Environmental Assessment Errata Sheet

Loop 375 (Transmountain Road) from I-10 to 0.479 mile East of the Tom Mays Unit of the Franklin Mountains State Park Entrance

El Paso County, Texas

CSJ 2552-01-033

August 9, 2011

The following errata sheet is being provided to the Federal Highway Administration (FHWA) in order to identify sections of the February 2011 Environmental Assessment (EA) for the above-referenced project that have been corrected or updated since issuance of satisfactory for further processing (SFP) by FHWA on February 11, 2011.

1. Page ii, List of Tables: Tables 2.1, 2.2, and 2.3 are revised as follows and as reflected under Errata #6, based on updates to Section 2.0 of the February 2011 EA:

   Table 2.1 Summary of Alternatives Analysis Data (2035)
   Table 2.2 Analysis of Conflict Points along the LP 375 Corridor
   Table 2.3 Analysis of Conflict Points Alternative 5

2. Page 9, Section 1.2.2, ¶2: the following discussion replaces the existing paragraph in the February 2011 EA in order to reflect updates to Section 2.0:

   "In order to evaluate proposed transportation solutions intended to address the need to improve this corridor, a state of the practice procedure was utilized. This process utilizes several quantifiable parameters, which are referred to as Measures of Effectiveness (MOE), that provide information on how well each proposed solution performs under future traffic conditions and how each addresses the stated local and regional mobility and safety needs of the project (**Section 1.2.1**). The MOEs used to measure congestion are average corridor travel time, average corridor speed, total corridor intersection delay, and total corridor average queue length. To evaluate safety, two parameters were used: corridor total number of vehicle-to-vehicle and vehicle-to-pedestrian conflict points at all intersections, and the percent of vehicles that are exposed to at least one conflict point. Detailed descriptions of each of these MOEs and how they were used to evaluate alternatives are provided below in **Section 2.0** Alternatives."

3. Page 9, Section 1.2.3, ¶1: the following statement replaces the existing paragraph in the February 2011 EA in order to reflect that the project is now programmed in the Mission 2035 MTP and that it is part of the most recent conforming plan:

"The project is programmed in the new Mission 2035 MTP and the 2011-2014 TIP (Appendix C), to reflect that Proposition 12 funds have been allocated for the implementation of proposed improvements. The Mission2035 MTP was approved by the MPO Policy Board on August 5, 2010 as well as the corresponding Mission 2011-2014 TIP. Transportation Conformity documents for the Mission 2035 MTP and TIP were approved by FHWA on January 28, 2011. The proposed project is consistent with the appropriate MTP and TIP."

4. Page 11, Section 1.3: the following paragraphs should be added to the end of this section in the February 2011 EA in order to provide a summary of the public hearing conducted after the issuance of SFP:

"On February 11, 2011, FHWA determined that the document was satisfactory for further processing. TxDOT scheduled a public hearing to be held on March 22, 2011 at the Canutillo High School at 6:00 P.M., and on February 16, 2011, TxDOT mailed out letters to El Paso area federal, state, and local elected officials and non-elected officials, as well as the property and business owners adjacent to the proposed corridor and interested parties. The hearing was advertised in notices published in English in the El Paso Times and in Spanish in El Diario de El Paso. In addition, the hearing was announced in newspaper articles and on local television news and radio stations in weeks prior to the hearing. The hearing included an open house format that allowed attendees to review project information (provided in English and Spanish), project schematics, environmental constraints maps, virtual simulations of project alternatives displayed on television screens, and copies of the EA. The open house was followed by a presentation of project information and development and the public comment period. A Spanish-language interpreter was available during the hearing. The total registered attendance consisted of 240 persons composed of 186 members of the general public, 14 public officials, and 10 media personnel. Thirty team members were present to support the attendees and answer questions. A total of 40 individuals registered to provide verbal comments, and 30 chose to make verbal comment. Members of the media who attended the hearing, including representatives from KVIA – 7, Telemundo, La Voz - KXPL Radio, the El Paso Times, and El Diario de El Paso, were given media packets containing project information. One hundred thirty-one individuals made comments on the proposed project through letters, e-mail, comment forms, and verbal comments given during the hearing. These comments ranged from input on the proposed freeway design and other project alternatives, input on the reconfiguration of the entrance to the Tom Mays Unit, wildlife crossings, open space and zoning questions, as well as comments in support of the project. As a result of the public involvement process, TxDOT has committed to formulate a new project within six months that would begin to analyze a permanent entrance to Tom Mays Unit Park. Based on that analysis, TxDOT would proceed with implementing a feasible and environmentally acceptable option for the permanent entrance to the park.

All of the comments received during the public hearing process and the responses to each are included in the public hearing summary, which includes a summary of the hearing, certification of the hearing, responses to the verbal and written comments received at the hearing or by mail, sign-in sheets, written comments, transcript, mailing list of those who received notice of the hearing, public hearing notices, hearing presentation slides and handouts, and photographs. A copy of the public hearing summary is on file and available for review at the TxDOT El Paso District Office."

5. Pages 16-19, Section 2.1.2: the following paragraphs replace Section 2.1.2 in the February 2011 EA in order to reflect updates to the Alternatives Analysis:

2.1.1 Analysis of No Build and Preliminary Build Alternatives

The No Build and the four preliminary build alternatives were analyzed utilizing state-of-the-practice evaluation techniques and models. A microscopic traffic simulation model, using the VISSIM simulation software, was developed for the LP 375 corridor. Each alternative was modeled with the VISSIM traffic simulation software for two future conditions: 2015 and 2035. (Results of the modeling effort are summarized and included in **Appendix G.)**

Measures of Effectiveness

In order to evaluate alternatives in a consistent and objective manner, several MOEs were established. MOEs provide information that describe the performance of each alternative as traffic conditions along the corridor increase. The MOEs used in this analysis for projected conditions in 2015 and 2035 are:

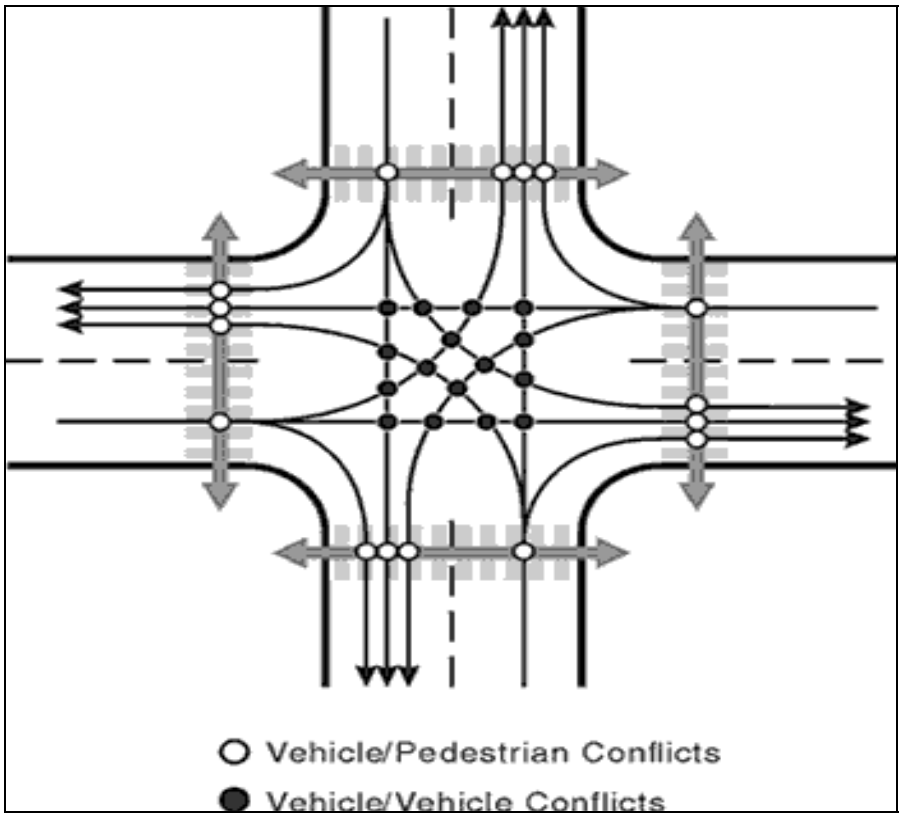
- **Average Corridor Travel Time (min)**: The travel time MOE was developed by generating an average time including both directions of travel between the limits of the project. For Alternatives 4 and 5, the MOE was generated using only the mainlane traffic and not the local access road (Alternative 4) or frontage road (Alternative 5). Longer corridor travel times indicate congestion along the corridor.

