

SECTION 01 35 45 (REV. 1)

HEALTH AND SAFETY CRITERIA

PART 1 - GENERAL

1.1 SUMMARY

- A. The Contractor shall be solely and fully responsible for compliance with regulatory requirements applicable to the health and safety of persons during the performance of the Work. In any action arising from a Site or Work safety claim, violation of law, or other action, Contractor shall fully assume the defense of, indemnify and hold harmless the City and its representatives, as provided in the General Conditions of this Contract.
- B. **The Contractor shall not start site work without the acceptance by the City Representative of its Health and Safety Plan (HASP).**
- C. Contractor shall bear all costs of implementing, maintaining, and enforcing safe Work and Site safety programs and plan, and all costs associated with compliance with federal, State, and local safety requirements, including but not limited to the impacts of meeting Site and Work safety requirements on the efficient production of the Work. All costs arising from Site and Work safety are Incidental Costs that are included Contractor's Bid (Contract Amount).
- D. Contractor's Responsibility: The Contractor and not the City, shall be solely and fully responsible for:
 - 1. Complying with the terms of this Section.
 - 2. Developing, submitting, implementing, maintaining, and enforcing a site-specific Health and Safety Plan (HASP).
 - 3. Posting all OSHA-required notices and establishing a safety program for the Work.
 - 4. Complying with all applicable Cal/OSHA training, safety device, reporting, Work performance requirements.
 - 5. Determining and complying with all applicable health and safety requirements, in accordance with applicable laws, rules, and regulations.
 - 6. The defense of, indemnity of and holding harmless the City and its representatives.
 - 7. Determination and implementation of construction means, methods, techniques, sequences, and procedures (except as otherwise specified in approved design documents), including all safety precautions, training and programs taken in connection with the Work, as well as coordinating all portions of the Work.
 - 8. The health and safety of Contractor's employees, Subcontractors, and visitors as set forth in applicable statutes, laws, and regulations
 - 9. Implementing, maintaining, and enforcing all safety precautions and programs concerning the Work.
 - 10. Conducting air monitoring at the Site for its personnel and subcontractors' personnel, as required by federal, State and local laws. The City will conduct

ambient air monitoring as it deems necessary.

11. Any and all fines, penalties or damages which result from the Contractor's failure to so comply with applicable health and safety laws and regulations during performance of the Work.
- F. The health and safety requirements set forth in this Section is not a comprehensive or an all-inclusive list of safety requirements that may apply to Work under this Contract. In addition, some of the specified requirements may not apply to the Work under this Contract, depending on the type and scope of the Work.
- G. The City will neither assume the administration of nor direct, control or otherwise assume any responsibility for the implementation and enforcement of the Contractor's health and safety program.
- H. The Contractor shall be solely responsible and shall assume all liability for compliance with the safety orders, regulations, and requirements of:
1. ORDER OF THE HEALTH OFFICER No. C19-07y (updated)
Order Of The Health Officer Of The City And County Of San Francisco
Encouraging COVID-19 Vaccine Coverage And Reducing Disease Risks (Safer Return Together), January 26, 2022.
 2. DIRECTIVE OF THE HEALTH OFFICER No. 2020-04
Directive of the Health Officer of the City and County of San Francisco Regarding The Construction Safety Protocols for the City Public Works Projects, May 5, 2020.
 - a. Appendix A: City and County of San Francisco Public Works Project Safety Protocol for COVID-19 (Alternative to Appendices B-1 and B-2 for Public Works Projects), May 5, 2020.
 - b. Attachment – 1
Contractor Health and Safety Plan (HASP) Table of Contents – Typical
 - c. Attachment - 2
Job Analysis (JHA/Activity Hazard Analysis (AHA) – Typical
 - d. Attachment – 4
Contractor COVID-19 HASP Amendment Checklist
 3. Work Hours and Safety Standards Act (40 U.S.C. 327 et seq.)
 4. Construction Safety Orders (8 CCR, subchapter 4 et seq.)
 5. Federal OSHA.
 6. Cal/OSHA.
 7. California Public Utilities Commission (CPUC).
 8. State of California Public Utilities Commission, General Order No. 172, Rules and Regulations Governing the Use of Personal Electronic Devices by Employees of Rail Transit Agencies and Fixed Guideway Systems.
 9. The State of California Wireless Communications Device Law (effective January 1, 2009) makes it an infraction to write, send, or read text-based communication on an electronic wireless communications device, such as a cell phone, while driving a motor vehicle.

10. California Vehicle Code.
11. Local regulations pertaining to Work practices, protection of workers and visitors to the site.
- I. Nothing contained in this Contract shall relieve Contractor, or any Subcontractor or Supplier, from the obligations set forth above and obligations as required by applicable laws, rules, or regulations. If a provision of this Document conflicts with any applicable provision of this Contract or any federal, state, or local safety regulations, the more stringent requirements that maintain a greater level of safety shall apply.
- J. The Contractor shall ensure that all tiers of its field personnel, employees, agents, visitors and subcontractors:
 1. Are provided the proper notifications, training, and procedures as required by the Contractor's Health & Safety plan and procedures, including but not limited to the handling of unidentified hazardous waste.
 2. Follow safe practices and minimize their exposure when dealing with unanticipated and unidentified hazardous wastes and contamination.
 3. Minimize potential risks during Project construction by having all construction personnel follow its Health & Safety procedures.
 4. Provide and maintain personnel safety training and medical examinations in accordance with all applicable Federal, State, and local safety and health standards, rules, regulations, and orders.
- K. The Contractor is obligated to conduct any required personal air monitoring of its workers, at its own expense The Contractor shall be responsible for providing its employees and visitors with all levels of personal protective equipment (PPE). The Contractor shall be responsible, and the City will not pay any additional compensation to the Contractor for providing its employees and visitors with all levels of training and personal protective equipment (PPE), including personal air monitoring if required. This includes areas where hazardous and contaminated soils and waste is encountered.
- L. For Work in this Contract, the Contractor shall have considered the productivity losses, if any, arising from the use of respirators and personal protective equipment. The City will not pay any additional compensation to the Contractor due to its use of respirators, and personal protective equipment.
- M. All work in this Section shall be incidental work to mobilization (Bid Item SW-37, Mobilization for Sewer Work, unless specified otherwise.

1.2 JOB CONDITIONS

- A. The Contractor is alerted to the fact and include in its bid that the work of this Contract will involve working in environments that may be hazardous, contaminated, and non-hazardous. Serpentine and other ultramafic rocks that contain Naturally Occurring Asbestos may be present within on-site earthen materials. All work that disturbs on-site rock and soil will be performed under Cal/OSHA Class II procedures, as required by Cal/OSHA regulations (CCR Title 8 § 1529, asbestos in construction).
- B. Such hazardous, contaminated, and non-hazardous environments include, but are not limited to; hazardous and non-hazardous materials, soils, groundwater and storm water, heavy metals (including lead), asbestos, serpentine and other ultramafic rock that contains naturally occurring asbestos (NOA), respirable crystalline silica, lead containing

paint and building materials, petroleum hydrocarbons, polynuclear aromatic hydrocarbons, organic compounds, railroad ties, sewage, sludge, debris, grit, sewer gases, oxygen deficiency, bacterial/biological contamination, odors from petroleum hydrocarbons and other volatile/semi-volatile organic compounds and confined spaces.

