administered by the Federal Highway Administration, which is available for review at:


Information on cross-referencing California sign codes with the Federal MUTCD sign codes is available at:

http://www.dot.ca.gov/hq/traffops/signtech/signdel/specs.htm

Related work specified elsewhere: PCC Multi-Use Bicycle Path and Miscellaneous Concrete Construction.

Quality Control: The requirements of "Quality Control for Signs" in this section shall not apply to construction area signs.

No later than 14 days before sign fabrication, the Contractor shall submit a written copy of the quality control plan for signs to the City’s Representative for review. The City’s Representative will have ten (10) days to review the quality control plan. Sign fabrication shall not begin until the City’s Representative approves the Contractor's quality control plan in writing. The Contractor shall submit to the City’s Representative at least three (3) copies of the approved quality control plan. The quality control plan shall include, but not be limited to the following requirements:

1. Identification of the party responsible for quality control of signs,
2. The basis of acceptance for incoming raw materials at the fabrication facility,
3. Type, method and frequency of quality control testing at the fabrication facility,
4. List (by manufacturer and product name) of process colors, protective overlay film, retroreflective sheeting, and black nonreflective film,
5. Recommended cleaning procedure for each product, and
Temporary or permanent signs shall be free from blemishes that may affect the serviceability and detract from the general sign color and appearance when viewing during daytime and nighttime from a distance of 25 feet. The face of each finished sign shall be uniform, flat, smooth, and free of defects, scratches, wrinkles, gel, hard spots, streaks, extrusion marks, and air bubbles. The front, back, and edges of the sign panels shall be free of router chatter marks, burns, sharp edges, loose rivets, delaminated skins, excessive adhesive overspray and aluminum marks.

Inspection: The City’s Representative will inspect signs at the Contractor's facility and delivery location, and in accordance with Section 6, "Control of Materials," of the Standard Specifications. The City’s Representative will inspect signs for damage and defects before and after installation.

Signs exhibiting a significant color difference between daytime and nighttime shall be replaced immediately.

Repairing sign panels will not be allowed except when approved by the City’s Representative.

When requested, the Contractor shall provide the City’s Representative test samples of signs and materials used at various stages of production. Sign samples shall be 12" x 12" in size with the applied background, letter or numeral, and border strip.

Materials
Regulatory Signs shall be per Sign Schedule, available from Traffic and Parking Control (TAPCO), 1255 East Shore Hwy., Berkeley, CA 94710-1095, (510) 525-4040.

The wayfinding signs are per sign schedule with content to be provided by City of Berkeley Public Works Transportation Division Bicycle Program Coordinator. They can also be procured from Traffic and Parking Control (TAPCO).

Execution
No legend shall be installed at the project site. Legend shall include letters, numerals, tildes, bars, arrows, route shields, symbols, logos, borders, artwork, and miscellaneous characters. The style, font, size, and spacing of the Regulatory Sign legend shall conform to the Standard Alphabets published in the FHWA Standard Highway Signs Book. The
legend shall be oriented in the same direction in accordance with the manufacturer's orientation marks found on the retroreflective sheeting.

On multiple panel signs, legend shall be placed across joints without affecting the size, shape, spacing, and appearance of the legend. Background and legend shall be wrapped around interior edges of formed panel signs as shown on plans to prevent delamination.

The following notation shall be placed on the lower right side of the back of each regulatory sign where the notation will not be blocked by the signpost or frame:

1. PROPERTY OF CITY OF BERKELEY,
2. Name of the sign manufacturer,
3. Month and year of fabrication,
4. Type of retroreflective sheeting, and
5. Manufacturer's identification and a lot number of retroreflective sheeting.

The above notation shall be applied directly to the aluminum sign panels in 1/4 inch upper case letters and numerals by die stamp and applied by a similar method to the fiberglass reinforced plastic signs. Painting, screening, or engraving the notation will not be allowed. The notation shall be applied without damaging the finish of the sign.

Signs with a protective overlay film shall be marked with a dot of 3/8 inch in diameter. The dot placed on the white border shall be black, while the dot placed on black border shall be white. The dot shall be placed on the lower border of the sign before application of the protective overlay film and shall not be placed over the legend and bolt holes. The application method and exact location of the dot shall be determined by the manufacturer of the signs.

For sign panels that have a minor dimension of 48 inches or less, no splice will be allowed in the retroreflective sheet except for the splice produced during the manufacturing of the retroreflective sheeting. For sign panels that have a minor dimension greater than 48 inches, only one horizontal splice will be allowed in the retroreflective sheeting.

Unless specified by the manufacturer of the retroreflective sheeting, splices in retroreflective sheeting shall overlap by a minimum of one inch. Splices shall not be placed within 2 inches from edges of the panels. Except at the horizontal borders, the splices shall overlap in the direction from top to bottom of the sign to prevent moisture penetration. The
retroreflective sheeting at the overlap shall not exhibit a color difference under the incident and reflected light.

Regardless of kind, size, type, or whether delivered by the Contractor or by a common carrier, signs shall be protected by thorough wrapping, tarping, or other methods to ensure that signs are not damaged by weather conditions and during transit. Signs shall be dry during transit and shipped on palettes, in crates, or tier racks. Padding and protective materials shall be placed between signs as appropriate. Finished sign panels shall be transported and stored by a method that protects the face of signs from damage. The Contractor shall replace wet, damaged, and defective signs.

Signs shall be stored in a dry environment at all times. Signs shall not rest directly on the ground or become wet during storage. Signs, whether stored indoor or outdoor, shall be free standing. In areas of high heat and humidity, signs shall be stored in enclosed climate controlled trailers or containers. Signs shall be stored indoor if the duration of the storage will exceed 30 days.

Screen processed signs shall be protected, transported and stored as recommended by the manufacturer of the retroreflective sheeting.

The Contractor shall assume the costs and responsibilities resulting from the use of patented materials, equipment, devices, and processes for the Contractor's work.

**Measurement and Payment**

The contract price per **Each** for “Install Sign and Post” and “Install Sign on Post / Signal Pole” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in signage, and related incidental work, as shown on the plans, as specified in the standard specifications and these special provisions, and as directed by the Engineer.

Full compensation for furnishing and installing protective overlay on signs shall be considered as included in the contract price paid per each sign of the various types and no separate payment will be made therefor.
BID ITEM NO. 54 - TRANSIT ISLAND CONCRETE

General

Work shall consist of construction of the Transit Islands.

Materials

P.C.C. pavement shall be class A with a flexural strength of 650 psi at the age of 28 days to be determined by Test Method ASTM C78, and to conform to the provisions in Section 40, Concrete Pavement,” and Section 90, “Concrete,” of the Standard Specifications, the details show on the plans, and these technical specifications. Polypropylene fibers (Fibermesh or approved equal), length 1/2", shall be added to the concrete at a rate of 1 1/2 lbs/cy.

Portland cement: ASTM C150 Type I or II. 8-sacks cement minimum per cubic yard with High Early. (No lampblack is needed for concrete to be covered with asphalt.)

Aggregate:

1. ASTM C33 - clean, hard, durable, uncontaminated, washed, graded, cleaned and screened. Crusher run or bank run gravel will not be permitted.
2. ¾" maximum combined aggregate grading.
3. Water: Clean, free from injurious amounts of oil, alkali, organic matter or other deleterious material, 6 gallons’ water maximum per sack cement.
4. Concrete shall have a slump of 3” to 4” and shall obtain at least 4500 psi strength at 7 days.
5. PCC shall always be poured as a high early design mix.
6. Lamp black content shall be of an approved quality mixed at the rate of two (2) pints of liquid per cubic yard of concrete for all new concrete.
7. Construction joints and expansion joints shall be cleaned and sealed prior to permitting traffic on the pad. Joint sealing compound shall be type "A" joint seal and shall conform to the provisions of Section 51- 1.12F of the State Standard Specifications. The 2-component polyurethane sealant shall be State Specification 8030 - 61J - 0 I or approved equal.
**Construction**

PCC paving shall be constructed in accordance with the provisions in Section 40, “Concrete Pavement,” and Section 90, “Concrete,” of the Standard Specifications, the details shown on the plan, and these technical specifications.

After spreading and compacting, concrete shall be given a preliminary finish which shall be a medium broomed finish and true to grade. In advance of curing operations, the pavement shall be given a final texture with a broom finish with grooves having a depth of 1/8 inch perpendicular to the curb and gutter.

Concrete shall be cured by the Curing Compound method and conform to the provisions of Section 90-1.03B, “Curing Concrete,” of the Standard Specifications. Curing compound, if used, shall be applied to the PCC following the surface finishing operations immediately before the moisture sheen disappears from the surface and before any during, shrinkage or craze cracks begin to appear. Curing compound shall be applied at a nominal rate of one gallon per 150 square feet. At any point, the application rate shall be within +/-50 square feet per gallon of the nominal rate specified.

**Measurement and Payment**

The contract price per **Square Feet** for “Transit Island Concrete” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in constructing Transit Island, Crosswalk and pavement, complete in place, including polypropylene fiber, dowels and expansion and construction joint materials, as shown on the plans, as specified in the standard specifications and these special provisions, and as directed by the Engineer.

The contract price shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in placing concrete including polypropylene fiber, dowels and expansion and construction joint materials, aggregate base, Portland cement concrete, score marks, 2-foot HMA plug (1/2” Type A), jointing, colorant dye, furnishing and applying curing compound, finishing, sidewalk underdrain, formwork as required to match existing or proposed flowlines and top of curb as shown on the Plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.
Full compensation for protecting any utility in place, adjusting any and all utility appurtenance boxes (public and private) to finish grade and to an alignment parallel with adjacent buildings, and coordination with utility agencies, and replacement of damaged public utility appurtenance boxes, shall be considered as included in the contract prices paid for “High Strength Concrete (for Median Island),” and no separate payment will be made therefor.

Full compensation for removal and disposal of existing asphalt concrete and underlying base or subgrade material shall be considered as included in the contract prices paid for “High Strength Concrete (for Median Island),” and no separate measurement or payment will be made therefor.

Full compensation for removal and disposal of roadway material for placement of hot mix asphalt (HMA) plugs, up to 2 feet in front of new curb, gutter, or Median Island shall be considered as included in the various items of work involved and no separate measurement or payment will be made therefor.

**BID ITEM NO. 55 - DRAINAGE CULVERT**

**General**

Parkway Culvert shall be constructed in accordance with the details shown on the plans, the Standard Specifications for Public Works Construction, and these special provisions.

**Measurement and Payment**

The contract unit price per Each for “Drainage Culvert” of various sizes, shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in Drainage Culvert installation complete in place, including Steel plate, rod, anchors and screws, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.
BID ITEM NO. 56 - DETECTABLE WARNING SURFACE

General

Unless noted otherwise Detectable warning surfaces shall consist of raised truncated domes constructed or installed on curb ramps, in conformance with the details shown on the plans and these Special Provisions. Detectable warning surfaces shall be cast-in-place.

The detectable warning surface shall be prefabricated. The color of the detectable warning surface shall be yellow conforming to Federal Standard 595B, Color No. 33538.

Prefabricated detectable warning surface shall be constructed of an epoxy polymer composite with an ultraviolet stabilized coating employing aluminum oxide particles in the truncated domes, in conformance with the requirements established by the Department of General Services, Division of State Architect and be installed in conformance with the manufacturer's recommendations.

The finished surfaces of the detectable warning surface shall be free from blemishes.

The manufacturer shall provide a written 5-year warranty for prefabricated detectable warning surfaces, guaranteeing replacement when there is defect in the dome shape, colorfastness, sound-on-cane acoustic quality, resilience, or attachment. The warranty period shall begin upon acceptance of the contract.

Materials

Prefabricated detectable warning surface shall meet or exceed the following criteria:

1. Water Absorption: 0.35% maximum, when tested in accordance with ASTM D570.
2. Slip Resistance: 0.90 minimum combined wet/ dry static coefficient of friction on top of domes and field area, when tested in accordance with ASTM C1028.
3. Compressive Strength: 18,000 psi minimum, when tested in accordance with ASTM D695.
4. Tensile Strength: 10,000 psi minimum, when tested in accordance with ASTM D638.
5. Flexural Strength: 24,000 psi minimum, when tested in accordance with ASTM C293.
7. Chemical Stain Resistance: No reaction to 1% hydrochloric acid, urine, calcium chloride, stamp pad ink, gum, and red aerosol paint, when tested in accordance with ASTM D543.
8. Wear Depth: 0.03” maximum, after 1000 abrasion cycles of 40 grit Norton Metallite sandpaper, when tested in accordance with ASTM D2486-Modified.

9. Flame Spread: 25 maximum, when tested in accordance with ASTM E84.

10. Accelerated Weathering: No deterioration, fading or chalking for 2000 hours when tested in accordance with ASTM D2565.

In addition to the requirements above, prefabricated detectable warning surface adhered to concrete shall meet or exceed the following performance criteria:

1. Accelerated Aging and Freeze-Thaw of Adhesive System: No cracking, delamination, warping, checking, blistering, color change, loosening, etc. when tested in accordance with ASTM D1037.

2. Salt and Spray Performance: No deterioration after 100 hours of exposure, when tested in accordance with ASTM B117.

Surface-mounted detectable warning surfaces over pull boxes shall be installed per the manufacturers’ recommendations, utilizing epoxy adhesive and screw anchors.

All protective plastic coverings shall be removed from the detectable warning surface prior to opening for pedestrian traffic.

**Measurement and Payment**

The contract unit price per **Square Feet** for “Detectable Warning Surface” of various sizes, shall include full compensation for furnishing all labor, materials, tools, equipment, and incidental and for doing all the work involved in detectable warning surface installation complete in place, including, adjusting forms for grades, and prefabricated detectable warning surface (cast in place), as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

**BID ITEM NO. 57 - IN LANE DETECTOR LOOPS (TYPE A & TYPE D)**

**General**

The material and installation of loop detectors, loop conductors, and sealants shall comply with sections 86 and 87 of the Caltrans Standard Specifications and Revised Standard Specifications.
Materials

86-1.02F(2)(c)(iii) Inductive Loop Conductors

An inductive loop conductor must comply with the requirements shown in the following table:

<table>
<thead>
<tr>
<th>Loop wire</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 1</td>
<td>Type RHW-USE neoprene-jacketed or Type USE cross-linked polyethylene, insulated, no. 12, stranded copper wire with a minimum 40-mils insulation thickness at any point.</td>
</tr>
<tr>
<td>Type 2</td>
<td>Type THWN or Type XHHW, no. 14, stranded copper wire in plastic tubing. The plastic tubing must be polyethylene or vinyl rated for use at 105 degrees C and resistant to oil and gasoline. The outside diameter of the tubing must be at most 0.27 inch with a wall thickness of at least 0.028 inches.</td>
</tr>
</tbody>
</table>

86-1.02F(3)(d)(iii) Detector Lead-in Cables

Conductors for a loop detector lead-in cable must be two no. 16, 19-by-29, stranded, tinned copper wires with calculated cross-sectional areas complying with ASTM B286, Table 1 and the requirements shown in the following table:

<table>
<thead>
<tr>
<th>Lead-in cable</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type B</td>
<td>Insulated with 20 mils of high-density polyethylene. Conductors must be twisted together with at least two (2) turns per foot, and the twisted pair must be protected with a copper or aluminum polyester shield. A minimum no. 20 copper drain wire must be connected to the equipment ground within the cabinet. The cable must have a high-density polyethylene or high-density polypropylene outer jacket with a nominal thickness of 32 mils. Include an amorphous, interior, moisture penetration barrier of nonhydroscopic polyethylene or polypropylene fillers.</td>
</tr>
<tr>
<td>Type C</td>
<td>Comply with International Municipal Signal Association Specification no. 50-2. A minimum no. 20 copper drain wire must be connected to the equipment ground within the cabinet.</td>
</tr>
</tbody>
</table>
86-1.02W Loop Detector Sealants
86-1.02W(1) General
Sealant for filling loop detector slots must be one of the following:
1. Asphaltic emulsion
2. Elastomeric sealant
3. Epoxy sealant for inductive loops
4. Hot-melt rubberized asphalt

87-1.03F(2)(c)(ii) Detector Lead-in Cables
Install a Type B or C detector lead-in cable in conduit.
Waterproof the ends of the lead-in cable before installing it in the conduit to prevent moisture from entering the cable. Splice loop conductors for each direction of travel for the same phase, terminating in the same pull box, to a separate lead in the cable running from the pull box adjacent to the loop detector to a sensor unit mounted in the controller cabinet. Install the lead-in cable without splices except at the pull box when connecting to loop wire.
Verify in the presence of the Engineer that the loops are operational before making the final splices between loop conductors and the lead-in cable. Identify and tag each lead-in cable with the detector designation at the cabinet and pull box adjacent to the loops.

