

SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. The Contract Drawings and other Contract Documents, including the General Conditions, Supplementary Conditions, and other Division 01 Specification Sections, apply to the Work of this Section.

1.2 RELATED SECTIONS

- A. Section 01 33 00 - Submittal Procedures.
- B. Section 01 74 19 - Construction Waste Management and Disposal.
- C. Section 31 10 00 - Site Clearing,
- D. Section 32 17 23 - Pavement Markings.
- E. Section 32 93 00 - Plants.

1.3 SUMMARY

- A. This Section specifies:
 - 1. Requirements for furnishing, installing, operating, and removing temporary facilities and controls including:
 - a. Temporary utilities:
 - 1) Temporary electricity.
 - 2) Temporary lighting.
 - 3) Temporary telecommunications.
 - 4) Temporary traffic Signals
 - b. Construction facilities:
 - 1) Field offices and sheds.
 - 2) First aid facilities.
 - 3) Temporary sanitary facilities
 - c. Vehicular access and parking:
 - 1) Haul routes.
 - 2) Temporary parking areas.
 - 3) Traffic control.
 - 4) Staging areas.
 - d. Temporary barriers and enclosures:
 - 1) Temporary barricades.
 - 2) Temporary fencing.
 - 3) Temporary protective walkways.
 - 4) Temporary security barriers.
 - 5) Temporary tree and plant protection.

- e. Temporary controls:
 - 1) Temporary erosion and sediment control.
 - 2) Temporary pest control.
 - 3) Temporary environmental controls.
 - 4) Temporary storm water pollution control.
 - 5) Site watering for dust control.
- f. Project Identification:
 - 1) Temporary Project Signage.

1.4 REFERENCES

A. Abbreviations and Acronyms:

1. ADA: Americans with Disabilities Act.
2. DSL: Digital subscriber line.
3. GPS: Geographic positioning system.
4. H.I.D.: High Intensity Discharge.
5. MUTCD: Manual on Uniform Traffic Control Devices for Streets and Highways.
6. NYSDEC: New York State Department of Environmental Conservation.
7. NYSDOT: New York State Department of Transportation.
8. OSHA: Occupational Safety and Health Administration.
9. SMS/MMS: Short Message Service/Multimedia Messaging Service.
10. SMO: Storm Water Management Officer.
11. SPDES: State Pollution Discharge Elimination System.
12. SWPPP: Storm Water Pollution Prevention Plan.

B. Reference Standards:

1. American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc. (ASHRAE):
 - a. ANSI/ASHRAE 62.1-2007 – Ventilation for Acceptable Indoor Air Quality.
 - b. ANSI/ASHRAE/IESNA 90.1-2007 - Energy Standard for Buildings Except Low-Rise Residential Buildings.
2. American Society of State Highway and Transportation Officials (AASHTO):
 - a. AASHTO M 80 - Coarse Aggregate for Portland Cement Concrete.
 - b. AASHTO T 85 - Specific Gravity and Absorption of Course Aggregate.
3. American Society for Testing and Materials (ASTM):
 - a. ASTM A 121 - Standard Specification for Metallic-Coated Carbon Steel Barbed Wire.
 - b. ASTM A 392 - Standard Specification for Zinc-Coated Steel Chain- Link Fence Fabric.
 - c. ASTM F 1083 - Standard Specification for Pipe, Steel, Hot-Dipped Zinc-Coated (Galvanized) Welded, for Fence Structures.
 - d. ASTM D 3786 - Standard Test Method for Bursting Strength of Textile Fabrics - Diaphragm Bursting Strength Tester Method.
 - e. ASTM D 4355 - Standard Test Method for Deterioration of Geotextiles from Exposure to Light, Moisture and Heat in a Xenon Arc Type Apparatus.
 - f. ASTM D 4533 - Standard Test Method for Trapezoid Tearing Strength of Geotextiles.
 - g. ASTM D 4632 - Standard Test Method for Grab Beaking Load and Elongation of Geotextiles.
 - h. ASTM D 4751 - Standard Test Method for Determining Apparent Opening Size of a Geotextile.
 - i. ASTM D 4833 - Standard Test Method of Index Puncture Resistance of Geomembranes and Related Products.

4. Associated General Contractors of America, Inc. (AGC):
 - a. Manual of Accident Prevention in Construction.
5. Town of North Salem:
 - a. Phase II Storm Water Management Program.
 - b. Traffic Ordinance of the Town of North Salem.
 - c. Town of North Salem, New York, Code of Ordinances.
 - d. Town of North Salem General Construction Code.
6. Council of Tree and Landscape Appraisers:
 - a. Guide for Plant Appraisal.
7. National Fire Protection Association (NFPA):
 - a. NFPA 1 – Fire Code.
 - b. NFPA 10 – Standard for Portable Fire Extinguishers.
 - c. NFPA 70 – National Electrical Code[®] (NEC).
8. State of New York:
 - a. New York State Department of Environmental Conservation (NYSDEC):
 - 1) State Pollution Discharge Elimination System (SPDES):
 - a) Permit No. GP-0-10-001 – SPDES General Permit for Stormwater Discharges from Construction Activity.
 - b) Permit No. GP-0-10-002 - SPDES General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s).
 - b. New York State Department of State:
 - 1) Division of Code Enforcement and Administration, <http://publicecodes.cyberregs.com/st/ny/st/index.htm>:
 - a) Building Code of New York State.
 - b) Fire Code of New York State.
 - c) Mechanical Code of New York State.
 - c. New York State Department of Transportation (NYSDOT):
 - 1) NYSDOT Standard Specifications (U.S. Customary Units).
 - 2) New York State Standard Sheets (U.S. Customary Units).
 - 3) New York State Supplement to the Manual on Uniform Traffic Control Devices for Streets and Highways (2009 Edition).
9. Tree Care Industry Association (TCIA)/American National Standards Institute (ANSI):
 - a. ANSI A300 (Part 1), Standards for Tree Care Operations - Tree, Shrub, and Other Woody Plant Maintenance – Standard Practices (Pruning).
 - b. ANSI A300 (Part 2), Standards for Tree Care Operations - Tree, Shrub, and Other Woody Plant Maintenance – Standard Practices (Fertilization).
 - c. ANSI A300 (Part 3), Standards for Tree Care Operations - Tree, Shrub, and Other Woody Plant Maintenance – Standard Practices (Support Systems – Cabling, Bracing, and Guying Established Trees).
 - d. ANSI A300 (Part 4), Standards for Tree Care Operations - Tree, Shrub, and Other Woody Plant Maintenance – Standard Practices (Lightning Protection Systems).
 - e. ANSI A300 (Part 5), Standards for Tree Care Operations - Tree, Shrub, and Other Woody Plant Maintenance – Standard Practices (Management of Trees and Shrubs During Site Planning, Site Development, and Construction).
 - f. ANSI A300 (Part 6), Standards for Tree Care Operations - Tree, Shrub, and Other Woody Plant Maintenance – Standard Practices (Transplanting).
 - g. ANSI A300 (Part 7), Standards for Tree Care Operations - Tree, Shrub, and Other Woody Plant Maintenance – Standard Practices (Integrated Vegetation Management).
 - h. ANSI Z133.1, Safety Requirements for Arboriculture.
10. Underwriters Laboratories, Inc. (UL):

- a. UL Online Certifications Directory, <http://www.ul.com/regulators/quickguide.html>.
- 11. United States Government:
 - a. Americans with Disabilities Act. (Pub. L. 101–336, 104 Stat. 327, 42 U.S.C. 12101–12213 and 47 U.S.C. 225 and 611) [ADA].
 - b. United States Code:
 - 1) 33 U.S.C. Section 1251 et seq.
 - a) Water Quality Act of 1987, Public Law 100-4.
 - b) Clean Water Act of 1977, Public Law 95-217.
 - c) Federal Water Pollution Control Act Amendments of 1972, Public Law 95-500.
 - c. Department of Justice:
 - 1) 2010 ADA Standards for Accessible Design,
 - 2) 28 CFR 35 - Nondiscrimination on the Basis of Disability in State and Local Government Services
 - 3) 28 CFR 36 – Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities.
 - d. Environmental Protection Agency (EPA):
 - 1) 40 CFR 123 and 124 - National Pollutant Discharge Elimination System Permit Application Regulations for Storm Water Discharges; Final Rule.
 - 2) 40 CFR 9, 122, 123, and 124 - National Pollutant Discharge Elimination System—Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule
 - 3) 40 CFR 61 National Emission Standards for Hazardous Air Pollutants.
 - e. Federal Highway Administration (FHWA):
 - 1) Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD).
 - f. Occupational Safety and Health Administration (OSHA):
 - 1) 29 CFR 1910 Occupational Health and Safety Standards.
 - 2) 29 CFR 1926 Safety and Health Regulations for Construction.

