

FONSI REEVALUATION

MoPac Improvement Project Parmer Lane to Cesar Chavez Street Travis County, Texas

CSJ 3136-01-107

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Austin District

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1.0 PROJECT HISTORY

In August 2012, upon approval of the Environmental Assessment (EA), the Federal Highway Administration (FHWA) issued a Finding of No Significant Impact (FONSI) for the MoPac Improvement Project. The limits of the approved project extend from Farm-to-Market Road (FM) 734 (locally known as Parmer Lane) to Cesar Chavez Street – a distance of approximately 11.2 miles (see **Figure 1** in **Attachment A**). Documentation associated with the approved EA is filed under Control-Section-Job Number (CSJ) 3136-01-107.

The proposed improvements are included in CAMPO's FY 2011 – 2014 Transportation Improvement Program (TIP) and the CAMPO 2035 Regional Transportation Plan (RTP). In the TIP, the project is described as extending from 0.1 mile north of Parmer Lane to the Cesar Chavez Street interchange. In the CAMPO 2035 RTP, the project is described as extending from Parmer Lane to the Cesar Chavez Street interchange. The TIP's inclusion of the '0.1 mile north of Parmer Lane' portion of the project includes a transition section, while the RTP provides a broader definition of the Parmer Lane/MoPac interchange, reflecting consistency between the two plans. The project is consistent with the TIP and RTP.

1.1 Description of Prior Reevaluations

A Reevaluation Consultation Checklist (RCC) for the minor adjustment of the location of the northbound exit ramp from MoPac to Steck Avenue was approved on November 7, 2013, and is currently under review by TxDOT and FHWA.

1.2 Public Involvement

Prior to the start of the approved EA, a number of public involvement efforts were conducted. Two newsletters (Summer/Fall 2006 and Winter/Spring 2007) were produced and mailed, 29 stakeholder interviews were conducted between February and August 2006, three Public Noise Education Forums (October 17, 2006, October 18, 2006, and October 19, 2006) and a Managed Lanes Open House (2/20/2007) were held.

Public involvement conducted under the approved EA included seven Open Houses, informal meetings, workshops and a public hearing. Additionally, a project website was created for the MoPac Improvement Project (MoPacExpress.com). An Open House regarding this reevaluation was held on September 5, 2013, and a summary of the meeting is included in **Attachment B**.

1.3 Construction History

The project is being delivered in a design-build format through an agreement with the Central Texas Regional Mobility Authority (Mobility Authority). Detailed design is ongoing and construction has begun in some areas (see **Section 2.5**).

2.0 PROJECT STATUS

2.1 Right of Way Acquisition Status

The project is located entirely within the existing right of way; therefore, acquisition of additional right of way is not necessary.

2.2 Utility Adjustment or Relocation Status

There are both utility adjustments and relocations. These are ongoing and have not been finalized at this time.

2.3 PS&E Status

The MoPac Improvement Project is being delivered as a design-build project. Design for the entire project has progressed to 30%. Design for individual Segments will be progressed individually, and Segment 2B, which runs from US 183 to RM 2222, is currently at 90%. The remaining segments, 1, 2A, 3 and 4, are still at 30%.

2.4 TIP/STIP and Total Cost Update

There have been no changes to TIP/STIP or the total cost since the issuance of the FONSI. The funding source for the project is Category 2 with local funds contributed. The total project cost according to the TIP is \$232,162,143. Based upon funding agreements executed for the project, the current total project cost is \$199,500,001.

2.5 Construction Status

The active phase of construction includes restriping the existing mainlanes, adding concrete traffic barrier from US 183 to Enfield Road and clearing vegetation in the median. This area of Phase I construction does not overlap with the Cesar Chavez interchange area affected by the design changes being reevaluated in this document. Construction will not commence in the areas affected by the design changes being reevaluated until this document is approved by FHWA.

2.6 Need and Purpose Restatement

Transportation improvements are needed in the project area because of increasing strain on the existing transportation infrastructure due to population and economic growth in the Austin metropolitan area. Rapid growth throughout the region has strained the capacity of the local transportation system, including MoPac and adjacent roadways. As the metropolitan area has grown, travel demand in the MoPac corridor has continued to increase, with forecasts indicating a continuation of this trend well into the future. The number of vehicles traveling on MoPac has increased in tandem with the Austin area's rapidly growing population. Currently, MoPac becomes congested for several hours every day during peak hours of travel. The high travel demand during these peak hours results in slower travel speeds and longer travel times. Congestion results in increased travel time at a cost to travelers, both in terms of fuel consumption and time lost. These conditions, which are projected to worsen in response to continued population and economic growth, indicate a need for transportation improvements.