87-1.03F(3)(c)(ii) Inductive Loop Conductors
Install a Type 1 or 2 inductive loop conductor except use Type 2 for Type E loop detectors.
Install the conductor without splices except at the pull box.

87-1.03V Detectors
87-1.03V(1) General
Installing a detector includes installing inductive loop conductors, sealant, conduit, and pull boxes. Center the detectors in the traffic lanes.
Do not splice the detector conductor.

87-1.03V(2) Inductive Loop Detectors
Mark the location of the inductive loop detectors such that the distance between the side of the loop and a lead-in saw cut from an adjacent detector is at least 2 feet. The distance between lead-in saw cuts must be at least 6 inches.
Saw cut the slots under section 13-4.03E(7). The bottoms of the slots must be smooth with no sharp edges. For Type E detector loops, saw the slots such that the sides are vertical.

Wash the slots clean using water and blow dry them with compressed air to remove all moisture and debris.
Identify the start of the conductor.

Waterproof the ends of a Type 2 loop conductor before installing it in the conduit to prevent moisture from entering the cable.

Install the loop conductor in the slots and lead-in saw cuts using a 3/16- to 1/4-inch-thick wood paddle. Hold the conductors in place at the bottom of the slot with wood paddles during placement of the sealant.

Wind adjacent loops on the same sensor unit channel in opposite directions.

Twist the conductors for each loop into a pair consisting of a minimum of 2 turns per foot before placing them in the lead-in saw cut and the conduit leading to the pull box. Do not install more than two (2) twisted pairs of conductors per lead-in saw cut.

Provide 5 feet of slack in the pull box.

Test each loop for continuity, circuit resistance, and insulation resistance before filling the slots with sealant.
Remove excess sealant from the adjacent road surface before it sets. Do not use solvents to remove the excess.
Identify the loop conductor pair in the pull box, marking the start with the letter S and the end with the letter F. Band conductors in pairs by lane in the pull box adjacent to the loops and in the cabinet. Identify each pair with the detector designation and loop number.

Install the conductors in a compacted layer of HMA immediately below the uppermost layer if more than one layer will be placed. Install the loop conductors before placing the uppermost layer of HMA. Fill the slot with a sealant flush to the surface.
Install the conductors in the existing pavement if one layer of HMA is to be placed. Install the loop conductors before placing the layer of HMA. Fill the slot with a sealant flush to the surface.

**87-1.03V(3) Preformed Inductive Loop Detectors**

Install a preformed inductive loop detector consisting of 4 turns in the loop and a lead-in conductor pair twisted at least two (2) turns per foot all encased in conduit and sealed to prevent water penetration. The detector must be 6-foot square unless shown otherwise.

Construct the loop detector using a minimum 3/8-inch Schedule 40 or Schedule 80 PVC or polypropylene conduit and no. 16 or larger conductor with Type THWN insulation.

In new roadways, place the detector in the base course with the top of the conduit flush with the top of the base. Cover with HMA or concrete pavement. Protect the detector from damage before and during pavement placement.

In new reinforced concrete bridge decks, secure the detector to the top of the uppermost layer of reinforcing steel using nylon wire ties. Hold the detector parallel to the bridge deck using PVC or polypropylene spacers where necessary. Place conduit for lead-in conductors between the uppermost (22 layers of reinforcing steel).

Do not install detectors in existing bridge decks unless authorized.

Install a detector in existing pavement before placement of concrete or HMA as follows:

1. Saw cut slots at least 1-1/4 inches wide into the pavement.
2. Place the detector in the slots. The top of the conduit must be at least 2 inches below the top of the pavement.
3. Test each loop circuit for continuity, circuit resistance, and insulation resistance.
4. Fill saw cuts with elastomeric or hot melt rubberized asphalt sealant for asphalt concrete pavement and with epoxy sealant or hot melt rubberized asphalt sealant for concrete pavement.

**Measurement and Payment**

The contract unit price per **Each** for “**In Lane Loop Detector, Type A / Type D**”, shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in loop detector installation, complete in place, including handhole and connect loops in handhole as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.
BID ITEM NO. 58 - TRAFFIC STRIPING (DETAIL 9)
BID ITEM NO. 59 - TRAFFIC STRIPING (DETAIL 21)
BID ITEM NO. 60 - TRAFFIC STRIPING (DETAIL 22)
BID ITEM NO. 61 - TRAFFIC STRIPING (DETAIL 38A)
BID ITEM NO. 62 - TRAFFIC STRIPING (DETAIL 39)
BID ITEM NO. 63 - TRAFFIC STRIPING (DETAIL 39A)
BID ITEM NO. 64 - TRAFFIC STRIPING (8” WHITE STRIPE)
BID ITEM NO. 65 - TRAFFIC STRIPING (12” WHITE STRIPE)
BID ITEM NO. 66 - TRAFFIC STRIPING (12” YELLOW STRIPE)
BID ITEM NO. 67 - TRAFFIC STRIPING (DETAIL 41)
BID ITEM NO. 68 - PARKING BAY STRIPING
BID ITEM NO. 69 - HIGH VISIBILITY CROSSWALK MARKINGS
BID ITEM NO. 70 - PAVEMENT MARKINGS
BID ITEM NO. 71 - KHAKI COLORED PAVEMENT MARKINGS
BID ITEM NO. 72 - GREEN PAVEMENT MARKINGS

General

Pavement markings and traffic striping shall be thermoplastic and shall be applied in conformance with the provisions in Section 84, "Traffic Stripes and Pavement Markings," and Section 85, “Pavement Markers” of the Standard Specifications, Pavement Markers, Traffic Lines, And Pavement Markings of the Caltrans Standard Plans, and these Special Provisions. Traffic striping and pavement markings shall include all work and materials required to install thermoplastic traffic striping and pavement markings.

Thermoplastic material shall be free of lead and chromium and shall conform to the requirements in State Specification PTH-02ALKYD.

Retroreflectivity of the thermoplastic pavement markings shall conform to the requirements in ASTM Designation: D 6359-99. White thermoplastic pavement markings shall have a minimum initial retro-reflectivity of 250 mcd m-2 lx-1. Yellow thermoplastic pavement markings shall have a minimum initial retro-reflectivity of 150 mcd m-2 lx-1.

Before the permanent striping and pavement markings are applied, the Contractor shall provide “cat-track” marking layout for review and approval of the Engineer. Changes, if any, to the striping marking layout as a result of the Engineer’s review shall be the
responsibility of the Contractor. If the Contractor fails to obtain the Engineer’s approval of
the striping and marking layout prior to the permanent installation, changes to the
permanent markings as required by the Engineer, including removal and replacement, shall
be the Contractor’s responsibility.

Where striping joins existing striping, as shown on the plans, the Contractor shall begin
and end the transition from the existing striping pattern into or from the new striping pattern
a sufficient distance to ensure continuity of the striping pattern.

Materials
Thermoplastic traffic stripes shall be applied at the minimum thickness and application rate
as specified below. The minimum application rate is based on a solid stripe of 4 inches in
width.

<table>
<thead>
<tr>
<th>Minimum Stripe Thickness (inch)</th>
<th>Minimum Application Rate (lb/ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.079</td>
<td>0.27</td>
</tr>
</tbody>
</table>

Thermoplastic pavement markings and pavement striping shall be free of runs, bubbles,
craters, drag marks, stretch marks, and debris.

Pavement Markings shall be constructed in conformance with the State of California’s
Standard Plan A24D, the project plans, and as directed by the Engineer.

Reflectorized markers shall be installed accurately at the locations called for in the Contract
Documents or as required by the MUTCD.

The portion of the street surface, which will receive the pavement markers, shall be free of
dirt, oil, moisture, or any other material that would adversely affect the bonding of the
adhesive.

Adhesive for pavement markers shall be either rapid set epoxy or hot melt bituminous
adhesive conforming to the requirements of Section 85 “Pavement Markers” of the State
Standard Specifications.
Adhesive shall be placed in sufficient quantity to completely cover the bottom of the marker with no voids and with slight excess after the marker has been pressed into place. The marker shall be protected against impact until the adhesive has hardened.

Pavement Markings (High Visibility Crosswalk Markings, Pavement Markings, Khaki Colored and Green Thermoplastic) must be pre-pigmented resin to deliver an extremely durable, highly visible and color stable lane delineation treatment that meets the non-slip requirements needed for pedestrians, cyclists and vehicles.

Thermoplastic aggregate shall be a neutral, light color that will not affect the color of the finished product, and will have a mesh sizing of 24 Grit. Skid >60 ASTM E303

Green thermoplastic must be performed thermoplastic (heated in place), 0.100 to 0.150-inch-thick, with glass beads. Crosswalk pavement delineation thermoplastic must be “CycleGrip MMAX” by Ennis Flint, or from the Caltrans “Prequalified and Tested Signing and Delineation Materials” list repeated below or approved equivalent.

Preformed Thermoplastic (Heated in place)

1. Ennis-Flint "Hot Tape"
2. Ennis-Flint, "Primark"
3. Ennis-Flint, "Flame tape"
4. Alta Traffic Solutions, “Alta All-Season,” Series 100 (White Only)
5. Swarco Preformed Thermoplastic, (White Only)
6. Ozark Materials, Preformed Thermoplastic
7. Potters Industries, "VisiTape"

Object Markers and Blue Retroreflective Pavement Markers shall be applied in conformance with the provisions in Section 82 “Markers and Delineators” of the Standard Specifications, Pavement Markers, Traffic Lines, And Pavement Markings of the Caltrans Standard Plans, and these Special Provisions.

Blue Retroreflective Pavement Markers shall be installed to mark all fire hydrants. At each hydrant, a marker shall be placed on a line perpendicular to the centerline running through the hydrant, six inches from the centerline towards the hydrant side, with reflective surfaces perpendicular to the centerline. They shall be installed with the same adhesive as the lane markers.
Measurement and Payment

The contract unit price per linear feet for “Traffic Striping (Detail 9)”, “Traffic Striping (Detail 21)”, “Traffic Striping (Detail 22)”, “Traffic Striping (Detail 38A)”, “Traffic Striping (Detail 39)”, “Traffic Striping (Detail 39A)”, “Traffic Striping (8” White Stripe)”, “Traffic Striping (12” White Stripe)”, “Traffic Striping (12” Yellow Stripe)”, “Traffic Striping (Detail 41)”, and “Parking Bay Striping” shall include full compensation for furnishing all labor, material, tools, equipment and incidentals, and for doing all the work involved in applying thermoplastic traffic striping and retroreflective markers, complete in place, as shown on the plans, as specified in the Standard Specification and these Special Provisions, and as directed by the Engineer.

The contract unit price per square feet for “High Visibility Crosswalk Markings”, “Pavement Markings”, “Khaki-Colored Pavement Markings” and “Green Pavement Marking” shall include full compensation for furnishing all labor, material, tools, equipment, and incidentals, and for doing all the work involved in applying thermoplastic pavement markings, complete in place, as shown on the plans, as specified in the Standard Specification and these Special Provisions, and as directed by the Engineer.

Payment for installing blue fire hydrant markers shall be considered as included in the contract price paid for various contract bid items for striping, and no additional payment will be made therefor

BID ITEM NO. 73 - SUPPLEMENTAL WORK

The City may authorize payment under the “Supplemental Work” item for extra work related to changes or deviations in the scope of work as described in the Project Plans and Special Provisions. The Engineer shall determine such changes. The General Provisions for extra work mark-up shall apply.

All work performed under “Supplemental Work” must be authorized by the Engineer’s written order. Payment may be made following the execution of a Supplemental Work Authorization.

Measurement and Payment

The contract unit price per Lump Sum price for “Supplemental Work” shall represent the value of extra work items performed and authorized via Supplemental Work Authorization. The Contractor shall be paid on pro-rata basis for the work done per month
and said payment shall be for providing all labor, material, equipment, devices, supervision, and all incidentals as are needed and as may be required to complete the work.
A guide to Monument Referencing in the City of Berkeley as required by the Professional Land Surveyors’ Act (Business and Professions Code) Section 8771 et. seq.
GENERAL

City Monuments consist of many different kinds of physical objects but regardless of the specific description of the object deemed to be a City Monument, the actual physical location must be accurately preserved.

STANDARD PRACTICE

Standard Practices detailed below are to be followed when referencing a City of Berkeley Monument.

FIELD PRACTICES

Whenever a monument appears to be threatened with removal or disturbance the monument must be referenced. A minimum of four (4) reference points must be set for each monument referenced. All reference points shall be permanent and with a known location relative to the monument so that the monument can be replaced accurately from the references. When available, sound concrete is the best site for setting reference points. Surveyor’s nail and tags, crosses (with a minimum depth of 2mm) or Mag Nails (or similar concrete nail) should be used in those cases where the reference can be set on sound concrete curb, sidewalk or wall. Small portable concrete saws and drills are commercially available which have proven effective for use in the setting of such references precisely and quickly. The important criteria are that any concrete structure meets the following basic tests:

1. Good condition (not cracked, raised or lowered as compared to the adjacent concrete, fragile, etc.);

2. Accessible for setup, not blocking traffic and preferably on public right of way. If a reference point must be set outside the public right of way, permission to do so must be acquired by the surveyor performing the referencing. The City of Berkeley, by promulgation of these standards, is not giving permission to perform any task on private property;

3. Positioned to survive the conditions that put the original monument at risk such as a street reconstruction project, a sanitary sewer rehabilitation project, etc.;

4. Positioned to survive any foreseeable (as evidenced by a visual inspection of the site) construction such as curb ramp construction/replacement, curb replacement, sidewalk replacement, utility relocation, etc. The City of Berkeley has a strong commitment to insuring accessibility throughout the City. Existing curb ramps are frequently replaced with code compliant curb ramps with truncated domes. Damaged sidewalks and curbs are replaced as well. Additionally the City
frequently installs curb ramps at crosswalks where none currently exist, therefore those locations shall be avoided when placing reference points;

5. The primary consideration in choosing the placement of a reference point shall be to assure its safety and stability in perpetuity. For example, no reference point should be set near any trees with roots likely to raise or damage the surface upon which the reference point has been set.

If no suitable concrete is available, a metal bar may be used provided that it is set flush in sound soil or pavement. Setting metal bars has the possibility of damaging subsurface infrastructure. It shall be the duty of the surveyor performing the referencing to assure that the site is properly evaluated for subsurface infrastructure. Sole responsibility for any resulting damage thereto shall be borne by the surveyor responsible for the damage. See the “REFERENCE POINTS NOT ON CONCRETE” section below for details on this option.

QUALITY DETAILS FOR CUTTING A CROSS

The minimum depth of cut for a cross shall be 2mm. When making the cross in concrete make the initial cut in line with the optical line of sight and the cut marking the distance at right angles to the line of sight. This orientation helps to suggest the original location of the monument referenced and avoids the imprecision associated with cuts at an angle to the line of sight. Paint the points for easy identification.

REFERENCE POINTS NOT ON CONCRETE

In certain places there may be no suitable concrete structure available for placing a reference point. In such places a well described point, with a level of durability and precision equal to or exceeding that of a minimum 2mm deep cross on sound concrete, shall be established. If a metal bar is used as a reference point a punch shall be set in the top of the bar at the precise reference point. A plastic cap is unacceptable for this purpose. No reference point shall be set on private property without the surveyor performing the referencing first obtaining permission from the property owner.

DOCUMENTATION

Within two (2) weeks of the completion of any monument referencing task Corner Records for each monument referenced shall be filed with Alameda County, and copies of the signed sealed submittals of those Corner Records shall be provided to the City of Berkeley, Public Works Department, Engineering Division, Survey Section.

CORNER RECORD MONUMENT AND REFERENCE POINT CONDITIONS AND DESCRIPTIONS

Corner Records shall include a detailed description of the monument referenced and reference points set:

1. Description of monument/reference material (cut cross, brass disc, brass pin, iron pin, mag nail, rebar, etc.);

2. Character of monument/reference (cross in brick wall, cross in concrete curb, cross in concrete sidewalk, disc in concrete, mag nail set on top of curb, nail and tag in asphalt pavement, pin in concrete, rebar in asphalt pavement, etc.).
3. Diameter or width of monument material;

4. Description of monument setting (inside standard casting, set flush in sidewalk, etc.);

5. Labeled with the official City of Berkeley monument designation (B####).

UNACCEPTABLE REFERENCE POINTS

In no case will lead, or any other material that may cause harm, be used in any portion of the referencing process. Sole responsibility for the removal of such products and any harm they cause will be borne by the surveyor responsible for using the product in the referencing process.

