

To VIEW Notes to Specifier, Click On ¶ Icon Under the Home Tab.

To PRINT with Notes to Specifier, click on “File”/ click on Options/ Display/Printing Options, check “Hidden Text”/click OK.

The TEXT indicated with < > is to be selected or filled in by the Specifier to meet the requirements of the project.

If any of the SECTIONS (i.e. 1.02, 1.03, etc.) below are not required for the project do NOT delete the Section, but rather change the title of the Section to “NOT USED” (i.e. 1.02 NOT USED) so that numbering of specification references is preserved, and delete the specification language in this Section below the title.

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Temporary utilities, generally.
- B. Temporary electricity.
- C. Temporary lighting for construction purposes.
- D. Temporary heating.
- E. Temporary cooling.
- F. Temporary ventilation.
- G. Telephone service.
- H. Broadband internet connectivity.
- I. Temporary water service.
- J. Temporary sanitary facilities.
- K. Temporary fire protection.
- L. Field offices and sheds.
- M. Vehicular access.
- N. Parking.
- O. Progress cleaning.
- P. Project identification.
- Q. Traffic regulation.
- R. Barriers.
- S. Enclosures and fencing.
- T. Removal of temporary utilities, facilities, and controls.

1.02 TEMPORARY UTILITIES, GENERALLY

- A. When appropriate, the CONTRACTOR shall engage UTILITIES or such other utility company as appropriate if outside of UTILITIES' service territory, to provide temporary service to the Site, or at a minimum, to make connection to the existing utility service; locate services where they will not interfere with Work, including installation of permanent utility services; and maintain temporary service as installed for required period of use; and relocate, modify or extend as necessary from time to time during that period as required to accommodate Work in progress.
- B. Where a portion of the temporary utility service is provided by UTILITIES, or another utility company if outside UTILITIES service territory, the CONTRACTOR shall provide all additional equipment, material and labor to complete temporary service and shall comply with recommendations of UTILITIES or other utility company as applicable.
- C. The CONTRACTOR, in conjunction with establishing the progress schedule, shall establish a schedule for implementation and termination of service for each temporary utility at the earliest feasible time, and when acceptable to UTILITIES, conversion from temporary utility service to permanent service.

1.03 TEMPORARY ELECTRICITY

- A. CONTRACTOR shall provide and pay for electric service required from <the applicable electric utility> <existing building> <_____> as needed for performing the Work. <Use UTILITIES' existing power service, provide separate metering and reimburse UTILITIES for cost of energy used.>
- B. CONTRACTOR will use the existing electric utility service at the Site. UTILITIES will pay cost of energy used. CONTRACTOR shall utilize measures to conserve energy.
- C. CONTRACTOR shall not disrupt UTILITIES' use of service.
- D. CONTRACTOR shall provide power required for its operations under the Contract and shall provide and maintain temporary power lines required to perform the Work in a safe and satisfactory manner.
- E. <Power> <Feeder> Service characteristics: <_____> volt, <_____> ampere, <3-> <_____> phase, <4-> <_____> wire.
- F. Power provided by CONTRACTOR shall complement existing power service capacity and characteristics as required.
- G. CONTRACTOR shall provide power outlets for construction operations, with branch wiring and distribution boxes located <at each floor> <as required> <_____> and provide flexible power cords as required.
- H. CONTRACTOR shall provide <main service disconnect and over-current protection at a convenient location.> <a feeder switch at source distribution equipment.> <a meter.>
- I. Permanent convenience receptacles may <not> be used during construction.
- J. CONTRACTOR shall provide adequate distribution equipment, wiring, and outlets to provide single phase branch circuits for power and lighting and shall provide:
 - 1. 20-ampere duplex outlets, single phase circuits for power tools for every <_____> sq ft of active work area.
 - 2. 20 ampere, single phase branch circuits for lighting.
- K. CONTRACTOR shall provide power outlets for construction operations as required by Work. Outlets shall be GCFI-rated and fed from a dedicated minimum 115-volt, 20-ampere circuit. The number of outlets per circuit shall be in accordance to the NEC. CONTRACTOR shall provide flexible power

ords as required. Power outlets shall be properly sized and rated to operate in applicable space, ambient temperature, and other environmental conditions at the Site.

- L. CONTRACTOR shall provide main service disconnect and overcurrent protection at generator, if applicable.
- M. Contractor shall provide each supply fan, exhaust fan, and sump pump a dedicated service with a local disconnect. Feeder circuits shall be GFCI protected. Power feed and disconnect shall be sized to match motor FLA in accordance to the NEC. Power feed disconnects and GCFI shall be sized and rated to operate in applicable space, ambient temperature, and other environmental conditions at the Site.