The purpose of the proposed project is to:

- Improve mobility and operational efficiency by accommodating the movement of people and goods;
- Facilitate congestion management in the corridor;
- Provide a reliable route for transit that will reduce travel times;
- Maximize use of the facility without reducing reliability; and,
- Facilitate reliable emergency response.

By fulfilling this purpose, the proposed improvements would meet the need to address unreliable operations caused by increasing congestion in the MoPac corridor. There has been no change to the need and purpose since the FONSI.

3.0 CHANGES TO ORIGINAL PROJECT

3.1 Design Changes

Two changes to the design evaluated in the EA and approved with the FONSI are proposed and considered in this reevaluation. One proposed design change occurs in the express lane direct connector ramps from Cesar Chavez to MoPac northbound and from MoPac southbound to Cesar Chavez. The original design included elevated express lane entrance and exit ramps crossing over the mainlanes. The proposed design would depress the express lane entrance and exit ramps, crossing below the mainlanes (see **Figure 2** in **Attachment A**). This change is proposed to reduce the overall cost of the project.

The second proposed change involves the southbound exit to Cesar Chavez and 5th Street which is proposed to be re-striped and re-signed to add a lane on the ramp (see **Figure 3** in **Attachment A**). The change is proposed to remove a merge condition and improve operations. Associated with this restriping is the ability for express lane users to have routine access to both Cesar Chavez and 5th Street.

3.2 Right of Way Requirement Changes

Additional right of way is not required as a result of design changes.

3.3 Changes in Surrounding Land Use

There have been no changes to the area surrounding the project since the approval of the 2012 EA.

3.4 Bicycle and Pedestrian Access

Bicycle and pedestrian accommodations in the vicinity of the Cesar Chavez interchange consist of the trail along Johnson Creek, which begins at Enfield Road west of MoPac. The trail continues south within the existing right of way between the southbound frontage road and the southbound MoPac mainlanes and crosses under the mainlanes north of Ladybird Lake. Neither the proposed undercrossing nor the restriping of the 5th street exit from the express lanes would alter or otherwise affect the bicycle and pedestrian trail along Johnson Creek. The proposed design changes also do not alter the project to the extent that new opportunities for bicycle or pedestrian travel could be accommodated.

4.0 REGULATORY COMPLIANCE REVIEW

4.1 New Requirements, Rules, Regulations or Changes Since the Approval of the 2012 EA

Since the approval of the 2012 EA, the Moving Ahead for Progress in the 21st Century Act (MAP -21) was signed into law by President Obama (July 6, 2012). MAP-21 transforms existing policy and programmatic framework and creates a performance-based and multimodal program to strengthen the U.S. transportation system. The change in regulatory framework, however, does not affect the FONSI or the processing of this reevaluation.

4.2 Regulatory Changes

Table 1 summarizes changes in regulatory status to resource areas since the approval of the 2012 EA.

Table 1. Summary of Regulatory Status by Resource Area	
Resource Area	Regulatory Change
Section 4(f) Resources	None
Section 6(f) Resources	None
Transportation Resources	None
Earth Resources	None
Socioeconomic Resources	None
Air Quality	Yes; FHWA released new interim MSAT guidance on December 6, 2012, which requires projects to use EPA's new MOVES emission model rather than the MOBILE6.2 emissions model.
Traffic Noise Analysis	None
Water Resources	None
Ecological Resources	Yes; on August 20, 2013, the Austin blind salamander (<i>Eurycea waterlooensis</i>) was listed as endangered and the Jollyville Plateau salamander (<i>Eurycea tonkawae</i>) was listed as threatened under the Endangered Species Act. Additionally, the regulatory status for two plant species and three mussel species has been updated and are depicted below in Table 2 .
Archeology	None
Historical Resources	None
Hazardous Materials/Waste	Yes; asbestos has been identified on several bridges within the project limits. Asbestos-related bridge demolition activities would be performed in accordance with the Texas Asbestos Health Protection Act (TAHPA) and the National Emissions Standards for Hazardous Air Pollutants (NESHAP) and disposal regulations of the Texas Commission on Environmental Quality (TCEQ) and U.S. Environmental Protection Agency (EPA).
Visual and Aesthetic Resources	None
Indirect and Cumulative Impacts	None

4.3 Description of Regulatory Changes

4.3.1 Air Quality

FHWA released new interim Mobile Source Air Toxics (MSAT) guidance on December 6, 2012, which requires projects to use the U.S. Environmental Protection Agency's (EPA) new MOVES emission model rather than the MOBILE6.2 emissions model. Because the proposed design changes do not affect the capacity of the highway, and traffic volumes and vehicle mix remain unchanged as well, air emissions from the proposed design changes would remain unchanged from those estimated in the EA. Furthermore, carbon monoxide (CO) concentrations are generally found to be lower when using the MOVES model relative to MOBILE 6.2 and FHWA's national MSAT analysis shows significant declines in MSAT in the future. Therefore, further air quality studies are not required.

4.3.2 Ecological Resources

Listing Actions

Table 2 lists the species that have had a change in regulatory status since the issuance of the FONSI. Included are two species of plant, three species of mollusk, and two species of amphibian. The two amphibian species, the Austin blind salamander and the Jollyville Plateau salamander were listed as endangered and threatened, respectively, under the Endangered Species Act on August 20, 2013. Designated critical habitat for these species and the assessment of potential impacts resulting from the project are discussed in greater detail below.

Table 2. Listed Species with Revised Regulatory Status			
Species	2012 EA Status	Current Status	Pertinent Project Information
Plants			
Boerne bean <i>Phaseolus texensis</i>	None	State-listed Rare	This species was recently listed as rare by the State of Texas and therefore impacts were not assessed under the 2012 approved EA. This species is narrowly endemic to rocky canyons in the eastern and southern Edwards Plateau and occurs on limestone soils in mixed woodlands, on limestone cliffs and outcrops and frequently along creeks. Suitable habitat for this species does not occur within the project area; therefore the project would have no impact on this species.

Table 2. Listed Species with Revised Regulatory Status			
Species	2012 EA Status	Current Status	Pertinent Project Information
Bracted twistflower <i>Streptanthus bracteatus</i>	State-listed Rare	Candidate for Federal Listing	The approved EA determined the project would not impact this species as suitable habitat does not occur within the project area. The proposed design changes are in accordance with this determination and would have no impact on this species.
Mollusks			
Texas fatmucket <i>Lampsilis bracteata</i>	State-listed Threatened	Candidate for Federal Listing	The approved EA determined the project would not impact this species as suitable habitat does not occur within the project area. The proposed design changes are in accordance with this determination and would have no impact on this species.
Texas fawnsfoot <i>Truncilla macrodon</i>	State-listed Threatened	Candidate for Federal Listing	The approved EA determined the project would not impact this species as suitable habitat does not occur within the project area. The proposed design changes are in accordance with this determination and would have no impact on this species.
Texas pimpleback <i>Quadrula petrina</i>	State-listed Threatened	Candidate for Federal Listing	The approved EA determined the project would not impact this species as suitable habitat does not occur within the project area. The proposed design changes are in accordance with this determination and would have no impact on this species.
Amphibians			
Austin blind salamander <i>Eurycea waterlooensis</i>	Candidate for Federal Listing	Federally Listed Endangered	The approved EA determined the project would not impact this species due to its apparent restriction to the Barton Creek Watershed. Therefore, this species would not be expected to occur within the project area. The proposed design changes are in accordance with this determination and would have no effect on this species.

Table 2. Listed Species with Revised Regulatory Status			
Species	2012 EA Status	Current Status	Pertinent Project Information
Jollyville Plateau salamander <i>Eurycea tonkawae</i>	Candidate for Federal Listing	Federally Listed Threatened	The approved EA determined the project would not impact this species based on the evaluation that all sites where this species is known to occur are located up-gradient of the project area, and, as a result, surface water runoff from the project area does not have the ability to reach sites occupied by this species. The proposed design changes are in accordance with this determination and would have no effect on this species.

SOURCE: TPWD 2013, USFWS 2013

Description of Critical Habitat

On August 20, 2013, approximately 4,451 acres of critical habitat for the Austin blind and Jollyville Plateau salamanders were designated under the Endangered Species Act. This critical habitat is designated in 33 units located within Travis and Williamson Counties. Critical habitat for the Austin blind salamander does not occur within the vicinity of the project. The nearest habitat for this species occurs approximately 0.68 mile southeast of the project area in association with Barton Creek. Critical habitat for the Jollyville Plateau salamander occurs approximately 1/4 mile west of the project in association with Walnut Creek, designated as Critical Habitat Unit (CHU) 32, and approximately 700 feet west of the project (designated as CHU 31) in association with an unnamed tributary to Shoal Creek (see **Figure 4 in Attachment A**).

Summary of Potential Impacts

Under the approved EA, it was determined that the project would have no impact on either the Austin blind or Jollyville Plateau salamanders. For the Austin blind salamander, this determination was made based on the evaluation that this species appears to be restricted to the Barton Creek Watershed and therefore not within the vicinity of the project. For the Jollyville Plateau salamander, this determination was made based on the evaluation that all sites in which this species is known to occur are located up-gradient of the project area, and, as a result, surface water runoff from the project area does not have the ability to reach sites occupied by this species.

Surface runoff from the proposed improvements would drain away from the Jollyville Plateau salamander CHUs 31 and 32; both CHUs are up-gradient of the proposed MoPac improvements. In the vicinity of CHU 32, the proposed project is not on the Edwards Aquifer Recharge Zone and runoff would be collected on the project and discharged on the east side of the right of way, downstream of CHU 32. Based on the Geologic Assessment conducted for the project, there are no surface recharge features found in the right of way that could potentially convey project runoff to the subsurface. If project runoff were to enter the subsurface in some way, water would be conveyed along faults, which in this area run generally northwest to southeast rather than east to west toward CHU 32. For these reasons project runoff would not affect CHU 32.

In the vicinity of CHU 31, **Exhibit 4.3-1** shows that the existing storm sewer system and culvert (shown in dark blue) would remain unchanged and all runoff would continue to flow to the east, away from Unit 31. Since this area is not within the Edwards Aquifer Recharge Zone, and no karst features have been identified in this area, surface runoff would not have a pathway to enter the subsurface. Similar to the situation with CHU 32, if runoff were to find its way to the subsurface, water would be conveyed along faults, which in this area also run northwest to southeast rather than east to west toward CHU 31. Project runoff would not affect CHU 31.

Although surface water runoff would discharge in several locations along the 11-mile project, there are no other CHUs in the vicinity of the proposed project, and no CHUs downstream of the proposed project. Stormwater runoff from the project would be treated with appropriate sedimentation controls as described further below.

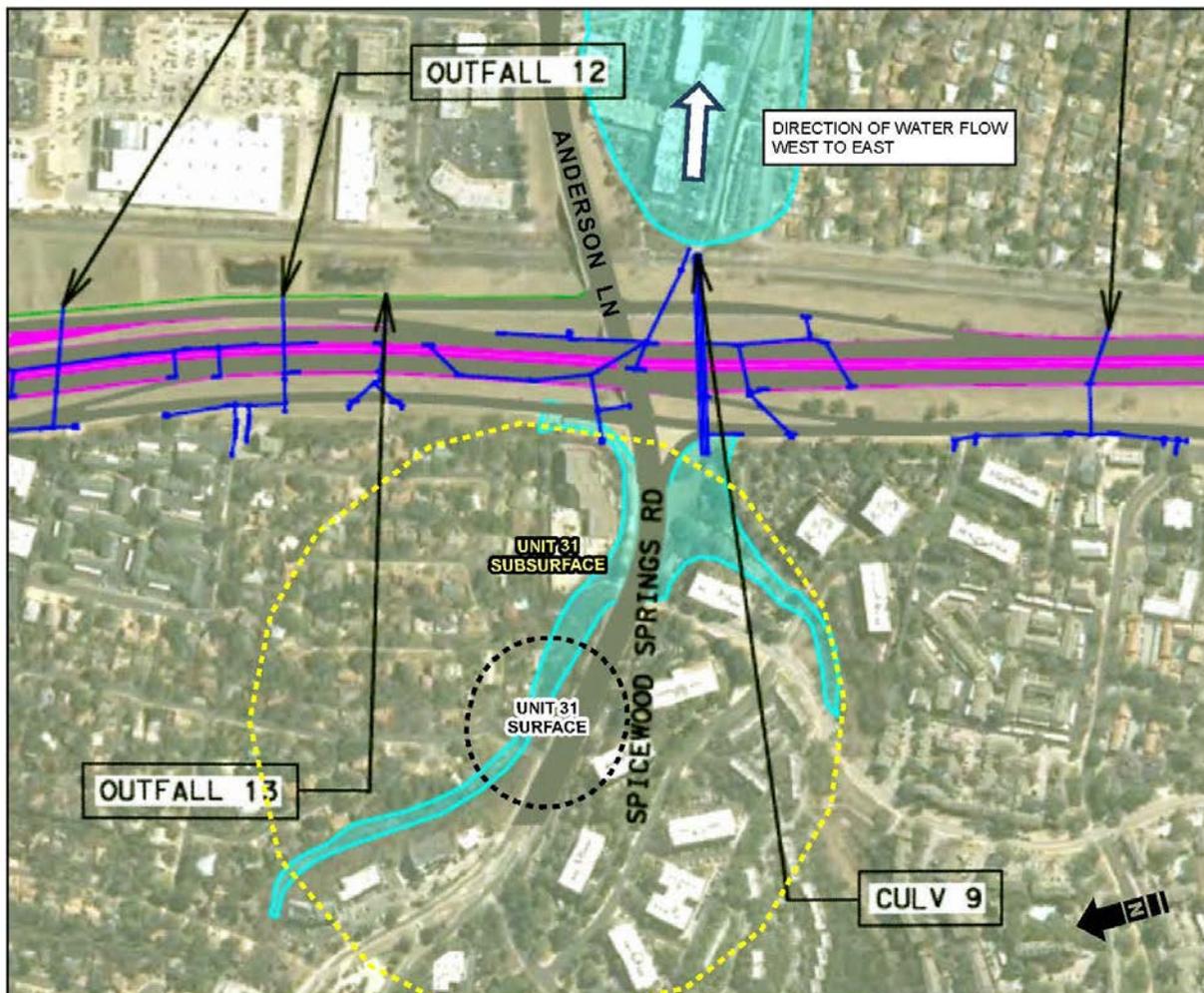


Exhibit 4.3-1 Storm Sewer Drainage System

Subsurface water quality would also not be affected in the areas around CHUs 31 and 32. Areas of the project over the Recharge Zone would include a Water Pollution Abatement Plan, which would include both temporary and permanent controls to protect water quality; areas off the Recharge Zone would include temporary erosion and sedimentation controls. These measures would serve to improve the quality of stormwater discharges from the project and prevent pollution of both surface and subsurface water resources.

