

## **5.0 ENVIRONMENTAL REQUIREMENTS**

The Contractor shall comply with all requirements of all applicable Environmental Laws, Environmental Approvals, and Governmental Approvals issued thereunder, whether obtained by CDOT or the Contractor. The Contractor shall prepare an Environmental Compliance Work Plan specifically identifying all of the environmental compliance requirements for the Project and the Contractor's approach for complying with those requirements. The Draft Environmental Compliance Work Plan shall be submitted to CDOT for Acceptance within 30 Days after NTP1. A Final Environmental Compliance Work Plan shall be submitted to CDOT for Acceptance no later than 30 Days prior to NTP 2. Acceptance of this Work Plan will be required as a condition for issuance of NTP 2.

The Environmental Compliance Work Plan shall include:

1. All environmental mitigations and elements of the Book 3 *US 6 Design Build Project Record of Decision 2 (ROD2)* and in Appendix C - CDOT Mitigation Tracking Form.
2. Description of means and methods to meet all commitments defined in the *ROD2*.
3. Description of the process for tracking environmental commitments throughout the duration of the Work by the Contractor. The Contractor shall employ and utilize an Environmental Manager on the Project. The Environmental Manager shall lead a field review with CDOT environmental staff to discuss environmental issues at least once a month during active construction periods, and shall have the authority to stop construction if Work activities violate Environmental Laws, or jeopardize human health and safety.

The Environmental Manager shall update the Environmental Compliance Work Plan every month and document any pertinent discussions that occur during the environmental field reviews. The updated Environmental Compliance Work Plan shall be submitted to CDOT monthly for Acceptance.

A Final Environmental Compliance work Plan shall be submitted to CDOT for Approval as a condition for Final Acceptance of the Project.

### **5.1 Environmental Resources Requirements**

#### **5.1.1 Air Quality**

The Contractor shall obtain an Air Pollution Emission Notice (APEN), including a Fugitive Dust Control Plan and construction and demolition permit from the Colorado Department of Public Health and Environment (CDPHE) Air Pollution Control Division (APCD).

The Contractor shall implement procedures for diminishing dust which shall include BMPs consistent with the Fugitive Dust Control Plan including but not limited to:

- use of wind barriers and/or wind screens to minimize the spread of dust where large amounts of Material are stored
- use of a wheel wash station and/or large diameter cobble apron at egress/ingress areas to minimize dirt being tracked onto public streets
- use of water systems for street cleaning equipment capable of diminishing dust during sweeping operations on public streets

- covering of all trucks hauling dirt/sand or other loose Material leaving the Site
- watering or cover of excavated materials which remain on the Site
- use of engine pre-heater devices during wintertime construction

All non-road equipment shall use ultra-low sulfur diesel fuel. The Contractor shall minimize excessive idling of inactive equipment or vehicles. If construction equipment is creating excessive air quality emissions that have a potential to affect air quality for operators or persons working/living in the area, equipment shall be taken out of operation until fixed or replaced. The Contractor shall also locate stationary emissions equipment with consideration of public health and environment, and minimize excessive idling of inactive equipment or vehicles.

### **5.1.2 Noise**

CDOT performed a preliminary noise impact analysis as part of the *ROD2*. The findings of this analysis are included in the Noise Technical Report (Book 3). The noise analysis was completed using the geometry assumptions documented in the *ROD2*.

#### **5.1.2.1 Existing Barriers**

A system of existing noise barriers are located on the north and south sides of US 6 from Knox Court to Sheridan Boulevard. Existing noise barriers from Knox Court to Sheridan Boulevard are generally 8 feet tall and are located along private property lines at locations where US 6 is at the same grade as the surrounding community. These barriers are to remain in-place and any barriers impacted during construction shall be replaced in-kind.

#### **5.1.2.2 New Noise Mitigation**

Any design by the Contractor which trigger a Type 1 action as defined by the CDOT Noise Analysis and Abatement Guidelines (June 2011) shall require the Contractor to complete a new noise analysis and implementation of any required mitigation. The Contractor shall review its design to ensure conformance prior to commencement of any construction Activities.

#### **5.1.2.3 Construction Noise**

The Contractor shall be required to prepare and submit to CDOT for Acceptance, a Noise Control Plan that outlines allowable daytime and nighttime uses, projected noise levels, and locations and types of noise abatement measures required to meet specific noise limits for the associated construction Activities.

The Contractor shall comply with all applicable City and County of Denver noise ordinances and regulations, which require construction between 7am and 9pm, unless the Contractor secures a variance from the City and County of Denver. If permits are required, they shall be acquired by the Contractor prior to the start of any associated construction Activities and the Contractor shall be solely responsible for compliance with the permit requirements.

### **5.1.3 Historic and Archaeological Resources/Historic Section 4(f) Resources**

The impacts to Historic and Non-Historic Section 4(f) Impacts and specific mitigations which have been documented and approved by FHWA as part of the *ROD2* are included in the Section 4(f) and Section 6(f) Technical Report (in Book 3). A portion of a historically significant

**FINAL REQUEST FOR PROPOSAL – US6 BRIDGES DESIGN BUILD PROJECT**

**BR 0061-083, SUB ACCOUNT 18838 (CN)**

**BOOK 2 – TECHNICAL REQUIREMENTS**

**SECTION 5 –ENVIRONMENTAL REQUIREMENTS**

---

brick-lined sewer (the West and Southside Interceptor near the South Platte River Bridge) is impacted by US 6 improvements and shall be removed and replaced as described in this Book 3 Technical Report. This sewer segment composes a small portion (approximately 240 feet) of a seven mile stretch of historically significant functioning brick sewer. CDOT has recommended and SHPO has concurred that the removal of this segment is considered an *adverse effect*. CDOT, FHWA, SHPO, CCD, and Metro Wastewater are developing a Programmatic Agreement (PA) to mitigate this adverse effect. The Contractor will not be responsible for the mitigations defined by the PA. SHPO concurred that the mitigation for this impact can be addressed through this separate PA. Accordingly, CDOT has obtained agreement for replacement of 240 ft of removal and replacement of the sewer and any additional impacts shall be the responsibility of the Contractor. Additionally, if the Contractor’s Work results in any changes in effects to the sewer or any other historically significant resource, including utilities, described in the *ROD2* or changes to the Area of Potential Effect, the Contractor shall ensure a historian, who meets the Secretary of Interior’s standards, documents those proposed changes and provides CDOT with all necessary information for coordination with the State Historic Preservation Officer under Section 106 of the National Historic Preservation Act. This shall include any additional easements (temporary or permanent), property acquisitions, or utility relocates that weren’t previously cleared as part of the Section 106 consultation and Technical Report for Cultural Resources (Book 3). Associated construction Activities shall not commence nor historic resources impacted until the Section 106 and Section 4(f) consultation process is complete and approved by CDOT, FHWA and SHPO. The Contractor shall also be responsible for updating the Section 4(f) evaluation for FHWA approval for historic properties as necessary.

**Table 5-1. Impacts to Historic Section 4(f) Resources**

Historic 4(f) Resource	Use by the Project
West and Southside Interceptor (5DV.10635.6)	240 linear feet

(Source: Section 4(f) and 6(f) Technical Report (Book 3))

**5.1.3.1 Construction**

The Contractor shall be responsible for notifying CDOT of any unidentified historic or archaeological resources encountered or unearthed during construction. Upon discovery of any historic or archaeological resources, the Contractor shall immediately cease work in the vicinity of the discovery, fence off the area, and notify the CDOT archaeologist or cultural resource staff by calling the Cultural Resource Program Manager at 303-757-9631. The Contractor shall not resume Work in the area until receiving formal notification from CDOT allowing Work to re-commence. If historic or archaeological resources are discovered, CDOT will determine the resource mitigation requirements that the Contractor shall implement.

**5.1.4 Paleontology**

Denver Formation fossils may be encountered during construction Activities. The Contractor shall provide design plans to the CDOT paleontologist for review and prior to associated construction Activities to determine the extent of impact to the Denver Formation and if monitoring during construction is required.

## **5.1.5 Parks and Recreation**

### **5.1.5.1 Non-Historic Section 4(f) Impacts**

The impacts to Non-Historic Section 4(f) Impacts and specific mitigation which have been documented and approved by FHWA as part of the *ROD2* are included and described in the Section 4(f) and Section 6(f) Technical Report (Book 3) and described in Table 5-2.

**Table 5-2. Impacts to Non-Historic Section 4(f) Resources**

<b>Park or Recreation Resource</b>	<b>Use by the Project (acres)</b>
Barnum Park South	No use / Temporary occupancy
Barnum Park North	0.63
Barnum Park East	1.64
Frog Hollow Park	No use / No impact
Milstein Park	No use / No impact
South Platte River Trail	No use / Temporary occupancy

(Source: Section 4(f) and Section 6(f) Technical Report (Book 3))

The Contractor shall be responsible for providing all of those mitigations that are required of CDOT as part of the Work for the Project. If the Contractor's Work results in impacts greater than what is listed to those Non-Historic Section 4(f) resources listed in the *ROD2*, including temporary impacts occurring only during construction Activities, the Contractor shall be required to provide CDOT all necessary information for coordination with FHWA including an analysis evaluating avoidance alternatives and measures to minimize harm. If CDOT disagrees with the analysis they may ask for a revised analysis. If CDOT agrees with the analysis, they will request FHWA review and approve that there are no feasible and prudent avoidance alternatives and confirm that the analysis includes all possible planning to minimize harm to Non-Historic Section 4(f) properties. If FHWA approves the new impacts to Non-Historic Section 4(f) Impacts and any mitigation, CDOT shall require the Contractor to provide those mitigations as part of the Work for the Project. Construction Activities shall not commence until all associated approvals are complete.

### **5.1.5.2 Non-Historic Section 4(f) Construction**

Mitigation by the Contractor during construction for the temporary use of the South Platte River Trail by the Project shall include providing detours, minimizing closure times, and providing public notices in advance of any closures. CCD Traffic Engineering Services and CCD Parks and Recreation has approved the following Temporary Trail and Pedestrian Detour which the Contractor shall provide while the South Platte River Trail is closed during the construction Activities.

*New bike path connection to 7th Avenue, 7th Avenue to Bryant Street, Bryant Street to 2nd Avenue, 2nd Avenue/Tejon Street to Bayaud to the ramp connection at South Platte River Drive. This detour shall be clearly signed and marked for all path users during all closures of the facility. All variances to this detour, including the route, shall be*

**FINAL REQUEST FOR PROPOSAL – US6 BRIDGES DESIGN BUILD PROJECT**  
**BR 0061-083, SUB ACCOUNT 18838 (CN)**  
**BOOK 2 – TECHNICAL REQUIREMENTS**  
**SECTION 5 –ENVIRONMENTAL REQUIREMENTS**

*submitted for approval to CCD Traffic Engineering Services and CCD Parks and Recreation.*

The following restrictions shall apply to existing trail systems in the vicinity of the Project:

1. No trail closures shall be allowed from 5:00 a.m. to 8:00 p.m. any Day of the week.
2. Temporary trail detours will be allowed under the following conditions:
  - A. Public information requirements shall be identified and appropriate public notifications provided.
  - B. The Contractor shall comply with the CDOT Construction Detour Standards for Multi-Use Trails.

The Contractor shall repair any construction impacts to the trail so that it is replaced in a condition as good as or better than it was prior to construction Activities. Vegetation impacted along the trail shall be replaced and the detour route shall be returned to its original condition.

**5.1.5.3 Section 6(f) Impacts**

The Land and Water Conservation Fund Act Section 6(f) impacts and specific mitigation are included and described in the ROD2 and Section 4(f) and Section 6(f) Technical Report (Book 3). The specific Section 6(f) resources and the amount of impact to each are described in Table 5-3.

**Table 5-3. Impacts to Section 6(f) Resources**

<b>Park or Recreation Resource</b>	<b>Conversion of the Project (acres)</b>
Barnum Park South	No conversion; 6(f) resources are located on opposite side of park, away from US 6 improvements
Barnum Park North	0.63
Frog Hollow Park	No conversion
South Platte River Floodplain	Up to five acres to be determined by the Contractor
South Platte River Trail	No conversion
Milstein Park	No conversion

(Source: Section 4(f) and 6(f) Technical Report (Book 3))

The impacts to the South Platte River floodplain are not known but are expected to be less than 5 acres. The Contractor shall keep an accurate and detailed record of any changes to projected impacts at all Section 6(f) parks and all impacts to the South Platte River floodplain. These records shall include square footage of the impacts and the appraised value of that land. The Contractor shall furnish these records when requested so that CDOT can provide them to CCD, Colorado Parks and Wildlife (CPW) and the National Park Service (NPS) once all impacts are known.

If the Contractor’s Work results in impacts greater than what is listed to those Section 6(f) resources identified in the Contract Documents the Contractor shall provide CDOT all necessary information for completing coordination, approval and regulatory clearance with CCD, FHWA, CPW and NPS prior to commencement of related construction Activities. If FHWA and NPS approve any new impacts to those Section 6(f) resources and any mitigations, the Contractor

shall implement those mitigations at the Contractors expense and accept responsibility for any additional schedule impacts required for the associated approvals and regulatory clearances..

### **5.1.6 Vegetation**

The Contractor shall minimize tree removal and disturbance to vegetation. In riparian areas adjacent to the South Platte River that are subject to Colorado Senate Bill 40 (SB 40) all trees equal to or greater than 2 inches diameter at breast height (DBH) that are removed shall be replaced with native trees at a 1:1 ratio and shrubs that are removed shall be replaced with native shrubs at a 1:1 ratio based on total aerial coverage determined through the SB-40 Wildlife Certification required in Section 5.4.6. The Contractor shall follow the SB-40 mitigation plan approved by Colorado Parks and Wildlife after submittal of an application for an SB-40 Wildlife Certification. In all other areas (non SB-40 areas), the Contractor shall comply with CDOT's tree replacement policy by replacing all trees equal to or greater than 4 inches DBH with native trees at a 1:1 ratio. Removal of additional trees and the substitution of one tree or shrub species with another must be Approved by either the Regional CDOT Biologist or Landscape Architect. See Book 2, Section 17, Landscaping, for additional conditions related to vegetation.

The Contractor shall enhance and incorporate impacted landscape areas (irrigated or otherwise) to optimize the longevity and maintainability of the existing vegetation. The Contractor shall reseed and protect temporary disturbance areas with CDOT approved BMPs to avoid disturbance to existing vegetation. All seed, mulch and mulch tackifier shall be applied in accordance with requirements of the Contract. The Contractor shall implement the Noxious Weed Management Plan which is provided in the Biological Resources Report (Book 3).

### **5.1.7 Visual**

The Contractor shall comply with the aesthetic element requirements of the Contract Documents. The Contractor shall also apply the aesthetic guidance identified in the Aesthetics and Urban Design Technical Report (Book 3).

Staging areas that are to remain in place longer than 90 days shall be fenced and screened.

Temporary construction lighting shall be shielded and directed at work areas to minimize glare and ambient light conditions in nearby areas.

### **5.1.8 Wildlife**

#### **5.1.8.1 Fish, Reptiles and Amphibians**

Habitat for two Colorado Species of Special Concern - the common garter snake (*Thamnophis sirtalis*) and northern leopard frog (*Rana pipiens*) - was identified within the Project area. The Contractor shall minimize vegetation disturbance and removal within the vicinity of the Platte River Bridge.

To avoid impacts to spawning fish and their beds, construction Activities of the South Platte River Bridge and any in-stream diversion structures shall be conducted during non-breeding season (August-March) or as otherwise specified in the SB-40 Wildlife Certification.

#### 5.1.8.2 Migratory Bird Treaty Act

The Contractor shall comply with the Migratory Bird Treaty Act (MBTA) at all times. The Contractor shall schedule clearing and grubbing operations and Work on Structures to avoid taking (pursue, hunt, take, capture or kill; attempt to take, capture, kill or possess) migratory birds protected by the MBTA. The Contractor shall retain a qualified wildlife biologist, with a minimum of three years experience conducting migratory bird surveys, to implement the requirements of the MBTA. The Contractor shall submit documentation of the biologist's education and experience to CDOT for Acceptance prior to commencement of any associated Work. A biologist with less experience may be used by the Contractor subject to the Acceptance of CDOT based on review of the biologist's qualifications.

The Contractor shall be responsible for ensuring that migratory bird nests on Bridges, including but not limited to cliff swallow nests on both the South Platte River Bridge and the eastbound US 6 exit ramp at I-25, should be removed before April 1 or after August 31 to avoid causing a take. Additional migratory bird nest surveys shall be conducted by the Contractor to identify and prevent the construction of new bird nests between April 1 and August 31 consistent with the requirements of the Contract.

#### 5.1.9 Recognized Hazardous Materials

Recognized hazardous materials (RHM) are defined as the presence or suspected presence of hazardous substances which may require management and/or disposal. Hazardous substances may exist on the surface or subsurface, in groundwater or surface water, or on Structures to be demolished or modified as part of the Work; and may be mixed with soil, water, building matrices, and/or other waste materials.

Based on the Hazardous Materials Technical Report (Book 3), there is a potential to encounter contaminated soil and groundwater throughout the Project, including two high risk sites, and shall be addressed as described herein.

The Contractor shall develop a Materials Management Plan (MMP), Health and Safety Plan (HASP), as required by Section 250.03 of the CDOT Standard Specifications for Road and Bridge Construction (CDOT, 2011) and a Spill Prevention Control and Countermeasures (SPCC) Plan to be submitted to CDOT. The draft Plans shall be submitted to CDOT for review within 30 Days after NTP1. The final Plans shall be submitted to CDOT for review no later than 30 Days prior to NTP 2. Acceptance of these Plans will be required as a condition for issuance of NTP 2.

The Contractor shall schedule a review meeting with CDOT prior to submittal of the MMP and HASP to discuss the MMP, HASP and SPCC. The Contractor's Environmental Manager and the Contractor's Safety Manager shall be present at the meeting. The Contractor shall incorporate modifications into the submitted MMP, HASP, and SPCC agreed to during this meeting.

The Contractor shall comply with all provisions set forth within the reviewed MMP, HASP, and SPCC and shall maintain documentation of all pertinent certifications of all Subcontractors which shall be available upon request by CDOT. The Contractor shall comply with all applicable requirements, including, but not limited to, all federal, state, and local environmental laws and regulations and the *Standard Specifications for Road and Bridge Construction*, Section 250, *Environmental, Health and Safety Management* and any project special revisions for the management and disposal of the RHMs.

**FINAL REQUEST FOR PROPOSAL – US6 BRIDGES DESIGN BUILD PROJECT**

**BR 0061-083, SUB ACCOUNT 18838 (CN)**

**BOOK 2 – TECHNICAL REQUIREMENTS**

**SECTION 5 – ENVIRONMENTAL REQUIREMENTS**

---

Prior to demolition Activities of any Structures, or removal of utility lines, the Contractor shall determine the presence or absence of asbestos containing materials. If asbestos is present, the Contractor shall conduct abatement in accordance with Section 250, Environmental, Health, and Safety Management, of the CDOT Standard Specifications for Road and Bridge Construction (CDOT, 2011), the revised Section 250 Specification and relevant Occupational Safety and Health Administration (OSHA) and other State and Federal Requirements.

The Contractor shall coordinate all Work with CDOT and shall not discuss or negotiate with any regulatory agencies or third parties on behalf of CDOT. The Contractor shall notify CDOT within 24 hours if contacted by any regulatory agencies or third parties concerning RHMs associated or potentially associated with the Contract requirements.

**5.1.9.1 Materials Management Plan**

The MMP shall identify potential RHMs, their locations, the extent of impact, proposed Remediation Work, waste management procedures, avoidance measures, investigation measures, and a contingency plan for addressing unforeseen conditions. The plan shall identify the Contractor's representative responsible for environmental compliance (Environmental Manager), the proposed design and construction staff, and the approach to implementing the MMP. In addition to meeting the requirements of Section 250 of the *Standard Specifications*, the MMP shall include the following provision:

1. The Contractor shall manage all RHMs, including soils, groundwater, surface water, and other contaminated substances to prevent exposure to the environment, Project personnel and the public, and to prevent any contamination of non-contaminated areas. The Contractor shall classify such wastes according to one of the following categories:
  - A. Hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) requiring off-Site disposal and/or treatment
  - B. Contaminated soils requiring off-Site disposal
  - C. Soils to be stockpiled for further characterization
  - D. Soils with concentrations of waste constituents below regulatory concern that can be reused without restriction
  - E. Wastewater requiring off-Site disposal and/or treatment
  - F. Impacted water to be held for further characterization
  - G. Asbestos containing material (ACM) discovered during construction or demolition
  - H. Lead-based paint associated with Structures, signage, light posts, etc.
  - I. Waste material to be contained for further characterization
  - J. Contaminated groundwater requiring on-Site treatment or off- Site disposal

A scope of work shall be submitted to CDOT for Approval prior to commencing any Remediation Work Activities. The Contractor shall utilize the most cost-effective approach in the performance of any remedial action deemed necessary. Remediation Work shall not include sampling,

**FINAL REQUEST FOR PROPOSAL – US6 BRIDGES DESIGN BUILD PROJECT**

**BR 0061-083, SUB ACCOUNT 18838 (CN)**

**BOOK 2 – TECHNICAL REQUIREMENTS**

**SECTION 5 – ENVIRONMENTAL REQUIREMENTS**

---

characterization, stockpiling, or disposal of Materials that are determined not to require off-Site disposal and/or treatment.

The Contractor shall not allow Hazardous Substances to be spilled or tracked off-Site at any time during the Work.

The Contractor shall be responsible for locating storage facilities and disposal sites for RHMs that are to be removed from the Work Site.

The Contractor shall maintain documentation of completed waste profiles, manifest forms, and bill-of-lading forms for proper transportation and disposal of Materials off-Site. This information shall be available at all times for review by CDOT. The Contractor shall be held responsible for ensuring that all requirements of the transporter and the receiving disposal facility and the federal, state, and local statutes, rules, regulations, and ordinances are complied with and are properly documented.

The Contractor shall submit RHM reports to CDOT for monthly review on all Activities associated with the Contract. The Contractor shall coordinate with CDOT to determine the format of the report prior to the associated construction Activities.

The Contractor shall develop a Sampling Analysis Plan (SAP) to identify and characterize potential RHMs that may be encountered during the Work. The SAP shall also provide for monitoring/screening during construction Activities to provide safety controls in areas previously not identified. In addition to complying with Section 250 of the *Standard Specifications*, the SAP shall include:

1. Data quality objectives
2. Sample collection procedures (field screening, borehole drilling/abatement, monitoring well construction, soil, groundwater, and decontamination)
3. Quality control
4. Field equipment calibration procedures/frequency
5. Quality assurance objectives (data)
6. Provisions for corrective action, if needed

**5.1.9.2 Health and Safety Plan (HASP)**

The Contractor shall distribute the HASP to all employees that could be potentially exposed to RHMs. The HASP shall be displayed or made available on-Site at all times. The Contractor shall develop and maintain on-Site all industrial hygiene information, including “right-to-know” information. In addition to meeting the requirements of Section 250 of the *Standard Specifications*, the HASP shall include the following provision:

The Contractor shall maintain documentation and provide information to CDOT, as requested, regarding potential or actual exposure to the public. The Contractor shall maintain records of all related incidents and notify CDOT and appropriate State authorities immediately.

**5.1.9.3 Spill Prevention Control and Countermeasures (SPCC) Plan**

The Contractor shall prepare a SPCC Plan. The Contractor shall perform inspections per the Colorado Discharge Permit System – Stormwater Construction Permit (CDPS-SCP) to assure the construction best management practices (BMPs) are adequate for the Site conditions of the

Project and are in good working condition. The Contractor shall prevent the discharge of any sediment or pollutants into any storm drains or receiving waters during the life of the CDPS-SCP.

## **5.2 NEPA Reevaluation**

If the Contractor proposes or creates the need for any environmentally significant project change as defined by each resource's policies, procedures, guidelines or regulatory requirements (including the election to include any Additional Requested Elements (AREs) which are listed in Book 2 Section 1 and otherwise included as part of the Contract Documents) that results in a potential change to the environmental impact, the Contractor shall be responsible for documenting that change consistent with the requirements and conditions of CDOT Reevaluation Form (#1399). The Reevaluation Form (#1399) shall be submitted to CDOT for Approval of any other Work that was not approved as a part of the *ROD2*. FHWA review of Reevaluation Form (#1399) is required and typically requires at least four weeks. The FHWA review and approval must occur prior to CDOT's Approval and before the Work proposed in the Reevaluation Form #1399 can be performed. In addition the Contractor shall be responsible for additional environmental documentation, permits, and mitigation resulting from impacts associated with any project change. The Contractor shall implement these potential changes to the environmental impacts at the Contractors expense and accept responsibility for any additional schedule impacts required for the associated approvals and regulatory clearances..

## **5.3 Environmental Commitments and Mitigation**

The Contractor shall be responsible for implementing required mitigation measures to minimize environmental harm from the Project. The Contractor shall minimize both environmental impacts and impacts to adjacent property owners as detailed design decisions are made. Relevant mitigation requirements shall be included in the final Design Documents or other required deliverables for the Project. The Contractor shall maintain information on the implementation to provide to CDOT upon request to inform the public and/or interested commenting agencies of the progress in carrying out the adopted mitigation measures. The Contractor's public outreach meetings and materials shall include a summary of all environmental impacts and mitigations.

Mitigation measures for each resource addressed in *ROD2* have been identified and are listed in Book 3: Appendix C - CDOT Mitigation Tracking Form.

## **5.4 Environmental Permits**

The Contractor shall be responsible for obtaining all governmental and agency permits required for the Work, not otherwise obtained by CDOT, including, but not limited to, the environmental permits in Table 5-5.

### **Table 5-5. Required Environmental Permits**

**FINAL REQUEST FOR PROPOSAL – US 6 DESIGN BUILD PROJECT**  
**BR 0061-083, SUB ACCOUNT 18838(CN)**  
**Book 2 – Technical Requirements**  
**Section 5 – Environmental Requirements**

<b>Permits/approvals</b>	<b>Permitting Agency</b>
Clean Water Act Section 404 Nationwide Permit	U.S. Army Corps of Engineers (USACE)
Municipal Separate Storm Sewer System (MS4) Discharge Permit (City and County of Denver and CDOT MS4 discharge requirements)	Colorado Department of Public Health and Environment – Water Quality Control Division
CDPHE Colorado Discharge Permit System (CDPS) stormwater permit associated with construction activity	Colorado Department of Public Health and Environment – Water Quality Control Division
Clean Water Act Section 402 Construction Dewatering Permit, or Individual Construction Dewatering Permit if contaminated groundwater is expected to be encountered	Colorado Department of Public Health and Environment – Water Quality Control Division
Construction waste material and transportation of solid wastes	Colorado Department of Public Health and Environment – Hazardous Materials and Waste Management Division
Generation of contaminated materials during construction	Colorado Department of Public Health and Environment – Hazardous Materials and Waste Management Division
Notification as Resource Conservation and Recovery Act (RCRA) hazardous waste generator	Colorado Department of Public Health and Environment – Hazardous Materials and Waste Management Division
Air Pollution Emission Notice (APEN) and Construction Permit	Colorado Department of Health and Environment – Air Pollution Control Division
Stationary Source Air Quality Permit (Emissions from portable units, such as rock crushers, generators, asphalt plants, and cement plants, used during construction)	Colorado Department of Health and Environment – Air Pollution Control Division
Fugitive Dust Permit (Bridge Demolition)	Colorado Department of Public Health and Environment – Air Pollution Control Division
Asbestos Abatement Permit (Bridge Demolition)	Colorado Department of Public Health and Environment – Air Pollution Control Division
Demolition Permit (Bridge/structure Demolition)	Colorado Department of Public Health and Environment – Air Pollution Control Division
Development of Materials Management Plan with approval by the Regional Planning and Environmental Manager	Colorado Department of Transportation
Senate Bill 40 Certification	Colorado Parks and Wildlife
Noise Variance	City and County of Denver
Coordination and approval for contaminated materials handling and management plan	City and County of Denver
Wastewater Discharge Permit	City and County of Denver

Permits/approvals	Permitting Agency
Discharge Permit	City and County of Denver Wastewater Management Division
Programmatic Agreement for significant brick-lined sewer mitigation	State Historic Preservation Officer

**5.4.1 Colorado Discharge Permit System – Stormwater Construction Permit (CDPS-SCP)**

The Contractor shall be responsible for all stormwater permit requirements in the CDPS-SCP. This includes the maintenance of all BMPs and seeded / landscaped areas until final stabilization has been achieved, all temporary BMPs have been removed, and there is no potential for erosion. The Contractor shall review and incorporate the latest requirements from CDOT for erosion and sediment control and according to other requirements in the Contract.

**5.4.1.1 Municipal Separate Storm Sewer (MS4) Permit**

CDOT has obtained an MS4 Permit for the storm drainage systems that it owns and maintains. The Contractor shall be responsible for complying with the terms and conditions of the CDOT MS4 Permit that pertain to the Project. The MS4 Permit is available on the web page at <http://www.coloradodot.info/programs/environmental/water-quality/documents>

The Contractor shall construct permanent water quality BMPs for the Project as necessary to comply with the requirements of the CDOT MS4 Permit. Permanent water quality BMPs for the Project shall include, but are not limited to, such components as sediment basins and proprietary vaults, water quality ponds, grass roadside ditches, and grass buffer strips.

The Contractor shall immediately notify CDOT of any suspected illicit or improper connections or discharges into any storm sewer system discovered during construction of the Project.

CDOT will be responsible for investigation of the suspected illicit connection and implementing corrective action. The Contractor shall not maintain, reconnect, or otherwise allow discharge of improperly disposed materials into the storm sewer system within the limits of the Project.

**5.4.2 Wetlands/Waters of the U.S. and Section 404 Permit**

**5.4.2.1 Permit Application**

The Contractor shall be responsible for preparing a Clean Water Act, Section 404 Permit Application for impacts to wetlands and waters of the U.S., if necessary. The Application shall be submitted to CDOT for review and in advance of a subsequent submittal to CDOT for Approval and submittal to ACOE at least 45 Days before the start of construction Activity which would impact wetlands or other waters of the United States. The Contractor shall be responsible for submitting a Wetland Finding Report if impacts exceed the thresholds identified in the 2006 “*Memorandum of Agreement Between FHWA and CDOT Regarding the Programmatic Approval of Wetland Findings*”. Depending on the final assessment of wetland impacts, a CDOT Functional Assessment of Colorado Wetlands (FACWet) may be required. The Contractor shall comply with the requirements and special conditions outlined in the Section 404 Permit (see Book 3).

#### **5.4.2.2 Wetlands Field Investigation and Identification**

Wetlands field investigation and identification associated with the Project include, but are not limited to, the following Activities:

1. GPS files from both the 2004 and 2011 wetland delineation report, including the ordinary high water mark (OHWM) and waters of the U.S. (WUS) boundary included in Book 3 assess impacts below the OHWM of the South Platte River and to wetlands within the Project area.
2. Prior to construction Activities, the Contractor shall identify and mark (with orange fencing or flagging) all wetlands and Waters of the U.S. that have the potential to be impacted by the Work. The Contractor shall identify the wetlands and Waters of the U.S. that will actually be impacted by the Project, calculate the actual acreage of impacts, and submit that information to CDOT for review prior to commencement of the associated Work.
3. The Contractor shall report in the updated Environmental Compliance Work Plan all wetlands impacted during the previous month's Work. CDOT will utilize this information to complete annual monitoring requirements, if applicable, per conditions stipulated in the Section 404 Permit.

#### **5.4.2.3 Impact Monitoring**

Prior to construction, the Contractor shall fence off wetlands not to be impacted during construction Activities. Wetland and Waters of the U.S. locations are shown in the *2004 Wetland Delineation and 2011 Wetland Verification*, for consistency, in Book 3. Wetland boundaries determined by the Contractor shall be used to calculate all impacts associated with the Project. The Contractor shall employ all applicable avoidance and minimization measures, strategies, and BMPs to minimize impacts and protect wetlands and waters of the U.S. to the greatest extent possible. The Contractor shall update CDOT throughout the duration of the Work on the calculations of estimated and actual wetland and Waters of the U.S. impacts. If at any time estimated impacts are calculated to change, immediate consultation with CDOT shall be initiated. Should waterway diversions be required, the Contractor shall submit a Diversion Plan, included as part of the Section 404 Permit Application, to CDOT prior to beginning any construction Activity within the river. The Contractor shall be responsible for implementation of permits for any wetland and waterway impacts during construction.

#### **5.4.2.4 Wetland and Waters of the U.S. Mitigation**

The Contractor shall mitigate for temporary and permanent wetland impacts, through banking, to both jurisdictional and non-jurisdictional wetlands on a 1:1 basis, at a minimum. CDOT will purchase mitigation banking credits for 100 square feet of wetland impacts based on anticipated impacts in the northwest quadrant of the I-25/6<sup>th</sup> Avenue interchange. The Contractor is responsible to purchase any additional wetland bank credits, beyond the CDOT provided 100 square feet, from a wetland mitigation bank approved by the USACE. CDOT requires mitigation for all permanent impacts to wetlands based on acreage.

#### **5.4.3 Construction Dewatering Permit**

The Contractor shall obtain a Construction Dewatering Permit from the CDPHE for any dewatering of groundwater during construction in accordance with Water Quality Control

Division (WQCD) requirements. The Contractor shall apply for this permit at least 30 Days prior to the start of discharge Activities.

The Contractor shall provide all information needed to assist the WQCD in their evaluation and setting of a water quality standard for this permit, which may include monitoring of the discharged water.

The Contractor shall monitor for any settlement caused by dewatering. The Contractor shall conduct a preliminary survey of any private property or buildings that may be affected by dewatering to establish existing conditions. The Contractor shall repair any damage caused by dewatering operations.

The Contractor shall construct settling ponds for effluent from dewatering operations, as required by the Construction Dewatering Permit.

All costs for dewatering Work shall be the obligation of the Contractor5.4.4 SB-40 Wildlife Certification

#### **5.4.4 SB-40 Wildlife Certification**

The Contractor shall comply with the General and Special Conditions provided in the January 2003 “*Guidelines for Senate Bill 40 Wildlife Certification*” developed and agreed upon by the Colorado Division of Wildlife and the Colorado Department of Transportation. The Contractor shall prepare an application for a formal Wildlife Certification to Colorado Parks and Wildlife (CPW) for activities in riparian areas adjacent to the South Platte River that are subject to Colorado Senate Bill-40 (SB-40). After CDOT’s Approval, CDOT will submit the application to CPW at least 60 days prior to planned construction or maintenance Activities to allow 30 days for CPW review of the submitted documents and 30 days for follow-up coordination, if required. CPW will complete its review of the application and issue SB-40 Certification or request additional information or mitigation commitments within 30 days of final submittal. The Contractor shall submit its application so as to allow CDOT sufficient time to complete these activities.

#### **5.4.5 Miscellaneous**

The Contractor shall be responsible for contacting the CDPHE if groundwater monitoring wells will be disturbed. Refer to information about drainage and groundwater testing for specific monitoring well site locations in Book 3).

### **5.5 Deliverables**

At a minimum, the Contractor shall submit the following deliverables to CDOT for review, Approval, and/or Acceptance (Table 5-6):

**Table 5-6. Deliverables by the Contractor**

Deliverable	Review, Acceptance or Approval	Schedule
Draft Environmental Compliance Work Plan	Acceptance	Within 30 Days after NTP 1
Final Environmental Compliance Work Plan	Acceptance	No later than 30 Days prior to NTP 2
Environmental Compliance Work Plan updates	Acceptance	Monthly
Final Environmental Compliance Work Plan	Approval	As a condition for Final Acceptance
Environmental permits (Section 5.4 above)	Acceptance	Per the requirements of the permit and the Contract Documents
Migratory bird nest survey	review	Prior to impacting existing structures that may contain active bird nests
Noise analyses, final geometry, and architectural details of noise barriers (if necessary)	Acceptance	Minimum 21 Days prior to Released for Construction (RFC)
Integrated Noxious Weed Management Plan	review	Within 60 Days after NTP 1
Draft Materials Management Plan (MMP)	review	No later than 30 Days after NTP 1
Final Materials Management Plan (MMP)	Acceptance	No later than 30 Days prior to NTP 2
Draft Health and Safety Management Plan (HASP)	review	No later than 30 Days after NTP 1
Final Health and Safety Management Plan (HASP)	Acceptance	No later than 30 Days prior to NTP 2
Draft Spill Prevention Control and Countermeasures (SPCC) Plan	review	No later than 30 Days after NTP 1
Final Spill Prevention Control and Countermeasures (SPCC) Plan	Acceptance	No later than 30 Days prior to NTP 2
Identification of Contractor or Subcontractors to perform Remediation Work	review	Prior to Subcontractors or Contractors commencing Remediation Work
Noise Control Plan	Acceptance	As part of the RFC documents
Remediation Scope of Work	Approval	Prior to commencing Remediation Work
Monthly Recognized Hazardous Materials (RHM) reports	review	Monthly
CDOT NEPA Reevaluation Form #1399	Approval	Prior to conducting work that has not been approved under the ROD2
Clearly label environmentally sensitive areas (wetlands areas, Section 4(f), Section 6(f), etc.) with “No Parking and No Staging Area” on final plan sheets.	review	As part of the final plan sheet submittal
Design Plan submittal to the CDOT paleontologist	review	Prior to associated construction Activities

## 5.6 Project Special Provisions

The following pages provide the modified standard specifications that shall be applicable to the Project.

These Contract Provisions are a revised version of CDOT's *Standard Specifications for Road and Bridge Construction*, and contain requirements generally applicable to the Work to be performed by the Contractor. In certain cases, provisions in Section 100 of the *Standard Specifications for Road and Bridge Construction* have been superseded by other provisions of the Contract Documents. For ease of reference, this document uses the same Section numbers as the *Standard Specifications for Road and Bridge Construction*, and identifies provisions of the Contract Documents that have replaced or modified the standard clauses.

All references to "Engineer" that are incorporated into this Section refer to the Contractor's Engineer, unless the context requires otherwise. Non-capitalized terms, such as "work" that are defined in Book 1, Exhibit A, shall have the meanings defined therein unless the context requires otherwise. References to "approve, approval or approved" shall mean "Approve, Approval or Approved" as defined in Book 1, Exhibit A, when the approval is by CDOT or a division of CDOT. If the interpretation(s) pursuant to this paragraph are not clear, CDOT shall decide, in its sole discretion, how these terms shall be interpreted.

When these specifications describe actions, Materials, means or methods that are required and that are qualified by phrases such as: "as directed by the Engineer", "when directed by the Engineer", "as determined by the Engineer", "with or without permission of the Engineer", "in the opinion of the Engineer", "unless authorized by the Engineer", "satisfactory to the Engineer", "as approved by the Engineer", or "unless another type is specified or is permitted with approval of the engineer", such phrases shall be disregarded. If it is not clear whether a phrase should be disregarded, CDOT will make that decision in its sole discretion.

When these specifications refer to "Department", "Resident Engineer", "Agricultural Engineer", "Bridge, Construction or Maintenance Engineer", "TMC system inspector", "Concrete Engineer", "Project Engineer", "Materials Engineer", "Commissioner", "Structural Metals Engineer", "Department's Lighting Engineer", "Geotechnical Engineer" or any other specific CDOT special engineer, such reference shall mean the CDOT Project Director.

When these specifications use the term "engineer" relating to the approval of any activities involving the use of explosives, such term shall mean the CDOT Project Director.

When an approval or authorization of the Engineer or CDOT is required in these specifications for the use of alternative or substituted processes or components, the Engineer shall mean CDOT. If it is not clear whether a phrase involves the use of alternative or substituted processes, CDOT will make that determination in its sole discretion.

If these specifications refer to an approval of any correction or repair that deviates from the Contract requirements, the approval must be by CDOT. If it is not clear whether a specification involves a correction or repair that deviates from the Contract requirements, CDOT will make that determination in its sole discretion.

When these specifications provide that reports, records or other documents shall be submitted to CDOT or to the Engineer, such reports shall be made available to CDOT and do not have to be submitted unless either they are otherwise listed in the deliverables in the Contract Documents, or are required shop drawings, warranties, parts lists, instruction sheets or

manufacturer's drawings or specifications. Such documents shall be submitted to CDOT as required by the specifications.

When these specifications require actions, Materials, means or methods that are "either as indicated in the Plans or as designated by the Engineer," the Contractor shall disregard the phrase "or as designated by the Engineer."

When these specifications refer to the "Engineer" ordering work beyond the scope of work in the Contract, "Engineer" shall mean CDOT. Whenever in these specifications the Engineer may order work that results in additional costs to CDOT, the "Engineer" shall mean CDOT.

Any acceptances on behalf of CDOT or the State shall be performed by CDOT.

Any references to other standards, codes, or criteria, or to the latest version of other standards, codes, or criteria in Book 2 of the Contract Documents shall mean the latest version at the Proposal Due Date.

## REVISION OF SECTION 211 DEWATERING

Section 211 is hereby added to the Standard Specifications for this project as follows:

### DESCRIPTION

**211.01** This Work consists of dewatering to facilitate construction activities.

### CONSTRUCTION REQUIREMENTS

**211.02** Groundwater within the Project limits has contaminants at concentrations greater than that acceptable for direct discharge under standard NPDES permits and other beneficial uses. The Contractor shall manage contaminated groundwater in accordance to the requirements herein. For additional support information the Contractor is referred to the Hazardous Materials Technical Report and results of the limited site investigations carried out by CDOT and included in Book 3.

Removal, sample collection, analytical testing, containerization, transportation, and disposal or treatment of all contaminated groundwater shall be in accordance with Standard Specifications 250, and 107.25 and the Contractor's Dewatering Plan and Materials Management Plan. The Contractor shall manage the Work according to guidelines and criteria from CDPHE and the State Engineer's Office. Contaminated groundwater shall either be treated on-site and discharged to the appropriate segment of the South Platte River or containerized and hauled off-site for treatment at a permitted treatment facility.

The Contractor shall:

1. Minimize the disturbance of contaminated groundwater by avoidance.
2. Limit intrusion of groundwater into excavations.

The Contractor shall obtain the appropriate Colorado Discharge Permit System (CDPS) general permit for management of groundwater from CDPHE Water Quality Control Division. A completed application shall be submitted to CDPHE at least 4 weeks prior to commencement of dewatering operations.

In accordance with permit procedures, the Contractor shall fill out and submit a monthly Discharge Monitoring Report (DMR) to CDPHE for the life of the permit. Copies of monthly submittals shall be provided to Jordan Rudel, CDOT Environmental Project Manager at 2000 S Holly, Denver, CO 80222.

The Contractor shall measure the rate of groundwater discharge during the dewatering process using a certified inline flow device capable of measuring flow rates with an accuracy of plus or minus five (5) gallons per minute. The Contractor shall record the rate of discharge daily and shall submit a discharge report to the Engineer weekly.

The Contractor shall submit a Dewatering Plan to the CDOT Project Director at least 4 weeks prior to the start of dewatering operations. This Plan shall detail the Contractor's method of

dewatering for all construction activities. The Dewatering Plan shall be stamped “Approved for Construction” and signed by the Contractor.

The Dewatering Plan shall provide complete details of the Contractor’s method for construction dewatering including:

1. Copies of all permits required for dewatering, including treatment of and (or) disposing of contaminated groundwater.
2. If applicable, copies of agreements for disposing of groundwater in storm sewers, sanitary sewers etc.
3. Method and details for minimizing dewatering for all construction activities.
4. Method of measuring groundwater discharge for dewatering activities.
5. Equipment descriptions including size, number, type, capacity, and location of equipment during dewatering operations.
6. Methods of testing groundwater to determine appropriate disposal methods.
7. Detailed methods for disposal of contaminated groundwater.
8. If applicable, name of facility where contaminated groundwater is to be delivered to.

## PROTECTION OF MIGRATORY BIRDS

### BIOLOGICAL WORK PERFORMED BY THE CONTRACTOR'S BIOLOGIST

Section 240 is hereby added to the Standard Specifications for this Project as follows:

#### DESCRIPTION

This work consists of protecting migratory birds during construction.

#### MATERIALS AND CONSTRUCTION REQUIREMENTS

The Contractor shall schedule clearing and grubbing operations and work on structures to avoid taking (pursue, hunt, take, capture or kill; attempt to take, capture, kill or possess) migratory birds protected by the Migratory Bird Treaty Act (MBTA). The Contractor shall retain a qualified wildlife biologist for this Project. The wildlife biologist shall have a minimum of three years experience conducting migratory bird surveys and implementing the requirements of the MBTA. The Contractor shall submit documentation of the biologist's education and experience. A biologist with less experience may be used by the Contractor subject to CDOT Approval based on review of the biologist's qualifications.

The wildlife biologist shall survey the location of each protected nest, bird species, the protection method used, and the date installed. A copy of these records shall be submitted to CDOT for Review.

(a) *Vegetation Removal.* When possible, vegetation shall be cleared prior to the time when active nests are present. Vegetation removal activities shall be timed to avoid the migratory bird breeding season which begins on April 1 and runs to August 31. All areas scheduled for clearing and grubbing between April 1 and August 31 shall first be surveyed within the work limits for active migratory bird nests. The Contractor's wildlife biologist shall also survey for active migratory bird nests within 50 feet outside work limits. Contractor personnel shall enter areas outside CDOT right of way only if a written, signed document granting permission to enter the property has been obtained from the property owner. The Contractor shall document all denials of permission to enter property. The Contractor shall avoid all active migratory bird nests. The Contractor shall avoid the area within 50 feet of the active nests or the area within the distance recommended by the biologist until all nests within that area have become inactive. Inactive nest removal and other necessary measures shall be incorporated into the work as follows:

1. *Tree and Shrub Removal or Trimming.* Tree and shrub removal or trimming shall occur before April 1 or after August 31 if possible. If tree and shrub removal or trimming will occur between April 1 and August 31, a survey for active nests shall be conducted by the wildlife biologist within the seven days immediately prior to the beginning of work in each area of tree and shrub removal or trimming. The survey shall be conducted for each phase of tree and shrub removal or trimming.

If an active nest containing eggs or young birds is found, the tree or shrub containing the active nest shall remain undisturbed and protected until the nest becomes inactive. The nest shall be protected by placing fence (plastic) a minimum distance of 50 feet from each nest to be undisturbed. This buffer dimension may be changed if determined appropriate by the wildlife biologist and Approved by CDOT. Work shall not proceed within the fenced buffer area until the young have fledged or the nests have become inactive.

If the fence is knocked down or destroyed by the Contractor, CDOT will suspend the work, wholly or in part, until the fence is satisfactorily repaired at the Contractor's expense. Time lost due to such suspension will not be considered a basis for adjustment of time charges, but will be charged as contract time.

2. *Grasses and Other Vegetation Management.* Due to the potential for encountering ground nesting birds' habitat, if work occurs between April 1 and August 31, the area shall be surveyed by a wildlife biologist within the seven days immediately prior to ground disturbing activities.

The undisturbed ground cover to 50 feet beyond the planned disturbance, or to the right of way line, whichever is less, shall be maintained at a height of 6 inches or less beginning April 1 and continuing until August 31 or until the end of ground disturbance work, whichever comes first.

If birds establish a nest within the survey area, an appropriate buffer of 50 feet will be established around the nest by the CDOT biologist. This buffer dimension may be changed if determined appropriate by the CDOT. The Contractor shall install fence (plastic) at the perimeter of the buffer. Work shall not proceed within the buffer until the young have fledged or the nests have become inactive.

If the fence is knocked down or destroyed by the Contractor, CDOT will suspend the work, wholly or in part, until the fence is satisfactorily repaired at the Contractor's expense. Time lost due to such suspension will not be considered a basis for adjustment of time charges, but will be charged as contract time.

- (b) *Work on structures.* The Contractor shall prosecute work on structures in a manner that does not result in a taking of migratory birds protected by the MBTA. The Contractor shall not prosecute the work on structures during the primary breeding season, April 1 through August 31, unless he takes the following actions:

1. The Contractor shall remove existing nests prior to April 1. If the Contract is not awarded prior to April 1 and CDOT has removed existing nests, then the monitoring of nest building shall become the Contractor's responsibility upon Notice to Proceed.
2. During the time that birds are trying to build or occupy their nests, between April 1 and August 31, the Contractor shall monitor the structures at least once every three days for any nesting activity.
3. If birds have started to build any nests, they shall be removed before the nest is completed. Water shall not be used to remove the nests if nests are located within 50 feet of any surface waters.
4. Installation of netting may be used to prevent nest building. The netting shall be monitored and repaired or replaced as needed. Netting shall consist of a mesh with openings that are  $\frac{3}{4}$  inch by  $\frac{3}{4}$  inch or less.

If an active nest become established, i.e., there are eggs or young in the nest, all work that could result in abandonment or destruction of the nest shall be avoided until the young have fledged or the nest is unoccupied as determined by the wildlife biologist and Approved by CDOT. The Contractor shall prevent construction activity from displacing birds after they have laid their eggs and before the young have fledged.

If the Project continues into the following spring, this cycle shall be repeated. When work on the structure is complete, the Contractor shall remove and properly dispose of netting used on the structure.

- (c) *Taking of a Migratory Bird.* The taking of a migratory bird shall be reported to CDOT. The Contractor shall be responsible for all penalties levied by the U. S. Fish and Wildlife Service (USFWS) for the taking of a migratory bird.
- (d) CDOT Form 730, *Permission to Enter Property*, must be obtained to facilitate the wildlife biologist's ground surveys within adjacent property within 50feet of work limits, where Region Environmental Personnel have determined ground nesting bird habitat may be present. If Permission to Enter Property is denied by a property owner, the denial shall be recorded and placed in the Project file to document that due diligence was pursued.

## REVISION OF SECTION 250

### ENVIRONMENTAL, HEALTH AND SAFETY MANAGEMENT

Section 250 of the Standard Specifications is hereby revised for this project as follows:

Subsection 250.01 shall include the following:

There is potential for encountering hazardous materials due to recent and historic events associated with spills and multiple sources of contamination in the project area. The Contractor shall review the project's Hazardous Materials Technical Report, as well as, all site investigation reports included in Book 3.

There is a good chance that project construction operations and in particular caisson excavations, will encounter groundwater contaminated with elevated levels of RCRA metals exceeding Colorado basic groundwater standards (CBSGs), petroleum hydrocarbons and other industrial contaminants. Workers shall be alert during excavations for visual and olfactory signs of contamination, especially around sites ranked under the high level risk category (refer to the Hazmat Technical Report in Book 3). If soil and/or groundwater contamination is encountered during construction activities, work will stop immediately and the procedures outlined in the Colorado Department of Transportation (CDOT) Specification 250 Environmental health and Safety Management shall be followed.

The Contractor shall prepare a materials management plan (MMP) and a Health Safety Plan (HASP). The Contractor shall be responsible for workers' health and safety, the general public and environment. The Contractor's HSO and/or Monitoring Technician shall be on site as necessary during subsurface excavations to ensure proper handling, testing and disposal of contaminated soil and groundwater, as detailed in the CDOT Standard Specification 250 and subsection 107.25.8 and all applicable local, state and federal regulations. Contaminated water brought to the surface shall be contained in tank(s) or drums and shall not be directly discharged into any State Waters including wetlands, irrigation ditches, canals, unless allowed by a CDPHE permit. Discharge into storm sewers and/or sanitary sewers will not be allowed unless written permission is obtained from the owner or controlling authority and a copy of this approval submitted to the Engineer.

Subsection 250.04 shall include the following:

Some steel components on the BNSF Bridge (F-16-EJ) are coated with paint that contains high levels of lead. For further information, refer to the Hazardous Materials Technical Report (Book 3). All painted steel items will become the property of the Contractor. Removal and recycling of the painted components shall be done in compliance with this CDOT 250 Environmental Health & Safety Management Spec (including, but not limited to Section 250.04) and all

applicable OSHA, local, state and federal regulations. Cutting or torching of painted surfaces shall be avoided to minimize generation of lead fumes. Where lead-based painted surfaces would be removed via torching, additional health and safety monitoring requirements are applicable. In addition, controls to minimize paint flaking shall be in place during component removal. Any paint chips that come loose shall be collected and disposed of properly.

Subsection 250.03 shall include the following:

The Contractor shall follow CDOT's Asbestos-Contaminated Soil Management Standard Operating Procedure, dated August 22, 2011 for proper handling of asbestos-contaminated soil, and follow all applicable Solid and Hazardous Waste Regulations for proper handling of soils encountered that contain any other substance mentioned above." CDOT's Asbestos SOP will be provided under project revision 102.

Subsection 250.07 (d): Remove the first paragraph and replace with the following:

CDOT's Asbestos-Contaminated Soil Management Standard Operating Procedure, dated August 22, 2011. Asbestos contaminated soil shall be managed in accordance with 6 CCR 1007-2, Section 5, Asbestos Waste Management Regulations. Regulations apply only upon discovery of asbestos materials during excavation and soil disturbing activities on construction projects, or when asbestos encounters are expected during construction. The contractor shall comply with procedures detailed in the CDPHE's Asbestos-Contaminated Soil Guidance Document and CDOT's approved Asbestos-Contaminated Soil Management Standard Operating Procedure, dated August 22, 2011, including the following minimum requirements: