

Measures to Minimize Harm

Connection of Powers Boulevard to I-25, with modifications to the North Gate Interchange.

During the design charette process for the I-25 Interchange with North Gate and Powers Boulevard, participants developed strategies to minimize the impacts of the Proposed Action to the Air Force Academy. These strategies include keeping the widened interstate at or below the existing centerline grade to lessen the possibility of seeing it from high vantage points within the Air Force Academy, including the Cadet and Academic areas. The North Gate/Powers Interchange will be built below grade to minimize the intrusion of the interchange structures in this sensitive natural environment. The cut and fill slopes of the interchange complex will be designed by a landscape designer to avoid a harshly engineered appearance.

Vegetation removed for the construction of frontage roads and ramps, including scrub oak, trees, and riparian species, will be replaced with similar species after construction. Final designs will be developed as part of the plans prior to construction. When final drawings of the interchanges and plans for the surrounding landscape are prepared, they will be forwarded to SHPO and Air Force Academy for comment.

As mitigation, a detailed narrative history of the Air Force Academy and archival photographs of the present appearance of the seven miles of I-25 through Air Force Academy property will be provided to the SHPO in the form of Level II documentation.

Relocation of the Ackerman Overlook. The design for the new overlook uses existing topography and provides a safe viewing area in a shallow depression, which minimizes the negative impact of the overlook to the landscape. The overlook will not be visible from the Cadet Area or other important vantage points on the Air Force Academy property.

WPA Flood Wall

A major flood occurred in Colorado Springs in 1935, during America's economic Great Depression. The flooding caused four deaths and destroyed five of the city's six bridges across Monument Creek, and also caused property damage in Monument Valley Park. Subsequently, stone flood walls were built along both sides of the

creek, as a public works project under the Roosevelt Administration's Works Progress Administration (WPA).

The WPA Flood Wall is found on the east and west sides of Monument Creek from north of Uintah Street to south of Colorado Avenue. Over the years, segments of the WPA wall have been determined eligible for the NRHP under Criteria (a) and (c) for association with the Works Progress Administration and for WPA construction techniques. The Flood Wall has been designated as resource number 5EP3856 by the Colorado State Historic Preservation Officer.

The wall system is not entirely intact as originally constructed due to prior infrastructure projects including the reconstruction of the City's Colorado Avenue bridge.

Impacts to Property

The Proposed Action would affect the WPA Flood Wall on the west side of the Monument Creek between I-25's Cimarron and Bijou Street exits. These effects are described below.

Cantilever Retaining Walls. The proposed project includes constructing a cantilevered roadway slab and cantilever retaining walls above the WPA wall in three locations to minimize the amount of wall that may be impacted with a traditional retaining wall design.

- Cantilever retaining walls will be constructed at the WPA wall north of Colorado Avenue Bridge (1,830 square feet of potential impact).
- South of the Colorado Avenue Bridge a new retaining wall and relocation of the existing trail connection from Colorado Avenue to the greenway trail (1,530 square feet of permanent impact).
- A new retaining wall adjacent to the northbound I-25 off-ramp at Bijou (1,370 square feet of potential impact).

Storm Sewer. A storm sewer outfall pipe south of Bijou will be installed through the wall by removing stones and then replacing them after the storm sewer is installed (400 square feet of permanent impact).

Bijou Bridge Abutment. The Bijou Street bridge will be replaced and the WPA wall will be removed in this location for the abutment

construction (780 square feet of permanent impact).

Visual Impact. The construction of a cantilevered roadway over the WPA wall and construction of retaining walls will have an adverse visual impact on the original setting of the WPA wall.

As the result of consultation with SHPO regarding Section 106, the resulting determination is an adverse effect for the WPA floodwall on the west side of the creek. There are no impacts to the wall on the east side of the creek. (See Figure 9-10 for the location of the impacted areas.)

Avoidance Alternatives

Engineers investigated several alternatives to determine if a feasible and prudent alternative existed to impacting the WPA wall. The avoidance alternatives are described below.

1. No-Action Alternative

The No-Action Alternative is considered not feasible and prudent because it would not allow for capacity increases, implement safety measures, or improve sight distance on I-25.

2. Improve Highway Without Using WPA Wall

This alternative has two variations:

a. Decrease Design Speed

Engineers investigated the possibility of decreasing the design speed from 70 miles per hour to 60 miles per hour between Cimarron and Bijou. This would involve a required reduction in the curve radii from 2,100 feet to 1,400 and 1,600 feet, and the alignment of I-25 could curve slightly to the west, thereby avoiding the WPA wall. This option also uses a variable cantilevered wall design with widths up to 25 feet.

This alternative is considered not feasible and prudent because the reduction of design speed in this location would produce inconsistencies in the design speed for the corridor, thereby causing confusion for motorists, which would adversely affect highway safety. This alternative would require taking two commercial properties: City Glass and SoCal Auto Detailing, at a cost of approximately \$2 million. The excessive width of the cantilevered wall would be difficult to construct and would

cause maintenance problems, particularly with icing.

b. Maintain Design Speed and Move Alignment to west

This alternative maintains the design speed of 70 miles per hour but shifts the freeway alignment to the west. This alternative is considered not feasible and prudent because of substantial right-of-way acquisitions including the Veteran's Administration-El Paso County property, City Glass, and SoCal Auto Detailing, a cost of approximately \$25 million.

3. Improve Highway on New Location

This alternative is not feasible and prudent because the highway is located within a developed urban corridor. Monument Creek and Monument Valley Park limit its location to the east, as do extensive commercial and residential development on the west.

Measures to Minimize Harm

Approximately 400 square feet of the WPA Wall will be permanently impacted with the installation of a new storm sewer structure south of Bijou. The original stones will be removed for construction and replaced after the structure is installed. Qualified stonemasons will reconstruct the impacted portions of the wall at the drainage structure. Detailed plans and photographs will be prepared to show the present condition of the wall and the stones numbered so the stonemasons can rebuild the wall to match its present appearance. Any stones that are not used in rebuilding the wall will be used to replace the riprap underneath the Colorado Avenue Bridge.

The new abutment for the Bijou Bridge will remove 780 square feet of the WPA wall resulting in a permanent impact to the wall. Care will be taken to avoid breakage when removing the stones in any location. Stones not reused in reconstruction will be used to replace the riprap at the Colorado Avenue Bridge. In addition, the scrub vegetation growing between the stones along the entire length of the floodwalls on both sides of the creek will be removed and matching mortar will be used to repair and stabilize the wall. This vegetation is weakening the mortar and stones and causing the wall to deteriorate.

The visual setting of the wall will be adversely impacted by the construction of the cantilevered

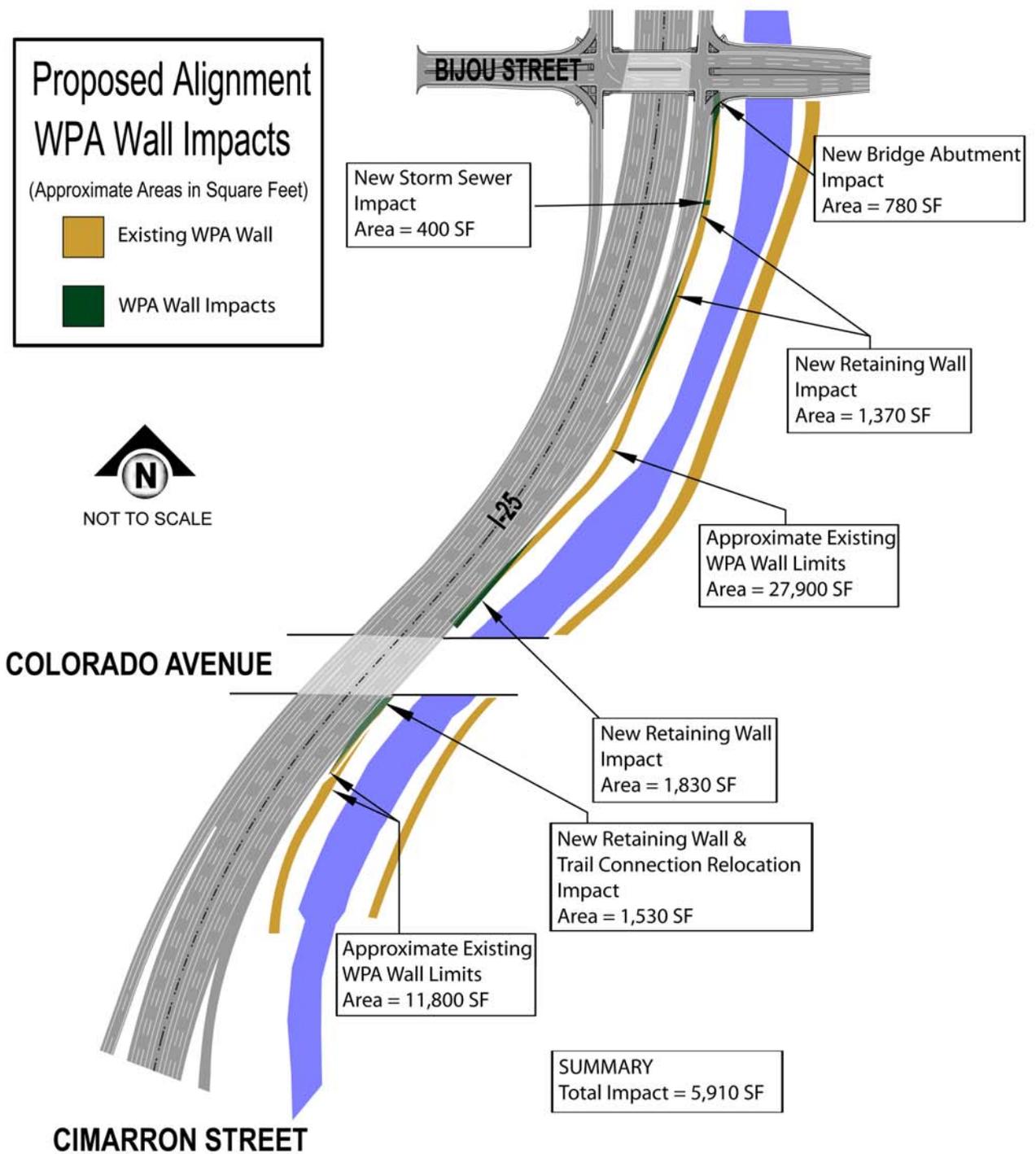


FIGURE 9-10
WPA Flood Wall Impacted Areas

retaining walls and cantilevered roadway over the WPA wall and must be mitigated by a retaining wall design that is compatible with the original WPA wall. The final design will be submitted to SHPO for review and comment to ensure it is compatible with the WPA floodwall.

Input from stakeholders will be sought before the final design is prepared. Level II documentation will be prepared as another form of historic mitigation, including archival photographs and a narrative history of the WPA wall.

St. Mary's Church

St. Mary's Cathedral (formerly called St. Mary's Church), at 26 West Kiowa Street, is located east of the I-25/Bijou Interchange (Exit 142), just across the street from the Monument Valley Park Entrance Gate. This church was completed in 1898 and listed on the NRHP in 1982, based on Criterion (c), for its neo-Gothic design and its architectural presence in downtown Colorado Springs. With the establishment of the Colorado Springs Catholic Diocese in 1984, the building was subsequently renamed St. Mary's Cathedral. This site has been designated as resource number 5EP208 by the Colorado State Historic Preservation Officer.



FIGURE 9-11
St. Mary's Cathedral Right-of-Way Impact

Impacts to Property

Located between Bijou, Kiowa, Sierra Madre, and Cascade streets, the St. Mary's Church and parking lot property is east of the Bijou Street Bridge that will be replaced as part of this project. Across the street from the church on Sierra Madre is a small piece of Monument Valley Park. A small portion of the St. Mary's parking lot will be acquired due to the slight realignment of Bijou Street and the sidewalk (see Figure 9-11).

The Proposed Action includes replacement of the deteriorating Bijou Street bridge. When the bridge is replaced, it must meet new, higher vertical clearance standards required by the railroad. The elevation change to the bridge requires an adjustment to the elevation and curvature of Kiowa Street. It is this change that requires use of a portion of St. Mary's parking lot.

The area of the St. Mary's Cathedral property is approximately 88,000 square feet. The impact of the Proposed Action is a use of approximately 3,000 square feet from the church's western-most parking lot (that was reconstructed in 2003).

This Proposed Action will not negatively impact the historic significance of the church and the determination of effect is no adverse effect.

Avoidance Alternatives

Several alternatives were considered to determine if there was a feasible and prudent alternative to impacting the St. Mary's parking lot. These alternatives are described below.

1. No-Action Alternative

The No-Action Alternative is considered not feasible and prudent because it does not meet the purpose and need for capacity improvements to I-25. It would not allow for capacity increases, implement safety measures, or improve sight distance on I-25.

2. Improve Highway without Using St. Mary's Church Parking Lot

To avoid the church parking lot, Kiowa Street would have to be shifted to the west into Monument Valley Park. This alternative is not feasible and prudent because no right-of-way can be acquired from Monument Valley Park. Due to a 1907 deed restriction placed on the property by the City's founder, General William Jackson Palmer. This deed stipulates

that, if land from Monument Valley Park (historic resource 5EP613) is converted to another purpose, the park will revert to the heirs of the estate. This could potentially result in redevelopment of the park to non-park uses.

Additionally, Kiowa Street cannot be shifted to the south because it would impact three other historic properties: St. Mary's School (5EP3854), the Knights of Columbus building (5EP634), and the Carnegie Library (5EP646).

3. *Improve Highway on New Location*

An alternative was considered for the I-25/Bijou interchange in which a second bridge would be constructed across Monument Creek and the railroad, connecting to Kiowa Street near the southwest corner of the St. Mary's Cathedral property. This alternative was determined to be not feasible and prudent because it would cross historic Monument Valley Park (5EP613) in conflict with the deed restrictions discussed above under avoidance alternative #2. This could potentially result in redevelopment of park land to non-park uses.

Measures to Minimize Harm

A vibration analysis was conducted for the church due to its proximity to construction activities. The analysis identified the following allowable activities:

- Caisson drilling for Bijou Street Bridge at a distance of 315 feet results in no vibration impact.
- Pavement removal and earthwork activities using jackhammers and small bulldozers at a distance of 15 feet results in no vibration impact.
- Construction traffic, including loaded trucks at a distance of 20 feet results in no vibration impact.

Restricted activities: Pavement removal and earthwork activities using a large bulldozer will occur no closer than 20.5 feet to the building.

Other measures include:

- Produce a photo log of the building prior to and following construction.

- Provide fencing and cones to limit proximity of construction equipment to the allowable distance.
- Provide the Contractor with written and oral instruction regarding construction limitations.

CDOT consulted with the St. Mary's administration prior to the reconstruction of the parking lot by the Diocese in July 2003, to ensure that the planned Kiowa Street changes would be compatible with the parking lot improvements.

Coordination

The development of the EA occurred over several years and involved input and guidance from a variety of governmental agencies and citizens.

CDOT coordinated with agencies and entities having jurisdiction over the Section 4(f) properties. These include the Air Force Academy (which is a Cooperating Agency for the EA); St. Mary's Church Administration; and the City of Colorado Springs, including the Parks Department and the Historic Preservation Board. In addition, CDOT and FHWA coordinated the eligibility and effects determinations with the Colorado SHPO. Concurrence from the SHPO was received in February 2004.

Public participation occurred throughout development of the EA and was described in EA Section 5. A series of public meetings and community workshops provided opportunities for interested citizens to participate in the study process and comment on the Proposed Action.

Appropriate correspondence from the coordinating agencies regarding the Draft Section 4(f) Evaluation was contained in Section 12 of the EA.

The United States Department of Interior provided a letter dated May 20, 2004 indicating that it had reviewed the Draft Section 4(f) Evaluation. That letter, included in Section 4 of the FONSI (Response to Agency Comments), states that "[f]ollowing our review of the Section 4(f) Evaluation, we concur that there is no feasible or prudent alternative to the Preferred Alternative and that all measures to minimize harm to affected resources have been taken."

Section 4(f) Finding

Based upon the above considerations, there is no feasible and prudent alternative to the use of land from the U.S. Air Force Academy, the WPA Floodwall, and St. Mary's Church, and the Proposed Action includes all possible planning to minimize harm to these properties resulting from such use.