Scribe lines, permanent marker, paint, wood hubs, etc., due to their limited lifecycle, may not be used as a reference point.

No reference point may be set on any fire hydrant or similarly temporary fixture.

VERTICAL REFERENCE POINTS

When a monument is to be referenced vertically, differential leveling practices shall be used. The Corner Record shall include a minimum of four (4) vertical reference points. It is preferable that the horizontal reference points also be used for the vertical referencing.

All vertical references shall be based on a value and datum provided by the City of Berkeley, Public Works Department, Engineering Division, Survey Section, at the time of the request for referencing. Note that the value associated with any control point in the City’s vertical and horizontal network is subject to change as the City periodically recalculates its position.
ENCROACHMENT PERMIT

TO: City of Berkeley Public Works Department
1947 Center Street, 4th Floor
Berkeley, CA 94704

Email: smuktevi@cityofberkeley.info
Attn: Srinivas Muktevi
Phone: (510) 981-6402

And subject to the following, PERMISSION IS HEREBY GRANTED to:

Perform traffic control, grind off existing pavement, install 2.5" thick Asphalt overlay, replace striping in kind, and replace traffic signal loop in place on Adeline Street near State Highway 04-ALA-13, Post Mile 12.15, in the City of Berkeley.

A minimum of 7 days prior to the start of work under this encroachment permit, notice must be given to State Representative Fred Nejabat, 78 Mococo Road, Martinez, CA 94553, at fred.nejabat@dot.ca.gov or (925) 957-2035, weekdays between 7:00 a.m. and 3:30 p.m., excluding holidays.

Notwithstanding General Provision 35, lane closures and other activities that may cause a traffic impact requires the permittee to apply for and obtain a closure ID prior to the start of work. Requests must be submitted using the attached "Encroachment Permit Work Scheduling Request Form".

THESE PERMITS ARE NOT A PROPERTY RIGHT AND DOES NOT TRANSFER WITH THE PROPERTY TO A NEW OWNER.

The following attachments are also included as part of this permit (Check applicable):

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>General Provisions (TR-0043)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>Utility Maintenance Provisions</td>
</tr>
<tr>
<td>Yes</td>
<td>No</td>
<td>Special Provisions (TR-0408)</td>
</tr>
<tr>
<td>Yes</td>
<td>No</td>
<td>A Cal-OSHA permit, if required: Permit No.</td>
</tr>
<tr>
<td>Yes</td>
<td>No</td>
<td>As-Built Plans Submittal Route Slip for Locally Advertised Projects</td>
</tr>
<tr>
<td>Yes</td>
<td>No</td>
<td>Water Pollution Control Documents (SWPPP/WPCP/TR-0408)</td>
</tr>
</tbody>
</table>

In addition to fee, the permittee will be billed actual costs for:

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Review</th>
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<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>Inspection</td>
</tr>
<tr>
<td>Yes</td>
<td>-----</td>
<td>Field Work</td>
</tr>
</tbody>
</table>

(If any Caltrans effort expended)

This permit is void unless the work is completed before December 31, 2019.

This permit is to be strictly construed and no other work other than specifically mentioned is hereby authorized.

No project work shall be commenced until all other necessary permits and environmental clearances have been obtained.

Permit Engineer: Chen Li

cc: Permit: Fred Nejabat
Maintenance: David Despain
TMC: D4 TMC/D04/Caltrans/CAGov

APPROVED:

DAVID SALLADAY, District Permit Engineer

BY:

AJAY SINGHAL, Senior Permit Engineer

ADA Notice: For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.
In addition to the attached General Provisions (TR-0045), Hazardous Materials and Hazardous Waste Management Special Provisions (TR-0408 rev 09/2017), and Storm Water Special Provisions for Minimal or No Impact (TR-0400) (available at http://dot.ca.gov/trafficops/ep/docs/Appendix_K_(WEB).pdf), the following special provisions are applicable:

Certain details of work authorized herein are shown on the plans and specifications submitted by the permittee, and attached to this encroachment permit.

A pre-job meeting with the State Representative is required at least 7 days prior to the start of any work under this encroachment permit. Failure to do so may result in permit revocation with no prejudice.

The permittee must provide the stage construction plans, traffic handling plans, work schedule, and a list of all subcontractors to the State Representative at the time of the pre-job meeting.

Notwithstanding General Provision 4, construction must not begin until the contractor performing the work applies for and obtains a separate encroachment permit (referred to as a Double Permit) for the work authorized herein. An initial fee/deposit of $492.00 is required at the time of application for permit processing and inspection.

Additional inspection hours will be charged at the current State hourly rate.

Signs, lights, flags or other protective devices must not obscure the visibility of, nor conflict in intent, meaning, and function of either existing signs, lights and traffic control devices, or any construction area signs.

Install Type K temporary railing or other authorized protective systems when material or equipment is stored within 15 feet of the edge of an open traffic lane.

Install Type K temporary railing or other authorized protective systems when the near edge of an open excavation is within 15 feet from the edge of an open traffic lane.

The approach end of Type K temporary railing must be offset a minimum of 15 feet from the edge of an open traffic lane. Install the temporary railing on a skew toward the edge of the traffic lane of not more than 1 foot transversely to 10 feet longitudinally with respect to the edge of the traffic lane. If the 15-foot minimum offset cannot be achieved, an array of temporary crash cushion modules must be installed at the approach end of the temporary railing.

On conventional highways, permittee's vehicles and equipment not involved in the permitted activities must be legally located off the traveled way and not interfere with free traffic and pedestrian flow.

No vehicle or equipment must be stored overnight within the State highway right-of-way. All vehicles and equipment must be removed immediately at the completion of the day's work. Refueling of vehicle or equipment within the State highway right-of-way is strictly prohibited.

All traffic control devices must be installed, maintained, and removed by a qualified traffic control contractor.

No lane must be closed or obstructed at any time unless specifically allowed elsewhere in this encroachment permit, shown in approved traffic control plans, and/or as directed by the State Representative.

Traffic control is authorized only from 9 a.m. to 3 p.m., Monday through Friday, excluding holidays as defined in the 2018 Caltrans Standard Specifications (available at http://www.dot.ca.gov/des/oe/construction-contract-standards.html). No more than one lane may be closed at a time. Traffic control must be in compliance with the approved traffic control plans.
Construction activities must not inconvenience the public or abutting property owners. Maintain access to driveways, houses, and buildings.

The permittee must coordinate bus stop restrictions with the transit agency.

Traffic control must comply with the 2018 Caltrans Standard Plans T9 through T14 (available at http://www.dot.ca.gov/des/oe/construction-contract-standards.html), and the California MUTCD, Part 6, "Temporary Traffic Control" (available at http://www.dot.ca.gov/trafficops/camutcd/).

Except for installing, maintaining and removing traffic control devices, any work encroaching within 3 feet of the edge of a travel lane for areas with a posted speed limit below 45mph, or 6 feet of the edge of a travel lane, for areas with a speed limit posted at 45mph or higher, requires closing of that travel lane. Any work encroaching within 6 feet of the edge of the shoulder, requires closing of that shoulder.

Do not reduce an open traffic lane width to less than 11 feet. If traffic cones or delineators are used for temporary edge delineation, the side of the base of the cones or delineators nearest traffic is considered the edge of traveled way.


The State Representative and CHP reserve the right to require reopening the highway at any time as necessary. All cost must be borne by the permittee.

Curbs and sidewalks must be saw cut to the nearest score mark and replaced equal in dimension to that removed with score marks matching existing adjacent curb and sidewalk.

Curbs and gutters must conform to the 2018 Caltrans Standard Plan A87A, Type A2-6, (available at http://www.dot.ca.gov/des/oe/construction-contract-standards.html) unless necessary to conform to existing adjacent curb and gutter installations.

Curbs and gutters must be placed over 6 inches of Class II Aggregate Base. Sidewalks must be a minimum 4 inches PCC placed over 3 inches of Class II Aggregate Base.

A monolithic pour of curb and sidewalk is not permitted.


Utility pull boxes, manholes, vaults, and other utility facilities must be adjusted to grade.

Streets and highways in the San Francisco Bay Area contain a significant number of existing underground utilities. This includes traffic signal conduits that are installed 9 inches or less in depth. The permittee is responsible for necessary site investigations for identification of the location and depth of existing underground facilities prior to excavation (e.g., pothole or hand-dig) to avoid damage or disruption in services.

All pavement must be saw cut prior to removal, or removed by grinding.

Obliterated pavement markings must be replaced in kind.
All signs and markings must comply with the California MUTCD (available at http://www.dot.ca.gov/trafficops/camutcd/).

Where Asphalt Concrete (AC) has been placed, temporary painted traffic striping and pavement markings must be installed within 24 hours. Where shown on the plans, after 30 days curing time, thermoplastic materials must be applied in accordance with the 2018 Caltrans Standard Specifications, Section 84, “Markings” (available at http://www.dot.ca.gov/des/oe/construction-contract-standards.html).

Notify the State Representative not less than 25 days and not more than 125 days before the anticipated start of an activity that will change the vertical or horizontal clearance available to traffic, including shoulders. The permittee must provide this notice by submitting a “Notice of Change in Clearance or Bridge Weight Rating” (TR-0019 or TR-0029) and/or “Notice of Change in Vertical or Horizontal Clearance” (TR-0020) (available at http://www.dot.ca.gov/trafficops/permits/notice.html).

Your attention is directed to the 2018 Caltrans Standard Specification, Section 5-1.36, “Property and Facility Preservation” (available at http://www.dot.ca.gov/des/oe/construction-contract-standards.html), and Business and Professions Code, Section 8771. Permittee must physically inspect the work site and locate survey monuments before work commencement. Monuments that might be disturbed must be referenced or reset in accordance with Business and Professions Code.

If feasible, monuments should not be set within the traveled way. All monuments that must be set or perpetuated in paved surfaces, must be constructed in accordance with the 2018 Caltrans Standard Specification, Section 78-2, “Survey Monuments” and the 2018 Caltrans Standard Plan A74, Type D, (available at http://www.dot.ca.gov/des/oe/construction-contract-standards.html) or equal with prior approval of the District Surveys Engineer.

Copies of Corner Records filed or Record of Surveys recorded in compliance with the Business and Professions Code must be forwarded to the District Surveys Engineer.

If existing public or private utilities conflict with the construction project, permittee will make necessary arrangements with the owners of such utilities for their protection, relocation, or removal. Permittee must inspect the protection, relocation, or removal of such facilities. Total costs of such protection, relocation, or removal which State or permittee must legally pay, will be borne by permittee. If any protection, relocation, or removal of utilities is required, including determination of liability for cost, such work must be performed in accordance with State policy and procedure. Permittee must require any utility company performing relocation work in the State highway right-of-way to obtain a State Encroachment Permit before the performance of said relocation work. Any relocated utilities must be correctly located and identified on the As-Built plans.

Permittee must reuse the soil within the work limits in the immediate area from which it was excavated. If any excess soil is generated, it becomes the property of the permittee. Permittee must transport all excess soil outside the State highway right-of-way, and dispose of it in accordance with all applicable environmental laws and regulations.

Changes to the provisions herein require an Encroachment Permit Rider, except for minor changes authorized by the State Representative.

Time extension requests must be made a minimum 2 weeks prior to permit expiration.

The State Representative or CHP may stop work not being performed in compliance with this permit.

Neither materials nor waste must be stockpiled within the State highway right-of-way.
All mud, dirt, and gravel tracked onto the roadway must be immediately removed.

Upon acceptance of work, the State will assume ownership of encroachments including all material, equipment, and appurtenances within the State highway right-of-way.

Upon completion of work authorized by this encroachment permit, the permittee must provide the State Representative with As-Built plans, in accordance with General Provision 22.

Upon completion of work authorized by this encroachment permit, the permittee must provide the State Representative with “Notice of Completion” (TR-0128) (available at http://www.dot.ca.gov/trafficops/ep/docs/Appendix_D_WEB.pdf).

The application for a double permit must include 3 plan sets of an approved Water Pollution Control Plan (WPCP).

The application for a double permit must include six copies of the Traffic Control Plans, stamped and signed by a California Licensed Professional Engineer.

The application for a double permit must include substantiation that the contractor has furnished both a payment and performance bond in the local agency’s name in accordance with General Provision 24, Part a.

Additional Enclosure(s):
1. Notice of Completion (TR-0128)
3. Work Authorization Instruction and Request Form
MEASURE T1 - STREET IMPROVEMENTS
ADELINE STREET
CALTRANS ENCROACHMENT PERMIT

LOCATION MAP

These plans are for use with Encroachment Permit Number 0418-NMAC-2409
By Chan Li on 1/9/19

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<td>SITE PLAN</td>
<td>SP-1 2-4</td>
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<td>ELECTRICAL PLAN</td>
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<td>STRIPING PLAN</td>
<td>SS-1 6</td>
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<tr>
<td>TRAFFIC CONTROL PLAN</td>
<td>CA T11</td>
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</tbody>
</table>

GENERAL NOTE:
THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICES ALCAT (USA) AT (800) 227-2600 AT LEAST TWO WORKING DAYS BEFORE EXCAVATING. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING UTILITIES IN ACCORDANCE WITH THE SPECIFICATIONS.
GENERAL NOTE:
1. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) AT LEAST 48 HOURS BEFORE LOWING, RECOVERING OR DEMOLISHING ANY STRUCTURE OR UTILITY TO PROTECT EXISTING UTILITIES IN ACCORDANCE WITH THE SPECIFICATIONS.

REPLACE CONCRETE BRICKS FOR TREE AREA, MIN 6' X 4' & PROVIDE MULCH (TYP).

NOTE TO CONTRACTOR:
1. REMOVE & REPLACE SIDEWALK WITH 1.5% MAX SLOPE FOR PEDESTRIAN PATHWAY. HOLD T/C ELEVATIONS (TYP).
2. REMOVE & REPLACE CURB WITH 1.5% MAX SLOPE FOR PEDESTRIAN PATHWAY. HOLD T/C ELEVATIONS (TYP).

PAVEMENT SECTION (APPROXIMATE)
GENERAL NOTE

1. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) AT LEAST TYPICALLY 3 WORKING DAYS BEFORE COMMENCEMENT OF WORK TO LOCATE AND PROTECT ANY EXISTING UGSES. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING UTILITIES IN ACCORDANCE WITH THE SPECIFICATIONS.

2. REFERENCES TO DRAWINGS WITHIN THE SPECIFICATIONS REFER TO THE MUNICIPAL BOUNDARY PLAN AND TO THE SEWER LAYOUT AND COORDINATE SYSTEM OF THE CITY OF BERKELEY.

3. CHECKBOOK PAGE OF THE MUNICIPAL BOUNDARY PLAN AND TO THE SEWER LAYOUT AND COORDINATE SYSTEM OF THE CITY OF BERKELEY.

4. DEPARTMENT OF PUBLIC WORKS

CITY OF BERKELEY
DEPARTMENT OF PUBLIC WORKS
MEASURE T STREET IMPROVEMENTS
ADELINE STREET
CALTRANS ENFORCEMENT PERMIT

1. REMOVE & INSTALL NEW CURB RAMP (TYP)

2. REMOVE & INSTALL 2.5" ASPHALT PAVEMENT (TYP)

3. REMOVE & REPLACE EXISTING-LINE MARKING FOR PEDESTRIAN PATHWAY.

4. HOLD PARKING LOT ELEVATIONS.

NOTES:

1. INSTALL 2.5" ASPHALT PAVEMENT.

2. INSTALL CURB AND CURB RAMP IN AccordANCE WITH TECHNICAL SPECIFICATIONS.

3. INSTALL CURB IN AccordANCE WITH TECHNICAL SPECIFICATIONS.

4. INSTALL CURB RAMP IN AccordANCE WITH TECHNICAL SPECIFICATIONS.

5. REMOVE & REPLACE EXISTING-LINE MARKING FOR PEDESTRIAN PATHWAY.

6. HOLD PARKING LOT ELEVATIONS.
GENERAL NOTE:

1. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) AT (800) 227-2600 AT LEAST TWO WORKING DAYS BEFORE EXCAVATING. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING UTILITIES IN ACCORDANCE WITH THE SPECIFICATIONS.