1.5 ADMINISTRATIVE REQUIREMENTS

A. Coordination:

- 1. Notices:
 - a. Not less than 20 work days before closing each street, notify the Construction Manager in writing of the closing.
 - b. Not less than 14 days before prohibiting, stopping, and parking vehicles is required or work is to be performed on City streets, notify the, Town of North Salem, Traffic Department or Westchester County Transportation Engineer in writing; and submit a copy of each notice to the Construction Manager for information.
 - c. Not less than 7 days before impairing access to buildings adjacent to the station sites and use of public ways thereto, notify individual owners, owners’ agents, and tenants of in writing; and submit a copy of each notice to the Construction Manager for information.

1.6 QUALITY ASSURANCE

A. Regulatory Agency Sustainability Approvals:

- 1. Town of North Salem: **as required**

- ~~a. Obtain and comply with all necessary local permits and inspections associated with establishing and maintaining the field offices and sanitary provisions.~~
- ~~b. Temporary Construction Permit:

 - ~~1) Prior to commencing construction operations, submit plans and specifications indicating the design and construction of sidewalk sheds, truck runways, trestles, foot bridges, guard fences, and similar devices required in the operation as required by the Town of North Salem General Construction Code to the Town of North Salem Building Department for approval.~~
 - ~~2) Do not commence operations until the approval of the Town of North Salem Building Commissioner is received and submit a copy of the plans and specifications and their approval to the Construction Manager for information.~~~~
- ~~c. Storm Water Management and Erosion Control:

 - ~~1) Conform to requirements of the Town of North Salem Phase II Storm Water Management Program.~~
 - ~~2) Prior to commencing construction work involving disturbance of land on the Site, submit an Erosion Control Plan complying with the requirements specified in the Town of North Salem General Construction Code to the Town of North Salem Building Department for approval, and submit a copy of the Erosion Control Plan and its approval to the Construction Manager for information.~~~~
- ~~d. Encroachments:

 - ~~1) Sidewalk sheds, underpinning, and other temporary protective guards and devices may only project beyond the interior and street lot lines if approval to do so is obtained from the Town of North Salem Building Commissioner, and if necessary the approval of the affected adjacent property owner.~~~~
- 2. Westchester County – **as required**
- ~~3. Orange County To be added~~
- 4. State of New York:
 - a. Comply with the applicable rules, regulations, and programs of the New York State Department of Environmental Conservation (NYSDEC), particularly the following:
 - 1) State Pollution Discharge Elimination System (SPDES).
 - a) Permit No. GP-0-10-001 - SPDES General Permit for Stormwater Discharges from Construction Activity.
 - b) Permit No. GP-0-10-002 - SPDES General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s).
 - 2) Obtain the necessary permits from the New York State Department of Environmental Conservation (NYSDEC) to construct the Work of this Contract.
 - ~~a) Abide by the Metro North prepared Stormwater Pollution Prevention Plan (SWPPP).~~
 - ~~b) Submit the SWPPP to the Town of North Salem Planning Board or Storm Water Management Officer (SMO) for approval and submission to NYSDEC for approval.~~
 - c) Do not start the work until the proposed erosion and sedimentation control plan has been approved by NYSDEC, and a permit for construction has been issued.
 - 3) Comply with the requirements specified in the State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity, which governs the Work of this Section and prohibits the discharge to the waters of the State of any pollution materials whether from industrial or domestic sources.

- 4) Pay any fines assessed to the Contractor for violation of the regulatory rules, regulations, and programs at no increase in Contract Price.
- 5) Comply with the applicable rules, regulations, and programs of the New York State Department of Transportation (NYSDOT), ~~Section 680 and Section 724 of the 2016 General NYCDOT Specifications.~~

B. Certifications:

1. Geotextile Certificates of Compliance:

- a. For each proposed geotextile material, submit certificates demonstrating that the material conforms to the requirements of this Specification.

1.7 SUBMITTALS

A. Action Submittals:

1. Submit the following to the Construction Manager for approval in accordance with the requirements of Section 01 33 00, Submittal Procedures:

- a. Product Data:
 - 1) Products furnished for the Work of this Section.
 - 2) List of pesticide, fungicide, and anti-desiccant materials, and application methods and documents proposed for use.
- b. Shop Drawings:
 - 1) Working Drawings showing the proposed temporary erosion and sediment controls.
 - 2) Locations and details of protective fencing.
 - 3) Temporary project signage message and layout.
- c. Samples:
 - 1) Geotextile fabric Samples.
- d. Certificates:
 - 1) Geotextile material certification.
- e. Delegated Design Submittals:
 - 1) Site Layout Plan.
 - 2) Tree Protection Fencing Plan.
 - 3) Evacuation Plan.
 - 4) List of Emergency Contacts.
 - 5) Traffic Control Plans (TCP) and updates.
 - 6) Individual Lane and Sidewalk Closure Plans.
 - 7) Tree Protection Fencing Plan.
 - 8) Temporary Erosion and Water Pollution Control Plan.
 - 9) Proposed field office layout.

B. Closeout Submittals:

1. Submit the following to the Construction Manager in accordance with the requirements of Metro-North:

- a. Warranty Documentation:
 - 1) Plant Warranty.
 - 2) Temporary Tree and Plant Protection Warranty.

1.8 WARRANTY

A. Special Warranty:

1. Furnish and submit a 90-day Temporary Tree and Plant Protection Warranty on the workmanship and materials provided under this Section to the Construction Manager.

B. Extended Correction Period:

1. Furnish and submit an unconditional 2-year Plant Warranty for all plants repaired or replaced as required under this Section to the Engineer.

PART 2 - PRODUCTS

2.1 DESCRIPTION

A. Regulatory Requirements:

1. Comply with the Laws, Codes, and Regulations pertaining to the work being performed at each station site.
2. United States Government:
 - a. All work is governed at all times by the applicable provisions of Federal Laws, including but not limited to, the following:
 - 1) Americans with Disabilities Act.
 - 2) Water Quality Act of 1987.
 - 3) Clean Water Act of 1977.
 - 4) Federal Water Pollution Control Act Amendments of 1972.
 - b. Comply with the applicable regulations of the Occupational Safety and Health Administration (OSHA).
3. State of New York:
 - a. Comply with the applicable requirements of the New York State Department of Environmental Conservation (NYSDEC).
 - b. Comply with the applicable requirements of the New York State Department of Transportation (NYSDOT).
 - c. Comply with the applicable requirements of the Building Code of New York State.
 - d. Comply with the applicable requirements of the Fire Code of New York State.
 - e. Comply with the applicable requirements of the Mechanical Code of New York State.
4. Town of North Salem, NY:
 - a. Comply with the requirements specified in each municipality various Code of Ordinances.
5. National Fire Protection Association (NFPA):
 - a. Comply with the safety provisions of the NFPA 1 pertaining to the Work and, particularly, in connection with any cutting or welding performed as part of the Work.

2.2 MATERIALS

- A. Submit Product Data for the Products furnished for the Work of this Section to the Construction Manager for approval prior to their use.

B. Burlap:

1. Provide untreated burlap fabric.

- C. Protective Fencing:
1. Fence Fabric:
 - a. Provide clean, new, and unblemished fence fabric with the following characteristics:
 - 1) Height: 4 feet.
 - 2) Material: Orange plastic fabric mesh.
 - b. Provide fence fabric in 50 feet long, minimum, continuous sections.
 - c. Provide the same type mesh fence fabric throughout the duration of the Contract.
 - d. Manufacturers:
 - 1) Industrial Fabrics, Inc., HiVu[®] Barrier Fence, www.ind-fab.com.
 - 2) Propex Fabrics, Inc., www.propexinc.com.
 - 3) Tensar International, www.tensarcorp.com.
 - 4) Approved equal.
 2. Fence Posts:
 - a. Provide fence posts having the following characteristics:
 - 1) Post Material: Painted lightweight steel (0.98 pounds per foot).
 - 2) Type: Domestic tee stud with a metal flange at the bottom.
 - 3) Length: 6 feet.
 3. Fence Fabric Ties:
 - a. Provide ties consisting of 16 gage galvanized steel wire.
- D. Heavy Duty Protective Fencing:
1. Provide heavy duty protective fencing.
 - a. Heavy duty protective fencing may include, but is not limited to, temporary chain link type fence, 6 feet high with precast concrete bases.
- E. Pesticide, Fungicide, and Anti-Desiccant:
1. Provide materials approved by the governing regulatory agencies that are suitable for the identified needs.
 2. Submit a list of pesticide, fungicide, and anti-desiccant materials proposed for use, and their application methods and documentation.
- F. Topsoil:
1. Provide backfill as specified in Section 32 93 00, Plants, for backfill around plants as needed.
- G. Silt Barrier Fence:
1. Geotextile Fabric:
 - a. Provide woven or non-woven fabric consisting of long chain, polymeric filaments or yarns, such as polypropylene, polyethylene, polyester, polyamide, or polyvinylidene-chloride, formed into a stable network so the filaments or yarns retain their relative position to each other.
 - b. Provide fabrics inert to commonly encountered construction chemicals or substances and having at a minimum the physical requirements specified in Table 01 50 00-1 for each property when tested according to the test method listed for the property.

