

## **DIVISION 02 – EXISTING CONDITIONS**

### **02 00 00 EXISTING CONDITIONS**

#### **02 01 00 Maintenance of Existing Conditions**

- 02 01 50 Maintenance of Site Remediation
- 02 01 65 Maintenance of Underground Storage Tank Removal
- 02 01 80 Maintenance of Facility Remediation
- 02 01 86 Maintenance of Hazardous Waste Drum Handling

#### **02 05 00 Common Work Results for Existing Conditions**

- 02 05 19 Geosynthetics for Existing Conditions
  - 02 05 19.13 Geotextiles for Existing Conditions
  - 02 05 19.16 Geomembranes for Existing Conditions
  - 02 05 19.19 Geogrids for Existing Conditions

#### **02 06 00 Schedules for Existing Conditions**

- 02 06 30 Schedules for Subsurface Investigations
  - 02 06 30.13 Boring or Test Pit Log Schedule
- 02 06 50 Schedules for Site Remediation
- 02 06 65 Schedules for Underground Storage Tank Removal
- 02 06 80 Schedules for Facility Remediation
- 02 06 86 Schedules for Hazardous Waste Drum Handling

#### **02 08 00 Commissioning of Existing Conditions**

### **02 20 00 ASSESSMENT**

#### **02 21 00 Surveys**

### **SECTION 02 21 13**

#### **SITE SURVEYS**

#### CONSULTANT DESIGN GUIDE

Coordinate through Facilities Management for location of features, utilities, or other pertinent site features. In most cases a site survey will be accomplished showing the site boundaries, topography, utility and feature locations both above and below ground, and any special conditions such as R/W, easements, etc. In most cases the survey will be provided by the University through a separate contract for use by the design team. The contractor should take special care to verify the location of all identified features. Site surveys and plans that show existing trees should show drip lines and trunk locations.

#### INCLUDE IN CONSTRUCTION GUIDELINES

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EXECUTION

Layout. Employ a competent engineer or surveyor to lay out the work. Verify grades, levels and dimensions indicated on Drawings. Establish benchmarks at not less than two widely separated locations. Locate all general reference points and take such action necessary to prevent their destruction.

END SECTION

02 21 13.13 Boundary and Survey Markers

02 21 16 Measured Drawings

**02 22 00 Existing Conditions Assessment**

02 22 13 Movements and Vibration Assessment

02 22 16 Acoustic Assessment

02 22 19 Traffic Assessment

02 22 23 Accessibility Assessment

**02 24 00 Environmental Assessment**

02 24 13 Natural Environment Assessment

02 24 13.13 Air Assessment

02 24 13.43 Water Assessment

02 24 13.73 Land Assessment

02 24 23 Chemical Sampling and Analysis of Soils

02 24 43 Transboundary and Global Environmental Aspects Assessment

**02 25 00 Existing Material Assessment**

02 25 16 Existing Concrete Assessment

02 25 16.13 Concrete Assessment Drilling

02 25 19 Existing Masonry Assessment

02 25 19.13 Masonry Assessment Drilling

02 25 23 Existing Metals Assessment

02 25 23.13 Welding Investigations

02 25 26 Existing Wood, Plastics, and Composites Assessment

02 25 29 Existing Thermal and Moisture Protection Assessment

02 25 29.13 Waterproofing Investigations

02 25 29.23 Roofing Investigations

**02 26 00 Hazardous Material Assessment**

**SECTION 02 26 23**

**ASBESTOS ASSESSMENT**

## CONSULTANT DESIGN GUIDELINE

It is the intent of the University to engage a competent consultant who is knowledgeable in ACM, Lead, and other hazardous materials to investigate the project site to determine the existence of hazardous materials and quantify the amounts. The consultant will also write a plan for the abatement and removal of these materials. It is the intent of the University to engage the contractor to seek bids from competent contractors for the removal of these materials. The consultant will oversee this abatement work and provide testing that is adequate to ensure the project site is safe for the execution of other work.

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## INCLUDE IN CONSTRUCTION DOCUMENTS

Contractor shall notify Facilities Management of any areas that are suspect of containing asbestos. Facilities Management will identify and remove any asbestos containing materials.

Include Contractor's responsibilities concerning asbestos containing materials (ACM) in the existing building or systems where work is to occur.

Discovery of Asbestos Containing Materials (ACM):

Unless indicated otherwise within the construction documents, ACM's are not known to be present in the existing building or system where work is to occur.

During the construction project, the contractor shall notify the Owner of any portion of the work that the Contractor knows or has reason to believe contains asbestos. The Contractor shall take necessary precautions to prevent damage and release of asbestos fibers to the air.

## ASBESTOS CONTAINING MATERIALS AND PRODUCTS

All building construction materials, products, and equipment used in the project shall be asbestos free.

END SECTION

02 26 26 Lead Assessment

02 26 29 Polychlorinate Biphenyl Assessment

02 26 33 Biological Assessment

02 26 33.13 Mold Assessment

02 26 36 Hazardous Waste Drum Assessment

## 02 30 00 SUBSURFACE INVESTIGATION

### 02 31 00 Geophysical Investigations

02 31 13 Seismic Investigations

02 31 16 Gravity Investigations

02 31 19 Magnetic Investigations

02 31 23 Electromagnetic Investigations

02 31 26 Electrical Resistivity Investigations

02 31 29 Magnetotelluric Investigations

02 32 00 Geotechnical Investigations

**SECTION 02 32 13**

**SUBSURFACE DRILLING AND SAMPLING**

CONSULTANT DESIGN GUIDELINE

Notify the Facilities Management Construction Coordinator for soil bearing/soils analysis testing as required for project. The University intends to engage a competent Geotechnical firm to perform subsurface soil and rock conditions. The design team shall indicate on a site map the preferred locations of soil borings and other investigations as deemed beneficial. Generally, this Geotechnical Engineering firm will remain engaged to perform other testing duties as needed as the construction process progresses, i.e. soil densities, concrete testing, steel testing, etc.

INCLUDE IN CONSTRUCTION DOCUMENTS

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EXECUTION

Notification. The Contractor, upon encountering any underground water, springs, wells, etc., in the course of excavation, immediately notify the Architect and not proceed further until instructions are given.

END SECTION

02 32 16 Material Testing

02 32 19 Exploratory Excavations

02 32 23 Geotechnical Monitoring Before Construction

02 32 23.13 Groundwater Monitoring Before Construction

**02 40 00 DEMOLITION AND STRUCTURE MOVING**

**02 41 00 Demolition**

02 41 13 Selective Site Demolition

02 41 13.13 Selective Site Demolition

02 41 13.23 Utility Line Removal

02 41 13.33 Rail track Removal

02 41 16 Structure Demolition

02 41 16.13 Building Demolition

02 41 16.23 Tower Demolition

02 41 16.33 Bridge Demolition

- 02 41 16.43 Dam Demolition
- 02 41 19 Selective Structure Demolition
  - 02 41 19.13 Selective Building Demolition
- 02 41 91 Selective Historic Demolition

#### **02 42 00 Removal and Salvage of Construction Materials**

- 02 42 91 Removal and Salvage of Historic Construction Materials

#### **02 43 00 Structure Moving**

- 02 43 13 Structure Relocation
  - 02 43 13.13 Building Relocation
- 02 43 16 Structure Raising
  - 02 43 16.13 Building Raising

#### **INCLUDE IN CONSTRUCTION DOCUMENTS**

Contact the Facilities Management Construction Coordinator for information on building razing before doing any work. The buildings, structures or other objects should be free from ACM, lead, or other hazardous materials before demolition begins. All utilities should be disconnected at the proper demark points. If the contractor suspects they are not hazard free for any reason, he should contact the Construction Coordinator.

#### **02 50 00 SITE REMEDIATION**

- 02 51 00 Physical Decontamination
  - 02 51 13 Coagulation and Flocculation Decontamination
  - 02 51 16 Reverse-Osmosis Decontamination
  - 02 51 19 Solidification and Stabilization Decontamination
  - 02 51 23 Mechanical Filtration Decontamination
  - 02 51 26 Radioactive Decontamination
  - 02 51 29 Surface Cleaning Decontamination
    - 02 51 29.13 High-Pressure Water Cleaning Decontamination
    - 02 51 29.16 Vacuum Sweeping Cleaning Decontamination
  - 02 51 33 Surface Removal Decontamination
    - 02 51 33.13 Surface Removal Decontamination by Grinding
    - 02 51 33.16 Surface Removal Decontamination by Sand Blasting
    - 02 51 33.19 Surface removal Decontamination by Ultrasound

#### **02 52 00 Chemical Decontamination**

- 02 52 13 Chemical Precipitation Decontamination
- 02 52 16 Ion Change Decontamination
- 02 52 19 Neutralization Decontamination

#### **02 53 00 Thermal Decontamination**

- 02 53 13 Incineration Decontamination
  - 02 53 13.13 Remediation of Contaminated Soils and Sludges by Incineration
- 02 53 16 Thermal Desorption Decontamination
  - 02 53 16.13 Remediation of Contaminated Soils by Thermal Desorption
- 02 53 19 Vitrification Decontamination

## **02 54 00 Biological Decontamination**

02 54 13 Aerobic Processes Decontamination

02 54 16 Anaerobic Processes Decontamination

02 54 19 Bioremediation Decontamination

02 54 19.13 Bioremediation Using Landfarming

02 54 19.16 Bioremediation of Soils Using Windrow Composting

02 54 19.19 Bioremediation Using Bacteria Injection

02 54 23 Soil Washing through Separation/Solubilization

02 54 26 Organic Decontamination

## **02 55 00 Remediation Soil Stabilization**

02 56 00 Site Containment

02 56 13 Waste Containment

02 56 13 Waste Containment

02 56 13.13 Geomembrane Waste Containment

02 56 19 Gas Containment

02 56 19.13 Fluid-Applied Gas Barrier

## **02 57 00 Sinkhole Remediation**

02 57 13 Sinkhole Remediation by Grouting

02 57 13.13 Sinkhole Remediation by Compaction Grouting

02 57 13.16 Sinkhole Remediation by Cap Grouting

02 57 16 Sinkhole Remediation by Backfilling

## **02 58 00 Snow Control**

02 58 13 Snow Fencing

02 58 16 Snow Avalanche Control

## **02 60 00 CONTAMINATED SITE MATERIAL REMOVAL**

02 61 00 Removal and Disposal of Contaminated Soils

02 61 13 Excavation and Handling of Contaminated Material

02 61 23 Removal and disposal of Polychlorinate Biphenyl Contaminated Soils

02 61 26 Removal and Disposal of Asbestos Contaminated Soils

02 61 29 Removal and Disposal of Organically contaminated Soils

## **02 62 00 Hazardous Waste Recovery Processes**

02 62 13 Air and Steam Stripping

02 62 16 Soil Vapor Extraction

02 62 19 Soil Washing and Flushing

## **02 65 00 Underground Storage Tank Removal**

## **02 66 00 Landfill Construction and Storage**

## **02 70 00 WATER REMEDIATION**

## **02 71 00 Groundwater Treatment**

### **02 72 00 Water Decontamination**

02 72 13 Chemical Water Decontamination

02 72 16 Biological Water Decontamination

02 72 19 Electrolysis Water Decontamination

## **02 80 00 FACILITY REMEDIATION**

### **02 81 00 Transportation and Disposal of Hazardous Materials**

### **02 82 00 Asbestos Remediation**

#### **02 82 13 Asbestos Abatement**

## **CONSULTANT DESIGN GUIDE**

It is the intent of the University to engage the General Contractor to seek bids from competent contractors for the removal of these materials using the plan and scope documents provided by the Hazardous Materials Consultant. The Hazardous materials consultant will oversee this abatement work and provide testing that is adequate to ensure the project site is safe for the execution of other work. In the event ACM is found during the course of the work, the General Contractor and his sub-contractors should immediately stop work and secure the area. Either University personnel who are specially trained, or the General Contractor's sub-contractor for hazardous materials will promptly deal with the hazard.

02 82 13.13 Glovebag Asbestos Abatement

02 82 13.16 Precautions for Asbestos Abatement

02 82 13.19 Asbestos Floor Tile and Mastic Abatement

02 82 16 Engineering Control of Asbestos Containing Materials

02 82 33 Removal and Disposal of Asbestos Containing Materials

### **02 83 00 Lead Remediation**

It is the intent of the University to engage the General Contractor to seek bids from competent contractors for the removal of these materials using the plan and scope documents provided by the Hazardous Materials Consultant. The Hazardous materials consultant will oversee this abatement work and provide testing that is adequate to ensure the project site is safe for the execution of other work. In the event lead is found during the course of the work, the General Contractor and his sub-contractors should immediately stop work and secure the area. Either University personnel who are specially trained, or the General Contractor's sub-contractor for hazardous materials will promptly deal with the hazard.

02 83 13 Lead Hazard Control Activities

02 83 19 Lead-Based Paint Remediation

02 83 19.13 Lead-Based Paint Abatement

02 83 33 Removal and Disposal of Material Containing Lead  
02 83 33.13 Lead-Based paint Removal and Disposal

**02 84 00 Polychlorinate Biphenyl Remediation**

02 84 16 Handling of Lighting Ballasts and Lamps Containing PCBs and Mercury  
02 84 33 Removal and Disposal of Polychlorinate Biphenyls

**02 85 00 Mold Remediation**

02 85 13 Precautions for Mold Remediation  
02 85 16 Mold Remediation Preparation and Containment  
02 85 19 Mold Remediation Clearance Air Sampling  
02 85 33 Removal and Disposal of Materials with Mold

**02 86 00 Hazardous Waste Drum Handling**