

SECTION 100
GENERAL REQUIREMENTS
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SECTION 100

GENERAL REQUIREMENTS

100 GENERAL

- A. CONTRACTOR shall provide all items, articles, materials, operations or methods mentioned or scheduled on the Drawings or herein specified including all labor, supervision, equipment, incidentals, taxes and permits necessary to complete the Work as described within the Contract Documents. CONTRACTOR shall install all items provided by OWNER as mentioned or scheduled on the Drawings or herein specified.

101 CONTRACT DOCUMENTS - INTENT AND USE

- A. Intent of Documents:
1. Singular notations and specifications shall be considered plural where application is reasonably inferred.
 2. Mention or indication of extent of work under any work division or Specification section is done only for convenience of CONTRACTOR and shall not be construed as describing all work required under that division or section.
 3. Some individual sections may contain a list of related sections. The list of related sections in individual sections is provided for the convenience of CONTRACTOR and is not necessarily all-inclusive. CONTRACTOR may not rely upon this listing for determination of scope of work. Other sections of the Specifications not referenced in individual sections shall apply as required for proper performance of the Work.
 4. Command type sentences may be used in the Contract Documents. These sentences refer to and are directed to CONTRACTOR.
 5. Symbols for various elements and systems are shown on the Drawings. Should there be any doubt regarding the meaning or intent of the symbols used, a written interpretation shall be obtained from ENGINEER.
- B. Use of Documents:
1. CONTRACTOR shall examine all Specifications and Drawings for the Work, including those that may pertain to Work CONTRACTOR does not normally perform with CONTRACTOR's own forces.
 2. CONTRACTOR shall use all of the Project Contract Documents:
 - a. For a complete understanding of the project.
 - b. To determine the type of construction and systems required.
 - c. For coordination with other contractors.
 - d. To determine what other work may be involved in various parts or phases.
 - e. To anticipate and notify others when work by others will be required.
 - f. To determine all other relevant matters related to the project.
 3. CONTRACTOR is bound by all requirements of the Contract Documents which are applicable to, pertain to, or affect CONTRACTOR's Work, as may be shown or inferred by the entire set of Project Contract Documents.

102 CONTRACTOR USE OF SITE

- A. General:
1. The "area of the site" referred to in these specifications shall be as shown on the Drawings. If the "area of the site" is not shown, OWNER's property lines, the project right-of-way or the easements obtained for the project shall be considered the "area of the site."

2. Construction activities, including material storage areas, shall be confined within the "area of the site" limits.
 3. From the start of work to completion, CONTRACTOR is responsible for the care of the site and the premises which are affected by CONTRACTOR's operations.
- B. CONTRACTOR shall contain CONTRACTOR's operations to within the rights-of-way or lands upon which the work is to be performed as identified in the Contract Documents. With ENGINEER's approval, portions of the right-of-way not required for public travel may be used for storage purposes and for the placing of CONTRACTOR's equipment. Any additional space required shall be provided by CONTRACTOR at CONTRACTOR's expense.

103 PROGRESS MEETINGS AND REPORTS

- A. Progress meetings with CONTRACTOR will be held at such times as agreed to by OWNER, ENGINEER, and CONTRACTOR. Responsible representatives of CONTRACTOR, who can bind CONTRACTOR to a decision at the meetings, shall attend.
- B. CONTRACTOR shall, at the meetings, submit reports detailing progress of the Work, compliance with submitted progress schedules and future construction plans affecting the schedule of the Work.
- C. All work including site safety, equipment, materials, and fabricated items provided under the Contract shall comply with the provisions of the "Occupational Safety and Health Act." CONTRACTOR shall complete all required reports and documentation required by these regulations.

104 TRANSPORT, STORAGE AND PROTECTION OF MATERIALS AND EQUIPMENT

- A. Materials and equipment shall be transported, stored and protected to preserve their quality and fitness for the work. CONTRACTOR shall be responsible for all damages that occur in connection with the care and protection of all materials and equipment until completion and final acceptance of the work by OWNER. Damaged material and equipment shall be immediately removed from the site.
- B. All materials and equipment shall be adequately and effectively protected against damage from moisture, dust, handling, or other cause during transport to the site. Stiffeners shall be used where necessary to maintain shapes and to give rigidity. Parts of equipment shall be delivered in assembled or subassembled units where possible.
- C. CONTRACTOR shall be responsible for the unloading and safe storage of furnished materials and equipment. All materials that may be damaged by the weather and all equipment shall be stored in an enclosed space affording protection from weather, dust, and mechanical damage and providing favorable temperature, humidity, and ventilation conditions to protect against deterioration. Other materials shall be stored on wood skids or on gravel bases. Any equipment or material which is prime coated or finish painted shall be completely covered and protected with secured plastic or cloth tarps.
- D. All stored materials and equipment shall be clearly tagged or labeled indicating directions for storage where appropriate. All storage shall be in accordance with the manufacturer's recommendations unless otherwise specified.
- E. All storage areas shall be orderly, be located to facilitate inspection and shall be protected from CONTRACTOR's operations. OWNER assumes no responsibility for stored materials and equipment.

