GEORGETOWN CHARTER TOWNSHIP

STANDARD CONSTRUCTION REQUIREMENTS

JANUARY 2023

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EXPLANATION OF THIS DOCUMENT:

The purpose of this document is to provide Developers, Consulting Engineers and Contractors working in the Township the general requirements and standard construction requirements required by the Township for water supply systems, wastewater collection systems, and sidewalks which, after acceptance by the Township, will become public facilities.

THESE STANDARD CONSTRUCTION REQUIREMENTS SHALL BE INCORPORATED BY REFERENCED AS PART OF THE CONTRACT DOCUMENTS FOR THE ACQUISITION AND CONSTRUCTION OF THE WATER SUPPLY SYSTEM, WASTEWATER COLLECTION SYSTEM, AND/OR SIDEWALK PROJECT.

DEFINITIONS

Agreement - The written contract between the Owner and Contractor covering the work to be performed.

Contractor - The person, partnership, corporation, or other legal entity with whom the Owner has entered into an agreement to construct the Work.

Contract Documents - The Agreement, plus any or all of the following additional documents, if they exist: addenda (which pertain to the Contract Documents), contractor's bid (including documentation accompanying the bid and any post bid documentation submitted prior to the notice of award) when attached as an exhibit to the Agreement, the notice to proceed, bonds and insurance certificates, general conditions, supplementary conditions, the Specifications and the Drawings as the same are more specifically identified in the Agreement, together with all written amendments, change orders, work change directives, field orders, and Owner's Engineer's written interpretations and clarifications. THESE STANDARD CONSTRUCTION REQUIREMENTS SHALL BE INCORPORATED BY REFERENCE AS PART OF THE CONTRACT DOCUMENTS.

Development Contract - A written contract between the Owner and the Township covering various items regarding the Project.

Owner - The person, partnership, corporation, or other entity for whom the Work is being constructed and with whom the Contractor has entered into an Agreement.

Owner's Engineer - The Consulting Engineer employed by the Owner for the Project.

Plans - The drawings which show the scope, extent, and character of the Work to be furnished and performed by Contractor and which have been approved by the Township and are referred to in the Contract Documents.

Project - The water main, sanitary sewer, or sanitary force main construction project which will become a public facility.

Specifications - Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.

Township - Georgetown Charter Township, Ottawa County, Michigan.

Township's Engineer - The person, firm or corporation used by the Township for consulting engineering purposes.

Work - The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work includes and is the result of performing or furnishing labor and furnishing and incorporating materials and equipment into the construction, and performing or furnishing services and furnishing documents, all as required by the Contract Documents.

SECTION 1

GENERAL REQUIREMENTS

1.01 AGREEMENT

The Agreement shall incorporate by reference all of these Standard Construction Requirements and shall provide that the Township is a third-party beneficiary of the Agreement and that all provisions of the Agreement in favor of the Owner and/or Township may be enforced by the Township. The Agreement shall be submitted to the Township for approval prior to its execution.

The Township shall require a Development Contract between the Developer and the Township. (See Appendix "B")

1.02 STANDARDS/ORDINANCES

All work shall conform to these Standard Construction Requirements and all applicable Township ordinances and rules and regulations.

To the extent applicable, the Georgetown Charter Township Code, Chapter 58 - Utilities, and all rules and regulations adopted thereunder, are considered part of these Standard Construction Requirements.

The Owner, the Owner's Engineer, and the Contractor shall keep themselves fully informed of and shall at all times comply with all local, state, and federal laws, rules, and regulations applicable to the Project.

THE PROCEDURE FOR GRANTING OF EXCEPTIONS TO THESE STANDARD CONSTRUCTION REQUIREMENTS IS:

A. A written request for an exception shall be prepared and filed by the Owner with the Township. This written request for exception shall be prepared by the Owner's Engineer and shall be signed by both the Owner and the Owner's Engineer.

B. The Township will consider the exception request and consult with the Township Engineer as necessary. The Township will then give a written notice to the Owner stating the Township's decision on the exception request. The Township decision shall be final and binding on the Owner.

1.03 PLAN REVIEW PROCESS

For water main and sanitary sewer.

A. The Owner's Engineer shall supply to the Township the Owners name and address. Copies of all correspondence shall be sent to the Owner.

