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***SECTION 5***  
***SPECIFICATIONS***

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## SECTION 011100 - SUMMARY OF WORK

### PART 1 - GENERAL

#### 1.1 SECTION INCLUDES

- A. Summary of Work.
- B. Related Documents.
- C. Work Identification.
- D. Sequence of Construction.
- E. Miscellaneous Provisions.
- F. Site Protection.
- G. Specifications.
- H. Drawing Schedule.

#### 1.1 SUMMARY OF WORK

- A. The structures to be demolished are located at 99 East Erie Street, 125 East Erie Street, 175 East Erie Street 209 North St. Clair Avenue in Painesville Ohio 44077. The buildings consist of a masonry walls, bar joists, wood frame walls and roof, asphalt shingles storefront glazing and typical materials used between the 1920's and 1980's. Asphalt parking lot, site utilities, sidewalks, and miscellaneous site amenities must be removed. Asbestos and universal waste materials to be removed in advance of building/site demolition. Site improvements includes filling lower level/basement areas with clean materials, finish grading, providing for positive drainage, seeding, and maintaining security fencing during demolition. The work requires the Contractor(s) to furnish all labor, material, tools, equipment, utilities, and other services and to comply with applicable laws and requirements, and to obtain all requisite permits and approvals.
- B. Work will be performed as follows:
  - 1. Mobilization, permitting support, insurance and bonding, contract management and support services and preparation of submittals such as work plans and certification of training and experience, site security arrangements, health and safety planning and ensuring de-energizing of building systems.
  - 2. Removal of hazardous or toxic materials from all buildings, such as asbestos, CFC's (refrigerants), mercury, and other metals, universal wastes (ballasts, light tubes, switches).
  - 3. Demolition of building, remaining site utilities, removal of select pavement areas, excavation and engineered backfill.
  - 4. Backfilling, grading and site restoration, construction of positive flow drainage system. Activities are to be conducted in a manner that ensures proper management and off-site

disposal of material that cannot be reused. All work is to be performed in compliance with applicable regulations.

## 1.2 RELATED DOCUMENTS

- A. The Contract Documents are defined in the Project Manual and the Drawings.
  - 1. In general, the Project Manual includes a description of the work to be performed by the various trades, other than work specifically excluded. It shall be the responsibility of each Contractor and Subcontractor(s) to perform all work indicated to their contract/trade, whether or not specific mention is made of each item, unless such incidentals are included under another work item.
  - 2. It is advised that all Contractors and Subcontractors familiarize themselves with the contents of the complete plans and specifications, particularly for the trades preceding, following, related or adjacent to their work.

## 1.4 WORK IDENTIFICATION

- A. Contract Documents indicate the work of the Contractor and related requirements and conditions that have an impact on the project. Related requirements and conditions that are indicated on the Contract Documents include, but are not necessarily limited to, the following:
  - 1. All labor, materials, tools, equipment, and transportation necessary for the proper execution of the work in accordance with the Contract Documents.
  - 2. All assistance required by the Owner or Architect/Engineer to verify compliance with the Contract Documents.
  - 3. Existing site conditions and restrictions on the use of the work sites.
  - 4. Scheduling of the work to accomplish the sequencing and improvement completion within the specified calendar days including intermediate milestone.
  - 5. Special conditions associated with the project, including any Specific Project Requirements.

## 1.5 ABBREVIATED SUMMARY OF WORK

The work of Contractors can be summarized as follows:

- A. General: The Contract Documents, Project Specifications and Drawings together describe the work of this project. Neither the specifications nor the drawings describe the work completely. The specifications in their entirety apply to the work of each Contractor.
- B. Coordinate Efforts: The following is a listing of responsibilities for inclusion into the work by Contractors.
  - 1. Contractor shall provide all assistance required by the Architects to verify compliance with the Contract Documents.
  - 2. All Contractors will be responsible for their individual systems and associated costs.

C. Demolition Work Summary – Proposals A1, B1, C1 and D1

1. Work includes, but is not necessarily limited to, the following. General requirements work as specified in Division 1 including submittals and temporary construction facilities for contract work.
  - a. Security fence around entire site or each individual buildings.
  - b. Demolition – Including buildings, roof, foundations, concrete slabs, pavement, and removing abandoned underground utilities.
  - c. Installing engineered backfill in basement area and seeding all disturbed areas.
  - d. Excavation, backfilling, and rough/final grading to leave the site in a like-new condition.
  - e. Stormwater pollution prevention plan of Engineer’s Drawings 1-\*\*.
  - f. Seed site.
2. Bid Security - The bid documents contain bid forms for two (2) separate contracts. The bidder may bid just one of the contracts or both contracts combined. The bidder must submit a separate bid security (cashier’s check, irrevocable letter of credit, or ORC 153.571 bond) for each contract bid.

D. Asbestos Abatement and Hazardous Materials Abatement Work Summary – Proposals A2, B2, C2, and D2

1. Work includes, but is not necessarily limited to, the following. General requirements work as specified in Division 1 including submittals and temporary construction facilities for contract work.
  - a. Refer to specifications developed by Environmental Consultant.
2. Bid Security - The bid documents contain bid forms for two (2) separate contracts. The bidder may bid just one of the contracts or both contracts combined. The bidder must submit a separate bid security (cashier’s check, irrevocable letter of credit, or ORC 153.571 bond) for each contract bid.

General

Lake County Commissioners are hereafter referred to as the Owner. CT Consultants, Inc. hereafter referred to as Owner’s Representatives. EA Group is hereinafter referred to as Environmental Consultant.

Asbestos containing materials (ACM) as well hazardous materials identified below shall be removed to facilitate demolition of the building. It is understood that the bid provided will cover all abatement and hazardous material removal activities and expenses necessary to complete this project. Therefore, the bid shall include all charges for mobilization, labor, materials, ACM removal/disposal expenses, reimbursables, etc., as needed to complete this project.

The abatement contractor shall furnish all tools, equipment, labor and materials for the proper removal and disposal of asbestos containing materials and hazardous materials in accordance with all applicable asbestos regulations including but not limited to the National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR Part 61, Subpart M, and any and all other asbestos regulations, statutes, rules, etc. by any governing authority.

The abatement contractor shall include documentation that proves they are an Ohio Licensed Asbestos Abatement Contractor. The abatement contractor shall ensure that all personnel who perform work on this project will have appropriate Ohio asbestos certifications, medical clearances, and respiratory training. The Contractor agrees that any time a violation of Federal, State, and/or Local laws or regulation, or a variance from the Contract Documents, Project Specifications or other documents presented as part of this project is brought to their attention, such violation or variance will be corrected immediately. A violation or variance not corrected immediately may result in suspension of the Contractor by the Owner from the Work.

Water and electricity are not available on-site. The demolition and abatement contractors shall furnish their own water, electrical and supplemental services as needed to complete their work.

Base Bid Work includes:

1. Removal of all identified asbestos containing materials from the building throughout as well identified asbestos containing building materials located on the exterior of the building.
2. Removal of all identified hazardous materials from the building throughout as well as the identified hazardous material located on the exterior of the building.
3. Interior demolition as necessary to access asbestos containing materials.
4. Securing the work site to prevent access by unauthorized personnel or the public.
5. Removal of all ACM and hazardous materials as detailed within in accordance with all applicable State, Federal and Local regulations.
6. The abatement contractor shall secure all ACM waste from the site daily, in an appropriately labeled closed dumpster. All asbestos waste shall be disposed of in an approved landfill. The transport of the containerized hazardous materials shall be coordinated with Contractor and Owner for execution of bill of disposal. Appropriate signed waste disposal records shall be maintained and provided to Owner and Environmental Consultant within 15 days of the completion of the work.
7. Notify Owner's Representative and Environmental Consultant two days prior to ACM removal completion at the work site to enable scheduling of a post-abatement inspection to verify that all identified ACM is removed properly. Each work area as constructed by Contractor shall be subject to post-abatement inspection.
8. Environmental Consultant has provided quantity estimates for all materials to be removed. The contractors may use these numbers or develop their own estimates. Regardless, each abatement contractor is responsible for developing their estimates for material quantity and associated cost estimates to remove all indicated material. There will be no change orders for differences in material quantities. The abatement contractors will be given adequate time at the site for the purpose of developing their bids.
9. Environmental Consultant has spent considerable time determining the location of the asbestos containing materials that exists in each room in the building and has provided a design drawing for this purpose. It is the responsibility of the contractor to determine the exact quantity and location of materials for the purpose of developing their bids. Environmental Consultant does not guarantee the complete accuracy of the drawings.

