1.0 GENERAL

1.1 Project Description

The Project consists of a four-lane Principal Arterial for United States Highway 550 (US 550) from County Road (CR) 302 to United States Highway 160 (US 160). The Project limits are within a series of separate NEPA Documents and is more fully described below.

The Preferred Alignment for the Project limits from CR 302 to Mile Post (MP) 14.9 (approximately CR 220) was defined in the in the *US 550 Environmental Assessment (EA)/Finding of no Significant Impact* (FONSI) (December 2005), and the *US 550 EA/FONSI Reevaluation* (May 2019). This segment will reconstruct the existing two-lane facility on US 550 between CR 302 and Mile Post (MP) 14.9 just south of CR 220. The Work for this segment of the Project is defined in Book 2 and is generally consists of reconfiguration of the US 550 intersections at CR 219 and CR 220, one wildlife underpass, small mammal crossings, wildlife appurtenances, improvements to existing local accesses, updates to roadway geometry, and new Frontage Roads at Eagle View Estates.

The Preferred Alignment for the Project limits from MP 14.9 (approximately CR 220) to the Grandview interchange was defined in the following NEPA Documents. The 2006 Final Environmental Impact Statement/Final Section 4(f) Evaluation for US Highway 160 from Durango to Bayfield (FEIS) and Record of Decision identified a Selected Alternative for US 160 from milepost (MP) 88.0, east of Durango, to MP 104.2, east of Bayfield. It also included reconstruction of the US 160/US 550 interchange and US 550 south to just south of CR 220. The 2012 US 550 South Connection to US 160 SFEIS to the US Highway 160 from Durango to Bayfield EIS and 2015 Record of Decision Preferred Alternative (RGM6) included an additional .3 mile of US 550 and reconstruction of the alignment to four lanes. The Work for this segment of the Project is defined in Book 2 and is generally consists of major earthwork to achieve the desired grade, construction of Bridges across Gulch A and Gulch B, one wildlife underpass, small mammal crossings, wildlife features, and a two-lane roundabout at the Grandview interchange.

1.2 CDOT Project Values

CDOT holds values for all of its projects and this Project has a values that drives its execution. The Purpose and Values should be maintained throughout the project in decision-making. CDOT seeks to improve US 550 for the residents, travelers and freight users of this important corridor by:

1. Maximizing Safety by reducing vehicular crashes and minimize conflicts with wildlife.

2. Maximizing travel efficiency and mobility by meeting the future demand for highway capacity.

3. Improving access management along the US 550 and US 160 Corridors.

1.3 Project Goals

The Project goals are the basis for evaluation of the Technical Proposal. CDOT has established following goals for the Project:

1. **Maximize Project Scope**.

   CDOT's goal is to construct as much of US 550 as possible within the financial constraints of the Project. The Contractor is encouraged to provide as much additional construction, defined by the AREs, as possible. CDOT also desires the Contractor's plan for construction under this contract, will minimize rework when future US 550 projects are undertaken.

2. **An Integrated Approach to Earthwork**

   The Project has excess excavation Material within the Basic Configuration. CDOT has future plans for US 550 and US 160 corridor projects that are in various states of planning and/or design completion. CDOT is requesting the Contractor develop an Earthwork Management Plan that identifies how earthwork with be utilized for the Project, and how excess excavated Material will be used to benefit future US 550 and US 160 projects. This goal includes:

   A. Maximize the use of excess excavation Material for the Project and for future use in the US 550 and US 160 corridors per the EA and EIS.

   B. Minimize impacts to the surrounding Roadway network during construction.

   C. Minimize environmental impacts of earth moving operations during construction and mitigate impacts after earth moving operations are complete.

3. **A Strong Design-Build Team**

   CDOT is seeking a strong, committed and organized design-build team that brings the necessary skills and resources to achieve success for CDOT, the Stakeholders and the design-build team. This strong team shall:

   A. Provide superior technical resources to address all Project challenges.

   B. Develop and commit to a highly organized Project Management Plan.

   C. Manage design and construction to ensure Project goals, values, and Technical Criteria are upheld, throughout the duration of the Project.

   D. Develop and foster a partnership with CDOT and encourage collaboration among all team members.

   E. Develop an approach to locate and integrate key staff with CDOT, as appropriate, while considering costs and the primary goal of maximizing Project Scope.

   F. Provide integration of the design staff throughout construction, as required, to assure design intent is carried forward.

   G. Effectively meet Civil Rights requirements, through an integrated and executed plan.

   H. Leverage local resources.

4. **Quality Design and Construction.**

   CDOT is seeking a team to provide superior Work starting with design concept development and continuing through construction completion. Develop thoughtful, well-coordinated, efficient design concepts for all aspects of the Work including Roadways, Bridge, Structures, walls, drainage systems, geotechnical design, slope stability, FAST anti-icing/de-icing system(s), pavements, signing and striping, wildlife features and all other ancillary parts of the Work.

A. Develop a Quality Management Plan focused on accountability of the design and construction efforts. Demonstrate the Quality Management Plan will ensure design and construction Work is completed to the highest standards. Consider the interaction between design and construction.

B. Incorporate durability into the design and construction of the Project, especially addressing:

   i. FAST anti-icing/de-icing system(s)

   ii. Structures and geotechnical design

   iii. Drainage systems

   iv. Earthwork management

5. **Corridor Aesthetics**

CDOT considers the existing US 550 corridor from the New Mexico State line north to US 160 to be a valued aesthetic resource and has made commitments to carry aesthetic enhancements throughout the development of the corridor. CDOT desires that the US 550 corridor maintain the rural nature and natural beauty of the area, with the understanding that a four-lane, divided highway, with large Bridge and Structures, will inherently look different than the existing Roadway. CDOT built the US 550/ US 160 Grandview Interchange to set an Aesthetic theme for future development along the corridor. CDOT desires the Contractor to strongly consider Aesthetics during design development. The Contractor should develop plans to:

A. Provide Aesthetic Structures that enhance the corridor theme (Book 2, Section 15, provides additional details).

B. Blends earthwork into the natural surroundings through creative shaping.

C. Minimizes vegetation removal and maximizes revegetation.

D. Provides enhanced Landscape architecture, where appropriate and considers minimal maintenance.

1.4 Environmental Compliance

US 550 and US 160 within the Project limits have been evaluated in a series of NEPA documents as follows:

1. *US 550 EA/FONSI* (December 2005)
2. *US 550 EA/FONSI Reevaluation* (May 2019)
3. *US 550 at US 160 South Connection Supplemental FEIS/ROD* (April 2015)
4. *US 550 at US 160 South Connection Supplemental FEIS/ROD Reevaluation* (May 2019)

This Project and Work shall be in conformance with the NEPA Documents in addition the Project and Work shall not preclude anything required as part of the these documents. Mitigation measures identified in Book 2 and the NEPA Documents needed in response to Project impacts shall be implemented within the Project and Work. No Project mitigation measure resultant of the Project or Work shall be deferred to a future project.

1.5 Basic Configuration

The Basic Configuration generally is defined as the Work on US 550 from approximately MP 14.9 to the Grandview interchange within the existing or new Right-of-Way (ROW) that is required to construct the following elements to conform to the Technical Criteria set forth in Book 2.

1. Roadways:
    A. Reconstruct/construct US 550 from approximately MP 14.9 to the Grandview interchange.
        i. As a four-lane principal arterial with 12-foot lanes, 4-foot inside shoulders, 10-foot outside shoulders and a depressed median transitioning to a barrier separated median with 8-foot inside shoulders and 10-foot outside shoulders north of CR 220.
    B. Construct a new two-lane roundabout at the Grandview interchange.
    C. Reconstruct US 550 intersection with CR 220 as a full movement intersection.
        i. Include acceleration and deceleration lanes for the following movements:
            a. Northbound: US 550 left turn to Frontage Road, US 550 right turn to CR 220, Frontage Road left turn to US 550 and CR 220 right turn to US 550.
            b. Southbound: US 550 left turn to CR 220, US 550 right turn to Frontage Road, Frontage Road right turn to US 550 and CR 220 left turn to US 550.
    D. Reconstruct CR 220:
        i. As a new 2-lane 2-way rural collector with 12-foot lanes and 4 foot shoulders
    E. Construct a Frontage Road at CR 220:
        i. As a new 2-lane 2-way rural collector with 12-foot lanes and 2 foot shoulders.
    F. US 550 Farmington Hill Roadway:
        i. Remove the following:
            a. Existing asphalt and base.
            b. Roadway appurtenances.
        ii. Add topsoil and revegetate the existing alignment and associated areas.
        iii. Remove existing US 550 leg of the existing US 550/160 intersection
        iv. Reconfigure the existing US 160 lanes and Shoulders.
            a. As four-lane principal Arterial with 2-12 foot lanes in each direction
            b. With a 4-foot raised median with 4-foot inside shoulders and minimum 8-foot outside shoulders
            c. Provide 12- foot deceleration lane to Ramp A
            d. Provide median drainage
        v. Maintain existing drainage patterns and drainage crossings along the alignment.
            a. Provide scour protection for existing drainage crossings draining to Wilson Gulch.
        vi. Clean any existing drainage pipes that need to be maintained.

G. Construct a new bypass lane (NB US 550 to WB US 160) at the existing Wilson Gulch roundabout

i. As a single lane that accommodates a WB-67 within the striped width of the lane. It shall also have a 2-foot inside shoulder and 4-foot outside shoulder

2. Improve access locations
3. Structures:

A. Construct Bridge over Gulch A:

i. As a four-lane principal arterial with 12-foot lanes, 8-foot inside shoulders with center barrier, 10-foot outside shoulders.

B. Construct Bridge over Gulch B:

i. As a four-lane principal arterial with 12-foot lanes, 8-foot inside shoulders with center barrier, 10-foot outside shoulders.

C. Construct wildlife underpass B:

i. As a four-lane principal arterial with 12-foot lanes, 6-foot inside shoulders, 10-foot outside shoulders.

D. Any required retaining walls.

E. Construct small mammal crossings

4. Wildlife Features (defined as deer fence, deer guards, and game ramps):

A. Construct deer fencing on both sides of US 550 from Station 918+65 to the Grandview Interchange at US 160.

B. Construct deer guards at improve any access location with direct access to US 550 in line with limits of the deer fencing.

C. Construct game ramps

5. Drainage and Irrigation Features:

A. Construct all drainage and irrigation systems.

6. Construct irrigation features at the following locations:
7. 18” RCP casing from ROW to ROW for future irrigation crossing near Station 843+50
8. FAST Anti-icing/de-icing system(s) at the following locations:

A. Gulch A Bridge.

B. Gulch B Bridge.

C. Proposed roundabout at the Grandview interchange.

D. Existing roundabout at Wilson Gulch.

Reference Documents illustrate the Basic Configuration as well as the AREs and are provided solely for the Contractor’s reference and are without representation or warranty by CDOT. Regardless of the level of completion or suitability of any portion of Reference Documents, the Contractor shall be solely responsible for all Project design and construction elements. CDOT shall have no liability or obligation as a result of design work contained in the Reference Documents.

1.6 Additional Requested Elements

The following Additional Requested Elements (AREs) are identified as elements of the Project that may be incorporated into the Basic Configuration.

1.6.1. ARE Descriptions

ARE #1—Wildlife Features and Wildlife Underpass

ARE #1 consists of constructing wildlife features (defined as deer fence, deer guards and game ramps) from the terminus of the Basic Configuration at approximately MP 14.9 to CR 302. This ARE shall include the Work elements necessary to provide a complete ARE which includes construction of the southbound side of wildlife underpass A. Approved or at risk ACCs modifying scope A, B, or C for this ARE will be allowed in the event that the Contractor cannot provide a complete scope for A, B, or C for this ARE within the Upset Amount. The intent and priority of ARE #1 is to:

4. Delineate CDOT ROW on both sides of US 550 for the entire length of the Project.
5. Construct southbound side of wildlife underpass A.
6. Complete the deer fence on both sides of US 550 for the entire length of the Project.

ARE #1 is defined as 3 progressive scope components allowing completion of ARE #1 in a tiered and systematic approach:

1. ARE #1 Scope A
    A. Construct all components of the deer fence, except for the 8 foot woven wire fabric along the ROW for both sides of US 550 from Station 918+65 to CR 302.
        i. Install 4-strand wire fencing on the deer fence posts.
    B. Construct game ramps.
    C. Construct deer guards at all access locations.
    D. Construct Eagle View Drive Road Work and access consolidation for US 550.
    E. Improve and maintain all access points along US 550.
2. ARE #1 Scope B
    A. Construct the southbound side of wildlife underpass A on future southbound lanes alignment.
        i. As a two lane two way with 12-foot lanes and 8-foot shoulders.
        ii. Construct portions of Roadway needed for construction of wildlife underpass A.
        iii. Design and construct 55 mph Roadway transitions from existing US 550 over constructed portion of wildlife underpass A in the ultimate location.
    B. Install deer fence fabric on wood posts included in ARE#1 along both side of US 550 from Station 918+65 to Station 880+00 (if scope B is included the 4 strand wire fence component can be deleted within the limits of scope B).
3. ARE #1 Scope C

A. Install the 8 foot woven wire fabric on components of the deer fence included in ARE#1 along both side of US 550 from Station 880+00 to the fence tie in at CR 302 (if scope C is included in its entirety the 4 strand wire fence component can be deleted).

ARE #2— ARE #2 generally is defined as Work from north of CR 302 to approximately MP 14.9 within the existing or new Right-of-Way (ROW) that is required to construct the following elements to conform to the Technical Criteria set forth in Book 2 to the maximum extent possible and remain under the Upset Amount. The intent of the this ARE is to provide a progressive amount of completed Roadway that can be opened to traffic in the 4 lane ultimate configuration or a progressive amount of earthwork to the top of Subbase course allowing future completion of the 4 lane ultimate section. ACCs will not be required for providing partial completion of this ARE.

1. Roadways:
   A. Reconstruct/construct US 550 from north of CR 302 to approximately MP 14.9.
      i. As a four-lane principal arterial with 12-foot lanes, 4-foot inside shoulders, 10-foot outside shoulders and a depressed median.
   B. South Frontage road intersection.
      i. Include ultimate 4 lane configuration intersection and associated acceleration and deceleration lanes for the following movements:
         a. Northbound: US 550 left turn to Frontage road.
         b. Southbound: US 550 left turn to access road.
   C. Construct US 550 intersections with CR 219:
      i. Construct a new connection with right-in/right-out access at the south leg of CR 219, include acceleration and deceleration lanes for the following movements:
         a. Southbound: US 550 right turn to CR 219, CR 219 right turn to US 550
      ii. Reconstruct the existing southern CR 219 connection as a new hammerhead terminus.
      iii. Construct a new intersection at the north leg near Bardin Drive. Include acceleration and deceleration lanes for the following movements:
         a. Northbound: US 550 left turn to CR 219 and CR 219 left turn to US 550.
         b. Southbound: US 550 right turn to CR 219, CR 219 right turn to US 550.
2. Structures:
      i. Construct northbound wildlife underpass A.
         a. As a 4 lane Roadway with 12-foot lanes, 6-foot inside shoulder and 10-foot outside shoulders.
         b. Construct small mammal crossings
3. Drainage and Irrigation Features:
   A. Construct all drainage and irrigation systems required.

The Contractor shall be responsible for assessing the environmental clearance requirements of the AREs. The Contractor also shall be responsible for assessing ROW issues, hazardous materials, utility conflicts, third-party agreements, and any other additional permits or requirements to design and construct the AREs. AREs shall conform to all other requirements of the Contract Documents.

1.7 Ultimate Configuration of US 550 Earthwork

The ROW plans in Book 4 reflect the available ROW along the US 550 Project Limits

1.8 Exhibits

Basic Configuration:

Exhibit 1-A1: US 550 Basic Configuration.

Exhibit 1-A2: US 550/160 Grandview Interchange Roundabout.

Exhibit 1-A3: Basic Configuration Typical Sections.

Exhibit 1-A4: US 160 Intersection Reconfiguration

Exhibit 1-A5: NB US 550 to WB US 160 Bypass Lane

Additional Requested Elements:

ARE#1:

Exhibit 1-B1: ARE #1 —Wildlife Features to complete to CR 302.

Exhibit 1-B2: ARE #1 Typical Section.

ARE #2

Exhibit 1-C1: ARE #2 – Ultimate Configuration.

Exhibit 1-C2: ARE #2 – Typical Sections.