B. Owner's Engineer shall submit a preliminary site plan for the Project to the Township's Water and Sewer Department concurrent with submittal to the Township Planning Commission for review of any preliminary plat, preliminary planned unit development plan, rezoning request, preliminary site condominium approval request, site plan or any other planning approval document pertaining to the Project. Sites with future phasing shall provide a master plan for utilities for the future phases. No water or sanitary sewer Project shall be undertaken unless in conformance with the Township Wastewater Collection System and Township Water Supply System Master Plans.

C. Owner's Engineer shall submit two sets of Plans and Specifications to the Township Water and Sewer Department.

D. After review of the Plans and Specifications, the Township will issue a review letter to the Owner's Engineer. The review will be valid for two (2) years from the date of its issuance.

E. Upon receipt of this review letter, any changes required must be made prior to the Township submitting the Plans and Specifications to EGLE for construction permits.

The following shall be included on the construction plans or submitted as appropriate.

1. The plans must indicate the project name, the location of the project and a location sketch.

2. The plans shall have the developer's name, address, email, and phone number.

3. The plans must be sealed by a licensed professional engineer.

4. Easements for water and/or sewer lines must be detailed on the Plans. Easement areas must be accompanied by the proposed easement document. (See Appendix "A")

5. A general note must be included on the Plans stating that the construction shall be done in accordance with the current Georgetown Charter Township Standard Construction Requirements.

6. The datum used and benchmark information is included.

7. For watermain projects, the permit application for water supply systems as required under the Authority of 1976 PA 399 as amended shall be completed and submitted.

8 For sanitary sewer projects, the permit application for wastewater systems as required under Authority of Part 41, Act 451, PA 1994 as amended shall be completed. The electronic submittal shall be coordinated with the Water and Sewer Department.

1.04 PERMITS AND APPROVALS

Prior to commencing construction of the Project, the following permits/approvals shall be obtained (if applicable) by the Owner's Engineer:

A. Township Water and Sewer Department.

B. Ottawa County Road Commission Special Services

C. Ottawa County Water Resources Commissioner - storm sewer, drain use, and Soil Erosion Sedimentation Control (Part 91 of PA 451).

D. Michigan Department of Environment, Great Lakes, and Energy

1) Water main construction permit (Act 399).
2) Sanitary sewer construction permit (Part 41 of Act 451).
3) Storm Water Discharge (Part 31 of Act 451).
4) Soil Erosion and Sedimentation Control (Part 91 of Act 451).
5) Inland Lakes and Streams (Part 301 of Act 451).
6) Wetlands (Part 303 of Act 451).
7) Floodplain (Part 31 of Act 451)
8) NPDES (Part 41 of Act 451)
9) Other

No construction work on the Project shall commence until all of the above referenced permits/approvals which are applicable have been obtained, the Development Agreement has been signed, any necessary agreements with the Township have been signed and delivered, , appropriate evidence that all required insurance is in force has been filed with the Township, the Township has reviewed and approved the Agreement, and the preconstruction conference has been held.

1.05 INDEMNITY/INSURANCE

1.05.01 Indemnity - General

The Contractor shall agree in the Agreement that as a condition of performing the Work, the Contractor agrees to assume all liability for and protect, indemnify and save the Township, Ottawa County Road Commission, Ottawa County Water Resources Commissioner (including Road Commission's, Drain Commissioner's and Township's respective consulting engineers), their agents, consultants, officers, board members and employees, harmless from and against all actions, claims, demands, judgments, losses, expenses of suits or actions and attorney fees for injuries to, or death of, any person or persons and loss or damage to the property of any person, or persons, whomsoever, and the Contractor's agents, contractors, subcontractors, officer and employees, arising in

connection with or as a direct or indirect result of entering into and performance of the Work, whether or not due to or arising out of the acts of the Contractor or its agents, contractor, subcontractors, officers and employees, or by or in consequence of any negligence or carelessness in connection with the same or on account of liability of obligation imposed directly or indirectly upon any of the above named indemnified parties by reason of any law of the State of Michigan or the United States, now existing or which shall hereinafter be enacted, imposing any liability or obligations, or providing for compensation to any person or persons on account of or arising from the death of, or injuries to employees. The Contractor shall pay, settle, compromise, and procure the discharge of any and all such claims and all such losses, damages, and expenses. The indemnified parties shall have the option to retain their own attorney or attorneys and the reasonable expense thereof shall be paid by the Contractor.