Table 01 50 00-1 Physical Properties of Geotextile		
Properties	Test Method	Minimum Requirements
Grab Tensile Strength, Pounds.	ASTM D 4632	90
Grab Tensile Elongation, Percent	ASTM D 4632	15, minimum

Burst Strength, psi	ASTM D 3786	140
Puncture, lbs, (5/16 Inch Flat-End Rod)	ASTM D 4833	40
Trapezoid Tear Strength, Pounds	ASTM D 4533	30
Apparent Opening Size, Sieve Number	ASTM D 4751	Number 20, maximum
Ultraviolet Resistance Strength Retention, 0/0	ASTM D 4355	70 at 150 hours

- 1) Wire Mesh Support:
 - c. Provide either galvanized or aluminized, 14.5-gauge wire mesh arranged in a maximum grid of 6 inches by 6 inches.
 - d. Alternatively, an acceptable, equivalent plastic mesh may be used.
 2. Posts:
 - a. Provide 2-inch, minimum, square wood posts; 1-1/4 inch by 1-inch steel T-sections or equivalent; or acceptable plastic posts with an equivalent section.
 3. Fasteners:
 - a. Provide either 1 1/2-inch long Number 9 staples, or 17 gauge galvanized or aluminized steel tie wires of the appropriate length.
- H. Hay Bales:
1. Provide seed-free hay bales approximately 36 inches long by 26 inches wide by 18 inches high and bound with galvanized wire or nylon rope tied across the stem length.
- I. Construction Entrances and Sediment Traps:
1. Aggregate:
 - a. Provide coarse aggregate conforming to the requirements for Size Number 1 as specified in AASHTO M 80.
- J. Utility Materials:
1. Provide such materials as may be required for providing the temporary utility services specified herein.
- K. Temporary Traffic Control Devices:
1. Furnish temporary traffic control devices that comply with the requirements specified in the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) and the New York State Supplement to the Manual on Uniform Traffic Control Devices for Streets and Highways (2009 Edition).
 2. Temporary Concrete Barriers:
 - a. Furnish precast "Jersey Barrier" sections.
 - 1) Concrete: 3,000 psi.
 - b. Provide 1/2" joint opening between adjoining precast sections
 3. High Rise Warning Flag Unit:
 - a. Furnish high rise warning flag unit having 3 flags mounted 9 feet above the base.
 4. Warning Lights and Flares:
 - a. Furnish warning lights and flares capable of alerting approaching traffic to hazards, unsafe conditions, and variances to normal traffic patterns.
 5. Signs:

- a. Furnish signs as indicated on the Contract Drawings, in the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), and in the referenced NYSDOT Publications.
- 6. Flagmen signs:
 - a. Furnish flagmen signs that are 24 inches across, octagonal in shape, and attached to a five-foot handle.
 - b. Furnish flagmen signs that have a stop sign on one side, and a slow sign on the other side.
 - 1) Stop Signs:
 - a) Provide stop signs having white reflectorized letters not shorter than 8 inches that spell "STOP" on a reflectorized, red, octagonal background.
 - 2) Slow Sign:
 - a) Provide slow signs having black letters not shorter than 8 inches that spell "SLOW" on a reflectorized, orange, diamond background.
 - b) Paint the area between the diamond and the edge of the flagmen sign black.
- 7. Pavement Marking Paint:
 - a. Provide temporary pavement marking complying with the requirements specified in Section 32 17 23, Pavement Markings.
- L. Other Materials:
 - 1. Provide other materials as required and approved by the Construction Manager.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verification of Conditions:
 - 1. Review the existing conditions at the Site and determine what else is necessary for the prevention of water pollution due to erosion.
 - 2. Prior to the start of construction, conduct on-site inspections of plants and vegetation with the Project Arborist, and identify and inventory the plants and vegetation that are to remain in place during this area tour.
 - a. Field measure and stake Project improvements as needed for establishing the location of protective fencing.
 - b. In areas where the protective fencing will be located at a fixed distance from proposed Project improvements, field survey and stake improvement sites prior to the area tour with the Project Arborist.
- B. Evaluation and Assessment:
 - 1. In addition to performing the work described herein and indicated on the Contract Drawings, implement the additional measures determined necessary for the prevention of water pollution due to erosion discovered during the review of the Work Site.

3.2 PREPARATION

- A. Protection of In-Place Conditions:
 - 1. Existing Surfaces and Facilities:

- a. Take positive action to protect all existing surfaces and facilities from any damage resulting from construction operations unless modifications to the surfaces or facilities are required as part of the Contract.
- b. Protect all paving, landscaping, and utility facilities from damage caused by mobile and stationary equipment, including vehicles delivering materials to the site.

B. Surface Preparation:

1. Clear Existing Vegetation:

- a. In accordance with the requirements of Section 31 10 00, Site Clearing, clear and remove existing vegetation as required to install Final location stakes and to install fence posts and fence fabric for protecting tree and plant materials.
 - 1) Keep clearing operations to the minimum needed for fence installation.
 - 2) Do not clear tree and plant materials from within the area to be protected by the fence.
 - 3) Perform clearing in a manner and to an extent approved by the Construction Manager.
- b. Remove dead and damaged plants that the Project Arborists determine are a hazard or that are incapable of restoration.

C. Demolition / Removal:

- 1. Perform demolition and construction activities within protected areas in a manner that minimizes damage to tree roots and branches.
 - a. Use hand tools where necessary.
 - b. Make minimal use of construction equipment within the protected areas.
 - 1) Use such equipment within the protected area only when approved and after consultation with the Project Arborist.
 - 2) Provide 72 hours advanced notification prior to the use of the equipment within the protected areas.
 - 3) Provide bridging materials, such as protective planking, in protected areas where such construction equipment operates.
 - c. When utilities must be installed within protected areas, bore under the protected areas whenever possible instead of digging open trenches through them.

3.3 TEMPORARY UTILITIES

A. Provide and pay for all temporary utilities required for this Contract including electrical power; traffic signal, and lighting; and if required, water, drainage and fire protection.

- 1. Include obtaining permits, providing the utility services, and connecting and disconnecting the utilities in the costs.
- 2. Unless otherwise specified, do not use Metro-North utilities.

B. Temporary Electricity:

- 1. Provide and maintain suitable temporary electrical systems and power facilities required for the proper performance of the Work until final completion and acceptance of the Work.
 - a. Provide UL-listed electrical equipment and wiring for temporary electricity.
 - b. Install temporary electricity in accordance with the requirements specified in NFPA 70 and of the Occupational Safety and Health Administration (OSHA)
- 2. Provide power service from temporary electric feeders from the local utility, from engine generators, or from the Owner's existing powerservice.

- a. If using the Owner's existing power service, do not disrupt Owner's need for continuous service, take measures to conserve energy, and provide separate metering and reimburse the Owner for the cost of energy used.
 - b. Complement existing power service capacity and characteristics as required.
 3. Provide power outlets for construction operations, with branch wiring and distribution boxes located as required.
 - a. Provide adequate distribution equipment, wiring, and outlets to provide single phase branch circuits for power and lighting.
 - 1) Provide 20 Ampere duplex outlets, single phase circuits for power tools for every 500 square feet of active work area.
 - 2) Provide 20 Ampere, single phase branch circuits for lighting.
 - 3) Permanent convenience receptacles may not be used during construction.
 - b. Provide flexible power cords as required.
 4. Provide a main service disconnect and over-current protection at a convenient location, and meter.
- C. Temporary Traffic Signals:
 1. Provide and maintain existing pedestrian traffic signals and push-button controls to protect pedestrians when entering cross walks adjacent to the Crestwood station.
 2. Follow New York State Department of Transportation 2016 Specifications, section 680 and Section 724 as required.
- D. Temporary Lighting:
 1. Provide and maintain lighting for the field offices that achieves a minimum uniform lighting level of 100 foot-candles at desk height in all areas within the offices.
 2. Provide and maintain lighting for construction operations in accordance with the requirements specified in 29 CFR 1926.56, and that achieves a minimum lighting level of 2 Watts per square foot or 10 foot-candles.
 - a. Provide UL-listed electrical equipment and wiring for temporary lighting.
 3. Security Lighting:
 - a. For exterior staging and storage areas, provide and maintain lighting for security after dark in accordance with the requirements specified in 29 CFR 1926.56, and having a minimum lighting level of 1 Watt per square foot.
 - b. Provide and maintain HID lighting having a minimum lighting level of
 - c. 0.25 Watt per square foot for interior work areas afterdark.
 4. Position and aim lighting equipment so it will not shine directly on passing trains, vehicular traffic, or commercial or residential premises adjoining the Site.
 5. Provide branch wiring from a power source to distribution boxes with lighting conductors, pigtails, and lamps as required.
 - a. Provide UL-listed electrical equipment and wiring for temporary lighting.
 6. Comply with the requirements of ANSI/ASHRAE/IESNA 90.1-2007.
 7. Permanent lighting may be used during construction.
 - a. The Metro-North will meter usage for payment by the Contractor.
 8. Maintain the lighting and provide routine repairs.
- E. Temporary Telecommunications:
 1. Internet Access:
 - a. Provide hi-speed digital subscriber line (DSL) internet access to and within the field offices.
 - 1) Actual locations for ports will be as directed by the Construction Manager with input from the Metro-North.