During construction, a storm water pollution prevention plan would be implemented that would control erosion and sedimentation through the use of best management practices as shown in **Attachment B**. After construction, particulates would be removed from runoff through the use of a Permeable Friction Coarse (PFC) placed as the top surface of the new and existing pavement. Research by Barrett, et al., indicates that runoff from PFC is of significantly better quality than runoff from the conventional asphalt surface (Barrett, et al. 2006). **Exhibit 4.3-2** shows the drainage areas and gradient in the area; similar drainage area plan sheets in **Attachment B** show the direction of flow for these drainage areas.

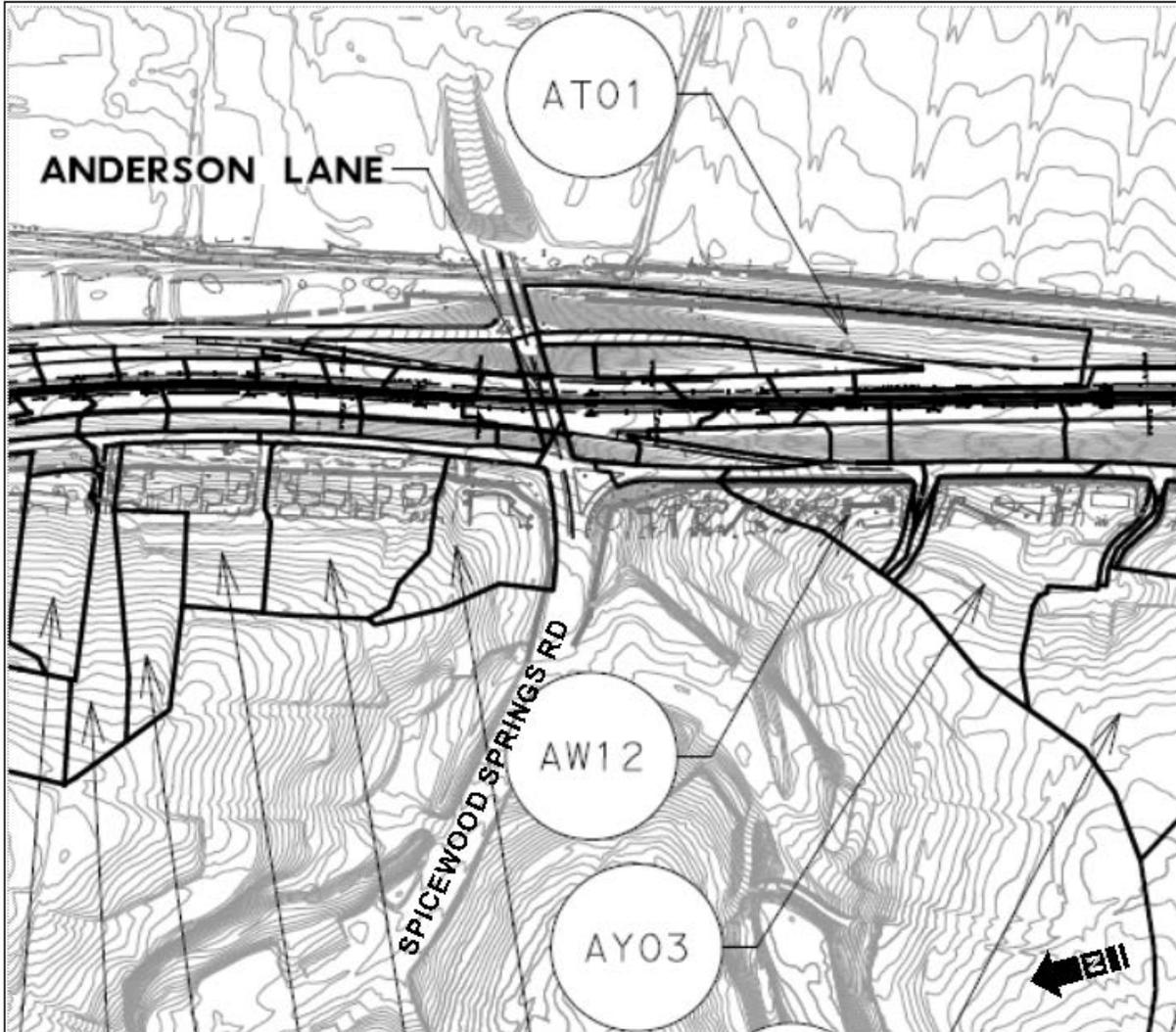


Exhibit 4.3-2 Drainage Areas and Gradient

Based on the evaluation of potential surface and subsurface storm water pathways and a field visit conducted on August 31, 2013, the project would have no effect on the Jollyville Plateau salamander or its designated critical habitat. Therefore, coordination with the USFWS is not required.

