SECTION 01 50 00

TEMPORARY CONSTRUCTION FACILITIES AND CONTROLS

APPROVAL STATUS							
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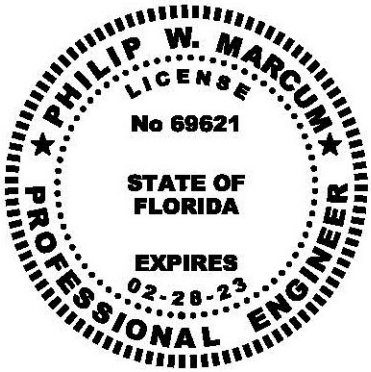
Engineer's Seal



Digital Signature

Philip W Marcum

Digitally signed by Philip W Marcum
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Date: 2021.07.28 17:30:58 -04'00'

PHILIP W. MARCUM P.E., STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 69621.

THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY PHILIP W. MARCUM ON 28 JULY 2021, USING A DIGITAL SIGNATURE ISSUED BY IDENTRUST.

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SECTION 01 50 00

TEMPORARY CONSTRUCTION FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN WATER WORKS ASSOCIATION (AWWA)

AWWA C511	(2017) Reduced-Pressure Principal Backflow Prevention Assembly

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 70	(2020; ERTA 20-1 2020; ERTA 20-2 2020; TIA 20-1; TIA 20-2; TIA 20-3; TIA 20-4) National Electrical Code
NFPA 241	(2019) Standard for Safeguarding Construction, Alteration, and Demolition Operations

1.2 SUBMITTALS

Owner approval is required for the following submittals. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Construction Site Plan
Traffic Control Plan
Environmental Management Plan

1.3 CONSTRUCTION SITE PLAN

Prior to the start of work, submit for Owner approval a site plan showing the locations and dimensions of temporary facilities (including layouts and details, equipment and material storage area (onsite and offsite), and access and haul routes, avenues of ingress/egress to the fenced area and details of the fence installation. Identify any areas which may have to be graveled construction entrances to prevent the tracking of mud. Indicate if the use of a supplemental or other staging area is desired. Show locations of safety and construction fences, site trailers, construction entrances, trash dumpsters, Utility hook-up, fuel storage areas, generators, temporary sanitary facilities, and worker parking areas.

1.3.2 Temporary IP Networks

Temporary contractor-installed IP networks may be used during construction. When used, temporary contractor-installed IP networks must meet the following requirements:

1.3.2.1 Network Boundaries and Connections

The network must not extend outside the project site and must not connect to any IP network other than IP networks provided under this project or Owner furnished IP networks provided for this purpose. Any and all network access from outside the project site is prohibited.

1.3.3 Owner Access to Network

Owner personnel must be allowed to have complete and immediate access to the network at any time in order to verify compliance with this specification.

1.3.4 Temporary Wireless IP Networks

In addition to the other requirements on temporary IP networks, temporary wireless IP (WiFi) networks must not interfere with existing wireless network and must use WPA2 security. Network names (SSID) for wireless networks must be changed from their default values.

1.3.5 Passwords and Passphrases

The passwords and passphrases for all network devices and network access must be changed from their default values. Passwords must be a minimum 8 characters with a minimum of one uppercase letter, one lowercase letter, one number and one special character.

1.3.6 Contractor Temporary Network Cybersecurity Compliance Statements

Each Statement must be signed by a cybersecurity representative for the relevant company. If no temporary IP networks will be used, provide a single copy of the Statement indicating this.

PART 2 PRODUCTS

2.1 TEMPORARY SIGNAGE

2.1.1 Bulletin Board

Prior to the commencement of work activities, provide at minimum One (1) clear weatherproof covered bulletin board not less than 36 by 48 inches in size for displaying the Equal Employment Opportunity poster, a copy of the wage decision contained in the Contract, Wage Rate Information poster, Safety and Health Information. Locate the bulletin board at the project site in a conspicuous place easily accessible to all employees, and in location as approved by the Owner's Representative.

2.1.2 Project Identification Signs

The requirements for the signs, their content, and location are to be approved by the Owner. Erect signs within 15 days after receipt of the notice to proceed.