Since the buildings are scheduled to be demolished, air clearances of abated areas are not anticipated at this time. Final visual inspection to verify that all identified ACM being removed applies to each service provided by Contractor. Environmental Consultant will perform final visual inspections. All required engineering controls, negative pressure containments, critical barriers, critical and curtained openings, negative air machines, splash guards, decontamination units, signs, postings, etc. shall be in place and operational prior to potential or actual disturbance of any ACM and remain intact, in place and operational until final air clearance is achieved.

**Estimated quantities of asbestos-containing materials as well as hazardous material inventories are provided. The Contractor is responsible for actual quantities for formulation of their Notification and Bid. If additional work is required, it will be performed at the discretion of the Owner, and only after written approval from the Owner.**

The specifications, scope of work, etc. are not intended to describe nor illustrate the material, labor, and equipment necessary to perform the work. These documents represent the Owner's best estimate of the extent and presence of asbestos-containing material and hazardous materials to be removed during this project. It is the responsibility of the Contractor to determine the precise linear footage, square footage of ACM, number of ballasts, etc., for bidding purposes. No extra compensation will be allowed for differences between the best estimate and actual quantities of material to be removed.

It is understood that the bid provided will cover all abatement and hazardous material removal activities and expenses necessary to complete this project. Therefore, the bid shall include all charges for mobilization, labor, materials, ACM removal/disposal expenses, reimbursables, etc., as needed to complete this project.

E. Combined Work Summary – Proposals A3, B3, C3 and D3

1. Work includes Proposals A and B of work described in Sections 1.5A -1.5 D.
2. Bid Security - The bid documents contain bid forms for two (2) separate contracts. The bidder may bid just one of the contracts, or both contracts combined. The bidder must submit a separate bid security (cashier's check, irrevocable letter of credit, or ORC 153.571 bond) for each contract bid.

1.6 SEQUENCE OF CONSTRUCTION

- A. Description: The Contractor will be responsible to coordinate and schedule the sequence of and interface the work with the Owner.
- B. General Requirements: Since building and site demolitions work may potentially interfere with the operations of the fields, Contractors shall take all steps necessary to avoid this interference, including the following:
  1. When avoidance of interference is impractical, the Contractor shall take the following additional steps:

- a. The Contractor shall schedule his work to minimize the time interval and/or frequency that any portion of the excavation is open to the outside environment.
- b. The Contractor shall coordinate all labor, materials, and equipment to be on the site at the start of demolition.
- c. The Contractor shall work continuously until completed.
- d. The Contractor shall coordinate with and notify the Architect/Owner well in advance of problems.

## 1.7 SITE PROTECTION

### A. Construction Facilities and Temporary Controls

1. This sets forth requirements for temporary services and facilities, including utilities, construction and support facilities, security and protection including personnel and equipment decontamination units, sanitary facilities, temporary site signage, pest control, waste disposal services, construction aids, field offices, barricades and warning lights, temporary utilities, first aid, emergency response coordination and environmental and health and safety protection measures.

### B. Site Security

1. Requires 24/7 security for the work site, stored equipment and materials, work areas, and for access by contractors and third parties. A Security Plan setting out the Contractors means and methods of performing the work as specified and in conformity with all applicable laws and permits is a required submittal.

### C. Environmental Protection

1. Provides for protection of the environmental and natural resources at, and in the vicinity of the project site, including addressing matters such as control of dust, vapors, odors, noise, solid waste, erosion, sedimentation, management of construction-related waters, etc. as required to protect land, air, and water resources during all Contract activities. An Environmental Protection Plan in conformity with all applicable laws and permits (and considering protection of land resources, air, surface waters and ground waters) is a required submittal.

### D. Erosion and Sediment Control

1. Generally, provides for temporary and permanent run-on, run-off, erosion, slope protection and sediment controls (including potentially construction diversion swales, silty fences, erosion fabric, straw bale dikes, erosion control blankets, vegetation and other sediment controls, and their removal after demolition).

### E. Dust Control

1. Provides for controlling dust and windblown site contamination that may be generated during the execution of the work, including materials that may be tracked onto roadways (on-and off-site) and adjacent neighborhood because of the Contractors operations. A Duct and Windblown Site Contaminant Control Plan documenting the Contractors means and methods of performing the work in accordance with the

specifications and in conformity with all applicable laws, regulations and permits is a required submittal. This plan must address how the creation of dispersion of dust will be minimized and controlled and must address all demolition activities having the potential to generate such dust. Control measures may include air monitoring (e.g., for particulate matter), moistening of dust generating surfaces, erection of wind barriers, and control of residues.

#### F. Worker Safety

1. Safety and health management plan (SMP) shall be provided that identifies and assesses all hazards associated with the works and control measures to be implemented to ensure that personnel working on site, members of the public and visitors to the site are protected from risk of injury or illness.
2. The plan established a framework for identifying risks, controlling risks, assessing the effectiveness of those controls and the continuous improvement of the management of safety regulations. The plan to provide for the effective management of workplace injuries and the satisfactory return to work of injured workers. The plan to comply with the requirement of:
  - OSHA Safety and Health Regulations for Construction – 29 CFR 1926, and
  - Contract requirements
3. Weekly (more often, if required) project meetings involving all site personnel are required to discuss, consult, and communicate with staff working on site. Consultation and communication occur in reference to (but not limited to) the following subjects/topics:
  - Hazard identification and risk assessment processes
  - Control measures for the management of hazards and risks
  - Changes to the organizations policies and procedures of work routines which may affect safety and health
  - Incident/accidents, near misses, non-conformances, corrective actions, and improvements
  - Drawing attention to site safety hazard not identified before
  - Commencement of recent activity or process during the project
  - Refresher training in safety procedures
  - Passing information changes to all members of the project team
  - Changes to OSHA legislation/regulations; and

Company safety manager to attend and document weekly meetings. Submit standard corporate policy forms, etc., for review and approval in advance of mobilization.

#### 1.8 SPECIFICATIONS

- A. In general, these Specifications describe the work to be performed by the various trades, other than work specifically excluded. It shall be the responsibility of Contractors and Subcontractors to perform all work incidentals to their trade, whether specific mention is made of each item, unless such incidentals are included under another Item.



- B. It is advised that all Contractors and Subcontractors familiarize themselves with the contents of the complete Specifications.

#### 1.9 DRAWING SCHEDULE

- A. The work to be done under this Contract is included as exhibits in Section 9.
  - 1. Cover Sheet
  - 2. General Notes
  - 3. Existing Conditions
  - 4. Existing Conditions
  - 5. Existing Conditions
  - 6. Demolition Plan and SWPPP
  - 7. Demolition Plan and SWPPP
  - 8. Demolition Plan and SWPPP
  - 9. SWPPP Notes and Details
  - 10. SWPPP Notes and Details
  - 11. SWPPP Notes and Details

END OF SECTION 011100

## SECTION 011419 – USE OF SITE

### PART 1 - GENERAL

#### 1.1 GENERAL

- A. The Contractor will be allowed the use of as much of the site designated for the improvements as is necessary for his operation.