2. INSTALL CURB RAMP (TYP) & HORIZONTAL CURB RAMP (TYP), REMOVE & INSTALL 2.5" ASPHALT PAVING (TYP).

3. CONTROL POINTS Illustrated on Plan.

4. MEASURE TO STREET IMPROVEMENTS - ADLINE STREET

CITY OF BERKELEY
DEPARTMENT OF PUBLIC WORKS
CALTRANS ENCROACHMENT PERMIT

NOTE:
1. SLOPE PAVEMENT IS 18" IN WIDE.
2. INSTALL CURB RAMP IN SECTIONS TO EASE PUSHING.
3. CURB EDGE MUST BE LEVEL WITH INTERSECTIONS AND STEPS MUST BE PROTECTED FOR USE.
4. HORIZONTAL CURB RAMP MUST BE padx AND FIRE RAMP.
5. CURB RAMP MUST BE RADIUS 18" IN PLACE AND PERMIT IN ACCORDANCE WITH CITY CODE. SEE ATTACHED DRAWINGS.
CONSTRUCTION NOTES & DETAILS:

THE LOOP DETECTORS, HANDHOLE AND ASSOCIATED SHALL BE INSTALLED PER 2015 CALTRANS STANDARD PLANS & SPECIFICATIONS.
TRAFFIC SAFETY: THE STRIPING/POST MARKERS WITHIN THE STATE HIGHWAY'S RIGHT OF WAY MUST BE REPLACED WITH THE SAME KIND.
NOTES:

1. Portable delineators placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.

2. Each advance warning sign shall be equipped with at least two flags for daytime closures. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashed beacons shall be placed at the locations indicated for lane closure during hours of darkness.

3. A C20-2 "END ROAD WORK" sign shall be placed at the end of the lane closure, unless the end of work zone is obvious or ends within the larger project's limits.

4. A minimum 1500' of sight distance shall be provided wherever possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.

5. Place C30(CA) "LANE CLOSED" signs at 500' to 1000' intervals throughout extended work area.

6. Lengths may be reduced by the Engineer to address site conditions.

7. Where lane closures shall conform to the details shown except that C30(CA) and W4-2L signs shall be used.

8. For approach speeds over 50 MPH, use the "Traffic Control System for Lane Closures on Freeways and Expressways" plan for lane closure details and requirements.

LEGEND

- TRAFFIC CONE
- TRAFFIC CONE (OPTIONAL TAPER)
- TEMPORARY TRAFFIC CONTROL SIGN
- FLASHING ANNER SIGN (FAS)
- FAS SUPPORT OR TRAILER
- PORTABLE FLASHING BEACON

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON MULTILANE CONVENTIONAL HIGHWAYS

NO SCALE

RSP T11 DATED APRIL 30, 2018 SUPERSEDES STANDARD PLAN T11

REVISED STANDARD PLAN RSP T11
PERMIT TO ENTER (PERMANENT IMPROVEMENTS)

Subject to the following covenants, terms, conditions and restrictions, the San Francisco Bay Area Rapid Transit District (hereinafter "District" or "BART") hereby grants permission to Permittee (hereinafter "Permittee") (collectively, the "Parties") to perform a street overlays (2.5 inches thick), install ADA curb ramps, a sidewalk, driveways and bus pads (hereinafter the "Improvements") upon District property located along Adeline Street and Hearst Avenue, and in the City of Berkeley, County of Alameda, (hereinafter "Premises"), as shown on Exhibit "A," (City of Berkeley drawings titled: Street Pavement Rehabilitation, Measure T1 Street Improvements, Adeline Street, Hearst Avenue, dated 10/24/18) attached hereto and incorporated herein by reference.

1. Subject to Section 20 below, the term of this Permit shall commence on May 1, 2019 and end December 31, 2019 provided, however, that at any time during the term, the Permit may be terminated by either party upon thirty (30) days prior written notice to the other party. Said notice shall be sent certified mail, return receipt requested, to:

   City of Berkeley
   1947 Center Street, 4th Floor
   Berkeley, CA 94704
   Attn: Srinivas Muktevi

   or

   Real Estate and Property Development Department
   San Francisco Bay Area Rapid Transit District
   300 Lakeside Drive, 22nd Floor
   Oakland, California 94612
   Attention: Sean Brooks, Manager

   The notice period shall begin to run upon receipt of said notice.
2. The fee for this Permit shall be calculated pursuant to the attached Fee Schedule in effect when staff time is expended, pursuant to the policy adopted by the BART Board of Directors in Resolution No. 4989. An application fee pursuant to such Fee Schedule has been waived prior to issuance of this Permit (public agency). A deposit of $5,000 for reimbursable staff time shall be provided prior to start of work. Any additional fees to reimburse BART for plan review and inspection will be billed to Permittee upon completion of the Work and shall be paid to BART within thirty (30) days of the invoice date. A 10% late fee will be assessed on the balance if payment is not received within said 30 days of the invoice date. The late fee will be increased to 20% on the original balance if payment is not received within 60 days of the invoice date. BART reserves all rights to pursue all appropriate remedies to collect outstanding payments and penalties that have not been paid by Permittee within 90 days of the invoice date.

3. Permittee’s right to use this area shall be non-exclusive and non-transferable, and shall be for the sole purpose of constructing, maintaining and using the Improvements. In no event shall District’s property be deemed to be a public right-of-way. Overnight parking is prohibited on District’s property.

4. Conditions of Use:

4.a Permittee shall submit a Global Site Specific Work Plan (GSSWP) for BART’s review and written approval prior to any use of the Premises and before commencing with construction of any work related to any part of the permanent improvements. Permittee shall obtain a sample SSWP and GSSWP with instructions from the District’s Construction Liaison Mr. John Fu at (510) 464-6439 (sfu@bart.gov). Track allocation shall be scheduled with Mr. John Fu at (510) 464-6439 at least 14 calendar days prior to the work, following the approval of the SSWP. Permittee shall submit the construction schedule along with the SSWP.

4.b Permittee shall have Underground Service Alert and an independent utility locator service mark out the trench locations prior to digging.

4.c Permittee shall ensure the safety of the work area and all affected BART facilities during construction.

4.d BART utility covers shall not have asphalt placed over them.

4.e BART has a dry standpipe inlet adjacent to the new curb ramp to be installed on the northeast corner of Adeline Street and Russell Street. Permittee shall not block access to the standpipe during construction and shall take extreme care not to damage the standpipe inlet.

4.f Any change in the scope of this permit shall be subject to a separate amendment.

5. In connection with construction, re-construction or maintenance work by BART, Permittee shall comply with Section 21 of the “General Terms and Conditions Relating to Utility Permits,” attached hereto as Exhibit “B” and incorporated herein by reference.
6. Permittee agrees that, as an essential condition to issuance of this Permit, BART shall not assume any responsibility or liability to Permittee or any other person for damage to Permittee's facilities not caused by BART, subject to the following limitation. Except for claims arising out of BART's negligence or willful misconduct, Permittee agrees at its own cost, expense and risk to defend any and all claims, actions, suits or other legal proceedings brought or instituted against BART, its directors, officers, agents and employees, or any of them, arising out of BART's act or failure to act in connection with Permittee's facilities, and to pay and satisfy any resulting judgments, settlements or other expenses associated therewith.

7. Conditions of this Permit shall be binding on all future owners of the Improvements. Permittee shall notify the Manager of the Real Estate and Property Development Department of any change in ownership of the Improvements.

8. The cost of repair and any and all losses caused by Permittee to any BART property or facility, or resultant loss of service, shall be at the sole expense of Permittee. Any damage to BART property or facilities shall be repaired or remedied by either Permittee or BART, at BART's discretion, and at Permittee's sole cost and expense. Repairs shall comply to BART Facilities Standards. Permittee agrees to reimburse BART promptly for any such damage.

9. Permittee shall have the duty and agrees to exercise reasonable care to properly maintain District's property pursuant to this Permit, including, but not limited to, removing debris dumped or placed on the Premises during the term of this Permit, from any source, and to exercise reasonable care inspecting for and preventing any damage to any portion of District's property.

10. Permittee acknowledges that said Improvements constitute an encroachment upon BART's property and agrees to construct, repair, maintain and use said Improvements in accordance with and subject to the provisions of this Permit, applicable provisions of the "General Terms and Conditions Relating to Utility Permits" and all applicable state and local laws. Where there is a conflict between the provisions of this Permit and the "General Terms and Conditions Relating to Utility Permits," this Permit shall prevail.

11. Permittee agrees to notify District's Construction Liaison in the Construction Services Division, Mr. John Fu, at (510) 464-6439 at least 14 calendar days prior to any use of the Premises. Should Permittee require any utility hook-up, Permittee will obtain all necessary permits and pay all fees in connection therewith. Permittee shall not engage in any activity on District property until all necessary permits, licenses and environmental clearances have been obtained.

12. Permittee shall not (a) use, generate, or store, or allow its employees, contractors or agents to use, generate, or store any Hazardous Materials on the Premises, except for those materials required to perform the Work permitted under this Permit and in compliance with all federal, state and local laws and regulations for the protection of the environment, human
health and safety, as now in effect or hereafter amended (hereinafter “Environmental Laws”); or (b) release or dispose of, or allow its employees, contractors or agents to release or dispose of, any Hazardous Materials on the Premises. “Hazardous Materials” are those materials now or hereafter (a) defined as hazardous substances or hazardous wastes pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (42 U.S.C. section 9601 et seq.) or the Resource Conservation and Recovery Act (42 U.S.C section 6901 et seq.); (b) listed in the Hazardous Substances List, Title 8, California Code of Regulations, G.I.S.O. Section 337-339, or those which meet the toxicity, reactivity, corrosivity or flammability criteria of the above Code; (c) characterized, regulated or subject to permitting or warning requirements as hazardous or toxic materials, substances, chemicals, pollutants, contaminants or wastes, or as materials for which removal, remediation or disposal is required, under any Environmental Laws; or (d) otherwise posing a present or potential hazard to human health, welfare or the environment.

13. BART shall at all times have the right to go upon and inspect the Premises and the operations conducted thereon to assure compliance with any of the requirements in this Permit. This inspection may include, but is not limited to, taking samples of substances and materials present for testing.

14. Permittee shall be responsible for and bear the entire cost of removal and disposal, in compliance with Environmental Laws, for all Hazardous Materials and non-hazardous wastes introduced to the Premises by Permittee during Permittee’s use and possession of the Premises. Permittee shall also be responsible for any remediation on or off the Premises necessitated by such Hazardous Materials or non-hazardous wastes. As used herein, “remediation” includes any investigation or post-cleanup monitoring that may be necessary in compliance with Environmental Laws. For purposes of disposal, Permittee shall be the generator of any such Hazardous Materials and shall provide a generator identification number on manifests for such disposal as required by Environmental Laws.

15. To the extent that any New Environmental Condition is caused by, or any Pre-existing Environmental Condition is contributed to or exacerbated by, Permittee’s acts or omissions (including those of its employees, contractors and agents) during its use and possession of the Premises, Permittee shall, at BART’s discretion, either (a) perform remediation of such New Environmental Condition or Pre-Existing Environmental Condition, at Permittee’s proportionate cost and expense, in compliance with Environmental Laws and subject to the approval of a governmental agency with jurisdiction; or (b) indemnify BART for Permittee’s proportionate costs incurred by District in performing remediation of such New Environmental Condition or Pre-Existing Environmental Condition. A “New Environmental Condition” is defined as the release or threatened release of Hazardous Materials on, about, under or emanating from the Premises as of the commencement date of this Permit. A “Pre-Existing Environmental Condition” is defined as the release or threatened release of Hazardous Materials on, about, under or emanating from the Premises prior to the commencement date of this Permit.

16. Permittee agrees to assume responsibility and liability for, and defend,
indemnify and hold harmless BART, its directors, officers, agents and employees from all claims, demands, suits, losses, damages, injury, and liability, direct or indirect (including any and all costs, fees and expenses in connection therewith) arising from the introduction by Permittee on the Premises of any Hazardous Materials or non-hazardous wastes by Permittee (including its employees, contractors and agents) or from any New Environmental Condition to the extent caused by, or any Pre-existing Environmental Condition to the extent contributed to or exacerbated by, the acts or omissions of Permittee (including those of its employees, contractors and agents) during its use and possession of the Premises.

17. Permittee agrees to assume responsibility and liability for, and defend, indemnify and hold harmless BART, its directors, officers, agents and employees from all claims, demands, suits, losses, damages, injury, and liability, direct or indirect (including any and all costs, fees and expenses in connection therewith), to the extent caused by acts or omissions of Permittee, its employees, contractors and agents in connection with the Work done pursuant to this Permit, except to the extent such losses are caused by the gross negligence or willful misconduct of the District. Permittee agrees at their own cost, expense and risk to defend any and all actions, suits, or other legal proceedings brought or instituted against BART, its directors, officers, agents and employees to the extent arising from the acts or omissions of Permittee, its employees, contractors and agents in connection with the Work done pursuant to this Permit, and to pay and satisfy any resulting judgments, settlements or other expenses associated therewith.

18. To the extent that a governmental agency with jurisdiction requires remediation of any Pre-Existing Environmental Condition that is discovered as a result of Permittee’s activities pursuant to this Permit, and is not caused, contributed to or exacerbated by the acts or omissions of BART, its employees, contractors or agents, Permittee shall, at BART’s discretion, either (a) perform remediation of such Pre-Existing Environmental Condition, at Permittee’s cost and expense, in compliance with Environmental Laws and subject to the approval of a governmental agency with jurisdiction; or (b) indemnify BART against all costs incurred by BART in performing remediation of such Pre-Existing Environmental Condition.

19. Permittee shall comply with the federal Clean Water Act of 1977 and all laws, ordinances, rules and regulations applicable to the Project ("Applicable Law") including, without limitation, any building, zoning or environmental laws, including applicable Storm Water Pollution Prevention Plans ("SWPPP"). Permittee shall provide any notice(s) required by any Applicable Law. Permittee is responsible for identifying and implementing California Stormwater Quality Association (CASQA) Best Management Practices (BMPs) to prevent pollutant discharges to the storm drain system. Permittee shall not perform any work on BART property until all necessary permits, licenses and environmental clearances have been obtained.

20. Permittee agrees that no easement, lease or other property right is acquired by Permittee through this Permit.

21. Upon any use of BART property by Permittee other than that authorized by this Permit, or upon failure of the Permittee to conform to any of the terms
and conditions of this Permit, BART may terminate this Permit immediately.

22. Upon Permit expiration, Permittee shall leave the completed Improvements on the Premises, and within 30 days shall otherwise restore to its former condition all BART property which has been disturbed by Permittee, except as provided otherwise in the Permit. Restoration shall include, but not be limited to, removal of all equipment, materials, debris and the like, and repair of any damage. If Permittee fails to restore BART property as required herein, BART may perform such restoration or removal at Permittee’s sole expense. If the Permit expires or is terminated prior to the completion of Improvements, BART may elect, at its sole discretion, to require Permittee to leave the Improvements on the Premises or remove them and restore the Property.

23. Insurance shall be provided by Permittee as stated in Exhibit “C” attached hereto and incorporated herein by reference. Insurance shall be approved by BART’s Insurance Manager prior to any use of the Premises.

SAN FRANCISCO BAY AREA
RAPID TRANSIT DISTRICT

By_______________________________ Date___________
Sean Brooks, Manager
Real Estate and Property Development Department

ACCEPTED
CITY OF BERKELEY

By_______________________________ Date___________
Name______________________________
Title______________________________

R-04.3-001-BK.pts
RESCUFACING

ADELINE STREET, HEARST AVENUE
MEASURE 1 STREET IMPROVEMENTS
STREET PAVEMENT REHABILITATION

ALAMEDA COUNTY, CALIFORNIA
CITY OF BERKELEY

EXHIBIT "A" (R-04.3-001-BK)
NOTE: THE BEARING PILE OF WAY ON THE PLANS ARE APPROXIMATE AND NEED TO BE VERIFIED WITH BEAR RECORDS.
NOTE: THE BASIS FOR WHICH THE PLANS ARE APPROVED ARE TO BE VERIFIED WITH BART RECORDS.
NOTE THE BART RIGHT OF WAY ON THE PLANS ARE APPROXIMATE AND NEED TO BE VERIFIED WITH BART RECORDS.
GENERAL TERMS AND CONDITIONS RELATING TO UTILITY PERMITS

EXHIBIT “B”

All Utility Permits issued by the San Francisco Bay Area Rapid Transit District to privately and publicly owned utilities relating to poles, wires, cables and other overhead structures, pipes, conduits, manholes and other miscellaneous underground facilities, railroad crossings, storm drains, flood control and minor work are subject to the following General Terms and Conditions contained herein as well as the specific conditions set forth on the face of the Permit.

1. DEFINITION:

Each Utility Permit (hereinafter referred to as “Permit”) is issued by the San Francisco Bay Area Rapid Transit District (hereinafter referred to as BART) by the Manager of Real Estate and Property Development Department.

Applicant (hereinafter referred to as "Permittee") understands and agrees that except as otherwise provided, all Permits issued by BART are subject to the terms and conditions contained herein.

2. REVOCABILITY AND MODIFICATION:

Any Permits issued hereunder are revocable upon thirty (30) days written notice by BART, and the terms and conditions thereof shall be subject to modification by BART at any time. Any Permit is revocable immediately in the event of any use other than that authorized by the Permit, or upon failure of the Permittee to conform to any of the terms and conditions of the Permit.

3. NEW WORK PERFORMED ON EXISTING PERMIT:

No new work can be initiated by a Permittee based upon a prior Permit unless that Permit specifically sets forth the nature and method of such future work at the time of the original approval and if the prior Permit has not expired.

If occupation of BART right-of-way is under easement or previous agreement with BART, new installations and work must be applied for to provide BART with notice and record of new work, and for inspection and approval by BART relating to construction and safety procedures. All prior rights shall be fully protected in such cases.

4. ACCEPTANCE OF PROVISIONS:

It is understood and agreed by Permittee that doing any work under a Permit shall constitute an acceptance of the terms and conditions contained herein except as otherwise specifically provided in the Permit.
5. NO PRECEDENT ESTABLISHED:

It is understood and agreed by Permittee that approval of a particular action under a Right of Entry or Permit shall not establish a precedent for similar future requests by Permittee.

6. NOTICE PRIOR TO STARTING WORK:

Before starting work on which full inspection is required in the Permit, the Permittee shall notify BART's Construction Liaison in the Construction Services Division in writing fourteen days in advance of the day work is to begin. Five days notice shall be given on Permits where partial inspection is specified.

7. PERMIT AT SITE OF WORK:

The Permit or a copy thereof shall be available at the site of the work and must be shown to any representative of BART on demand.

8. PERMITS FROM OTHER AGENCIES:

The party or parties to whom a Permit is issued shall, whenever the same is required by law, secure the written order or consent to any work under a Permit from the Public Utilities Commission of the State of California or any other public agency having jurisdiction and any Permit shall not be valid until such order or consent is obtained.

9. PROTECTION OF TRAFFIC WHEN APPLICABLE:

Adequate provisions shall be made for the protection of the traveling public when construction affects cross streets along BART right-of-way. Warning signs, lights, safety devices and other measures required for the public safety shall conform to requirements of the Vehicle Code.

10. RAIL CLEARANCE AT OR NEAR GRADE:

No construction material shall be stored, nor equipment parked within 10 feet, measured at right angles, from the outer edge of the BART aerial structure or BART right-of-way fence, whichever is greater. Construction equipment operating adjacent to BART tracks or facilities shall be so situated and restrained so as not to fail in a manner that would potentially damage BART facilities or to interfere with BART's operating envelope. Any activity within 10 feet, measured at right angles, of BART's aerial structure or rail shall be conducted during non-revenue service hours and shall be subject to Track Allocation clearance.

11. LIMIT OF EXCAVATION AT OR NEAR GRADE:

No excavation is to be made closer than 10 feet, measured at right angles, from the edge of rail except as specified in the Permit. Depth of excavation shall be subject to inspection and approval by BART's Construction Liaison in the Construction Services Division.

12. STANDARDS OF CONSTRUCTION:

All work performed within BART right-of-way shall conform to Civil and Structural Design Criteria, latest revision, by this reference made a part hereof.

13. APPROVAL BY BART:

All work shall be subject to inspection and approval by BART. The type of inspection will be specified in each Permit.

14. CLEAN UP OF RIGHT-OF-WAY:

Upon completion of the work, the right-of-way shall be left in the same condition as existed before work started.
15. MAINTENANCE:

Permittee agrees, by acceptance of a Permit, to exercise reasonable care to properly maintain any installation placed in BART right-of-way and to exercise reasonable care in preventing damage to any portion of right-of-way or to BART's facilities as a result of work done under a Permit.

16. RESTORATION:

Within 30 days of the expiration or earlier termination of a Permit, Permittee shall, at its sole expense, restore to its former condition any portion of the right-of-way or of any BART facility which has been disturbed by Permittee, except as provided otherwise in the Permit. Restoration shall include, but not be limited to, removal of improvements, equipment, materials, debris, and the like, and repair of any damage. If Permittee fails to restore BART property as required herein, BART may perform such restoration at Permittee's sole expense.

17. CARE OF DRAINAGE:

If the work contemplated in any Permit interferes with established drainage, provision shall be made by Permittee to re-establish equal drainage conditions as may be directed by BART, at Permittee's sole expense.

18. SUBMISSION OF PLANS:

For installation of all underground facilities and surface work, Permittee shall submit for approval a plan showing location and details with its application. Three sets of as-built plans shall be filed with BART upon completion and approval of work. Any substantial change from plans submitted with the application must be approved by BART prior to commencement of work.

19. EXPENSE OF INSPECTION, PREPARATION, AND ADMINISTRATION:

On installations made under request of Permittee which require the presence of any employee of BART as inspector, the cost of such inspection during the work shall be paid by Permittee upon presentation of bills therefor. In addition, Permittee agrees to promptly pay BART for costs involved in the preparation, administration and processing of the Permit and its provisions upon presentation of bills therefor per the fee schedule in Resolution No. 4989, adopted by the District's Board of Directors.

20. LIABILITY FOR DAMAGES:

Permittee agrees to assume responsibility and liability for all damage, loss or injury of any kind or nature whatever to persons or property, caused by or resulting from or in connection with work done by Permittee under a Permit or which may arise out of failure on Permittee's part to perform their obligations under any Permit. In the event any claim of such liability is made against BART, or any department, officer, or employee thereof, Permittee shall defend, indemnify and hold them, and each of them harmless from such claim, and pay and satisfy any resulting judgments. At its sole discretion, BART may require that Permittee obtain a bond and/or insurance in connection with the Permit.

21. FUTURE MOVING OF INSTALLATIONS:

It is understood by Permittee that whenever BART construction, re-construction or maintenance work on BART right-of-way may be required, and upon request by BART, the Permittee's installation shall be immediately moved by and at the sole expense of Permittee except as otherwise provided for by a specific Permit provision.

22. ROUTINE MAINTENANCE OF PERMITTEE'S FACILITIES:

Permittee may perform routine work maintenance on Permittee's facilities in accordance with the Terms and Conditions set forth in the Permit. It will be necessary to provide fourteen days' prior written notice, unless otherwise stated, to BART's Construction Liaison prior to commencing any work within the property boundaries of BART. In emergencies, the Permittee shall notify BART's Construction Liaison by telephone and then follow up by confirming letter relating to the emergency and the disposition of the emergency.
23. PIPES, CONDUITS AND MISCELLANEOUS FACILITIES:

BART's Civil and Structural Design Criteria, latest revision, sets forth specification for installation and maintenance of all underground facilities within BART right-of-way. In addition to BART criteria, all installation and maintenance procedures by Permittee shall be in accordance with the applicable orders of the Public Utilities Commission of the State of California. When abandonment of facilities is contemplated, Permittee shall notify BART.

24. POLES, WIRES, CABLES AND OVERHEAD STRUCTURES:

Poles shall be located as specifically directed in the Permit. In addition to BART's Civil and Structural Design Criteria, latest revision, all clearances and types of construction shall be in accordance with the applicable orders of the Public Utilities Commission of the State of California. Whenever it is necessary to secure permission from abutting property owners, such authority must be secured by Permittee prior to commencing work. Where removal of old poles, guys and stubs is necessary, the entire length of the abandoned pole, guy or stub shall be removed from the ground and the hole backfilled and thoroughly tamped.

25. CLEARANCE OF TREES:

All new pole line construction must allow sufficient vertical clearance for trees 40 feet in height. At locations where growing trees are in place, or Permittee's facilities are already in place, normal construction standards may be followed at the option of Permittee with the ultimate provision to clear a 40-foot tree. Protected cable, tree wire, or plastic tree wire guards may be used on telephone lines through trees provided neither the tree nor its appearance will be damaged. No guy wires are to be attached to trees or BART structures.

26. TRIMMING OF TREES:

Trimming of trees will be permitted only where specifically stated in a Permit. Except when specifically authorized in the Permit, removal of trees will generally be prohibited since all trees within BART right-of-way have been placed as landscaping. Permittee shall be required to conduct tree trimming at no cost to BART. In general, only light trimming of branches two inches or less in diameter will be permitted. The shapeliness of the trees must be preserved. If the permit requires inspection by BART during progress of the work, the cost of inspection shall be borne by the Permittee.

27. SERVICE CONNECTIONS:

These terms and conditions do not authorize installation of utility service connections within BART right-of-way regardless of location of Permittee's facilities. All such service connections or excavations to abandon services must be covered by individual Permits.

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Insurance

At all times during the life of this Permit, or as may further be required by this Permit, Permittee at its own cost and expense, shall provide the insurance specified as follows:

1. **Evidence Required**

At or before execution of this Permit, Permittee shall provide District with a certificate of insurance executed by an authorized representative of the insurer(s) evidencing that Permittee’s insurance complies with this Article, including a copy of all required endorsements. Permit number (R-04.3-001-BK) shall be included in the space provided on the standard Certificate of Insurance form provided.

2. **Notice of Cancellation, Renewal, Reduction or Material Change in Coverage.**

All policies shall be endorsed to provide District with thirty (30) days prior written notice of any cancellation, reduction or material change in coverage. Notices shall be sent to the Department Manager, Insurance, San Francisco Bay Area Rapid Transit District, P. O. Box 12688, Oakland, California 94604-2688. The Permittee shall annually submit to the District’s Department Manager, Insurance, certifications confirming that the insurance required has been renewed and continues in place (if required).

3. **Qualifying Insurers**

All policies shall be issued by California admitted companies which hold a current policy holders alphabetic and financial size category rating of not less than A:VIII according to Best’s Insurance Reports.

4. **Insurance Required**

   A. **Commercial General Liability Insurance** for bodily injury (including
death) and property damage which provides limits of not less than Three Million Dollars ($3,000,000) per occurrence and Three Million Dollars ($3,000,000) annual aggregate as applicable.

1. Coverage shall include:
   a) Premises and Operations;
   b) Products/Completed Operations;
   c) Broad Form Property Damage;
   d) Blanket contractual liability coverage;
   e) Personal Injury liability; and
   f) Cross-Liability and Severability of Interests.
   g) Explosion, Collapse and Underground (XCU) *

2. Such insurance shall include the following endorsements:
   a) Inclusion of District, its directors, officers, representatives, agents and employees as additional insured as respects to Permittee’s ongoing and completed operations in connection with this Permit;
   b) Stipulation that the insurance is primary insurance and that no insurance or self-insurance of District will be called upon to contribute to a loss.

3. For all applications involving construction or demolition work within 50 feet, vertically or horizontally, of the BART trackway and affecting any railroad bridge or trestle, tracks, road-beds, tunnel, underpass or crossing, the General Liability Insurance must not exclude coverage therein.

B. Automobile Liability for bodily injury (including death) and property damage which provides a coverage limit of at least One Million Dollars ($1,000,000) combined single limit per occurrence applicable for all owned, non-owned and hired vehicles.

1. With respect to the removal and transport of hazardous material or hazard-containing material, the policy shall include:
   a. Coverage for the accidental release of hazardous waste defined in California Health and Safety Code (H & S) Section 25117 and listed in Title 22 California Code of Regulations Section 66260.10 and consequential containment, cleanup, disposal and penalties associated therewith.
   b. Pollution Liability - Broadened coverage for covered autos which includes "covered pollution costs or expenses," which mean any cost or expense arising out of:
      (1) Any request, demand or order; or
      (2) Any claim or suit by or on behalf of a governmental authority demanding that the insured or others test for, monitor, clean-up,
remove, contain, treat, detoxify, or neutralize, or in any way respond to, or assess the effects of pollutants.

C. **Statutory Workers' Compensation and Employer's Liability Insurance** for not less than One Million Dollars ($1,000,000) per accident applicable to Employer's Liability coverage for all employees engaged in services or operations under this Permit. The policy shall include broad form all-states/other states coverage. Coverage shall be specifically endorsed to include the insurer's waiver of subrogation in favor of the District, its directors, officers, representatives, agents and employees. Should any such work be subcontracted, Permittee shall require each subcontractor of any tier to similarly comply with this Article, all in strict compliance with federal and state law.

D. **Pollution Liability Insurance** for bodily injury (including death) and property damage, including natural resource damage and third party diminution in value claims. Coverage limits shall not be less than One Million Dollars ($1,000,000) per occurrence for accidental release of hazardous materials as defined in California Health and Safety Code (H&S) Section 25117 and listed in the Title 22 California Code of Regulations Section 66260.10 and consequential containment, clean-up, disposal and penalties associated therewith.

E. **Professional Liability Insurance** for damages arising out of CONTRACTOR's acts, errors or omissions. The policy shall provide a coverage limit of not less than Three Million Dollars ($3,000,000) per claim/aggregate as respects CONTRACTOR's services under this Agreement. Such insurance shall be maintained for a period of not less than two (2) years following completion of services.

F. **Railroad Protective Liability** for bodily injury (including death), property damage, and physical damage, including loss of use thereof, to railroad property with limits of not less than Two Million Dollars ($2,000,000) per occurrence and Six Million Dollars ($6,000,000) in the aggregate annually applicable to all operations of Contractor and its subcontractor(s) within 50 feet vertically or horizontally of BART's trackway. BART shall have the right to approve of the policy wording. The named insured shall be San Francisco Bay Area Rapid Transit District. Prior to commencing work or entering BART property, CONTRACTOR shall file the original copy of the policy with BART's Department Manager, Insurance. This coverage shall be maintained for the term of this Contract.

5. **Special Provisions**

A. The foregoing requirements as to the types and limits of insurance coverage to be maintained by Permittee, and any approval of said insurance by District is not intended to and shall not in any manner limit or qualify the liabilities and obligations otherwise assumed by Permittee pursuant to this Permit, including but not limited to the provisions concerning indemnification.

B. The District acknowledges that some insurance requirements contained in this article may be fulfilled by a funded self-insurance
program of the Permittee. However, this shall not in any way limit liabilities assumed by the Permittee under this Permit. Any self-insurance program must be approved by the District.

C. Should any of the work be contracted, Permittee shall require each of its contractors or subcontractors of any tier to provide the aforementioned coverage.

D. District reserves the right to terminate or suspend the Permit in the event of non-compliance with the insurance requirements of this Article. In no event shall any suspension entitle Permittee to an extension of the term of the Permit specified in this Article.

* (Note: XCU coverage (Section 4.A.1.g); Transport of hazardous material or hazard-containing material (Section 4.B.1); and Pollution Liability Insurance (Section 4.D) are only required when applicable (excavation, borings, etc.). Coverage limits may be increased, at the discretion of the District's Risk Manager, relative to risk involved.)
## BART Fee Schedule

<table>
<thead>
<tr>
<th>APPLICANT</th>
<th>APPLICATION PROCESSING FEE (See Note 1)</th>
<th>AS-BUILT DEPOSIT (See note 4)</th>
<th>PLAN REVIEW FEE (See Note 1)</th>
<th>INSPECTION FEE (See Note 1)</th>
<th>CEQA REVIEW FEE (See Note 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERMITS</td>
<td>Utility and Permits to Enter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Agency or Non-Profit Entity</td>
<td>None (See Note 2)</td>
<td>$1,000.00 or $2,000.00</td>
<td>$142.00/hr – 2 hour min.</td>
<td>$142.00/hr – 2 hour min.</td>
<td>$142.00/hr – 2 hour min.</td>
</tr>
<tr>
<td>Private Entity</td>
<td>$925.00 for initial and $247.00 per permit extension or amendment</td>
<td></td>
<td></td>
<td></td>
<td>$142.00/hr (See Note 3)</td>
</tr>
<tr>
<td>EASEMENTS</td>
<td>Property Interest Requested (Board Approval Required)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Agency or Non-Profit Entity</td>
<td>None (See Note 2) only the value of property interest</td>
<td>None</td>
<td>$142.00/hr – 2 hour min.</td>
<td>None</td>
<td>$142.00/hr (See Note 3)</td>
</tr>
<tr>
<td>Private Entity</td>
<td>$1,145 plus value of property interest</td>
<td>None</td>
<td>$142.00/hr – 2 hour min.</td>
<td>None</td>
<td>$142.00/hr (See Note 3)</td>
</tr>
<tr>
<td>PLAN REVIEW</td>
<td>Projects Adjacent to BART Right of Way</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Agency or Non-Profit Entity</td>
<td>None (See Note 2)</td>
<td>None</td>
<td>If less than 4 hours, there is no charge. If more than 4 hours, $142.00/hr (including first 4 hours)</td>
<td>$142.00/hr – 2 hour min.</td>
<td>$142.00/hr (See Note 3)</td>
</tr>
<tr>
<td>Private Entity</td>
<td>None</td>
<td>None</td>
<td>$142.00/hr – 2 hour min.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note 1** This fee schedule will be amended at the beginning of each fiscal year pursuant to Board Resolution No. 4989, adopted by the Board on June 22, 2006. Reimbursement of staff time is based on the fees in effect when staff time is charged.