- C. The Contractor shall construct/finish, and at all times maintain satisfactory and substantial ramping, guard rails, warning flags and signs at appropriate heights, temporary chain link fencing, solid fencing, railings, barricades, steel plates or bridging as applicable at all openings, obstructions, or other hazards in streets, sidewalks, pedestrian pathways affected by construction, and the like. All such barriers shall have adequate warning lights as necessary or required for public safety. The Contractor shall divert traffic by use of traffic cones, barriers, flagmen, flags, and signs adequate to the Site conditions and task at hand. All temporary and permanent safety features shall be installed before beginning commencing Work in the area.
- D. Lead Hazards: All work that affects intact paint with any level of lead will at a minimum be performed by the General Contractor or its subcontractors under the Cal/OSHA Lead in Construction Standard 8 CCR 1532.1 as well as all Federal, State, and Local regulations at no additional cost to the City.
- E. The Contractor is advised that Work in this Contract may include, but is not limited to, the following activities that may pose safety and health hazards to Contractor and subcontractor personnel:
 - 1. Working around live, high voltage lines and wires, switches, moving vehicles and other potential hazards specific to a City yard, facility, or operating rail line.
 - 2. Working around live utilities.
 - 3. Entering or working in confined spaces.
 - 4. Working around and inside shafts.
 - 5. Working within an underground excavation and construction environment using mechanized equipment and structural temporary shoring support equipment.
 - 6. Working within an underground tunnel environment using mechanized equipment.
 - 7. Working with soils that may be hazardous or contaminated, or both.
 - 8. Working around and in open trenches.
 - 9. Working in spaces or areas where employees may be exposed to asbestos and lead.
 - 10. Welding, painting, or other potentially hazardous Work, or working in the vicinity of such activities.
 - 11. Working in a public right-of-way with vehicular traffic moving around or through the Site.
 - 12. Working in rail right of way with light rail vehicles moving around and through the Site.
- F. The Contractor shall protect the public from hazards including surface irregularities, un-ramped grade changes in pedestrian sidewalks or walkways, and trenches or excavation in roadways. The Contractor shall ensure safe routing of vehicular and pedestrian traffic

around the Site, in compliance with American's with Disabilities Act (ADA) requirements.

1.3 SUBMITTALS

- A. The Contractor shall submit the following Submittals as required by the Contract and no case later than ten (10) working days prior to commencement of Work at the Site. No construction Work shall start prior to Contractor's submission to the City's Representative and City's Representative acceptance of submittals listed below. Each Submittal listed below shall be a separate document and shall not combined within one another.
1. Site-specific Health and Safety Plan (HASP) prepared, signed and stamped by a Certified Industrial Hygienist (CIH).
 2. Contractor and all subcontractor's Injury and Illness Prevention Programs (IIPP) and Code of Safe Practices (CSP), in accordance with the California Code of Regulations (CCR), Title 8.
 3. Templates for all safety forms and reports:
 - a. The Project Safety Representative's (PSR) daily inspection form shall accommodate twice daily inspections of their field work area(s) covering date, work area checked, employees present in the work area, PPE, work equipment being used in each area, workplace conditions, physical facility safety, and employee work practices. The form shall also accommodate any deficiencies and corrective actions.
 - b. The Safety Meeting Attendance sheet of the "toolbox" safety meetings conducted per CAL/OSHA standards.
 - c. Activity Hazard Analysis (AHA) or Job Hazard Analysis (JHA).
 - d. Incident or Near-Miss Incident Investigation Reports.
 - e. Corrective Actions Report.
 - f. Construction Site Visitor Policy Form.
 - g. Safety Action Measures.
 4. Completed Activity Hazard Analysis (AHA) or Job Hazard Analysis (JHA) submitted with the HASP using the AHA/JHA template for all significant activities and tasks with a high-risk potential, describing the job steps, hazards associated with each job step, and the controls used to remove or minimize the associated hazards
 5. SDS (Safety Data Sheet) for all chemicals and other hazardous materials used in the Work.
 6. If Serpentine is present Contractor shall have Cal/OSHA 40-hour asbestos training for the Competent Person overseeing Serpentine/ Naturally Occurring Asbestos (NOA) disturbance activities and managing personal air monitoring for asbestos.
 7. Equipment safety inspection logs and equipment maintenance records for all equipment used in the Work or as described in Section 1.11, Section 1.14, and Section 1.18.A.
 - a. Construction safety and emergency response, as described in Section 1.5.F – Part 2, Section 1.10, and Section 1.12.C.

- b. Manage, encounter, and/or handle hazardous materials, as described in Section 1.5.F – Part 1.
 - c. Perform special work activities, as described in Section 1.5.F – Part 2.
- B. Experience Statement. The apparent low Bidder and any other Bidder so requested shall submit to the Contract Administration Division within **seven (7) working days** after the date of the City's notification of the lowest Bidder sufficient information on completed Experience Statement forms (Section 00 49 12), and additional sheets as necessary, to demonstrate to the satisfaction of the City the qualifications and experience of the it's Project Safety Representative (PSR) as specified in this Section 01 35 45 – Health and Safety Criteria.
 - 1. Documentation and Certification (current and valid) of the Project Safety Representative (PSR):
 - a. The name of the designated, reliable, and competent Project Safety Representative (PSR).
 - b. OSHA Certified 30-Hour Construction Training.
 - c. The 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) Training Program.
 - d. First Aid/CPR certification/training within the past two years
 - e. Cal/OSHA 40-hour asbestos training for the Competent Person overseeing NOA disturbance activities and managing personal air monitoring for asbestos.
 - f. Documentation demonstrating a minimum of three (3) years recent experience in conducting and supervising safety and health programs on construction projects similar to the Work of this Contract.
 - 2. Documentation and Certification (current and valid) of the Asbestos Competent Person (ACP):
 - a. The name of the designated Asbestos Competent Person (ACP).
 - b. Cal/OSHA 40-hour asbestos training for the Competent Person managing personal air monitoring for asbestos.
 - c. Documentation demonstrating a minimum of three (3) years recent experience as an ACP on construction projects similar to the Work of this Contract.
- C. The Contractor shall submit the following throughout the course of construction as per specification.
 - 1. Daily inspection reports (as per Part 1.7 of this Section) signed by the PSR documenting twice daily inspections of their field work area(s) covering date, time visited, work area checked, employees present in the work area, PPE, work equipment being used in each area, workplace conditions, physical facility safety, and employee work practices. Any deficiencies and corrective actions shall also be documented. The daily inspection reports shall be submitted by transmittal to the City Representative on a daily basis by the next day. If the daily inspection reports are not kept current, or are not furnished as specified above, then progress payments, and if necessary, final payment will be withheld. Furnishing of daily inspection reports shall be done as incidental work.

2. Records of topics and Safety Meeting Attendance sheet of the “toolbox” safety meetings conducted per CAL/OSHA standards as per Section 1.17.A, and as directed by the City Representative.
 3. Incident or Near-Miss Incident Investigation Reports and Corrective Action Reports – Submitted to the City Representative within 24 hours of the Project Incident or Near-Miss Incident.
 4. Final Incident or Near-Miss Incident Investigation Reports and Final Corrective Action Reports – Submitted to the City Representative within 48 hours of the Project Incident or Near-Miss Incident.
 5. HASP modification requests, and approved modifications to the appended HASP – Submitted to the City Representative for review (if applicable).
 6. Respiratory Protection Program, records and documentation (if applicable to the Work).
 7. Hot Work permit (if applicable to the Work).
 8. IIPP and CSP modification requests and approved modifications to the appended IIPP and CSP.
 9. OSHA’s Form 300A “Summary of Work-Related Injuries and Illnesses” annual form. (Contractor shall submit the Form 300A each year and whenever it is updated).
 10. Safety Action Measures (if applicable to the Work).
- D. Upon receiving a written request from the City Representative, the Contractor shall submit to the City any document relating to health and safety within five (5) Days from the date of such request.