- **Average Corridor Speed (miles/hour)**: The average corridor speed MOE is calculated by taking the average speed in both directions of travel through the length of the corridor. Similarly as with average travel time, the average speed was estimated on the main lanes of travel of Alternatives 4 and 5. Lower corridor speeds indicate congested operating conditions. Alternatives with at-grade intersections and fewer through lanes (less capacity) would have average speeds less than a freeway alternative.

- **Total Corridor Average Intersection Delay (sec/veh)**: Total Corridor Average Intersection Delay represents the sum of the average delay at all intersections throughout the corridor. In general terms, intersection delay measures the time it takes a vehicle to negotiate and cross through an intersection.

- **Total Corridor Average Queue Length (feet)**: Total Maximum Queue Length reflects the sum of the maximum queue length at each intersection along the corridor. This MOE is both a function of congestion and safety. Long individual intersection queues are an indication of roadway congestion and bear directly on safety

- **Corridor Total Conflict Points**: Corridor Total Conflicts Points correspond to the total number (i.e., the sum) of vehicle-to-vehicle and vehicle-to-pedestrian conflict points at the five intersections along the corridor. The following diagram provides a graphical depiction of conflict points associated with roadway intersections. As an MOE, conflict points between vehicles and vehicles and pedestrians were totaled for each alternative.



Source: Federal Highway Administration University Course on Bicycle and Pedestrian Transportation, Lesson 11: Pedestrian at Intersections, July 2006

- **Percent Vehicles Exposed to at Least One Conflict Point**: This MOE represents the result of at least one vehicle-to-vehicle or vehicle-to-pedestrian conflict. Based on approach Average Daily Traffic (ADT) along the entire corridor, inclusive of mainlanes, frontage roads, and north-south cross streets, percent proportions of ADT approaching individual intersections were calculated to determine exposure to conflict points.

Average Corridor Travel Time and Average Corridor Speed measure through-put along the entire length of the corridor. The rest of the MOEs evaluate the performance of the intersections along the corridor. Prior to the analysis using the VISSIM microsimulation techniques, TxDOT attempted to evaluate the No Build and the four preliminary build alternatives using a safety

evaluation tool developed for TxDOT by the Texas Transportation Institute (TTI). This tool, titled the "Roadway Safety Design Workbook," was developed through Research Project 0-4703. The tool uses safety models developed by national research as the basis for the AASHTO Highway Safety Manual and considers the relationship between various geometric design components and highway safety and calibrates the national models based on crash data specific to Texas. However, the workbook does not provide for quantitative safety relationships for each element of roadway design, which required that multiple assumptions be made regarding design elements of each alternative. The safety prediction models and the accident modification factors contained in the workbook were limited to the range of data that was used for development of the tools, which were not compatible with the data available for the LP 375 corridor. Due to these limitations, the results of the safety tool analysis were considered unreliable and were not used to evaluate the No Build and preliminary build alternatives.

6. Pages 19-23, Section 2.1.3: the following replace Section 2.1.3 in the February 2011 EA in order to reflect updates to the alternatives analysis:

2.1.3 Summary of MOE Analysis by Alternative

The following section provides a summary of the results of the MOE analysis for each of the project alternatives. Please refer to Appendix G for detailed tables of all the MOE results from the VISSIM microsimulation analysis.

Table 2.1 summarizes the results of the updated micro-simulation analysis for the No Build and four preliminary build alternatives. In general terms, the data for the No Build alternatives serve as a benchmark to evaluate and compare the performance of the four preliminary build alternatives in the year 2035. The MOEs quantify and evaluate how each alternative provides for mobility and safety improvements along the corridor.

2.1.3.1 Alternative 1 (No Build)

Alternative 1 will be used in alternative analyses as the baseline condition for comparison to determine whether a proposed alternative improves mobility by reducing travel times, increasing average speed, and reducing system intersection delay and queue length; and improving safety by reducing the total number of conflict points as well as reducing the number of potential collision opportunities along the corridor. A conflict points is created when two allowed traffic movements in an intersection cross each other, thus creating an opportunity for a collision.

The data presented in Table 2.1 indicate that the No Build scenario in 2035 LP 375 would experience highly congested conditions along the corridor and at the intersections, as evidenced by the average travel speed of 13 miles per hour along the corridor. **Table 2.1** also shows that the Total Corridor Intersection Delay, which represents the sum of the average delay at all intersections in the corridor, is 1,178 seconds per vehicle. Similarly, **Table 2.1** presents that Total Average Queue Length, which reflects the sum of the highest average queue length at each intersection, is 10,353 ft.

In terms of safety, the No Build alternative presents existing safety concerns that were described earlier in this document. According to the microsimulation results, traffic queues at the intersections in 2035 would be more than a quarter of a mile long, including the easternmost intersection at the entrance to the Tom Mays State Park (Park Entrance Road). This would create an undesirable condition when vehicles are traveling at high speeds down a five to seven percent grade and reach the queue of idle vehicles on the main travel lanes waiting to go through the intersections.

In terms of safety, the No Build alternative shows a total of 140 conflict points along the corridor. This number represents the sum of all vehicle-to-vehicle and vehicle-to-pedestrian conflict points at all intersections along the corridor. In addition, under this alternative, all of the vehicles (i.e., 100%) travelling along LP 375 would be exposed to at least one of the conflict points at any intersection. This information is presented in **Table 2.2** for this and all alternatives.

Table 2.1 Summary of Alternatives Analysis Data (2035)

		MOBILITY					SAFETY				
Alternative	**Description**	**Average Corridor Travel Time (min)**	**Average Corridor Speed (MPH)**	**Total Corridor Intersection Delay (sec/veh)[1]**	**Total Corridor Average Queue length (ft)[1]**	**Improves Mobility**	**Corridor Total Conflict Points[2]**	**Percent Vehicles Exposed to at Least One Conflict Point[3]**	**Improves Safety**	**Meets Need and Purpose**	**Carried Forward**
1	No Build	30.2	13	1178	10353	No	140	100%	No	No	Yes
2	Construct Climbing Lane	23.5	16	792	10474	Yes	140	100%	No	No	No
3	Construct Two New Lanes	19.4	16	579	11337	Yes	140	100%	No	No	No
4	Boulevard Concept	19.0	18	762	11043	Yes	266	100%	No	No	No
5	Freeway	7.5	34	325	2973	Yes	108	52%	Yes	Yes	Yes

[1]: The values presented for total corridor intersection delay and average queue length were calculated considering seven intersections (west to east): South Desert Blvd (I-10 frontage rd), North Desert Blvd (I-10 frontage rd), Northwestern Dr., Resler Dr., Plexxar Dr., Paseo del Norte Dr., and FMSP entrance.

[2]: The values correspond to the total number (i.e., the sum) of vehicle-to-vehicle and vehicle-to-pedestrian conflict points the intersections along the corridor, excluding South Desert Blvd. and North Desert Blvd. Refer to "Loop 375 (Transmountain Road) Corridor Alternative Simulation Study," August 9, 2011 by Jacobs Engineering Group, Inc., Appendix D, for Vehicular and Pedestrian Conflict Points, for locations, and for numbers of conflict points at each intersection.

[3]: In Alternative 1 through 4, all vehicular movements in an intersection result in at least one vehicle-to-vehicle or vehicle-to-pedestrian conflict. Alternative 5 provides grade separated intersections between the main lanes of Loop 375 and the four cross streets along the corridor. Approximately 48% of the traffic in the system is travelling along the main lanes and is excluded from encountering any conflict point. Refer to Tables 2.2 and 2.3 for individual intersection analysis.

Table 2.2 Analysis of Conflict Points along the LP 375 Corridor

	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Northwestern					
Not Exposed[1]	0%	0%	0%	0%	59%
Exposed[1]	100%	100%	100%	100%	41%
Total Conflict Points	32	32	32	49	24
Resler					
Not Exposed[1]	0%	0%	0%	0%	41%
Exposed[1]	100%	100%	100%	100%	59%
Total Conflict Points	32	32	32	78	24
Plexxar					
Not Exposed[1]	0%	0%	0%	0%	71%
Exposed[1]	100%	100%	100%	100%	29%
Total Conflict Points	32	32	32	78	24
Paseo del Norte					
Not Exposed[1]	0%	0%	0%	0%	59%
Exposed[1]	100%	100%	100%	100%	41%
Total Conflict Points	32	32	32	49	24
FMSP entrance					
Not Exposed[1]	0%	0%	0%	0%	0%
Exposed[1]	100%	100%	100%	100%	100%
Total Conflict Points	12	12	12	12	12
Total Corridor					
Not Exposed[1]	0%	0%	0%	0%	48%
Exposed[1]	100%	100%	100%	100%	52%
Total Conflict Points	140	140	140	266	108

[1]: Percentage represents proportion of ADT approaching individual intersections.