**Note 2** Pursuant to Government Code Section 6103, public agencies are exempt from administrative application fees. Reimbursement of staff time for plan review and inspections is not exempt (Government Code Section 6103.7).

**Note 3** BART is subject to the California Environmental Quality Act (CEQA) in granting entitlements for use. In addition to the hourly fee for environmental review and for preparation of any required documentation by BART, applicants will be responsible for reimbursing BART for any applicable filing fees. Filing fees currently range from $25.00 to $1,275.00 and are subject to change.

**Note 4** The as-built deposit is $1,000.00 for projects less than $100,000.00 and is $2,000.00 for projects of $100,000.00 or more.
The purpose of these standards for construction in the public right-of-way is to ensure pedestrian safety and access. Standards apply to City of Berkeley crews, Contractors with the City, and all others working in the right-of-way. Each project is unique and requires thorough review to ensure complete, safe, usable and accessible paths of travel.

### Maintenance of a Clear and Accessible Pedestrian Corridor
The Contractor or permittee shall maintain an accessible corridor that provides at least one safe path of travel for all pedestrians at all times for the duration of the project:
- Pedestrian corridor shall be a nominal width of 6’ whenever feasible, and shall conform to ADAAG guidelines. It shall not be less than 48” wide at single point of contact or obstruction.
- Accessible pedestrian corridor shall connect with facilities throughout the project area.
- Equipment, debris, construction materials or vehicles shall not obstruct the corridor.
- No parked vehicles can obstruct blue curb parking spaces unless permitted by the City.
- Temporary closure of designated pedestrian routes and crossings shall be allowed only when flaggers are present and safely directing pedestrians around hazards.

### Temporary Ramps Conforming to Accessiblity Standards
The Contractor or permittee shall install and maintain temporary concrete, asphalt or wood ramps to provide a safe path of travel for mobility-impaired pedestrians at all locations where ramps have been temporarily removed or needed to route pedestrians:
- Temporary ramps shall be constructed so installation and removal will not damage existing pavement, curb and/or gutter.
- Ramps shall have a minimum 4’ wide walking surface and a slope not to exceed 8%.
- Ramps shall snugly meet existing surfaces without gaps. When required for drainage, Schedule 40 PVC pipe minimum 2” diameter shall be installed through ramp.
- Transitions between ramps and the street surface shall be smooth such that no lip exists at the base of the ramp.
- Sides of a ramp shall be protected where there is any drop-off.

### Construction of Signposts, Barricades and Fencing
Barricades that are impenetrable shall be used to separate pedestrians from hazards on all sides of excavations that may be exposed to pedestrians. Use materials and methods suitable to site conditions. Signs and fencing material shall not protrude into the clear pathway:
- A-frames used for defining path of travel (not barricading trenches) shall be placed end-to-end without spacing, shall be connected and maintained to ensure stability to help a person who is blind negotiate a safe path while using a cane.
- Caution Tape shall NOT be used by itself to delineate the path of travel or create a barricade.
- Fencing material requires a minimum 3” height, solid, uninterrupted toe-board.
- Signposts, scaffolding and fencing supports shall be placed entirely outside the pedestrian path of travel, minimum 4’ wide and 80” high without obstruction.
- Construction barriers shall be maintained in a sound, neat and clean condition.

### Identification of Safe Path of Travel
If a portion of the pedestrian way is rerouted due to construction, the path of travel shall be clearly defined. Traffic Engineer shall review any pedestrian access limitations and notification requirements for pedestrians with mobility or vision impairments:
- Paths of travel that DO NOT continue to the next corner or to a safe crosswalk shall be closed to pedestrian traffic. Signs a minimum of 36” x 36” must be posted stating the sidewalk is closed and detour pedestrians to accessible sidewalk.
- Pedestrian access corridors shall be clearly delineated with cones or barricades, as approved by the Engineer.
- If a crosswalk is closed, curb ramps leading into that crosswalk must be barricaded in such a manner that walkways that are not closed remain accessible to use.
- Caution Tape shall NOT be used by itself to delineate the path of travel or create a barricade.

### Surfacing of Pedestrian Corridors
During construction, tripping hazards and barriers for people with mobility impairments must be removed to maintain an accessible pedestrian corridor:
- Any change of level, which exceeds 1/4” height, must be beveled at 45°.
- Closed trenches, temporary paving surfaces, walking surfaces, steel plates; etc. shall have a smoothly finished, firm walking surface made even w/surrounding walkways.
- Aisle or loading area adjacent to a parking space is part of the pedestrian corridor.

### Restoration of Pedestrian Routes
After construction, the site shall be returned to its former condition, or new condition as required:
- Temporary ramps shall be removed as soon as construction and approval of permanent ramp is completed.
- After work is completed, surface of the pedestrian path shall be restored free from all ridges, gaps, bumps and rough edges.
- Construction that affects existing curb ramp shall include replacement or repair of the curb ramp to meet current City standards.

**PLEASE NOTE:** City of Berkeley Engineers may stop work when any hazardous conditions are present.
CITY OF BERKELEY

COMMUNITY WORKFORCE AGREEMENT
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COMMUNITY WORKFORCE AGREEMENT
For the
City of Berkeley

This Agreement is made and entered into this July 1st, 2015 by and between the City of Berkeley (“City”) together with other contractors and/or sub-contractors, who shall become parties to this Agreement by signing the “Agreement to be Bound” (Attachment A), and the Local Unions signatory hereto and the Alameda County Building & Construction Trades Council (“Council”) and its affiliated local unions who have executed this Agreement.

PURPOSE

The purpose of this Agreement is to support the efforts of the City to increase employment opportunities for workers who reside in Berkeley, to help increase training and employment opportunities for Berkeley residents in the construction trades through apprenticeship and pre-apprentice programs as the students graduate from the City's schools, to promote efficiency of construction operations performed for and within the City of Berkeley and to provide for peaceful settlement of labor disputes and grievances without strikes or lockouts, thereby promoting the public interest in assuring the timely and economical completion of the projects.

RECITALS

WHEREAS, the successful completion of the City's construction projects is of the utmost importance to the City of Berkeley; and

WHEREAS, the interests of the general public, the City, the Unions and Contractor(s) would be best served if the construction work proceeded in an orderly manner without disruption because of strikes, sympathy strikes, work stoppages, picketing, lockouts, slowdowns or other interferences with work; and

WHEREAS, the Contractor(s) and the Unions desire to mutually establish and stabilize wages, hours and calendar conditions for the workers employed on construction work for and within the City of Berkeley by the Contractor(s), and further, to encourage close cooperation among the Contractor(s) and the Union(s) to the end that a satisfactory, continuous and harmonious relationship will exist among the parties to this Agreement; and

WHEREAS, contracts for construction work within the City of Berkeley will be awarded in accordance with the applicable provisions of the Charter of the City of Berkeley, the California State Public Contract Code and the Labor Code, including but not limited to requiring competitive bidding and prevailing wages; and

WHEREAS, the City of Berkeley has the absolute right to select the lowest responsive and responsible bidder for the award of the construction contracts on the Projects; and
WHEREAS, the parties signatory to this Agreement pledge their full good faith and trust to work towards a mutually satisfactory completion of the Projects;

NOW, THEREFORE, IT IS AGREED BETWEEN AND AMONG THE PARTIES HERETO, AS FOLLOWS:

ARTICLE 1
DEFINITIONS

1.1.1 “Agreement” means this Community Workforce Agreement.

1.2 “Berkeley Resident” means any individual who is a current resident of Berkeley can certify through a utility bill, or other similar means acceptable to the parties to this Agreement that the individual resides within the boundaries of the Berkeley City Limits.

1.4 “City” means the City of Berkeley.

1.5 “Completion” means that point at which the City accepts a project at issue by filing a Notice of Completion, or as otherwise provided by applicable state law. “Punch list” items and any other work within the scope of this Agreement not completed prior to commencement of revenue service shall nonetheless be included within the scope of this Agreement. It is understood by the parties that portions of the Projects may be completed in phases and Completion of any such phase may occur prior to Completion of the Projects.

1.6 “Contractor(s)” and/or “Subcontractor(s)” means any individual, firm, partnership or corporation, or combination thereof, including joint ventures, which is an independent business enterprise and has entered into a contract with the City or any of its contractors or subcontractors of any tier, with respect to the construction work necessary for any part of the Projects. This shall include subcontractors not required to be listed in the bid documents. As applicable depending on its context, “Contractor” shall refer to Contractor or Contractor and Subcontractor.

1.7 “Construction Contract(s)” means all of the contract(s) for construction of any of the Projects.

1.8 “Council” means the Alameda County Building and Construction Trades Council, AFL-CIO.

1.9 "New Apprentice” is a Berkeley Resident who is enrolled in a State of California approved apprenticeship program that is a joint labor management apprentice program for no more than twenty-four months.
1.11 “Projects” mean any construction project of the City whose value as estimated by the City meets or exceeds $500,000 (Five hundred thousand) dollars.

1.12 “Union” or “Unions” means the Council and any other labor organization signatory to this Agreement, acting on their own behalf and on behalf of their respective affiliates and member organizations whose names are subscribed hereto and who have through their officers executed this Agreement.

1.13 “Project Manager” means the person or persons or business entity designated by the City to oversee all phases of construction on the Projects.

1.14 “Master Labor Agreement” or “MLA” shall mean the collective bargaining agreement of each craft Union that is Signatory to this Agreement.

1.15 “Calendar Day” shall mean any day, relating to any day of the week including Saturday, Sunday and public holidays.

1.16 “Apprenticeship Program” a California State-approved Joint Apprenticeship Program in the respective crafts to perform such work as is within their capabilities and which is customarily performed by the craft in which they are registered. The apprentice ratios will be in compliance with the applicable provisions of the applicable “Master Labor Agreement”.

**ARTICLE 2**
**SCOPE OF AGREEMENT**

2.1 Parties: This Agreement shall apply and is limited to all Contractors and subcontractors performing Construction Contracts necessary for the Projects, the City, the Council and any other labor organization signatory to this Agreement, acting on their own behalf and on behalf of their respective affiliates and member organizations whose names are subscribed hereto and who have, through their officers, executed this Agreement.

2.2 Project Description: This Agreement shall govern the award of all of the Construction Contracts identified by the City as part of the Projects. The City has the absolute right to combine, change, consolidate, suspend or cancel Construction Contract(s) or portions of Construction Contract(s) identified as part of the Projects. Should the City suspend or remove any contract from the Projects and thereafter authorize that construction work be commenced on such contract, then such contract shall be performed under the terms of this Agreement. Once a Construction Contract is completed it is no longer covered by this Agreement except when a Contractor is directed to engage in repairs, warranty work or modifications required by its Construction Contract with the City. For the purposes of this Agreement, a Construction Contract shall be considered Completed as set forth in Section 1.5 of this Agreement.

2.3 Covered work:
2.3.1 This Agreement covers, without limitation, all on-site construction, demolition, alteration, painting or repair of buildings, structures, landscaping, temporary fencing and other works and related activities for the Projects that is within the craft jurisdiction of one of the Unions and that is part of the Projects, including, without limitation, pipelines, site preparation, survey work, demolition of existing structures and all construction, demolition or improvements required to be performed as a condition of approval by any public agency. This scope of work includes all soils and materials testing and inspection where such testing and inspection is a classification in which a prevailing wage determination has been published.

2.3.2 The Projects include work necessary for the Projects and/or in temporary yards or areas adjacent to and dedicated to the Projects, and at any on-site batch plant(s) constructed solely to supply materials to the Projects, when those sites are dedicated exclusively to the Projects. This Agreement covers all on-site fabrication work over which the City, Contractor(s) or subcontractor(s) possess the right of control (including work done for the Projects in any temporary yard or area established for the Projects.)

2.3.3 The furnishing of supplies, equipment or materials which are stockpiled for later use shall in no case be considered subcontracting. Construction trucking work, such as the delivery of ready-mix, asphalt, aggregate, sand or other fill material which are directly incorporated into the construction process as well as the off-hauling of debris and excess fill material and/or mud, shall be covered by the terms and conditions of this Agreement, to the fullest extent provided by law and by prevailing wage determinations of the California Department of Industrial Relations. Employers, including brokers, of persons providing construction trucking work shall provide certified payroll records to the City within ten (10) calendar days of written request or as required by bid specifications.

2.4 Exclusions: The following shall be excluded from the scope of this Agreement:

2.4.1 This Agreement is not intended to, and shall not affect or govern the award of public works contracts by the City which are outside the identified scope of work of the Projects.

2.4.2 This Agreement is not intended to, and shall not affect the current or anticipated operation, maintenance, access or use of any of the City’s buildings or facilities, whether or not such facilities are identified in Section 1.7 above.

2.4.3 This Agreement shall not apply to a Contractor or subcontractor’s executives, managerial employees, engineering employees, design employees, supervisors (except those covered by existing building and construction trades collective bargaining agreements), office and clerical employees.

2.4.4 This Agreement shall not apply to any work performed on or near or leading to the site of work covered by this Agreement that is undertaken by state, county or other governmental bodies or their contractors; or by public or private utilities or their
contractors; or by the City or its contractors for work not part of the scope of the Projects. Parties performing work shall notify in writing, The Council and The District of any work being performed near or leading to the site work that is not covered by this agreement. Further, this Agreement shall not be construed to prohibit or restrict the City or its employees from performing work on or around the Project construction sites or from entering the sites for any purposes deemed necessary or appropriate by the City.

2.4.5 This Agreement shall not apply to the off-site maintenance of leased equipment or the on-site supervision of such work.

2.4.6 This Agreement shall not apply to any start-up, calibration, performance testing, repair, maintenance, operational revisions to systems and/or subsystems performed after Completion.

2.5 Termination, Suspension and/or Delay of Work: It is understood and agreed that the City, at its sole option, may change, terminate, delay and/or suspend any and all portions of the covered work at any time. Further, the City may prohibit some or all work on certain days or during certain hours of the day to comply with applicable codes, laws or regulations, permits or to accommodate the ongoing operations of the City's facilities and/or to mitigate the effect of the ongoing Projects' work on the businesses and residents in the neighborhood of the Project sites; and/or require such other operational or schedule changes that may be deemed necessary, in its sole judgment, to effectively maintain the primary purpose of the City's facilities and to remain a good neighbor to the residents and businesses in the area of any Projects. In order to permit the Contractors and Unions to make appropriate scheduling plans, the City will provide the affected Contractor and Union(s) with reasonable notice of any changes it requires pursuant to this Section.

2.6 Work covered by this Agreement within the following craft jurisdictions shall be performed under the terms of their National Agreements as follows: the NTL Articles of Agreement, the National Stack/Chimney Agreement, the National Cooling Tower Agreement, and the National Agreement of Elevator Constructors, and any instrument calibration work and loop checking shall be performed under the terms of the UA/IBEW Joint National Agreement for Instrument and Control Technicians, with the exception that Articles 4, 8, 12 and 13 of this Agreement shall apply to such work.

ARTICLE 3
EFFECT OF AGREEMENT/SUBCONTRACTORS

3.1 By executing this Agreement, the Unions and the City agree to be bound by each and every provision of this Agreement.

3.2 By accepting the award of a Construction Contract for the Projects, whether as contractor or subcontractor at any tier, the Contractor/Subcontractor agrees to be bound by each and every provision of this Agreement.
3.3 This Agreement shall only be binding on the signatory parties hereto and shall not apply to the parents, affiliates, subsidiaries, or other ventures of any other party.