- F. After installation, CONTRACTOR shall protect all materials and equipment against weather, dust, moisture, and mechanical damage.

105 PROTECTING WORK AND IMPROVEMENTS

- A. CONTRACTOR shall protect property, existing improvements, plantings, utilities, and Work installed by CONTRACTOR and others from damage. Protection to prevent damage includes, but is not limited to, temporary measures as necessary to contain the damaging effects of storm water runoff, temporary shoring, temporary backfill, and temporary plugging of openings, holes and pipe ends that CONTRACTOR has installed. CONTRACTOR shall keep the Work, including structures, mains, fittings and accessories free from dirt and foreign matter at all times. Property, improvements, including trees, shrubs, ground covers, and other work damaged prior to final acceptance shall be repaired or replaced by CONTRACTOR.
- B. In accordance with section 20.06 of the Middleton General Ordinances, before any construction is commenced, CONTRACTOR shall protect all existing trees with a barrier of staked construction fence. The protective barrier shall encompass a square around the tree, each side being equal to the distance from the sidewalk to the curb, or a minimum of 6 feet in areas without sidewalk. The City Forester or designee shall inspect and approve all protective measures prior to commencement of any excavation or construction activities. In accordance with section 20.09 of the Middleton General Ordinances, the costs of correction to be assessed as an additional penalty for violations of the ordinance are agreed to be as follows:
 - 1. First offense - \$500 plus replacement cost of tree
 - 2. Second offense - \$1,000 plus replacement cost of tree
 - 3. Subsequent offenses - \$2,000 plus replacement cost of tree
- C. In areas where excavation is necessary within the root zone of an existing tree, the disturbed area shall be backfilled with topsoil within five days of the disturbance.
- D. If more than one contractor is responsible for damage, the cost shall be shared. ENGINEER will determine responsibility for damages. All repair and replacement methods shall be approved by ENGINEER.

106 OWNER PROVIDED MATERIALS AND EQUIPMENT

- A. CONTRACTOR's responsibility for any materials and equipment furnished by OWNER shall begin at the point of delivery to CONTRACTOR. Materials and equipment already on the site shall become CONTRACTOR's responsibility on the date of Notice to Proceed. CONTRACTOR shall examine all materials and equipment furnished by OWNER at the time and place of delivery and shall reject all defective materials and equipment. Any materials and equipment furnished by OWNER and found to be defective shall be clearly marked and set aside to be removed by OWNER. Any materials and equipment furnished by OWNER and installed by CONTRACTOR without discovery of such defects will be replaced with sound materials and equipment by OWNER. CONTRACTOR, shall at CONTRACTOR's own expense, furnish all equipment, labor and facilities necessary to remove the defective materials and equipment and install the sound materials and equipment.

107 STARTUP AND TESTING

- A. Prior to acceptance of any portion of the work, startup and testing of all equipment and testing of all materials furnished on the project by Contractor shall have been conducted in the presence of representative of CONTRACTOR, OWNER and ENGINEER and also

manufacturer, if requested by OWNER or ENGINEER. CONTRACTOR shall furnish whatever temporary installations and conditions are necessary in order to perform startup and testing operations on all equipment and materials furnished under the Contract. Temporary connections and equipment necessary during startup and testing operations shall include, but not be limited to, temporary piping and electrical equipment and devices, temporary connection from various parts of the systems and any other labor, materials, fuel, devices or items that may be required for startup and testing operations. Temporary conditions shall include filling with water, if necessary, to check equipment and materials. All temporary installations and conditions shall be removed by CONTRACTOR upon completion of startup and testing.

108 EXISTING STRUCTURES AND UNDERGROUND FACILITIES

- A. Wisconsin Statute 182.0175 requires, among other provisions, that before excavation or demolition begins, reasonable advance notice not less than 3 working days prior to the start of the excavation or demolition of the intent to excavate or demolish and the commencement date be provided to the owners of the underground facilities in and near the construction area whose facilities may be affected by the excavation or demolition. Contractor shall be aware that not all owners participate in the Digger's Hotline program. A call to this agency shall not absolve CONTRACTOR of the requirements of this statute. CONTRACTOR shall comply with all other provisions of the statute though not enumerated herein.
- B. CONTRACTOR shall proceed with caution in the excavation and preparation of the site so the exact location of structures and Underground Facilities can be determined. CONTRACTOR shall include in the Contract Price any costs for temporary or permanent relocations of such structures and facilities required to complete the Work unless specifically indicated otherwise in the Specifications.
- C. CONTRACTOR shall keep an accurate and complete record of all such structures and Underground Facilities encountered and shall provide OWNER a copy of this record. The record shall include a description of the item encountered, opinion as to conditions, and adequate measurements and depths so that the item can be located in the future.
- D. CONTRACTOR shall inspect all structures and Underground Facilities for condition and soundness. Unsound conditions shall be reported to the structure or facility owner immediately after exposing. CONTRACTOR shall not proceed with the work until the structure or facility owner has been notified. OWNER shall then be given time to inspect and correct, if required, the structure or Underground Facility. CONTRACTOR may make claim under the provisions of Articles 11 and 12 of the General Conditions should CONTRACTOR feel a price or time adjustment is justified.
- E. Any additional costs incurred because of failure of CONTRACTOR to report the condition of any and all existing structures or Underground Facilities encountered shall be paid for by CONTRACTOR.
- F. Whenever ENGINEER feels it is necessary to explore and excavate to determine the location of existing structures and Underground Facilities, CONTRACTOR shall make explorations and excavations for such purposes. If CONTRACTOR is required to perform additional work in making the explorations and excavations, extra compensation will be allowed as provided for in the General Conditions.

109 REFERENCE STANDARDS AND DEFINITIONS

A. Summary:

1. Throughout the Contract Documents, reference is made to codes and standards that establish qualities and types of workmanship and materials, and that establish methods for workmanship and materials, and that establish methods for testing and reporting on the pertinent characteristics.
2. References to various codes, standards and test methods shall be understood to mean the code standard or test method which is current on the date of the Advertisement for Bids.
3. Where materials or workmanship are required by these Contract Documents to meet or exceed the specifically named code or standard, it is CONTRACTOR's responsibility to provide materials and workmanship which meet or exceed that specifically named code or standard.
4. It is also CONTRACTOR's responsibility, when so required by the Contract Documents, to deliver to ENGINEER all required proof that the material or workmanship, or both, meet or exceed the requirements of the specifically named code or standard.
5. A substantial amount of specification language constitutes definitions for terms found in other Contract Documents, including the Drawings which must be recognized as diagrammatic in nature and not completely descriptive of requirements indicated thereon.
6. Certain terms used in the Contract Documents are defined generally in this section to supplement definitions of the Agreement, General Conditions, Supplementary Conditions, and other general contract documents.
7. Definitions and explanations of this section are not necessarily either complete or exclusive, but are general for the work.
8. The specific naming of codes or standards occurs on the Drawings and in other sections of these Specifications.
9. When required by individual sections of these Specifications, CONTRACTOR shall obtain a copy of each pertinent code or standard and maintain the copies at the job site during submittals, planning, and progress of the Work until Substantial Completion of the work is attained.
10. Where compliance with two or more industry standards or sets of requirements are specified, and the overlapping of those standards or requirements establishes different or conflicting minimums or levels of quality, the most stringent requirement (which is generally recognized to be also most costly) is intended and will be enforced, unless more detailed language written directly into Contract Documents clearly indicates that a less stringent requirement is acceptable.
11. Refer all uncertainties to ENGINEER for decision before proceeding.

B. Reference Standards:

1. Applicable standards of the construction industry are made a part of the Contract Documents by reference as if copied directly into the Contract Documents, or as if published copies were bound herewith. See Article 3.02 of the General Conditions for additional provisions regarding references.
2. Standards referenced directly in the Contract Documents or by governing regulation, have precedence over nonreferenced standards which are recognized in the industry for applicability to Work.
3. Nonreference standards are hereby defined to have no particular applicability to the work except as a general measurement of whether Work complies with standards recognized in the construction industry.
4. Reference standards and codes listed in these specifications may include, but are not necessarily limited to, standards or codes published by the following agencies and organizations:

AASHTO	American Association of State Highway & Transportation Officials 444 North Capitol Street, NW, Suite 249; Washington, DC 20001
ACI	American Concrete Institute 38800 Country Club Drive; Farmington Hills, MI 48331-3439
AI	Asphalt Institute 2696 Research Park Drive; Lexington, KY 40511-8480
AISC	American Institute of Steel Construction One East Wacker Drive, Suite 700; Chicago, IL 60601-1802
ANSI	American National Standards Institute 25 West 43rd Street; New York, NY 10036
ASTM	ASTM International 100 Bar Harbor Drive; West Conshohocken, PA 19428-2959
AWWA	American Waterworks Association 6666 West Quincy Avenue; Denver, CO 80235
FM	FM Global FM Global Corporate Offices, 270 Central Avenue; Johnston, RI 02919
MIL	Military Specifications Naval Publications and Forms Center 5801 Tabor Avenue; Philadelphia, PA 19120
NEMA	National Electrical Manufacturers Association 1300 North 17th Street, Suite 1752; Rosslyn, VA 22209
NIST	National Institute of Standards on Technology (U.S. Department of Commerce) 100 Bureau Drive, Suite 1070; Gaithersburg, MD 20899-1070
NSF	National Sanitation Foundation 789 Dixboro Road, P.O. Box 130140; Ann Arbor, MI 48113-0140
OSHA	Occupational Safety & Health Administration (U.S. Department of Labor) 200 Constitution Avenue, NW; Washington, DC 20210
SSPC	Society for Protective Coatings 40 24th Street, 6th Floor; Pittsburgh, PA 15222-4656
UL	Underwriters' Laboratories 333 Pfingston Road; Northbrook, IL 60062

C. Upon OWNER's request, CONTRACTOR shall submit copies of permits, licenses, certifications, inspection reports, and similar documents, correspondence and records established in conjunction with compliance with standards and regulations bearing upon performance of the work.

D. Definitions and Terminology:

1. The term "indicated" is a cross-reference to details, notes, or schedules on the drawings, to other paragraphs or schedules in the specifications and to similar means of recording requirements in the Contract Documents. Where terms such as "shown," "noted," "scheduled," and "specified" are used in lieu of "indicated," it is for the purpose of helping the reader locate cross-reference, and no limitation is intended except as specifically noted.
2. Where used in conjunction with ENGINEER's response to submittals, requests, applications, inquiries, reports, and claims by CONTRACTOR, the meaning of the

term "approve" will be held to the limitation of ENGINEER's responsibilities and duties as specified in paragraph 1.02.B of the General Conditions.

3. In no case will "approval" by ENGINEER be interpreted as a release of CONTRACTOR from responsibility to fulfill requirements of the Contract Documents.
4. Abbreviations: Abbreviations, where not defined in the Contract Documents, will be interpreted to mean the normal construction industry terminology.
5. ENGINEER, as used in the Standard Specifications, shall be as designated in the Agreement.

110 LAYOUT

- A. ENGINEER shall make all surveys and set reference points and benchmarks to establish the location, alignment, and elevation for the project. ENGINEER will provide stakes and marks in conformance with the drawings and field conditions as may be necessary. It will be the responsibility of CONTRACTOR to notify ENGINEER at least 2 working days in advance of when stakes will be needed. CONTRACTOR shall provide reasonable clearing and grading as may be necessary for staking or measuring by ENGINEER. This clearing and grading work will be considered incidental to the project. CONTRACTOR shall also provide hardwood lath and stakes, and individuals to assist in staking when requested by ENGINEER in the field.
- B. CONTRACTOR shall be responsible for the preservation of all control points, benchmarks, stakes and marks for all phases of work until that particular phase of work is complete. If any of the survey stakes or marks are disturbed during construction, the cost to OWNER for replacing them shall be charged to CONTRACTOR on a time and material basis.
- C. CONTRACTOR shall be responsible for all lines, elevations, and measurements of buildings, structures, piping, utilities, and other work executed by CONTRACTOR under the Contract. CONTRACTOR must exercise proper precaution to verify figures before layout of the work and will be held responsible for any error resulting from CONTRACTOR's failure to exercise such precaution.

111 SHOP DRAWINGS

- A. Complete shop drawings and descriptive data shall be submitted for approval on all manufactured or fabricated items well in advance of being incorporated into the work. A listing of required shop drawings is provided as an attachment to these specifications. Five copies of shop drawings and descriptive data shall be submitted to ENGINEER for review. Three copies of these will be returned to CONTRACTOR after approval (stamped "Approved" or "Approved as Noted").
- B. If a shop drawing submittal is not approved, two corrected copies will be returned to CONTRACTOR for use in resubmittal (stamped "Make Changes Noted - Resubmit" or "Not Approved"). CONTRACTOR shall resubmit five corrected shop drawings to ENGINEER for review, and will continue this process until shop drawings are stamped "Approved" or "Approved as Noted."
- C. All shop drawings used during construction shall bear the "Approved" or "Approved as Noted" stamp of ENGINEER. Arrangements may be made between CONTRACTOR and ENGINEER to provide additional copies of "Approved" or "Approved as Noted" shop drawings for field activity purposes.
- D. Complete shop drawings and descriptive data shall be submitted on all manufactured or fabricated items prior to 25% completion of the Work. Applications for payment beyond 25% of the Contract amount will not be recommended for payment until all the shop

drawings are submitted or a revised schedule for any remaining submittals is agreed to by OWNER and ENGINEER.

112 DRAWING REVISIONS TO ACCOMMODATE EQUIPMENT SUPPLIED

- A. For construction deviations from the Drawings and/or Specifications necessary to accommodate equipment supplied or utilized by CONTRACTOR, which result in additional costs to CONTRACTOR or other contractors, such additional costs shall be borne by CONTRACTOR. CONTRACTOR shall also pay any additional costs to OWNER including, but not limited to, necessary revisions of Drawings and/or Specifications by ENGINEER and additional construction engineering costs.

113 MANUFACTURER'S DIRECTIONS

- A. Manufactured articles, materials and equipment shall be stored, commissioned, operated, applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer, unless specified to the contrary.
- B. Wherever specifications explicitly call for work to be performed or materials to be installed in accordance with the manufacturer's directions, CONTRACTOR shall furnish copies as required for shop drawings of those directions to ENGINEER before installing the material or performing the work.

114 TESTS AND INSPECTIONS

- A. CONTRACTOR shall give ENGINEER timely notice of readiness of the work for all required inspections. All work to be covered shall be observed by ENGINEER before it is covered by CONTRACTOR. This work shall include, but not be limited to, installations of:
 - 1. Storm sewer.
 - 2. Sanitary sewer and laterals.
 - 3. Water main and services.
 - 4. Form work for cast-in-place concrete.
 - 5. Roadway sub-base.
- B. Work covered by CONTRACTOR prior to observation by ENGINEER shall not be eligible for payment. Such items shall be uncovered where requested by ENGINEER at CONTRACTOR's cost.

115 FIRE PROTECTION

- A. CONTRACTOR and subcontractor(s) who maintain or provide an enclosed shed or trailer shall provide and maintain in operating order in each shed or trailer a minimum of one fire extinguisher. More extinguishers shall be provided as necessary. Fire extinguishers shall be minimum dry chemical, nonfreezing type, UL rating 2A-30BC, with 10-pound capacity for Class A, B and C fires.
- B. CONTRACTOR's and subcontractor(s)' personnel shall take necessary precautions during excavation, laying pipe, backfilling, and other work at the site that may involve potential contact with explosive vapors or flammable products.

116 DEWATERING AND PROTECTING ADJACENT STRUCTURES AND UNDERGROUND FACILITIES

- A. CONTRACTOR shall take necessary precautions during dewatering operations to protect adjacent structures and underground facilities from subsidence, flooding and other damage, as well as to maintain operation of such structure and facilities. Any such facilities

and structures damaged shall be repaired or replaced to the satisfaction of OWNER at CONTRACTOR's expense.

- B. CONTRACTOR shall refer to paragraphs 124.B and 124.C of these General Requirements for required dewatering permits.

117 EROSION CONTROL

- A. CONTRACTOR shall provide erosion control measures as necessary to control discharge of sediment laden water to surface waters. Erosion control measures shall comply with the "DNR Conservation Practice Standards-Conservation Site Erosion and Sediment Controls Standards" and the City of Middleton Erosion Control Ordinance. Except as provided for in the above documents, overland discharge of water from dewatering operations shall not be allowed. Depending on water quality, such water shall either be piped directly to the surface water or shall be directed to sedimentation basins prior to discharge to surface waters. CONTRACTOR shall use jute or synthetic netting, silt fences, straw bales, dikes, channels, and other applicable measures to prevent erosion of soils disturbed by CONTRACTOR's construction operation. CONTRACTOR shall refer to paragraph 124.C of these General Requirements for required dewatering permits.
- B. It is the responsibility of CONTRACTOR to keep all streets in the area free from mud, clay, gravel and other materials which his vehicles or equipment may track or scatter onto the street or which may be deposited by uncontrolled drainage of water directly onto streets. Access to the site may be prohibited if and when necessary to accomplish that purpose. It is required that vehicles hauling materials to or from the site be loaded in such a manner as to avoid any spillage of earth or other materials onto streets. Should CONTRACTOR fail to comply with this requirement after 24 hours written notice of noncompliance, OWNER may have said streets cleaned at CONTRACTOR's expense.
- C. CONTRACTOR shall take all necessary steps to control dust arising from his operations. Sprinkling with water shall be considered incidental. When calcium chloride is ordered, the material cost of calcium chloride added up to 400 pounds/1,000 gallons of water shall be considered as additional cost unless otherwise agreed upon.
- D. Restoration of the site shall proceed concurrently with the construction operation. See Drawings and Specifications for erosion control measures in addition to that which may be required above.

118 DAILY AND FINAL CLEANUP

- A. CONTRACTOR shall be responsible for cleaning up the area of the site to remove waste and rubbish on a daily basis. Concrete trucks or any other equipment shall not be flushed out onto existing public streets, walks, gutters, terraces, or boulevards. This does not include streets being constructed within the project unless they are completed pavements.
- B. It is the responsibility of CONTRACTOR to inspect all manholes and catch basins weekly or when requested by ENGINEER for materials that may be deposited in them by CONTRACTOR's activities and to remove said materials immediately at CONTRACTOR's expense.
- C. It is CONTRACTOR's responsibility to completely clean up the construction site at the completion of the work.
- D. CONTRACTOR shall use only water-based marking paints on exposed concrete or asphalt surfaces. At the completion of the work, CONTRACTOR shall remove all hubs, lath, signs,

layout markings (except as placed by utility companies), and excess excavation and construction materials.

119 EXCESS MATERIAL DISPOSAL

- A. It shall be the responsibility of CONTRACTOR to dispose of all excess excavated material resulting from construction operations for which CONTRACTOR is responsible. Burning of waste material and rubbish is not allowed. CONTRACTOR shall make all necessary arrangements to find a suitable disposal site and shall meet all applicable state and federal regulations and WDNR guidelines for disposal of such material. Site and site restoration shall be satisfactory to property owner and OWNER.
- B. OWNER maintains first claim against all excess excavated material and milled pavement. If OWNER chooses to utilize this option, CONTRACTOR shall place the excess material on the site at the location acceptable to OWNER. If OWNER desires to keep the excess material but have it removed to a remote site, the hauling cost shall be paid by OWNER, unless it is specified otherwise or other arrangements are agreed upon between OWNER and CONTRACTOR.
- C. Unless otherwise required by property owner of the site, any site used for disposal of excess excavated material shall be uniformly graded to provide positive drainage. After grading, areas shall be restored with minimum 4 inches of topsoil, seed, fertilizer and mulch to stabilize the surface of the material with a uniform grass catch.
- D. CONTRACTOR shall provide waiver from property owner of disposal site as to the adequacy and acceptance of restoration prior to acceptance of the work by ENGINEER.

120 SURFACE DRAINAGE DURING CONSTRUCTION

- A. CONTRACTOR shall grade the project area to prevent accumulations of water within the excavation areas during periods of precipitation. Any subgrade area which collects water shall be immediately pumped to remove the accumulated water. Construction equipment shall not travel on the subgrade surface susceptible to instability due to wet conditions.
- B. Surface drainage during construction is to be maintained at all times. This work will include, as a minimum:
 - 1. Shaping the subgrade and base course to drain away from the centerline and toward the edge of roadway.
 - 2. Providing sumps and pumps at the outer edges of the roadway to remove standing water as necessary.
 - 3. Reducing the potential infiltration of water into the subgrade soil by rolling or other means to seal the surface soils or base course at the end of each day's construction or when rain is threatening.
- C. To help control surface drainage during road reconstruction projects, CONTRACTOR shall allow the existing pavement to remain in place as long as possible. CONTRACTOR shall coordinate removal of pavement areas as needed to allow for replacement of curb and gutter and utility trench excavations. CONTRACTOR shall coordinate removal of the remainder of the pavement as closely as possible to the day scheduled for paving.

121 TEMPORARY FACILITIES

- A. Temporary Toilets: CONTRACTOR shall provide and maintain sanitary chemical toilets located where approved and in sufficient number required for the work force employed by CONTRACTOR.

- B. Temporary Electrical Services:
 - 1. CONTRACTOR shall make all necessary arrangements, furnish, install and maintain necessary temporary electrical services at the site. Services shall provide a temporary power and lighting system adequate for the construction of this project and be in accordance with OSHA Requirements for Construction Projects. Installation of the temporary power and lighting system is to begin upon notification to proceed and shall be installed and routed in a manner so as not to interfere with construction of the project. CONTRACTOR shall remove all temporary services at the earlier of the project completion, or when service is no longer necessary.
 - 2. All utility charges for installation of the temporary services shall be paid for by CONTRACTOR. All metering installation charges and all energy charges for electric current used for temporary lighting and power are to be paid by CONTRACTOR.
 - 3. No permanent electrical equipment or wiring shall be used without express written permission of OWNER. Such approval, if given, shall not affect warranty period. If OWNER authorizes use of permanent service facilities, CONTRACTOR shall pay all metering costs until acceptance or occupancy (whichever occurs first) of facility by OWNER.
- C. Weather Protection and Temporary Heat: CONTRACTOR shall protect the work from injury due to freezing, rain, snow and other inclement weather. Cost for such measures shall be considered incidental unless otherwise noted.
- D. Temporary Stairs and Access:
 - 1. CONTRACTOR shall furnish and maintain all equipment such as temporary stairs, ladders, and ramps as required for the proper execution of the work by all trades at the site. CONTRACTOR shall be responsible for furnishing CONTRACTOR's own scaffolds, hoists, etc.
 - 2. All such apparatus, equipment and construction shall meet all requirements of OSHA and other applicable State and local laws. Provide stairs with temporary handrails. As soon as possible and where applicable, permanent stairs shall be installed.

122 SURVEY MONUMENTS

- A. All survey monuments, including property irons, that are disturbed during construction of the work shall be reset at the expense of CONTRACTOR. The replacement shall be accomplished by a Registered Land Surveyor approved by OWNER.

123 SECURITY

- A. CONTRACTOR shall have the sole responsibility of safeguarding the construction site perimeter to prevent unauthorized entry to the site throughout the duration of the project. CONTRACTOR shall at all times provide such permanent and temporary fencing or barricades or other measures as may be necessary to restrict unauthorized entry to CONTRACTOR's construction area including construction in public rights-of-way or easements. Site security measures shall include safeguards against attractive nuisance hazards as a result of construction activity.
- B. CONTRACTOR shall at all times be responsible for the security of work including materials and equipment. OWNER will not take any responsibility for missing or damaged equipment, tools, or personal belongings. CONTRACTOR shall have the sole responsibility of safeguarding CONTRACTOR's work and work area throughout the duration of the project.

124 PERMITS

- A. Permits obtained by others for this project are included as exhibits to the Agreement. CONTRACTOR shall obtain all other licenses and permits required for his operations, without additional cost to OWNER including:
 - 1. Notice of Intent (NOI) Permit - Wisconsin DNR.
 - 2. Street Opening Permit - City of Middleton.
 - 3. City of Middleton Land Disturbing Permit.
- B. For dewatering operations, if dewatering wells singly or in aggregate produce 100,000 or more gallons per day, CONTRACTOR shall obtain from the Wisconsin Department of Natural Resources (DNR), in accordance with paragraph 281.34(2m), Wisconsin Statutes, a permit for dewatering. All wells shall be drilled and closed in accordance with DNR requirements for installing and abandoning wells.
- C. CONTRACTOR shall comply with the provisions of Chapter 283, Wisconsin Statutes, regulating the discharge of effluent from construction pit trench dewatering. These provisions provide for the removal of suspended solids from dewatering effluent prior to the direct discharge to surface waters or wetlands. CONTRACTOR shall apply as necessary to the DNR for a permit to discharge effluent from construction pit or trench dewatering.

125 WAGE RATES

- A. CONTRACTOR shall comply with all provisions of Section 66.0903 of the Wisconsin Statutes.

126 TRAFFIC CONTROL

- A. Traffic control shall consist of furnishing, erecting, maintaining, moving and removing traffic signs, including demountable legend plaques, pavement markings, drums, barricades, flexible tubular markers, lights and signals, and shall include flagging and guidance of traffic. This work shall be done in accordance with the latest revision of Part VI, Traffic Controls for Construction and Maintenance Operations of the Wisconsin Manual on Uniform Traffic Control Devices except as noted hereafter, the drawings, specifications and Contract, and as requested by ENGINEER. Sign sizes smaller than the standard sizes described in the manual shall not be used, unless otherwise noted or requested by ENGINEER.
- B. Traffic control shall consist of all the work herein described except work specifically covered by other traffic control and pavement marking items contained in the Contract Documents.
- C. Retroreflective sheeting on signs, drums, barricades, and other devices shall be kept clean. Scratches, rips, and tears in the sheeting shall be corrected promptly by CONTRACTOR.
- D. All traffic signs and control devices furnished and erected by CONTRACTOR shall be reviewed by CONTRACTOR for location, position, visibility, adequacy and manner of use under specific job conditions immediately after setup and at least once every 24 hours to assure all such signs and control devices are continuously in compliance with the requirements of this section. CONTRACTOR shall maintain all traffic control devices and facilities throughout the duration of the Contract, including periods of suspension of work, until all the work is completed and ENGINEER has issued a notice that the work is acceptable.

- E. All signs and control devices shall be properly placed and in operation before construction work affected by such signs or devices shall begin. When work of a progressive nature such as resurfacing operations on a road open to traffic is being performed, necessary relocation of signs shall be performed concurrently.
- F. Any sign messages conflicting with detour traffic shall be partially or fully covered as shown on the drawings or directed by ENGINEER. Detour signing shall be erected at locations approved by ENGINEER. Detour signs placed prior to the commencement of the detour shall be completely covered until needed. Signing shall be immediately removed or covered when the detour is no longer in effect.
- G. CONTRACTOR shall notify ENGINEER of proposed road closures at the earliest possible date. CONTRACTOR shall be responsible for notifying the Police Department, Fire Department, and ENGINEER 24 hours in advance of any scheduled street closing. Where bus routes are affected by closures, CONTRACTOR shall provide seven days notice. In emergency situations, notice shall be given as far in advance as possible.
- H. Temporary on-street parking restrictions may be necessary for paving, slurry seal, seal coat, and general construction activities. CONTRACTOR shall coordinate with ENGINEER to obtain permission from the Police Department in advance of installing the Temporary No Parking signs. Temporary No Parking signs may be picked up at the City of Middleton Department of Public Works. Signs must be filled in by CONTRACTOR to indicate the effective dates and times of the temporary parking restriction. The signs shall be installed by CONTRACTOR a minimum of 24 hours in advance of the effective start of the temporary parking restriction and shall be maintained during the entire period of the parking restriction. At the completion of the temporary parking restriction, CONTRACTOR shall remove the signs from the project site.
- I. CONTRACTOR shall not in any manner obstruct roads, sidewalks or crossings and shall at all times provide safe and sufficient transit for pedestrians and vehicles unless closing a road or portion thereof is provided for in the Contract Documents or unless ENGINEER determines that it is necessary and gives written permission. Concrete to be replaced within the limits of a driveway (including driveway apron and sidewalk) shall be poured within 48 hours of removal, and shall be opened to traffic within 7 days of removal.
- J. Traffic Control will be measured as a single complete unit of work acceptably performed and will not include any work performed under other specific traffic control or pavement marking Contract items. Traffic Control will be paid for at the Contract Lump Sum price. Price shall include all equipment, materials and labor necessary to complete the work as specified herein. When Traffic Control is not included in the Bid as a separate bid item, it will be considered incidental to the work and no additional compensation will be made.

127 INCIDENTAL ITEMS OF WORK

- A. Any items of work shown on the drawings or required by the specifications but not specifically included in the Bid shall be considered incidental items of work. The cost of incidental items of work shall be included in the prices bid for adjacent or related work.

128 STREET SIGNS

- A. CONTRACTOR shall coordinate with OWNER for OWNER to remove all traffic control signs, bases and posts as necessary for construction.
- B. Poles requiring a structural base shall be reinstalled by CONTRACTOR. Signs within 10 feet of ground shall be installed by OWNER. All other signs shall be installed by CONTRACTOR.

129 USE OF CITY WATER

- A. OWNER shall provide water to CONTRACTOR at CONTRACTOR's request. CONTRACTOR shall submit a permit application to OWNER and agree to pay all applicable charges. Bulk water may be obtained at the City Municipal Operations Center, 4330 Parmenter St, between the hours of 7:30 A.M. to 3:30 P.M., Monday through Friday.
- B. CONTRACTOR shall not make connections to OWNER's facilities, except as provided above, under any circumstances. Hydrant connections with backflow prevention and meter will be set by the Middleton Water Utility to allow CONTRACTOR's use of one or two hose bibs.
- C. Personnel of the Middleton Water Utility are the only individuals authorized to operate valves in the City's distribution system, for any reason, including emergencies.

130 INTERRUPTION OF WATER SERVICE

- A. If the water service to any property is to be interrupted for any period of time for any reason, the property owner, or a responsible person residing on the property shall be notified at least 24 hours in advance either personally or in writing by CONTRACTOR. A notification card of temporary interruption of water service will be available from ENGINEER. The notice shall include the time, date and duration of the water service interruption.
- B. In the case of an emergency, CONTRACTOR shall provide interruption notification to all persons involved immediately prior to the water service interruption. CONTRACTOR shall notify personnel from the City of Middleton Water Utility to operate any necessary valves.

131 MAILBOXES

- A. CONTRACTOR shall remove and temporarily install all mailboxes and newspaper boxes along the project at locations indicated by ENGINEER. Upon completion of the project, CONTRACTOR shall reinstall all mailboxes and newspaper boxes at locations approved by ENGINEER. The height and location of all mailboxes along the project shall be adjusted to meet specifications of the United States Post Office.
- B. Any mailboxes or newspaper boxes damaged because of the negligence of CONTRACTOR shall be repaired or replaced by CONTRACTOR at his expense. This work shall be considered incidental to the Contract.

132 MOBILIZATION

- A. Mobilization shall consist of the work and operations necessary for the movement of personnel, equipment, supplies and incidentals to the project site and for establishment of all CONTRACTOR's offices, buildings, sanitary and other facilities necessary for work on the project, and of all other work and operations that must be performed or for which costs must be incurred before beginning work on the various items on the project site. Such other costs shall include, but not necessarily be limited to, bonds, insurance and permit fees.
- B. Mobilization will be paid for at the Contract Lump Sum price bid. Price shall be full compensation for supplying and furnishing all materials, facilities and services and for performing all work necessary for the completion of this item. The Contract lump sum shall be payable to CONTRACTOR in accordance with the percent of completed construction, rounded to the nearest 25%.

- C. When the bid does not include a separate Bid item for Mobilization it shall be considered an incidental item.

133 NOTICE TO RESIDENTS

- A. CONTRACTOR shall be responsible for notifying residents of work that will affect their homes or business at least 24 hours in advance of commencement of that work. Notice shall be mailed or delivered in person. Items of work which require notification to residents include:
 - 1. Interruption of sewer or water service.
 - 2. Road closure due to road construction, pavement maintenance, or utility construction.
 - 3. Driveway removal or obstructions.
 - 4. Tree and shrub removal.
 - 5. Excavation or grading on private property (including easement areas).
- B. Notices shall include the reason for the interruption, along with the date, time and duration of the interruption. Sample letters and forms may be obtained at the City of Middleton Department of Public Works.

134 PROSECUTION OF WORK

- A. CONTRACTOR shall commence work on the site within 2 weeks of the date stated in the Notice to Proceed. Once work commences it shall proceed continuously through substantial completion and restoration. On-site work shall be completed during all normal working days unless weather conditions make such work impractical.
- B. If on-site operations are suspended by CONTRACTOR for more than 3 days without cause, OWNER may impose liquidated damages for each day CONTRACTOR is held in violation of this requirement.
- C. Work may proceed on non-holiday weekdays between the hours of 7:30 A.M. and 6:00 P.M. Equipment may not be operated prior to 7:00 A.M. Work hours may only be extended with the approval of ENGINEER.

135 MISCELLANEOUS STRUCTURE REMOVAL

- A. CONTRACTOR shall remove existing improvements and features to the minimum extent necessary to complete the Work. Pole bases, retaining walls, slabs and foundations that are to be abandoned shall be removed to at least 2 feet below finished grade. Fence lines that are to be abandoned shall be removed. Fence lines that are to remain shall be reset with like materials by CONTRACTOR following construction. Cost for miscellaneous removals shall be paid for according to the price(s) bid. Where Bid items are not provided, this work shall be considered incidental to adjacent work.

136 SAWCUTS

- A. CONTRACTOR shall provide straight, vertical sawcuts at all edges of existing asphalt and concrete materials to be matched by new pavement materials. This shall include curb and gutter, driveway aprons, sidewalk, and street pavement and patching work. If there is a minor defect (chip, crack, etc.) adjacent to the joint of the sidewalk or curb section to be removed, CONTRACTOR shall locate the sawcut so as to incorporate removal of the portion of existing concrete with the defect. If the sawed edges break prior to placement of the new, adjacent pavement, CONTRACTOR shall re-sawcut the existing edge.

- B. This item shall also include the cutting of tree roots adjacent to concrete removals, at locations shown on the drawings. Roots within 12 inches below finished grade shall be cut to provide a clean, vertical face at approximately 6 inches from the edge of the sidewalk, and 9 inches from the back of curb. To prevent tearing or shredding of the roots during concrete removal, CONTRACTOR shall use a root saw to cut the tree roots prior to removal of the concrete. If a root is discovered to have been partially cut, it shall be brought to the attention of ENGINEER for a determination of whether to complete the cut or to treat the partial cut and allow the root to remain in place. All sawcuts shall be provided incidental to the various bid items provided, and no additional compensation will be allowed.

END OF SECTION