1.04 TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES

- A. CONTRACTOR shall provide and maintain sufficient lighting for construction operations.
- B. CONTRACTOR shall provide and maintain sufficient lighting to exterior staging and storage areas <entire site> after dark for security purposes.
- C. CONTRACTOR shall provide and maintain sufficient lighting to interior work areas after dark for security purposes.
- D. CONTRACTOR shall provide branch wiring from the power source to distribution boxes with lighting conductors, pigtails, and lamps as required.
- E. CONTRACTOR shall maintain temporary lighting and provide routine repairs.
- F. Permanent building lighting may <not> be used during construction.
- G. CONTRACTOR shall consider the appropriateness of security lighting to prevent acts of vandalism and assist in the discovery of oil / chemical discharges, and provide suitable lighting as needed.

1.05 TEMPORARY HEATING

- A. Existing facilities <shall not be> <may be> used.
- B. CONTRACTOR shall provide <and pay for> heating devices and heat as needed to maintain specified conditions for construction operations. <Provide separate metering and reimburse UTILITIES for cost of energy used.>
- C. UTILITIES will pay the cost of temporary heat. CONTRACTOR shall implement measures to conserve energy. CONTRACTOR shall use UTILITIES' <existing> <new> heating systems and may supplement such systems with temporary heat devices as needed to maintain specified conditions for construction operations.
- D. <CONTRACTOR shall enclose building prior to activating temporary heat in accordance with the Enclosures article in this section.>
- E. Prior to operation of permanent equipment for temporary heating purposes, CONTRACTOR shall verify that installation is approved for operation, equipment is lubricated and filters are in place. CONTRACTOR shall provide and pay for the operation, maintenance, and regular replacement of filters and worn or consumed parts.
- F. CONTRACTOR shall maintain a minimum ambient temperature of 50°F in areas where construction is in progress, unless indicated otherwise in the Contract Documents.

1.06 TEMPORARY COOLING

- A. Existing facilities <shall not be> <may be> used.
- B. CONTRACTOR shall provide <and pay for> cooling devices and cooling as needed to maintain specified conditions for construction operations. <Provide separate metering and reimburse UTILITIES for cost of energy used.>
- C. UTILITIES will pay the cost of temporary cooling. CONTRACTOR shall implement measures to conserve energy. CONTRACTOR shall use UTILITIES' <existing> <new> cooling systems, and may supplement such systems with temporary cooling devices as needed to maintain specified conditions for construction operations.
- D. <CONTRACTOR shall enclose building prior to activating temporary cooling in accordance with the Enclosures article in this section.>
- E. Prior to operation of permanent equipment for temporary cooling purposes, CONTRACTOR shall verify that installation is approved for operation, equipment is lubricated and filters are in place. CONTRACTOR shall provide and pay for the operation, maintenance, and regular replacement of filters and worn or consumed parts.
- F. CONTRACTOR shall maintain a maximum ambient temperature of 80°F in areas where construction is in progress, unless indicated otherwise in the Contract Documents.

1.07 TEMPORARY VENTILATION

- A. CONTRACTOR shall ventilate enclosed areas to achieve curing of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases as indicated in the Contract Documents and/or by the Manufacturer's Recommendations.
- B. CONTRACTOR shall appropriately monitor areas with the potential to adversely affect human health, and those with a potential for flammability or combustibility.
- C. <CONTRACTOR shall use existing ventilation equipment and may supplement such equipment with temporary fan units as required to maintain clean air for construction operations.>

1.08 TELEPHONE SERVICE

- A. CONTRACTOR shall provide, maintain, and pay for telephone service to CONTRACTOR's field office <and Engineer's field office> beginning at time of project mobilization and until Substantial Completion of the Work. Mobile phone service is an acceptable means for providing telephone service.

1.09 BROADBAND INTERNET CONNECTIVITY

- A. CONTRACTOR shall provide, maintain and pay for broadband Internet connectivity in field offices for use by CONTRACTOR and UTILITIES <and Engineer> in order to effectively use web-based PM SaaS as specified in Section 01 33 12 – PM SaaS. T1, cable modem, or DSL connectivity is acceptable. Wireless hotspots may be allowable if internet connectivity is not easily accessible or determined to be the most reasonable solution for connectivity.