1.05.02 Insurance Requirements

The Agreement shall provide that prior to commencing work, the Contractor shall file with the Township, Ottawa County Road Commission and Ottawa County Water Resources Commissioner a certificate of insurance acceptable to the Township as proof that the Contractor has secured the types and amounts of insurance required by this subsection for the Project. The Township shall have the right, in its sole discretion and at any time(s), to require the Contractor to file with the Township certified copies of any policies of insurance required by this subsection.

The Contractor shall provide Owners and Contractors protective insurance coverage for the project in the amount of $2,000,000.00 general aggregate and $1,000,000 each occurrence naming Georgetown Charter Township as the insured and the Ottawa County Road Commission, Ottawa County Water Resources Commissioner (including the Drain Commissioner's, the Road Commission's and the Township's respective consulting engineers), and also Blendon Township if the project is within or borders these townships (and their respective consulting engineers) as the additional insureds. The named insureds shall include all officers, consultants, agents, employees, and board members. The purpose of this insurance coverage is to protect the named insured for any actual or alleged liability arising out of the work performed by the Contractor, the Subcontractor(s), or Suppliers, on this Project. The OCP policy will provide primary, non-contributing coverage.

The certificate or certified policies filed with the Township shall provide for giving the Township 30 days prior written notice of any cancellation, material change in coverage or non-renewal of the insurance.

The furnishing by the Contractor of any insurance policies and/or insurance certificates and their acceptance or approval by the Township shall not release the Contractor from the obligation to provide sufficient insurance coverage as set forth herein and shall not waive liability of the Contractor to provide indemnification as provided above.

1.06 PRE-CONSTRUCTION CONFERENCE

A pre-construction conference shall be held with the Township, Ottawa County Road Commission, Ottawa County Water Resources Commissioner, the utility companies and other agencies affected by the proposed construction. The Township's construction observation procedures will be reviewed with regards to water main, sanitary sewer, and sidewalks. A pre-construction meeting agenda similar to Appendix E shall be required to be completed prior to the meeting.

1.07 ASSESSMENTS/CHARGES/FEES

It is the responsibility of the Owner to make inquiry as to the amount of assessments, charges and fees applicable to the Project. Payment terms, if any, shall be as agreed upon in writing with the Township.

1.08 CONNECTIONS/FINAL ACCEPTANCE

All major field changes shall be drawn by the Engineer. The Contractor will be required to save lateral stakes, etc., until construction records are obtained by the construction observer. Construction records may not be completed until the other utilities have completed their work, in order to have more objects to tie witnesses to. Once all utilities have completed their work, the Township shall obtain all pertinent record information for the water main, sanitary sewer, and sanitary force main. The Township will provide a redline markup set that the Engineer shall use to generate the record drawings. The Engineer shall provide final record drawings that shall be sent back to the Township to review and accept if the redlines from the Township have been adequately shown on the record drawings.

Prior to service connections or final approval of the Project by the Township, the following items shall, if applicable to the Project, be submitted to the Township:

a) Signed Engineer's Certificate for Watermain and Sanitary Sewer (Appendix "C").

b) Executed Bill of Sale (Appendix "D").

c) Record plans shall be completed in AutoCAD or Microstation and submitted in PDF format to the township (see 6).

d) Copies of Michigan EGLE construction permits.

e) Final plat or Master Deed with Exhibit B showing dedicated easements.

f) Letter of credit for uncompleted work. See Development Contract (Appendix "B") between Owner and Township.

g) All easements signed, delivered and recorded. All easement documents shall be reviewed by the Township prior to signing and recording.

h) All development fees paid.

In addition, all testing shall have been completed and all complaints shall have been resolved. Also, the date on which the guarantee period commences shall have been agreed to in writing by the Township, Owner and Contractor.

1.09 BUILDING CONNECTIONS

Separate permits will be required for any water services or sewer connections into buildings. See Chapter 58 of the Township Code of Ordinances for requirements and regulations pertaining to private water systems, fire lines, sanitary sewer, as well as these Standard Construction Requirements.

1.10 GUARANTEE

The Agreement shall provide that the Contractor shall guarantee the completed Work for one year and shall promptly repair, replace, restore, or rebuild, as the Township may determine, any finished Work in which defects of materials or workmanship may appear or to which damage may occur (or has occurred) because of such defects during the one-year period, except where other periods of maintenance and guarantee are provided. The one year period shall begin on a date agreed upon in writing by the Owner, Contractor and the Township.

