

TUNNEL LOAD RATING OUTREACH
STRUCTURE MAINTENANCE AND INVESTIGATION
DIVISION OF MAINTENANCE

DISCLAIMERS

The information provided in this event does not constitute a solicitation or offer of any contract with Caltrans.

For this outreach, the scope of work, duties, contract amount, schedule, and all aspects of the contract are not final. Information provided is preliminary and subject to change.

DISABLE VETERAN BUSINESS ENTERPRISE

Disable Veteran Business Enterprise participation goal is 5 percent.

To find a Disabled Veteran Business Enterprise firm please go to Cal e Procure website at <https://caleprocure.ca.gov/pages/public-search.aspx>

For more information on DVBE certification please visit Civil Right Program at <https://dot.ca.gov/programs/civil-rights>

TUNNEL LOAD RATING SERVICES ARCHITECTURAL AND ENGINEERING SERVICE CONTRACT

GENERAL INFORMATION

Location Statewide in California

Scope The Consultant shall perform tunnel load rating services on approximately 48 tunnels varying in structure type and loading conditions.

Cost Contract estimated value is 5 million.

Duration Contract term is 3 years to write Task Order and finish the works.

SCOPE OF SERVICES

Caltrans to provide as-built, contract plans and inspection reports.

Contractor reviews all records and submits a preliminary load rating Report. BLRM Article 2.5.2 Consultant Load Rating Process details the requirement.

Contractor provides complete electronic tunnel models and load rating summary reports stamped and signed by a California Professional Engineer, Civil or Structure.

Tunnel field inspection and geotechnical field work is not provided for the contract. However, research to established surcharge loads from building near tunnel may be required.

SPECIFICATIONS

Structure Maintenance and Investigation Bridge Load Rating Manual Second Edition.

American Association of State Highway and Transportation Officials Manual for Bridge Evaluation Third Edition.

American Association of State Highway and Transportation Officials Load and Resistance Factor Bridge Design Specifications Ninth Edition.

California Amendments to American Association of State Highway Officials Load Resistance Factor Design Bridge Design Specifications Eight Edition.

Reference Guide for Load Rating of Tunnel Structures, Federation Highway Administration 2019, and Example 2020.

American Association of State Highway and Transportation Officials Load and Resistance Factor Bridge Design Road Tunnel Design and Construction Guide Specification, First Edition 2017.

Technical Manual for Design and Construction of Road Tunnels, Civil Elements, Federal Highway Administration 2009.

Tunnel Operations, Maintenance, Inspection, and Evaluation Manual, Federal Highway Administration 2015.

SOFTWARE REQUIREMENTS

AASHTOWare BrR is the Caltrans preferred option whenever applicable.

CSiBridge will be required for many of the tunnels rated.

Additional software may be required in conjunction with BrR and CSiBridge due to software limitations or to improve efficiency.

It is anticipated that advanced soil structure interaction analysis will be required for some structures utilizing specialty geotechnical software such as ABACUS, ADONIS, FLAC, PLAXIX.

Alternative software requests must be submitted and approved by Caltrans in advance of the work.

MS Office programs shall be used to develop documents, spreadsheets, and presentations.

Adobe Acrobat DC shall be used for files saved in pdf format.

EXAMPLE TUNNELS

Precast Cast in Place Concrete tube

Cast in Place Arch

Cast in Place Concrete Frame

Corrugated Steel

Multi Cell Cast in Place Concrete Frame Box

Cast in Place Concrete Roof Girders on Vertical Walls

Concrete Encased Steel Frame

SOME OF THE BIG NAMES

CALDECOTT TUNNEL

WEBSTER STREET POSEY TUBRE

YERBA BUENA CROSSING

STOCKTON STREET TUNNEL

INTERNATIONAL AIRPORT TUNNEL

SOME OF THE SMALLER ONES

DORNAN DRIVE TUNNEL

11 TH STREET TUNNEL

MARLE HAGGARD DRIVE TUNNEL

CESAR CHAVEZ AVENUE TUNNEL

CITY HALL EAST TUNNEL

TYPICAL PERSONNEL CLASSIFICATIONS

Consultant Contract Manager

California Registered Civil or Structural Engineer

Minimum five years of responsible experience as a Contract Manager in tunnel or bridge load rating, design, construction, or inspection contracts.

Minimum ten years of demonstrated experience in tunnel or bridge load rating, design, inspection, construction, or inspection.

Consultant Task Order Manager

California Registered Civil or Structural Engineer

Minimum five years of demonstrated experience in tunnel or bridge load rating, design, inspection, construction, or inspection.

Consultant Project Engineer

California Registered Civil or Structural Engineer

Minimum five years of demonstrated experience in tunnel or bridge load rating, design, inspection, construction, or inspection.

Analysis software and technical expert.

Consultant Geotechnical Engineer

Registered Geotechnical Engineer in any State

Minimum five years of demonstrated experience in Geotechnical Engineering

Tunnel and bridge experience preferred

Consultant Personnel and Team Member Qualifications

Load Rating Engineer and Load Rating Checker Registered Civil or Structural in any State, minimum of three years of experience in tunnel or bridge rating or design.

Tunnel or bridge construction inspection experts minimum three years in tunnel or bridge.

Engineering Technicians and Support Roles minimum three years in Civil Engineering, Engineering in Training Certificate, one year related work experience.

TENTATIVE SCHEDULE

Advertisement March 14, 2023

Statement of Qualification due April 18, 2023

Interview May 9, 2023

Cost Negotiation July 4, 2023

Award and Execution