NOTE: Calculation of percentages for Alternative 5 is presented in Table 2.3.

2.1.3.2 Alternative 2 (Construct Climbing Lane)

This alternative addresses growing concerns regarding decreased passing opportunities for traffic traveling up the mountain grade as traffic volumes increase into the future. It is a relatively low-cost alternative because it could be built inside existing ROW while also minimizing construction material and labor requirements. Alternative 2 demonstrates modest improvement to average speed to 16 mph when compared to the No Build Alternative's 13 mph., as shown in **Table 2.1**. Total Corridor Intersection Delay is reduced to 792 seconds per vehicle (33% improvement compared to No-Build) while Total Corridor Average Queue Length increases slightly to 10,474 ft., which represents a 1% deterioration compared to No-Build. Compared to the No-Build Alternative, Alternative 2 improves mobility along the corridor.

In terms of safety, Alternative 2 shows the same number of conflict points along the corridor (140) as the No Build alternative. Also, there is no improvement in the number of vehicles that

are exposed to any conflict point. This alternative shows that there would be substantial queuing at every intersection, including the intersection of LP 375 and the Park Entrance Road. The undesirable conditions described in the No Build alternative would also exist under this alternative.

Although Alternative 2 shows modest improvements to mobility, it does not improve the safety elements that are required by the project's need and purpose. For this reason, it was eliminated from further study.

2.1.3.3 Alternative 3 (Construct Two New Lanes)

This alternative would help reduce traffic conflicts with future driveways between intersecting streets by limiting main lane cross traffic to four locations. Alternative 3 would allow right-in and right-out movements on highway main lanes at future driveway locations.

As shown in **Table 2.1**, the average speed along the corridor is 16 mph, which is similar to that of Alternative 2 and slightly higher than that of Alternative 1. Total Corridor Intersection Delay is reduced to 579, which represents a reduction of 51%, but Total Corridor Average Queue Length shows an increase to 11,043 ft. Compared to the No-Build Alternative, Alternative 3 improves mobility along the corridor.

In terms of safety, Alternative 3 shows the same number of conflict points along the corridor (140) as the No Build alternative. Also, there is no improvement in the number of vehicles that are exposed to any conflict point. Alternative 3 contains similar potential safety issues as were identified under Alternative 2 since it would also generate long queues at every intersection, including the Park Entrance Road and Paseo del Norte Road. This queue length creates a similar potential crash condition when vehicles traveling downhill at high speeds reach vehicles in queue stopped on the mainlanes of travel.

Although Alternative 3 shows some improvements to mobility, it does not improve the safety elements that are required by the project's need and purpose. For this reason, it was eliminated from further study.

2.1.3.4 Alternative 4 (Boulevard Concept)

The boulevard concept separates higher speed traffic on the main lanes from slower traffic on one-way access lanes. Access lanes would allow for safe right turns in and out of adjacent properties. They would present challenges at intersections by creating a larger number of vehicle-to-vehicle and vehicle-to-pedestrian conflict points than other alternatives. As shown in **Table 2.1**, the average speed is 18 miles per hour. Total Corridor Intersection Delay is reduced to 762 seconds per vehicle. Total Corridor Average Queue Length increased to 11,043 ft.

In terms of safety, Alternative 4 presents a deteriorating condition, since the number of conflict points along the corridor is almost doubled (from 140 to 266) from the No-Build Alternative. In addition, there is no improvement in the number of vehicles that are exposed to any conflict point.

Similar to Alternatives 2 and 3, the maximum queue exhibited along the corridor and, more importantly, at the Park Entrance Road and the proposed Paseo del Norte Road intersections, would represent a potential safety concern to vehicles traveling downhill in a westbound direction as they reach a queue of idle vehicles on the mainlanes.

Alternative 4 provides modest improvements to mobility compared to Alternative 1. However, Alternative 4 deteriorates the safety conditions along the corridor, which is not consistent with the project's need and purpose. For this reason, it was eliminated from further study.

2.1.3.5 Alternative 5 (Four-lane Freeway Facility with Frontage Roads and Direct Connectors to I-10)

Alternative 5 separates local traffic from through traffic along the corridor similar to Alternative 4 by providing main lanes as well as one-way frontage roads. The principal difference between the Alternative 5 and the other alternatives is that Alternative 5 provides grade separations for main lane traffic at intersections, and two direct connector ramps to I-10 that would allow through traffic on LP 375 to avoid cross traffic conflicts with vehicle and pedestrian, along with avoiding traffic signals at the intersections. **Table 2.1** indicates an average speed along the corridor of 34 mph, which is almost three times the speed of Alternative 1, and the highest average speed of all Build alternatives. Total Corridor Intersection Delay shows 325 seconds per vehicle, while Total Corridor Average Queue Length has a value of 2973 ft. These represent improvements of 72% and 71% respectively. These values are also the lowest of all the Build Alternatives.

In terms of safety, Alternative 5 presents a double improvement to safety conditions. The number of conflict points along the corridor is reduced by 23% (from 140 to 108) from the No-Build Alternative. In addition, the proportion of vehicles that are exposed to a conflict point along the corridor is reduced from 100% in all other alternatives, including the No-Build, to 52% for this alternative. The calculations leading to this proportion are presented in **Table 2.3**. This means that 48% of the traffic along the corridor would not be exposed to a single conflict point, which substantially reduces the opportunity for a collision. The improvement is due to the geometric characteristics of Alternative 5 where there is grade separation of the main lanes of LP 375 and the cross streets. Although the frontage roads and the cross streets continue to operate at-grade, there are fewer vehicles exposed to the conflicts.

Table 2.3 Analysis of Conflict Points Alternative 5

Northwestern							
	EB (ADT)	**WB (ADT)**	**SB (ADT)**	**NB (ADT)**	**Total (ADT)**	**%**	**Conflict Points**
Mainlanes	22,900	34,500			57,400	59%	0
Frontage Rd and Cross Street	9,200	6,400	12,700	12,100	40,400	41%	24
					97,800		
Resler							
	EB	**WB**	**SB**	**NB**	**Total**	**%**	**Conflict Points**
Mainlanes	21,400	20,000			41,400	41%	0

Frontage Rd and Cross Street	20,600	16,400	13,100	10,400	60,500	59%	24
					101,900		
Plexxar							
	EB (ADT)	**WB (ADT)**	**SB (ADT)**	**NB (ADT)**	**Total (ADT)**	**%**	**Conflict Points**
Mainlanes	31,800	33,000			64,800	71%	0
Frontage Rd and Cross Street	5,700	3,400	8,900	8,700	26,700	29%	24
					91,500		
Paseo del Norte							
	EB (ADT)	**WB (ADT)**	**SB (ADT)**	**NB (ADT)**	**Total (ADT)**	**%**	**Conflict Points**
Mainlanes	25,300	23,500			48,800	59%	0
Frontage Rd and Cross Street	12,200	10,300	2,800	9,300	34,600	41%	24
					83,400		
Franklin Mountains State Park Entrance							
	EB (ADT)	**WB (ADT)**	**SB (ADT)**	**NB (ADT)**	**Total (ADT)**	**%**	**Conflict Points**
All LP 375 and Cross Street	35,200	33,800	900		69,900	100%	12
					69,900		
Total All Intersections							
					Total (ADT)	**%**	**Conflict Points**
Main lanes (Free of conflicts)					**212,400**	48%	0
LP 375 Frontage Roads and main lanes (Not free of conflicts)					**232,100**	52%	108
					444,500		

NOTE: Values correspond to ADT approaching intersections.

Due to improved performance of the freeway in addressing mobility and safety needs when compared to the no build alternative, Alternative 5 is considered to best meet the need and purpose of the project by improving mobility and traffic safety. Therefore, it is identified as the preferred build alternative and has been carried forward for further detailed evaluation in the remaining sections of the document.