- 2) Provide a connection having at least T1 Speed.
 - b. Set up computers, color copiers, and scanning equipment as a hard-wired network with access to the Internet using the digital subscriber line (DSL) or cable connections for the duration of the Contract.
 - c. Provide routers as needed to allow wireless access to all computers and laptops used for the Contract.
 - d. Submit Product Data for the proposed smart phone and accessories to the Construction Manager for approval.
2. Land Lines:
- a. Provide telephone land lines installed in the field office capable of handling at least six 2-line telephones.
 - b. Contractor shall provide at least six 2-line telephones.
- F. Other Temporary Utility Services:
- 1. Determine the need for other temporary services as may be required to prosecute the Work and make arrangements with utility companies and municipal agencies for such service.

3.4 CONSTRUCTION FACILITIES

A. Site Layout Plan:

- 1. No later than 10 Days after the effective date of the award, prepare a proposed Site Layout Plan.
 - a. Include Working Drawings showing at a minimum the location of construction fences; roadways and entrances; locations and sizes of all field offices, shops, buildings, and sheds; locations and sizes of all staging, storage, and lay down areas; waste and recycling containers, security fencing, stationary equipment, temporary utilities, and similar facilities.
 - b. The location of stationary equipment and the location of miscellaneous mobile equipment are subject to approval.
- 2. Within the 20 Days after receipt of the Notice-To-Proceed, submit the Site Layout Plan to the Construction Manager for approval.

B. Field Offices and Sheds:

- 1. Provide one **supplemental** trailer or rental property for the use of the Construction Manager for the station enhancement project.
 - a. Provide a new, weather-tight and structurally sound, ~~12 feet wide by 60 feet long~~, **Cassone Mobile Unit** trailer **with a bathroom** or approved equal, or rented office space (minimum of 168 square feet), having the following features:
 - 1) Vinyl or linoleum flooring capable of withstanding live loads of 125 pounds per square foot.
 - 2) Neatly painted or paneled wall surfaces.
 - 3) Screened operable windows having security gratings on their exteriors.
 - 4) Keyed and lockable exterior and interior doors, and deadbolt locks for exterior doors.
 - 5) Exterior lighting located over entrance doors.
 - 6) Uniform interior lighting.
 - 7) Battery backup for the emergency exit lights.
 - 8) Adequate air conditioning equipment.
 - b. Provide adequate lighting; electrical receptacles; telephone and computer outlets and support systems including conduit, wiring, panels, and similar items; heating, cooling,

- and ventilating equipment; and sanitary facilities for 6 people until final completion and acceptance of the Work.
- 1) Obtain, connect, and pay for the utilities for the field office, including power, water, fuel, sewer, and telecommunications as required; sufficient to power and operate the lighting and other equipment in the field office.
 - a) Obtain and pay for necessary related permits.
 - 2) Provide ground fault circuit interrupters as required by NFPA 70 and OSHA regulations.
 - 3) Provide convenience electrical outlets every 6 feet on interior walls.
- ~~e. Partition the field office to furnish 2 offices, 3 cubicles/open office area, a bathroom, a secretarial area, and a file area.~~
- ~~1) Submit a proposed field office layout to the Construction Manager for approval.~~
- d. If a trailer is provided, grade the site of the field office to provide drainage of the Site, deliver the trailers, set them level, and anchor them in accordance with applicable code requirements.
 - e. Provide pressure treated wood access stairs, ramps, and landings for ADA/handicapped access at each exterior door; and connections to all temporary utilities.
 - f. The trailers will remain the property of the Contractor at project completion.
2. Furnish, install, maintain, and pay for temporary telephone service, utilities, and furnishings.
 - a. Provide the following furnishings:
 - 1) First aid kit.
 - 2) Fire extinguishers.
 - a) Provide non-toxic dry chemical fire extinguishers meeting the approval requirements of Underwriters Laboratories, Inc. (UL) for Class A, Class B, and Class C fires with a minimum rating of 2A:10B: 10C.
 - (1) Capacity: Provide 10-pound fire extinguishers.
 - b) Provide one fire extinguisher in each room of the field office.
 - 3) Color Copier:
 - a) Provide a Cannon Image Runner C2550 or approved equal all-in-one copier having copy, print, scan, and facsimile capabilities.
 - b) Provide a color copier having the following features:
 - (1) System memory of 1 GB.
 - (2) Automatic reversing document feeder having a 50-sheet capacity.
 - (3) Print speed for black and white prints of 15 pages per minute.
 - (4) Print speed for color prints of 6 pages per minute.
 - (5) Automatic duplex printing.
 - (6) Capable of producing copies from 8-1/2 by 11 inches to 11 by 17 inches in size.
 - (7) Fax resolution of 200 by 400/200/100 dots per inch (DPI).
 - (8) Fax transmission speed of 3 seconds per page.
 - (9) Fax memory of 100 pages. (10) Fax automatic dialing.
 - (10) Scanning size of 8-1/2 by 11 inches, 8-1/2 by 14 inches, and 11 by 17 inches.
 - (11) Scanning speed for black and white originals of 42 sheets per minute (SPM) at 200 dots per inch (DPI).
 - (12) Scanning speed for color originals of 13 sheets per minute (SPM) at 200 dots per inch (DPI).
 - (13) Universal Serial Bus (USB) connection.

- (14) Built-in photo card slot for direct printing capability from a camera without needing a personal computer.
 - (15) Connecting cables.
 - c) Connect the color copier to the computer network for printing and scanning.
 - d) The color copier will become the property of the Contractor at Project Close-Out.
 - 4) Six fully assembled ergonomic chairs.
 - a) Provide chairs having arms, 5 legs with casters, and a height adjustment from 17 inches to 23 inches facilitated by a pneumatic gas cylinder.
 - 5) Six waste paper baskets having a capacity of at least 10 gallons.
 - 6) Five bookshelves having 3 shelves.
 - a) The bookshelves will become the property of the Contractor at Project Close-Out.
 - 7) Nine chairs.
 - 8) One 3-foot by 6-foot plan table.
 - 9) Six desks.
 - 10) Five 4-drawer and five 2-drawer vertical letter size file cabinets.
 - b. All furniture and equipment must be approved by the Construction Manager.
 - c. Completely furnish the field offices so they are ready for occupancy no later than 10 Days after the effective date of the Notice to Proceed.
3. Evacuation Plan:
 - a. Develop an Evacuation Plan for the field office and for the Site and post it in the Metro-North trailer.
 - b. Submit the Evacuation Plan to the Construction Manager for approval.
4. Emergency Contacts:
 - a. Develop a List of Emergency Contacts including telephone numbers, contact names, and similar information; and post it in the Metro-North trailer.
 - b. Submit the List of Emergency Contacts to the Construction Manager for approval.
- C. First Aid Facilities:
- 1. Identify local medical facilities serving the area of the Project, and post directions to their locations and their contact information in the field office.
 - 2. Provide a first aid kit kept in the field office and stocked with appropriate first aid supplies at all times
- D. Temporary Sanitary Facilities:
- 1. Provide temporary sanitary facilities at the Site in accordance with the requirements specified in 29 CFR 1926.51.

3.5 VEHICULAR ACCESS AND PARKING

- A. Haul Routes:
- 1. Restrict construction vehicular traffic to the approved haul route.
 - 2. Failure to comply with the haul route plan may make violators subject to legal action by governmental agencies, and where direct or indirect damage is done to public or private property will make the Contractor responsible to clean-up and repair the damage.
- B. Temporary Parking Areas:

1. Grade the parking areas for drainage, and surface them with crushed stone if they are not already improved.
 2. Provide 2 parking spaces directly adjacent to the Metro-North project trailer for use by Metro-North.
 - a. Keep the spaces clear of snow similar to the trailer requirements.
 - b. Do not park Contractor vehicles in the spaces, store materials in the spaces, or otherwise make these parking spaces inaccessible for use by Metro-North.
- C. Traffic Control:
1. Prior to submitting the bid for this Contract, contact the various municipalities holding jurisdiction of each of the stations to determine their traffic control requirements.
 2. Furnish, install, maintain, and subsequently remove temporary traffic control devices and temporary traffic striping and markings; furnish flagmen; control, warn, guide, and protect vehicular and pedestrian traffic on streets and sidewalks affected by construction of the Contract, and that adjacent to the worksite; ensure unimpeded access to building, adjacent to the worksite; close portions of streets and sidewalks and prohibit vehicles from stopping and parking of on streets adjacent to the Site.
 - a. Ensure that construction operations will not impede vehicular and pedestrian traffic to the extent that public safety will be threatened, and passage of emergency vehicles will be restricted.
 - b. Do not obstruct public ways, including streets, sidewalks, and accesses to public and private properties and bus stops.
 - c. Do not reduce carrying capacity, except as indicated on reviewed and accepted Traffic Control Plans (TCP) specified herein.
 - d. Maintain pavement surfaces in a smooth riding plane where vehicular and pedestrian traffic is routed.
 - e. In excavated paved areas, backfill excavations and install temporary pavement immediately after the backfill has been placed.
 - 1) Restore each section of permanent pavement and sidewalk as soon as is practicable after completion of the Work for which that section of pavement and sidewalk is removed.
 - f. Maintain existing traffic signal operation in continuous operation.
 - g. Prevent pedestrian access to the Site using devices such as fences, barricades, and flagging and security personnel.
 - h. During working hours, prevent vehicles from stopping and parking on streets adjacent to the portions of the Site where construction is being performed.
 - 1) Erect "NO PARKING" and "NO STOPPING" signs at intervals of not more than 50 feet along public streets adjacent to the Project, and include messages giving times and days of no parking and no stopping.
 - a) At least 48 hours prior to the need for posting the signs, notify the Town of North Salem Traffic Department that the signs will be posted.
 - b) Cardboard signs will not be permitted.
 - c) Remove the signs at the end of the posted time limit.
 - d) If additional work is required beyond the posted dates, change the signs to reflect the new dates and times.
 - e) If for any reason the Work will not be performed as stated, change the dates and/or times on posted signs in a timely manner, and notify the various municipalities individual Traffic Departments and local police.
 - 2) If vehicles are parked within the posted restrictive area, have the vehicle removed and relocated to a place of non-interference with the construction work.

- a) Provide licensed tow truck drivers to remove illegally parked, abandoned, or disabled vehicles.
 - (1) Supervise and coordinate the tow truck operations.
 - b) Direct the tow truck driver to make and keep a list of all relocated vehicles showing the following information, and submit a written copy of the above information to the various municipality Traffic Departments for use in the vehicle retrieval process and to the Construction Manager for information:
 - (1) Vehicle license number.
 - (2) Vehicle make and color.
 - (3) Location vehicle was parked.
 - (4) Location vehicle was relocated to.
 - c) The Contractor and/or the owner/operator of the licensed tow truck must agree to indemnify, defend, and hold harmless the various local municipalities and all of its officers and subordinates from all suits and actions as a result of towing any vehicles.
- 3. Traffic Control Plans (TCP):
 - a. Prepare a Traffic Control Plan (TCP) indicating proposed traffic control devices in accordance with the following:
 - 1) NYSDOT Standard Specifications (U.S. Customary Units).
 - 2) New York State Standard Sheets (U.S. Customary Units).
 - 3) Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD)
 - 4) New York State Supplement to the Manual on Uniform Traffic Control Devices for Streets and Highways (2009 Edition).
 - b. In the Traffic Control Plan (TCP), show and describe proposed locations and time durations of the following:
 - 1) Pedestrian and public vehicular traffic routing.
 - 2) Traffic blockage and lane reductions anticipated to be caused by construction operations.
 - 3) Allowable on-street parking within the immediate vicinity of worksite.
 - 4) Access to the building immediately adjacent to worksite.
 - 5) Driveways which will, and those which will not, be blocked by construction operations.
 - 6) Temporary traffic control devices required on streets and sidewalks affected by construction.
 - 7) Temporary commercial and industrial loading and unloading zones.
 - 8) Modifications to street light locations and operation.
 - 9) Modifications to traffic signal locations and operation.
 - 10) Proposed haul routes.
 - c. Within 15 days of Notice to Proceed and before starting the Work, submit the Traffic Control Plan (TCP) to the various municipality Traffic Department of each station for approval, and as an application for permits to work in the public right-of-way; and submit another copy to the Construction Manager for information.
 - 1) Costs, direct or indirect, not reflected in the bid, resulting from failure to reasonably anticipate such costs, will not be considered for payment.
 - d. Every time it becomes necessary to modify traffic operations or undertake a construction activity which creates a different traffic impact, prepare and submit an updated Traffic Control Plan (TCP) to the various municipality Traffic Department for approval; and submit another copy to the Construction Manager for information.
- 4. Street Closing Plans:

- a. All streets adjacent to each station must remain operational at all times. No full street closures will be allowed.
5. Individual Lane and Sidewalk Closure Plans:
- a. Prepare an Individual Lane and Sidewalk Closure Plan indicating proposed traffic control devices that shows and describes the proposed location, hours and time duration of the closure, vehicular and pedestrian traffic routing and management, traffic control devices for implementing pedestrian and vehicular movement around the affected closure, dates the closure will start and be reopened, and details of barricades and protecting closure.
 - b. Not less than 15 work days before the actual lane and sidewalk closing, submit the Individual Lane and Sidewalk Closure Plan to the various municipality Transportation Engineer for approval; and submit another copy to the Construction Manager for information.
 - c. Only close streets and sidewalks in accordance with the Individual Lane and Sidewalk Closure Plan.
 - d. Install sidewalk closure signs in an advanced location of the closed portion of the sidewalk in order to permit safe crossing of the street at a crosswalk.
6. Temporary Traffic Control Devices:
- a. Before diverting traffic, post temporary traffic control devices along traveled ways where construction activities occur where indicated on the approved Traffic Control Plan (TCP).
 - b. Place and maintain temporary traffic control devices throughout the construction period in those locations which will enable traffic to enter, traverse, and leave project area without hazard, and without abrupt and unwarranted changes in direction.
 - 1) Place drums as indicated.
 - 2) Place cones on not more than 25-foot centers.
 - 3) Modify temporary traffic control devices as shown on updated plans and remove them as soon as construction activities have been completed.
 - c. Warning Lights:
 - 1) If approaching traffic needs to be alerted to hazards, unsafe conditions, and variances to normal traffic patterns; place warning lights and operate them between sunset and sunrise.
 - d. Warning Flag Units:
 - 1) Where motorists' visibility of existing and temporary warning devices, traffic signals, and pedestrian crosswalks will either be limited or obscured, place and maintain high-rise warning flag units.
 - e. Barricades and Cones:
 - 1) If personnel and equipment will be working within 5 feet of the edge of a traffic lane which will be bearing traffic, place and maintain barricades, cones, and similar protective devices.
7. Traffic Signs:
- a. Support and protect traffic signs, including street name signs, bus stop signs, regulatory, and directional signs, unless otherwise shown on the Contract Drawings.
 - 1) Repair or replace traffic signs damaged by construction operations or as directed by the Construction Manager.
 - b. Where removal of traffic signs is required during construction, remove, store, and ultimately reinstall signs using hardware approved by the appropriate agency.
8. Construction Signs:
- a. As required and directed by the Construction Manager, furnish, erect, move, and remove construction signs to adequately and safely inform and direct motorists and to satisfy legal requirements.

- b. Keep construction signs clean, mounted at the required height on adequate supports, and placed in proper position and alignment so maximum visibility is provided both night and day.
 - 1) Paint wood supports and the backs of plywood sign panels with 2 coats of white paint.
 - 2) Furnish signs and markers that indicate actual existing conditions, and move, remove, relocate, or change them immediately as directed by the Construction Manager.
 - c. Mount construction signs in accordance with the referenced codes and standards.
 - 1) Mount signs at least 5 feet high.
 - 2) Under special conditions, signs may be mounted at a greater height to fit the situation on an approved TCP submission, or as directed by the Construction Manager.
 - d. All signs are the property of the Contractor, must be maintained in good condition for the duration of the Contract, and must be removed from the Site when the Contract is accepted.
 - e. Place the name of the Contractor someplace on the sign only for the purpose of identifying the sign's owner.
9. Flagmen:
- a. Where opposing vehicular traffic must be diverted onto single traffic lanes, where traffic must change lanes abruptly, where construction equipment either enters or crosses traffic lanes and sidewalks, where construction equipment may intermittently encroach on traffic lanes and unprotected sidewalks and crosswalks, where construction operations would affect public safety and convenience, and where traffic regulation is needed because of the rerouting of vehicles around the worksite, furnish flagmen having flagman signs.

D. Staging Areas:

- 1. Provide staging areas for staging the materials and equipment not immediately required for the Work.
- 2. Grade the staging areas for drainage, and surface them with crushed stone if they are not already improved.

3.6 TEMPORARY BARRIERS AND ENCLOSURES

A. Temporary Barricades:

- 1. Provide temporary barriers and enclosures to protect existing facilities and adjacent properties from damage from construction operations.
- 2. Provide barricades required by governing authorities for public rights-of-way.
- 3. Always allow continued access for Metro-North patrons and its employees to access to and from each station platform during construction activities.