- Contractor Site Office / Visitor Sign-In

- Owner's Representative / Engineer Office Site Office
- Dam Access Control

2.1.3 Warning Signs

Post temporary signs, tags, and labels to give workers and the public adequate warning and caution of construction hazards. Attach signs to the perimeter fencing every 150 feet warning the public of the presence of construction hazards. Signs must require unauthorized persons to keep out of the construction site. Correct the data required by safety signs daily. Post signs at all points of entry designating the construction site as a hard hat area.

2.2 TEMPORARY TRAFFIC CONTROL

2.2.1 Haul Roads

Construct access and haul roads necessary for proper prosecution of the work under this Contract in accordance with the construction drawings. Construct with suitable grades and widths; avoid sharp curves, blind corners, and dangerous cross traffic. Submit haul road plan for approval. Provide necessary lighting, signs, barricades, and distinctive markings for the safe movement of traffic. The method of dust control, although optional, must be adequate to ensure safe operation at all times. Location, grade, width, and alignment of construction and haul roads are subject to approval by the Owner's Representative. Lighting must be adequate to assure full and clear visibility for full width of haul road and work areas during any night work operations.

2.2.2 Barricades

Erect and maintain temporary barricades to limit ~~public~~ access to hazardous areas. Barricades are required whenever safe ~~public~~ access to paved areas such as roads, parking areas or sidewalks is prevented by construction activities or as otherwise necessary to ensure the safety of both pedestrian and vehicular traffic. Securely place barricades clearly visible with adequate illumination to provide sufficient visual warning of the hazard during both day and night.

2.3 FENCING

Provide fencing along the construction site and at all open excavations ~~and tunnels~~ to control access by unauthorized personnel. Safety fencing must be highly visible to be seen by pedestrians and vehicular traffic. Remove the fence upon completion and acceptance of the work.

2.3.1 Polyethylene Mesh Safety Fencing

Temporary safety fencing must be a high visibility orange colored, high density polyethylene grid, a minimum of 48 inches high and maximum mesh size of 2 inches. Fencing must extend from the grade to a minimum of 48 inches above the grade and be tightly secured to T-posts spaced as necessary to maintain a rigid and taut fence. Fencing must remain rigid and taut with a minimum of 200 pounds of force exerted on it from any direction with less than 4 inches of deflection.

2.4 TEMPORARY WIRING

Provide temporary wiring in accordance with local and state electrical codes. Include monthly inspection and testing of all equipment and apparatus.

2.5 BACKFLOW PREVENTERS

Reduced pressure principal type conforming to the applicable requirements AWWA C511. Provide backflow preventers complete with 150-pound flanged cast iron, ductile iron, bronze, brass mounted gate valve and strainer, 304 stainless steel or bronze, internal parts.

PART 3 EXECUTION

3.1 EMPLOYEE PARKING

Construction Contract employees must park privately owned vehicles in an area designated by the Owner's Representative. Employee parking must not interfere with existing and established parking requirements of the Owner installation.

3.2 AVAILABILITY AND USE OF UTILITY SERVICES

3.2.1 Temporary Utilities

Provide temporary utilities required for construction. Materials may be new or used, must be adequate for the required usage, not create unsafe conditions, and not violate applicable codes and standards.

3.2.2 Payment for Utility Services

a. The Contractor must provide their own utilities.

3.2.3 Meters and Temporary Connections

Provide and maintain necessary temporary connections, distribution lines, and meter bases (Owner will provide meters) required to measure the amount of each utility used for the purpose of determining charges. Notify the Owner's Representative, in writing, 5 working days before final electrical connection is desired so that a utilities contract can be established. The Owner will provide a meter and make the final hot connection after inspection and approval of the Contractor's temporary wiring installation. Do not make the final electrical connection.

3.2.4 Final Meter Reading

Before completion of the work and final acceptance of the work by the Owner, notify the Owner's Representative, in writing, 5 working days before termination is desired. The Owner will take a final meter reading, disconnect service, and remove the meters. Then remove all the temporary distribution lines, meter bases, and associated appurtenances. Pay all outstanding utility bills before final acceptance of the work by the Owner.

3.2.6 Water

Make connections to existing facilities to provide water for construction purposes.

3.2.7 Sanitation

Provide and maintain within the construction area minimum field-type sanitary facilities. Clean units and empty wastes at least once a week or more frequently into the Plant sanitary sewage system (if approved by the Owner) or remove waste to a commercial facility. Obtain approval from the Plant prior to discharge into their sanitary sewer system. Penalties or fines associated with improper discharge will be the responsibility of the Contractor. Coordinate with the Owner's Representative and follow Plant regulations and procedures when discharging into the station sanitary sewer system. Maintain these conveniences at all times. Include provisions for pest control and elimination of odors. Owner toilet facilities will not be available to Contractor's personnel.

3.2.8 Telephone

Make arrangements and pay all costs for telephone facilities desired.

3.2.9 Fire Protection

Provide temporary fire protection equipment for the protection of personnel and property during construction. Remove debris and flammable materials daily to minimize potential hazards.

3.3 TRAFFIC PROVISIONS

3.3.1 Maintenance of Traffic

a. Conduct operations in a manner that will not close a thoroughfare or interfere with traffic on railways or highways except with written permission of the Owner's Representative at least 15 calendar days prior to the proposed modification date and provide a Traffic Control Plan for Owner approval detailing the proposed controls to traffic movement for approval. The plan must be in accordance with State and local regulations and the MUTCD, Part VI. Make all notifications and obtain all permits required for modification to traffic movements outside Plant's jurisdiction. Contractor may move oversized and slow-moving vehicles to the worksite provided requirements of the highway authority have been met.

b. Conduct work so as to minimize obstruction of traffic and maintain traffic on at least half of the roadway width at all times. Obtain approval from the Owner's Representative prior to starting any activity that will obstruct traffic.

c. Provide, erect, and maintain, at Contractor's expense, lights, barriers, signals, passageways, detours, and other items, that may be required by the Life Safety Signage, overhead protection authority having jurisdiction.

d. Provide cones, signs, barricades, lights, or other traffic control devices and personnel required to control traffic. Do not use foil-backed material for temporary pavement marking because of its potential to conduct electricity during accidents involving downed power lines.

3.3.2 Protection of Traffic

Maintain and protect traffic on all affected roads during the construction period except as otherwise specifically directed by the Owner's Representative. Measures for the protection and diversion of traffic, including the provision of watchmen and flagmen, erection of barricades, placing of lights around and in front of equipment the work, and the erection and maintenance of adequate warning, danger, and direction signs, will be as required by the State and local authorities having jurisdiction. Provide self-illuminated (lighted) barricades during hours of darkness. Brightly colored (orange) vests are required for all personnel working in roadways. Protect the traveling public from damage to person and property. Minimize the interference with public traffic on roads selected for hauling material to and from the site. Investigate the adequacy of existing roads and their allowable load limit. Contractor is responsible for the repair of damage to roads caused by construction operations.

3.3.3 Dust Control – Not used

3.4 REDUCED PRESSURE BACKFLOW PREVENTERS

Provide a Manatee County approved reduced pressure backflow prevention assembly at each location where the Contractor taps into the Owner potable water supply.

Perform backflow preventer tests using test equipment, procedures, and certification forms in accordance with Manatee County Public Works Department guidelines. Test and tag each reduced pressure backflow preventer upon initial installation (prior to continued water use) and monthly thereafter. Tag must contain the following information: make, model, serial number, dates of tests, results, maintenance performed, and signature of tester. Record test results on certification forms conforming to requirements cited earlier in this paragraph. If the temporary water connection needs to be moved to another location during construction, the Contractor must notify the Owner's Representative in writing a minimum of 5 working days prior to movement.

3.5 CONTRACTOR'S TEMPORARY FACILITIES

Contractor-owned or -leased trailers must be identified by Owner assigned numbers.

Contractor is responsible for security of their property. Provide adequate outside security lighting at the temporary facilities. Trailers must be anchored to resist high winds and meet applicable state or local standards for anchoring mobile trailers

3.5.1 Administrative Field Offices

Provide and maintain administrative field office facilities within the construction area at the designated site. Owner office and warehouse facilities will not be available to the Contractor's personnel.

3.5.2 Quality Control Manager Records and Field Office

Provide on the jobsite an office for the exclusive use of the QC Manager. File quality control records in the office and make available at all times to the Owner. After completion of the work, remove the entire structure from the site.

3.5.3 Work Trailer Area

Grassed or unpaved areas, which are not established roadways, and will be traversed with construction equipment or other vehicles, must be covered with a layer of gravel as necessary to prevent rutting and the tracking of mud onto paved or established roadways, should the Contractor elect to traverse them with construction equipment or other vehicles. Mow and maintain grass located within the boundaries of the construction site for the duration of the project. Grass and vegetation along fences, buildings, under trailers, and in areas not accessible to mowers must be edged or trimmed neatly.

3.5.4 Supplemental Storage Area

Upon request, and pending availability, the Owner's Representative will designate another or supplemental area for the use and storage of trailers, equipment, and materials. This area may not be in close proximity of the construction site but will be within the installation boundaries. Maintain the area in a clean and orderly fashion and secured if needed to protect supplies and equipment. Utilities will not be provided to this area by the Owner.

3.5.5 Appearance of Trailers

a. Trailers must be roadworthy and comply with all appropriate state and local vehicle requirements. Trailers which are rusted, have peeling paint or are otherwise in need of repair will not be allowed on Installation property. Trailers must present a clean and neat exterior appearance and be in a state of good repair.

b. Maintain the temporary facilities. Failure to do so will be sufficient reason to require their removal at the Contractor's expense.

3.5.6 Trailers or Storage Buildings

a. Trailers or storage buildings will be permitted, where space is available, subject to the approval of the Owner's Representative.

b. Mount a sign not smaller than 24 by 24 inches on the trailer or building that shows the company name, business phone number, emergency phone number.

3.5.7 Safety Systems

Protect the integrity of all installed safety systems or personnel safety devices. Obtain prior approval from the Owner's Representative if entrance into systems serving safety devices is required. If it is temporarily necessary to remove or disable personnel safety devices in order to accomplish Contract requirements, provide alternative means of protection prior to removing or disabling any permanently installed safety devices or equipment and obtain approval from the Owner's Representative.

3.5.8 Special Storage Requirements

The following special storage requirements apply:

3.5.8.1 Storage Size and Location

The site available for storage must be confined to the indicated laydown area on the drawings.

3.6.8.2 Storage in Existing Buildings

No storage will be permitted within existing buildings, unless otherwise approved by the Owner.

3.6.9 Weather Protection of Temporary Facilities and Stored Materials

Not Used

3.6.9.1 Building and Site Storm Protection

Site storm protection provisions must be included in the Emergency Shut Down Plan for Hurricane, Tropical Storm, or Heavy Rainfall Event. These must be approved by the Owner.

3.7 OWNER FIELD OFFICE

3.7.1 Resident Engineer's Office

Provide the Owner's Engineer with a field office in accordance with Section 01 50 10 Site Office Trailer. At completion of the project, the office will remain the property of the Contractor and be removed from the site. Utilities must be connected and disconnected in accordance with local codes and to the satisfaction of the Owner's Representative. Compliance with safety and appearance requirements for temporary facilities stated in previous paragraphs is required.

3.7.2 Trailer-Type Mobile Office

The option is available to furnish and maintain a trailer-type mobile office acceptable to the Owner's Representative to meet the requirements of the minimum facilities specified above. Detailed design notes and Shop Drawings for stabilization of the site office trailer that will prevent the overturning by wind forces in accordance with the Florida Building Code. The stabilization provided shall be designed, sealed and signed by a Professional Engineer registered or licensed to practice in the State of Florida.

3.8 PLANT COMMUNICATIONS – NOT USED

3.9 TEMPORARY PROJECT SAFETY FENCING – NOT USED

3.10 DUMPSTERS

Equip dumpsters with a secure cover and paint the standard installation color. Keep dumpster closed, except when being loaded with trash and debris. Empty site dumpsters at least once a week, or as needed to keep the site free of debris and trash. If necessary, provide 55-gallon trash containers painted the darker installation color to collect debris in the construction site area. For large demolitions, large dumpsters without lids are acceptable, but must not have debris higher than the sides before emptying.

3.11 CLEANUP

Remove construction debris, waste materials, packaging material and the like from the work site daily. Any dirt or mud which is tracked onto paved or surfaced roadways must be cleaned away. Store all salvageable materials resulting from demolition activities within the fenced area described above or at the supplemental storage area. Neatly stack stored materials not in trailers, whether new or salvaged.

3.12 RESTORATION OF STORAGE AREA

Upon completion of the project remove the bulletin board, signs, barricades, haul roads, and all other temporary products from the site. After removal of trailers, materials, and equipment from within the fenced area, remove the fence. Restore areas used during the performance of the Contract to the original or better condition. Remove gravel used to traverse grassed areas and restore the area to its original condition, including topsoil and seeding as necessary.

-- End of Section --