1.4 REFERENCES

Work performed shall be consistent with the following guidelines and references and in compliance with all applicable regulations and standards, including those listed below. In the case that these requirements are conflicting, the one which offers the greatest level of safety shall be followed.

- A. California Code of Regulations (CCR), Title 8
 1. Industrials Relations
 2. Construction Safety Orders
 3. General Industry Safety Orders
- B. Cal/OSHA Occupational Safety and Health Administration (OSHA) Regulations.
 1. CCR Title 8 Standards (All)
 2. CCR Title 8 Tunnel Safety Orders (8403-8552)
- C. National Institute for Occupational Safety and Health (NIOSH) Publications.
- D. U.S. Environmental Protection Agency (USEPA) Publications.
- E. American Conference of Governmental Industrial Hygienists (ACGIH) Publications.

- F. Work Hours and Safety Standards Act (40 U.S.C. 327 et seq.).
- G. Code of Federal Regulations (CFR), Title 29 – Labor.
- H. Federal Railroad Administration Roadway Protection Rule (49 CFR Part 214C).
- I. State of California, Health and Safety Code.
- J. California Department of Industrial Relations, DOSH Mining and Tunneling Unit, Underground Classification dated March 16, 2009.
- K. State of California, Public Utilities Commission, General Order No. 95, “Rules for Electric Line Construction”.
- L. State of California, Public Utilities Commission, General Order No. 128, “Construction of Underground Electric Supply and Communication System”.
- M. State of California, Public Utilities Commission, General Order No. 172, “Rules and Regulations Governing the Use of Personal Electronic Devices by Employees of Rail Transit Agencies and Fixed Guideway Systems”.
- N. State of California, Public Utilities Commission, General Order No. 175-A, “Rules and Regulations Governing Roadway Worker Protection Provided by Rail Transit Agencies and Fixed Guideway Systems”.
- O. Bay Area Air Quality Management District (BAAQMD) Regulations.
- P. California Air Quality Board (CARB) Regulations.
- Q. San Francisco Health Code.

1.5 HEALTH AND SAFETY PLAN (HASP)

- A. The Contractor shall submit a Site-specific Health and Safety Plan (HASP) in accordance with this Specification, CFR Title 29, CCR Title 8 and other applicable regulations, which shall cover all aspects and scope of Work. The HASP shall remain in effect for the term of the Contract and a copy of the HASP must always be on-Site.
- B. The Contractor’s Site-specific HASP shall set forth the policies and procedures to be followed by all Contractor personnel at the Site. The HASP shall describe the safety requirements for the Work, and the means and methods by which the Contractor will implement and enforce those safety requirements. The HASP shall describe, in detail, the protocols necessary for the identification, evaluation, mitigation and control of all hazards associated with the Work and each task performed by the Contractor and all subcontractors. The HASP shall identify the Contractor’s Project Safety Representative (PSR) responsible for Site safety and enforcing safe practices in performing the Work. The Contractor’s site-specific HASP shall describe the responsibility for employee and public safety of the Contractor’s representatives who control each phase of the operations and shall set forth in writing the policies and procedures to be followed by all Contractor personnel. The Contractor HASP shall establish, in detail, the protocols necessary for the recognition, evaluation, and control of all hazards associated with each task performed by the Contractor and lower tier subcontractors.
- C. The HASP shall be prepared, signed, and stamped by a Certified Industrial Hygienist (CIH). The HASP shall also be reviewed and signed by the Project Safety Representative (PSR), whose review will be limited to general scope and completeness. The Contractor shall always be solely and entirely responsible for the safety of the Site and its personnel,

subcontractors' personnel, persons working at or visiting the Site (including City representatives, employees and consultants), and persons passing through the Construction Area. The Contractor shall be solely responsible for the content, implementation and enforcement of its HASP. The Contractor shall not perform any Work at the Site until the HASP has been submitted to and accepted by the City.

- D. The City will not review the HASP for its content, nor will the City be liable for the Contractor's failure to have an adequate HASP or implement it. Submission to and receipt of the HASP to the City and regulatory agencies neither constitutes to the legality of the HASP nor does it incur liability. Submission, acceptance, and receipt of the HASP to the City, or any review of the HASP by the City, shall not be construed as approval of the adequacy of the Contractor's PSR, the Contractor's HASP or any safety measures taken in or near the construction site.
- E. Any changes or modifications to the Contractor's HASP must be signed by the Contractor's PSR and submitted to the City Representative. The modification shall be appended to the Contractor HASP. All personnel working on the Site shall be fully informed of the modifications of the HASP and any required actions arising from those HASP modifications before performing any of the Work that may be impacted by those modifications.
- F. The HASP shall be divided into two parts. Part One shall address the Environmental Health aspect of safety. Part Two shall address Construction Safety.

Part One of HASP - Environmental Health:

1. Identification and description of the responsibility of those individuals who control each phase of operations and are responsible for employee and public safety. The HASP shall set forth in writing the policies and procedures to be followed by all personnel. The HASP shall include the designation and resume of an overall Project Safety Representative (also referenced as health/safety officer). The PSR shall have full authority to correct any unsafe conditions at the Site or unsafe means or methods of performing the Work. The PSR shall have the authority to stop any construction activity or modify Work practices, means or methods that do not accord with the HASP or that are necessary to protect workers, property, and the surrounding community. This requirement shall apply throughout the term of the Contract and is not limited to working hours.
2. Hazard Communication Plan: Information identifying and delineating all workplace hazards that has been identified or is generally associated with the proposed Work phases and how this information is communicated to employees (e.g., tailgate/toolbox safety meetings, monthly safety meetings, and daily job briefings). Hazardous material communication standards can be found in 29 CFR 1910.120 & 8 CCR 5194. Hazardous waste information can be found in 29 CFR 1910.1200 & 8 CCR 5192. Local hazardous material/waste information can be found in Articles 21, 21A, 22 and 22A of the San Francisco Health Code.
3. Mitigation measures to identify, monitor, and control worker and general public exposure to any identified hazard. The Contractor shall determine the need to conduct and monitor its personnel for contaminant exposure to maintain the proper level of personal protection, including the action level.
4. Personnel: Provision of enough personnel properly trained to handle, remove, excavate and dispose of hazardous waste and contaminated waste that may be encountered or generated by the Work. The HASP shall specify the general training required for all Contractor personnel, and any specialized training required for personnel identified to manage and/or handle hazardous materials,

including but not limited to:

- a. Asbestos training that meets the Cal/OSHA Work Activity Level for naturally occurring asbestos (NOA) as per the Cal/OSHA Construction Asbestos Standard, 8 CCR 1529, all applicable Sections and Section 1529.
- b. Lead, petroleum hydrocarbons, volatile and semi-volatile organic compounds (VOC's and SVOC's) awareness training.
- c. The 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) Training Program.
- d. It's associated 8-hour refresher training in accordance with 29 CFR 1910.120, and 8 CCR 5192.
- e. Respiratory program in accordance with 29 CFR 1910.134 and 8 CCR 5144.
- f. Respirable Crystalline Silica OSHA Regulation in accordance with 29 CFR 1926.1153
- g. Other Site-specific or Project specific hazards requiring safety training.

This training shall be required for all Contractor and subcontractor personnel who will encounter or operate equipment that handles contaminated materials. The HASP shall include records establishing the subject matter, dates, times, and attendees of all safety trainings. The Contractor shall maintain training records as required by Cal-OSHA and applicable regulations.

5. NOTE: Cal/OSHA regulations are triggered when asbestos is present in any amount. The Contractor shall meet its obligations under CCR Title 8, Section 1529. The regulation requires monitoring to determine exposure levels, wet methods, respirators and protective clothing, controlled access to the work area, and similar precautions associated with asbestos work regardless of the origin of the asbestos. Use of a competent person to oversee the work may also be necessary. The Contractor shall utilize an experienced Certified Industrial Hygienist (CIH) and a Professional Geologist (PG) to assist it with this work.
6. Requirements of the Contractor and subcontractors for implementing the following:
 - a. Medical surveillance programs. The Contractor is responsible for providing medical examinations and maintaining medical records of personnel.
 - b. Code of Safe Practices and Injury and Illness Prevention Programs (IIPP), i.e., SB 198, 8 CCR and CAL/OSHA, GISO 3203, Section 5192 and 1509.
 - c. Personnel air monitoring according to 29 CFR and 8 CCR.
 - d. Applicable Construction Safety Order (29 CFR 1926).
 - e. Federal and California Lead Standards for the Construction Industry (29 CFR, Part 1926.62 and 8 CCR, Section 1532.1, respectively)
 - f. Asbestos OSHA Regulation 29 CFR Part 1926.1101 & 8 CCR 1529.
 - g. Workers' Right to Know (29 CFR 1910.120).
 - h. Section 6360-99 of the California Labor Code (Hazard Communication).

- i. The American with Disabilities Act (ADA).
7. Engineering controls, specific Work practices, air monitoring for contaminants (e.g., dust, natural occurring asbestos (NOA), serpentine, lead, volatile organic, and hydrocarbons), and personal protective equipment (8 CCR 5144) to protect Contractor personnel, City personnel on the Site, and the public impacted by the Work.
8. Methods to be used to decontaminate equipment and personnel.
9. Sanitation facilities to be provided for personal hygiene. Portable toilets and discharge of their waste products into sanitary sewers shall comply with local codes.
10. Contingency /Emergency Response Plan procedures for emergencies including fire, spillage of hazardous/toxic wastes and liquids (with special emphasis to clean up of spillage due to fuel/oil from Contractor's equipment), traffic accident, personal accident, power failure, or any event that may require modification or abridgment of site control and decontamination procedures.

Part Two of HASP—Construction Safety:

1. The Contractor shall include an organizational structure in the HASP that sets forth lines of authority, responsibility, and communication, including a description of Contractor's organization and Project responsibilities of key personnel.
2. The Contractor shall inform its employees, supervisory personnel and visitors (invitees) to the Site of known Site hazards.
3. The Contractor shall take necessary precautions and implement mitigation measures to prevent or reduce the release of pollutants in the form of dust, fume, mists, excessive noise and vibration into the air and surrounding environments.
4. Contractor shall ensure at least one individual on each job site always has current CPR/First Aid/AED training.
5. The Contractor shall employ a Project-specific hard hat insignia (sticker) program which identifies workers that have successfully completed the Project safety training.
6. Information identifying and delineating all workplace safety hazards and how this information is communicated to employees (e.g., tailgate/toolbox safety meetings, monthly safety meetings, daily job briefing).
7. The Contractor shall at all time be responsible for providing its employees and visitors with the proper level of personal protective equipment (PPE), that shall be appropriate to the type of work being performed by the individual employee. At a minimum, the Contractor, subcontractor's personnel and visitor shall wear hardhats, ANSI class 2 vests, and safety glasses with side shields at the work site. Hardhats shall show company name.
8. Safety Action Measures: For Work requiring Cal/OSHA permits, special training and/or use of designated competent persons to oversee the Work, the Contractor shall prepare Safety Action Measures, to address these Work activities. The Safety Action Measures shall include detail information needed to perform the activity safely, verify that the persons involved in the Work are properly trained or certified, the equipment used is inspected and suitable for the Work, the proper permits have been obtained.

9. The format for all safety forms and reports shall be developed by the Contractor and submitted as part of the Contractor HASP.
10. Periodic safety performance reviews and procedures on safety inspections. A sample daily inspection form shall be provided in Contractor's HASP and shall include date, Work area checked, employees present in the Work area, PPE, Work equipment being used in each area, safety and health issues, notes.
11. Procedures in handling non-compliance/violations of safety requirements, e.g. deficiency correction reports, stop Work orders, disciplinary actions, etc.
12. Communication and reporting requirements, including the immediate reporting of injury accidents and submittal of corrective action reports.
13. Requirements concerning, distribution, and maintenance of personal protective equipment and safety tools.
14. Measures and procedures to be used to report, monitor and control exposure of Contractor personnel and public to any identified safety hazards. Contractor shall monitor Site personnel for contaminant exposure and ensure appropriate PPE is used.
15. Provision for all personnel to be properly and regularly trained in construction safety and emergency response. The level of training required for all or specified Contractor or Subcontractor personnel, including, but not limited to the following:
 - a. Heat stress
 - b. Fire prevention and protection plan
 - c. Fall protection and prevention program
 - d. Confined Space Entry
 - e. Special Equipment
 - f. Ergonomics
 - g. Contingency Plan for emergency including fire, earthquake, etc.
8. Site Access Control Plan covering Contractor and City Site personnel, consultants, representatives, the public, and Site visitors (see relevant subparagraph 1.14 CONSTRUCTION SITE VISITORS).
9. Construction site visitor guidelines, including the site-specific orientation and Construction Site Visitor Policy form (see relevant subparagraph 1.14 CONSTRUCTION SITE VISITORS).
10. The Contractor's alcohol and substance abuse program shall describe the measures that Contractor will implement to ensure that all Contractor personnel working on the Project comply with the drug and alcohol restrictions stated in the Contract and in the Contractor's Corporate Policy and Program. Contractor's and subcontractor's personnel shall not use any alcohol or controlled substance when performing the Work, and Contractor shall not allow any person on the Site who is under the influence of any alcohol or controlled substance, including any prescription the negatively affects alertness or performance.
11. Completed Activity Hazard Analysis (AHA) or Job Hazard Analysis (JHA) submitted with the HASP using the AHA/JHA template for all significant activities and tasks with a high-risk potential, describing the job steps, hazards associated with each job step, and the controls used to remove or minimize the associated

hazards.

Activity Hazard Analysis (AHA):

https://www.navfac.navy.mil/content/dam/navfac/NAVFAC%20Atlantic/NAVFAC%20Southeast/PDFs/Safety/se_sf_activity_hw_trn.pdf

Job Hazard Analysis (JHA) Form:

<https://www.osha.gov/Publications/osh3071.pdf>

- G. Furnish copies of all records of all health and safety audits, inspections, and reviews to the City Representative
 - H. The City reserves the right to require that Contractor modify the HASP to address Site safety issues. However, the City's action or lack thereof on the HASP shall not be construed to mean approval, or acceptance of Contractor's responsibility for compliance with the applicable laws and regulations.
- 1.6 INJURY AND ILLNESS PREVENTION PROGRAM (IIPP) AND CODE OF SAFE PRACTICES (CSP)
- A. The Contractor shall submit an Injury and Illness Prevention Programs (IIPP) and Code of Safe Practices (CSP) in accordance with this specification, CCR Title 8 and other applicable regulations. A copy of all applicable IIPP and CSPs must always be on-Site.
 - B. The City will not review IIPPs or CSPs for their content, nor will the City be liable for the Contractor's failure to have adequate IIPPs/CSPs or implement them. Submission to and receipt of IIPPs/CSPs to the City and regulatory agencies neither constitutes to the legality of the IIPPs/CSPs nor does it incur liability. Submission and receipt of IIPPs/CSPs to the City, or any review of the IIPPs/CSPs by the City, shall not be construed as approval of the Contractor's IIPPs/CSPs or any safety measures taken in or near the construction site.
 - C. Any changes or modifications to the Contractor's IIPP/CSP must be submitted to the City Representative. The modification shall be appended to the appropriate IIPP/CSP. All on-site personnel shall be fully informed of the modifications, changes, and required actions prior to conducting any additional work activities.
- 1.7 REQUIREMENTS OF THE CONTRACTOR'S PROJECT SAFETY REPRESENTATIVE
- A. The Contractor shall designate in writing a responsible competent person at the Site as Project Safety Representative (PSR) whose principal duties shall be the prevention of accidents and the maintenance and supervision of safety precautions and programs in accordance with the requirements of applicable laws and regulations. The PSR is also a qualified person having the necessary training to be knowledgeable in the identification, control, and management of the hazardous materials encountered onsite.
 - B. The Contractor's Project Safety Representative (PSR) shall:
 - 1. Be readily available (within 30 minutes of City request) to consult with the City Representative at the site during all Project working hours and shall be available 24 hours a day, 7 days a week by telephone or other approved means. The PSR shall meet with the City Representative at least once per week.
 - 2. Have completed a 30-hour OSHA Certified Construction Safety training session and must submit documentation of such training to the City Representative.
 - 3. Have completed the 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) Training Program

4. If more than one Project site working shift is initiated, the Contractor will have to ensure that provisions are made to have a qualified PSR to cover all Work shifts
5. Be knowledgeable with the safety provisions of Federal OSHA, Cal/OSHA and the requirements of this section.
6. Be currently certified in First Aid/CPR and be able to use an automatic external defibrillator (AED).
7. Possess qualifications, which include a minimum of three (3) years recent experience in conducting and supervising safety and health programs on construction projects like this Contract.
8. Be capable of performing safety inspections and accident investigations.
9. Perform twice daily inspections of their active field Work area(s) covering workplace conditions, physical facility safety, and employee Work practices. Any deficiencies and corrective actions shall be documented. The daily inspection reports shall be submitted by transmittal to the City Representative daily, by the next day. If daily inspection reports are not kept current, or are not furnished as specified above, then progress payments, and if necessary, final payment will be withheld. Furnishing of daily inspection reports shall be done as incidental work. The PSR shall meet on-site with the City Representative at least once per week.
10. Administer and enforce the site-specific Health and Safety Plan, Injury and Illness Prevention Plan (IIPP), and Code of Safe Practices (CSP).
11. Administer and enforce the visitor site-specific safety orientation, the Construction Site Visitor Policy and its guidelines.
12. Advise subcontractors, vendors, and visitors to the job site of potential hazards and the requirements of Health and Safety practices and rules.
13. Coordinate subcontractor's Work regarding hazardous material procedures and controls (as required).
14. Establish and maintain restricted Work Areas.
15. Enforce proper use of personal protective equipment.
16. Communicate approved modified safety requirements to Site personnel as well as visitors to the site.
17. Notify to and coordinate with the City Representative for the immediate assessment and remediation Work for unforeseen hazardous materials conditions discovered in the course of the Work.
18. Have "Stop Work Authority" – the ability to stop Work without any adverse consequences when unsafe conditions are present.

1.8 REQUIREMENTS OF THE CONTRACTOR'S ASBESTOS COMPETENT PERSON

- A. The Contractor shall designate in writing a responsible asbestos Competent Person (ACP) at the Site whose principal duties shall be overseeing asbestos soil disturbing activities, implementing engineering and administrative controls to prevent asbestos from becoming airborne, and general compliance with Cal/OSHA, CARB, and EPA regulations related to asbestos and naturally occurring asbestos (NOA) when impacted as part of the project. The asbestos CP is also a qualified person having the necessary training and experience to be knowledgeable in the identification, control, and management of

asbestos and naturally occurring asbestos encountered onsite. The PSR and ACP may be the same person if all training and experience requirements for both positions are met.

- B. The Contractor's Asbestos Competent Person (ACP) shall:
1. Communicate all NOA-related issues to the PSR daily and as needed as required for the PSR to fully execute its duties.
 2. Have completed 40-hour Cal/OSHA-required asbestos Contractor Supervisor training and must submit documentation of such training to the City Representative.
 3. Possess qualifications, which include a minimum of three (3) years recent experience as an ACP on construction projects similar to this Contract.
 4. Implement the elements of Cal/OSHA asbestos in construction standard 8 CCR §1529 and other applicable regulations and standards, including but not limited to:
 - a. Demarcate the Regulated Areas and control the points of ingress and egress,
 - b. Conduct asbestos worker training to all workers in Cal/OSHA Regulated Areas, and NOA awareness training to all workers and visitors who enter the site and are outside of the Regulated Areas,
 - c. Assure that wet methods and other engineering controls are implemented to minimize asbestos emissions,
 - d. Conduct the Initial Exposure Assessment and select respiratory protection accordingly, as required,
 - e. Conduct daily personal monitoring and communicate exposure results to workers,
 - f. Based on monitoring results, continuously re-evaluate PPE requirements select the appropriate respiratory protection to prevent exposure above the PEL,
 - g. Assure that personal decontamination stations are adequate and located to allow workers to decon thoroughly prior to exiting the Regulated Areas. The decon stations shall include water and boot scrubs, HEPA-vacuums, cleaning wipes for respirators, and facilities to dispose of used Tyvek.
 5. Perform twice daily inspections of asbestos and NOA field work area(s) for compliance with all asbestos and NOA regulations and standards. Any deficiencies and corrective actions shall be documented. The daily inspection reports shall be submitted by transmittal to the City Representative on a daily basis.
 6. Have "Stop Work Authority" – the ability to stop work without any adverse consequences when unsafe conditions are present.

1.9 TRENCHING AND SHORING

- A. Trench Safety: Contractor shall comply with all shoring and excavation requirements set out in Federal OSHA (29 CFR 1926.650-652), Cal/OSHA (Construction Safety Order 1539-1544), the California Labor Code, and the Contract Documents.
- B. Federal and State Safety regulations requires

1. Safe Exits: A stairway, ladder, ramp or other safe means of egress shall be in trench excavations that are 4 feet or more in depth to require no more than 25 feet of lateral travel for employees.
2. Shoring is required for trenches at 5 feet depth or greater, and must be designed to prevent cave-ins. Shoring may be required for trenches less than 5 feet in depth unless excavations are made entirely in stable rock or examination of the ground by a competent person provides no indication of a potential cave-in.
3. Keep excavated materials at least 2 feet or greater from the side of the excavation.