B. Temporary Fencing:

- 1. Where indicated, completely encircle the work areas on the Site with temporary fencing and leave no gaps in the fence panels.
 - a. Place temporary fencing a minimum of 4 feet away from any part of buildings or structures being secured unless doing so would create an encroachment upon, or damage to, adjacent private property.
 - b. Trim or cut back small tree limbs and shrubs as necessary to insure proper installation of the fencing.

- c. Always allow continued access for Metro-North patrons and its employees to access to and from each station platform during construction activities.
 - 2. When required for security purposes, provide a 7-foot high temporary chain link fence consisting of 6-foot high fence fabric affixed to fence posts with one foot high extensions supporting 3 strands of barbed wire along the top edge of the fence to deter persons from climbing over the fence, and extending to within a few inches of the surface supporting the fence to prevent persons from crawling under the fence.
 - 3. Wire Fabric:
 - a. Wire: 11 gauge or heavier steel wire galvanized in accordance with the requirements specified in ASTM A 392.
 - b. Mesh Size: 2 inches, minimum.
 - c. Break load Strength: 850 pounds force, minimum.
 - 4. Fence Posts:
 - a. Material: Galvanized steel schedule 40 pipe complying with the requirements specified in ASTM F 1083.
 - b. Nominal Outside Diameter: 2 inches, minimum.
 - c. Height: As required for the size fence indicated.
 - 5. Post Bases:
 - a. Provide appropriate bases for the surface supporting the fence, generally flat galvanized steel plate welded to the bottom of the fence posts or concrete formed around the fence posts.
 - b. Provide a means to adequately anchor the posts to the surface supporting the fence so the fence cannot easily be moved out of place.
- C. Temporary Protective Walkways:
 - 1. Provide covered walkways required by governing authorities for public rights-of-way.
 - 2. Provide temporary pedestrian passageways as detailed on the Contract Drawings and where indicated or required.
 - 3. Always allow continued access for Metro-North patrons and its employees to access to and from each station platform during construction activities.
- D. Temporary Security Barriers:
 - 1. Provide temporary barriers and enclosures to prevent unauthorized entry to construction areas, vandalism, and theft.
 - 2. Padlocks and Hasps:
 - a. Provide a heavy-duty padlock and hasp for securing temporary doors.
 - b. Manufacturers:
 - 1) American Lock, Number A1305, www.americanlock.com.
 - 2) Abus Lock, www.abuslock.com.
- E. Temporary Tree and Plant Protection:
 - 1. Tree Protection Fencing Plan:
 - a. Prepare a Tree Protection Fencing Plan indicating the locations, extent, and perimeters of the trees and other vegetation to be protected as shown on the Contract Drawings and determined by onsite inspections.
 - 1) Submit the Tree Protection Fencing Plan, including Shop Drawings showing the locations and details of protective fencing, to the Construction Manager for approval.
 - b. Install protective fencing after receiving approval of the Tree Protection Fencing Plan but before starting other construction activities.

- c. The Owner reserves the right to require the Contractor to provide more substantial “heavy duty” protective fencing when, the vegetation is damaged or endangered by the Contractor’s or Subcontractor’s actions, or failure to take measures to protect the subject vegetation.
- 2. Protection of Existing Vegetation:
 - a. Identify, protect, and maintain existing vegetation within the protected areas indicated on the Contract Drawings during the Contract from the Notice-To-Proceed to Final Acceptance.
 - 1) Perform the Work of this Section in accordance with the standards of the Tree Care Industry Association (TCIA).
 - 2) Complete the installation of protective fencing prior to starting any other work in the vicinity of protected vegetation.
 - 3) Do not perform any work within the protected areas unless approved.
 - 4) Do not store materials within the protected areas.
 - 5) Do not permit vehicle parking, foot traffic, or other activity not approved in writing within the protected areas.
 - b. Provide labor and new and undamaged materials that constitute “Best Practice” to meet the letter and intent of this Contract.
 - 1) Follow the safety requirements of ANSI Z133.1.
- 3. Lay Out Protective Fencing:
 - a. In order to protect existing vegetation indicated as remaining in the Contract Drawings, lay out the location of protective fencing as suggested by the Project Arborist.
 - 1) Field measure and stake the locations of project improvements as needed to establish the locations of protective fencing.
 - 2) Prior to installing the tree protection fencing, lay out the proposed fencing locations as shown on the approved Tree Protection Fencing Plan submittal drawings with paint and/or stakes and string for review and approval.
 - 3) Make adjustments in the fence locations and alignments as directed by the Program/Project Manager.
- 4. Install Protective Fence Posts:
 - a. Install metal fence posts plumb and evenly spaced a maximum of eight feet apart on center.
 - b. Insert the fence posts 18 to 24 inches into the ground and ensure that the installed post height above grade is within four inches of adjacent post heights.
- 5. Install Fence Fabric:
 - a. Use the longest continuous lengths of fence fabric possible for each application.
 - 1) Terminate the ends of the fence fabric lengths at fence posts; and provide 12 inches, minimum, of full height overlap at each fence fabric end.
 - b. Stretch the fencing fabric tightly between fence posts.
 - c. Fasten the fence fabric firmly to the fence posts with the specified ties two inches below the top of each post, at the mid-point of each post, and at the point on each post three inches above the finish grade.
- 6. Install Heavy Duty Protective Fencing:
 - a. The conditions may require the substitution of more substantial heavy-duty protective fencing for the protective fencing at select locations.
 - b. Install heavy duty protective fencing at the locations indicated by the Project Arborist.
- 7. Excavating Around Trees and Shrubs:
 - a. Excavate around trees and shrubs within protected areas only where indicated on the Contract Drawings.

- 1) When work that may impact protected plants occurs, plan the work to assure minimal disturbance to the plants, follow good horticultural practices, and direct pruning and wound treatment in accordance with this Section.
8. Protecting Root Systems:
- a. Protect root systems from damage due to run-off or spillage of noxious materials in solution during storage or construction activities.
 - 1) Protect root systems from flooding or soil erosion.
 - 2) Provide a minimum of 2 layers of untreated burlap as a covering over exposed root face areas.
 - b. Do not disturb or excavate protected root zone areas unless specifically authorized to do so.
 - 1) Where trenching for utilities is required within protected areas, excavate under or over roots by hand digging under the authority of the Project Arborist.
 - 2) If large roots are encountered, or if a condition potentially fatal to the plant is observed, provide notification prior to continuing or commencing work.
 - 3) Do not cut main lateral roots or taproots, those 2-1/2 inches in diameter or greater; however, smaller roots that interfere with the installation of new work may be cut.
 - a) Cut smaller roots with sharp pruning instruments, but do not break or chop roots.
 - b) Excavate root systems by hand in areas where new construction is required within protected areas.
 - c) Use a narrow-tine spading fork to expose roots.
 - d) Cut exposed roots back from the new construction.
 - 4) Do not permit exposed roots to dry out before permanent backfills is placed.
 - a) Provide temporary earth cover, or pack the roots with peat moss, and wrap the roots with burlap.
 - b) Water and maintain the roots in a moist condition, and temporarily support and protect them from damage until they are permanently relocated and covered with backfill.
 - 5) Provide imported topsoil backfill to cover exposed roots in soil cuts.
 - 6) Do not overload root zones by placing backfill above the existing grade.

3.7 TEMPORARY CONTROLS

A. Temporary Erosion and Sediment Control:

1. Temporary Erosion and Water Pollution Control Plan:
 - a. Prepare a Temporary Erosion and Water Pollution Control Plan indicating all proposed temporary erosion and water pollution controls to the Construction Manager for approval.
 - 1) Include Working Drawings showing the proposed temporary erosion and sediment controls.
 - b. Submit the Temporary Erosion and Water Pollution Control Plan to the Construction Manager for approval.
2. Provide temporary erosion and sediment control as required.
 - a. Protect grades and slopes susceptible to erosion.
 - b. Place seed free hay bales, construct silt barrier fence with geotextile fabric, and construct temporary berms, dikes, dams, or ditching and other control measures as may be required.