3.4 It is understood that this Agreement, together with the referenced MLA, constitute an integrated, self-contained, stand-alone agreement, and that by virtue of having become bound to this Agreement, the Contractor will not be obligated to sign any other local, area, or national agreement as a condition of performing work within the scope of this Agreement. In addition, it is understood and agreed that all grievances and disputes involving the interpretation or application of this Agreement, including the MLA, shall be resolved according to the procedures set forth in Article 12 of this Agreement; provided, however, that should a dispute involve a single MLA and a Contractor signatory thereto, and not involve interpretation or application of this Agreement, then such dispute shall be processed and resolved pursuant to the grievance provisions of that MLA. Should there be a dispute in the first instance as to whether the provisions of Article 12 of this Agreement or the grievance procedures of a MLA apply, the dispute shall be presented initially to arbitrator Judge William Cahill or, if unavailable, arbitrator Earnest Brown, for resolution as to the applicable procedure. Such referral of a dispute as to the applicable procedures shall be done by an immediate conference call among the parties and the arbitrator, and heard and decided within three (3) calendar days. Should the arbitrator hold that Article 12 applies, the parties may, by mutual agreement, submit the issue to the same arbitrator pursuant to the provisions of Article 12, or, absent mutual agreement, commence processing the dispute at Step 1 of that Article.

3.5 Subcontractors. At the time that any Contractor enters into a subcontract with any subcontractor of any tier for the performance of construction or construction trucking work within the scope of this Agreement, the Contractor shall provide a copy of this Agreement, as it may from time to time be modified by the negotiating parties, to said subcontractor and shall require the subcontractor as a part of accepting an award of a construction subcontract to agree to be bound by each and every provision of the Agreement prior to the commencement of work.

3.5.1 Each Contractor and Subcontractor shall evidence their agreement to be bound to this Agreement by executing the Agreement To Be Bound form attached hereto as Appendix A. A copy of the Agreement To Be Bound executed by the Contractors and Subcontractors shall be submitted to the Union(s) prior to both the commencement of work and the Pre-Job Conference and will be a required submittal within the City’s bid packages. If the Contractor or Subcontractor refuses to execute the Agreement To Be Bound, then such Contractor or Subcontractor shall not be awarded a Construction Contract to perform work on the Projects. A Contractor or Subcontractor who executes the Agreement To Be Bound shall be considered a signatory party to this Agreement.

3.6 It is understood that the liability of each Contractor and Subcontractor and the liability of each Union under this Agreement shall be several and not joint. The Unions agree that this Agreement does not have the effect of creating any joint employment status between or among the City and/or any Contractor or Subcontractor.

3.7 With regard to any Contractor or subcontractor that is independently signed to any MLA, this Agreement shall in no way supersede or prevent the enforcement of any
subcontracting clause contained in such MLA, except as specifically set forth in section 3.7.1 of this Agreement. Any such subcontracting clause in a MLA shall remain and be fully enforceable between each craft union and its signatory employers and no provision of this Agreement shall be interpreted and/or applied in any manner that would give this Agreement precedence over subcontracting obligations and restrictions that exist between craft Unions and their respective signatory employers under a MLA, except as specifically set forth in section 3.7.1 in this Agreement. To the extent that the provisions of this Agreement are inconsistent with any other provisions contained in a MLA, the provisions of this Agreement shall prevail.

3.7.1 If a craft Union ("Aggrieved Union") believes that an assignment of work on this Project has been made improperly by a Contractor or subcontractor, even if that assignment was as a result of another craft Union’s successful enforcement of the subcontracting clause in its MLA, as permitted by section 3.7 of this Agreement, the Aggrieved Union may submit a claim under the jurisdictional dispute resolution procedure contained in Article 13 of this Agreement and the decision rendered as part of that process shall be enforceable to require the Contractor or subcontractor that made the work assignment to assign that work prospectively to the Aggrieved Union. An award made to a craft Union under the subcontracting clause of its MLA, as permitted under section 3.7 of this Agreement, shall be valid and fully enforceable by that craft Union unless it conflicts with a jurisdictional award made pursuant to Article 12 of this Agreement. If the award made under MLA conflicts with the jurisdictional award, the award of any damages under the former shall be null and void ab initio.

ARTICLE 4
WORK STOPPAGES, STRIKES, SYMPATHY STRIKES, JURISDICTIONAL DISPUTES AND LOCKOUTS

4.1 The Unions, City and Contractor agree that for the duration of the Projects:

4.1.1 There shall be no strikes, sympathy strikes, work stoppages, picketing, hand-billing or otherwise advising the public that a labor dispute exists, or slowdowns of any kind, for any reason, by the Unions or construction persons employed on the Projects, at a job site of the Projects or at any other facility of the City because of a dispute on the Projects. Nor shall the Unions or construction persons employed on the Projects participate in any strikes, sympathy strikes, work stoppages, picketing, hand-billing, slowdowns, or otherwise advising the public that a labor dispute exists at a Project jobsite because of a dispute between Unions and Contractor(s) on any other project.

4.1.2 As to construction persons employed on the Projects, there shall be no lockout of any kind by a Contractor covered by this Agreement. It shall not be a violation of this Article if a Contractor or Subcontractor (1) suspends or terminates a portion of the Project work or (2) discharges an employee for just cause.

4.1.3 If a MLA between a Contractor and the Union expires before the Contractor completes the performance of a Construction Contract and the Union or Contractor gives notice of demand for a new or modified MLA, the Union agrees that it will not strike, picket,
hand-bill, slowdown or engage in any other disruptive activity against the Contractor and the Contractor will not lockout construction persons of the Union on said Construction Contract for work covered under this Agreement. The Union and the Contractor agree that the expired MLA shall continue in full force and effect for work covered under this Agreement until a new or modified MLA is reached between the Union and Contractor. If the new or modified MLA reached between the Union and Contractor provides that any terms of the new MLA shall be retroactive, the Contractor agrees to comply with any retroactive terms of the new or modified MLA which are applicable to construction persons employed on the Projects within seven (7) calendar days.

4.2 A party to this Agreement shall institute the following procedure, prior to invoking any other action at law or equity when a breach of this Article 4 is alleged to have occurred:

4.2.1 A party invoking this procedure shall notify, by the most expeditious means available, with notice by facsimile, electronic mail or telephone to the City, to the party alleged to be in violation, to the Council and to the involved local Union if a Union is alleged to be in violation.

4.2.2 Upon receipt of said notice, the City will contact the designated permanent arbitrator, Judge William Cahill, or if unavailable, his alternate, Ernest Brown, who shall attempt to convene a hearing within twenty-four (24) hours if it is contended that the violation still exists.

4.2.3 The Arbitrator shall notify the parties by facsimile, electronic mail or telephone of the place and time for the hearing. Said hearing shall be completed in one session, which, with appropriate recesses at the arbitrator’s discretion, shall not exceed twenty-four (24) hours unless otherwise agreed upon by all parties. A failure of any party to attend said hearings shall not delay the hearing of evidence or the issuance of any award by the arbitrator.

4.2.4 The sole issue at the hearing shall be whether or not a violation of Article 4, Section 4.1 of this Agreement has occurred. The arbitrator shall have no authority to consider any matter of justification, explanation or mitigation of such violation or to award damages, which issue is reserved for court proceedings, if any. The award shall be issued in writing within three (3) hours after the close of the hearing, and may be issued without a written opinion. If any party desires a written opinion, one shall be issued within fifteen (15) calendar days, but its issuance shall not delay compliance with or enforcement of the award. The arbitrator may order cessation of the violation of this Article 4 and other appropriate relief and such award shall be served on all parties by hand or registered mail upon issuance.

4.2.5 Such award may be enforced by any Court of competent jurisdiction upon the filing of this Agreement and all other relevant documents referred to above in the following manner. Written notice of the filing of such enforcement proceedings shall be given to the other party. In the proceeding to obtain a temporary order enforcing the arbitrator’s award
as issued under Section 4.2.4 of this Article 4, all parties waive the right to a hearing and agree that such proceedings may be ex parte. Such agreement does not waive any party’s right to participate in a hearing for a final order or enforcement. The Court’s order or orders enforcing the arbitrator’s award shall be served on all parties by hand or delivered by certified mail.

4.2.6 Any rights created by statute or law governing arbitration proceedings inconsistent with the above procedure or which interfere with compliance are waived by the parties.

4.2.7 The fees and expenses of the arbitrator shall be divided equally between the party instituting the arbitration proceedings provided in this Article and the party alleged to be in breach of its obligations under this article.

4.3 Liquidated Damages. If the arbitrator determines that a violation of Section 4.1 has occurred, the breaching party shall, within eight (8) hours of the issuance of the decision take all steps necessary to immediately cease such activities and return to work. If the breaching party involved does not cease such activities by the beginning of the next regularly scheduled shift following the expiration of the eight (8) hour period after the arbitrator’s issuance of the decision, then the breaching party shall pay the sum of ten thousand dollars ($10,000) as liquidated damages to the City per shift until the breach is remedied. The arbitrator shall retain jurisdiction for the sole purpose of determining compliance with this obligation and determining the amount of liquidated damages, if any; but such retention shall not prevent the moving party from seeking judicial enforcement of the initial decision.

ARTICLE 5
PRE-JOB CONFERENCE

5.1 A mandatory pre-job conference shall be held prior to the commencement of each Construction Contract. Such conference shall be attended by a representative from the participating Contractor(s), Union(s) and the Project Manager. All efforts will be made to hold the pre-job conference in sufficient time to ensure all parties have the ability to properly raise and resolve any issue that may arise out of such meeting, with a goal that such conferences will be held at least 21 work days before the work commences.

ARTICLE 6
NO DISCRIMINATION

6.1 The Contractors and Unions agree not to engage in any form of discrimination based on race, color, creed, national origin, ancestry, age, religious or political affiliation, gender, sexual orientation or disability against any person, or applicant for employment on the Projects.

ARTICLE 7
UNION SECURITY
7.1 The Contractors recognize the Union(s) as the sole bargaining representative of all construction persons working within the scope of this Agreement.

7.2 All construction persons who are employed by the Contractor(s) shall, as a condition of employment, on or before the eighth (8th) day of consecutive or cumulative employment on the Projects, be responsible for the payment of the applicable monthly working dues and any associated fees uniformly required for union membership in the applicable local union which is signatory to this Agreement. Further, there is nothing in this Agreement that would prevent non-union construction persons from joining the local union.

ARTICLE 8
REFERRAL AND LOCAL HIRE PROGRAM

8.1 Referral

8.1.1 Contractor(s) performing construction work on the Projects described in the Agreement shall, in filling craft job requirements, utilize and be bound by the registration facilities and referral systems established or authorized by the Unions signatory hereto ("Job Referral System"). Such Job Referral System will be operated in a non-discriminatory manner and in full compliance with all federal, state, and local laws and regulations, including those which require equal employment opportunities and nondiscrimination.

8.1.2 The Contractor(s) shall have the right to reject any applicant referred by the Union(s), in accordance with the applicable Master Agreement.

8.1.3 The Contractor(s) shall have the unqualified right to select and hire directly all supervisors above general foreman it considers necessary and desirable, without such persons being referred by the Unions(s).

8.1.4 In the event that referral facilities maintained by the Union(s) are unable to fill the requisition of a Contractor(s) for employees within a seventy-two (72) hour period after such requisition is made by the Contractor(s), the Contractor(s) shall be free to obtain employees from any source. Contractor(s) shall promptly notify the Union(s) of any applicants hired from other sources. This provision does NOT affect core employees as defined below.

8.1.5 Unions shall exert their utmost efforts to recruit sufficient numbers of skilled craft persons to fulfill the requirements of the Contractor(s).

8.1.6 Core Employees:

All parties agree to make a good faith effort to refer on a priority basis, consistent with the non-discriminatory referral procedures of the hall, qualified and available, and bona-fide Berkeley Residents for Project work.
8.1.7 The parties also recognize and support the City’s commitment to provide opportunities for participation on the Projects to Berkeley Residents who are regular, experienced employees (“Core” employees) of contractors and subcontractors awarded work on the Projects and who do not traditionally work under a local collective bargaining agreement(s). In furtherance of this commitment, the parties agree that such contractors and subcontractors awarded work on the Projects may request by name, and the local will honor, referral of persons who have applied to the local union for Project work and who demonstrate the following qualifications:

(1) Possess any license required by state or federal law for the Project work to be performed;

(2) Have worked a total of at least one thousand (1,000) hours in the construction craft during the prior three (3) years;

(3) Were on the Contractor’s active payroll for at least sixty (60) out of the one hundred and eighty (180) calendar days prior to the contract award;

(4) Have the ability to perform safely the basic functions of the applicable trade, and

(5) Are Berkeley residents.

The Union will refer to such Contractor one journeyman employee from the hiring hall out-of-work list for the affected trade or craft, and will then refer one of such Contractor’s “core” employees as a journeyman and shall repeat the process, one and one, until such Contractor’s crew requirements are met or until such Contractor has hired five (5) “core” employees, whichever occurs first. Thereafter, all additional employees in the affected trade or craft shall be hired exclusively from the hiring hall out-of-work list(s). For the duration of the Contractor’s work the ratio shall be maintained and when the Contractor’s workforce is reduced, employees shall be reduced in the same ratio of core employees to hiring hall referrals as was applied in the initial hiring.

8.1.8 The Contractor shall notify the appropriate Union of the name and social security number of each direct hire and each direct hire shall register with the Union’s hiring hall before commencing Project work. If there is any question regarding an employee’s eligibility under this Subsection 8.2.1, the City Representative, at a Union’s request, shall obtain satisfactory proof of such from the Contractor.

8.2 Local Hire

8.2.1 To the extent allowed by law and consistent with the non-discriminatory referral procedures of the Union hiring halls, the Parties agree to a goal that Berkeley Residents will perform a minimum of 20% of the hours worked, on a craft by craft basis for the Projects. The Contractor(s) shall make good faith efforts to reach this goal through the utilization of the Unions’ hiring hall procedures. The Unions shall exercise their best efforts in their recruiting and training of Berkeley Resident workers and in their hiring hall procedures to facilitate this 20% goal on the Projects. In the event that referral facilities
maintained by the Union(s) are unable to fulfill the 20% local hire requirement, paragraph 8.2.2 of this Article shall not apply. Contractors shall document all efforts to hire locally and provide such documents to the City of Berkeley. The Council will provide an annual census of Berkeley residents, in each of the crafts party to this agreement, to the City of Berkeley. This report will be provided by August 1 of each year of this agreement.

8.2.2 Should any of the contractors performing work on the Projects fail to meet this 20% goal and fail to demonstrate efforts to do so, through a specific submittal process to be included in their contractual requirements and enforced by the grievance procedure, the contract's 10% retention will be held until such time that this failure is remedied, but not longer than sixty (60) calendar days after the date of substantial completion of the Projects or as required by law, in addition to the breach of contract remedies available to the parties for non-performance under this Agreement.

8.2.3 Apprenticeship & Workforce Development

A) Consistent with the requirements of California Labor Code §§ 1776, 1777.5 and 1777.6, Contractor(s) will be required to hire 1 New Apprentice Berkeley resident for every $500,000 dollars as determined by the engineer’s estimate. The New Apprentice(s) must work a minimum of 10% of the total craft’s work hours. The contractor may deploy the apprentice to work on another concurrent project in order to meet the minimum hours, and those hours will be counted towards the total hours of the craft on the Berkeley project. Certified Payroll must reflect the hours worked.

Contractor must fully document efforts to hire a New Apprentice, through the following steps: 1) requesting New Apprentices through the Union dispatch procedure, 2) contacting a minimum of three MC3-approved pre-apprenticeship training programs for referral of Berkeley residents. Unions shall provide written documentation to the contractor in response to dispatch requests to fulfill the New Apprentice requirement.

B) There can be no more than one (1) entry-level New Apprentice for each craft, provided said crafts have apprenticeship openings and the general contractor will be able to include New Apprentices hired by their subcontractor to meet this requirement. Unions will agree to cooperate with Contractor(s) in furnishing apprentices as requested and the hiring of the apprentices will be in accordance to the Apprenticeship provisions listed in the Master Agreements and or the union agreements with the division of apprenticeship standards, and the apprentices shall be properly supervised and paid in accordance with provisions contained within the MLA’s. The Unions and Contractors will agree to cooperate with local pre-apprenticeship programs to ensure Berkeley residents have the opportunity to apply for and enter the into the apprenticeship programs.

C) The intent of this provision is to utilize Berkeley Resident New Apprentices to the fullest extent permissible by state law and the MLA. Failure of Contractor(s) and their subcontractors to maintain qualified apprentices on the job will be subject to further penalties as determined by the Grievance Committee as identified in Article 12.