#### 1.2 USE OF STREETS

- A. During the progress of the work, the Contractor shall make ample provisions for both vehicle and pedestrian traffic on any public street and shall indemnify and save harmless the Owner from any expense whatsoever due to their operations over said streets. The Contractor shall also provide free access to all the fire hydrants, water, and gas valves located along the line of his work. Gutters and waterways must be kept open or other provisions made for the removal of storm water. Street intersections may be blocked only one-half at a time, and the Contractor shall lay and maintain temporary driveways, bridges, and crossings, such as in the opinion of the Engineer are necessary to accommodate the public.
- B. In the event of the Contractor's failure to comply with these provisions, the Owner may cause the same to be done, and may deduct the cost of such work from any monies due the Contractor under this Agreement, but the performance of such work by the Owner at its instance shall serve in no way to release the Contractor from his general or particular liability for the safety of the public or the work.
- C. The Contractor shall repair at no cost to the Owner, all existing roads, parking areas, grassed areas that are damaged due to the execution of his work. The Contractor shall remove daily all mud, soil and debris that may be tracked onto existing streets, drives, or walks by his equipment or that of subcontractors or suppliers.

#### 1.3 CLOSING STREETS TO TRAFFIC

The Contractor may with the approval of the Engineer, close streets, or parts of streets, to vehicular traffic. The streets are to remain closed if the construction work or the condition of the finished work requires or as determined by the Engineer. The Engineer shall be the judge of how streets or parts of streets it is necessary for the Contractor to close at any time and may refuse to permit the closing of additional streets to traffic until most of the work on the closed streets is completed and they are opened to traffic.

#### 1.4 RIGHTS-OF-WAY

- A. Whenever it is required to perform work within the limits of public or private property or in rights-of-way, such work shall be done in conformity with all agreements between the Owner and the owners of such. Care shall be taken to avoid injury to the premises entered, which premises shall be left in a neat and orderly condition by the removal of rubbish and the grading of surplus materials, and the restoration of said public or

private property to the same general conditions as pertained at the time of entry for work to be performed under this contract.

- B. The Contractor shall not (except after consent from the proper parties) enter or occupy with men, tools or equipment, any land outside the rights-of-way or property of the Owner.
- C. When the Contractor performs construction within 10 ft. of a right-of-way or easement line, he shall place tall stakes properly identified at points of change in width or direction of the right-of-way or easement line and at points along the line so that at least two stakes can be seen distinctly from any point on the line.

#### 1.5 EASEMENTS

- A. Where the work is to be constructed upon easements, such easements will be secured by the Owner without cost to the Contractor. The Contractor shall not enter upon or occupy any private property outside of the limits of the easements furnished.
- B. Care shall be taken to avoid injury to the premises entered, which premises shall be left in a neat and orderly condition by the removal of rubbish and the grading of surplus materials, and the restoration of said public or private property to the same general conditions as pertained at the time of entry for work to be performed under this contract.

#### 1.6 PROTECTING EXISTING BUILDINGS, STRUCTURES AND ROADWAYS

- A. The Contractor shall, at his own expense, shore up and protect any roadways, utilities or other public or private structures which may be encountered or endangered in the prosecution of the work, and that may not be otherwise provided for, and he shall repair and make good any damages caused to any such property by reason of his operations. All existing fences removed due to the prosecution of the work shall be replaced by the Contractor. No extra payment will be made for said work or material, but the cost of this work must be included in the price stipulated for the work to be done under this contract.

#### 1.7 SITE FACILITIES

- A. The Contractor shall furnish and place enough portable toilet facilities at locations convenient for use by the Contractor's personnel, Subcontractors, the Engineer, and the Owner.

#### 1.8 RESTORATION

- A. The contractor shall restore all areas per the plans and specifications and if not specified, at least to the condition existing prior to the start of work.

END OF SECTION 011419

## SECTION 011423 - ADDITIONAL WORK, OVERTIME

### PART 1 - GENERAL

#### 1.1 NIGHT, SUNDAY, AND HOLIDAY WORK

- A. No work will be permitted at night, Sunday, or legal holidays except as noted on the plans or in the case of emergency and then only upon written authorization of the Engineer. Where no emergency exists, but the Contractor feels it advantageous to work at night, Sunday or legal holidays, the Contractor shall notify the Engineer at least two (2) days in advance, requesting written permission. Any work performed during the absence of the Engineer will be done at the Contractor's risk and responsibility and may be subject to rejection upon later inspection.

END OF SECTION 011423

## SECTION 013119 - PROJECT MEETINGS

### PART 1 - GENERAL

#### 1.1 PRECONSTRUCTION MEETING

- A. Prior to the Contractor beginning any work on the project, the Owner will schedule and hold a preconstruction meeting to discuss all aspects of the contract work.
- B. The Contractor shall be present and be prepared to comment in detail on all aspects of his work.
- C. The Contractor shall bring to the preconstruction meeting a proposed construction progress schedule.

#### 2.1 PROJECT MEETING

- A. Contractor to hold a progress meeting with Owner and Architect every two (2) weeks unless period is changes by mutual agreement by all parties. Contractor to provide update on activities and projected work schedule.

END OF SECTION 013119

## SECTION 013323 - SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

### PART 1 - GENERAL

#### 1.1 GENERAL

- A. The Contractor shall submit detailed drawings, acceptable catalog data, specifications and material certifications for all equipment and materials specified or required for the proper completion of the work.
- B. The intent of these items is to demonstrate compliance with the design concept of the work and to provide the detailed information necessary for the fabrication, assembly and installation of the work specified. It is not intended that every detail of all parts of manufactured equipment be submitted, however sufficient detail will be required to ascertain compliance with the specifications and establish the quality of the equipment proposed.

Shop Drawings shall be sufficiently clear and complete to enable the Engineer/Architect and Owner to determine that items proposed to be furnished conform to the specifications and that items delivered to the site are those that have been reviewed.

- C. It is emphasized that the Engineer/Architect's review of Contractor's submitted data is for general conformance to the contract drawings and specifications but subject to the detailed requirements of drawings and specifications. Although the Engineer/Architect may review submitted data in detail, such review is an effort to discover errors and omissions in Contractor's drawings. The Engineer/Architect's review shall in no way relieve the Contractor of his obligation to properly coordinate the work and to Engineer/Architect the details of the work in such manner that the purposes and intent of the contract will be achieved. Such review by the Engineer/Architect shall not be construed as placing on him or on the Owner, any responsibility for the accuracy and for proper fit, functioning or performance of any phase of the work included in the contract.
- D. Shop Drawings shall be submitted in proper sequence and with due regard to the time required for checking, transmittal, and review to cause no delay in the work. The Contractor's failure to transmit appropriate submittals to the Engineer/Architect sufficiently in advance of the work shall not be grounds for time extension.
- E. The Contractor shall submit Shop Drawings for all fabricated work and for all manufactured items required to be furnished in the Contract in accordance with the General Provisions and as specified herein. Shop Drawings shall be submitted in sufficient time to allow at least twenty-one (21) calendar days after receipt of the Shop Drawings from the Contractor for checking and processing by the Engineer/Architect.
- F. It is the responsibility of each Prime Contractor to furnish to all other Prime Contractors and especially the General Construction Contractor reviewed Shop Drawings for guidance in interfacing the various trades, i.e., sleeves, inserts, anchor bolts, terminations, and space requirements.

- G. No work shall be performed requiring Shop Drawings until same have been reviewed by Engineer/Architect.
- H. Accepted and reviewed Shop Drawings shall not be construed as approval of changes from Contract plan and specification requirements.
- I. The Engineer/Architect will review the first and second Shop Drawing item submittals at no cost to the Contractor. Review of the third submittal and any subsequent submittal will be at the Contractor's expense. Payment will be deducted from the Contract amount at a rate of 2.8 times direct labor cost plus expenses.

## 1.2 SUBMITTAL PROCEDURE

- A. All required submissions shall be made to the Engineer/Architect by the Prime Contractor(s) only. Any data prepared by subcontractors and suppliers and all correspondence originating with subcontractors, suppliers, etc., shall be submitted through the Contractor.
- B. Contractor shall review and approve all Shop Drawings prior to submission. Contractor's approval shall constitute a representation to Owner and Engineer/Architect that Contractor has either determined and verified all quantities, dimensions, field construction criteria, materials, catalog numbers, and similar data or assumes full responsibility for doing so, and that Contractor has reviewed or coordinated each Shop Drawing or sample with the requirements of the work and the Contract Documents.
- C. Submittal Preparation: Mark each submittal with a permanent label or page for identification. Provide the following information on the label for proper processing and recording of action taken:
  - 1. Location
  - 2. Project Name
  - 3. Contract
  - 4. Name and Address of Engineer/Architect
  - 5. Name and Address of Contractor
  - 6. Name and Address of Subcontractor
  - 7. Name and Address of Supplier
  - 8. Name of Manufacturer
  - 9. Number and Title of appropriate Specification Section
  - 10. Drawing Number and Detail References, as appropriate.
  - 11. Submittal Sequence or Log Reference Number.
    - a. Provide a space on the label for the Contractor's review and approval markings and a space for the Engineer/Architect's "Action Stamp".
- D. Each Shop Drawing, sample and product data submitted by the Contractor shall have affixed to it the following Certification Statement including the Contractor's Company name and signed by the Contractor:

Certification Statement: By this submittal, I hereby represent that I have determined and verified all field measurements, field construction criteria, materials, dimensions, catalog numbers and similar data and I have checked and coordinated each item with other applicable approved shop drawings and all Contract requirements.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Company

- E. Shop Drawings shall be submitted in not less than six (6) copies to the Engineer/Architect at the address specified at the Preconstruction Conference. Single mylar or sepia reproducible copies of simple Shop Drawings may be submitted with prior approval of the Engineer/Architect.
- F. At the time of each submission, Contractor shall in writing identify any deviations that the Shop Drawings or samples may have from the requirements of the Contract Documents.
- G. Drawings shall be clean, legible and shall show necessary working dimensions, arrangement, material finish, erection data, and like information needed to define what is to be furnished and to establish its suitability for the intended use. Specifications may be required for equipment or materials to establish any characteristics of performance where such are pertinent. Suitable catalog data sheets showing all options and marked with complete model numbers may, in certain instances, be sufficient to define the articles which it is proposed to furnish.

### 1.3 REVIEW PROCEDURE

- A. Engineer/Architect will review with reasonable promptness all properly submitted Shop Drawings. Such review shall be only for conformance with the design concept of the Project and for compliance with the information given in the plans and specifications and shall not extend to means, methods, sequences, techniques, or procedures of construction or to safety precautions or programs incident thereto.
- B. The review of a separate item as such will not constitute the review of the assembly in which the item functions. The Contractor shall submit entire systems as a package.
- C. All Shop Drawings submitted for review shall be stamped with the Engineer/Architect's action and associated comments.
- D. Except for submittals for record, information, or similar purposes, where action and return are required or requested, the Engineer/Architect will review each submittal, mark to indicate action taken, and return accordingly. Compliance with specified characteristics is the Contractor's responsibility.



Action Stamp: The Engineer/Architect will stamp each submittal with a uniform, self-explanatory action stamp. The stamp will be appropriately marked, as follows, to indicate the action taken:

1. If Shop Drawings are found to be in general compliance, such review will be indicated by marking the first statement.
  2. If only minor notes in reasonable number are needed, the Engineer/Architect will make same on all copies and mark the second statement. Shop Drawings so marked need not be resubmitted.
  3. If the submitted Shop Drawings are incomplete or inadequate, the Engineer/Architect will mark the third statement, request such additional information as required, and explain the reasons for revision. The Contractor shall be responsible for revisions, and/or providing needed information, without undue delay, until such Shop Drawings are acceptable. Shop Drawings marked with No. 3 shall be completed resubmitted.
  4. If the submitted Shop Drawings are not in compliance with the Contract Documents, the Engineer/Architect will mark the fourth statement. The Contractor will be responsible to submit a new offering conforming to specific products specified herein and/or as directed per review citations.
- E. No submittal requiring a Change Order for either value or substitution or both, will be returned until the Change Order is approved or otherwise directed by the Owner.

# APPLICATION FOR USE OF SUBSTITUTE ITEM

TO: \_\_\_\_\_

PROJECT: \_\_\_\_\_

SPECIFIED ITEM:

| Page | Paragraph | Description                                                                                                                                                                                                                                                                                                                                                                            |
|------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A.   |           | The undersigned requests consideration of the following as a substitute item in accordance with Article 6.05 of the General Conditions.                                                                                                                                                                                                                                                |
| B.   |           | Change in Contract Price (indicate + or -) \$ _____                                                                                                                                                                                                                                                                                                                                    |
| C.   |           | Attached data includes product description, specifications, drawings, photographs, references, past problems and remedies, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified. For consideration of the attached data as SHOP DRAWINGS, submittal shall be in accordance with requirements of Section 01300. |
| D.   |           | Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.                                                                                                                                                                                                                                |

The undersigned certifies that the following paragraphs, unless modified by attachments are correct:

1. The proposed substitute does not affect dimensions shown on Drawings.
2. The undersigned will pay for changes to the building design, including engineering design, detailing, and construction costs caused by the requested substitution.
3. The proposed substitution will have no adverse affect on other contractors, the construction schedule, or specified warranty requirements. (If proposed substitution affects construction schedule, indicate below using + or -)

\_\_\_\_\_ CONSECUTIVE CALENDAR DAYS

4. Maintenance and service parts will be locally available for the proposed substitution.

The undersigned further states that the function, appearance, and quality of the proposed substitution are equivalent or superior to the specified item and agrees to reimburse the OWNER for the charges of the ENGINEER for evaluating this proposed substitute item.

E. Signature:

Firm:

Address:

Telephone:

Date:

Attachments:

For use by ENGINEER:

\_\_\_\_\_ Accepted as evidenced by affixed SHOP DRAWING REVIEW stamp.

\_\_\_\_\_ Accepted as evidenced by included CHANGE ORDER.

\_\_\_\_\_ Not accepted as submitted. See Remarks.

\_\_\_\_\_ Acceptance requires completion of submittal as required for SHOP DRAWINGS.

\_\_\_\_\_ Not accepted. Do not resubmit.

By:

Date:

Remarks:

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# APPLICATION FOR USE OF "OR-EQUAL" ITEM

TO: \_\_\_\_\_

PROJECT: \_\_\_\_\_

SPECIFIED ITEM:

| Page | Paragraph | Description |
|------|-----------|-------------|
|------|-----------|-------------|

A. The undersigned requests consideration of the following as an "or-equal" item in accordance with Article 6.05 of the General Conditions.

B. Change in Contract Price (indicate + or -) \$ \_\_\_\_\_

C. Attached data includes product description, specifications, drawings, photographs, references, past problems and remedies, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified. For consideration of the attached data as SHOP DRAWINGS, submittal shall be in accordance with requirements of Section 01061.

D. Signature: \_\_\_\_\_

Firm: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_ Date: \_\_\_\_\_

Attachments: \_\_\_\_\_

For use by ENGINEER:

\_\_\_\_\_ Accepted as evidenced by affixed SHOP DRAWING REVIEW stamp.

\_\_\_\_\_ Accepted as evidenced by included CHANGE ORDER.

\_\_\_\_\_ Not accepted as submitted. See Remarks.

