

## **SECTION 01500 - CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS**

### **1.0 GENERAL**

The Contractor shall provide all temporary facilities and utilities required for prosecution of the work, protection of employees and the public, protection of the work from damage by fire, weather or vandalism, and such other facilities as may be specified or required by any legally applicable law, ordinance, rule, or regulation.

The Contractor shall respond to public complaints when requested by the City.

### **2.0 TEMPORARY UTILITIES**

#### **2.1 Electrical Service**

The Contractor shall arrange, at its own cost, with the local utility to provide adequate temporary electrical service at a mutually agreeable location. The Contractor shall then provide adequate jobsite distribution facilities conforming to applicable codes and safety regulations. The Contractor shall provide, at its own cost, all electric power required for construction, testing, general and security lighting, and all other purposes whether supplied through temporary or permanent facilities. Electric power may be available for the Contractor's use, on a site specific basis, and at the City's sole discretion.

#### **2.2 Water**

The Contractor shall pay for and shall construct all facilities necessary to furnish water for its use during construction. Water used for human consumption shall be kept free from contamination and shall conform to the requirements of the State and local authorities for potable water. The Contractor shall pay for all water used for the Contractor's operations prior to final acceptance.

#### **2.3 Temporary Lighting**

The Contractor shall provide temporary lighting in all work areas sufficient to maintain a lighting level during working hours not less than the lighting level required by California OSHA standards. As permanent lighting facilities are completed they may be used in lieu of temporary facilities, provided however, that bulbs, lamps, or tubes of such facilities used by the Contractor shall be replaced prior to final acceptance of the Work.

#### **2.4 Heating and Ventilation**

The Contractor shall provide means for heating and ventilating all work areas as may be required to protect the Work from damage by freezing, high temperatures, weather, or to provide a safe environment for workers. Unvented direct fired heaters shall not be used in areas where freshly placed concrete will be exposed to the combustion gases until at least two hours after the concrete has attained its initial set.

#### **2.5 Sanitary Conveniences**

The Contractor shall provide suitable and adequate sanitary conveniences for the use of all persons at the site of the Work. Such conveniences shall include chemical toilets or water closets and shall be located at appropriate locations at the site of the Work. All sanitary conveniences shall conform to the regulations of the public authority having jurisdiction over such matters. At the completion of the Work, all such sanitary conveniences shall be removed and the site left in a sanitary condition.

### **3.0 CONSTRUCTION FACILITIES**

Construction hoists, elevators, scaffolds, stages, shoring, and similar temporary facilities shall be of ample size and capacity to adequately support and move the loads to which they will be subjected. Railings, enclosures, safety devices, and controls required by law or for adequate protection of life and property shall be provided.

#### **3.1 Staging and Falsework**

Temporary supports shall be designed by a professional registered engineer with an adequate safety factor to assure adequate load bearing capability. If requested by the Construction Manager, the Contractor shall submit design calculations for staging and shoring prior to application of loads.

Excavation support shall be in accordance with Section 00700-4.12, Safety.

#### **3.2 Temporary Enclosures**

When sandblasting, spray painting, spraying of insulation, or other activities inconveniencing or dangerous to property or the health of employees or the public are in progress, the area of activity shall be enclosed adequately to contain the dust, over-spray, or other hazard. In the event there are no permanent enclosures of the area, or such enclosures are incomplete or inadequate, the Contractor shall provide suitable temporary enclosures. The Contractor shall comply with the San Joaquin Valley Unified Air Pollution Control District regulations for such work.

#### **3.3 Warning Devices and Barricades**

The Contractor shall adequately identify and guard all hazardous areas and conditions by visual warning devices and, where necessary, physical barriers. Such devices shall, as a minimum, conform to the requirements of Cal/OSHA.

#### **3.4 Above Grade Protection**

On multi-level structures the Contractor shall provide safety protection that, as a minimum, shall meet the requirements of Title 8, California Code of Regulations.

#### **3.5 Use of Explosives**

All persons engaged in the activities of receiving, storing, using, handling or transporting any explosives must obtain a permit from the Fire Prevention Bureau; and all work shall be governed by the Health & Safety Code and any amendments or existing Articles of the National Board of Fire Underwriters Fire Prevention Code. The Contractor must notify the Construction Manager at least 14 days prior to the use of explosives.

### **4.0 PROTECTION AND RESTORATION OF PROPERTY**

The Contractor shall be responsible for the protection of public and private property at and adjacent to the Work and shall exercise due caution to avoid damage to such property. The Contractor is responsible for the following, at no additional cost to the City:

- a. The Contractor shall conduct operations in a manner which will cause the least amount of damage, inconvenience and interference with the normal use of any public or private property. The Contractor shall repair or replace all existing improvements which are not designated for removal (e.g., curbs, sidewalks, survey points, fences, walls, signs, utility installations, pavements, structures, etc.) and 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.
- b. Trees, lawns, and shrubbery that are not to be removed shall be protected from damage or injury. Remove all transplantable trees, shrubs and bushes that may be damaged or destroyed by construction and reset them after construction. If damaged or removed because of the Contractor's operations, they shall be restored or replaced as required to return the property to its prior condition and location, or better, as is reasonably possible. Lawns shall be re-sod, or re-seeded and covered with suitable mulch if appropriate sod is not available.
- c. The Contractor shall give reasonable notice to occupants or owners of adjacent property to permit them to salvage or relocate plants, trees, fences, sprinklers, and other improvements within the right-of-way which are designated for removal or would be destroyed because of the Work.
- d. To store his apparatus, materials, supplies, and equipment in such orderly fashion at the site of the Work as will not unduly interfere with the progress of his Work or the work of any other contractor.
- e. To provide suitable storage facilities for all materials which are liable to injury by exposure to weather, theft, breakage, or otherwise. If the Owner determines that suitable storage for certain materials is not being provided, he may direct the Contractor to remove it from the job site, or to store it properly at the job site.
- f. To place upon the Work or any part thereof only such loads as are consistent with the safety of that portion of the Work.
- g. In coordination with the appropriate authorities probe, pot-hole, or otherwise ascertain the exact location of all existing underground improvements in advance of excavation such that no damage to these improvements will occur. In the event interferences in construction are encountered with the various existing improvements, the City reserves the right to appropriately change the alignment and grade of the facilities.
- h. Provide for the flow of all sewers and drains interrupted during the progress of the Work, in a manner acceptable to the City and immediately cart away and remove all offensive matter at no additional cost to the City.

Where interruption of existing utilities occurs as the result of the Contractor's activity for this Work, whether intentional or accidental, repairs to the interrupted utility shall be performed by the Contractor in a manner acceptable to the Owner unless instructed otherwise in these Contract Documents. The repairs, including materials used, shall be performed in accordance with the requirements of the respective utility as well as the requirements of the Contract Documents for this Project. Where a conflict exists between the requirements of the respective utility and those of the

Contract Documents for this Project, the more stringent of the two shall apply unless instructed otherwise by the Owner.

## **5.0 PROJECT SECURITY**

The Contractor shall make adequate provision for the protection of the Work area against fire, theft, and vandalism, and for the protection of the public against exposure to injury and shall comply with the City's security measures.

### **5.1 Fire Extinguisher**

Sufficient number of fire extinguishers of the type and capacity required to protect the Work and ancillary facilities, shall be provided and maintained in readily accessible locations.

### **5.2 Temporary Fences**

Except as otherwise provided, the Contractor shall enclose the site of the Work with a fence adequate to protect the Work and temporary facilities against acts of theft, violence, or vandalism.

In the event all or a part of the site is to be permanently fenced, this permanent fence or a portion thereof may be built to serve for protection of the Work site, provided however, that any portions damaged or defaced shall be replaced prior to final acceptance.

Temporary openings in existing fences shall be protected to prevent intrusion by unauthorized persons. During night hours, weekends, holidays, and other times when no work is performed at the site, the Contractor shall provide temporary closures or guard service to protect such openings. Temporary openings shall be fenced when no longer necessary.

## **6.0 ACCESS ROADS**

Access roads shall be maintained to all storage areas and other areas to which frequent access is required. Similar roads shall be maintained to all existing facilities on the site of the Work to provide access for delivery of material and for maintenance and operation. Where such temporary roads cross buried utilities that might be injured by the loads likely to be imposed, such utilities shall be adequately protected by steel plates or wood planking, or bridges shall be provided so that no loads shall discharge on such buried utilities.

## **7.0 SPECIAL CONTROLS**

The Contractor shall take all reasonable means to minimize inconvenience and injury to the public by dust, noise, diversion of storm water, or other operations under its control.

### **7.1 Dust Control**

The Contractor at its expense shall take whatever steps, procedures, or means as are required to prevent abnormal dust conditions being caused by its operations in connection with the execution of the Work; and on any unpaved road which the Contractor or any of its subcontractors are using, excavation or fill areas, demolition operations, or other activities. Control shall be by sprinkling, use of dust palliatives, modification of operations, or any other means acceptable to agencies having jurisdiction. Haul routes shall be kept visibly wet during excavation and hauling operations.

Unless the construction dictates otherwise, and unless otherwise approved by the Construction Manager, the Contractor shall furnish and operate a self-loading motor sweeper with spray nozzle at least once each working day to keep paved areas acceptably clean whenever construction, including restoration, is incomplete.

#### **7.2 Noise Abatement**

Operations at the Worksite shall be performed so as to minimize unnecessary noise. Special measures shall be taken to suppress noise during night hours. Noise levels due to construction activity shall not exceed the levels specified by local ordinance.

Internal combustion engines used on the Work shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated without said muffler.

#### **7.3 Working Hours**

Construction shall be allowed only between the hours of seven (7:00) a.m. and six (6:00) p.m. on weekdays and nine (9:00) a.m. to six (6:00) p.m. on weekends and holidays, unless otherwise approved by the City.

The Contractor shall be responsible for any inspection and additional administration costs incurred by the City, or its agents and representatives, for work by the Contractor outside the hours defined above on weekdays, or any work on weekends or holidays recognized by the City. Such costs shall be withheld from the succeeding monthly progress payment. Any work in Section 01010, **SUMMARY OF WORK**, specifically required to be performed outside the normal working hours is excluded from the provisions of this paragraph.

The Contractor shall notify the Construction Manager at least 24 hours prior to any work outside the normal working hours defined above, on weekends or holidays.

#### **7.4 Drainage Control**

In all construction operations, care shall be taken not to disturb the existing drainage pattern whenever possible. Particular care shall be taken not to direct drainage water onto private property. Drainage water shall not be diverted to streets or drainage ways inadequate for the increased flow. Drainage means shall be provided to protect the Work and adjacent facilities from damage due to water from the site or due to altered drainage patterns from construction operations.

Temporary provisions shall be made by the Contractor to insure the proper functioning of gutters, storm drain inlets, drainage ditches, culverts, irrigation ditches, and natural water courses.

#### **7.5 Construction Cleaning**

The Contractor shall, at all times, keep property on which work is in progress and the adjacent property free from accumulations of waste material or rubbish caused by employees or by the Work. The Contractor shall clean up not less than at the end of each work day, all refuse, rubbish, scrap materials, and debris caused by his operations, to the end that at all times the site of the Work shall present a neat, orderly and workmanlike appearance. More frequent clean-up shall be performed as required to maintain access to all other City facilities still in operation.

All surplus material shall be removed from the site immediately after completion of the work causing the surplus materials. Upon completion of the construction, the Contractor shall remove all temporary structures, rubbish, and waste materials resulting from its operations.

Before final inspection of the work, the Contractor shall clean the project site, material sites, and all ground occupied by him in connection with the work of all rubbish, excess materials, false-work, temporary structures, and equipment. All parts of the work shall be left in a neat and presentable condition.

Nothing herein, however, shall require the Contractor to remove warning, regulatory, and guide signs prior to formal acceptance by the City.

Full compensation for all site maintenance and cleanup will be considered as included in the prices paid for the various contract items of work and no separate payment will be made therefore.

#### **7.6 Disposal of Material**

The Contractor shall make arrangements for disposing of materials outside the Site and the Contractor shall pay all costs involved. The Contractor shall first obtain permission from the property owner on whose property the disposal is to be made and absolve the City from any and all responsibility in connection with the disposal of material on said property. When material is disposed of as above provided, the Contractor shall conform to all required Federal, State, and local regulations pertaining to such disposal.

#### **7.7 Parking and Storage Areas**

All stockpiled materials and parked equipment at the job site shall be located to avoid interference with private property and to prevent hazards to the public. Locations of stockpiles, parking areas, and equipment storage must be approved by the Construction Manager.

### **8.0 TRAFFIC REGULATION**

#### **8.1 General**

The Contractor shall take all necessary steps to minimize inconvenience to the general public throughout all work under this Contract. No driveways or private roads shall be blocked without notifying the property owner and access must be restored during all non-working hours. Safe access must be maintained for pedestrian traffic throughout the work area at all times.

At least one lane of traffic in each direction must be kept open at all times unless prior approval is provided by the City and any affected agency. No roads shall be blocked or made inaccessible, due to the Contractor's work, without prior written approval of the City and the affected agencies.

The Contractor shall not block or obstruct fire lanes at any time.

#### **8.2 Haul Routes**

Prior to the pre-construction conference, the Contractor shall submit for approval the proposed route(s) for all construction traffic on the project. This shall include any designated routes, if any, shown on the Contract Drawings. Upon approval, the Contractor shall strictly adhere to that route(s) only, unless written permission is obtained to change the route(s).

### 8.3 Traffic Control

Traffic control shall be in accordance with the California Department of Transportation Traffic Manual. The Contractor shall submit for approval, by the City and any other applicable agency, its traffic control plans prior to work on public streets.

Traffic control shall include signs, warning lights, reflectors, barriers, and other necessary safety devices and measures, including sufficient flaggers to direct vehicular traffic through the construction areas.

No material or equipment shall be stored/parked where it will interfere with the free and safe passage of public traffic, and at the end of each day's work, and at other times when construction operations are suspended for any reason, the Contractor shall remove all equipment and other obstructions from the public right-of-way.

Should the Contractor appear to be negligent in furnishing warning and protective measures, as above provided, the Construction Manager may direct attention to the existence of a hazard, and the necessary warning and protective measures shall be furnished and installed by the Contractor at its expense.

### 9.0 PROJECT OFFICE

The Contractor shall maintain on the project site a suitable office or other protected area in which shall be kept project copies of the Contract Documents, project progress records, project schedule, shop drawings, and other relevant documents which shall be accessible to the City and Construction Manager during normal working hours.

### 10.0 CONTRACTOR'S SAFETY RULES

The Contractor shall execute and abide by all terms and conditions of the City's "Contractor's Safety Rules," a copy of which is included at the end of this section. The Contractor shall post "Contractor's Safety Rules" on the job site for the entire construction period for this Project.

((OPTION))

### 11.0 CONSTRUCTION MANAGER'S OFFICE

The Contractor shall at its own expense, furnish a temporary Construction Manager's office with utilities as noted herein. The office shall be installed and operational the first day that the Contractor starts work at the project site, in a location as directed by the Construction Manager. Unless the Contractor is directed by the Construction Manager to remove the office at an earlier date, the office shall be disconnected from the utilities and removed from the site between twenty and thirty-five days after the Notice of Completion is recorded.

The office shall be insulated and of weathertight construction. It shall be equivalent to a mobile trailer having an area of at least 500 square feet. The unit shall be rigidly mounted and level. Stairs with a landing at floor level and handrails shall be provided for two entrance doors, each complete with deadbolt and or external padlock and four keys.

Each window shall be protected with minimum one-half (1/2) inch square security bars spaced at two (2) inch centers.

The office shall have three rooms plus a toilet room. There shall be at least two operable screened windows per office room. Each room shall be adequately lighted, heated, ventilated, and air conditioned. HVAC equipment shall be capable of maintaining a 70 degree temperature within the building. A least six air changes per hour shall be provided in all rooms except the toilet room, which shall have twelve air changes per hour.

The Contractor shall provide, at its cost, electrical service to the office, including an adequate disconnect switch, and an automatic circuit breaker panel located on the inside of the office. At least one duplex 115 volt electrical receptacle shall be installed on the wall of each room with a maximum spacing between receptacles not to exceed eight feet.

Provide fluorescent type lights inside. At least 70 foot-candles of initial uniform lighting at desk level shall be provided in all rooms except the toilet room, which may have 30 foot-candles. Provide an outside light near one of the entrance doors.

The Contractor shall arrange, at it's cost, with the local utility to provide temporary telephone service at a mutually agreeable location in the Construction Manager's trailer. The telephone service shall provide for three (3) separate lines.

((SUB-OPTION A: WITH WATER AND SEWER SERVICE))

The Contractor shall provide water and sewer connections to the toilet room. The toilet room shall contain a flush-type water closet, a lavatory sink with hot and cold water, a mirror, an electric 5-gallon water heater, toilet paper dispenser, paper towel dispenser, coat hook, shelf and waste receptacle.

((SUB-OPTION B: WITHOUT WATER AND SEWER SERVICE))

The toilet room shall contain a flush-type water closet, a mirror, toilet paper dispenser, paper towel dispenser, coat hook, shelf and waste receptacle. A holding tank or similar device shall be installed and connected for sanitary sewage. The Contractor shall pump the holding tank as necessary during the duration of the job.

The office shall be furnished by the Contractor with the following equipment. All equipment shall be new.

- a. 4 desks
- b. 4 swivel chairs
- c. 2 four-drawer filing cabinets
- d. 2 drafting tables
- e. 2 drafting stools
- f. 2 desk lamps
- g. 1 plan holder rack with 12 plan sticks

The Contractor shall provide a water chiller fountain with hot and chilled water service. The Contractor shall provide bottled water service with a minimum of four 5-gallon bottles per month.

The Construction Manager shall be responsible for paying for the monthly power and telephone service.

**\*\*\*\* END OF SECTION \*\*\*\***

CITY OF STOCKTON  
DEPARTMENT OF MUNICIPAL UTILITIES

CONTRACTOR'S SAFETY RULES

THESE SAFETY RULES ARE TO INFORM YOU OF CERTAIN SAFETY AND HEALTH REQUIREMENTS THAT MUST BE FOLLOWED WHILE WORKING AT THE REGIONAL WASTEWATER CONTROL FACILITY MAIN PLANT, TERTIARY PLANT, PUMP STATIONS OR OTHER MUNICIPAL UTILITIES DEPARTMENT SITES.

1. DRINK ONLY BOTTLED WATER. ~~DO NOT~~ DRINK FROM ANY FAUCET, PIPE LINE OR HOSE WHILE WORKING AT THE MAIN PLANT, TERTIARY PLANT, OR SMITH CANAL PUMP STATION.
2. STRICT ADHERENCE TO CONFINED SPACE ENTRY PROCEDURES OUTLINED BY CAL-OSHA TITLE 8 ARTICLE 108 MUST BE FOLLOWED.
3. WASH HANDS THOROUGHLY BEFORE EATING OR DRINKING.
4. WORK ONLY IN CONTRACTED AREAS. DO NOT WANDER THROUGH THE SITE.
5. OBSERVE THE 15 M.P.H. SPEED LIMIT ON THE MAIN PLANT AND TERTIARY SITES. OBSERVE ALL STOP SIGNS.
6. CHECK WITH THE CONTRACT MANAGER BEFORE BEGINNING ANY CONTRACTED WORK TO REVIEW ANY SPECIAL HAZARDS OR SAFE PRACTICE PROCEDURES FOR THE AREA YOU ARE WORKING IN.
7. IT IS YOUR RESPONSIBILITY TO ADVISE YOUR WORK CREWS AND SUBCONTRACTORS REGARDING HAZARDS AND SAFE PRACTICE MEASURES REQUIRED WHILE DOING ANY WORK AT MUNICIPAL UTILITIES DEPARTMENT FACILITIES. POTENTIALLY HAZARDOUS CHEMICALS ARE STORED AND USED AT MANY M.U.D. SITES.
8. THE ABOVE RULES DO NOT EXEMPT ANY CONTRACTOR OR SUB-CONTRACTOR FROM ANY APPLICABLE FEDERAL, STATE OR LOCAL REGULATIONS.

THE ACKNOWLEDGMENT BELOW MUST BE SIGNED AND RETURNED TO THE CONTRACT MANAGER. THANK YOU FOR YOUR COOPERATION.

I UNDERSTAND AND AGREE TO COMPLY WITH THE ABOVE RULES WHILE ON ANY MUNICIPAL UTILITIES DEPARTMENT SITE.

\_\_\_\_\_  
CONTRACTOR'S SIGNATURE

\_\_\_\_\_  
DATE

\_\_\_\_\_  
COMPANY NAME