7. Page 33, Section 3.4, ¶3: the following statement should be added at the end of this paragraph in the February 2011 EA in order to reflect changes made at the Tom Mays Park entrance as a result of public involvement and coordination with TPWD, after SFP:

   "As a result of coordination with TPWD and consideration of public input, a new entrance to the Tom Mays Unit will be constructed on TxDOT ROW, and access to the park would be maintained throughout the construction period. TxDOT has committed to

formulating a new project within six months that would begin to analyze a permanent entrance to the Tom Mays Unit. Based on that analysis, TxDOT would proceed with implementing a feasible and environmentally acceptable option for a permanent entrance. TPWD submitted comments on the proposed project on April 1, 2011 during the Public Hearing comment period. TxDOT responded in a letter dated August 8, 2011, completing coordination with TPWD."

8. Page 33, Section 3.4, ¶6, 2nd sentence: the following sentence replaces the existing sentence in the February 2011 EA in order to reflect changes made at the Tom Mays Park entrance as a result of public involvement and coordination with TPWD, after SFP:

   "A new entrance to the Tom Mays Unit will be constructed within TxDOT ROW, and access to the park would be maintained throughout the construction period."

9. Page 37, Section 3.6, ¶2: the following statement replaces the existing paragraph in the February 2011 EA in order to reflect that the project is now programmed in the Mission 2035 MTP and that it is part of the most recent conforming plan:

   "The project is programmed in the new 2035 Mission MTP and the 2011-2014 TIP. The 2035 Mission MTP was approved by the MPO Policy Board on August 5, 2010, and the 2011-2014 TIP was approved by the Policy Board on August 6, 2010. Transportation conformity documents were approved by FHWA on January 28, 2011. The proposed project is consistent with the appropriate MTP and TIP."

10. Page 36, Section 3.6: the following language is added between first and second paragraphs on page 36 in order to provide additional information regarding PM_{10}:

    "Regarding PM_{10}, the transportation conformity rules require a hotspot analysis for projects that are determined to be of "air quality concern". This determination can be completed as part of NEPA process or be completed separately. Specifically, 40 CFR 93.116 requires that a PM_{10} hot-spot analysis be performed for the types of projects identified in 40 CFR 93.123(b)(1). The Consultative Partners for El Paso MPO area convened on June 6, 2011, and took into consideration both the 2006 and 2010 version of EPA's "Transportation Conformity Guidance for Quantitative Hot-spot Analyses in $PM_{2.5}$ and PM_{10} Nonattainment and Maintenance Areas." Based upon this guidance and project specific information; the consultation partners determined that this project is of not of local air quality concern. Consequently, a PM_{10} hot-spot analysis is not required. A public comment opportunity followed this decision. Two comments were received and responded to."

11. Page 49, Section 3.7.1, *Impacts to Waters of the U.S.*, 2nd sentence: the following sentence replaces the existing sentence in the February 2011 EA in order to reflect updates in design and impacts at Drainages 19 and 20:

"Based on the current design, portions of Drainages 3 through 16 are expected to be permanently impacted, while no impacts are anticipated for Drainages 1, 2, 17, and 18 through 20."

12. Page 50, Section 3.7.1, *Impacts to Waters of the U.S.*, Table 3.11: the following table replaces the existing table in the February 2011 EA in order to reflect updates in the project design and impact calculations (highlighted):

Table.3.11 Summary of Potential Waters of the U.S., Estimated Impacts, and Anticipated Permits

Drainage Number	Existing Structure	Proposed Work or Structure	Permanent Fill		Temporary Fill		NWP[2]	PCN (Y/N)
			Potential Waters of the U.S. (acres and linear feet)[1]	Wetlands or Other Special Aquatic Sites (acres)	Potential Waters of the U.S. (acres and linear feet)[1]	Wetlands or Other Special Aquatic Sites (acres)		
Drainage 1	3-7'x5' metal culverts	None	0	0	0.23 acre (418 feet)	0	None	No
Drainage 2	None	None	0	0	0.17 acre (265 feet)	0	None	No
Drainage 3	1-4' dia. metal culvert	4'x4' concrete box culvert	0.06 acre (668 feet)	0	0.04 acre (690 feet)	0	14	No
Drainage 4	3-6'x6' concrete box culverts	10'x20' metal plate arch structure	0.16 acre (477 feet)	0	0.10 acre (215 feet)	0	14	Yes
Drainage 5	1-4' dia. metal culvert	52" diameter round concrete pipe	0.06 acre (1,020 feet)	0	0.01 acre (100 feet)	0	14	No
Drainage 6	1-3'dia. metal culvert	1-4'x4' concrete box culvert	0.05 acre (755 feet)	0	0.01 acre (80 feet)	0	14	No
Drainage 7	1-2' dia. metal culvert	1-3'dia. metal culvert	0.008 acre (273 feet)	0	0.002 acre (100 feet)	0	14	No
Drainage 8	1-2' dia. metal culvert	1-2' dia. metal culvert	0.02 acre/ 123 feet	0	0	0	N/A[3]	N/A
Drainage 9	1-4'x6' concrete box culvert	1-4'x6' concrete box culvert	0.03 acre/ 388 feet	0	0	0	N/A	N/A
Drainage 10	1-2' dia. metal culvert	Road fill	<0.01 acre/ 236 feet	0	0	0	N/A	N/A
Drainage 11	1-2' dia. metal culvert	Road fill	<0.01 acre/ 310 feet	0	0	0	N/A	N/A
Drainage 12	1-2' dia. metal culvert	Road fill	0.02 acre/ 236 feet	0	0	0	N/A	N/A

Table.3.11 Summary of Potential Waters of the U.S., Estimated Impacts, and Anticipated Permits

Drainage Number	Existing Structure	Proposed Work or Structure	Permanent Fill		Temporary Fill		NWP[2]	PCN (Y/N)
			Potential Waters of the U.S. (acres and linear feet)[1]	Wetlands or Other Special Aquatic Sites (acres)	Potential Waters of the U.S. (acres and linear feet)[1]	Wetlands or Other Special Aquatic Sites (acres)		
Drainage 13	None	Road fill	0.02 acre/ 370 feet	0	0	0	N/A	N/A
Drainage 14	1-4'x6' concrete box culvert	2-4'x6' concrete box culverts	0.11 acre/ 655 feet	0	<0.01 acre/ 9 feet	0	N/A	N/A
Drainage 15	3-4'x6' concrete box culverts	3-6'x4' CBC	0.08 acre (312 feet)	0	0.08 acre (200 feet)	0	14	No
Drainage 16	4-6'x6' concrete box culverts	4-7'x5' concrete box culvert	0.13 acre (405 feet)	0	0.10 acre (180 feet)	0	14	Yes
Drainage 17	1-2'dia. metal culvert	None	0	0	0.13acre/ 135 feet	0	N/A	N/A
Drainage 18	3-span concrete bridge	None	0	0	00.03 acre/ 25 feet	0	None	No
Drainage 19	two 3-span frontage road bridges; two 4-span mainlane bridges	2-40'x40' stone riprap areas and bridge columns	0.07 acre/ 80 feet	0	1.47 acre/ 629 feet	0	14	No
Drainage 20	4-span concrete bridge	2-20'x32' stone riprap areas and bridge columns	0.02 acre (64 feet)	0	0.23 acre (236 feet)	0	14	No

[1] Length within project area.
[2] Anticipated permit if certain drainages are considered jurisdictional waters of the U.S.
[3] N/A= not applicable because these drainages are not expected to be waters of the U.S. subject to Section 404 regulations.

13. Page 51, Section 3.7.1, Impacts to Waters of the U.S:, 1st bullet following Table 3.11: the following statement replaces this bullet in the February 2011 EA regarding permitting requirements in order to reflect updated impact calculations:

    "The proposed construction at Drainages 3, 5 through 7, 15, 19, and 20 is expected to be authorized by NWP 14 Linear Transportation Projects without a Pre-Construction Notification (PCN) because impacts would not exceed 0.1 acre and there would be no discharge into special aquatic sites."

14. Page 51, Section 3.7.1, Impacts to Waters of the U.S:, 3rd bullet following Table 3.11: the following statement replaces this bullet in the February 2011 EA regarding permitting requirements in order to reflect updated impact calculations:

"No Section 404 permit is expected to be required at Drainages 1, 2, and 18 because no construction is planned at these crossings, and no permanent or temporary fill would be discharged into these drainages."

15. Page 52, Section 3.7.2, first bullet: the following statement replaces this bullet in the February 2011 EA regarding Section 401 Compliance in order to reflect updated impact calculations:

    "Compliance with Section 401 at Drainages 3 through 7, 15, 16, 19, and 20 could be accomplished by implementing at least one best management practice (BMP) from each of the three categories outlined in the TCEQ's 401 Water Quality Certification Conditions for Nationwide Permits."

