

75% SUBMITTAL

**PROJECT
SPECIFICATIONS**

FOR

Merced River Ranch Floodplain Restoration
Near Snelling, CA

Prepared by
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Project Specifications

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DIVISION 2 – SITEWORK

SECTION 02050

DEMOLITION

PART 1: GENERAL

1.01 Scope

A. The work under this Section consists of the furnishing of all labor, appliances, tools, equipment, transportation, services, and supervision required to demolish, remove and/or dispose of the following:

1. Existing access roads as shown on the site preparation plans D-1 and D-2.
2. Miscellaneous non-native debris and rubbish as described below.

1.02 Related Sections

Section 02110 – Site Preparation, Clearing & Grubbing

Section 02200 - Earthwork

1.03 References

American Society of Testing and Materials (ASTM)

ASTM C 33 Standard Specification for Concrete Aggregates

ASTM C 150 Standard Specification for Portland Cement

ASTM C 494 Standard Specification for Chemical Admixtures for
Concrete

1.04 Environmental Requirements

A. Contractor shall take all necessary precautions to cause as little damage as possible to the existing site vegetation and wildlife that is designated for protection. Construction equipment will not be permitted within the limits of the Environmentally Sensitive Area Protection fencing (ESA fencing) as shown on the Plans.

- B. Demolition debris will not be allowed to fall into the waters of the Merced River.
- C. The Contractor shall be responsible for compliance with all Federal, State, and local laws and regulations, and with the reasonable practice of disposal. Disposal of refuse and debris, and any accidental loss or damage attendant thereto shall be the Contractor's responsibility and shall in no way involve the Owner.

PART 2: PRODUCTS

Not Used

PART 3: EXECUTION

3.01 General

- A. Except as described in these Specifications, all debris and materials resulting from demolition shall become the property of the Contractor who shall expeditiously remove them from Owner property and dispose of them legally at his expense.
- B. Conduct demolition operations and removal of debris to ensure minimum interference with roads, walks, and other adjacent occupied or in-use facilities to remain as shown on the Plans.
- C. Use water sprinkling, temporary enclosures, and other suitable methods to limit dust and dirt rising. Clean adjacent structures and improvements of dust, dirt, and debris caused by demolition activities.

3.02 Debris and Rubbish Removal

- A. Trash and rubbish shall be removed from the entire site including ESA areas. Only hand removal of this material will be acceptable within the ESA fencing, and along the existing banks of Merced River.
- B. Contractor shall remove from the site all foreign non-organic material including, but not limited to pressure, penta and creosote treated wood, metal vehicle or equipment parts, trash, rubbish and any other item designated by the Engineer to be removed. All items removed from the site shall be disposed of legally at an offsite facility.

- C. Additional rubbish to be removed from the site shall include cans, glass bottles, plastic or paper bags, and any other trash designated as such by the Owner, Engineer or Landscape Architect.
- D. When there is a question as to the status of certain items for removal, contact the Engineer immediately.
- E. Rotten or dead wood, dilapidated non-pressure, penta or creosote treated lumber, charcoal, woody remnants and other organic matter shall be chipped or shredded and composted onsite.

END OF SECTION

DIVISION 2 – SITEWORK

SECTION 02110

SITE PREPARATION, CLEARING & GRUBBING

PART 1: GENERAL

1.01 Scope

- A. The work under this Section includes, but is not limited to, furnishing all labor, materials, and equipment, and performing all operations required for performing the following items of work:
 - 1. Furnishing and installing temporary construction barriers and other safety features as required by the Landscape Architect
 - 2. Furnishing and installing Environmentally Sensitive Area protection fencing (ESA fencing) as shown on the Plans
 - 3. Clearing, grubbing, removing, transporting, and disposing of vegetation (including root systems) and debris within the limits of the project grading as shown on the Plans
- B. The Contractor shall prepare a Stormwater Pollution Prevention Plan (SWPPP) following the guidelines in the State Water Resources Control Board's (SWRCB) General Construction Activity Storm Water Permit and these Specifications. The Contractor and his subcontractors shall abide by the construction SWPPP.
- C. The contractor shall perform the following activities as part of the presentation and implementation of the SWPPP:
 - 1. The contractor shall file a Notice of Intent (NOI) to the State Board for coverage under the General Permit and pay the required annual fee. Copies of which shall be provided to the Landscape Architect.
 - 2. Prepare and implement an SWPPP. The contractor needs to review the Construction General NPDES Permit (Section A), which provides information on what needs to be included, in order to prepare the SWPPP.
 - 3. Perform visual monitoring prior to anticipated storms and after storms.
 - 4. Keep a copy of the SWPPP and General Permit available at the construction site.

5. Certify annually during the construction period to the RWQCB that the construction is in compliance with the SWPPP and Construction General NPDES permits.
6. Notify the RWQCB upon completion of all activities.

1.02 Related Sections

Section 02050 – Demolition

Section 02200 – Earthwork

Section 02910 – Container Plant Growing

Section 02915 – Site Preparation for Revegetation

1.03 Regulatory Requirements

- A. Conform to all Federal, State and local ordinances relating to the protection of the public, Contractor's personnel, and flow of traffic and the disposal of debris.
- B. Coordinate clearing and grubbing work with utility companies.

PART 2: PRODUCTS

2.01 Temporary Construction Barrier Fencing

- A. Fencing shall be 4-foot minimum height, UV stabilized, corrosion and rot resistant temporary barrier fencing, posts, and cable ties. Color shall be high visibility orange.

2.02 ESA Fencing

- A. Fencing shall be 4-foot minimum height, UV stabilized, corrosion and rot resistant temporary barrier fencing, posts, and cable ties. Color shall be high visibility orange.

PART 3: EXECUTION

3.01 Preparation

- A. Coordinate clearing and grubbing with salvage plant collection operations prior to start of any clearing and grubbing work onsite. Protect and preserve in place all plants designated to be salvaged or saved.
- B. Prior to start of clearing and grubbing, schedule and attend a site observation visit with the Landscape Architect to verify existing conditions and the location of environmentally sensitive areas. Verify integrity and location of Environmentally Sensitive Area (ESA) protective fencing during the site observation visit.
- C. Contractor shall contact Underground Service Alert prior to construction to obtain locations of all onsite utilities. Toll free phone number: 1-800-227-2600.

3.02 Temporary Fencing

- A. Limits of construction and staging areas shall be fenced in using temporary construction barrier fencing. The purpose of this fencing is to deter pedestrians and animals from entering the construction area. Limits of construction shall be demarcated along the northeast boundary, southwest boundary, and throughout the approved work areas on CDFG property. Contractor shall minimize disturbance within CDFG property to complete the work shown on the Plans.
- B. ESA fencing shall be installed in the locations designated on the Plans. The purpose of this fencing is to prevent construction equipment and activities from occurring within environmentally sensitive areas.
- C. Temporary fencing shall be maintained in good condition with a good appearance, rigid, plumb, and safe throughout the construction period. The Contractor that erects the fence shall be responsible for removing and replacing any fence sections and/or posts necessary for access to the site on a daily basis.
- D. The Contractor shall securely anchor the temporary fence posts in the ground. Any damage caused by the fence and fence post installation shall be repaired in a manner satisfactory to the Landscape Architect.
- E. The fenced area may only be expanded with written approval from the Landscape Architect.
- F. Temporary fencing shall be removed from the site after construction is complete.

3.03 Protection

- A. Before beginning any clearing and grubbing work, the Contractor shall carefully survey the site and examine the Plans and Specifications to determine the extent of work. The Landscape Architect must approve all temporary barrier-fencing locations prior to any clearing and grubbing activities.
- B. The Contractor shall take all necessary precautions to avoid damage to existing items to remain in place, to be reused, or to remain the property of the Owner. Any damaged items shall be repaired or replaced as approved by the Landscape Architect at no additional cost to the Owner.
- C. Locate, identify, and protect utilities that remain, from damage.
- D. Protect benchmarks from damage or displacement.
- E. Unless otherwise stated on the Plans, all existing vegetation within the limits of work, with the exception of trees 10" or larger in dbh, shall be chipped or shredded and composted onsite. Live and dead trees or logs 10" dbh or larger shall be salvaged with intact crown and root wad and stored onsite for reuse as woody debris. Trees and vegetation beyond the limits of work shall not be removed or disturbed without the approval of the Landscape Architect.
- F. Protect existing MID road, canal, bridge, irrigation equipment, and other existing structures when connecting into trail at adjacent CDFG property.
- G. Burning of tree stumps, brush, or other vegetation is not permitted.
- H. Clearing and grubbing shall be performed in advance of earthwork operations.
- I. Contractor shall protect the Merced River and any erosion control material along its banks from disturbance.

3.04 Clearing and Grubbing

- A. Unless otherwise specified and/or indicated, areas to be cleared and grubbed will be limited to the following:
 - 1. areas required for access to site,
 - 2. designated for grading and/or revegetation activities.
- B. Existing trees, shrubbery and other vegetation may not be shown on the Plans. Inspect the site prior to beginning of clearing and grubbing operations to document the nature, location, size and extent of vegetation, structures, fencing, pavement, poles, posts, rock outcroppings and other items within the designated area to be cleared and grubbed as specified within.

- C. No clearing and grubbing shall be done, nor Contractor equipment allowed, inside of the ESA fencing. This fencing is for protection of the existing sensitive plant communities.
- D. Clearing and grubbing shall consist of the following:
 - 1. Remove and dispose of all rubbish and debris in accordance with Section 02050, "Demolition", 3.04, "Debris and Rubbish Removal."
 - 2. Chip or shredd trees smaller than 10" dbh, shrubs, stumps, brush, limbs and other dead and live vegetative growth and haul to composting area onsite. Remove evidence of their presence from the surface including sticks and branches greater than 1-inch in diameter or thickness. Remove stumps and root systems to a depth of 12" from existing grade. Should any roots and stumps be further exposed during grading, chip or shred and haul to composting site.
- E. Clear undergrowth and deadwood, without disturbing subsoil.
- F. Remove invasive weeds and their seed to a separate composting site as described in Specification Section CONTAINER PLANT INSTALLATION 02930 2.07 D.
- G. Notify Landscape Architect/Landscape 5 days prior to conclusion of clearing, grubbing and invasive weed removal operations to inspect all specified areas.

3.05 Invasive Weed Removal

- A. All resprouting and newly germinating invasive weedy plants shall be removed for the duration of the Project.
- B. Pampas grass (*Cortaderia selloana/jubata*) Removal: Carefully cut and collect all seed heads into a heavy duty or double paper bag, fold top of bag, staple shut and seal with tape. Dispose by burning off site or by heat treatment composting. After seed head removal, cut off all stems to 4 inches above ground and dispose of. Remove entire remaining root ball by mechanical or manual excavation.
- C. Edible fig (*Ficus carica*) Removal: Cut existing trees and saplings with a 2" or larger dbh. Repeat cutting of resprouts until the root reserves are exhausted. Sprouts and saplings with a dbh smaller than 2" shall be removed with a weed wrench or pulled out manually.
- D. Himalayan blackberry (*Rubus discolor*) Removal: Hand cut aboveground vegetation with loppers or pruning shears and either dig out root crowns immediately or remove during grading operations. If herbicides are necessary to effectively remove the plant, Contractor shall consult with NOAA. (federal funding and endangered species act fish issues). All parts of the shall be carefully

removed, chipped and composted separately from other vegetation as described in Specification Section CONTAINER PLANT INSTALLATION 02930 2.07 D.

- E. Other Weeds Removal: Review available integrative pest management literature and propose removal method in writing to Landscape Architect.

3.06 Removal and Disposal

- A. Remove non-organic trash and debris from site and dispose of at a legally authorized facility. Refer to Section 02050, "Demolition" for additional requirements associated with disposal.
- B. All live and dead vegetation debris with the exception of trees 10 inches or larger in dbh shall be chipped and composted on-site.
- C. Salvage all live or dead trees with 10" or larger dbh with intact crown and root system. Store onsite for reuse as LWD.

END OF SECTION

DIVISION 2 – SITEWORK

SECTION 02140

SITE DEWATERING

PART 1: GENERAL

1.01 Scope

- A. The work specified in this Section consists of preventing surface water and subsurface water from flooding the project site and surrounding areas. The Contractor shall design, furnish, install, operate, and maintain temporary surface water control and piezometer dewatering systems, as necessary, to remove accumulated water in construction areas.
- B. The Contractor shall control water flowing into and within areas designated to receive fill. Water shall not be allowed to accumulate in these areas in order to prevent softening of subgrades.
- C. The Contractor shall be responsible for obtaining the necessary permits for the discharge of collected water into Merced River or adjacent wetland areas. At a minimum, the Contractor shall insure that all water returned to the Merced River or adjacent wetlands shall meet the criteria of a maximum of 1 ml/l/hr of settleable material, as established by the California Regional Water Quality Control Board.
- D. The Contractor shall not pollute the waters of Merced River or adjacent wetland areas or nearby habitat areas with fuels, oils, or other materials that would have an adverse effect on aquatic life or its habitat, or degrade water quality for any beneficial use. It is the responsibility of the Contractor to investigate and comply with all applicable Federal, State, County, and Municipal regulations concerning discharges into the Merced River or adjacent wetlands. The Contractor may elect, at his/her own discretion, to use the water for dust control at the Site during construction only after the Contractor has determined that the use of water in this manner will have no adverse health effects on people or the environment.

1.02 Related Sections

Section 02050 – Demolition

Section 02200 – Earthwork

1.03 Regulations

- A. Comply with all applicable Federal, State, and Local regulations.

PART 2: PRODUCTS

Not used.

PART 3: EXECUTION

3.01 Methods

- A. Contractor shall sequence its construction to minimize the intrusion of ground water and surface-water into grading areas.
- B. Contractor shall provide and maintain pumps, sumps, suction and discharge lines, and other dewatering system components as necessary to meet the general requirements of this section.

END OF SECTION