1.10 TEMPORARY WATER SERVICE

- A. CONTRACTOR shall provide <and pay for> suitable quality water service as needed to maintain specified conditions for construction operations. <Connect to existing water source.> <Provide separate metering and reimburse UTILITIES for cost of water used.>
- B. UTILITIES will pay for the cost of temporary water. CONTRACTOR shall implement measures to conserve water. CONTRACTOR shall use UTILITIES' <existing> <new> water system, and may

supplement such system with temporary devices as needed to maintain specified conditions for construction operations.

- C. Temporary and construction water use is subject to all applicable UTILITIES Line Extension and Service Standards (LESS) and all other applicable codes, laws and regulations. Any water for construction or irrigation activities shall have an approved backflow prevention method or assembly.
- D. CONTRACTOR may extend branch piping with spigots located so water is available by hoses with threaded connections. <Provide temporary pipe insulation to prevent freezing.>

1.11 TEMPORARY SANITARY FACILITIES

- A. CONTRACTOR shall provide and maintain required temporary sanitary facilities and enclosures. Existing facility use is not permitted. CONTRACTOR shall provide the temporary sanitary facilities at time of project mobilization and such facilities shall remain until such time as CONTRACTOR is no longer performing work at the Site.
 - 1. Portable Toilet Protection Installation for Construction Sites:
 - a. Shall be placed on a flat surface and at least:
 - 1) 10 feet behind all curbs and/or sidewalks.
 - 2) 50 feet from stormwater inlet structures.
 - 3) 100 feet from waterways.
 - b. Shall be grouped together whenever practicable.
 - c. Shall be securely anchored to the ground using u-shaped rebar stakes, which shall be positioned on at least two diagonal corners of the structure.
 - d. Portable toilets that have tipped over shall be placed upright immediately upon discovery. Any spilled waste shall be cleared up immediately and disposed of properly. Portable toilets shall be properly re-staked.
 - 2. Portable Toilet Protection Installation for Roadway Construction:
 - a. When possible, portable toilets shall be placed out of the right-of-way at a minimum of 10 feet behind all curbs and/or sidewalks.
 - b. If portable toilets must be in the right-of-way, it is best to place them on mobile trailers and they must be anchored or weighted down.
 - c. If portable toilets must be directly in the right-of-way, on pavement, they must be anchored or weighted down completely around the base of the unit.
 - d. Portable toilets shall always be a minimum of 50 feet from protected stormwater inlet structures and the downstream inlet must have inlet protection.
 - e. Portable toilets shall be placed at least 100 feet from waterways.
 - 3. Portable Toilet Maintenance:
 - a. Portable toilet protection shall be repaired immediately when any stakes are loose, damaged, or removed.
 - b. Portable toilets shall be serviced at the necessary intervals to eliminate the possibility of overflow.
 - c. When the portable toilets are removed, and disturbed areas associated with the installation, maintenance, and/or removal of the toilets shall be landscaped or roughened, seeded, mulched, and crimped.
 - d. The release of pollutants, sewage, and/or contaminated wash waters associated with the transport, cleaning, washing or flushing of portable toilets directly or indirectly to the storm drain system, storm water conveyances or waterways is a violation of federal, state and local laws, regulations, and ordinances.
- B. <Existing> <Permanent> <designated> sanitary facilities <located at < >> may be used during construction operations. CONTRACTOR shall maintain such facilities daily in clean and sanitary condition.
 - 1. At end of construction, return facilities to same or better condition as original condition.

1.12 TEMPORARY FIRE PROTECTION

- A. CONTRACTOR shall provide sufficient number of fire extinguishers of type and capacity required to protect the Work and ancillary facilities.

1.13 FIELD OFFICES AND SHEDS

- A. The following designated existing spaces provided by UTILITIES may be used for field offices **<and for storage>**:
1. **<_____>**.
 2. **<_____>**.
- B. CONTRACTOR shall provide space for Project meetings, with table and chairs to accommodate **<20> <_____>** persons.
- C. CONTRACTOR shall provide separate **<private office,> <work station,>** similarly equipped and furnished as described in Section I below, for use of UTILITIES **< and Engineer>**.
- D. CONTRACTOR shall locate field offices and sheds a minimum distance of 30' from existing **<and new>** structures.
- E. When permanent facilities are enclosed with operable utilities, CONTRACTOR shall relocate field offices and storage into such buildings, with written approval of UTILITIES, and remove temporary buildings.
- F. CONTRACTOR shall not use permanent facilities for field offices or for storage.
- G. Portable or mobile buildings, or buildings constructed with floors raised above ground, securely fixed to foundations with steps and landings at entrance doors shall meet the following requirements.
1. The structure shall be sound, secure, weather tight enclosures for office and storage spaces. Maintain during progress of Work; remove **<when no longer needed.> <at completion of Work.>**
 2. The structure's exterior materials shall be weather-resistant, finished **<in color(s) acceptable to UTILITIES>**.
 3. The structure's interior materials shall be sheet type materials for walls and ceilings, pre-finished or painted; resilient floors and bases.
 4. The structure's lighting shall be 50 ft C (538 lx) at desktop height, exterior lighting at entrance doors.
 5. The structure's fire extinguishers shall be appropriate type for each office and each storage area.
 6. Storage building shall provide specified conditions for storage of products.
- H. Environmental control:
1. Heating, cooling, and ventilating for offices: Automatic equipment to maintain **<comfort conditions.>** 68°F heating and 76°F cooling.
 2. Storage spaces: Heating and ventilation as needed to maintain products in accordance with Contract Documents; adequate lighting for maintenance and inspection of products.
- I. UTILITIES office **<and Engineer office>**: CONTRACTOR shall provide a field office for UTILITIES **<and Engineer>** that meets the following requirements:
1. Separate space for the sole use of UTILITIES **<and Engineer>**, with a separate entrance door with a new lock and **<2> <_____>** keys.
 2. Area: Minimum **<150> <_____>** sq ft, minimum dimension **<8'> <_____>**.
 3. Windows: Minimum **<3> <_____>** minimum total area of **<10%> <_____>** % of floor area, with operable sash and insect screens. Locate to provide views of construction area.
 4. Electrical distribution panel: **<2> <_____>** circuits minimum, **<110> <_____>** volt, 60 Hz service.
 5. Minimum **<four> <_____>** **<110> <_____>** volt duplex convenience outlets, one on each wall.
 6. Telephone: Include conferencing telephone in meeting location, that is routed below the floor and does not create trip hazard
 7. Sanitary facilities: **<Convenient access to>** Men and women's private lavatory toilet facilities including running water.
 8. Drinking water: Five-gallon bottled water including cups and two extra bottles on hand.
 9. Photocopier with the following features:
 - a. Original and copy sizes 8-1/2" x 11" and 11" x 17".
 - b. Automatic document feeder.

- c. 8-1/2 x 11" duplexing.
 - d. Scanning to single or multiple page portable document format (pdf) file with resolutions of 400 x 400, 300 x 300, and 200 x 200 dots per inch.
 - e. Individual paper sources for 8-1/2" x 11", 11" x 17" and bypass feeder
 - f. Network printing capabilities.
10. Furnishings:
- a. <One> < > desk <54" x 30"> < > "x > ", with 3 drawers.
 - b. <One> < > drafting table <36" x 72"> < > x > , with 1 equipment drawer <and a full width parallel straight edge>.
 - c. One metal, double-door storage cabinet under table.
 - d. Plan rack to hold working Drawings, shop drawings, and record documents.
 - e. <One> < > standard four-drawer <legal-> <letter-> size metal filing cabinet with locks and <2> < > keys per lock.
 - f. <Six> < > linear ft of metal bookshelves.
 - g. <Two> < > swivel armchairs.
 - h. <Two> < > straight chairs.
 - i. <One> < > drafting table stool.
 - j. One tackboard <36" x 30"> < > x > .
 - k. 4' x 8' cork bulletin board.
 - l. 25" x 20" x 29" copier stand with two shelves.
 - m. One wastebasket per desk and table.
 - n. New wall mounted whiteboards.
 - 1) One for each office with the whiteboard measuring 36" x 48".
 - 2) In the conference areas a minimum of two whiteboards which are 48" x 96".
 - 3) Mount whiteboards in locations identified by UTILITIES.
 - 4) The whiteboards shall have a one-inch minimum full metal frame. Whiteboards shall have a life-time guarantee and have a non-staining surface.
 - 5) Whiteboards shall include a magnetic surface.
 - o. Provide one new portable projector and one projection screen at each Site. The projector shall be capable of 3000 lumens in brightness and have minimum resolution of 1280 x 800 pixels.
 - 1) The projection screen shall have minimum viewable screen dimensions of 6-ft wide by 5-ft tall. The screen shall be wall mounted.
 - 2) A TV of similar size and resolution may be substituted for projector.
 - p. Cables
 - 1) Include 120 Volt power strip at the table that is also routed below the floor so that it does not create a trip hazard.
 - 2) Include all necessary cables and adapters.
 - 3) All cables shall be routed below the floor
 - q. Submit for approval by UTILITIES all proposed products.
11. Maintenance
- a. Replenish, as required, bottled drinking water (including two extra bottles), paper towels, paper cups, hand soap, hand sanitizer, toilet paper, first aid supplies.
 - b. Janitorial services shall include: sweeping of hard surfaces twice per week and mopping of hard surfaces once per week; vacuuming of carpeted surfaces once per week; cleaning and disinfection of sanitary facilities and cleaning toilets and lavatories once per week.
 - c. As necessary, but before sanitary facilities black water holding tanks become near full, or water supply tanks become empty, properly remove waste and replenish water holding tanks.
 - d. Maintain the lavatory in a clean and sanitary condition at all times.
- J. Storage areas and sheds: Storage areas and sheds should be of sufficient size and have environmental controls to meet storage requirements for products of individual Sections, allowing for access and orderly provision for maintenance and for inspection of products to requirements of Section 01 60 00 – Product Requirements.
- K. Preparation: CONTRACTOR shall fill and grade sites for temporary structures to provide drainage away from buildings.
- L. Installation:

1. CONTRACTOR shall install office spaces ready for occupancy <15> < > days after date fixed in <Notice to Proceed.> <Owner-Contractor Contract.> < >.
 2. Parking: <2> < > hard surfaced parking spaces for use by the UTILITIES <and Engineer> < >, connected to office by <hard surfaced> < > walk.
 3. Employee residential occupancy is not allowed on UTILITIES' property.
- M. Maintenance and cleaning:
1. CONTRACTOR shall provide <Weekly> <Daily> janitorial services for offices and periodic cleaning and maintenance for office and storage areas.
 2. CONTRACTOR shall maintain approach walks free of mud, water, and snow.
- N. Removal: At completion of Work CONTRACTOR shall remove buildings, foundations, utility services, and debris and restore areas impacted by the field offices and sheds.

1.14 VEHICULAR ACCESS

- A. CONTRACTOR shall construct temporary <all-weather> access roads from public thoroughfares to serve construction area, of a width and load bearing capacity to provide unimpeded traffic for construction purposes.
- B. CONTRACTOR shall construct temporary bridges and culverts to span low areas and allow unimpeded drainage.
- C. CONTRACTOR shall extend and relocate vehicular access routes as Work progress requires, provide detours as necessary for unimpeded traffic flow.
- D. The location of vehicular access routes shall be <as indicated.> <by Engineer.> <approved by UTILITIES.>
- E. CONTRACTOR shall provide unimpeded access for emergency vehicles and maintain 20' width driveways with turning space between and around combustible materials.
- F. CONTRACTOR shall provide and maintain access to <fire hydrants> <and> <control valves> free of obstructions.
- G. CONTRACTOR shall provide means of removing mud from vehicle wheels before entering streets.
- H. <Designated> existing on-site roads <may> <shall not> be used for construction traffic.

1.15 PARKING

- A. CONTRACTOR shall control vehicular parking to prevent interference with public traffic and parking, access by emergency vehicles, and UTILITIES' operations.
- B. CONTRACTOR shall monitor parking of construction personnel's vehicles and maintain vehicular access to and through parking areas.
- C. CONTRACTOR shall prevent parking on or adjacent to access roads or in non-designated areas.
- D. CONTRACTOR shall <Arrange for> <Provide> <Construct> temporary <gravel> <paved> < > surface parking areas to accommodate construction personnel.
- E. The location of parking areas shall be <as indicated.> <by Engineer.> <approved by UTILITIES.>
- F. <CONTRACTOR employees are prohibited from parking on the Site. CONTRACTOR employees shall park off-Site and be transported to the Site by a CONTRACTOR-provided shuttle. Metered and un-metered parking spaces in the vicinity of the Site shall not be used by CONTRACTOR's employees.>

- G. When parking space is not adequate, CONTRACTOR shall provide additional off-site parking.
- H. Use of <designated> existing on-site streets and driveways used for construction traffic is <not> permitted. Tracked vehicles not allowed on paved areas.
- I. Use of <designated areas of> existing parking facilities used by construction personnel is <not> permitted.
- J. CONTRACTOR shall not allow heavy vehicles or construction equipment in parking areas.
- K. CONTRACTOR shall not allow vehicle parking on existing pavement.
- L. CONTRACTOR shall designate <1> < > parking spaces for <UTILITIES.> <Engineer.> < >.
- M. Permanent Pavements and parking facilities:
 - 1. <Prior to Substantial Completion the base> <The base> for permanent roads and parking areas may be used by CONTRACTOR for construction traffic.
 - 2. CONTRACTOR shall avoid traffic loading beyond paving design capacity. Tracked vehicles not allowed.
 - 3. CONTRACTOR shall <not> use permanent parking structures located at the Site.
- N. Maintenance:
 - 1. CONTRACTOR shall maintain traffic and parking areas in a clean and safe condition <free of excavated material, construction equipment, products, mud, snow, and ice>.
 - 2. CONTRACTOR shall maintain existing <and permanent> paved areas used for construction; promptly repair breaks, potholes, low areas, standing water, and other deficiencies, to maintain paving and drainage in original, or specified, condition.
- O. Removal, repair:
 - 1. CONTRACTOR shall remove temporary materials and construction materials <before> <at> Substantial Completion.>
 - 2. CONTRACTOR shall remove underground work and compacted materials to a depth of 2'; fill and grade site as specified.
 - 3. CONTRACTOR shall repair <existing> <permanent> facilities damaged by use, to <original> <specified> condition.
- P. Mud from site vehicles: CONTRACTOR shall provide a means of removing mud from vehicle wheels before entering streets.