8.11 Enforcement, Compliance & Reporting.
Contractors will be required to submit Certified Weekly Payrolls to the City along with monthly workforce utilization reports documenting the Contractor’s compliance with the requirements described in this article. At a minimum the monthly reports must include 1) data on Berkeley Resident’s work hour utilization on a craft by craft basis, 2) number of New Apprentices hired and the hours they have worked, 3) documentation showing any requests made to the union dispatchers for Berkeley Residents and the Union’s response to the request. Enforcement of this article shall be according to the Grievance and Arbitration procedure outlined in Article 12.

ARTICLE 9
HELMTETS TO HARDHATS

9.1 The parties recognize a desire to facilitate the entry into the Building and Construction Trade Union(s) of Veterans who are interested in careers in the building and construction industry. The parties agree to utilize the services of the Center for Military Recruitment, Assessment and Veteran’s Employment (“Center”) and the Center’s “Helmets to Hardhats” program to serve as a resource for preliminary orientation, assessment of construction aptitude, referral to apprenticeship programs or hiring halls, counseling and mentoring, support network, employment opportunities and other needs as identified by the parties.

9.2 The Union(s) and Contractor(s) agree to coordinate with the Center to participate in an integrated database of Veterans interested in working on this Project and of apprenticeship and employment opportunities for this Project. To the extent permitted by law, the Union(s) will give credit to such Veterans for bona fide, provable past experience.

ARTICLE 10
GRIEVANCE PROCEDURE

10.1 Any Contractor which is not otherwise bound through an agreement with a Union to a grievance procedure which confers jurisdiction to consider and resolve disputes over the imposition of discipline or dismissal of its construction persons working on this Project shall be bound to the arbitration procedure contained in the MLA of the craft representing the employee(s) involved in the dispute. For the purposes of this Article, such grievance procedure shall be limited to disputes regarding the imposition of discipline or dismissal arising from work covered by the Agreement. Such Contractor shall not impose discipline or dismissal on its construction persons covered by this Agreement without just cause.

ARTICLE 11
JOINT ADMINISTRATIVE COMMITTEE

11.1 The parties to this Agreement shall establish a Joint Administrative Committee comprised of at least one (1) and up to two (2) representatives representing the City; two (2) representatives of the signatory Unions and The Council, and one (1) industry representative, mutually selected by the City and The Council. Each representative shall
designate an alternate who shall serve in his or her absence for any purpose contemplated by this Agreement.

11.2 The Joint Administrative Committee shall meet at the request of either party, but not less than once each quarter, to review the implementation of the Agreement and the progress of the Projects including, but not limited to, compliance with Article 8, prevailing wage, safety, Workforce development and Industry trends. Requests for certified payroll made by a Joint Labor/Management Committee to which the Union(s) signatory to this Agreement are a party shall be provided as allowed by law.

ARTICLE 12
GRIEVANCE ARBITRATION PROCEDURE

12.1 The parties understand and agree that in the event any dispute arises out of the meaning, interpretation or application of the provisions of this Agreement, the same shall be settled by means of the procedures set out herein. No grievance shall be recognized unless the grieving party provides notice in writing to the signatory party with whom it has a dispute within seven (7) calendar days after becoming aware of the dispute, but in no event more than thirty (30) calendar days after it reasonably should have become aware of the event giving to the dispute. The time limits in this Article 12 may be extended by mutual written agreement of the parties.

12.2 Grievances shall be settled according to the following procedures:

Step 1: Within seven (7) calendar days after the receipt of the written notice of grievance, the Business Representative of the involved Local Union, the City’s authorized representative, representative of the construction person, and the representative of the involved Contractor shall confer and attempt to resolve the grievance.

Step 2: In the event that the representatives are unable to resolve the dispute within seven (7) calendar days after its referral to Step 1, either involved party may submit it within three (3) calendar days to Grievance Committee. The Grievance Committee shall consist of one (1) person selected by the City and one (1) person selected by the Council, which shall meet within seven (7) calendar days after such referral (or such longer time as mutually agreed upon by all representatives of the subcommittee), to confer in an attempt to resolve the grievance. The decision of the Grievance Committee shall be legal, final and binding. If the dispute is not resolved within seven (7) calendar days after its referral or such longer time as mutually agreed upon) it may be referred within seven (7) calendar days by either party to Step 3.

Step 3: Within seven (7) calendar days after referral of a dispute to Step 3, the representatives shall submit the matter to the designated permanent Arbitrator, Judge William Cahill.

12.3 In the event that Judge Cahill is unavailable, the arbitrator shall be Earnest Brown.
12.4 The Arbitrator shall arrange for a hearing no later than fourteen (14) calendar days after the matter has been submitted to arbitration. A decision shall be given to the parties within five (5) calendar days after completion of the hearing unless such time is extended by mutual agreement. A written opinion from the Arbitrator may be requested by any party. The time limits specified in any step of the Grievance Procedure set forth in Section 12.1 may be extended by mutual agreement of the parties initiated by the written request of one party to the other, at the appropriate step of the Grievance Procedure. However, failure to process a grievance, or failure to respond in writing within the time limits provided above, without the request for an extension of time, shall be deemed a waiver of such grievance without prejudice, or without precedent to the processing of and/or resolution of like or similar grievances or disputes.

12.5 The decision of the Arbitrator shall be binding by all parties. The Arbitrator shall not have authority to change, amend, add, or detract from any of the provisions of the Agreement. The expense of the Arbitrator shall be borne equally by both parties.

12.6 In order to encourage the resolution of disputes and grievances at Step 1 and 2 of this Grievance Procedure, the parties agree that such settlements shall not be precedent-setting.

ARTICLE 13
JURISDICTIONAL DISPUTES

13.1 The assignment of Covered Work will be solely the responsibility of the Contractor/Employer(s) performing the work involved, and such work assignments will be in accordance with the Plan for the Settlement of Jurisdictional Disputes in the Construction Industry (the “Plan”) or any successor Plan.

13.2 All jurisdictional disputes on this Project between or among the Union(s) and the Contractor/Employer(s), parties to this Agreement, shall be settled and adjusted according to the present Plan established by the Building and Construction Trades Department, or any other plan or method of procedure that may be adopted in the future by the Building and Construction Trades Department. Decisions rendered shall be final, binding and conclusive on the Contractor/Employer(s) and Union(s) parties to this Agreement.

13.2.1 If a dispute arising under this Article involves the Northern California Carpenters Regional Council or any of its subordinate bodies, an Arbitrator shall be chosen by the procedures specified in Article V, Section 5, of the Plan from a list composed of John Kagel, Thomas Angelo, Robert Hirsch and Thomas Pagan and the Arbitrator’s hearing on the dispute shall be held at the offices of the California State Building and Construction Trades Council in Sacramento, California, within fourteen (14) calendar days of the selection of the Arbitrator. All other procedures shall be as specified in the Plan.

13.3 All jurisdictional disputes shall be resolved without the occurrence of any strike, work stoppage, or slow-down of any nature, and the Contractor/Employer(s)’ assignment
shall be adhered to until the dispute is resolved. Individuals violating this Section shall be subject to immediate discharge.

13.4 Each Contractor/Employer(s) shall conduct a Pre-Job Conference with the Council prior to commencing Covered Work. The Primary Employer, Coordinator and the District will be advised in advance of all such conferences and may participate if they wish. Pre-job conferences for different Contractor(s) may be held together.

ARTICLE 14
APPRENTICES

14.1 Recognizing the need to maintain continuing support of programs designed to develop adequate numbers of competent workers in the construction industry, the Contractor (s) shall employ apprentices in the respective crafts to perform such work as is within their capabilities and which is customarily performed by the craft in which they are indentured.

14.2 The apprentice ratios will be in compliance with the applicable provisions of the California Labor Code and Prevailing Wage Rate Determination.

14.3 There shall be no restrictions on the utilization of apprentices in performing the work of their craft provided they are properly supervised.

14.4 All Apprentices will come from a State approved Labor Management Apprenticeship program.

ARTICLE 15
MANAGEMENT RIGHTS

15.1 The Contractor shall retain full and exclusive authority for the management of their operations, including the right to direct their work force in their sole discretion with regard to the following: the hiring, promotion, transfer, layoff, corrective action or discharge for just cause of its employees (in accordance with Article 9); the determination of the number of employees needed for the Project work; the selection/hiring of foremen and supervisors; the assignment and schedule of work; the requirement of overtime work, the determination of when it will be worked, and the number of employees engaged in such work, except as otherwise limited by the terms of this Agreement and/or the MLA. No rules, customs or practices shall be permitted or observed which limit or restrict production, or limit or restrict the working efforts of construction persons except that the lawful manning provisions of the MLA shall be recognized.

ARTICLE 16
WAGES/BENEFITS

16.1 Wages. All construction persons covered by this Agreement shall be classified in accordance with work performed and paid the hourly wage rates for those classifications
in the applicable MLA for such craft work and in compliance with the applicable prevailing wage rate determination.

16.2 **Benefits.** Contractor agrees to pay contributions into established construction person benefit funds in the amounts designated in the appropriate MLA; provided, however, that each Contractor and Union agree that only such bona fide construction person benefits as included in the prevailing wage determination shall be included in this requirement and required to be paid by the Contractor under this Agreement; provided further, however, that this provision does not relieve Contractors signatory to a local collective bargaining agreement with a signatory Union which would be applicable to the Projects from making any other fund contributions (including, but not limited to, those for contract administration), required by such local agreement. Contractor shall not be required to pay contributions to any other trust funds to satisfy their obligation under this Article. By signing this Agreement, the Contractors adopt and agree to be bound by the written terms of the legally established Trust Agreements, specifying the detailed basis on which the payments are to be made into, and the benefits paid out of, such Trust Funds.

16.3 **Compliance.** It shall be the responsibility of the Contractor(s) and Unions to investigate and monitor compliance with the provisions of the agreement contained in Article 15. Nothing in this agreement shall be construed to interfere with or supersede the usual and customary legal remedies available to the Unions and/or employee benefit Trust Funds to collect delinquent Trust Fund contributions from Contractors on the Project.

**ARTICLE 17**
**MODIFIED MASTER LABOR AGREEMENTS**

17.1 **Certain Provisions Shall Not Apply.** Provisions negotiated into the new or modified MLA which are less favorable to the Contractor than those uniformly required of employers for construction work normally covered by those agreements or which may be construed to apply exclusively or predominately to work covered by this Agreement shall not apply to work covered by this Agreement. Any disagreement between the parties regarding the application of the provisions of any new or modified collective bargaining agreement to work covered by this Agreement shall be resolved under the dispute and grievance arbitration procedures set forth in Article 12 hereof.

**ARTICLE 18**
**DRUG and ALCOHOL TESTING**

18.1 The use, sale, transfer, purchase and/or possession of a controlled substance, alcohol and/or firearms at any time during the work day is prohibited.

18.2 Employer shall be allowed to utilize employment drug screens. All personnel are subject to random alcohol and drug/alcohol testing at any time, except, the following changes will apply. Employer shall follow said Unions Master Labor Agreement drug polices, regulations and limits. Body fluid tests will utilize urine and saliva specimens. An
Employer may also selectively require an employee to undergo alcohol or drug/alcohol testing if the Employer has reasonable cause to believe that an employee’s ability to work safely may be impaired. All requirements and activities of the Employer with regard to drug/alcohol testing shall comply with the provisions of State law.

**ARTICLE 19**

**SAVINGS CLAUSE**

19.1 The parties agree that in the event any article, provision, clause, sentence or word of this Agreement is determined to be illegal or void as being in contravention of any applicable law, by a court of competent jurisdiction the remainder of the Agreement shall remain in full force and effect. The parties further agree that if any article, provision, clause, sentence or word of the Agreement is determined to be illegal or void, by the court of competent jurisdiction, the parties shall substitute, by mutual agreement, in its place and stead, an article, provision, clause, sentence or word which will meet the objections to its validity and which will be in accordance with the intent and purpose of the article, provision, clause, sentence or word in question.

19.2 The parties also agree that in the event that a decision of a court of competent jurisdiction materially alters the terms of this Agreement such that the intent of the parties is defeated, then the entire Agreement shall be null and void.

**ARTICLE 20**

**ENTIRE AGREEMENT**

20.1 This Agreement represents the complete understanding of the parties. The provisions of this Agreement, including the MLA, shall apply to the work covered by this Agreement. Where a subject covered by the provisions of this Agreement is also covered by a MLA, the provisions of this Agreement shall prevail. Where a subject is covered by the provisions of a MLA and is not covered by this Agreement, the provisions of the MLA shall prevail. Nothing contained in a MLA, working rule, by-laws, constitution or other similar document of the Unions shall in any way affect, modify or add to this Agreement unless otherwise specifically set forth in this Agreement or mutually agreed to in writing executed by the parties.

20.2 The parties agree that this Agreement covers all matters affecting wages, hours, and other terms and conditions of employment and that during the term of this Agreement the parties will not be required to negotiate on any further matters affecting these or any other subject not specifically set forth in this Agreement except by mutual agreement of the parties.

20.3 This Agreement may be executed in counterparts, such that original signatures may appear on separate pages and when bound together all necessary signatures shall constitute an original. Facsimile signature pages transmitted to other parties to this Agreement shall be deemed the equivalent to original signatures.
ARTICLE 21
TERM

21.1 The Agreement shall be included as a condition of the award of the Construction Contracts.

21.2 The Agreement shall continue in full force and effect for a term of three years from the Effective Date and shall be applicable to all Projects until completion that are advertised for bidding during the term.

21.3 This Agreement shall continue in full force and effect until Completion of the Project. The parties may mutually agree to extend and/or amend this Agreement.
SIGNATURES

City of Berkeley
By: ______________________________ Title: ______________________________
Date: __________________________

Alameda County Building & Construction Trades Council, AFL-CIO
By: ______________________________ Date: __________________________

Signatory Unions
Asbestos Workers, Local 16 Boilermakers, Local 549
By: ______________________________ By: ______________________________

Bricklayers & Allied Craftsmen, Local 3 Cement Masons, Local 300
By: ______________________________ By: ______________________________

Electrical Workers, Local 595 Elevator Constructors, Local 8
By: ______________________________ By: ______________________________

Hod Carriers, Local 166 Iron Workers, Local 378
By: ______________________________ By: ______________________________

Laborers, Local 67 Laborers, Local 304
By: ______________________________ By: ______________________________

Operating Engineers, Local 3 Plasterers, Local 66
By: ______________________________ By: ______________________________

Roofers, Local 81 Sheet Metal Workers, Local 104
By: ______________________________ By: ______________________________

Sign Display, Local 510 Sprinkler Fitters, Local 483
By: ______________________________ By: ______________________________
Teamsters, Local 853 United Association of Journeymen and Apprentices Fitting Industry, Underground Utility & Landscape, Local 355

By: _________________________ By: _________________________

United Association of Steamfitters, Ironworkers City and the RDA Council of Pipefitters, Plumbers, & Gas California Fitters, Local 342
By: _________________________ By: _________________________

Council No. 16 Northern California

International Union of Laborers Painters & Allied Trades (On behalf of Painters, Local 3; Carpet & Linoleum Layers, Local 12; Glass Workers, Local 169; Auto Marine Painters, Local 1176)
By: _________________________ By: _________________________

Northern California Carpenters Regional Council (on behalf of Carpenters, Local 713; Carpenters, Local 2236; Lathers, Local 68L; Millwrights, Local 102; Pile Drivers, Local 34)
By: _________________________
AGREEMENT TO BE BOUND

The undersigned, as a Contractor or Subcontractor ("Contractor") on a City Project ("Project"), for and in consideration of the award to it of a contract to perform work on said Project, and in further consideration of the mutual promises made in the Project’s Community Workforce Agreement ("Agreement"), a copy of which was received and is acknowledged, hereby:

1. Accepts and agrees to be bound by the terms and conditions of the Agreement, together with any and all amendments and supplements now existing or which are later made to said Agreement.

2. Certifies that it has no commitments or agreements which would preclude its full and complete compliance with the terms and conditions of said Agreement;

3. Agrees to secure from any Contractor (as defined in said Agreement) which is or becomes a subcontractor (of any tier) to it, and from any successors, a duly executed Agreement to be bound in form identical to this document.

4. Contractor agrees that it shall be bound by all applicable trust agreements and plans for the provision of such fringe benefits as accrue to the direct benefit of the construction persons, including Health and Welfare, Pension, Training, Vacation, and/or other direct benefits provided pursuant to the appropriate craft agreement contained in Schedule "A" of Agreement.

Date: _______________

Company Name: ____________________________________________

Name of Prime Contractor or Higher Level Subcontractor: ______________________________________________________

Name of Project: _______________________

Signature: _____________________________

Print Name: _____________________________

Title: _________________________________

Contractor’s License #:  __________________________

Motor Carrier Permit (CA) #:  __________________________