4.3.3 Hazardous Materials

Asbestos containing materials surveys were performed for TxDOT in 2007, and asbestos has been identified on several bridges within the project limits requiring demolition and/or renovation. Prior to construction activities, a 10-Day Notification shall be submitted to the Department of State Health and Human Services (DSHS). Asbestos-related bridge demolition activities would be performed in accordance with the Texas Asbestos Health Protection Act (TAHPA) and the National Emissions Standards for Hazardous Air Pollutants (NESHAP) and disposal regulations of the Texas Commission on Environmental Quality (TCEQ) and U.S. Environmental Protection Agency (EPA).

5.0 ENVIRONMENTAL IMPACTS

Table 3 summarizes changes in environmental impacts to resource areas that would result from the proposed design changes.

Table 3. Summary of Environmental Impacts	
Resource Area	Change in Impacts
Section 4(f) Resources	None
Section 6(f) Resources	None
Transportation Resources	None
Earth Resources	None
Socioeconomic Resources	None
Air Quality	None
Traffic Noise Analysis	None; although traffic noise analysis was performed.
Water Resources	None
Ecological Resources	Yes; changes in impacts to vegetation
Archeology	None
Historical Resources	None; Section 106 coordination was completed with the THC on August 29, 2013
Hazardous Materials/Waste	None
Visual and Aesthetic Resources	Yes; reduction in impacts from downtown access ramps
Indirect and Cumulative Impacts	None; change in access to 5 th Street from the express lanes does not affect traffic volumes or travel patterns.

5.1 Description of Changes in Impacts resulting from the Proposed Design Changes

Traffic Noise Analysis

An updated noise analysis regarding the proposed design change was conducted within the TNM 2.5 model runs used in the 2012 approved EA. The sound walls in the vicinity of the proposed design changes, walls 17, 20B, and 22, and their associated receivers were left in place in the model and remain geometrically the same as presented to the public during Sound Wall Workshops. The south end of sound wall 23 shifted approximately 14 feet to the east to conform to the horizontal modification of the southbound main lanes and the exit ramp to 5th Street and Cesar Chavez. Due to the lane reconfiguration the wall was also shortened by 65 feet (see **Figure 5** in **Attachment A**). Representative receivers originally modelled in the 2012 EA were identified and updated modelling was performed on these receivers. The predicted noise levels in the 2012 EA along with the predicted noise levels resulting from this reevaluation are presented in **Table 4**.

Table 4 Predicted Noise Levels: 2012 EA vs. Reevaluation					
Representative Receiver	NAC Category	NAC Level	2012 EA- Predicted Noise Level dB(A)	Reevaluation- Predicted Noise Level db(A)	Change (+/-)
R48 - 1306 Winstead Ln	B	67	71	71	+0
R49 - 1811 Palma Plz	B	67	70	72	+2
R50 - 2101 10th St	B	67	74	72	-2
R53 - 902 Theresa Ave	B	67	71	70	-1
R60 - Johnson Greenbelt	C	67	72	71	-1
R61 - Johnson Greenbelt	C	67	72	74	+2

According to the 2012 EA, sound wall 17 overlapped with sound wall 16, and cost averaging was employed. The total cost of the walls was \$1,133,859 or \$10,697 per benefited receiver. During the voting by landowners adjacent to the walls, 100% of ballot respondents voted yes. Therefore walls 16 and 17 were incorporated into the project. In this reevaluation of the noise model, sound wall 17 was modelled at the same length and height as in the EA, 1,760 feet long and between eight and 20 feet high. With these dimensions, the wall reduced noise levels by five dB(A) for seven receivers, none of which are first row. As part of the cost averaging methodology, the noise reduction benefits of wall 17 are combined with the benefits of wall 16, which would reduce noise levels by five dB(A) for 99 receivers. When combined, wall 16 and wall 17 reduce noise levels by five dB(A) for a total of 106 receivers at the same cost of \$1,133,859 or \$10,697 per benefited receiver and are still considered feasible and reasonable.

Sound wall 20B was previously considered feasible and reasonable as a wall with two segments at a cost of \$140,561 or \$11,713 per benefited receiver. A total of 75% of ballot respondents voted yes and the wall was incorporated into the project. In this reevaluation of the noise model, sound wall 20B was modelled at the same segment lengths and heights as in the EA. The first segment is 651 feet long and

eight to ten feet high. The second segment is 127 feet long and ten to twelve feet high. With these dimensions, the wall reduced noise levels by five dB(A) for 12 receivers and seven dB(A) for five first row receivers at the same cost of \$140,561 or \$11,713 per benefitted receiver. Sound wall 20B remains feasible and reasonable.

In the 2012 EA, sound walls 21, 22 and 23 overlap, and cost averaging was employed. The total cost of all three walls was \$1,046,599 or \$15,857 per benefitted receiver. The voting for incorporation of these walls was conducted separately, with 100% of respondents voting yes for walls 21 and 22 and 63% of respondents voting yes for wall 23. In this reevaluation of the noise model, sound wall 22 was modelled at the same length and height as in the EA, 1,993 feet long and between ten and 14 feet high and with the same number of receivers in the same locations. With these dimensions, the wall reduced noise levels by five dB(A) for 14 receivers and seven dB(A) for three first row receivers. Sound wall 23 was modified relative to the length and horizontal placement of the wall in the EA. The southern end of the wall was shifted to the east approximately 14 feet and shortened by 65 feet to conform to the modification of the alignment of the southbound main lane and the ramp exit to 5th Street and Cesar Chavez. The number and location of receivers modelled for this reevaluation remained the same as in the EA. The new dimensions of wall 23 as modelled in the reevaluation are: 1,065 feet long; and 14 feet high. With these new dimensions, wall 23 still reduced noise levels by five dB(A) for 15 receivers and seven dB(A) for eight first row receivers, representing no change in noise impacts relative to the EA. When combined, walls 21, 22, and 23 reduce noise levels by five dB(A) for 66 receivers at a cost of \$1,013,470 or \$15,355 per benefitted receiver and are still considered feasible and reasonable.

Impacts to Vegetation

The proposed design changes would result in a change in impacts to vegetation within the median just north of Johnson Creek (see **Figure 6 in Attachment A**). Tree species in this area consist primarily of sugarberry (*Celtis laevigata*), netleaf hackberry (*Celtis reticulata*), box elder (*Acer negundo*), paper mulberry (*Broussonetia papyrifera*), cedar elm (*Ulmus crassifolia*), retama (*Parkinsonia aculeata*), green ash (*Fraxinus pennsylvanica*) and chinaberry (*Melia azedarach*). The average height of these species is 15 to 20 feet with an average diameter at breast height (dbh) of 8 to 20 inches. Canopy coverage ranges from 30 to 50 percent. Dominant shrub species include bumelia (*Sideroxylon lanuginosum*), persimmon (*Diospyros texana*), mountain laurel (*Sophora secundiflora*), waxleaf ligustrum (*Ligustrum japonicum*) and Chinese privet (*Ligustrum sinense*). Dominant vine species include trumpet creeper (*Campsis radicans*), dewberry (*Rubus trivialis*), Virginia creeper (*Parthenocissus quinquefolia*) and poison ivy (*Toxicodendron radicans*). Herbaceous species consist primarily of silverleaf nightshade (*Solanum elaeagnifolium*), bermudagrass (*Cynodon dactylon*), giant ragweed (*Ambrosia trifida*), western ragweed (*Ambrosia psilostachya*), johnsongrass (*Sorghum halepense*), Mexican hat (*Ratibida columnifera*), little barley (*Hordeum pusillum*), devil's aster (*Aster spinosus*) and dwarf Mexican petunia (*Ruellia brittoniana*). The vegetation within this area was not proposed to be impacted by the project in the 2012 EA. Detailed drainage design within this area is in the process of being finalized, and based on preliminary drainage design, the proposed design change would impact approximately 0.62 acre of this vegetation. Additionally, under the 2012 EA approximately 0.3 acre of wooded vegetation along Johnson Creek trail was to be removed (see **Figure 6 in Attachment A**). The proposed design changes

would avoid impacting the area along Johnson Creek trail, resulting in a 0.3 acre reduction in impacts to vegetation in this location. Overall, the proposed design changes would result in a net increase of 0.32 acre of vegetation impacts along Johnson Creek.

TxDOT coordinated with Texas Parks and Wildlife (TPWD) during the 2012 EA phase. TxDOT responded to TPWD comments regarding the EA on January 25, 2012. TPWD recommendations included protective measures to minimize or avoid impacts to project area creeks, Jollyville Plateau salamander habitat and the removal of woody vegetation. Protective measures for all of these were incorporated into the project design by TxDOT and no modifications were made to the project based on these recommendations. In the 2012 EA, TxDOT initially assumed that most vegetation types within the right of way would be removed or disturbed. Detailed design and the development of a tree preservation plan will now result in an overall net decrease in vegetation impacts project-wide, even considering the minor increase along Johnson Creek, relative to that which was originally stated in the EA; therefore, no additional coordination with the TPWD is required.

Visual and Aesthetic Impacts

The 2012 EA noted that the project included construction of downtown access ramps at the Cesar Chavez Street interchange, and that at their highest point the ramp structures would rise approximately 25 feet above the ground's surface. The EA notes the proposed ramps would be visible to residents and users of local parks near the interchange. With the proposed design change, the elevated ramps would be eliminated and the downtown access ramps would be below ground as they cross the MoPac main lanes and would be at grade otherwise. This would result in a reduction of the visual and aesthetic impacts indicated in the 2012 EA.

Indirect and Cumulative Effects

TxDOT and the Mobility Authority have proposed the restriping of the Express Lane ramp exit to 5th Street to add a second lane to remove a merge condition and improve operations. The revision also includes a change to signing. The added access provides consistent service for both Express Lane and general purpose lane traffic. This conforms to TxDOT's and the Mobility Authority's goal of providing mobility options, particularly to transit and emergency vehicles.

Regarding the potential for increased traffic volumes resulting from this restriping, a series of studies were conducted to look at the various issues. The first study, conducted in March 2012, was an operational traffic model of the southbound Express Lane exit ramp. The model indicated that allowing access to both Cesar Chavez and 5th Street would be operationally acceptable.

In May 2012, the Texas A&M Transportation Institute conducted a peer review, which found no issues with the aforementioned modeling. At the same time, the Network Modeling Center at the University of Texas was engaged to conduct a Dynamic Traffic Assignment Model for Cesar Chavez and 5th Street leading into downtown Austin. The proposed Pressler Street connection and additional traffic signals on 5th Street were taken into account. The model found there were no significant differences in traffic

count flow between the two routes regardless of whether 5th Street access was provided or not. The Mobility Authority did a peer review of the findings in May 2012 and found no issues with the result.

A third peer review of both studies was conducted in January 2013. This review determined the previous studies were reasonable and properly identified the likely results of the Express Lane connection to downtown. The report indicated the merge condition on the exit ramp would create a weaving situation that is not ideal, but is common in other locations. The study suggested that uncertainty regarding future land use along both corridors made predicting long-term attractiveness of various access scenarios difficult. The study recommended adding an additional lane to improve traffic operations to the downtown exits; essentially making the far left lane 5th Street access only, drivers in the middle lane could access downtown on either 5th Street or Cesar Chavez, and the far right lane Cesar Chavez only.

Based on these results it was determined that there would be no project-related changes, direct or indirect, to the existing conditions for pedestrians and bicycles on 5th street, effects to adjacent businesses and residential areas, and increased congestion at the intersection of 5th street and Lamar Boulevard. 5th Street is currently a collector for downtown traffic, as it is an existing exit from MoPac. The proposed design change is consistent with that use. The previous determinations of indirect and cumulative effects in the 2012 EA, therefore, remain unchanged relative to the 5th Street restriping.

5.2 Additional Resource Agency Coordination

Coordination with the Texas Historical Commission (THC) regarding the proposed design changes was conducted under Section 106 of the National Historic Preservation Act (NHPA), and it was determined that they would have no adverse effect to any character-defining features or historic aspects for which a property or district may be eligible for or listed in the NRHP. The THC concurred with this determination and a copy of the August 29, 2013 concurrence letter is provided in **Attachment D**. TxDOT also coordinated the proposed design changes with the Section 106 Consulting Parties in a letter dated August 15, 2013. Three comments were received within the comment period. TxDOT responded to these comments in a letter dated September 19, 2013. The Consulting Party comments and TxDOT's response letter are included in **Attachment D**.

6.0 PUBLIC INVOLVEMENT

An Open House was held on September 5, 2013, by the Mobility Authority to discuss the proposed design changes. A summary of this meeting is included in **Attachment B** of this document.

7.0 CONCLUSION

The environmental documentation for this project has been reviewed, and it has been determined that there have been no significant changes to the assessed areas. The FONSI designation remains valid and further environmental studies are not warranted.

REFERENCES

Barrett, Michael E., Pam Kearfott, and Joseph F. Molina Jr. Stormwater Quality Benefits of a Porous Friction Course and Its Effect on Pollutant Removal by Roadside Shoulders. October 2006.

Texas Parks and Wildlife Department (TPWD). Annotated County Lists of Rare Species: Travis County, last revision October 2, 2012. <http://www.tpwd.state.tx.us/gis/ris/es/>, accessed September 3, 2013.

U.S. Fish and Wildlife Service (USFWS). Endangered Species List. List of Species by County for Texas: Travis County, last revision August 29, 2013. http://www.fws.gov/southwest/es/ES_Lists_Main.cfm, accessed September 3, 2013.