**SCOPE OF WORK**

**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**

 A. Construction Drawings, Technical Specifications, Addenda, and general provisions of the Contract, including Contract General Conditions and Supplementary General Conditions and other Division 1 Specification Sections, apply to this Section.

**1.2 SECTION INCLUDES**

 1. Environmental protection procedures

 2. Smoke/odor control procedures

 3. Noise control procedures

 4. Dust and air pollution control procedures

 5. Hazardous materials procedures

 6. Welding and burning mitigation procedures

 7. Erosion and sediment control procedures (Storm Water Pollution Protection Plan)

 8. Disposal operations procedures

 9. Cultural resources procedures

 10. Alteration project procedures.

**1.3 SITE DECORUM**

* + - * 1. Contractor shall control the conduct of labor forces and prevent unwanted interaction initiated by workers with the [STATE AGENCY] staff or other individuals other than those associated with the project.
				2. In the event that any worker initiates unwanted interaction, uses profanity, or in the opinion of the [STATE AGENCY] Representative, conducts him/herself in an offensive or unprofessional manner, the Contractor shall immediately remove the worker from the project and replace said worker with another of equivalent technical skill at no cost to the [STATE AGENCY].
				3. All contractor personnel associated with the project shall wear shirts at all times and conduct themselves professionally in the presence of all [STATE AGENCY] guests and employees.
				4. No smoking is allowed within any [STATE AGENCY], including new buildings under construction that have reached a point in construction where the building is partially enclosed.
				5. No radios, other than 2-way communication type, will be allowed on the project site.
	1. **OWNER SUPPLIED CONTRACTOR APPLIED MATERIALS**

A Owner will supply sufficient Metals Treatment Technologies ECO Bond LBP1 lead based paint abatement stabilization coating for contractor to apply on all buildings surfaces containing LBP before the building is demolished. See MSDS Form for this material at the end of this specification section.

* 1. **DIVERTED WASTE GOAL**
		+ - 1. [STATE AGENCY] has a goal of participating in global sustainability. It is for this reason the Contractor must meet the goal of diverting 90% of the waste from the landfill and into recycling.
				2. Per AB75, and AB939, the Department of Resources Recycling and Recovery (CalRecycle), requires [STATE AGENCY] to reduce the amount of solid waste diverted to the land fill by 50%. [STATE AGENCY] will expect the successful contractor to maintain at least a 50% diversion rate.

Before the release of retention, the Contractor must submit a spreadsheet to the Project Manager similar to the attached. The contractor will also include original copies of the weight tickets with the spreadsheet. A $10,000.00 penalty will be assessed from retention if the contractor does not make this goal.

**1.6 ENVIRONMENTAL PROTECTION PROCEDURES**

 A. Environmental Protection Procedures, General: Requirements specified in this Section are in addition to those of Article 4.03 of the Contract General Conditions.

 11. During the progress of the work, keep the premises occupied in a neat and clean condition and protect the environment both on site and off site, throughout and upon completion of the construction project.

 12. In coordination with the [STATE AGENCY], develop an Environmental Protection Plan in detail and submit to [STATE AGENCY]'s Representative for approval within 7 calendar days from the date of commencement specified in the Notice to Proceed. Distribute approved plan to all employees and to all subcontractors and their employees. Environmental Protection Plan shall include, but not be limited to, the following items:

 a. Copies of required permits

 b. Proposed sanitary landfill site

 c. Other proposed disposal sites

 d. Noise Control

 e. Dust Control

 f. Erosion and Sediment Control

 g. Copies of any agreements with public or private landowners regarding equipment, materials storage, borrow sites, fill sites, or disposal sites. Such agreements made by Contractor shall be invalid if their execution causes violation of local or regional grading or land use regulations.

 B. Environmental Protection: Provide protection, operate temporary facilities and conduct construction in ways and by methods that comply with environmental regulations, and minimize the possibility that air, waterways and subsoil might be contaminated or polluted, or that other undesirable effects might result.

 1. Avoid use of tools and equipment that produce harmful noise. Restrict use of noise making tools and equipment to hours that will minimize complaints from persons or firms near the site.

 2. Comply with noise control requirements specified below.

 C. Construction Operations: All construction operations shall comply with all applicable Federal, State and local Codes, ordinances, statutes and regulations pertaining to water, air, solid waste and noise pollution. It shall be Contractor's responsibility to identify and determine necessary measures to be taken to comply with such Codes, ordinances, statutes and regulations.

 D. Definitions of Contaminants:

 1. Sediment: Soil and other debris that have been eroded and transported by runoff water

 2. Solid waste: Rubbish, debris, garbage and other discarded solid materials resulting from construction activities, including a variety of combustible and non‑combustible wastes, such as ashes, waste materials that result from construction or maintenance and repair work, leaves and tree trimmings

 3. Chemical waste: Includes petroleum products, bituminous materials, salts, acids, alkalis, herbicides, pesticides, disinfectants, organic chemicals and inorganic wastes. Some of the above may be classified as "hazardous"

 4. Sanitary wastes:

 a. Sewage: Domestic sanitary sewage

 b. Garbage: Refuse and scraps resulting from preparation, cooking, dispensing and consumption of food.

 E. Protection of Natural Resources: It is intended that the natural resources within the Project boundaries and outside the limits of permanent work performed under this Contract be preserved in their existing condition or be restored to an equivalent or improved condition upon completion of the work. Confine construction activities to areas defined by the public roads, easements, and work area limits shown on the drawings. Return construction areas to their pre‑construction elevations except where surface elevations are otherwise noted to be changed. Maintain natural drainage patterns. Conduct construction activities such that ponding of stagnant water conducive to mosquito breeding habitat will not occur at any time.

 1. Land resources protection: Do not remove, cut, deface, injure or destroy trees or shrubs outside the work area limits. Do not remove, deface, injure or destroy trees within the Project area without permission from [STATE AGENCY]'s Representative. Such improvements shall be removed and replaced, if required, by the Contractor at no change in Contract Time and Contract Sum.

 2. Landscaping protection: Protect trees that are located near the limits of Project area which may possibly be defaced, bruised or injured or otherwise damaged by the Contractor's operations. No ropes, cables or guys shall be fastened to or be attached to any existing nearby trees or shrubs for anchorages. Refer to additional requirements specified in Section 01560 - Temporary Barriers and Controls.

 c. Trimming: Refer to Section 01568 - Tree and Plant Protection.

 d. Excavations around trees: Refer to Section 01568 - Tree and Plant Protection.

 e. Repair and restoration: Repair or replace trees or other landscape feature scarred or damaged by equipment or construction operations as specified below. Repair and restoration plan shall be reviewed and approved by [STATE AGENCY]'s Representative prior to its initiation.

 3. Temporary construction:

 a. Remove all signs of temporary construction facilities such as haul roads, work areas, structures, foundations of temporary structures, stockpiles of excess or waste materials, or any other vestiges of construction as directed by the [STATE AGENCY]'s Representative.

 b. Level all temporary roads, parking areas and any other areas that have become compacted or shaped.

 c. Unpaved areas where vehicles have been operated shall receive suitable surface treatment or shall be periodically wetted down to prevent construction operations from producing dust damage and nuisance to persons and property, at no additional cost to the Trustees.

 d. Keep haul roads clear at all times of any object that creates an unsafe condition. Promptly remove any contaminants or construction materials dropped from construction vehicles. Do not drop mud and debris from construction equipment on public streets. Sweep clean turning areas and pavement entrances as necessary.

 4. Water resources: Comply with all applicable Federal, State and local Codes, ordinances, statutes and regulations pertaining to discharge (directly or indirectly) of pollutants to underground and natural waters.

 a. Perform all Work under the Contract in a manner that any adverse environmental impacts are reduced to a level that is acceptable to [STATE AGENCY]'s Representative and authorities having jurisdiction.

 b. Refer to Division 2 - Site Construction, earthwork Sections, and Civil Drawings for specific requirements on control of storm water and disposal of water from dewatering activities.

 5. Oily Substances: At all times, special measures shall be taken to prevent oily or other hazardous substances from entering the ground, drainage areas or local bodies of water in such quantities as to affect normal use, aesthetics or produce a measurable impact upon the areas. All soil or water that is contaminated with oily substances due to Contractor's operations shall be disposed of in accordance with applicable regulations, at no change in Contract Time and Contract Sum.

**1.7 SMOKE/ODOR CONTROL PROCEDURES**

 A. Smoke/Odor Control: Protect primary fresh air intakes to existing buildings from exhaust from internal combustion engines, paint and solvent fumes and other noxious fumes and vapors.

 1. Implement control methods such as snorkels from engines exhausts to 50 feet away from air intakes. Provide carbon filters on air intakes as necessary, including periodic replacement of filters to ensure effectiveness.

 2. All other activities generating fumes shall be limited to minimum distance of 50 feet from air intake grilles.

 3. If fume-generating procedures must occur within 50 feet of an air intake, Contractor shall do the following:

 a. Notify [STATE AGENCY]'s Representative at least 14 calendar days in advance of such activities.

 b. Perform Work when it least impacts the [STATE AGENCY] (evenings, weekends or particularly windy days).

 c. Provide carbon filter media, plastic barriers, or other control methods to ensure fresh air only enters into the building ventilation system.

**1.8 NOISE CONTROL PROCEDURES**

 A. Noise Control Procedures, General: Requirements of this Section are in addition to those of Article 4.03 of the Contract General Conditions. Maximum noise levels within 1,000 feet of classrooms, laboratories, residences, businesses, adjacent buildings and other populated areas:

 1. Noise levels for trenchers, pavers, graders and trucks: Not exceeding 90 dBA at 50 feet as measured under noisiest operating conditions.

 2. Noise levels for all other equipment: Not exceeding 85 dBA at 50 feet.

 B. Noise Control of Equipment:

 1. Equip jackhammers with exhaust mufflers and steel muffling sleeves.

 2. Use air compressors of a quiet type such as a "whisperized" compressor. Compressor hoods shall be closed while equipment is in operation.

 3. Use electrically-powered rather than gasoline or diesel powered fork‑lifts.

 4. Provide portable noise barriers around jack hammering, with barriers constructed of 3/4 inch plywood lined with 1-inch thick duct liner type fiberglass on Work side.

 C. Noise Control of Construction Operations:

 1. Keep noisy equipment as far as possible from noise‑sensitive site boundaries.

 2. Machines shall not be left idling.

 3. Use electric power in lieu of internal combustion engine power whenever possible.

 4. Maintain equipment properly to reduce noise from excessive vibration, faulty mufflers, or other sources. All engines shall have properly functioning mufflers.

 D. Scheduling of Noisy Operations: Schedule construction activities to minimize time of noisy operations and disruption to occupants of adjoining facilities. Notify [STATE AGENCY]'s Representative in advance of performing Work creating unusual noise and schedule such Work at times mutually agreeable.

 E. Accessory Noise: Do not play radios, tape recorders, televisions, and other similar items at construction site.

**1.9 DUST AND AIR POLLUTION CONTROL PROCEDURES**

 A. Dust and Air Pollution Control Procedures, General: Requirements of this Section are in addition to those of Article 4.03 of the Contract General Conditions. Employ measures to prevent or minimize creation of dust and air pollution. Contractor shall appoint a dust control monitor to oversee and implement all measures specified in this Article.

 1. Unpaved areas shall be wetted down, to eliminate dust formation, a minimum of twice a day to reduce particulate matter. When wind velocity exceeds 15 mph, site shall be watered down more frequently.

 2. Store all volatile liquids, including fuels or solvents in closed containers.

 3. No on-site burning of debris, lumber and other scrap shall be permitted.

 4. Properly maintain equipment to reduce gaseous pollutant emissions.

 5. Exposed areas, new driveways and sidewalks shall be seeded, treated with soil binders or paved, as appropriate, as soon as possible.

 6. Cover stockpiles of soil, sand and other loose materials.

 7. Cover trucks hauling soil, debris, sand or other loose materials.

 8. Sweep project area streets at least once daily. Refer to Section 01740 - Cleaning Requirements.

**1.9 WELDING AND BURNING MITIGATION PROCEDURES**

 A. Welding and Burning Mitigation Procedures: Eliminate welding and burning of steel as much as possible. Where unavoidable, perform welding and burning with all possible precaution to avoid fire hazard. Provide a fire watch for minimum of 30 minutes after burning stops. Provide protection for all adjacent surfaces.

**1.10 EROSION AND SEDIMENT CONTROL PROCEDURES**

 A. Erosion and Sediment Control Procedures: Refer to runoff control requirements specified in Section 01570 - Temporary Controls. Obtain and comply with Storm Water Pollution Protection Plan (SWPPP) and project-specific requirements indicated on Civil Drawings.

**1.11 DISPOSAL OPERATIONS PROCEDURES**

 A. Solid Waste Management:

 1. Supply solid waste transfer containers. Daily remove all debris such as spent air filters, oil cartridges, cans, bottles, combustibles and litter. Take care to prevent trash and papers from blowing onto adjacent property. Encourage personnel to use refuse containers. Convey contents to a sanitary landfill.

 2. Washing of concrete containers where wastewater may reach adjacent property, storm drains or natural water courses will not be permitted. Remove any excess concrete to the sanitary landfill.

 B. Chemical Waste and Hazardous Materials Management: furnish containers for storage of spent chemicals used during construction operations. Dispose of chemicals and hazardous materials in accordance with applicable regulations.

 C. Garbage: Store garbage in covered containers, pick up daily and dispose of in a sanitary landfill.

 D. Grading Spoil and Landscape Debris: Dispose of vegetation, weeds, rubble, and other materials removed by the clearing, stripping and grubbing operations off site at a suitable disposal site in accordance with applicable Federal, State and local Codes, ordinances, statutes and regulations

 E. Excavated Materials:

 1. Native soil complying with the requirements of applicable Division 2 - Site Construction earthwork Section, may be used for backfill, fill and embankments as allowed in applicable by that section.

 2. Remove all material which is excavated in excess of that required for backfill. Dispose of unsuitable excavated material from the site and dispose of it legally.

 a. Excess suitable backfill material shall be hauled off site. No additional compensation will be paid to the Contractor for such off haul. Include all such costs in the Contract Sum.

 b. Unsuitable backfill material shall be disposed of off-site in accordance with applicable regulations, in a disposal site indicated in the Environmental Protection Plan.

 c. Remove rubbish and materials unsuitable for backfill immediately following excavation.

 d. Remove material in excess of that required for backfill immediately following backfill operations.

**1.12 CULTURAL RESOURCES PROCEDURES**

 A. Cultural Resources Procedures: Requirements specified in this Section are in addition to those required by Article 4.03 of the Contract General Conditions.

 1. Project does not pass through any known archaeological sites. However, it is conceivable that unrecorded archaeological sites could be discovered during construction.

 2. In the event that artifacts, human remains, or other cultural resources are discovered during subsurface excavations at locations of the Work, the Contractor shall protect the discovered items, cease work for a distance of 35 feet radius in the area, notify the Architect and [STATE AGENCY] Representative and comply with applicable law.

 3. Trustees may retain an Archaeologist to monitor and recover data and artifacts during period that work has ceased.

 4. All items found which are considered to have archaeological significance are the property of the [STATE AGENCY].

**PART 2 - PRODUCTS**

**2.1 PRODUCTS FOR PATCHING, EXTENDING AND MATCHING**

 A. Provide same products or types of construction as that in existing structure, as needed to patch, extend or match existing.

 B. Generally the Contract Documents will not define products or standards of workmanship present in existing construction; determine products by inspection and necessary testing, and determine quality of workmanship by using existing as a sample for comparison.

 C. The presence of a product, finish, or type of construction requires that patching, extending or matching shall be performed as necessary to make work complete and consistent with identical standards of quality.

**PART 3 - EXECUTION**

**3.1 CUTTING AND PATCHING**

 A. Perform cutting and patching as specified in Section 01732 - Cutting and Patching.

 **END OF SECTION**