SECTION 01 35 16 – ALTERATION PROJECT PROCEDURES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

B. Specifications throughout all Divisions of the Project Manual are directly applicable to this Section, and this Section is directly applicable to them.

1.02 SUMMARY

A. Basic and supplemental requirements for Work that alters existing facility components, systems or equipment.

1.03 REFERENCE STANDARDS

A. The latest published edition of a reference shall be applicable to this Project unless identified by a specific edition date.

B. All reference amendments adopted prior to the effective date of this Contract shall be applicable to this Project.

C. All materials, installation and workmanship shall comply with the applicable requirements and standards addressed within the Contract Documents.

1.04 DEFINITIONS

A. Cutting: Removal of in-place construction necessary to permit installation or performance of other Work.

B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other Work.

C. Demolish: Completely remove and legally dispose of off-site.

D. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.

E. Remove and Salvage: Detach items from existing construction and deliver them to Owner [ready for reuse].

F. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.

G. Salvage: Carefully detach from existing construction, in a manner to prevent damage, and deliver to Owner [ready for reuse]. Include fasteners or brackets needed for reattachment elsewhere.

H. Recycle: Recovery of demolition waste for subsequent processing in preparation for reuse.

I. Existing to Remain: Existing functional items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

J. Sensitive Area: The following areas are considered “Sensitive” by MD Anderson Cancer Center:

1. Sensitive Areas listed apply to human and animal occupancies.

2. Additional areas may also be considered Sensitive as determined by MD Anderson Cancer Center for a particular project. The Contractor shall coordinate with the Owner’s Project Manager prior to any installation Work to identify Sensitive Areas not listed.

a. Operating Rooms

b. Invasive Procedure Rooms

c. Bone Marrow Transplant / Protective Environment Areas

d. Intravenous Procedure Rooms (Chemotherapy)

e. Intensive Care

f. Inpatient Recovery Rooms

g. Sterile Supply Storage

h. Sterile Processing

i. Pharmacy I V Admixture

j. Pharmacy Drug Preparation

k. Pharmacy Drug Storage

l. Food Preparation, Storage, Serving

m. Data Centers

n. Electrical Equipment Rooms

o. Telecommunication Rooms

p. Potable Water Storage Tanks

q. Any Room Containing Imaging Equipment that May be Damaged Due to Water Leakage (MRI, Cat Scan, Etc.)

r. Animal Holding Rooms

s. Animal Procedure Rooms

t. Laboratory Clean Rooms

1.05 QUALITY ASSURANCE

A. Perform remodeling, alteration, demolition, cutting, patching, removal, refinishing, relocation, and disposal work in accordance with Federal, State, and local health and safety standards, codes, ordinances, and the University of Texas MD Anderson Cancer Center Institutional Safety Policies. Where conflicts occur, comply with the more restrictive requirements.

B. Perform remodeling, alteration, demolition, cutting, patching, removal, refinishing, and relocation work in such a manner as to preserve the aesthetic and structural integrity of materials and construction.

C. When the Contractor determines that it is unavoidable to locate new fan coil units, drainage piping, or waste piping above a Sensitive Area, the Contractor shall notify the Owner's Project Manager in writing and obtain a clear direction to proceed prior to any installation of Work.

D. When the Contractor determines that an existing penetration cannot be sealed due to accessibility, constructability or any other condition, the Contractor shall notify the Owner's Project Manager in writing and obtain a clear direction to proceed prior to any installation of Work.

E. When the Contractor determines that an existing fan coil unit cannot be relocated beyond the perimeter of a Sensitive Area, the Contractor shall notify the Owner's Project Manager in writing and obtain a clear direction to proceed prior to any installation of Work.

F. Portions of the existing remaining medical vacuum and gas systems affected by Work within this Project shall be re-certified in strict accordance with NFPA 99.

1.06 SUBMITTALS

A. Submit schedule for all proposed shut-downs prior to start of Work. The Contractor shall notify the Owner's Construction Inspector and the Owner's Project Manager, in writing, of any planned utility outages in accordance with Owner's Special Conditions.

B. Work with noise-producing equipment is subject, at all times, to Owner's approval of entire procedure. Submit a schedule of all such operations to the Owner's Project Manager at least two weeks in advance of need and secure approval of the Owner before proceeding.

1.07 NEW AND EXISTING PENETRATIONS

A. All new and existing penetrations through rated partitions and floor slabs within the Project boundary shall be sealed to provide a fire/smoke rating equal to or greater than the rating of the floor slab.