All subcontractors, manufacturer, or supplier warranties and guarantees, expressed or implied, with respect to any material or equipment used in or incorporated as a part of the Work shall be obtained by the Contractor as agent for the Township, and all such warranties and guarantees shall inure to the benefit of the Township without the necessity of separate transfer or assignment thereof; *provided* that if required by the Township, the Owner and Contractor shall cause such subcontractors, manufacturers, or suppliers to execute such warranties and guarantees in writing to the Township and, further, that the Agreement shall provide that the Contractor will assign all such warranties and guaranties to the Township on request.

1.11 CONTRACTORS AND SUBCONTRACTORS

The Work shall be performed by responsible contractors and subcontractors known to be skilled and regularly engaged in work of similar character and magnitude. The Owner shall receive written approval from the Township of all contractors and subcontractors prior to entering into the Agreement.

1.12 CONTRACTOR RESPONSIBILITIES

1.12.01 General

All of the following Contractor responsibilities shall be incorporated as part of the Agreement.

1.12.02 Safety and Protection

The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

the public and all persons on the Work site or who may be affected by the Work; all the Work and materials and equipment to be incorporated therein, whether in storage on or off site; and

other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, driveways, roadways, sidewalks/bike paths, structures, utilities and underground facilities not designated for removal, relocation or replacement in the course of construction.

The Contractor shall comply with all applicable laws and regulations of any public body having jurisdiction for safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. The Contractor shall notify owners of adjacent property and of underground facilities and utility owners when construction of the work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property referred to in this paragraph caused, directly or indirectly, in whole or in part, by the Contractor, any subcontractor, supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, shall be remedied by the Contractor. The Contractors' duties and responsibilities for safety and protection of the Work shall continue until such time as all the Work is completed and accepted.

1.12.03 Safety Representative

The Contractor shall designate a qualified and experienced safety representative at the Work site, whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

1.12.04 Emergencies

In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, the Contractor, without special instruction or authorization

from the Owner or the Township, is obligated to act to prevent threatened damage, injury or loss. The Contractor shall give the Owner and the Township prompt written notice if the Contractor believes that any significant changes in the Work or variations from the Work have been caused thereby. If the Owner determines that a change in the Work is required because of the action taken by the Contractor in response to such an emergency, with prior written approval of the Township, the Owner may issue a change order or otherwise authorize a change in the Work to account for the consequences of the action taken with respect to the emergency.

1.12.05 Supervision and Superintendence

The Contractor shall supervise, inspect and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work. The Contractor shall be solely responsible for the means, methods, techniques, sequences and procedures of construction. The Contractor shall be responsible to see that the complete Work complies accurately with the Plans and Specifications.

The Contractor shall keep on the Work at all times during its progress a competent superintendent, who will cooperate fully with the Township at all times, and who shall not be replaced without written notice to the Township. The superintendent will be the Contractor's representative at the site and shall have authority to act on behalf of the Contractor. All communications given to the superintendent shall be as binding as if given to the Contractor.

1.12.06 Labor, Materials and Equipment

The Contractor shall provide competent, suitably qualified personnel to perform the Work. The Contractor shall at all times maintain good discipline and order at the site.

The Contractor shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up, and completion of the Work.

All materials and equipment shall be of good quality and new, except as otherwise provided in the Plans and Specifications. If required by the Township, the Contractor shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with instructions of the applicable supplier, except as otherwise provided in the Plans and Specifications.

1.12.07 Construction Records

The Contractor shall provide construction record information and utilize standard record forms as provided by the Township.

1.13 ASBESTOS, PCBs, PETROLEUM, HAZARDOUS WASTE OR RADIOACTIVE MATERIALS:

If, during the course of construction, any asbestos, PCBs, petroleum, hazardous waste or radioactive materials are uncovered or revealed at the Work site which were not shown or indicated on the Plans and Specifications, to be within the scope of the Work and which may present a substantial danger to persons or property exposed thereto in connection with the Work at the site, the Contractor shall cease operations affecting the find and shall notify the Township and also the Owner in writing, who shall notify the necessary parties. No further disturbance of the materials shall ensue until the Contractor has been notified by the Owner and the Township that the Contractor may proceed. Removal and disposal of waste shall be completed in accordance with Department of Public Health Standards and follow local, state, and federal regulations.

1.14 PAYMENT

Payment shall be made by the Owner to the Contractor. The Township, unless it is the owner, shall not have any liability to the Contractor for amounts due the Contractor under the Agreement, or for any part of the cost of the Project. The method of payment (lump sum, unit prices, etc.) is between the Owner and the Contractor.

1.15 COST SHARING

All cost sharing agreements (if any) between the Township and Owner shall be in writing and shall be signed and delivered prior to the start of construction.

1.16 WORK SITE

The Contractor shall confine its work to the public rights-of-way, easements and Owner’s property. Any other area required for equipment or material storage or for construction operation shall be the Contractor's responsibility.

1.17 ACCESS

The Township and its representatives shall be allowed access to all parts of the Work at all times and shall be furnished such information and assistance by the Contractor as may be required to make a complete and detailed inspection.

1.18 CONSTRUCTION OBSERVERS

Authority and Duties of Township Construction Observers:
Township construction observers shall not supervise, direct, or have control of the Contractor's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto. Township construction observers are not authorized to revoke, alter, enlarge or relax any of the Specifications nor to change the Plans in any particular. Township construction observers are not authorized to increase or decrease any Agreement item nor to add new items to the Agreement. Township construction observers will inform the Township as to the progress of the Work and the quality of the completed Work, and the quality of the materials being used. In no instance shall any action or omission on the part of the Township construction observer relieve the Contractor of the responsibility for completing the Work in accordance with the Agreement.

The Township shall review the completed Work, or such portions thereof which are eligible for acceptance, upon notification by the Contractor that the Work is complete or substantially complete. If the completed Work is not acceptable to the Township at the time of such review, the Township shall inform the Owner and the Contractor orally or in writing as to the particular defects to be remedied.

Construction observation may be done by Township staff or the Township's representative. Construction observation will consist of daily observation of water main and sanitary sewer installation, witnessing the testing of water main and sanitary sewer and gathering of construction record information of all items related to water main and sanitary sewer construction, including laterals and water services.

All construction staking, compaction testing, major field changes and pay estimates will be the responsibility of Owner's Engineer.

The Owner's Engineer shall periodically review the work for conformance to the Plans and Specifications and these Standard Construction Requirements. The Owner's Engineer shall complete, sign and submit to the Township the Engineer's Certificate contained in Appendix "C".

The Township must accept the Work prior to placing water main, sanitary sewer, or sidewalk in service.

1.19 DEFECTIVE MATERIALS AND WORK

All materials, which do not meet the requirements of the Specifications at the times they are to be used, shall be rejected, unless otherwise authorized as acceptable by the Township in writing.

All completed Work that is found to be defective before the final acceptance of the completed Work, shall be corrected and replaced immediately in conformance with the Specifications.

1.20 SCHEDULING

The Contractor shall file a construction schedule with the Township and the Ottawa County Road Commission and shall receive approval in writing prior to commencing construction.

Certain projects may require street closings. The Contractor shall coordinate its work with the Ottawa County Road Commission and the Township and shall take all necessary precautions required by the Road Commission to minimize traffic interference.

All detours must be approved by the Ottawa County Road Commission.

The Contractor's emergency telephone number shall be filed with the Township.

1.21 MAINTENANCE OF TRAFFIC

When working within the limits of existing streets, the Contractor shall accommodate vehicular traffic in road rights-of-way as provided in the Specifications. Access to fire hydrants, water and gas valves shall be maintained at all times during construction. Where streets are partially obstructed, the Contractor shall place and maintain temporary driveways, ramps, etc., which, in the opinion of the Ottawa County Road Commission and/or the Township, are necessary to accommodate the public.

The Contractor shall inform the local police, schools, ambulance services and fire department in advance of its program of street obstruction and detours. Detouring and construction signage shall be in accordance with MDOT Standards for Uniform Traffic Control and in accordance with the directions of the Ottawa County Road Commission.

a) For all portions, maintaining through traffic:

   All signs, barricades and other traffic control devices shall be in accordance with the current Michigan Manual of Uniform Traffic Control Devices.

   When shoulders or the edges of pavement are low, high, soft or rough while maintaining traffic on the pavement, the contractor shall place and maintain a sufficient number of approved lighted devices to warn traffic adequately and safely during hours of darkness.

   Signing for lane and shoulder closures shall be in accordance with Ottawa County Road Commission and Michigan Department of Transportation requirements. Plastic drums and light arrow panels will be required.

b) For all closed portions of the roadway:

   The Contractor shall erect Type III Barricades and advance warning signs at both ends of the closed portion(s) of the roadway and will also erect detour signs along the route(s) and maintain the detour route as necessary. All signs, barricades and other traffic control devices shall be in accordance with the current Michigan Manual of Uniform Traffic Control Devices.

A signing plan for road closures and detours for each respective phase of the project shall be submitted to the engineer by the contractor and approved by the Ottawa County Road Commission prior to commencement of work on that phase.

Access for business establishments and residences on the project shall be maintained at all times. The contractor shall provide all lighted plastic drums and signs within the closed portion of the roadway necessary for the protection of the work and maintenance of local traffic through and around construction areas in accordance with the Standard Specifications.

All costs for detours and/or signage necessary to maintain or detour the traffic throughout the project shall be considered included in the major items of work as shown in the proposal.

1.22 LIMITATION ON OPERATIONS

When working within the limits of existing streets, the Contractor shall at all times conduct its work so that there is a minimum of inconvenience to the residents and traveling public within the Project area.

1.23 PROTECTION OF WORK

The Contractor shall protect the Work until it is accepted by the Township in writing. Any part of the completed Work that is damaged prior to acceptance by the Township shall be replaced at the Contractor's expense.

1.24 DUST CONTROL

All haul roads, detour roads and other public and private roads (including backfilled trenches), driveways and parking lots used by the Contractor must be maintained in a dust free condition. The control of the dust shall be accomplished by the application of dust control materials and methods of application as approved and/or sweeping shall be applied as often as is necessary to control the dust or if directed to do so by the Township (within 12 hours after notifications).

Cost of providing dust control shall be considered incidental to the Project price and shall not be charged back to the Township.

1.25 MATERIAL HAUL ROADS

Any spillage on public roadways used as haul routes shall be cleaned daily.

Gravel roads shall only be used by the Contractor when permission is given to the Contractor in writing by the Ottawa County Road Commission and only if the Contractor assumes responsibility of maintenance, dust control and restoration of the gravel roads to the satisfaction of the Ottawa County Road Commission.

1.26 MAIL BOXES

The Contractor shall temporarily relocate mail boxes interfering with construction so that mail service is not interrupted. Mail boxes shall be replaced in a condition and location equal to that prior to construction or as required by the U.S. Postal Service.

1.27 TREES/CLEARING AND GRUBBING

Trees marked "REMOVE" on the Plans shall be taken down and removed from the right-of-way or easement in a manner that does not endanger the adjoining property or persons, or traffic using the right-of-way. The wood shall become the property of the adjoining property owner when in an existing right-of-way, or the property owner who granted the easement. If the adjoining property owner or property owner does not want the wood, it shall become the property of the Contractor. Burning or burying will not be permitted unless first approved in writing by the Township.

Existing stumps and stumps of trees which are removed shall not be ground down but shall be completely removed

Because of the special concern for preservation of trees in the Township, only those trees, which have been indicated for removal on the Plans, may be removed. All other trees are to be preserved unless written permission for removal is obtained from the Township and the property owner. Selective pruning of trees will be permitted to allow operation of the Contractor's equipment.

Tree branches and roots shall be pruned neatly and the scars shall be covered with an approved tree dressing.

1.28 DEWATERING

Where dewatering is required, the Contractor shall limit the dewatering operation to the minimum time and depth required for construction. The Contractor will be required to furnish and maintain temporary water service to property owners whose wells may be affected by the dewatering operations. The Contractor shall also be responsible for any necessary repairs to existing wells required to place them back in operation after construction is completed. If the Contractor does not provide temporary water in a timely manner, the Township will cause temporary water to be provided and the Contractor shall promptly reimburse the Township for all of its expenses.

1.29 USE OF SLAG

No slag shall be permitted for use below the normal water table.

1.30 EXISTING UTILITIES

Various utilities and underground structures are shown on the Plans. There is no guarantee that the location shown for existing utilities and underground structures on the Plans is accurate, nor that additional underground utilities or structures may not be encountered.

The Contractor shall notify MISS DIG and the utility companies for utility locations before starting any open cut or tunnel construction or before drilling holes for construction purposes. The Contractor shall cooperate with the utility companies in any repair, relocation or other work to be performed on the utility caused by the construction of the Project.

The Contractor shall be fully responsible for the location, protection, relocation, replacement, etc. for all existing underground utilities, which may reasonably be expected in any area, regardless of whether or not such utilities are shown on the Plans. Items in this category shall include, but not necessarily be limited to: sanitary sewers and laterals, water mains and services, gas mains and services, storm sewer and catch basin leads, telephone,

electric, and cable TV wire, etc. Such work shall be considered incidental to the major items of construction unless otherwise noted on the Plans.