\_\_\_\_\_ Acceptance requires completion of submittal as required for SHOP DRAWINGS.

\_\_\_\_\_ Not accepted. Do not resubmit.

By: \_\_\_\_\_ Date: \_\_\_\_\_

Remarks: \_\_\_\_\_



## SECTION 014126 - GENERAL REGULATIONS AND PERMITS

### PART 1 - GENERAL

#### 1.1 REGISTRATION

The Contractor shall be registered in Lake County. Contact the building department for registration information.

#### 1.2 PERMITS

Prime Contractor for each contract shall apply for all City of Painesville permits including building, zoning, utility, street closing, and Health Department. Lake County General Health District will require a 10-day waiting period prior to the start of abatement services. All permits and inspection fees required by all authorities shall be obtained and paid for by the Contractor.

#### 1.3 ARCHAEOLOGICAL DISCOVERIES

Contractors and subcontractors are required under O.R.C. Section 149.53, to notify the Ohio Historical Society and the Ohio Historic Site Preservation Board of Archaeological Discoveries located in the project area, and to cooperate with those entities in archaeological and historic surveys and salvage efforts if such discoveries are uncovered within the project area.

Contact: Ohio's State Historic Preservation Office  
Diana Welling, Resource Protection & Review Department Manager  
Phone: 1-614-298-2000  
Email: [dwelling@ohiohistory.org](mailto:dwelling@ohiohistory.org)

END OF SECTION 014126

## SECTION 014323 – QUALIFICATIONS OF TRADESMEN

### PART 1 - GENERAL

#### 1.1 CHARACTER OF WORKMEN AND EQUIPMENT

- A. The Contractor shall employ competent and efficient workers for every kind of work. Any person employed on the work who shall refuse or neglect to obey directions of the Engineer or his representative, or who shall be deemed incompetent or disorderly, or who shall commit trespass upon public or private property in the vicinity of the work, shall be dismissed when the Engineer so orders, and shall not be re-employed unless express permission be given by the Engineer. The methods, equipment and appliances used on the work and the labor employed shall be such as will produce a satisfactory quality of work and shall be adequate to complete the contract within the specified time limit.
  
- B. In hiring of employees for the performance of work under this Contract, or any Subcontract hereunder, no Contractor or Subcontractor, nor any person acting on behalf of such Contractor or Subcontractor, shall, by reason of race, sex, creed, or color, discriminate against any citizen of the State of Ohio in the work to which the employment relates. No Contractor, Subcontractor, nor any person on his behalf shall, in any manner, discriminate against or intimidate any employee hired for the performance of work under this contract on account of race, creed, sex or color.

END OF SECTION 014323

## SECTION 015136 - TEMPORARY UTILITY SERVICES

### PART 1 - GENERAL

#### 1.1 WATER

- A. The City of Painesville Water Department will no longer allow contractors to use hydrants or connections to meter vault backflow due to EPA assessing fines for a 2019 infraction. Each contractor to make provisions for supplying and paying for this need.
- B. Each Contractor shall be responsible for an adequate supply of water suitable for their use for abatement and demolition. At his own expense, he shall provide and maintain adequate supplies and supply lines in such locations and installed in such a manner as may be satisfactory to the City and CT. Lake County Commissioners will allow access to a bulk water supply at the Lake County Department of Utilities facility on Bacon Road.
- C. The Building Demolition Contractor shall cap the water services for each building at the main. Four street opening permits will be required before work may begin. Work to be coordinated with Water Department.

#### 1.2 ELECTRICAL AND TEMPORARY HEAT

- A. Several buildings do not have an active electrical service. Each Contractor shall arrange for providing electrical back-up power with emergency generators or other portable equipment. Temporary lights, outlets, temporary wiring, and other support systems to be provided by each contractor.
- B. Painesville Power Department requires coordinating service disconnection in advance of performing work. Arrangements can be made by contacting Cheryl Althiser at 440-392-5847 or the central office number 440-392-5797.
- C. Temporary heating system, if required, is the responsibility of each contractor. The system shall meet all requirements of the N.E.C., O.B.C. and the local codes for temporary construction services.

#### 1.3 GAS AND SANITARY SERVICES DISCONNECTION

- A. Painesville sanitary connections termination to be within 5-feet of the property line and not in the right-of-way.
- B. Demolition Contractor is responsible for disconnecting and removing the gas service lines to each building. Contractor the coordinate with gas company and Lake County Buildings and Grounds Superintendent.

END OF SECTION 015136



## SECTION 015213 - FIRST AID

### PART 1 - GENERAL

#### 1.1 AID TO THE INJURED

The Contractor shall keep in his office and on the work site, all articles necessary for giving "First Aid to the Injured." He shall also have standing arrangements for the immediate removal and hospital treatment of any employee or other person who may be injured on the work site.

END OF SECTION 015213

## SECTION 017800 - FINAL COMPLIANCE AND SUBMITTALS

### PART 1 - GENERAL

- 1.1 The following forms and related sign-offs shall be documented in accordance with provisions of the contract. These forms shall be completed by the Contractor and approved by the Owner before final retainer is approved for release. Forms for Items A to G will be attached to the Contractor's executed copy of the contract.
- A. Certificate of Substantial Completion (To be submitted at time of Substantial Completion).
  - B. Contractor's Certification of Completion.
  - C. Contractor's Affidavits of Prevailing Wage.
  - D. Consent of Surety Company for Final Payment.
  - E. Affidavit of Final Acceptance Date and Correction Period.
  - F. Certificate of Insurance verifying completed operations insurance coverage.
  - G. Release of Liens

END OF SECTION 017800

## SECTION 017821 - CLEANING AND PROTECTION

### PART 1 - GENERAL

#### 1.1 GENERAL

- A. On or before the completion date for the work, the Contractor shall tear down and remove all temporary structures built by him, all construction plant used by him, and shall repair and replace all parts of existing embankments, fences, or other structures, which were removed or injured by his operations or by the employees of the Contractor. The Contractor shall thoroughly clean out all buildings, sewers, drains, pipes, utility access holes, inlets, and miscellaneous and appurtenant structures, and shall remove all rubbish leaving the grounds in a neat and satisfactory condition.
- B. As circumstances require and when ordered by the Engineer, the Contractor shall broom sweep and/or hose-wash the solid surface of the road or any driveway or sidewalk surface on which construction activity under this contract has resulted in dirt or any other foreign material being deposited.
- C. Failure to comply with this requirement when ordered by the Engineer or his representative, may serve as cause for the Engineer to stop the work and to withhold any monies due the Contractor until such order has been complied with to the satisfaction of the Engineer.
- D. As the work progresses, and as may be directed, the Contractor shall remove from the site, dispose of debris, and waste material resulting from his work. Particular attention shall be given to minimizing any fire and safety hazard from form materials or from other combustibles as may be used in connection with the work, which should be removed daily.
- E. During and after installation, the Contractor shall furnish and maintain satisfactory protection to all equipment against injury by weather, flooding or breakage thereby permitting all work to be left in a new condition at the completion of the contract.

END OF SECTION 017821

## SECTION 020610 - SEEDING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

#### 1.2 DESCRIPTION OF WORK

- A. Installation of seeded areas shall be to the extent shown on Contract Drawings and shall include supplying all seed, topsoil, soil conditioning materials, mulching materials and watering, and the incorporation of these materials into the work as specified.
- B. The Contractor shall place topsoil at the depths specified in those areas requiring seeding. The Contractor shall furnish topsoil.

#### 1.3 QUALITY ASSURANCE

- A. Any subcontracted restoration work shall be performed by a qualified firm specializing in landscape work.
- B. Topsoil: Before delivery of topsoil, furnish the Owner's Representative with a written statement giving the location of properties from which topsoil is to be obtained, names and addresses of owners, depth to be stripped, and crops grown during past 2 years.

The Contractor shall have a soils test done at his expense and analyzed by a state approved testing agency. Soil tests shall be done on both the topsoil stockpiled from the site and new topsoil brought to the site. A minimum of two (2) tests shall be done. The tests shall include percent organic matter, pH, Buffer pH, Phosphorus, Exchangeable Potassium, Calcium, Magnesium, Cation Exchange Capacity and Percent Base Saturation with recommendations for nitrogen, phosphate, potash, magnesium, and lime based on plant type and use. Copies of the soils test shall be provided to the Owner's Representative prior to the placing of the topsoil, for review and approval.

- C. Seed: All seed specified shall meet O.D.O.T. specifications as to the percentage purity, weed seed, and germination. All seed shall be approved by the State of Ohio, Department of Agriculture, Division of Plant Industry, and shall meet the requirements of these specifications. Supplier's name and an analysis of the seed shall be submitted to the Owner's Representative prior to planting.

Contractor shall provide the Owner's Representative with a list of the seed he intends to use, including, varieties of seed, labels, and suppliers name and phone number, four (4) weeks prior to the start of seeding, for approval.

#### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Packaged Materials: Deliver packaged materials in containers showing weight, analysis, and name of manufacturer. Protect materials from deterioration during delivery, and while stored at site.

#### 1.5 JOB CONDITIONS

- A. Utilities: Determine location of underground utilities and perform work in a manner that will avoid damage. Hand excavates, as required. Maintain grade stakes set by others until removal is mutually agreed upon by parties concerned.
- B. Excavation: When conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions, or obstructions, such conditions shall be rectified by the Contractor before planting, with approval from the Owner's Representative.
- C. Soil Stabilization: The Contractor shall provide permanent or temporary soil stabilization to denuded areas within fifteen (15) days after final grade is reached on any portion of the site. Any such area which will not be regraded for longer than fifteen (15) days shall also be stabilized. Soil stabilization includes any measures that protect the soil from the erosive forces of raindrop impact and flowing water. Applications include seeding and/or mulching, or the use of other erosion control measures as directed by the Owner's Representative. If necessary, the Contractor shall coordinate soil stabilization practices with the local Soil and Water Conservation District.
- D. All work shall be guaranteed for one full growing season to commence upon final acceptance of lawn work, as described in these specifications.
- E. Spring-sown work shall be installed between April 1st and May 30th and Fall-sown work shall be installed between September 1st and October 15th. No permanent seeding shall take place between May 30th and September 1st and between October 15th and April 1st. The dates for seeding may be changed at the discretion of the Owner's Representative.

### PART 2 - PRODUCTS

#### 2.1 TOPSOIL

- A. The Contractor shall furnish topsoil. Stockpiled material, if any, shall be utilized prior to obtaining additional topsoil.
- B. All topsoil shall conform to the U.S. Department of Agriculture soil texturing triangle and shall contain between 3% to 8% organic matter. Topsoil shall be loamy and not consist of more than 38% clay. All topsoil shall be screened to remove clay lumps, brush, weeds, litter, roots, stumps, stones larger than ½" in any dimension and any other extraneous or toxic matter harmful to plant growth.

New topsoil shall be obtained only from naturally well drained sites where topsoil occurs in a depth of not less than 4". Do not obtain from bogs or marshes.

- C. Soil amendments shall be added according to the soils test requirements. Amendments can include, but are not limited to fertilizer, lime, compost, sand, and organic matter. Organic matter shall consist of composted leaves or other approved material.

## 2.2 SEED

- A. Seed shall be vendor mixed, delivered in original bags, and shall be proportioned as follows unless otherwise noted on the plans:

| <u>Common Name</u>                                                                                                                                              | <u>Proportion by Weight</u> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| Creeping Red Fescue<br>(This shall be a blend, of three improved varieties; recommended variety is Boreal, Cindy Lou or Rose)                                   | 65%                         |
| Perennial Rye<br>(This shall be a blend of three improved varieties; recommended varieties are Allsport, Prosport, Wilmington, TeeLee, Private or Derby Xtreme) | 20%                         |
| Kentucky Bluegrass blend                                                                                                                                        | 15%                         |

## PART 3 - EXECUTION

### 3.1 PREPARATION - GENERAL

- A. Soils tests of the topsoil shall be done by the Contractor at his expense. A copy of the tests shall be submitted to the Owner's Representative.
- B. Rough grading to a depth necessary to accept the specified thickness of topsoil must be approved prior to placing topsoil.
- C. Loosen subgrade, remove any stones greater than 1/2" in any dimension. Remove sticks, roots, rubbish, and other extraneous matter.
- D. Spread topsoil to a minimum depth of four inches, to meet lines, grades, and elevations shown on plan, after light rolling and natural settlement. Remove sticks, roots, rubbish, stones greater than one-half" in any dimension, and other extraneous matter. Topsoil shall be tilled thoroughly by plowing, disking, harrowing, or other approved methods. Add specified soil amendments and mix thoroughly into the topsoil.

- E. Preparation of Unchanged Grades: Where seed is to be planted in areas that have not been altered or disturbed by excavating, grading, or stripping operations, prepare soil for planting as follows: Till to a depth of not less than 6 inches. Apply soil amendments and initial fertilizers as specified. Remove high areas and fill in depressions. Till soil to a homogenous mixture of fine texture, free of lumps, clods, stones, roots, and other extraneous matter. Soils test requirements apply here as well.
  - 1. Prior to preparation of unchanged areas, remove existing grass, vegetation, and turf. Dispose of such material outside of project limits. Do not turn existing vegetation over into soil being prepared for seed. If necessary, supply and install topsoil in areas where there is no topsoil left after vegetation has been removed.
  - 2. Apply specified soil amendments at rates specified in the soils test and thoroughly mix into upper two inches of topsoil. Add topsoil if existing grade has less than 4" of topsoil. Delay application of amendments if planting will not follow within two (2) days.
- F. Fine grade areas to smooth, even surface with loose, uniformly fine texture. Roll, rake, and drag lawn areas, remove ridges, and fill depressions, as required to meet finish grades. Remove sticks, roots, rubbish, stones greater than one-half" in any dimension, and other extraneous matter. Limit fine grading to areas that can be planted immediately after grading.
- G. Moisten prepared areas before planting if soil is dry. Water thoroughly and allow surface moisture to dry before planting lawns. Do not create a muddy soil condition.
- H. Restore areas to specified condition, if eroded or otherwise disturbed, after fine grading and prior to planting.

### 3.2 SEEDING

- A. Do not use wet seed or seed that is moldy or otherwise damaged in transit or storage. Seed shall not be sown when the ground is frozen, muddy, or when weather conditions prevent proper soil preparation, interference with sowing and/or proper incorporation of seed into the soil.
- B. Sow seed using a spreader or hydroseeder. Do not seed when wind velocity exceeds five miles per hour. Distribute seed evenly over entire area by sowing 3 lbs. per 1000 S.F. at right angles to each other. Total amount to equal a minimum of 5 lbs. per 1000 S.F.
- C. For seed sown with a spreader, mulch shall be spread uniformly to form a continuous blanket at a rate of 100 lbs. per 1,000 S.F. Mulch shall be 1 1/2" loose measurement over seeded areas and shall be anchored.
- D. Contractor has the option to hydroseed large lawn areas, using equipment specifically designed for such application. The rate of application of wood fiber mulching materials is 40 lbs./1,000 S.F. The Contractor shall submit data regarding the hydroseed mixture, mulch and application rates for the Engineer's review and approval prior to performing the work. Contractor shall not hydroseed within proximity to buildings and structures, or when unfavorable wind conditions may blow the hydroseed material onto the structure. Contractor shall clean all areas not to be seeded of overspray.

- E. Unless otherwise directed by the Owner's Representative, the seeded area shall be watered, as soon as the seed is applied, at the rate of 120 gallons per one thousand square feet. The water shall be applied by means of a hydro-seeder or a water tank under pressure with a nozzle that will produce a spray that will not dislodge the mulching material. Cost of this watering shall be included in the cost of seeding and mulching.

### 3.3 DORMANT SEEDING METHOD

- A. Seeding shall not take place from October 15 through November 20. During this period prepare the seed bed, add the required amounts of lime and fertilizer, and other amendments. Then mulch and anchor.
- B. From November 20 through April 1, when soil conditions permit, prepare the seed bed, lime, and fertilize, apply the selected seed mixture, mulch, and anchor. Increase the seeding rate by 50 percent.

### 3.5 RECONDITIONING EXISTING LAWNS

- A. A soils test shall be required for existing lawns prior to any reconditioning. The soils test shall be done at the Contractor's expense. A copy shall be submitted to the Owner's Representative prior to starting the work.
- B. Recondition all existing lawn areas damaged by Contractor's operations including storage of materials and equipment and movement of vehicles. Also recondition existing lawn areas where minor regrading is required.
- C. Provide soil amendments as called for in the soils test.
- D. Provide new topsoil, as required, to fill low spots and meet new finish grades.
- E. Cultivate bare and compacted areas according to the topsoil specifications.
- F. Remove diseased and unsatisfactory lawn areas; do not bury into soil. Remove topsoil containing foreign materials resulting from the Contractor's operations, including oil drippings, stone, gravel, and other loose building materials.
- G. All work shall be the same as for new seeding.
- H. Water newly planted seed areas. Maintenance of reconditioned lawns shall be the same as maintenance of new lawns.

### 3.6 ESTABLISHMENT

- A. Maintain work areas if necessary to establish a uniformly close stand of grass over the entire lawn area. A uniformly close stand of grass is defined as the seeded areas having 90%+ coverage of grass at 60 days after seeding. 90%+ coverage is defined as little or no dirt showing when seeded area is viewed from directly overhead.



- B. Maintain lawns by watering, fertilizing, weeding, mowing, trimming, and other operations such as rolling, regrading, and replanting as required to establish a smooth acceptable lawn.
  - 1. Mowing
    - a. Mow lawn areas during the period of maintenance to a height of two inches whenever the height of the grass becomes three inches. A minimum of three mowings is required during the period of maintenance.
  - 2. Refertilizing
    - a. Distribute fertilizer on the seeded area between August 15 and October 15, during the period when grass is dry, and in accordance with the manufacturer's recommendations. The fertilizer shall be as specified in the soils test.
  - 3. Reseeding
    - a. Reseed with the seed specified for the original seeding, at the rate of 4 lbs. per 1,000 S.F. in a manner that will cause minimum disturbance to the existing stand of grass and at an angle of not less than 15 degrees from the direction of rows of prior seeding.
  - 5. Watering
    - a. The Contractor shall keep all work areas watered daily to achieve satisfactory growth. Water shall be applied at a rate of 120 gallons per 1,000 square feet. If water is listed as a pay item, it shall be separately paid for based on the actual amount of water used, measured in thousands of gallons.
  - 6. Any mulching that has been displaced shall be repaired immediately. Any seed work that has been disturbed or damaged from the displacement of mulch shall be repaired prior to remulching.

### 3.7 INSPECTION AND ACCEPTANCE

- A. When seeding work is complete and an acceptable stand of growth is attained, the Contractor shall request the Owner's Representative to inspect to determine final acceptance.
- B. Acceptance shall be based upon achieving a vigorous uniformly stand of the specified grasses. If some areas are satisfactory and some are not, acceptance may be made in blocks, provided they are definable or bounded by readily identified permanent surfaces, structures, or other reference means. The Owner's Representative may make partial acceptance decisions. Excessive fragmentation into accepted and unaccepted areas shall not be allowed. Unaccepted areas shall be maintained by the Contractor until acceptable.
- C. No payment shall be made until areas are accepted.
- D. All seeded areas shall be guaranteed for one full growing season to commence upon final acceptance of the areas.

END OF SECTION 020610

## SECTION 024116 - BUILDING DEMOLITION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes the following:
  - 1. Demolition and removal of buildings.
  - 2. Demolition and removal of structures.
  - 3. Demolition and removal of site improvements.
  - 4. Disconnecting, capping or sealing, and abandoning site utilities in place.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
  - 1. Division 1 Section "Contract Closeout" for record document requirements.

#### 1.3 DEFINITIONS

- A. Remove: Remove and legally dispose of items except those indicated to be reinstalled, salvaged, or to remain the Owner's property.
- B. Remove and Salvage: Items indicated to be removed and salvaged remain the Owner's property.
- C. Existing to Remain: Protect construction indicated to remain against damage and soiling during demolition. When permitted by the Engineer, items may be removed to a suitable, protected storage location during demolition and then cleaned and reinstalled in their original locations.

#### 1.4 MATERIALS OWNERSHIP

- A. Except for items or materials indicated to be reused, salvaged, or otherwise indicated to remain the Owner's property, demolished materials shall become the Contractor's property and shall be removed from the site with further disposition at the Contractor's option.

#### 1.5 SUBMITTALS

- A. General: Submit each item in this Article according to the Conditions of the Contract and Division 1 Specification Sections, for information only, unless otherwise indicated.
- B. Proposed dust-control measures.

- C. Proposed noise-control measures.
- D. Schedule of demolition activities indicating the following:
  - 1. Detailed sequence of demolition and removal work, with starting and ending dates for each activity.
  - 2. Dates for shutoff, capping, and continuation of utility services.
- E. Inventory of items to be removed and salvaged.
- F. Photographs or videotape, sufficiently detailed, of existing conditions of adjoining construction and site improvements that might be misconstrued as damage caused by demolition operations.
- G. Record drawings at Project closeout according to Division 1 Section "Contract Closeout."
  - 1. Identify and accurately locate capped utilities and other subsurface structural, electrical, or mechanical conditions.
- H. Landfill records for record purposes indicating receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.

#### 1.6 QUALITY ASSURANCE

- A. Demolition Firm Qualifications: Engage an experienced firm that has successfully completed demolition Work similar to that indicated for this Project.
- B. Regulatory Requirements: Comply with governing EPA notification regulations before starting demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- C. Predemolition Conference: Conduct conference at Project site to comply with preinstallation conference requirements of Division 1 Section "Project Meetings."

#### 1.7 PROJECT CONDITIONS

- A. Buildings to be demolished will be vacated and their use discontinued before start of Work.
- B. Owner assumes no responsibility for actual condition of buildings to be demolished.
  - 1. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- C. Asbestos: Asbestos is present in the building or structure to be demolished. A report on the presence of asbestos is on file for review and use. Examine the report to become aware of locations where asbestos is present.

It is required that the demolition contractor due to quantity of asbestos containing materials remaining in building, conduct personal exposure monitoring on their employees during the demolition activities. Remaining asbestos material are non-friable and in good condition and not regulated by EPA.

1. Asbestos abatement is specified elsewhere in the Contract Documents.
2. Do not disturb asbestos or any material suspected of containing asbestos except under the procedures specified elsewhere in the Contract Documents.

D. Storage or sale of removed items or materials on-site will not be permitted.

## 1.8 SCHEDULING

A. Arrange demolition schedule so as not to interfere with Owner's on-site operations.

## PART 2 - PRODUCTS (Not Applicable)

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Verify and certify in writing that utilities have been disconnected and capped. Photos of all influent and discharge lines that are disconnected and capped must be submitted to the Engineer before final acceptance of the work.
- B. Survey existing conditions and correlate with requirements indicated to determine extent of demolition required.
- C. Inventory and record the condition of items to be removed and salvaged.
- D. Survey the condition of the building to determine whether removing any element might result in a structural deficiency or unplanned collapse of any portion of the structure or adjacent structures during demolition.
- E. Perform surveys as the Work progresses to detect hazards resulting from demolition activities.

### 3.2 UTILITY SERVICES

- A. Maintain existing utilities indicated to remain in service and protect them against damage during demolition operations.
  1. Do not interrupt existing utilities serving adjacent occupied or operating facilities, except when authorized in writing by Owner and authorities having jurisdiction. Provide temporary services during interruptions to existing utilities, as acceptable to Owner and to governing authorities.

2. All utility interruptions shall use safe “Lock out/Tag out” procedures and shall be incorporated into the Prime Contractor’s submitted schedule.
- B. Utility Requirements: Locate, identify, disconnect, and seal or cap off indicated utility services serving structures to be demolished.
1. Arrange to shut off indicated utilities with utility companies.

### 3.3 PREPARATION

- A. Drain, purge, or otherwise remove, collect, and dispose of chemicals, gases, explosives, acids, flammables, or other dangerous materials before proceeding with demolition operations.
- B. Remove all waste, water and or sludge form all lines, tanks and process equipment and dispose of these materials in accordance with Federal, State and Local regulations.
- C. Employ a certified, licensed exterminator to treat building and to control rodents and vermin before and during demolition operations.
- D. Conduct demolition operations and remove debris to ensure minimum interference with roads, streets, walks, and other adjacent occupied and used facilities.
1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.
- E. Conduct demolition operations to prevent injury to people and damage to adjacent buildings and facilities to remain. Ensure safe passage of people around demolition area.

### 3.4 EXPLOSIVES

- A. Explosives: Use of explosives will not be permitted.

### 3.5 POLLUTION CONTROLS

- A. Use water mist, temporary enclosures, and other suitable methods to limit the spread of dust and dirt. Comply with governing environmental protection regulations.
1. Do not create hazardous or objectionable conditions, such as ice, flooding, and pollution, when using water.
- B. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
1. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level.

### 3.6 DEMOLITION

- A. Building Demolition: Demolish buildings completely and remove from the site. Use methods required to complete Work within limitations of governing regulations and as follows:
  - 1. Locate demolition equipment throughout the building and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
  - 2. Dispose of demolished items and materials promptly. On-site storage or sale of removed items is prohibited.
  - 3. Break up and remove concrete slabs on grade, unless otherwise shown to remain. Break up and remove asphalt paving in areas shown on Drawing D001.
- B. Below-Grade Construction: Demolish foundation walls and other below-grade construction, as follows:
  - 1. Completely remove below-grade construction, including foundation walls and footings.
- C. Below-grade filling
- D. Filling Below-Grade Areas: Completely fill below-grade areas and voids resulting from demolition of buildings, foundations, pavements, utility excavations, etc. with soil materials according to requirements specified in Specification 312000-Earthwork.
- E. Damages: Promptly repair damages to adjacent facilities caused by demolition operations.

### 3.7 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.
- B. Burning: Do not burn demolished materials.
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

END OF SECTION 024116

## SECTION 312000 - EARTHWORK

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
  1. Excavating and filling for rough grading the Site.
  2. Excavating and backfilling for buildings and structures.
  3. Excavating and backfilling trenches for utilities and pits for buried utility structures.

#### 1.3 DEFINITIONS

- A. Backfill: Soil material or controlled low-strength material used to fill an excavation.
- B. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.
- C. Excavation: Removal of material encountered below slabs and to lines and dimensions indicated.
  1. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by Architect. Unauthorized excavation, as well as remedial work directed by Architect, shall be without additional compensation.
- D. Fill: Soil materials used to raise existing grades.
- E. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- F. Utilities: On-site underground pipes, conduits, ducts, and cables as well as underground services within buildings.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified testing agency.

- B. Material Test Reports: For each on-site and borrow soil material proposed for fill and backfill as follows:
  - 1. Classification according to ASTM D2487.
  - 2. Laboratory compaction curve according to ASTM D698 or ASTM D1557.

## 1.5 FIELD CONDITIONS

- A. Utility Locator Service: Notify OUPS for area where Project is located before beginning earth-moving operations.

## PART 2 - PRODUCTS

### 2.1 SOIL MATERIALS

- A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.
- B. Satisfactory Soils: Soil Classification Groups GW, GP, GM, SW, SP, and SM according to ASTM D2487.
- C. Unsatisfactory Soils: Soil Classification Groups GC, SC, CL, ML, OL, CH, MH, OH, and PT according to ASTM D2487.
  - 1. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.
- D. Engineered Fill: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940/D2940M; with at least 90 percent passing a 1-1/2-inch (37.5-mm) sieve and not more than 12 percent passing a No. 200 (0.075-mm) sieve.
- E. Impervious Fill: Clayey gravel and sand mixture capable of compacting to a dense state.

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Protect main entrance drive and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth-moving operations.
- B. Protect and maintain erosion and sedimentation controls during earth-moving operations.
- C. Protect subgrades and foundation soils from freezing temperatures and frost. Remove temporary protection before placing subsequent materials.



### 3.2 EXPLOSIVES

- A. Explosives: Do not use explosives.

### 3.3 EXCAVATION, GENERAL

- A. Unclassified Excavation: Excavate to below lower-level floor slabs.

### 3.4 STORAGE OF SOIL MATERIALS

- A. Stockpiles borrow soil materials and excavate satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
  1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

### 3.5 BACKFILL

- A. Place and compact backfill in excavations promptly, but not before completing the following:
  1. Construction below finish grade including, where applicable, subdrainage, dampproofing, waterproofing, and perimeter insulation.
  2. Surveying locations of underground utilities for Record Documents.
  3. Removing trash and debris.
- B. Place backfill on subgrades free of mud, frost, snow, or ice.

### 3.6 SOIL FILL

- A. Plow, scarify, bench, or break up sloped surfaces steeper than one vertical to four horizontals so fill material will bond with existing material.
- B. Place and compact fill material in layers to required elevations as follows:
  1. Under grass and planted areas, use satisfactory soil material.
- C. Place soil fill on subgrades free of mud, frost, snow, or ice.

### 3.7 COMPACTION OF SOIL BACKFILLS AND FILLS

- A. Place backfill and fill soil materials in layers not more than eight inches (200 mm) in loose depth for material compacted by heavy compaction equipment and not more than four inches (100 mm) in loose depth for material compacted by hand-operated tampers.
- B. Place backfill and fill soil materials evenly to required elevations and uniformly along the full length of excavation.
- C. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D698.

### 3.8 GRADING

- A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
  - 1. Provide a smooth transition between adjacent existing grades and new grades.
  - 2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.
- B. Site Rough Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to elevations required to achieve indicated finish elevations, within the following subgrade tolerances:
  - 1. Turf or Unpaved Areas: Plus, or minus 1 inch (25 mm).

### 3.9 FIELD QUALITY CONTROL

- A. Special Inspections: Owner may engage a qualified special inspector to perform the following special inspections:
  - 1. Determine prior to placement of fill that site has been prepared in compliance with requirements.
  - 2. Determine that fill material classification and maximum lift thickness comply with requirements.
  - 3. Determine, during placement and compaction that in-place density of compacted fill complies with requirements.
- B. Allow testing agency to inspect and evaluate subgrades and each fill or backfill layer. Proceed with subsequent earth moving only after test results for previously completed work comply with requirements.

### 3.10 PROTECTION

- A. Repair and reestablish grades to specified tolerances were completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
  - 1. Scarify or remove and replace soil material to depth as directed by Architect; reshape and recompact.
- B. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
  - 1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

### 3.11 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Remove surplus satisfactory soil and waste materials, including unsatisfactory soil, trash, and debris, and legally dispose of them off Owner's property.

END OF SECTION 312000