1.10 CONFINED SPACE ENTRY

- A. Contractor shall provide all equipment and assistance to make the confined space safe for entry by Contractor's personnel, the City representatives, and its consultants in accordance with the California Code of Regulations, Title 8, General Industry Safety Orders, "Confined Spaces."
- B. If any activities associated with confined space entry become necessary, the Contractor shall be required to consult the City for guidance and prepare an appropriate Permit-Required Confined Space Entry Plan.

1.11 ELECTRICAL LOCKOUT/TAGOUT PROCEDURES

- A. Training of Contractor's employees in procedures for locking out and tagging out of electrical equipment that must be de-energized to accommodate the Work.
 1. The lockout/tag out of electrical energy sources shall occur at the circuit disconnect switch in all cases.
 2. The Contractor shall furnish locks used for this purpose.
 3. Contractor shall furnish tags, locks, and lock box(s) that are compatible with electrical distribution equipment to be de-energized.
- B. Contractor shall attach white "DANGER" tags to locked switches to indicate that the circuit must not be energized.
- C. Red "DANGER" tags shall be used to indicate that Contractor personnel are actively working on equipment or lines connected to the locked switch. If the task that requires locking the switch has not been completed at the end of a shift or workday, the Contractor shall leave the switch lock in place, remove its Red Tag, but leave the White Tag in place on the locked circuit. When Contractor resumes that Work, the Contractor will again attach a Red Danger tag to the locked switch

1.12 CONSTRUCTION EQUIPMENT AND TOOLS

- A. Contractor shall only use construction equipment and tools designed and intended by the manufacturer for the Work. All Contractor equipment shall conform to Cal/OSHA requirements.
- B. Contractor shall not use and remove from the Site at its expenses any equipment that the City determines is unsafe, not intended for the Work, or that does not meet Cal-OSHA requirements.

1.13 PERSONAL PROTECTIVE EQUIPMENT (PPE)

- A. Contractor shall define task-specific PPE requirements for all personnel and visitors in compliance with applicable laws, rules, and regulations. PPE shall always be worn on the Site, including travel within the Site when starting or ending shifts. Minimum requirements include:
1. Hard hats are always required at the Site. Hardhats shall show company name.
 2. Appropriate eye and face protection that complies with ANSI Z87 shall always be worn.
 3. Safety glasses with side shields are required at the Site.
 4. Sensible and safe Work clothing and closed-toe shoes must be worn at the Site.
 5. No canvas/leather sneakers or sandals will be worn in the project work areas.
 6. Appropriate hearing protection shall be worn at the Site where sound levels exceed Cal/OSHA standards.
 7. Suitable gloves must be worn to protect the hands from injury as required by Cal/OSHA.
 8. High visibility warning vests (ANSI class 2 vests) or other suitable garments marked with or made of reflection or high-visibility material must always be worn at the Site.
 9. Within a Cal/OSHA asbestos Regulated Areas, suitable protective clothing and respiratory protection in accordance with 8 CCR § 1529 as prescribed by the Asbestos Competent Person (ACP).
- B. The Contractor's PSR and/or ACP shall establish additional appropriate levels of protection for each Work task in accordance with Cal/OSHA standards.
- C. If respiratory protection is utilized, the Contractor shall implement a Respiratory Protection Program in accordance with Cal/OSHA requirements. The Contractor will also provide the following to the City Representative prior to beginning any portion of Work that requires respiratory protections:
1. Copies of the Respiratory Program
 2. Respirator training records
 3. Fit-testing and medical approval documentation
 4. Annual documentation for training, fit testing and medical evaluations
- D. Contractor shall provide appropriate respiratory equipment to its personnel and visitors. Contractor shall inspect and maintain equipment in accordance with Cal-OSHA regulations.
- E. Where "Hot Work" is involved, a Hot Work permit must be submitted to the City Representative prior to commencing that Work. Personnel performing Hot Work must wear clothing that provides thermal protection. Contractor shall erect welding screens where welding operations may expose its personnel or the public to welding sparks, light and other hazards.
- F. Safety harnesses must be worn by personnel in manlifts and when working at heights, in

accordance with OSHA requirements in manlifts.

- G. Workers must wear a safety harness with their safety lanyard secured to a separate lifeline while working from swing scaffolds, boatswain's chairs, or other suspended Work platforms that present a fall hazard.

1.14 CONSTRUCTION SITE VISITORS

- A. All construction site visitors upon arrival must check in with the Contractor's Project Safety Representative (PSR). Visitors are defined as persons who are not assigned as direct staff or employees of the Contract. The PSR will coordinate a site-specific safety orientation prior to jobsite entry. The site-specific safety orientation shall provide visitors with a review and understanding of safe jobsite procedures and practices, including any safety trainings if required. The Contractor's site-specific safety orientation, at a minimum, shall include discussion of:
 - 1. Required personal protective equipment (PPE)
 - 2. Site access/egress routes (Site Access Control Plan)
 - 3. Emergency contacts and procedures
 - 4. First-aid locations
 - 5. Potential known hazards
 - 6. Required safety trainings and procedures
 - 7. Construction site operations and conditions
- B. Following the site-specific safety orientation, visitors must complete and sign a Construction Site Visitor Policy form provided by the Contractor. Failure to acknowledge and agree to all requirements of the Construction Site Visitor Policy form shall result in denied access to the construction work zone. The Visitors' Policy form, at a minimum, shall require visitors to accept and acknowledge that they:
 - 1. Have received and understand the site-specific safety orientation
 - 2. Must not handle or utilize any job equipment, tools, or materials at any time
 - 3. Must always wear proper PPE (Contractor is responsible for providing any missing PPE to visitors)
 - 4. Must attend any required safety trainings
 - 5. Must observe and comply with construction signage, barricades, and operations
- C. All visitors re-visiting jobsites shall be identified with a visitor sticker provided by the Contractor. Contractor shall be responsible for providing and maintaining legible stickers. Visitor stickers shall indicate the visitor's name, the date of the site-specific safety orientation, and the project number. The Contractor's PSR is responsible for determining if any additional re-training is required to account for changing site conditions and procedures.
- D. The City Representative and Contractor shall reserve the right to remove any visitor from the jobsite at any time, if he or she feels that the visitor is failing to adhere with the on-site safety requirements. Areas open to public access (e.g. sidewalks/designated paths of travel) are exempt from the Construction Site Visitor Policy.

1.15 EMERGENCY EQUIPMENT

- A. The Contractor shall provide emergency and first aid equipment required by Cal-OSHA and other applicable regulations and necessary for the Project. The following items, at a minimum, shall be maintained at the Site and available for immediate use:
 - 1. First aid equipment and supplies, including first aid kits and eyewash station per Cal/OSHA standards
 - 2. Spill control materials and equipment, including multi-purpose absorbent materials, poly bags, brooms and shovels and drums (if applicable)
 - 3. Fire extinguishers with a minimum rating of 2A-10B:C and as required by Cal/OSHA standards for scope of Work requirements
 - 4. Emergency rescue equipment including SCBA and tripod/extraction equipment for confined space rescue; backboard/basket for transport of injured personnel, air horns/bull horns for emergency signaling and communications (as applicable to the Work).
 - 5. All Contractor's boats and vessels used on the project shall comply with the U.S. Coast Guard and Cal/OSHA and all applicable regulations for working in/around water and waterways.