B. All new and existing penetrations through floor slabs within the Project boundary shall be sealed watertight.

1.08 EXISTING COMPONENTS ABOVE SENSITIVE AREAS

A. All existing sanitary waste, sanitary vent and storm drainage piping located within the ceiling or exposed above a Sensitive Area shall be provided with heavy-duty joint connections having a minimum 15 psi pressure rating and meeting the performance criteria of Factory Mutual 1680.3.

B. All existing piping located within the ceilings or exposed above a Sensitive Area receiving cooling coil condensate, ice machine drainage or conveying contents having temperatures below 55 degrees F shall be insulated and vapor sealed to prevent condensation.

C. Existing fan coil units located within the ceiling or exposed above a Sensitive Area shall be relocated to a position beyond the Sensitive Area.

1.09 JOB CONDITIONS

A. Visit the Project Site to determine by inspection all existing conditions, including access to the Site, the nature of structures, objects, and materials to be encountered, and all other facts concerning or affecting the Work. Information on the Drawings showing existing conditions does not constitute a guarantee that other items may not be found or encountered.

B. Obvious existing conditions, installations, and obstructions affecting work of this Section shall be taken into consideration as necessary work and included as part of work of this Section, the same as though completely shown or described.

C. Seal off areas in which work is in progress from the occupied portions of the building to prevent entry of dust and noise into occupied portions of the building. Take all necessary measures to limit the amount of dust and dirt rising and scattering in the air to the lowest practical level.

   1. Where Work occurs immediately adjacent to occupied portions of the building, construct dust-proof partitions of nominal 3-5/8 inch metal studs with 5/8-inch Type X drywall, full height on both sides. Tape joints on the occupied side at non-fire rated partitions. Tape both sides full height at fire rated partitions. Fill partition cavity with sound-deadening insulation.

   2. Equip partitions with dustproof doors and security locks.

D. If temporary closures block required exits, provide closures with acceptable openings equipped with gasketed, self-closing doors that open in the direction of exit as approved by authorities having jurisdiction.

E. Provide temporary barricades and other forms of protection to protect Owner's personnel and general public from injury due to remodeling work.

   1. Provide protective measures as required to provide free and safe passage of Owner's personnel and general public to occupied portions of building.

   2. Erect temporary covered passageways as required by authorities having jurisdiction.

   3. Provide interior and exterior shoring, bracing, or support to prevent movement, settlement, or collapse of structure or element to be demolished and adjacent facilities or work to remain.

   4. Protect from damage existing finish work that is to remain in place and becomes exposed during remodeling operations.

   5. Protect floors with suitable coverings when necessary.

   6. Cover and protect furniture, equipment, and fixtures from soilage or damage when demolition work is performed in areas where such items have not been removed.

   7. Provide temporary weather protection during interval between demolition and removal of existing construction on exterior surfaces and installation of new construction to ensure that no water leakage or damage occurs to structure or interior areas of existing building.

   8. Remove protections at completion of work.

F. Furnish and maintain temporary types of protection as necessary to adequately protect and prevent accidental injury to the public, Owner's personnel and personnel employed at the work. Take all necessary precautions to keep trespassers out of work areas. Properly secure work areas from entry when work is not in progress.

G. Conduct demolition and removal operations and the removal of debris to ensure minimum interference with roads, streets, walks, and other adjacent occupied or used facilities. Do not close or obstruct streets, walks, or other occupied or used facilities without permission from authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.

1.10 TEMPORARY ELEVATOR USE

A. Designated existing elevators may be used by construction personnel and for materials. Coordinate use with Owner. Provide protective coverings for finish surfaces of cars and entrances.

1.11 EXISTING UTILITIES AND CONDITIONS

A. The location and description of utilities and conditions shown on Drawings are indicated from information available and are approximate only. Verify existing utilities and conditions.

B. Protect existing utilities and conditions from damage. Repairs to utilities and conditions damaged during the Work shall be the responsibility of the Contractor and shall be made promptly at no additional cost to the Owner.

C. Maintain existing utilities in operation at all times except where specific permission is given by Owner's Project Manager. Support and protect all exposed piping and utilities during demolition and utility rough-in.

D. All outages of utilities, sidewalks, parking areas, driveways or facility access shall be scheduled in advance with Owner in accordance with Owner's Planned Utility Outage Procedure as specified within Section 00 25 00 – Owner's Special Conditions.

E. Notify the Owner's Project Manager and all concerned parties prior to disconnecting and terminating abandoned utilities.

1.12 REMOVAL OF EXISTING CONSTRUCTION

A. Where permanently disconnecting domestic water, medical vacuum, medical gas, natural gas, treated water, drainage, vent, or other piping serving removed fixtures, inlets, outlets or equipment, remove all associated piping back to remaining active mains.

B. All existing floor drains that will not remain in service after Project completion shall be isolated from the remaining active building drainage and vent system. Floor drain bodies remaining within slabs shall be sealed watertight. Slab shall be finished to allow specified application of flooring or to match surface of the adjacent finished area. Completed patching of the slab shall prevent the passage of water and provide a structural integrity and fire rating equal to or greater than the existing slab. Remove all associated piping serving decommissioned floor drains located in suspended slabs back to remaining active mains.

C. All existing wall penetrations that will be unused due to removal of piping shall be permanently sealed to maintain the fire rating of the wall or floor.

D. All existing floor penetrations that will be unused due to removal of piping shall be permanently sealed to maintain the fire rating of the floor and to provide a watertight seal.

E. All existing supports serving removed piping, duct, conduit and equipment shall be removed.

F. Carefully remove and store all items indicated or required to be reused.

G. Perform demolition and removal work completely and remove debris from the Site. Use such methods as required to complete the Work within the limitations of governing regulations.

1. Proceed with demolition and removal work in a systematic manner, from the top to the bottom in areas indicated.

2. Remove debris in covered carts to limit air pollution.

3. Locate demolition equipment throughout the structure and remove materials so as to not impose excessive loads to supporting walls, floors, or framing.

4. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.

H. Fire, Smoke and Fire/Smoke Dampers

1. When the Engineer and Owner's Environmental Health and Safety (EH&S) Department have determined that an existing fire, smoke, or fire/smoke damper is no longer required, the damper shall be decommissioned and removed from the Project site.

a. Disconnect operational and monitoring services and associated accessories.

b. Record and submit to Owner the device location, identification information, and monitoring connections.

2. Where complete removal is not an option, Contractor shall propose an alternate method of decommissioning, to be approved by EH&S. Such dampers shall be physically tagged stating that they have been decommissioned.

I. Cutting:

1. Structural Elements: If not specifically shown, but removal or alteration is required, perform such removal or alteration only upon written approval of the Architect/Structural Engineer. Do not damage or alter any structural element of the existing building. Where drilling or fastening to post-tensioned reinforced concrete construction is required, X-ray existing structure to determine tendon locations and potential for tendon tension release before proceeding. Notify Architect/Structural Engineer in each instance when conflict occurs. Architect/Structural Engineer will determine corrective action required. Do not proceed until corrective action has been received.

2. Concrete: Saw cut where exposed to view. Jack hammering with electric or pneumatic equipment is acceptable only with scheduled approval of Owner.

3. Masonry: Cut back masonry to joint lines and remove old mortar allowing space for repairs.

4. Ceramic, Structural Clay Tile, and Quarry Tile: Saw cut to natural joint lines; remove so that repairs or continuations of new work will be relatively imperceptible.

5. Resilient Tiles: Remove in whole units to natural breaking points and/or straight joint lines with no damaged or defective existing tiles remaining where joining new construction.

6. Plaster: Cut back to sound plaster on straight lines, and back bevel edges of remaining plaster. Trim and prepare existing lath for tying of new lath.

7. Woodwork: Cut back to a joint or panel line.

8. Existing Doors, Frames, and Sash: Remove in such manner as to facilitate filling in of openings or installation of new work, as required by the Drawings.

9. Cutting for Access to Mechanical and Electrical Systems: Removal of existing ceilings and the removal, cutting, and patching and replacement of existing walls and floors as may be necessary for access to valves, piping, conduit, and tubing by mechanical and electrical trades shall be included and performed as an obligation of, and as directed by the Contractor and accepted by the Owner.

J. Patching, Repairing, and Finishing Existing Work:

1. Perform in compliance with the applicable requirements of the Specification technical Section covering the work to be performed and the requirements of this Section.

   a. All holes and damaged areas exposed to view in ceilings, walls, and floors of all finished spaces shall be repaired. Repaired construction shall match existing adjacent construction and finish, unless otherwise indicated or specified.

   b. Minor surface abrasions, small nail holes, cracks, aged checked natural wood finish and other similar deterioration not visible, when viewed under finished lighting conditions, from a distance of 6 inches will not be required to be repaired if the base material is sound and suitable to receive the scheduled finishes, if any.

   c. Interior penetration holes in walls and ceilings of unfinished spaces and spaces not exposed to view shall be grouted and sealed with accepted materials to equal the sound seal and fire resistance rating of original construction.

   d. Penetration holes through exterior walls above grade shall be grouted and sealed as required to produce a weather tight seal.

   e. Penetration holes through exterior walls below grade shall be grouted and sealed to produce a watertight seal.

2. Concrete: Edges of existing concrete shall be kept damp for 24 hours and scrubbed with neat portland cement grout just before new concrete is placed; in lieu thereof, an accepted epoxy concrete adhesive may be used. Finish shall match existing adjoining work. Unless otherwise specified, all concrete for patching shall be 3,000 psi concrete. Reinforcing bars and dowels shall be provided where required. Where installation of concrete is impracticable, the openings shall be filled with dry packed non-shrink grout as directed.

3. Masonry: Patch with sound whole units to match existing. Joints shall match adjoining surfaces.

4. Lath: Lath areas to be patched as required, install as required for new lath, and wire-tie to existing lath at edges at 6 inch (15.2 cm) intervals. Lap lath 3 inch (7.6 cm) minimum.

5. Plaster: Dampen edges of existing plaster. Plaster patching shall be 3 coat work of type, thickness, and finish to match the existing work.

6. Damages: Promptly repair damages to adjacent facilities caused by demolition and removal operations at no additional cost to the Owner.

7. Painting and Finishing:

   a. Preparation: Prepare patched areas as required for new work. Wash areas to be repainted with neutral soap or detergent, thoroughly rinse, and sand when dry. Feather remaining paint edges smooth with sandpaper.

   b. Painting and Finishing: Conform to the applicable provisions of Painting Section. Prepare and build up bare areas and patches in existing painted surfaces with proper primer and intermediate coats, sand smooth and flush with adjoining surfaces. Paint all areas scheduled to be painted and/or repainted as specified in Painting Section of the Specifications, except the first or primer coat may be omitted on existing painted surfaces.

K. Disposal of Debris: Clean up all material, debris, and rubbish resulting from remodeling work, remove from the building and Site, and legally dispose of. Leave all areas of work in “broom clean” condition.

   1. All debris shall be transported out of the building in covered carts with no materials extending above the cart rim.

PART 2 - PRODUCTS

2.01 GENERAL

A. All materials shall meet or exceed all applicable referenced standards, federal, state and local requirements, and conform to codes and ordinances of authorities having jurisdiction.

B. Matching Existing Work: Except where otherwise specifically indicated or specified as a definite change, the finish materials and appearance of the new work shall match the existing contiguous materials and finishes in all respects. Repairs and/or continuations of existing work shall be relatively imperceptible in the finished work when viewed under finished lighting conditions from a distance of 6 feet (1.8 meters).

PART 3 - EXECUTION

3.01 SEQUENCING AND SCHEDULING

A. Schedule Work so as to impose a minimum of hardship on the present operation of the facilities and the performance of the work of other trades.

B. Maintain existing utilities indicated to remain; keep in service and protect against damage during demolition and removal operations.

C. Do not interrupt existing utilities serving occupied or used facilities, except when authorized in writing by Owner. Provide temporary services during interruptions to existing utilities, as acceptable to the governing authorities.

3.02 POST DEMOLITION CONFERENCE

A. Coordinate, schedule and conduct post demolition meetings prior to installation of new Work.

1. Purpose: Communicate existing conditions revealed by demolition that are not identified on Contract Drawings. Determine scope, cost and schedule impacts and obtain a clear direction to proceed.

2. Attendees: Contractor, Owner's Project Manager, Architect/Engineer.

3.03 INSTALLATION

A. Check Drawings carefully and thoroughly investigate existing building construction.

B. Protect work to remain from damage. Use barricades, tarpaulins, temporary walls, plywood, planking, masking, and other suitable means and methods as accepted.

1. Restore accidental or careless damage to work to remain in place to a condition as good as or better than existed before work was commenced and at no additional cost to the Owner.

C. Provide all shoring and bracing necessary to positively protect existing elements of the building. Use material adequate to support anticipated loads with a properly calculated margin of safety. Provide for transfer of stresses to successively lower construction.

D. All work must be staged and performed so that disruption to occupied areas is minimized and so that these areas are available and suitable for their intended use during normal hours of operation. Any work that would incur excessive noise, dust, or disruption must be scheduled in advance with the Owner's Project Manager.

E. Carefully remove and replace items of existing construction indicated to remain upon completion of the Contract, but which require removal to complete the work. Match condition of construction prior to the start of the Work unless otherwise required. Carefully remove items indicated for relocations in new Work, or to be retained by Owner, to avoid damage, thoroughly clean, and reinstall as indicated or store as directed.

F. Items of salvable value to the Contractor may be removed from the structure as the work progresses. Salvaged items must be transported from the Project Site as they are removed. Storage or sale of removed items on the Project Site will not be permitted.

1. Remove and dispose of all demolition materials, equipment and debris off premises, unless identified for salvage on the drawings. Deliver salvaged items to a location within a 5 mile radius of UTMDACC as directed by the Owner's Project Manager. Protect and store all items identified for reuse. Contractor assumes no salvage value for items removed and not reused in the Project.

END OF SECTION 01 35 16