1.16 PROGRESS CLEANING

- A. All waste management and disposal shall be in accordance with Section 01 74 19.
- B. CONTRACTOR shall execute periodic, and as requested by UTILITIES, cleaning to keep Work, site, and adjacent properties free from accumulations of waste materials, rubbish, and windblown debris, resulting from construction operations.
- C. <CONTRACTOR> <UTILITIES> will provide the following on-site containers for collecting solid waste materials, debris, and rubbish, per requirements of Section 01 35 43 Environmental Procedures and the Contract Documents:
 - 1. <Aluminum>.
 - 2. <Copper>.
 - 3. < >.
- D. CONTRACTOR shall maintain areas free of waste materials, debris, and rubbish and maintain the Site in a clean and orderly condition.

- E. CONTRACTOR shall provide snow removal services to access work.
- F. CONTRACTOR shall remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, ductwork, and other closed or remote spaces prior to enclosing spaces.
- G. CONTRACTOR shall sweep and vacuum interior areas prior to the start of surface finishing and throughout performance of the Work to eliminate dust.
- H. Open free-fall chutes are not permitted. CONTRACTOR shall terminate closed chutes into appropriate containers with lids.
- I. CONTRACTOR shall sweep roadways, streets, and walkways affected by the Work and adjacent to the Work when necessary.
- J. CONTRACTOR shall schedule operations so that dust and other contaminants resulting from cleaning process will not fall on wet or newly coated surfaces.
- K. CONTRACTOR shall conduct cleaning and disposal requirements to comply with codes, ordinances, regulations, and anti-pollution laws.

1.17 PROJECT IDENTIFICATION

- A. CONTRACTOR shall provide project identification sign(s) that meet(s) the following requirements:
 - 1. <One> < > painted sign of size, construction, and design indicated or shown on Drawings.
 - 2. Size lettering to provide legibility from at least 30' distance.
 - 3. Content:
 - a. Project <number,> title, <logo> and name of Owner as indicated on Contract Documents.
 - b. Names and titles of authorities.
 - c. Names and titles of Engineer and Consultants.
 - d. Name of prime CONTRACTOR <and major Subcontractors>.
 - 4. Graphic design, logo, name, and byline colors, style of lettering: As shown on Drawings.
 - 5. Lettering: Series <C> < > of Standard Alphabet for Highway Signs, Public Roads Administration, Federal Works Agency.
- B. CONTRACTOR shall provide project informational signs that meet the following requirements:
 - 1. Painted informational signs of same colors and lettering as project identification sign, or standard products; size lettering to provide legibility from at least 30' distance.
 - 2. Provide at each field office, storage shed, <and directional signs to direct traffic into and within site>. Relocate as Work progress requires.
 - 3. Provide <municipal> <state> < > traffic agency directional traffic signs to and within site.
 - 4. No other signs are allowed <without UTILITIES permission> except those required by law.
- C. CONTRACTOR shall design sign and structure to withstand <60> < > miles/hr wind velocity.
- D. Finishes, painting: Signs shall have a finish that is adequate to withstand weathering, fading, and chipping for duration of construction.
- E. Show content, layout, lettering, color, and installation requirements
- F. Sign materials: Signs shall meet the following requirements as to materials:
 - 1. Structure and framing: <New> <used>, <wood> <metal> < >, structurally adequate.
 - 2. Sign surfaces: Exterior grade plywood with medium density overlay, minimum <3/4"> < > thick, standard large sizes to minimize joints.
 - 3. Rough hardware: <Galvanized> <aluminum> <or> <brass>.
 - 4. Paints and primers: As shown on Drawings.
- G. Installation:

1. CONTRACTOR shall install project identification sign within <15> <____> days after <Notice to Proceed.>.
 2. CONTRACTOR shall install the project identification sign at <designated location.> <location of high public visibility adjacent to main entrance to site.>
 3. CONTRACTOR shall install signs on supports and framing on a secure foundation, rigidly braced and framed to resist wind loadings.
 4. CONTRACTOR shall install sign surface plumb and level, with butt joints. Anchor securely.
 5. Paint exposed surfaces of sign, supports, and framing.
- H. Maintenance: CONTRACTOR shall maintain signs and supports clean, repair deterioration and damage.
- I. Removal: CONTRACTOR shall remove signs, framing, supports, and foundations at completion of Project and restore the area area where the sign was installed.

1.18 TRAFFIC REGULATION

- A. Quality assurance: CONTRACTOR shall comply with:
1. <CDOT Standard Specifications.> <____.>
 2. U. S. Department of Transportation Federal Highway Administration "Manual on Uniform Traffic Control Devices for Streets and Highways," 1989 Edition, as amended.
- B. Traffic control devices may be new or used, but shall meet standards of CDOT Standard Specification.
- C. CONTRACTOR shall not use portable generators to power traffic control devices within 300' of residential dwellings, including apartments, between hours of 10:00 pm and 7:00 am.
- D. Traffic control devices shall meet the following access and security control procedures.
1. General Components
 - a. Traffic Control Contractor shall identify and provide contact information for the designated Traffic Control Professional(s) prior to the commencement of each project
 - b. In the event that the Traffic Control Contractor and/or General Construction Contractor (Contractor) does not follow this Policy or fails to implement any of the procedures within the Policy, Utilities will consider this a serious public safety incident and will, at its discretion, exercise the rights and remedies specified in the Contract.
 2. Prevention of Physical Tampering Procedures to Variable Message Signage (VMS)
 - a. VMS control unit access shall be limited to a select number of Traffic Control Professionals
 - b. VMS control units shall be physically secured with padlocks, chain, and other devices to prevent physical tampering at all times
 - c. Onsite construction management personnel shall inspect all signage on construction sites by 7:00 a.m. every working day
 3. Prevention of Remote Tampering Procedures
 - a. VMS control passwords shall be changed before every project
 - b. Specific codes shall only be used by Traffic Control Professionals to access the control units
 - c. Remote access to VMS controls (i.e. mobile phones) shall be limited to a select number of Traffic Control Professionals
 - d. Traffic Control Professionals shall record and sign-off on daily inspections of VMS control units and provide inspection records for signature verification
 4. Detection and Correction of VMS Messaging Procedures
 - a. Onsite construction management personnel will drive the project site and check all signage within the work zone a minimum of three (3) times each working day and will immediately report message changes to Traffic Control Professionals who remotely manage the VMS
 - b. Traffic Control Professionals will remotely check, and immediately correct if necessary, the messages on VMS by 6:00 a.m. on a daily basis
 - c. Traffic Control Professionals who remotely control the messages on the VMS shall provide a reporting "calling tree" – a list of personnel who can be reached 24 hours a day/seven (7) days a week - so that an altered message can be corrected immediately

- E. UTILITIES will furnish "NO PARKING" signs to facilitate removal of parked cars ahead of scheduled work. CONTRACTOR shall be responsible for installation and maintenance of the "NO PARKING" signs 48 hours in advance of when cars must be removed.
- F. CONTRACTOR shall monitor condition of traffic control facilities at all times, including nonwork hours and repair or replace such facilities as necessary.
- G. Signs, signals, and devices:
 - 1. CONTRACTOR shall install post-mounted and-wall mounted traffic control and informational signs: <As approved by local jurisdictions.> <At approaches to site and on site, install at crossroads, detours, parking areas, and elsewhere as needed to direct construction and affected public traffic.>
 - 2. CONTRACTOR shall install <Automatic> traffic control signals: <As approved by local jurisdictions.> <Install and operate to direct and maintain orderly flow of traffic in areas under CONTRACTOR's control, and areas affected by CONTRACTOR's operations.>
 - 3. CONTRACTOR shall use traffic cones and drums, flares and lights: As approved or required by local jurisdictions.
 - 4. CONTRACTOR shall supply flagger equipment: As required by local jurisdictions.
 - 5. CONTRACTOR shall relocate traffic signs, signals and devices as Work progresses, to maintain effective traffic control.
- H. Flaggers: CONTRACTOR shall provide trained and equipped flaggers to regulate traffic when construction operations or traffic encroach on public traffic lanes.
- I. Flares and lights: CONTRACTOR shall use flares and lights during hours of low visibility to delineate traffic lanes and to guide traffic.
- J. Haul routes:
 - 1. CONTRACTOR shall consult with the agencies having jurisdiction over haul routes and establish public thoroughfares to be used for haul routes and site access. CONTRACTOR shall obtain approval of the agencies having jurisdiction over proposed roadways of all haul roads and/or routes.
 - 2. Drawings shall indicate haul routes designated by agencies having jurisdiction for use of construction traffic.
 - 3. CONTRACTOR shall confine construction traffic to designated haul routes.
 - 4. CONTRACTOR shall provide traffic control at critical areas of haul routes to regulate traffic, to minimize interference with public traffic.
 - 5. CONTRACTOR shall perform a condition survey of haul roads prior to use and document the condition with necessary photographs and written descriptions.
 - 6. CONTRACTOR shall keep haul routes reasonably free from dirt, dust, mud, and other debris from construction operations.
 - 7. <Clean a minimum of twice a week.>
 - 8. CONTRACTOR shall repair haul routes damaged by CONTRACTOR or its Subcontractors or Suppliers to match conditions prior to initiation of Work activities.
- K. Removal:
 - 1. CONTRACTOR shall remove traffic control equipment and devices <when no longer required.> <at Substantial Completion.> <when Work is completed.>
 - 2. CONTRACTOR shall repair damage caused by installation of traffic control equipment and devices.
 - 3. CONTRACTOR shall remove post settings from traffic control equipment and devices to a depth of <2'> <____>.

1.19 BARRIERS

- A. CONTRACTOR shall provide barriers to prevent unauthorized entry to construction areas <to allow for UTILITIES' use of site,> and to protect existing facilities and adjacent properties from damage from construction operations <and demolition>.

- B. CONTRACTOR shall provide barricades and covered walkways required by agencies having jurisdiction for public rights-of-way <and for public access to existing building>.
- C. CONTRACTOR shall provide protection for plants designated to remain and replace damaged plants.
- D. CONTRACTOR shall take steps to protect all vehicular traffic, stored materials, site, and structures from damage.

1.20 ENCLOSURES AND FENCING

- A. Construction: <CONTRACTOR's option.> <Commercial grade chain link fence.> <Plastic construction netting.> <Solid wood fence, painted.>
- B. CONTRACTOR shall provide <6'> <____> high fence around construction site; equip with vehicular <and pedestrian> gates with locks.
- C. Exterior enclosures:
 - 1. CONTRACTOR shall provide a temporary <insulated> weather tight enclosure for exterior openings to accommodate acceptable working conditions and protection for products, to allow for temporary heating and maintenance of required ambient temperatures, and to prevent entry of unauthorized persons.
 - 2. CONTRACTOR shall provide access doors with self-closing hardware and locks.
 - 3. CONTRACTOR shall provide temporary roofing as required.
- D. Interior enclosures:
 - 1. CONTRACTOR shall provide temporary partitions <and ceilings> to separate work areas from UTILITIES' occupied areas to prevent penetration of dust and moisture into UTILITIES' occupied areas and to prevent damage to materials and equipment.
 - 2. Construction: Interior partitions shall be properly framed and use <reinforced polyethylene> <plywood> <gypsum board> sheet materials with closed joints and sealed edges at intersections with existing surfaces:
 - a. Insulated to R <____>.
 - b. STC rating of <35> <____> in accordance with ASTM E90.
 - c. Maximum flame spread rating of <75> <25> in accordance with ASTM E84.

1.21 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. CONTRACTOR shall remove temporary utilities, equipment, facilities, and materials <when no longer required.> <at Substantial Completion.> <when Work is completed.>
- B. CONTRACTOR shall remove underground installations to a minimum depth of <2'> <____> <Grade site as indicated> <when no longer required.> <at Substantial Completion.> <when Work is completed.>
- C. CONTRACTOR shall clean and repair damage caused by installation or use of temporary work.
- D. CONTRACTOR shall restore existing <and permanent> facilities used during construction to original condition. <Restore permanent facilities used during construction to specified condition.>

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

3.01 SUBMITTALS

- A. Submittals to be provided by the CONTRACTOR shall include but are not limited to the following:
 - 1. Site Plan designating locations of:
 - a. Offices and sheds.
 - b. Sanitary facilities.
 - c. Parking.
 - d. Enclosures and fencing.
 - e. Barriers.
 - f. Material laydown area.
 - g. PPE required area.
 - h. Traffic access.
 - i. Haul routes.
 - j. Traffic signals.
 - k. Delivery routes.
 - l. Signage.
 - m. Storage and maintenance areas, including materials and products.

END OF SECTION