1.16 HAZARDOUS MATERIALS ENCOUNTERED AT THE SITE

- A. Proposition 66 Warning: Many of the materials and items at the Site contain materials known to the State of California to be either carcinogenic, reproductive toxins, or that may be otherwise toxic or hazardous.
- B. The Contractor shall ensure that all personnel, including subcontractors' personnel, receive appropriate training and orientation concerning toxic and hazardous materials that will prevent inadvertent or unauthorized disturbance of hazardous materials present at the Site.
- C. The Contractor shall comply with all applicable requirements of the California Code of Regulations, Title 8, Section 1532.1, "Lead in Construction".
- D. The Contractor shall take necessary precautions to prevent the release of lead and/or asbestos in the form of dust, fumes or mists from lead-containing and asbestos-containing materials into the air or into surrounding environments.
- E. The Contractor shall inform all workers, supervisory personnel and authorized visitors to the Site of the potential hazards of lead and asbestos and of necessary precautions and housekeeping procedures to reduce the potential for exposure in areas where lead or asbestos is known to be present.

1.17 HAZARDOUS MATERIALS THAT MAY BE INCORPORATED INTO THE WORK

- A. The Contractor shall maintain copies of Safety Data Sheets (SDS) for all substances used at the Site or incorporated into the Work.
- B. The Contractor shall be responsible for coordinating the exchange of SDS or other hazard communication information that is required to be made available to or exchanged between subcontractors at the site.

- C. The Contractor shall notify the City if a specified product or piece of equipment, or the intended use of such product or equipment is unsafe, prior to ordering such items or incorporating such items into the Work.
- D. The Contractor shall be responsible for complying with all BAAQMD regulations regarding the use, documentation and notification procedures related to asbestos-related construction Work, use of aerosol products and products that are with the limits for Volatile Organic Compounds (VOC's) and other limits for compounds regulated by BAAQMD.

1.18 MEETINGS

- A. The Contractor shall conduct regular trainings for its personnel, including but not limited to "toolbox/tailgate" safety meetings, in accordance with Cal/OSHA requirements. Contractor shall document the date, time, subject addresses, and names of persons who attended any training meetings using the Safety Meeting Attendance sheet, which Contractor shall submit to the City Representative.
- B. The Contractor's Project Manager, Superintendent(s), and PSR shall attend City Representative meetings (as required) to review the project's Immediately Dangerous to Life and Health (IDLH) activities, stop Work activities, incidents, and incident investigations.

1.19 LOGS, REPORTS, AND RECORDKEEPING

- A. Contractor shall maintain Project safety audits, employee training records and certifications, equipment safety inspection logs, incident reports, visitor logs and all reports covering the implementation of Contractor HASP at the Site for review upon request by the City Representative.
- B. Contractor shall submit Monthly project safety statistical report to City Representative, which shall include Project safety inspections, hours worked by Contractor, OSHA Recordable Incidents, Incident Rates, Lost Work Day Cases, Total Project Lost Work Days, Days Away from Work Rate, First Aid Cases, and Property Damage Incidents.
- C. Contractor shall provide the Engineer access to the Site, and to all logs and records concerning the Work. The City's review of Contractor's logs and records documenting its safety performance shall not be construed as approval or waiver of the adequacy of any safety measures taken in, on, or near the Site or Construction Area. The City's review of Contractor's logs and records shall not relieve the Contractor of its responsibilities of performing and enforcing health and safety inspections/audits, monitoring, or any other components of the Project safety requirements or Contractor's HASP, and any liability that may arise from Contractor's performance or failure to perform safety Work.

1.20 REMEDIAL ACTION

- A. The City Representative will issue a notice of non-compliance if City personnel observe any condition at the Site that poses an immediate and serious risk to the life or health of persons at the Site, or if City personnel observe that Contractor has failed to timely correct violations of health or safety standards. The notice will document the facts and circumstances of non-compliance and will require the Contractor to immediately remedy and correct the non-compliance and confirm in writing within 24 hours of receipt of the notice that the non-compliant conditions described in the notice have been corrected.
- B. If Contractor repeatedly fails to comply with applicable health and safety laws, rules, regulations, and orders, the City reserves the authority to have the necessary Work

performed by others and deduct corresponding costs from Contractor's progress payment(s); suspend progress payments; or terminate the contract for cause.

- C. The Contractor's non-compliance with applicable health and safety laws, rules, regulations, orders, and contract safety requirements may be deemed breach of contract, for which the City Representative may suspend the Work, and dismiss from the Work any employee of the Contractor, Subcontractor, or Supplier responsible for the non-compliance, as provided in the General Provisions. The Contractor shall bear all costs arising from such suspension of Work or dismissal of employee(s).
- D. The Contractor shall not create any condition that endangers the safety of any person on the Site or in the Construction Area, including City employees, City subcontractors, City consultants, and the public. If City personnel observe such a condition, the Engineer is authorized to suspend the Work until the condition is corrected. Such order to suspend the Work shall not impose on the City any obligation, penalty, additional costs or assumption of liability of any kind. Contract Time shall not be extended by such suspension, and the Contractor shall be solely responsible for and the City shall not compensate Contractor for any delay caused by a suspension of the Work due to unsafe conditions. Any suspension of Work due to unsafe conditions shall not relieve the Contractor of its control of the Site or responsibility for safety on the Site during the period the Work is suspended.

1.21 INCIDENT REPORTING AND INVESTIGATION

- A. Contractor personnel who are involved in or witness an unsafe condition at the Site or a Reportable Incident (as defined by Cal-OSHA) shall immediately report the condition or incident to the Contractor's Site supervisor or foreman, who in turn shall immediately notify the City Representative.
- B. Contractor personnel who are involved in or witness a near-miss incident must report it to the responsible Site supervisor or foreman within a reasonable time frame, not to exceed 24 hours, who in turn shall immediately notify the City Representative.
- C. Contractor will allow City Representative to participate and review all Project incident or near-miss investigations.
- D. Contractor's foremen, superintendents, and managers shall not decline to accept or relay a report of injury or significant near-miss incident from any person.
- E. All incidents and significant near-miss incidents shall be investigated immediately by the Contractor's designated Project Safety Representative (PSR).
- F. Contractors must investigate incidents or near-miss incidents and submit an initial investigation report to the City Representative using a Contractor Incident or Near-Miss Incident Investigation Report within 24 hours of learning about the incident or near-miss incident. A Final Incident or Near-Miss Incident Report shall be prepared by the Contractor which shall include the identification of all causes and be submitted to City Representative within 48 hours of incident or near-miss incident.
- G. A Corrective Actions Report for the incident or near-miss incident which address all causes shall be submitted by the Contractor to the City Representative. No work may continue in the area of incident or near-miss incident until the Corrective Action Report is submitted, all corrective actions are fully implemented, and job site hazards and behaviors that caused the incident or near-miss incident are corrected by the Contractor.
- H. The PIR and the FIR shall include at a minimum the following:

1. What happened? This should include interviews with injured workers and witnesses as well as examination of the workplace for factors associated with the incident or near miss.
 2. Why did the incident or near miss happen? The investigation must identify the root causes of the incident or near miss. Root causes are the underlying or systemic, rather than the generalized or immediate, causes of an incident/near miss. To identify root causes, the investigation must obtain all the facts surrounding the occurrence and then ask why. For example, what caused the situation to occur; who was involved; was/were the employee(s) qualified to perform the functions involved in the incident or near miss; were they properly trained; were proper operating procedures established for the task involved; were procedures followed, and if not, why not; where else this or a similar situation might exist, and how it can be corrected.
 3. What should be done? The investigation must determine all corrective actions required to eliminate the cause(s) of the incident or near miss.
 4. What action has been taken and what remains to be taken? Action already taken to reduce or eliminate the exposures being investigated should be noted. Any interim or temporary precautions should also be noted. Any pending corrective action and reason for delaying its implementation should be identified.
- I. The Contractor shall submit to the City Representative a Corrective Action Report (CAR) that documents that all corrective actions have been completed and fully implemented and all job site hazards and behaviors that caused the incident or near-miss incident have been corrected. The CAR shall include certification signed by an authorized Officer of the Contractor as to the completeness and accuracy of the FIR and the CAR.
- J. The Contractor shall not perform Work in the area or of a type that poses risks similar to those of the incident or near miss until a Final Incident/Near Miss Investigation Report (FIR) and a Corrective Action Report (CAR) has been completed, submitted to, and accepted by the City Representative.