A. Water Mains

It shall be the responsibility of the Contractor to uncover such mains for a reasonable distance ahead of his construction operation to permit field adjustments where such might be made in grade, location or alignment of the proposed sewer and water main and/or appurtenances.

An existing water main, including water services, shall be raised to pass over the sewer (where the elevation of the water main conflicts with the elevation of the sewer), provided a minimum cover of five feet is maintained on the water main. The existing water mains may be lowered where the elevation of the water main conflicts with the elevation of the sewer. The raising or lowering of existing water mains shall be accomplished by using vertical bends properly anchored. A sand cushion shall be provided between the water main and the sewer. The Contractor shall notify the Township before any work on existing water mains is begun. The Township shall approve the configuration of the bends and thickness of the sand cushion. (A minimum of 18″ vertical separation is required.)

B. Sewers (Sanitary, Storm, Culverts, and Under drains)

All existing sewers crossing or parallel to proposed sewers and water mains (even if not shown on the Plans) shall be saved or relayed by the Contractor if damaged during construction, unless otherwise indicated on the Plans.

Existing manholes, catch basins and inlets shall be saved and protected unless otherwise indicated on the plans to be removed. Catch basins and inlets shall be reconstructed if damaged during construction. Costs for rebuilding, removing and/or repairing existing sewer, manholes, catch basins, inlets, house leads, headwalls, etc. shall be considered incidental unless otherwise noted on the construction Plans or in the Specifications.

C. Electric Services

Consumers Energy operates electrical systems in the Township.

D. Gas

DTE Energy provides natural gas service in the Township.

E. Communications

AT&T provide communications in the Township.

Comcast provides communications in the Township.

F. MISS DIG

The Township and other local units of government, utility companies are members of a utility communication system called "MISS DIG" that provides service to participating units of government and utilities. The Contractor shall contract "MISS DIG" not less than 72 hours before starting construction for assistance in

locating utilities or for any work to be done on utilities. The toll free phone number is (800) 482-7171.

G. Utilities

The Contractor shall notify other units of government and the utility companies of the Contractor's schedule and obtain any necessary permits from them.
The Contractor shall pay for any charges by the units of government and utility companies for permits, inspections, or similar charges required to construct the Project as shown on the Plans.

H. Water and Sewer

The Township operates and maintains the water and sewer systems in the Township.

1.31 UTILITY POLES

When necessary, the Contractor shall shore and brace utility poles that interfere with construction. Shoring and bracing shall be such that sinking or excessive tilting does not take place. All relocation or removing and replacing of power poles, light poles and telephone poles shall be done in accordance with the pole owner's standards and all expenses shall be paid for by the Contractor. All arrangements for pole relocations shall be completed by the Contractor with the pole owner at least 72 hours prior to need for relocations.

1.32 TELEPHONE

An emergency telephone system (listing of number) shall be set up and given to the Township so that the Contractor may be immediately notified of any unsafe conditions or emergencies encountered during times that the Contractor is not working on the Project. The Contractor shall provide a local number and a local employee so that the Contractor may be contacted at any time (including weekends and holidays) 24 hours a day.

1.33 EXISTING PRIVATE FACILITIES

Existing wells, septic tank, tile field, lawn sprinklers or other facilities which are not on the Owner's property which are disturbed or damaged by the Contractor, shall be repaired and restored to working condition before the end of that working day. Under no circumstances will such interruptions be extended overnight. The Contractor shall take necessary precautions not to allow any discharge from the above to enter any lake, stream or canal along the line of work. Costs for repairs or temporary service caused by the Contractor shall be at the Contractor's expense.

All precautions necessary shall be taken to insure no damage occurs to homes, including basements.

1.34 CASTING ADJUSTMENTS

Casting adjustments (manholes, water main valves, gas valves, etc.) required in order to meet the new/restored grade shall be made by the Contractor.

1.35 MATERIAL TESTING

The Township reserves the right to sample and test any of the materials required for the proposed construction, either before or after delivery to the Project and to reject any material represented by any sample which fails to comply with the minimum requirements specified.

The Contractor shall furnish all materials reasonably required by the Township for sample testing and analysis necessary for the testing of materials as required by the Specifications.

If any pipe fails to meet the specified requirements, all pipe represented by the sample shall be rejected unless the Contractor can demonstrate through additional tests, at the Contractor's expense, that the remainder of the pipe is satisfactory.

1.36 BONDS

The Township may require performance bonds for all of the Work or, as a minimum, for that portion of the Work within existing rights of way. (Bonds will be required when the Township is the Owner.)

1.37 AUTHORITY OF THE TOWNSHIP AND THEIR AUTHORIZED REPRESENTATIVES

The Township and their authorized representatives have the authority to verify that the Project is being constructed in accordance with the Plans and Specifications, and the Standard Construction Requirements and the Development Agreement.

1.38 DISPUTES

All disputes between the Owner and Contractor shall be reviewed and resolved in a timely manner.

1.39 SUSPENSION OF WORK AND TERMINATION

The Township reserves the right to suspend the Work until all disputes between the Owner and Contractor are resolved.

1.40 CONTRACT AMENDMENTS/CHANGE ORDERS/NOTIFICATION/ CONCURRENCE

When necessary, the Owner or the Owner's Engineer will prepare for the Township's prior written approval Agreement amendments and change orders.

1.41 SITE CLEANLINESS

The Contractor shall confine construction equipment, the storage of materials and equipment and the operations of workers to the site and land areas identified in and permitted by the Plans and Specifications and other land and areas permitted by law, rights-of-way, permits and easements, and shall not unreasonably encumber the Work premises with construction equipment or other materials or equipment. The Contractor

shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any adjacent land or areas, resulting from the performance of the Work.

1.42 SUBSURFACE CONDITIONS

Any utilities shown on the Plans are located according to the latest available information. The Contractor shall make a conscientious effort and shall provide reasonable assistance to the Township as may be required to verify the locations and/or elevations of all existing utilities, which may be affected by the proposed construction.

At points where the Contractor's operations are near the properties of railroad, telephone and power companies, or are near existing underground utilities, damage to which might result in considerable expense, loss or inconvenience, work shall not be commenced until all arrangements necessary for the protection thereof have been made.

The Contractor shall protect, shore, brace, support and maintain all utilities affected by his operations. The Contractor shall be responsible for all damage to utility properties or facilities and shall make his own arrangements satisfactory to the Owner, with the agency or authority having jurisdiction thereover, concerning repair or replacement or payment of costs incurred with said damage.

In the event of interruption to water or other utility services as a result of accidental breakage or as a result of being exposed or unsupported, the Contractor shall promptly notify the Township or other utility owner and shall cooperate with the Township and/or such owner in the restoration of service. If water service or other essential service is interrupted, repair work shall be continuous until the service is restored. No work shall be undertaken around fire hydrants until provisions for continued service have been approved by the Township Fire Department.

1.43 VALVE TURNING/PLUGS

The Township shall be notified in writing prior to any valves being operated on the portion of water supply system operated by the Township. No such valves shall be operated by the Contractor unless authorized in writing by the Township.

Where plugs are required in existing sanitary sewer manholes, they shall not be removed until authorization is received in writing from the Township. These plugs shall be provided and installed by the Contractor.

1.44 WASTEWATER PUMPING STATIONS

All wastewater pumping stations to be operated by the Township will be reviewed by the Township's Engineer.

1.45 FIRE PROTECTION SYSTEMS/FIRE HYDRANTS

The Township shall review/approve all fire protection systems. All fire hydrants shall be on a public water main operated by the Township. Easements will be required when the water main and/or fire hydrants are on private property. The Owner’s Engineer shall meet with the Township Water Department prior to the design of all fire protection systems.

1.46 MASTER PLANS

The Township's water main and wastewater collection system master plans shall be followed by the Owner's Engineer in the design of the Project. It is recommended that prior to any design being completed, that a meeting be scheduled with the Township to review these master plans.

1.47 EASEMENTS

All easements to be granted to the Township will be on forms as provided by the Township. All easements must be recorded and delivered to the Township prior to final approval of the project by the Township.

See Appendix A for standard utility line easement forms.

1.48 EXCEPTIONS

Exceptions to these Standard Construction Requirements may be granted in writing by the Township Public Works Supervisor or, on appeal, the Township Superintendent. Exceptions shall only be granted when applied for in writing and in circumstances where compliance with the Standard Construction Requirements is impossible or would cause extreme hardship. All requests for exceptions shall be in writing and signed by the Owner. The exception request shall include all relevant supporting documentation and information, including information supplied by the Owner's Engineer. The burden of proof shall be on the Owner to provide convincing proof that the exception is necessary because it is impossible to comply with the Standard Construction requirements or compliance will cause extreme hardship. Additional cost alone is not justification for the granting of an exception. If granted, the exception shall be granted in writing by the Township. The decision of the Township shall be final.