SECTION 02225

DEMOLITION

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Building demolition including requirements of Sections 02080, 02085, 02097, 02098 and 02099.

B. Selective demolition of built site elements.

C. Selective demolition of building elements for alterations purposes.

D. Abandonment and removal of existing utilities and utility structures.

E. All work indicated on Demolition Plan drawing.

1.02 RELATED REQUIREMENTS

A. Section 02310 - Grading: Topsoil removal.

B. Section 02316 - Fill and Backfill: Filling holes, pits, and excavations generated as a result of removal operations.

1.03 REFERENCE STANDARDS

A. 29 CFR 1926 - U.S. Occupational Safety and Health Standards.

B. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations.

1.04 SUBMITTALS

A. See Section 01350 - Submittals, for submittal procedures.

B. Demolition Firm: Company shall be same as providing work under Sections 02080, 02085, 02097, 02098 and 02099.

C. Site Plan: Showing:
   1. Vegetation removal limits.
   2. Areas for temporary construction and field offices.
   3. Areas for temporary and permanent placement of removed materials.

D. Demolition Plan: Submit demolition plan as specified by OSHA and local authorities.
   1. Indicate extent of demolition, removal sequence, bracing and shoring, and location and construction of barricades and fences.
   2. Identify demolition firm and submit qualifications.
   3. Include a summary of safety procedures.

E. Project Record Documents:
   1. Accurately record actual locations of capped and active utilities and subsurface construction.
   2. Include a summary of safety procedures.
   3. Identify demolition firm and submit qualifications.

1.05 QUALITY ASSURANCE

A. Demolition Firm Qualifications: Company specializing in the type of work required.
   1. Minimum of 5 years of documented experience.

1.06 PROJECT CONDITIONS

A. Minimize production of dust due to demolition operation; do not use water if that will result in flooding, sedimentation of public waterways or sewers, or other pollution.

B. Comply with County of Orange Demolition Permit requirements. Contractor to obtain and pay for demolition permit.

PART 2 PRODUCTS

2.01 MATERIALS

A. Fill Material: As specified in Section 02316 - Fill and Backfill

PART 3 EXECUTION

3.01 SCOPE

A. Completely remove all structures designated on the drawings.

B. Remove all paving and curbs within construction limits indicated on drawings.

C. Within area of new construction, completely remove foundation walls, footings, piping, conduit and underground structures.

D. Remove concrete slabs on grade within construction limits indicated on drawings.

E. Remove other items indicated, for relocation.

F. Fill excavations, open pits, and holes in ground areas generated as result of removals, using specified fill; compact fill as required so that required rough grade elevations do not subside within one year after completion.

3.02 GENERAL PROCEDURES AND PROJECT CONDITIONS

A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
   1. Obtain required permits.
   2. Comply with applicable requirements of NFPA 241.
   3. Use of explosives is not permitted.
   4. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
   5. Provide, erect, and maintain temporary barriers and security devices.
   6. Use physical barriers to prevent access to areas that could be hazardous to workers or the public.
   7. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
   8. Do not close or obstruct roadways or sidewalks without permit.
   9. Conduct operations to minimize obstruction of public and private entrances and exits; do not obstruct required exits at any time; protect persons using entrances and exits from removal operations.
   10. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon or limit access to their property.

B. Do not begin removal until receipt of notification to proceed from County of Orange/OC Public Works.

C. Do not begin removal until built elements to be salvaged or relocated have been removed.

D. Do not begin removal until vegetation to be relocated has been removed and specified measures have been taken to protect vegetation to remain.

E. Protect existing structures and other elements that are not to be removed.
   1. Provide bracing and shoring.
   2. Prevent movement or settlement of adjacent structures.
   3. Stop work immediately if adjacent structures appear to be in danger.

F. Minimize production of dust due to demolition operations; do not use water if that will result in flooding, sedimentation of public waterways or storm sewers, or other pollution.

G. Hazardous Materials: Comply with 29 CFR 1926 and state and local regulations.

H. Perform demolition in a manner that maximizes salvage and recycling of materials.
   1. Dismantle existing construction and separate materials.
   2. Set aside reusable, recyclable, and salvageable materials; store and deliver to collection point or point of reuse.

3.03 EXISTING UTILITIES

A. Coordinate work with utility companies; notify before starting work and comply with their requirements; obtain required permits.

B. Protect existing utilities to remain from damage.

C. Do not disrupt public utilities without permit from authority having jurisdiction.

D. Do not close, shut off, or disrupt existing life safety systems that are in use without at least 7 days prior written notification to County of Orange/OC Public Works.

E. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without 7 days prior written notification to County of Orange/OC Public Works.

F. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.

G. Remove unused underground piping, remove exposed piping, valves, meters, equipment, supports, and foundations of disconnected and abandoned utilities.

H. Prepare building demolition areas by disconnecting and capping utilities outside the demolition zone; identify and mark utilities to be subsequently reconnected, in same manner as other utilities to remain.

3.04 DEBRIS AND WASTE REMOVAL

A. Remove debris, junk, and trash from site.

B. Remove from site all materials not to be reused on site; comply with requirements of governing jurisdictions.

C. Leave site in clean condition, ready for subsequent work.

D. Clean up spillage and wind-blown debris from public and private lands.

END OF SECTION