- c. Subject to approval by the Construction Manager, install and maintain temporary erosion and sediment controls as indicated in the Contract Documents until permanent erosion control features are in place.
 - 3. Hay Bale Installation:
 - a. Install seed free hay bales to provide sedimentation control at the locations indicated on the Contract Drawings, at other locations throughout the work area as required to provide erosion protection, and as directed.
 - b. Place bales as indicated on the Contract Drawings.
 - 1) If hay bale installation is not indicated, place hay bales in a row with the ends abutting one another.
 - 2) Anchor hay bales in place with 2 stakes driven through the bales and sunk a minimum of 1-1/2 feet into stabilized earth.
 - a) Angle the initial stake to previously laid hay bales to force the bales together.
 - b) Drive stakes to be flush with the top of the hay bale.
 - 4. Silt Barrier Fence Installation:
 - a. Construct silt barrier fence at the locations indicated or proposed on the Contract Drawings or Working Drawings.
 - b. Construct the silt barrier fencing with or without wire-mesh support, and fasten the silt barrier to support posts as follows:
 - 1) Install posts and excavate a shallow trench on the protected side of the fence.
 - 2) Fasten the fabric securely to the top of the posts and wire-mesh, if applicable, at a maximum spacing of 30 inches.
 - a) Make sure that sag of the fabric is kept to a minimum.
 - b) Extend the fabric a minimum of 6 inches into the excavated trench, then backfill the trench with the excavated soil and compact.
 - 5. Construction Entrance and Sediment Trap Construction:
 - a. Construct each construction entrance and sediment trap as shown on the Contract Drawings and to the depths indicated.
- B. Temporary Pest Control:
- 1. Provide measures to control birds, vermin, and insect pests at the Site so they do not present a health hazard or nuisance.
 - 2. Provide rodent-proof refuse containers for “non-construction” refuse such as food waste and packaging materials.
- C. Temporary Environmental Controls:
- 1. Provide temporary environmental controls to facilitate construction.
 - a. Provide equipment required to furnish proper ambient conditions for applying, curing, or preserving materials as specified in other Sections; such as dehumidifiers to adjust the humidity, fans to furnish ventilation, or portable heaters to adjust the temperature as specified in other Sections.
 - b. Provide the temporary enclosures required for encapsulating environmentally sensitive areas containing lead, asbestos, PCBs, mold, or other toxic or hazardous materials as specified in other Sections that describe procedures for their remediation or abatement.
 - 2. Air Pollution:
 - a. Prevent polluting the air in violation of the requirements specified in the Town of North Salem, New York, Code of Ordinances.
 - 3. Noise Control:

- a. Ensure that noise produced by equipment and construction operations does not exceed established regulatory limits stipulated in the Town of North Salem, New York, Code of Ordinances.
 - b. Equip construction vehicles with operating noise control devices.
- D. Temporary Storm Water Pollution Control:
- 1. During earthwork operations, take additional precautions as required and as directed by the Construction Manager to prevent water runoff from eroding completed work and to prevent surface water and sediment from leaving the Site, including the construction of retention basins, channels, or similar structures.
 - 2. Clean paved areas of accumulated dirt and debris to prevent it being washed into low-lying areas or fouling storm sewers and catch basins.
 - 3. Prevent concrete trucks being washed onsite.
 - 4. Construct temporary drainage structure inlet filter protection as detailed on the Contract Drawings to prevent sediment from entering the drainage system by ponding water to allow sediment to fall out of suspension.
 - 5. Surface water:
 - a. Do not allow water to collect on the Site.
 - b. Where required, provide positive means to remove water such as trenching or pumping.
- E. Site Watering for Dust Control:
- 1. Control dust at all times.
 - a. Perform vacuuming, wet mopping, wet sweeping, or wet power brooming in lieu of dry power brooming or air blowing.
 - b. Perform only wet cutting of concrete block, concrete, and asphalt.
 - 2. Treat material stockpiles and disturbed soil with dust suppressors, such as water or other palliatives, and/or provide covers to control dust.

3.8 PROJECT IDENTIFICATION

- A. Temporary Project Signage:
- 1. Provide two field office signs each having a minimum of 70-character spaces, and lettering styles, colors, and proportions as directed by the Construction Manager.
 - a. Construct the field office signs from a single 8 feet wide by 4 feet high sheet of exterior A-B grade plywood securely bolt-mounted to 4-inch by 4-inch posts constructed from pressure treated construction grade lumber set at a minimum depth of 4 feet below grade.
 - b. Paint both sides of the field office signs with one coat of primer-sealer finished with two coats of white semi-gloss enamel.
 - 2. Securely mount the field office signs where directed by the Construction Manager, and so they are resistant to vandalism and theft.
 - 3. Submit Shop Drawings showing the temporary project signage message and layout to the Construction Manager for approval.

3.9 REPAIR/RESTORATION

- A. Complete, or, if necessary, restore permanent work which may have been delayed because of interference with the temporary service or facility.

- B. Repair damaged Work, clean exposed surfaces, and replace Work which cannot be satisfactorily repaired.
 - 1. Clean and repair damage caused by installation or use of temporary work.
- C. Traffic Control:
 - 1. Restore obstructed public ways, including streets, sidewalks, and accesses to public and private properties, to public and private uses when obstruction thereto is no longer necessary for prosecution of the Project.
- D. Landscaping:
 - 1. Restore all landscape areas and other surface improvements that were to remain in place, but that have been damaged by the Contractor's actions or omissions.
 - a. Restore landscape areas as nearly as possible to the original condition.
 - 2. Repairing or Replacing Damaged Plants:
 - a. Where damage to vegetation has occurred, prune plants in accordance with Tree Care Industry Association (TCIA) standards to remove branches from the work area, and where needed to maintain the health of the plant.
 - 1) Remove material in a manner that yields minimal impact and is approved.
 - b. Remove plants that were identified by the Owner to remain in place, but that are damaged during the course of the work to an extent that they cannot be repaired; and replace the damaged plants with new plants of the same type and value.
 - 1) Remove and replace damaged plants as directed.
 - 2) Base the value of plants that are to be replaced on the criteria found in the Council of Tree and Landscape Appraisers' "Guide for Plant Appraisal", as evaluated by the Project Arborist.
 - c. Remove and replace damaged plants at no increase in the Contract Price.
 - 1) Bear the cost of Consultants, administrative costs, coordination, permits and other fees associated with the removal, replacement, or repair of existing plants resulting from damage due to insufficient or improper protection.

3.10 RE-INSTALLATION

- A. Restore or re-install permanent facilities, used during construction, to the condition specified.

3.11 SITE QUALITY CONTROL

- A. Site Tests:
 - 1. The Construction Manager has the authority to order testing of the Contractor's construction plants and equipment; and to reject or condemn any plant, apparatus, or staging, which, in his opinion, is unsafe, improper, or inadequate.
 - a. Whether the Construction Manager exercises this authority or not, the Contractor is not relieved of his responsibility for the safe, proper, and lawful construction, maintenance, and use of such plant, apparatus, or staging.
- B. Site Inspections:
 - 1. Inspect the maintenance and protection of traffic (MPT) placed on a twice daily basis.
 - a. Inspect the MPT devices first thing to verify their integrity, and again at the end of the shift for the same purpose.

2. Inspect the sediment and erosion control and storm water controls protections and devices not less than once per week.
3. Inspect the sediment and erosion control and storm water controls protections and devices prior to predicted storm events, and again after storm events.

C. Non-Conforming Work:

1. Immediately upon discovering defective maintenance and protection of traffic (MPT) items, remedy the deficiencies.
2. Repair or replace deflection sediment and erosion control protections within 24 hours.
3. Rework condemned construction plants or equipment to an acceptable condition or remove them from the Site and replace them within five (5) Days from the date of instruction of the Construction Manager.

3.12 CLEANING

A. Furnish daily janitorial and housekeeping services at the Work Site and perform any required maintenance of facilities as deemed necessary by the Construction Manager.

1. Landscaping:
 - a. Clean up the ground areas under plants remaining in place as directed.
 - b. Wash off foliage that becomes soiled, or when directed to do so Project Arborist.
 - c. Remove materials that fall or flow into protected areas.
 - 1) Provide protective barriers as needed or as directed by the Construction Manager or Project Arborist to prevent materials from falling or flowing into protected areas.
2. Construction Facilities:
 - a. Clean the field office(s) daily or as required by the Construction Manager.
 - b. Remove snow in and around the field trailers and adjacent parking areas.

B. At Substantial Completion, clean and renovate permanent services and facilities that have been used to provide temporary services and facilities during the construction period, including but not limited to the following:

1. Replace air filters and clean the outside of ductwork and housings.
2. Replace significantly worn parts and parts that have been subject to unusual operating conditions.
3. Replace lamps in the lighting system that are burned out or noticeably dimmed by substantial hours of use.

C. Remove all temporary facilities and controls prior to Final Acceptance.

1. Upon completion of the Contract, remove all temporary facilities from the Site, except those designated to remain.
 - a. Remove temporary utilities, equipment, facilities, and materials prior to submitting the Final Application for Payment.
 - b. Remove any temporary underground installations to a minimum depth of 2 feet.
2. Temporary Utilities:
 - a. Remove and dispose of the materials and equipment furnished for temporary utility services for this Contract as part of final cleanup, except as specified herein.
 - 1) All costs for this removal and disposal is the responsibility of the Contractor.
 - 2) Unless the Construction Manager requests that it be maintained for a longer period of time, remove each temporary service and facility promptly when the need for it or a substantial portion of it has ended, or when it has been replaced

by the authorized use of a permanent facility, but no later than substantial completion.

3. Construction Facilities:
 - a. Upon completion of the Contract, the Field office becomes the property of the Contractor, and the Contractor is responsible for removal, dismantling, or otherwise disposing of the field office(s) at that time.
4. Temporary Barriers and Enclosures:
 - a. Remove fencing and related materials as directed during the Final Acceptance process at the end of the Contract.
5. Temporary Controls:
 - a. When the silt barrier fence is no longer needed, remove the fence and restore the area.
 - b. Remove temporary traffic control devices as soon as construction activities have been completed.
6. Project Identification:
 - a. Upon completion of the Work, remove and legally dispose of the temporary Project signage and posts, and backfill the post holes.
 - 1) Turn all other signs over to Metro-North (METRO-NORTH).
 - a) The Contractor will be charged \$250 for each sign not turned over to METRO-NORTH.

D. Waste Management:

1. Comply with the requirements of the approved Waste Management Plan specified in Section 01 74 00, Cleaning and Waste Management.
 - a. Frequently clean up refuse, rubbish, scrap materials, and debris caused by operations so that the Site presents a neat, orderly, and workmanlike appearance.
 - b. Provide daily collection of rubbish and clean up the Work and access areas.
 - c. Load and cover trucks in a manner that will prevent dropping material and debris while in transit.
2. Provide for the disposal of waste products, trash, debris, and similar materials not required for the performance of the Work.
 - a. Remove surplus materials, falsework, and other temporary structures including foundations.
 - b. Make arrangements to legally dispose of the refuse, rubbish, scrap materials, and debris caused by operations off-site.
3. Gather and dispose of spoils and vegetative waste, including dead and damaged plants and the trimmings accumulated from the operations to clear and remove existing vegetation.
4. Dispose of spoils and vegetative waste off-site in conformance with the regulations imposed by the local authorities, and in an area approved for such disposal by the local authorities.

3.13 PROTECTION

- A. Until final acceptance of the work by Metro-North, take charge and care of the temporary facilities and controls, and take reasonable precautions to protect them against injury or damage by action of the elements, theft, vandalism, or from any other cause, whether arising from the execution or from the non- execution of the Work.
 1. Rebuild, repair, restore, and make good, to the satisfaction of the Construction Manager, injuries or damages to any portion of the Work occasioned by any of the above causes before Final Acceptance, and bear the expense thereof at no cost to Metro-North.

- B. Provide and maintain security services for the field office during the entire Contract period.

3.14 MAINTENANCE

A. Maintenance for Field Offices:

- 1. Furnish maintenance, a paper supply, and ink cartridges for the color copier.
 - a. Provide the following initial supply of paper:
 - 1) 20 boxes of letter size (8-1/2 by 11 inches) paper.
 - 2) 10 boxes of legal size (8-1/2 by 14 inches) paper.
 - 3) 20 boxes of 11 by 17 inches size paper.
 - b. Provide the following supply of paper weekly or as required by the Construction Manager:
 - 1) 4 boxes of letter size (8-1/2 by 11 inches) paper.
 - 2) 1 box of legal size (8-1/2 by 14 inches) paper.
 - 3) 1 box of 11 by 17 inches size paper.
 - c. At a minimum, maintain a two-week supply of paper onsite at all times.
- 2. Furnish a maintenance contract for the photocopier effective for the duration of the Contract.

B. Maintenance of Temporary Traffic Control Devices:

- 1. Within 24 hours after temporary traffic control devices have been damaged, defaced, or otherwise rendered unfit, repair or clean those devices, or replace those devices with new devices.

C. Maintenance of Temporary Project Signage:

- 1. Maintain the field office signs in good condition, free of markings and dirt, and free of obstructions.
 - a. Replace damaged stickers as necessary.
 - b. Clean signs using soap and water or with cleaning solvents that will not damage the surface of the signs.

D. Maintenance of Temporary Electricity and Temporary Lighting:

- 1. Maintain temporary electrical and lighting equipment and wiring in a safe condition, and use it in a manner that does not constitute a hazard to persons or property.

E. Maintenance of Temporary Parking Areas and Pedestrian Access:

- 1. Maintain temporary parking areas and pedestrian access throughout all seasons, including providing snow removal and salting.
- 2. Maintain surfaces to always be safe and puddle free.

F. Maintenance of Vegetation:

- 1. Care for and maintain existing vegetation within protected areas as indicated on the Contract Drawings.
 - a. Provide water and labor as needed for plant health, growth, and for washing down soiled foliage.
 - b. Provide fertilizer, deep root fertilization, pesticides, anti-desiccants, and other materials and labor as needed to maintain the existing plants in a healthy and growing condition.
 - c. Provide plant maintenance for the duration of the Contract, until Final Acceptance.

G. Maintenance of Protective Fencing:

1. Replace damaged or non-compliant protective fencing as required.
 - a. Remove and replace torn, deformed, or otherwise blemished mesh with sections of the minimum specified length.
 - b. Repair or replace damaged fencing immediately after damage occurs.
 2. Maintain tree protection fencing upright and in good condition throughout the Contract until Final Acceptance.
- H. Maintenance of Field Offices and Sheds:
1. Maintain the temporary facilities in a proper, safe, and sanitary operating condition for the duration of the Contract.
 - a. Continuously maintain the field office and provide janitorial services on a daily basis throughout the Contract.
 - b. Keep toilet facilities equipped, clean, and sanitary at all times.
- I. Maintenance of Temporary Erosion and Sediment Controls:
1. After installing silt barrier fence, satisfactorily maintain the barrier fence.
 - a. The temporary erosion and sediment control fence fabric may require periodic cleaning, by tapping the dry fabric from the downstream side.
 - b. Maintain hay bales until they are no longer needed.
 2. Repair:
 - a. Remove hay bales which deteriorate, and replace removed bales with new bales.
 - b. When directed, remove and replace barrier fence not functioning due to clogging, damage, or deterioration.
 3. Maintain the stored areas of the construction entrance and sediment trap areas by replacing or cleaning fouled areas as required and as directed by the Construction Manager.
 4. Maintain temporary erosion protection and surface water runoff controls until cuts, fills, embankments, permanent erosion protection, and final grading are completed.
 - a. Remove temporary sedimentation and erosion controls installed under this Contract when they are no longer required, when they interfere with construction, or when directed.
 - b. Receive approval prior to removing any temporary sedimentation and erosion controls.

END OF SECTION



CASSONE

YOUR SOURCE FOR SPACE

MOBILE UNIT CA 825



MODEL CA 825 FEATURES:

SIZE

- 8' x 25' Overall, 8' x 21' Box
- 4' Trailer Hitch

INTERIOR

- 1/2 Bath
- Paneled Walls
- Vinyl Covered Tile Floors
- Gypsum Ceiling

FURNITURE

- 1 Built-In Desk with File Cabinets
- 1 Built-In Plan Table

ELECTRIC

- Fluorescent Ceiling Lights
- 60 Amp Breaker Panel

WINDOWS AND DOORS

- 46" x 27" Sliding Windows
- Aluminum Door

HEATING AND COOLING

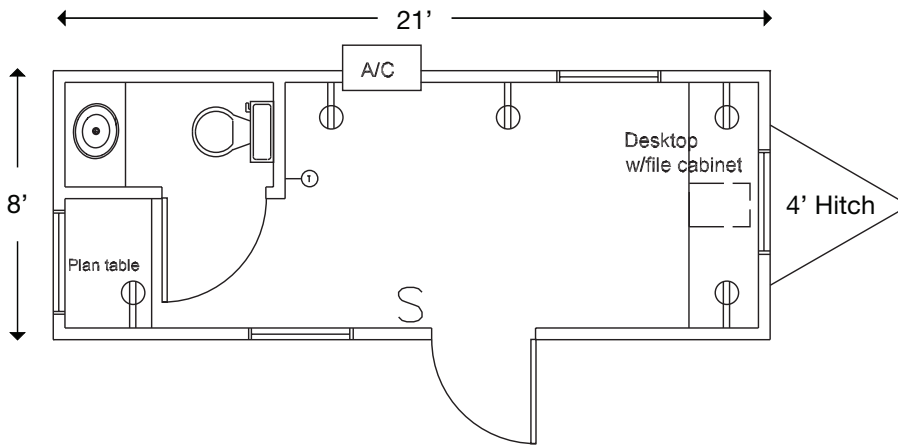
- 1 Thru Wall AC Unit
- Electric Baseboard Heat

EXTERIOR

- Aluminum Siding
- Security Package Available
- Steps Available



**WE SELL
OFFICE
FURNITURE!**



NOTES: _____

CUSTOMER APPROVAL

Customer Signature _____ Date _____

Print Name _____

ADDITIONAL FLOOR PLANS ARE AVAILABLE. FLOOR PLANS AND SPECIFICATIONS MAY VARY FROM THOSE SHOWN ABOVE AND ARE SUBJECT TO AVAILABILITY.

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