16. Page 52, Section 3.7.2, first bullet after Table 3.12: the following statement replaces this bullet in the February 2011 EA in order to reflect updated impact calculations:

    "No water quality certification is expected to be required at Drainages 1, 2, 8 through 14, and 17 because no Section 404 permit is expected to be required at these drainages.

17. Page 58, Section 3.8.2, last sentence: the following statement updates the existing sentence in order to reflect the status of Texas Parks and Wildlife Department (TPWD) coordination:

    "Coordination with TPWD was completed on August 08, 2011."

18. Page 67, Section 3.8.5, last sentence: the following statement updates this sentence in order to reflect the status of TPWD coordination:

    "Coordination with TPWD was completed on August 08, 2011."

    A copy of the August 08, 2011 response to TPWD's letter dated April 1, 2011 is attached for reference purposes.

19. Page 98, Section 3.14, Table 3.18, Summary of Direct Impacts, Water Resources: the following highlighted information replaces the existing information in the February 2011 EA in order to reflect updated impact calculations to water resources:

Water Resources	Field investigations identified 20 drainage crossings in the project area boundaries Several of these (Drainages 1 through 7, 15, 16, and 18 through 20) are potential waters of the U.S., subject to regulation under Section 404 of the Clean Water Act and the jurisdiction of the USACE because they drain to a large modified channel over which the USACE has asserted jurisdiction in the past or directly to the Rio Grande. The remainder, Drainages 8 through 14 and 17 are not likely to be considered waters of the U.S. because they do not connect with the Rio Grande or otherwise contribute to a surface tributary system of a water of the U.S. No wetlands or other special aquatic sites are located in the project area. Based on the current design, the project would impact 16 ephemeral drainages, nine of which are jurisdictional.	Indirect impacts to water resources include increased potential for erosion and sedimentation during construction activities, as well as the potential for increased development in the area facilitated by the roadway expansion that may result in modifications to water bodies within the AOI.	Although the Rio Grande is listed as impaired due to elevated bacteria levels, the project would not discharge into a listed threatened or impaired water body. Cumulative impacts to water bodies would be mitigated by water quality regulations and pollution prevention plans required by TCEQ and undertaken by individual project sponsors.	The modification of ephemeral drainages associated with the proposed project, in addition to increased population growth and development in the project vicinity, may contribute to a cumulative impact on water resources.

20. Page 112, Section 3.14, Cumulative Impacts, Step 4, Water resources, 1st sentence: the following statement replaces this sentence in the February 2011 EA in order to reflect updated impact calculations:

    "The proposed project would permanently impact 16 drainage crossings, nine of which may be jurisdictional."

21. Page 115, Section 3.14, Cumulative Impacts, Step 6, Water resources, 1st sentence: the following statement replaces this sentence in the February 2011 EA in order to reflect updated impact calculations:

    "The proposed project would directly impact 16 ephemeral drainages, nine of which are jurisdictional, resulting in permanent impacts to approximately 0.88 acre of drainage features."

22. Page 119, Section 3.15, Bullet 8: the following statement replaces this bullet in the February 2011 EA regarding updates to impact calculations to Waters of the U.S. and Section 404 permit requirements:

    "Section 404 permits anticipated for the Build Alternative, if the drainages are considered jurisdictional waters of the U.S.:
    1. An NWP 14 is expected at Drainages 3, 5 through 7, 15, 19, and 20 without a PCN.
    2. An NWP 14 is expected at Drainages 4 and 16 with a PCN.
    3. No Section 404 permits are anticipated for the proposed construction at Drainages 1, 2, 8 through 14, and 17."

23. Page 119, Section 3.15: the following statement is added as an additional bullet regarding the proposed hike-and-bike trail:

"TxDOT will construct a hike-and-bike trail north of LP 375 inside existing highway right of way from the proposed Paseo Del Norte Drive and the FMSP driveway. This portion of the hike-and-bike trail would connect with the hike-and-bike trails proposed for construction between I 10 and the future Paseo Del Norte Drive. The hike-and-bike trails located between I-10 and the future Paseo Del Norte Drive would have the option to access the highway shoulders of LP 375 east of the future Paseo Del Norte Drive, or to use the proposed hike-and-bike trail along the northerly right of way line of LP 375 to access the driveway to the Tom Mays Unit. Pedestrian and bicycle traffic would be encouraged to cross LP 375 at the Paseo Del Norte Road intersection using sidewalks and five-foot-wide dedicated bicycle lane, and continue eastbound towards the FMSP Entrance on the north side of the road."

24. Appendix G: the following paragraphs replace Appendix G in the February 2011 EA in order to reflect updates to the Alternatives Analysis:

VISSIM RESULTS

Provided below is supplemental information on Corridor Measures of Effectiveness (MOEs), Intersection MOEs, and Potential Conflict Points for Alternatives 1 through 5 as defined in **Section 2.0 Alternatives**.

Corridor MOEs

Table G-1 illustrates MOEs that are related to mobility and congestion relief along the corridor. In all cases, Alternative 1 (No Build) can be used as a benchmark to compare the conditions under each of the preliminary build alternatives. For example, under Alternative 1 (No Build) in 2035, the average travel time from one end of the corridor to the other would be just over 30 minutes. All of the proposed build alternatives improve travel time over the existing condition, with a 37 percent reduction in travel time under Alternative 4 (Boulevard Concept) and a 75 percent reduction under Alternative 5 (Freeway Concept).

Table G-1 Corridor MOEs

MOE	Alternative 1: No Build		Alternative 2: Climbing Lane		Alternative 3: Add Two New Lanes		Alternative 4: Boulevard Concept		Alternative 5: Freeway Concept	
	Year 2015	Year 2035	Year 2015	Year 2035	Year 2015	Year 2035	Year 2015	Year 2035	Year 2015`	Year 2035
Travel Time (minutes)	24.0	30.2	18.7	23.5	10.1	19.4	12.2	19.0	4.7	7.5
Density (vehicle/mile/lane)	113	122	87	106	41	94	38	75	18	46
Average Speed (mile/hour)	14	13	19	16	31	16	28	18	45	34

Vehicle Miles of Travel (vehicle-miles)	2,410	2,532	3,269	3,449	4,174	4,505	3,730	4,069	5,096	7,451

Intersection MOEs

Table G-2 analyzes levels of traffic congestion at intersections along the corridor. The data indicate that in 2015, several intersections under Alternatives 2 (Construct Climbing Lane), 3 (Construct Two New Lanes), and 4 (Boulevard Concept). Under Alternative 5 (Freeway Concept) in 2015, most intersections would operate at acceptable levels, with the exception of South Desert Boulevard (I-10 frontage road). In 2035, most intersections under Alternatives 2, 3, and 4 shows queues that are long enough that would spill-over to the adjacent intersections and would create gridlock conditions. In contrast, in the year 2035, the analysis for Alternative 5 shows that all intersections, except for South and North Desert Blvd (I-10 frontage roads), would operate at high levels, as evidenced by the short queues and delays.

Table G-1 Intersection MOEs

Intersection	Alternative 1: No Build		Alternative 2: Climbing Lane		Alternative 3: Add Two New Lanes		Alternative 4: Boulevard Concept		Alternative 5: Freeway Concept	
	Delay (sec/veh)	Queue (feet)	Delay (sec/veh)	Queue (feet)	Delay (sec/veh)	Queue (feet)	Delay (sec/veh)	Queue (feet)	Delay (sec/veh)	Queue (feet)
Year 2015										
S Desert Blvd and Loop 375	115	768	34	411	31	405	45	511	35.5	261
N Desert Blvd and Loop 375	116	368	54	403	56	853	68	722	17.5	521
Loop 375 and Northwestern Dr	100	1,599	63	1,215	58	1,195	99	1,348	14.0*/ 10.2**	41
Loop 375 and Resler Dr	155	1,389	107	1,117	50	1,109	164	1,233	15.0*/ 14.8**	40
Loop 375 and Plexxar Dr	100	1,471	69	1,406	29	852	76	1,670	13.0*/ 16.1**	19
Loop 375 and Paseo Del Norte	105	1,674	104	1,674	36	1,272	57	1,156	13.0*/ 10.5**	24
Loop 375 and Park Access Rd	60	1,400	45	1,350	<10	0	<10	0	<10	0
Year 2035										
S Desert Blvd and Loop 375	187	1,674	94	1,674	82	1,674	98	1,674	109.9	1,626
N Desert Blvd and Loop 375	139	421	89	407	86	1,270	94	983	74.4	1,048
Loop 375 and Northwestern Dr	189	1,697	126	1,697	109	1,697	124	1,697	24.0*/ 15.7**	83
Loop 375 and Resler Dr	248	1,674	145	1,674	97	1,674	194	1,674	29.0*/ 73.5**	107
Loop 375 and Plexxar Dr	162	1,539	119	1,674	94	1,674	122	1,667	21.0*/ 60.1**	31
Loop 375 and Paseo Del Norte	177	1,674	161	1,674	85	1,674	103	1,674	20.0*/ 17.8**	78
Loop 375 and Park Access Rd	76	1,674	58	1,674	26	1,674	27	1,674	<10	0

Table G-2 also includes queue lengths at each intersection. This MOE provides information related to congestion relief as well as safety. The value shown in the table represents the queue length of the worst leg of the intersection. Under Alternatives 2, 3, and 4, the intersection with the Park Access Road (the easternmost in the corridor) shows an average queue length of 1,674 feet (more than a quarter of a mile). This indicates that under these alternatives the line of idling vehicles would extend to a point where vehicles traveling westbound would be coming down a steep roadway grade (five to seven percent slope) at expected speeds of 55 mph or higher. The potential for severe rear-end collisions in this situation is clear. In contrast, the analysis of Alternative 5 indicates that queue lengths at all intersections would be much shorter. In addition, these queues would be generated on the frontage roads, not the mainlanes of LP 375, which would also be expected to reduce the risk of high speed crashes.

Potential Conflict Points

Table G-3 depicts the number of conflict points between vehicles as well as between vehicles and pedestrians. Conflict points vary depending on the type and geometry of the specific intersection. Because Alternative 5 is the only design that provides grade-separated intersections, it reflects the fewest number of conflict points. Consequently, the risk for incidents between vehicles and pedestrians is lower.

Table G-3 Vehicle-to-Vehicle and Vehicle-to-Pedestrian Conflict Points

Intersection	Alternative 1: No Build	Alternative 2: Climbing Lane	Alternative 3: Add Two New Lanes	Alternative 4: Boulevard Concept	Alternative 5: Freeway Concept
Vehicular					
Loop 375 and Northwestern Dr	16	16	16	26	5*/5** (10)
Loop 375 and Resler Dr	16	16	16	46	5*/5** (10)
Loop 375 and Plexxar Dr	16	16	16	46	5*/5** (10)
Loop 375 and Paseo Del Norte	16	16	16	26	5*/5** (10)
Loop 375 and Park Access Rd	3	3	3	3	3
Pedestrian					
Loop 375 and Northwestern Dr	16	16	16	23	7*/7** (14)
Loop 375 and Resler Dr	16	16	16	32	7*/7** (14)
Loop 375 and Plexxar Dr	16	16	16	32	7*/7** (14)
Loop 375 and Paseo Del Norte	16	16	16	23	7*/7** (14)
Loop 375 and Park Access Rd	9	9	9	9	9
Total Potential Conflict Points	**140**	**140**	**140**	**266**	**108**

*Intersection with eastbound LP 375 Frontage Road
**Intersection with westbound LP 375 Frontage Road
(XX) Total LP 375 eastbound/westbound Frontage Road Potential Conflict Points

Texas Department of Transportation

13301 GATEWAY BLVD. WEST • EL PASO, TEXAS 79928-5410 • (915) 790-4200

August 8, 2011

Ms. Karen H. Clary, Ph.D.
Texas Parks and Wildlife Department
Wildlife Habitat Assessment Program
Wildlife Division
4200 Smith School Road
Austin, TX 78744-3291

RE: February 2011 Environmental Assessment (EA) for Loop 375 from I-10 to Approximately 0.479 Mile East of the Tom Mays Unit of the Franklin Mountains State Park Entrance , EI Paso County (CSJ 2552-01-033)

Dear Dr. Clary:

This letter is provided in response to the Texas Parks and Wildlife (TPWD) letter dated April 1, 2011 regarding the subject proposed project. This letter responds to comments received and provides an overview of coordination and communications that have taken place with respect to the proposed project.

Over a period of several years, coordination has occurred between TPWD and the Texas Department of Transportation (TxDOT) in regards to the proposed project consistent with the Memorandum of Understanding (MOU) and Memorandum of Agreement (MOA) between TxDOT and TPWD. The proximity of the Tom Mays Unit of the Franklin Mountains State Park (FMSP) to the proposed project has been a factor for continued coordination. The following list of communications and meetings have taken place over the last several years regarding different versions of proposed improvements to Loop 375 from I-10 to approximately 0.479 mile east of the FMSP Entrance (CSJ 2552-01-033).

- TPWD Letter to TxDOT – April 1, 2011 (various issues). This letter included the following attachments: TPWD/TxDOT Meeting Minutes – March 3, 2011 (various issues) and TPWD comments on plant specification sheet and plans dated March 7, 2011.
- TxDOT Letter to TPWD – January 19, 2011 (response to December 29, 2010 TPWD letter)
- TPWD Letter to TxDOT – December 29, 2010 (comments on the November 2010 EA). This letter also included two attachments: TPWD comments on plant specification sheet and plans dated September 5, 2010, and TPWD comments on wildlife-related transportation issues dated March 23, 2006 (although TxDOT believes the date is a typo and should be 2010).
- TxDOT Letter of Transmittal to TPWD – November 12, 2010 (request for review of Re-evaluation)
- TPWD/TxDOT Meetings – September 2010 (various issues)

- TPWD Letter to TxDOT – March 23, 2010 (various issues)
- TPWD Letter to TxDOT – September 15, 2009 (comments on Re-evaluation)
- TxDOT Letter of Transmittal to TPWD – July 2, 2009 (request for review of Re-evaluation)
- TPWD/TxDOT Meeting – March 2009 (wildlife crossings)
- TPWD Letter to TxDOT – March 21, 2006 (clarification regarding proposed land swap)
- TPWD Superintendent/TxDOT meetings – 2005-2006 (entrance to the park)
- TPWD Letter to TxDOT – December 20, 2005 (comments on park entrance design alternatives)
- TPWD Letter to TxDOT – October 21, 2005 (comments on Re-evaluation)
- TPWD Letter to TxDOT – August 29, 2005 (comments on Re-evaluation)
- TPWD Letter to TxDOT – July 7, 2005 (documentation of agreement regarding a proposed land swap and potential 4(f)
- TxDOT Letter to TPWD – June 30, 2005 (request for review of the Re-evaluation)
- TPWD Letter to TxDOT – August 5, 2004 (response to species data request from TxDOT)
- PSB Letter to TPWD – August 3, 2004 (PSB concurrence to proceed with project and required ROW)
- TxDOT Letter to TPWD – March 6, 2003 (Notice Affording Opportunity for Public Hearing)
- TPWD Letter to TxDOT – May 6, 2002 (response to EA review request from TxDOT)
- TPWD Letter to TxDOT – April 17, 2002 (comments on EA)
- TxDOT Letter of Transmittal to TPWD – March 18, 2002 (sent EA to TPWD for review)

Throughout the communications referenced above, TxDOT and TPWD coordination has taken place on various issues including, but not limited to, alternatives for the entrance to the FMSP, pedestrian and vehicular traffic safety in the project/FMSP vicinity, animal crossings, comments on the current and previous versions of the environmental document for the project limits, and plant selection for proposed landscaping.

The following is provided in response to the TPWD letter to TxDOT dated April 1, 2011 regarding the February 2011 Environmental Assessment (EA) for the above-referenced project. TPWD comments are identified in italics followed by TxDOT's response.

TPWD Comment 1: *The February 2011 EA (Pages 25, 32 and Figure 4.5) retains the proposed at grade highway configuration at the Tom Mays Unit Entrance. However, the February 2011 EA (Page 32) also states that further consideration of a project at the park entrance (including a grade separated intersection or a parallel access road, for example) is not precluded by the currently proposed design and TxDOT welcomes future dialogue and partnership with Texas Parks and Wildlife (TPWD) regarding additional improvements in this area.*

TPWD Summary: *In Summary, it is important to note that the important safety concerns raised by TPWD and discussed above are not resolved in the February 2011 EA. The EA does not provide a demonstrably safer entrance to Tom Mays Unit for vehicles or a safer*

pedestrian/bicyclist safety Loop 375 crossing at the park entrance than the existing (No Build Alternative)

TxDOT Response to Comment 1 and Summary regarding the safety of the entrance to the FMSP as proposed in the February 2011 EA: As discussed in the March 3, 2011 meeting between TxDOT and representatives from TPWD, TxDOT agreed that the alignment of the temporary entrance during construction would be made into the permanent entrance. TxDOT has adjusted the proposed design of the entrance as it was originally proposed in the February 2011 EA. The redesigned entrance would be moved as far to the east as possible, while staying within TxDOT right-of-way and would allow vehicles to enter and exit the park closer to a 90 degree angle.

In order to address concerns presented by TPWD in the March 3, 2011 meeting; April 1, 2011 letter; and public comment, the proposed driveway has been further redesigned to allow right and left turn movements into the park from the Loop 375 but would only allow right turn movements to westbound Loop 375 leaving the park. Left turn movements leaving the park to access the eastbound lanes of Loop 375 would no longer be allowed. Pedestrian/bicycle traffic would continue to be allowed access to cross the highway on the east side of the driveway, or use the preferred access along the proposed hike-and-bike trail inside the northerly right-of-way line from the proposed Paseo Del Norte Drive to the driveway to the Tom Mays Unit. Advisory signs with flashers will be installed in advance of the intersection to inform drivers on Loop 375 of the potential for cross traffic at the new park entrance.

The resulting driveway design reduces the number of vehicle-to-vehicle and vehicle-to-pedestrian conflict points by reducing the number of conflicting movements entering and exiting the park to and from Loop 375. Traffic that exits the park will use the westbound lanes of Loop 375. Traffic that desires to travel eastbound would turn around to the east bound lanes of LP 375 at the underpass for the future Paseo Del Norte Drive. The redesigned driveway does not affect access or use of FMSP while improving traffic safety. For pedestrian and bicycle visitors, use of the preferred access along the proposed hike-and-bike trail inside the northerly right-of-way line would reduce the number of pedestrian and bicycles users who presently cross the highway at grade. Additionally, limiting pedestrian and bicycle users to cross the highway east of the driveway intersection also improves safety by reducing the number of vehicle-to-pedestrian conflict points to which they are exposed. The redesign provides demonstrable improvements to traffic safety at the driveway to Tom Mays Unit for vehicles and pedestrians/bicyclists.

TxDOT recognizes that additional improvements are appropriate due to projected future increases in traffic volumes along Loop 375. Where the redesigned driveway access would create improved safety, projected traffic volumes indicate decreased number and duration of gaps in cross traffic for safely entering or leaving the park in the future. Additional improvements to the park entrance would result in more design elements that potentially require acquisition of right of way from the park for the additional improvements.

A separate TxDOT project has been programmed to perform an environmental analysis, design, and construction of a new park entrance to the FMSP. Funding for the proposed

project comes from the same source as the current proposed project. TxDOT estimates that project development for the additional work on the entrance to the FMSP would take approximately two years. A bid date is anticipated for FY 2013. Separate environmental documentation, right-of-way determinations, and project design would be prepared for the newly programmed project. TxDOT will work closely with TPWD throughout this process. The scope of work to be evaluated under the new project for the state park entrance would consider various alternatives including access off of the underpass for future Paseo Del Norte Drive, or a grade separated access below the existing profile grade of Loop 375 in the vicinity of the driveway design for the currently proposed project. Some of these concepts were discussed between TxDOT and TPWD during meetings held in 2005-2006. Vehicle traffic, pedestrians, bicycles, and wildlife crossing of Loop 375 will be considered in the separate TxDOT project that has been programmed. The new project will also be considered for use as access to the scenic overlook locations near the summit of Loop 375 so that existing highway crossovers located between eastbound and westbound lanes in the vicinity of the summit of Loop 375 may be eliminated after the project is constructed.

TPWD Comment 2: *The February 2011 EA (Page 25, 32 and Figure 4.5) retains the proposed at grade pedestrian crossing and refuge at the Tom Mays Unit Entrance.*
TPWD Summary: *In Summary, it is important to note that the important safety concerns raised by TPWD and discussed above are not resolved in the February 2011 EA. The EA does not provide a demonstrably safer entrance to Tom Mays Unit for vehicles or a safer pedestrian/bicyclist safety Loop 375 crossing at the park entrance than the existing (No Build Alternative)*

TxDOT Response to Comment 2 and Summary regarding pedestrian safety: TPWD comments regarding safety of the driveway access and egress described in the February 2011 EA are being addressed by TxDOT. TxDOT has redesigned the FMSP entrance to improve the safety for FMSP vehicle, pedestrian, and bicycle access and egress. A second project to further improve safety has been identified, programmed, funded and scheduled. This project will address anticipated increases in traffic volumes on Loop 375 that would result in decreased number of adequate gaps in traffic to enter and exit FMSP safely. Based on the March 3, 2011 coordination meeting between TxDOT and TPWD and the project's public hearing, TxDOT has redesigned the driveway access addressing immediate improvements where the future project will account for address future needs as traffic volumes on Loop 375.

As a result of coordination between TPWD and TxDOT a hike-and-bike trail will be constructed north of Loop 375 inside existing highway right of way from the proposed Paseo Del Norte Drive to the FMSP driveway. This portion of the hike-and-bike trail would connect with the hike-and-bike trails proposed for construction between I-10 and the future Paseo Del Norte Drive. The hike-and-bike trails located between I 10 and the future Paseo Del Norte Drive would have the option to access the highway shoulders of Loop 375 east of the future Paseo Del Norte Drive or to use the proposed hike-and-bike trail along the northerly right-of-way line of Loop 375 to access the driveway to the Tom Mays Unit. Pedestrian and bicycle traffic would be encouraged to cross Loop 375 at the Paseo Del Norte Road intersection using sidewalks and a five-foot-wide dedicated

bicycle lane, and continue eastbound towards the FMSP Entrance on the north side of the road. A diagram noting the hike-and-bike trail system planned for the proposed project is attached to this letter for reference.

Commitments provided above related to the hike-and-bike trail will be documented in the February 2011 EA in an Errata Sheet prepared by TxDOT.

TPWD Comment 3: *The February 2011 EA (Page 25 and Figure 4.4) retains the south side hike and bike lane terminus at the frontage road. However, the February 2011 EA (Page 25) commits to encouraging foot and bicycle traffic to cross to the north side of Loop 375 at the Paseo Del Norte Road intersection to continue eastbound towards the Franklin Mountains State Park.*

TxDOT Response to Comment 3: TxDOT recognizes the comment from TPWD and has designed signing for the proposed project to encourage pedestrian and bicycle traffic that uses the southerly hike-and-bike trail to use the northerly hike-and-bike trail in order to access the driveway to the Tom Mays Unit. Bicycle traffic that wishes to proceed eastbound along Loop 375 will continue to have the option to use the eastbound shoulder of Loop 375 east of the future Paseo Del Norte Drive.

TPWD Comment 4: *The February 2011 EA (Page 25) states that a 10-foot tall by 20-foot wide metal plate arched pipe drainage culvert crossing would be constructed near the proposed Paseo Del Norte Road extension. The culvert would have an earthen bottom and be tall and wide enough to accommodate large mammals.*

TxDOT Response to Comment 4: TxDOT recognizes the comment from TPWD and has designed a 10-foot tall by 20-foot wide metal plate arched pipe culvert crossing west of the proposed Paseo Del Norte Road intersection at Drainage Area 4, as described in the project Environmental Assessment's Figure 5.3 titled "**Potential Waters of the U.S. in the Project Area.**" This design provides a passage that would be tall and wide enough to accommodate large mammals or pedestrians. Wildlife fencing would be used along the right-of-way line in the vicinity of the arroyo to help direct wildlife toward the crossing and minimize wildlife encroachment to the roadway on both sides of Loop 375.

TPWD Comment 5: *Coordination between TPWD and TxDOT on landscaping and re-vegetation is ongoing, as described below.*

<u>Ongoing TPWD - TxDOT Coordination</u>
On March 3, 2011, TPWD and TxDOT staff met to discuss the outstanding safety concerns in the February 2011 EA and to discuss landscaping and re-vegetation plans. The meeting summary is enclosed (from March 3, 2011 meeting minutes).
Discussion:
• TPWD is especially concerned about TxDOT plans to use invasive species such as Chinese pistache (*Pistacia chinensis*) in landscaping and re-vegetation.
• TPWD offers to find suppliers of native plants that meet TxDOT specifications and need for multiple source suppliers.
• Stations 291-329 were not included in the submitted plans; the landscaping along FMSP was not included and could not be reviewed.

• Stations 291-329 were not included in the submitted plans; the landscaping along FMSP was not included and could not be reviewed.
• Only the trees were included in the submitted plans; the planting schemes were not included.
• Many of the non-native plants in the design are not cold tolerant and will suffer freeze loss; some may require more water and maintenance and become invasive.
• TPWD wants to be involved in planning of native landscaping for all re-vegetation in the ROW.
• TxDOT prefers to plant species that will not catch windblown trash since this is a problem. Plant species that tend to catch trash are ones with spines such as cacti, acacias and ocotillo.

TxDOT Response to Comment 5: TxDOT recognizes the comments presented by TPWD that were discussed in the March 3, 2011 meeting. TxDOT has committed to the use of native plants that are commercially available and meet the necessary specifications. TxDOT will further coordinate with TPWD staff members to identify which species may be included in the proposed project plans and specifications, and which are also identified to be commercially available. It is preferred that three sources of commercially native vegetation be identified in the project plans. Those commercially available native plans will be given preference for planting along the northerly hike-and-bike trail from the future Paseo Del Norte Drive to the driveway entrance of the Tom Mays Unit.

As previously stated by TxDOT, for the areas west of the future Paseo Del Norte Drive, TxDOT stated that the plant list was selected by the City of El Paso in accordance with availability of native plants in the region and based on design review comments received from the City. The City of El Paso has requested that TxDOT provide a landscape design that will mature to provide a tree canopy along the hike-and-bike trails between I-10 and the future Paseo Del Norte Drive. TxDOT commits not to use invasive plant species for the proposed project, in response to TPWD comments. TxDOT would appreciate TPWD review of the final list of proposed plant species prior to preparation of final plans to ensure that no invasive plant species are proposed for the landscape plan.

We present these elements to address TPWD comments. They are consistent with TxDOT coordination that has also taken place with the City of El Paso. TxDOT will continue to coordinate with TPWD so that as many elements as practical can be addressed.

If you have any questions, please contact Ray Dovalina, P.E., Deputy District Engineer at (915) 790-4202, or Tony Uribe, P.E., Project Manager at (915) 790-4407. We look forward to continued cooperation with TPWD.

Sincerely,

Charles H. Berry, Jr., P.E.
District Engineer

Enclosures

cc: Margaret Canty, Project Manager, ENV, TxDOT

BEGIN HIKE AND BIKE TRAIL

EXIST ROW

EXIST ROW

PROP ROW

EXIST ROW

165+00

171+00

180+00

PROP ROW

NORTHWESTERN DRIVE

PROP ROW

EXIST ROW

190+00

EXIST ROW

PROP ROW

EXIST ROW

PROP ROW

NORTHWESTERN DRIVE

MATCH LINE A

N

LEGEND	
	PROPOSED HIKE AND BIKE TRAIL
	PROPOSED HIKE AND BIKE AT INTERSECTIONS

MATCH LINE A

MATCH LINE B

PROP ROW

EXIST ROW

RESLER DRIVE

200+00

205+00

210+00

220+00

225+00

230+00

LEGEND

	PROPOSED HIKE AND BIKE TRAIL
	PROPOSED HIKE AND BIKE AT INTERSECTIONS

MATCH LINE C

MATCH LINE D

FUTURE PASEO DEL NORTE

PROP ROW

END BIKE LANE

EXIST ROW

HIKE & BIKE TRAIL USE PEDESTRIAN FACILITIES

BIKE LANE AHEAD

LEGEND	
	PROPOSED HIKE AND BIKE TRAIL
	BIKE LANE
	PROPOSED HIKE AND BIKE AT INTERSECTIONS

MATCH LINE B

MATCH LINE C

PROP ROW

EXIST ROW

FUTURE PLEXAR DRIVE

FUTURE PLEXAR DRIVE

EXIST ROW

PROP ROW

EXIST ROW

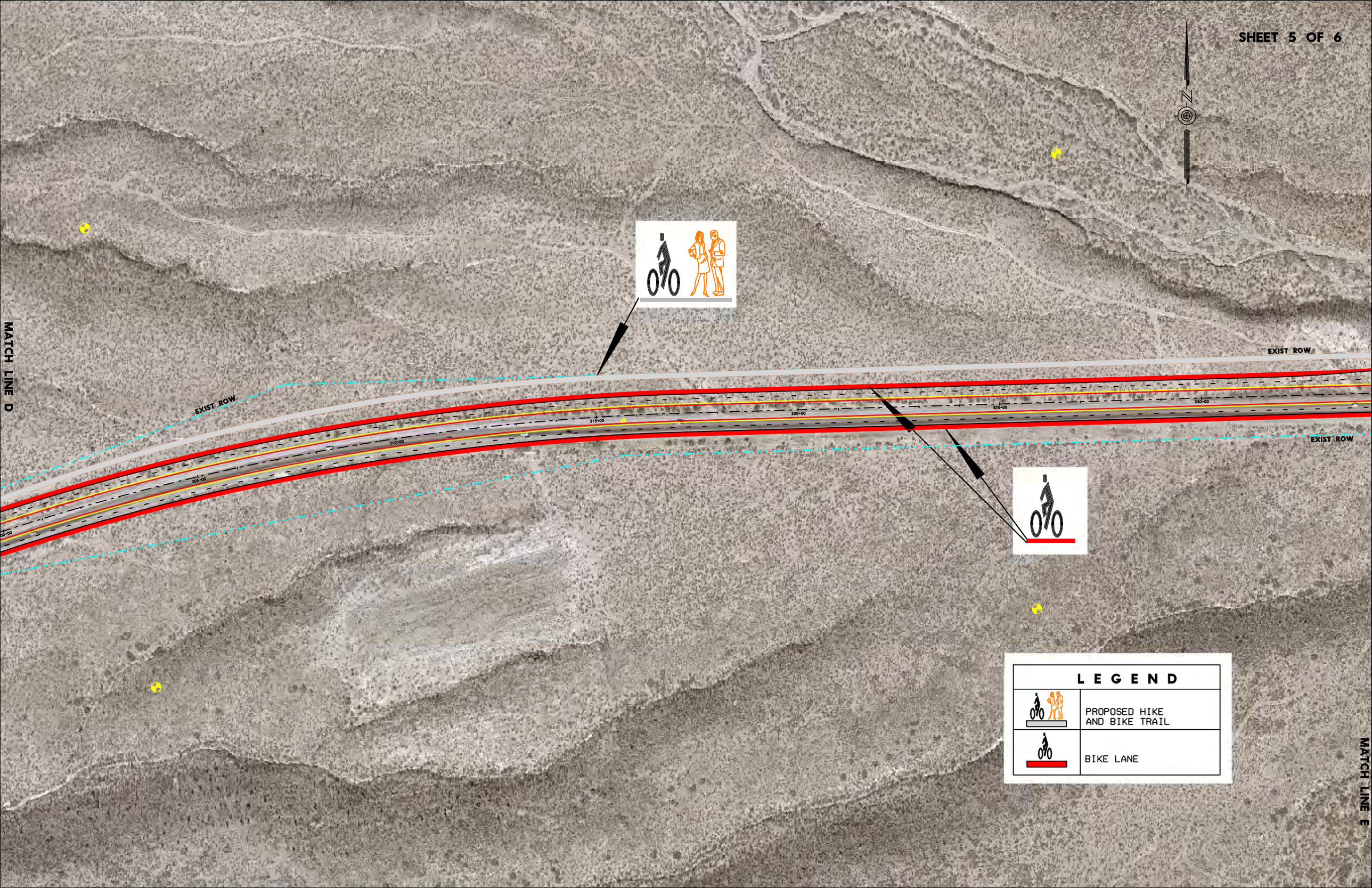
PROP ROW

EXIST ROW

PROP ROW

LEGEND

	PROPOSED HIKE AND BIKE TRAIL
	PROPOSED HIKE AND BIKE AT INTERSECTIONS


N
EXIST ROW
EXIST ROW
EXIST ROW
310+00
315+00
320+00
325+00
330+00
300+00
MATCH LINE D
MATCH LINE E
LEGEND
PROPOSED HIKE AND BIKE TRAIL
BIKE LANE

END HIKE AND BIKE TRAIL AT FRANKLIN MOUNTAIN STATE PARK ENTRANCE

EXIST ROW

EXIST ROW

EXIST ROW

BIKE LANE

338+00

358+00

378+00

398+00

MATCH LINE E

LEGEND	
	PROPOSED HIKE AND BIKE TRAIL
	BIKE LANE