1.22 ACCIDENT DOCUMENTATION AND REPORTING

- A. If an accident causes death, serious injury, or serious property damage, Contractor shall immediately report the accident to the City Representative by telephone, text message or email and to appropriate authorities (for example, Cal-OSHA).
- B. In addition, the Contractor shall promptly report in writing to the City Representative all accidents or near-miss incidents whatsoever arising out of or in connection with, the performance of the Work whether on occurring on or adjacent to the Site or the Construction Area. The Contractor shall give full details of the facts and circumstances of the cause and nature of the incident (accident) including statements of witnesses.
- C. Contractor shall make positive contact with City representative. Voicemail does not constitute "positive contact." Contractor shall escalate from inspector, to Assistant Resident Engineer (ARE), to Resident Engineer (RE), to Construction Manager (CM), to Section Manager, to Deputy Bureau Manager until positive contact is made immediately following an incident.
- D. The Contractor shall provide to the City Representative within five working days of an incident or accident or near-miss incident or accident, a written incident or accident; or near-miss incident or a near-miss accident report. A significant accident is defined to include events where personal injury is sustained, or property loss of substance is

sustained, or where the event posed a significant threat of loss or personal injury.

- E. If any person lodges a claim against the Contractor or any subcontractor alleging injury or property damage arising from the Work, the Contractor shall promptly report the claim and all relevant facts concerning the claim in writing to the City Representative.
- F. The Contractor is responsible for all documentation and reporting obligations of any accident and near-miss incidents in accordance with as per federal, State and local laws and regulations.

1.23 CITY SAFETY REPRESENTATIVE

- A. The City may at any time and without notice enter the Site and inspect the Site and the Work, observe Contractor's means and methods of performing the Work and maintenance of the Site, and review Contractor's compliance with applicable safety requirements, regulations and laws, including but not limited to the requirements of this Contract and Cal-OSHA regulations. The purpose of the City's inspections and observations is to confirm that Contractor is to safeguard City personnel and property.
- B. If the City's Representative observes an unsafe Site condition or unsafe means or methods of performing Work, the City's representative will so inform the Contractor's Site superintendent of safety manager, who shall take whatever actions Contractor deems necessary to immediately remedy the unsafe Site condition or unsafe work practice, or unsafe means or methods in which the Work is performed. Contractor shall within 24 hours of taking such remedial action submit a report to the Engineer describing the unsafe Site condition or work practice, and how Contractor remedied that unsafe condition, unsafe work practice, or unsafe means and methods of performing the Work.
- C. The City's inspection of the Site and the Work, the City's observation of Contractor's means and methods, and the City's requiring the Contractor remedy an unsafe Site condition, unsafe work practice, or unsafe means and methods of Work shall not in any way relieve Contractor of control of and responsibility for the Site, and does not relieve Contractor of its responsibility for the safety of all persons on the Site.

1.24 THE SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY (SFMTA) HEALTH AND SAFETY REQUIREMENTS:

- A. The Contractor shall comply with the following requirements as applicable and at no additional cost to the City, if any part of the work for this job is under the jurisdiction of the San Francisco Municipal Transportation Agency (SFMTA) and is on one of its facilities and/or affects its bus/train routes.
- B. The Contractor shall obtain all the necessary City and SFMTA permits, trainings, clearances, and shall schedule any necessary SFMTA support at least two weeks prior to mobilization.
- C. The Contractor, its employees and its subcontractors who will perform Work within 72 inches (measured transversely) of MUNI rail tracks shall first receive "Roadway Worker Protection" training and certification from the SFMTA, at least two weeks prior to mobilization. The Contractor shall schedule "Roadway Worker Protection" training by contacting SFMTA at (415) 646-2494 or RoadwayWorkerProtection@sfmta.com. Contractor shall sign a Hold Harmless Agreement with SFMTA with respect to the safety training.
- D. In addition, and at least two weeks prior to mobilization, the Contractor shall obtain a "Track Access Clearance Permit" from the Muni's Operations Control Center (OCC)

before working within 72 inches of the rail tracks. The Track Access Clearance meeting is held every Tuesday at 10:00am at 1 South Van Ness, San Francisco, Conference Room 8104, where the permit application process may be discussed. The Contractor shall schedule the "Track Access Clearance Permit" training by contacting SFMTA.

- E. All Contractor personnel performing Work along a trackway or adjacent to a trackway shall comply with any instruction given by SFMTA Operations Control Center (OCC).
- F. The Contractor is alerted to the presence of the Overhead Contact System (OCS). The overhead contact system is above each trolley coach route and track, and adjacent to each platform. This is a HIGH VOLTAGE SYSTEM operating in excess of 600 volts DC. The Contractor's attention is directed to Article 37 of the California Public Utilities Commission General Order 95. Cal/OSHA regulations require that any boom type equipment that moves vertically must maintain 10 feet radial clearance and any other equipment must maintain a 6 feet clearance from OCS. The Contractor shall use only fiberglass ladders when working around the OCS. The Contractor shall obtain "clearance to start work" from the SFMTA facility's supervisor when working within 10 feet of the OCS, at least two weeks prior to performing that Work.
- G. Contractor shall comply with California Public Utilities Commission's General Order 175-A and the SFMTA "Roadway Worker Protection" training when performing any work on or near Muni trackways.
- H. The Contractor shall provide proof of health and safety training required by CCR, Title 8, Subsection 3203 (a)(7) and Muni Procedures SY.PR.034 – Contractor Safety Program and SY.PL.003 – Roadway Worker Protection (RWP) Plan, for each employee, including employee name or other identifiers, training dates, type(s) of training and training provider. These documents are available for review and inspection at One South Van Ness Ave., 3rd Floor, San Francisco, CA 94103. Please call Mr. Shahnam Farhangi at (415) 701-4284 to schedule an appointment to view these documents.
- I. The Contractor shall during the course of the Work regularly provide tail-gate trainings to all employees working in and around tracks, track switches, overhead catenary system, train signal system, and other Project specific hazards, as required by Cal-OSHA regulations and other applicable laws and as topics related to safe performance of the Work and maintenance of Site safety come to the attention of the Contractor.
- J. The Contractor shall ensure that its employees, agents, and subcontractors provide and maintain personnel safety training and medical examinations in accordance with all applicable Federal, State, and local safety and health standards, rules, regulations, and orders.
- K. The Contractor shall acquire all the proper permits, trainings, clearances, and schedule any SFMTA support as necessary, at least two weeks prior to mobilization.
- L. The Contractor shall sign an Assumption of Risk/Waiver of Claims/Hold Harmless Agreement with SFMTA with respect to the operational and safety training.
- M. Cost for all the above requirements, permits, training, and clearances is incidental and inclusive of the base bid.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION