

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. This Section supplements the General Conditions.
- B. The Work of this Section includes temporary facilities, utilities, and controls to be furnished by the Contractor for this project as it is specified herein.
- C. This Section is made a part of all Construction Contracts associated with the project. It contains specific references to the particular Contractor supplying said product or service. If no reference is provided then the requirement applies to all Prime Construction Contractors.

1.02 CARE AND PLACEMENT

- A. All temporary and permanent facilities and controls and all other elements on the project site shall meet all standards of the Occupational Safety and Health Act of 1970 and subsequent revisions. The Contractor shall comply with all requirements of the Act.
- B. The Contractor shall take every precaution and shall provide such equipment and facilities as are necessary or required for the safety of its employees and persons at the site.
- C. In the event of damage to existing and/or temporary facilities then immediately make all repairs and replacements to an equal condition prior to the event.

1.03 QUALITY PERFORMANCE

- A. Comply with and perform all work in accordance with the requirements of local authorities and utility companies having jurisdiction, and all applicable codes, regulations and ordinances.
- B. Secure approvals from the appropriate jurisdictions and utility companies on all repairs, relocations, connections, disconnections and the Work.
- C. All barricades, warning signs, lights, temporary signals and other protective devices shall conform with "Manual on Uniform Traffic Control Devices for Streets and Highways", US Government Printing Office.

1.04 SUBMITTALS

- A. The Contractor shall provide a list of contact numbers as follows:
 - 1. Contractor's superintendent and office project manager (home, beeper, cellular, office, fax, trailer, and email address).
 - 2. All subcontractors.
 - 3. All utility companies.
 - 4. Emergency services such as fire department, police, and ambulance.
 - 5. Contractor shall also submit the following:
 - a. Name and qualifications of person or persons who shall be available to render first aid.
 - b. Names, addresses and telephone numbers of personnel who can be telephoned and act on behalf of Contractor in the event of emergencies or other problems requiring prompt attention during winter shutdown, holidays, nights and other periods when the Contractor's superintendent may be absent from the project site.
- B. The General Contractor shall provide a sketch showing routing of temporary water service for construction purposes and for exfiltration tank testing. Provide cuts and plumber's certification for backflow device(s).

PART 2 - PRODUCTS

2.01 GENERAL

- A. The Owner may use temporary power lines, pipes, roadways or other facilities that the Contractor furnishes, installs, and maintains (then removes at the completion of the work), during the period of construction.
- B. The location of all temporary power lines, roadways, and other necessary temporary facilities shall be subject to the approval of the Architect, and these shall be located and operated so as not to interfere with the operation of the facilities.

2.02 WATER FOR CONSTRUCTION PURPOSES

- A. The Contractor shall obtain water from the nearest potable water source as designated by the Owner.
- B. The Contractor shall exercise measures to conserve water.

2.03 SANITARY FACILITIES

- A. The Contractor shall provide and maintain his or her own temporary toilet facilities and enclosures.
- B. These facilities shall be maintained in a strictly sanitary manner and be screened from the general public.
- C. All facilities shall be in accordance with the Occupational Safety and Health Act (OSHA) standards and all other applicable local codes.
- D. All applicable codes and regulations regarding the maintenance and method of waste disposal for these facilities will be strictly enforced. These facilities shall be of the portable type.
- E. Comply with the requirements also contained in Section 015719 - Environmental Protection.

2.04 HEAT

- A. The Contractor shall provide and pay for heating devices and fuel as required to maintain adequate heat for specific construction operations; i.e. painting, application of coatings, etc. where so specified elsewhere in these specifications.
- B. The Contractor shall heat buildings to properly apply paint in accordance with Section 099113 and 099213 requirements.

2.05 VENTILATION

- A. The Contractor shall ventilate enclosed areas to assist in the curing of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors or gases.
- B. The Contractor shall ventilate buildings to safely apply paint in accordance with Section 099113 and 099213 requirements.

2.06 BARRIERS AND PROTECTION

- A. The Contractor shall provide railings, barricades, signs, fences, overhead protection, walkway covers and other protective devices to prevent unauthorized entry to construction areas, to allow

for the Owner's / Public safe use of the site and to protect existing facilities and adjacent structures from damage from the work.

- B. Provide barricades and covered walkways required by governing authorities for public rights-of-way and for public access to existing buildings.
- C. Provide protection for plant life designated to remain.
- D. Protect vehicular traffic, stored materials, public utilities, site and structures from damage.
- E. Provide warning signs, detour signs and other traffic control devices to insure the safety of plant operators and to adequately direct traffic around the work. Illuminate barricades, obstructions, and warning signs from sunset to sunrise.

2.07 TEMPORARY FENCING

- A. The Contractor is responsible for performance compliance with OSHA standards.
- B. The Contractor shall provide temporary safety fence around all open excavations or other dangerous conditions on the construction site.
 - 1. All temporary safety fencing shall be designed and erected in compliance with OSHA standards, but in no case less stringent than these specifications for fencing.
 - 2. Fence is to be bright orange in color, a minimum of 4 feet high, and properly secured using 1" diameter steel pipe at 4'-0" on-center as support posts.
 - 3. Stake each support post to a depth of 18" and tamp securely into place.
 - 4. Each post shall be plumb.
 - 5. Secure fencing to posts using heavy-duty 12" long cable ties or tie wire.
 - 6. The fence and supports shall remain the property of the Contractor and be promptly removed at the appropriate time.
 - 7. Post the following sign every 100-ft. along the perimeter of the fence: "RESTRICTED AREA KEEP OUT".
 - a. Each sign shall be commercially printed and be 18" x 36".
 - b. It shall be secured to the fence with heavy-duty tie wraps.

2.08 TEMPORARY HANDRAILS AND SCAFFOLDS

- A. All temporary handrailing and scaffolds shall be designed and erected in compliance with OSHA standards. The Contractor is responsible for performance compliance with OSHA standards.
- B. Handrails shall be securely installed and maintained in accordance with OSHA regulations until the permanent railing or grating has been permanently installed and approved by the Architect.
- C. All scaffolding and platforms shall be erected in a safe and substantial manner complying with OSHA requirements.
- D. All temporary handrails and scaffolds shall be designed by a professional engineer licensed in the state where the project is being constructed.
 - 1. The design drawings and details shall be stamped by the licensed engineer and submitted for record purposes.
 - 2. The Contractor's design engineer shall visit the site to certify that the handrailing and/or scaffolds have been erected pursuant to the stamped design.
- E. The General Contractor shall protect all openings in building/structures of any type such as shafts, deck openings, and other building related chases.

- F. The General Contractor shall also install two (2) separate temporary handrailing installations at two (2) separate stages of the construction for all structures where OSHA requires handrailing is to be provided.
 - 1. OSHA approved wooden railing shall be installed at the point where the deck platform formwork is proceeding and before reinforcement steel is placed.
 - a. Railing shall be installed using the bridge brackets used to construct the cantilevered platforms or other method as selected by the Contractor in compliance with OSHA.

2.09 EROSION CONTROL

- A. The Contractor shall provide measures to keep the ground surface well drained, but avoid erosion of embankments, excavations, the project site, and adjacent areas.
- B. The Contractor shall comply with all local codes, rules, and regulations concerning soil erosion.
 - 1. Use hay bales or silt fences to control erosion to the satisfaction of the Architect and regulatory agencies. Use hay bales or silt fences to stop silt and sediment from reaching surface waters, parking lots and roads.
 - 2. Leave erosion control methods in place until ground cover is established or until date of substantial completion.
- C. The General Contractor shall install erosion control measures as shown on the Drawings.
- D. Comply with the requirements also contained in Section 015719 - Environmental Protection.

2.10 DUST CONTROL

- A. The Contractor shall provide measures to control dust resulting from the work.
- B. Control dust at locations and in such quantities and frequencies as required to prevent dust from becoming a nuisance to the surrounding area.
- C. In the event the Contractor does not adequately provide for dust control, or should insufficient quantities of dust control agents be placed and Contractor fails to place additional quantities within 4 hours after Architect's direction, Owner will perform the required work by whatever means deemed expedient and all expenses incurred by Owner will be charged to and paid by Contractor.
- D. Take care in selecting and applying dust control agents so as not to make roadways or walkways slippery, muddy or hazardous. Dust control agents shall be acceptable to the Architect.
- E. The Contractor shall provide all roadways with dust control.

2.11 RUBBISH REMOVAL

- A. The Contractor shall be responsible for overall rubbish removal.
- B. Burning of rubbish and trash will not be permitted.
- C. The Contractor shall clean up trash as specified in Section 011400 - Work Restrictions or more often if the trash interferes with the work of others, presents a hazard or if directed by the Architect.
- D. Dispose of rubbish and waste materials in accordance with state regulations and local ordinances.

- E. The Contractor shall also place rubbish containers at locations selected by the Architect.
 - 1. Furnish adequately sized rubbish containers from the date of initial mobilization to the date of final payment.
 - 2. As a minimum, the Contractor shall furnish ten (10) 55-gallon general trash containers. Secure the top of each container to the container.
 - 3. Secure the container itself so that it does not get blown about the site.
- F. The Contractor shall be responsible for maintaining the site free of trash.

2.12 SNOW REMOVAL

- A. The Contractor shall be responsible for maintaining roads, walkways, sidewalks, and parking areas/lots free of snow. Provide snow plowing during and after each snow fall equal to or greater than 1.0 inch as reported by the local weather service.
- B. Any damage resulting from the Contractor's snow clearing operations shall be immediately repaired at no additional cost to the Owner.

2.13 ENCLOSURES

- A. The Contractor shall provide and maintain temporary enclosures, sheds, or fenced-in areas to accommodate protection for products, material and equipment.
- B. Store equipment that cannot be exposed to outdoors in accordance with Section 016500 - Product Delivery, Storage and Handling.

2.14 SECURITY

- A. The Contractor shall provide security and facilities to protect work from unauthorized entry, vandalism and theft.
- B. Coordinate with Owner's security program, if applicable.
- C. The Contractor has full responsibility for the working area until final acceptance and payment.
- D. The General Contractor shall maintain the perimeter fence that pre-existed prior to the start of construction. A temporary perimeter fence shall be required at all times during the construction and until the new perimeter fence is installed, or until the project is accepted by the Owner.
- E. It shall be the Contractor's responsibility to lock all gates to the site, and on the access road, at the end of each work day.
- F. All on-site employees shall bear, at all times, an identification badge, conspicuously worn, which shall include, at a minimum, a passport or similar size photograph, the name of the employee and the name of the company.
- G. Any employee working on site without a photo identification badge will be instructed to leave the site.
- H. All company vehicles shall be conspicuously identified, through sufficiently sized lettering on both the passenger and driver sides, with the company name, address and telephone number.
 - 1. Vehicles may be subject to search by the Owner or owner's representatives.
 - 2. Any vehicle that does not have the company name, address and telephone number will not be permitted on the Owners' property.

- I. Submit to the Owner a complete listing of all employees that will or might be performing work at the project site.
 1. Furthermore, provide sufficient information as may be required for the Owner to conduct background checks, in accordance with the Fair Credit Reporting Act.
 2. Background checks may be performed at the discretion of the Owner due to the sensitive nature of the work and the extensive, and sometimes unsupervised, access to Owner property and buildings.
 3. The Contractor shall be required, on request from the Owner, at any time prior to or during the work, to provide releases from its employees and officers to the Owner, H2M, and a background search firm, hired by either the Owner or H2M, to conduct background checks in accordance with the Fair Credit Reporting Act and applicable state law.

2.15 PARKING

- A. Do not allow heavy construction vehicle parking on existing pavement, if existing pavement is not scheduled for replacement or restoration.
- B. Provide and maintain access to fire hydrants, building entrances, process tanks, doors and the work in general.
- C. The Contractor shall have his or her employees and subcontractors park in areas designated by the Owner/Architect.
- D. If designated on the Contract Drawings, then only use those areas for parking.
- E. If a Site Utilization Plan has been specified, then parking shall be as sited in the plan.

2.16 DAMAGES

- A. The Contractor, with the prior approval of the Owner/Architect, shall promptly repair any damage, directly or indirectly caused by the Contractor's operations.
- B. All repairs shall be to the complete satisfaction of the Owner and equal in quality to that which pre-existed.

2.17 FIRST AID FACILITIES & EMERGENCY TELEPHONE NUMBERS

- A. The Contractor shall provide and maintain adequately equipped first aid facilities in a location or at locations that are readily accessible to workmen, Architect and visitors to the site.
- B. Provide at least one on-site employee who is properly trained in first aid and who shall be available to render first aid whenever construction is in progress.
- C. Provide a list of emergency telephone numbers as specified above.
- D. Post the list of emergency telephone numbers as directed by the Architect.

2.18 POLLUTION CONTROL

- A. Do not permit pollutants, such as chemicals, fuels, lubricants, calcium chloride, sewage, water containing sediments and other deleterious, poisonous, toxic or oxygen demanding substances to enter or leach into streams, lakes, wetlands, other surface waters, into groundwater, or into the air.

- B. In no case shall the classification for the surface water be violated, unless otherwise permitted by the State.
- C. In water used for other purposes, the turbidity shall not exceed State limits.

2.19 TEMPORARY ROADS

- A. The General Contractor shall construct temporary roads where shown on the Contract Drawings and as specified in Division 32 specifications.
- B. Maintain the roads through the construction up until substantial completion or until final roads are constructed.
- C. Remove all temporary roads and pavement and restore road area as designated on the Contract Drawings.
- D. All temporary roads shall be properly constructed as detailed, or if not detailed, to the extent required to form a sound driving surface in accordance with trade standards.

2.20 REMOVALS

- A. Remove all items provided under this Section except as otherwise specified.

PART 3 - EXECUTION

3.01 PROTECTION OF EXISTING UTILITIES AND PUBLIC WORKS

- A. Maintain and protect existing utilities and public works including, but not limited to, conduits, sewers, water mains, electric and telephone conductors or conduits, and gas mains encountered during the construction.
- B. In the event that it is not possible to cross over, under, around or otherwise avoid the existing utility, the owner of the utility shall be notified that the utility must be altered or moved.
- C. In the event that damage shall result to any service pipe for water or gas, or any private or public sewer or conduit, the Contractor shall immediately, and at its own expense, repair same to the satisfaction of the Architect.
- D. Any contents from the pipes, sewers or conduits shall be immediately removed and disposed in accordance with applicable laws.

3.02 REMOVAL OF UTILITIES, FACILITIES AND CONTROLS

- A. Remove temporary above grade or buried utilities, equipment, facilities and materials, immediately following substantial completion and prior to release of retainage.
- B. Remove underground installations to a minimum depth of 2 feet.
- C. Regrade site to restore to existing slope and elevation, and restore the surface.
- D. Clean and repair damage caused by installation or use of temporary work.
- E. Restore existing facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.
- F. Remove temporary parking and access roads.

- G. Regrade area to existing slope and elevation and restore the surface to its existing condition.
- H. Final payment will not be processed until all removals have been completed to the satisfaction of the Owner/Architect.

3.03 PROTECTION OF EXISTING PROPERTY

- A. Protect existing structures and finishes during performance of the work.
- B. Protect existing trees and plants during performance of the work.
- C. Do not deposit excavated materials or store materials around trees or plants or attach guy wires to trees.

END OF SECTION